



Bureau of Land • 1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276

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 372/373 (Illinois Route 171) Office Phone Number, if available: _____

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

8475 W. 53rd Street

City: McCook State: IL Zip Code: 60525

County: Cook Township: Lyons

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

Latitude: 41.796731 Longitude: -87.829301

(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: 0311740016 BOW: _____ BOA: _____

II. Owner/Operator Information for Source Site

Site Owner

Site Operator

Name: Illinois Department of Transportation

Name: _____

Street Address: 201 West Center Court

Street Address: _____

PO Box: _____

PO Box: _____

City: Schaumburg State: IL

City: _____ State: _____

Zip Code: 60196-1096 Phone: 847-705-4159

Zip Code: _____ Phone: _____

Contact: Sam Mead

Contact: _____

Email, if available: Sam.Mead@illinois.gov

Email, if available: _____

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.

Project Name: FAP 372/373 (Illinois Route 171)Latitude: 41.796731 Longitude: -87.829301Uncontaminated Site 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 1860-17-B01 and 1860-17-B02 were sampled within the construction zone adjacent to ISGS #1860-17 (Crown Recycling and Waste Services). Refer to PSI Report for ISGS #1860-17 (Crown Recycling and Waste Services) including Table 4-3, and Figure 4-5.

- 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 500-97262-2.

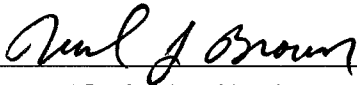
IV. Certification Statement, Signature and Seal of Licensed Professional Engineer or Licensed Professional Geologist

I, Neil J. 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 StreetCity: Chicago State: IL Zip Code: 60603Phone: 312-578-9243Neil J. Brown

Printed Name:



Licensed Professional Engineer or
Licensed Professional Geologist Signature:

7/22/15

Date:






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

Analytical Data Summary
PTB #172-27; Work Order 31 - IDOT Job # D-91-191-10

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.
- SCGIER = Soil Component of the Groundwater Ingestion Exposure Route
- SPLP = Synthetic Precipitation Leaching Procedure.
- ND = Not detected.
- NA = Not analyzed.
- J = Estimated value.
- U = Analyte was analyzed for but not detected.

Criteria Qualifiers and Shading

- † = Concentration exceeds the most stringent MAC.
- m = Concentration exceeds the MAC for an MSA.
- * = Concentration exceeds the MAC for Chicago corporate limits.
- L = The detected TCLP/SPLP concentration exceeds the TACO Tier 1 RO for the SCGIER.
-  = Concentration exceeds the most stringent MAC, but is below the MAC for an MSA.
-  = Concentration exceeds the most stringent MAC and the MAC for Chicago corporate limits.
-  = Concentration exceeds applicable comparison criteria.

PTB #172-27; Work Order 31 - IDOT Job # D-91-191-10

DETECTED ANALYTES

SITE	ISGS #1860-17 (Crown Recycling and Waste Services)				Comparison Criteria			
	1860-17-B01		1860-17-B02		MACs			TACO
BORING	1860-17-B01 (8-10)		1860-17-B02 (0-2)		Most Stringent	Within an MSA	Within Chicago	SCGIER
SAMPLE	1860-17-B01 (8-10)	1860-17-B01 (20-22)	1860-17-B02 (0-2)	1860-17-B02 (4-6)				
MATRIX	Soil	Soil	Soil	Soil				
DEPTH (feet)	8-10	20-22	0-2	4-6				
pH	7.99	8.11	8.37	8.24				
VOCs (mg/kg)								
Acetone	0.014	ND U	0.01	0.0052	25	--	--	--
SVOCs (mg/kg)								
Benzo[a]anthracene	0.0087 J	ND U	0.023 J	0.015 J	0.9	1.8	1.1	--
Benzo[a]pyrene	ND U	0.0079 J	0.025 J	0.014 J	0.09	2.1	1.3	--
Benzo[b]fluoranthene	0.0076 J	ND U	0.036 J	0.023 J	0.9	2.1	1.5	--
Benzo[g,h,i]perylene	ND U	ND U	0.024 J	0.016 J	--	--	--	--
Benzo[k]fluoranthene	ND U	ND U	0.019 J	0.011 J	9	--	--	--
Chrysene	ND U	0.011 J	0.032 J	0.02 J	88	--	--	--
Fluoranthene	0.014 J	0.0094 J	0.041	0.026 J	3,100	--	--	--
Indeno[1,2,3-cd]pyrene	ND U	ND U	0.02 J	0.012 J	0.9	1.6	0.9	--
Phenanthrene	0.01 J	0.015 J	0.019 J	0.022 J	--	--	--	--
Pyrene	0.013 J	0.012 J	0.034 J	0.025 J	2,300	--	--	--
Inorganics (mg/kg)								
Arsenic	8	6.4	6.6	9.6	11.3	13	--	--
Barium	43	38	32	50	1,500	--	--	--
Beryllium	0.58	0.56	0.4	0.47	22	--	--	--
Boron	7.4	9.5	7.5	7.3	40	--	--	--
Cadmium	0.083 J	0.042 J	0.16	0.22	5.2	--	--	--
Calcium	57,000	72,000	100,000	66,000	--	--	--	--
Chromium	13	16	9.5	11	21	--	--	--
Cobalt	11	11	7.5	9.5	20	--	--	--
Copper	20	19	17	22	2,900	--	--	--
Iron	17,000 †m	15,000	13,000	15,000	15,000	15,900	--	--
Lead	15	13	15	18	107	--	--	--
Magnesium	29,000	32,000	52,000	34,000	325,000	--	--	--
Manganese	240	300	330	290	630	636	--	--
Mercury	0.018	0.038	0.032	0.024	0.89	--	--	--
Nickel	26	27	18	24	100	--	--	--
Potassium	1,700	2,100	1,300	1,400	--	--	--	--
Selenium	0.38 J	0.41 J	0.43 J	0.47 J	1.3	--	--	--
Sodium	610	520	770	920	--	--	--	--
Vanadium	17	17	13	14	550	--	--	--
Zinc	60	50	54	61	5,100	--	--	--
TCLP Metals (mg/L)								
Barium	0.28 J	0.54	0.38 J	0.2 J	--	--	--	2
Boron	0.63	0.62	0.74	0.58	--	--	--	2
Cadmium	0.0026 J	ND U	0.0029 J	0.0033 J	--	--	--	0.005
Cobalt	0.017 J	ND U	ND U	0.022 J	--	--	--	1
Iron	ND U	ND U	ND U	ND U	--	--	--	5
Lead	ND U	ND U	ND U	0.0098 L	--	--	--	0.0075
Manganese	3.9 L	2.6 L	1 L	4 L	--	--	--	0.15
Nickel	0.015 J	0.019 J	0.01 J	0.016 J	--	--	--	0.1
Selenium	ND U	ND U	ND U	0.022 J	--	--	--	0.05
Zinc	0.09 J	0.048 J	0.088 J	0.11	--	--	--	5
SPLP Metals (mg/L)								
Lead	NA	NA	NA	ND U	--	--	--	0.0075
Manganese	0.026	0.059	0.45 L	0.029	--	--	--	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: 500-97262-2
Client Project/Site: IDOT - IL 171 - WO 031

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

Attn: Mr. Dean Tiebout



Authorized for release by:
6/25/2015 3:09:45 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

8

9



Table of Contents

Cover Page	1
Table of Contents	2
Case Narrative	3
Detection Summary	4
Sample Summary	8
Client Sample Results	9
Definitions	25
Chain of Custody	26
Receipt Checklists	27

Case Narrative

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97262-2

Job ID: 500-97262-2

Laboratory: TestAmerica Chicago

Narrative

Job Narrative 500-97262-2

Receipt

The samples were received on 6/11/2015 4:10 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.8° C.

GC/MS VOA

Method(s) 8260B: The %RPD of the laboratory control sample (LCS) and laboratory control standard duplicate (LCSD) for preparation batch 97262 recovered outside control limits for Acetone.

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 outside acceptance limits: (MB 500-292787/1-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: A full list spike was utilized for this method. Due to the large number of spiked analytes, there is a high probability that one or more analytes will recover outside acceptance limits. The laboratory's SOP allows for 3 analytes to recover outside criteria for this method when a full list spike is utilized. The LCS associated with preparation batch 500-292787 and analytical batch 500-293060 had 3 analytes outside control limits: 4,6-Dinitro-2-methylphenol, Dibenz(a,h)anthracene, and Indeno[1,2,3-cd]pyrene; therefore, corrective action 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 verifications (CCV's) associated with batch 500-292053 recovered above the upper control limit for Zinc. The samples associated with these CCV's were non-detects for the affected analyte; therefore, the data have been reported. The following samples are impacted: 1860-17-B02 (0-2) (500-97262-5), 1860-17-B01 (8-10) (500-97262-7) and 1860-17-B01 (20-22) (500-97262-8).

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 - IL 171 - WO 031

TestAmerica Job ID: 500-97262-2

Client Sample ID: 1860-17-B02 (0-2)

Lab Sample ID: 500-97262-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	0.010	*	0.0044	0.0034	mg/Kg	1	☼	8260B	Total/NA
Phenanthrene	0.019	J	0.037	0.0052	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.041		0.037	0.0069	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.034	J	0.037	0.0074	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.023	J	0.037	0.0050	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.032	J	0.037	0.010	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.036	J	0.037	0.0080	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.019	J	0.037	0.011	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.025	J	0.037	0.0072	mg/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.020	J *	0.037	0.0096	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.024	J	0.037	0.012	mg/Kg	1	☼	8270D	Total/NA
Arsenic	6.6		0.57	0.26	mg/Kg	1	☼	6010B	Total/NA
Barium	32		0.57	0.10	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.40		0.23	0.050	mg/Kg	1	☼	6010B	Total/NA
Boron	7.5		2.9	0.40	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.16		0.11	0.033	mg/Kg	1	☼	6010B	Total/NA
Calcium	100000		57	18	mg/Kg	5	☼	6010B	Total/NA
Chromium	9.5		0.57	0.099	mg/Kg	1	☼	6010B	Total/NA
Cobalt	7.5		0.29	0.065	mg/Kg	1	☼	6010B	Total/NA
Copper	17		0.57	0.12	mg/Kg	1	☼	6010B	Total/NA
Iron	13000		11	4.4	mg/Kg	1	☼	6010B	Total/NA
Lead	15		0.29	0.14	mg/Kg	1	☼	6010B	Total/NA
Magnesium	52000	B	5.7	2.3	mg/Kg	1	☼	6010B	Total/NA
Manganese	330		0.57	0.11	mg/Kg	1	☼	6010B	Total/NA
Nickel	18		0.57	0.16	mg/Kg	1	☼	6010B	Total/NA
Potassium	1300		29	4.7	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.43	J	0.57	0.28	mg/Kg	1	☼	6010B	Total/NA
Sodium	770		57	7.6	mg/Kg	1	☼	6010B	Total/NA
Vanadium	13		0.29	0.084	mg/Kg	1	☼	6010B	Total/NA
Zinc	54	B	1.1	0.36	mg/Kg	1	☼	6010B	Total/NA
Barium	0.38	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.74		0.50	0.050	mg/L	1		6010B	TCLP
Cadmium	0.0029	J	0.0050	0.0020	mg/L	1		6010B	TCLP
Manganese	1.0		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.010	J	0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.088	J ^	0.10	0.020	mg/L	1		6010B	TCLP
Manganese	0.45		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.032		0.018	0.0061	mg/Kg	1	☼	7471B	Total/NA
pH	8.37		0.200	0.200	SU	1		9045D	Total/NA

Client Sample ID: 1860-17-B02 (4-6)

Lab Sample ID: 500-97262-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	0.0052	*	0.0044	0.0034	mg/Kg	1	☼	8260B	Total/NA
Phenanthrene	0.022	J	0.036	0.0050	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.026	J	0.036	0.0067	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.025	J	0.036	0.0072	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.015	J	0.036	0.0049	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.020	J	0.036	0.0099	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.023	J	0.036	0.0078	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 - IL 171 - WO 031

TestAmerica Job ID: 500-97262-2

Client Sample ID: 1860-17-B02 (4-6) (Continued)

Lab Sample ID: 500-97262-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Benzo[k]fluoranthene	0.011	J	0.036	0.011	mg/Kg	1	☼	☼	8270D	Total/NA
Benzo[a]pyrene	0.014	J	0.036	0.0070	mg/Kg	1	☼	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.012	J*	0.036	0.0094	mg/Kg	1	☼	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.016	J	0.036	0.012	mg/Kg	1	☼	☼	8270D	Total/NA
Arsenic	9.6		0.54	0.25	mg/Kg	1	☼	☼	6010B	Total/NA
Barium	50		0.54	0.099	mg/Kg	1	☼	☼	6010B	Total/NA
Beryllium	0.47		0.22	0.047	mg/Kg	1	☼	☼	6010B	Total/NA
Boron	7.3		2.7	0.38	mg/Kg	1	☼	☼	6010B	Total/NA
Cadmium	0.22		0.11	0.031	mg/Kg	1	☼	☼	6010B	Total/NA
Calcium	66000		54	17	mg/Kg	5	☼	☼	6010B	Total/NA
Chromium	11		0.54	0.093	mg/Kg	1	☼	☼	6010B	Total/NA
Cobalt	9.5		0.27	0.061	mg/Kg	1	☼	☼	6010B	Total/NA
Copper	22		0.54	0.12	mg/Kg	1	☼	☼	6010B	Total/NA
Iron	15000		11	4.2	mg/Kg	1	☼	☼	6010B	Total/NA
Lead	18		0.27	0.13	mg/Kg	1	☼	☼	6010B	Total/NA
Magnesium	34000	B	5.4	2.2	mg/Kg	1	☼	☼	6010B	Total/NA
Manganese	290		0.54	0.11	mg/Kg	1	☼	☼	6010B	Total/NA
Nickel	24		0.54	0.15	mg/Kg	1	☼	☼	6010B	Total/NA
Potassium	1400		27	4.4	mg/Kg	1	☼	☼	6010B	Total/NA
Selenium	0.47	J	0.54	0.27	mg/Kg	1	☼	☼	6010B	Total/NA
Sodium	920		54	7.2	mg/Kg	1	☼	☼	6010B	Total/NA
Vanadium	14		0.27	0.079	mg/Kg	1	☼	☼	6010B	Total/NA
Zinc	61	B	1.1	0.34	mg/Kg	1	☼	☼	6010B	Total/NA
Barium	0.20	J	0.50	0.050	mg/L	1			6010B	TCLP
Boron	0.58		0.50	0.050	mg/L	1			6010B	TCLP
Cadmium	0.0033	J	0.0050	0.0020	mg/L	1			6010B	TCLP
Cobalt	0.022	J	0.025	0.010	mg/L	1			6010B	TCLP
Lead	0.0098		0.0075	0.0075	mg/L	1			6010B	TCLP
Manganese	4.0		0.025	0.010	mg/L	1			6010B	TCLP
Nickel	0.016	J	0.025	0.010	mg/L	1			6010B	TCLP
Selenium	0.022	J	0.050	0.020	mg/L	1			6010B	TCLP
Zinc	0.11		0.10	0.020	mg/L	1			6010B	TCLP
Manganese	0.029		0.025	0.010	mg/L	1			6010B	SPLP East
Mercury	0.024		0.018	0.0063	mg/Kg	1	☼	☼	7471B	Total/NA
pH	8.24		0.200	0.200	SU	1			9045D	Total/NA

Client Sample ID: 1860-17-B01 (8-10)

Lab Sample ID: 500-97262-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Acetone	0.014	*	0.0043	0.0033	mg/Kg	1	☼	☼	8260B	Total/NA
Phenanthrene	0.010	J	0.034	0.0048	mg/Kg	1	☼	☼	8270D	Total/NA
Fluoranthene	0.014	J	0.034	0.0064	mg/Kg	1	☼	☼	8270D	Total/NA
Pyrene	0.013	J	0.034	0.0069	mg/Kg	1	☼	☼	8270D	Total/NA
Benzo[a]anthracene	0.0087	J	0.034	0.0046	mg/Kg	1	☼	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.0076	J	0.034	0.0074	mg/Kg	1	☼	☼	8270D	Total/NA
Arsenic	8.0		0.54	0.25	mg/Kg	1	☼	☼	6010B	Total/NA
Barium	43		0.54	0.098	mg/Kg	1	☼	☼	6010B	Total/NA
Beryllium	0.58		0.22	0.047	mg/Kg	1	☼	☼	6010B	Total/NA
Boron	7.4		2.7	0.38	mg/Kg	1	☼	☼	6010B	Total/NA
Cadmium	0.083	J	0.11	0.031	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 - IL 171 - WO 031

TestAmerica Job ID: 500-97262-2

Client Sample ID: 1860-17-B01 (8-10) (Continued)

Lab Sample ID: 500-97262-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	57000		54	17	mg/Kg	5	☼	6010B	Total/NA
Chromium	13		0.54	0.093	mg/Kg	1	☼	6010B	Total/NA
Cobalt	11		0.27	0.061	mg/Kg	1	☼	6010B	Total/NA
Copper	20		0.54	0.12	mg/Kg	1	☼	6010B	Total/NA
Iron	17000		11	4.1	mg/Kg	1	☼	6010B	Total/NA
Lead	15		0.27	0.13	mg/Kg	1	☼	6010B	Total/NA
Magnesium	29000	B	5.4	2.2	mg/Kg	1	☼	6010B	Total/NA
Manganese	240		0.54	0.11	mg/Kg	1	☼	6010B	Total/NA
Nickel	26		0.54	0.15	mg/Kg	1	☼	6010B	Total/NA
Potassium	1700		27	4.4	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.38	J	0.54	0.27	mg/Kg	1	☼	6010B	Total/NA
Sodium	610		54	7.1	mg/Kg	1	☼	6010B	Total/NA
Vanadium	17		0.27	0.079	mg/Kg	1	☼	6010B	Total/NA
Zinc	60	B	1.1	0.34	mg/Kg	1	☼	6010B	Total/NA
Barium	0.28	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.63		0.50	0.050	mg/L	1		6010B	TCLP
Cadmium	0.0026	J	0.0050	0.0020	mg/L	1		6010B	TCLP
Cobalt	0.017	J	0.025	0.010	mg/L	1		6010B	TCLP
Manganese	3.9		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.015	J	0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.090	J ^	0.10	0.020	mg/L	1		6010B	TCLP
Manganese	0.026		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.018		0.017	0.0060	mg/Kg	1	☼	7471B	Total/NA
pH	7.99		0.200	0.200	SU	1		9045D	Total/NA

Client Sample ID: 1860-17-B01 (20-22)

Lab Sample ID: 500-97262-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Phenanthrene	0.015	J	0.035	0.0049	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.0094	J	0.035	0.0066	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.012	J	0.035	0.0070	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.011	J	0.035	0.0096	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.0079	J	0.035	0.0068	mg/Kg	1	☼	8270D	Total/NA
Arsenic	6.4		0.52	0.24	mg/Kg	1	☼	6010B	Total/NA
Barium	38		0.52	0.095	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.56		0.21	0.045	mg/Kg	1	☼	6010B	Total/NA
Boron	9.5		2.6	0.36	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.042	J	0.10	0.030	mg/Kg	1	☼	6010B	Total/NA
Calcium	72000		52	17	mg/Kg	5	☼	6010B	Total/NA
Chromium	16		0.52	0.089	mg/Kg	1	☼	6010B	Total/NA
Cobalt	11		0.26	0.059	mg/Kg	1	☼	6010B	Total/NA
Copper	19		0.52	0.11	mg/Kg	1	☼	6010B	Total/NA
Iron	15000		10	4.0	mg/Kg	1	☼	6010B	Total/NA
Lead	13		0.26	0.13	mg/Kg	1	☼	6010B	Total/NA
Magnesium	32000	B	5.2	2.1	mg/Kg	1	☼	6010B	Total/NA
Manganese	300		0.52	0.10	mg/Kg	1	☼	6010B	Total/NA
Nickel	27		0.52	0.14	mg/Kg	1	☼	6010B	Total/NA
Potassium	2100		26	4.2	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.41	J	0.52	0.26	mg/Kg	1	☼	6010B	Total/NA
Sodium	520		52	6.8	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 - IL 171 - WO 031

TestAmerica Job ID: 500-97262-2

Client Sample ID: 1860-17-B01 (20-22) (Continued)

Lab Sample ID: 500-97262-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Vanadium	17		0.26	0.076	mg/Kg	1	☼	6010B	Total/NA
Zinc	50	B	1.0	0.33	mg/Kg	1	☼	6010B	Total/NA
Barium	0.54		0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.62		0.50	0.050	mg/L	1		6010B	TCLP
Manganese	2.6		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.019	J	0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.048	J ^	0.10	0.020	mg/L	1		6010B	TCLP
Manganese	0.059		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.038		0.017	0.0059	mg/Kg	1	☼	7471B	Total/NA
pH	8.11		0.200	0.200	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 - IL 171 - WO 031

TestAmerica Job ID: 500-97262-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-97262-5	1860-17-B02 (0-2)	Solid	06/11/15 12:25	06/11/15 16:10
500-97262-6	1860-17-B02 (4-6)	Solid	06/11/15 12:30	06/11/15 16:10
500-97262-7	1860-17-B01 (8-10)	Solid	06/11/15 13:20	06/11/15 16:10
500-97262-8	1860-17-B01 (20-22)	Solid	06/11/15 13:45	06/11/15 16:10

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97262-2

Client Sample ID: 1860-17-B02 (0-2)

Lab Sample ID: 500-97262-5

Date Collected: 06/11/15 12:25

Matrix: Solid

Date Received: 06/11/15 16:10

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		06/14/15 14:10	06/15/15 21:34	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		06/14/15 14:10	06/15/15 21:34	1
Boron	0.74		0.50	0.050	mg/L		06/14/15 14:10	06/15/15 21:34	1
Cadmium	0.0029	J	0.0050	0.0020	mg/L		06/14/15 14:10	06/15/15 21:34	1
Chromium	<0.025		0.025	0.010	mg/L		06/14/15 14:10	06/15/15 21:34	1
Cobalt	<0.025		0.025	0.010	mg/L		06/14/15 14:10	06/15/15 21:34	1
Iron	<0.20		0.20	0.20	mg/L		06/14/15 14:10	06/15/15 21:34	1
Lead	<0.0075		0.0075	0.0075	mg/L		06/14/15 14:10	06/16/15 16:54	1
Manganese	1.0		0.025	0.010	mg/L		06/14/15 14:10	06/15/15 21:34	1
Nickel	0.010	J	0.025	0.010	mg/L		06/14/15 14:10	06/15/15 21:34	1
Selenium	<0.050		0.050	0.020	mg/L		06/14/15 14:10	06/15/15 21:34	1
Silver	<0.025		0.025	0.010	mg/L		06/14/15 14:10	06/15/15 21:34	1
Zinc	0.088	J ^	0.10	0.020	mg/L		06/14/15 14:10	06/15/15 21:34	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.45		0.025	0.010	mg/L		06/21/15 14:00	06/22/15 13:08	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		06/14/15 14:10	06/17/15 13:36	1
Thallium	<0.0020		0.0020	0.0020	mg/L		06/14/15 14:10	06/16/15 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		06/15/15 11:30	06/16/15 10:45	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.37		0.200	0.200	SU			06/12/15 13:28	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97262-2

Client Sample ID: 1860-17-B02 (0-2)

Lab Sample ID: 500-97262-5

Date Collected: 06/11/15 12:25

Matrix: Solid

Date Received: 06/11/15 16:10

Percent Solids: 86.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	0.010	*	0.0044	0.0034	mg/Kg	☼	06/11/15 17:25	06/16/15 18:10	1
Benzene	<0.0044		0.0044	0.00098	mg/Kg	☼	06/11/15 17:25	06/16/15 18:10	1
Bromodichloromethane	<0.0044		0.0044	0.00074	mg/Kg	☼	06/11/15 17:25	06/16/15 18:10	1
Bromoform	<0.0044		0.0044	0.00090	mg/Kg	☼	06/11/15 17:25	06/16/15 18:10	1
Bromomethane	<0.0044		0.0044	0.0016	mg/Kg	☼	06/11/15 17:25	06/16/15 18:10	1
2-Butanone (MEK)	<0.0044		0.0044	0.0016	mg/Kg	☼	06/11/15 17:25	06/16/15 18:10	1
Carbon disulfide	<0.0044		0.0044	0.0016	mg/Kg	☼	06/11/15 17:25	06/16/15 18:10	1
Carbon tetrachloride	<0.0044		0.0044	0.00094	mg/Kg	☼	06/11/15 17:25	06/16/15 18:10	1
Chlorobenzene	<0.0044		0.0044	0.0010	mg/Kg	☼	06/11/15 17:25	06/16/15 18:10	1
Chloroethane	<0.0044		0.0044	0.0018	mg/Kg	☼	06/11/15 17:25	06/16/15 18:10	1
Chloroform	<0.0044		0.0044	0.00086	mg/Kg	☼	06/11/15 17:25	06/16/15 18:10	1
Chloromethane	<0.0044		0.0044	0.0011	mg/Kg	☼	06/11/15 17:25	06/16/15 18:10	1
cis-1,2-Dichloroethene	<0.0044		0.0044	0.00090	mg/Kg	☼	06/11/15 17:25	06/16/15 18:10	1
cis-1,3-Dichloropropene	<0.0044		0.0044	0.0010	mg/Kg	☼	06/11/15 17:25	06/16/15 18:10	1
Dibromochloromethane	<0.0044		0.0044	0.00051	mg/Kg	☼	06/11/15 17:25	06/16/15 18:10	1
1,1-Dichloroethane	<0.0044		0.0044	0.00091	mg/Kg	☼	06/11/15 17:25	06/16/15 18:10	1
1,2-Dichloroethane	<0.0044		0.0044	0.00065	mg/Kg	☼	06/11/15 17:25	06/16/15 18:10	1
1,1-Dichloroethene	<0.0044		0.0044	0.0016	mg/Kg	☼	06/11/15 17:25	06/16/15 18:10	1
1,2-Dichloropropane	<0.0044		0.0044	0.0012	mg/Kg	☼	06/11/15 17:25	06/16/15 18:10	1
1,3-Dichloropropane, Total	<0.0044		0.0044	0.0012	mg/Kg	☼	06/11/15 17:25	06/16/15 18:10	1
Ethylbenzene	<0.0044		0.0044	0.0011	mg/Kg	☼	06/11/15 17:25	06/16/15 18:10	1
2-Hexanone	<0.0044		0.0044	0.0014	mg/Kg	☼	06/11/15 17:25	06/16/15 18:10	1
Methylene Chloride	<0.0044		0.0044	0.0033	mg/Kg	☼	06/11/15 17:25	06/16/15 18:10	1
4-Methyl-2-pentanone (MIBK)	<0.0044		0.0044	0.00091	mg/Kg	☼	06/11/15 17:25	06/16/15 18:10	1
Methyl tert-butyl ether	<0.0044		0.0044	0.0010	mg/Kg	☼	06/11/15 17:25	06/16/15 18:10	1
Styrene	<0.0044		0.0044	0.0010	mg/Kg	☼	06/11/15 17:25	06/16/15 18:10	1
1,1,2,2-Tetrachloroethane	<0.0044		0.0044	0.00070	mg/Kg	☼	06/11/15 17:25	06/16/15 18:10	1
Tetrachloroethene	<0.0044		0.0044	0.00092	mg/Kg	☼	06/11/15 17:25	06/16/15 18:10	1
Toluene	<0.0044		0.0044	0.0015	mg/Kg	☼	06/11/15 17:25	06/16/15 18:10	1
trans-1,2-Dichloroethene	<0.0044		0.0044	0.0011	mg/Kg	☼	06/11/15 17:25	06/16/15 18:10	1
trans-1,3-Dichloropropene	<0.0044		0.0044	0.0012	mg/Kg	☼	06/11/15 17:25	06/16/15 18:10	1
1,1,1-Trichloroethane	<0.0044		0.0044	0.0010	mg/Kg	☼	06/11/15 17:25	06/16/15 18:10	1
1,1,2-Trichloroethane	<0.0044		0.0044	0.00085	mg/Kg	☼	06/11/15 17:25	06/16/15 18:10	1
Trichloroethene	<0.0044		0.0044	0.0012	mg/Kg	☼	06/11/15 17:25	06/16/15 18:10	1
Vinyl acetate	<0.0044		0.0044	0.0012	mg/Kg	☼	06/11/15 17:25	06/16/15 18:10	1
Vinyl chloride	<0.0044		0.0044	0.0010	mg/Kg	☼	06/11/15 17:25	06/16/15 18:10	1
Xylenes, Total	<0.0088		0.0088	0.0016	mg/Kg	☼	06/11/15 17:25	06/16/15 18:10	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	90		70 - 122	06/11/15 17:25	06/16/15 18:10	1
Dibromofluoromethane	96		75 - 120	06/11/15 17:25	06/16/15 18:10	1
1,2-Dichloroethane-d4 (Surr)	97		70 - 134	06/11/15 17:25	06/16/15 18:10	1
Toluene-d8 (Surr)	97		75 - 122	06/11/15 17:25	06/16/15 18:10	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.19		0.19	0.082	mg/Kg	☼	06/22/15 09:27	06/24/15 00:07	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.056	mg/Kg	☼	06/22/15 09:27	06/24/15 00:07	1
1,3-Dichlorobenzene	<0.19		0.19	0.042	mg/Kg	☼	06/22/15 09:27	06/24/15 00:07	1
1,4-Dichlorobenzene	<0.19		0.19	0.048	mg/Kg	☼	06/22/15 09:27	06/24/15 00:07	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97262-2

Client Sample ID: 1860-17-B02 (0-2)

Lab Sample ID: 500-97262-5

Date Collected: 06/11/15 12:25

Matrix: Solid

Date Received: 06/11/15 16:10

Percent Solids: 86.6

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	0.044	mg/Kg	☼	06/22/15 09:27	06/24/15 00:07	1
2-Methylphenol	<0.19		0.19	0.059	mg/Kg	☼	06/22/15 09:27	06/24/15 00:07	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.043	mg/Kg	☼	06/22/15 09:27	06/24/15 00:07	1
N-Nitrosodi-n-propylamine	<0.19		0.19	0.045	mg/Kg	☼	06/22/15 09:27	06/24/15 00:07	1
Hexachloroethane	<0.19		0.19	0.056	mg/Kg	☼	06/22/15 09:27	06/24/15 00:07	1
2-Chlorophenol	<0.19		0.19	0.063	mg/Kg	☼	06/22/15 09:27	06/24/15 00:07	1
Nitrobenzene	<0.037		0.037	0.0093	mg/Kg	☼	06/22/15 09:27	06/24/15 00:07	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.038	mg/Kg	☼	06/22/15 09:27	06/24/15 00:07	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.040	mg/Kg	☼	06/22/15 09:27	06/24/15 00:07	1
Isophorone	<0.19		0.19	0.042	mg/Kg	☼	06/22/15 09:27	06/24/15 00:07	1
2,4-Dimethylphenol	<0.37		0.37	0.14	mg/Kg	☼	06/22/15 09:27	06/24/15 00:07	1
Hexachlorobutadiene	<0.19		0.19	0.058	mg/Kg	☼	06/22/15 09:27	06/24/15 00:07	1
Naphthalene	<0.037		0.037	0.0057	mg/Kg	☼	06/22/15 09:27	06/24/15 00:07	1
2,4-Dichlorophenol	<0.37		0.37	0.088	mg/Kg	☼	06/22/15 09:27	06/24/15 00:07	1
4-Chloroaniline	<0.75		0.75	0.17	mg/Kg	☼	06/22/15 09:27	06/24/15 00:07	1
2,4,6-Trichlorophenol	<0.37		0.37	0.13	mg/Kg	☼	06/22/15 09:27	06/24/15 00:07	1
2,4,5-Trichlorophenol	<0.37		0.37	0.085	mg/Kg	☼	06/22/15 09:27	06/24/15 00:07	1
Hexachlorocyclopentadiene	<0.75		0.75	0.21	mg/Kg	☼	06/22/15 09:27	06/24/15 00:07	1
2-Methylnaphthalene	<0.037		0.037	0.0068	mg/Kg	☼	06/22/15 09:27	06/24/15 00:07	1
2-Nitroaniline	<0.19		0.19	0.050	mg/Kg	☼	06/22/15 09:27	06/24/15 00:07	1
2-Chloronaphthalene	<0.19		0.19	0.041	mg/Kg	☼	06/22/15 09:27	06/24/15 00:07	1
4-Chloro-3-methylphenol	<0.37		0.37	0.13	mg/Kg	☼	06/22/15 09:27	06/24/15 00:07	1
2,6-Dinitrotoluene	<0.19		0.19	0.073	mg/Kg	☼	06/22/15 09:27	06/24/15 00:07	1
2-Nitrophenol	<0.37		0.37	0.088	mg/Kg	☼	06/22/15 09:27	06/24/15 00:07	1
3-Nitroaniline	<0.37		0.37	0.11	mg/Kg	☼	06/22/15 09:27	06/24/15 00:07	1
Dimethyl phthalate	<0.19		0.19	0.048	mg/Kg	☼	06/22/15 09:27	06/24/15 00:07	1
2,4-Dinitrophenol	<0.75		0.75	0.65	mg/Kg	☼	06/22/15 09:27	06/24/15 00:07	1
Acenaphthylene	<0.037		0.037	0.0049	mg/Kg	☼	06/22/15 09:27	06/24/15 00:07	1
2,4-Dinitrotoluene	<0.19		0.19	0.059	mg/Kg	☼	06/22/15 09:27	06/24/15 00:07	1
Acenaphthene	<0.037		0.037	0.0067	mg/Kg	☼	06/22/15 09:27	06/24/15 00:07	1
Dibenzofuran	<0.19		0.19	0.043	mg/Kg	☼	06/22/15 09:27	06/24/15 00:07	1
4-Nitrophenol	<0.75		0.75	0.35	mg/Kg	☼	06/22/15 09:27	06/24/15 00:07	1
Fluorene	<0.037		0.037	0.0052	mg/Kg	☼	06/22/15 09:27	06/24/15 00:07	1
4-Nitroaniline	<0.37		0.37	0.16	mg/Kg	☼	06/22/15 09:27	06/24/15 00:07	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.049	mg/Kg	☼	06/22/15 09:27	06/24/15 00:07	1
Hexachlorobenzene	<0.075		0.075	0.0086	mg/Kg	☼	06/22/15 09:27	06/24/15 00:07	1
Diethyl phthalate	<0.19		0.19	0.063	mg/Kg	☼	06/22/15 09:27	06/24/15 00:07	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.043	mg/Kg	☼	06/22/15 09:27	06/24/15 00:07	1
Pentachlorophenol	<0.75		0.75	0.59	mg/Kg	☼	06/22/15 09:27	06/24/15 00:07	1
N-Nitrosodiphenylamine	<0.19		0.19	0.044	mg/Kg	☼	06/22/15 09:27	06/24/15 00:07	1
4,6-Dinitro-2-methylphenol	<0.37	*	0.37	0.30	mg/Kg	☼	06/22/15 09:27	06/24/15 00:07	1
Phenanthrene	0.019	J	0.037	0.0052	mg/Kg	☼	06/22/15 09:27	06/24/15 00:07	1
Anthracene	<0.037		0.037	0.0062	mg/Kg	☼	06/22/15 09:27	06/24/15 00:07	1
Carbazole	<0.19		0.19	0.096	mg/Kg	☼	06/22/15 09:27	06/24/15 00:07	1
Di-n-butyl phthalate	<0.19		0.19	0.056	mg/Kg	☼	06/22/15 09:27	06/24/15 00:07	1
Fluoranthene	0.041		0.037	0.0069	mg/Kg	☼	06/22/15 09:27	06/24/15 00:07	1
Pyrene	0.034	J	0.037	0.0074	mg/Kg	☼	06/22/15 09:27	06/24/15 00:07	1
Butyl benzyl phthalate	<0.19		0.19	0.071	mg/Kg	☼	06/22/15 09:27	06/24/15 00:07	1
Benzo[a]anthracene	0.023	J	0.037	0.0050	mg/Kg	☼	06/22/15 09:27	06/24/15 00:07	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97262-2

Client Sample ID: 1860-17-B02 (0-2)

Lab Sample ID: 500-97262-5

Date Collected: 06/11/15 12:25

Matrix: Solid

Date Received: 06/11/15 16:10

Percent Solids: 86.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.032	J	0.037	0.010	mg/Kg	☼	06/22/15 09:27	06/24/15 00:07	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.052	mg/Kg	☼	06/22/15 09:27	06/24/15 00:07	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.068	mg/Kg	☼	06/22/15 09:27	06/24/15 00:07	1
Di-n-octyl phthalate	<0.19		0.19	0.060	mg/Kg	☼	06/22/15 09:27	06/24/15 00:07	1
Benzo[b]fluoranthene	0.036	J	0.037	0.0080	mg/Kg	☼	06/22/15 09:27	06/24/15 00:07	1
Benzo[k]fluoranthene	0.019	J	0.037	0.011	mg/Kg	☼	06/22/15 09:27	06/24/15 00:07	1
Benzo[a]pyrene	0.025	J	0.037	0.0072	mg/Kg	☼	06/22/15 09:27	06/24/15 00:07	1
Indeno[1,2,3-cd]pyrene	0.020	J *	0.037	0.0096	mg/Kg	☼	06/22/15 09:27	06/24/15 00:07	1
Dibenz(a,h)anthracene	<0.037	*	0.037	0.0072	mg/Kg	☼	06/22/15 09:27	06/24/15 00:07	1
Benzo[g,h,i]perylene	0.024	J	0.037	0.012	mg/Kg	☼	06/22/15 09:27	06/24/15 00:07	1
3 & 4 Methylphenol	<0.19		0.19	0.062	mg/Kg	☼	06/22/15 09:27	06/24/15 00:07	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	53		25 - 110	06/22/15 09:27	06/24/15 00:07	1
Phenol-d5	54		31 - 110	06/22/15 09:27	06/24/15 00:07	1
Nitrobenzene-d5	43		25 - 115	06/22/15 09:27	06/24/15 00:07	1
2-Fluorobiphenyl	46		25 - 119	06/22/15 09:27	06/24/15 00:07	1
2,4,6-Tribromophenol	59		35 - 137	06/22/15 09:27	06/24/15 00:07	1
Terphenyl-d14	77		36 - 134	06/22/15 09:27	06/24/15 00:07	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.1		1.1	0.24	mg/Kg	☼	06/16/15 17:41	06/17/15 20:02	1
Arsenic	6.6		0.57	0.26	mg/Kg	☼	06/16/15 17:41	06/17/15 20:02	1
Barium	32		0.57	0.10	mg/Kg	☼	06/16/15 17:41	06/17/15 20:02	1
Beryllium	0.40		0.23	0.050	mg/Kg	☼	06/16/15 17:41	06/17/15 20:02	1
Boron	7.5		2.9	0.40	mg/Kg	☼	06/16/15 17:41	06/17/15 20:02	1
Cadmium	0.16		0.11	0.033	mg/Kg	☼	06/16/15 17:41	06/17/15 20:02	1
Calcium	100000		57	18	mg/Kg	☼	06/16/15 17:41	06/18/15 21:43	5
Chromium	9.5		0.57	0.099	mg/Kg	☼	06/16/15 17:41	06/17/15 20:02	1
Cobalt	7.5		0.29	0.065	mg/Kg	☼	06/16/15 17:41	06/17/15 20:02	1
Copper	17		0.57	0.12	mg/Kg	☼	06/16/15 17:41	06/17/15 20:02	1
Iron	13000		11	4.4	mg/Kg	☼	06/16/15 17:41	06/17/15 20:02	1
Lead	15		0.29	0.14	mg/Kg	☼	06/16/15 17:41	06/17/15 20:02	1
Magnesium	52000	B	5.7	2.3	mg/Kg	☼	06/16/15 17:41	06/17/15 20:02	1
Manganese	330		0.57	0.11	mg/Kg	☼	06/16/15 17:41	06/17/15 20:02	1
Nickel	18		0.57	0.16	mg/Kg	☼	06/16/15 17:41	06/17/15 20:02	1
Potassium	1300		29	4.7	mg/Kg	☼	06/16/15 17:41	06/17/15 20:02	1
Selenium	0.43	J	0.57	0.28	mg/Kg	☼	06/16/15 17:41	06/17/15 20:02	1
Silver	<0.29		0.29	0.067	mg/Kg	☼	06/16/15 17:41	06/17/15 20:02	1
Sodium	770		57	7.6	mg/Kg	☼	06/16/15 17:41	06/17/15 20:02	1
Thallium	<0.57		0.57	0.28	mg/Kg	☼	06/16/15 17:41	06/17/15 20:02	1
Vanadium	13		0.29	0.084	mg/Kg	☼	06/16/15 17:41	06/17/15 20:02	1
Zinc	54	B	1.1	0.36	mg/Kg	☼	06/16/15 17:41	06/18/15 20:54	1

Method: 7471B - Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.032		0.018	0.0061	mg/Kg	☼	06/12/15 14:00	06/15/15 13:57	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97262-2

Client Sample ID: 1860-17-B02 (4-6)

Lab Sample ID: 500-97262-6

Date Collected: 06/11/15 12:30

Matrix: Solid

Date Received: 06/11/15 16:10

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	-	06/14/15 14:10	06/15/15 21:39	1
Beryllium	<0.0040		0.0040	0.0040	mg/L	-	06/14/15 14:10	06/15/15 21:39	1
Boron	0.58		0.50	0.050	mg/L	-	06/14/15 14:10	06/15/15 21:39	1
Cadmium	0.0033	J	0.0050	0.0020	mg/L	-	06/14/15 14:10	06/15/15 21:39	1
Chromium	<0.025		0.025	0.010	mg/L	-	06/14/15 14:10	06/15/15 21:39	1
Cobalt	0.022	J	0.025	0.010	mg/L	-	06/14/15 14:10	06/15/15 21:39	1
Iron	<0.20		0.20	0.20	mg/L	-	06/14/15 14:10	06/15/15 21:39	1
Lead	0.0098		0.0075	0.0075	mg/L	-	06/14/15 14:10	06/16/15 17:15	1
Manganese	4.0		0.025	0.010	mg/L	-	06/14/15 14:10	06/15/15 21:39	1
Nickel	0.016	J	0.025	0.010	mg/L	-	06/14/15 14:10	06/15/15 21:39	1
Selenium	0.022	J	0.050	0.020	mg/L	-	06/14/15 14:10	06/15/15 21:39	1
Silver	<0.025		0.025	0.010	mg/L	-	06/14/15 14:10	06/15/15 21:39	1
Zinc	0.11		0.10	0.020	mg/L	-	06/14/15 14:10	06/16/15 17:15	1

Method: 6010B - SPLP Metals - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	<0.0075		0.0075	0.0075	mg/L	-	06/21/15 14:00	06/22/15 13:12	1
Manganese	0.029		0.025	0.010	mg/L	-	06/21/15 14:00	06/22/15 13:12	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	-	06/14/15 14:10	06/17/15 13:40	1
Thallium	<0.0020		0.0020	0.0020	mg/L	-	06/14/15 14:10	06/16/15 21:04	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	-	06/15/15 11:30	06/16/15 10:47	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.24		0.200	0.200	SU	-		06/12/15 13:29	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97262-2

Client Sample ID: 1860-17-B02 (4-6)

Lab Sample ID: 500-97262-6

Date Collected: 06/11/15 12:30

Matrix: Solid

Date Received: 06/11/15 16:10

Percent Solids: 87.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	0.0052	*	0.0044	0.0034	mg/Kg	☼	06/11/15 17:25	06/16/15 18:35	1
Benzene	<0.0044		0.0044	0.00097	mg/Kg	☼	06/11/15 17:25	06/16/15 18:35	1
Bromodichloromethane	<0.0044		0.0044	0.00074	mg/Kg	☼	06/11/15 17:25	06/16/15 18:35	1
Bromoform	<0.0044		0.0044	0.00089	mg/Kg	☼	06/11/15 17:25	06/16/15 18:35	1
Bromomethane	<0.0044		0.0044	0.0016	mg/Kg	☼	06/11/15 17:25	06/16/15 18:35	1
2-Butanone (MEK)	<0.0044		0.0044	0.0016	mg/Kg	☼	06/11/15 17:25	06/16/15 18:35	1
Carbon disulfide	<0.0044		0.0044	0.0016	mg/Kg	☼	06/11/15 17:25	06/16/15 18:35	1
Carbon tetrachloride	<0.0044		0.0044	0.00093	mg/Kg	☼	06/11/15 17:25	06/16/15 18:35	1
Chlorobenzene	<0.0044		0.0044	0.0010	mg/Kg	☼	06/11/15 17:25	06/16/15 18:35	1
Chloroethane	<0.0044		0.0044	0.0018	mg/Kg	☼	06/11/15 17:25	06/16/15 18:35	1
Chloroform	<0.0044		0.0044	0.00085	mg/Kg	☼	06/11/15 17:25	06/16/15 18:35	1
Chloromethane	<0.0044		0.0044	0.0010	mg/Kg	☼	06/11/15 17:25	06/16/15 18:35	1
cis-1,2-Dichloroethene	<0.0044		0.0044	0.00089	mg/Kg	☼	06/11/15 17:25	06/16/15 18:35	1
cis-1,3-Dichloropropene	<0.0044		0.0044	0.00099	mg/Kg	☼	06/11/15 17:25	06/16/15 18:35	1
Dibromochloromethane	<0.0044		0.0044	0.00050	mg/Kg	☼	06/11/15 17:25	06/16/15 18:35	1
1,1-Dichloroethane	<0.0044		0.0044	0.00090	mg/Kg	☼	06/11/15 17:25	06/16/15 18:35	1
1,2-Dichloroethane	<0.0044		0.0044	0.00065	mg/Kg	☼	06/11/15 17:25	06/16/15 18:35	1
1,1-Dichloroethene	<0.0044		0.0044	0.0016	mg/Kg	☼	06/11/15 17:25	06/16/15 18:35	1
1,2-Dichloropropane	<0.0044		0.0044	0.0011	mg/Kg	☼	06/11/15 17:25	06/16/15 18:35	1
1,3-Dichloropropane, Total	<0.0044		0.0044	0.0012	mg/Kg	☼	06/11/15 17:25	06/16/15 18:35	1
Ethylbenzene	<0.0044		0.0044	0.0011	mg/Kg	☼	06/11/15 17:25	06/16/15 18:35	1
2-Hexanone	<0.0044		0.0044	0.0014	mg/Kg	☼	06/11/15 17:25	06/16/15 18:35	1
Methylene Chloride	<0.0044		0.0044	0.0033	mg/Kg	☼	06/11/15 17:25	06/16/15 18:35	1
4-Methyl-2-pentanone (MIBK)	<0.0044		0.0044	0.00090	mg/Kg	☼	06/11/15 17:25	06/16/15 18:35	1
Methyl tert-butyl ether	<0.0044		0.0044	0.0010	mg/Kg	☼	06/11/15 17:25	06/16/15 18:35	1
Styrene	<0.0044		0.0044	0.0010	mg/Kg	☼	06/11/15 17:25	06/16/15 18:35	1
1,1,2,2-Tetrachloroethane	<0.0044		0.0044	0.00069	mg/Kg	☼	06/11/15 17:25	06/16/15 18:35	1
Tetrachloroethene	<0.0044		0.0044	0.00091	mg/Kg	☼	06/11/15 17:25	06/16/15 18:35	1
Toluene	<0.0044		0.0044	0.0015	mg/Kg	☼	06/11/15 17:25	06/16/15 18:35	1
trans-1,2-Dichloroethene	<0.0044		0.0044	0.0011	mg/Kg	☼	06/11/15 17:25	06/16/15 18:35	1
trans-1,3-Dichloropropene	<0.0044		0.0044	0.0012	mg/Kg	☼	06/11/15 17:25	06/16/15 18:35	1
1,1,1-Trichloroethane	<0.0044		0.0044	0.0010	mg/Kg	☼	06/11/15 17:25	06/16/15 18:35	1
1,1,2-Trichloroethane	<0.0044		0.0044	0.00084	mg/Kg	☼	06/11/15 17:25	06/16/15 18:35	1
Trichloroethene	<0.0044		0.0044	0.0012	mg/Kg	☼	06/11/15 17:25	06/16/15 18:35	1
Vinyl acetate	<0.0044		0.0044	0.0012	mg/Kg	☼	06/11/15 17:25	06/16/15 18:35	1
Vinyl chloride	<0.0044		0.0044	0.0010	mg/Kg	☼	06/11/15 17:25	06/16/15 18:35	1
Xylenes, Total	<0.0087		0.0087	0.0016	mg/Kg	☼	06/11/15 17:25	06/16/15 18:35	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	86		70 - 122	06/11/15 17:25	06/16/15 18:35	1
Dibromofluoromethane	103		75 - 120	06/11/15 17:25	06/16/15 18:35	1
1,2-Dichloroethane-d4 (Surr)	100		70 - 134	06/11/15 17:25	06/16/15 18:35	1
Toluene-d8 (Surr)	96		75 - 122	06/11/15 17:25	06/16/15 18:35	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.18		0.18	0.080	mg/Kg	☼	06/22/15 09:27	06/24/15 18:48	1
Bis(2-chloroethyl)ether	<0.18		0.18	0.054	mg/Kg	☼	06/22/15 09:27	06/24/15 18:48	1
1,3-Dichlorobenzene	<0.18		0.18	0.041	mg/Kg	☼	06/22/15 09:27	06/24/15 18:48	1
1,4-Dichlorobenzene	<0.18		0.18	0.046	mg/Kg	☼	06/22/15 09:27	06/24/15 18:48	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97262-2

Client Sample ID: 1860-17-B02 (4-6)

Lab Sample ID: 500-97262-6

Date Collected: 06/11/15 12:30

Matrix: Solid

Date Received: 06/11/15 16:10

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	0.043	mg/Kg	☼	06/22/15 09:27	06/24/15 18:48	1
2-Methylphenol	<0.18		0.18	0.058	mg/Kg	☼	06/22/15 09:27	06/24/15 18:48	1
2,2'-oxybis[1-chloropropane]	<0.18		0.18	0.042	mg/Kg	☼	06/22/15 09:27	06/24/15 18:48	1
N-Nitrosodi-n-propylamine	<0.18		0.18	0.044	mg/Kg	☼	06/22/15 09:27	06/24/15 18:48	1
Hexachloroethane	<0.18		0.18	0.055	mg/Kg	☼	06/22/15 09:27	06/24/15 18:48	1
2-Chlorophenol	<0.18		0.18	0.062	mg/Kg	☼	06/22/15 09:27	06/24/15 18:48	1
Nitrobenzene	<0.036		0.036	0.0090	mg/Kg	☼	06/22/15 09:27	06/24/15 18:48	1
Bis(2-chloroethoxy)methane	<0.18		0.18	0.037	mg/Kg	☼	06/22/15 09:27	06/24/15 18:48	1
1,2,4-Trichlorobenzene	<0.18		0.18	0.039	mg/Kg	☼	06/22/15 09:27	06/24/15 18:48	1
Isophorone	<0.18		0.18	0.041	mg/Kg	☼	06/22/15 09:27	06/24/15 18:48	1
2,4-Dimethylphenol	<0.36		0.36	0.14	mg/Kg	☼	06/22/15 09:27	06/24/15 18:48	1
Hexachlorobutadiene	<0.18		0.18	0.057	mg/Kg	☼	06/22/15 09:27	06/24/15 18:48	1
Naphthalene	<0.036		0.036	0.0056	mg/Kg	☼	06/22/15 09:27	06/24/15 18:48	1
2,4-Dichlorophenol	<0.36		0.36	0.086	mg/Kg	☼	06/22/15 09:27	06/24/15 18:48	1
4-Chloroaniline	<0.73		0.73	0.17	mg/Kg	☼	06/22/15 09:27	06/24/15 18:48	1
2,4,6-Trichlorophenol	<0.36		0.36	0.12	mg/Kg	☼	06/22/15 09:27	06/24/15 18:48	1
2,4,5-Trichlorophenol	<0.36		0.36	0.083	mg/Kg	☼	06/22/15 09:27	06/24/15 18:48	1
Hexachlorocyclopentadiene	<0.73		0.73	0.21	mg/Kg	☼	06/22/15 09:27	06/24/15 18:48	1
2-Methylnaphthalene	<0.036		0.036	0.0067	mg/Kg	☼	06/22/15 09:27	06/24/15 18:48	1
2-Nitroaniline	<0.18		0.18	0.049	mg/Kg	☼	06/22/15 09:27	06/24/15 18:48	1
2-Chloronaphthalene	<0.18		0.18	0.040	mg/Kg	☼	06/22/15 09:27	06/24/15 18:48	1
4-Chloro-3-methylphenol	<0.36		0.36	0.12	mg/Kg	☼	06/22/15 09:27	06/24/15 18:48	1
2,6-Dinitrotoluene	<0.18		0.18	0.071	mg/Kg	☼	06/22/15 09:27	06/24/15 18:48	1
2-Nitrophenol	<0.36		0.36	0.085	mg/Kg	☼	06/22/15 09:27	06/24/15 18:48	1
3-Nitroaniline	<0.36		0.36	0.11	mg/Kg	☼	06/22/15 09:27	06/24/15 18:48	1
Dimethyl phthalate	<0.18		0.18	0.047	mg/Kg	☼	06/22/15 09:27	06/24/15 18:48	1
2,4-Dinitrophenol	<0.73		0.73	0.64	mg/Kg	☼	06/22/15 09:27	06/24/15 18:48	1
Acenaphthylene	<0.036		0.036	0.0048	mg/Kg	☼	06/22/15 09:27	06/24/15 18:48	1
2,4-Dinitrotoluene	<0.18		0.18	0.057	mg/Kg	☼	06/22/15 09:27	06/24/15 18:48	1
Acenaphthene	<0.036		0.036	0.0065	mg/Kg	☼	06/22/15 09:27	06/24/15 18:48	1
Dibenzofuran	<0.18		0.18	0.042	mg/Kg	☼	06/22/15 09:27	06/24/15 18:48	1
4-Nitrophenol	<0.73		0.73	0.34	mg/Kg	☼	06/22/15 09:27	06/24/15 18:48	1
Fluorene	<0.036		0.036	0.0051	mg/Kg	☼	06/22/15 09:27	06/24/15 18:48	1
4-Nitroaniline	<0.36		0.36	0.15	mg/Kg	☼	06/22/15 09:27	06/24/15 18:48	1
4-Bromophenyl phenyl ether	<0.18		0.18	0.048	mg/Kg	☼	06/22/15 09:27	06/24/15 18:48	1
Hexachlorobenzene	<0.073		0.073	0.0084	mg/Kg	☼	06/22/15 09:27	06/24/15 18:48	1
Diethyl phthalate	<0.18		0.18	0.061	mg/Kg	☼	06/22/15 09:27	06/24/15 18:48	1
4-Chlorophenyl phenyl ether	<0.18		0.18	0.042	mg/Kg	☼	06/22/15 09:27	06/24/15 18:48	1
Pentachlorophenol	<0.73		0.73	0.58	mg/Kg	☼	06/22/15 09:27	06/24/15 18:48	1
N-Nitrosodiphenylamine	<0.18		0.18	0.043	mg/Kg	☼	06/22/15 09:27	06/24/15 18:48	1
4,6-Dinitro-2-methylphenol	<0.36	*	0.36	0.29	mg/Kg	☼	06/22/15 09:27	06/24/15 18:48	1
Phenanthrene	0.022	J	0.036	0.0050	mg/Kg	☼	06/22/15 09:27	06/24/15 18:48	1
Anthracene	<0.036		0.036	0.0060	mg/Kg	☼	06/22/15 09:27	06/24/15 18:48	1
Carbazole	<0.18		0.18	0.093	mg/Kg	☼	06/22/15 09:27	06/24/15 18:48	1
Di-n-butyl phthalate	<0.18		0.18	0.055	mg/Kg	☼	06/22/15 09:27	06/24/15 18:48	1
Fluoranthene	0.026	J	0.036	0.0067	mg/Kg	☼	06/22/15 09:27	06/24/15 18:48	1
Pyrene	0.025	J	0.036	0.0072	mg/Kg	☼	06/22/15 09:27	06/24/15 18:48	1
Butyl benzyl phthalate	<0.18		0.18	0.069	mg/Kg	☼	06/22/15 09:27	06/24/15 18:48	1
Benzo[a]anthracene	0.015	J	0.036	0.0049	mg/Kg	☼	06/22/15 09:27	06/24/15 18:48	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97262-2

Client Sample ID: 1860-17-B02 (4-6)

Lab Sample ID: 500-97262-6

Date Collected: 06/11/15 12:30

Matrix: Solid

Date Received: 06/11/15 16:10

Percent Solids: 87.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.020	J	0.036	0.0099	mg/Kg	☼	06/22/15 09:27	06/24/15 18:48	1
3,3'-Dichlorobenzidine	<0.18		0.18	0.051	mg/Kg	☼	06/22/15 09:27	06/24/15 18:48	1
Bis(2-ethylhexyl) phthalate	<0.18		0.18	0.066	mg/Kg	☼	06/22/15 09:27	06/24/15 18:48	1
Di-n-octyl phthalate	<0.18		0.18	0.059	mg/Kg	☼	06/22/15 09:27	06/24/15 18:48	1
Benzo[b]fluoranthene	0.023	J	0.036	0.0078	mg/Kg	☼	06/22/15 09:27	06/24/15 18:48	1
Benzo[k]fluoranthene	0.011	J	0.036	0.011	mg/Kg	☼	06/22/15 09:27	06/24/15 18:48	1
Benzo[a]pyrene	0.014	J	0.036	0.0070	mg/Kg	☼	06/22/15 09:27	06/24/15 18:48	1
Indeno[1,2,3-cd]pyrene	0.012	J *	0.036	0.0094	mg/Kg	☼	06/22/15 09:27	06/24/15 18:48	1
Dibenz(a,h)anthracene	<0.036	*	0.036	0.0070	mg/Kg	☼	06/22/15 09:27	06/24/15 18:48	1
Benzo[g,h,i]perylene	0.016	J	0.036	0.012	mg/Kg	☼	06/22/15 09:27	06/24/15 18:48	1
3 & 4 Methylphenol	<0.18		0.18	0.060	mg/Kg	☼	06/22/15 09:27	06/24/15 18:48	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	46		25 - 110	06/22/15 09:27	06/24/15 18:48	1
Phenol-d5	46		31 - 110	06/22/15 09:27	06/24/15 18:48	1
Nitrobenzene-d5	45		25 - 115	06/22/15 09:27	06/24/15 18:48	1
2-Fluorobiphenyl	41		25 - 119	06/22/15 09:27	06/24/15 18:48	1
2,4,6-Tribromophenol	38		35 - 137	06/22/15 09:27	06/24/15 18:48	1
Terphenyl-d14	59		36 - 134	06/22/15 09:27	06/24/15 18:48	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	☼	06/16/15 17:41	06/17/15 20:07	1
Arsenic	9.6		0.54	0.25	mg/Kg	☼	06/16/15 17:41	06/17/15 20:07	1
Barium	50		0.54	0.099	mg/Kg	☼	06/16/15 17:41	06/17/15 20:07	1
Beryllium	0.47		0.22	0.047	mg/Kg	☼	06/16/15 17:41	06/17/15 20:07	1
Boron	7.3		2.7	0.38	mg/Kg	☼	06/16/15 17:41	06/17/15 20:07	1
Cadmium	0.22		0.11	0.031	mg/Kg	☼	06/16/15 17:41	06/17/15 20:07	1
Calcium	66000		54	17	mg/Kg	☼	06/16/15 17:41	06/18/15 21:48	5
Chromium	11		0.54	0.093	mg/Kg	☼	06/16/15 17:41	06/17/15 20:07	1
Cobalt	9.5		0.27	0.061	mg/Kg	☼	06/16/15 17:41	06/17/15 20:07	1
Copper	22		0.54	0.12	mg/Kg	☼	06/16/15 17:41	06/17/15 20:07	1
Iron	15000		11	4.2	mg/Kg	☼	06/16/15 17:41	06/17/15 20:07	1
Lead	18		0.27	0.13	mg/Kg	☼	06/16/15 17:41	06/17/15 20:07	1
Magnesium	34000	B	5.4	2.2	mg/Kg	☼	06/16/15 17:41	06/17/15 20:07	1
Manganese	290		0.54	0.11	mg/Kg	☼	06/16/15 17:41	06/17/15 20:07	1
Nickel	24		0.54	0.15	mg/Kg	☼	06/16/15 17:41	06/17/15 20:07	1
Potassium	1400		27	4.4	mg/Kg	☼	06/16/15 17:41	06/17/15 20:07	1
Selenium	0.47	J	0.54	0.27	mg/Kg	☼	06/16/15 17:41	06/17/15 20:07	1
Silver	<0.27		0.27	0.063	mg/Kg	☼	06/16/15 17:41	06/17/15 20:07	1
Sodium	920		54	7.2	mg/Kg	☼	06/16/15 17:41	06/17/15 20:07	1
Thallium	<0.54		0.54	0.27	mg/Kg	☼	06/16/15 17:41	06/17/15 20:07	1
Vanadium	14		0.27	0.079	mg/Kg	☼	06/16/15 17:41	06/17/15 20:07	1
Zinc	61	B	1.1	0.34	mg/Kg	☼	06/16/15 17:41	06/18/15 21:06	1

Method: 7471B - Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.024		0.018	0.0063	mg/Kg	☼	06/12/15 14:00	06/15/15 13:59	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97262-2

Client Sample ID: 1860-17-B01 (8-10)

Lab Sample ID: 500-97262-7

Date Collected: 06/11/15 13:20

Matrix: Solid

Date Received: 06/11/15 16:10

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	-	06/14/15 14:10	06/15/15 21:44	1
Beryllium	<0.0040		0.0040	0.0040	mg/L	-	06/14/15 14:10	06/15/15 21:44	1
Boron	0.63		0.50	0.050	mg/L	-	06/14/15 14:10	06/15/15 21:44	1
Cadmium	0.0026	J	0.0050	0.0020	mg/L	-	06/14/15 14:10	06/15/15 21:44	1
Chromium	<0.025		0.025	0.010	mg/L	-	06/14/15 14:10	06/15/15 21:44	1
Cobalt	0.017	J	0.025	0.010	mg/L	-	06/14/15 14:10	06/15/15 21:44	1
Iron	<0.20		0.20	0.20	mg/L	-	06/14/15 14:10	06/15/15 21:44	1
Lead	<0.0075		0.0075	0.0075	mg/L	-	06/14/15 14:10	06/16/15 17:21	1
Manganese	3.9		0.025	0.010	mg/L	-	06/14/15 14:10	06/15/15 21:44	1
Nickel	0.015	J	0.025	0.010	mg/L	-	06/14/15 14:10	06/15/15 21:44	1
Selenium	<0.050		0.050	0.020	mg/L	-	06/14/15 14:10	06/15/15 21:44	1
Silver	<0.025		0.025	0.010	mg/L	-	06/14/15 14:10	06/15/15 21:44	1
Zinc	0.090	J ^	0.10	0.020	mg/L	-	06/14/15 14:10	06/15/15 21:44	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.026		0.025	0.010	mg/L	-	06/21/15 14:00	06/22/15 13:28	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	-	06/14/15 14:10	06/17/15 13:44	1
Thallium	<0.0020		0.0020	0.0020	mg/L	-	06/14/15 14:10	06/16/15 21:08	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	-	06/15/15 11:30	06/16/15 10:49	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.99		0.200	0.200	SU	-		06/12/15 13:31	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97262-2

Client Sample ID: 1860-17-B01 (8-10)

Lab Sample ID: 500-97262-7

Date Collected: 06/11/15 13:20

Matrix: Solid

Date Received: 06/11/15 16:10

Percent Solids: 90.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	0.014	*	0.0043	0.0033	mg/Kg	☼	06/11/15 17:25	06/16/15 18:59	1
Benzene	<0.0043		0.0043	0.00096	mg/Kg	☼	06/11/15 17:25	06/16/15 18:59	1
Bromodichloromethane	<0.0043		0.0043	0.00073	mg/Kg	☼	06/11/15 17:25	06/16/15 18:59	1
Bromoform	<0.0043		0.0043	0.00088	mg/Kg	☼	06/11/15 17:25	06/16/15 18:59	1
Bromomethane	<0.0043		0.0043	0.0016	mg/Kg	☼	06/11/15 17:25	06/16/15 18:59	1
2-Butanone (MEK)	<0.0043		0.0043	0.0015	mg/Kg	☼	06/11/15 17:25	06/16/15 18:59	1
Carbon disulfide	<0.0043		0.0043	0.0016	mg/Kg	☼	06/11/15 17:25	06/16/15 18:59	1
Carbon tetrachloride	<0.0043		0.0043	0.00092	mg/Kg	☼	06/11/15 17:25	06/16/15 18:59	1
Chlorobenzene	<0.0043		0.0043	0.0010	mg/Kg	☼	06/11/15 17:25	06/16/15 18:59	1
Chloroethane	<0.0043		0.0043	0.0018	mg/Kg	☼	06/11/15 17:25	06/16/15 18:59	1
Chloroform	<0.0043		0.0043	0.00084	mg/Kg	☼	06/11/15 17:25	06/16/15 18:59	1
Chloromethane	<0.0043		0.0043	0.0010	mg/Kg	☼	06/11/15 17:25	06/16/15 18:59	1
cis-1,2-Dichloroethene	<0.0043		0.0043	0.00088	mg/Kg	☼	06/11/15 17:25	06/16/15 18:59	1
cis-1,3-Dichloropropene	<0.0043		0.0043	0.00098	mg/Kg	☼	06/11/15 17:25	06/16/15 18:59	1
Dibromochloromethane	<0.0043		0.0043	0.00050	mg/Kg	☼	06/11/15 17:25	06/16/15 18:59	1
1,1-Dichloroethane	<0.0043		0.0043	0.00089	mg/Kg	☼	06/11/15 17:25	06/16/15 18:59	1
1,2-Dichloroethane	<0.0043		0.0043	0.00064	mg/Kg	☼	06/11/15 17:25	06/16/15 18:59	1
1,1-Dichloroethene	<0.0043		0.0043	0.0016	mg/Kg	☼	06/11/15 17:25	06/16/15 18:59	1
1,2-Dichloropropane	<0.0043		0.0043	0.0011	mg/Kg	☼	06/11/15 17:25	06/16/15 18:59	1
1,3-Dichloropropane, Total	<0.0043		0.0043	0.0012	mg/Kg	☼	06/11/15 17:25	06/16/15 18:59	1
Ethylbenzene	<0.0043		0.0043	0.0011	mg/Kg	☼	06/11/15 17:25	06/16/15 18:59	1
2-Hexanone	<0.0043		0.0043	0.0013	mg/Kg	☼	06/11/15 17:25	06/16/15 18:59	1
Methylene Chloride	<0.0043		0.0043	0.0033	mg/Kg	☼	06/11/15 17:25	06/16/15 18:59	1
4-Methyl-2-pentanone (MIBK)	<0.0043		0.0043	0.00089	mg/Kg	☼	06/11/15 17:25	06/16/15 18:59	1
Methyl tert-butyl ether	<0.0043		0.0043	0.0010	mg/Kg	☼	06/11/15 17:25	06/16/15 18:59	1
Styrene	<0.0043		0.0043	0.0010	mg/Kg	☼	06/11/15 17:25	06/16/15 18:59	1
1,1,2,2-Tetrachloroethane	<0.0043		0.0043	0.00069	mg/Kg	☼	06/11/15 17:25	06/16/15 18:59	1
Tetrachloroethene	<0.0043		0.0043	0.00090	mg/Kg	☼	06/11/15 17:25	06/16/15 18:59	1
Toluene	<0.0043		0.0043	0.0015	mg/Kg	☼	06/11/15 17:25	06/16/15 18:59	1
trans-1,2-Dichloroethene	<0.0043		0.0043	0.0011	mg/Kg	☼	06/11/15 17:25	06/16/15 18:59	1
trans-1,3-Dichloropropene	<0.0043		0.0043	0.0012	mg/Kg	☼	06/11/15 17:25	06/16/15 18:59	1
1,1,1-Trichloroethane	<0.0043		0.0043	0.0010	mg/Kg	☼	06/11/15 17:25	06/16/15 18:59	1
1,1,2-Trichloroethane	<0.0043		0.0043	0.00084	mg/Kg	☼	06/11/15 17:25	06/16/15 18:59	1
Trichloroethene	<0.0043		0.0043	0.0012	mg/Kg	☼	06/11/15 17:25	06/16/15 18:59	1
Vinyl acetate	<0.0043		0.0043	0.0012	mg/Kg	☼	06/11/15 17:25	06/16/15 18:59	1
Vinyl chloride	<0.0043		0.0043	0.0010	mg/Kg	☼	06/11/15 17:25	06/16/15 18:59	1
Xylenes, Total	<0.0086		0.0086	0.0016	mg/Kg	☼	06/11/15 17:25	06/16/15 18:59	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	87		70 - 122	06/11/15 17:25	06/16/15 18:59	1
Dibromofluoromethane	101		75 - 120	06/11/15 17:25	06/16/15 18:59	1
1,2-Dichloroethane-d4 (Surr)	99		70 - 134	06/11/15 17:25	06/16/15 18:59	1
Toluene-d8 (Surr)	99		75 - 122	06/11/15 17:25	06/16/15 18:59	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	☼	06/22/15 09:27	06/24/15 00:49	1
Bis(2-chloroethyl)ether	<0.17		0.17	0.052	mg/Kg	☼	06/22/15 09:27	06/24/15 00:49	1
1,3-Dichlorobenzene	<0.17		0.17	0.039	mg/Kg	☼	06/22/15 09:27	06/24/15 00:49	1
1,4-Dichlorobenzene	<0.17		0.17	0.044	mg/Kg	☼	06/22/15 09:27	06/24/15 00:49	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97262-2

Client Sample ID: 1860-17-B01 (8-10)

Lab Sample ID: 500-97262-7

Date Collected: 06/11/15 13:20

Matrix: Solid

Date Received: 06/11/15 16:10

Percent Solids: 90.5

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	☼	06/22/15 09:27	06/24/15 00:49	1
2-Methylphenol	<0.17		0.17	0.055	mg/Kg	☼	06/22/15 09:27	06/24/15 00:49	1
2,2'-oxybis[1-chloropropane]	<0.17		0.17	0.040	mg/Kg	☼	06/22/15 09:27	06/24/15 00:49	1
N-Nitrosodi-n-propylamine	<0.17		0.17	0.042	mg/Kg	☼	06/22/15 09:27	06/24/15 00:49	1
Hexachloroethane	<0.17		0.17	0.052	mg/Kg	☼	06/22/15 09:27	06/24/15 00:49	1
2-Chlorophenol	<0.17		0.17	0.059	mg/Kg	☼	06/22/15 09:27	06/24/15 00:49	1
Nitrobenzene	<0.034		0.034	0.0086	mg/Kg	☼	06/22/15 09:27	06/24/15 00:49	1
Bis(2-chloroethoxy)methane	<0.17		0.17	0.035	mg/Kg	☼	06/22/15 09:27	06/24/15 00:49	1
1,2,4-Trichlorobenzene	<0.17		0.17	0.037	mg/Kg	☼	06/22/15 09:27	06/24/15 00:49	1
Isophorone	<0.17		0.17	0.039	mg/Kg	☼	06/22/15 09:27	06/24/15 00:49	1
2,4-Dimethylphenol	<0.34		0.34	0.13	mg/Kg	☼	06/22/15 09:27	06/24/15 00:49	1
Hexachlorobutadiene	<0.17		0.17	0.054	mg/Kg	☼	06/22/15 09:27	06/24/15 00:49	1
Naphthalene	<0.034		0.034	0.0053	mg/Kg	☼	06/22/15 09:27	06/24/15 00:49	1
2,4-Dichlorophenol	<0.34		0.34	0.082	mg/Kg	☼	06/22/15 09:27	06/24/15 00:49	1
4-Chloroaniline	<0.70		0.70	0.16	mg/Kg	☼	06/22/15 09:27	06/24/15 00:49	1
2,4,6-Trichlorophenol	<0.34		0.34	0.12	mg/Kg	☼	06/22/15 09:27	06/24/15 00:49	1
2,4,5-Trichlorophenol	<0.34		0.34	0.079	mg/Kg	☼	06/22/15 09:27	06/24/15 00:49	1
Hexachlorocyclopentadiene	<0.70		0.70	0.20	mg/Kg	☼	06/22/15 09:27	06/24/15 00:49	1
2-Methylnaphthalene	<0.034		0.034	0.0063	mg/Kg	☼	06/22/15 09:27	06/24/15 00:49	1
2-Nitroaniline	<0.17		0.17	0.046	mg/Kg	☼	06/22/15 09:27	06/24/15 00:49	1
2-Chloronaphthalene	<0.17		0.17	0.038	mg/Kg	☼	06/22/15 09:27	06/24/15 00:49	1
4-Chloro-3-methylphenol	<0.34		0.34	0.12	mg/Kg	☼	06/22/15 09:27	06/24/15 00:49	1
2,6-Dinitrotoluene	<0.17		0.17	0.068	mg/Kg	☼	06/22/15 09:27	06/24/15 00:49	1
2-Nitrophenol	<0.34		0.34	0.082	mg/Kg	☼	06/22/15 09:27	06/24/15 00:49	1
3-Nitroaniline	<0.34		0.34	0.11	mg/Kg	☼	06/22/15 09:27	06/24/15 00:49	1
Dimethyl phthalate	<0.17		0.17	0.045	mg/Kg	☼	06/22/15 09:27	06/24/15 00:49	1
2,4-Dinitrophenol	<0.70		0.70	0.61	mg/Kg	☼	06/22/15 09:27	06/24/15 00:49	1
Acenaphthylene	<0.034		0.034	0.0045	mg/Kg	☼	06/22/15 09:27	06/24/15 00:49	1
2,4-Dinitrotoluene	<0.17		0.17	0.055	mg/Kg	☼	06/22/15 09:27	06/24/15 00:49	1
Acenaphthene	<0.034		0.034	0.0062	mg/Kg	☼	06/22/15 09:27	06/24/15 00:49	1
Dibenzofuran	<0.17		0.17	0.040	mg/Kg	☼	06/22/15 09:27	06/24/15 00:49	1
4-Nitrophenol	<0.70		0.70	0.33	mg/Kg	☼	06/22/15 09:27	06/24/15 00:49	1
Fluorene	<0.034		0.034	0.0049	mg/Kg	☼	06/22/15 09:27	06/24/15 00:49	1
4-Nitroaniline	<0.34		0.34	0.14	mg/Kg	☼	06/22/15 09:27	06/24/15 00:49	1
4-Bromophenyl phenyl ether	<0.17		0.17	0.045	mg/Kg	☼	06/22/15 09:27	06/24/15 00:49	1
Hexachlorobenzene	<0.070		0.070	0.0080	mg/Kg	☼	06/22/15 09:27	06/24/15 00:49	1
Diethyl phthalate	<0.17		0.17	0.058	mg/Kg	☼	06/22/15 09:27	06/24/15 00:49	1
4-Chlorophenyl phenyl ether	<0.17		0.17	0.040	mg/Kg	☼	06/22/15 09:27	06/24/15 00:49	1
Pentachlorophenol	<0.70		0.70	0.55	mg/Kg	☼	06/22/15 09:27	06/24/15 00:49	1
N-Nitrosodiphenylamine	<0.17		0.17	0.041	mg/Kg	☼	06/22/15 09:27	06/24/15 00:49	1
4,6-Dinitro-2-methylphenol	<0.34	*	0.34	0.28	mg/Kg	☼	06/22/15 09:27	06/24/15 00:49	1
Phenanthrene	0.010	J	0.034	0.0048	mg/Kg	☼	06/22/15 09:27	06/24/15 00:49	1
Anthracene	<0.034		0.034	0.0058	mg/Kg	☼	06/22/15 09:27	06/24/15 00:49	1
Carbazole	<0.17		0.17	0.089	mg/Kg	☼	06/22/15 09:27	06/24/15 00:49	1
Di-n-butyl phthalate	<0.17		0.17	0.053	mg/Kg	☼	06/22/15 09:27	06/24/15 00:49	1
Fluoranthene	0.014	J	0.034	0.0064	mg/Kg	☼	06/22/15 09:27	06/24/15 00:49	1
Pyrene	0.013	J	0.034	0.0069	mg/Kg	☼	06/22/15 09:27	06/24/15 00:49	1
Butyl benzyl phthalate	<0.17		0.17	0.066	mg/Kg	☼	06/22/15 09:27	06/24/15 00:49	1
Benzo[a]anthracene	0.0087	J	0.034	0.0046	mg/Kg	☼	06/22/15 09:27	06/24/15 00:49	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97262-2

Client Sample ID: 1860-17-B01 (8-10)

Lab Sample ID: 500-97262-7

Date Collected: 06/11/15 13:20

Matrix: Solid

Date Received: 06/11/15 16:10

Percent Solids: 90.5

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	☼	06/22/15 09:27	06/24/15 00:49	1
3,3'-Dichlorobenzidine	<0.17		0.17	0.048	mg/Kg	☼	06/22/15 09:27	06/24/15 00:49	1
Bis(2-ethylhexyl) phthalate	<0.17		0.17	0.063	mg/Kg	☼	06/22/15 09:27	06/24/15 00:49	1
Di-n-octyl phthalate	<0.17		0.17	0.056	mg/Kg	☼	06/22/15 09:27	06/24/15 00:49	1
Benzo[b]fluoranthene	0.0076	J	0.034	0.0074	mg/Kg	☼	06/22/15 09:27	06/24/15 00:49	1
Benzo[k]fluoranthene	<0.034		0.034	0.010	mg/Kg	☼	06/22/15 09:27	06/24/15 00:49	1
Benzo[a]pyrene	<0.034		0.034	0.0067	mg/Kg	☼	06/22/15 09:27	06/24/15 00:49	1
Indeno[1,2,3-cd]pyrene	<0.034	*	0.034	0.0089	mg/Kg	☼	06/22/15 09:27	06/24/15 00:49	1
Dibenz(a,h)anthracene	<0.034	*	0.034	0.0067	mg/Kg	☼	06/22/15 09:27	06/24/15 00:49	1
Benzo[g,h,i]perylene	<0.034		0.034	0.011	mg/Kg	☼	06/22/15 09:27	06/24/15 00:49	1
3 & 4 Methylphenol	<0.17		0.17	0.058	mg/Kg	☼	06/22/15 09:27	06/24/15 00:49	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	53		25 - 110	06/22/15 09:27	06/24/15 00:49	1
Phenol-d5	55		31 - 110	06/22/15 09:27	06/24/15 00:49	1
Nitrobenzene-d5	50		25 - 115	06/22/15 09:27	06/24/15 00:49	1
2-Fluorobiphenyl	48		25 - 119	06/22/15 09:27	06/24/15 00:49	1
2,4,6-Tribromophenol	60		35 - 137	06/22/15 09:27	06/24/15 00:49	1
Terphenyl-d14	80		36 - 134	06/22/15 09:27	06/24/15 00:49	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	☼	06/16/15 17:41	06/17/15 20:12	1
Arsenic	8.0		0.54	0.25	mg/Kg	☼	06/16/15 17:41	06/17/15 20:12	1
Barium	43		0.54	0.098	mg/Kg	☼	06/16/15 17:41	06/17/15 20:12	1
Beryllium	0.58		0.22	0.047	mg/Kg	☼	06/16/15 17:41	06/17/15 20:12	1
Boron	7.4		2.7	0.38	mg/Kg	☼	06/16/15 17:41	06/17/15 20:12	1
Cadmium	0.083	J	0.11	0.031	mg/Kg	☼	06/16/15 17:41	06/17/15 20:12	1
Calcium	57000		54	17	mg/Kg	☼	06/16/15 17:41	06/18/15 21:59	5
Chromium	13		0.54	0.093	mg/Kg	☼	06/16/15 17:41	06/17/15 20:12	1
Cobalt	11		0.27	0.061	mg/Kg	☼	06/16/15 17:41	06/17/15 20:12	1
Copper	20		0.54	0.12	mg/Kg	☼	06/16/15 17:41	06/17/15 20:12	1
Iron	17000		11	4.1	mg/Kg	☼	06/16/15 17:41	06/17/15 20:12	1
Lead	15		0.27	0.13	mg/Kg	☼	06/16/15 17:41	06/17/15 20:12	1
Magnesium	29000	B	5.4	2.2	mg/Kg	☼	06/16/15 17:41	06/17/15 20:12	1
Manganese	240		0.54	0.11	mg/Kg	☼	06/16/15 17:41	06/17/15 20:12	1
Nickel	26		0.54	0.15	mg/Kg	☼	06/16/15 17:41	06/17/15 20:12	1
Potassium	1700		27	4.4	mg/Kg	☼	06/16/15 17:41	06/17/15 20:12	1
Selenium	0.38	J	0.54	0.27	mg/Kg	☼	06/16/15 17:41	06/17/15 20:12	1
Silver	<0.27		0.27	0.063	mg/Kg	☼	06/16/15 17:41	06/17/15 20:12	1
Sodium	610		54	7.1	mg/Kg	☼	06/16/15 17:41	06/17/15 20:12	1
Thallium	<0.54		0.54	0.26	mg/Kg	☼	06/16/15 17:41	06/17/15 20:12	1
Vanadium	17		0.27	0.079	mg/Kg	☼	06/16/15 17:41	06/17/15 20:12	1
Zinc	60	B	1.1	0.34	mg/Kg	☼	06/16/15 17:41	06/18/15 21:11	1

Method: 7471B - Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.018		0.017	0.0060	mg/Kg	☼	06/12/15 14:00	06/15/15 14:05	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97262-2

Client Sample ID: 1860-17-B01 (20-22)

Lab Sample ID: 500-97262-8

Date Collected: 06/11/15 13:45

Matrix: Solid

Date Received: 06/11/15 16:10

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		06/14/15 14:10	06/15/15 21:49	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		06/14/15 14:10	06/15/15 21:49	1
Boron	0.62		0.50	0.050	mg/L		06/14/15 14:10	06/15/15 21:49	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		06/14/15 14:10	06/15/15 21:49	1
Chromium	<0.025		0.025	0.010	mg/L		06/14/15 14:10	06/15/15 21:49	1
Cobalt	<0.025		0.025	0.010	mg/L		06/14/15 14:10	06/15/15 21:49	1
Iron	<0.20		0.20	0.20	mg/L		06/14/15 14:10	06/15/15 21:49	1
Lead	<0.0075		0.0075	0.0075	mg/L		06/14/15 14:10	06/16/15 17:28	1
Manganese	2.6		0.025	0.010	mg/L		06/14/15 14:10	06/15/15 21:49	1
Nickel	0.019	J	0.025	0.010	mg/L		06/14/15 14:10	06/15/15 21:49	1
Selenium	<0.050		0.050	0.020	mg/L		06/14/15 14:10	06/15/15 21:49	1
Silver	<0.025		0.025	0.010	mg/L		06/14/15 14:10	06/15/15 21:49	1
Zinc	0.048	J ^	0.10	0.020	mg/L		06/14/15 14:10	06/15/15 21:49	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.059		0.025	0.010	mg/L		06/21/15 14:00	06/22/15 13:32	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		06/14/15 14:10	06/17/15 13:48	1
Thallium	<0.0020		0.0020	0.0020	mg/L		06/14/15 14:10	06/16/15 21:12	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		06/15/15 11:30	06/16/15 10:51	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.11		0.200	0.200	SU			06/12/15 13:32	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97262-2

Client Sample ID: 1860-17-B01 (20-22)

Lab Sample ID: 500-97262-8

Date Collected: 06/11/15 13:45

Matrix: Solid

Date Received: 06/11/15 16:10

Percent Solids: 88.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.0041	*	0.0041	0.0032	mg/Kg	☼	06/11/15 17:25	06/16/15 19:23	1
Benzene	<0.0041		0.0041	0.00090	mg/Kg	☼	06/11/15 17:25	06/16/15 19:23	1
Bromodichloromethane	<0.0041		0.0041	0.00069	mg/Kg	☼	06/11/15 17:25	06/16/15 19:23	1
Bromoform	<0.0041		0.0041	0.00083	mg/Kg	☼	06/11/15 17:25	06/16/15 19:23	1
Bromomethane	<0.0041		0.0041	0.0015	mg/Kg	☼	06/11/15 17:25	06/16/15 19:23	1
2-Butanone (MEK)	<0.0041		0.0041	0.0014	mg/Kg	☼	06/11/15 17:25	06/16/15 19:23	1
Carbon disulfide	<0.0041		0.0041	0.0015	mg/Kg	☼	06/11/15 17:25	06/16/15 19:23	1
Carbon tetrachloride	<0.0041		0.0041	0.00087	mg/Kg	☼	06/11/15 17:25	06/16/15 19:23	1
Chlorobenzene	<0.0041		0.0041	0.00096	mg/Kg	☼	06/11/15 17:25	06/16/15 19:23	1
Chloroethane	<0.0041		0.0041	0.0017	mg/Kg	☼	06/11/15 17:25	06/16/15 19:23	1
Chloroform	<0.0041		0.0041	0.00079	mg/Kg	☼	06/11/15 17:25	06/16/15 19:23	1
Chloromethane	<0.0041		0.0041	0.00098	mg/Kg	☼	06/11/15 17:25	06/16/15 19:23	1
cis-1,2-Dichloroethene	<0.0041		0.0041	0.00083	mg/Kg	☼	06/11/15 17:25	06/16/15 19:23	1
cis-1,3-Dichloropropene	<0.0041		0.0041	0.00093	mg/Kg	☼	06/11/15 17:25	06/16/15 19:23	1
Dibromochloromethane	<0.0041		0.0041	0.00047	mg/Kg	☼	06/11/15 17:25	06/16/15 19:23	1
1,1-Dichloroethane	<0.0041		0.0041	0.00084	mg/Kg	☼	06/11/15 17:25	06/16/15 19:23	1
1,2-Dichloroethane	<0.0041		0.0041	0.00060	mg/Kg	☼	06/11/15 17:25	06/16/15 19:23	1
1,1-Dichloroethene	<0.0041		0.0041	0.0015	mg/Kg	☼	06/11/15 17:25	06/16/15 19:23	1
1,2-Dichloropropane	<0.0041		0.0041	0.0011	mg/Kg	☼	06/11/15 17:25	06/16/15 19:23	1
1,3-Dichloropropane, Total	<0.0041		0.0041	0.0011	mg/Kg	☼	06/11/15 17:25	06/16/15 19:23	1
Ethylbenzene	<0.0041		0.0041	0.0010	mg/Kg	☼	06/11/15 17:25	06/16/15 19:23	1
2-Hexanone	<0.0041		0.0041	0.0013	mg/Kg	☼	06/11/15 17:25	06/16/15 19:23	1
Methylene Chloride	<0.0041		0.0041	0.0031	mg/Kg	☼	06/11/15 17:25	06/16/15 19:23	1
4-Methyl-2-pentanone (MIBK)	<0.0041		0.0041	0.00084	mg/Kg	☼	06/11/15 17:25	06/16/15 19:23	1
Methyl tert-butyl ether	<0.0041		0.0041	0.00096	mg/Kg	☼	06/11/15 17:25	06/16/15 19:23	1
Styrene	<0.0041		0.0041	0.00095	mg/Kg	☼	06/11/15 17:25	06/16/15 19:23	1
1,1,2,2-Tetrachloroethane	<0.0041		0.0041	0.00065	mg/Kg	☼	06/11/15 17:25	06/16/15 19:23	1
Tetrachloroethene	<0.0041		0.0041	0.00085	mg/Kg	☼	06/11/15 17:25	06/16/15 19:23	1
Toluene	<0.0041		0.0041	0.0014	mg/Kg	☼	06/11/15 17:25	06/16/15 19:23	1
trans-1,2-Dichloroethene	<0.0041		0.0041	0.0010	mg/Kg	☼	06/11/15 17:25	06/16/15 19:23	1
trans-1,3-Dichloropropene	<0.0041		0.0041	0.0011	mg/Kg	☼	06/11/15 17:25	06/16/15 19:23	1
1,1,1-Trichloroethane	<0.0041		0.0041	0.00094	mg/Kg	☼	06/11/15 17:25	06/16/15 19:23	1
1,1,2-Trichloroethane	<0.0041		0.0041	0.00079	mg/Kg	☼	06/11/15 17:25	06/16/15 19:23	1
Trichloroethene	<0.0041		0.0041	0.0011	mg/Kg	☼	06/11/15 17:25	06/16/15 19:23	1
Vinyl acetate	<0.0041		0.0041	0.0011	mg/Kg	☼	06/11/15 17:25	06/16/15 19:23	1
Vinyl chloride	<0.0041		0.0041	0.00097	mg/Kg	☼	06/11/15 17:25	06/16/15 19:23	1
Xylenes, Total	<0.0081		0.0081	0.0015	mg/Kg	☼	06/11/15 17:25	06/16/15 19:23	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	91		70 - 122	06/11/15 17:25	06/16/15 19:23	1
Dibromofluoromethane	104		75 - 120	06/11/15 17:25	06/16/15 19:23	1
1,2-Dichloroethane-d4 (Surr)	104		70 - 134	06/11/15 17:25	06/16/15 19:23	1
Toluene-d8 (Surr)	97		75 - 122	06/11/15 17:25	06/16/15 19:23	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	☼	06/22/15 09:27	06/24/15 01:10	1
Bis(2-chloroethyl)ether	<0.18		0.18	0.053	mg/Kg	☼	06/22/15 09:27	06/24/15 01:10	1
1,3-Dichlorobenzene	<0.18		0.18	0.040	mg/Kg	☼	06/22/15 09:27	06/24/15 01:10	1
1,4-Dichlorobenzene	<0.18		0.18	0.045	mg/Kg	☼	06/22/15 09:27	06/24/15 01:10	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97262-2

Client Sample ID: 1860-17-B01 (20-22)

Lab Sample ID: 500-97262-8

Date Collected: 06/11/15 13:45

Matrix: Solid

Date Received: 06/11/15 16:10

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	0.042	mg/Kg	☼	06/22/15 09:27	06/24/15 01:10	1
2-Methylphenol	<0.18		0.18	0.057	mg/Kg	☼	06/22/15 09:27	06/24/15 01:10	1
2,2'-oxybis[1-chloropropane]	<0.18		0.18	0.041	mg/Kg	☼	06/22/15 09:27	06/24/15 01:10	1
N-Nitrosodi-n-propylamine	<0.18		0.18	0.043	mg/Kg	☼	06/22/15 09:27	06/24/15 01:10	1
Hexachloroethane	<0.18		0.18	0.054	mg/Kg	☼	06/22/15 09:27	06/24/15 01:10	1
2-Chlorophenol	<0.18		0.18	0.060	mg/Kg	☼	06/22/15 09:27	06/24/15 01:10	1
Nitrobenzene	<0.035		0.035	0.0088	mg/Kg	☼	06/22/15 09:27	06/24/15 01:10	1
Bis(2-chloroethoxy)methane	<0.18		0.18	0.036	mg/Kg	☼	06/22/15 09:27	06/24/15 01:10	1
1,2,4-Trichlorobenzene	<0.18		0.18	0.038	mg/Kg	☼	06/22/15 09:27	06/24/15 01:10	1
Isophorone	<0.18		0.18	0.040	mg/Kg	☼	06/22/15 09:27	06/24/15 01:10	1
2,4-Dimethylphenol	<0.35		0.35	0.13	mg/Kg	☼	06/22/15 09:27	06/24/15 01:10	1
Hexachlorobutadiene	<0.18		0.18	0.056	mg/Kg	☼	06/22/15 09:27	06/24/15 01:10	1
Naphthalene	<0.035		0.035	0.0054	mg/Kg	☼	06/22/15 09:27	06/24/15 01:10	1
2,4-Dichlorophenol	<0.35		0.35	0.084	mg/Kg	☼	06/22/15 09:27	06/24/15 01:10	1
4-Chloroaniline	<0.71		0.71	0.17	mg/Kg	☼	06/22/15 09:27	06/24/15 01:10	1
2,4,6-Trichlorophenol	<0.35		0.35	0.12	mg/Kg	☼	06/22/15 09:27	06/24/15 01:10	1
2,4,5-Trichlorophenol	<0.35		0.35	0.081	mg/Kg	☼	06/22/15 09:27	06/24/15 01:10	1
Hexachlorocyclopentadiene	<0.71		0.71	0.20	mg/Kg	☼	06/22/15 09:27	06/24/15 01:10	1
2-Methylnaphthalene	<0.035		0.035	0.0065	mg/Kg	☼	06/22/15 09:27	06/24/15 01:10	1
2-Nitroaniline	<0.18		0.18	0.048	mg/Kg	☼	06/22/15 09:27	06/24/15 01:10	1
2-Chloronaphthalene	<0.18		0.18	0.039	mg/Kg	☼	06/22/15 09:27	06/24/15 01:10	1
4-Chloro-3-methylphenol	<0.35		0.35	0.12	mg/Kg	☼	06/22/15 09:27	06/24/15 01:10	1
2,6-Dinitrotoluene	<0.18		0.18	0.070	mg/Kg	☼	06/22/15 09:27	06/24/15 01:10	1
2-Nitrophenol	<0.35		0.35	0.084	mg/Kg	☼	06/22/15 09:27	06/24/15 01:10	1
3-Nitroaniline	<0.35		0.35	0.11	mg/Kg	☼	06/22/15 09:27	06/24/15 01:10	1
Dimethyl phthalate	<0.18		0.18	0.046	mg/Kg	☼	06/22/15 09:27	06/24/15 01:10	1
2,4-Dinitrophenol	<0.71		0.71	0.62	mg/Kg	☼	06/22/15 09:27	06/24/15 01:10	1
Acenaphthylene	<0.035		0.035	0.0047	mg/Kg	☼	06/22/15 09:27	06/24/15 01:10	1
2,4-Dinitrotoluene	<0.18		0.18	0.056	mg/Kg	☼	06/22/15 09:27	06/24/15 01:10	1
Acenaphthene	<0.035		0.035	0.0064	mg/Kg	☼	06/22/15 09:27	06/24/15 01:10	1
Dibenzofuran	<0.18		0.18	0.041	mg/Kg	☼	06/22/15 09:27	06/24/15 01:10	1
4-Nitrophenol	<0.71		0.71	0.34	mg/Kg	☼	06/22/15 09:27	06/24/15 01:10	1
Fluorene	<0.035		0.035	0.0050	mg/Kg	☼	06/22/15 09:27	06/24/15 01:10	1
4-Nitroaniline	<0.35		0.35	0.15	mg/Kg	☼	06/22/15 09:27	06/24/15 01:10	1
4-Bromophenyl phenyl ether	<0.18		0.18	0.047	mg/Kg	☼	06/22/15 09:27	06/24/15 01:10	1
Hexachlorobenzene	<0.071		0.071	0.0082	mg/Kg	☼	06/22/15 09:27	06/24/15 01:10	1
Diethyl phthalate	<0.18		0.18	0.060	mg/Kg	☼	06/22/15 09:27	06/24/15 01:10	1
4-Chlorophenyl phenyl ether	<0.18		0.18	0.041	mg/Kg	☼	06/22/15 09:27	06/24/15 01:10	1
Pentachlorophenol	<0.71		0.71	0.57	mg/Kg	☼	06/22/15 09:27	06/24/15 01:10	1
N-Nitrosodiphenylamine	<0.18		0.18	0.042	mg/Kg	☼	06/22/15 09:27	06/24/15 01:10	1
4,6-Dinitro-2-methylphenol	<0.35	*	0.35	0.28	mg/Kg	☼	06/22/15 09:27	06/24/15 01:10	1
Phenanthrene	0.015	J	0.035	0.0049	mg/Kg	☼	06/22/15 09:27	06/24/15 01:10	1
Anthracene	<0.035		0.035	0.0059	mg/Kg	☼	06/22/15 09:27	06/24/15 01:10	1
Carbazole	<0.18		0.18	0.091	mg/Kg	☼	06/22/15 09:27	06/24/15 01:10	1
Di-n-butyl phthalate	<0.18		0.18	0.054	mg/Kg	☼	06/22/15 09:27	06/24/15 01:10	1
Fluoranthene	0.0094	J	0.035	0.0066	mg/Kg	☼	06/22/15 09:27	06/24/15 01:10	1
Pyrene	0.012	J	0.035	0.0070	mg/Kg	☼	06/22/15 09:27	06/24/15 01:10	1
Butyl benzyl phthalate	<0.18		0.18	0.067	mg/Kg	☼	06/22/15 09:27	06/24/15 01:10	1
Benzo[a]anthracene	<0.035		0.035	0.0048	mg/Kg	☼	06/22/15 09:27	06/24/15 01:10	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97262-2

Client Sample ID: 1860-17-B01 (20-22)

Lab Sample ID: 500-97262-8

Date Collected: 06/11/15 13:45

Matrix: Solid

Date Received: 06/11/15 16:10

Percent Solids: 88.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.011	J	0.035	0.0096	mg/Kg	☼	06/22/15 09:27	06/24/15 01:10	1
3,3'-Dichlorobenzidine	<0.18		0.18	0.050	mg/Kg	☼	06/22/15 09:27	06/24/15 01:10	1
Bis(2-ethylhexyl) phthalate	<0.18		0.18	0.065	mg/Kg	☼	06/22/15 09:27	06/24/15 01:10	1
Di-n-octyl phthalate	<0.18		0.18	0.058	mg/Kg	☼	06/22/15 09:27	06/24/15 01:10	1
Benzo[b]fluoranthene	<0.035		0.035	0.0076	mg/Kg	☼	06/22/15 09:27	06/24/15 01:10	1
Benzo[k]fluoranthene	<0.035		0.035	0.010	mg/Kg	☼	06/22/15 09:27	06/24/15 01:10	1
Benzo[a]pyrene	0.0079	J	0.035	0.0068	mg/Kg	☼	06/22/15 09:27	06/24/15 01:10	1
Indeno[1,2,3-cd]pyrene	<0.035	*	0.035	0.0092	mg/Kg	☼	06/22/15 09:27	06/24/15 01:10	1
Dibenz(a,h)anthracene	<0.035	*	0.035	0.0068	mg/Kg	☼	06/22/15 09:27	06/24/15 01:10	1
Benzo[g,h,i]perylene	<0.035		0.035	0.011	mg/Kg	☼	06/22/15 09:27	06/24/15 01:10	1
3 & 4 Methylphenol	<0.18		0.18	0.059	mg/Kg	☼	06/22/15 09:27	06/24/15 01:10	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	72		25 - 110	06/22/15 09:27	06/24/15 01:10	1
Phenol-d5	66		31 - 110	06/22/15 09:27	06/24/15 01:10	1
Nitrobenzene-d5	60		25 - 115	06/22/15 09:27	06/24/15 01:10	1
2-Fluorobiphenyl	62		25 - 119	06/22/15 09:27	06/24/15 01:10	1
2,4,6-Tribromophenol	66		35 - 137	06/22/15 09:27	06/24/15 01:10	1
Terphenyl-d14	87		36 - 134	06/22/15 09:27	06/24/15 01:10	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.0		1.0	0.22	mg/Kg	☼	06/16/15 17:41	06/17/15 20:25	1
Arsenic	6.4		0.52	0.24	mg/Kg	☼	06/16/15 17:41	06/17/15 20:25	1
Barium	38		0.52	0.095	mg/Kg	☼	06/16/15 17:41	06/17/15 20:25	1
Beryllium	0.56		0.21	0.045	mg/Kg	☼	06/16/15 17:41	06/17/15 20:25	1
Boron	9.5		2.6	0.36	mg/Kg	☼	06/16/15 17:41	06/17/15 20:25	1
Cadmium	0.042	J	0.10	0.030	mg/Kg	☼	06/16/15 17:41	06/17/15 20:25	1
Calcium	72000		52	17	mg/Kg	☼	06/16/15 17:41	06/18/15 22:03	5
Chromium	16		0.52	0.089	mg/Kg	☼	06/16/15 17:41	06/17/15 20:25	1
Cobalt	11		0.26	0.059	mg/Kg	☼	06/16/15 17:41	06/17/15 20:25	1
Copper	19		0.52	0.11	mg/Kg	☼	06/16/15 17:41	06/17/15 20:25	1
Iron	15000		10	4.0	mg/Kg	☼	06/16/15 17:41	06/17/15 20:25	1
Lead	13		0.26	0.13	mg/Kg	☼	06/16/15 17:41	06/17/15 20:25	1
Magnesium	32000	B	5.2	2.1	mg/Kg	☼	06/16/15 17:41	06/17/15 20:25	1
Manganese	300		0.52	0.10	mg/Kg	☼	06/16/15 17:41	06/17/15 20:25	1
Nickel	27		0.52	0.14	mg/Kg	☼	06/16/15 17:41	06/17/15 20:25	1
Potassium	2100		26	4.2	mg/Kg	☼	06/16/15 17:41	06/17/15 20:25	1
Selenium	0.41	J	0.52	0.26	mg/Kg	☼	06/16/15 17:41	06/17/15 20:25	1
Silver	<0.26		0.26	0.061	mg/Kg	☼	06/16/15 17:41	06/17/15 20:25	1
Sodium	520		52	6.8	mg/Kg	☼	06/16/15 17:41	06/17/15 20:25	1
Thallium	<0.52		0.52	0.25	mg/Kg	☼	06/16/15 17:41	06/17/15 20:25	1
Vanadium	17		0.26	0.076	mg/Kg	☼	06/16/15 17:41	06/17/15 20:25	1
Zinc	50	B	1.0	0.33	mg/Kg	☼	06/16/15 17:41	06/18/15 21:16	1

Method: 7471B - Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.038		0.017	0.0059	mg/Kg	☼	06/12/15 14:00	06/15/15 14:07	1

TestAmerica Chicago

Definitions/Glossary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97262-2

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	RPD of the LCS and LCSD exceeds the 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
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.
B	Compound was found in the blank and sample.

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, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
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
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)

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 #: 500-97262
 Chain of Custody Number: _____
 Page _____ of _____
 Temperature °C of Cooler: _____

Client		Client Project #		Preservative		Parameter		Matrix		Comments			
EE		1009008-0031-01											
Project Name		Lab Project #		# of Containers		Matrix		Matrix		Comments			
FL171		50011058											
Project Location/State		Lab PM		Date		Time		Matrix		Comments			
Cook County, FL		D. Wright											
Sampler		Sample ID		Date		Time		Matrix		Comments			
S. Cooper													
Lab ID	MS/MSD	Sample ID	Date	Time	# of Containers	Matrix	VOC	SVOC	Total TAC	TCC/SPUP	TAC metals	PH/96 Solids	Comments
5		1860-17-1302 (0-2)	6/11/15	1225	2	S	X	X	X	X	X	X	
6		1860-17-1302 (4-6)	6/11/15	1230	2	S	X	X	X	X	X	X	
7		1860-17-1301 (8-10)	6/11/15	1320	2	S	X	X	X	X	X	X	
8		1860-17-1301 (20-22)	6/11/15	1345	2	S	X	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)

Relinquished By: <u>[Signature]</u>	Company: <u>EE</u>	Date: <u>6/11/15</u>	Time: <u>1512</u>	Received By: <u>[Signature]</u>	Company: <u>TA</u>	Date: <u>6/11/15</u>	Time: <u>1512</u>
Relinquished By: <u>[Signature]</u>	Company: <u>TA</u>	Date: <u>6/11/15</u>	Time: <u>1610</u>	Received By: <u>[Signature]</u>	Company: <u>TA-CPT</u>	Date: <u>6/11/15</u>	Time: <u>1610</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 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: 500-97262-2

Login Number: 97262

List Number: 1

Creator: Scott, Sherri L

List Source: TestAmerica Chicago

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	2.8
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.	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

Bureau of Land • 1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276

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 372/373 (Illinois Route 171) Office Phone Number, if available: _____

Physical Site Location (address, including number and street):
Between 1-55 and the Des Plaines River

City: Summit State: IL Zip Code: 60501

County: Cook Township: Lyons

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

Latitude: 41.790687 Longitude: -87.82497
(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: _____

II. Owner/Operator Information for Source Site

Site Owner

Site Operator

Name: Illinois Department of Transportation

Name: _____

Street Address: 201 West Center Court

Street Address: _____

PO Box: _____

PO Box: _____

City: Schaumburg State: IL

City: _____ State: _____

Zip Code: 60196-1096 Phone: 847-705-4159

Zip Code: _____ Phone: _____

Contact: Sam Mead

Contact: _____

Email, if available: Sam.Mead@illinois.gov

Email, if available: _____

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.

Project Name: FAP 372/373 (Illinois Route 171)

Latitude: 41.790687 Longitude: -87.82497

Uncontaminated Site 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 1860-21-B01 were sampled within the construction zone adjacent to ISGS #1860-21 (Metropolitan Water Reclamation District of Greater Chicago). Refer to PSI Report for ISGS #1860-21 (Metropolitan Water Reclamation District of Greater Chicago) including Table 4-3, and Figures 4-3A & B.

- 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 500-97546-1.

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

I, Neil J. 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 Street

City: Chicago State: IL Zip Code: 60603

Phone: 312-578-9243

Neil J. Brown

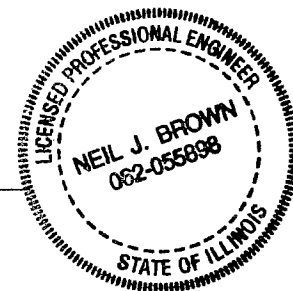
Printed Name:

Neil J. Brown

Licensed Professional Engineer or
Licensed Professional Geologist Signature:

7/22/15

Date:






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

Analytical Data Summary
PTB #172-27; Work Order 31 - IDOT Job # D-91-191-10

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.
- SCGIER = Soil Component of the Groundwater Ingestion Exposure Route
- SPLP = Synthetic Precipitation Leaching Procedure.
- ND = Not detected.
- NA = Not analyzed.
- J = Estimated value.
- U = Analyte was analyzed for but not detected.

Criteria Qualifiers and Shading

- † = Concentration exceeds the most stringent MAC.
- m = Concentration exceeds the MAC for an MSA.
- * = Concentration exceeds the MAC for Chicago corporate limits.
- L = The detected TCLP/SPLP concentration exceeds the TACO Tier 1 RO for the SCGIER.
-  = Concentration exceeds the most stringent MAC, but is below the MAC for an MSA.
-  = Concentration exceeds the most stringent MAC and the MAC for Chicago corporate limits.
-  = Concentration exceeds applicable comparison criteria.

**PTB #172-27; Work Order 31 - IDOT Job # D-91-191-10
DETECTED ANALYTES**

SITE	ISGS #1860-21 (Metropolitan Water Reclamation District of Greater Chicago)	Comparison Criteria			
		MACs			TACO
BORING	1860-21-B01	Most Stringent	Within an MSA	Within Chicago	SCGIER
SAMPLE	1860-21-B01 (2-3)				
MATRIX	Soil				
DEPTH (feet)	2-3				
pH	7.35				
VOCs (None Detected)					
SVOCs (mg/kg)					
Benzo[g,h,i]perylene	0.016 J	--	--	--	--
Bis(2-ethylhexyl) phthalate	0.093 J	46	--	--	--
Chrysene	0.019 J	88	--	--	--
Fluoranthene	0.0085 J	3,100	--	--	--
Phenanthrene	0.02 J	--	--	--	--
Pyrene	0.015 J	2,300	--	--	--
Inorganics (mg/kg)					
Arsenic	8.4	11.3	13	--	--
Barium	27	1,500	--	--	--
Beryllium	0.38	22	--	--	--
Boron	8.3 J	40	--	--	--
Cadmium	0.13	5.2	--	--	--
Calcium	91,000	--	--	--	--
Chromium	9.6	21	--	--	--
Cobalt	10	20	--	--	--
Copper	22	2,900	--	--	--
Iron	16,000 †m	15,000	15,900	--	--
Lead	13	107	--	--	--
Magnesium	42,000	325,000	--	--	--
Manganese	400	630	636	--	--
Mercury	0.031	0.89	--	--	--
Nickel	23	100	--	--	--
Potassium	1,500 J	--	--	--	--
Sodium	590	--	--	--	--
Thallium	0.44 J	2.6	--	--	--
Vanadium	12	550	--	--	--
Zinc	53	5,100	--	--	--
TCLP Metals (mg/L)					
Barium	0.056 J	--	--	--	2
Boron	0.082 J	--	--	--	2
Cadmium	0.0053 L	--	--	--	0.005
Cobalt	0.12	--	--	--	1
Iron	ND U	--	--	--	5
Manganese	5.4 L	--	--	--	0.15
Nickel	0.1	--	--	--	0.1
Zinc	0.11	--	--	--	5
SPLP Metals (mg/L)					
Cadmium	ND U	--	--	--	0.005
Manganese	0.013 J	--	--	--	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: 500-97546-1
Client Project/Site: IDOT - IL 171 - WO 031

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

Attn: Mr. Dean Tiebout



Authorized for release by:
7/1/2015 4:48:39 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

8

9



Table of Contents

Cover Page	1
Table of Contents	2
Case Narrative	3
Detection Summary	4
Sample Summary	5
Client Sample Results	6
Definitions	10
Chain of Custody	11
Receipt Checklists	12

Case Narrative

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97546-1

Job ID: 500-97546-1

Laboratory: TestAmerica Chicago

Narrative

Job Narrative 500-97546-1

Comments

No additional comments.

Receipt

The samples were received on 6/19/2015 8:00 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.4° C.

GC/MS VOA

Method(s) 8260B: The continuing calibration verification (CCV) associated with batch 500-293461 recovered above the upper control limit for Vinyl Acetate. The samples associated with this CCV were non-detects for the affected analyte; therefore, the data has been reported.

Method(s) 8260B: The laboratory control sample (LCS) for batch 500-293461 recovered outside control limits for the following analytes: Chloromethane and Vinyl Acetate. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data has 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 had one surrogate outside of limits: 1860-24-B01 (2-3) (500-97546-2), 1860-50-B05 (4-6) (500-97546-6), 1860-51-B02 (6-7.5) (500-97546-8), (500-97546-E-1-J MS) and (500-97546-E-1-K MSD). All other surrogate recoveries were within limits for these samples. No further action was required.

Method(s) 8270D: A full list spike was utilized for this method. Due to the large number of spiked analytes, there is a high probability that one or more analytes will recover outside acceptance limits. The laboratory's SOP allows for 3 analytes to recover outside criteria for this method when a full list spike is utilized. The LCS associated with batch 500-293416 had 2 known poor performing analytes outside control limits: 2,4-Dinitrophenol at 6% (10-110%) and Pentachlorophenol at 8% (20-124%); therefore, corrective action was not performed. These results have been reported and qualified. LCS 500-293416/2-A

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

Metals

Method(s) 6020A: The internal standard (In) was used to report the element Sb for batch 500-293352.

1860-21-B01 (2-3) (500-97546-1)

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 - IL 171 - WO 031

TestAmerica Job ID: 500-97546-1

Client Sample ID: 1860-21-B01 (2-3)

Lab Sample ID: 500-97546-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Phenanthrene	0.020	J	0.036	0.0051	mg/Kg	1	☼	8270D	Total/NA	
Fluoranthene	0.0085	J F1	0.036	0.0067	mg/Kg	1	☼	8270D	Total/NA	
Pyrene	0.015	J F1	0.036	0.0072	mg/Kg	1	☼	8270D	Total/NA	
Chrysene	0.019	J	0.036	0.0099	mg/Kg	1	☼	8270D	Total/NA	
Bis(2-ethylhexyl) phthalate	0.093	J F1	0.18	0.066	mg/Kg	1	☼	8270D	Total/NA	
Benzo[g,h,i]perylene	0.016	J	0.036	0.012	mg/Kg	1	☼	8270D	Total/NA	
Arsenic	8.4		0.52	0.24	mg/Kg	1	☼	6010B	Total/NA	
Barium	27		0.52	0.096	mg/Kg	1	☼	6010B	Total/NA	
Beryllium	0.38		0.21	0.045	mg/Kg	1	☼	6010B	Total/NA	
Boron	8.3	F1	2.6	0.37	mg/Kg	1	☼	6010B	Total/NA	
Cadmium	0.13		0.10	0.030	mg/Kg	1	☼	6010B	Total/NA	
Calcium	91000		52	17	mg/Kg	5	☼	6010B	Total/NA	
Chromium	9.6		0.52	0.090	mg/Kg	1	☼	6010B	Total/NA	
Cobalt	10		0.26	0.059	mg/Kg	1	☼	6010B	Total/NA	
Copper	22		0.52	0.11	mg/Kg	1	☼	6010B	Total/NA	
Iron	16000		10	4.0	mg/Kg	1	☼	6010B	Total/NA	
Lead	13		0.26	0.13	mg/Kg	1	☼	6010B	Total/NA	
Magnesium	42000		5.2	2.1	mg/Kg	1	☼	6010B	Total/NA	
Manganese	400		0.52	0.10	mg/Kg	1	☼	6010B	Total/NA	
Nickel	23		0.52	0.14	mg/Kg	1	☼	6010B	Total/NA	
Potassium	1500	F1	26	4.3	mg/Kg	1	☼	6010B	Total/NA	
Selenium	0.62	B F1	0.52	0.26	mg/Kg	1	☼	6010B	Total/NA	
Sodium	590		52	6.9	mg/Kg	1	☼	6010B	Total/NA	
Thallium	0.44	J	0.52	0.26	mg/Kg	1	☼	6010B	Total/NA	
Vanadium	12		0.26	0.076	mg/Kg	1	☼	6010B	Total/NA	
Zinc	53	B	1.0	0.33	mg/Kg	1	☼	6010B	Total/NA	
Barium	0.056	J	0.50	0.050	mg/L	1		6010B	TCLP	
Boron	0.082	J	0.50	0.050	mg/L	1		6010B	TCLP	
Cadmium	0.0053		0.0050	0.0020	mg/L	1		6010B	TCLP	
Cobalt	0.12		0.025	0.010	mg/L	1		6010B	TCLP	
Manganese	5.4		0.025	0.010	mg/L	1		6010B	TCLP	
Nickel	0.10		0.025	0.010	mg/L	1		6010B	TCLP	
Zinc	0.11		0.10	0.020	mg/L	1		6010B	TCLP	
Manganese	0.013	J	0.025	0.010	mg/L	1		6010B	SPLP East	
Mercury	0.031		0.018	0.0062	mg/Kg	1	☼	7471B	Total/NA	
pH	7.35		0.200	0.200	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 - IL 171 - WO 031

TestAmerica Job ID: 500-97546-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-97546-1	1860-21-B01 (2-3)	Solid	06/18/15 15:05	06/19/15 08:00

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97546-1

Client Sample ID: 1860-21-B01 (2-3)

Lab Sample ID: 500-97546-1

Date Collected: 06/18/15 15:05

Matrix: Solid

Date Received: 06/19/15 08:00

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.056	J	0.50	0.050	mg/L	-	06/23/15 09:04	06/23/15 18:04	1
Beryllium	<0.0040		0.0040	0.0040	mg/L	-	06/23/15 09:04	06/23/15 18:04	1
Boron	0.082	J	0.50	0.050	mg/L	-	06/23/15 09:04	06/23/15 18:04	1
Cadmium	0.0053		0.0050	0.0020	mg/L	-	06/23/15 09:04	06/23/15 18:04	1
Chromium	<0.025		0.025	0.010	mg/L	-	06/23/15 09:04	06/23/15 18:04	1
Cobalt	0.12		0.025	0.010	mg/L	-	06/23/15 09:04	06/23/15 18:04	1
Iron	<0.20		0.20	0.20	mg/L	-	06/23/15 09:04	06/23/15 18:04	1
Lead	<0.0075		0.0075	0.0075	mg/L	-	06/23/15 09:04	06/23/15 18:04	1
Manganese	5.4		0.025	0.010	mg/L	-	06/23/15 09:04	06/23/15 18:04	1
Nickel	0.10		0.025	0.010	mg/L	-	06/23/15 09:04	06/23/15 18:04	1
Selenium	<0.050		0.050	0.020	mg/L	-	06/23/15 09:04	06/23/15 18:04	1
Silver	<0.025		0.025	0.010	mg/L	-	06/23/15 09:04	06/23/15 18:04	1
Zinc	0.11		0.10	0.020	mg/L	-	06/23/15 09:04	06/23/15 18:04	1

Method: 6010B - SPLP Metals - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L	-	06/26/15 10:50	06/27/15 14:20	1
Manganese	0.013	J	0.025	0.010	mg/L	-	06/26/15 10:50	06/27/15 14:20	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	-	06/23/15 09:04	06/24/15 17:23	1
Thallium	<0.0020		0.0020	0.0020	mg/L	-	06/23/15 09:04	06/24/15 17:23	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	-	06/23/15 11:00	06/24/15 09:30	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.35		0.200	0.200	SU	-		06/19/15 14:37	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97546-1

Client Sample ID: 1860-21-B01 (2-3)

Lab Sample ID: 500-97546-1

Date Collected: 06/18/15 15:05

Matrix: Solid

Date Received: 06/19/15 08:00

Percent Solids: 87.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.0042		0.0042	0.0032	mg/Kg	☼	06/19/15 08:35	06/26/15 16:40	1
Benzene	<0.0042		0.0042	0.00093	mg/Kg	☼	06/19/15 08:35	06/26/15 16:40	1
Bromodichloromethane	<0.0042		0.0042	0.00071	mg/Kg	☼	06/19/15 08:35	06/26/15 16:40	1
Bromoform	<0.0042		0.0042	0.00086	mg/Kg	☼	06/19/15 08:35	06/26/15 16:40	1
Bromomethane	<0.0042		0.0042	0.0015	mg/Kg	☼	06/19/15 08:35	06/26/15 16:40	1
2-Butanone (MEK)	<0.0042		0.0042	0.0015	mg/Kg	☼	06/19/15 08:35	06/26/15 16:40	1
Carbon disulfide	<0.0042		0.0042	0.0015	mg/Kg	☼	06/19/15 08:35	06/26/15 16:40	1
Carbon tetrachloride	<0.0042		0.0042	0.00090	mg/Kg	☼	06/19/15 08:35	06/26/15 16:40	1
Chlorobenzene	<0.0042		0.0042	0.00099	mg/Kg	☼	06/19/15 08:35	06/26/15 16:40	1
Chloroethane	<0.0042		0.0042	0.0018	mg/Kg	☼	06/19/15 08:35	06/26/15 16:40	1
Chloroform	<0.0042		0.0042	0.00082	mg/Kg	☼	06/19/15 08:35	06/26/15 16:40	1
Chloromethane	<0.0042	*	0.0042	0.0010	mg/Kg	☼	06/19/15 08:35	06/26/15 16:40	1
cis-1,2-Dichloroethene	<0.0042		0.0042	0.00086	mg/Kg	☼	06/19/15 08:35	06/26/15 16:40	1
cis-1,3-Dichloropropene	<0.0042		0.0042	0.00096	mg/Kg	☼	06/19/15 08:35	06/26/15 16:40	1
Dibromochloromethane	<0.0042		0.0042	0.00048	mg/Kg	☼	06/19/15 08:35	06/26/15 16:40	1
1,1-Dichloroethane	<0.0042		0.0042	0.00086	mg/Kg	☼	06/19/15 08:35	06/26/15 16:40	1
1,2-Dichloroethane	<0.0042		0.0042	0.00062	mg/Kg	☼	06/19/15 08:35	06/26/15 16:40	1
1,1-Dichloroethene	<0.0042		0.0042	0.0015	mg/Kg	☼	06/19/15 08:35	06/26/15 16:40	1
1,2-Dichloropropane	<0.0042		0.0042	0.0011	mg/Kg	☼	06/19/15 08:35	06/26/15 16:40	1
1,3-Dichloropropane, Total	<0.0042		0.0042	0.0012	mg/Kg	☼	06/19/15 08:35	06/26/15 16:40	1
Ethylbenzene	<0.0042		0.0042	0.0010	mg/Kg	☼	06/19/15 08:35	06/26/15 16:40	1
2-Hexanone	<0.0042		0.0042	0.0013	mg/Kg	☼	06/19/15 08:35	06/26/15 16:40	1
Methylene Chloride	<0.0042		0.0042	0.0032	mg/Kg	☼	06/19/15 08:35	06/26/15 16:40	1
4-Methyl-2-pentanone (MIBK)	<0.0042		0.0042	0.00086	mg/Kg	☼	06/19/15 08:35	06/26/15 16:40	1
Methyl tert-butyl ether	<0.0042		0.0042	0.00099	mg/Kg	☼	06/19/15 08:35	06/26/15 16:40	1
Styrene	<0.0042		0.0042	0.00098	mg/Kg	☼	06/19/15 08:35	06/26/15 16:40	1
1,1,2,2-Tetrachloroethane	<0.0042		0.0042	0.00067	mg/Kg	☼	06/19/15 08:35	06/26/15 16:40	1
Tetrachloroethene	<0.0042		0.0042	0.00087	mg/Kg	☼	06/19/15 08:35	06/26/15 16:40	1
Toluene	<0.0042		0.0042	0.0015	mg/Kg	☼	06/19/15 08:35	06/26/15 16:40	1
trans-1,2-Dichloroethene	<0.0042		0.0042	0.0010	mg/Kg	☼	06/19/15 08:35	06/26/15 16:40	1
trans-1,3-Dichloropropene	<0.0042		0.0042	0.0012	mg/Kg	☼	06/19/15 08:35	06/26/15 16:40	1
1,1,1-Trichloroethane	<0.0042		0.0042	0.00097	mg/Kg	☼	06/19/15 08:35	06/26/15 16:40	1
1,1,2-Trichloroethane	<0.0042		0.0042	0.00081	mg/Kg	☼	06/19/15 08:35	06/26/15 16:40	1
Trichloroethene	<0.0042		0.0042	0.0011	mg/Kg	☼	06/19/15 08:35	06/26/15 16:40	1
Vinyl acetate	<0.0042	*	0.0042	0.0011	mg/Kg	☼	06/19/15 08:35	06/26/15 16:40	1
Vinyl chloride	<0.0042		0.0042	0.0010	mg/Kg	☼	06/19/15 08:35	06/26/15 16:40	1
Xylenes, Total	<0.0084		0.0084	0.0016	mg/Kg	☼	06/19/15 08:35	06/26/15 16:40	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	103		70 - 122	06/19/15 08:35	06/26/15 16:40	1
Dibromofluoromethane	113		75 - 120	06/19/15 08:35	06/26/15 16:40	1
1,2-Dichloroethane-d4 (Surr)	119		70 - 134	06/19/15 08:35	06/26/15 16:40	1
Toluene-d8 (Surr)	115		75 - 122	06/19/15 08:35	06/26/15 16:40	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	☼	06/25/15 17:24	06/30/15 16:21	1
Bis(2-chloroethyl)ether	<0.18		0.18	0.055	mg/Kg	☼	06/25/15 17:24	06/30/15 16:21	1
1,3-Dichlorobenzene	<0.18	F1	0.18	0.041	mg/Kg	☼	06/25/15 17:24	06/30/15 16:21	1
1,4-Dichlorobenzene	<0.18	F1	0.18	0.047	mg/Kg	☼	06/25/15 17:24	06/30/15 16:21	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97546-1

Client Sample ID: 1860-21-B01 (2-3)

Lab Sample ID: 500-97546-1

Date Collected: 06/18/15 15:05

Matrix: Solid

Date Received: 06/19/15 08:00

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	F1	0.18	0.043	mg/Kg	☼	06/25/15 17:24	06/30/15 16:21	1
2-Methylphenol	<0.18		0.18	0.058	mg/Kg	☼	06/25/15 17:24	06/30/15 16:21	1
2,2'-oxybis[1-chloropropane]	<0.18		0.18	0.042	mg/Kg	☼	06/25/15 17:24	06/30/15 16:21	1
N-Nitrosodi-n-propylamine	<0.18		0.18	0.044	mg/Kg	☼	06/25/15 17:24	06/30/15 16:21	1
Hexachloroethane	<0.18	F1	0.18	0.055	mg/Kg	☼	06/25/15 17:24	06/30/15 16:21	1
2-Chlorophenol	<0.18		0.18	0.062	mg/Kg	☼	06/25/15 17:24	06/30/15 16:21	1
Nitrobenzene	<0.036		0.036	0.0091	mg/Kg	☼	06/25/15 17:24	06/30/15 16:21	1
Bis(2-chloroethoxy)methane	<0.18		0.18	0.037	mg/Kg	☼	06/25/15 17:24	06/30/15 16:21	1
1,2,4-Trichlorobenzene	<0.18	F1	0.18	0.039	mg/Kg	☼	06/25/15 17:24	06/30/15 16:21	1
Isophorone	<0.18		0.18	0.041	mg/Kg	☼	06/25/15 17:24	06/30/15 16:21	1
2,4-Dimethylphenol	<0.36		0.36	0.14	mg/Kg	☼	06/25/15 17:24	06/30/15 16:21	1
Hexachlorobutadiene	<0.18	F1	0.18	0.057	mg/Kg	☼	06/25/15 17:24	06/30/15 16:21	1
Naphthalene	<0.036		0.036	0.0056	mg/Kg	☼	06/25/15 17:24	06/30/15 16:21	1
2,4-Dichlorophenol	<0.36		0.36	0.086	mg/Kg	☼	06/25/15 17:24	06/30/15 16:21	1
4-Chloroaniline	<0.73		0.73	0.17	mg/Kg	☼	06/25/15 17:24	06/30/15 16:21	1
2,4,6-Trichlorophenol	<0.36		0.36	0.12	mg/Kg	☼	06/25/15 17:24	06/30/15 16:21	1
2,4,5-Trichlorophenol	<0.36		0.36	0.083	mg/Kg	☼	06/25/15 17:24	06/30/15 16:21	1
Hexachlorocyclopentadiene	<0.73	F1	0.73	0.21	mg/Kg	☼	06/25/15 17:24	06/30/15 16:21	1
2-Methylnaphthalene	<0.036		0.036	0.0067	mg/Kg	☼	06/25/15 17:24	06/30/15 16:21	1
2-Nitroaniline	<0.18		0.18	0.049	mg/Kg	☼	06/25/15 17:24	06/30/15 16:21	1
2-Chloronaphthalene	<0.18		0.18	0.040	mg/Kg	☼	06/25/15 17:24	06/30/15 16:21	1
4-Chloro-3-methylphenol	<0.36		0.36	0.12	mg/Kg	☼	06/25/15 17:24	06/30/15 16:21	1
2,6-Dinitrotoluene	<0.18		0.18	0.071	mg/Kg	☼	06/25/15 17:24	06/30/15 16:21	1
2-Nitrophenol	<0.36		0.36	0.086	mg/Kg	☼	06/25/15 17:24	06/30/15 16:21	1
3-Nitroaniline	<0.36		0.36	0.11	mg/Kg	☼	06/25/15 17:24	06/30/15 16:21	1
Dimethyl phthalate	<0.18		0.18	0.048	mg/Kg	☼	06/25/15 17:24	06/30/15 16:21	1
2,4-Dinitrophenol	<0.73	F1 *	0.73	0.64	mg/Kg	☼	06/25/15 17:24	06/30/15 16:21	1
Acenaphthylene	<0.036		0.036	0.0048	mg/Kg	☼	06/25/15 17:24	06/30/15 16:21	1
2,4-Dinitrotoluene	<0.18		0.18	0.058	mg/Kg	☼	06/25/15 17:24	06/30/15 16:21	1
Acenaphthene	<0.036		0.036	0.0065	mg/Kg	☼	06/25/15 17:24	06/30/15 16:21	1
Dibenzofuran	<0.18		0.18	0.043	mg/Kg	☼	06/25/15 17:24	06/30/15 16:21	1
4-Nitrophenol	<0.73		0.73	0.35	mg/Kg	☼	06/25/15 17:24	06/30/15 16:21	1
Fluorene	<0.036		0.036	0.0051	mg/Kg	☼	06/25/15 17:24	06/30/15 16:21	1
4-Nitroaniline	<0.36		0.36	0.15	mg/Kg	☼	06/25/15 17:24	06/30/15 16:21	1
4-Bromophenyl phenyl ether	<0.18		0.18	0.048	mg/Kg	☼	06/25/15 17:24	06/30/15 16:21	1
Hexachlorobenzene	<0.073		0.073	0.0084	mg/Kg	☼	06/25/15 17:24	06/30/15 16:21	1
Diethyl phthalate	<0.18		0.18	0.062	mg/Kg	☼	06/25/15 17:24	06/30/15 16:21	1
4-Chlorophenyl phenyl ether	<0.18		0.18	0.042	mg/Kg	☼	06/25/15 17:24	06/30/15 16:21	1
Pentachlorophenol	<0.73	F1 *	0.73	0.58	mg/Kg	☼	06/25/15 17:24	06/30/15 16:21	1
N-Nitrosodiphenylamine	<0.18		0.18	0.043	mg/Kg	☼	06/25/15 17:24	06/30/15 16:21	1
4,6-Dinitro-2-methylphenol	<0.36	F1	0.36	0.29	mg/Kg	☼	06/25/15 17:24	06/30/15 16:21	1
Phenanthrene	0.020	J	0.036	0.0051	mg/Kg	☼	06/25/15 17:24	06/30/15 16:21	1
Anthracene	<0.036		0.036	0.0061	mg/Kg	☼	06/25/15 17:24	06/30/15 16:21	1
Carbazole	<0.18		0.18	0.094	mg/Kg	☼	06/25/15 17:24	06/30/15 16:21	1
Di-n-butyl phthalate	<0.18		0.18	0.055	mg/Kg	☼	06/25/15 17:24	06/30/15 16:21	1
Fluoranthene	0.0085	J F1	0.036	0.0067	mg/Kg	☼	06/25/15 17:24	06/30/15 16:21	1
Pyrene	0.015	J F1	0.036	0.0072	mg/Kg	☼	06/25/15 17:24	06/30/15 16:21	1
Butyl benzyl phthalate	<0.18	F1	0.18	0.069	mg/Kg	☼	06/25/15 17:24	06/30/15 16:21	1
Benzo[a]anthracene	<0.036		0.036	0.0049	mg/Kg	☼	06/25/15 17:24	06/30/15 16:21	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97546-1

Client Sample ID: 1860-21-B01 (2-3)

Lab Sample ID: 500-97546-1

Date Collected: 06/18/15 15:05

Matrix: Solid

Date Received: 06/19/15 08:00

Percent Solids: 87.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.019	J	0.036	0.0099	mg/Kg	☼	06/25/15 17:24	06/30/15 16:21	1
3,3'-Dichlorobenzidine	<0.18		0.18	0.051	mg/Kg	☼	06/25/15 17:24	06/30/15 16:21	1
Bis(2-ethylhexyl) phthalate	0.093	J F1	0.18	0.066	mg/Kg	☼	06/25/15 17:24	06/30/15 16:21	1
Di-n-octyl phthalate	<0.18	F1	0.18	0.059	mg/Kg	☼	06/25/15 17:24	06/30/15 16:21	1
Benzo[b]fluoranthene	<0.036		0.036	0.0078	mg/Kg	☼	06/25/15 17:24	06/30/15 16:21	1
Benzo[k]fluoranthene	<0.036		0.036	0.011	mg/Kg	☼	06/25/15 17:24	06/30/15 16:21	1
Benzo[a]pyrene	<0.036		0.036	0.0070	mg/Kg	☼	06/25/15 17:24	06/30/15 16:21	1
Indeno[1,2,3-cd]pyrene	<0.036		0.036	0.0094	mg/Kg	☼	06/25/15 17:24	06/30/15 16:21	1
Dibenz(a,h)anthracene	<0.036		0.036	0.0070	mg/Kg	☼	06/25/15 17:24	06/30/15 16:21	1
Benzo[g,h,i]perylene	0.016	J	0.036	0.012	mg/Kg	☼	06/25/15 17:24	06/30/15 16:21	1
3 & 4 Methylphenol	<0.18		0.18	0.061	mg/Kg	☼	06/25/15 17:24	06/30/15 16:21	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	61		25 - 110	06/25/15 17:24	06/30/15 16:21	1
Phenol-d5	64		31 - 110	06/25/15 17:24	06/30/15 16:21	1
Nitrobenzene-d5	51		25 - 115	06/25/15 17:24	06/30/15 16:21	1
2-Fluorobiphenyl	63		25 - 119	06/25/15 17:24	06/30/15 16:21	1
2,4,6-Tribromophenol	63		35 - 137	06/25/15 17:24	06/30/15 16:21	1
Terphenyl-d14	81		36 - 134	06/25/15 17:24	06/30/15 16:21	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.0	F2 F1	1.0	0.22	mg/Kg	☼	06/21/15 16:35	06/22/15 23:16	1
Arsenic	8.4		0.52	0.24	mg/Kg	☼	06/21/15 16:35	06/22/15 23:16	1
Barium	27		0.52	0.096	mg/Kg	☼	06/21/15 16:35	06/23/15 16:41	1
Beryllium	0.38		0.21	0.045	mg/Kg	☼	06/21/15 16:35	06/22/15 23:16	1
Boron	8.3	F1	2.6	0.37	mg/Kg	☼	06/21/15 16:35	06/22/15 23:16	1
Cadmium	0.13		0.10	0.030	mg/Kg	☼	06/21/15 16:35	06/22/15 23:16	1
Calcium	91000		52	17	mg/Kg	☼	06/21/15 16:35	06/23/15 17:17	5
Chromium	9.6		0.52	0.090	mg/Kg	☼	06/21/15 16:35	06/22/15 23:16	1
Cobalt	10		0.26	0.059	mg/Kg	☼	06/21/15 16:35	06/22/15 23:16	1
Copper	22		0.52	0.11	mg/Kg	☼	06/21/15 16:35	06/22/15 23:16	1
Iron	16000		10	4.0	mg/Kg	☼	06/21/15 16:35	06/22/15 23:16	1
Lead	13		0.26	0.13	mg/Kg	☼	06/21/15 16:35	06/22/15 23:16	1
Magnesium	42000		5.2	2.1	mg/Kg	☼	06/21/15 16:35	06/23/15 16:41	1
Manganese	400		0.52	0.10	mg/Kg	☼	06/21/15 16:35	06/22/15 23:16	1
Nickel	23		0.52	0.14	mg/Kg	☼	06/21/15 16:35	06/22/15 23:16	1
Potassium	1500	F1	26	4.3	mg/Kg	☼	06/21/15 16:35	06/22/15 23:16	1
Selenium	0.62	B F1	0.52	0.26	mg/Kg	☼	06/21/15 16:35	06/23/15 16:41	1
Silver	<0.26		0.26	0.061	mg/Kg	☼	06/21/15 16:35	06/22/15 23:16	1
Sodium	590		52	6.9	mg/Kg	☼	06/21/15 16:35	06/22/15 23:16	1
Thallium	0.44	J	0.52	0.26	mg/Kg	☼	06/21/15 16:35	06/22/15 23:16	1
Vanadium	12		0.26	0.076	mg/Kg	☼	06/21/15 16:35	06/22/15 23:16	1
Zinc	53	B	1.0	0.33	mg/Kg	☼	06/21/15 16:35	06/23/15 16:41	1

Method: 7471B - Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.031		0.018	0.0062	mg/Kg	☼	06/19/15 14:30	06/22/15 14:53	1

TestAmerica Chicago

Definitions/Glossary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97546-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.

GC/MS Semi VOA

Qualifier	Qualifier Description
F1	MS and/or MSD Recovery is outside acceptance limits.
*	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
E	Result exceeded calibration range.

Metals

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.
B	Compound was found in the blank and sample.
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, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
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
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)

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 #: 500-97546

Chain of Custody Number: _____

Page _____ of _____

Temperature °C of Cooler: 3.4

Lab ID	MS/MSD	Sample ID	Sampling		# of Containers	Matrix	Parameter					Preservative Key	Comments		
			Date	Time											
1		1860-21-B01(2-3)	6/18/15	1505	2 S		Voc	Svoc	Total TA's	Metals	Total Pb's	TA's metals	VH/0.5 Sal. P.		

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>EV</u> Date: <u>6-18-15</u> Time: <u>1500</u>	Received By: <u>[Signature]</u> Company: <u>TA</u> Date: <u>6/18/15</u> Time: <u>1500</u>	Lab Courier: <u>DE</u>
Relinquished By: <u>[Signature]</u> Company: <u>TA</u> Date: <u>6/18/15</u> Time: <u>1715</u>	Received By: <u>[Signature]</u> Company: <u>TAL</u> Date: <u>06/19/15</u> Time: <u>0300</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: 500-97546-1

Login Number: 97546

List Number: 1

Creator: Kelsey, Shawn M

List Source: TestAmerica Chicago

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	3.4c
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.	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.	True	



Bureau of Land • 1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276

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 372/373 (Illinois Route 171) Office Phone Number, if available: _____

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

IL 171 Interchange Between the Des Plaines River and the Chicago Sanitary and Ship Canal

City: Summit State: IL Zip Code: 60501

County: Cook Township: Lyons

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

Latitude: 41.793666 Longitude: -87.82139

(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: 0310063005 BOW: _____ BOA: _____

II. Owner/Operator Information for Source Site

Site Owner

Site Operator

Name: Illinois Department of Transportation

Name: Illinois Department of Transportation

Street Address: 201 West Center Court

Street Address: 201 West Center Court

PO Box: _____

PO Box: _____

City: Schaumburg State: IL

City: Schaumburg State: IL

Zip Code: 60196-1096 Phone: 847-705-4159

Zip Code: 60196-1096 Phone: 847-705-4159

Contact: Sam Mead

Contact: Sam Mead

Email, if available: Sam.Mead@illinois.gov

Email, if available: Sam.Mead@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.

Project Name: FAP 372/373 (Illinois Route 171)Latitude: 41.793666 Longitude: -87.82139Uncontaminated Site 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 1860-23-B02 through 1860-23-B11, 1860-23-B13 through 1860-23-B24, and 1860-23-B26. were sampled within the construction zone adjacent to ISGS #1860-23 (I-55/IL 171 interchange). Refer to PSI Report for ISGS #1860-23 (I-55/IL 171 interchange) including Table 4-3, and Figures 4-2A & B, 4-3A & B, 4-4A & B, and 4-7A & B.

- 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 500-97344-1, 500-97381-2, 500-97428-1, 500-97615-1 and 500-97658-1.

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

I, Neil J. 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.

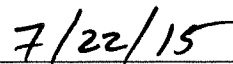
Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))

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

Printed Name:



Licensed Professional Engineer or
Licensed Professional Geologist Signature:



Date:



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

Analytical Data Summary
PTB #172-27; Work Order 31 - IDOT Job # D-91-191-10

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.

SCGIER = Soil Component of the Groundwater Ingestion Exposure Route

SPLP = Synthetic Precipitation Leaching Procedure.

ND = Not detected.

NA = Not analyzed.

J = Estimated value.

U = Analyte was analyzed for but not detected.


Criteria Qualifiers and Shading

† = Concentration exceeds the most stringent MAC.

m = Concentration exceeds the MAC for an MSA.

* = Concentration exceeds the MAC for Chicago corporate limits.

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

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

 = Concentration exceeds the most stringent MAC and the MAC for Chicago corporate limits.

 = Concentration exceeds applicable comparison criteria.

PTB #172-27; Work Order 31 - IDOT Job # D-91-191-10

DETECTED ANALYTES

SITE	ISGS #1860-23 (1-55/IL 171 interchange)					Comparison Criteria			
	1860-23-B02			1860-23-B03		MACs			TACO
BORING	1860-23-B02 (2-4)	1860-23-B02 (2-4)D	1860-23-B02 (10-12)	1860-23-B03 (2-4)	1860-23-B03 (8-10)	Most Stringent	Within an MSA	Within Chicago	SCGIER
SAMPLE	Soil	Soil	Soil	Soil	Soil				
MATRIX	Soil	Soil	Soil	Soil	Soil				
DEPTH (feet)	2-4	2-4	10-12	2-4	8-10				
pH	8.64	8.51	7.84	8.8	7.99				
VOCs (mg/kg)									
2-Butanone (MEK)	ND U	ND U	ND U	ND U	ND U	--	--	--	--
Acetone	0.014	0.0083	0.0097	0.0074	0.0091	25	--	--	--
Ethylbenzene	ND U	ND U	ND U	ND U	ND U	13	--	--	--
Methylene Chloride	ND U	ND U	ND U	ND U	ND U	0.02	--	--	--
Tetrachloroethene	ND U	ND U	ND U	ND U	ND U	0.06	--	--	--
Trichloroethene	ND U	ND U	ND U	ND U	ND U	0.06	--	--	--
Xylenes, Total	ND U	ND U	ND U	ND U	ND U	5.6	--	--	--
SVOCs (mg/kg)									
2-Methylnaphthalene	ND U	ND U	0.022 J	0.019 J	0.013 J	--	--	--	--
Acenaphthene	ND U	ND U	ND U	ND U	ND U	570	--	--	--
Acenaphthylene	ND U	ND U	ND U	ND U	ND U	--	--	--	--
Anthracene	ND U	ND U	ND U	ND U	ND U	12,000	--	--	--
Benzo[a]anthracene	ND U	ND U	ND U	ND U	ND U	0.9	1.8	1.1	--
Benzo[a]pyrene	ND U	ND U	ND U	ND U	ND U	0.09	2.1	1.3	--
Benzo[b]fluoranthene	ND UJ	ND UJ	ND UJ	ND UJ	ND UJ	0.9	2.1	1.5	--
Benzo[g,h,i]perylene	ND U	ND U	0.021 J	0.018 J	ND U	--	--	--	--
Benzo[k]fluoranthene	ND U	ND U	ND U	ND U	ND U	9	--	--	--
Bis(2-ethylhexyl) phthalate	ND U	ND U	ND U	ND U	ND U	46	--	--	--
Chrysene	ND U	ND U	ND U	ND U	ND U	88	--	--	--
Dibenzo[a,h]anthracene	ND U	ND U	ND U	ND U	ND U	0.09	0.42	0.2	--
Dibenzofuran	ND U	ND U	ND U	ND U	ND U	--	--	--	--
Fluoranthene	0.0078 J	ND U	0.017 J	0.0095 J	ND U	3,100	--	--	--
Fluorene	ND U	ND U	ND U	ND U	ND U	560	--	--	--
Indeno[1,2,3-cd]pyrene	ND U	ND U	ND U	ND U	ND U	0.9	1.6	0.9	--
Naphthalene	ND U	ND U	ND U	ND U	ND U	1.8	--	--	--
Phenanthrene	ND U	0.0081 J	0.034 J	0.03 J	0.02 J	--	--	--	--
Pyrene	0.0091 J	ND U	0.028 J	0.025 J	ND U	2,300	--	--	--
Inorganics (mg/kg)									
Antimony	ND U	ND U	ND U	ND U	ND U	5	--	--	--
Arsenic	6.5	7.3	12	6.1	9.6	11.3	13	--	--
Barium	91	62	36	66	41	1,500	--	--	--
Beryllium	0.72	0.71	0.54	0.64	0.7	22	--	--	--
Boron	4.3	8.8	11	10	12	40	--	--	--
Cadmium	0.14	0.12	0.11	0.25	0.14	5.2	--	--	--
Calcium	2,600 J	30,000 J	77,000	58,000	55,000	--	--	--	--
Chromium	19	19	14	16	17	21	--	--	--
Cobalt	12	12	13	11	15	20	--	--	--
Copper	20	22	31	23	34	2,900	--	--	--
Iron	18,000 †m	20,000 †m	27,000 †m	17,000 †m	21,000 †m	15,000	15,900	--	--
Lead	17	14	17	15	18	107	--	--	--
Magnesium	3,700 J	15,000 J	30,000	27,000	23,000	325,000	--	--	--
Manganese	130 J	340 J	390	320	370	630	636	--	--
Mercury	0.042	0.036	0.033	0.024	0.026	0.89	--	--	--
Nickel	31	33	33	29	39	100	--	--	--
Potassium	1,300	2,000	2,200	2,000	2,300	--	--	--	--
Selenium	ND U	ND U	0.41 J	ND U	0.29 J	1.3	--	--	--
Silver	ND U	ND U	ND U	ND U	ND U	4.4	--	--	--
Sodium	3,000	2,400	420	3,000	1,100	--	--	--	--
Thallium	ND U	ND U	0.41 J	ND U	ND U	2.6	--	--	--
Vanadium	28	27	17	22	21	550	--	--	--
Zinc	64 J	54 J	57 J	300 J	64 J	5,100	--	--	--
TCLP Metals (mg/L)									
Barium	0.55	0.65	0.23 J	0.44 J	0.53	--	--	--	2
Boron	0.52	0.63	0.65	0.69	0.73	--	--	--	2
Cadmium	0.002 J	ND U	0.0032 J	0.0087 L	ND U	--	--	--	0.005
Chromium	ND U	ND U	ND U	ND U	ND U	--	--	--	0.1
Cobalt	ND U	0.011 J	0.015 J	ND U	0.014 J	--	--	--	1
Iron	ND U	ND U	ND U	0.27	ND U	--	--	--	5
Lead	ND U	ND U	ND U	ND U	ND U	--	--	--	0.0075
Manganese	3.3 L	5.5 L	3.1 L	0.83 L	3 L	--	--	--	0.15
Mercury	ND U	ND U	ND U	ND U	ND U	--	--	--	0.002
Nickel	0.011 J	0.015 J	0.018 J	0.011 J	0.018 J	--	--	--	0.1
Selenium	ND U	ND U	0.02 J	0.02 J	0.02 J	--	--	--	0.05
Silver	ND U	ND U	ND U	ND U	ND U	--	--	--	0.05
Zinc	0.025 J	0.024 J	0.032 J	0.26	0.025 J	--	--	--	5
SPLP Metals (mg/L)									
Cadmium	NA	NA	NA	0.0028 J	NA	--	--	--	0.005
Lead	NA	NA	NA	NA	NA	--	--	--	0.0075
Manganese	1 L	0.85 L	0.1	0.94 L	0.6 L	--	--	--	0.15

DETECTED ANALYTES

SITE	ISGS #1860-23 (1-55/IL 171 interchange)					Comparison Criteria			
	1860-23-B04		1860-23-B05			MACs			TACO
BORING	1860-23-B04 (2-4)	1860-23-B04 (10-12)	1860-23-B05 (6-8)	1860-23-B05 (12-14)	1860-23-B05 (12-14)U	Most Stringent	Within an MSA	Within Chicago	SCGIER
SAMPLE									
MATRIX	Soil	Soil	Soil	Soil	Soil				
DEPTH (feet)	2-4	10-12	6-8	12-14	12-14				
pH	7.59	7.86	8.06	7.96	8.01				
VOCs (mg/kg)									
2-Butanone (MEK)	ND U	ND U	ND U	ND U	ND U	--	--	--	--
Acetone	0.03	ND U	0.017	ND U	ND U	25	--	--	--
Ethylbenzene	ND U	0.017	ND U	ND U	ND U	13	--	--	--
Methylene Chloride	ND U	ND U	ND U	ND U	ND U	0.02	--	--	--
Tetrachloroethene	ND U	ND U	ND U	ND U	ND U	0.06	--	--	--
Trichloroethene	ND U	0.016 J	ND U	ND U	ND U	0.06	--	--	--
Xylenes, Total	ND U	0.053	ND U	ND U	ND U	5.6	--	--	--
SVOCS (mg/kg)									
2-Methylnaphthalene	0.021 J	0.11	ND U	0.051	0.071	--	--	--	--
Acenaphthene	ND U	ND U	ND U	ND U	ND U	570	--	--	--
Acenaphthylene	ND U	ND U	ND U	ND U	ND U	--	--	--	--
Anthracene	ND U	ND U	ND U	ND U	ND U	12,000	--	--	--
Benzo[a]anthracene	0.016 J	ND U	0.026 J	ND U	ND U	0.9	1.8	1.1	--
Benzo[a]pyrene	ND U	ND U	0.028 J	ND U	ND U	0.09	2.1	1.3	--
Benzo[b]fluoranthene	0.021 J	ND U	0.032 J	ND U	ND U	0.9	2.1	1.5	--
Benzo[g,h,i]perylene	0.022 J	0.016 J	0.031 J	0.016 J	0.015 J	--	--	--	--
Benzo[k]fluoranthene	ND U	ND U	0.014 J	ND U	ND U	9	--	--	--
Bis(2-ethylhexyl) phthalate	ND U	ND U	ND U	ND U	ND U	46	--	--	--
Chrysene	0.033 J	ND U	0.033 J	0.016 J	0.029 J	88	--	--	--
Dibenzo[a,h]anthracene	ND U	ND U	ND U	ND U	ND U	0.09	0.42	0.2	--
Dibenzofuran	ND U	ND U	ND U	ND U	ND U	--	--	--	--
Fluoranthene	0.024 J	ND U	0.05	ND U	ND U	3,100	--	--	--
Fluorene	ND U	ND U	ND U	ND U	ND U	560	--	--	--
Indeno[1,2,3-cd]pyrene	0.012 J	ND U	0.017 J	ND U	ND U	0.9	1.6	0.9	--
Naphthalene	ND U	0.027 J	ND U	ND U	ND U	1.8	--	--	--
Phenanthrene	0.058	0.089	0.03 J	0.072	0.082	--	--	--	--
Pyrene	0.03 J	ND U	0.05	ND U	0.015 J	2,300	--	--	--
Inorganics (mg/kg)									
Antimony	ND U	ND U	ND U	ND U	ND U	5	--	--	--
Arsenic	8.7	10	6.8	10	11	11.3	13	--	--
Barium	27	19	54	15	16	1,500	--	--	--
Beryllium	0.47	0.43	0.67	0.41	0.45	22	--	--	--
Boron	8.8	8.6	10	7.7	8.1	40	--	--	--
Cadmium	0.27	0.24	0.19	0.28	0.26	5.2	--	--	--
Calcium	68,000	86,000	47,000	71,000	88,000	--	--	--	--
Chromium	11	9.5	17	9.5	13	21	--	--	--
Cobalt	12	11	12	11	12	20	--	--	--
Copper	27	25	25	26	29	2,900	--	--	--
Iron	19,000 †m	17,000 †m	18,000 †m	18,000 †m	18,000 †m	15,000	15,900	--	--
Lead	19	14	20	14	16	107	--	--	--
Magnesium	32,000	40,000	19,000	33,000	40,000	325,000	--	--	--
Manganese	380	410	330	390	470	630	636	--	--
Mercury	0.032	0.028	0.039	0.024	0.024	0.89	--	--	--
Nickel	28	25	32	25	30	100	--	--	--
Potassium	1,500	1,800	2,000	1,400	1,500	--	--	--	--
Selenium	0.82	0.3 J	0.45 J	0.38 J	0.67	1.3	--	--	--
Silver	ND U	ND U	ND U	ND U	ND U	4.4	--	--	--
Sodium	1,400	420	940	290	330	--	--	--	--
Thallium	ND U	0.45 J	ND U	1.4	0.75	2.6	--	--	--
Vanadium	14	12	21	12	12	550	--	--	--
Zinc	71	69	67	110	81	5,100	--	--	--
TCLP Metals (mg/L)									
Barium	0.13 J	0.31 J	0.55	0.25 J	0.21 J	--	--	--	2
Boron	0.81	0.76	0.96	0.65	0.73	--	--	--	2
Cadmium	0.0029 J	ND U	0.0026 J	ND U	ND U	--	--	--	0.005
Chromium	ND U	ND U	ND U	ND U	ND U	--	--	--	0.1
Cobalt	0.019 J	0.036	0.016 J	0.034	0.034	--	--	--	1
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	4.4 L	2.1 L	5.1 L	1.7 L	1.8 L	--	--	--	0.15
Mercury	ND U	ND U	ND U	ND U	ND U	--	--	--	0.002
Nickel	0.016 J	0.08	0.018 J	0.071	0.074	--	--	--	0.1
Selenium	ND U	0.021 J	ND U	0.02 J	ND U	--	--	--	0.05
Silver	ND U	ND U	ND U	ND U	ND U	--	--	--	0.05
Zinc	ND U	ND U	ND U	0.33	ND U	--	--	--	5
SPLP Metals (mg/L)									
Cadmium	NA	NA	NA	NA	NA	--	--	--	0.005
Lead	NA	NA	NA	NA	NA	--	--	--	0.0075
Manganese	0.16 L	0.027	0.19 L	0.022 J	0.013 J	--	--	--	0.15

PTB #172-27; Work Order 31 - IDOT Job # D-91-191-10

DETECTED ANALYTES

SITE	ISGS #1860-23 (I-55/IL 171 interchange)					Comparison Criteria			
	1860-23-B06	1860-23-B07		1860-23-B08		MACs			TACO
SAMPLE	1860-23-B06 (4-6)	1860-23-B07 (2-4)	1860-23-B07 (8-10)	1860-23-B08 (0-2)	1860-23-B08 (8-10)	Most Stringent	Within an MSA	Within Chicago	SCGIER
MATRIX	Soil	Soil	Soil	Soil	Soil				
DEPTH (feet)	4-6	2-4	8-10	0-2	8-10				
pH	8.22	9	8.05	8.02	8.22				
VOCs (mg/kg)									
2-Butanone (MEK)	ND U	ND U	ND U	ND U	ND U	--	--	--	--
Acetone	ND U	0.013	0.011	ND U	0.01	25	--	--	--
Ethylbenzene	ND U	ND U	ND U	ND U	ND U	13	--	--	--
Methylene Chloride	ND U	ND U	ND U	ND U	ND U	0.02	--	--	--
Tetrachloroethene	ND U	ND U	ND U	ND U	ND U	0.06	--	--	--
Trichloroethene	ND U	ND U	ND U	ND U	ND U	0.06	--	--	--
Xylenes, Total	ND U	ND U	ND U	ND U	ND U	5.6	--	--	--
SVOCs (mg/kg)									
2-Methylnaphthalene	0.0097 J	0.029 J	0.027 J	ND U	ND U	--	--	--	--
Acenaphthene	ND U	ND U	ND U	ND U	ND U	570	--	--	--
Acenaphthylene	ND U	ND U	ND U	ND U	ND U	--	--	--	--
Anthracene	ND U	ND U	ND U	ND U	ND U	12,000	--	--	--
Benzo[a]anthracene	ND U	0.018 J	ND U	0.011 J	ND U	0.9	1.8	1.1	--
Benzo[a]pyrene	ND U	ND U	ND U	0.0099 J	ND U	0.09	2.1	1.3	--
Benzo[b]fluoranthene	ND U	0.024 J	0.011 J	0.015 J	ND U	0.9	2.1	1.5	--
Benzo[g,h,i]perylene	ND U	0.02 J	ND U	0.018 J	ND U	--	--	--	--
Benzo[k]fluoranthene	ND U	0.014 J	ND U	ND U	ND U	9	--	--	--
Bis(2-ethylhexyl) phthalate	ND U	ND U	ND U	ND U	ND U	46	--	--	--
Chrysene	ND U	0.028 J	0.012 J	0.016 J	ND U	88	--	--	--
Dibenzo[a,h]anthracene	ND U	ND U	ND U	ND U	ND U	0.09	0.42	0.2	--
Dibenzofuran	ND U	ND U	ND U	ND U	ND U	--	--	--	--
Fluoranthene	ND U	0.04	ND U	0.014 J	ND U	3,100	--	--	--
Fluorene	ND U	ND U	ND U	ND U	ND U	560	--	--	--
Indeno[1,2,3-cd]pyrene	ND U	0.011 J	ND U	ND U	ND U	0.9	1.6	0.9	--
Naphthalene	ND U	ND U	0.01 J	ND U	ND U	1.8	--	--	--
Phenanthrene	0.011 J	0.05	0.022 J	0.018 J	0.015 J	--	--	--	--
Pyrene	ND U	0.04	0.013 J	0.02 J	ND U	2,300	--	--	--
Inorganics (mg/kg)									
Antimony	ND U	ND U	ND U	ND U	ND U	5	--	--	--
Arsenic	7.3	7.6	8.7	7.6	8.5	11.3	13	--	--
Barium	50	80	55	49	54	1,500	--	--	--
Beryllium	0.7	0.56	0.73	0.68	0.72	22	--	--	--
Boron	12	9.4	12	12	11	40	--	--	--
Cadmium	0.049 J	1.2	ND U	0.12	0.067 J	5.2	--	--	--
Calcium	56,000	64,000	55,000	62,000	53,000	--	--	--	--
Chromium	19	23 †	19	17	19	21	--	--	--
Cobalt	12	12	14	14	18	20	--	--	--
Copper	25	43	25	25	26	2,900	--	--	--
Iron	20,000 †m	19,000 †m	23,000 †m	20,000 †m	20,000 †m	15,000	15,900	--	--
Lead	14	76	14	18	14	107	--	--	--
Magnesium	20,000	31,000	23,000	25,000	21,000	325,000	--	--	--
Manganese	310	360	320	410	360	630	636	--	--
Mercury	0.022	0.028	0.02	0.034	0.031	0.89	--	--	--
Nickel	36	31	37	36	37	100	--	--	--
Potassium	2,500	1,700	2,700	2,400	2,500	--	--	--	--
Selenium	0.4 J	ND U	ND U	0.3 J	0.41 J	1.3	--	--	--
Silver	ND U	0.37	ND U	ND U	ND U	4.4	--	--	--
Sodium	710	1,400	270	760	140	--	--	--	--
Thallium	ND U	ND U	ND U	ND U	ND U	2.6	--	--	--
Vanadium	22	17	24	20	20	550	--	--	--
Zinc	61	140	62	68	63	5,100	--	--	--
TCLP Metals (mg/L)									
Barium	0.5	0.43 J	0.64	0.17 J	0.4 J	--	--	--	2
Boron	1.2	0.64	0.81	0.64	0.83	--	--	--	2
Cadmium	ND U	ND U	0.0029 J	ND U	ND U	--	--	--	0.005
Chromium	ND U	ND U	ND U	ND U	ND U	--	--	--	0.1
Cobalt	ND U	ND U	ND U	ND U	0.013 J	--	--	--	1
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	1.8 L	1.9 L	3.1 L	1.3 L	2 L	--	--	--	0.15
Mercury	ND U	ND U	ND U	ND U	ND U	--	--	--	0.002
Nickel	0.018 J	0.013 J	ND U	0.013 J	0.025	--	--	--	0.1
Selenium	ND U	ND U	ND U	0.022 J	ND U	--	--	--	0.05
Silver	ND U	ND U	ND U	ND U	ND U	--	--	--	0.05
Zinc	0.19	0.025 J	0.049 J	0.31	ND U	--	--	--	5
SPLP Metals (mg/L)									
Cadmium	NA	NA	NA	NA	NA	--	--	--	0.005
Lead	NA	NA	NA	NA	NA	--	--	--	0.0075
Manganese	0.083	1.3 L	0.16 L	ND U	0.043	--	--	--	0.15

DETECTED ANALYTES

SITE	ISGS #1860-23 (I-55/IL 171 interchange)					Comparison Criteria			
	1860-23-B09	1860-23-B10		1860-23-B11		MACs			TACO
SAMPLE	1860-23-B09 (2-4)	1860-23-B10 (6-8)	1860-23-B10 (14-16)	1860-23-B11 (0-2)	1860-23-B11 (6-8)	Most Stringent	Within an MSA	Within Chicago	SCGIER
MATRIX	Soil	Soil	Soil	Soil	Soil				
DEPTH (feet)	2-4	6-8	14-16	0-2	6-8				
pH	7.73	7.76	7.94	7.35	8.42				
VOCs (mg/kg)									
2-Butanone (MEK)	ND U	ND U	0.0071	ND U	ND U	--	--	--	--
Acetone	0.006	0.037	0.048	ND U	0.02	25	--	--	--
Ethylbenzene	ND U	ND U	ND U	ND U	ND U	13	--	--	--
Methylene Chloride	ND U	ND U	ND U	ND U	ND U	0.02	--	--	--
Tetrachloroethene	ND U	ND U	ND U	ND U	ND U	0.06	--	--	--
Trichloroethene	ND U	ND U	ND U	ND U	ND U	0.06	--	--	--
Xylenes, Total	ND U	ND U	ND U	ND U	ND U	5.6	--	--	--
SVOCS (mg/kg)									
2-Methylnaphthalene	ND U	ND U	ND U	0.35 J	0.028 J	--	--	--	--
Acenaphthene	ND U	ND U	ND U	0.097 J	0.13	570	--	--	--
Acenaphthylene	ND U	ND U	ND U	0.18 J	ND U	--	--	--	--
Anthracene	ND U	ND U	ND U	0.35 J	0.33	12,000	--	--	--
Benzo[a]anthracene	0.02 J	ND U	ND U	1 †	0.24	0.9	1.8	1.1	--
Benzo[a]pyrene	ND U	ND U	ND U	1.2 †	0.18 †	0.09	2.1	1.3	--
Benzo[b]fluoranthene	ND U	ND U	ND U	1.6 J †	0.23 J	0.9	2.1	1.5	--
Benzo[g,h,i]perylene	0.026 J	ND U	ND U	1.2	0.1	--	--	--	--
Benzo[k]fluoranthene	ND U	ND U	ND U	0.77	0.11	9	--	--	--
Bis(2-ethylhexyl) phthalate	ND U	ND U	ND U	ND U	ND U	46	--	--	--
Chrysene	0.033 J	ND U	ND U	1.2	0.25	88	--	--	--
Dibenzo[a,h]anthracene	ND U	ND U	ND U	ND U	ND U	0.09	0.42	0.2	--
Dibenzofuran	ND U	ND U	ND U	ND U	0.16 J	--	--	--	--
Fluoranthene	0.037 J	0.01 J	ND U	2.1	0.65	3,100	--	--	--
Fluorene	ND U	ND U	ND U	0.12 J	0.17	560	--	--	--
Indeno[1,2,3-cd]pyrene	0.011 J	ND U	ND U	0.95 †	0.086	0.9	1.6	0.9	--
Naphthalene	ND U	ND U	ND U	0.25 J	0.019 J	1.8	--	--	--
Phenanthrene	0.058	0.0087 J	ND U	1.2	0.56	--	--	--	--
Pyrene	0.042	0.011 J	ND U	1.4	0.4	2,300	--	--	--
Inorganics (mg/kg)									
Antimony	ND U	0.26 J	0.37 J	ND U	0.32 J	5	--	--	--
Arsenic	12 †	2.8	4.2	13 J †	11	11.3	13	--	--
Barium	52	26	29	150 J	60	1,500	--	--	--
Beryllium	0.47	0.29	0.33	0.7	0.5	22	--	--	--
Boron	9.1	5.6	6.6	14	9.2	40	--	--	--
Cadmium	0.3	0.13	0.19	49 J †	0.64	5.2	--	--	--
Calcium	63,000	29,000	66,000	81,000	57,000	--	--	--	--
Chromium	12	8.2	8.5	290 J †	16	21	--	--	--
Cobalt	14	9.5	9.5	15 J	12	20	--	--	--
Copper	31	10	14	260 J	37	2,900	--	--	--
Iron	20,000 †m	9,600	13,000	23,000 †m	19,000 †m	15,000	15,900	--	--
Lead	25	11	18	220 J †	53	107	--	--	--
Magnesium	29,000	14,000	25,000	38,000	26,000	325,000	--	--	--
Manganese	430	240	500	350	390	630	636	--	--
Mercury	0.04	0.024	0.029	5.2 †	0.039	0.89	--	--	--
Nickel	30	16	16	110 J †	30	100	--	--	--
Potassium	1,500	920	990	1,900 J	1,600	--	--	--	--
Selenium	ND U	0.41 J	0.37 J	1.5 J †	0.48 J	1.3	--	--	--
Silver	ND U	ND U	ND U	9.4 J †	ND U	4.4	--	--	--
Sodium	840	170	210	870 J	390	--	--	--	--
Thallium	0.66	ND U	ND U	ND U	ND U	2.6	--	--	--
Vanadium	14	9.9	11	21 J	15	550	--	--	--
Zinc	81 J	63	49	1,200 J	110 J	5,100	--	--	--
TCLP Metals (mg/L)									
Barium	0.089 J	0.42 J	0.31 J	0.097 J	0.48 J	--	--	--	2
Boron	0.85	0.55	0.51	0.44 J	0.69	--	--	--	2
Cadmium	0.0065 L	ND U	0.0031 J	0.049 L	0.0034 J	--	--	--	0.005
Chromium	ND U	ND U	ND U	ND U	ND U	--	--	--	0.1
Cobalt	0.037	0.034	0.037	0.019 J	0.026	--	--	--	1
Iron	ND U	ND U	ND U	ND U	0.22	--	--	--	5
Lead	ND U	ND U	ND U	ND U	0.022 L	--	--	--	0.0075
Manganese	3.1 L	4.4 L	5 L	1.8 L	3.4 L	--	--	--	0.15
Mercury	ND U	ND U	ND U	ND U	ND U	--	--	--	0.002
Nickel	0.057	0.022 J	0.028	0.079	0.039	--	--	--	0.1
Selenium	ND U	ND U	0.021 J	ND U	ND U	--	--	--	0.05
Silver	ND U	ND U	ND U	ND U	ND U	--	--	--	0.05
Zinc	0.14	ND U	ND U	0.97	0.21	--	--	--	5
SPLP Metals (mg/L)									
Cadmium	ND U	NA	NA	0.0039 J	NA	--	--	--	0.005
Lead	NA	NA	NA	NA	ND U	--	--	--	0.0075
Manganese	ND U	0.021 J	0.014 J	ND U	0.23 L	--	--	--	0.15

PTB #172-27; Work Order 31 - IDOT Job # D-91-191-10

DETECTED ANALYTES

SITE	ISGS #1860-23 (I-55/IL 171 interchange)					Comparison Criteria			
	1860-23-B13	1860-23-B14	1860-23-B15		1860-23-B16	MACs			TACO
BORING	1860-23-B13 (2-4)	1860-23-B14 (0-2)	1860-23-B15 (0-2)	1860-23-B15 (4-6)	1860-23-B16 (0-2)	Most Stringent	Within an MSA	Within Chicago	SCGIER
SAMPLE									
MATRIX	Soil	Soil	Soil	Soil	Soil				
DEPTH (feet)	2-4	0-2	0-2	4-6	0-2				
pH	8.13	8.25	8.39	7.8	7.7				
VOCs (mg/kg)									
2-Butanone (MEK)	ND U	ND U	ND U	ND U	ND U	--	--	--	--
Acetone	0.011	ND U	0.018	0.029	ND U	25	--	--	--
Ethylbenzene	ND U	ND U	ND U	ND U	ND U	13	--	--	--
Methylene Chloride	ND U	ND U	ND U	0.0045	ND U	0.02	--	--	--
Tetrachloroethene	ND U	ND U	ND U	ND U	ND U	0.06	--	--	--
Trichloroethene	ND U	ND U	ND U	ND U	ND U	0.06	--	--	--
Xylenes, Total	ND U	ND U	ND U	ND U	ND U	5.6	--	--	--
SVOCs (mg/kg)									
2-Methylnaphthalene	0.033 J	ND U	ND U	0.021 J	ND U	--	--	--	--
Acenaphthene	ND U	ND U	ND U	ND U	ND U	570	--	--	--
Acenaphthylene	ND U	ND U	ND U	ND U	ND U	--	--	--	--
Anthracene	0.012 J	0.019 J	ND U	ND U	ND U	12,000	--	--	--
Benzo[a]anthracene	0.027 J	0.085	ND U	0.0096 J	0.02 J	0.9	1.8	1.1	--
Benzo[a]pyrene	0.02 J	0.057	ND U	ND U	0.027 J	0.09	2.1	1.3	--
Benzo[b]fluoranthene	0.024 J	0.084	ND UJ	ND UJ	0.033 J	0.9	2.1	1.5	--
Benzo[g,h,i]perylene	0.019 J	0.041	ND U	0.021 J	0.026 J	--	--	--	--
Benzo[k]fluoranthene	0.014 J	0.027 J	ND U	ND U	0.018 J	9	--	--	--
Bis(2-ethylhexyl) phthalate	ND U	ND U	ND U	ND U	ND U	46	--	--	--
Chrysene	0.043	0.1	ND U	0.024 J	0.049	88	--	--	--
Dibenzo[a,h]anthracene	ND U	0.015 J	ND U	ND U	ND U	0.09	0.42	0.2	--
Dibenzofuran	ND U	ND U	ND U	ND U	ND U	--	--	--	--
Fluoranthene	0.04	0.11	ND U	0.017 J	0.03 J	3,100	--	--	--
Fluorene	ND U	ND U	ND U	ND U	ND U	560	--	--	--
Indeno[1,2,3-cd]pyrene	0.014 J	0.036 J	ND U	ND U	0.024 J	0.9	1.6	0.9	--
Naphthalene	0.0088 J	ND U	ND U	0.0084 J	ND U	1.8	--	--	--
Phenanthrene	0.058	0.071	ND U	0.052	0.031 J	--	--	--	--
Pyrene	0.044	0.13	ND U	0.025 J	0.044	2,300	--	--	--
Inorganics (mg/kg)									
Antimony	ND UJ	0.29 J	ND U	0.28 J	ND U	5	--	--	--
Arsenic	7.1	9.3	7.6	10	11	11.3	13	--	--
Barium	49	50	53	21	36	1,500	--	--	--
Beryllium	0.44	0.49	0.73	0.35	0.39	22	--	--	--
Boron	9.4	9.8	14	8.3	7.9	40	--	--	--
Cadmium	0.63 J	0.61	0.099 J	0.57	0.38	5.2	--	--	--
Calcium	65,000	62,000	59,000	81,000	69,000	--	--	--	--
Chromium	16 J	12	20	8.3	9.3	21	--	--	--
Cobalt	9.9	11	16	9.2	12	20	--	--	--
Copper	29 J	31	26	25	31	2,900	--	--	--
Iron	17,000 †m	19,000 †m	21,000 †m	15,000	18,000 †m	15,000	15,900	--	--
Lead	33 J	54	14	16	30	107	--	--	--
Magnesium	31,000	33,000	22,000	37,000	34,000	325,000	--	--	--
Manganese	350	400	450	340	420	630	636	--	--
Mercury	0.027 J	0.049	0.028	0.025	0.044	0.89	--	--	--
Nickel	26	26	42	21	27	100	--	--	--
Potassium	1,700 J	1,700	2,900	1,300	1,300	--	--	--	--
Selenium	0.44 J	0.64	0.66	ND U	0.8	1.3	--	--	--
Silver	0.17 J	0.072 J	ND U	ND U	0.079 J	4.4	--	--	--
Sodium	1,300 J	860	2,200	620	470	--	--	--	--
Thallium	ND U	ND U	ND U	0.31 J	0.43 J	2.6	--	--	--
Vanadium	13	15	23	11	12	550	--	--	--
Zinc	83 J	110	61 J	110 J	88	5,100	--	--	--
TCLP Metals (mg/L)									
Barium	0.22 J	0.4 J	0.13 J	0.13 J	0.24 J	--	--	--	2
Boron	0.98	0.68	0.81	0.7	1	--	--	--	2
Cadmium	0.0039 J	0.0036 J	0.003 J	0.0032 J	0.0033 J	--	--	--	0.005
Chromium	ND U	ND U	ND U	ND U	ND U	--	--	--	0.1
Cobalt	0.014 J	ND U	0.019 J	0.028	ND U	--	--	--	1
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	2.3 L	0.65 L	2.1 L	2.9 L	1.5 L	--	--	--	0.15
Mercury	ND U	ND U	ND U	ND U	ND U	--	--	--	0.002
Nickel	0.026	0.015 J	0.016 J	0.034	0.015 J	--	--	--	0.1
Selenium	ND U	0.02 J	0.022 J	ND U	0.022 J	--	--	--	0.05
Silver	ND U	ND U	ND U	ND U	ND U	--	--	--	0.05
Zinc	ND U	ND U	0.033 J	0.035 J	ND U	--	--	--	5
SPLP Metals (mg/L)									
Cadmium	NA	NA	NA	NA	NA	--	--	--	0.005
Lead	NA	NA	NA	NA	NA	--	--	--	0.0075
Manganese	0.054	0.25 L	0.71 L	0.082	0.013 J	--	--	--	0.15

PTB #172-27; Work Order 31 - IDOT Job # D-91-191-10

DETECTED ANALYTES

SITE	ISGS #1860-23 (I-55/IL 171 interchange)					Comparison Criteria			
	1860-23-B17	1860-23-B18		1860-23-B19	1860-23-B20	MACs			TACO
SAMPLE	1860-23-B17 (0-0.6)	1860-23-B18 (2-4)	1860-23-B18 (10-12)	1860-23-B19 (2-4)	1860-23-B20 (0-2)	Most Stringent	Within an MSA	Within Chicago	SCGIER
MATRIX	Soil	Soil	Soil	Soil	Soil				
DEPTH (feet)	0-0.6	2-4	10-12	2-4	0-2				
pH	7.85	7.69	7.92	7.86	7.07				
VOCs (mg/kg)									
2-Butanone (MEK)	ND U	ND U	ND U	ND U	ND U	--	--	--	--
Acetone	ND U	ND U	ND U	0.018	0.048	25	--	--	--
Ethylbenzene	ND U	ND U	ND U	ND U	ND U	13	--	--	--
Methylene Chloride	ND U	ND U	ND U	ND U	0.0093	0.02	--	--	--
Tetrachloroethene	ND U	ND U	0.0021 J	ND U	ND U	0.06	--	--	--
Trichloroethene	ND U	ND U	ND U	ND U	ND U	0.06	--	--	--
Xylenes, Total	ND U	ND U	ND U	ND U	ND U	5.6	--	--	--
SVOCs (mg/kg)									
2-Methylnaphthalene	0.016 J	0.0089 J	ND U	ND U	ND U	--	--	--	--
Acenaphthene	ND U	ND U	ND U	ND U	ND U	570	--	--	--
Acenaphthylene	ND U	ND U	ND U	ND U	ND U	--	--	--	--
Anthracene	ND U	ND U	ND U	ND U	0.011 J	12,000	--	--	--
Benzo[a]anthracene	ND U	0.024 J	ND U	ND U	0.027 J	0.9	1.8	1.1	--
Benzo[a]pyrene	ND U	0.021 J	ND U	ND U	0.021 J	0.09	2.1	1.3	--
Benzo[b]fluoranthene	0.011 J	0.03 J	ND U	ND U	0.03 J	0.9	2.1	1.5	--
Benzo[g,h,i]perylene	0.018 J	0.029 J	ND U	ND U	0.018 J	--	--	--	--
Benzo[k]fluoranthene	ND U	0.015 J	ND U	ND U	0.011 J	9	--	--	--
Bis(2-ethylhexyl) phthalate	ND U	ND U	ND U	ND U	ND U	46	--	--	--
Chrysene	0.018 J	0.037	0.012 J	ND U	0.036 J	88	--	--	--
Dibenzo[a,h]anthracene	ND U	ND U	ND U	ND U	ND U	0.09	0.42	0.2	--
Dibenzofuran	ND U	ND U	ND U	ND U	ND U	--	--	--	--
Fluoranthene	0.011 J	0.033 J	0.0099 J	ND U	0.038	3,100	--	--	--
Fluorene	ND U	ND U	ND U	ND U	ND U	560	--	--	--
Indeno[1,2,3-cd]pyrene	ND U	0.011 J	ND U	ND U	0.011 J	0.9	1.6	0.9	--
Naphthalene	ND U	ND U	ND U	ND U	ND U	1.8	--	--	--
Phenanthrene	0.019 J	0.049	0.018 J	ND U	0.036 J	--	--	--	--
Pyrene	0.015 J	0.036 J	0.0083 J	ND U	0.045	2,300	--	--	--
Inorganics (mg/kg)									
Antimony	0.41 J	0.44 J	0.51 J	ND U	ND U	5	--	--	--
Arsenic	9.1	9.2	9.5	5.4	7.4	11.3	13	--	--
Barium	20	31	15	97	54	1,500	--	--	--
Beryllium	0.29	0.41	0.27	0.85	0.5	22	--	--	--
Boron	7.1	8.8	6.6	5.8	8.3	40	--	--	--
Cadmium	0.15	0.32	0.2	ND U	0.72	5.2	--	--	--
Calcium	96,000	66,000	97,000	12,000	63,000	--	--	--	--
Chromium	7.2	11	6.8	19	16	21	--	--	--
Cobalt	9.4	10	7.4	13	13	20	--	--	--
Copper	22	26	21	18	27	2,900	--	--	--
Iron	15,000	17,000 †m	15,000	20,000 †m	20,000 †m	15,000	15,900	--	--
Lead	14	21	14	16	22	107	--	--	--
Magnesium	44,000	29,000	47,000	8,900	29,000	325,000	--	--	--
Manganese	350	320	350	190	450	630	636	--	--
Mercury	0.028	0.057	0.05	0.037	0.044	0.89	--	--	--
Nickel	21	28	18	30	29	100	--	--	--
Potassium	1,000	1,500	990	1,900	1,700	--	--	--	--
Selenium	0.26 J	ND U	0.6	0.65	0.77	1.3	--	--	--
Silver	ND U	ND U	ND U	ND U	0.18 J	4.4	--	--	--
Sodium	350	650	280	1,000	860	--	--	--	--
Thallium	0.4 J	0.46 J	0.39 J	ND U	0.4 J	2.6	--	--	--
Vanadium	9.5	13	9.3	27	16	550	--	--	--
Zinc	52	75	59	52	81	5,100	--	--	--
TCLP Metals (mg/L)									
Barium	0.089 J	0.073 J	0.15 J	0.49 J	0.089 J	--	--	--	2
Boron	0.48 J	0.42 J	0.57	0.96	0.81	--	--	--	2
Cadmium	0.0033 J	0.0061 L	0.0028 J	ND U	0.0073 L	--	--	--	0.005
Chromium	ND U	ND U	ND U	ND U	ND U	--	--	--	0.1
Cobalt	0.041	0.06	0.042	ND U	ND U	--	--	--	1
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	2.2 L	2.9 L	2.4 L	0.59 L	0.33 L	--	--	--	0.15
Mercury	ND U	ND U	ND U	ND U	ND U	--	--	--	0.002
Nickel	0.043	0.059	0.052	ND U	0.018 J	--	--	--	0.1
Selenium	ND U	ND U	0.022 J	ND U	ND U	--	--	--	0.05
Silver	ND U	ND U	ND U	ND U	ND U	--	--	--	0.05
Zinc	ND U	ND U	ND U	ND U	ND U	--	--	--	5
SPLP Metals (mg/L)									
Cadmium	NA	ND U	NA	NA	ND U	--	--	--	0.005
Lead	NA	NA	NA	NA	NA	--	--	--	0.0075
Manganese	ND U	ND U	0.024 J	0.062	ND U	--	--	--	0.15

DETECTED ANALYTES

SITE	ISGS #1860-23 (1-55/IL 171 interchange)						Comparison Criteria			
	1860-23-B21	1860-23-B22	1860-23-B23	1860-23-B24	1860-23-B26		MACs			TACO
SAMPLE	1860-23-B21 (0-2)	1860-23-B22 (2-3)	1860-23-B23 (0-2)	1860-23-B24 (4-5)	1860-23-B26 (0-2)	1860-23-B26 (6-8)	Most Stringent	Within an MSA	Within Chicago	SCGIER
MATRIX	Soil	Soil	Soil	Soil	Soil	Soil				
DEPTH (feet)	0-2	2-3	0-2	4-5	0-2	6-8				
pH	8.08	7.57	7.89	7.96	8.59	8.39				
VOCs (mg/kg)										
2-Butanone (MEK)	ND U	ND U	ND U	ND U	ND U	ND U	--	--	--	--
Acetone	0.0094	0.012	ND U	0.0088	ND U	0.0076	25	--	--	--
Ethylbenzene	ND U	ND U	ND U	ND U	ND U	ND U	13	--	--	--
Methylene Chloride	ND U	ND U	ND U	ND U	ND U	ND U	0.02	--	--	--
Tetrachloroethene	ND U	ND U	ND U	ND U	ND U	ND U	0.06	--	--	--
Trichloroethene	ND U	ND U	ND U	ND U	ND U	ND U	0.06	--	--	--
Xylenes, Total	ND U	ND U	ND U	ND U	ND U	ND U	5.6	--	--	--
SVOCs (mg/kg)										
2-Methylnaphthalene	ND U	ND U	ND U	0.011 J	ND U	0.01 J	--	--	--	--
Acenaphthene	ND U	ND U	ND U	ND U	ND U	ND U	570	--	--	--
Acenaphthylene	ND U	ND U	ND U	ND U	ND U	ND U	--	--	--	--
Anthracene	ND U	ND U	ND U	ND U	0.019 J	ND U	12,000	--	--	--
Benzo[a]anthracene	ND U	ND U	ND U	ND U	0.086	0.009 J	0.9	1.8	1.1	--
Benzo[a]pyrene	ND U	ND U	ND U	ND U	0.083	0.0084 J	0.09	2.1	1.3	--
Benzo[b]fluoranthene	ND U	ND U	ND U	ND U	0.11 J	0.01 J	0.9	2.1	1.5	--
Benzo[g,h,i]perylene	0.013 J	ND U	0.021 J	ND U	0.071	ND U	--	--	--	--
Benzo[k]fluoranthene	ND U	ND U	ND U	ND U	0.052	ND U	9	--	--	--
Bis(2-ethylhexyl) phthalate	ND U	ND U	ND U	ND U	ND U	ND U	46	--	--	--
Chrysene	ND U	0.012 J	ND U	ND U	0.098	0.015 J	88	--	--	--
Dibenzo(a,h)anthracene	ND U	ND U	ND U	ND U	0.019 J	ND U	0.09	0.42	0.2	--
Dibenzofuran	ND U	ND U	ND U	ND U	ND U	ND U	--	--	--	--
Fluoranthene	ND U	0.009 J	0.0077 J	ND U	0.17	0.016 J	3,100	--	--	--
Fluorene	ND U	ND U	ND U	ND U	ND U	ND U	560	--	--	--
Indeno[1,2,3-cd]pyrene	ND U	ND U	ND U	ND U	0.061	ND U	0.9	1.6	0.9	--
Naphthalene	ND U	ND U	ND U	ND U	ND U	ND U	1.8	--	--	--
Phenanthrene	ND U	0.014 J	0.034 J	0.015 J	0.097	0.024 J	--	--	--	--
Pyrene	0.0082 J	0.012 J	0.011 J	ND U	0.12 J	0.016 J	2,300	--	--	--
Inorganics (mg/kg)										
Antimony	ND U	ND U	0.35 J	ND U	ND U	ND U	5	--	--	--
Arsenic	6.3	6.7	11	8.5	6.1	7.8	11.3	13	--	--
Barium	60	50	25	67	88	64	1,500	--	--	--
Beryllium	0.69	0.61	0.41	0.76	0.56	0.6	22	--	--	--
Boron	10	9.4	7.8	9.3	10	10	40	--	--	--
Cadmium	0.12	0.065 J	0.2	0.11	0.49	0.24	5.2	--	--	--
Calcium	54,000	72,000	58,000	47,000	47,000	56,000	--	--	--	--
Chromium	17	16	10	18	16	14	21	--	--	--
Cobalt	12	14	13	17	12	13	20	--	--	--
Copper	23	18	29	29	29	23	2,900	--	--	--
Iron	20,000 †m	23,000 †m	19,000 †m	20,000 †m	17,000 †m	20,000 †m	15,000	15,900	--	--
Lead	14	11	19	17	56	18	107	--	--	--
Magnesium	20,000	24,000	29,000	20,000	21,000	27,000	325,000	--	--	--
Manganese	330	340	360	400	430	520	630	636	--	--
Mercury	0.028	0.06	0.027	0.023	0.045	0.029	0.89	--	--	--
Nickel	31	31	30	40	27	27	100	--	--	--
Potassium	2,300	2,300	1,400	2,100	1,800	1,700	--	--	--	--
Selenium	0.59	0.28 J	0.34 J	0.39 J	ND U	0.36 J	1.3	--	--	--
Silver	ND U	ND U	ND U	ND U	ND U	ND U	4.4	--	--	--
Sodium	670	1,100	690	1,400	370	300	--	--	--	--
Thallium	ND U	ND U	0.78	0.41 J	ND U	ND U	2.6	--	--	--
Vanadium	21	18	12	21	17	19	550	--	--	--
Zinc	56	50	73	62	110	80	5,100	--	--	--
TCLP Metals (mg/L)										
Barium	0.46 J	0.22 J	0.14 J	0.44 J	0.18 J	0.36 J	--	--	--	2
Boron	1	0.83	0.53	0.76	0.073 J	0.069 J	--	--	--	2
Cadmium	ND U	0.0028 J	0.0045 J	ND U	0.0024 J	0.0026 J	--	--	--	0.005
Chromium	ND U	ND U	ND U	ND U	ND U	ND U	--	--	--	0.1
Cobalt	ND U	ND U	0.033	0.017 J	ND U	0.036	--	--	--	1
Iron	ND U	ND U	ND U	ND U	ND U	ND U	--	--	--	5
Lead	ND U	ND U	ND U	ND U	ND U	ND U	--	--	--	0.0075
Manganese	0.41 L	2 L	2.3 L	4.8 L	0.31 L	10 L	--	--	--	0.15
Mercury	ND U	ND U	ND U	0.00024	ND U	ND U	--	--	--	0.002
Nickel	ND U	0.016 J	0.047	0.016 J	ND U	0.03	--	--	--	0.1
Selenium	ND U	ND U	0.031 J	ND U	ND U	ND U	--	--	--	0.05
Silver	ND U	ND U	ND U	ND U	ND U	ND U	--	--	--	0.05
Zinc	ND U	ND U	ND U	0.33	ND U	ND U	--	--	--	5
SPLP Metals (mg/L)										
Cadmium	NA	NA	NA	NA	NA	NA	--	--	--	0.005
Lead	NA	NA	NA	NA	NA	NA	--	--	--	0.0075
Manganese	0.25 L	0.057	ND U	0.38 L	0.059	0.078	--	--	--	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: 500-97344-1
Client Project/Site: IDOT - IL 171 - WO 031

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

Attn: Mr. Dean Tiebout



Authorized for release by:
6/26/2015 3:06:28 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

8

9



Table of Contents

Cover Page	1
Table of Contents	2
Case Narrative	3
Detection Summary	4
Sample Summary	12
Client Sample Results	13
Definitions	53
Chain of Custody	54
Receipt Checklists	55

Case Narrative

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97344-1

Job ID: 500-97344-1

Laboratory: TestAmerica Chicago

Narrative

Job Narrative 500-97344-1

Comments

No additional comments.

Receipt

The samples were received on 6/13/2015 7:30 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 2.9° C and 3.2° 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 sample contained one acid surrogate outside acceptance limits: (LCS 500-292924/2-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.

Method(s) 8270D: The following sample was diluted due to the nature of the sample matrix: 1860-23-B11 (0-2) (500-97344-1). Elevated reporting limits (RLs) are provided.

Method(s) 8270D: A full list spike was utilized for this method. Due to the large number of spiked analytes, there is a high probability that one or more analytes will recover outside acceptance limits. The laboratory's SOP allows for 3 analytes to recover outside criteria for this method when a full list spike is utilized. The LCS associated with preparation batch 500-292924 and analytical batch 500-293107 had 3 analytes outside control limits: 2-Methylphenol, Benzo[b]fluoranthene, and Phenol-d5; therefore, corrective action was not performed. These results have been reported and qualified.

Method(s) 8270D: The method blank for preparation batch 500-292924 and analytical batch 500-293107 contained Benzo[a]pyrene and Dibenz(a,h)anthracene above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

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 - IL 171 - WO 031

TestAmerica Job ID: 500-97344-1

Client Sample ID: 1860-23-B11 (0-2)

Lab Sample ID: 500-97344-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Naphthalene	0.25	J	0.47	0.073	mg/Kg	10	☆	☆	8270D	Total/NA
2-Methylnaphthalene	0.35	J	0.47	0.087	mg/Kg	10	☆	☆	8270D	Total/NA
Acenaphthylene	0.18	J	0.47	0.062	mg/Kg	10	☆	☆	8270D	Total/NA
Acenaphthene	0.097	J	0.47	0.085	mg/Kg	10	☆	☆	8270D	Total/NA
Fluorene	0.12	J	0.47	0.067	mg/Kg	10	☆	☆	8270D	Total/NA
Phenanthrene	1.2		0.47	0.066	mg/Kg	10	☆	☆	8270D	Total/NA
Anthracene	0.35	J	0.47	0.079	mg/Kg	10	☆	☆	8270D	Total/NA
Fluoranthene	2.1		0.47	0.088	mg/Kg	10	☆	☆	8270D	Total/NA
Pyrene	1.4		0.47	0.094	mg/Kg	10	☆	☆	8270D	Total/NA
Benzo[a]anthracene	1.0		0.47	0.064	mg/Kg	10	☆	☆	8270D	Total/NA
Chrysene	1.2		0.47	0.13	mg/Kg	10	☆	☆	8270D	Total/NA
Benzo[b]fluoranthene	1.6	*	0.47	0.10	mg/Kg	10	☆	☆	8270D	Total/NA
Benzo[k]fluoranthene	0.77		0.47	0.14	mg/Kg	10	☆	☆	8270D	Total/NA
Benzo[a]pyrene	1.2	B	0.47	0.092	mg/Kg	10	☆	☆	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.95		0.47	0.12	mg/Kg	10	☆	☆	8270D	Total/NA
Benzo[g,h,i]perylene	1.2		0.47	0.15	mg/Kg	10	☆	☆	8270D	Total/NA
Arsenic	13	F1	0.67	0.31	mg/Kg	1	☆	☆	6010B	Total/NA
Barium	150	F1 F2	0.67	0.12	mg/Kg	1	☆	☆	6010B	Total/NA
Beryllium	0.70		0.27	0.058	mg/Kg	1	☆	☆	6010B	Total/NA
Boron	14		3.4	0.47	mg/Kg	1	☆	☆	6010B	Total/NA
Cadmium	49	F1 F2	0.13	0.039	mg/Kg	1	☆	☆	6010B	Total/NA
Calcium	81000		67	22	mg/Kg	5	☆	☆	6010B	Total/NA
Chromium	290	F2	0.67	0.12	mg/Kg	1	☆	☆	6010B	Total/NA
Cobalt	15	F1	0.34	0.076	mg/Kg	1	☆	☆	6010B	Total/NA
Copper	260	B F1 F2	0.67	0.15	mg/Kg	1	☆	☆	6010B	Total/NA
Iron	23000		13	5.2	mg/Kg	1	☆	☆	6010B	Total/NA
Lead	220	F2	0.34	0.17	mg/Kg	1	☆	☆	6010B	Total/NA
Magnesium	38000		6.7	2.7	mg/Kg	1	☆	☆	6010B	Total/NA
Manganese	350	F1	0.67	0.13	mg/Kg	1	☆	☆	6010B	Total/NA
Nickel	110	F1	0.67	0.18	mg/Kg	1	☆	☆	6010B	Total/NA
Potassium	1900	F1	34	5.5	mg/Kg	1	☆	☆	6010B	Total/NA
Selenium	1.5	F1	0.67	0.33	mg/Kg	1	☆	☆	6010B	Total/NA
Silver	9.4	F1 F2	0.34	0.078	mg/Kg	1	☆	☆	6010B	Total/NA
Sodium	870	F1	67	8.8	mg/Kg	1	☆	☆	6010B	Total/NA
Vanadium	21	F1	0.34	0.098	mg/Kg	1	☆	☆	6010B	Total/NA
Zinc	1200	B F2	6.7	2.1	mg/Kg	5	☆	☆	6010B	Total/NA
Barium	0.097	J	0.50	0.050	mg/L	1			6010B	TCLP
Boron	0.44	J	0.50	0.050	mg/L	1			6010B	TCLP
Cadmium	0.049		0.0050	0.0020	mg/L	1			6010B	TCLP
Cobalt	0.019	J	0.025	0.010	mg/L	1			6010B	TCLP
Manganese	1.8		0.025	0.010	mg/L	1			6010B	TCLP
Nickel	0.079		0.025	0.010	mg/L	1			6010B	TCLP
Zinc	0.97		0.10	0.020	mg/L	1			6010B	TCLP
Cadmium	0.0039	J	0.0050	0.0020	mg/L	1			6010B	SPLP East
Mercury	5.2		0.45	0.16	mg/Kg	20	☆	☆	7471B	Total/NA
pH	7.35		0.200	0.200	SU	1			9045D	Total/NA

Client Sample ID: 1860-23-B11 (6-8)

Lab Sample ID: 500-97344-2

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97344-1

Client Sample ID: 1860-23-B11 (6-8) (Continued)

Lab Sample ID: 500-97344-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	0.020		0.0044	0.0034	mg/Kg	1	☼	8260B	Total/NA
Naphthalene	0.019	J	0.038	0.0059	mg/Kg	1	☼	8270D	Total/NA
2-Methylnaphthalene	0.028	J	0.038	0.0071	mg/Kg	1	☼	8270D	Total/NA
Acenaphthene	0.13		0.038	0.0069	mg/Kg	1	☼	8270D	Total/NA
Dibenzofuran	0.16	J	0.19	0.045	mg/Kg	1	☼	8270D	Total/NA
Fluorene	0.17		0.038	0.0054	mg/Kg	1	☼	8270D	Total/NA
Phenanthrene	0.56		0.038	0.0054	mg/Kg	1	☼	8270D	Total/NA
Anthracene	0.33		0.038	0.0064	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.65		0.038	0.0071	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.40		0.038	0.0076	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.24		0.038	0.0052	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.25		0.038	0.010	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.23	*	0.038	0.0083	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.11		0.038	0.011	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.18	B	0.038	0.0074	mg/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.086		0.038	0.010	mg/Kg	1	☼	8270D	Total/NA
Dibenz(a,h)anthracene	0.037	J B	0.038	0.0074	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.10		0.038	0.012	mg/Kg	1	☼	8270D	Total/NA
Antimony	0.32	J	1.2	0.24	mg/Kg	1	☼	6010B	Total/NA
Arsenic	11		0.58	0.27	mg/Kg	1	☼	6010B	Total/NA
Barium	60		0.58	0.11	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.50		0.23	0.050	mg/Kg	1	☼	6010B	Total/NA
Boron	9.2		2.9	0.41	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.64		0.12	0.034	mg/Kg	1	☼	6010B	Total/NA
Calcium	57000		58	19	mg/Kg	5	☼	6010B	Total/NA
Chromium	16		0.58	0.10	mg/Kg	1	☼	6010B	Total/NA
Cobalt	12		0.29	0.066	mg/Kg	1	☼	6010B	Total/NA
Copper	37	B	0.58	0.13	mg/Kg	1	☼	6010B	Total/NA
Iron	19000		12	4.5	mg/Kg	1	☼	6010B	Total/NA
Lead	53		0.29	0.14	mg/Kg	1	☼	6010B	Total/NA
Magnesium	26000		5.8	2.4	mg/Kg	1	☼	6010B	Total/NA
Manganese	390		0.58	0.12	mg/Kg	1	☼	6010B	Total/NA
Nickel	30		0.58	0.16	mg/Kg	1	☼	6010B	Total/NA
Potassium	1600		29	4.7	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.48	J	0.58	0.29	mg/Kg	1	☼	6010B	Total/NA
Sodium	390		58	7.7	mg/Kg	1	☼	6010B	Total/NA
Vanadium	15		0.29	0.085	mg/Kg	1	☼	6010B	Total/NA
Zinc	110	B	1.2	0.37	mg/Kg	1	☼	6010B	Total/NA
Barium	0.48	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.69		0.50	0.050	mg/L	1		6010B	TCLP
Cadmium	0.0034	J	0.0050	0.0020	mg/L	1		6010B	TCLP
Cobalt	0.026		0.025	0.010	mg/L	1		6010B	TCLP
Iron	0.22		0.20	0.20	mg/L	1		6010B	TCLP
Lead	0.022		0.0075	0.0075	mg/L	1		6010B	TCLP
Manganese	3.4		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.039		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.21		0.10	0.020	mg/L	1		6010B	TCLP
Manganese	0.23		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.039		0.019	0.0066	mg/Kg	1	☼	7471B	Total/NA
pH	8.42		0.200	0.200	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 - IL 171 - WO 031

TestAmerica Job ID: 500-97344-1

Client Sample ID: 1860-23-B15 (0-2)

Lab Sample ID: 500-97344-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Acetone	0.018		0.0046	0.0036	mg/Kg	1		☼	8260B	Total/NA
Arsenic	7.6		0.60	0.28	mg/Kg	1		☼	6010B	Total/NA
Barium	53		0.60	0.11	mg/Kg	1		☼	6010B	Total/NA
Beryllium	0.73		0.24	0.052	mg/Kg	1		☼	6010B	Total/NA
Boron	14		3.0	0.42	mg/Kg	1		☼	6010B	Total/NA
Cadmium	0.099	J	0.12	0.035	mg/Kg	1		☼	6010B	Total/NA
Calcium	59000		60	19	mg/Kg	5		☼	6010B	Total/NA
Chromium	20		0.60	0.10	mg/Kg	1		☼	6010B	Total/NA
Cobalt	16		0.30	0.068	mg/Kg	1		☼	6010B	Total/NA
Copper	26	B	0.60	0.13	mg/Kg	1		☼	6010B	Total/NA
Iron	21000		12	4.6	mg/Kg	1		☼	6010B	Total/NA
Lead	14		0.30	0.15	mg/Kg	1		☼	6010B	Total/NA
Magnesium	22000		6.0	2.4	mg/Kg	1		☼	6010B	Total/NA
Manganese	450		0.60	0.12	mg/Kg	1		☼	6010B	Total/NA
Nickel	42		0.60	0.16	mg/Kg	1		☼	6010B	Total/NA
Potassium	2900		30	4.9	mg/Kg	1		☼	6010B	Total/NA
Selenium	0.66		0.60	0.30	mg/Kg	1		☼	6010B	Total/NA
Sodium	2200		60	7.9	mg/Kg	1		☼	6010B	Total/NA
Vanadium	23		0.30	0.088	mg/Kg	1		☼	6010B	Total/NA
Zinc	61	B	1.2	0.38	mg/Kg	1		☼	6010B	Total/NA
Barium	0.13	J	0.50	0.050	mg/L	1			6010B	TCLP
Boron	0.81		0.50	0.050	mg/L	1			6010B	TCLP
Cadmium	0.0030	J	0.0050	0.0020	mg/L	1			6010B	TCLP
Cobalt	0.019	J	0.025	0.010	mg/L	1			6010B	TCLP
Manganese	2.1		0.025	0.010	mg/L	1			6010B	TCLP
Nickel	0.016	J	0.025	0.010	mg/L	1			6010B	TCLP
Selenium	0.022	J	0.050	0.020	mg/L	1			6010B	TCLP
Zinc	0.033	J	0.10	0.020	mg/L	1			6010B	TCLP
Manganese	0.71		0.025	0.010	mg/L	1			6010B	SPLP East
Mercury	0.028		0.019	0.0065	mg/Kg	1		☼	7471B	Total/NA
pH	8.39		0.200	0.200	SU	1			9045D	Total/NA

Client Sample ID: 1860-23-B15 (4-6)

Lab Sample ID: 500-97344-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Acetone	0.029		0.0045	0.0035	mg/Kg	1		☼	8260B	Total/NA
Methylene Chloride	0.0045		0.0045	0.0034	mg/Kg	1		☼	8260B	Total/NA
Naphthalene	0.0084	J	0.034	0.0053	mg/Kg	1		☼	8270D	Total/NA
2-Methylnaphthalene	0.021	J	0.034	0.0063	mg/Kg	1		☼	8270D	Total/NA
Phenanthrene	0.052		0.034	0.0048	mg/Kg	1		☼	8270D	Total/NA
Fluoranthene	0.017	J	0.034	0.0064	mg/Kg	1		☼	8270D	Total/NA
Pyrene	0.025	J	0.034	0.0068	mg/Kg	1		☼	8270D	Total/NA
Benzo[a]anthracene	0.0096	J	0.034	0.0046	mg/Kg	1		☼	8270D	Total/NA
Chrysene	0.024	J	0.034	0.0094	mg/Kg	1		☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.021	J	0.034	0.011	mg/Kg	1		☼	8270D	Total/NA
Antimony	0.28	J	1.0	0.21	mg/Kg	1		☼	6010B	Total/NA
Arsenic	10		0.51	0.23	mg/Kg	1		☼	6010B	Total/NA
Barium	21		0.51	0.093	mg/Kg	1		☼	6010B	Total/NA
Beryllium	0.35		0.20	0.044	mg/Kg	1		☼	6010B	Total/NA
Boron	8.3		2.5	0.36	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 - IL 171 - WO 031

TestAmerica Job ID: 500-97344-1

Client Sample ID: 1860-23-B15 (4-6) (Continued)

Lab Sample ID: 500-97344-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cadmium	0.57		0.10	0.029	mg/Kg	1	☼	6010B	Total/NA
Calcium	81000		51	16	mg/Kg	5	☼	6010B	Total/NA
Chromium	8.3		0.51	0.087	mg/Kg	1	☼	6010B	Total/NA
Cobalt	9.2		0.25	0.057	mg/Kg	1	☼	6010B	Total/NA
Copper	25	B	0.51	0.11	mg/Kg	1	☼	6010B	Total/NA
Iron	15000		10	3.9	mg/Kg	1	☼	6010B	Total/NA
Lead	16		0.25	0.13	mg/Kg	1	☼	6010B	Total/NA
Magnesium	37000		5.1	2.1	mg/Kg	1	☼	6010B	Total/NA
Manganese	340		0.51	0.10	mg/Kg	1	☼	6010B	Total/NA
Nickel	21		0.51	0.14	mg/Kg	1	☼	6010B	Total/NA
Potassium	1300		25	4.1	mg/Kg	1	☼	6010B	Total/NA
Sodium	620		51	6.7	mg/Kg	1	☼	6010B	Total/NA
Thallium	0.31	J	0.51	0.25	mg/Kg	1	☼	6010B	Total/NA
Vanadium	11		0.25	0.074	mg/Kg	1	☼	6010B	Total/NA
Zinc	110	B	1.0	0.32	mg/Kg	1	☼	6010B	Total/NA
Barium	0.13	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.70		0.50	0.050	mg/L	1		6010B	TCLP
Cadmium	0.0032	J	0.0050	0.0020	mg/L	1		6010B	TCLP
Cobalt	0.028		0.025	0.010	mg/L	1		6010B	TCLP
Manganese	2.9		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.034		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.035	J	0.10	0.020	mg/L	1		6010B	TCLP
Manganese	0.082		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.025		0.015	0.0054	mg/Kg	1	☼	7471B	Total/NA
pH	7.80		0.200	0.200	SU	1		9045D	Total/NA

Client Sample ID: 1860-23-B09 (2-4)

Lab Sample ID: 500-97344-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	0.0060		0.0054	0.0042	mg/Kg	1	☼	8260B	Total/NA
Phenanthrene	0.058		0.038	0.0053	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.037	J	0.038	0.0070	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.042		0.038	0.0075	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.020	J	0.038	0.0051	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.033	J	0.038	0.010	mg/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.011	J	0.038	0.0098	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.026	J	0.038	0.012	mg/Kg	1	☼	8270D	Total/NA
Arsenic	12		0.57	0.27	mg/Kg	1	☼	6010B	Total/NA
Barium	52		0.57	0.11	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.47		0.23	0.050	mg/Kg	1	☼	6010B	Total/NA
Boron	9.1		2.9	0.40	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.30		0.11	0.033	mg/Kg	1	☼	6010B	Total/NA
Calcium	63000		57	19	mg/Kg	5	☼	6010B	Total/NA
Chromium	12		0.57	0.099	mg/Kg	1	☼	6010B	Total/NA
Cobalt	14		0.29	0.065	mg/Kg	1	☼	6010B	Total/NA
Copper	31	B	0.57	0.12	mg/Kg	1	☼	6010B	Total/NA
Iron	20000		11	4.4	mg/Kg	1	☼	6010B	Total/NA
Lead	25		0.29	0.14	mg/Kg	1	☼	6010B	Total/NA
Magnesium	29000		5.7	2.3	mg/Kg	1	☼	6010B	Total/NA
Manganese	430		0.57	0.11	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 - IL 171 - WO 031

TestAmerica Job ID: 500-97344-1

Client Sample ID: 1860-23-B09 (2-4) (Continued)

Lab Sample ID: 500-97344-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Nickel	30		0.57	0.16	mg/Kg	1	☼	6010B	Total/NA
Potassium	1500		29	4.7	mg/Kg	1	☼	6010B	Total/NA
Sodium	840		57	7.6	mg/Kg	1	☼	6010B	Total/NA
Thallium	0.66		0.57	0.28	mg/Kg	1	☼	6010B	Total/NA
Vanadium	14		0.29	0.084	mg/Kg	1	☼	6010B	Total/NA
Zinc	81	B	1.1	0.36	mg/Kg	1	☼	6010B	Total/NA
Barium	0.089	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.85		0.50	0.050	mg/L	1		6010B	TCLP
Cadmium	0.0065		0.0050	0.0020	mg/L	1		6010B	TCLP
Cobalt	0.037		0.025	0.010	mg/L	1		6010B	TCLP
Manganese	3.1		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.057		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.14		0.10	0.020	mg/L	1		6010B	TCLP
Mercury	0.040		0.019	0.0065	mg/Kg	1	☼	7471B	Total/NA
pH	7.73		0.200	0.200	SU	1		9045D	Total/NA

Client Sample ID: 1860-23-B03 (2-4)

Lab Sample ID: 500-97344-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	0.0074		0.0049	0.0038	mg/Kg	1	☼	8260B	Total/NA
2-Methylnaphthalene	0.019	J	0.039	0.0072	mg/Kg	1	☼	8270D	Total/NA
Phenanthrene	0.030	J	0.039	0.0055	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.0095	J	0.039	0.0073	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.025	J	0.039	0.0078	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.018	J	0.039	0.013	mg/Kg	1	☼	8270D	Total/NA
Arsenic	6.1		0.56	0.26	mg/Kg	1	☼	6010B	Total/NA
Barium	66		0.56	0.10	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.64		0.23	0.049	mg/Kg	1	☼	6010B	Total/NA
Boron	10		2.8	0.39	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.25		0.11	0.033	mg/Kg	1	☼	6010B	Total/NA
Calcium	58000		56	18	mg/Kg	5	☼	6010B	Total/NA
Chromium	16		0.56	0.097	mg/Kg	1	☼	6010B	Total/NA
Cobalt	11		0.28	0.064	mg/Kg	1	☼	6010B	Total/NA
Copper	23	B	0.56	0.12	mg/Kg	1	☼	6010B	Total/NA
Iron	17000		11	4.4	mg/Kg	1	☼	6010B	Total/NA
Lead	15		0.28	0.14	mg/Kg	1	☼	6010B	Total/NA
Magnesium	27000		5.6	2.3	mg/Kg	1	☼	6010B	Total/NA
Manganese	320		0.56	0.11	mg/Kg	1	☼	6010B	Total/NA
Nickel	29		0.56	0.15	mg/Kg	1	☼	6010B	Total/NA
Potassium	2000		28	4.6	mg/Kg	1	☼	6010B	Total/NA
Sodium	3000		56	7.5	mg/Kg	1	☼	6010B	Total/NA
Vanadium	22		0.28	0.082	mg/Kg	1	☼	6010B	Total/NA
Zinc	300	B	1.1	0.36	mg/Kg	1	☼	6010B	Total/NA
Barium	0.44	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.69		0.50	0.050	mg/L	1		6010B	TCLP
Cadmium	0.0087		0.0050	0.0020	mg/L	1		6010B	TCLP
Iron	0.27		0.20	0.20	mg/L	1		6010B	TCLP
Manganese	0.83		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.011	J	0.025	0.010	mg/L	1		6010B	TCLP
Selenium	0.020	J	0.050	0.020	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 - IL 171 - WO 031

TestAmerica Job ID: 500-97344-1

Client Sample ID: 1860-23-B03 (2-4) (Continued)

Lab Sample ID: 500-97344-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Zinc	0.26		0.10	0.020	mg/L	1		6010B	TCLP
Cadmium	0.0028	J	0.0050	0.0020	mg/L	1		6010B	SPLP East
Manganese	0.94		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.024		0.019	0.0066	mg/Kg	1	☼	7471B	Total/NA
pH	8.80		0.200	0.200	SU	1		9045D	Total/NA

Client Sample ID: 1860-23-B03 (8-10)

Lab Sample ID: 500-97344-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	0.0091		0.0046	0.0036	mg/Kg	1	☼	8260B	Total/NA
2-Methylnaphthalene	0.013	J	0.038	0.0070	mg/Kg	1	☼	8270D	Total/NA
Phenanthrene	0.020	J	0.038	0.0053	mg/Kg	1	☼	8270D	Total/NA
Arsenic	9.6		0.58	0.27	mg/Kg	1	☼	6010B	Total/NA
Barium	41		0.58	0.11	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.70		0.23	0.050	mg/Kg	1	☼	6010B	Total/NA
Boron	12		2.9	0.40	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.14		0.12	0.033	mg/Kg	1	☼	6010B	Total/NA
Calcium	55000		58	19	mg/Kg	5	☼	6010B	Total/NA
Chromium	17		0.58	0.099	mg/Kg	1	☼	6010B	Total/NA
Cobalt	15		0.29	0.065	mg/Kg	1	☼	6010B	Total/NA
Copper	34	B	0.58	0.13	mg/Kg	1	☼	6010B	Total/NA
Iron	21000		12	4.5	mg/Kg	1	☼	6010B	Total/NA
Lead	18		0.29	0.14	mg/Kg	1	☼	6010B	Total/NA
Magnesium	23000		5.8	2.3	mg/Kg	1	☼	6010B	Total/NA
Manganese	370		0.58	0.11	mg/Kg	1	☼	6010B	Total/NA
Nickel	39		0.58	0.16	mg/Kg	1	☼	6010B	Total/NA
Potassium	2300		29	4.7	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.29	J	0.58	0.29	mg/Kg	1	☼	6010B	Total/NA
Sodium	1100		58	7.6	mg/Kg	1	☼	6010B	Total/NA
Vanadium	21		0.29	0.084	mg/Kg	1	☼	6010B	Total/NA
Zinc	64	B	1.2	0.37	mg/Kg	1	☼	6010B	Total/NA
Barium	0.53		0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.73		0.50	0.050	mg/L	1		6010B	TCLP
Cobalt	0.014	J	0.025	0.010	mg/L	1		6010B	TCLP
Manganese	3.0		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.018	J	0.025	0.010	mg/L	1		6010B	TCLP
Selenium	0.020	J	0.050	0.020	mg/L	1		6010B	TCLP
Zinc	0.025	J	0.10	0.020	mg/L	1		6010B	TCLP
Manganese	0.60		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.026		0.018	0.0064	mg/Kg	1	☼	7471B	Total/NA
pH	7.99		0.200	0.200	SU	1		9045D	Total/NA

Client Sample ID: 1860-23-B02 (2-4)

Lab Sample ID: 500-97344-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	0.014		0.0042	0.0033	mg/Kg	1	☼	8260B	Total/NA
Fluoranthene	0.0078	J	0.038	0.0071	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.0091	J	0.038	0.0076	mg/Kg	1	☼	8270D	Total/NA
Arsenic	6.5		0.60	0.28	mg/Kg	1	☼	6010B	Total/NA
Barium	91		0.60	0.11	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 - IL 171 - WO 031

TestAmerica Job ID: 500-97344-1

Client Sample ID: 1860-23-B02 (2-4) (Continued)

Lab Sample ID: 500-97344-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Beryllium	0.72		0.24	0.052	mg/Kg	1	☼	6010B	Total/NA
Boron	4.3		3.0	0.42	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.14		0.12	0.035	mg/Kg	1	☼	6010B	Total/NA
Calcium	2600		12	3.8	mg/Kg	1	☼	6010B	Total/NA
Chromium	19		0.60	0.10	mg/Kg	1	☼	6010B	Total/NA
Cobalt	12		0.30	0.067	mg/Kg	1	☼	6010B	Total/NA
Copper	20	B	0.60	0.13	mg/Kg	1	☼	6010B	Total/NA
Iron	18000		12	4.6	mg/Kg	1	☼	6010B	Total/NA
Lead	17		0.30	0.15	mg/Kg	1	☼	6010B	Total/NA
Magnesium	3700		6.0	2.4	mg/Kg	1	☼	6010B	Total/NA
Manganese	130		0.60	0.12	mg/Kg	1	☼	6010B	Total/NA
Nickel	31		0.60	0.16	mg/Kg	1	☼	6010B	Total/NA
Potassium	1300		30	4.9	mg/Kg	1	☼	6010B	Total/NA
Sodium	3000		60	7.9	mg/Kg	1	☼	6010B	Total/NA
Vanadium	28		0.30	0.087	mg/Kg	1	☼	6010B	Total/NA
Zinc	64	B	1.2	0.38	mg/Kg	1	☼	6010B	Total/NA
Barium	0.55		0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.52		0.50	0.050	mg/L	1		6010B	TCLP
Cadmium	0.0020	J	0.0050	0.0020	mg/L	1		6010B	TCLP
Manganese	3.3		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.011	J	0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.025	J	0.10	0.020	mg/L	1		6010B	TCLP
Manganese	1.0		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.042		0.018	0.0063	mg/Kg	1	☼	7471B	Total/NA
pH	8.64		0.200	0.200	SU	1		9045D	Total/NA

Client Sample ID: 1860-23-B02 (2-4)D

Lab Sample ID: 500-97344-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	0.0083		0.0044	0.0034	mg/Kg	1	☼	8260B	Total/NA
Phenanthrene	0.0081	J	0.039	0.0054	mg/Kg	1	☼	8270D	Total/NA
Arsenic	7.3		0.60	0.27	mg/Kg	1	☼	6010B	Total/NA
Barium	62		0.60	0.11	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.71		0.24	0.052	mg/Kg	1	☼	6010B	Total/NA
Boron	8.8		3.0	0.42	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.12		0.12	0.034	mg/Kg	1	☼	6010B	Total/NA
Calcium	30000		12	3.8	mg/Kg	1	☼	6010B	Total/NA
Chromium	19		0.60	0.10	mg/Kg	1	☼	6010B	Total/NA
Cobalt	12		0.30	0.067	mg/Kg	1	☼	6010B	Total/NA
Copper	22	B	0.60	0.13	mg/Kg	1	☼	6010B	Total/NA
Iron	20000		12	4.6	mg/Kg	1	☼	6010B	Total/NA
Lead	14		0.30	0.15	mg/Kg	1	☼	6010B	Total/NA
Magnesium	15000		6.0	2.4	mg/Kg	1	☼	6010B	Total/NA
Manganese	340		0.60	0.12	mg/Kg	1	☼	6010B	Total/NA
Nickel	33		0.60	0.16	mg/Kg	1	☼	6010B	Total/NA
Potassium	2000		30	4.9	mg/Kg	1	☼	6010B	Total/NA
Sodium	2400		60	7.9	mg/Kg	1	☼	6010B	Total/NA
Vanadium	27		0.30	0.087	mg/Kg	1	☼	6010B	Total/NA
Zinc	54	B	1.2	0.38	mg/Kg	1	☼	6010B	Total/NA
Barium	0.65		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 - IL 171 - WO 031

TestAmerica Job ID: 500-97344-1

Client Sample ID: 1860-23-B02 (2-4)D (Continued)

Lab Sample ID: 500-97344-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	0.63		0.50	0.050	mg/L	1		6010B	TCLP
Cobalt	0.011	J	0.025	0.010	mg/L	1		6010B	TCLP
Manganese	5.5		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.015	J	0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.024	J	0.10	0.020	mg/L	1		6010B	TCLP
Manganese	0.85		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.036		0.019	0.0065	mg/Kg	1	☼	7471B	Total/NA
pH	8.51		0.200	0.200	SU	1		9045D	Total/NA

Client Sample ID: 1860-23-B02 (10-12)

Lab Sample ID: 500-97344-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	0.0097		0.0044	0.0034	mg/Kg	1	☼	8260B	Total/NA
2-Methylnaphthalene	0.022	J	0.037	0.0069	mg/Kg	1	☼	8270D	Total/NA
Phenanthrene	0.034	J	0.037	0.0052	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.017	J	0.037	0.0069	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.028	J	0.037	0.0074	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.017	J B	0.037	0.0072	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.021	J	0.037	0.012	mg/Kg	1	☼	8270D	Total/NA
Arsenic	12		0.54	0.25	mg/Kg	1	☼	6010B	Total/NA
Barium	36		0.54	0.098	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.54		0.21	0.046	mg/Kg	1	☼	6010B	Total/NA
Boron	11		2.7	0.38	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.11		0.11	0.031	mg/Kg	1	☼	6010B	Total/NA
Calcium	77000		54	17	mg/Kg	5	☼	6010B	Total/NA
Chromium	14		0.54	0.092	mg/Kg	1	☼	6010B	Total/NA
Cobalt	13		0.27	0.061	mg/Kg	1	☼	6010B	Total/NA
Copper	31	B	0.54	0.12	mg/Kg	1	☼	6010B	Total/NA
Iron	27000		11	4.1	mg/Kg	1	☼	6010B	Total/NA
Lead	17		0.27	0.13	mg/Kg	1	☼	6010B	Total/NA
Magnesium	30000		5.4	2.2	mg/Kg	1	☼	6010B	Total/NA
Manganese	390		0.54	0.11	mg/Kg	1	☼	6010B	Total/NA
Nickel	33		0.54	0.15	mg/Kg	1	☼	6010B	Total/NA
Potassium	2200		27	4.4	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.41	J	0.54	0.27	mg/Kg	1	☼	6010B	Total/NA
Sodium	420		54	7.1	mg/Kg	1	☼	6010B	Total/NA
Thallium	0.41	J	0.54	0.26	mg/Kg	1	☼	6010B	Total/NA
Vanadium	17		0.27	0.078	mg/Kg	1	☼	6010B	Total/NA
Zinc	57	B	1.1	0.34	mg/Kg	1	☼	6010B	Total/NA
Barium	0.23	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.65		0.50	0.050	mg/L	1		6010B	TCLP
Cadmium	0.0032	J	0.0050	0.0020	mg/L	1		6010B	TCLP
Cobalt	0.015	J	0.025	0.010	mg/L	1		6010B	TCLP
Manganese	3.1		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.018	J	0.025	0.010	mg/L	1		6010B	TCLP
Selenium	0.020	J	0.050	0.020	mg/L	1		6010B	TCLP
Zinc	0.032	J	0.10	0.020	mg/L	1		6010B	TCLP
Manganese	0.10		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.033		0.017	0.0061	mg/Kg	1	☼	7471B	Total/NA
pH	7.84		0.200	0.200	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 - IL 171 - WO 031

TestAmerica Job ID: 500-97344-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-97344-1	1860-23-B11 (0-2)	Solid	06/12/15 09:35	06/13/15 07:30
500-97344-2	1860-23-B11 (6-8)	Solid	06/12/15 09:40	06/13/15 07:30
500-97344-3	1860-23-B15 (0-2)	Solid	06/12/15 11:15	06/13/15 07:30
500-97344-4	1860-23-B15 (4-6)	Solid	06/12/15 11:20	06/13/15 07:30
500-97344-5	1860-23-B09 (2-4)	Solid	06/12/15 12:10	06/13/15 07:30
500-97344-6	1860-23-B03 (2-4)	Solid	06/12/15 13:40	06/13/15 07:30
500-97344-7	1860-23-B03 (8-10)	Solid	06/12/15 13:45	06/13/15 07:30
500-97344-8	1860-23-B02 (2-4)	Solid	06/12/15 14:30	06/13/15 07:30
500-97344-9	1860-23-B02 (2-4)D	Solid	06/12/15 14:30	06/13/15 07:30
500-97344-10	1860-23-B02 (10-12)	Solid	06/12/15 14:50	06/13/15 07:30

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97344-1

Client Sample ID: 1860-23-B11 (0-2)

Lab Sample ID: 500-97344-1

Date Collected: 06/12/15 09:35

Matrix: Solid

Date Received: 06/13/15 07:30

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.097	J	0.50	0.050	mg/L	-	06/16/15 09:34	06/16/15 18:14	1
Beryllium	<0.0040		0.0040	0.0040	mg/L	-	06/16/15 09:34	06/16/15 18:14	1
Boron	0.44	J	0.50	0.050	mg/L	-	06/16/15 09:34	06/16/15 18:14	1
Cadmium	0.049		0.0050	0.0020	mg/L	-	06/16/15 09:34	06/16/15 18:14	1
Chromium	<0.025		0.025	0.010	mg/L	-	06/16/15 09:34	06/16/15 18:14	1
Cobalt	0.019	J	0.025	0.010	mg/L	-	06/16/15 09:34	06/16/15 18:14	1
Iron	<0.20		0.20	0.20	mg/L	-	06/16/15 09:34	06/16/15 18:14	1
Lead	<0.0075		0.0075	0.0075	mg/L	-	06/16/15 09:34	06/16/15 18:14	1
Manganese	1.8		0.025	0.010	mg/L	-	06/16/15 09:34	06/16/15 18:14	1
Nickel	0.079		0.025	0.010	mg/L	-	06/16/15 09:34	06/16/15 18:14	1
Selenium	<0.050		0.050	0.020	mg/L	-	06/16/15 09:34	06/16/15 18:14	1
Silver	<0.025		0.025	0.010	mg/L	-	06/16/15 09:34	06/16/15 18:14	1
Zinc	0.97		0.10	0.020	mg/L	-	06/16/15 09:34	06/16/15 18:14	1

Method: 6010B - SPLP Metals - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	0.0039	J	0.0050	0.0020	mg/L	-	06/23/15 14:00	06/24/15 11:37	1
Manganese	<0.025		0.025	0.010	mg/L	-	06/23/15 14:00	06/24/15 11:37	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	-	06/16/15 09:34	06/17/15 14:43	1
Thallium	<0.0020		0.0020	0.0020	mg/L	-	06/16/15 09:34	06/17/15 14:43	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	-	06/15/15 11:30	06/16/15 11:09	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.35		0.200	0.200	SU	-		06/16/15 11:19	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97344-1

Client Sample ID: 1860-23-B11 (0-2)

Lab Sample ID: 500-97344-1

Date Collected: 06/12/15 09:35

Matrix: Solid

Date Received: 06/13/15 07:30

Percent Solids: 69.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.0060		0.0060	0.0046	mg/Kg	☼	06/13/15 09:45	06/17/15 15:27	1
Benzene	<0.0060		0.0060	0.0013	mg/Kg	☼	06/13/15 09:45	06/17/15 15:27	1
Bromodichloromethane	<0.0060		0.0060	0.0010	mg/Kg	☼	06/13/15 09:45	06/17/15 15:27	1
Bromoform	<0.0060		0.0060	0.0012	mg/Kg	☼	06/13/15 09:45	06/17/15 15:27	1
Bromomethane	<0.0060		0.0060	0.0022	mg/Kg	☼	06/13/15 09:45	06/17/15 15:27	1
2-Butanone (MEK)	<0.0060		0.0060	0.0021	mg/Kg	☼	06/13/15 09:45	06/17/15 15:27	1
Carbon disulfide	<0.0060		0.0060	0.0022	mg/Kg	☼	06/13/15 09:45	06/17/15 15:27	1
Carbon tetrachloride	<0.0060		0.0060	0.0013	mg/Kg	☼	06/13/15 09:45	06/17/15 15:27	1
Chlorobenzene	<0.0060		0.0060	0.0014	mg/Kg	☼	06/13/15 09:45	06/17/15 15:27	1
Chloroethane	<0.0060		0.0060	0.0025	mg/Kg	☼	06/13/15 09:45	06/17/15 15:27	1
Chloroform	<0.0060		0.0060	0.0012	mg/Kg	☼	06/13/15 09:45	06/17/15 15:27	1
Chloromethane	<0.0060		0.0060	0.0014	mg/Kg	☼	06/13/15 09:45	06/17/15 15:27	1
cis-1,2-Dichloroethene	<0.0060		0.0060	0.0012	mg/Kg	☼	06/13/15 09:45	06/17/15 15:27	1
cis-1,3-Dichloropropene	<0.0060		0.0060	0.0014	mg/Kg	☼	06/13/15 09:45	06/17/15 15:27	1
Dibromochloromethane	<0.0060		0.0060	0.00069	mg/Kg	☼	06/13/15 09:45	06/17/15 15:27	1
1,1-Dichloroethane	<0.0060		0.0060	0.0012	mg/Kg	☼	06/13/15 09:45	06/17/15 15:27	1
1,2-Dichloroethane	<0.0060		0.0060	0.00088	mg/Kg	☼	06/13/15 09:45	06/17/15 15:27	1
1,1-Dichloroethene	<0.0060		0.0060	0.0022	mg/Kg	☼	06/13/15 09:45	06/17/15 15:27	1
1,2-Dichloropropane	<0.0060		0.0060	0.0016	mg/Kg	☼	06/13/15 09:45	06/17/15 15:27	1
1,3-Dichloropropane, Total	<0.0060		0.0060	0.0017	mg/Kg	☼	06/13/15 09:45	06/17/15 15:27	1
Ethylbenzene	<0.0060		0.0060	0.0015	mg/Kg	☼	06/13/15 09:45	06/17/15 15:27	1
2-Hexanone	<0.0060		0.0060	0.0018	mg/Kg	☼	06/13/15 09:45	06/17/15 15:27	1
Methylene Chloride	<0.0060		0.0060	0.0045	mg/Kg	☼	06/13/15 09:45	06/17/15 15:27	1
4-Methyl-2-pentanone (MIBK)	<0.0060		0.0060	0.0012	mg/Kg	☼	06/13/15 09:45	06/17/15 15:27	1
Methyl tert-butyl ether	<0.0060		0.0060	0.0014	mg/Kg	☼	06/13/15 09:45	06/17/15 15:27	1
Styrene	<0.0060		0.0060	0.0014	mg/Kg	☼	06/13/15 09:45	06/17/15 15:27	1
1,1,2,2-Tetrachloroethane	<0.0060		0.0060	0.00095	mg/Kg	☼	06/13/15 09:45	06/17/15 15:27	1
Tetrachloroethene	<0.0060		0.0060	0.0012	mg/Kg	☼	06/13/15 09:45	06/17/15 15:27	1
Toluene	<0.0060		0.0060	0.0021	mg/Kg	☼	06/13/15 09:45	06/17/15 15:27	1
trans-1,2-Dichloroethene	<0.0060		0.0060	0.0015	mg/Kg	☼	06/13/15 09:45	06/17/15 15:27	1
trans-1,3-Dichloropropene	<0.0060		0.0060	0.0017	mg/Kg	☼	06/13/15 09:45	06/17/15 15:27	1
1,1,1-Trichloroethane	<0.0060		0.0060	0.0014	mg/Kg	☼	06/13/15 09:45	06/17/15 15:27	1
1,1,2-Trichloroethane	<0.0060		0.0060	0.0012	mg/Kg	☼	06/13/15 09:45	06/17/15 15:27	1
Trichloroethene	<0.0060		0.0060	0.0016	mg/Kg	☼	06/13/15 09:45	06/17/15 15:27	1
Vinyl acetate	<0.0060		0.0060	0.0016	mg/Kg	☼	06/13/15 09:45	06/17/15 15:27	1
Vinyl chloride	<0.0060		0.0060	0.0014	mg/Kg	☼	06/13/15 09:45	06/17/15 15:27	1
Xylenes, Total	<0.012		0.012	0.0022	mg/Kg	☼	06/13/15 09:45	06/17/15 15:27	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	106		70 - 122	06/13/15 09:45	06/17/15 15:27	1
Dibromofluoromethane	112		75 - 120	06/13/15 09:45	06/17/15 15:27	1
1,2-Dichloroethane-d4 (Surr)	115		70 - 134	06/13/15 09:45	06/17/15 15:27	1
Toluene-d8 (Surr)	112		75 - 122	06/13/15 09:45	06/17/15 15:27	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<2.4	*	2.4	1.1	mg/Kg	☼	06/23/15 07:29	06/25/15 19:31	10
Bis(2-chloroethyl)ether	<2.4		2.4	0.71	mg/Kg	☼	06/23/15 07:29	06/25/15 19:31	10
1,3-Dichlorobenzene	<2.4		2.4	0.53	mg/Kg	☼	06/23/15 07:29	06/25/15 19:31	10
1,4-Dichlorobenzene	<2.4		2.4	0.61	mg/Kg	☼	06/23/15 07:29	06/25/15 19:31	10

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97344-1

Client Sample ID: 1860-23-B11 (0-2)

Lab Sample ID: 500-97344-1

Date Collected: 06/12/15 09:35

Matrix: Solid

Date Received: 06/13/15 07:30

Percent Solids: 69.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<2.4		2.4	0.57	mg/Kg	☼	06/23/15 07:29	06/25/15 19:31	10
2-Methylphenol	<2.4	*	2.4	0.76	mg/Kg	☼	06/23/15 07:29	06/25/15 19:31	10
2,2'-oxybis[1-chloropropane]	<2.4		2.4	0.55	mg/Kg	☼	06/23/15 07:29	06/25/15 19:31	10
N-Nitrosodi-n-propylamine	<2.4		2.4	0.58	mg/Kg	☼	06/23/15 07:29	06/25/15 19:31	10
Hexachloroethane	<2.4		2.4	0.72	mg/Kg	☼	06/23/15 07:29	06/25/15 19:31	10
2-Chlorophenol	<2.4		2.4	0.81	mg/Kg	☼	06/23/15 07:29	06/25/15 19:31	10
Nitrobenzene	<0.47		0.47	0.12	mg/Kg	☼	06/23/15 07:29	06/25/15 19:31	10
Bis(2-chloroethoxy)methane	<2.4		2.4	0.48	mg/Kg	☼	06/23/15 07:29	06/25/15 19:31	10
1,2,4-Trichlorobenzene	<2.4		2.4	0.51	mg/Kg	☼	06/23/15 07:29	06/25/15 19:31	10
Isophorone	<2.4		2.4	0.53	mg/Kg	☼	06/23/15 07:29	06/25/15 19:31	10
2,4-Dimethylphenol	<4.7		4.7	1.8	mg/Kg	☼	06/23/15 07:29	06/25/15 19:31	10
Hexachlorobutadiene	<2.4		2.4	0.74	mg/Kg	☼	06/23/15 07:29	06/25/15 19:31	10
Naphthalene	0.25	J	0.47	0.073	mg/Kg	☼	06/23/15 07:29	06/25/15 19:31	10
2,4-Dichlorophenol	<4.7		4.7	1.1	mg/Kg	☼	06/23/15 07:29	06/25/15 19:31	10
4-Chloroaniline	<9.6		9.6	2.2	mg/Kg	☼	06/23/15 07:29	06/25/15 19:31	10
2,4,6-Trichlorophenol	<4.7		4.7	1.6	mg/Kg	☼	06/23/15 07:29	06/25/15 19:31	10
2,4,5-Trichlorophenol	<4.7		4.7	1.1	mg/Kg	☼	06/23/15 07:29	06/25/15 19:31	10
Hexachlorocyclopentadiene	<9.6		9.6	2.7	mg/Kg	☼	06/23/15 07:29	06/25/15 19:31	10
2-Methylnaphthalene	0.35	J	0.47	0.087	mg/Kg	☼	06/23/15 07:29	06/25/15 19:31	10
2-Nitroaniline	<2.4		2.4	0.64	mg/Kg	☼	06/23/15 07:29	06/25/15 19:31	10
2-Chloronaphthalene	<2.4		2.4	0.52	mg/Kg	☼	06/23/15 07:29	06/25/15 19:31	10
4-Chloro-3-methylphenol	<4.7		4.7	1.6	mg/Kg	☼	06/23/15 07:29	06/25/15 19:31	10
2,6-Dinitrotoluene	<2.4		2.4	0.93	mg/Kg	☼	06/23/15 07:29	06/25/15 19:31	10
2-Nitrophenol	<4.7		4.7	1.1	mg/Kg	☼	06/23/15 07:29	06/25/15 19:31	10
3-Nitroaniline	<4.7		4.7	1.5	mg/Kg	☼	06/23/15 07:29	06/25/15 19:31	10
Dimethyl phthalate	<2.4		2.4	0.62	mg/Kg	☼	06/23/15 07:29	06/25/15 19:31	10
2,4-Dinitrophenol	<9.6		9.6	8.3	mg/Kg	☼	06/23/15 07:29	06/25/15 19:31	10
Acenaphthylene	0.18	J	0.47	0.062	mg/Kg	☼	06/23/15 07:29	06/25/15 19:31	10
2,4-Dinitrotoluene	<2.4		2.4	0.75	mg/Kg	☼	06/23/15 07:29	06/25/15 19:31	10
Acenaphthene	0.097	J	0.47	0.085	mg/Kg	☼	06/23/15 07:29	06/25/15 19:31	10
Dibenzofuran	<2.4		2.4	0.55	mg/Kg	☼	06/23/15 07:29	06/25/15 19:31	10
4-Nitrophenol	<9.6		9.6	4.5	mg/Kg	☼	06/23/15 07:29	06/25/15 19:31	10
Fluorene	0.12	J	0.47	0.067	mg/Kg	☼	06/23/15 07:29	06/25/15 19:31	10
4-Nitroaniline	<4.7		4.7	2.0	mg/Kg	☼	06/23/15 07:29	06/25/15 19:31	10
4-Bromophenyl phenyl ether	<2.4		2.4	0.62	mg/Kg	☼	06/23/15 07:29	06/25/15 19:31	10
Hexachlorobenzene	<0.96		0.96	0.11	mg/Kg	☼	06/23/15 07:29	06/25/15 19:31	10
Diethyl phthalate	<2.4		2.4	0.80	mg/Kg	☼	06/23/15 07:29	06/25/15 19:31	10
4-Chlorophenyl phenyl ether	<2.4		2.4	0.55	mg/Kg	☼	06/23/15 07:29	06/25/15 19:31	10
Pentachlorophenol	<9.6		9.6	7.6	mg/Kg	☼	06/23/15 07:29	06/25/15 19:31	10
N-Nitrosodiphenylamine	<2.4		2.4	0.56	mg/Kg	☼	06/23/15 07:29	06/25/15 19:31	10
4,6-Dinitro-2-methylphenol	<4.7		4.7	3.8	mg/Kg	☼	06/23/15 07:29	06/25/15 19:31	10
Phenanthrene	1.2		0.47	0.066	mg/Kg	☼	06/23/15 07:29	06/25/15 19:31	10
Anthracene	0.35	J	0.47	0.079	mg/Kg	☼	06/23/15 07:29	06/25/15 19:31	10
Carbazole	<2.4		2.4	1.2	mg/Kg	☼	06/23/15 07:29	06/25/15 19:31	10
Di-n-butyl phthalate	<2.4		2.4	0.72	mg/Kg	☼	06/23/15 07:29	06/25/15 19:31	10
Fluoranthene	2.1		0.47	0.088	mg/Kg	☼	06/23/15 07:29	06/25/15 19:31	10
Pyrene	1.4		0.47	0.094	mg/Kg	☼	06/23/15 07:29	06/25/15 19:31	10
Butyl benzyl phthalate	<2.4		2.4	0.90	mg/Kg	☼	06/23/15 07:29	06/25/15 19:31	10
Benzo[a]anthracene	1.0		0.47	0.064	mg/Kg	☼	06/23/15 07:29	06/25/15 19:31	10

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97344-1

Client Sample ID: 1860-23-B11 (0-2)

Lab Sample ID: 500-97344-1

Date Collected: 06/12/15 09:35

Matrix: Solid

Date Received: 06/13/15 07:30

Percent Solids: 69.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	1.2		0.47	0.13	mg/Kg	☼	06/23/15 07:29	06/25/15 19:31	10
3,3'-Dichlorobenzidine	<2.4		2.4	0.66	mg/Kg	☼	06/23/15 07:29	06/25/15 19:31	10
Bis(2-ethylhexyl) phthalate	<2.4		2.4	0.87	mg/Kg	☼	06/23/15 07:29	06/25/15 19:31	10
Di-n-octyl phthalate	<2.4		2.4	0.77	mg/Kg	☼	06/23/15 07:29	06/25/15 19:31	10
Benzo[b]fluoranthene	1.6 *		0.47	0.10	mg/Kg	☼	06/23/15 07:29	06/25/15 19:31	10
Benzo[k]fluoranthene	0.77		0.47	0.14	mg/Kg	☼	06/23/15 07:29	06/25/15 19:31	10
Benzo[a]pyrene	1.2 B		0.47	0.092	mg/Kg	☼	06/23/15 07:29	06/25/15 19:31	10
Indeno[1,2,3-cd]pyrene	0.95		0.47	0.12	mg/Kg	☼	06/23/15 07:29	06/25/15 19:31	10
Dibenz(a,h)anthracene	<0.47		0.47	0.092	mg/Kg	☼	06/23/15 07:29	06/25/15 19:31	10
Benzo[g,h,i]perylene	1.2		0.47	0.15	mg/Kg	☼	06/23/15 07:29	06/25/15 19:31	10
3 & 4 Methylphenol	<2.4		2.4	0.79	mg/Kg	☼	06/23/15 07:29	06/25/15 19:31	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	73		25 - 110	06/23/15 07:29	06/25/15 19:31	10
Phenol-d5	54		31 - 110	06/23/15 07:29	06/25/15 19:31	10
Nitrobenzene-d5	69		25 - 115	06/23/15 07:29	06/25/15 19:31	10
2-Fluorobiphenyl	66		25 - 119	06/23/15 07:29	06/25/15 19:31	10
2,4,6-Tribromophenol	82		35 - 137	06/23/15 07:29	06/25/15 19:31	10
Terphenyl-d14	77		36 - 134	06/23/15 07:29	06/25/15 19:31	10

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.3	F1	1.3	0.28	mg/Kg	☼	06/16/15 17:41	06/17/15 17:49	1
Arsenic	13	F1	0.67	0.31	mg/Kg	☼	06/16/15 17:41	06/17/15 17:49	1
Barium	150	F1 F2	0.67	0.12	mg/Kg	☼	06/16/15 17:41	06/17/15 17:49	1
Beryllium	0.70		0.27	0.058	mg/Kg	☼	06/16/15 17:41	06/17/15 17:49	1
Boron	14		3.4	0.47	mg/Kg	☼	06/16/15 17:41	06/17/15 17:49	1
Cadmium	49	F1 F2	0.13	0.039	mg/Kg	☼	06/16/15 17:41	06/17/15 17:49	1
Calcium	81000		67	22	mg/Kg	☼	06/16/15 17:41	06/18/15 12:45	5
Chromium	290	F2	0.67	0.12	mg/Kg	☼	06/16/15 17:41	06/17/15 17:49	1
Cobalt	15	F1	0.34	0.076	mg/Kg	☼	06/16/15 17:41	06/17/15 17:49	1
Copper	260	B F1 F2	0.67	0.15	mg/Kg	☼	06/16/15 17:41	06/17/15 17:49	1
Iron	23000		13	5.2	mg/Kg	☼	06/16/15 17:41	06/17/15 17:49	1
Lead	220	F2	0.34	0.17	mg/Kg	☼	06/16/15 17:41	06/17/15 17:49	1
Magnesium	38000		6.7	2.7	mg/Kg	☼	06/16/15 17:41	06/17/15 17:49	1
Manganese	350	F1	0.67	0.13	mg/Kg	☼	06/16/15 17:41	06/17/15 17:49	1
Nickel	110	F1	0.67	0.18	mg/Kg	☼	06/16/15 17:41	06/17/15 17:49	1
Potassium	1900	F1	34	5.5	mg/Kg	☼	06/16/15 17:41	06/17/15 17:49	1
Selenium	1.5	F1	0.67	0.33	mg/Kg	☼	06/16/15 17:41	06/17/15 17:49	1
Silver	9.4	F1 F2	0.34	0.078	mg/Kg	☼	06/16/15 17:41	06/17/15 17:49	1
Sodium	870	F1	67	8.8	mg/Kg	☼	06/16/15 17:41	06/17/15 17:49	1
Thallium	<0.67		0.67	0.33	mg/Kg	☼	06/16/15 17:41	06/17/15 17:49	1
Vanadium	21	F1	0.34	0.098	mg/Kg	☼	06/16/15 17:41	06/17/15 17:49	1
Zinc	1200	B F2	6.7	2.1	mg/Kg	☼	06/16/15 17:41	06/18/15 12:45	5

Method: 7471B - Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	5.2		0.45	0.16	mg/Kg	☼	06/15/15 13:00	06/17/15 10:08	20

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97344-1

Client Sample ID: 1860-23-B11 (6-8)

Lab Sample ID: 500-97344-2

Date Collected: 06/12/15 09:40

Matrix: Solid

Date Received: 06/13/15 07:30

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.48	J	0.50	0.050	mg/L		06/16/15 09:34	06/16/15 18:35	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		06/16/15 09:34	06/16/15 18:35	1
Boron	0.69		0.50	0.050	mg/L		06/16/15 09:34	06/16/15 18:35	1
Cadmium	0.0034	J	0.0050	0.0020	mg/L		06/16/15 09:34	06/16/15 18:35	1
Chromium	<0.025		0.025	0.010	mg/L		06/16/15 09:34	06/16/15 18:35	1
Cobalt	0.026		0.025	0.010	mg/L		06/16/15 09:34	06/16/15 18:35	1
Iron	0.22		0.20	0.20	mg/L		06/16/15 09:34	06/16/15 18:35	1
Lead	0.022		0.0075	0.0075	mg/L		06/16/15 09:34	06/16/15 18:35	1
Manganese	3.4		0.025	0.010	mg/L		06/16/15 09:34	06/16/15 18:35	1
Nickel	0.039		0.025	0.010	mg/L		06/16/15 09:34	06/16/15 18:35	1
Selenium	<0.050		0.050	0.020	mg/L		06/16/15 09:34	06/16/15 18:35	1
Silver	<0.025		0.025	0.010	mg/L		06/16/15 09:34	06/16/15 18:35	1
Zinc	0.21		0.10	0.020	mg/L		06/16/15 09:34	06/16/15 18:35	1

Method: 6010B - SPLP Metals - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	<0.0075		0.0075	0.0075	mg/L		06/23/15 14:00	06/24/15 11:41	1
Manganese	0.23		0.025	0.010	mg/L		06/23/15 14:00	06/24/15 11:41	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		06/16/15 09:34	06/17/15 14:59	1
Thallium	<0.0020		0.0020	0.0020	mg/L		06/16/15 09:34	06/17/15 14:59	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		06/15/15 11:30	06/16/15 11:11	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.42		0.200	0.200	SU			06/16/15 11:21	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97344-1

Client Sample ID: 1860-23-B11 (6-8)

Lab Sample ID: 500-97344-2

Date Collected: 06/12/15 09:40

Matrix: Solid

Date Received: 06/13/15 07:30

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		0.0044	0.0034	mg/Kg	☼	06/13/15 09:45	06/17/15 15:51	1
Benzene	<0.0044		0.0044	0.00097	mg/Kg	☼	06/13/15 09:45	06/17/15 15:51	1
Bromodichloromethane	<0.0044		0.0044	0.00074	mg/Kg	☼	06/13/15 09:45	06/17/15 15:51	1
Bromoform	<0.0044		0.0044	0.00090	mg/Kg	☼	06/13/15 09:45	06/17/15 15:51	1
Bromomethane	<0.0044		0.0044	0.0016	mg/Kg	☼	06/13/15 09:45	06/17/15 15:51	1
2-Butanone (MEK)	<0.0044		0.0044	0.0016	mg/Kg	☼	06/13/15 09:45	06/17/15 15:51	1
Carbon disulfide	<0.0044		0.0044	0.0016	mg/Kg	☼	06/13/15 09:45	06/17/15 15:51	1
Carbon tetrachloride	<0.0044		0.0044	0.00094	mg/Kg	☼	06/13/15 09:45	06/17/15 15:51	1
Chlorobenzene	<0.0044		0.0044	0.0010	mg/Kg	☼	06/13/15 09:45	06/17/15 15:51	1
Chloroethane	<0.0044		0.0044	0.0018	mg/Kg	☼	06/13/15 09:45	06/17/15 15:51	1
Chloroform	<0.0044		0.0044	0.00086	mg/Kg	☼	06/13/15 09:45	06/17/15 15:51	1
Chloromethane	<0.0044		0.0044	0.0011	mg/Kg	☼	06/13/15 09:45	06/17/15 15:51	1
cis-1,2-Dichloroethene	<0.0044		0.0044	0.00090	mg/Kg	☼	06/13/15 09:45	06/17/15 15:51	1
cis-1,3-Dichloropropene	<0.0044		0.0044	0.0010	mg/Kg	☼	06/13/15 09:45	06/17/15 15:51	1
Dibromochloromethane	<0.0044		0.0044	0.00050	mg/Kg	☼	06/13/15 09:45	06/17/15 15:51	1
1,1-Dichloroethane	<0.0044		0.0044	0.00090	mg/Kg	☼	06/13/15 09:45	06/17/15 15:51	1
1,2-Dichloroethane	<0.0044		0.0044	0.00065	mg/Kg	☼	06/13/15 09:45	06/17/15 15:51	1
1,1-Dichloroethene	<0.0044		0.0044	0.0016	mg/Kg	☼	06/13/15 09:45	06/17/15 15:51	1
1,2-Dichloropropane	<0.0044		0.0044	0.0012	mg/Kg	☼	06/13/15 09:45	06/17/15 15:51	1
1,3-Dichloropropane, Total	<0.0044		0.0044	0.0012	mg/Kg	☼	06/13/15 09:45	06/17/15 15:51	1
Ethylbenzene	<0.0044		0.0044	0.0011	mg/Kg	☼	06/13/15 09:45	06/17/15 15:51	1
2-Hexanone	<0.0044		0.0044	0.0014	mg/Kg	☼	06/13/15 09:45	06/17/15 15:51	1
Methylene Chloride	<0.0044		0.0044	0.0033	mg/Kg	☼	06/13/15 09:45	06/17/15 15:51	1
4-Methyl-2-pentanone (MIBK)	<0.0044		0.0044	0.00090	mg/Kg	☼	06/13/15 09:45	06/17/15 15:51	1
Methyl tert-butyl ether	<0.0044		0.0044	0.0010	mg/Kg	☼	06/13/15 09:45	06/17/15 15:51	1
Styrene	<0.0044		0.0044	0.0010	mg/Kg	☼	06/13/15 09:45	06/17/15 15:51	1
1,1,2,2-Tetrachloroethane	<0.0044		0.0044	0.00070	mg/Kg	☼	06/13/15 09:45	06/17/15 15:51	1
Tetrachloroethene	<0.0044		0.0044	0.00091	mg/Kg	☼	06/13/15 09:45	06/17/15 15:51	1
Toluene	<0.0044		0.0044	0.0015	mg/Kg	☼	06/13/15 09:45	06/17/15 15:51	1
trans-1,2-Dichloroethene	<0.0044		0.0044	0.0011	mg/Kg	☼	06/13/15 09:45	06/17/15 15:51	1
trans-1,3-Dichloropropene	<0.0044		0.0044	0.0012	mg/Kg	☼	06/13/15 09:45	06/17/15 15:51	1
1,1,1-Trichloroethane	<0.0044		0.0044	0.0010	mg/Kg	☼	06/13/15 09:45	06/17/15 15:51	1
1,1,2-Trichloroethane	<0.0044		0.0044	0.00085	mg/Kg	☼	06/13/15 09:45	06/17/15 15:51	1
Trichloroethene	<0.0044		0.0044	0.0012	mg/Kg	☼	06/13/15 09:45	06/17/15 15:51	1
Vinyl acetate	<0.0044		0.0044	0.0012	mg/Kg	☼	06/13/15 09:45	06/17/15 15:51	1
Vinyl chloride	<0.0044		0.0044	0.0010	mg/Kg	☼	06/13/15 09:45	06/17/15 15:51	1
Xylenes, Total	<0.0088		0.0088	0.0016	mg/Kg	☼	06/13/15 09:45	06/17/15 15:51	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	104		70 - 122	06/13/15 09:45	06/17/15 15:51	1
Dibromofluoromethane	108		75 - 120	06/13/15 09:45	06/17/15 15:51	1
1,2-Dichloroethane-d4 (Surr)	115		70 - 134	06/13/15 09:45	06/17/15 15:51	1
Toluene-d8 (Surr)	112		75 - 122	06/13/15 09:45	06/17/15 15:51	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.19	*	0.19	0.085	mg/Kg	☼	06/23/15 07:29	06/25/15 19:53	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.058	mg/Kg	☼	06/23/15 07:29	06/25/15 19:53	1
1,3-Dichlorobenzene	<0.19		0.19	0.043	mg/Kg	☼	06/23/15 07:29	06/25/15 19:53	1
1,4-Dichlorobenzene	<0.19		0.19	0.049	mg/Kg	☼	06/23/15 07:29	06/25/15 19:53	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97344-1

Client Sample ID: 1860-23-B11 (6-8)

Lab Sample ID: 500-97344-2

Date Collected: 06/12/15 09:40

Matrix: Solid

Date Received: 06/13/15 07:30

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	0.046	mg/Kg	☼	06/23/15 07:29	06/25/15 19:53	1
2-Methylphenol	<0.19	*	0.19	0.062	mg/Kg	☼	06/23/15 07:29	06/25/15 19:53	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.045	mg/Kg	☼	06/23/15 07:29	06/25/15 19:53	1
N-Nitrosodi-n-propylamine	<0.19		0.19	0.047	mg/Kg	☼	06/23/15 07:29	06/25/15 19:53	1
Hexachloroethane	<0.19		0.19	0.058	mg/Kg	☼	06/23/15 07:29	06/25/15 19:53	1
2-Chlorophenol	<0.19		0.19	0.066	mg/Kg	☼	06/23/15 07:29	06/25/15 19:53	1
Nitrobenzene	<0.038		0.038	0.0096	mg/Kg	☼	06/23/15 07:29	06/25/15 19:53	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.039	mg/Kg	☼	06/23/15 07:29	06/25/15 19:53	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.041	mg/Kg	☼	06/23/15 07:29	06/25/15 19:53	1
Isophorone	<0.19		0.19	0.043	mg/Kg	☼	06/23/15 07:29	06/25/15 19:53	1
2,4-Dimethylphenol	<0.38		0.38	0.15	mg/Kg	☼	06/23/15 07:29	06/25/15 19:53	1
Hexachlorobutadiene	<0.19		0.19	0.060	mg/Kg	☼	06/23/15 07:29	06/25/15 19:53	1
Naphthalene	0.019	J	0.038	0.0059	mg/Kg	☼	06/23/15 07:29	06/25/15 19:53	1
2,4-Dichlorophenol	<0.38		0.38	0.091	mg/Kg	☼	06/23/15 07:29	06/25/15 19:53	1
4-Chloroaniline	<0.78		0.78	0.18	mg/Kg	☼	06/23/15 07:29	06/25/15 19:53	1
2,4,6-Trichlorophenol	<0.38		0.38	0.13	mg/Kg	☼	06/23/15 07:29	06/25/15 19:53	1
2,4,5-Trichlorophenol	<0.38		0.38	0.088	mg/Kg	☼	06/23/15 07:29	06/25/15 19:53	1
Hexachlorocyclopentadiene	<0.78		0.78	0.22	mg/Kg	☼	06/23/15 07:29	06/25/15 19:53	1
2-Methylnaphthalene	0.028	J	0.038	0.0071	mg/Kg	☼	06/23/15 07:29	06/25/15 19:53	1
2-Nitroaniline	<0.19		0.19	0.052	mg/Kg	☼	06/23/15 07:29	06/25/15 19:53	1
2-Chloronaphthalene	<0.19		0.19	0.042	mg/Kg	☼	06/23/15 07:29	06/25/15 19:53	1
4-Chloro-3-methylphenol	<0.38		0.38	0.13	mg/Kg	☼	06/23/15 07:29	06/25/15 19:53	1
2,6-Dinitrotoluene	<0.19		0.19	0.076	mg/Kg	☼	06/23/15 07:29	06/25/15 19:53	1
2-Nitrophenol	<0.38		0.38	0.091	mg/Kg	☼	06/23/15 07:29	06/25/15 19:53	1
3-Nitroaniline	<0.38		0.38	0.12	mg/Kg	☼	06/23/15 07:29	06/25/15 19:53	1
Dimethyl phthalate	<0.19		0.19	0.050	mg/Kg	☼	06/23/15 07:29	06/25/15 19:53	1
2,4-Dinitrophenol	<0.78		0.78	0.68	mg/Kg	☼	06/23/15 07:29	06/25/15 19:53	1
Acenaphthylene	<0.038		0.038	0.0051	mg/Kg	☼	06/23/15 07:29	06/25/15 19:53	1
2,4-Dinitrotoluene	<0.19		0.19	0.061	mg/Kg	☼	06/23/15 07:29	06/25/15 19:53	1
Acenaphthene	0.13		0.038	0.0069	mg/Kg	☼	06/23/15 07:29	06/25/15 19:53	1
Dibenzofuran	0.16	J	0.19	0.045	mg/Kg	☼	06/23/15 07:29	06/25/15 19:53	1
4-Nitrophenol	<0.78		0.78	0.37	mg/Kg	☼	06/23/15 07:29	06/25/15 19:53	1
Fluorene	0.17		0.038	0.0054	mg/Kg	☼	06/23/15 07:29	06/25/15 19:53	1
4-Nitroaniline	<0.38		0.38	0.16	mg/Kg	☼	06/23/15 07:29	06/25/15 19:53	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.051	mg/Kg	☼	06/23/15 07:29	06/25/15 19:53	1
Hexachlorobenzene	<0.078		0.078	0.0089	mg/Kg	☼	06/23/15 07:29	06/25/15 19:53	1
Diethyl phthalate	<0.19		0.19	0.065	mg/Kg	☼	06/23/15 07:29	06/25/15 19:53	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.045	mg/Kg	☼	06/23/15 07:29	06/25/15 19:53	1
Pentachlorophenol	<0.78		0.78	0.62	mg/Kg	☼	06/23/15 07:29	06/25/15 19:53	1
N-Nitrosodiphenylamine	<0.19		0.19	0.045	mg/Kg	☼	06/23/15 07:29	06/25/15 19:53	1
4,6-Dinitro-2-methylphenol	<0.38		0.38	0.31	mg/Kg	☼	06/23/15 07:29	06/25/15 19:53	1
Phenanthrene	0.56		0.038	0.0054	mg/Kg	☼	06/23/15 07:29	06/25/15 19:53	1
Anthracene	0.33		0.038	0.0064	mg/Kg	☼	06/23/15 07:29	06/25/15 19:53	1
Carbazole	<0.19		0.19	0.099	mg/Kg	☼	06/23/15 07:29	06/25/15 19:53	1
Di-n-butyl phthalate	<0.19		0.19	0.059	mg/Kg	☼	06/23/15 07:29	06/25/15 19:53	1
Fluoranthene	0.65		0.038	0.0071	mg/Kg	☼	06/23/15 07:29	06/25/15 19:53	1
Pyrene	0.40		0.038	0.0076	mg/Kg	☼	06/23/15 07:29	06/25/15 19:53	1
Butyl benzyl phthalate	<0.19		0.19	0.073	mg/Kg	☼	06/23/15 07:29	06/25/15 19:53	1
Benzo[a]anthracene	0.24		0.038	0.0052	mg/Kg	☼	06/23/15 07:29	06/25/15 19:53	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97344-1

Client Sample ID: 1860-23-B11 (6-8)

Lab Sample ID: 500-97344-2

Date Collected: 06/12/15 09:40

Matrix: Solid

Date Received: 06/13/15 07:30

Percent Solids: 83.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.25		0.038	0.010	mg/Kg	☼	06/23/15 07:29	06/25/15 19:53	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.054	mg/Kg	☼	06/23/15 07:29	06/25/15 19:53	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.070	mg/Kg	☼	06/23/15 07:29	06/25/15 19:53	1
Di-n-octyl phthalate	<0.19		0.19	0.063	mg/Kg	☼	06/23/15 07:29	06/25/15 19:53	1
Benzo[b]fluoranthene	0.23	*	0.038	0.0083	mg/Kg	☼	06/23/15 07:29	06/25/15 19:53	1
Benzo[k]fluoranthene	0.11		0.038	0.011	mg/Kg	☼	06/23/15 07:29	06/25/15 19:53	1
Benzo[a]pyrene	0.18	B	0.038	0.0074	mg/Kg	☼	06/23/15 07:29	06/25/15 19:53	1
Indeno[1,2,3-cd]pyrene	0.086		0.038	0.010	mg/Kg	☼	06/23/15 07:29	06/25/15 19:53	1
Dibenz(a,h)anthracene	0.037	J B	0.038	0.0074	mg/Kg	☼	06/23/15 07:29	06/25/15 19:53	1
Benzo[g,h,i]perylene	0.10		0.038	0.012	mg/Kg	☼	06/23/15 07:29	06/25/15 19:53	1
3 & 4 Methylphenol	<0.19		0.19	0.064	mg/Kg	☼	06/23/15 07:29	06/25/15 19:53	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorophenol	64		25 - 110				06/23/15 07:29	06/25/15 19:53	1
Phenol-d5	61		31 - 110				06/23/15 07:29	06/25/15 19:53	1
Nitrobenzene-d5	57		25 - 115				06/23/15 07:29	06/25/15 19:53	1
2-Fluorobiphenyl	62		25 - 119				06/23/15 07:29	06/25/15 19:53	1
2,4,6-Tribromophenol	81		35 - 137				06/23/15 07:29	06/25/15 19:53	1
Terphenyl-d14	81		36 - 134				06/23/15 07:29	06/25/15 19:53	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.32	J	1.2	0.24	mg/Kg	☼	06/16/15 17:41	06/17/15 18:20	1
Arsenic	11		0.58	0.27	mg/Kg	☼	06/16/15 17:41	06/17/15 18:20	1
Barium	60		0.58	0.11	mg/Kg	☼	06/16/15 17:41	06/17/15 18:20	1
Beryllium	0.50		0.23	0.050	mg/Kg	☼	06/16/15 17:41	06/17/15 18:20	1
Boron	9.2		2.9	0.41	mg/Kg	☼	06/16/15 17:41	06/17/15 18:20	1
Cadmium	0.64		0.12	0.034	mg/Kg	☼	06/16/15 17:41	06/17/15 18:20	1
Calcium	57000		58	19	mg/Kg	☼	06/16/15 17:41	06/18/15 14:14	5
Chromium	16		0.58	0.10	mg/Kg	☼	06/16/15 17:41	06/17/15 18:20	1
Cobalt	12		0.29	0.066	mg/Kg	☼	06/16/15 17:41	06/17/15 18:20	1
Copper	37	B	0.58	0.13	mg/Kg	☼	06/16/15 17:41	06/17/15 18:20	1
Iron	19000		12	4.5	mg/Kg	☼	06/16/15 17:41	06/17/15 18:20	1
Lead	53		0.29	0.14	mg/Kg	☼	06/16/15 17:41	06/17/15 18:20	1
Magnesium	26000		5.8	2.4	mg/Kg	☼	06/16/15 17:41	06/17/15 18:20	1
Manganese	390		0.58	0.12	mg/Kg	☼	06/16/15 17:41	06/17/15 18:20	1
Nickel	30		0.58	0.16	mg/Kg	☼	06/16/15 17:41	06/17/15 18:20	1
Potassium	1600		29	4.7	mg/Kg	☼	06/16/15 17:41	06/17/15 18:20	1
Selenium	0.48	J	0.58	0.29	mg/Kg	☼	06/16/15 17:41	06/17/15 18:20	1
Silver	<0.29		0.29	0.068	mg/Kg	☼	06/16/15 17:41	06/17/15 18:20	1
Sodium	390		58	7.7	mg/Kg	☼	06/16/15 17:41	06/17/15 18:20	1
Thallium	<0.58		0.58	0.29	mg/Kg	☼	06/16/15 17:41	06/17/15 18:20	1
Vanadium	15		0.29	0.085	mg/Kg	☼	06/16/15 17:41	06/17/15 18:20	1
Zinc	110	B	1.2	0.37	mg/Kg	☼	06/16/15 17:41	06/18/15 13:05	1

Method: 7471B - Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.039		0.019	0.0066	mg/Kg	☼	06/15/15 13:00	06/17/15 08:46	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97344-1

Client Sample ID: 1860-23-B15 (0-2)

Lab Sample ID: 500-97344-3

Date Collected: 06/12/15 11:15

Matrix: Solid

Date Received: 06/13/15 07:30

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.13	J	0.50	0.050	mg/L		06/16/15 09:34	06/16/15 19:06	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		06/16/15 09:34	06/16/15 19:06	1
Boron	0.81		0.50	0.050	mg/L		06/16/15 09:34	06/17/15 14:30	1
Cadmium	0.0030	J	0.0050	0.0020	mg/L		06/16/15 09:34	06/16/15 19:06	1
Chromium	<0.025		0.025	0.010	mg/L		06/16/15 09:34	06/16/15 19:06	1
Cobalt	0.019	J	0.025	0.010	mg/L		06/16/15 09:34	06/16/15 19:06	1
Iron	<0.20		0.20	0.20	mg/L		06/16/15 09:34	06/16/15 19:06	1
Lead	<0.0075		0.0075	0.0075	mg/L		06/16/15 09:34	06/16/15 19:06	1
Manganese	2.1		0.025	0.010	mg/L		06/16/15 09:34	06/16/15 19:06	1
Nickel	0.016	J	0.025	0.010	mg/L		06/16/15 09:34	06/16/15 19:06	1
Selenium	0.022	J	0.050	0.020	mg/L		06/16/15 09:34	06/16/15 19:06	1
Silver	<0.025		0.025	0.010	mg/L		06/16/15 09:34	06/16/15 19:06	1
Zinc	0.033	J	0.10	0.020	mg/L		06/16/15 09:34	06/16/15 19:06	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.71		0.025	0.010	mg/L		06/23/15 14:00	06/24/15 11:45	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		06/16/15 09:34	06/17/15 15:03	1
Thallium	<0.0020		0.0020	0.0020	mg/L		06/16/15 09:34	06/17/15 15:03	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		06/15/15 11:30	06/16/15 11:13	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.39		0.200	0.200	SU			06/16/15 11:24	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97344-1

Client Sample ID: 1860-23-B15 (0-2)

Lab Sample ID: 500-97344-3

Date Collected: 06/12/15 11:15

Matrix: Solid

Date Received: 06/13/15 07:30

Percent Solids: 82.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	0.018		0.0046	0.0036	mg/Kg	☼	06/13/15 09:45	06/17/15 16:15	1
Benzene	<0.0046		0.0046	0.0010	mg/Kg	☼	06/13/15 09:45	06/17/15 16:15	1
Bromodichloromethane	<0.0046		0.0046	0.00078	mg/Kg	☼	06/13/15 09:45	06/17/15 16:15	1
Bromoform	<0.0046		0.0046	0.00095	mg/Kg	☼	06/13/15 09:45	06/17/15 16:15	1
Bromomethane	<0.0046		0.0046	0.0017	mg/Kg	☼	06/13/15 09:45	06/17/15 16:15	1
2-Butanone (MEK)	<0.0046		0.0046	0.0017	mg/Kg	☼	06/13/15 09:45	06/17/15 16:15	1
Carbon disulfide	<0.0046		0.0046	0.0017	mg/Kg	☼	06/13/15 09:45	06/17/15 16:15	1
Carbon tetrachloride	<0.0046		0.0046	0.00099	mg/Kg	☼	06/13/15 09:45	06/17/15 16:15	1
Chlorobenzene	<0.0046		0.0046	0.0011	mg/Kg	☼	06/13/15 09:45	06/17/15 16:15	1
Chloroethane	<0.0046		0.0046	0.0020	mg/Kg	☼	06/13/15 09:45	06/17/15 16:15	1
Chloroform	<0.0046		0.0046	0.00091	mg/Kg	☼	06/13/15 09:45	06/17/15 16:15	1
Chloromethane	<0.0046		0.0046	0.0011	mg/Kg	☼	06/13/15 09:45	06/17/15 16:15	1
cis-1,2-Dichloroethene	<0.0046		0.0046	0.00095	mg/Kg	☼	06/13/15 09:45	06/17/15 16:15	1
cis-1,3-Dichloropropene	<0.0046		0.0046	0.0011	mg/Kg	☼	06/13/15 09:45	06/17/15 16:15	1
Dibromochloromethane	<0.0046		0.0046	0.00053	mg/Kg	☼	06/13/15 09:45	06/17/15 16:15	1
1,1-Dichloroethane	<0.0046		0.0046	0.00096	mg/Kg	☼	06/13/15 09:45	06/17/15 16:15	1
1,2-Dichloroethane	<0.0046		0.0046	0.00069	mg/Kg	☼	06/13/15 09:45	06/17/15 16:15	1
1,1-Dichloroethene	<0.0046		0.0046	0.0017	mg/Kg	☼	06/13/15 09:45	06/17/15 16:15	1
1,2-Dichloropropane	<0.0046		0.0046	0.0012	mg/Kg	☼	06/13/15 09:45	06/17/15 16:15	1
1,3-Dichloropropane, Total	<0.0046		0.0046	0.0013	mg/Kg	☼	06/13/15 09:45	06/17/15 16:15	1
Ethylbenzene	<0.0046		0.0046	0.0012	mg/Kg	☼	06/13/15 09:45	06/17/15 16:15	1
2-Hexanone	<0.0046		0.0046	0.0014	mg/Kg	☼	06/13/15 09:45	06/17/15 16:15	1
Methylene Chloride	<0.0046		0.0046	0.0035	mg/Kg	☼	06/13/15 09:45	06/17/15 16:15	1
4-Methyl-2-pentanone (MIBK)	<0.0046		0.0046	0.00096	mg/Kg	☼	06/13/15 09:45	06/17/15 16:15	1
Methyl tert-butyl ether	<0.0046		0.0046	0.0011	mg/Kg	☼	06/13/15 09:45	06/17/15 16:15	1
Styrene	<0.0046		0.0046	0.0011	mg/Kg	☼	06/13/15 09:45	06/17/15 16:15	1
1,1,2,2-Tetrachloroethane	<0.0046		0.0046	0.00074	mg/Kg	☼	06/13/15 09:45	06/17/15 16:15	1
Tetrachloroethene	<0.0046		0.0046	0.00097	mg/Kg	☼	06/13/15 09:45	06/17/15 16:15	1
Toluene	<0.0046		0.0046	0.0016	mg/Kg	☼	06/13/15 09:45	06/17/15 16:15	1
trans-1,2-Dichloroethene	<0.0046		0.0046	0.0012	mg/Kg	☼	06/13/15 09:45	06/17/15 16:15	1
trans-1,3-Dichloropropene	<0.0046		0.0046	0.0013	mg/Kg	☼	06/13/15 09:45	06/17/15 16:15	1
1,1,1-Trichloroethane	<0.0046		0.0046	0.0011	mg/Kg	☼	06/13/15 09:45	06/17/15 16:15	1
1,1,2-Trichloroethane	<0.0046		0.0046	0.00090	mg/Kg	☼	06/13/15 09:45	06/17/15 16:15	1
Trichloroethene	<0.0046		0.0046	0.0013	mg/Kg	☼	06/13/15 09:45	06/17/15 16:15	1
Vinyl acetate	<0.0046		0.0046	0.0012	mg/Kg	☼	06/13/15 09:45	06/17/15 16:15	1
Vinyl chloride	<0.0046		0.0046	0.0011	mg/Kg	☼	06/13/15 09:45	06/17/15 16:15	1
Xylenes, Total	<0.0093		0.0093	0.0017	mg/Kg	☼	06/13/15 09:45	06/17/15 16:15	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	103		70 - 122	06/13/15 09:45	06/17/15 16:15	1
Dibromofluoromethane	112		75 - 120	06/13/15 09:45	06/17/15 16:15	1
1,2-Dichloroethane-d4 (Surr)	113		70 - 134	06/13/15 09:45	06/17/15 16:15	1
Toluene-d8 (Surr)	115		75 - 122	06/13/15 09:45	06/17/15 16:15	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	☼	06/23/15 07:29	06/25/15 05:10	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.059	mg/Kg	☼	06/23/15 07:29	06/25/15 05:10	1
1,3-Dichlorobenzene	<0.20		0.20	0.044	mg/Kg	☼	06/23/15 07:29	06/25/15 05:10	1
1,4-Dichlorobenzene	<0.20		0.20	0.050	mg/Kg	☼	06/23/15 07:29	06/25/15 05:10	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97344-1

Client Sample ID: 1860-23-B15 (0-2)

Lab Sample ID: 500-97344-3

Date Collected: 06/12/15 11:15

Matrix: Solid

Date Received: 06/13/15 07:30

Percent Solids: 82.9

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	0.047	mg/Kg	☼	06/23/15 07:29	06/25/15 05:10	1
2-Methylphenol	<0.20	*	0.20	0.063	mg/Kg	☼	06/23/15 07:29	06/25/15 05:10	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.045	mg/Kg	☼	06/23/15 07:29	06/25/15 05:10	1
N-Nitrosodi-n-propylamine	<0.20		0.20	0.048	mg/Kg	☼	06/23/15 07:29	06/25/15 05:10	1
Hexachloroethane	<0.20		0.20	0.060	mg/Kg	☼	06/23/15 07:29	06/25/15 05:10	1
2-Chlorophenol	<0.20		0.20	0.067	mg/Kg	☼	06/23/15 07:29	06/25/15 05:10	1
Nitrobenzene	<0.039		0.039	0.0098	mg/Kg	☼	06/23/15 07:29	06/25/15 05:10	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.040	mg/Kg	☼	06/23/15 07:29	06/25/15 05:10	1
1,2,4-Trichlorobenzene	<0.20		0.20	0.042	mg/Kg	☼	06/23/15 07:29	06/25/15 05:10	1
Isophorone	<0.20		0.20	0.044	mg/Kg	☼	06/23/15 07:29	06/25/15 05:10	1
2,4-Dimethylphenol	<0.39		0.39	0.15	mg/Kg	☼	06/23/15 07:29	06/25/15 05:10	1
Hexachlorobutadiene	<0.20		0.20	0.062	mg/Kg	☼	06/23/15 07:29	06/25/15 05:10	1
Naphthalene	<0.039		0.039	0.0060	mg/Kg	☼	06/23/15 07:29	06/25/15 05:10	1
2,4-Dichlorophenol	<0.39		0.39	0.093	mg/Kg	☼	06/23/15 07:29	06/25/15 05:10	1
4-Chloroaniline	<0.79		0.79	0.18	mg/Kg	☼	06/23/15 07:29	06/25/15 05:10	1
2,4,6-Trichlorophenol	<0.39		0.39	0.13	mg/Kg	☼	06/23/15 07:29	06/25/15 05:10	1
2,4,5-Trichlorophenol	<0.39		0.39	0.089	mg/Kg	☼	06/23/15 07:29	06/25/15 05:10	1
Hexachlorocyclopentadiene	<0.79		0.79	0.23	mg/Kg	☼	06/23/15 07:29	06/25/15 05:10	1
2-Methylnaphthalene	<0.039		0.039	0.0072	mg/Kg	☼	06/23/15 07:29	06/25/15 05:10	1
2-Nitroaniline	<0.20		0.20	0.053	mg/Kg	☼	06/23/15 07:29	06/25/15 05:10	1
2-Chloronaphthalene	<0.20		0.20	0.043	mg/Kg	☼	06/23/15 07:29	06/25/15 05:10	1
4-Chloro-3-methylphenol	<0.39		0.39	0.13	mg/Kg	☼	06/23/15 07:29	06/25/15 05:10	1
2,6-Dinitrotoluene	<0.20		0.20	0.077	mg/Kg	☼	06/23/15 07:29	06/25/15 05:10	1
2-Nitrophenol	<0.39		0.39	0.093	mg/Kg	☼	06/23/15 07:29	06/25/15 05:10	1
3-Nitroaniline	<0.39		0.39	0.12	mg/Kg	☼	06/23/15 07:29	06/25/15 05:10	1
Dimethyl phthalate	<0.20		0.20	0.051	mg/Kg	☼	06/23/15 07:29	06/25/15 05:10	1
2,4-Dinitrophenol	<0.79		0.79	0.69	mg/Kg	☼	06/23/15 07:29	06/25/15 05:10	1
Acenaphthylene	<0.039		0.039	0.0052	mg/Kg	☼	06/23/15 07:29	06/25/15 05:10	1
2,4-Dinitrotoluene	<0.20		0.20	0.062	mg/Kg	☼	06/23/15 07:29	06/25/15 05:10	1
Acenaphthene	<0.039		0.039	0.0070	mg/Kg	☼	06/23/15 07:29	06/25/15 05:10	1
Dibenzofuran	<0.20		0.20	0.046	mg/Kg	☼	06/23/15 07:29	06/25/15 05:10	1
4-Nitrophenol	<0.79		0.79	0.37	mg/Kg	☼	06/23/15 07:29	06/25/15 05:10	1
Fluorene	<0.039		0.039	0.0055	mg/Kg	☼	06/23/15 07:29	06/25/15 05:10	1
4-Nitroaniline	<0.39		0.39	0.16	mg/Kg	☼	06/23/15 07:29	06/25/15 05:10	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.052	mg/Kg	☼	06/23/15 07:29	06/25/15 05:10	1
Hexachlorobenzene	<0.079		0.079	0.0091	mg/Kg	☼	06/23/15 07:29	06/25/15 05:10	1
Diethyl phthalate	<0.20		0.20	0.066	mg/Kg	☼	06/23/15 07:29	06/25/15 05:10	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.046	mg/Kg	☼	06/23/15 07:29	06/25/15 05:10	1
Pentachlorophenol	<0.79		0.79	0.63	mg/Kg	☼	06/23/15 07:29	06/25/15 05:10	1
N-Nitrosodiphenylamine	<0.20		0.20	0.046	mg/Kg	☼	06/23/15 07:29	06/25/15 05:10	1
4,6-Dinitro-2-methylphenol	<0.39		0.39	0.31	mg/Kg	☼	06/23/15 07:29	06/25/15 05:10	1
Phenanthrene	<0.039		0.039	0.0055	mg/Kg	☼	06/23/15 07:29	06/25/15 05:10	1
Anthracene	<0.039		0.039	0.0065	mg/Kg	☼	06/23/15 07:29	06/25/15 05:10	1
Carbazole	<0.20		0.20	0.10	mg/Kg	☼	06/23/15 07:29	06/25/15 05:10	1
Di-n-butyl phthalate	<0.20		0.20	0.060	mg/Kg	☼	06/23/15 07:29	06/25/15 05:10	1
Fluoranthene	<0.039		0.039	0.0073	mg/Kg	☼	06/23/15 07:29	06/25/15 05:10	1
Pyrene	<0.039		0.039	0.0078	mg/Kg	☼	06/23/15 07:29	06/25/15 05:10	1
Butyl benzyl phthalate	<0.20		0.20	0.075	mg/Kg	☼	06/23/15 07:29	06/25/15 05:10	1
Benzo[a]anthracene	<0.039		0.039	0.0053	mg/Kg	☼	06/23/15 07:29	06/25/15 05:10	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97344-1

Client Sample ID: 1860-23-B15 (0-2)

Lab Sample ID: 500-97344-3

Date Collected: 06/12/15 11:15

Matrix: Solid

Date Received: 06/13/15 07:30

Percent Solids: 82.9

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	☼	06/23/15 07:29	06/25/15 05:10	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.055	mg/Kg	☼	06/23/15 07:29	06/25/15 05:10	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.072	mg/Kg	☼	06/23/15 07:29	06/25/15 05:10	1
Di-n-octyl phthalate	<0.20		0.20	0.064	mg/Kg	☼	06/23/15 07:29	06/25/15 05:10	1
Benzo[b]fluoranthene	<0.039 *		0.039	0.0085	mg/Kg	☼	06/23/15 07:29	06/25/15 05:10	1
Benzo[k]fluoranthene	<0.039		0.039	0.012	mg/Kg	☼	06/23/15 07:29	06/25/15 05:10	1
Benzo[a]pyrene	<0.039		0.039	0.0076	mg/Kg	☼	06/23/15 07:29	06/25/15 05:10	1
Indeno[1,2,3-cd]pyrene	<0.039		0.039	0.010	mg/Kg	☼	06/23/15 07:29	06/25/15 05:10	1
Dibenz(a,h)anthracene	<0.039		0.039	0.0076	mg/Kg	☼	06/23/15 07:29	06/25/15 05:10	1
Benzo[g,h,i]perylene	<0.039		0.039	0.013	mg/Kg	☼	06/23/15 07:29	06/25/15 05:10	1
3 & 4 Methylphenol	<0.20		0.20	0.065	mg/Kg	☼	06/23/15 07:29	06/25/15 05:10	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	58		25 - 110	06/23/15 07:29	06/25/15 05:10	1
Phenol-d5	55		31 - 110	06/23/15 07:29	06/25/15 05:10	1
Nitrobenzene-d5	51		25 - 115	06/23/15 07:29	06/25/15 05:10	1
2-Fluorobiphenyl	51		25 - 119	06/23/15 07:29	06/25/15 05:10	1
2,4,6-Tribromophenol	62		35 - 137	06/23/15 07:29	06/25/15 05:10	1
Terphenyl-d14	75		36 - 134	06/23/15 07:29	06/25/15 05:10	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.2		1.2	0.25	mg/Kg	☼	06/16/15 17:41	06/17/15 18:25	1
Arsenic	7.6		0.60	0.28	mg/Kg	☼	06/16/15 17:41	06/17/15 18:25	1
Barium	53		0.60	0.11	mg/Kg	☼	06/16/15 17:41	06/17/15 18:25	1
Beryllium	0.73		0.24	0.052	mg/Kg	☼	06/16/15 17:41	06/17/15 18:25	1
Boron	14		3.0	0.42	mg/Kg	☼	06/16/15 17:41	06/17/15 18:25	1
Cadmium	0.099	J	0.12	0.035	mg/Kg	☼	06/16/15 17:41	06/17/15 18:25	1
Calcium	59000		60	19	mg/Kg	☼	06/16/15 17:41	06/18/15 14:18	5
Chromium	20		0.60	0.10	mg/Kg	☼	06/16/15 17:41	06/17/15 18:25	1
Cobalt	16		0.30	0.068	mg/Kg	☼	06/16/15 17:41	06/17/15 18:25	1
Copper	26	B	0.60	0.13	mg/Kg	☼	06/16/15 17:41	06/17/15 18:25	1
Iron	21000		12	4.6	mg/Kg	☼	06/16/15 17:41	06/17/15 18:25	1
Lead	14		0.30	0.15	mg/Kg	☼	06/16/15 17:41	06/17/15 18:25	1
Magnesium	22000		6.0	2.4	mg/Kg	☼	06/16/15 17:41	06/17/15 18:25	1
Manganese	450		0.60	0.12	mg/Kg	☼	06/16/15 17:41	06/17/15 18:25	1
Nickel	42		0.60	0.16	mg/Kg	☼	06/16/15 17:41	06/17/15 18:25	1
Potassium	2900		30	4.9	mg/Kg	☼	06/16/15 17:41	06/17/15 18:25	1
Selenium	0.66		0.60	0.30	mg/Kg	☼	06/16/15 17:41	06/17/15 18:25	1
Silver	<0.30		0.30	0.070	mg/Kg	☼	06/16/15 17:41	06/17/15 18:25	1
Sodium	2200		60	7.9	mg/Kg	☼	06/16/15 17:41	06/17/15 18:25	1
Thallium	<0.60		0.60	0.30	mg/Kg	☼	06/16/15 17:41	06/17/15 18:25	1
Vanadium	23		0.30	0.088	mg/Kg	☼	06/16/15 17:41	06/17/15 18:25	1
Zinc	61	B	1.2	0.38	mg/Kg	☼	06/16/15 17:41	06/18/15 13:17	1

Method: 7471B - Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.028		0.019	0.0065	mg/Kg	☼	06/15/15 13:00	06/17/15 08:49	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97344-1

Client Sample ID: 1860-23-B15 (4-6)

Lab Sample ID: 500-97344-4

Date Collected: 06/12/15 11:20

Matrix: Solid

Date Received: 06/13/15 07:30

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.13	J	0.50	0.050	mg/L		06/16/15 09:34	06/16/15 19:11	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		06/16/15 09:34	06/16/15 19:11	1
Boron	0.70		0.50	0.050	mg/L		06/16/15 09:34	06/17/15 14:37	1
Cadmium	0.0032	J	0.0050	0.0020	mg/L		06/16/15 09:34	06/16/15 19:11	1
Chromium	<0.025		0.025	0.010	mg/L		06/16/15 09:34	06/16/15 19:11	1
Cobalt	0.028		0.025	0.010	mg/L		06/16/15 09:34	06/16/15 19:11	1
Iron	<0.20		0.20	0.20	mg/L		06/16/15 09:34	06/16/15 19:11	1
Lead	<0.0075		0.0075	0.0075	mg/L		06/16/15 09:34	06/16/15 19:11	1
Manganese	2.9		0.025	0.010	mg/L		06/16/15 09:34	06/16/15 19:11	1
Nickel	0.034		0.025	0.010	mg/L		06/16/15 09:34	06/16/15 19:11	1
Selenium	<0.050		0.050	0.020	mg/L		06/16/15 09:34	06/16/15 19:11	1
Silver	<0.025		0.025	0.010	mg/L		06/16/15 09:34	06/16/15 19:11	1
Zinc	0.035	J	0.10	0.020	mg/L		06/16/15 09:34	06/16/15 19:11	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.082		0.025	0.010	mg/L		06/23/15 14:00	06/24/15 11:50	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		06/16/15 09:34	06/17/15 15:07	1
Thallium	<0.0020		0.0020	0.0020	mg/L		06/16/15 09:34	06/17/15 15:07	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		06/15/15 11:30	06/16/15 11:15	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.80		0.200	0.200	SU			06/16/15 11:27	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97344-1

Client Sample ID: 1860-23-B15 (4-6)

Lab Sample ID: 500-97344-4

Date Collected: 06/12/15 11:20

Matrix: Solid

Date Received: 06/13/15 07:30

Percent Solids: 93.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	0.029		0.0045	0.0035	mg/Kg	☼	06/13/15 09:45	06/17/15 16:39	1
Benzene	<0.0045		0.0045	0.00099	mg/Kg	☼	06/13/15 09:45	06/17/15 16:39	1
Bromodichloromethane	<0.0045		0.0045	0.00075	mg/Kg	☼	06/13/15 09:45	06/17/15 16:39	1
Bromoform	<0.0045		0.0045	0.00091	mg/Kg	☼	06/13/15 09:45	06/17/15 16:39	1
Bromomethane	<0.0045		0.0045	0.0016	mg/Kg	☼	06/13/15 09:45	06/17/15 16:39	1
2-Butanone (MEK)	<0.0045		0.0045	0.0016	mg/Kg	☼	06/13/15 09:45	06/17/15 16:39	1
Carbon disulfide	<0.0045		0.0045	0.0016	mg/Kg	☼	06/13/15 09:45	06/17/15 16:39	1
Carbon tetrachloride	<0.0045		0.0045	0.00096	mg/Kg	☼	06/13/15 09:45	06/17/15 16:39	1
Chlorobenzene	<0.0045		0.0045	0.0011	mg/Kg	☼	06/13/15 09:45	06/17/15 16:39	1
Chloroethane	<0.0045		0.0045	0.0019	mg/Kg	☼	06/13/15 09:45	06/17/15 16:39	1
Chloroform	<0.0045		0.0045	0.00087	mg/Kg	☼	06/13/15 09:45	06/17/15 16:39	1
Chloromethane	<0.0045		0.0045	0.0011	mg/Kg	☼	06/13/15 09:45	06/17/15 16:39	1
cis-1,2-Dichloroethene	<0.0045		0.0045	0.00091	mg/Kg	☼	06/13/15 09:45	06/17/15 16:39	1
cis-1,3-Dichloropropene	<0.0045		0.0045	0.0010	mg/Kg	☼	06/13/15 09:45	06/17/15 16:39	1
Dibromochloromethane	<0.0045		0.0045	0.00051	mg/Kg	☼	06/13/15 09:45	06/17/15 16:39	1
1,1-Dichloroethane	<0.0045		0.0045	0.00092	mg/Kg	☼	06/13/15 09:45	06/17/15 16:39	1
1,2-Dichloroethane	<0.0045		0.0045	0.00066	mg/Kg	☼	06/13/15 09:45	06/17/15 16:39	1
1,1-Dichloroethene	<0.0045		0.0045	0.0016	mg/Kg	☼	06/13/15 09:45	06/17/15 16:39	1
1,2-Dichloropropane	<0.0045		0.0045	0.0012	mg/Kg	☼	06/13/15 09:45	06/17/15 16:39	1
1,3-Dichloropropane, Total	<0.0045		0.0045	0.0013	mg/Kg	☼	06/13/15 09:45	06/17/15 16:39	1
Ethylbenzene	<0.0045		0.0045	0.0011	mg/Kg	☼	06/13/15 09:45	06/17/15 16:39	1
2-Hexanone	<0.0045		0.0045	0.0014	mg/Kg	☼	06/13/15 09:45	06/17/15 16:39	1
Methylene Chloride	0.0045		0.0045	0.0034	mg/Kg	☼	06/13/15 09:45	06/17/15 16:39	1
4-Methyl-2-pentanone (MIBK)	<0.0045		0.0045	0.00092	mg/Kg	☼	06/13/15 09:45	06/17/15 16:39	1
Methyl tert-butyl ether	<0.0045		0.0045	0.0011	mg/Kg	☼	06/13/15 09:45	06/17/15 16:39	1
Styrene	<0.0045		0.0045	0.0010	mg/Kg	☼	06/13/15 09:45	06/17/15 16:39	1
1,1,1,2-Tetrachloroethane	<0.0045		0.0045	0.00071	mg/Kg	☼	06/13/15 09:45	06/17/15 16:39	1
Tetrachloroethene	<0.0045		0.0045	0.00093	mg/Kg	☼	06/13/15 09:45	06/17/15 16:39	1
Toluene	<0.0045		0.0045	0.0016	mg/Kg	☼	06/13/15 09:45	06/17/15 16:39	1
trans-1,2-Dichloroethene	<0.0045		0.0045	0.0011	mg/Kg	☼	06/13/15 09:45	06/17/15 16:39	1
trans-1,3-Dichloropropene	<0.0045		0.0045	0.0013	mg/Kg	☼	06/13/15 09:45	06/17/15 16:39	1
1,1,1-Trichloroethane	<0.0045		0.0045	0.0010	mg/Kg	☼	06/13/15 09:45	06/17/15 16:39	1
1,1,2-Trichloroethane	<0.0045		0.0045	0.00087	mg/Kg	☼	06/13/15 09:45	06/17/15 16:39	1
Trichloroethene	<0.0045		0.0045	0.0012	mg/Kg	☼	06/13/15 09:45	06/17/15 16:39	1
Vinyl acetate	<0.0045		0.0045	0.0012	mg/Kg	☼	06/13/15 09:45	06/17/15 16:39	1
Vinyl chloride	<0.0045		0.0045	0.0011	mg/Kg	☼	06/13/15 09:45	06/17/15 16:39	1
Xylenes, Total	<0.0089		0.0089	0.0017	mg/Kg	☼	06/13/15 09:45	06/17/15 16:39	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	105		70 - 122	06/13/15 09:45	06/17/15 16:39	1
Dibromofluoromethane	110		75 - 120	06/13/15 09:45	06/17/15 16:39	1
1,2-Dichloroethane-d4 (Surr)	113		70 - 134	06/13/15 09:45	06/17/15 16:39	1
Toluene-d8 (Surr)	114		75 - 122	06/13/15 09:45	06/17/15 16:39	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	☼	06/23/15 07:29	06/25/15 05:31	1
Bis(2-chloroethyl)ether	<0.17		0.17	0.051	mg/Kg	☼	06/23/15 07:29	06/25/15 05:31	1
1,3-Dichlorobenzene	<0.17		0.17	0.039	mg/Kg	☼	06/23/15 07:29	06/25/15 05:31	1
1,4-Dichlorobenzene	<0.17		0.17	0.044	mg/Kg	☼	06/23/15 07:29	06/25/15 05:31	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97344-1

Client Sample ID: 1860-23-B15 (4-6)

Lab Sample ID: 500-97344-4

Date Collected: 06/12/15 11:20

Matrix: Solid

Date Received: 06/13/15 07:30

Percent Solids: 93.3

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	☼	06/23/15 07:29	06/25/15 05:31	1
2-Methylphenol	<0.17	*	0.17	0.055	mg/Kg	☼	06/23/15 07:29	06/25/15 05:31	1
2,2'-oxybis[1-chloropropane]	<0.17		0.17	0.040	mg/Kg	☼	06/23/15 07:29	06/25/15 05:31	1
N-Nitrosodi-n-propylamine	<0.17		0.17	0.042	mg/Kg	☼	06/23/15 07:29	06/25/15 05:31	1
Hexachloroethane	<0.17		0.17	0.052	mg/Kg	☼	06/23/15 07:29	06/25/15 05:31	1
2-Chlorophenol	<0.17		0.17	0.059	mg/Kg	☼	06/23/15 07:29	06/25/15 05:31	1
Nitrobenzene	<0.034		0.034	0.0086	mg/Kg	☼	06/23/15 07:29	06/25/15 05:31	1
Bis(2-chloroethoxy)methane	<0.17		0.17	0.035	mg/Kg	☼	06/23/15 07:29	06/25/15 05:31	1
1,2,4-Trichlorobenzene	<0.17		0.17	0.037	mg/Kg	☼	06/23/15 07:29	06/25/15 05:31	1
Isophorone	<0.17		0.17	0.039	mg/Kg	☼	06/23/15 07:29	06/25/15 05:31	1
2,4-Dimethylphenol	<0.34		0.34	0.13	mg/Kg	☼	06/23/15 07:29	06/25/15 05:31	1
Hexachlorobutadiene	<0.17		0.17	0.054	mg/Kg	☼	06/23/15 07:29	06/25/15 05:31	1
Naphthalene	0.0084	J	0.034	0.0053	mg/Kg	☼	06/23/15 07:29	06/25/15 05:31	1
2,4-Dichlorophenol	<0.34		0.34	0.081	mg/Kg	☼	06/23/15 07:29	06/25/15 05:31	1
4-Chloroaniline	<0.69		0.69	0.16	mg/Kg	☼	06/23/15 07:29	06/25/15 05:31	1
2,4,6-Trichlorophenol	<0.34		0.34	0.12	mg/Kg	☼	06/23/15 07:29	06/25/15 05:31	1
2,4,5-Trichlorophenol	<0.34		0.34	0.078	mg/Kg	☼	06/23/15 07:29	06/25/15 05:31	1
Hexachlorocyclopentadiene	<0.69		0.69	0.20	mg/Kg	☼	06/23/15 07:29	06/25/15 05:31	1
2-Methylnaphthalene	0.021	J	0.034	0.0063	mg/Kg	☼	06/23/15 07:29	06/25/15 05:31	1
2-Nitroaniline	<0.17		0.17	0.046	mg/Kg	☼	06/23/15 07:29	06/25/15 05:31	1
2-Chloronaphthalene	<0.17		0.17	0.038	mg/Kg	☼	06/23/15 07:29	06/25/15 05:31	1
4-Chloro-3-methylphenol	<0.34		0.34	0.12	mg/Kg	☼	06/23/15 07:29	06/25/15 05:31	1
2,6-Dinitrotoluene	<0.17		0.17	0.067	mg/Kg	☼	06/23/15 07:29	06/25/15 05:31	1
2-Nitrophenol	<0.34		0.34	0.081	mg/Kg	☼	06/23/15 07:29	06/25/15 05:31	1
3-Nitroaniline	<0.34		0.34	0.11	mg/Kg	☼	06/23/15 07:29	06/25/15 05:31	1
Dimethyl phthalate	<0.17		0.17	0.045	mg/Kg	☼	06/23/15 07:29	06/25/15 05:31	1
2,4-Dinitrophenol	<0.69		0.69	0.60	mg/Kg	☼	06/23/15 07:29	06/25/15 05:31	1
Acenaphthylene	<0.034		0.034	0.0045	mg/Kg	☼	06/23/15 07:29	06/25/15 05:31	1
2,4-Dinitrotoluene	<0.17		0.17	0.055	mg/Kg	☼	06/23/15 07:29	06/25/15 05:31	1
Acenaphthene	<0.034		0.034	0.0062	mg/Kg	☼	06/23/15 07:29	06/25/15 05:31	1
Dibenzofuran	<0.17		0.17	0.040	mg/Kg	☼	06/23/15 07:29	06/25/15 05:31	1
4-Nitrophenol	<0.69		0.69	0.33	mg/Kg	☼	06/23/15 07:29	06/25/15 05:31	1
Fluorene	<0.034		0.034	0.0048	mg/Kg	☼	06/23/15 07:29	06/25/15 05:31	1
4-Nitroaniline	<0.34		0.34	0.14	mg/Kg	☼	06/23/15 07:29	06/25/15 05:31	1
4-Bromophenyl phenyl ether	<0.17		0.17	0.045	mg/Kg	☼	06/23/15 07:29	06/25/15 05:31	1
Hexachlorobenzene	<0.069		0.069	0.0079	mg/Kg	☼	06/23/15 07:29	06/25/15 05:31	1
Diethyl phthalate	<0.17		0.17	0.058	mg/Kg	☼	06/23/15 07:29	06/25/15 05:31	1
4-Chlorophenyl phenyl ether	<0.17		0.17	0.040	mg/Kg	☼	06/23/15 07:29	06/25/15 05:31	1
Pentachlorophenol	<0.69		0.69	0.55	mg/Kg	☼	06/23/15 07:29	06/25/15 05:31	1
N-Nitrosodiphenylamine	<0.17		0.17	0.040	mg/Kg	☼	06/23/15 07:29	06/25/15 05:31	1
4,6-Dinitro-2-methylphenol	<0.34		0.34	0.28	mg/Kg	☼	06/23/15 07:29	06/25/15 05:31	1
Phenanthrene	0.052		0.034	0.0048	mg/Kg	☼	06/23/15 07:29	06/25/15 05:31	1
Anthracene	<0.034		0.034	0.0057	mg/Kg	☼	06/23/15 07:29	06/25/15 05:31	1
Carbazole	<0.17		0.17	0.089	mg/Kg	☼	06/23/15 07:29	06/25/15 05:31	1
Di-n-butyl phthalate	<0.17		0.17	0.052	mg/Kg	☼	06/23/15 07:29	06/25/15 05:31	1
Fluoranthene	0.017	J	0.034	0.0064	mg/Kg	☼	06/23/15 07:29	06/25/15 05:31	1
Pyrene	0.025	J	0.034	0.0068	mg/Kg	☼	06/23/15 07:29	06/25/15 05:31	1
Butyl benzyl phthalate	<0.17		0.17	0.065	mg/Kg	☼	06/23/15 07:29	06/25/15 05:31	1
Benzo[a]anthracene	0.0096	J	0.034	0.0046	mg/Kg	☼	06/23/15 07:29	06/25/15 05:31	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97344-1

Client Sample ID: 1860-23-B15 (4-6)

Lab Sample ID: 500-97344-4

Date Collected: 06/12/15 11:20

Matrix: Solid

Date Received: 06/13/15 07:30

Percent Solids: 93.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.024	J	0.034	0.0094	mg/Kg	☼	06/23/15 07:29	06/25/15 05:31	1
3,3'-Dichlorobenzidine	<0.17		0.17	0.048	mg/Kg	☼	06/23/15 07:29	06/25/15 05:31	1
Bis(2-ethylhexyl) phthalate	<0.17		0.17	0.063	mg/Kg	☼	06/23/15 07:29	06/25/15 05:31	1
Di-n-octyl phthalate	<0.17		0.17	0.056	mg/Kg	☼	06/23/15 07:29	06/25/15 05:31	1
Benzo[b]fluoranthene	<0.034	*	0.034	0.0074	mg/Kg	☼	06/23/15 07:29	06/25/15 05:31	1
Benzo[k]fluoranthene	<0.034		0.034	0.010	mg/Kg	☼	06/23/15 07:29	06/25/15 05:31	1
Benzo[a]pyrene	<0.034		0.034	0.0066	mg/Kg	☼	06/23/15 07:29	06/25/15 05:31	1
Indeno[1,2,3-cd]pyrene	<0.034		0.034	0.0089	mg/Kg	☼	06/23/15 07:29	06/25/15 05:31	1
Dibenz(a,h)anthracene	<0.034		0.034	0.0066	mg/Kg	☼	06/23/15 07:29	06/25/15 05:31	1
Benzo[g,h,i]perylene	0.021	J	0.034	0.011	mg/Kg	☼	06/23/15 07:29	06/25/15 05:31	1
3 & 4 Methylphenol	<0.17		0.17	0.057	mg/Kg	☼	06/23/15 07:29	06/25/15 05:31	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	75		25 - 110	06/23/15 07:29	06/25/15 05:31	1
Phenol-d5	69		31 - 110	06/23/15 07:29	06/25/15 05:31	1
Nitrobenzene-d5	68		25 - 115	06/23/15 07:29	06/25/15 05:31	1
2-Fluorobiphenyl	70		25 - 119	06/23/15 07:29	06/25/15 05:31	1
2,4,6-Tribromophenol	75		35 - 137	06/23/15 07:29	06/25/15 05:31	1
Terphenyl-d14	100		36 - 134	06/23/15 07:29	06/25/15 05:31	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.28	J	1.0	0.21	mg/Kg	☼	06/16/15 17:41	06/17/15 18:29	1
Arsenic	10		0.51	0.23	mg/Kg	☼	06/16/15 17:41	06/17/15 18:29	1
Barium	21		0.51	0.093	mg/Kg	☼	06/16/15 17:41	06/17/15 18:29	1
Beryllium	0.35		0.20	0.044	mg/Kg	☼	06/16/15 17:41	06/17/15 18:29	1
Boron	8.3		2.5	0.36	mg/Kg	☼	06/16/15 17:41	06/17/15 18:29	1
Cadmium	0.57		0.10	0.029	mg/Kg	☼	06/16/15 17:41	06/17/15 18:29	1
Calcium	81000		51	16	mg/Kg	☼	06/16/15 17:41	06/18/15 14:22	5
Chromium	8.3		0.51	0.087	mg/Kg	☼	06/16/15 17:41	06/17/15 18:29	1
Cobalt	9.2		0.25	0.057	mg/Kg	☼	06/16/15 17:41	06/17/15 18:29	1
Copper	25	B	0.51	0.11	mg/Kg	☼	06/16/15 17:41	06/17/15 18:29	1
Iron	15000		10	3.9	mg/Kg	☼	06/16/15 17:41	06/17/15 18:29	1
Lead	16		0.25	0.13	mg/Kg	☼	06/16/15 17:41	06/17/15 18:29	1
Magnesium	37000		5.1	2.1	mg/Kg	☼	06/16/15 17:41	06/17/15 18:29	1
Manganese	340		0.51	0.10	mg/Kg	☼	06/16/15 17:41	06/17/15 18:29	1
Nickel	21		0.51	0.14	mg/Kg	☼	06/16/15 17:41	06/17/15 18:29	1
Potassium	1300		25	4.1	mg/Kg	☼	06/16/15 17:41	06/17/15 18:29	1
Selenium	<0.51		0.51	0.25	mg/Kg	☼	06/16/15 17:41	06/17/15 18:29	1
Silver	<0.25		0.25	0.059	mg/Kg	☼	06/16/15 17:41	06/17/15 18:29	1
Sodium	620		51	6.7	mg/Kg	☼	06/16/15 17:41	06/17/15 18:29	1
Thallium	0.31	J	0.51	0.25	mg/Kg	☼	06/16/15 17:41	06/17/15 18:29	1
Vanadium	11		0.25	0.074	mg/Kg	☼	06/16/15 17:41	06/17/15 18:29	1
Zinc	110	B	1.0	0.32	mg/Kg	☼	06/16/15 17:41	06/18/15 13:22	1

Method: 7471B - Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.025		0.015	0.0054	mg/Kg	☼	06/15/15 13:00	06/17/15 08:51	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97344-1

Client Sample ID: 1860-23-B09 (2-4)

Lab Sample ID: 500-97344-5

Date Collected: 06/12/15 12:10

Matrix: Solid

Date Received: 06/13/15 07:30

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.089	J	0.50	0.050	mg/L	-	06/16/15 09:34	06/16/15 19:16	1
Beryllium	<0.0040		0.0040	0.0040	mg/L	-	06/16/15 09:34	06/16/15 19:16	1
Boron	0.85		0.50	0.050	mg/L	-	06/16/15 09:34	06/17/15 14:43	1
Cadmium	0.0065		0.0050	0.0020	mg/L	-	06/16/15 09:34	06/16/15 19:16	1
Chromium	<0.025		0.025	0.010	mg/L	-	06/16/15 09:34	06/16/15 19:16	1
Cobalt	0.037		0.025	0.010	mg/L	-	06/16/15 09:34	06/16/15 19:16	1
Iron	<0.20		0.20	0.20	mg/L	-	06/16/15 09:34	06/16/15 19:16	1
Lead	<0.0075		0.0075	0.0075	mg/L	-	06/16/15 09:34	06/16/15 19:16	1
Manganese	3.1		0.025	0.010	mg/L	-	06/16/15 09:34	06/16/15 19:16	1
Nickel	0.057		0.025	0.010	mg/L	-	06/16/15 09:34	06/16/15 19:16	1
Selenium	<0.050		0.050	0.020	mg/L	-	06/16/15 09:34	06/16/15 19:16	1
Silver	<0.025		0.025	0.010	mg/L	-	06/16/15 09:34	06/16/15 19:16	1
Zinc	0.14		0.10	0.020	mg/L	-	06/16/15 09:34	06/16/15 19:16	1

Method: 6010B - SPLP Metals - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L	-	06/23/15 14:00	06/24/15 11:54	1
Manganese	<0.025		0.025	0.010	mg/L	-	06/23/15 14:00	06/24/15 11:54	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	-	06/16/15 09:34	06/17/15 15:11	1
Thallium	<0.0020		0.0020	0.0020	mg/L	-	06/16/15 09:34	06/17/15 15:11	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	-	06/15/15 11:30	06/16/15 11:21	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.73		0.200	0.200	SU	-		06/16/15 11:29	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97344-1

Client Sample ID: 1860-23-B09 (2-4)

Lab Sample ID: 500-97344-5

Date Collected: 06/12/15 12:10

Matrix: Solid

Date Received: 06/13/15 07:30

Percent Solids: 84.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	0.0060		0.0054	0.0042	mg/Kg	☼	06/13/15 09:45	06/17/15 17:03	1
Benzene	<0.0054		0.0054	0.0012	mg/Kg	☼	06/13/15 09:45	06/17/15 17:03	1
Bromodichloromethane	<0.0054		0.0054	0.00091	mg/Kg	☼	06/13/15 09:45	06/17/15 17:03	1
Bromoform	<0.0054		0.0054	0.0011	mg/Kg	☼	06/13/15 09:45	06/17/15 17:03	1
Bromomethane	<0.0054		0.0054	0.0020	mg/Kg	☼	06/13/15 09:45	06/17/15 17:03	1
2-Butanone (MEK)	<0.0054		0.0054	0.0019	mg/Kg	☼	06/13/15 09:45	06/17/15 17:03	1
Carbon disulfide	<0.0054		0.0054	0.0020	mg/Kg	☼	06/13/15 09:45	06/17/15 17:03	1
Carbon tetrachloride	<0.0054		0.0054	0.0012	mg/Kg	☼	06/13/15 09:45	06/17/15 17:03	1
Chlorobenzene	<0.0054		0.0054	0.0013	mg/Kg	☼	06/13/15 09:45	06/17/15 17:03	1
Chloroethane	<0.0054		0.0054	0.0023	mg/Kg	☼	06/13/15 09:45	06/17/15 17:03	1
Chloroform	<0.0054		0.0054	0.0010	mg/Kg	☼	06/13/15 09:45	06/17/15 17:03	1
Chloromethane	<0.0054		0.0054	0.0013	mg/Kg	☼	06/13/15 09:45	06/17/15 17:03	1
cis-1,2-Dichloroethene	<0.0054		0.0054	0.0011	mg/Kg	☼	06/13/15 09:45	06/17/15 17:03	1
cis-1,3-Dichloropropene	<0.0054		0.0054	0.0012	mg/Kg	☼	06/13/15 09:45	06/17/15 17:03	1
Dibromochloromethane	<0.0054		0.0054	0.00062	mg/Kg	☼	06/13/15 09:45	06/17/15 17:03	1
1,1-Dichloroethane	<0.0054		0.0054	0.0011	mg/Kg	☼	06/13/15 09:45	06/17/15 17:03	1
1,2-Dichloroethane	<0.0054		0.0054	0.00080	mg/Kg	☼	06/13/15 09:45	06/17/15 17:03	1
1,1-Dichloroethene	<0.0054		0.0054	0.0020	mg/Kg	☼	06/13/15 09:45	06/17/15 17:03	1
1,2-Dichloropropane	<0.0054		0.0054	0.0014	mg/Kg	☼	06/13/15 09:45	06/17/15 17:03	1
1,3-Dichloropropane, Total	<0.0054		0.0054	0.0015	mg/Kg	☼	06/13/15 09:45	06/17/15 17:03	1
Ethylbenzene	<0.0054		0.0054	0.0013	mg/Kg	☼	06/13/15 09:45	06/17/15 17:03	1
2-Hexanone	<0.0054		0.0054	0.0017	mg/Kg	☼	06/13/15 09:45	06/17/15 17:03	1
Methylene Chloride	<0.0054		0.0054	0.0041	mg/Kg	☼	06/13/15 09:45	06/17/15 17:03	1
4-Methyl-2-pentanone (MIBK)	<0.0054		0.0054	0.0011	mg/Kg	☼	06/13/15 09:45	06/17/15 17:03	1
Methyl tert-butyl ether	<0.0054		0.0054	0.0013	mg/Kg	☼	06/13/15 09:45	06/17/15 17:03	1
Styrene	<0.0054		0.0054	0.0013	mg/Kg	☼	06/13/15 09:45	06/17/15 17:03	1
1,1,2,2-Tetrachloroethane	<0.0054		0.0054	0.00085	mg/Kg	☼	06/13/15 09:45	06/17/15 17:03	1
Tetrachloroethene	<0.0054		0.0054	0.0011	mg/Kg	☼	06/13/15 09:45	06/17/15 17:03	1
Toluene	<0.0054		0.0054	0.0019	mg/Kg	☼	06/13/15 09:45	06/17/15 17:03	1
trans-1,2-Dichloroethene	<0.0054		0.0054	0.0013	mg/Kg	☼	06/13/15 09:45	06/17/15 17:03	1
trans-1,3-Dichloropropene	<0.0054		0.0054	0.0015	mg/Kg	☼	06/13/15 09:45	06/17/15 17:03	1
1,1,1-Trichloroethane	<0.0054		0.0054	0.0012	mg/Kg	☼	06/13/15 09:45	06/17/15 17:03	1
1,1,2-Trichloroethane	<0.0054		0.0054	0.0010	mg/Kg	☼	06/13/15 09:45	06/17/15 17:03	1
Trichloroethene	<0.0054		0.0054	0.0015	mg/Kg	☼	06/13/15 09:45	06/17/15 17:03	1
Vinyl acetate	<0.0054		0.0054	0.0014	mg/Kg	☼	06/13/15 09:45	06/17/15 17:03	1
Vinyl chloride	<0.0054		0.0054	0.0013	mg/Kg	☼	06/13/15 09:45	06/17/15 17:03	1
Xylenes, Total	<0.011		0.011	0.0020	mg/Kg	☼	06/13/15 09:45	06/17/15 17:03	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	103		70 - 122	06/13/15 09:45	06/17/15 17:03	1
Dibromofluoromethane	109		75 - 120	06/13/15 09:45	06/17/15 17:03	1
1,2-Dichloroethane-d4 (Surr)	109		70 - 134	06/13/15 09:45	06/17/15 17:03	1
Toluene-d8 (Surr)	113		75 - 122	06/13/15 09:45	06/17/15 17:03	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	☼	06/23/15 07:29	06/25/15 05:53	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.057	mg/Kg	☼	06/23/15 07:29	06/25/15 05:53	1
1,3-Dichlorobenzene	<0.19		0.19	0.043	mg/Kg	☼	06/23/15 07:29	06/25/15 05:53	1
1,4-Dichlorobenzene	<0.19		0.19	0.049	mg/Kg	☼	06/23/15 07:29	06/25/15 05:53	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97344-1

Client Sample ID: 1860-23-B09 (2-4)

Lab Sample ID: 500-97344-5

Date Collected: 06/12/15 12:10

Matrix: Solid

Date Received: 06/13/15 07:30

Percent Solids: 84.7

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	0.045	mg/Kg	☼	06/23/15 07:29	06/25/15 05:53	1
2-Methylphenol	<0.19	*	0.19	0.061	mg/Kg	☼	06/23/15 07:29	06/25/15 05:53	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.044	mg/Kg	☼	06/23/15 07:29	06/25/15 05:53	1
N-Nitrosodi-n-propylamine	<0.19		0.19	0.046	mg/Kg	☼	06/23/15 07:29	06/25/15 05:53	1
Hexachloroethane	<0.19		0.19	0.058	mg/Kg	☼	06/23/15 07:29	06/25/15 05:53	1
2-Chlorophenol	<0.19		0.19	0.065	mg/Kg	☼	06/23/15 07:29	06/25/15 05:53	1
Nitrobenzene	<0.038		0.038	0.0094	mg/Kg	☼	06/23/15 07:29	06/25/15 05:53	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.039	mg/Kg	☼	06/23/15 07:29	06/25/15 05:53	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.041	mg/Kg	☼	06/23/15 07:29	06/25/15 05:53	1
Isophorone	<0.19		0.19	0.043	mg/Kg	☼	06/23/15 07:29	06/25/15 05:53	1
2,4-Dimethylphenol	<0.38		0.38	0.14	mg/Kg	☼	06/23/15 07:29	06/25/15 05:53	1
Hexachlorobutadiene	<0.19		0.19	0.059	mg/Kg	☼	06/23/15 07:29	06/25/15 05:53	1
Naphthalene	<0.038		0.038	0.0058	mg/Kg	☼	06/23/15 07:29	06/25/15 05:53	1
2,4-Dichlorophenol	<0.38		0.38	0.090	mg/Kg	☼	06/23/15 07:29	06/25/15 05:53	1
4-Chloroaniline	<0.76		0.76	0.18	mg/Kg	☼	06/23/15 07:29	06/25/15 05:53	1
2,4,6-Trichlorophenol	<0.38		0.38	0.13	mg/Kg	☼	06/23/15 07:29	06/25/15 05:53	1
2,4,5-Trichlorophenol	<0.38		0.38	0.086	mg/Kg	☼	06/23/15 07:29	06/25/15 05:53	1
Hexachlorocyclopentadiene	<0.76		0.76	0.22	mg/Kg	☼	06/23/15 07:29	06/25/15 05:53	1
2-Methylnaphthalene	<0.038		0.038	0.0070	mg/Kg	☼	06/23/15 07:29	06/25/15 05:53	1
2-Nitroaniline	<0.19		0.19	0.051	mg/Kg	☼	06/23/15 07:29	06/25/15 05:53	1
2-Chloronaphthalene	<0.19		0.19	0.042	mg/Kg	☼	06/23/15 07:29	06/25/15 05:53	1
4-Chloro-3-methylphenol	<0.38		0.38	0.13	mg/Kg	☼	06/23/15 07:29	06/25/15 05:53	1
2,6-Dinitrotoluene	<0.19		0.19	0.074	mg/Kg	☼	06/23/15 07:29	06/25/15 05:53	1
2-Nitrophenol	<0.38		0.38	0.089	mg/Kg	☼	06/23/15 07:29	06/25/15 05:53	1
3-Nitroaniline	<0.38		0.38	0.12	mg/Kg	☼	06/23/15 07:29	06/25/15 05:53	1
Dimethyl phthalate	<0.19		0.19	0.049	mg/Kg	☼	06/23/15 07:29	06/25/15 05:53	1
2,4-Dinitrophenol	<0.76		0.76	0.67	mg/Kg	☼	06/23/15 07:29	06/25/15 05:53	1
Acenaphthylene	<0.038		0.038	0.0050	mg/Kg	☼	06/23/15 07:29	06/25/15 05:53	1
2,4-Dinitrotoluene	<0.19		0.19	0.060	mg/Kg	☼	06/23/15 07:29	06/25/15 05:53	1
Acenaphthene	<0.038		0.038	0.0068	mg/Kg	☼	06/23/15 07:29	06/25/15 05:53	1
Dibenzofuran	<0.19		0.19	0.044	mg/Kg	☼	06/23/15 07:29	06/25/15 05:53	1
4-Nitrophenol	<0.76		0.76	0.36	mg/Kg	☼	06/23/15 07:29	06/25/15 05:53	1
Fluorene	<0.038		0.038	0.0053	mg/Kg	☼	06/23/15 07:29	06/25/15 05:53	1
4-Nitroaniline	<0.38		0.38	0.16	mg/Kg	☼	06/23/15 07:29	06/25/15 05:53	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.050	mg/Kg	☼	06/23/15 07:29	06/25/15 05:53	1
Hexachlorobenzene	<0.076		0.076	0.0088	mg/Kg	☼	06/23/15 07:29	06/25/15 05:53	1
Diethyl phthalate	<0.19		0.19	0.064	mg/Kg	☼	06/23/15 07:29	06/25/15 05:53	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.044	mg/Kg	☼	06/23/15 07:29	06/25/15 05:53	1
Pentachlorophenol	<0.76		0.76	0.61	mg/Kg	☼	06/23/15 07:29	06/25/15 05:53	1
N-Nitrosodiphenylamine	<0.19		0.19	0.045	mg/Kg	☼	06/23/15 07:29	06/25/15 05:53	1
4,6-Dinitro-2-methylphenol	<0.38		0.38	0.30	mg/Kg	☼	06/23/15 07:29	06/25/15 05:53	1
Phenanthrene	0.058		0.038	0.0053	mg/Kg	☼	06/23/15 07:29	06/25/15 05:53	1
Anthracene	<0.038		0.038	0.0063	mg/Kg	☼	06/23/15 07:29	06/25/15 05:53	1
Carbazole	<0.19		0.19	0.098	mg/Kg	☼	06/23/15 07:29	06/25/15 05:53	1
Di-n-butyl phthalate	<0.19		0.19	0.058	mg/Kg	☼	06/23/15 07:29	06/25/15 05:53	1
Fluoranthene	0.037 J		0.038	0.0070	mg/Kg	☼	06/23/15 07:29	06/25/15 05:53	1
Pyrene	0.042		0.038	0.0075	mg/Kg	☼	06/23/15 07:29	06/25/15 05:53	1
Butyl benzyl phthalate	<0.19		0.19	0.072	mg/Kg	☼	06/23/15 07:29	06/25/15 05:53	1
Benzo[a]anthracene	0.020 J		0.038	0.0051	mg/Kg	☼	06/23/15 07:29	06/25/15 05:53	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97344-1

Client Sample ID: 1860-23-B09 (2-4)

Lab Sample ID: 500-97344-5

Date Collected: 06/12/15 12:10

Matrix: Solid

Date Received: 06/13/15 07:30

Percent Solids: 84.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.033	J	0.038	0.010	mg/Kg	☼	06/23/15 07:29	06/25/15 05:53	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.053	mg/Kg	☼	06/23/15 07:29	06/25/15 05:53	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.069	mg/Kg	☼	06/23/15 07:29	06/25/15 05:53	1
Di-n-octyl phthalate	<0.19		0.19	0.062	mg/Kg	☼	06/23/15 07:29	06/25/15 05:53	1
Benzo[b]fluoranthene	<0.038	*	0.038	0.0082	mg/Kg	☼	06/23/15 07:29	06/25/15 05:53	1
Benzo[k]fluoranthene	<0.038		0.038	0.011	mg/Kg	☼	06/23/15 07:29	06/25/15 05:53	1
Benzo[a]pyrene	<0.038		0.038	0.0073	mg/Kg	☼	06/23/15 07:29	06/25/15 05:53	1
Indeno[1,2,3-cd]pyrene	0.011	J	0.038	0.0098	mg/Kg	☼	06/23/15 07:29	06/25/15 05:53	1
Dibenz(a,h)anthracene	<0.038		0.038	0.0073	mg/Kg	☼	06/23/15 07:29	06/25/15 05:53	1
Benzo[g,h,i]perylene	0.026	J	0.038	0.012	mg/Kg	☼	06/23/15 07:29	06/25/15 05:53	1
3 & 4 Methylphenol	<0.19		0.19	0.063	mg/Kg	☼	06/23/15 07:29	06/25/15 05:53	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	76		25 - 110	06/23/15 07:29	06/25/15 05:53	1
Phenol-d5	73		31 - 110	06/23/15 07:29	06/25/15 05:53	1
Nitrobenzene-d5	68		25 - 115	06/23/15 07:29	06/25/15 05:53	1
2-Fluorobiphenyl	62		25 - 119	06/23/15 07:29	06/25/15 05:53	1
2,4,6-Tribromophenol	80		35 - 137	06/23/15 07:29	06/25/15 05:53	1
Terphenyl-d14	106		36 - 134	06/23/15 07:29	06/25/15 05:53	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.1		1.1	0.24	mg/Kg	☼	06/16/15 17:41	06/17/15 18:34	1
Arsenic	12		0.57	0.27	mg/Kg	☼	06/16/15 17:41	06/17/15 18:34	1
Barium	52		0.57	0.11	mg/Kg	☼	06/16/15 17:41	06/17/15 18:34	1
Beryllium	0.47		0.23	0.050	mg/Kg	☼	06/16/15 17:41	06/17/15 18:34	1
Boron	9.1		2.9	0.40	mg/Kg	☼	06/16/15 17:41	06/17/15 18:34	1
Cadmium	0.30		0.11	0.033	mg/Kg	☼	06/16/15 17:41	06/17/15 18:34	1
Calcium	63000		57	19	mg/Kg	☼	06/16/15 17:41	06/18/15 14:26	5
Chromium	12		0.57	0.099	mg/Kg	☼	06/16/15 17:41	06/17/15 18:34	1
Cobalt	14		0.29	0.065	mg/Kg	☼	06/16/15 17:41	06/17/15 18:34	1
Copper	31	B	0.57	0.12	mg/Kg	☼	06/16/15 17:41	06/17/15 18:34	1
Iron	20000		11	4.4	mg/Kg	☼	06/16/15 17:41	06/17/15 18:34	1
Lead	25		0.29	0.14	mg/Kg	☼	06/16/15 17:41	06/17/15 18:34	1
Magnesium	29000		5.7	2.3	mg/Kg	☼	06/16/15 17:41	06/17/15 18:34	1
Manganese	430		0.57	0.11	mg/Kg	☼	06/16/15 17:41	06/17/15 18:34	1
Nickel	30		0.57	0.16	mg/Kg	☼	06/16/15 17:41	06/17/15 18:34	1
Potassium	1500		29	4.7	mg/Kg	☼	06/16/15 17:41	06/17/15 18:34	1
Selenium	<0.57		0.57	0.28	mg/Kg	☼	06/16/15 17:41	06/17/15 18:34	1
Silver	<0.29		0.29	0.067	mg/Kg	☼	06/16/15 17:41	06/17/15 18:34	1
Sodium	840		57	7.6	mg/Kg	☼	06/16/15 17:41	06/17/15 18:34	1
Thallium	0.66		0.57	0.28	mg/Kg	☼	06/16/15 17:41	06/17/15 18:34	1
Vanadium	14		0.29	0.084	mg/Kg	☼	06/16/15 17:41	06/17/15 18:34	1
Zinc	81	B	1.1	0.36	mg/Kg	☼	06/16/15 17:41	06/18/15 13:27	1

Method: 7471B - Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.040		0.019	0.0065	mg/Kg	☼	06/15/15 13:00	06/17/15 08:53	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97344-1

Client Sample ID: 1860-23-B03 (2-4)

Lab Sample ID: 500-97344-6

Date Collected: 06/12/15 13:40

Matrix: Solid

Date Received: 06/13/15 07:30

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	-	06/16/15 09:34	06/16/15 19:21	1
Beryllium	<0.0040		0.0040	0.0040	mg/L	-	06/16/15 09:34	06/16/15 19:21	1
Boron	0.69		0.50	0.050	mg/L	-	06/16/15 09:34	06/17/15 15:04	1
Cadmium	0.0087		0.0050	0.0020	mg/L	-	06/16/15 09:34	06/16/15 19:21	1
Chromium	<0.025		0.025	0.010	mg/L	-	06/16/15 09:34	06/16/15 19:21	1
Cobalt	<0.025		0.025	0.010	mg/L	-	06/16/15 09:34	06/16/15 19:21	1
Iron	0.27		0.20	0.20	mg/L	-	06/16/15 09:34	06/16/15 19:21	1
Lead	<0.0075		0.0075	0.0075	mg/L	-	06/16/15 09:34	06/16/15 19:21	1
Manganese	0.83		0.025	0.010	mg/L	-	06/16/15 09:34	06/16/15 19:21	1
Nickel	0.011	J	0.025	0.010	mg/L	-	06/16/15 09:34	06/16/15 19:21	1
Selenium	0.020	J	0.050	0.020	mg/L	-	06/16/15 09:34	06/16/15 19:21	1
Silver	<0.025		0.025	0.010	mg/L	-	06/16/15 09:34	06/16/15 19:21	1
Zinc	0.26		0.10	0.020	mg/L	-	06/16/15 09:34	06/16/15 19:21	1

Method: 6010B - SPLP Metals - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	0.0028	J	0.0050	0.0020	mg/L	-	06/23/15 14:00	06/24/15 11:58	1
Manganese	0.94		0.025	0.010	mg/L	-	06/23/15 14:00	06/24/15 11:58	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	-	06/16/15 09:34	06/17/15 15:27	1
Thallium	<0.0020		0.0020	0.0020	mg/L	-	06/16/15 09:34	06/17/15 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	-	06/15/15 11:30	06/16/15 11:23	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.80		0.200	0.200	SU	-		06/16/15 11:32	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97344-1

Client Sample ID: 1860-23-B03 (2-4)

Lab Sample ID: 500-97344-6

Date Collected: 06/12/15 13:40

Matrix: Solid

Date Received: 06/13/15 07:30

Percent Solids: 83.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	0.0074		0.0049	0.0038	mg/Kg	☼	06/13/15 09:45	06/17/15 17:27	1
Benzene	<0.0049		0.0049	0.0011	mg/Kg	☼	06/13/15 09:45	06/17/15 17:27	1
Bromodichloromethane	<0.0049		0.0049	0.00082	mg/Kg	☼	06/13/15 09:45	06/17/15 17:27	1
Bromoform	<0.0049		0.0049	0.00099	mg/Kg	☼	06/13/15 09:45	06/17/15 17:27	1
Bromomethane	<0.0049		0.0049	0.0018	mg/Kg	☼	06/13/15 09:45	06/17/15 17:27	1
2-Butanone (MEK)	<0.0049		0.0049	0.0017	mg/Kg	☼	06/13/15 09:45	06/17/15 17:27	1
Carbon disulfide	<0.0049		0.0049	0.0018	mg/Kg	☼	06/13/15 09:45	06/17/15 17:27	1
Carbon tetrachloride	<0.0049		0.0049	0.0010	mg/Kg	☼	06/13/15 09:45	06/17/15 17:27	1
Chlorobenzene	<0.0049		0.0049	0.0012	mg/Kg	☼	06/13/15 09:45	06/17/15 17:27	1
Chloroethane	<0.0049		0.0049	0.0020	mg/Kg	☼	06/13/15 09:45	06/17/15 17:27	1
Chloroform	<0.0049		0.0049	0.00095	mg/Kg	☼	06/13/15 09:45	06/17/15 17:27	1
Chloromethane	<0.0049		0.0049	0.0012	mg/Kg	☼	06/13/15 09:45	06/17/15 17:27	1
cis-1,2-Dichloroethene	<0.0049		0.0049	0.00099	mg/Kg	☼	06/13/15 09:45	06/17/15 17:27	1
cis-1,3-Dichloropropene	<0.0049		0.0049	0.0011	mg/Kg	☼	06/13/15 09:45	06/17/15 17:27	1
Dibromochloromethane	<0.0049		0.0049	0.00056	mg/Kg	☼	06/13/15 09:45	06/17/15 17:27	1
1,1-Dichloroethane	<0.0049		0.0049	0.0010	mg/Kg	☼	06/13/15 09:45	06/17/15 17:27	1
1,2-Dichloroethane	<0.0049		0.0049	0.00072	mg/Kg	☼	06/13/15 09:45	06/17/15 17:27	1
1,1-Dichloroethene	<0.0049		0.0049	0.0018	mg/Kg	☼	06/13/15 09:45	06/17/15 17:27	1
1,2-Dichloropropane	<0.0049		0.0049	0.0013	mg/Kg	☼	06/13/15 09:45	06/17/15 17:27	1
1,3-Dichloropropane, Total	<0.0049		0.0049	0.0014	mg/Kg	☼	06/13/15 09:45	06/17/15 17:27	1
Ethylbenzene	<0.0049		0.0049	0.0012	mg/Kg	☼	06/13/15 09:45	06/17/15 17:27	1
2-Hexanone	<0.0049		0.0049	0.0015	mg/Kg	☼	06/13/15 09:45	06/17/15 17:27	1
Methylene Chloride	<0.0049		0.0049	0.0037	mg/Kg	☼	06/13/15 09:45	06/17/15 17:27	1
4-Methyl-2-pentanone (MIBK)	<0.0049		0.0049	0.0010	mg/Kg	☼	06/13/15 09:45	06/17/15 17:27	1
Methyl tert-butyl ether	<0.0049		0.0049	0.0012	mg/Kg	☼	06/13/15 09:45	06/17/15 17:27	1
Styrene	<0.0049		0.0049	0.0011	mg/Kg	☼	06/13/15 09:45	06/17/15 17:27	1
1,1,1,2-Tetrachloroethane	<0.0049		0.0049	0.00077	mg/Kg	☼	06/13/15 09:45	06/17/15 17:27	1
Tetrachloroethene	<0.0049		0.0049	0.0010	mg/Kg	☼	06/13/15 09:45	06/17/15 17:27	1
Toluene	<0.0049		0.0049	0.0017	mg/Kg	☼	06/13/15 09:45	06/17/15 17:27	1
trans-1,2-Dichloroethene	<0.0049		0.0049	0.0012	mg/Kg	☼	06/13/15 09:45	06/17/15 17:27	1
trans-1,3-Dichloropropene	<0.0049		0.0049	0.0014	mg/Kg	☼	06/13/15 09:45	06/17/15 17:27	1
1,1,1-Trichloroethane	<0.0049		0.0049	0.0011	mg/Kg	☼	06/13/15 09:45	06/17/15 17:27	1
1,1,2-Trichloroethane	<0.0049		0.0049	0.00094	mg/Kg	☼	06/13/15 09:45	06/17/15 17:27	1
Trichloroethene	<0.0049		0.0049	0.0013	mg/Kg	☼	06/13/15 09:45	06/17/15 17:27	1
Vinyl acetate	<0.0049		0.0049	0.0013	mg/Kg	☼	06/13/15 09:45	06/17/15 17:27	1
Vinyl chloride	<0.0049		0.0049	0.0012	mg/Kg	☼	06/13/15 09:45	06/17/15 17:27	1
Xylenes, Total	<0.0097		0.0097	0.0018	mg/Kg	☼	06/13/15 09:45	06/17/15 17:27	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	104		70 - 122	06/13/15 09:45	06/17/15 17:27	1
Dibromofluoromethane	112		75 - 120	06/13/15 09:45	06/17/15 17:27	1
1,2-Dichloroethane-d4 (Surr)	112		70 - 134	06/13/15 09:45	06/17/15 17:27	1
Toluene-d8 (Surr)	110		75 - 122	06/13/15 09:45	06/17/15 17:27	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	☼	06/23/15 07:29	06/25/15 06:14	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.059	mg/Kg	☼	06/23/15 07:29	06/25/15 06:14	1
1,3-Dichlorobenzene	<0.20		0.20	0.044	mg/Kg	☼	06/23/15 07:29	06/25/15 06:14	1
1,4-Dichlorobenzene	<0.20		0.20	0.050	mg/Kg	☼	06/23/15 07:29	06/25/15 06:14	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97344-1

Client Sample ID: 1860-23-B03 (2-4)

Lab Sample ID: 500-97344-6

Date Collected: 06/12/15 13:40

Matrix: Solid

Date Received: 06/13/15 07:30

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	☼	06/23/15 07:29	06/25/15 06:14	1
2-Methylphenol	<0.20	*	0.20	0.063	mg/Kg	☼	06/23/15 07:29	06/25/15 06:14	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.045	mg/Kg	☼	06/23/15 07:29	06/25/15 06:14	1
N-Nitrosodi-n-propylamine	<0.20		0.20	0.048	mg/Kg	☼	06/23/15 07:29	06/25/15 06:14	1
Hexachloroethane	<0.20		0.20	0.060	mg/Kg	☼	06/23/15 07:29	06/25/15 06:14	1
2-Chlorophenol	<0.20		0.20	0.067	mg/Kg	☼	06/23/15 07:29	06/25/15 06:14	1
Nitrobenzene	<0.039		0.039	0.0098	mg/Kg	☼	06/23/15 07:29	06/25/15 06:14	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.040	mg/Kg	☼	06/23/15 07:29	06/25/15 06:14	1
1,2,4-Trichlorobenzene	<0.20		0.20	0.042	mg/Kg	☼	06/23/15 07:29	06/25/15 06:14	1
Isophorone	<0.20		0.20	0.044	mg/Kg	☼	06/23/15 07:29	06/25/15 06:14	1
2,4-Dimethylphenol	<0.39		0.39	0.15	mg/Kg	☼	06/23/15 07:29	06/25/15 06:14	1
Hexachlorobutadiene	<0.20		0.20	0.062	mg/Kg	☼	06/23/15 07:29	06/25/15 06:14	1
Naphthalene	<0.039		0.039	0.0060	mg/Kg	☼	06/23/15 07:29	06/25/15 06:14	1
2,4-Dichlorophenol	<0.39		0.39	0.093	mg/Kg	☼	06/23/15 07:29	06/25/15 06:14	1
4-Chloroaniline	<0.79		0.79	0.18	mg/Kg	☼	06/23/15 07:29	06/25/15 06:14	1
2,4,6-Trichlorophenol	<0.39		0.39	0.13	mg/Kg	☼	06/23/15 07:29	06/25/15 06:14	1
2,4,5-Trichlorophenol	<0.39		0.39	0.089	mg/Kg	☼	06/23/15 07:29	06/25/15 06:14	1
Hexachlorocyclopentadiene	<0.79		0.79	0.23	mg/Kg	☼	06/23/15 07:29	06/25/15 06:14	1
2-Methylnaphthalene	0.019	J	0.039	0.0072	mg/Kg	☼	06/23/15 07:29	06/25/15 06:14	1
2-Nitroaniline	<0.20		0.20	0.053	mg/Kg	☼	06/23/15 07:29	06/25/15 06:14	1
2-Chloronaphthalene	<0.20		0.20	0.043	mg/Kg	☼	06/23/15 07:29	06/25/15 06:14	1
4-Chloro-3-methylphenol	<0.39		0.39	0.13	mg/Kg	☼	06/23/15 07:29	06/25/15 06:14	1
2,6-Dinitrotoluene	<0.20		0.20	0.077	mg/Kg	☼	06/23/15 07:29	06/25/15 06:14	1
2-Nitrophenol	<0.39		0.39	0.093	mg/Kg	☼	06/23/15 07:29	06/25/15 06:14	1
3-Nitroaniline	<0.39		0.39	0.12	mg/Kg	☼	06/23/15 07:29	06/25/15 06:14	1
Dimethyl phthalate	<0.20		0.20	0.051	mg/Kg	☼	06/23/15 07:29	06/25/15 06:14	1
2,4-Dinitrophenol	<0.79		0.79	0.69	mg/Kg	☼	06/23/15 07:29	06/25/15 06:14	1
Acenaphthylene	<0.039		0.039	0.0052	mg/Kg	☼	06/23/15 07:29	06/25/15 06:14	1
2,4-Dinitrotoluene	<0.20		0.20	0.062	mg/Kg	☼	06/23/15 07:29	06/25/15 06:14	1
Acenaphthene	<0.039		0.039	0.0070	mg/Kg	☼	06/23/15 07:29	06/25/15 06:14	1
Dibenzofuran	<0.20		0.20	0.046	mg/Kg	☼	06/23/15 07:29	06/25/15 06:14	1
4-Nitrophenol	<0.79		0.79	0.37	mg/Kg	☼	06/23/15 07:29	06/25/15 06:14	1
Fluorene	<0.039		0.039	0.0055	mg/Kg	☼	06/23/15 07:29	06/25/15 06:14	1
4-Nitroaniline	<0.39		0.39	0.16	mg/Kg	☼	06/23/15 07:29	06/25/15 06:14	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.052	mg/Kg	☼	06/23/15 07:29	06/25/15 06:14	1
Hexachlorobenzene	<0.079		0.079	0.0091	mg/Kg	☼	06/23/15 07:29	06/25/15 06:14	1
Diethyl phthalate	<0.20		0.20	0.066	mg/Kg	☼	06/23/15 07:29	06/25/15 06:14	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.046	mg/Kg	☼	06/23/15 07:29	06/25/15 06:14	1
Pentachlorophenol	<0.79		0.79	0.63	mg/Kg	☼	06/23/15 07:29	06/25/15 06:14	1
N-Nitrosodiphenylamine	<0.20		0.20	0.046	mg/Kg	☼	06/23/15 07:29	06/25/15 06:14	1
4,6-Dinitro-2-methylphenol	<0.39		0.39	0.31	mg/Kg	☼	06/23/15 07:29	06/25/15 06:14	1
Phenanthrene	0.030	J	0.039	0.0055	mg/Kg	☼	06/23/15 07:29	06/25/15 06:14	1
Anthracene	<0.039		0.039	0.0065	mg/Kg	☼	06/23/15 07:29	06/25/15 06:14	1
Carbazole	<0.20		0.20	0.10	mg/Kg	☼	06/23/15 07:29	06/25/15 06:14	1
Di-n-butyl phthalate	<0.20		0.20	0.060	mg/Kg	☼	06/23/15 07:29	06/25/15 06:14	1
Fluoranthene	0.0095	J	0.039	0.0073	mg/Kg	☼	06/23/15 07:29	06/25/15 06:14	1
Pyrene	0.025	J	0.039	0.0078	mg/Kg	☼	06/23/15 07:29	06/25/15 06:14	1
Butyl benzyl phthalate	<0.20		0.20	0.075	mg/Kg	☼	06/23/15 07:29	06/25/15 06:14	1
Benzo[a]anthracene	<0.039		0.039	0.0053	mg/Kg	☼	06/23/15 07:29	06/25/15 06:14	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97344-1

Client Sample ID: 1860-23-B03 (2-4)

Lab Sample ID: 500-97344-6

Date Collected: 06/12/15 13:40

Matrix: Solid

Date Received: 06/13/15 07:30

Percent Solids: 83.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	<0.039		0.039	0.011	mg/Kg	☼	06/23/15 07:29	06/25/15 06:14	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.055	mg/Kg	☼	06/23/15 07:29	06/25/15 06:14	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.072	mg/Kg	☼	06/23/15 07:29	06/25/15 06:14	1
Di-n-octyl phthalate	<0.20		0.20	0.064	mg/Kg	☼	06/23/15 07:29	06/25/15 06:14	1
Benzo[b]fluoranthene	<0.039	*	0.039	0.0085	mg/Kg	☼	06/23/15 07:29	06/25/15 06:14	1
Benzo[k]fluoranthene	<0.039		0.039	0.012	mg/Kg	☼	06/23/15 07:29	06/25/15 06:14	1
Benzo[a]pyrene	<0.039		0.039	0.0076	mg/Kg	☼	06/23/15 07:29	06/25/15 06:14	1
Indeno[1,2,3-cd]pyrene	<0.039		0.039	0.010	mg/Kg	☼	06/23/15 07:29	06/25/15 06:14	1
Dibenz(a,h)anthracene	<0.039		0.039	0.0076	mg/Kg	☼	06/23/15 07:29	06/25/15 06:14	1
Benzo[g,h,i]perylene	0.018	J	0.039	0.013	mg/Kg	☼	06/23/15 07:29	06/25/15 06:14	1
3 & 4 Methylphenol	<0.20		0.20	0.065	mg/Kg	☼	06/23/15 07:29	06/25/15 06:14	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	72		25 - 110	06/23/15 07:29	06/25/15 06:14	1
Phenol-d5	67		31 - 110	06/23/15 07:29	06/25/15 06:14	1
Nitrobenzene-d5	64		25 - 115	06/23/15 07:29	06/25/15 06:14	1
2-Fluorobiphenyl	66		25 - 119	06/23/15 07:29	06/25/15 06:14	1
2,4,6-Tribromophenol	67		35 - 137	06/23/15 07:29	06/25/15 06:14	1
Terphenyl-d14	115		36 - 134	06/23/15 07:29	06/25/15 06:14	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.1		1.1	0.23	mg/Kg	☼	06/16/15 17:41	06/17/15 18:39	1
Arsenic	6.1		0.56	0.26	mg/Kg	☼	06/16/15 17:41	06/17/15 18:39	1
Barium	66		0.56	0.10	mg/Kg	☼	06/16/15 17:41	06/17/15 18:39	1
Beryllium	0.64		0.23	0.049	mg/Kg	☼	06/16/15 17:41	06/17/15 18:39	1
Boron	10		2.8	0.39	mg/Kg	☼	06/16/15 17:41	06/17/15 18:39	1
Cadmium	0.25		0.11	0.033	mg/Kg	☼	06/16/15 17:41	06/17/15 18:39	1
Calcium	58000		56	18	mg/Kg	☼	06/16/15 17:41	06/18/15 14:29	5
Chromium	16		0.56	0.097	mg/Kg	☼	06/16/15 17:41	06/17/15 18:39	1
Cobalt	11		0.28	0.064	mg/Kg	☼	06/16/15 17:41	06/17/15 18:39	1
Copper	23	B	0.56	0.12	mg/Kg	☼	06/16/15 17:41	06/17/15 18:39	1
Iron	17000		11	4.4	mg/Kg	☼	06/16/15 17:41	06/17/15 18:39	1
Lead	15		0.28	0.14	mg/Kg	☼	06/16/15 17:41	06/17/15 18:39	1
Magnesium	27000		5.6	2.3	mg/Kg	☼	06/16/15 17:41	06/17/15 18:39	1
Manganese	320		0.56	0.11	mg/Kg	☼	06/16/15 17:41	06/17/15 18:39	1
Nickel	29		0.56	0.15	mg/Kg	☼	06/16/15 17:41	06/17/15 18:39	1
Potassium	2000		28	4.6	mg/Kg	☼	06/16/15 17:41	06/17/15 18:39	1
Selenium	<0.56		0.56	0.28	mg/Kg	☼	06/16/15 17:41	06/17/15 18:39	1
Silver	<0.28		0.28	0.066	mg/Kg	☼	06/16/15 17:41	06/17/15 18:39	1
Sodium	3000		56	7.5	mg/Kg	☼	06/16/15 17:41	06/17/15 18:39	1
Thallium	<0.56		0.56	0.28	mg/Kg	☼	06/16/15 17:41	06/17/15 18:39	1
Vanadium	22		0.28	0.082	mg/Kg	☼	06/16/15 17:41	06/17/15 18:39	1
Zinc	300	B	1.1	0.36	mg/Kg	☼	06/16/15 17:41	06/18/15 13:32	1

Method: 7471B - Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.024		0.019	0.0066	mg/Kg	☼	06/15/15 13:00	06/17/15 08:55	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97344-1

Client Sample ID: 1860-23-B03 (8-10)

Lab Sample ID: 500-97344-7

Date Collected: 06/12/15 13:45

Matrix: Solid

Date Received: 06/13/15 07:30

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		06/16/15 09:34	06/16/15 19:27	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		06/16/15 09:34	06/16/15 19:27	1
Boron	0.73		0.50	0.050	mg/L		06/16/15 09:34	06/17/15 15:10	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		06/16/15 09:34	06/16/15 19:27	1
Chromium	<0.025		0.025	0.010	mg/L		06/16/15 09:34	06/16/15 19:27	1
Cobalt	0.014	J	0.025	0.010	mg/L		06/16/15 09:34	06/16/15 19:27	1
Iron	<0.20		0.20	0.20	mg/L		06/16/15 09:34	06/16/15 19:27	1
Lead	<0.0075		0.0075	0.0075	mg/L		06/16/15 09:34	06/16/15 19:27	1
Manganese	3.0		0.025	0.010	mg/L		06/16/15 09:34	06/16/15 19:27	1
Nickel	0.018	J	0.025	0.010	mg/L		06/16/15 09:34	06/16/15 19:27	1
Selenium	0.020	J	0.050	0.020	mg/L		06/16/15 09:34	06/16/15 19:27	1
Silver	<0.025		0.025	0.010	mg/L		06/16/15 09:34	06/16/15 19:27	1
Zinc	0.025	J	0.10	0.020	mg/L		06/16/15 09:34	06/16/15 19:27	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.60		0.025	0.010	mg/L		06/23/15 14:00	06/24/15 12:02	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		06/16/15 09:34	06/17/15 15:30	1
Thallium	<0.0020		0.0020	0.0020	mg/L		06/16/15 09:34	06/17/15 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		06/15/15 11:30	06/16/15 11:29	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.99		0.200	0.200	SU			06/16/15 11:35	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97344-1

Client Sample ID: 1860-23-B03 (8-10)

Lab Sample ID: 500-97344-7

Date Collected: 06/12/15 13:45

Matrix: Solid

Date Received: 06/13/15 07:30

Percent Solids: 83.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	0.0091		0.0046	0.0036	mg/Kg	☼	06/13/15 09:45	06/17/15 17:51	1
Benzene	<0.0046		0.0046	0.0010	mg/Kg	☼	06/13/15 09:45	06/17/15 17:51	1
Bromodichloromethane	<0.0046		0.0046	0.00078	mg/Kg	☼	06/13/15 09:45	06/17/15 17:51	1
Bromoform	<0.0046		0.0046	0.00095	mg/Kg	☼	06/13/15 09:45	06/17/15 17:51	1
Bromomethane	<0.0046		0.0046	0.0017	mg/Kg	☼	06/13/15 09:45	06/17/15 17:51	1
2-Butanone (MEK)	<0.0046		0.0046	0.0017	mg/Kg	☼	06/13/15 09:45	06/17/15 17:51	1
Carbon disulfide	<0.0046		0.0046	0.0017	mg/Kg	☼	06/13/15 09:45	06/17/15 17:51	1
Carbon tetrachloride	<0.0046		0.0046	0.00099	mg/Kg	☼	06/13/15 09:45	06/17/15 17:51	1
Chlorobenzene	<0.0046		0.0046	0.0011	mg/Kg	☼	06/13/15 09:45	06/17/15 17:51	1
Chloroethane	<0.0046		0.0046	0.0020	mg/Kg	☼	06/13/15 09:45	06/17/15 17:51	1
Chloroform	<0.0046		0.0046	0.00091	mg/Kg	☼	06/13/15 09:45	06/17/15 17:51	1
Chloromethane	<0.0046		0.0046	0.0011	mg/Kg	☼	06/13/15 09:45	06/17/15 17:51	1
cis-1,2-Dichloroethene	<0.0046		0.0046	0.00095	mg/Kg	☼	06/13/15 09:45	06/17/15 17:51	1
cis-1,3-Dichloropropene	<0.0046		0.0046	0.0011	mg/Kg	☼	06/13/15 09:45	06/17/15 17:51	1
Dibromochloromethane	<0.0046		0.0046	0.00053	mg/Kg	☼	06/13/15 09:45	06/17/15 17:51	1
1,1-Dichloroethane	<0.0046		0.0046	0.00096	mg/Kg	☼	06/13/15 09:45	06/17/15 17:51	1
1,2-Dichloroethane	<0.0046		0.0046	0.00069	mg/Kg	☼	06/13/15 09:45	06/17/15 17:51	1
1,1-Dichloroethene	<0.0046		0.0046	0.0017	mg/Kg	☼	06/13/15 09:45	06/17/15 17:51	1
1,2-Dichloropropane	<0.0046		0.0046	0.0012	mg/Kg	☼	06/13/15 09:45	06/17/15 17:51	1
1,3-Dichloropropane, Total	<0.0046		0.0046	0.0013	mg/Kg	☼	06/13/15 09:45	06/17/15 17:51	1
Ethylbenzene	<0.0046		0.0046	0.0012	mg/Kg	☼	06/13/15 09:45	06/17/15 17:51	1
2-Hexanone	<0.0046		0.0046	0.0014	mg/Kg	☼	06/13/15 09:45	06/17/15 17:51	1
Methylene Chloride	<0.0046		0.0046	0.0035	mg/Kg	☼	06/13/15 09:45	06/17/15 17:51	1
4-Methyl-2-pentanone (MIBK)	<0.0046		0.0046	0.00096	mg/Kg	☼	06/13/15 09:45	06/17/15 17:51	1
Methyl tert-butyl ether	<0.0046		0.0046	0.0011	mg/Kg	☼	06/13/15 09:45	06/17/15 17:51	1
Styrene	<0.0046		0.0046	0.0011	mg/Kg	☼	06/13/15 09:45	06/17/15 17:51	1
1,1,2,2-Tetrachloroethane	<0.0046		0.0046	0.00074	mg/Kg	☼	06/13/15 09:45	06/17/15 17:51	1
Tetrachloroethene	<0.0046		0.0046	0.00097	mg/Kg	☼	06/13/15 09:45	06/17/15 17:51	1
Toluene	<0.0046		0.0046	0.0016	mg/Kg	☼	06/13/15 09:45	06/17/15 17:51	1
trans-1,2-Dichloroethene	<0.0046		0.0046	0.0012	mg/Kg	☼	06/13/15 09:45	06/17/15 17:51	1
trans-1,3-Dichloropropene	<0.0046		0.0046	0.0013	mg/Kg	☼	06/13/15 09:45	06/17/15 17:51	1
1,1,1-Trichloroethane	<0.0046		0.0046	0.0011	mg/Kg	☼	06/13/15 09:45	06/17/15 17:51	1
1,1,2-Trichloroethane	<0.0046		0.0046	0.00090	mg/Kg	☼	06/13/15 09:45	06/17/15 17:51	1
Trichloroethene	<0.0046		0.0046	0.0013	mg/Kg	☼	06/13/15 09:45	06/17/15 17:51	1
Vinyl acetate	<0.0046		0.0046	0.0012	mg/Kg	☼	06/13/15 09:45	06/17/15 17:51	1
Vinyl chloride	<0.0046		0.0046	0.0011	mg/Kg	☼	06/13/15 09:45	06/17/15 17:51	1
Xylenes, Total	<0.0093		0.0093	0.0017	mg/Kg	☼	06/13/15 09:45	06/17/15 17:51	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102		70 - 122	06/13/15 09:45	06/17/15 17:51	1
Dibromofluoromethane	109		75 - 120	06/13/15 09:45	06/17/15 17:51	1
1,2-Dichloroethane-d4 (Surr)	114		70 - 134	06/13/15 09:45	06/17/15 17:51	1
Toluene-d8 (Surr)	112		75 - 122	06/13/15 09:45	06/17/15 17:51	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.19	*	0.19	0.084	mg/Kg	☼	06/23/15 07:29	06/25/15 06:36	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.057	mg/Kg	☼	06/23/15 07:29	06/25/15 06:36	1
1,3-Dichlorobenzene	<0.19		0.19	0.043	mg/Kg	☼	06/23/15 07:29	06/25/15 06:36	1
1,4-Dichlorobenzene	<0.19		0.19	0.049	mg/Kg	☼	06/23/15 07:29	06/25/15 06:36	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97344-1

Client Sample ID: 1860-23-B03 (8-10)

Lab Sample ID: 500-97344-7

Date Collected: 06/12/15 13:45

Matrix: Solid

Date Received: 06/13/15 07:30

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	<0.19		0.19	0.045	mg/Kg	☼	06/23/15 07:29	06/25/15 06:36	1
2-Methylphenol	<0.19	*	0.19	0.061	mg/Kg	☼	06/23/15 07:29	06/25/15 06:36	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.044	mg/Kg	☼	06/23/15 07:29	06/25/15 06:36	1
N-Nitrosodi-n-propylamine	<0.19		0.19	0.046	mg/Kg	☼	06/23/15 07:29	06/25/15 06:36	1
Hexachloroethane	<0.19		0.19	0.058	mg/Kg	☼	06/23/15 07:29	06/25/15 06:36	1
2-Chlorophenol	<0.19		0.19	0.065	mg/Kg	☼	06/23/15 07:29	06/25/15 06:36	1
Nitrobenzene	<0.038		0.038	0.0094	mg/Kg	☼	06/23/15 07:29	06/25/15 06:36	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.039	mg/Kg	☼	06/23/15 07:29	06/25/15 06:36	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.041	mg/Kg	☼	06/23/15 07:29	06/25/15 06:36	1
Isophorone	<0.19		0.19	0.043	mg/Kg	☼	06/23/15 07:29	06/25/15 06:36	1
2,4-Dimethylphenol	<0.38		0.38	0.14	mg/Kg	☼	06/23/15 07:29	06/25/15 06:36	1
Hexachlorobutadiene	<0.19		0.19	0.059	mg/Kg	☼	06/23/15 07:29	06/25/15 06:36	1
Naphthalene	<0.038		0.038	0.0058	mg/Kg	☼	06/23/15 07:29	06/25/15 06:36	1
2,4-Dichlorophenol	<0.38		0.38	0.090	mg/Kg	☼	06/23/15 07:29	06/25/15 06:36	1
4-Chloroaniline	<0.76		0.76	0.18	mg/Kg	☼	06/23/15 07:29	06/25/15 06:36	1
2,4,6-Trichlorophenol	<0.38		0.38	0.13	mg/Kg	☼	06/23/15 07:29	06/25/15 06:36	1
2,4,5-Trichlorophenol	<0.38		0.38	0.086	mg/Kg	☼	06/23/15 07:29	06/25/15 06:36	1
Hexachlorocyclopentadiene	<0.76		0.76	0.22	mg/Kg	☼	06/23/15 07:29	06/25/15 06:36	1
2-Methylnaphthalene	0.013	J	0.038	0.0070	mg/Kg	☼	06/23/15 07:29	06/25/15 06:36	1
2-Nitroaniline	<0.19		0.19	0.051	mg/Kg	☼	06/23/15 07:29	06/25/15 06:36	1
2-Chloronaphthalene	<0.19		0.19	0.042	mg/Kg	☼	06/23/15 07:29	06/25/15 06:36	1
4-Chloro-3-methylphenol	<0.38		0.38	0.13	mg/Kg	☼	06/23/15 07:29	06/25/15 06:36	1
2,6-Dinitrotoluene	<0.19		0.19	0.074	mg/Kg	☼	06/23/15 07:29	06/25/15 06:36	1
2-Nitrophenol	<0.38		0.38	0.089	mg/Kg	☼	06/23/15 07:29	06/25/15 06:36	1
3-Nitroaniline	<0.38		0.38	0.12	mg/Kg	☼	06/23/15 07:29	06/25/15 06:36	1
Dimethyl phthalate	<0.19		0.19	0.049	mg/Kg	☼	06/23/15 07:29	06/25/15 06:36	1
2,4-Dinitrophenol	<0.76		0.76	0.67	mg/Kg	☼	06/23/15 07:29	06/25/15 06:36	1
Acenaphthylene	<0.038		0.038	0.0050	mg/Kg	☼	06/23/15 07:29	06/25/15 06:36	1
2,4-Dinitrotoluene	<0.19		0.19	0.060	mg/Kg	☼	06/23/15 07:29	06/25/15 06:36	1
Acenaphthene	<0.038		0.038	0.0068	mg/Kg	☼	06/23/15 07:29	06/25/15 06:36	1
Dibenzofuran	<0.19		0.19	0.044	mg/Kg	☼	06/23/15 07:29	06/25/15 06:36	1
4-Nitrophenol	<0.76		0.76	0.36	mg/Kg	☼	06/23/15 07:29	06/25/15 06:36	1
Fluorene	<0.038		0.038	0.0053	mg/Kg	☼	06/23/15 07:29	06/25/15 06:36	1
4-Nitroaniline	<0.38		0.38	0.16	mg/Kg	☼	06/23/15 07:29	06/25/15 06:36	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.050	mg/Kg	☼	06/23/15 07:29	06/25/15 06:36	1
Hexachlorobenzene	<0.076		0.076	0.0088	mg/Kg	☼	06/23/15 07:29	06/25/15 06:36	1
Diethyl phthalate	<0.19		0.19	0.064	mg/Kg	☼	06/23/15 07:29	06/25/15 06:36	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.044	mg/Kg	☼	06/23/15 07:29	06/25/15 06:36	1
Pentachlorophenol	<0.76		0.76	0.61	mg/Kg	☼	06/23/15 07:29	06/25/15 06:36	1
N-Nitrosodiphenylamine	<0.19		0.19	0.045	mg/Kg	☼	06/23/15 07:29	06/25/15 06:36	1
4,6-Dinitro-2-methylphenol	<0.38		0.38	0.30	mg/Kg	☼	06/23/15 07:29	06/25/15 06:36	1
Phenanthrene	0.020	J	0.038	0.0053	mg/Kg	☼	06/23/15 07:29	06/25/15 06:36	1
Anthracene	<0.038		0.038	0.0063	mg/Kg	☼	06/23/15 07:29	06/25/15 06:36	1
Carbazole	<0.19		0.19	0.098	mg/Kg	☼	06/23/15 07:29	06/25/15 06:36	1
Di-n-butyl phthalate	<0.19		0.19	0.058	mg/Kg	☼	06/23/15 07:29	06/25/15 06:36	1
Fluoranthene	<0.038		0.038	0.0070	mg/Kg	☼	06/23/15 07:29	06/25/15 06:36	1
Pyrene	<0.038		0.038	0.0075	mg/Kg	☼	06/23/15 07:29	06/25/15 06:36	1
Butyl benzyl phthalate	<0.19		0.19	0.072	mg/Kg	☼	06/23/15 07:29	06/25/15 06:36	1
Benzo[a]anthracene	<0.038		0.038	0.0051	mg/Kg	☼	06/23/15 07:29	06/25/15 06:36	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97344-1

Client Sample ID: 1860-23-B03 (8-10)

Lab Sample ID: 500-97344-7

Date Collected: 06/12/15 13:45

Matrix: Solid

Date Received: 06/13/15 07:30

Percent Solids: 83.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	<0.038		0.038	0.010	mg/Kg	☼	06/23/15 07:29	06/25/15 06:36	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.053	mg/Kg	☼	06/23/15 07:29	06/25/15 06:36	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.069	mg/Kg	☼	06/23/15 07:29	06/25/15 06:36	1
Di-n-octyl phthalate	<0.19		0.19	0.062	mg/Kg	☼	06/23/15 07:29	06/25/15 06:36	1
Benzo[b]fluoranthene	<0.038 *		0.038	0.0082	mg/Kg	☼	06/23/15 07:29	06/25/15 06:36	1
Benzo[k]fluoranthene	<0.038		0.038	0.011	mg/Kg	☼	06/23/15 07:29	06/25/15 06:36	1
Benzo[a]pyrene	<0.038		0.038	0.0073	mg/Kg	☼	06/23/15 07:29	06/25/15 06:36	1
Indeno[1,2,3-cd]pyrene	<0.038		0.038	0.0098	mg/Kg	☼	06/23/15 07:29	06/25/15 06:36	1
Dibenz(a,h)anthracene	<0.038		0.038	0.0073	mg/Kg	☼	06/23/15 07:29	06/25/15 06:36	1
Benzo[g,h,i]perylene	<0.038		0.038	0.012	mg/Kg	☼	06/23/15 07:29	06/25/15 06:36	1
3 & 4 Methylphenol	<0.19		0.19	0.063	mg/Kg	☼	06/23/15 07:29	06/25/15 06:36	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	77		25 - 110	06/23/15 07:29	06/25/15 06:36	1
Phenol-d5	76		31 - 110	06/23/15 07:29	06/25/15 06:36	1
Nitrobenzene-d5	78		25 - 115	06/23/15 07:29	06/25/15 06:36	1
2-Fluorobiphenyl	74		25 - 119	06/23/15 07:29	06/25/15 06:36	1
2,4,6-Tribromophenol	73		35 - 137	06/23/15 07:29	06/25/15 06:36	1
Terphenyl-d14	108		36 - 134	06/23/15 07:29	06/25/15 06:36	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	☼	06/16/15 17:41	06/17/15 18:44	1
Arsenic	9.6		0.58	0.27	mg/Kg	☼	06/16/15 17:41	06/17/15 18:44	1
Barium	41		0.58	0.11	mg/Kg	☼	06/16/15 17:41	06/17/15 18:44	1
Beryllium	0.70		0.23	0.050	mg/Kg	☼	06/16/15 17:41	06/17/15 18:44	1
Boron	12		2.9	0.40	mg/Kg	☼	06/16/15 17:41	06/17/15 18:44	1
Cadmium	0.14		0.12	0.033	mg/Kg	☼	06/16/15 17:41	06/17/15 18:44	1
Calcium	55000		58	19	mg/Kg	☼	06/16/15 17:41	06/18/15 14:33	5
Chromium	17		0.58	0.099	mg/Kg	☼	06/16/15 17:41	06/17/15 18:44	1
Cobalt	15		0.29	0.065	mg/Kg	☼	06/16/15 17:41	06/17/15 18:44	1
Copper	34 B		0.58	0.13	mg/Kg	☼	06/16/15 17:41	06/17/15 18:44	1
Iron	21000		12	4.5	mg/Kg	☼	06/16/15 17:41	06/17/15 18:44	1
Lead	18		0.29	0.14	mg/Kg	☼	06/16/15 17:41	06/17/15 18:44	1
Magnesium	23000		5.8	2.3	mg/Kg	☼	06/16/15 17:41	06/17/15 18:44	1
Manganese	370		0.58	0.11	mg/Kg	☼	06/16/15 17:41	06/17/15 18:44	1
Nickel	39		0.58	0.16	mg/Kg	☼	06/16/15 17:41	06/17/15 18:44	1
Potassium	2300		29	4.7	mg/Kg	☼	06/16/15 17:41	06/17/15 18:44	1
Selenium	0.29 J		0.58	0.29	mg/Kg	☼	06/16/15 17:41	06/17/15 18:44	1
Silver	<0.29		0.29	0.068	mg/Kg	☼	06/16/15 17:41	06/17/15 18:44	1
Sodium	1100		58	7.6	mg/Kg	☼	06/16/15 17:41	06/17/15 18:44	1
Thallium	<0.58		0.58	0.28	mg/Kg	☼	06/16/15 17:41	06/17/15 18:44	1
Vanadium	21		0.29	0.084	mg/Kg	☼	06/16/15 17:41	06/17/15 18:44	1
Zinc	64 B		1.2	0.37	mg/Kg	☼	06/16/15 17:41	06/18/15 13:37	1

Method: 7471B - Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.026		0.018	0.0064	mg/Kg	☼	06/15/15 13:00	06/17/15 09:01	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97344-1

Client Sample ID: 1860-23-B02 (2-4)

Lab Sample ID: 500-97344-8

Date Collected: 06/12/15 14:30

Matrix: Solid

Date Received: 06/13/15 07:30

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.55		0.50	0.050	mg/L		06/16/15 09:34	06/16/15 19:32	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		06/16/15 09:34	06/16/15 19:32	1
Boron	0.52		0.50	0.050	mg/L		06/16/15 09:34	06/17/15 15:16	1
Cadmium	0.0020	J	0.0050	0.0020	mg/L		06/16/15 09:34	06/16/15 19:32	1
Chromium	<0.025		0.025	0.010	mg/L		06/16/15 09:34	06/16/15 19:32	1
Cobalt	<0.025		0.025	0.010	mg/L		06/16/15 09:34	06/16/15 19:32	1
Iron	<0.20		0.20	0.20	mg/L		06/16/15 09:34	06/16/15 19:32	1
Lead	<0.0075		0.0075	0.0075	mg/L		06/16/15 09:34	06/16/15 19:32	1
Manganese	3.3		0.025	0.010	mg/L		06/16/15 09:34	06/16/15 19:32	1
Nickel	0.011	J	0.025	0.010	mg/L		06/16/15 09:34	06/16/15 19:32	1
Selenium	<0.050		0.050	0.020	mg/L		06/16/15 09:34	06/16/15 19:32	1
Silver	<0.025		0.025	0.010	mg/L		06/16/15 09:34	06/16/15 19:32	1
Zinc	0.025	J	0.10	0.020	mg/L		06/16/15 09:34	06/16/15 19:32	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	1.0		0.025	0.010	mg/L		06/23/15 14:00	06/24/15 12:06	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		06/16/15 09:34	06/17/15 15:34	1
Thallium	<0.0020		0.0020	0.0020	mg/L		06/16/15 09:34	06/17/15 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		06/15/15 11:30	06/16/15 11:31	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.64		0.200	0.200	SU			06/16/15 11:37	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97344-1

Client Sample ID: 1860-23-B02 (2-4)

Lab Sample ID: 500-97344-8

Date Collected: 06/12/15 14:30

Matrix: Solid

Date Received: 06/13/15 07:30

Percent Solids: 83.2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	0.014		0.0042	0.0033	mg/Kg	☼	06/13/15 09:45	06/17/15 18:15	1
Benzene	<0.0042		0.0042	0.00094	mg/Kg	☼	06/13/15 09:45	06/17/15 18:15	1
Bromodichloromethane	<0.0042		0.0042	0.00071	mg/Kg	☼	06/13/15 09:45	06/17/15 18:15	1
Bromoform	<0.0042		0.0042	0.00086	mg/Kg	☼	06/13/15 09:45	06/17/15 18:15	1
Bromomethane	<0.0042		0.0042	0.0016	mg/Kg	☼	06/13/15 09:45	06/17/15 18:15	1
2-Butanone (MEK)	<0.0042		0.0042	0.0015	mg/Kg	☼	06/13/15 09:45	06/17/15 18:15	1
Carbon disulfide	<0.0042		0.0042	0.0016	mg/Kg	☼	06/13/15 09:45	06/17/15 18:15	1
Carbon tetrachloride	<0.0042		0.0042	0.00090	mg/Kg	☼	06/13/15 09:45	06/17/15 18:15	1
Chlorobenzene	<0.0042		0.0042	0.0010	mg/Kg	☼	06/13/15 09:45	06/17/15 18:15	1
Chloroethane	<0.0042		0.0042	0.0018	mg/Kg	☼	06/13/15 09:45	06/17/15 18:15	1
Chloroform	<0.0042		0.0042	0.00082	mg/Kg	☼	06/13/15 09:45	06/17/15 18:15	1
Chloromethane	<0.0042		0.0042	0.0010	mg/Kg	☼	06/13/15 09:45	06/17/15 18:15	1
cis-1,2-Dichloroethene	<0.0042		0.0042	0.00086	mg/Kg	☼	06/13/15 09:45	06/17/15 18:15	1
cis-1,3-Dichloropropene	<0.0042		0.0042	0.00096	mg/Kg	☼	06/13/15 09:45	06/17/15 18:15	1
Dibromochloromethane	<0.0042		0.0042	0.00049	mg/Kg	☼	06/13/15 09:45	06/17/15 18:15	1
1,1-Dichloroethane	<0.0042		0.0042	0.00087	mg/Kg	☼	06/13/15 09:45	06/17/15 18:15	1
1,2-Dichloroethane	<0.0042		0.0042	0.00063	mg/Kg	☼	06/13/15 09:45	06/17/15 18:15	1
1,1-Dichloroethene	<0.0042		0.0042	0.0015	mg/Kg	☼	06/13/15 09:45	06/17/15 18:15	1
1,2-Dichloropropane	<0.0042		0.0042	0.0011	mg/Kg	☼	06/13/15 09:45	06/17/15 18:15	1
1,3-Dichloropropane, Total	<0.0042		0.0042	0.0012	mg/Kg	☼	06/13/15 09:45	06/17/15 18:15	1
Ethylbenzene	<0.0042		0.0042	0.0010	mg/Kg	☼	06/13/15 09:45	06/17/15 18:15	1
2-Hexanone	<0.0042		0.0042	0.0013	mg/Kg	☼	06/13/15 09:45	06/17/15 18:15	1
Methylene Chloride	<0.0042		0.0042	0.0032	mg/Kg	☼	06/13/15 09:45	06/17/15 18:15	1
4-Methyl-2-pentanone (MIBK)	<0.0042		0.0042	0.00087	mg/Kg	☼	06/13/15 09:45	06/17/15 18:15	1
Methyl tert-butyl ether	<0.0042		0.0042	0.0010	mg/Kg	☼	06/13/15 09:45	06/17/15 18:15	1
Styrene	<0.0042		0.0042	0.00099	mg/Kg	☼	06/13/15 09:45	06/17/15 18:15	1
1,1,1,2-Tetrachloroethane	<0.0042		0.0042	0.00067	mg/Kg	☼	06/13/15 09:45	06/17/15 18:15	1
Tetrachloroethene	<0.0042		0.0042	0.00088	mg/Kg	☼	06/13/15 09:45	06/17/15 18:15	1
Toluene	<0.0042		0.0042	0.0015	mg/Kg	☼	06/13/15 09:45	06/17/15 18:15	1
trans-1,2-Dichloroethene	<0.0042		0.0042	0.0011	mg/Kg	☼	06/13/15 09:45	06/17/15 18:15	1
trans-1,3-Dichloropropene	<0.0042		0.0042	0.0012	mg/Kg	☼	06/13/15 09:45	06/17/15 18:15	1
1,1,1-Trichloroethane	<0.0042		0.0042	0.00098	mg/Kg	☼	06/13/15 09:45	06/17/15 18:15	1
1,1,2-Trichloroethane	<0.0042		0.0042	0.00082	mg/Kg	☼	06/13/15 09:45	06/17/15 18:15	1
Trichloroethene	<0.0042		0.0042	0.0011	mg/Kg	☼	06/13/15 09:45	06/17/15 18:15	1
Vinyl acetate	<0.0042		0.0042	0.0011	mg/Kg	☼	06/13/15 09:45	06/17/15 18:15	1
Vinyl chloride	<0.0042		0.0042	0.0010	mg/Kg	☼	06/13/15 09:45	06/17/15 18:15	1
Xylenes, Total	<0.0085		0.0085	0.0016	mg/Kg	☼	06/13/15 09:45	06/17/15 18:15	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	103		70 - 122	06/13/15 09:45	06/17/15 18:15	1
Dibromofluoromethane	111		75 - 120	06/13/15 09:45	06/17/15 18:15	1
1,2-Dichloroethane-d4 (Surr)	114		70 - 134	06/13/15 09:45	06/17/15 18:15	1
Toluene-d8 (Surr)	114		75 - 122	06/13/15 09:45	06/17/15 18:15	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	☼	06/23/15 07:29	06/25/15 06:57	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.057	mg/Kg	☼	06/23/15 07:29	06/25/15 06:57	1
1,3-Dichlorobenzene	<0.19		0.19	0.043	mg/Kg	☼	06/23/15 07:29	06/25/15 06:57	1
1,4-Dichlorobenzene	<0.19		0.19	0.049	mg/Kg	☼	06/23/15 07:29	06/25/15 06:57	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97344-1

Client Sample ID: 1860-23-B02 (2-4)

Lab Sample ID: 500-97344-8

Date Collected: 06/12/15 14:30

Matrix: Solid

Date Received: 06/13/15 07:30

Percent Solids: 83.2

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	☼	06/23/15 07:29	06/25/15 06:57	1
2-Methylphenol	<0.19	*	0.19	0.061	mg/Kg	☼	06/23/15 07:29	06/25/15 06:57	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.044	mg/Kg	☼	06/23/15 07:29	06/25/15 06:57	1
N-Nitrosodi-n-propylamine	<0.19		0.19	0.047	mg/Kg	☼	06/23/15 07:29	06/25/15 06:57	1
Hexachloroethane	<0.19		0.19	0.058	mg/Kg	☼	06/23/15 07:29	06/25/15 06:57	1
2-Chlorophenol	<0.19		0.19	0.065	mg/Kg	☼	06/23/15 07:29	06/25/15 06:57	1
Nitrobenzene	<0.038		0.038	0.0095	mg/Kg	☼	06/23/15 07:29	06/25/15 06:57	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.039	mg/Kg	☼	06/23/15 07:29	06/25/15 06:57	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.041	mg/Kg	☼	06/23/15 07:29	06/25/15 06:57	1
Isophorone	<0.19		0.19	0.043	mg/Kg	☼	06/23/15 07:29	06/25/15 06:57	1
2,4-Dimethylphenol	<0.38		0.38	0.14	mg/Kg	☼	06/23/15 07:29	06/25/15 06:57	1
Hexachlorobutadiene	<0.19		0.19	0.060	mg/Kg	☼	06/23/15 07:29	06/25/15 06:57	1
Naphthalene	<0.038		0.038	0.0059	mg/Kg	☼	06/23/15 07:29	06/25/15 06:57	1
2,4-Dichlorophenol	<0.38		0.38	0.091	mg/Kg	☼	06/23/15 07:29	06/25/15 06:57	1
4-Chloroaniline	<0.77		0.77	0.18	mg/Kg	☼	06/23/15 07:29	06/25/15 06:57	1
2,4,6-Trichlorophenol	<0.38		0.38	0.13	mg/Kg	☼	06/23/15 07:29	06/25/15 06:57	1
2,4,5-Trichlorophenol	<0.38		0.38	0.087	mg/Kg	☼	06/23/15 07:29	06/25/15 06:57	1
Hexachlorocyclopentadiene	<0.77		0.77	0.22	mg/Kg	☼	06/23/15 07:29	06/25/15 06:57	1
2-Methylnaphthalene	<0.038		0.038	0.0070	mg/Kg	☼	06/23/15 07:29	06/25/15 06:57	1
2-Nitroaniline	<0.19		0.19	0.051	mg/Kg	☼	06/23/15 07:29	06/25/15 06:57	1
2-Chloronaphthalene	<0.19		0.19	0.042	mg/Kg	☼	06/23/15 07:29	06/25/15 06:57	1
4-Chloro-3-methylphenol	<0.38		0.38	0.13	mg/Kg	☼	06/23/15 07:29	06/25/15 06:57	1
2,6-Dinitrotoluene	<0.19		0.19	0.075	mg/Kg	☼	06/23/15 07:29	06/25/15 06:57	1
2-Nitrophenol	<0.38		0.38	0.090	mg/Kg	☼	06/23/15 07:29	06/25/15 06:57	1
3-Nitroaniline	<0.38		0.38	0.12	mg/Kg	☼	06/23/15 07:29	06/25/15 06:57	1
Dimethyl phthalate	<0.19		0.19	0.050	mg/Kg	☼	06/23/15 07:29	06/25/15 06:57	1
2,4-Dinitrophenol	<0.77		0.77	0.67	mg/Kg	☼	06/23/15 07:29	06/25/15 06:57	1
Acenaphthylene	<0.038		0.038	0.0050	mg/Kg	☼	06/23/15 07:29	06/25/15 06:57	1
2,4-Dinitrotoluene	<0.19		0.19	0.061	mg/Kg	☼	06/23/15 07:29	06/25/15 06:57	1
Acenaphthene	<0.038		0.038	0.0069	mg/Kg	☼	06/23/15 07:29	06/25/15 06:57	1
Dibenzofuran	<0.19		0.19	0.045	mg/Kg	☼	06/23/15 07:29	06/25/15 06:57	1
4-Nitrophenol	<0.77		0.77	0.36	mg/Kg	☼	06/23/15 07:29	06/25/15 06:57	1
Fluorene	<0.038		0.038	0.0054	mg/Kg	☼	06/23/15 07:29	06/25/15 06:57	1
4-Nitroaniline	<0.38		0.38	0.16	mg/Kg	☼	06/23/15 07:29	06/25/15 06:57	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.050	mg/Kg	☼	06/23/15 07:29	06/25/15 06:57	1
Hexachlorobenzene	<0.077		0.077	0.0088	mg/Kg	☼	06/23/15 07:29	06/25/15 06:57	1
Diethyl phthalate	<0.19		0.19	0.065	mg/Kg	☼	06/23/15 07:29	06/25/15 06:57	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.045	mg/Kg	☼	06/23/15 07:29	06/25/15 06:57	1
Pentachlorophenol	<0.77		0.77	0.61	mg/Kg	☼	06/23/15 07:29	06/25/15 06:57	1
N-Nitrosodiphenylamine	<0.19		0.19	0.045	mg/Kg	☼	06/23/15 07:29	06/25/15 06:57	1
4,6-Dinitro-2-methylphenol	<0.38		0.38	0.31	mg/Kg	☼	06/23/15 07:29	06/25/15 06:57	1
Phenanthrene	<0.038		0.038	0.0053	mg/Kg	☼	06/23/15 07:29	06/25/15 06:57	1
Anthracene	<0.038		0.038	0.0064	mg/Kg	☼	06/23/15 07:29	06/25/15 06:57	1
Carbazole	<0.19		0.19	0.098	mg/Kg	☼	06/23/15 07:29	06/25/15 06:57	1
Di-n-butyl phthalate	<0.19		0.19	0.058	mg/Kg	☼	06/23/15 07:29	06/25/15 06:57	1
Fluoranthene	0.0078	J	0.038	0.0071	mg/Kg	☼	06/23/15 07:29	06/25/15 06:57	1
Pyrene	0.0091	J	0.038	0.0076	mg/Kg	☼	06/23/15 07:29	06/25/15 06:57	1
Butyl benzyl phthalate	<0.19		0.19	0.073	mg/Kg	☼	06/23/15 07:29	06/25/15 06:57	1
Benzo[a]anthracene	<0.038		0.038	0.0051	mg/Kg	☼	06/23/15 07:29	06/25/15 06:57	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97344-1

Client Sample ID: 1860-23-B02 (2-4)

Lab Sample ID: 500-97344-8

Date Collected: 06/12/15 14:30

Matrix: Solid

Date Received: 06/13/15 07:30

Percent Solids: 83.2

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	☼	06/23/15 07:29	06/25/15 06:57	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.053	mg/Kg	☼	06/23/15 07:29	06/25/15 06:57	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.070	mg/Kg	☼	06/23/15 07:29	06/25/15 06:57	1
Di-n-octyl phthalate	<0.19		0.19	0.062	mg/Kg	☼	06/23/15 07:29	06/25/15 06:57	1
Benzo[b]fluoranthene	<0.038 *		0.038	0.0082	mg/Kg	☼	06/23/15 07:29	06/25/15 06:57	1
Benzo[k]fluoranthene	<0.038		0.038	0.011	mg/Kg	☼	06/23/15 07:29	06/25/15 06:57	1
Benzo[a]pyrene	<0.038		0.038	0.0074	mg/Kg	☼	06/23/15 07:29	06/25/15 06:57	1
Indeno[1,2,3-cd]pyrene	<0.038		0.038	0.0099	mg/Kg	☼	06/23/15 07:29	06/25/15 06:57	1
Dibenz(a,h)anthracene	<0.038		0.038	0.0074	mg/Kg	☼	06/23/15 07:29	06/25/15 06:57	1
Benzo[g,h,i]perylene	<0.038		0.038	0.012	mg/Kg	☼	06/23/15 07:29	06/25/15 06:57	1
3 & 4 Methylphenol	<0.19		0.19	0.064	mg/Kg	☼	06/23/15 07:29	06/25/15 06:57	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	57		25 - 110	06/23/15 07:29	06/25/15 06:57	1
Phenol-d5	51		31 - 110	06/23/15 07:29	06/25/15 06:57	1
Nitrobenzene-d5	53		25 - 115	06/23/15 07:29	06/25/15 06:57	1
2-Fluorobiphenyl	46		25 - 119	06/23/15 07:29	06/25/15 06:57	1
2,4,6-Tribromophenol	49		35 - 137	06/23/15 07:29	06/25/15 06:57	1
Terphenyl-d14	78		36 - 134	06/23/15 07:29	06/25/15 06:57	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.2		1.2	0.25	mg/Kg	☼	06/16/15 17:41	06/17/15 18:49	1
Arsenic	6.5		0.60	0.28	mg/Kg	☼	06/16/15 17:41	06/17/15 18:49	1
Barium	91		0.60	0.11	mg/Kg	☼	06/16/15 17:41	06/17/15 18:49	1
Beryllium	0.72		0.24	0.052	mg/Kg	☼	06/16/15 17:41	06/17/15 18:49	1
Boron	4.3		3.0	0.42	mg/Kg	☼	06/16/15 17:41	06/17/15 18:49	1
Cadmium	0.14		0.12	0.035	mg/Kg	☼	06/16/15 17:41	06/17/15 18:49	1
Calcium	2600		12	3.8	mg/Kg	☼	06/16/15 17:41	06/17/15 18:49	1
Chromium	19		0.60	0.10	mg/Kg	☼	06/16/15 17:41	06/17/15 18:49	1
Cobalt	12		0.30	0.067	mg/Kg	☼	06/16/15 17:41	06/17/15 18:49	1
Copper	20 B		0.60	0.13	mg/Kg	☼	06/16/15 17:41	06/17/15 18:49	1
Iron	18000		12	4.6	mg/Kg	☼	06/16/15 17:41	06/17/15 18:49	1
Lead	17		0.30	0.15	mg/Kg	☼	06/16/15 17:41	06/17/15 18:49	1
Magnesium	3700		6.0	2.4	mg/Kg	☼	06/16/15 17:41	06/17/15 18:49	1
Manganese	130		0.60	0.12	mg/Kg	☼	06/16/15 17:41	06/17/15 18:49	1
Nickel	31		0.60	0.16	mg/Kg	☼	06/16/15 17:41	06/17/15 18:49	1
Potassium	1300		30	4.9	mg/Kg	☼	06/16/15 17:41	06/17/15 18:49	1
Selenium	<0.60		0.60	0.30	mg/Kg	☼	06/16/15 17:41	06/17/15 18:49	1
Silver	<0.30		0.30	0.070	mg/Kg	☼	06/16/15 17:41	06/17/15 18:49	1
Sodium	3000		60	7.9	mg/Kg	☼	06/16/15 17:41	06/17/15 18:49	1
Thallium	<0.60		0.60	0.29	mg/Kg	☼	06/16/15 17:41	06/17/15 18:49	1
Vanadium	28		0.30	0.087	mg/Kg	☼	06/16/15 17:41	06/17/15 18:49	1
Zinc	64 B		1.2	0.38	mg/Kg	☼	06/16/15 17:41	06/18/15 13:42	1

Method: 7471B - Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.042		0.018	0.0063	mg/Kg	☼	06/15/15 13:00	06/17/15 09:02	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97344-1

Client Sample ID: 1860-23-B02 (2-4)D

Lab Sample ID: 500-97344-9

Date Collected: 06/12/15 14:30

Matrix: Solid

Date Received: 06/13/15 07:30

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.65		0.50	0.050	mg/L		06/16/15 09:34	06/17/15 15:23	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		06/16/15 09:34	06/17/15 15:23	1
Boron	0.63		0.50	0.050	mg/L		06/16/15 09:34	06/17/15 15:23	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		06/16/15 09:34	06/17/15 15:23	1
Chromium	<0.025		0.025	0.010	mg/L		06/16/15 09:34	06/17/15 15:23	1
Cobalt	0.011	J	0.025	0.010	mg/L		06/16/15 09:34	06/17/15 15:23	1
Iron	<0.20		0.20	0.20	mg/L		06/16/15 09:34	06/17/15 15:23	1
Lead	<0.0075		0.0075	0.0075	mg/L		06/16/15 09:34	06/17/15 15:23	1
Manganese	5.5		0.025	0.010	mg/L		06/16/15 09:34	06/18/15 15:53	1
Nickel	0.015	J	0.025	0.010	mg/L		06/16/15 09:34	06/17/15 15:23	1
Selenium	<0.050		0.050	0.020	mg/L		06/16/15 09:34	06/17/15 15:23	1
Silver	<0.025		0.025	0.010	mg/L		06/16/15 09:34	06/17/15 15:23	1
Zinc	0.024	J	0.10	0.020	mg/L		06/16/15 09:34	06/17/15 15:23	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.85		0.025	0.010	mg/L		06/23/15 14:00	06/24/15 12:18	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		06/16/15 09:34	06/17/15 15:38	1
Thallium	<0.0020		0.0020	0.0020	mg/L		06/16/15 09:34	06/17/15 15:38	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		06/15/15 11:30	06/16/15 11:33	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.51		0.200	0.200	SU			06/16/15 11:40	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97344-1

Client Sample ID: 1860-23-B02 (2-4)D

Lab Sample ID: 500-97344-9

Date Collected: 06/12/15 14:30

Matrix: Solid

Date Received: 06/13/15 07:30

Percent Solids: 81.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	0.0083		0.0044	0.0034	mg/Kg	☼	06/13/15 09:45	06/17/15 18:39	1
Benzene	<0.0044		0.0044	0.00099	mg/Kg	☼	06/13/15 09:45	06/17/15 18:39	1
Bromodichloromethane	<0.0044		0.0044	0.00075	mg/Kg	☼	06/13/15 09:45	06/17/15 18:39	1
Bromoform	<0.0044		0.0044	0.00091	mg/Kg	☼	06/13/15 09:45	06/17/15 18:39	1
Bromomethane	<0.0044		0.0044	0.0016	mg/Kg	☼	06/13/15 09:45	06/17/15 18:39	1
2-Butanone (MEK)	<0.0044		0.0044	0.0016	mg/Kg	☼	06/13/15 09:45	06/17/15 18:39	1
Carbon disulfide	<0.0044		0.0044	0.0016	mg/Kg	☼	06/13/15 09:45	06/17/15 18:39	1
Carbon tetrachloride	<0.0044		0.0044	0.00095	mg/Kg	☼	06/13/15 09:45	06/17/15 18:39	1
Chlorobenzene	<0.0044		0.0044	0.0010	mg/Kg	☼	06/13/15 09:45	06/17/15 18:39	1
Chloroethane	<0.0044		0.0044	0.0019	mg/Kg	☼	06/13/15 09:45	06/17/15 18:39	1
Chloroform	<0.0044		0.0044	0.00087	mg/Kg	☼	06/13/15 09:45	06/17/15 18:39	1
Chloromethane	<0.0044		0.0044	0.0011	mg/Kg	☼	06/13/15 09:45	06/17/15 18:39	1
cis-1,2-Dichloroethene	<0.0044		0.0044	0.00091	mg/Kg	☼	06/13/15 09:45	06/17/15 18:39	1
cis-1,3-Dichloropropene	<0.0044		0.0044	0.0010	mg/Kg	☼	06/13/15 09:45	06/17/15 18:39	1
Dibromochloromethane	<0.0044		0.0044	0.00051	mg/Kg	☼	06/13/15 09:45	06/17/15 18:39	1
1,1-Dichloroethane	<0.0044		0.0044	0.00091	mg/Kg	☼	06/13/15 09:45	06/17/15 18:39	1
1,2-Dichloroethane	<0.0044		0.0044	0.00066	mg/Kg	☼	06/13/15 09:45	06/17/15 18:39	1
1,1-Dichloroethene	<0.0044		0.0044	0.0016	mg/Kg	☼	06/13/15 09:45	06/17/15 18:39	1
1,2-Dichloropropane	<0.0044		0.0044	0.0012	mg/Kg	☼	06/13/15 09:45	06/17/15 18:39	1
1,3-Dichloropropane, Total	<0.0044		0.0044	0.0013	mg/Kg	☼	06/13/15 09:45	06/17/15 18:39	1
Ethylbenzene	<0.0044		0.0044	0.0011	mg/Kg	☼	06/13/15 09:45	06/17/15 18:39	1
2-Hexanone	<0.0044		0.0044	0.0014	mg/Kg	☼	06/13/15 09:45	06/17/15 18:39	1
Methylene Chloride	<0.0044		0.0044	0.0034	mg/Kg	☼	06/13/15 09:45	06/17/15 18:39	1
4-Methyl-2-pentanone (MIBK)	<0.0044		0.0044	0.00091	mg/Kg	☼	06/13/15 09:45	06/17/15 18:39	1
Methyl tert-butyl ether	<0.0044		0.0044	0.0010	mg/Kg	☼	06/13/15 09:45	06/17/15 18:39	1
Styrene	<0.0044		0.0044	0.0010	mg/Kg	☼	06/13/15 09:45	06/17/15 18:39	1
1,1,2,2-Tetrachloroethane	<0.0044		0.0044	0.00070	mg/Kg	☼	06/13/15 09:45	06/17/15 18:39	1
Tetrachloroethene	<0.0044		0.0044	0.00092	mg/Kg	☼	06/13/15 09:45	06/17/15 18:39	1
Toluene	<0.0044		0.0044	0.0015	mg/Kg	☼	06/13/15 09:45	06/17/15 18:39	1
trans-1,2-Dichloroethene	<0.0044		0.0044	0.0011	mg/Kg	☼	06/13/15 09:45	06/17/15 18:39	1
trans-1,3-Dichloropropene	<0.0044		0.0044	0.0013	mg/Kg	☼	06/13/15 09:45	06/17/15 18:39	1
1,1,1-Trichloroethane	<0.0044		0.0044	0.0010	mg/Kg	☼	06/13/15 09:45	06/17/15 18:39	1
1,1,2-Trichloroethane	<0.0044		0.0044	0.00086	mg/Kg	☼	06/13/15 09:45	06/17/15 18:39	1
Trichloroethene	<0.0044		0.0044	0.0012	mg/Kg	☼	06/13/15 09:45	06/17/15 18:39	1
Vinyl acetate	<0.0044		0.0044	0.0012	mg/Kg	☼	06/13/15 09:45	06/17/15 18:39	1
Vinyl chloride	<0.0044		0.0044	0.0011	mg/Kg	☼	06/13/15 09:45	06/17/15 18:39	1
Xylenes, Total	<0.0089		0.0089	0.0016	mg/Kg	☼	06/13/15 09:45	06/17/15 18:39	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		70 - 122	06/13/15 09:45	06/17/15 18:39	1
Dibromofluoromethane	112		75 - 120	06/13/15 09:45	06/17/15 18:39	1
1,2-Dichloroethane-d4 (Surr)	115		70 - 134	06/13/15 09:45	06/17/15 18:39	1
Toluene-d8 (Surr)	111		75 - 122	06/13/15 09:45	06/17/15 18:39	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.20	*	0.20	0.086	mg/Kg	☼	06/23/15 07:29	06/25/15 07:19	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.058	mg/Kg	☼	06/23/15 07:29	06/25/15 07:19	1
1,3-Dichlorobenzene	<0.20		0.20	0.044	mg/Kg	☼	06/23/15 07:29	06/25/15 07:19	1
1,4-Dichlorobenzene	<0.20		0.20	0.050	mg/Kg	☼	06/23/15 07:29	06/25/15 07:19	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97344-1

Client Sample ID: 1860-23-B02 (2-4)D

Lab Sample ID: 500-97344-9

Date Collected: 06/12/15 14:30

Matrix: Solid

Date Received: 06/13/15 07:30

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	☼	06/23/15 07:29	06/25/15 07:19	1
2-Methylphenol	<0.20	*	0.20	0.062	mg/Kg	☼	06/23/15 07:29	06/25/15 07:19	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.045	mg/Kg	☼	06/23/15 07:29	06/25/15 07:19	1
N-Nitrosodi-n-propylamine	<0.20		0.20	0.047	mg/Kg	☼	06/23/15 07:29	06/25/15 07:19	1
Hexachloroethane	<0.20		0.20	0.059	mg/Kg	☼	06/23/15 07:29	06/25/15 07:19	1
2-Chlorophenol	<0.20		0.20	0.066	mg/Kg	☼	06/23/15 07:29	06/25/15 07:19	1
Nitrobenzene	<0.039		0.039	0.0097	mg/Kg	☼	06/23/15 07:29	06/25/15 07:19	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.040	mg/Kg	☼	06/23/15 07:29	06/25/15 07:19	1
1,2,4-Trichlorobenzene	<0.20		0.20	0.042	mg/Kg	☼	06/23/15 07:29	06/25/15 07:19	1
Isophorone	<0.20		0.20	0.044	mg/Kg	☼	06/23/15 07:29	06/25/15 07:19	1
2,4-Dimethylphenol	<0.39		0.39	0.15	mg/Kg	☼	06/23/15 07:29	06/25/15 07:19	1
Hexachlorobutadiene	<0.20		0.20	0.061	mg/Kg	☼	06/23/15 07:29	06/25/15 07:19	1
Naphthalene	<0.039		0.039	0.0060	mg/Kg	☼	06/23/15 07:29	06/25/15 07:19	1
2,4-Dichlorophenol	<0.39		0.39	0.092	mg/Kg	☼	06/23/15 07:29	06/25/15 07:19	1
4-Chloroaniline	<0.78		0.78	0.18	mg/Kg	☼	06/23/15 07:29	06/25/15 07:19	1
2,4,6-Trichlorophenol	<0.39		0.39	0.13	mg/Kg	☼	06/23/15 07:29	06/25/15 07:19	1
2,4,5-Trichlorophenol	<0.39		0.39	0.089	mg/Kg	☼	06/23/15 07:29	06/25/15 07:19	1
Hexachlorocyclopentadiene	<0.78		0.78	0.22	mg/Kg	☼	06/23/15 07:29	06/25/15 07:19	1
2-Methylnaphthalene	<0.039		0.039	0.0071	mg/Kg	☼	06/23/15 07:29	06/25/15 07:19	1
2-Nitroaniline	<0.20		0.20	0.052	mg/Kg	☼	06/23/15 07:29	06/25/15 07:19	1
2-Chloronaphthalene	<0.20		0.20	0.043	mg/Kg	☼	06/23/15 07:29	06/25/15 07:19	1
4-Chloro-3-methylphenol	<0.39		0.39	0.13	mg/Kg	☼	06/23/15 07:29	06/25/15 07:19	1
2,6-Dinitrotoluene	<0.20		0.20	0.076	mg/Kg	☼	06/23/15 07:29	06/25/15 07:19	1
2-Nitrophenol	<0.39		0.39	0.092	mg/Kg	☼	06/23/15 07:29	06/25/15 07:19	1
3-Nitroaniline	<0.39		0.39	0.12	mg/Kg	☼	06/23/15 07:29	06/25/15 07:19	1
Dimethyl phthalate	<0.20		0.20	0.051	mg/Kg	☼	06/23/15 07:29	06/25/15 07:19	1
2,4-Dinitrophenol	<0.78		0.78	0.68	mg/Kg	☼	06/23/15 07:29	06/25/15 07:19	1
Acenaphthylene	<0.039		0.039	0.0051	mg/Kg	☼	06/23/15 07:29	06/25/15 07:19	1
2,4-Dinitrotoluene	<0.20		0.20	0.062	mg/Kg	☼	06/23/15 07:29	06/25/15 07:19	1
Acenaphthene	<0.039		0.039	0.0070	mg/Kg	☼	06/23/15 07:29	06/25/15 07:19	1
Dibenzofuran	<0.20		0.20	0.045	mg/Kg	☼	06/23/15 07:29	06/25/15 07:19	1
4-Nitrophenol	<0.78		0.78	0.37	mg/Kg	☼	06/23/15 07:29	06/25/15 07:19	1
Fluorene	<0.039		0.039	0.0055	mg/Kg	☼	06/23/15 07:29	06/25/15 07:19	1
4-Nitroaniline	<0.39		0.39	0.16	mg/Kg	☼	06/23/15 07:29	06/25/15 07:19	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.051	mg/Kg	☼	06/23/15 07:29	06/25/15 07:19	1
Hexachlorobenzene	<0.078		0.078	0.0090	mg/Kg	☼	06/23/15 07:29	06/25/15 07:19	1
Diethyl phthalate	<0.20		0.20	0.066	mg/Kg	☼	06/23/15 07:29	06/25/15 07:19	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.045	mg/Kg	☼	06/23/15 07:29	06/25/15 07:19	1
Pentachlorophenol	<0.78		0.78	0.62	mg/Kg	☼	06/23/15 07:29	06/25/15 07:19	1
N-Nitrosodiphenylamine	<0.20		0.20	0.046	mg/Kg	☼	06/23/15 07:29	06/25/15 07:19	1
4,6-Dinitro-2-methylphenol	<0.39		0.39	0.31	mg/Kg	☼	06/23/15 07:29	06/25/15 07:19	1
Phenanthrene	0.0081	J	0.039	0.0054	mg/Kg	☼	06/23/15 07:29	06/25/15 07:19	1
Anthracene	<0.039		0.039	0.0065	mg/Kg	☼	06/23/15 07:29	06/25/15 07:19	1
Carbazole	<0.20		0.20	0.10	mg/Kg	☼	06/23/15 07:29	06/25/15 07:19	1
Di-n-butyl phthalate	<0.20		0.20	0.059	mg/Kg	☼	06/23/15 07:29	06/25/15 07:19	1
Fluoranthene	<0.039		0.039	0.0072	mg/Kg	☼	06/23/15 07:29	06/25/15 07:19	1
Pyrene	<0.039		0.039	0.0077	mg/Kg	☼	06/23/15 07:29	06/25/15 07:19	1
Butyl benzyl phthalate	<0.20		0.20	0.074	mg/Kg	☼	06/23/15 07:29	06/25/15 07:19	1
Benzo[a]anthracene	<0.039		0.039	0.0052	mg/Kg	☼	06/23/15 07:29	06/25/15 07:19	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97344-1

Client Sample ID: 1860-23-B02 (2-4)D

Lab Sample ID: 500-97344-9

Date Collected: 06/12/15 14:30

Matrix: Solid

Date Received: 06/13/15 07:30

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	☼	06/23/15 07:29	06/25/15 07:19	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.054	mg/Kg	☼	06/23/15 07:29	06/25/15 07:19	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.071	mg/Kg	☼	06/23/15 07:29	06/25/15 07:19	1
Di-n-octyl phthalate	<0.20		0.20	0.063	mg/Kg	☼	06/23/15 07:29	06/25/15 07:19	1
Benzo[b]fluoranthene	<0.039	*	0.039	0.0084	mg/Kg	☼	06/23/15 07:29	06/25/15 07:19	1
Benzo[k]fluoranthene	<0.039		0.039	0.011	mg/Kg	☼	06/23/15 07:29	06/25/15 07:19	1
Benzo[a]pyrene	<0.039		0.039	0.0075	mg/Kg	☼	06/23/15 07:29	06/25/15 07:19	1
Indeno[1,2,3-cd]pyrene	<0.039		0.039	0.010	mg/Kg	☼	06/23/15 07:29	06/25/15 07:19	1
Dibenz(a,h)anthracene	<0.039		0.039	0.0075	mg/Kg	☼	06/23/15 07:29	06/25/15 07:19	1
Benzo[g,h,i]perylene	<0.039		0.039	0.012	mg/Kg	☼	06/23/15 07:29	06/25/15 07:19	1
3 & 4 Methylphenol	<0.20		0.20	0.065	mg/Kg	☼	06/23/15 07:29	06/25/15 07:19	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	67		25 - 110	06/23/15 07:29	06/25/15 07:19	1
Phenol-d5	62		31 - 110	06/23/15 07:29	06/25/15 07:19	1
Nitrobenzene-d5	68		25 - 115	06/23/15 07:29	06/25/15 07:19	1
2-Fluorobiphenyl	64		25 - 119	06/23/15 07:29	06/25/15 07:19	1
2,4,6-Tribromophenol	64		35 - 137	06/23/15 07:29	06/25/15 07:19	1
Terphenyl-d14	97		36 - 134	06/23/15 07:29	06/25/15 07:19	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.2		1.2	0.25	mg/Kg	☼	06/16/15 17:41	06/17/15 18:54	1
Arsenic	7.3		0.60	0.27	mg/Kg	☼	06/16/15 17:41	06/17/15 18:54	1
Barium	62		0.60	0.11	mg/Kg	☼	06/16/15 17:41	06/17/15 18:54	1
Beryllium	0.71		0.24	0.052	mg/Kg	☼	06/16/15 17:41	06/17/15 18:54	1
Boron	8.8		3.0	0.42	mg/Kg	☼	06/16/15 17:41	06/17/15 18:54	1
Cadmium	0.12		0.12	0.034	mg/Kg	☼	06/16/15 17:41	06/17/15 18:54	1
Calcium	30000		12	3.8	mg/Kg	☼	06/16/15 17:41	06/17/15 18:54	1
Chromium	19		0.60	0.10	mg/Kg	☼	06/16/15 17:41	06/17/15 18:54	1
Cobalt	12		0.30	0.067	mg/Kg	☼	06/16/15 17:41	06/17/15 18:54	1
Copper	22	B	0.60	0.13	mg/Kg	☼	06/16/15 17:41	06/17/15 18:54	1
Iron	20000		12	4.6	mg/Kg	☼	06/16/15 17:41	06/17/15 18:54	1
Lead	14		0.30	0.15	mg/Kg	☼	06/16/15 17:41	06/17/15 18:54	1
Magnesium	15000		6.0	2.4	mg/Kg	☼	06/16/15 17:41	06/17/15 18:54	1
Manganese	340		0.60	0.12	mg/Kg	☼	06/16/15 17:41	06/17/15 18:54	1
Nickel	33		0.60	0.16	mg/Kg	☼	06/16/15 17:41	06/17/15 18:54	1
Potassium	2000		30	4.9	mg/Kg	☼	06/16/15 17:41	06/17/15 18:54	1
Selenium	<0.60		0.60	0.29	mg/Kg	☼	06/16/15 17:41	06/17/15 18:54	1
Silver	<0.30		0.30	0.070	mg/Kg	☼	06/16/15 17:41	06/17/15 18:54	1
Sodium	2400		60	7.9	mg/Kg	☼	06/16/15 17:41	06/17/15 18:54	1
Thallium	<0.60		0.60	0.29	mg/Kg	☼	06/16/15 17:41	06/17/15 18:54	1
Vanadium	27		0.30	0.087	mg/Kg	☼	06/16/15 17:41	06/17/15 18:54	1
Zinc	54	B	1.2	0.38	mg/Kg	☼	06/16/15 17:41	06/18/15 13:47	1

Method: 7471B - Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.036		0.019	0.0065	mg/Kg	☼	06/15/15 13:00	06/17/15 09:04	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97344-1

Client Sample ID: 1860-23-B02 (10-12)

Lab Sample ID: 500-97344-10

Date Collected: 06/12/15 14:50

Matrix: Solid

Date Received: 06/13/15 07:30

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		06/16/15 09:34	06/16/15 19:42	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		06/16/15 09:34	06/16/15 19:42	1
Boron	0.65		0.50	0.050	mg/L		06/16/15 09:34	06/17/15 15:29	1
Cadmium	0.0032	J	0.0050	0.0020	mg/L		06/16/15 09:34	06/16/15 19:42	1
Chromium	<0.025		0.025	0.010	mg/L		06/16/15 09:34	06/16/15 19:42	1
Cobalt	0.015	J	0.025	0.010	mg/L		06/16/15 09:34	06/16/15 19:42	1
Iron	<0.20		0.20	0.20	mg/L		06/16/15 09:34	06/16/15 19:42	1
Lead	<0.0075		0.0075	0.0075	mg/L		06/16/15 09:34	06/16/15 19:42	1
Manganese	3.1		0.025	0.010	mg/L		06/16/15 09:34	06/16/15 19:42	1
Nickel	0.018	J	0.025	0.010	mg/L		06/16/15 09:34	06/16/15 19:42	1
Selenium	0.020	J	0.050	0.020	mg/L		06/16/15 09:34	06/16/15 19:42	1
Silver	<0.025		0.025	0.010	mg/L		06/16/15 09:34	06/16/15 19:42	1
Zinc	0.032	J	0.10	0.020	mg/L		06/16/15 09:34	06/16/15 19:42	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.10		0.025	0.010	mg/L		06/23/15 14:00	06/24/15 12:22	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		06/16/15 09:34	06/17/15 15:42	1
Thallium	<0.0020		0.0020	0.0020	mg/L		06/16/15 09:34	06/17/15 15:42	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		06/15/15 11:30	06/16/15 11:35	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.84		0.200	0.200	SU			06/16/15 11:43	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97344-1

Client Sample ID: 1860-23-B02 (10-12)

Lab Sample ID: 500-97344-10

Date Collected: 06/12/15 14:50

Matrix: Solid

Date Received: 06/13/15 07:30

Percent Solids: 86.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	0.0097		0.0044	0.0034	mg/Kg	☼	06/13/15 09:45	06/17/15 19:03	1
Benzene	<0.0044		0.0044	0.00098	mg/Kg	☼	06/13/15 09:45	06/17/15 19:03	1
Bromodichloromethane	<0.0044		0.0044	0.00074	mg/Kg	☼	06/13/15 09:45	06/17/15 19:03	1
Bromoform	<0.0044		0.0044	0.00090	mg/Kg	☼	06/13/15 09:45	06/17/15 19:03	1
Bromomethane	<0.0044		0.0044	0.0016	mg/Kg	☼	06/13/15 09:45	06/17/15 19:03	1
2-Butanone (MEK)	<0.0044		0.0044	0.0016	mg/Kg	☼	06/13/15 09:45	06/17/15 19:03	1
Carbon disulfide	<0.0044		0.0044	0.0016	mg/Kg	☼	06/13/15 09:45	06/17/15 19:03	1
Carbon tetrachloride	<0.0044		0.0044	0.00094	mg/Kg	☼	06/13/15 09:45	06/17/15 19:03	1
Chlorobenzene	<0.0044		0.0044	0.0010	mg/Kg	☼	06/13/15 09:45	06/17/15 19:03	1
Chloroethane	<0.0044		0.0044	0.0019	mg/Kg	☼	06/13/15 09:45	06/17/15 19:03	1
Chloroform	<0.0044		0.0044	0.00086	mg/Kg	☼	06/13/15 09:45	06/17/15 19:03	1
Chloromethane	<0.0044		0.0044	0.0011	mg/Kg	☼	06/13/15 09:45	06/17/15 19:03	1
cis-1,2-Dichloroethene	<0.0044		0.0044	0.00090	mg/Kg	☼	06/13/15 09:45	06/17/15 19:03	1
cis-1,3-Dichloropropene	<0.0044		0.0044	0.0010	mg/Kg	☼	06/13/15 09:45	06/17/15 19:03	1
Dibromochloromethane	<0.0044		0.0044	0.00051	mg/Kg	☼	06/13/15 09:45	06/17/15 19:03	1
1,1-Dichloroethane	<0.0044		0.0044	0.00091	mg/Kg	☼	06/13/15 09:45	06/17/15 19:03	1
1,2-Dichloroethane	<0.0044		0.0044	0.00065	mg/Kg	☼	06/13/15 09:45	06/17/15 19:03	1
1,1-Dichloroethene	<0.0044		0.0044	0.0016	mg/Kg	☼	06/13/15 09:45	06/17/15 19:03	1
1,2-Dichloropropane	<0.0044		0.0044	0.0012	mg/Kg	☼	06/13/15 09:45	06/17/15 19:03	1
1,3-Dichloropropane, Total	<0.0044		0.0044	0.0012	mg/Kg	☼	06/13/15 09:45	06/17/15 19:03	1
Ethylbenzene	<0.0044		0.0044	0.0011	mg/Kg	☼	06/13/15 09:45	06/17/15 19:03	1
2-Hexanone	<0.0044		0.0044	0.0014	mg/Kg	☼	06/13/15 09:45	06/17/15 19:03	1
Methylene Chloride	<0.0044		0.0044	0.0033	mg/Kg	☼	06/13/15 09:45	06/17/15 19:03	1
4-Methyl-2-pentanone (MIBK)	<0.0044		0.0044	0.00091	mg/Kg	☼	06/13/15 09:45	06/17/15 19:03	1
Methyl tert-butyl ether	<0.0044		0.0044	0.0010	mg/Kg	☼	06/13/15 09:45	06/17/15 19:03	1
Styrene	<0.0044		0.0044	0.0010	mg/Kg	☼	06/13/15 09:45	06/17/15 19:03	1
1,1,2,2-Tetrachloroethane	<0.0044		0.0044	0.00070	mg/Kg	☼	06/13/15 09:45	06/17/15 19:03	1
Tetrachloroethene	<0.0044		0.0044	0.00092	mg/Kg	☼	06/13/15 09:45	06/17/15 19:03	1
Toluene	<0.0044		0.0044	0.0015	mg/Kg	☼	06/13/15 09:45	06/17/15 19:03	1
trans-1,2-Dichloroethene	<0.0044		0.0044	0.0011	mg/Kg	☼	06/13/15 09:45	06/17/15 19:03	1
trans-1,3-Dichloropropene	<0.0044		0.0044	0.0012	mg/Kg	☼	06/13/15 09:45	06/17/15 19:03	1
1,1,1-Trichloroethane	<0.0044		0.0044	0.0010	mg/Kg	☼	06/13/15 09:45	06/17/15 19:03	1
1,1,2-Trichloroethane	<0.0044		0.0044	0.00085	mg/Kg	☼	06/13/15 09:45	06/17/15 19:03	1
Trichloroethene	<0.0044		0.0044	0.0012	mg/Kg	☼	06/13/15 09:45	06/17/15 19:03	1
Vinyl acetate	<0.0044		0.0044	0.0012	mg/Kg	☼	06/13/15 09:45	06/17/15 19:03	1
Vinyl chloride	<0.0044		0.0044	0.0010	mg/Kg	☼	06/13/15 09:45	06/17/15 19:03	1
Xylenes, Total	<0.0088		0.0088	0.0016	mg/Kg	☼	06/13/15 09:45	06/17/15 19:03	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		70 - 122	06/13/15 09:45	06/17/15 19:03	1
Dibromofluoromethane	111		75 - 120	06/13/15 09:45	06/17/15 19:03	1
1,2-Dichloroethane-d4 (Surr)	115		70 - 134	06/13/15 09:45	06/17/15 19:03	1
Toluene-d8 (Surr)	111		75 - 122	06/13/15 09:45	06/17/15 19:03	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	☼	06/23/15 07:29	06/25/15 20:14	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.056	mg/Kg	☼	06/23/15 07:29	06/25/15 20:14	1
1,3-Dichlorobenzene	<0.19		0.19	0.042	mg/Kg	☼	06/23/15 07:29	06/25/15 20:14	1
1,4-Dichlorobenzene	<0.19		0.19	0.048	mg/Kg	☼	06/23/15 07:29	06/25/15 20:14	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97344-1

Client Sample ID: 1860-23-B02 (10-12)

Lab Sample ID: 500-97344-10

Date Collected: 06/12/15 14:50

Matrix: Solid

Date Received: 06/13/15 07:30

Percent Solids: 86.4

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	☼	06/23/15 07:29	06/25/15 20:14	1
2-Methylphenol	<0.19	*	0.19	0.060	mg/Kg	☼	06/23/15 07:29	06/25/15 20:14	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.043	mg/Kg	☼	06/23/15 07:29	06/25/15 20:14	1
N-Nitrosodi-n-propylamine	<0.19		0.19	0.046	mg/Kg	☼	06/23/15 07:29	06/25/15 20:14	1
Hexachloroethane	<0.19		0.19	0.057	mg/Kg	☼	06/23/15 07:29	06/25/15 20:14	1
2-Chlorophenol	<0.19		0.19	0.064	mg/Kg	☼	06/23/15 07:29	06/25/15 20:14	1
Nitrobenzene	<0.037		0.037	0.0093	mg/Kg	☼	06/23/15 07:29	06/25/15 20:14	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.038	mg/Kg	☼	06/23/15 07:29	06/25/15 20:14	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.040	mg/Kg	☼	06/23/15 07:29	06/25/15 20:14	1
Isophorone	<0.19		0.19	0.042	mg/Kg	☼	06/23/15 07:29	06/25/15 20:14	1
2,4-Dimethylphenol	<0.37		0.37	0.14	mg/Kg	☼	06/23/15 07:29	06/25/15 20:14	1
Hexachlorobutadiene	<0.19		0.19	0.059	mg/Kg	☼	06/23/15 07:29	06/25/15 20:14	1
Naphthalene	<0.037		0.037	0.0057	mg/Kg	☼	06/23/15 07:29	06/25/15 20:14	1
2,4-Dichlorophenol	<0.37		0.37	0.089	mg/Kg	☼	06/23/15 07:29	06/25/15 20:14	1
4-Chloroaniline	<0.75		0.75	0.18	mg/Kg	☼	06/23/15 07:29	06/25/15 20:14	1
2,4,6-Trichlorophenol	<0.37		0.37	0.13	mg/Kg	☼	06/23/15 07:29	06/25/15 20:14	1
2,4,5-Trichlorophenol	<0.37		0.37	0.085	mg/Kg	☼	06/23/15 07:29	06/25/15 20:14	1
Hexachlorocyclopentadiene	<0.75		0.75	0.21	mg/Kg	☼	06/23/15 07:29	06/25/15 20:14	1
2-Methylnaphthalene	0.022	J	0.037	0.0069	mg/Kg	☼	06/23/15 07:29	06/25/15 20:14	1
2-Nitroaniline	<0.19		0.19	0.050	mg/Kg	☼	06/23/15 07:29	06/25/15 20:14	1
2-Chloronaphthalene	<0.19		0.19	0.041	mg/Kg	☼	06/23/15 07:29	06/25/15 20:14	1
4-Chloro-3-methylphenol	<0.37		0.37	0.13	mg/Kg	☼	06/23/15 07:29	06/25/15 20:14	1
2,6-Dinitrotoluene	<0.19		0.19	0.073	mg/Kg	☼	06/23/15 07:29	06/25/15 20:14	1
2-Nitrophenol	<0.37		0.37	0.088	mg/Kg	☼	06/23/15 07:29	06/25/15 20:14	1
3-Nitroaniline	<0.37		0.37	0.12	mg/Kg	☼	06/23/15 07:29	06/25/15 20:14	1
Dimethyl phthalate	<0.19		0.19	0.049	mg/Kg	☼	06/23/15 07:29	06/25/15 20:14	1
2,4-Dinitrophenol	<0.75		0.75	0.66	mg/Kg	☼	06/23/15 07:29	06/25/15 20:14	1
Acenaphthylene	<0.037		0.037	0.0049	mg/Kg	☼	06/23/15 07:29	06/25/15 20:14	1
2,4-Dinitrotoluene	<0.19		0.19	0.059	mg/Kg	☼	06/23/15 07:29	06/25/15 20:14	1
Acenaphthene	<0.037		0.037	0.0067	mg/Kg	☼	06/23/15 07:29	06/25/15 20:14	1
Dibenzofuran	<0.19		0.19	0.044	mg/Kg	☼	06/23/15 07:29	06/25/15 20:14	1
4-Nitrophenol	<0.75		0.75	0.35	mg/Kg	☼	06/23/15 07:29	06/25/15 20:14	1
Fluorene	<0.037		0.037	0.0052	mg/Kg	☼	06/23/15 07:29	06/25/15 20:14	1
4-Nitroaniline	<0.37		0.37	0.16	mg/Kg	☼	06/23/15 07:29	06/25/15 20:14	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.049	mg/Kg	☼	06/23/15 07:29	06/25/15 20:14	1
Hexachlorobenzene	<0.075		0.075	0.0086	mg/Kg	☼	06/23/15 07:29	06/25/15 20:14	1
Diethyl phthalate	<0.19		0.19	0.063	mg/Kg	☼	06/23/15 07:29	06/25/15 20:14	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.044	mg/Kg	☼	06/23/15 07:29	06/25/15 20:14	1
Pentachlorophenol	<0.75		0.75	0.60	mg/Kg	☼	06/23/15 07:29	06/25/15 20:14	1
N-Nitrosodiphenylamine	<0.19		0.19	0.044	mg/Kg	☼	06/23/15 07:29	06/25/15 20:14	1
4,6-Dinitro-2-methylphenol	<0.37		0.37	0.30	mg/Kg	☼	06/23/15 07:29	06/25/15 20:14	1
Phenanthrene	0.034	J	0.037	0.0052	mg/Kg	☼	06/23/15 07:29	06/25/15 20:14	1
Anthracene	<0.037		0.037	0.0062	mg/Kg	☼	06/23/15 07:29	06/25/15 20:14	1
Carbazole	<0.19		0.19	0.096	mg/Kg	☼	06/23/15 07:29	06/25/15 20:14	1
Di-n-butyl phthalate	<0.19		0.19	0.057	mg/Kg	☼	06/23/15 07:29	06/25/15 20:14	1
Fluoranthene	0.017	J	0.037	0.0069	mg/Kg	☼	06/23/15 07:29	06/25/15 20:14	1
Pyrene	0.028	J	0.037	0.0074	mg/Kg	☼	06/23/15 07:29	06/25/15 20:14	1
Butyl benzyl phthalate	<0.19		0.19	0.071	mg/Kg	☼	06/23/15 07:29	06/25/15 20:14	1
Benzo[a]anthracene	<0.037		0.037	0.0050	mg/Kg	☼	06/23/15 07:29	06/25/15 20:14	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97344-1

Client Sample ID: 1860-23-B02 (10-12)

Lab Sample ID: 500-97344-10

Date Collected: 06/12/15 14:50

Matrix: Solid

Date Received: 06/13/15 07:30

Percent Solids: 86.4

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	☼	06/23/15 07:29	06/25/15 20:14	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.052	mg/Kg	☼	06/23/15 07:29	06/25/15 20:14	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.068	mg/Kg	☼	06/23/15 07:29	06/25/15 20:14	1
Di-n-octyl phthalate	<0.19		0.19	0.061	mg/Kg	☼	06/23/15 07:29	06/25/15 20:14	1
Benzo[b]fluoranthene	<0.037	*	0.037	0.0080	mg/Kg	☼	06/23/15 07:29	06/25/15 20:14	1
Benzo[k]fluoranthene	<0.037		0.037	0.011	mg/Kg	☼	06/23/15 07:29	06/25/15 20:14	1
Benzo[a]pyrene	0.017	J B	0.037	0.0072	mg/Kg	☼	06/23/15 07:29	06/25/15 20:14	1
Indeno[1,2,3-cd]pyrene	<0.037		0.037	0.0097	mg/Kg	☼	06/23/15 07:29	06/25/15 20:14	1
Dibenz(a,h)anthracene	<0.037		0.037	0.0072	mg/Kg	☼	06/23/15 07:29	06/25/15 20:14	1
Benzo[g,h,i]perylene	0.021	J	0.037	0.012	mg/Kg	☼	06/23/15 07:29	06/25/15 20:14	1
3 & 4 Methylphenol	<0.19		0.19	0.062	mg/Kg	☼	06/23/15 07:29	06/25/15 20:14	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	59		25 - 110	06/23/15 07:29	06/25/15 20:14	1
Phenol-d5	56		31 - 110	06/23/15 07:29	06/25/15 20:14	1
Nitrobenzene-d5	54		25 - 115	06/23/15 07:29	06/25/15 20:14	1
2-Fluorobiphenyl	65		25 - 119	06/23/15 07:29	06/25/15 20:14	1
2,4,6-Tribromophenol	70		35 - 137	06/23/15 07:29	06/25/15 20:14	1
Terphenyl-d14	74		36 - 134	06/23/15 07:29	06/25/15 20:14	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	☼	06/16/15 17:41	06/17/15 18:59	1
Arsenic	12		0.54	0.25	mg/Kg	☼	06/16/15 17:41	06/17/15 18:59	1
Barium	36		0.54	0.098	mg/Kg	☼	06/16/15 17:41	06/17/15 18:59	1
Beryllium	0.54		0.21	0.046	mg/Kg	☼	06/16/15 17:41	06/17/15 18:59	1
Boron	11		2.7	0.38	mg/Kg	☼	06/16/15 17:41	06/17/15 18:59	1
Cadmium	0.11		0.11	0.031	mg/Kg	☼	06/16/15 17:41	06/17/15 18:59	1
Calcium	77000		54	17	mg/Kg	☼	06/16/15 17:41	06/18/15 14:37	5
Chromium	14		0.54	0.092	mg/Kg	☼	06/16/15 17:41	06/17/15 18:59	1
Cobalt	13		0.27	0.061	mg/Kg	☼	06/16/15 17:41	06/17/15 18:59	1
Copper	31	B	0.54	0.12	mg/Kg	☼	06/16/15 17:41	06/17/15 18:59	1
Iron	27000		11	4.1	mg/Kg	☼	06/16/15 17:41	06/17/15 18:59	1
Lead	17		0.27	0.13	mg/Kg	☼	06/16/15 17:41	06/17/15 18:59	1
Magnesium	30000		5.4	2.2	mg/Kg	☼	06/16/15 17:41	06/17/15 18:59	1
Manganese	390		0.54	0.11	mg/Kg	☼	06/16/15 17:41	06/17/15 18:59	1
Nickel	33		0.54	0.15	mg/Kg	☼	06/16/15 17:41	06/17/15 18:59	1
Potassium	2200		27	4.4	mg/Kg	☼	06/16/15 17:41	06/17/15 18:59	1
Selenium	0.41	J	0.54	0.27	mg/Kg	☼	06/16/15 17:41	06/17/15 18:59	1
Silver	<0.27		0.27	0.063	mg/Kg	☼	06/16/15 17:41	06/17/15 18:59	1
Sodium	420		54	7.1	mg/Kg	☼	06/16/15 17:41	06/17/15 18:59	1
Thallium	0.41	J	0.54	0.26	mg/Kg	☼	06/16/15 17:41	06/17/15 18:59	1
Vanadium	17		0.27	0.078	mg/Kg	☼	06/16/15 17:41	06/17/15 18:59	1
Zinc	57	B	1.1	0.34	mg/Kg	☼	06/16/15 17:41	06/18/15 13:51	1

Method: 7471B - Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.033		0.017	0.0061	mg/Kg	☼	06/15/15 13:00	06/17/15 09:06	1

TestAmerica Chicago

Definitions/Glossary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97344-1

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.
*	LCS or LCSD is outside acceptance limits.
B	Compound was found in the blank and sample.
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.
F1	MS and/or MSD Recovery is outside acceptance limits.
F2	MS/MSD RPD exceeds control limits
B	Compound was found in the blank and sample.
F3	Duplicate RPD exceeds the control limit
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.
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, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
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
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)

TestAmerica

THE LEADER IN ENVIRONMENTAL

2417 Bond Street, University Park, IL
Phone: 708.534.5200 Fax: 708.5



500-97344 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 #: 500-97344
Chain of Custody Number: _____
Page _____ of _____
Temperature °C of Cooler: 29.3.2

Client		Client Project #		Preservative		Parameter		Matrix		Comments	
EE		1009008-0031-01								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 #		Date		Time		# of Containers		Matrix	
IL 171		50011058									
Project Location/State		Lab PM		Date		Time		# of Containers		Matrix	
Cook County, IL		D. Wright									
Sampler		Sample ID		Date		Time		# of Containers		Matrix	
S. Cooper											
Lab ID	MS/MSD	Sample ID	Date	Time	# of Containers	Matrix					
1		1860-23-B11 (0-2)	6-12-15	0935	2	S	X	X	X	X	X
2		1860-23-B11 (6-8)	6-12-15	0940	2	S	X	X	X	X	X
3		1860-23-B15 (0-2)	6-12-15	1115	2	S	X	X	X	X	X
4		1860-23-B15 (4-6)	6-12-15	1120	2	S	X	X	X	X	X
5		1860-23-B09 (2-4)	6-12-15	1210	2	S	X	X	X	X	X
6		1860-23-B03 (2-4)	6-12-15	1340	2	S	X	X	X	X	X
7		1860-23-B03 (8-10)	6-12-15	1345	2	S	X	X	X	X	X
8		1860-23-B02 (2-4)	6-12-15	1430	2	S	X	X	X	X	X
9		1860-23-B02 (2-4) D	6-12-15	1430	2	S	X	X	X	X	X
10		1860-23-B02 (10-12)	6-12-15	1450	2	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)

Relinquished By: <u>[Signature]</u>	Company: EE	Date: 6-12-15	Time: 1518	Received By: <u>[Signature]</u>	Company: TA	Date: 6/12/15	Time: 1518
Relinquished By: <u>[Signature]</u>	Company: TA	Date: 6/12/15	Time: 1710	Received By: <u>[Signature]</u>	Company: TA-CHE	Date: 6/13/15	Time: 0730
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: 500-97344-1

Login Number: 97344
List Number: 1
Creator: Scott, Sherri L

List Source: TestAmerica Chicago

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	2.9,3.2
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.	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: 500-97381-2
Client Project/Site: IDOT - IL 171 - WO 031

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

Attn: Mr. Dean Tiebout



Authorized for release by:
6/30/2015 3:11:54 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

8

9



Table of Contents

Cover Page	1
Table of Contents	2
Case Narrative	3
Detection Summary	4
Sample Summary	6
Client Sample Results	7
Definitions	15
Chain of Custody	16
Receipt Checklists	17

Case Narrative

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97381-2

Job ID: 500-97381-2

Laboratory: TestAmerica Chicago

Narrative

Job Narrative 500-97381-2

Receipt

The samples were received on 6/16/2015 7:20 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.3° C.

GC/MS VOA

Method(s) 8260B: The following analyte recovered outside control limits for the LCS associated with 500-292392: Bromomethane. This is not indicative of a systematic control problem because these was a random marginal exceedance. Qualified results have been reported.

Method(s) 8260B: The continuing calibration verification (CCV) associated with batch 500-293461 recovered above the upper control limit for Vinyl Acetate. The samples associated with this CCV were non-detects for the affected analyte; therefore, the data has been reported.

Method(s) 8260B: The laboratory control sample (LCS) for batch 500-293461 recovered outside control limits for the following analytes: Chloromethane and Vinyl Acetate. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data has been reported.

Method(s) 8260B: The following sample was diluted due to the abundance of non-target analytes: 1860-23-B07 (2-4) (500-97381-3). Elevated reporting limits (RLs) are provided.

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) 3541: A full list spike was utilized for this method. Due to the large number of spiked analytes, there is a high probability that one or more analytes will recover outside acceptance limits. The laboratory's SOP allows for 3 analytes to recover outside criteria for this method when a full list spike is utilized. The LCS associated with batch 292924 had 3 analytes outside control limits: Phenol, 2-Methylphenol, and Benzo[b]fluoranthene; therefore, corrective action was not performed. These results have been reported and qualified. 1860-23-B07 (2-4) (500-97381-3) and 1860-23-B07 (8-10) (500-97381-4)

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) at line 106 associated with batch 500-292568 recovered above the upper control limit for Zinc. The samples associated with this CCV were method non-detects for the affected analyte; therefore, the data have been reported. The following sample is impacted: 1860-23-B07 (8-10) (500-97381-4).

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 - IL 171 - WO 031

TestAmerica Job ID: 500-97381-2

Client Sample ID: 1860-23-B07 (2-4)

Lab Sample ID: 500-97381-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	0.013		0.0048	0.0037	mg/Kg	1	☼	8260B	Total/NA
2-Methylnaphthalene	0.029	J	0.038	0.0070	mg/Kg	1	☼	8270D	Total/NA
Phenanthrene	0.050		0.038	0.0053	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.040		0.038	0.0071	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.040		0.038	0.0076	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.018	J	0.038	0.0051	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.028	J	0.038	0.010	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.024	J *	0.038	0.0082	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.014	J	0.038	0.011	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.017	J B	0.038	0.0074	mg/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.011	J	0.038	0.0099	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.020	J	0.038	0.012	mg/Kg	1	☼	8270D	Total/NA
Arsenic	7.6		0.59	0.27	mg/Kg	1	☼	6010B	Total/NA
Barium	80		0.59	0.11	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.56		0.24	0.051	mg/Kg	1	☼	6010B	Total/NA
Boron	9.4		3.0	0.41	mg/Kg	1	☼	6010B	Total/NA
Cadmium	1.2	B	0.12	0.034	mg/Kg	1	☼	6010B	Total/NA
Calcium	64000		59	19	mg/Kg	5	☼	6010B	Total/NA
Chromium	23		0.59	0.10	mg/Kg	1	☼	6010B	Total/NA
Cobalt	12		0.30	0.067	mg/Kg	1	☼	6010B	Total/NA
Copper	43		0.59	0.13	mg/Kg	1	☼	6010B	Total/NA
Iron	19000		12	4.6	mg/Kg	1	☼	6010B	Total/NA
Lead	76		0.30	0.15	mg/Kg	1	☼	6010B	Total/NA
Magnesium	31000		5.9	2.4	mg/Kg	1	☼	6010B	Total/NA
Manganese	360		0.59	0.12	mg/Kg	1	☼	6010B	Total/NA
Nickel	31		0.59	0.16	mg/Kg	1	☼	6010B	Total/NA
Potassium	1700		30	4.8	mg/Kg	1	☼	6010B	Total/NA
Silver	0.37		0.30	0.069	mg/Kg	1	☼	6010B	Total/NA
Sodium	1400	B	59	7.8	mg/Kg	1	☼	6010B	Total/NA
Vanadium	17		0.30	0.086	mg/Kg	1	☼	6010B	Total/NA
Zinc	140	B	1.2	0.37	mg/Kg	1	☼	6010B	Total/NA
Barium	0.43	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.64		0.50	0.050	mg/L	1		6010B	TCLP
Manganese	1.9		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.013	J	0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.025	J	0.10	0.020	mg/L	1		6010B	TCLP
Manganese	1.3		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.028		0.019	0.0068	mg/Kg	1	☼	7471B	Total/NA
pH	9.00		0.200	0.200	SU	1		9045D	Total/NA

Client Sample ID: 1860-23-B07 (8-10)

Lab Sample ID: 500-97381-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	0.011		0.0049	0.0038	mg/Kg	1	☼	8260B	Total/NA
Naphthalene	0.010	J	0.040	0.0061	mg/Kg	1	☼	8270D	Total/NA
2-Methylnaphthalene	0.027	J	0.040	0.0073	mg/Kg	1	☼	8270D	Total/NA
Phenanthrene	0.022	J	0.040	0.0055	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.013	J	0.040	0.0079	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.012	J	0.040	0.011	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.011	J *	0.040	0.0086	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 - IL 171 - WO 031

TestAmerica Job ID: 500-97381-2

Client Sample ID: 1860-23-B07 (8-10) (Continued)

Lab Sample ID: 500-97381-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	8.7		0.59	0.27	mg/Kg	1	☼	6010B	Total/NA
Barium	55		0.59	0.11	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.73		0.23	0.051	mg/Kg	1	☼	6010B	Total/NA
Boron	12		2.9	0.41	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.11	J B	0.12	0.034	mg/Kg	1	☼	6010B	Total/NA
Calcium	55000		59	19	mg/Kg	5	☼	6010B	Total/NA
Chromium	19		0.59	0.10	mg/Kg	1	☼	6010B	Total/NA
Cobalt	14		0.29	0.066	mg/Kg	1	☼	6010B	Total/NA
Copper	25		0.59	0.13	mg/Kg	1	☼	6010B	Total/NA
Iron	23000		12	4.5	mg/Kg	1	☼	6010B	Total/NA
Lead	14		0.29	0.15	mg/Kg	1	☼	6010B	Total/NA
Magnesium	23000		5.9	2.4	mg/Kg	1	☼	6010B	Total/NA
Manganese	320		0.59	0.12	mg/Kg	1	☼	6010B	Total/NA
Nickel	37		0.59	0.16	mg/Kg	1	☼	6010B	Total/NA
Potassium	2700		29	4.8	mg/Kg	1	☼	6010B	Total/NA
Sodium	270	B	59	7.7	mg/Kg	1	☼	6010B	Total/NA
Vanadium	24		0.29	0.085	mg/Kg	1	☼	6010B	Total/NA
Zinc	62	B	1.2	0.37	mg/Kg	1	☼	6010B	Total/NA
Barium	0.64		0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.81		0.50	0.050	mg/L	1		6010B	TCLP
Cadmium	0.0029	J	0.0050	0.0020	mg/L	1		6010B	TCLP
Manganese	3.1		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.049	J ^	0.10	0.020	mg/L	1		6010B	TCLP
Manganese	0.16		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.020		0.020	0.0069	mg/Kg	1	☼	7471B	Total/NA
pH	8.05		0.200	0.200	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 - IL 171 - WO 031

TestAmerica Job ID: 500-97381-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-97381-3	1860-23-B07 (2-4)	Solid	06/15/15 10:10	06/16/15 07:20
500-97381-4	1860-23-B07 (8-10)	Solid	06/15/15 10:15	06/16/15 07:20

1

2

3

4

5

6

7

8

9

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97381-2

Client Sample ID: 1860-23-B07 (2-4)

Lab Sample ID: 500-97381-3

Date Collected: 06/15/15 10:10

Matrix: Solid

Date Received: 06/16/15 07:20

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		06/18/15 09:00	06/18/15 18:12	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		06/18/15 09:00	06/18/15 18:12	1
Boron	0.64		0.50	0.050	mg/L		06/18/15 09:00	06/20/15 15:34	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		06/18/15 09:00	06/18/15 18:12	1
Chromium	<0.025		0.025	0.010	mg/L		06/18/15 09:00	06/18/15 18:12	1
Cobalt	<0.025		0.025	0.010	mg/L		06/18/15 09:00	06/18/15 18:12	1
Iron	<0.20		0.20	0.20	mg/L		06/18/15 09:00	06/18/15 18:12	1
Lead	<0.0075		0.0075	0.0075	mg/L		06/18/15 09:00	06/18/15 18:12	1
Manganese	1.9		0.025	0.010	mg/L		06/18/15 09:00	06/18/15 18:12	1
Nickel	0.013	J	0.025	0.010	mg/L		06/18/15 09:00	06/18/15 18:12	1
Selenium	<0.050		0.050	0.020	mg/L		06/18/15 09:00	06/18/15 18:12	1
Silver	<0.025		0.025	0.010	mg/L		06/18/15 09:00	06/18/15 18:12	1
Zinc	0.025	J	0.10	0.020	mg/L		06/18/15 09:00	06/18/15 18:12	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	1.3		0.025	0.010	mg/L		06/23/15 14:00	06/24/15 12:42	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		06/18/15 09:00	06/22/15 17:02	1
Thallium	<0.0020		0.0020	0.0020	mg/L		06/18/15 09:00	06/22/15 17:02	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		06/18/15 10:30	06/19/15 08:33	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	9.00		0.200	0.200	SU			06/17/15 11:35	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97381-2

Client Sample ID: 1860-23-B07 (2-4)

Lab Sample ID: 500-97381-3

Date Collected: 06/15/15 10:10

Matrix: Solid

Date Received: 06/16/15 07:20

Percent Solids: 82.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	0.013		0.0048	0.0037	mg/Kg	☼	06/16/15 07:50	06/26/15 11:52	1
Benzene	<0.0048		0.0048	0.0011	mg/Kg	☼	06/16/15 07:50	06/26/15 11:52	1
Bromodichloromethane	<0.0048		0.0048	0.00080	mg/Kg	☼	06/16/15 07:50	06/26/15 11:52	1
Bromoform	<0.0048		0.0048	0.00097	mg/Kg	☼	06/16/15 07:50	06/26/15 11:52	1
Bromomethane	<0.0048		0.0048	0.0017	mg/Kg	☼	06/16/15 07:50	06/26/15 11:52	1
2-Butanone (MEK)	<0.0048		0.0048	0.0017	mg/Kg	☼	06/16/15 07:50	06/26/15 11:52	1
Carbon disulfide	<0.0048		0.0048	0.0017	mg/Kg	☼	06/16/15 07:50	06/26/15 11:52	1
Carbon tetrachloride	<0.0048		0.0048	0.0010	mg/Kg	☼	06/16/15 07:50	06/26/15 11:52	1
Chlorobenzene	<0.0048		0.0048	0.0011	mg/Kg	☼	06/16/15 07:50	06/26/15 11:52	1
Chloroethane	<0.0048		0.0048	0.0020	mg/Kg	☼	06/16/15 07:50	06/26/15 11:52	1
Chloroform	<0.0048		0.0048	0.00093	mg/Kg	☼	06/16/15 07:50	06/26/15 11:52	1
Chloromethane	<0.0048	*	0.0048	0.0011	mg/Kg	☼	06/16/15 07:50	06/26/15 11:52	1
cis-1,2-Dichloroethene	<0.0048		0.0048	0.00097	mg/Kg	☼	06/16/15 07:50	06/26/15 11:52	1
cis-1,3-Dichloropropene	<0.0048		0.0048	0.0011	mg/Kg	☼	06/16/15 07:50	06/26/15 11:52	1
Dibromochloromethane	<0.0048		0.0048	0.00055	mg/Kg	☼	06/16/15 07:50	06/26/15 11:52	1
1,1-Dichloroethane	<0.0048		0.0048	0.00098	mg/Kg	☼	06/16/15 07:50	06/26/15 11:52	1
1,2-Dichloroethane	<0.0048		0.0048	0.00070	mg/Kg	☼	06/16/15 07:50	06/26/15 11:52	1
1,1-Dichloroethene	<0.0048		0.0048	0.0017	mg/Kg	☼	06/16/15 07:50	06/26/15 11:52	1
1,2-Dichloropropane	<0.0048		0.0048	0.0012	mg/Kg	☼	06/16/15 07:50	06/26/15 11:52	1
1,3-Dichloropropane, Total	<0.0048		0.0048	0.0013	mg/Kg	☼	06/16/15 07:50	06/26/15 11:52	1
Ethylbenzene	<0.0048		0.0048	0.0012	mg/Kg	☼	06/16/15 07:50	06/26/15 11:52	1
2-Hexanone	<0.0048		0.0048	0.0015	mg/Kg	☼	06/16/15 07:50	06/26/15 11:52	1
Methylene Chloride	<0.0048		0.0048	0.0036	mg/Kg	☼	06/16/15 07:50	06/26/15 11:52	1
4-Methyl-2-pentanone (MIBK)	<0.0048		0.0048	0.00098	mg/Kg	☼	06/16/15 07:50	06/26/15 11:52	1
Methyl tert-butyl ether	<0.0048		0.0048	0.0011	mg/Kg	☼	06/16/15 07:50	06/26/15 11:52	1
Styrene	<0.0048		0.0048	0.0011	mg/Kg	☼	06/16/15 07:50	06/26/15 11:52	1
1,1,1,2-Tetrachloroethane	<0.0048		0.0048	0.00076	mg/Kg	☼	06/16/15 07:50	06/26/15 11:52	1
Tetrachloroethene	<0.0048		0.0048	0.00099	mg/Kg	☼	06/16/15 07:50	06/26/15 11:52	1
Toluene	<0.0048		0.0048	0.0017	mg/Kg	☼	06/16/15 07:50	06/26/15 11:52	1
trans-1,2-Dichloroethene	<0.0048		0.0048	0.0012	mg/Kg	☼	06/16/15 07:50	06/26/15 11:52	1
trans-1,3-Dichloropropene	<0.0048		0.0048	0.0013	mg/Kg	☼	06/16/15 07:50	06/26/15 11:52	1
1,1,1-Trichloroethane	<0.0048		0.0048	0.0011	mg/Kg	☼	06/16/15 07:50	06/26/15 11:52	1
1,1,2-Trichloroethane	<0.0048		0.0048	0.00092	mg/Kg	☼	06/16/15 07:50	06/26/15 11:52	1
Trichloroethene	<0.0048		0.0048	0.0013	mg/Kg	☼	06/16/15 07:50	06/26/15 11:52	1
Vinyl acetate	<0.0048	*	0.0048	0.0013	mg/Kg	☼	06/16/15 07:50	06/26/15 11:52	1
Vinyl chloride	<0.0048		0.0048	0.0011	mg/Kg	☼	06/16/15 07:50	06/26/15 11:52	1
Xylenes, Total	<0.0095		0.0095	0.0018	mg/Kg	☼	06/16/15 07:50	06/26/15 11:52	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	104		70 - 122	06/16/15 07:50	06/26/15 11:52	1
Dibromofluoromethane	107		75 - 120	06/16/15 07:50	06/26/15 11:52	1
1,2-Dichloroethane-d4 (Surr)	114		70 - 134	06/16/15 07:50	06/26/15 11:52	1
Toluene-d8 (Surr)	113		75 - 122	06/16/15 07:50	06/26/15 11:52	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	☼	06/23/15 07:29	06/25/15 21:19	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.057	mg/Kg	☼	06/23/15 07:29	06/25/15 21:19	1
1,3-Dichlorobenzene	<0.19		0.19	0.043	mg/Kg	☼	06/23/15 07:29	06/25/15 21:19	1
1,4-Dichlorobenzene	<0.19		0.19	0.049	mg/Kg	☼	06/23/15 07:29	06/25/15 21:19	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97381-2

Client Sample ID: 1860-23-B07 (2-4)

Lab Sample ID: 500-97381-3

Date Collected: 06/15/15 10:10

Matrix: Solid

Date Received: 06/16/15 07:20

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	<0.19		0.19	0.045	mg/Kg	☼	06/23/15 07:29	06/25/15 21:19	1
2-Methylphenol	<0.19	*	0.19	0.061	mg/Kg	☼	06/23/15 07:29	06/25/15 21:19	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.044	mg/Kg	☼	06/23/15 07:29	06/25/15 21:19	1
N-Nitrosodi-n-propylamine	<0.19		0.19	0.047	mg/Kg	☼	06/23/15 07:29	06/25/15 21:19	1
Hexachloroethane	<0.19		0.19	0.058	mg/Kg	☼	06/23/15 07:29	06/25/15 21:19	1
2-Chlorophenol	<0.19		0.19	0.065	mg/Kg	☼	06/23/15 07:29	06/25/15 21:19	1
Nitrobenzene	<0.038		0.038	0.0095	mg/Kg	☼	06/23/15 07:29	06/25/15 21:19	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.039	mg/Kg	☼	06/23/15 07:29	06/25/15 21:19	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.041	mg/Kg	☼	06/23/15 07:29	06/25/15 21:19	1
Isophorone	<0.19		0.19	0.043	mg/Kg	☼	06/23/15 07:29	06/25/15 21:19	1
2,4-Dimethylphenol	<0.38		0.38	0.14	mg/Kg	☼	06/23/15 07:29	06/25/15 21:19	1
Hexachlorobutadiene	<0.19		0.19	0.060	mg/Kg	☼	06/23/15 07:29	06/25/15 21:19	1
Naphthalene	<0.038		0.038	0.0059	mg/Kg	☼	06/23/15 07:29	06/25/15 21:19	1
2,4-Dichlorophenol	<0.38		0.38	0.090	mg/Kg	☼	06/23/15 07:29	06/25/15 21:19	1
4-Chloroaniline	<0.77		0.77	0.18	mg/Kg	☼	06/23/15 07:29	06/25/15 21:19	1
2,4,6-Trichlorophenol	<0.38		0.38	0.13	mg/Kg	☼	06/23/15 07:29	06/25/15 21:19	1
2,4,5-Trichlorophenol	<0.38		0.38	0.087	mg/Kg	☼	06/23/15 07:29	06/25/15 21:19	1
Hexachlorocyclopentadiene	<0.77		0.77	0.22	mg/Kg	☼	06/23/15 07:29	06/25/15 21:19	1
2-Methylnaphthalene	0.029	J	0.038	0.0070	mg/Kg	☼	06/23/15 07:29	06/25/15 21:19	1
2-Nitroaniline	<0.19		0.19	0.051	mg/Kg	☼	06/23/15 07:29	06/25/15 21:19	1
2-Chloronaphthalene	<0.19		0.19	0.042	mg/Kg	☼	06/23/15 07:29	06/25/15 21:19	1
4-Chloro-3-methylphenol	<0.38		0.38	0.13	mg/Kg	☼	06/23/15 07:29	06/25/15 21:19	1
2,6-Dinitrotoluene	<0.19		0.19	0.075	mg/Kg	☼	06/23/15 07:29	06/25/15 21:19	1
2-Nitrophenol	<0.38		0.38	0.090	mg/Kg	☼	06/23/15 07:29	06/25/15 21:19	1
3-Nitroaniline	<0.38		0.38	0.12	mg/Kg	☼	06/23/15 07:29	06/25/15 21:19	1
Dimethyl phthalate	<0.19		0.19	0.050	mg/Kg	☼	06/23/15 07:29	06/25/15 21:19	1
2,4-Dinitrophenol	<0.77		0.77	0.67	mg/Kg	☼	06/23/15 07:29	06/25/15 21:19	1
Acenaphthylene	<0.038		0.038	0.0050	mg/Kg	☼	06/23/15 07:29	06/25/15 21:19	1
2,4-Dinitrotoluene	<0.19		0.19	0.060	mg/Kg	☼	06/23/15 07:29	06/25/15 21:19	1
Acenaphthene	<0.038		0.038	0.0068	mg/Kg	☼	06/23/15 07:29	06/25/15 21:19	1
Dibenzofuran	<0.19		0.19	0.045	mg/Kg	☼	06/23/15 07:29	06/25/15 21:19	1
4-Nitrophenol	<0.77		0.77	0.36	mg/Kg	☼	06/23/15 07:29	06/25/15 21:19	1
Fluorene	<0.038		0.038	0.0053	mg/Kg	☼	06/23/15 07:29	06/25/15 21:19	1
4-Nitroaniline	<0.38		0.38	0.16	mg/Kg	☼	06/23/15 07:29	06/25/15 21:19	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.050	mg/Kg	☼	06/23/15 07:29	06/25/15 21:19	1
Hexachlorobenzene	<0.077		0.077	0.0088	mg/Kg	☼	06/23/15 07:29	06/25/15 21:19	1
Diethyl phthalate	<0.19		0.19	0.064	mg/Kg	☼	06/23/15 07:29	06/25/15 21:19	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.044	mg/Kg	☼	06/23/15 07:29	06/25/15 21:19	1
Pentachlorophenol	<0.77		0.77	0.61	mg/Kg	☼	06/23/15 07:29	06/25/15 21:19	1
N-Nitrosodiphenylamine	<0.19		0.19	0.045	mg/Kg	☼	06/23/15 07:29	06/25/15 21:19	1
4,6-Dinitro-2-methylphenol	<0.38		0.38	0.31	mg/Kg	☼	06/23/15 07:29	06/25/15 21:19	1
Phenanthrene	0.050		0.038	0.0053	mg/Kg	☼	06/23/15 07:29	06/25/15 21:19	1
Anthracene	<0.038		0.038	0.0064	mg/Kg	☼	06/23/15 07:29	06/25/15 21:19	1
Carbazole	<0.19		0.19	0.098	mg/Kg	☼	06/23/15 07:29	06/25/15 21:19	1
Di-n-butyl phthalate	<0.19		0.19	0.058	mg/Kg	☼	06/23/15 07:29	06/25/15 21:19	1
Fluoranthene	0.040		0.038	0.0071	mg/Kg	☼	06/23/15 07:29	06/25/15 21:19	1
Pyrene	0.040		0.038	0.0076	mg/Kg	☼	06/23/15 07:29	06/25/15 21:19	1
Butyl benzyl phthalate	<0.19		0.19	0.072	mg/Kg	☼	06/23/15 07:29	06/25/15 21:19	1
Benzo[a]anthracene	0.018	J	0.038	0.0051	mg/Kg	☼	06/23/15 07:29	06/25/15 21:19	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97381-2

Client Sample ID: 1860-23-B07 (2-4)

Lab Sample ID: 500-97381-3

Date Collected: 06/15/15 10:10

Matrix: Solid

Date Received: 06/16/15 07:20

Percent Solids: 82.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.028	J	0.038	0.010	mg/Kg	☼	06/23/15 07:29	06/25/15 21:19	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.053	mg/Kg	☼	06/23/15 07:29	06/25/15 21:19	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.070	mg/Kg	☼	06/23/15 07:29	06/25/15 21:19	1
Di-n-octyl phthalate	<0.19		0.19	0.062	mg/Kg	☼	06/23/15 07:29	06/25/15 21:19	1
Benzo[b]fluoranthene	0.024	J *	0.038	0.0082	mg/Kg	☼	06/23/15 07:29	06/25/15 21:19	1
Benzo[k]fluoranthene	0.014	J	0.038	0.011	mg/Kg	☼	06/23/15 07:29	06/25/15 21:19	1
Benzo[a]pyrene	0.017	J B	0.038	0.0074	mg/Kg	☼	06/23/15 07:29	06/25/15 21:19	1
Indeno[1,2,3-cd]pyrene	0.011	J	0.038	0.0099	mg/Kg	☼	06/23/15 07:29	06/25/15 21:19	1
Dibenz(a,h)anthracene	<0.038		0.038	0.0074	mg/Kg	☼	06/23/15 07:29	06/25/15 21:19	1
Benzo[g,h,i]perylene	0.020	J	0.038	0.012	mg/Kg	☼	06/23/15 07:29	06/25/15 21:19	1
3 & 4 Methylphenol	<0.19		0.19	0.063	mg/Kg	☼	06/23/15 07:29	06/25/15 21:19	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	76		25 - 110	06/23/15 07:29	06/25/15 21:19	1
Phenol-d5	68		31 - 110	06/23/15 07:29	06/25/15 21:19	1
Nitrobenzene-d5	68		25 - 115	06/23/15 07:29	06/25/15 21:19	1
2-Fluorobiphenyl	91		25 - 119	06/23/15 07:29	06/25/15 21:19	1
2,4,6-Tribromophenol	89		35 - 137	06/23/15 07:29	06/25/15 21:19	1
Terphenyl-d14	97		36 - 134	06/23/15 07:29	06/25/15 21:19	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.2		1.2	0.25	mg/Kg	☼	06/17/15 17:56	06/18/15 14:00	1
Arsenic	7.6		0.59	0.27	mg/Kg	☼	06/17/15 17:56	06/18/15 14:00	1
Barium	80		0.59	0.11	mg/Kg	☼	06/17/15 17:56	06/18/15 14:00	1
Beryllium	0.56		0.24	0.051	mg/Kg	☼	06/17/15 17:56	06/18/15 14:00	1
Boron	9.4		3.0	0.41	mg/Kg	☼	06/17/15 17:56	06/18/15 14:00	1
Cadmium	1.2	B	0.12	0.034	mg/Kg	☼	06/17/15 17:56	06/18/15 14:00	1
Calcium	64000		59	19	mg/Kg	☼	06/17/15 17:56	06/18/15 15:01	5
Chromium	23		0.59	0.10	mg/Kg	☼	06/17/15 17:56	06/18/15 14:00	1
Cobalt	12		0.30	0.067	mg/Kg	☼	06/17/15 17:56	06/18/15 14:00	1
Copper	43		0.59	0.13	mg/Kg	☼	06/17/15 17:56	06/18/15 14:00	1
Iron	19000		12	4.6	mg/Kg	☼	06/17/15 17:56	06/18/15 14:00	1
Lead	76		0.30	0.15	mg/Kg	☼	06/17/15 17:56	06/18/15 14:00	1
Magnesium	31000		5.9	2.4	mg/Kg	☼	06/17/15 17:56	06/18/15 14:00	1
Manganese	360		0.59	0.12	mg/Kg	☼	06/17/15 17:56	06/18/15 14:00	1
Nickel	31		0.59	0.16	mg/Kg	☼	06/17/15 17:56	06/18/15 14:00	1
Potassium	1700		30	4.8	mg/Kg	☼	06/17/15 17:56	06/18/15 14:00	1
Selenium	<0.59		0.59	0.29	mg/Kg	☼	06/17/15 17:56	06/18/15 14:00	1
Silver	0.37		0.30	0.069	mg/Kg	☼	06/17/15 17:56	06/18/15 14:00	1
Sodium	1400	B	59	7.8	mg/Kg	☼	06/17/15 17:56	06/18/15 14:00	1
Thallium	<0.59		0.59	0.29	mg/Kg	☼	06/17/15 17:56	06/18/15 14:00	1
Vanadium	17		0.30	0.086	mg/Kg	☼	06/17/15 17:56	06/18/15 14:00	1
Zinc	140	B	1.2	0.37	mg/Kg	☼	06/17/15 17:56	06/18/15 14:00	1

Method: 7471B - Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.028		0.019	0.0068	mg/Kg	☼	06/16/15 13:30	06/17/15 09:28	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97381-2

Client Sample ID: 1860-23-B07 (8-10)

Lab Sample ID: 500-97381-4

Date Collected: 06/15/15 10:15

Matrix: Solid

Date Received: 06/16/15 07:20

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.64		0.50	0.050	mg/L		06/18/15 09:00	06/18/15 18:24	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		06/18/15 09:00	06/18/15 18:24	1
Boron	0.81		0.50	0.050	mg/L		06/18/15 09:00	06/20/15 15:39	1
Cadmium	0.0029	J	0.0050	0.0020	mg/L		06/18/15 09:00	06/18/15 18:24	1
Chromium	<0.025		0.025	0.010	mg/L		06/18/15 09:00	06/18/15 18:24	1
Cobalt	<0.025		0.025	0.010	mg/L		06/18/15 09:00	06/18/15 18:24	1
Iron	<0.20		0.20	0.20	mg/L		06/18/15 09:00	06/18/15 18:24	1
Lead	<0.0075		0.0075	0.0075	mg/L		06/18/15 09:00	06/18/15 18:24	1
Manganese	3.1		0.025	0.010	mg/L		06/18/15 09:00	06/18/15 18:24	1
Nickel	<0.025		0.025	0.010	mg/L		06/18/15 09:00	06/18/15 18:24	1
Selenium	<0.050		0.050	0.020	mg/L		06/18/15 09:00	06/18/15 18:24	1
Silver	<0.025		0.025	0.010	mg/L		06/18/15 09:00	06/18/15 18:24	1
Zinc	0.049	J ^	0.10	0.020	mg/L		06/18/15 09:00	06/18/15 18:24	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		06/23/15 14:00	06/24/15 12:46	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		06/18/15 09:00	06/22/15 17:05	1
Thallium	<0.0020		0.0020	0.0020	mg/L		06/18/15 09:00	06/22/15 17:05	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		06/18/15 10:30	06/19/15 08:51	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.05		0.200	0.200	SU			06/17/15 11:43	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97381-2

Client Sample ID: 1860-23-B07 (8-10)

Lab Sample ID: 500-97381-4

Date Collected: 06/15/15 10:15

Matrix: Solid

Date Received: 06/16/15 07:20

Percent Solids: 83.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	0.011		0.0049	0.0038	mg/Kg	☼	06/16/15 07:50	06/18/15 12:21	1
Benzene	<0.0049		0.0049	0.0011	mg/Kg	☼	06/16/15 07:50	06/18/15 12:21	1
Bromodichloromethane	<0.0049		0.0049	0.00082	mg/Kg	☼	06/16/15 07:50	06/18/15 12:21	1
Bromoform	<0.0049		0.0049	0.0010	mg/Kg	☼	06/16/15 07:50	06/18/15 12:21	1
Bromomethane	<0.0049	*	0.0049	0.0018	mg/Kg	☼	06/16/15 07:50	06/18/15 12:21	1
2-Butanone (MEK)	<0.0049		0.0049	0.0017	mg/Kg	☼	06/16/15 07:50	06/18/15 12:21	1
Carbon disulfide	<0.0049		0.0049	0.0018	mg/Kg	☼	06/16/15 07:50	06/18/15 12:21	1
Carbon tetrachloride	<0.0049		0.0049	0.0010	mg/Kg	☼	06/16/15 07:50	06/18/15 12:21	1
Chlorobenzene	<0.0049		0.0049	0.0012	mg/Kg	☼	06/16/15 07:50	06/18/15 12:21	1
Chloroethane	<0.0049		0.0049	0.0021	mg/Kg	☼	06/16/15 07:50	06/18/15 12:21	1
Chloroform	<0.0049		0.0049	0.00095	mg/Kg	☼	06/16/15 07:50	06/18/15 12:21	1
Chloromethane	<0.0049		0.0049	0.0012	mg/Kg	☼	06/16/15 07:50	06/18/15 12:21	1
cis-1,2-Dichloroethene	<0.0049		0.0049	0.0010	mg/Kg	☼	06/16/15 07:50	06/18/15 12:21	1
cis-1,3-Dichloropropene	<0.0049		0.0049	0.0011	mg/Kg	☼	06/16/15 07:50	06/18/15 12:21	1
Dibromochloromethane	<0.0049		0.0049	0.00056	mg/Kg	☼	06/16/15 07:50	06/18/15 12:21	1
1,1-Dichloroethane	<0.0049		0.0049	0.0010	mg/Kg	☼	06/16/15 07:50	06/18/15 12:21	1
1,2-Dichloroethane	<0.0049		0.0049	0.00072	mg/Kg	☼	06/16/15 07:50	06/18/15 12:21	1
1,1-Dichloroethene	<0.0049		0.0049	0.0018	mg/Kg	☼	06/16/15 07:50	06/18/15 12:21	1
1,2-Dichloropropane	<0.0049		0.0049	0.0013	mg/Kg	☼	06/16/15 07:50	06/18/15 12:21	1
1,3-Dichloropropane, Total	<0.0049		0.0049	0.0014	mg/Kg	☼	06/16/15 07:50	06/18/15 12:21	1
Ethylbenzene	<0.0049		0.0049	0.0012	mg/Kg	☼	06/16/15 07:50	06/18/15 12:21	1
2-Hexanone	<0.0049		0.0049	0.0015	mg/Kg	☼	06/16/15 07:50	06/18/15 12:21	1
Methylene Chloride	<0.0049		0.0049	0.0037	mg/Kg	☼	06/16/15 07:50	06/18/15 12:21	1
4-Methyl-2-pentanone (MIBK)	<0.0049		0.0049	0.0010	mg/Kg	☼	06/16/15 07:50	06/18/15 12:21	1
Methyl tert-butyl ether	<0.0049		0.0049	0.0012	mg/Kg	☼	06/16/15 07:50	06/18/15 12:21	1
Styrene	<0.0049		0.0049	0.0011	mg/Kg	☼	06/16/15 07:50	06/18/15 12:21	1
1,1,1,2-Tetrachloroethane	<0.0049		0.0049	0.00078	mg/Kg	☼	06/16/15 07:50	06/18/15 12:21	1
Tetrachloroethene	<0.0049		0.0049	0.0010	mg/Kg	☼	06/16/15 07:50	06/18/15 12:21	1
Toluene	<0.0049		0.0049	0.0017	mg/Kg	☼	06/16/15 07:50	06/18/15 12:21	1
trans-1,2-Dichloroethene	<0.0049		0.0049	0.0012	mg/Kg	☼	06/16/15 07:50	06/18/15 12:21	1
trans-1,3-Dichloropropene	<0.0049		0.0049	0.0014	mg/Kg	☼	06/16/15 07:50	06/18/15 12:21	1
1,1,1-Trichloroethane	<0.0049		0.0049	0.0011	mg/Kg	☼	06/16/15 07:50	06/18/15 12:21	1
1,1,2-Trichloroethane	<0.0049		0.0049	0.00095	mg/Kg	☼	06/16/15 07:50	06/18/15 12:21	1
Trichloroethene	<0.0049		0.0049	0.0013	mg/Kg	☼	06/16/15 07:50	06/18/15 12:21	1
Vinyl acetate	<0.0049		0.0049	0.0013	mg/Kg	☼	06/16/15 07:50	06/18/15 12:21	1
Vinyl chloride	<0.0049		0.0049	0.0012	mg/Kg	☼	06/16/15 07:50	06/18/15 12:21	1
Xylenes, Total	<0.0098		0.0098	0.0018	mg/Kg	☼	06/16/15 07:50	06/18/15 12:21	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	106		70 - 122	06/16/15 07:50	06/18/15 12:21	1
Dibromofluoromethane	110		75 - 120	06/16/15 07:50	06/18/15 12:21	1
1,2-Dichloroethane-d4 (Surr)	110		70 - 134	06/16/15 07:50	06/18/15 12:21	1
Toluene-d8 (Surr)	115		75 - 122	06/16/15 07:50	06/18/15 12:21	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	☼	06/23/15 07:29	06/25/15 03:22	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.060	mg/Kg	☼	06/23/15 07:29	06/25/15 03:22	1
1,3-Dichlorobenzene	<0.20		0.20	0.045	mg/Kg	☼	06/23/15 07:29	06/25/15 03:22	1
1,4-Dichlorobenzene	<0.20		0.20	0.051	mg/Kg	☼	06/23/15 07:29	06/25/15 03:22	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97381-2

Client Sample ID: 1860-23-B07 (8-10)

Lab Sample ID: 500-97381-4

Date Collected: 06/15/15 10:15

Matrix: Solid

Date Received: 06/16/15 07:20

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	0.048	mg/Kg	☼	06/23/15 07:29	06/25/15 03:22	1
2-Methylphenol	<0.20	*	0.20	0.064	mg/Kg	☼	06/23/15 07:29	06/25/15 03:22	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.046	mg/Kg	☼	06/23/15 07:29	06/25/15 03:22	1
N-Nitrosodi-n-propylamine	<0.20		0.20	0.049	mg/Kg	☼	06/23/15 07:29	06/25/15 03:22	1
Hexachloroethane	<0.20		0.20	0.060	mg/Kg	☼	06/23/15 07:29	06/25/15 03:22	1
2-Chlorophenol	<0.20		0.20	0.068	mg/Kg	☼	06/23/15 07:29	06/25/15 03:22	1
Nitrobenzene	<0.040		0.040	0.0099	mg/Kg	☼	06/23/15 07:29	06/25/15 03:22	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.041	mg/Kg	☼	06/23/15 07:29	06/25/15 03:22	1
1,2,4-Trichlorobenzene	<0.20		0.20	0.043	mg/Kg	☼	06/23/15 07:29	06/25/15 03:22	1
Isophorone	<0.20		0.20	0.045	mg/Kg	☼	06/23/15 07:29	06/25/15 03:22	1
2,4-Dimethylphenol	<0.40		0.40	0.15	mg/Kg	☼	06/23/15 07:29	06/25/15 03:22	1
Hexachlorobutadiene	<0.20		0.20	0.062	mg/Kg	☼	06/23/15 07:29	06/25/15 03:22	1
Naphthalene	0.010	J	0.040	0.0061	mg/Kg	☼	06/23/15 07:29	06/25/15 03:22	1
2,4-Dichlorophenol	<0.40		0.40	0.094	mg/Kg	☼	06/23/15 07:29	06/25/15 03:22	1
4-Chloroaniline	<0.80		0.80	0.19	mg/Kg	☼	06/23/15 07:29	06/25/15 03:22	1
2,4,6-Trichlorophenol	<0.40		0.40	0.14	mg/Kg	☼	06/23/15 07:29	06/25/15 03:22	1
2,4,5-Trichlorophenol	<0.40		0.40	0.091	mg/Kg	☼	06/23/15 07:29	06/25/15 03:22	1
Hexachlorocyclopentadiene	<0.80		0.80	0.23	mg/Kg	☼	06/23/15 07:29	06/25/15 03:22	1
2-Methylnaphthalene	0.027	J	0.040	0.0073	mg/Kg	☼	06/23/15 07:29	06/25/15 03:22	1
2-Nitroaniline	<0.20		0.20	0.054	mg/Kg	☼	06/23/15 07:29	06/25/15 03:22	1
2-Chloronaphthalene	<0.20		0.20	0.044	mg/Kg	☼	06/23/15 07:29	06/25/15 03:22	1
4-Chloro-3-methylphenol	<0.40		0.40	0.14	mg/Kg	☼	06/23/15 07:29	06/25/15 03:22	1
2,6-Dinitrotoluene	<0.20		0.20	0.078	mg/Kg	☼	06/23/15 07:29	06/25/15 03:22	1
2-Nitrophenol	<0.40		0.40	0.094	mg/Kg	☼	06/23/15 07:29	06/25/15 03:22	1
3-Nitroaniline	<0.40		0.40	0.12	mg/Kg	☼	06/23/15 07:29	06/25/15 03:22	1
Dimethyl phthalate	<0.20		0.20	0.052	mg/Kg	☼	06/23/15 07:29	06/25/15 03:22	1
2,4-Dinitrophenol	<0.80		0.80	0.70	mg/Kg	☼	06/23/15 07:29	06/25/15 03:22	1
Acenaphthylene	<0.040		0.040	0.0052	mg/Kg	☼	06/23/15 07:29	06/25/15 03:22	1
2,4-Dinitrotoluene	<0.20		0.20	0.063	mg/Kg	☼	06/23/15 07:29	06/25/15 03:22	1
Acenaphthene	<0.040		0.040	0.0071	mg/Kg	☼	06/23/15 07:29	06/25/15 03:22	1
Dibenzofuran	<0.20		0.20	0.047	mg/Kg	☼	06/23/15 07:29	06/25/15 03:22	1
4-Nitrophenol	<0.80		0.80	0.38	mg/Kg	☼	06/23/15 07:29	06/25/15 03:22	1
Fluorene	<0.040		0.040	0.0056	mg/Kg	☼	06/23/15 07:29	06/25/15 03:22	1
4-Nitroaniline	<0.40		0.40	0.17	mg/Kg	☼	06/23/15 07:29	06/25/15 03:22	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.052	mg/Kg	☼	06/23/15 07:29	06/25/15 03:22	1
Hexachlorobenzene	<0.080		0.080	0.0092	mg/Kg	☼	06/23/15 07:29	06/25/15 03:22	1
Diethyl phthalate	<0.20		0.20	0.067	mg/Kg	☼	06/23/15 07:29	06/25/15 03:22	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.046	mg/Kg	☼	06/23/15 07:29	06/25/15 03:22	1
Pentachlorophenol	<0.80		0.80	0.64	mg/Kg	☼	06/23/15 07:29	06/25/15 03:22	1
N-Nitrosodiphenylamine	<0.20		0.20	0.047	mg/Kg	☼	06/23/15 07:29	06/25/15 03:22	1
4,6-Dinitro-2-methylphenol	<0.40		0.40	0.32	mg/Kg	☼	06/23/15 07:29	06/25/15 03:22	1
Phenanthrene	0.022	J	0.040	0.0055	mg/Kg	☼	06/23/15 07:29	06/25/15 03:22	1
Anthracene	<0.040		0.040	0.0066	mg/Kg	☼	06/23/15 07:29	06/25/15 03:22	1
Carbazole	<0.20		0.20	0.10	mg/Kg	☼	06/23/15 07:29	06/25/15 03:22	1
Di-n-butyl phthalate	<0.20		0.20	0.061	mg/Kg	☼	06/23/15 07:29	06/25/15 03:22	1
Fluoranthene	<0.040		0.040	0.0074	mg/Kg	☼	06/23/15 07:29	06/25/15 03:22	1
Pyrene	0.013	J	0.040	0.0079	mg/Kg	☼	06/23/15 07:29	06/25/15 03:22	1
Butyl benzyl phthalate	<0.20		0.20	0.076	mg/Kg	☼	06/23/15 07:29	06/25/15 03:22	1
Benzo[a]anthracene	<0.040		0.040	0.0054	mg/Kg	☼	06/23/15 07:29	06/25/15 03:22	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97381-2

Client Sample ID: 1860-23-B07 (8-10)

Lab Sample ID: 500-97381-4

Date Collected: 06/15/15 10:15

Matrix: Solid

Date Received: 06/16/15 07:20

Percent Solids: 83.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.012	J	0.040	0.011	mg/Kg	☼	06/23/15 07:29	06/25/15 03:22	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.056	mg/Kg	☼	06/23/15 07:29	06/25/15 03:22	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.073	mg/Kg	☼	06/23/15 07:29	06/25/15 03:22	1
Di-n-octyl phthalate	<0.20		0.20	0.065	mg/Kg	☼	06/23/15 07:29	06/25/15 03:22	1
Benzo[b]fluoranthene	0.011	J *	0.040	0.0086	mg/Kg	☼	06/23/15 07:29	06/25/15 03:22	1
Benzo[k]fluoranthene	<0.040		0.040	0.012	mg/Kg	☼	06/23/15 07:29	06/25/15 03:22	1
Benzo[a]pyrene	<0.040		0.040	0.0077	mg/Kg	☼	06/23/15 07:29	06/25/15 03:22	1
Indeno[1,2,3-cd]pyrene	<0.040		0.040	0.010	mg/Kg	☼	06/23/15 07:29	06/25/15 03:22	1
Dibenz(a,h)anthracene	<0.040		0.040	0.0077	mg/Kg	☼	06/23/15 07:29	06/25/15 03:22	1
Benzo[g,h,i]perylene	<0.040		0.040	0.013	mg/Kg	☼	06/23/15 07:29	06/25/15 03:22	1
3 & 4 Methylphenol	<0.20		0.20	0.066	mg/Kg	☼	06/23/15 07:29	06/25/15 03:22	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	68		25 - 110	06/23/15 07:29	06/25/15 03:22	1
Phenol-d5	65		31 - 110	06/23/15 07:29	06/25/15 03:22	1
Nitrobenzene-d5	63		25 - 115	06/23/15 07:29	06/25/15 03:22	1
2-Fluorobiphenyl	61		25 - 119	06/23/15 07:29	06/25/15 03:22	1
2,4,6-Tribromophenol	56		35 - 137	06/23/15 07:29	06/25/15 03:22	1
Terphenyl-d14	82		36 - 134	06/23/15 07:29	06/25/15 03:22	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	☼	06/17/15 17:56	06/18/15 14:05	1
Arsenic	8.7		0.59	0.27	mg/Kg	☼	06/17/15 17:56	06/18/15 14:05	1
Barium	55		0.59	0.11	mg/Kg	☼	06/17/15 17:56	06/18/15 14:05	1
Beryllium	0.73		0.23	0.051	mg/Kg	☼	06/17/15 17:56	06/18/15 14:05	1
Boron	12		2.9	0.41	mg/Kg	☼	06/17/15 17:56	06/18/15 14:05	1
Cadmium	0.11	J B	0.12	0.034	mg/Kg	☼	06/17/15 17:56	06/18/15 14:05	1
Calcium	55000		59	19	mg/Kg	☼	06/17/15 17:56	06/18/15 15:12	5
Chromium	19		0.59	0.10	mg/Kg	☼	06/17/15 17:56	06/18/15 14:05	1
Cobalt	14		0.29	0.066	mg/Kg	☼	06/17/15 17:56	06/18/15 14:05	1
Copper	25		0.59	0.13	mg/Kg	☼	06/17/15 17:56	06/18/15 14:05	1
Iron	23000		12	4.5	mg/Kg	☼	06/17/15 17:56	06/18/15 14:05	1
Lead	14		0.29	0.15	mg/Kg	☼	06/17/15 17:56	06/18/15 14:05	1
Magnesium	23000		5.9	2.4	mg/Kg	☼	06/17/15 17:56	06/18/15 14:05	1
Manganese	320		0.59	0.12	mg/Kg	☼	06/17/15 17:56	06/18/15 14:05	1
Nickel	37		0.59	0.16	mg/Kg	☼	06/17/15 17:56	06/18/15 14:05	1
Potassium	2700		29	4.8	mg/Kg	☼	06/17/15 17:56	06/18/15 14:05	1
Selenium	<0.59		0.59	0.29	mg/Kg	☼	06/17/15 17:56	06/18/15 14:05	1
Silver	<0.29		0.29	0.069	mg/Kg	☼	06/17/15 17:56	06/18/15 14:05	1
Sodium	270	B	59	7.7	mg/Kg	☼	06/17/15 17:56	06/18/15 14:05	1
Thallium	<0.59		0.59	0.29	mg/Kg	☼	06/17/15 17:56	06/18/15 14:05	1
Vanadium	24		0.29	0.085	mg/Kg	☼	06/17/15 17:56	06/18/15 14:05	1
Zinc	62	B	1.2	0.37	mg/Kg	☼	06/17/15 17:56	06/18/15 14:05	1

Method: 7471B - Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.020		0.020	0.0069	mg/Kg	☼	06/16/15 13:30	06/17/15 09:31	1

TestAmerica Chicago

Definitions/Glossary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97381-2

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.

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.
*	LCS or LCSD is outside acceptance limits.
B	Compound was found in the blank and sample.
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, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
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
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)

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 #: 500-97381

Chain of Custody Number: _____

Page _____ of _____

Temperature °C of Cooler: _____

Client		Client Project #		Preservative		Parameter		Matrix		Comments			
EE		1009008-0071-01											
Project Name		Lab Project #		# of Containers		Matrix		Matrix		Comments			
IL 171		5001105E											
Project Location/State		Lab PM		Date		Time		Matrix		Comments			
Cook County, IL		D. Wright											
Sampler		Sample ID		Date		Time		Matrix		Comments			
S. Cooper													
Lab ID	MS/MSD	Sample ID	Date	Time	# of Containers	Matrix	VOC	S VOC	Total TAC	Metals	TU/UP/SPUP	TAC Metals	P H/Gr - Solid
3		1860-23-B07(2-4)	6/15/15	1010	2	S	X	X	X	X	X	X	X
4		1860-23-B07(870)	6/15/15	1015	2	S	X	X	X	X	X	X	X

- 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: <u>[Signature]</u> Company: EE Date: 6/15/15 Time: 1444	Received By: <u>[Signature]</u> Company: JH Date: 6/15/15 Time: 1444	Lab Courier: <u>[Signature]</u>
Relinquished By: <u>[Signature]</u> Company: JH Date: 6/15/15 Time: 1220	Received By: <u>[Signature]</u> Company: JH-CARL Date: 6/16/15 Time: 0720	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: 500-97381-2

Login Number: 97381
List Number: 1
Creator: Scott, Sherri L

List Source: TestAmerica Chicago

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	3.3
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.	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: 500-97428-1
Client Project/Site: IDOT - IL 171 - WO 031

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

Attn: Mr. Dean Tiebout



Authorized for release by:
6/30/2015 3:33:28 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

8

9



Table of Contents

Cover Page	1
Table of Contents	2
Case Narrative	3
Detection Summary	4
Sample Summary	9
Client Sample Results	10
Definitions	34
Chain of Custody	35
Receipt Checklists	36

Case Narrative

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97428-1

Job ID: 500-97428-1

Laboratory: TestAmerica Chicago

Narrative

Job Narrative 500-97428-1

Receipt

The samples were received on 6/16/2015 4:20 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.3° C.

GC/MS VOA

Method(s) 8260B: The following analyte recovered outside control limits for the LCS associated with 500-292392: Bromomethane. This is not indicative of a systematic control problem because these was a random marginal exceedance. Qualified results have been reported.

Method(s) 8260B: The following analyte recovered outside control limits for the LCS/LCSD associated with 500-292578: Bromomethane. This is not indicative of a systematic control problem because this was a random marginal exceedance. Qualified results have been reported.

Method(s) 8260B: The laboratory control sample duplicate (LCSD) for batch 500-292578 recovered outside control limits for the following analyte: Vinyl Acetate. This analyte was biased high in the LCSD and was not detected in the associated samples; therefore, the data has 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) 3541: A full list spike was utilized for this method. Due to the large number of spiked analytes, there is a high probability that one or more analytes will recover outside acceptance limits. The laboratory's SOP allows for 3 analytes to recover outside criteria for this method when a full list spike is utilized. The LCS associated with batch 293223 had 1 analyte outside control limits: Benzo[b]fluoranthene; therefore, corrective action was not performed. These results have been reported and qualified. 1860-23-B10 (6-8) (500-97428-1), 1860-23-B10 (14-16) (500-97428-2), 1860-23-B17 (0-0.6) (500-97428-3), 1860-23-B18 (2-4) (500-97428-4), 1860-23-B18 (10-12) (500-97428-5), 1860-23-B23 (0-2) (500-97428-6), (500-97428-E-1 MS) and (500-97428-E-1 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 continuing calibration verification (CCV) associated with batch 500-292716 recovered above the upper control limit for Zinc. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The following samples are impacted: 1860-23-B10 (6-8) (500-97428-1), 1860-23-B17 (0-0.6) (500-97428-3), 1860-23-B18 (2-4) (500-97428-4) and 1860-23-B23 (0-2) (500-97428-6).

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 - IL 171 - WO 031

TestAmerica Job ID: 500-97428-1

Client Sample ID: 1860-23-B10 (6-8)

Lab Sample ID: 500-97428-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	0.037		0.0049	0.0038	mg/Kg	1	☼	8260B	Total/NA
Phenanthrene	0.0087	J	0.041	0.0057	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.010	J	0.041	0.0076	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.011	J	0.041	0.0082	mg/Kg	1	☼	8270D	Total/NA
Antimony	0.26	J	1.2	0.25	mg/Kg	1	☼	6010B	Total/NA
Arsenic	2.8		0.60	0.28	mg/Kg	1	☼	6010B	Total/NA
Barium	26		0.60	0.11	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.29		0.24	0.052	mg/Kg	1	☼	6010B	Total/NA
Boron	5.6		3.0	0.42	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.13		0.12	0.035	mg/Kg	1	☼	6010B	Total/NA
Calcium	29000		12	3.8	mg/Kg	1	☼	6010B	Total/NA
Chromium	8.2		0.60	0.10	mg/Kg	1	☼	6010B	Total/NA
Cobalt	9.5		0.30	0.067	mg/Kg	1	☼	6010B	Total/NA
Copper	10		0.60	0.13	mg/Kg	1	☼	6010B	Total/NA
Iron	9600		12	4.6	mg/Kg	1	☼	6010B	Total/NA
Lead	11		0.30	0.15	mg/Kg	1	☼	6010B	Total/NA
Magnesium	14000		6.0	2.4	mg/Kg	1	☼	6010B	Total/NA
Manganese	240		0.60	0.12	mg/Kg	1	☼	6010B	Total/NA
Nickel	16		0.60	0.16	mg/Kg	1	☼	6010B	Total/NA
Potassium	920		30	4.9	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.41	J	0.60	0.30	mg/Kg	1	☼	6010B	Total/NA
Sodium	170		60	7.9	mg/Kg	1	☼	6010B	Total/NA
Vanadium	9.9		0.30	0.087	mg/Kg	1	☼	6010B	Total/NA
Zinc	63	B	1.2	0.38	mg/Kg	1	☼	6010B	Total/NA
Barium	0.42	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.55		0.50	0.050	mg/L	1		6010B	TCLP
Cobalt	0.034		0.025	0.010	mg/L	1		6010B	TCLP
Manganese	4.4		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.022	J	0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.060	J B ^	0.10	0.020	mg/L	1		6010B	TCLP
Manganese	0.021	J	0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.024		0.019	0.0065	mg/Kg	1	☼	7471B	Total/NA
pH	7.76		0.200	0.200	SU	1		9045D	Total/NA

Client Sample ID: 1860-23-B10 (14-16)

Lab Sample ID: 500-97428-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	0.048		0.0062	0.0048	mg/Kg	1	☼	8260B	Total/NA
2-Butanone (MEK)	0.0071		0.0062	0.0022	mg/Kg	1	☼	8260B	Total/NA
Antimony	0.37	J	1.3	0.27	mg/Kg	1	☼	6010B	Total/NA
Arsenic	4.2		0.65	0.30	mg/Kg	1	☼	6010B	Total/NA
Barium	29		0.65	0.12	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.33		0.26	0.057	mg/Kg	1	☼	6010B	Total/NA
Boron	6.6		3.3	0.46	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.19		0.13	0.038	mg/Kg	1	☼	6010B	Total/NA
Calcium	66000		65	21	mg/Kg	5	☼	6010B	Total/NA
Chromium	8.5		0.65	0.11	mg/Kg	1	☼	6010B	Total/NA
Cobalt	9.5		0.33	0.074	mg/Kg	1	☼	6010B	Total/NA
Copper	14		0.65	0.14	mg/Kg	1	☼	6010B	Total/NA
Iron	13000		13	5.0	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 - IL 171 - WO 031

TestAmerica Job ID: 500-97428-1

Client Sample ID: 1860-23-B10 (14-16) (Continued)

Lab Sample ID: 500-97428-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	18		0.33	0.16	mg/Kg	1	☼	6010B	Total/NA
Magnesium	25000		6.5	2.7	mg/Kg	1	☼	6010B	Total/NA
Manganese	500		0.65	0.13	mg/Kg	1	☼	6010B	Total/NA
Nickel	16		0.65	0.18	mg/Kg	1	☼	6010B	Total/NA
Potassium	990		33	5.3	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.37	J	0.65	0.32	mg/Kg	1	☼	6010B	Total/NA
Sodium	210		65	8.6	mg/Kg	1	☼	6010B	Total/NA
Vanadium	11		0.33	0.096	mg/Kg	1	☼	6010B	Total/NA
Zinc	49	B	1.3	0.41	mg/Kg	1	☼	6010B	Total/NA
Barium	0.31	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.51		0.50	0.050	mg/L	1		6010B	TCLP
Cadmium	0.0031	J	0.0050	0.0020	mg/L	1		6010B	TCLP
Cobalt	0.037		0.025	0.010	mg/L	1		6010B	TCLP
Manganese	5.0		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.028		0.025	0.010	mg/L	1		6010B	TCLP
Selenium	0.021	J	0.050	0.020	mg/L	1		6010B	TCLP
Zinc	0.17	B	0.10	0.020	mg/L	1		6010B	TCLP
Manganese	0.014	J	0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.029		0.019	0.0068	mg/Kg	1	☼	7471B	Total/NA
pH	7.94		0.200	0.200	SU	1		9045D	Total/NA

Client Sample ID: 1860-23-B17 (0-0.6)

Lab Sample ID: 500-97428-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Methylnaphthalene	0.016	J	0.036	0.0066	mg/Kg	1	☼	8270D	Total/NA
Phenanthrene	0.019	J	0.036	0.0050	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.011	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
Chrysene	0.018	J	0.036	0.0099	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.011	J *	0.036	0.0078	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	0.41	J	1.0	0.21	mg/Kg	1	☼	6010B	Total/NA
Arsenic	9.1		0.51	0.24	mg/Kg	1	☼	6010B	Total/NA
Barium	20		0.51	0.094	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.29		0.21	0.044	mg/Kg	1	☼	6010B	Total/NA
Boron	7.1		2.6	0.36	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.15		0.10	0.030	mg/Kg	1	☼	6010B	Total/NA
Calcium	96000		51	17	mg/Kg	5	☼	6010B	Total/NA
Chromium	7.2		0.51	0.088	mg/Kg	1	☼	6010B	Total/NA
Cobalt	9.4		0.26	0.058	mg/Kg	1	☼	6010B	Total/NA
Copper	22		0.51	0.11	mg/Kg	1	☼	6010B	Total/NA
Iron	15000		10	4.0	mg/Kg	1	☼	6010B	Total/NA
Lead	14		0.26	0.13	mg/Kg	1	☼	6010B	Total/NA
Magnesium	44000		5.1	2.1	mg/Kg	1	☼	6010B	Total/NA
Manganese	350		0.51	0.10	mg/Kg	1	☼	6010B	Total/NA
Nickel	21		0.51	0.14	mg/Kg	1	☼	6010B	Total/NA
Potassium	1000		26	4.2	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.26	J	0.51	0.25	mg/Kg	1	☼	6010B	Total/NA
Sodium	350		51	6.8	mg/Kg	1	☼	6010B	Total/NA
Thallium	0.40	J	0.51	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 - IL 171 - WO 031

TestAmerica Job ID: 500-97428-1

Client Sample ID: 1860-23-B17 (0-0.6) (Continued)

Lab Sample ID: 500-97428-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Vanadium	9.5		0.26	0.075	mg/Kg	1	☼	6010B	Total/NA
Zinc	52	B	1.0	0.32	mg/Kg	1	☼	6010B	Total/NA
Barium	0.089	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.48	J	0.50	0.050	mg/L	1		6010B	TCLP
Cadmium	0.0033	J	0.0050	0.0020	mg/L	1		6010B	TCLP
Cobalt	0.041		0.025	0.010	mg/L	1		6010B	TCLP
Manganese	2.2		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.043		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.054	J B ^	0.10	0.020	mg/L	1		6010B	TCLP
Mercury	0.028		0.018	0.0061	mg/Kg	1	☼	7471B	Total/NA
pH	7.85		0.200	0.200	SU	1		9045D	Total/NA

Client Sample ID: 1860-23-B18 (2-4)

Lab Sample ID: 500-97428-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Methylnaphthalene	0.0089	J	0.037	0.0068	mg/Kg	1	☼	8270D	Total/NA
Phenanthrene	0.049		0.037	0.0052	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.033	J	0.037	0.0069	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.036	J	0.037	0.0074	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.024	J	0.037	0.0050	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.037		0.037	0.010	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.030	J*	0.037	0.0080	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.015	J	0.037	0.011	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.021	J	0.037	0.0072	mg/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.011	J	0.037	0.0096	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.029	J	0.037	0.012	mg/Kg	1	☼	8270D	Total/NA
Antimony	0.44	J	1.1	0.22	mg/Kg	1	☼	6010B	Total/NA
Arsenic	9.2		0.54	0.25	mg/Kg	1	☼	6010B	Total/NA
Barium	31		0.54	0.099	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.41		0.22	0.047	mg/Kg	1	☼	6010B	Total/NA
Boron	8.8		2.7	0.38	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.32		0.11	0.031	mg/Kg	1	☼	6010B	Total/NA
Calcium	66000		54	17	mg/Kg	5	☼	6010B	Total/NA
Chromium	11		0.54	0.093	mg/Kg	1	☼	6010B	Total/NA
Cobalt	10		0.27	0.061	mg/Kg	1	☼	6010B	Total/NA
Copper	26		0.54	0.12	mg/Kg	1	☼	6010B	Total/NA
Iron	17000		11	4.2	mg/Kg	1	☼	6010B	Total/NA
Lead	21		0.27	0.13	mg/Kg	1	☼	6010B	Total/NA
Magnesium	29000		5.4	2.2	mg/Kg	1	☼	6010B	Total/NA
Manganese	320		0.54	0.11	mg/Kg	1	☼	6010B	Total/NA
Nickel	28		0.54	0.15	mg/Kg	1	☼	6010B	Total/NA
Potassium	1500		27	4.4	mg/Kg	1	☼	6010B	Total/NA
Sodium	650		54	7.1	mg/Kg	1	☼	6010B	Total/NA
Thallium	0.46	J	0.54	0.27	mg/Kg	1	☼	6010B	Total/NA
Vanadium	13		0.27	0.079	mg/Kg	1	☼	6010B	Total/NA
Zinc	75	B	1.1	0.34	mg/Kg	1	☼	6010B	Total/NA
Barium	0.073	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.42	J	0.50	0.050	mg/L	1		6010B	TCLP
Cadmium	0.0061		0.0050	0.0020	mg/L	1		6010B	TCLP
Cobalt	0.060		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 - IL 171 - WO 031

TestAmerica Job ID: 500-97428-1

Client Sample ID: 1860-23-B18 (2-4) (Continued)

Lab Sample ID: 500-97428-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Manganese	2.9		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.059		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.070	J B ^	0.10	0.020	mg/L	1		6010B	TCLP
Mercury	0.057		0.018	0.0064	mg/Kg	1	☼	7471B	Total/NA
pH	7.69		0.200	0.200	SU	1		9045D	Total/NA

Client Sample ID: 1860-23-B18 (10-12)

Lab Sample ID: 500-97428-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	0.0021	J	0.0041	0.00085	mg/Kg	1	☼	8260B	Total/NA
Phenanthrene	0.018	J	0.037	0.0052	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.0099	J	0.037	0.0069	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.0083	J	0.037	0.0074	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.012	J	0.037	0.010	mg/Kg	1	☼	8270D	Total/NA
Antimony	0.51	J	1.1	0.24	mg/Kg	1	☼	6010B	Total/NA
Arsenic	9.5		0.57	0.26	mg/Kg	1	☼	6010B	Total/NA
Barium	15		0.57	0.10	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.27		0.23	0.049	mg/Kg	1	☼	6010B	Total/NA
Boron	6.6		2.8	0.40	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.20		0.11	0.033	mg/Kg	1	☼	6010B	Total/NA
Calcium	97000		57	18	mg/Kg	5	☼	6010B	Total/NA
Chromium	6.8		0.57	0.098	mg/Kg	1	☼	6010B	Total/NA
Cobalt	7.4		0.28	0.064	mg/Kg	1	☼	6010B	Total/NA
Copper	21		0.57	0.12	mg/Kg	1	☼	6010B	Total/NA
Iron	15000		11	4.4	mg/Kg	1	☼	6010B	Total/NA
Lead	14		0.28	0.14	mg/Kg	1	☼	6010B	Total/NA
Magnesium	47000		5.7	2.3	mg/Kg	1	☼	6010B	Total/NA
Manganese	350		0.57	0.11	mg/Kg	1	☼	6010B	Total/NA
Nickel	18		0.57	0.15	mg/Kg	1	☼	6010B	Total/NA
Potassium	990		28	4.6	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.60		0.57	0.28	mg/Kg	1	☼	6010B	Total/NA
Sodium	280		57	7.5	mg/Kg	1	☼	6010B	Total/NA
Thallium	0.39	J	0.57	0.28	mg/Kg	1	☼	6010B	Total/NA
Vanadium	9.3		0.28	0.083	mg/Kg	1	☼	6010B	Total/NA
Zinc	59	B	1.1	0.36	mg/Kg	1	☼	6010B	Total/NA
Barium	0.15	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.57		0.50	0.050	mg/L	1		6010B	TCLP
Cadmium	0.0028	J	0.0050	0.0020	mg/L	1		6010B	TCLP
Cobalt	0.042		0.025	0.010	mg/L	1		6010B	TCLP
Manganese	2.4		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.052		0.025	0.010	mg/L	1		6010B	TCLP
Selenium	0.022	J	0.050	0.020	mg/L	1		6010B	TCLP
Zinc	0.082	J B	0.10	0.020	mg/L	1		6010B	TCLP
Manganese	0.024	J	0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.050		0.018	0.0064	mg/Kg	1	☼	7471B	Total/NA
pH	7.92		0.200	0.200	SU	1		9045D	Total/NA

Client Sample ID: 1860-23-B23 (0-2)

Lab Sample ID: 500-97428-6

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97428-1

Client Sample ID: 1860-23-B23 (0-2) (Continued)

Lab Sample ID: 500-97428-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Phenanthrene	0.034	J	0.038	0.0053	mg/Kg	1	☼	8270D	Total/NA	
Fluoranthene	0.0077	J	0.038	0.0070	mg/Kg	1	☼	8270D	Total/NA	
Pyrene	0.011	J	0.038	0.0075	mg/Kg	1	☼	8270D	Total/NA	
Benzo[g,h,i]perylene	0.021	J	0.038	0.012	mg/Kg	1	☼	8270D	Total/NA	
Antimony	0.35	J	1.1	0.22	mg/Kg	1	☼	6010B	Total/NA	
Arsenic	11		0.54	0.25	mg/Kg	1	☼	6010B	Total/NA	
Barium	25		0.54	0.099	mg/Kg	1	☼	6010B	Total/NA	
Beryllium	0.41		0.22	0.047	mg/Kg	1	☼	6010B	Total/NA	
Boron	7.8		2.7	0.38	mg/Kg	1	☼	6010B	Total/NA	
Cadmium	0.20		0.11	0.031	mg/Kg	1	☼	6010B	Total/NA	
Calcium	58000		54	17	mg/Kg	5	☼	6010B	Total/NA	
Chromium	10		0.54	0.093	mg/Kg	1	☼	6010B	Total/NA	
Cobalt	13		0.27	0.061	mg/Kg	1	☼	6010B	Total/NA	
Copper	29		0.54	0.12	mg/Kg	1	☼	6010B	Total/NA	
Iron	19000		11	4.2	mg/Kg	1	☼	6010B	Total/NA	
Lead	19		0.27	0.13	mg/Kg	1	☼	6010B	Total/NA	
Magnesium	29000		5.4	2.2	mg/Kg	1	☼	6010B	Total/NA	
Manganese	360		0.54	0.11	mg/Kg	1	☼	6010B	Total/NA	
Nickel	30		0.54	0.15	mg/Kg	1	☼	6010B	Total/NA	
Potassium	1400		27	4.4	mg/Kg	1	☼	6010B	Total/NA	
Selenium	0.34	J	0.54	0.27	mg/Kg	1	☼	6010B	Total/NA	
Sodium	690		54	7.1	mg/Kg	1	☼	6010B	Total/NA	
Thallium	0.78		0.54	0.26	mg/Kg	1	☼	6010B	Total/NA	
Vanadium	12		0.27	0.079	mg/Kg	1	☼	6010B	Total/NA	
Zinc	73	B	1.1	0.34	mg/Kg	1	☼	6010B	Total/NA	
Barium	0.14	J	0.50	0.050	mg/L	1		6010B	TCLP	
Boron	0.53		0.50	0.050	mg/L	1		6010B	TCLP	
Cadmium	0.0045	J	0.0050	0.0020	mg/L	1		6010B	TCLP	
Cobalt	0.033		0.025	0.010	mg/L	1		6010B	TCLP	
Manganese	2.3		0.025	0.010	mg/L	1		6010B	TCLP	
Nickel	0.047		0.025	0.010	mg/L	1		6010B	TCLP	
Selenium	0.031	J	0.050	0.020	mg/L	1		6010B	TCLP	
Zinc	0.044	J B ^	0.10	0.020	mg/L	1		6010B	TCLP	
Mercury	0.027		0.017	0.0058	mg/Kg	1	☼	7471B	Total/NA	
pH	7.89		0.200	0.200	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 - IL 171 - WO 031

TestAmerica Job ID: 500-97428-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-97428-1	1860-23-B10 (6-8)	Solid	06/16/15 10:50	06/16/15 16:20
500-97428-2	1860-23-B10 (14-16)	Solid	06/16/15 10:55	06/16/15 16:20
500-97428-3	1860-23-B17 (0-0.6)	Solid	06/16/15 12:05	06/16/15 16:20
500-97428-4	1860-23-B18 (2-4)	Solid	06/16/15 13:00	06/16/15 16:20
500-97428-5	1860-23-B18 (10-12)	Solid	06/16/15 13:05	06/16/15 16:20
500-97428-6	1860-23-B23 (0-2)	Solid	06/16/15 15:10	06/16/15 16:20



Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97428-1

Client Sample ID: 1860-23-B10 (6-8)

Lab Sample ID: 500-97428-1

Date Collected: 06/16/15 10:50

Matrix: Solid

Date Received: 06/16/15 16:20

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		06/19/15 09:15	06/19/15 22:17	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		06/19/15 09:15	06/19/15 22:17	1
Boron	0.55		0.50	0.050	mg/L		06/19/15 09:15	06/19/15 22:17	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		06/19/15 09:15	06/19/15 22:17	1
Chromium	<0.025		0.025	0.010	mg/L		06/19/15 09:15	06/19/15 22:17	1
Cobalt	0.034		0.025	0.010	mg/L		06/19/15 09:15	06/19/15 22:17	1
Iron	<0.20		0.20	0.20	mg/L		06/19/15 09:15	06/19/15 22:17	1
Lead	<0.0075		0.0075	0.0075	mg/L		06/19/15 09:15	06/19/15 22:17	1
Manganese	4.4		0.025	0.010	mg/L		06/19/15 09:15	06/19/15 22:17	1
Nickel	0.022	J	0.025	0.010	mg/L		06/19/15 09:15	06/19/15 22:17	1
Selenium	<0.050		0.050	0.020	mg/L		06/19/15 09:15	06/19/15 22:17	1
Silver	<0.025		0.025	0.010	mg/L		06/19/15 09:15	06/19/15 22:17	1
Zinc	0.060	J B ^	0.10	0.020	mg/L		06/19/15 09:15	06/19/15 22:17	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.021	J	0.025	0.010	mg/L		06/24/15 08:40	06/24/15 16:47	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		06/19/15 09:15	06/22/15 17:40	1
Thallium	<0.0020		0.0020	0.0020	mg/L		06/19/15 09:15	06/22/15 17:40	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		06/19/15 12:15	06/22/15 13:04	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.76		0.200	0.200	SU			06/18/15 11:05	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97428-1

Client Sample ID: 1860-23-B10 (6-8)

Lab Sample ID: 500-97428-1

Date Collected: 06/16/15 10:50

Matrix: Solid

Date Received: 06/16/15 16:20

Percent Solids: 80.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	0.037		0.0049	0.0038	mg/Kg	☼	06/17/15 09:40	06/18/15 13:09	1
Benzene	<0.0049		0.0049	0.0011	mg/Kg	☼	06/17/15 09:40	06/18/15 13:09	1
Bromodichloromethane	<0.0049		0.0049	0.00083	mg/Kg	☼	06/17/15 09:40	06/18/15 13:09	1
Bromoform	<0.0049		0.0049	0.0010	mg/Kg	☼	06/17/15 09:40	06/18/15 13:09	1
Bromomethane	<0.0049 *		0.0049	0.0018	mg/Kg	☼	06/17/15 09:40	06/18/15 13:09	1
2-Butanone (MEK)	<0.0049		0.0049	0.0018	mg/Kg	☼	06/17/15 09:40	06/18/15 13:09	1
Carbon disulfide	<0.0049		0.0049	0.0018	mg/Kg	☼	06/17/15 09:40	06/18/15 13:09	1
Carbon tetrachloride	<0.0049		0.0049	0.0011	mg/Kg	☼	06/17/15 09:40	06/18/15 13:09	1
Chlorobenzene	<0.0049		0.0049	0.0012	mg/Kg	☼	06/17/15 09:40	06/18/15 13:09	1
Chloroethane	<0.0049		0.0049	0.0021	mg/Kg	☼	06/17/15 09:40	06/18/15 13:09	1
Chloroform	<0.0049		0.0049	0.00096	mg/Kg	☼	06/17/15 09:40	06/18/15 13:09	1
Chloromethane	<0.0049		0.0049	0.0012	mg/Kg	☼	06/17/15 09:40	06/18/15 13:09	1
cis-1,2-Dichloroethene	<0.0049		0.0049	0.0010	mg/Kg	☼	06/17/15 09:40	06/18/15 13:09	1
cis-1,3-Dichloropropene	<0.0049		0.0049	0.0011	mg/Kg	☼	06/17/15 09:40	06/18/15 13:09	1
Dibromochloromethane	<0.0049		0.0049	0.00057	mg/Kg	☼	06/17/15 09:40	06/18/15 13:09	1
1,1-Dichloroethane	<0.0049		0.0049	0.0010	mg/Kg	☼	06/17/15 09:40	06/18/15 13:09	1
1,2-Dichloroethane	<0.0049		0.0049	0.00073	mg/Kg	☼	06/17/15 09:40	06/18/15 13:09	1
1,1-Dichloroethene	<0.0049		0.0049	0.0018	mg/Kg	☼	06/17/15 09:40	06/18/15 13:09	1
1,2-Dichloropropane	<0.0049		0.0049	0.0013	mg/Kg	☼	06/17/15 09:40	06/18/15 13:09	1
1,3-Dichloropropane, Total	<0.0049		0.0049	0.0014	mg/Kg	☼	06/17/15 09:40	06/18/15 13:09	1
Ethylbenzene	<0.0049		0.0049	0.0012	mg/Kg	☼	06/17/15 09:40	06/18/15 13:09	1
2-Hexanone	<0.0049		0.0049	0.0015	mg/Kg	☼	06/17/15 09:40	06/18/15 13:09	1
Methylene Chloride	<0.0049		0.0049	0.0037	mg/Kg	☼	06/17/15 09:40	06/18/15 13:09	1
4-Methyl-2-pentanone (MIBK)	<0.0049		0.0049	0.0010	mg/Kg	☼	06/17/15 09:40	06/18/15 13:09	1
Methyl tert-butyl ether	<0.0049		0.0049	0.0012	mg/Kg	☼	06/17/15 09:40	06/18/15 13:09	1
Styrene	<0.0049		0.0049	0.0012	mg/Kg	☼	06/17/15 09:40	06/18/15 13:09	1
1,1,1,2-Tetrachloroethane	<0.0049		0.0049	0.00078	mg/Kg	☼	06/17/15 09:40	06/18/15 13:09	1
Tetrachloroethene	<0.0049		0.0049	0.0010	mg/Kg	☼	06/17/15 09:40	06/18/15 13:09	1
Toluene	<0.0049		0.0049	0.0017	mg/Kg	☼	06/17/15 09:40	06/18/15 13:09	1
trans-1,2-Dichloroethene	<0.0049		0.0049	0.0012	mg/Kg	☼	06/17/15 09:40	06/18/15 13:09	1
trans-1,3-Dichloropropene	<0.0049		0.0049	0.0014	mg/Kg	☼	06/17/15 09:40	06/18/15 13:09	1
1,1,1-Trichloroethane	<0.0049		0.0049	0.0011	mg/Kg	☼	06/17/15 09:40	06/18/15 13:09	1
1,1,2-Trichloroethane	<0.0049		0.0049	0.00095	mg/Kg	☼	06/17/15 09:40	06/18/15 13:09	1
Trichloroethene	<0.0049		0.0049	0.0013	mg/Kg	☼	06/17/15 09:40	06/18/15 13:09	1
Vinyl acetate	<0.0049		0.0049	0.0013	mg/Kg	☼	06/17/15 09:40	06/18/15 13:09	1
Vinyl chloride	<0.0049		0.0049	0.0012	mg/Kg	☼	06/17/15 09:40	06/18/15 13:09	1
Xylenes, Total	<0.0098		0.0098	0.0018	mg/Kg	☼	06/17/15 09:40	06/18/15 13:09	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		70 - 122	06/17/15 09:40	06/18/15 13:09	1
Dibromofluoromethane	112		75 - 120	06/17/15 09:40	06/18/15 13:09	1
1,2-Dichloroethane-d4 (Surr)	113		70 - 134	06/17/15 09:40	06/18/15 13:09	1
Toluene-d8 (Surr)	110		75 - 122	06/17/15 09:40	06/18/15 13:09	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	☼	06/24/15 18:34	06/25/15 17:00	1
Bis(2-chloroethyl)ether	<0.21		0.21	0.062	mg/Kg	☼	06/24/15 18:34	06/25/15 17:00	1
1,3-Dichlorobenzene	<0.21		0.21	0.046	mg/Kg	☼	06/24/15 18:34	06/25/15 17:00	1
1,4-Dichlorobenzene	<0.21		0.21	0.053	mg/Kg	☼	06/24/15 18:34	06/25/15 17:00	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97428-1

Client Sample ID: 1860-23-B10 (6-8)

Lab Sample ID: 500-97428-1

Date Collected: 06/16/15 10:50

Matrix: Solid

Date Received: 06/16/15 16:20

Percent Solids: 80.6

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	☼	06/24/15 18:34	06/25/15 17:00	1
2-Methylphenol	<0.21		0.21	0.066	mg/Kg	☼	06/24/15 18:34	06/25/15 17:00	1
2,2'-oxybis[1-chloropropane]	<0.21		0.21	0.048	mg/Kg	☼	06/24/15 18:34	06/25/15 17:00	1
N-Nitrosodi-n-propylamine	<0.21		0.21	0.050	mg/Kg	☼	06/24/15 18:34	06/25/15 17:00	1
Hexachloroethane	<0.21	F1	0.21	0.062	mg/Kg	☼	06/24/15 18:34	06/25/15 17:00	1
2-Chlorophenol	<0.21		0.21	0.070	mg/Kg	☼	06/24/15 18:34	06/25/15 17:00	1
Nitrobenzene	<0.041		0.041	0.010	mg/Kg	☼	06/24/15 18:34	06/25/15 17:00	1
Bis(2-chloroethoxy)methane	<0.21		0.21	0.042	mg/Kg	☼	06/24/15 18:34	06/25/15 17:00	1
1,2,4-Trichlorobenzene	<0.21		0.21	0.044	mg/Kg	☼	06/24/15 18:34	06/25/15 17:00	1
Isophorone	<0.21		0.21	0.046	mg/Kg	☼	06/24/15 18:34	06/25/15 17:00	1
2,4-Dimethylphenol	<0.41		0.41	0.16	mg/Kg	☼	06/24/15 18:34	06/25/15 17:00	1
Hexachlorobutadiene	<0.21		0.21	0.065	mg/Kg	☼	06/24/15 18:34	06/25/15 17:00	1
Naphthalene	<0.041		0.041	0.0063	mg/Kg	☼	06/24/15 18:34	06/25/15 17:00	1
2,4-Dichlorophenol	<0.41		0.41	0.098	mg/Kg	☼	06/24/15 18:34	06/25/15 17:00	1
4-Chloroaniline	<0.83		0.83	0.19	mg/Kg	☼	06/24/15 18:34	06/25/15 17:00	1
2,4,6-Trichlorophenol	<0.41		0.41	0.14	mg/Kg	☼	06/24/15 18:34	06/25/15 17:00	1
2,4,5-Trichlorophenol	<0.41		0.41	0.094	mg/Kg	☼	06/24/15 18:34	06/25/15 17:00	1
Hexachlorocyclopentadiene	<0.83	F1	0.83	0.24	mg/Kg	☼	06/24/15 18:34	06/25/15 17:00	1
2-Methylnaphthalene	<0.041		0.041	0.0076	mg/Kg	☼	06/24/15 18:34	06/25/15 17:00	1
2-Nitroaniline	<0.21		0.21	0.055	mg/Kg	☼	06/24/15 18:34	06/25/15 17:00	1
2-Chloronaphthalene	<0.21		0.21	0.045	mg/Kg	☼	06/24/15 18:34	06/25/15 17:00	1
4-Chloro-3-methylphenol	<0.41		0.41	0.14	mg/Kg	☼	06/24/15 18:34	06/25/15 17:00	1
2,6-Dinitrotoluene	<0.21		0.21	0.081	mg/Kg	☼	06/24/15 18:34	06/25/15 17:00	1
2-Nitrophenol	<0.41		0.41	0.097	mg/Kg	☼	06/24/15 18:34	06/25/15 17:00	1
3-Nitroaniline	<0.41		0.41	0.13	mg/Kg	☼	06/24/15 18:34	06/25/15 17:00	1
Dimethyl phthalate	<0.21		0.21	0.054	mg/Kg	☼	06/24/15 18:34	06/25/15 17:00	1
2,4-Dinitrophenol	<0.83	F1	0.83	0.72	mg/Kg	☼	06/24/15 18:34	06/25/15 17:00	1
Acenaphthylene	<0.041		0.041	0.0054	mg/Kg	☼	06/24/15 18:34	06/25/15 17:00	1
2,4-Dinitrotoluene	<0.21		0.21	0.065	mg/Kg	☼	06/24/15 18:34	06/25/15 17:00	1
Acenaphthene	<0.041		0.041	0.0074	mg/Kg	☼	06/24/15 18:34	06/25/15 17:00	1
Dibenzofuran	<0.21		0.21	0.048	mg/Kg	☼	06/24/15 18:34	06/25/15 17:00	1
4-Nitrophenol	<0.83		0.83	0.39	mg/Kg	☼	06/24/15 18:34	06/25/15 17:00	1
Fluorene	<0.041		0.041	0.0058	mg/Kg	☼	06/24/15 18:34	06/25/15 17:00	1
4-Nitroaniline	<0.41		0.41	0.17	mg/Kg	☼	06/24/15 18:34	06/25/15 17:00	1
4-Bromophenyl phenyl ether	<0.21		0.21	0.054	mg/Kg	☼	06/24/15 18:34	06/25/15 17:00	1
Hexachlorobenzene	<0.083		0.083	0.0095	mg/Kg	☼	06/24/15 18:34	06/25/15 17:00	1
Diethyl phthalate	<0.21		0.21	0.070	mg/Kg	☼	06/24/15 18:34	06/25/15 17:00	1
4-Chlorophenyl phenyl ether	<0.21		0.21	0.048	mg/Kg	☼	06/24/15 18:34	06/25/15 17:00	1
Pentachlorophenol	<0.83		0.83	0.66	mg/Kg	☼	06/24/15 18:34	06/25/15 17:00	1
N-Nitrosodiphenylamine	<0.21		0.21	0.048	mg/Kg	☼	06/24/15 18:34	06/25/15 17:00	1
4,6-Dinitro-2-methylphenol	<0.41		0.41	0.33	mg/Kg	☼	06/24/15 18:34	06/25/15 17:00	1
Phenanthrene	0.0087	J	0.041	0.0057	mg/Kg	☼	06/24/15 18:34	06/25/15 17:00	1
Anthracene	<0.041		0.041	0.0069	mg/Kg	☼	06/24/15 18:34	06/25/15 17:00	1
Carbazole	<0.21		0.21	0.11	mg/Kg	☼	06/24/15 18:34	06/25/15 17:00	1
Di-n-butyl phthalate	<0.21		0.21	0.063	mg/Kg	☼	06/24/15 18:34	06/25/15 17:00	1
Fluoranthene	0.010	J	0.041	0.0076	mg/Kg	☼	06/24/15 18:34	06/25/15 17:00	1
Pyrene	0.011	J	0.041	0.0082	mg/Kg	☼	06/24/15 18:34	06/25/15 17:00	1
Butyl benzyl phthalate	<0.21		0.21	0.078	mg/Kg	☼	06/24/15 18:34	06/25/15 17:00	1
Benzo[a]anthracene	<0.041		0.041	0.0055	mg/Kg	☼	06/24/15 18:34	06/25/15 17:00	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97428-1

Client Sample ID: 1860-23-B10 (6-8)

Lab Sample ID: 500-97428-1

Date Collected: 06/16/15 10:50

Matrix: Solid

Date Received: 06/16/15 16:20

Percent Solids: 80.6

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	☼	06/24/15 18:34	06/25/15 17:00	1
3,3'-Dichlorobenzidine	<0.21		0.21	0.057	mg/Kg	☼	06/24/15 18:34	06/25/15 17:00	1
Bis(2-ethylhexyl) phthalate	<0.21		0.21	0.075	mg/Kg	☼	06/24/15 18:34	06/25/15 17:00	1
Di-n-octyl phthalate	<0.21		0.21	0.067	mg/Kg	☼	06/24/15 18:34	06/25/15 17:00	1
Benzo[b]fluoranthene	<0.041	*	0.041	0.0089	mg/Kg	☼	06/24/15 18:34	06/25/15 17:00	1
Benzo[k]fluoranthene	<0.041		0.041	0.012	mg/Kg	☼	06/24/15 18:34	06/25/15 17:00	1
Benzo[a]pyrene	<0.041		0.041	0.0079	mg/Kg	☼	06/24/15 18:34	06/25/15 17:00	1
Indeno[1,2,3-cd]pyrene	<0.041		0.041	0.011	mg/Kg	☼	06/24/15 18:34	06/25/15 17:00	1
Dibenz(a,h)anthracene	<0.041		0.041	0.0079	mg/Kg	☼	06/24/15 18:34	06/25/15 17:00	1
Benzo[g,h,i]perylene	<0.041		0.041	0.013	mg/Kg	☼	06/24/15 18:34	06/25/15 17:00	1
3 & 4 Methylphenol	<0.21		0.21	0.068	mg/Kg	☼	06/24/15 18:34	06/25/15 17:00	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	53		25 - 110	06/24/15 18:34	06/25/15 17:00	1
Phenol-d5	56		31 - 110	06/24/15 18:34	06/25/15 17:00	1
Nitrobenzene-d5	51		25 - 115	06/24/15 18:34	06/25/15 17:00	1
2-Fluorobiphenyl	55		25 - 119	06/24/15 18:34	06/25/15 17:00	1
2,4,6-Tribromophenol	65		35 - 137	06/24/15 18:34	06/25/15 17:00	1
Terphenyl-d14	82		36 - 134	06/24/15 18:34	06/25/15 17:00	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.26	J	1.2	0.25	mg/Kg	☼	06/19/15 13:00	06/20/15 16:08	1
Arsenic	2.8		0.60	0.28	mg/Kg	☼	06/19/15 13:00	06/20/15 16:08	1
Barium	26		0.60	0.11	mg/Kg	☼	06/19/15 13:00	06/20/15 16:08	1
Beryllium	0.29		0.24	0.052	mg/Kg	☼	06/19/15 13:00	06/20/15 16:08	1
Boron	5.6		3.0	0.42	mg/Kg	☼	06/19/15 13:00	06/20/15 16:08	1
Cadmium	0.13		0.12	0.035	mg/Kg	☼	06/19/15 13:00	06/20/15 16:08	1
Calcium	29000		12	3.8	mg/Kg	☼	06/19/15 13:00	06/20/15 16:08	1
Chromium	8.2		0.60	0.10	mg/Kg	☼	06/19/15 13:00	06/20/15 16:08	1
Cobalt	9.5		0.30	0.067	mg/Kg	☼	06/19/15 13:00	06/20/15 16:08	1
Copper	10		0.60	0.13	mg/Kg	☼	06/19/15 13:00	06/20/15 16:08	1
Iron	9600		12	4.6	mg/Kg	☼	06/19/15 13:00	06/20/15 16:08	1
Lead	11		0.30	0.15	mg/Kg	☼	06/19/15 13:00	06/20/15 16:08	1
Magnesium	14000		6.0	2.4	mg/Kg	☼	06/19/15 13:00	06/20/15 16:08	1
Manganese	240		0.60	0.12	mg/Kg	☼	06/19/15 13:00	06/20/15 16:08	1
Nickel	16		0.60	0.16	mg/Kg	☼	06/19/15 13:00	06/20/15 16:08	1
Potassium	920		30	4.9	mg/Kg	☼	06/19/15 13:00	06/20/15 16:08	1
Selenium	0.41	J	0.60	0.30	mg/Kg	☼	06/19/15 13:00	06/20/15 16:08	1
Silver	<0.30		0.30	0.070	mg/Kg	☼	06/19/15 13:00	06/20/15 16:08	1
Sodium	170		60	7.9	mg/Kg	☼	06/19/15 13:00	06/20/15 16:08	1
Thallium	<0.60		0.60	0.29	mg/Kg	☼	06/19/15 13:00	06/20/15 16:08	1
Vanadium	9.9		0.30	0.087	mg/Kg	☼	06/19/15 13:00	06/20/15 16:08	1
Zinc	63	B	1.2	0.38	mg/Kg	☼	06/19/15 13:00	06/20/15 16:08	1

Method: 7471B - Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.024		0.019	0.0065	mg/Kg	☼	06/17/15 12:15	06/18/15 09:57	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97428-1

Client Sample ID: 1860-23-B10 (14-16)

Lab Sample ID: 500-97428-2

Date Collected: 06/16/15 10:55

Matrix: Solid

Date Received: 06/16/15 16:20

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		06/19/15 09:15	06/19/15 22:22	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		06/19/15 09:15	06/19/15 22:22	1
Boron	0.51		0.50	0.050	mg/L		06/19/15 09:15	06/19/15 22:22	1
Cadmium	0.0031	J	0.0050	0.0020	mg/L		06/19/15 09:15	06/19/15 22:22	1
Chromium	<0.025		0.025	0.010	mg/L		06/19/15 09:15	06/19/15 22:22	1
Cobalt	0.037		0.025	0.010	mg/L		06/19/15 09:15	06/19/15 22:22	1
Iron	<0.20		0.20	0.20	mg/L		06/19/15 09:15	06/19/15 22:22	1
Lead	<0.0075		0.0075	0.0075	mg/L		06/19/15 09:15	06/19/15 22:22	1
Manganese	5.0		0.025	0.010	mg/L		06/19/15 09:15	06/19/15 22:22	1
Nickel	0.028		0.025	0.010	mg/L		06/19/15 09:15	06/19/15 22:22	1
Selenium	0.021	J	0.050	0.020	mg/L		06/19/15 09:15	06/19/15 22:22	1
Silver	<0.025		0.025	0.010	mg/L		06/19/15 09:15	06/19/15 22:22	1
Zinc	0.17	B	0.10	0.020	mg/L		06/19/15 09:15	06/20/15 16:26	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.014	J	0.025	0.010	mg/L		06/24/15 08:40	06/24/15 16:51	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		06/19/15 09:15	06/22/15 17:43	1
Thallium	<0.0020		0.0020	0.0020	mg/L		06/19/15 09:15	06/22/15 17:43	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		06/19/15 12:15	06/22/15 13:06	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.94		0.200	0.200	SU			06/18/15 11:07	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97428-1

Client Sample ID: 1860-23-B10 (14-16)

Lab Sample ID: 500-97428-2

Date Collected: 06/16/15 10:55

Matrix: Solid

Date Received: 06/16/15 16:20

Percent Solids: 76.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	0.048		0.0062	0.0048	mg/Kg	☼	06/17/15 09:40	06/18/15 13:33	1
Benzene	<0.0062		0.0062	0.0014	mg/Kg	☼	06/17/15 09:40	06/18/15 13:33	1
Bromodichloromethane	<0.0062		0.0062	0.0010	mg/Kg	☼	06/17/15 09:40	06/18/15 13:33	1
Bromoform	<0.0062		0.0062	0.0013	mg/Kg	☼	06/17/15 09:40	06/18/15 13:33	1
Bromomethane	<0.0062 *		0.0062	0.0023	mg/Kg	☼	06/17/15 09:40	06/18/15 13:33	1
2-Butanone (MEK)	0.0071		0.0062	0.0022	mg/Kg	☼	06/17/15 09:40	06/18/15 13:33	1
Carbon disulfide	<0.0062		0.0062	0.0023	mg/Kg	☼	06/17/15 09:40	06/18/15 13:33	1
Carbon tetrachloride	<0.0062		0.0062	0.0013	mg/Kg	☼	06/17/15 09:40	06/18/15 13:33	1
Chlorobenzene	<0.0062		0.0062	0.0015	mg/Kg	☼	06/17/15 09:40	06/18/15 13:33	1
Chloroethane	<0.0062		0.0062	0.0026	mg/Kg	☼	06/17/15 09:40	06/18/15 13:33	1
Chloroform	<0.0062		0.0062	0.0012	mg/Kg	☼	06/17/15 09:40	06/18/15 13:33	1
Chloromethane	<0.0062		0.0062	0.0015	mg/Kg	☼	06/17/15 09:40	06/18/15 13:33	1
cis-1,2-Dichloroethene	<0.0062		0.0062	0.0013	mg/Kg	☼	06/17/15 09:40	06/18/15 13:33	1
cis-1,3-Dichloropropene	<0.0062		0.0062	0.0014	mg/Kg	☼	06/17/15 09:40	06/18/15 13:33	1
Dibromochloromethane	<0.0062		0.0062	0.00071	mg/Kg	☼	06/17/15 09:40	06/18/15 13:33	1
1,1-Dichloroethane	<0.0062		0.0062	0.0013	mg/Kg	☼	06/17/15 09:40	06/18/15 13:33	1
1,2-Dichloroethane	<0.0062		0.0062	0.00091	mg/Kg	☼	06/17/15 09:40	06/18/15 13:33	1
1,1-Dichloroethene	<0.0062		0.0062	0.0022	mg/Kg	☼	06/17/15 09:40	06/18/15 13:33	1
1,2-Dichloropropane	<0.0062		0.0062	0.0016	mg/Kg	☼	06/17/15 09:40	06/18/15 13:33	1
1,3-Dichloropropane, Total	<0.0062		0.0062	0.0017	mg/Kg	☼	06/17/15 09:40	06/18/15 13:33	1
Ethylbenzene	<0.0062		0.0062	0.0015	mg/Kg	☼	06/17/15 09:40	06/18/15 13:33	1
2-Hexanone	<0.0062		0.0062	0.0019	mg/Kg	☼	06/17/15 09:40	06/18/15 13:33	1
Methylene Chloride	<0.0062		0.0062	0.0047	mg/Kg	☼	06/17/15 09:40	06/18/15 13:33	1
4-Methyl-2-pentanone (MIBK)	<0.0062		0.0062	0.0013	mg/Kg	☼	06/17/15 09:40	06/18/15 13:33	1
Methyl tert-butyl ether	<0.0062		0.0062	0.0015	mg/Kg	☼	06/17/15 09:40	06/18/15 13:33	1
Styrene	<0.0062		0.0062	0.0014	mg/Kg	☼	06/17/15 09:40	06/18/15 13:33	1
1,1,2,2-Tetrachloroethane	<0.0062		0.0062	0.00098	mg/Kg	☼	06/17/15 09:40	06/18/15 13:33	1
Tetrachloroethene	<0.0062		0.0062	0.0013	mg/Kg	☼	06/17/15 09:40	06/18/15 13:33	1
Toluene	<0.0062		0.0062	0.0021	mg/Kg	☼	06/17/15 09:40	06/18/15 13:33	1
trans-1,2-Dichloroethene	<0.0062		0.0062	0.0015	mg/Kg	☼	06/17/15 09:40	06/18/15 13:33	1
trans-1,3-Dichloropropene	<0.0062		0.0062	0.0017	mg/Kg	☼	06/17/15 09:40	06/18/15 13:33	1
1,1,1-Trichloroethane	<0.0062		0.0062	0.0014	mg/Kg	☼	06/17/15 09:40	06/18/15 13:33	1
1,1,2-Trichloroethane	<0.0062		0.0062	0.0012	mg/Kg	☼	06/17/15 09:40	06/18/15 13:33	1
Trichloroethene	<0.0062		0.0062	0.0017	mg/Kg	☼	06/17/15 09:40	06/18/15 13:33	1
Vinyl acetate	<0.0062		0.0062	0.0017	mg/Kg	☼	06/17/15 09:40	06/18/15 13:33	1
Vinyl chloride	<0.0062		0.0062	0.0015	mg/Kg	☼	06/17/15 09:40	06/18/15 13:33	1
Xylenes, Total	<0.012		0.012	0.0023	mg/Kg	☼	06/17/15 09:40	06/18/15 13:33	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	108		70 - 122	06/17/15 09:40	06/18/15 13:33	1
Dibromofluoromethane	111		75 - 120	06/17/15 09:40	06/18/15 13:33	1
1,2-Dichloroethane-d4 (Surr)	112		70 - 134	06/17/15 09:40	06/18/15 13:33	1
Toluene-d8 (Surr)	112		75 - 122	06/17/15 09:40	06/18/15 13:33	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	☼	06/24/15 18:34	06/25/15 17:21	1
Bis(2-chloroethyl)ether	<0.21		0.21	0.062	mg/Kg	☼	06/24/15 18:34	06/25/15 17:21	1
1,3-Dichlorobenzene	<0.21		0.21	0.046	mg/Kg	☼	06/24/15 18:34	06/25/15 17:21	1
1,4-Dichlorobenzene	<0.21		0.21	0.053	mg/Kg	☼	06/24/15 18:34	06/25/15 17:21	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97428-1

Client Sample ID: 1860-23-B10 (14-16)

Lab Sample ID: 500-97428-2

Date Collected: 06/16/15 10:55

Matrix: Solid

Date Received: 06/16/15 16:20

Percent Solids: 76.1

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	☼	06/24/15 18:34	06/25/15 17:21	1
2-Methylphenol	<0.21		0.21	0.066	mg/Kg	☼	06/24/15 18:34	06/25/15 17:21	1
2,2'-oxybis[1-chloropropane]	<0.21		0.21	0.048	mg/Kg	☼	06/24/15 18:34	06/25/15 17:21	1
N-Nitrosodi-n-propylamine	<0.21		0.21	0.050	mg/Kg	☼	06/24/15 18:34	06/25/15 17:21	1
Hexachloroethane	<0.21		0.21	0.063	mg/Kg	☼	06/24/15 18:34	06/25/15 17:21	1
2-Chlorophenol	<0.21		0.21	0.070	mg/Kg	☼	06/24/15 18:34	06/25/15 17:21	1
Nitrobenzene	<0.041		0.041	0.010	mg/Kg	☼	06/24/15 18:34	06/25/15 17:21	1
Bis(2-chloroethoxy)methane	<0.21		0.21	0.042	mg/Kg	☼	06/24/15 18:34	06/25/15 17:21	1
1,2,4-Trichlorobenzene	<0.21		0.21	0.044	mg/Kg	☼	06/24/15 18:34	06/25/15 17:21	1
Isophorone	<0.21		0.21	0.046	mg/Kg	☼	06/24/15 18:34	06/25/15 17:21	1
2,4-Dimethylphenol	<0.41		0.41	0.16	mg/Kg	☼	06/24/15 18:34	06/25/15 17:21	1
Hexachlorobutadiene	<0.21		0.21	0.065	mg/Kg	☼	06/24/15 18:34	06/25/15 17:21	1
Naphthalene	<0.041		0.041	0.0063	mg/Kg	☼	06/24/15 18:34	06/25/15 17:21	1
2,4-Dichlorophenol	<0.41		0.41	0.098	mg/Kg	☼	06/24/15 18:34	06/25/15 17:21	1
4-Chloroaniline	<0.83		0.83	0.19	mg/Kg	☼	06/24/15 18:34	06/25/15 17:21	1
2,4,6-Trichlorophenol	<0.41		0.41	0.14	mg/Kg	☼	06/24/15 18:34	06/25/15 17:21	1
2,4,5-Trichlorophenol	<0.41		0.41	0.094	mg/Kg	☼	06/24/15 18:34	06/25/15 17:21	1
Hexachlorocyclopentadiene	<0.83		0.83	0.24	mg/Kg	☼	06/24/15 18:34	06/25/15 17:21	1
2-Methylnaphthalene	<0.041		0.041	0.0076	mg/Kg	☼	06/24/15 18:34	06/25/15 17:21	1
2-Nitroaniline	<0.21		0.21	0.055	mg/Kg	☼	06/24/15 18:34	06/25/15 17:21	1
2-Chloronaphthalene	<0.21		0.21	0.046	mg/Kg	☼	06/24/15 18:34	06/25/15 17:21	1
4-Chloro-3-methylphenol	<0.41		0.41	0.14	mg/Kg	☼	06/24/15 18:34	06/25/15 17:21	1
2,6-Dinitrotoluene	<0.21		0.21	0.081	mg/Kg	☼	06/24/15 18:34	06/25/15 17:21	1
2-Nitrophenol	<0.41		0.41	0.097	mg/Kg	☼	06/24/15 18:34	06/25/15 17:21	1
3-Nitroaniline	<0.41		0.41	0.13	mg/Kg	☼	06/24/15 18:34	06/25/15 17:21	1
Dimethyl phthalate	<0.21		0.21	0.054	mg/Kg	☼	06/24/15 18:34	06/25/15 17:21	1
2,4-Dinitrophenol	<0.83		0.83	0.73	mg/Kg	☼	06/24/15 18:34	06/25/15 17:21	1
Acenaphthylene	<0.041		0.041	0.0054	mg/Kg	☼	06/24/15 18:34	06/25/15 17:21	1
2,4-Dinitrotoluene	<0.21		0.21	0.065	mg/Kg	☼	06/24/15 18:34	06/25/15 17:21	1
Acenaphthene	<0.041		0.041	0.0074	mg/Kg	☼	06/24/15 18:34	06/25/15 17:21	1
Dibenzofuran	<0.21		0.21	0.048	mg/Kg	☼	06/24/15 18:34	06/25/15 17:21	1
4-Nitrophenol	<0.83		0.83	0.39	mg/Kg	☼	06/24/15 18:34	06/25/15 17:21	1
Fluorene	<0.041		0.041	0.0058	mg/Kg	☼	06/24/15 18:34	06/25/15 17:21	1
4-Nitroaniline	<0.41		0.41	0.17	mg/Kg	☼	06/24/15 18:34	06/25/15 17:21	1
4-Bromophenyl phenyl ether	<0.21		0.21	0.054	mg/Kg	☼	06/24/15 18:34	06/25/15 17:21	1
Hexachlorobenzene	<0.083		0.083	0.0095	mg/Kg	☼	06/24/15 18:34	06/25/15 17:21	1
Diethyl phthalate	<0.21		0.21	0.070	mg/Kg	☼	06/24/15 18:34	06/25/15 17:21	1
4-Chlorophenyl phenyl ether	<0.21		0.21	0.048	mg/Kg	☼	06/24/15 18:34	06/25/15 17:21	1
Pentachlorophenol	<0.83		0.83	0.66	mg/Kg	☼	06/24/15 18:34	06/25/15 17:21	1
N-Nitrosodiphenylamine	<0.21		0.21	0.049	mg/Kg	☼	06/24/15 18:34	06/25/15 17:21	1
4,6-Dinitro-2-methylphenol	<0.41		0.41	0.33	mg/Kg	☼	06/24/15 18:34	06/25/15 17:21	1
Phenanthrene	<0.041		0.041	0.0057	mg/Kg	☼	06/24/15 18:34	06/25/15 17:21	1
Anthracene	<0.041		0.041	0.0069	mg/Kg	☼	06/24/15 18:34	06/25/15 17:21	1
Carbazole	<0.21		0.21	0.11	mg/Kg	☼	06/24/15 18:34	06/25/15 17:21	1
Di-n-butyl phthalate	<0.21		0.21	0.063	mg/Kg	☼	06/24/15 18:34	06/25/15 17:21	1
Fluoranthene	<0.041		0.041	0.0076	mg/Kg	☼	06/24/15 18:34	06/25/15 17:21	1
Pyrene	<0.041		0.041	0.0082	mg/Kg	☼	06/24/15 18:34	06/25/15 17:21	1
Butyl benzyl phthalate	<0.21		0.21	0.078	mg/Kg	☼	06/24/15 18:34	06/25/15 17:21	1
Benzo[a]anthracene	<0.041		0.041	0.0055	mg/Kg	☼	06/24/15 18:34	06/25/15 17:21	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97428-1

Client Sample ID: 1860-23-B10 (14-16)

Lab Sample ID: 500-97428-2

Date Collected: 06/16/15 10:55

Matrix: Solid

Date Received: 06/16/15 16:20

Percent Solids: 76.1

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	☼	06/24/15 18:34	06/25/15 17:21	1
3,3'-Dichlorobenzidine	<0.21		0.21	0.058	mg/Kg	☼	06/24/15 18:34	06/25/15 17:21	1
Bis(2-ethylhexyl) phthalate	<0.21		0.21	0.075	mg/Kg	☼	06/24/15 18:34	06/25/15 17:21	1
Di-n-octyl phthalate	<0.21		0.21	0.067	mg/Kg	☼	06/24/15 18:34	06/25/15 17:21	1
Benzo[b]fluoranthene	<0.041	*	0.041	0.0089	mg/Kg	☼	06/24/15 18:34	06/25/15 17:21	1
Benzo[k]fluoranthene	<0.041		0.041	0.012	mg/Kg	☼	06/24/15 18:34	06/25/15 17:21	1
Benzo[a]pyrene	<0.041		0.041	0.0080	mg/Kg	☼	06/24/15 18:34	06/25/15 17:21	1
Indeno[1,2,3-cd]pyrene	<0.041		0.041	0.011	mg/Kg	☼	06/24/15 18:34	06/25/15 17:21	1
Dibenz(a,h)anthracene	<0.041		0.041	0.0080	mg/Kg	☼	06/24/15 18:34	06/25/15 17:21	1
Benzo[g,h,i]perylene	<0.041		0.041	0.013	mg/Kg	☼	06/24/15 18:34	06/25/15 17:21	1
3 & 4 Methylphenol	<0.21		0.21	0.069	mg/Kg	☼	06/24/15 18:34	06/25/15 17:21	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	53		25 - 110	06/24/15 18:34	06/25/15 17:21	1
Phenol-d5	58		31 - 110	06/24/15 18:34	06/25/15 17:21	1
Nitrobenzene-d5	52		25 - 115	06/24/15 18:34	06/25/15 17:21	1
2-Fluorobiphenyl	72		25 - 119	06/24/15 18:34	06/25/15 17:21	1
2,4,6-Tribromophenol	93		35 - 137	06/24/15 18:34	06/25/15 17:21	1
Terphenyl-d14	80		36 - 134	06/24/15 18:34	06/25/15 17:21	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.37	J	1.3	0.27	mg/Kg	☼	06/19/15 13:00	06/20/15 16:13	1
Arsenic	4.2		0.65	0.30	mg/Kg	☼	06/19/15 13:00	06/20/15 16:13	1
Barium	29		0.65	0.12	mg/Kg	☼	06/19/15 13:00	06/20/15 16:13	1
Beryllium	0.33		0.26	0.057	mg/Kg	☼	06/19/15 13:00	06/20/15 16:13	1
Boron	6.6		3.3	0.46	mg/Kg	☼	06/19/15 13:00	06/20/15 16:13	1
Cadmium	0.19		0.13	0.038	mg/Kg	☼	06/19/15 13:00	06/20/15 16:13	1
Calcium	66000		65	21	mg/Kg	☼	06/19/15 13:00	06/20/15 17:54	5
Chromium	8.5		0.65	0.11	mg/Kg	☼	06/19/15 13:00	06/20/15 16:13	1
Cobalt	9.5		0.33	0.074	mg/Kg	☼	06/19/15 13:00	06/20/15 16:13	1
Copper	14		0.65	0.14	mg/Kg	☼	06/19/15 13:00	06/20/15 16:13	1
Iron	13000		13	5.0	mg/Kg	☼	06/19/15 13:00	06/20/15 16:13	1
Lead	18		0.33	0.16	mg/Kg	☼	06/19/15 13:00	06/20/15 16:13	1
Magnesium	25000		6.5	2.7	mg/Kg	☼	06/19/15 13:00	06/20/15 16:13	1
Manganese	500		0.65	0.13	mg/Kg	☼	06/19/15 13:00	06/20/15 16:13	1
Nickel	16		0.65	0.18	mg/Kg	☼	06/19/15 13:00	06/20/15 16:13	1
Potassium	990		33	5.3	mg/Kg	☼	06/19/15 13:00	06/20/15 16:13	1
Selenium	0.37	J	0.65	0.32	mg/Kg	☼	06/19/15 13:00	06/20/15 16:13	1
Silver	<0.33		0.33	0.077	mg/Kg	☼	06/19/15 13:00	06/20/15 16:13	1
Sodium	210		65	8.6	mg/Kg	☼	06/19/15 13:00	06/20/15 16:13	1
Thallium	<0.65		0.65	0.32	mg/Kg	☼	06/19/15 13:00	06/20/15 16:13	1
Vanadium	11		0.33	0.096	mg/Kg	☼	06/19/15 13:00	06/20/15 16:13	1
Zinc	49	B	1.3	0.41	mg/Kg	☼	06/19/15 13:00	06/20/15 16:13	1

Method: 7471B - Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.029		0.019	0.0068	mg/Kg	☼	06/17/15 12:15	06/18/15 09:59	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97428-1

Client Sample ID: 1860-23-B17 (0-0.6)

Lab Sample ID: 500-97428-3

Date Collected: 06/16/15 12:05

Matrix: Solid

Date Received: 06/16/15 16:20

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.089	J	0.50	0.050	mg/L	-	06/19/15 09:15	06/19/15 22:27	1
Beryllium	<0.0040		0.0040	0.0040	mg/L	-	06/19/15 09:15	06/19/15 22:27	1
Boron	0.48	J	0.50	0.050	mg/L	-	06/19/15 09:15	06/19/15 22:27	1
Cadmium	0.0033	J	0.0050	0.0020	mg/L	-	06/19/15 09:15	06/19/15 22:27	1
Chromium	<0.025		0.025	0.010	mg/L	-	06/19/15 09:15	06/19/15 22:27	1
Cobalt	0.041		0.025	0.010	mg/L	-	06/19/15 09:15	06/19/15 22:27	1
Iron	<0.20		0.20	0.20	mg/L	-	06/19/15 09:15	06/19/15 22:27	1
Lead	<0.0075		0.0075	0.0075	mg/L	-	06/19/15 09:15	06/19/15 22:27	1
Manganese	2.2		0.025	0.010	mg/L	-	06/19/15 09:15	06/19/15 22:27	1
Nickel	0.043		0.025	0.010	mg/L	-	06/19/15 09:15	06/19/15 22:27	1
Selenium	<0.050		0.050	0.020	mg/L	-	06/19/15 09:15	06/19/15 22:27	1
Silver	<0.025		0.025	0.010	mg/L	-	06/19/15 09:15	06/19/15 22:27	1
Zinc	0.054	J B ^	0.10	0.020	mg/L	-	06/19/15 09:15	06/19/15 22:27	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	<0.025		0.025	0.010	mg/L	-	06/24/15 08:40	06/24/15 16:55	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	-	06/19/15 09:15	06/22/15 17:47	1
Thallium	<0.0020		0.0020	0.0020	mg/L	-	06/19/15 09:15	06/22/15 17:47	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	-	06/19/15 12:15	06/22/15 13:08	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.85		0.200	0.200	SU	-		06/18/15 11:10	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97428-1

Client Sample ID: 1860-23-B17 (0-0.6)

Lab Sample ID: 500-97428-3

Date Collected: 06/16/15 12:05

Matrix: Solid

Date Received: 06/16/15 16:20

Percent Solids: 89.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.0037		0.0037	0.0029	mg/Kg	☼	06/17/15 09:40	06/18/15 13:57	1
Benzene	<0.0037		0.0037	0.00083	mg/Kg	☼	06/17/15 09:40	06/18/15 13:57	1
Bromodichloromethane	<0.0037		0.0037	0.00063	mg/Kg	☼	06/17/15 09:40	06/18/15 13:57	1
Bromoform	<0.0037		0.0037	0.00076	mg/Kg	☼	06/17/15 09:40	06/18/15 13:57	1
Bromomethane	<0.0037 *		0.0037	0.0014	mg/Kg	☼	06/17/15 09:40	06/18/15 13:57	1
2-Butanone (MEK)	<0.0037		0.0037	0.0013	mg/Kg	☼	06/17/15 09:40	06/18/15 13:57	1
Carbon disulfide	<0.0037		0.0037	0.0014	mg/Kg	☼	06/17/15 09:40	06/18/15 13:57	1
Carbon tetrachloride	<0.0037		0.0037	0.00080	mg/Kg	☼	06/17/15 09:40	06/18/15 13:57	1
Chlorobenzene	<0.0037		0.0037	0.00088	mg/Kg	☼	06/17/15 09:40	06/18/15 13:57	1
Chloroethane	<0.0037		0.0037	0.0016	mg/Kg	☼	06/17/15 09:40	06/18/15 13:57	1
Chloroform	<0.0037		0.0037	0.00073	mg/Kg	☼	06/17/15 09:40	06/18/15 13:57	1
Chloromethane	<0.0037		0.0037	0.00090	mg/Kg	☼	06/17/15 09:40	06/18/15 13:57	1
cis-1,2-Dichloroethene	<0.0037		0.0037	0.00076	mg/Kg	☼	06/17/15 09:40	06/18/15 13:57	1
cis-1,3-Dichloropropene	<0.0037		0.0037	0.00085	mg/Kg	☼	06/17/15 09:40	06/18/15 13:57	1
Dibromochloromethane	<0.0037		0.0037	0.00043	mg/Kg	☼	06/17/15 09:40	06/18/15 13:57	1
1,1-Dichloroethane	<0.0037		0.0037	0.00077	mg/Kg	☼	06/17/15 09:40	06/18/15 13:57	1
1,2-Dichloroethane	<0.0037		0.0037	0.00055	mg/Kg	☼	06/17/15 09:40	06/18/15 13:57	1
1,1-Dichloroethene	<0.0037		0.0037	0.0014	mg/Kg	☼	06/17/15 09:40	06/18/15 13:57	1
1,2-Dichloropropane	<0.0037		0.0037	0.00098	mg/Kg	☼	06/17/15 09:40	06/18/15 13:57	1
1,3-Dichloropropane, Total	<0.0037		0.0037	0.0011	mg/Kg	☼	06/17/15 09:40	06/18/15 13:57	1
Ethylbenzene	<0.0037		0.0037	0.00093	mg/Kg	☼	06/17/15 09:40	06/18/15 13:57	1
2-Hexanone	<0.0037		0.0037	0.0012	mg/Kg	☼	06/17/15 09:40	06/18/15 13:57	1
Methylene Chloride	<0.0037		0.0037	0.0028	mg/Kg	☼	06/17/15 09:40	06/18/15 13:57	1
4-Methyl-2-pentanone (MIBK)	<0.0037		0.0037	0.00077	mg/Kg	☼	06/17/15 09:40	06/18/15 13:57	1
Methyl tert-butyl ether	<0.0037		0.0037	0.00088	mg/Kg	☼	06/17/15 09:40	06/18/15 13:57	1
Styrene	<0.0037		0.0037	0.00088	mg/Kg	☼	06/17/15 09:40	06/18/15 13:57	1
1,1,2,2-Tetrachloroethane	<0.0037		0.0037	0.00059	mg/Kg	☼	06/17/15 09:40	06/18/15 13:57	1
Tetrachloroethene	<0.0037		0.0037	0.00078	mg/Kg	☼	06/17/15 09:40	06/18/15 13:57	1
Toluene	<0.0037		0.0037	0.0013	mg/Kg	☼	06/17/15 09:40	06/18/15 13:57	1
trans-1,2-Dichloroethene	<0.0037		0.0037	0.00094	mg/Kg	☼	06/17/15 09:40	06/18/15 13:57	1
trans-1,3-Dichloropropene	<0.0037		0.0037	0.0011	mg/Kg	☼	06/17/15 09:40	06/18/15 13:57	1
1,1,1-Trichloroethane	<0.0037		0.0037	0.00087	mg/Kg	☼	06/17/15 09:40	06/18/15 13:57	1
1,1,2-Trichloroethane	<0.0037		0.0037	0.00072	mg/Kg	☼	06/17/15 09:40	06/18/15 13:57	1
Trichloroethene	<0.0037		0.0037	0.0010	mg/Kg	☼	06/17/15 09:40	06/18/15 13:57	1
Vinyl acetate	<0.0037		0.0037	0.0010	mg/Kg	☼	06/17/15 09:40	06/18/15 13:57	1
Vinyl chloride	<0.0037		0.0037	0.00089	mg/Kg	☼	06/17/15 09:40	06/18/15 13:57	1
Xylenes, Total	<0.0075		0.0075	0.0014	mg/Kg	☼	06/17/15 09:40	06/18/15 13:57	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		70 - 122	06/17/15 09:40	06/18/15 13:57	1
Dibromofluoromethane	110		75 - 120	06/17/15 09:40	06/18/15 13:57	1
1,2-Dichloroethane-d4 (Surr)	115		70 - 134	06/17/15 09:40	06/18/15 13:57	1
Toluene-d8 (Surr)	112		75 - 122	06/17/15 09:40	06/18/15 13:57	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.18		0.18	0.080	mg/Kg	☼	06/24/15 18:34	06/25/15 17:43	1
Bis(2-chloroethyl)ether	<0.18		0.18	0.054	mg/Kg	☼	06/24/15 18:34	06/25/15 17:43	1
1,3-Dichlorobenzene	<0.18		0.18	0.041	mg/Kg	☼	06/24/15 18:34	06/25/15 17:43	1
1,4-Dichlorobenzene	<0.18		0.18	0.046	mg/Kg	☼	06/24/15 18:34	06/25/15 17:43	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97428-1

Client Sample ID: 1860-23-B17 (0-0.6)

Lab Sample ID: 500-97428-3

Date Collected: 06/16/15 12:05

Matrix: Solid

Date Received: 06/16/15 16:20

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	☼	06/24/15 18:34	06/25/15 17:43	1
2-Methylphenol	<0.18		0.18	0.058	mg/Kg	☼	06/24/15 18:34	06/25/15 17:43	1
2,2'-oxybis[1-chloropropane]	<0.18		0.18	0.042	mg/Kg	☼	06/24/15 18:34	06/25/15 17:43	1
N-Nitrosodi-n-propylamine	<0.18		0.18	0.044	mg/Kg	☼	06/24/15 18:34	06/25/15 17:43	1
Hexachloroethane	<0.18		0.18	0.055	mg/Kg	☼	06/24/15 18:34	06/25/15 17:43	1
2-Chlorophenol	<0.18		0.18	0.062	mg/Kg	☼	06/24/15 18:34	06/25/15 17:43	1
Nitrobenzene	<0.036		0.036	0.0090	mg/Kg	☼	06/24/15 18:34	06/25/15 17:43	1
Bis(2-chloroethoxy)methane	<0.18		0.18	0.037	mg/Kg	☼	06/24/15 18:34	06/25/15 17:43	1
1,2,4-Trichlorobenzene	<0.18		0.18	0.039	mg/Kg	☼	06/24/15 18:34	06/25/15 17:43	1
Isophorone	<0.18		0.18	0.041	mg/Kg	☼	06/24/15 18:34	06/25/15 17:43	1
2,4-Dimethylphenol	<0.36		0.36	0.14	mg/Kg	☼	06/24/15 18:34	06/25/15 17:43	1
Hexachlorobutadiene	<0.18		0.18	0.057	mg/Kg	☼	06/24/15 18:34	06/25/15 17:43	1
Naphthalene	<0.036		0.036	0.0056	mg/Kg	☼	06/24/15 18:34	06/25/15 17:43	1
2,4-Dichlorophenol	<0.36		0.36	0.086	mg/Kg	☼	06/24/15 18:34	06/25/15 17:43	1
4-Chloroaniline	<0.73		0.73	0.17	mg/Kg	☼	06/24/15 18:34	06/25/15 17:43	1
2,4,6-Trichlorophenol	<0.36		0.36	0.12	mg/Kg	☼	06/24/15 18:34	06/25/15 17:43	1
2,4,5-Trichlorophenol	<0.36		0.36	0.082	mg/Kg	☼	06/24/15 18:34	06/25/15 17:43	1
Hexachlorocyclopentadiene	<0.73		0.73	0.21	mg/Kg	☼	06/24/15 18:34	06/25/15 17:43	1
2-Methylnaphthalene	0.016	J	0.036	0.0066	mg/Kg	☼	06/24/15 18:34	06/25/15 17:43	1
2-Nitroaniline	<0.18		0.18	0.049	mg/Kg	☼	06/24/15 18:34	06/25/15 17:43	1
2-Chloronaphthalene	<0.18		0.18	0.040	mg/Kg	☼	06/24/15 18:34	06/25/15 17:43	1
4-Chloro-3-methylphenol	<0.36		0.36	0.12	mg/Kg	☼	06/24/15 18:34	06/25/15 17:43	1
2,6-Dinitrotoluene	<0.18		0.18	0.071	mg/Kg	☼	06/24/15 18:34	06/25/15 17:43	1
2-Nitrophenol	<0.36		0.36	0.085	mg/Kg	☼	06/24/15 18:34	06/25/15 17:43	1
3-Nitroaniline	<0.36		0.36	0.11	mg/Kg	☼	06/24/15 18:34	06/25/15 17:43	1
Dimethyl phthalate	<0.18		0.18	0.047	mg/Kg	☼	06/24/15 18:34	06/25/15 17:43	1
2,4-Dinitrophenol	<0.73		0.73	0.64	mg/Kg	☼	06/24/15 18:34	06/25/15 17:43	1
Acenaphthylene	<0.036		0.036	0.0048	mg/Kg	☼	06/24/15 18:34	06/25/15 17:43	1
2,4-Dinitrotoluene	<0.18		0.18	0.057	mg/Kg	☼	06/24/15 18:34	06/25/15 17:43	1
Acenaphthene	<0.036		0.036	0.0065	mg/Kg	☼	06/24/15 18:34	06/25/15 17:43	1
Dibenzofuran	<0.18		0.18	0.042	mg/Kg	☼	06/24/15 18:34	06/25/15 17:43	1
4-Nitrophenol	<0.73		0.73	0.34	mg/Kg	☼	06/24/15 18:34	06/25/15 17:43	1
Fluorene	<0.036		0.036	0.0051	mg/Kg	☼	06/24/15 18:34	06/25/15 17:43	1
4-Nitroaniline	<0.36		0.36	0.15	mg/Kg	☼	06/24/15 18:34	06/25/15 17:43	1
4-Bromophenyl phenyl ether	<0.18		0.18	0.048	mg/Kg	☼	06/24/15 18:34	06/25/15 17:43	1
Hexachlorobenzene	<0.073		0.073	0.0084	mg/Kg	☼	06/24/15 18:34	06/25/15 17:43	1
Diethyl phthalate	<0.18		0.18	0.061	mg/Kg	☼	06/24/15 18:34	06/25/15 17:43	1
4-Chlorophenyl phenyl ether	<0.18		0.18	0.042	mg/Kg	☼	06/24/15 18:34	06/25/15 17:43	1
Pentachlorophenol	<0.73		0.73	0.58	mg/Kg	☼	06/24/15 18:34	06/25/15 17:43	1
N-Nitrosodiphenylamine	<0.18		0.18	0.043	mg/Kg	☼	06/24/15 18:34	06/25/15 17:43	1
4,6-Dinitro-2-methylphenol	<0.36		0.36	0.29	mg/Kg	☼	06/24/15 18:34	06/25/15 17:43	1
Phenanthrene	0.019	J	0.036	0.0050	mg/Kg	☼	06/24/15 18:34	06/25/15 17:43	1
Anthracene	<0.036		0.036	0.0060	mg/Kg	☼	06/24/15 18:34	06/25/15 17:43	1
Carbazole	<0.18		0.18	0.093	mg/Kg	☼	06/24/15 18:34	06/25/15 17:43	1
Di-n-butyl phthalate	<0.18		0.18	0.055	mg/Kg	☼	06/24/15 18:34	06/25/15 17:43	1
Fluoranthene	0.011	J	0.036	0.0067	mg/Kg	☼	06/24/15 18:34	06/25/15 17:43	1
Pyrene	0.015	J	0.036	0.0072	mg/Kg	☼	06/24/15 18:34	06/25/15 17:43	1
Butyl benzyl phthalate	<0.18		0.18	0.069	mg/Kg	☼	06/24/15 18:34	06/25/15 17:43	1
Benzo[a]anthracene	<0.036		0.036	0.0049	mg/Kg	☼	06/24/15 18:34	06/25/15 17:43	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97428-1

Client Sample ID: 1860-23-B17 (0-0.6)

Lab Sample ID: 500-97428-3

Date Collected: 06/16/15 12:05

Matrix: Solid

Date Received: 06/16/15 16:20

Percent Solids: 89.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.018	J	0.036	0.0099	mg/Kg	☼	06/24/15 18:34	06/25/15 17:43	1
3,3'-Dichlorobenzidine	<0.18		0.18	0.051	mg/Kg	☼	06/24/15 18:34	06/25/15 17:43	1
Bis(2-ethylhexyl) phthalate	<0.18		0.18	0.066	mg/Kg	☼	06/24/15 18:34	06/25/15 17:43	1
Di-n-octyl phthalate	<0.18		0.18	0.059	mg/Kg	☼	06/24/15 18:34	06/25/15 17:43	1
Benzo[b]fluoranthene	0.011	J *	0.036	0.0078	mg/Kg	☼	06/24/15 18:34	06/25/15 17:43	1
Benzo[k]fluoranthene	<0.036		0.036	0.011	mg/Kg	☼	06/24/15 18:34	06/25/15 17:43	1
Benzo[a]pyrene	<0.036		0.036	0.0070	mg/Kg	☼	06/24/15 18:34	06/25/15 17:43	1
Indeno[1,2,3-cd]pyrene	<0.036		0.036	0.0094	mg/Kg	☼	06/24/15 18:34	06/25/15 17:43	1
Dibenz(a,h)anthracene	<0.036		0.036	0.0070	mg/Kg	☼	06/24/15 18:34	06/25/15 17:43	1
Benzo[g,h,i]perylene	0.018	J	0.036	0.012	mg/Kg	☼	06/24/15 18:34	06/25/15 17:43	1
3 & 4 Methylphenol	<0.18		0.18	0.060	mg/Kg	☼	06/24/15 18:34	06/25/15 17:43	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	66		25 - 110	06/24/15 18:34	06/25/15 17:43	1
Phenol-d5	63		31 - 110	06/24/15 18:34	06/25/15 17:43	1
Nitrobenzene-d5	62		25 - 115	06/24/15 18:34	06/25/15 17:43	1
2-Fluorobiphenyl	60		25 - 119	06/24/15 18:34	06/25/15 17:43	1
2,4,6-Tribromophenol	75		35 - 137	06/24/15 18:34	06/25/15 17:43	1
Terphenyl-d14	76		36 - 134	06/24/15 18:34	06/25/15 17:43	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.41	J	1.0	0.21	mg/Kg	☼	06/19/15 13:00	06/20/15 16:29	1
Arsenic	9.1		0.51	0.24	mg/Kg	☼	06/19/15 13:00	06/20/15 16:29	1
Barium	20		0.51	0.094	mg/Kg	☼	06/19/15 13:00	06/20/15 16:29	1
Beryllium	0.29		0.21	0.044	mg/Kg	☼	06/19/15 13:00	06/20/15 16:29	1
Boron	7.1		2.6	0.36	mg/Kg	☼	06/19/15 13:00	06/20/15 16:29	1
Cadmium	0.15		0.10	0.030	mg/Kg	☼	06/19/15 13:00	06/20/15 16:29	1
Calcium	96000		51	17	mg/Kg	☼	06/19/15 13:00	06/20/15 17:58	5
Chromium	7.2		0.51	0.088	mg/Kg	☼	06/19/15 13:00	06/20/15 16:29	1
Cobalt	9.4		0.26	0.058	mg/Kg	☼	06/19/15 13:00	06/20/15 16:29	1
Copper	22		0.51	0.11	mg/Kg	☼	06/19/15 13:00	06/20/15 16:29	1
Iron	15000		10	4.0	mg/Kg	☼	06/19/15 13:00	06/20/15 16:29	1
Lead	14		0.26	0.13	mg/Kg	☼	06/19/15 13:00	06/20/15 16:29	1
Magnesium	44000		5.1	2.1	mg/Kg	☼	06/19/15 13:00	06/20/15 16:29	1
Manganese	350		0.51	0.10	mg/Kg	☼	06/19/15 13:00	06/20/15 16:29	1
Nickel	21		0.51	0.14	mg/Kg	☼	06/19/15 13:00	06/20/15 16:29	1
Potassium	1000		26	4.2	mg/Kg	☼	06/19/15 13:00	06/20/15 16:29	1
Selenium	0.26	J	0.51	0.25	mg/Kg	☼	06/19/15 13:00	06/20/15 16:29	1
Silver	<0.26		0.26	0.060	mg/Kg	☼	06/19/15 13:00	06/20/15 16:29	1
Sodium	350		51	6.8	mg/Kg	☼	06/19/15 13:00	06/20/15 16:29	1
Thallium	0.40	J	0.51	0.25	mg/Kg	☼	06/19/15 13:00	06/20/15 16:29	1
Vanadium	9.5		0.26	0.075	mg/Kg	☼	06/19/15 13:00	06/20/15 16:29	1
Zinc	52	B	1.0	0.32	mg/Kg	☼	06/19/15 13:00	06/20/15 16:29	1

Method: 7471B - Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.028		0.018	0.0061	mg/Kg	☼	06/17/15 12:15	06/18/15 10:01	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97428-1

Client Sample ID: 1860-23-B18 (2-4)

Lab Sample ID: 500-97428-4

Date Collected: 06/16/15 13:00

Matrix: Solid

Date Received: 06/16/15 16:20

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.073	J	0.50	0.050	mg/L	-	06/19/15 09:15	06/19/15 22:33	1
Beryllium	<0.0040		0.0040	0.0040	mg/L	-	06/19/15 09:15	06/19/15 22:33	1
Boron	0.42	J	0.50	0.050	mg/L	-	06/19/15 09:15	06/19/15 22:33	1
Cadmium	0.0061		0.0050	0.0020	mg/L	-	06/19/15 09:15	06/19/15 22:33	1
Chromium	<0.025		0.025	0.010	mg/L	-	06/19/15 09:15	06/19/15 22:33	1
Cobalt	0.060		0.025	0.010	mg/L	-	06/19/15 09:15	06/19/15 22:33	1
Iron	<0.20		0.20	0.20	mg/L	-	06/19/15 09:15	06/19/15 22:33	1
Lead	<0.0075		0.0075	0.0075	mg/L	-	06/19/15 09:15	06/19/15 22:33	1
Manganese	2.9		0.025	0.010	mg/L	-	06/19/15 09:15	06/19/15 22:33	1
Nickel	0.059		0.025	0.010	mg/L	-	06/19/15 09:15	06/19/15 22:33	1
Selenium	<0.050		0.050	0.020	mg/L	-	06/19/15 09:15	06/19/15 22:33	1
Silver	<0.025		0.025	0.010	mg/L	-	06/19/15 09:15	06/19/15 22:33	1
Zinc	0.070	J B ^	0.10	0.020	mg/L	-	06/19/15 09:15	06/19/15 22:33	1

Method: 6010B - SPLP Metals - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L	-	06/24/15 08:40	06/24/15 16:59	1
Manganese	<0.025		0.025	0.010	mg/L	-	06/24/15 08:40	06/24/15 16:59	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	-	06/19/15 09:15	06/22/15 17:51	1
Thallium	<0.0020		0.0020	0.0020	mg/L	-	06/19/15 09:15	06/22/15 17:51	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	-	06/19/15 12:15	06/22/15 13:10	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.69		0.200	0.200	SU	-		06/18/15 11:12	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97428-1

Client Sample ID: 1860-23-B18 (2-4)

Lab Sample ID: 500-97428-4

Date Collected: 06/16/15 13:00

Matrix: Solid

Date Received: 06/16/15 16:20

Percent Solids: 85.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.0040		0.0040	0.0031	mg/Kg	☼	06/17/15 09:40	06/19/15 14:06	1
Benzene	<0.0040		0.0040	0.00089	mg/Kg	☼	06/17/15 09:40	06/19/15 14:06	1
Bromodichloromethane	<0.0040		0.0040	0.00067	mg/Kg	☼	06/17/15 09:40	06/19/15 14:06	1
Bromoform	<0.0040		0.0040	0.00081	mg/Kg	☼	06/17/15 09:40	06/19/15 14:06	1
Bromomethane	<0.0040	*	0.0040	0.0015	mg/Kg	☼	06/17/15 09:40	06/19/15 14:06	1
2-Butanone (MEK)	<0.0040		0.0040	0.0014	mg/Kg	☼	06/17/15 09:40	06/19/15 14:06	1
Carbon disulfide	<0.0040		0.0040	0.0015	mg/Kg	☼	06/17/15 09:40	06/19/15 14:06	1
Carbon tetrachloride	<0.0040		0.0040	0.00085	mg/Kg	☼	06/17/15 09:40	06/19/15 14:06	1
Chlorobenzene	<0.0040		0.0040	0.00094	mg/Kg	☼	06/17/15 09:40	06/19/15 14:06	1
Chloroethane	<0.0040		0.0040	0.0017	mg/Kg	☼	06/17/15 09:40	06/19/15 14:06	1
Chloroform	<0.0040		0.0040	0.00078	mg/Kg	☼	06/17/15 09:40	06/19/15 14:06	1
Chloromethane	<0.0040		0.0040	0.00096	mg/Kg	☼	06/17/15 09:40	06/19/15 14:06	1
cis-1,2-Dichloroethene	<0.0040		0.0040	0.00081	mg/Kg	☼	06/17/15 09:40	06/19/15 14:06	1
cis-1,3-Dichloropropene	<0.0040		0.0040	0.00091	mg/Kg	☼	06/17/15 09:40	06/19/15 14:06	1
Dibromochloromethane	<0.0040		0.0040	0.00046	mg/Kg	☼	06/17/15 09:40	06/19/15 14:06	1
1,1-Dichloroethane	<0.0040		0.0040	0.00082	mg/Kg	☼	06/17/15 09:40	06/19/15 14:06	1
1,2-Dichloroethane	<0.0040		0.0040	0.00059	mg/Kg	☼	06/17/15 09:40	06/19/15 14:06	1
1,1-Dichloroethene	<0.0040		0.0040	0.0015	mg/Kg	☼	06/17/15 09:40	06/19/15 14:06	1
1,2-Dichloropropane	<0.0040		0.0040	0.0010	mg/Kg	☼	06/17/15 09:40	06/19/15 14:06	1
1,3-Dichloropropane, Total	<0.0040		0.0040	0.0011	mg/Kg	☼	06/17/15 09:40	06/19/15 14:06	1
Ethylbenzene	<0.0040		0.0040	0.00099	mg/Kg	☼	06/17/15 09:40	06/19/15 14:06	1
2-Hexanone	<0.0040		0.0040	0.0012	mg/Kg	☼	06/17/15 09:40	06/19/15 14:06	1
Methylene Chloride	<0.0040		0.0040	0.0030	mg/Kg	☼	06/17/15 09:40	06/19/15 14:06	1
4-Methyl-2-pentanone (MIBK)	<0.0040		0.0040	0.00082	mg/Kg	☼	06/17/15 09:40	06/19/15 14:06	1
Methyl tert-butyl ether	<0.0040		0.0040	0.00094	mg/Kg	☼	06/17/15 09:40	06/19/15 14:06	1
Styrene	<0.0040		0.0040	0.00093	mg/Kg	☼	06/17/15 09:40	06/19/15 14:06	1
1,1,2,2-Tetrachloroethane	<0.0040		0.0040	0.00063	mg/Kg	☼	06/17/15 09:40	06/19/15 14:06	1
Tetrachloroethene	<0.0040		0.0040	0.00083	mg/Kg	☼	06/17/15 09:40	06/19/15 14:06	1
Toluene	<0.0040		0.0040	0.0014	mg/Kg	☼	06/17/15 09:40	06/19/15 14:06	1
trans-1,2-Dichloroethene	<0.0040		0.0040	0.0010	mg/Kg	☼	06/17/15 09:40	06/19/15 14:06	1
trans-1,3-Dichloropropene	<0.0040		0.0040	0.0011	mg/Kg	☼	06/17/15 09:40	06/19/15 14:06	1
1,1,1-Trichloroethane	<0.0040		0.0040	0.00093	mg/Kg	☼	06/17/15 09:40	06/19/15 14:06	1
1,1,2-Trichloroethane	<0.0040		0.0040	0.00077	mg/Kg	☼	06/17/15 09:40	06/19/15 14:06	1
Trichloroethene	<0.0040		0.0040	0.0011	mg/Kg	☼	06/17/15 09:40	06/19/15 14:06	1
Vinyl acetate	<0.0040	*	0.0040	0.0011	mg/Kg	☼	06/17/15 09:40	06/19/15 14:06	1
Vinyl chloride	<0.0040		0.0040	0.00095	mg/Kg	☼	06/17/15 09:40	06/19/15 14:06	1
Xylenes, Total	<0.0080		0.0080	0.0015	mg/Kg	☼	06/17/15 09:40	06/19/15 14:06	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	103		70 - 122	06/17/15 09:40	06/19/15 14:06	1
Dibromofluoromethane	111		75 - 120	06/17/15 09:40	06/19/15 14:06	1
1,2-Dichloroethane-d4 (Surr)	113		70 - 134	06/17/15 09:40	06/19/15 14:06	1
Toluene-d8 (Surr)	116		75 - 122	06/17/15 09:40	06/19/15 14:06	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.19		0.19	0.083	mg/Kg	☼	06/24/15 18:34	06/25/15 18:04	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.056	mg/Kg	☼	06/24/15 18:34	06/25/15 18:04	1
1,3-Dichlorobenzene	<0.19		0.19	0.042	mg/Kg	☼	06/24/15 18:34	06/25/15 18:04	1
1,4-Dichlorobenzene	<0.19		0.19	0.048	mg/Kg	☼	06/24/15 18:34	06/25/15 18:04	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97428-1

Client Sample ID: 1860-23-B18 (2-4)

Lab Sample ID: 500-97428-4

Date Collected: 06/16/15 13:00

Matrix: Solid

Date Received: 06/16/15 16:20

Percent Solids: 85.9

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	0.044	mg/Kg	☼	06/24/15 18:34	06/25/15 18:04	1
2-Methylphenol	<0.19		0.19	0.060	mg/Kg	☼	06/24/15 18:34	06/25/15 18:04	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.043	mg/Kg	☼	06/24/15 18:34	06/25/15 18:04	1
N-Nitrosodi-n-propylamine	<0.19		0.19	0.045	mg/Kg	☼	06/24/15 18:34	06/25/15 18:04	1
Hexachloroethane	<0.19		0.19	0.057	mg/Kg	☼	06/24/15 18:34	06/25/15 18:04	1
2-Chlorophenol	<0.19		0.19	0.063	mg/Kg	☼	06/24/15 18:34	06/25/15 18:04	1
Nitrobenzene	<0.037		0.037	0.0093	mg/Kg	☼	06/24/15 18:34	06/25/15 18:04	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.038	mg/Kg	☼	06/24/15 18:34	06/25/15 18:04	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.040	mg/Kg	☼	06/24/15 18:34	06/25/15 18:04	1
Isophorone	<0.19		0.19	0.042	mg/Kg	☼	06/24/15 18:34	06/25/15 18:04	1
2,4-Dimethylphenol	<0.37		0.37	0.14	mg/Kg	☼	06/24/15 18:34	06/25/15 18:04	1
Hexachlorobutadiene	<0.19		0.19	0.058	mg/Kg	☼	06/24/15 18:34	06/25/15 18:04	1
Naphthalene	<0.037		0.037	0.0057	mg/Kg	☼	06/24/15 18:34	06/25/15 18:04	1
2,4-Dichlorophenol	<0.37		0.37	0.088	mg/Kg	☼	06/24/15 18:34	06/25/15 18:04	1
4-Chloroaniline	<0.75		0.75	0.17	mg/Kg	☼	06/24/15 18:34	06/25/15 18:04	1
2,4,6-Trichlorophenol	<0.37		0.37	0.13	mg/Kg	☼	06/24/15 18:34	06/25/15 18:04	1
2,4,5-Trichlorophenol	<0.37		0.37	0.085	mg/Kg	☼	06/24/15 18:34	06/25/15 18:04	1
Hexachlorocyclopentadiene	<0.75		0.75	0.21	mg/Kg	☼	06/24/15 18:34	06/25/15 18:04	1
2-Methylnaphthalene	0.0089	J	0.037	0.0068	mg/Kg	☼	06/24/15 18:34	06/25/15 18:04	1
2-Nitroaniline	<0.19		0.19	0.050	mg/Kg	☼	06/24/15 18:34	06/25/15 18:04	1
2-Chloronaphthalene	<0.19		0.19	0.041	mg/Kg	☼	06/24/15 18:34	06/25/15 18:04	1
4-Chloro-3-methylphenol	<0.37		0.37	0.13	mg/Kg	☼	06/24/15 18:34	06/25/15 18:04	1
2,6-Dinitrotoluene	<0.19		0.19	0.073	mg/Kg	☼	06/24/15 18:34	06/25/15 18:04	1
2-Nitrophenol	<0.37		0.37	0.088	mg/Kg	☼	06/24/15 18:34	06/25/15 18:04	1
3-Nitroaniline	<0.37		0.37	0.12	mg/Kg	☼	06/24/15 18:34	06/25/15 18:04	1
Dimethyl phthalate	<0.19		0.19	0.049	mg/Kg	☼	06/24/15 18:34	06/25/15 18:04	1
2,4-Dinitrophenol	<0.75		0.75	0.66	mg/Kg	☼	06/24/15 18:34	06/25/15 18:04	1
Acenaphthylene	<0.037		0.037	0.0049	mg/Kg	☼	06/24/15 18:34	06/25/15 18:04	1
2,4-Dinitrotoluene	<0.19		0.19	0.059	mg/Kg	☼	06/24/15 18:34	06/25/15 18:04	1
Acenaphthene	<0.037		0.037	0.0067	mg/Kg	☼	06/24/15 18:34	06/25/15 18:04	1
Dibenzofuran	<0.19		0.19	0.044	mg/Kg	☼	06/24/15 18:34	06/25/15 18:04	1
4-Nitrophenol	<0.75		0.75	0.35	mg/Kg	☼	06/24/15 18:34	06/25/15 18:04	1
Fluorene	<0.037		0.037	0.0052	mg/Kg	☼	06/24/15 18:34	06/25/15 18:04	1
4-Nitroaniline	<0.37		0.37	0.16	mg/Kg	☼	06/24/15 18:34	06/25/15 18:04	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.049	mg/Kg	☼	06/24/15 18:34	06/25/15 18:04	1
Hexachlorobenzene	<0.075		0.075	0.0086	mg/Kg	☼	06/24/15 18:34	06/25/15 18:04	1
Diethyl phthalate	<0.19		0.19	0.063	mg/Kg	☼	06/24/15 18:34	06/25/15 18:04	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.043	mg/Kg	☼	06/24/15 18:34	06/25/15 18:04	1
Pentachlorophenol	<0.75		0.75	0.60	mg/Kg	☼	06/24/15 18:34	06/25/15 18:04	1
N-Nitrosodiphenylamine	<0.19		0.19	0.044	mg/Kg	☼	06/24/15 18:34	06/25/15 18:04	1
4,6-Dinitro-2-methylphenol	<0.37		0.37	0.30	mg/Kg	☼	06/24/15 18:34	06/25/15 18:04	1
Phenanthrene	0.049		0.037	0.0052	mg/Kg	☼	06/24/15 18:34	06/25/15 18:04	1
Anthracene	<0.037		0.037	0.0062	mg/Kg	☼	06/24/15 18:34	06/25/15 18:04	1
Carbazole	<0.19		0.19	0.096	mg/Kg	☼	06/24/15 18:34	06/25/15 18:04	1
Di-n-butyl phthalate	<0.19		0.19	0.057	mg/Kg	☼	06/24/15 18:34	06/25/15 18:04	1
Fluoranthene	0.033	J	0.037	0.0069	mg/Kg	☼	06/24/15 18:34	06/25/15 18:04	1
Pyrene	0.036	J	0.037	0.0074	mg/Kg	☼	06/24/15 18:34	06/25/15 18:04	1
Butyl benzyl phthalate	<0.19		0.19	0.071	mg/Kg	☼	06/24/15 18:34	06/25/15 18:04	1
Benzo[a]anthracene	0.024	J	0.037	0.0050	mg/Kg	☼	06/24/15 18:34	06/25/15 18:04	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97428-1

Client Sample ID: 1860-23-B18 (2-4)

Lab Sample ID: 500-97428-4

Date Collected: 06/16/15 13:00

Matrix: Solid

Date Received: 06/16/15 16:20

Percent Solids: 85.9

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	☼	06/24/15 18:34	06/25/15 18:04	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.052	mg/Kg	☼	06/24/15 18:34	06/25/15 18:04	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.068	mg/Kg	☼	06/24/15 18:34	06/25/15 18:04	1
Di-n-octyl phthalate	<0.19		0.19	0.061	mg/Kg	☼	06/24/15 18:34	06/25/15 18:04	1
Benzo[b]fluoranthene	0.030	J *	0.037	0.0080	mg/Kg	☼	06/24/15 18:34	06/25/15 18:04	1
Benzo[k]fluoranthene	0.015	J	0.037	0.011	mg/Kg	☼	06/24/15 18:34	06/25/15 18:04	1
Benzo[a]pyrene	0.021	J	0.037	0.0072	mg/Kg	☼	06/24/15 18:34	06/25/15 18:04	1
Indeno[1,2,3-cd]pyrene	0.011	J	0.037	0.0096	mg/Kg	☼	06/24/15 18:34	06/25/15 18:04	1
Dibenz(a,h)anthracene	<0.037		0.037	0.0072	mg/Kg	☼	06/24/15 18:34	06/25/15 18:04	1
Benzo[g,h,i]perylene	0.029	J	0.037	0.012	mg/Kg	☼	06/24/15 18:34	06/25/15 18:04	1
3 & 4 Methylphenol	<0.19		0.19	0.062	mg/Kg	☼	06/24/15 18:34	06/25/15 18:04	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	71		25 - 110	06/24/15 18:34	06/25/15 18:04	1
Phenol-d5	65		31 - 110	06/24/15 18:34	06/25/15 18:04	1
Nitrobenzene-d5	68		25 - 115	06/24/15 18:34	06/25/15 18:04	1
2-Fluorobiphenyl	67		25 - 119	06/24/15 18:34	06/25/15 18:04	1
2,4,6-Tribromophenol	84		35 - 137	06/24/15 18:34	06/25/15 18:04	1
Terphenyl-d14	81		36 - 134	06/24/15 18:34	06/25/15 18:04	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.44	J	1.1	0.22	mg/Kg	☼	06/19/15 13:00	06/20/15 16:34	1
Arsenic	9.2		0.54	0.25	mg/Kg	☼	06/19/15 13:00	06/20/15 16:34	1
Barium	31		0.54	0.099	mg/Kg	☼	06/19/15 13:00	06/20/15 16:34	1
Beryllium	0.41		0.22	0.047	mg/Kg	☼	06/19/15 13:00	06/20/15 16:34	1
Boron	8.8		2.7	0.38	mg/Kg	☼	06/19/15 13:00	06/20/15 16:34	1
Cadmium	0.32		0.11	0.031	mg/Kg	☼	06/19/15 13:00	06/20/15 16:34	1
Calcium	66000		54	17	mg/Kg	☼	06/19/15 13:00	06/20/15 18:03	5
Chromium	11		0.54	0.093	mg/Kg	☼	06/19/15 13:00	06/20/15 16:34	1
Cobalt	10		0.27	0.061	mg/Kg	☼	06/19/15 13:00	06/20/15 16:34	1
Copper	26		0.54	0.12	mg/Kg	☼	06/19/15 13:00	06/20/15 16:34	1
Iron	17000		11	4.2	mg/Kg	☼	06/19/15 13:00	06/20/15 16:34	1
Lead	21		0.27	0.13	mg/Kg	☼	06/19/15 13:00	06/20/15 16:34	1
Magnesium	29000		5.4	2.2	mg/Kg	☼	06/19/15 13:00	06/20/15 16:34	1
Manganese	320		0.54	0.11	mg/Kg	☼	06/19/15 13:00	06/20/15 16:34	1
Nickel	28		0.54	0.15	mg/Kg	☼	06/19/15 13:00	06/20/15 16:34	1
Potassium	1500		27	4.4	mg/Kg	☼	06/19/15 13:00	06/20/15 16:34	1
Selenium	<0.54		0.54	0.27	mg/Kg	☼	06/19/15 13:00	06/20/15 16:34	1
Silver	<0.27		0.27	0.063	mg/Kg	☼	06/19/15 13:00	06/20/15 16:34	1
Sodium	650		54	7.1	mg/Kg	☼	06/19/15 13:00	06/20/15 16:34	1
Thallium	0.46	J	0.54	0.27	mg/Kg	☼	06/19/15 13:00	06/20/15 16:34	1
Vanadium	13		0.27	0.079	mg/Kg	☼	06/19/15 13:00	06/20/15 16:34	1
Zinc	75	B	1.1	0.34	mg/Kg	☼	06/19/15 13:00	06/20/15 16:34	1

Method: 7471B - Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.057		0.018	0.0064	mg/Kg	☼	06/17/15 12:15	06/18/15 10:03	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97428-1

Client Sample ID: 1860-23-B18 (10-12)

Lab Sample ID: 500-97428-5

Date Collected: 06/16/15 13:05

Matrix: Solid

Date Received: 06/16/15 16:20

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.15	J	0.50	0.050	mg/L		06/19/15 09:15	06/19/15 22:38	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		06/19/15 09:15	06/19/15 22:38	1
Boron	0.57		0.50	0.050	mg/L		06/19/15 09:15	06/19/15 22:38	1
Cadmium	0.0028	J	0.0050	0.0020	mg/L		06/19/15 09:15	06/19/15 22:38	1
Chromium	<0.025		0.025	0.010	mg/L		06/19/15 09:15	06/19/15 22:38	1
Cobalt	0.042		0.025	0.010	mg/L		06/19/15 09:15	06/19/15 22:38	1
Iron	<0.20		0.20	0.20	mg/L		06/19/15 09:15	06/19/15 22:38	1
Lead	<0.0075		0.0075	0.0075	mg/L		06/19/15 09:15	06/19/15 22:38	1
Manganese	2.4		0.025	0.010	mg/L		06/19/15 09:15	06/19/15 22:38	1
Nickel	0.052		0.025	0.010	mg/L		06/19/15 09:15	06/19/15 22:38	1
Selenium	0.022	J	0.050	0.020	mg/L		06/19/15 09:15	06/19/15 22:38	1
Silver	<0.025		0.025	0.010	mg/L		06/19/15 09:15	06/19/15 22:38	1
Zinc	0.082	J B	0.10	0.020	mg/L		06/19/15 09:15	06/20/15 16:31	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.024	J	0.025	0.010	mg/L		06/24/15 08:40	06/24/15 17:10	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		06/19/15 09:15	06/22/15 17:55	1
Thallium	<0.0020		0.0020	0.0020	mg/L		06/19/15 09:15	06/22/15 17:55	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		06/19/15 12:15	06/22/15 13:12	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.92		0.200	0.200	SU			06/18/15 11:15	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97428-1

Client Sample ID: 1860-23-B18 (10-12)

Lab Sample ID: 500-97428-5

Date Collected: 06/16/15 13:05

Matrix: Solid

Date Received: 06/16/15 16:20

Percent Solids: 86.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.0041		0.0041	0.0032	mg/Kg	☼	06/17/15 09:40	06/18/15 15:09	1
Benzene	<0.0041		0.0041	0.00091	mg/Kg	☼	06/17/15 09:40	06/18/15 15:09	1
Bromodichloromethane	<0.0041		0.0041	0.00069	mg/Kg	☼	06/17/15 09:40	06/18/15 15:09	1
Bromoform	<0.0041		0.0041	0.00084	mg/Kg	☼	06/17/15 09:40	06/18/15 15:09	1
Bromomethane	<0.0041	*	0.0041	0.0015	mg/Kg	☼	06/17/15 09:40	06/18/15 15:09	1
2-Butanone (MEK)	<0.0041		0.0041	0.0015	mg/Kg	☼	06/17/15 09:40	06/18/15 15:09	1
Carbon disulfide	<0.0041		0.0041	0.0015	mg/Kg	☼	06/17/15 09:40	06/18/15 15:09	1
Carbon tetrachloride	<0.0041		0.0041	0.00088	mg/Kg	☼	06/17/15 09:40	06/18/15 15:09	1
Chlorobenzene	<0.0041		0.0041	0.00097	mg/Kg	☼	06/17/15 09:40	06/18/15 15:09	1
Chloroethane	<0.0041		0.0041	0.0017	mg/Kg	☼	06/17/15 09:40	06/18/15 15:09	1
Chloroform	<0.0041		0.0041	0.00080	mg/Kg	☼	06/17/15 09:40	06/18/15 15:09	1
Chloromethane	<0.0041		0.0041	0.00098	mg/Kg	☼	06/17/15 09:40	06/18/15 15:09	1
cis-1,2-Dichloroethene	<0.0041		0.0041	0.00084	mg/Kg	☼	06/17/15 09:40	06/18/15 15:09	1
cis-1,3-Dichloropropene	<0.0041		0.0041	0.00093	mg/Kg	☼	06/17/15 09:40	06/18/15 15:09	1
Dibromochloromethane	<0.0041		0.0041	0.00047	mg/Kg	☼	06/17/15 09:40	06/18/15 15:09	1
1,1-Dichloroethane	<0.0041		0.0041	0.00084	mg/Kg	☼	06/17/15 09:40	06/18/15 15:09	1
1,2-Dichloroethane	<0.0041		0.0041	0.00061	mg/Kg	☼	06/17/15 09:40	06/18/15 15:09	1
1,1-Dichloroethene	<0.0041		0.0041	0.0015	mg/Kg	☼	06/17/15 09:40	06/18/15 15:09	1
1,2-Dichloropropane	<0.0041		0.0041	0.0011	mg/Kg	☼	06/17/15 09:40	06/18/15 15:09	1
1,3-Dichloropropene, Total	<0.0041		0.0041	0.0012	mg/Kg	☼	06/17/15 09:40	06/18/15 15:09	1
Ethylbenzene	<0.0041		0.0041	0.0010	mg/Kg	☼	06/17/15 09:40	06/18/15 15:09	1
2-Hexanone	<0.0041		0.0041	0.0013	mg/Kg	☼	06/17/15 09:40	06/18/15 15:09	1
Methylene Chloride	<0.0041		0.0041	0.0031	mg/Kg	☼	06/17/15 09:40	06/18/15 15:09	1
4-Methyl-2-pentanone (MIBK)	<0.0041		0.0041	0.00084	mg/Kg	☼	06/17/15 09:40	06/18/15 15:09	1
Methyl tert-butyl ether	<0.0041		0.0041	0.00097	mg/Kg	☼	06/17/15 09:40	06/18/15 15:09	1
Styrene	<0.0041		0.0041	0.00096	mg/Kg	☼	06/17/15 09:40	06/18/15 15:09	1
1,1,2,2-Tetrachloroethane	<0.0041		0.0041	0.00065	mg/Kg	☼	06/17/15 09:40	06/18/15 15:09	1
Tetrachloroethene	0.0021	J	0.0041	0.00085	mg/Kg	☼	06/17/15 09:40	06/18/15 15:09	1
Toluene	<0.0041		0.0041	0.0014	mg/Kg	☼	06/17/15 09:40	06/18/15 15:09	1
trans-1,2-Dichloroethene	<0.0041		0.0041	0.0010	mg/Kg	☼	06/17/15 09:40	06/18/15 15:09	1
trans-1,3-Dichloropropene	<0.0041		0.0041	0.0012	mg/Kg	☼	06/17/15 09:40	06/18/15 15:09	1
1,1,1-Trichloroethane	<0.0041		0.0041	0.00095	mg/Kg	☼	06/17/15 09:40	06/18/15 15:09	1
1,1,2-Trichloroethane	<0.0041		0.0041	0.00079	mg/Kg	☼	06/17/15 09:40	06/18/15 15:09	1
Trichloroethene	<0.0041		0.0041	0.0011	mg/Kg	☼	06/17/15 09:40	06/18/15 15:09	1
Vinyl acetate	<0.0041		0.0041	0.0011	mg/Kg	☼	06/17/15 09:40	06/18/15 15:09	1
Vinyl chloride	<0.0041		0.0041	0.00098	mg/Kg	☼	06/17/15 09:40	06/18/15 15:09	1
Xylenes, Total	<0.0082		0.0082	0.0015	mg/Kg	☼	06/17/15 09:40	06/18/15 15:09	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		70 - 122	06/17/15 09:40	06/18/15 15:09	1
Dibromofluoromethane	110		75 - 120	06/17/15 09:40	06/18/15 15:09	1
1,2-Dichloroethane-d4 (Surr)	112		70 - 134	06/17/15 09:40	06/18/15 15:09	1
Toluene-d8 (Surr)	111		75 - 122	06/17/15 09:40	06/18/15 15:09	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	☼	06/24/15 18:34	06/25/15 18:26	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.056	mg/Kg	☼	06/24/15 18:34	06/25/15 18:26	1
1,3-Dichlorobenzene	<0.19		0.19	0.042	mg/Kg	☼	06/24/15 18:34	06/25/15 18:26	1
1,4-Dichlorobenzene	<0.19		0.19	0.048	mg/Kg	☼	06/24/15 18:34	06/25/15 18:26	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97428-1

Client Sample ID: 1860-23-B18 (10-12)

Lab Sample ID: 500-97428-5

Date Collected: 06/16/15 13:05

Matrix: Solid

Date Received: 06/16/15 16:20

Percent Solids: 86.8

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	☼	06/24/15 18:34	06/25/15 18:26	1
2-Methylphenol	<0.19		0.19	0.059	mg/Kg	☼	06/24/15 18:34	06/25/15 18:26	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.043	mg/Kg	☼	06/24/15 18:34	06/25/15 18:26	1
N-Nitrosodi-n-propylamine	<0.19		0.19	0.045	mg/Kg	☼	06/24/15 18:34	06/25/15 18:26	1
Hexachloroethane	<0.19		0.19	0.056	mg/Kg	☼	06/24/15 18:34	06/25/15 18:26	1
2-Chlorophenol	<0.19		0.19	0.063	mg/Kg	☼	06/24/15 18:34	06/25/15 18:26	1
Nitrobenzene	<0.037		0.037	0.0093	mg/Kg	☼	06/24/15 18:34	06/25/15 18:26	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.038	mg/Kg	☼	06/24/15 18:34	06/25/15 18:26	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.040	mg/Kg	☼	06/24/15 18:34	06/25/15 18:26	1
Isophorone	<0.19		0.19	0.042	mg/Kg	☼	06/24/15 18:34	06/25/15 18:26	1
2,4-Dimethylphenol	<0.37		0.37	0.14	mg/Kg	☼	06/24/15 18:34	06/25/15 18:26	1
Hexachlorobutadiene	<0.19		0.19	0.058	mg/Kg	☼	06/24/15 18:34	06/25/15 18:26	1
Naphthalene	<0.037		0.037	0.0057	mg/Kg	☼	06/24/15 18:34	06/25/15 18:26	1
2,4-Dichlorophenol	<0.37		0.37	0.088	mg/Kg	☼	06/24/15 18:34	06/25/15 18:26	1
4-Chloroaniline	<0.75		0.75	0.17	mg/Kg	☼	06/24/15 18:34	06/25/15 18:26	1
2,4,6-Trichlorophenol	<0.37		0.37	0.13	mg/Kg	☼	06/24/15 18:34	06/25/15 18:26	1
2,4,5-Trichlorophenol	<0.37		0.37	0.085	mg/Kg	☼	06/24/15 18:34	06/25/15 18:26	1
Hexachlorocyclopentadiene	<0.75		0.75	0.21	mg/Kg	☼	06/24/15 18:34	06/25/15 18:26	1
2-Methylnaphthalene	<0.037		0.037	0.0068	mg/Kg	☼	06/24/15 18:34	06/25/15 18:26	1
2-Nitroaniline	<0.19		0.19	0.050	mg/Kg	☼	06/24/15 18:34	06/25/15 18:26	1
2-Chloronaphthalene	<0.19		0.19	0.041	mg/Kg	☼	06/24/15 18:34	06/25/15 18:26	1
4-Chloro-3-methylphenol	<0.37		0.37	0.13	mg/Kg	☼	06/24/15 18:34	06/25/15 18:26	1
2,6-Dinitrotoluene	<0.19		0.19	0.073	mg/Kg	☼	06/24/15 18:34	06/25/15 18:26	1
2-Nitrophenol	<0.37		0.37	0.088	mg/Kg	☼	06/24/15 18:34	06/25/15 18:26	1
3-Nitroaniline	<0.37		0.37	0.11	mg/Kg	☼	06/24/15 18:34	06/25/15 18:26	1
Dimethyl phthalate	<0.19		0.19	0.048	mg/Kg	☼	06/24/15 18:34	06/25/15 18:26	1
2,4-Dinitrophenol	<0.75		0.75	0.65	mg/Kg	☼	06/24/15 18:34	06/25/15 18:26	1
Acenaphthylene	<0.037		0.037	0.0049	mg/Kg	☼	06/24/15 18:34	06/25/15 18:26	1
2,4-Dinitrotoluene	<0.19		0.19	0.059	mg/Kg	☼	06/24/15 18:34	06/25/15 18:26	1
Acenaphthene	<0.037		0.037	0.0067	mg/Kg	☼	06/24/15 18:34	06/25/15 18:26	1
Dibenzofuran	<0.19		0.19	0.043	mg/Kg	☼	06/24/15 18:34	06/25/15 18:26	1
4-Nitrophenol	<0.75		0.75	0.35	mg/Kg	☼	06/24/15 18:34	06/25/15 18:26	1
Fluorene	<0.037		0.037	0.0052	mg/Kg	☼	06/24/15 18:34	06/25/15 18:26	1
4-Nitroaniline	<0.37		0.37	0.16	mg/Kg	☼	06/24/15 18:34	06/25/15 18:26	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.049	mg/Kg	☼	06/24/15 18:34	06/25/15 18:26	1
Hexachlorobenzene	<0.075		0.075	0.0086	mg/Kg	☼	06/24/15 18:34	06/25/15 18:26	1
Diethyl phthalate	<0.19		0.19	0.063	mg/Kg	☼	06/24/15 18:34	06/25/15 18:26	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.043	mg/Kg	☼	06/24/15 18:34	06/25/15 18:26	1
Pentachlorophenol	<0.75		0.75	0.59	mg/Kg	☼	06/24/15 18:34	06/25/15 18:26	1
N-Nitrosodiphenylamine	<0.19		0.19	0.044	mg/Kg	☼	06/24/15 18:34	06/25/15 18:26	1
4,6-Dinitro-2-methylphenol	<0.37		0.37	0.30	mg/Kg	☼	06/24/15 18:34	06/25/15 18:26	1
Phenanthrene	0.018	J	0.037	0.0052	mg/Kg	☼	06/24/15 18:34	06/25/15 18:26	1
Anthracene	<0.037		0.037	0.0062	mg/Kg	☼	06/24/15 18:34	06/25/15 18:26	1
Carbazole	<0.19		0.19	0.096	mg/Kg	☼	06/24/15 18:34	06/25/15 18:26	1
Di-n-butyl phthalate	<0.19		0.19	0.056	mg/Kg	☼	06/24/15 18:34	06/25/15 18:26	1
Fluoranthene	0.0099	J	0.037	0.0069	mg/Kg	☼	06/24/15 18:34	06/25/15 18:26	1
Pyrene	0.0083	J	0.037	0.0074	mg/Kg	☼	06/24/15 18:34	06/25/15 18:26	1
Butyl benzyl phthalate	<0.19		0.19	0.071	mg/Kg	☼	06/24/15 18:34	06/25/15 18:26	1
Benzo[a]anthracene	<0.037		0.037	0.0050	mg/Kg	☼	06/24/15 18:34	06/25/15 18:26	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97428-1

Client Sample ID: 1860-23-B18 (10-12)

Lab Sample ID: 500-97428-5

Date Collected: 06/16/15 13:05

Matrix: Solid

Date Received: 06/16/15 16:20

Percent Solids: 86.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.012	J	0.037	0.010	mg/Kg	☼	06/24/15 18:34	06/25/15 18:26	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.052	mg/Kg	☼	06/24/15 18:34	06/25/15 18:26	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.068	mg/Kg	☼	06/24/15 18:34	06/25/15 18:26	1
Di-n-octyl phthalate	<0.19		0.19	0.060	mg/Kg	☼	06/24/15 18:34	06/25/15 18:26	1
Benzo[b]fluoranthene	<0.037	*	0.037	0.0080	mg/Kg	☼	06/24/15 18:34	06/25/15 18:26	1
Benzo[k]fluoranthene	<0.037		0.037	0.011	mg/Kg	☼	06/24/15 18:34	06/25/15 18:26	1
Benzo[a]pyrene	<0.037		0.037	0.0072	mg/Kg	☼	06/24/15 18:34	06/25/15 18:26	1
Indeno[1,2,3-cd]pyrene	<0.037		0.037	0.0096	mg/Kg	☼	06/24/15 18:34	06/25/15 18:26	1
Dibenz(a,h)anthracene	<0.037		0.037	0.0072	mg/Kg	☼	06/24/15 18:34	06/25/15 18:26	1
Benzo[g,h,i]perylene	<0.037		0.037	0.012	mg/Kg	☼	06/24/15 18:34	06/25/15 18:26	1
3 & 4 Methylphenol	<0.19		0.19	0.062	mg/Kg	☼	06/24/15 18:34	06/25/15 18:26	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	73		25 - 110	06/24/15 18:34	06/25/15 18:26	1
Phenol-d5	67		31 - 110	06/24/15 18:34	06/25/15 18:26	1
Nitrobenzene-d5	75		25 - 115	06/24/15 18:34	06/25/15 18:26	1
2-Fluorobiphenyl	93		25 - 119	06/24/15 18:34	06/25/15 18:26	1
2,4,6-Tribromophenol	90		35 - 137	06/24/15 18:34	06/25/15 18:26	1
Terphenyl-d14	76		36 - 134	06/24/15 18:34	06/25/15 18:26	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.51	J	1.1	0.24	mg/Kg	☼	06/19/15 13:00	06/20/15 16:39	1
Arsenic	9.5		0.57	0.26	mg/Kg	☼	06/19/15 13:00	06/20/15 16:39	1
Barium	15		0.57	0.10	mg/Kg	☼	06/19/15 13:00	06/20/15 16:39	1
Beryllium	0.27		0.23	0.049	mg/Kg	☼	06/19/15 13:00	06/20/15 16:39	1
Boron	6.6		2.8	0.40	mg/Kg	☼	06/19/15 13:00	06/20/15 16:39	1
Cadmium	0.20		0.11	0.033	mg/Kg	☼	06/19/15 13:00	06/20/15 16:39	1
Calcium	97000		57	18	mg/Kg	☼	06/19/15 13:00	06/20/15 18:07	5
Chromium	6.8		0.57	0.098	mg/Kg	☼	06/19/15 13:00	06/20/15 16:39	1
Cobalt	7.4		0.28	0.064	mg/Kg	☼	06/19/15 13:00	06/20/15 16:39	1
Copper	21		0.57	0.12	mg/Kg	☼	06/19/15 13:00	06/20/15 16:39	1
Iron	15000		11	4.4	mg/Kg	☼	06/19/15 13:00	06/20/15 16:39	1
Lead	14		0.28	0.14	mg/Kg	☼	06/19/15 13:00	06/20/15 16:39	1
Magnesium	47000		5.7	2.3	mg/Kg	☼	06/19/15 13:00	06/20/15 16:39	1
Manganese	350		0.57	0.11	mg/Kg	☼	06/19/15 13:00	06/20/15 16:39	1
Nickel	18		0.57	0.15	mg/Kg	☼	06/19/15 13:00	06/20/15 16:39	1
Potassium	990		28	4.6	mg/Kg	☼	06/19/15 13:00	06/20/15 16:39	1
Selenium	0.60		0.57	0.28	mg/Kg	☼	06/19/15 13:00	06/20/15 16:39	1
Silver	<0.28		0.28	0.066	mg/Kg	☼	06/19/15 13:00	06/20/15 16:39	1
Sodium	280		57	7.5	mg/Kg	☼	06/19/15 13:00	06/20/15 16:39	1
Thallium	0.39	J	0.57	0.28	mg/Kg	☼	06/19/15 13:00	06/20/15 16:39	1
Vanadium	9.3		0.28	0.083	mg/Kg	☼	06/19/15 13:00	06/20/15 16:39	1
Zinc	59	B	1.1	0.36	mg/Kg	☼	06/19/15 13:00	06/20/15 16:39	1

Method: 7471B - Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.050		0.018	0.0064	mg/Kg	☼	06/17/15 12:15	06/18/15 10:04	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97428-1

Client Sample ID: 1860-23-B23 (0-2)

Lab Sample ID: 500-97428-6

Date Collected: 06/16/15 15:10

Matrix: Solid

Date Received: 06/16/15 16:20

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.14	J	0.50	0.050	mg/L		06/19/15 09:15	06/19/15 22:50	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		06/19/15 09:15	06/19/15 22:50	1
Boron	0.53		0.50	0.050	mg/L		06/19/15 09:15	06/19/15 22:50	1
Cadmium	0.0045	J	0.0050	0.0020	mg/L		06/19/15 09:15	06/19/15 22:50	1
Chromium	<0.025		0.025	0.010	mg/L		06/19/15 09:15	06/19/15 22:50	1
Cobalt	0.033		0.025	0.010	mg/L		06/19/15 09:15	06/19/15 22:50	1
Iron	<0.20		0.20	0.20	mg/L		06/19/15 09:15	06/19/15 22:50	1
Lead	<0.0075		0.0075	0.0075	mg/L		06/19/15 09:15	06/19/15 22:50	1
Manganese	2.3		0.025	0.010	mg/L		06/19/15 09:15	06/19/15 22:50	1
Nickel	0.047		0.025	0.010	mg/L		06/19/15 09:15	06/19/15 22:50	1
Selenium	0.031	J	0.050	0.020	mg/L		06/19/15 09:15	06/20/15 16:36	1
Silver	<0.025		0.025	0.010	mg/L		06/19/15 09:15	06/19/15 22:50	1
Zinc	0.044	J B ^	0.10	0.020	mg/L		06/19/15 09:15	06/19/15 22:50	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	<0.025		0.025	0.010	mg/L		06/24/15 08:40	06/24/15 17:14	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		06/19/15 09:15	06/22/15 17:59	1
Thallium	<0.0020		0.0020	0.0020	mg/L		06/19/15 09:15	06/22/15 17:59	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		06/19/15 12:15	06/22/15 13:14	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.89		0.200	0.200	SU			06/18/15 11:17	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97428-1

Client Sample ID: 1860-23-B23 (0-2)

Lab Sample ID: 500-97428-6

Date Collected: 06/16/15 15:10

Matrix: Solid

Date Received: 06/16/15 16:20

Percent Solids: 87.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.0042		0.0042	0.0032	mg/Kg	☼	06/17/15 09:40	06/18/15 15:33	1
Benzene	<0.0042		0.0042	0.00093	mg/Kg	☼	06/17/15 09:40	06/18/15 15:33	1
Bromodichloromethane	<0.0042		0.0042	0.00071	mg/Kg	☼	06/17/15 09:40	06/18/15 15:33	1
Bromoform	<0.0042		0.0042	0.00086	mg/Kg	☼	06/17/15 09:40	06/18/15 15:33	1
Bromomethane	<0.0042	*	0.0042	0.0015	mg/Kg	☼	06/17/15 09:40	06/18/15 15:33	1
2-Butanone (MEK)	<0.0042		0.0042	0.0015	mg/Kg	☼	06/17/15 09:40	06/18/15 15:33	1
Carbon disulfide	<0.0042		0.0042	0.0015	mg/Kg	☼	06/17/15 09:40	06/18/15 15:33	1
Carbon tetrachloride	<0.0042		0.0042	0.00090	mg/Kg	☼	06/17/15 09:40	06/18/15 15:33	1
Chlorobenzene	<0.0042		0.0042	0.00099	mg/Kg	☼	06/17/15 09:40	06/18/15 15:33	1
Chloroethane	<0.0042		0.0042	0.0018	mg/Kg	☼	06/17/15 09:40	06/18/15 15:33	1
Chloroform	<0.0042		0.0042	0.00082	mg/Kg	☼	06/17/15 09:40	06/18/15 15:33	1
Chloromethane	<0.0042		0.0042	0.0010	mg/Kg	☼	06/17/15 09:40	06/18/15 15:33	1
cis-1,2-Dichloroethene	<0.0042		0.0042	0.00086	mg/Kg	☼	06/17/15 09:40	06/18/15 15:33	1
cis-1,3-Dichloropropene	<0.0042		0.0042	0.00096	mg/Kg	☼	06/17/15 09:40	06/18/15 15:33	1
Dibromochloromethane	<0.0042		0.0042	0.00048	mg/Kg	☼	06/17/15 09:40	06/18/15 15:33	1
1,1-Dichloroethane	<0.0042		0.0042	0.00086	mg/Kg	☼	06/17/15 09:40	06/18/15 15:33	1
1,2-Dichloroethane	<0.0042		0.0042	0.00062	mg/Kg	☼	06/17/15 09:40	06/18/15 15:33	1
1,1-Dichloroethene	<0.0042		0.0042	0.0015	mg/Kg	☼	06/17/15 09:40	06/18/15 15:33	1
1,2-Dichloropropane	<0.0042		0.0042	0.0011	mg/Kg	☼	06/17/15 09:40	06/18/15 15:33	1
1,3-Dichloropropane, Total	<0.0042		0.0042	0.0012	mg/Kg	☼	06/17/15 09:40	06/18/15 15:33	1
Ethylbenzene	<0.0042		0.0042	0.0010	mg/Kg	☼	06/17/15 09:40	06/18/15 15:33	1
2-Hexanone	<0.0042		0.0042	0.0013	mg/Kg	☼	06/17/15 09:40	06/18/15 15:33	1
Methylene Chloride	<0.0042		0.0042	0.0032	mg/Kg	☼	06/17/15 09:40	06/18/15 15:33	1
4-Methyl-2-pentanone (MIBK)	<0.0042		0.0042	0.00086	mg/Kg	☼	06/17/15 09:40	06/18/15 15:33	1
Methyl tert-butyl ether	<0.0042		0.0042	0.00099	mg/Kg	☼	06/17/15 09:40	06/18/15 15:33	1
Styrene	<0.0042		0.0042	0.00098	mg/Kg	☼	06/17/15 09:40	06/18/15 15:33	1
1,1,2,2-Tetrachloroethane	<0.0042		0.0042	0.00067	mg/Kg	☼	06/17/15 09:40	06/18/15 15:33	1
Tetrachloroethene	<0.0042		0.0042	0.00087	mg/Kg	☼	06/17/15 09:40	06/18/15 15:33	1
Toluene	<0.0042		0.0042	0.0015	mg/Kg	☼	06/17/15 09:40	06/18/15 15:33	1
trans-1,2-Dichloroethene	<0.0042		0.0042	0.0010	mg/Kg	☼	06/17/15 09:40	06/18/15 15:33	1
trans-1,3-Dichloropropene	<0.0042		0.0042	0.0012	mg/Kg	☼	06/17/15 09:40	06/18/15 15:33	1
1,1,1-Trichloroethane	<0.0042		0.0042	0.00097	mg/Kg	☼	06/17/15 09:40	06/18/15 15:33	1
1,1,2-Trichloroethane	<0.0042		0.0042	0.00081	mg/Kg	☼	06/17/15 09:40	06/18/15 15:33	1
Trichloroethene	<0.0042		0.0042	0.0011	mg/Kg	☼	06/17/15 09:40	06/18/15 15:33	1
Vinyl acetate	<0.0042		0.0042	0.0011	mg/Kg	☼	06/17/15 09:40	06/18/15 15:33	1
Vinyl chloride	<0.0042		0.0042	0.0010	mg/Kg	☼	06/17/15 09:40	06/18/15 15:33	1
Xylenes, Total	<0.0084		0.0084	0.0016	mg/Kg	☼	06/17/15 09:40	06/18/15 15:33	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	97		70 - 122	06/17/15 09:40	06/18/15 15:33	1
Dibromofluoromethane	111		75 - 120	06/17/15 09:40	06/18/15 15:33	1
1,2-Dichloroethane-d4 (Surr)	111		70 - 134	06/17/15 09:40	06/18/15 15:33	1
Toluene-d8 (Surr)	115		75 - 122	06/17/15 09:40	06/18/15 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	0.084	mg/Kg	☼	06/24/15 18:34	06/25/15 18:48	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.057	mg/Kg	☼	06/24/15 18:34	06/25/15 18:48	1
1,3-Dichlorobenzene	<0.19		0.19	0.043	mg/Kg	☼	06/24/15 18:34	06/25/15 18:48	1
1,4-Dichlorobenzene	<0.19		0.19	0.048	mg/Kg	☼	06/24/15 18:34	06/25/15 18:48	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97428-1

Client Sample ID: 1860-23-B23 (0-2)

Lab Sample ID: 500-97428-6

Date Collected: 06/16/15 15:10

Matrix: Solid

Date Received: 06/16/15 16:20

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	☼	06/24/15 18:34	06/25/15 18:48	1
2-Methylphenol	<0.19		0.19	0.061	mg/Kg	☼	06/24/15 18:34	06/25/15 18:48	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.044	mg/Kg	☼	06/24/15 18:34	06/25/15 18:48	1
N-Nitrosodi-n-propylamine	<0.19		0.19	0.046	mg/Kg	☼	06/24/15 18:34	06/25/15 18:48	1
Hexachloroethane	<0.19		0.19	0.057	mg/Kg	☼	06/24/15 18:34	06/25/15 18:48	1
2-Chlorophenol	<0.19		0.19	0.064	mg/Kg	☼	06/24/15 18:34	06/25/15 18:48	1
Nitrobenzene	<0.038		0.038	0.0094	mg/Kg	☼	06/24/15 18:34	06/25/15 18:48	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.039	mg/Kg	☼	06/24/15 18:34	06/25/15 18:48	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.041	mg/Kg	☼	06/24/15 18:34	06/25/15 18:48	1
Isophorone	<0.19		0.19	0.042	mg/Kg	☼	06/24/15 18:34	06/25/15 18:48	1
2,4-Dimethylphenol	<0.38		0.38	0.14	mg/Kg	☼	06/24/15 18:34	06/25/15 18:48	1
Hexachlorobutadiene	<0.19		0.19	0.059	mg/Kg	☼	06/24/15 18:34	06/25/15 18:48	1
Naphthalene	<0.038		0.038	0.0058	mg/Kg	☼	06/24/15 18:34	06/25/15 18:48	1
2,4-Dichlorophenol	<0.38		0.38	0.090	mg/Kg	☼	06/24/15 18:34	06/25/15 18:48	1
4-Chloroaniline	<0.76		0.76	0.18	mg/Kg	☼	06/24/15 18:34	06/25/15 18:48	1
2,4,6-Trichlorophenol	<0.38		0.38	0.13	mg/Kg	☼	06/24/15 18:34	06/25/15 18:48	1
2,4,5-Trichlorophenol	<0.38		0.38	0.086	mg/Kg	☼	06/24/15 18:34	06/25/15 18:48	1
Hexachlorocyclopentadiene	<0.76		0.76	0.22	mg/Kg	☼	06/24/15 18:34	06/25/15 18:48	1
2-Methylnaphthalene	<0.038		0.038	0.0069	mg/Kg	☼	06/24/15 18:34	06/25/15 18:48	1
2-Nitroaniline	<0.19		0.19	0.051	mg/Kg	☼	06/24/15 18:34	06/25/15 18:48	1
2-Chloronaphthalene	<0.19		0.19	0.042	mg/Kg	☼	06/24/15 18:34	06/25/15 18:48	1
4-Chloro-3-methylphenol	<0.38		0.38	0.13	mg/Kg	☼	06/24/15 18:34	06/25/15 18:48	1
2,6-Dinitrotoluene	<0.19		0.19	0.074	mg/Kg	☼	06/24/15 18:34	06/25/15 18:48	1
2-Nitrophenol	<0.38		0.38	0.089	mg/Kg	☼	06/24/15 18:34	06/25/15 18:48	1
3-Nitroaniline	<0.38		0.38	0.12	mg/Kg	☼	06/24/15 18:34	06/25/15 18:48	1
Dimethyl phthalate	<0.19		0.19	0.049	mg/Kg	☼	06/24/15 18:34	06/25/15 18:48	1
2,4-Dinitrophenol	<0.76		0.76	0.67	mg/Kg	☼	06/24/15 18:34	06/25/15 18:48	1
Acenaphthylene	<0.038		0.038	0.0050	mg/Kg	☼	06/24/15 18:34	06/25/15 18:48	1
2,4-Dinitrotoluene	<0.19		0.19	0.060	mg/Kg	☼	06/24/15 18:34	06/25/15 18:48	1
Acenaphthene	<0.038		0.038	0.0068	mg/Kg	☼	06/24/15 18:34	06/25/15 18:48	1
Dibenzofuran	<0.19		0.19	0.044	mg/Kg	☼	06/24/15 18:34	06/25/15 18:48	1
4-Nitrophenol	<0.76		0.76	0.36	mg/Kg	☼	06/24/15 18:34	06/25/15 18:48	1
Fluorene	<0.038		0.038	0.0053	mg/Kg	☼	06/24/15 18:34	06/25/15 18:48	1
4-Nitroaniline	<0.38		0.38	0.16	mg/Kg	☼	06/24/15 18:34	06/25/15 18:48	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.050	mg/Kg	☼	06/24/15 18:34	06/25/15 18:48	1
Hexachlorobenzene	<0.076		0.076	0.0088	mg/Kg	☼	06/24/15 18:34	06/25/15 18:48	1
Diethyl phthalate	<0.19		0.19	0.064	mg/Kg	☼	06/24/15 18:34	06/25/15 18:48	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.044	mg/Kg	☼	06/24/15 18:34	06/25/15 18:48	1
Pentachlorophenol	<0.76		0.76	0.61	mg/Kg	☼	06/24/15 18:34	06/25/15 18:48	1
N-Nitrosodiphenylamine	<0.19		0.19	0.045	mg/Kg	☼	06/24/15 18:34	06/25/15 18:48	1
4,6-Dinitro-2-methylphenol	<0.38		0.38	0.30	mg/Kg	☼	06/24/15 18:34	06/25/15 18:48	1
Phenanthrene	0.034	J	0.038	0.0053	mg/Kg	☼	06/24/15 18:34	06/25/15 18:48	1
Anthracene	<0.038		0.038	0.0063	mg/Kg	☼	06/24/15 18:34	06/25/15 18:48	1
Carbazole	<0.19		0.19	0.098	mg/Kg	☼	06/24/15 18:34	06/25/15 18:48	1
Di-n-butyl phthalate	<0.19		0.19	0.058	mg/Kg	☼	06/24/15 18:34	06/25/15 18:48	1
Fluoranthene	0.0077	J	0.038	0.0070	mg/Kg	☼	06/24/15 18:34	06/25/15 18:48	1
Pyrene	0.011	J	0.038	0.0075	mg/Kg	☼	06/24/15 18:34	06/25/15 18:48	1
Butyl benzyl phthalate	<0.19		0.19	0.072	mg/Kg	☼	06/24/15 18:34	06/25/15 18:48	1
Benzo[a]anthracene	<0.038		0.038	0.0051	mg/Kg	☼	06/24/15 18:34	06/25/15 18:48	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97428-1

Client Sample ID: 1860-23-B23 (0-2)

Lab Sample ID: 500-97428-6

Date Collected: 06/16/15 15:10

Matrix: Solid

Date Received: 06/16/15 16:20

Percent Solids: 87.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	<0.038		0.038	0.010	mg/Kg	☼	06/24/15 18:34	06/25/15 18:48	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.053	mg/Kg	☼	06/24/15 18:34	06/25/15 18:48	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.069	mg/Kg	☼	06/24/15 18:34	06/25/15 18:48	1
Di-n-octyl phthalate	<0.19		0.19	0.062	mg/Kg	☼	06/24/15 18:34	06/25/15 18:48	1
Benzo[b]fluoranthene	<0.038	*	0.038	0.0082	mg/Kg	☼	06/24/15 18:34	06/25/15 18:48	1
Benzo[k]fluoranthene	<0.038		0.038	0.011	mg/Kg	☼	06/24/15 18:34	06/25/15 18:48	1
Benzo[a]pyrene	<0.038		0.038	0.0073	mg/Kg	☼	06/24/15 18:34	06/25/15 18:48	1
Indeno[1,2,3-cd]pyrene	<0.038		0.038	0.0098	mg/Kg	☼	06/24/15 18:34	06/25/15 18:48	1
Dibenz(a,h)anthracene	<0.038		0.038	0.0073	mg/Kg	☼	06/24/15 18:34	06/25/15 18:48	1
Benzo[g,h,i]perylene	0.021	J	0.038	0.012	mg/Kg	☼	06/24/15 18:34	06/25/15 18:48	1
3 & 4 Methylphenol	<0.19		0.19	0.063	mg/Kg	☼	06/24/15 18:34	06/25/15 18:48	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	63		25 - 110	06/24/15 18:34	06/25/15 18:48	1
Phenol-d5	58		31 - 110	06/24/15 18:34	06/25/15 18:48	1
Nitrobenzene-d5	62		25 - 115	06/24/15 18:34	06/25/15 18:48	1
2-Fluorobiphenyl	62		25 - 119	06/24/15 18:34	06/25/15 18:48	1
2,4,6-Tribromophenol	73		35 - 137	06/24/15 18:34	06/25/15 18:48	1
Terphenyl-d14	68		36 - 134	06/24/15 18:34	06/25/15 18:48	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.35	J	1.1	0.22	mg/Kg	☼	06/19/15 13:00	06/20/15 16:44	1
Arsenic	11		0.54	0.25	mg/Kg	☼	06/19/15 13:00	06/20/15 16:44	1
Barium	25		0.54	0.099	mg/Kg	☼	06/19/15 13:00	06/20/15 16:44	1
Beryllium	0.41		0.22	0.047	mg/Kg	☼	06/19/15 13:00	06/20/15 16:44	1
Boron	7.8		2.7	0.38	mg/Kg	☼	06/19/15 13:00	06/20/15 16:44	1
Cadmium	0.20		0.11	0.031	mg/Kg	☼	06/19/15 13:00	06/20/15 16:44	1
Calcium	58000		54	17	mg/Kg	☼	06/19/15 13:00	06/20/15 18:18	5
Chromium	10		0.54	0.093	mg/Kg	☼	06/19/15 13:00	06/20/15 16:44	1
Cobalt	13		0.27	0.061	mg/Kg	☼	06/19/15 13:00	06/20/15 16:44	1
Copper	29		0.54	0.12	mg/Kg	☼	06/19/15 13:00	06/20/15 16:44	1
Iron	19000		11	4.2	mg/Kg	☼	06/19/15 13:00	06/20/15 16:44	1
Lead	19		0.27	0.13	mg/Kg	☼	06/19/15 13:00	06/20/15 16:44	1
Magnesium	29000		5.4	2.2	mg/Kg	☼	06/19/15 13:00	06/20/15 16:44	1
Manganese	360		0.54	0.11	mg/Kg	☼	06/19/15 13:00	06/20/15 16:44	1
Nickel	30		0.54	0.15	mg/Kg	☼	06/19/15 13:00	06/20/15 16:44	1
Potassium	1400		27	4.4	mg/Kg	☼	06/19/15 13:00	06/20/15 16:44	1
Selenium	0.34	J	0.54	0.27	mg/Kg	☼	06/19/15 13:00	06/20/15 16:44	1
Silver	<0.27		0.27	0.063	mg/Kg	☼	06/19/15 13:00	06/20/15 16:44	1
Sodium	690		54	7.1	mg/Kg	☼	06/19/15 13:00	06/20/15 16:44	1
Thallium	0.78		0.54	0.26	mg/Kg	☼	06/19/15 13:00	06/20/15 16:44	1
Vanadium	12		0.27	0.079	mg/Kg	☼	06/19/15 13:00	06/20/15 16:44	1
Zinc	73	B	1.1	0.34	mg/Kg	☼	06/19/15 13:00	06/20/15 16:44	1

Method: 7471B - Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.027		0.017	0.0058	mg/Kg	☼	06/17/15 12:15	06/18/15 10:06	1

TestAmerica Chicago

Definitions/Glossary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97428-1

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
F1	MS and/or MSD Recovery is outside acceptance limits.
*	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.

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.
^	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.

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, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
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
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)

TestAmerica

THE LEADER IN ENVIRONMENT

2417 Bond Street, University Park, IL
Phone: 708.534.5200 Fax: 708.



500-97428 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 #: 500-97428
Chain of Custody Number: _____
Page _____ of _____
Temperature °C of Cooler: 3.3

Client		Client Project #		Preservative		Parameter		Sample Disposal		Matrix		Preservative Key	Comments	
Lab ID	MIS/MSD	Sample ID	Date	Time	# of Containers	Matrix	Vol	S Vol	Total TAC	Total SPUR	TAC Sample			PH % Solids
EE		1609008-0031-01										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 IL 171		Lab Project # 50011058												
Project Location/State Cook County, IL		Lab PM D. Wright												
Sampler S. Cooper														
1		1860-23-B10 (6-8)	6-16-15	1050	2	S	X	X	X	X	X			
2		1860-23-B10 (14-16)	6-16-15	1055	2	S	X	X	X	X	X			
3		1860-23-B17 (0-0.6)	6-16-15	1205	2	S	X	X	X	X	X			
4		1860-23-B18 (2-4)	6-16-15	1300	2	S	X	X	X	X	X			
5		1860-23-B18 (10-12)	6-16-15	1305	2	S	X	X	X	X	X			
6		1860-23-B23 (0-2)	6-16-15	1510	2	S	X	X	X	X	X			
2 6-16-15														

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 <i>[Signature]</i>	Company EE	Date 6/16/15	Time 1534	Received By <i>[Signature]</i>	Company TA	Date 6/16/15	Time 1534
Relinquished By <i>[Signature]</i>	Company TA	Date 6/16/15	Time 1620	Received By <i>[Signature]</i>	Company TA-CPR	Date 6/17/15	Time 0720
Relinquished By	Company	Date	Time	Received By	Company	Date	Time

Lab Courier: TA
Shipped: _____
Hand Delivered: _____

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

Client Comments: _____
Lab Comments: _____

Login Sample Receipt Checklist

Client: Ecology and Environment, Inc.

Job Number: 500-97428-1

Login Number: 97428
List Number: 1
Creator: Scott, Sherri L

List Source: TestAmerica Chicago

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	3.3
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.	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: 500-97615-1
Client Project/Site: IDOT - IL 171 - WO 031

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

Attn: Mr. Dean Tiebout



Authorized for release by:
7/2/2015 9:33:39 AM

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
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15



Table of Contents

Cover Page	1
Table of Contents	2
Case Narrative	3
Detection Summary	4
Method Summary	13
Sample Summary	14
Client Sample Results	15
Definitions	59
QC Association	60
Surrogate Summary	68
QC Sample Results	70
Chronicle	88
Certification Summary	98
Chain of Custody	99
Receipt Checklists	101

Case Narrative

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97615-1

Job ID: 500-97615-1

Laboratory: TestAmerica Chicago

Narrative

Job Narrative 500-97615-1

Receipt

The samples were received on 6/19/2015 5:05 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 4.3° C.

GC/MS VOA

Method(s) 8260B: The following samples were diluted due to the abundance of non-target analytes: 1860-23-B05(12-14) (500-97615-9) and 1860-23-B05(12-14)D (500-97615-10). Elevated reporting limits (RLs) are provided.

Method(s) 8260B: The laboratory control sample (LCS) for batch 293320 recovered outside control limits for the following analytes: Bromomethane, Chloroethane. 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 sample was diluted due to the nature of the sample matrix: 1860-23-B25(2-4) (500-97615-3). Elevated reporting limits (RLs) are provided.

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 verifications (CCV) associated with batch 500-293281 recovered above the upper control limit for Zinc. The samples associated with these CCVs were non-detects for the affected analyte; therefore, the data have been reported. The following samples are impacted: 1860-23-B26(0-2) (500-97615-1), 1860-23-B26(6-8) (500-97615-2), 1860-23-B25(10-11.5) (500-97615-4), 1860-23-B08(8-10) (500-97615-6), 1860-23-B05(6-8) (500-97615-8) and 1860-23-B05(12-14)D (500-97615-10).

Method(s) 6020A: The internal standard (In) was used to report the element Sb for batch 500-293352.

1860-23-B26(0-2) (500-97615-1)

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 - IL 171 - WO 031

TestAmerica Job ID: 500-97615-1

Client Sample ID: 1860-23-B26(0-2)

Lab Sample ID: 500-97615-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Phenanthrene	0.097		0.039	0.0054	mg/Kg	1	☼	8270D	Total/NA
Anthracene	0.019	J	0.039	0.0065	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.17		0.039	0.0072	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.12	F2	0.039	0.0077	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.086		0.039	0.0052	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.098		0.039	0.011	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.11	F2	0.039	0.0084	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.052		0.039	0.011	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.083		0.039	0.0075	mg/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.061		0.039	0.010	mg/Kg	1	☼	8270D	Total/NA
Dibenz(a,h)anthracene	0.019	J	0.039	0.0075	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.071		0.039	0.013	mg/Kg	1	☼	8270D	Total/NA
Arsenic	6.1		0.56	0.26	mg/Kg	1	☼	6010B	Total/NA
Barium	88		0.56	0.10	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.56		0.22	0.048	mg/Kg	1	☼	6010B	Total/NA
Boron	10		2.8	0.39	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.49		0.11	0.032	mg/Kg	1	☼	6010B	Total/NA
Calcium	47000		56	18	mg/Kg	5	☼	6010B	Total/NA
Chromium	16		0.56	0.096	mg/Kg	1	☼	6010B	Total/NA
Cobalt	12		0.28	0.063	mg/Kg	1	☼	6010B	Total/NA
Copper	29		0.56	0.12	mg/Kg	1	☼	6010B	Total/NA
Iron	17000	B	11	4.3	mg/Kg	1	☼	6010B	Total/NA
Lead	56		0.28	0.14	mg/Kg	1	☼	6010B	Total/NA
Magnesium	21000	B	5.6	2.3	mg/Kg	1	☼	6010B	Total/NA
Manganese	430	B	0.56	0.11	mg/Kg	1	☼	6010B	Total/NA
Nickel	27		0.56	0.15	mg/Kg	1	☼	6010B	Total/NA
Potassium	1800		28	4.5	mg/Kg	1	☼	6010B	Total/NA
Sodium	370		56	7.4	mg/Kg	1	☼	6010B	Total/NA
Vanadium	17		0.28	0.081	mg/Kg	1	☼	6010B	Total/NA
Zinc	110	B	1.1	0.35	mg/Kg	1	☼	6010B	Total/NA
Barium	0.18	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.073	J	0.50	0.050	mg/L	1		6010B	TCLP
Cadmium	0.0024	J	0.0050	0.0020	mg/L	1		6010B	TCLP
Manganese	0.31		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.048	J B ^	0.10	0.020	mg/L	1		6010B	TCLP
Manganese	0.059		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.045		0.018	0.0062	mg/Kg	1	☼	7471B	Total/NA
pH	8.59		0.200	0.200	SU	1		9045D	Total/NA

Client Sample ID: 1860-23-B26(6-8)

Lab Sample ID: 500-97615-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	0.0076		0.0047	0.0036	mg/Kg	1	☼	8260B	Total/NA
2-Methylnaphthalene	0.010	J	0.040	0.0074	mg/Kg	1	☼	8270D	Total/NA
Phenanthrene	0.024	J	0.040	0.0056	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.016	J	0.040	0.0074	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.016	J	0.040	0.0080	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.0090	J	0.040	0.0054	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.015	J	0.040	0.011	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.010	J	0.040	0.0086	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 - IL 171 - WO 031

TestAmerica Job ID: 500-97615-1

Client Sample ID: 1860-23-B26(6-8) (Continued)

Lab Sample ID: 500-97615-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]pyrene	0.0084	J	0.040	0.0078	mg/Kg	1	☼	8270D	Total/NA
Arsenic	7.8		0.54	0.25	mg/Kg	1	☼	6010B	Total/NA
Barium	64		0.54	0.10	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.60		0.22	0.047	mg/Kg	1	☼	6010B	Total/NA
Boron	10		2.7	0.38	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.24		0.11	0.032	mg/Kg	1	☼	6010B	Total/NA
Calcium	56000		54	18	mg/Kg	5	☼	6010B	Total/NA
Chromium	14		0.54	0.094	mg/Kg	1	☼	6010B	Total/NA
Cobalt	13		0.27	0.062	mg/Kg	1	☼	6010B	Total/NA
Copper	23		0.54	0.12	mg/Kg	1	☼	6010B	Total/NA
Iron	20000	B	11	4.2	mg/Kg	1	☼	6010B	Total/NA
Lead	18		0.27	0.14	mg/Kg	1	☼	6010B	Total/NA
Magnesium	27000	B	5.4	2.2	mg/Kg	1	☼	6010B	Total/NA
Manganese	520	B	0.54	0.11	mg/Kg	1	☼	6010B	Total/NA
Nickel	27		0.54	0.15	mg/Kg	1	☼	6010B	Total/NA
Potassium	1700		27	4.4	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.36	J	0.54	0.27	mg/Kg	1	☼	6010B	Total/NA
Sodium	300		54	7.2	mg/Kg	1	☼	6010B	Total/NA
Vanadium	19		0.27	0.079	mg/Kg	1	☼	6010B	Total/NA
Zinc	80	B	1.1	0.34	mg/Kg	1	☼	6010B	Total/NA
Barium	0.36	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.069	J	0.50	0.050	mg/L	1		6010B	TCLP
Cadmium	0.0026	J	0.0050	0.0020	mg/L	1		6010B	TCLP
Cobalt	0.036		0.025	0.010	mg/L	1		6010B	TCLP
Manganese	10		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.030		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.031	J B ^	0.10	0.020	mg/L	1		6010B	TCLP
Manganese	0.078		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.029		0.020	0.0070	mg/Kg	1	☼	7471B	Total/NA
pH	8.39		0.200	0.200	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 - IL 171 - WO 031

TestAmerica Job ID: 500-97615-1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15

Client Sample ID: 1860-23-B08(0-2)

Lab Sample ID: 500-97615-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Phenanthrene	0.018	J	0.037	0.0052	mg/Kg	1	☼	8270D	Total/NA	
Fluoranthene	0.014	J	0.037	0.0069	mg/Kg	1	☼	8270D	Total/NA	
Pyrene	0.020	J	0.037	0.0074	mg/Kg	1	☼	8270D	Total/NA	
Benzo[a]anthracene	0.011	J	0.037	0.0050	mg/Kg	1	☼	8270D	Total/NA	
Chrysene	0.016	J	0.037	0.010	mg/Kg	1	☼	8270D	Total/NA	
Benzo[b]fluoranthene	0.015	J	0.037	0.0080	mg/Kg	1	☼	8270D	Total/NA	
Benzo[a]pyrene	0.0099	J	0.037	0.0072	mg/Kg	1	☼	8270D	Total/NA	
Benzo[g,h,i]perylene	0.018	J	0.037	0.012	mg/Kg	1	☼	8270D	Total/NA	
Arsenic	7.6		0.52	0.24	mg/Kg	1	☼	6010B	Total/NA	
Barium	49		0.52	0.096	mg/Kg	1	☼	6010B	Total/NA	
Beryllium	0.68		0.21	0.045	mg/Kg	1	☼	6010B	Total/NA	
Boron	12		2.6	0.37	mg/Kg	1	☼	6010B	Total/NA	
Cadmium	0.12		0.10	0.030	mg/Kg	1	☼	6010B	Total/NA	
Calcium	62000		52	17	mg/Kg	5	☼	6010B	Total/NA	
Chromium	17		0.52	0.090	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 - IL 171 - WO 031

TestAmerica Job ID: 500-97615-1

Client Sample ID: 1860-23-B08(0-2) (Continued)

Lab Sample ID: 500-97615-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cobalt	14		0.26	0.059	mg/Kg	1	☼	6010B	Total/NA
Copper	25		0.52	0.11	mg/Kg	1	☼	6010B	Total/NA
Iron	20000	B	10	4.0	mg/Kg	1	☼	6010B	Total/NA
Lead	18		0.26	0.13	mg/Kg	1	☼	6010B	Total/NA
Magnesium	25000	B	5.2	2.1	mg/Kg	1	☼	6010B	Total/NA
Manganese	410	B	0.52	0.10	mg/Kg	1	☼	6010B	Total/NA
Nickel	36		0.52	0.14	mg/Kg	1	☼	6010B	Total/NA
Potassium	2400		26	4.3	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.30	J	0.52	0.26	mg/Kg	1	☼	6010B	Total/NA
Sodium	760		52	6.9	mg/Kg	1	☼	6010B	Total/NA
Vanadium	20		0.26	0.076	mg/Kg	1	☼	6010B	Total/NA
Zinc	68	B	1.0	0.33	mg/Kg	1	☼	6010B	Total/NA
Barium	0.17	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.64		0.50	0.050	mg/L	1		6010B	TCLP
Manganese	1.3		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.013	J	0.025	0.010	mg/L	1		6010B	TCLP
Selenium	0.022	J	0.050	0.020	mg/L	1		6010B	TCLP
Zinc	0.31	B	0.10	0.020	mg/L	1		6010B	TCLP
Mercury	0.034		0.018	0.0062	mg/Kg	1	☼	7471B	Total/NA
pH	8.02		0.200	0.200	SU	1		9045D	Total/NA

Client Sample ID: 1860-23-B08(8-10)

Lab Sample ID: 500-97615-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	0.010		0.0047	0.0036	mg/Kg	1	☼	8260B	Total/NA
Phenanthrene	0.015	J	0.037	0.0052	mg/Kg	1	☼	8270D	Total/NA
Arsenic	8.5		0.55	0.25	mg/Kg	1	☼	6010B	Total/NA
Barium	54		0.55	0.10	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.72		0.22	0.048	mg/Kg	1	☼	6010B	Total/NA
Boron	11		2.7	0.38	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.067	J	0.11	0.032	mg/Kg	1	☼	6010B	Total/NA
Calcium	53000		55	18	mg/Kg	5	☼	6010B	Total/NA
Chromium	19		0.55	0.095	mg/Kg	1	☼	6010B	Total/NA
Cobalt	18		0.27	0.062	mg/Kg	1	☼	6010B	Total/NA
Copper	26		0.55	0.12	mg/Kg	1	☼	6010B	Total/NA
Iron	20000	B	11	4.2	mg/Kg	1	☼	6010B	Total/NA
Lead	14		0.27	0.14	mg/Kg	1	☼	6010B	Total/NA
Magnesium	21000	B	5.5	2.2	mg/Kg	1	☼	6010B	Total/NA
Manganese	360	B	0.55	0.11	mg/Kg	1	☼	6010B	Total/NA
Nickel	37		0.55	0.15	mg/Kg	1	☼	6010B	Total/NA
Potassium	2500		27	4.5	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.41	J	0.55	0.27	mg/Kg	1	☼	6010B	Total/NA
Sodium	140		55	7.3	mg/Kg	1	☼	6010B	Total/NA
Vanadium	20		0.27	0.080	mg/Kg	1	☼	6010B	Total/NA
Zinc	63	B	1.1	0.35	mg/Kg	1	☼	6010B	Total/NA
Barium	0.40	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.83		0.50	0.050	mg/L	1		6010B	TCLP
Cobalt	0.013	J	0.025	0.010	mg/L	1		6010B	TCLP
Manganese	2.0		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.025		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 - IL 171 - WO 031

TestAmerica Job ID: 500-97615-1

Client Sample ID: 1860-23-B08(8-10) (Continued)

Lab Sample ID: 500-97615-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Zinc	0.070	J B ^	0.10	0.020	mg/L	1		6010B	TCLP
Manganese	0.043		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.031		0.018	0.0062	mg/Kg	1	☼	7471B	Total/NA
pH	8.22		0.200	0.200	SU	1		9045D	Total/NA

Client Sample ID: 1860-23-B06(4-6)

Lab Sample ID: 500-97615-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Methylnaphthalene	0.0097	J	0.037	0.0069	mg/Kg	1	☼	8270D	Total/NA
Phenanthrene	0.011	J	0.037	0.0053	mg/Kg	1	☼	8270D	Total/NA
Arsenic	7.3		0.52	0.24	mg/Kg	1	☼	6010B	Total/NA
Barium	50		0.52	0.095	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.70		0.21	0.045	mg/Kg	1	☼	6010B	Total/NA
Boron	12		2.6	0.36	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.049	J	0.10	0.030	mg/Kg	1	☼	6010B	Total/NA
Calcium	56000		52	17	mg/Kg	5	☼	6010B	Total/NA
Chromium	19		0.52	0.090	mg/Kg	1	☼	6010B	Total/NA
Cobalt	12		0.26	0.059	mg/Kg	1	☼	6010B	Total/NA
Copper	25		0.52	0.11	mg/Kg	1	☼	6010B	Total/NA
Iron	20000	B	10	4.0	mg/Kg	1	☼	6010B	Total/NA
Lead	14		0.26	0.13	mg/Kg	1	☼	6010B	Total/NA
Magnesium	20000	B	5.2	2.1	mg/Kg	1	☼	6010B	Total/NA
Manganese	310	B	0.52	0.10	mg/Kg	1	☼	6010B	Total/NA
Nickel	36		0.52	0.14	mg/Kg	1	☼	6010B	Total/NA
Potassium	2500		26	4.3	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.40	J	0.52	0.26	mg/Kg	1	☼	6010B	Total/NA
Sodium	710		52	6.9	mg/Kg	1	☼	6010B	Total/NA
Vanadium	22		0.26	0.076	mg/Kg	1	☼	6010B	Total/NA
Zinc	61	B	1.0	0.33	mg/Kg	1	☼	6010B	Total/NA
Barium	0.50		0.50	0.050	mg/L	1		6010B	TCLP
Boron	1.2		0.50	0.050	mg/L	1		6010B	TCLP
Manganese	1.8		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.018	J	0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.19	B	0.10	0.020	mg/L	1		6010B	TCLP
Manganese	0.083		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.022		0.018	0.0063	mg/Kg	1	☼	7471B	Total/NA
pH	8.22		0.200	0.200	SU	1		9045D	Total/NA

Client Sample ID: 1860-23-B05(6-8)

Lab Sample ID: 500-97615-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	0.017		0.0048	0.0037	mg/Kg	1	☼	8260B	Total/NA
Phenanthrene	0.030	J	0.040	0.0056	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.050		0.040	0.0075	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.050		0.040	0.0080	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.026	J	0.040	0.0054	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.033	J	0.040	0.011	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.032	J	0.040	0.0087	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.014	J	0.040	0.012	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.028	J	0.040	0.0078	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 - IL 171 - WO 031

TestAmerica Job ID: 500-97615-1

Client Sample ID: 1860-23-B05(6-8) (Continued)

Lab Sample ID: 500-97615-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Indeno[1,2,3-cd]pyrene	0.017	J	0.040	0.010	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.031	J	0.040	0.013	mg/Kg	1	☼	8270D	Total/NA
Arsenic	6.8		0.55	0.25	mg/Kg	1	☼	6010B	Total/NA
Barium	54		0.55	0.10	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.67		0.22	0.048	mg/Kg	1	☼	6010B	Total/NA
Boron	10		2.8	0.39	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.19		0.11	0.032	mg/Kg	1	☼	6010B	Total/NA
Calcium	47000		55	18	mg/Kg	5	☼	6010B	Total/NA
Chromium	17		0.55	0.095	mg/Kg	1	☼	6010B	Total/NA
Cobalt	12		0.28	0.062	mg/Kg	1	☼	6010B	Total/NA
Copper	25		0.55	0.12	mg/Kg	1	☼	6010B	Total/NA
Iron	18000	B	11	4.3	mg/Kg	1	☼	6010B	Total/NA
Lead	20		0.28	0.14	mg/Kg	1	☼	6010B	Total/NA
Magnesium	19000	B	5.5	2.2	mg/Kg	1	☼	6010B	Total/NA
Manganese	330	B	0.55	0.11	mg/Kg	1	☼	6010B	Total/NA
Nickel	32		0.55	0.15	mg/Kg	1	☼	6010B	Total/NA
Potassium	2000		28	4.5	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.45	J	0.55	0.27	mg/Kg	1	☼	6010B	Total/NA
Sodium	940		55	7.3	mg/Kg	1	☼	6010B	Total/NA
Vanadium	21		0.28	0.081	mg/Kg	1	☼	6010B	Total/NA
Zinc	67	B	1.1	0.35	mg/Kg	1	☼	6010B	Total/NA
Barium	0.55		0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.96		0.50	0.050	mg/L	1		6010B	TCLP
Cadmium	0.0026	J	0.0050	0.0020	mg/L	1		6010B	TCLP
Cobalt	0.016	J	0.025	0.010	mg/L	1		6010B	TCLP
Manganese	5.1		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.018	J	0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.092	J B ^	0.10	0.020	mg/L	1		6010B	TCLP
Manganese	0.19		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.039		0.018	0.0061	mg/Kg	1	☼	7471B	Total/NA
pH	8.06		0.200	0.200	SU	1		9045D	Total/NA

Client Sample ID: 1860-23-B05(12-14)

Lab Sample ID: 500-97615-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Methylnaphthalene	0.051		0.035	0.0065	mg/Kg	1	☼	8270D	Total/NA
Phenanthrene	0.072		0.035	0.0049	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.016	J	0.035	0.0096	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.016	J	0.035	0.011	mg/Kg	1	☼	8270D	Total/NA
Arsenic	10		0.50	0.23	mg/Kg	1	☼	6010B	Total/NA
Barium	15		0.50	0.091	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.41		0.20	0.043	mg/Kg	1	☼	6010B	Total/NA
Boron	7.7		2.5	0.35	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.28		0.10	0.029	mg/Kg	1	☼	6010B	Total/NA
Calcium	71000		50	16	mg/Kg	5	☼	6010B	Total/NA
Chromium	9.5		0.50	0.086	mg/Kg	1	☼	6010B	Total/NA
Cobalt	11		0.25	0.056	mg/Kg	1	☼	6010B	Total/NA
Copper	26		0.50	0.11	mg/Kg	1	☼	6010B	Total/NA
Iron	18000	B	10	3.8	mg/Kg	1	☼	6010B	Total/NA
Lead	14		0.25	0.12	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 - IL 171 - WO 031

TestAmerica Job ID: 500-97615-1

Client Sample ID: 1860-23-B05(12-14) (Continued)

Lab Sample ID: 500-97615-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Magnesium	33000	B	5.0	2.0	mg/Kg	1	☼	6010B	Total/NA
Manganese	390	B	0.50	0.099	mg/Kg	1	☼	6010B	Total/NA
Nickel	25		0.50	0.14	mg/Kg	1	☼	6010B	Total/NA
Potassium	1400		25	4.1	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.38	J	0.50	0.25	mg/Kg	1	☼	6010B	Total/NA
Sodium	290		50	6.6	mg/Kg	1	☼	6010B	Total/NA
Thallium	1.4		0.50	0.25	mg/Kg	1	☼	6010B	Total/NA
Vanadium	12		0.25	0.073	mg/Kg	1	☼	6010B	Total/NA
Zinc	110	B	1.0	0.32	mg/Kg	1	☼	6010B	Total/NA
Barium	0.25	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.65		0.50	0.050	mg/L	1		6010B	TCLP
Cobalt	0.034		0.025	0.010	mg/L	1		6010B	TCLP
Manganese	1.7		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.071		0.025	0.010	mg/L	1		6010B	TCLP
Selenium	0.020	J	0.050	0.020	mg/L	1		6010B	TCLP
Zinc	0.33	B	0.10	0.020	mg/L	1		6010B	TCLP
Manganese	0.022	J	0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.024		0.018	0.0063	mg/Kg	1	☼	7471B	Total/NA
pH	7.96		0.200	0.200	SU	1		9045D	Total/NA

Client Sample ID: 1860-23-B05(12-14)D

Lab Sample ID: 500-97615-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Methylnaphthalene	0.071		0.035	0.0065	mg/Kg	1	☼	8270D	Total/NA
Phenanthrene	0.082		0.035	0.0049	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.015	J	0.035	0.0070	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.029	J	0.035	0.0096	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.015	J	0.035	0.011	mg/Kg	1	☼	8270D	Total/NA
Arsenic	11		0.53	0.24	mg/Kg	1	☼	6010B	Total/NA
Barium	16		0.53	0.097	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.45		0.21	0.046	mg/Kg	1	☼	6010B	Total/NA
Boron	8.1		2.6	0.37	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.26		0.11	0.031	mg/Kg	1	☼	6010B	Total/NA
Calcium	88000		53	17	mg/Kg	5	☼	6010B	Total/NA
Chromium	13		0.53	0.091	mg/Kg	1	☼	6010B	Total/NA
Cobalt	12		0.26	0.060	mg/Kg	1	☼	6010B	Total/NA
Copper	29		0.53	0.11	mg/Kg	1	☼	6010B	Total/NA
Iron	18000	B	11	4.1	mg/Kg	1	☼	6010B	Total/NA
Lead	16		0.26	0.13	mg/Kg	1	☼	6010B	Total/NA
Magnesium	40000	B	5.3	2.1	mg/Kg	1	☼	6010B	Total/NA
Manganese	470	B	0.53	0.10	mg/Kg	1	☼	6010B	Total/NA
Nickel	30		0.53	0.14	mg/Kg	1	☼	6010B	Total/NA
Potassium	1500		26	4.3	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.67		0.53	0.26	mg/Kg	1	☼	6010B	Total/NA
Sodium	330		53	7.0	mg/Kg	1	☼	6010B	Total/NA
Thallium	0.75		0.53	0.26	mg/Kg	1	☼	6010B	Total/NA
Vanadium	12		0.26	0.077	mg/Kg	1	☼	6010B	Total/NA
Zinc	81	B	1.1	0.33	mg/Kg	1	☼	6010B	Total/NA
Barium	0.21	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.73		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 - IL 171 - WO 031

TestAmerica Job ID: 500-97615-1

Client Sample ID: 1860-23-B05(12-14)D (Continued)

Lab Sample ID: 500-97615-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cobalt	0.034		0.025	0.010	mg/L	1		6010B	TCLP
Manganese	1.8		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.074		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.084	J B ^	0.10	0.020	mg/L	1		6010B	TCLP
Manganese	0.013	J	0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.024		0.018	0.0064	mg/Kg	1	☼	7471B	Total/NA
pH	8.01		0.200	0.200	SU	1		9045D	Total/NA

Client Sample ID: 1860-23-B24(4-5)

Lab Sample ID: 500-97615-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	0.0088		0.0049	0.0038	mg/Kg	1	☼	8260B	Total/NA
2-Methylnaphthalene	0.011	J	0.038	0.0070	mg/Kg	1	☼	8270D	Total/NA
Phenanthrene	0.015	J	0.038	0.0053	mg/Kg	1	☼	8270D	Total/NA
Arsenic	8.5		0.52	0.24	mg/Kg	1	☼	6010B	Total/NA
Barium	67		0.52	0.095	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.76		0.21	0.045	mg/Kg	1	☼	6010B	Total/NA
Boron	9.3		2.6	0.36	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.11		0.10	0.030	mg/Kg	1	☼	6010B	Total/NA
Calcium	47000		52	17	mg/Kg	5	☼	6010B	Total/NA
Chromium	18		0.52	0.089	mg/Kg	1	☼	6010B	Total/NA
Cobalt	17		0.26	0.059	mg/Kg	1	☼	6010B	Total/NA
Copper	29		0.52	0.11	mg/Kg	1	☼	6010B	Total/NA
Iron	20000	B	10	4.0	mg/Kg	1	☼	6010B	Total/NA
Lead	17		0.26	0.13	mg/Kg	1	☼	6010B	Total/NA
Magnesium	20000	B	5.2	2.1	mg/Kg	1	☼	6010B	Total/NA
Manganese	400	B	0.52	0.10	mg/Kg	1	☼	6010B	Total/NA
Nickel	40		0.52	0.14	mg/Kg	1	☼	6010B	Total/NA
Potassium	2100		26	4.2	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.39	J	0.52	0.26	mg/Kg	1	☼	6010B	Total/NA
Sodium	1400		52	6.8	mg/Kg	1	☼	6010B	Total/NA
Thallium	0.41	J	0.52	0.26	mg/Kg	1	☼	6010B	Total/NA
Vanadium	21		0.26	0.076	mg/Kg	1	☼	6010B	Total/NA
Zinc	62	B	1.0	0.33	mg/Kg	1	☼	6010B	Total/NA
Barium	0.44	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.76		0.50	0.050	mg/L	1		6010B	TCLP
Cobalt	0.017	J	0.025	0.010	mg/L	1		6010B	TCLP
Manganese	4.8		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.016	J	0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.33	B	0.10	0.020	mg/L	1		6010B	TCLP
Manganese	0.38		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.00024		0.00020	0.00020	mg/L	1		7470A	TCLP
Mercury	0.023		0.019	0.0067	mg/Kg	1	☼	7471B	Total/NA
pH	7.96		0.200	0.200	SU	1		9045D	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Method Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97615-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL CHI
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	TAL CHI
6010B	Metals (ICP)	SW846	TAL CHI
6010B	SPLP Metals	SW846	TAL CHI
6020A	Metals (ICP/MS)	SW846	TAL CHI
7470A	TCLP Mercury	SW846	TAL CHI
7471B	Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)	SW846	TAL CHI
9045D	pH	SW846	TAL CHI
Moisture	Percent Moisture	EPA	TAL CHI

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

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

Sample Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97615-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-97615-1	1860-23-B26(0-2)	Solid	06/19/15 09:55	06/19/15 17:05
500-97615-2	1860-23-B26(6-8)	Solid	06/19/15 10:00	06/19/15 17:05
500-97615-5	1860-23-B08(0-2)	Solid	06/19/15 11:55	06/19/15 17:05
500-97615-6	1860-23-B08(8-10)	Solid	06/19/15 12:00	06/19/15 17:05
500-97615-7	1860-23-B06(4-6)	Solid	06/19/15 12:20	06/19/15 17:05
500-97615-8	1860-23-B05(6-8)	Solid	06/19/15 13:30	06/19/15 17:05
500-97615-9	1860-23-B05(12-14)	Solid	06/19/15 13:35	06/19/15 17:05
500-97615-10	1860-23-B05(12-14)D	Solid	06/19/15 13:35	06/19/15 17:05
500-97615-11	1860-23-B24(4-5)	Solid	06/19/15 14:40	06/19/15 17:05



Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97615-1

Client Sample ID: 1860-23-B26(0-2)

Lab Sample ID: 500-97615-1

Date Collected: 06/19/15 09:55

Matrix: Solid

Date Received: 06/19/15 17:05

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	-	06/24/15 09:00	06/24/15 18:15	1
Beryllium	<0.0040		0.0040	0.0040	mg/L	-	06/24/15 09:00	06/24/15 18:15	1
Boron	0.073	J	0.50	0.050	mg/L	-	06/24/15 09:00	06/24/15 18:15	1
Cadmium	0.0024	J	0.0050	0.0020	mg/L	-	06/24/15 09:00	06/24/15 18:15	1
Chromium	<0.025		0.025	0.010	mg/L	-	06/24/15 09:00	06/24/15 18:15	1
Cobalt	<0.025		0.025	0.010	mg/L	-	06/24/15 09:00	06/24/15 18:15	1
Iron	<0.20		0.20	0.20	mg/L	-	06/24/15 09:00	06/24/15 18:15	1
Lead	<0.0075		0.0075	0.0075	mg/L	-	06/24/15 09:00	06/24/15 18:15	1
Manganese	0.31		0.025	0.010	mg/L	-	06/24/15 09:00	06/24/15 18:15	1
Nickel	<0.025		0.025	0.010	mg/L	-	06/24/15 09:00	06/24/15 18:15	1
Selenium	<0.050		0.050	0.020	mg/L	-	06/24/15 09:00	06/24/15 18:15	1
Silver	<0.025		0.025	0.010	mg/L	-	06/24/15 09:00	06/24/15 18:15	1
Zinc	0.048	J B ^	0.10	0.020	mg/L	-	06/24/15 09:00	06/24/15 18:15	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.059		0.025	0.010	mg/L	-	06/29/15 10:35	06/30/15 11:44	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	-	06/24/15 09:00	06/24/15 18:28	1
Thallium	<0.0020		0.0020	0.0020	mg/L	-	06/24/15 09:00	06/24/15 18:28	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	-	06/24/15 09:30	06/24/15 13:44	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.59		0.200	0.200	SU	-		06/22/15 14:42	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97615-1

Client Sample ID: 1860-23-B26(0-2)

Lab Sample ID: 500-97615-1

Date Collected: 06/19/15 09:55

Matrix: Solid

Date Received: 06/19/15 17:05

Percent Solids: 82.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.0048		0.0048	0.0037	mg/Kg	☼	06/20/15 15:07	06/25/15 19:18	1
Benzene	<0.0048		0.0048	0.0011	mg/Kg	☼	06/20/15 15:07	06/25/15 19:18	1
Bromodichloromethane	<0.0048		0.0048	0.00081	mg/Kg	☼	06/20/15 15:07	06/25/15 19:18	1
Bromoform	<0.0048		0.0048	0.00098	mg/Kg	☼	06/20/15 15:07	06/25/15 19:18	1
Bromomethane	<0.0048	*	0.0048	0.0018	mg/Kg	☼	06/20/15 15:07	06/25/15 19:18	1
2-Butanone (MEK)	<0.0048		0.0048	0.0017	mg/Kg	☼	06/20/15 15:07	06/25/15 19:18	1
Carbon disulfide	<0.0048		0.0048	0.0018	mg/Kg	☼	06/20/15 15:07	06/25/15 19:18	1
Carbon tetrachloride	<0.0048		0.0048	0.0010	mg/Kg	☼	06/20/15 15:07	06/25/15 19:18	1
Chlorobenzene	<0.0048		0.0048	0.0011	mg/Kg	☼	06/20/15 15:07	06/25/15 19:18	1
Chloroethane	<0.0048	*	0.0048	0.0020	mg/Kg	☼	06/20/15 15:07	06/25/15 19:18	1
Chloroform	<0.0048		0.0048	0.00094	mg/Kg	☼	06/20/15 15:07	06/25/15 19:18	1
Chloromethane	<0.0048		0.0048	0.0012	mg/Kg	☼	06/20/15 15:07	06/25/15 19:18	1
cis-1,2-Dichloroethene	<0.0048		0.0048	0.00098	mg/Kg	☼	06/20/15 15:07	06/25/15 19:18	1
cis-1,3-Dichloropropene	<0.0048		0.0048	0.0011	mg/Kg	☼	06/20/15 15:07	06/25/15 19:18	1
Dibromochloromethane	<0.0048		0.0048	0.00055	mg/Kg	☼	06/20/15 15:07	06/25/15 19:18	1
1,1-Dichloroethane	<0.0048		0.0048	0.00099	mg/Kg	☼	06/20/15 15:07	06/25/15 19:18	1
1,2-Dichloroethane	<0.0048		0.0048	0.00072	mg/Kg	☼	06/20/15 15:07	06/25/15 19:18	1
1,1-Dichloroethene	<0.0048		0.0048	0.0018	mg/Kg	☼	06/20/15 15:07	06/25/15 19:18	1
1,2-Dichloropropane	<0.0048		0.0048	0.0013	mg/Kg	☼	06/20/15 15:07	06/25/15 19:18	1
1,3-Dichloropropane, Total	<0.0048		0.0048	0.0014	mg/Kg	☼	06/20/15 15:07	06/25/15 19:18	1
Ethylbenzene	<0.0048		0.0048	0.0012	mg/Kg	☼	06/20/15 15:07	06/25/15 19:18	1
2-Hexanone	<0.0048		0.0048	0.0015	mg/Kg	☼	06/20/15 15:07	06/25/15 19:18	1
Methylene Chloride	<0.0048		0.0048	0.0036	mg/Kg	☼	06/20/15 15:07	06/25/15 19:18	1
4-Methyl-2-pentanone (MIBK)	<0.0048		0.0048	0.00099	mg/Kg	☼	06/20/15 15:07	06/25/15 19:18	1
Methyl tert-butyl ether	<0.0048		0.0048	0.0011	mg/Kg	☼	06/20/15 15:07	06/25/15 19:18	1
Styrene	<0.0048		0.0048	0.0011	mg/Kg	☼	06/20/15 15:07	06/25/15 19:18	1
1,1,2,2-Tetrachloroethane	<0.0048		0.0048	0.00077	mg/Kg	☼	06/20/15 15:07	06/25/15 19:18	1
Tetrachloroethene	<0.0048		0.0048	0.0010	mg/Kg	☼	06/20/15 15:07	06/25/15 19:18	1
Toluene	<0.0048		0.0048	0.0017	mg/Kg	☼	06/20/15 15:07	06/25/15 19:18	1
trans-1,2-Dichloroethene	<0.0048		0.0048	0.0012	mg/Kg	☼	06/20/15 15:07	06/25/15 19:18	1
trans-1,3-Dichloropropene	<0.0048		0.0048	0.0014	mg/Kg	☼	06/20/15 15:07	06/25/15 19:18	1
1,1,1-Trichloroethane	<0.0048		0.0048	0.0011	mg/Kg	☼	06/20/15 15:07	06/25/15 19:18	1
1,1,2-Trichloroethane	<0.0048		0.0048	0.00093	mg/Kg	☼	06/20/15 15:07	06/25/15 19:18	1
Trichloroethene	<0.0048		0.0048	0.0013	mg/Kg	☼	06/20/15 15:07	06/25/15 19:18	1
Vinyl acetate	<0.0048		0.0048	0.0013	mg/Kg	☼	06/20/15 15:07	06/25/15 19:18	1
Vinyl chloride	<0.0048		0.0048	0.0011	mg/Kg	☼	06/20/15 15:07	06/25/15 19:18	1
Xylenes, Total	<0.0096		0.0096	0.0018	mg/Kg	☼	06/20/15 15:07	06/25/15 19:18	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	88		70 - 122	06/20/15 15:07	06/25/15 19:18	1
Dibromofluoromethane	100		75 - 120	06/20/15 15:07	06/25/15 19:18	1
1,2-Dichloroethane-d4 (Surr)	93		70 - 134	06/20/15 15:07	06/25/15 19:18	1
Toluene-d8 (Surr)	96		75 - 122	06/20/15 15:07	06/25/15 19:18	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	☼	06/25/15 07:25	06/26/15 15:29	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.058	mg/Kg	☼	06/25/15 07:25	06/26/15 15:29	1
1,3-Dichlorobenzene	<0.20	F1	0.20	0.044	mg/Kg	☼	06/25/15 07:25	06/26/15 15:29	1
1,4-Dichlorobenzene	<0.20	F1	0.20	0.050	mg/Kg	☼	06/25/15 07:25	06/26/15 15:29	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97615-1

Client Sample ID: 1860-23-B26(0-2)

Lab Sample ID: 500-97615-1

Date Collected: 06/19/15 09:55

Matrix: Solid

Date Received: 06/19/15 17:05

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	<0.20	F1	0.20	0.046	mg/Kg	☼	06/25/15 07:25	06/26/15 15:29	1
2-Methylphenol	<0.20		0.20	0.062	mg/Kg	☼	06/25/15 07:25	06/26/15 15:29	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.045	mg/Kg	☼	06/25/15 07:25	06/26/15 15:29	1
N-Nitrosodi-n-propylamine	<0.20		0.20	0.047	mg/Kg	☼	06/25/15 07:25	06/26/15 15:29	1
Hexachloroethane	<0.20	F1	0.20	0.059	mg/Kg	☼	06/25/15 07:25	06/26/15 15:29	1
2-Chlorophenol	<0.20		0.20	0.066	mg/Kg	☼	06/25/15 07:25	06/26/15 15:29	1
Nitrobenzene	<0.039		0.039	0.0097	mg/Kg	☼	06/25/15 07:25	06/26/15 15:29	1
Bis(2-chloroethoxy)methane	<0.20	F1	0.20	0.040	mg/Kg	☼	06/25/15 07:25	06/26/15 15:29	1
1,2,4-Trichlorobenzene	<0.20		0.20	0.042	mg/Kg	☼	06/25/15 07:25	06/26/15 15:29	1
Isophorone	<0.20		0.20	0.044	mg/Kg	☼	06/25/15 07:25	06/26/15 15:29	1
2,4-Dimethylphenol	<0.39		0.39	0.15	mg/Kg	☼	06/25/15 07:25	06/26/15 15:29	1
Hexachlorobutadiene	<0.20		0.20	0.061	mg/Kg	☼	06/25/15 07:25	06/26/15 15:29	1
Naphthalene	<0.039		0.039	0.0060	mg/Kg	☼	06/25/15 07:25	06/26/15 15:29	1
2,4-Dichlorophenol	<0.39		0.39	0.092	mg/Kg	☼	06/25/15 07:25	06/26/15 15:29	1
4-Chloroaniline	<0.78		0.78	0.18	mg/Kg	☼	06/25/15 07:25	06/26/15 15:29	1
2,4,6-Trichlorophenol	<0.39		0.39	0.13	mg/Kg	☼	06/25/15 07:25	06/26/15 15:29	1
2,4,5-Trichlorophenol	<0.39		0.39	0.089	mg/Kg	☼	06/25/15 07:25	06/26/15 15:29	1
Hexachlorocyclopentadiene	<0.78	F1	0.78	0.22	mg/Kg	☼	06/25/15 07:25	06/26/15 15:29	1
2-Methylnaphthalene	<0.039		0.039	0.0071	mg/Kg	☼	06/25/15 07:25	06/26/15 15:29	1
2-Nitroaniline	<0.20		0.20	0.052	mg/Kg	☼	06/25/15 07:25	06/26/15 15:29	1
2-Chloronaphthalene	<0.20	F1	0.20	0.043	mg/Kg	☼	06/25/15 07:25	06/26/15 15:29	1
4-Chloro-3-methylphenol	<0.39		0.39	0.13	mg/Kg	☼	06/25/15 07:25	06/26/15 15:29	1
2,6-Dinitrotoluene	<0.20		0.20	0.076	mg/Kg	☼	06/25/15 07:25	06/26/15 15:29	1
2-Nitrophenol	<0.39		0.39	0.092	mg/Kg	☼	06/25/15 07:25	06/26/15 15:29	1
3-Nitroaniline	<0.39		0.39	0.12	mg/Kg	☼	06/25/15 07:25	06/26/15 15:29	1
Dimethyl phthalate	<0.20		0.20	0.051	mg/Kg	☼	06/25/15 07:25	06/26/15 15:29	1
2,4-Dinitrophenol	<0.78	F1	0.78	0.68	mg/Kg	☼	06/25/15 07:25	06/26/15 15:29	1
Acenaphthylene	<0.039		0.039	0.0051	mg/Kg	☼	06/25/15 07:25	06/26/15 15:29	1
2,4-Dinitrotoluene	<0.20	F1 F2	0.20	0.062	mg/Kg	☼	06/25/15 07:25	06/26/15 15:29	1
Acenaphthene	<0.039	F2	0.039	0.0070	mg/Kg	☼	06/25/15 07:25	06/26/15 15:29	1
Dibenzofuran	<0.20		0.20	0.045	mg/Kg	☼	06/25/15 07:25	06/26/15 15:29	1
4-Nitrophenol	<0.78		0.78	0.37	mg/Kg	☼	06/25/15 07:25	06/26/15 15:29	1
Fluorene	<0.039	F2	0.039	0.0055	mg/Kg	☼	06/25/15 07:25	06/26/15 15:29	1
4-Nitroaniline	<0.39	F2	0.39	0.16	mg/Kg	☼	06/25/15 07:25	06/26/15 15:29	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.051	mg/Kg	☼	06/25/15 07:25	06/26/15 15:29	1
Hexachlorobenzene	<0.078		0.078	0.0090	mg/Kg	☼	06/25/15 07:25	06/26/15 15:29	1
Diethyl phthalate	<0.20	F2	0.20	0.066	mg/Kg	☼	06/25/15 07:25	06/26/15 15:29	1
4-Chlorophenyl phenyl ether	<0.20	F2	0.20	0.045	mg/Kg	☼	06/25/15 07:25	06/26/15 15:29	1
Pentachlorophenol	<0.78		0.78	0.62	mg/Kg	☼	06/25/15 07:25	06/26/15 15:29	1
N-Nitrosodiphenylamine	<0.20		0.20	0.046	mg/Kg	☼	06/25/15 07:25	06/26/15 15:29	1
4,6-Dinitro-2-methylphenol	<0.39		0.39	0.31	mg/Kg	☼	06/25/15 07:25	06/26/15 15:29	1
Phenanthrene	0.097		0.039	0.0054	mg/Kg	☼	06/25/15 07:25	06/26/15 15:29	1
Anthracene	0.019	J	0.039	0.0065	mg/Kg	☼	06/25/15 07:25	06/26/15 15:29	1
Carbazole	<0.20		0.20	0.10	mg/Kg	☼	06/25/15 07:25	06/26/15 15:29	1
Di-n-butyl phthalate	<0.20		0.20	0.059	mg/Kg	☼	06/25/15 07:25	06/26/15 15:29	1
Fluoranthene	0.17		0.039	0.0072	mg/Kg	☼	06/25/15 07:25	06/26/15 15:29	1
Pyrene	0.12	F2	0.039	0.0077	mg/Kg	☼	06/25/15 07:25	06/26/15 15:29	1
Butyl benzyl phthalate	<0.20	F1 F2	0.20	0.074	mg/Kg	☼	06/25/15 07:25	06/26/15 15:29	1
Benzo[a]anthracene	0.086		0.039	0.0052	mg/Kg	☼	06/25/15 07:25	06/26/15 15:29	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97615-1

Client Sample ID: 1860-23-B26(0-2)

Lab Sample ID: 500-97615-1

Date Collected: 06/19/15 09:55

Matrix: Solid

Date Received: 06/19/15 17:05

Percent Solids: 82.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.098		0.039	0.011	mg/Kg	☼	06/25/15 07:25	06/26/15 15:29	1
3,3'-Dichlorobenzidine	<0.20	F2	0.20	0.054	mg/Kg	☼	06/25/15 07:25	06/26/15 15:29	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.071	mg/Kg	☼	06/25/15 07:25	06/26/15 15:29	1
Di-n-octyl phthalate	<0.20		0.20	0.063	mg/Kg	☼	06/25/15 07:25	06/26/15 15:29	1
Benzo[b]fluoranthene	0.11	F2	0.039	0.0084	mg/Kg	☼	06/25/15 07:25	06/26/15 15:29	1
Benzo[k]fluoranthene	0.052		0.039	0.011	mg/Kg	☼	06/25/15 07:25	06/26/15 15:29	1
Benzo[a]pyrene	0.083		0.039	0.0075	mg/Kg	☼	06/25/15 07:25	06/26/15 15:29	1
Indeno[1,2,3-cd]pyrene	0.061		0.039	0.010	mg/Kg	☼	06/25/15 07:25	06/26/15 15:29	1
Dibenz(a,h)anthracene	0.019	J	0.039	0.0075	mg/Kg	☼	06/25/15 07:25	06/26/15 15:29	1
Benzo[g,h,i]perylene	0.071		0.039	0.013	mg/Kg	☼	06/25/15 07:25	06/26/15 15:29	1
3 & 4 Methylphenol	<0.20		0.20	0.065	mg/Kg	☼	06/25/15 07:25	06/26/15 15:29	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	65		25 - 110	06/25/15 07:25	06/26/15 15:29	1
Phenol-d5	64		31 - 110	06/25/15 07:25	06/26/15 15:29	1
Nitrobenzene-d5	61		25 - 115	06/25/15 07:25	06/26/15 15:29	1
2-Fluorobiphenyl	68		25 - 119	06/25/15 07:25	06/26/15 15:29	1
2,4,6-Tribromophenol	90		35 - 137	06/25/15 07:25	06/26/15 15:29	1
Terphenyl-d14	76		36 - 134	06/25/15 07:25	06/26/15 15:29	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.1		1.1	0.23	mg/Kg	☼	06/24/15 09:12	06/24/15 19:22	1
Arsenic	6.1		0.56	0.26	mg/Kg	☼	06/24/15 09:12	06/24/15 19:22	1
Barium	88		0.56	0.10	mg/Kg	☼	06/24/15 09:12	06/24/15 19:22	1
Beryllium	0.56		0.22	0.048	mg/Kg	☼	06/24/15 09:12	06/24/15 19:22	1
Boron	10		2.8	0.39	mg/Kg	☼	06/24/15 09:12	06/24/15 19:22	1
Cadmium	0.49		0.11	0.032	mg/Kg	☼	06/24/15 09:12	06/24/15 19:22	1
Calcium	47000		56	18	mg/Kg	☼	06/24/15 09:12	06/25/15 12:39	5
Chromium	16		0.56	0.096	mg/Kg	☼	06/24/15 09:12	06/24/15 19:22	1
Cobalt	12		0.28	0.063	mg/Kg	☼	06/24/15 09:12	06/24/15 19:22	1
Copper	29		0.56	0.12	mg/Kg	☼	06/24/15 09:12	06/24/15 19:22	1
Iron	17000	B	11	4.3	mg/Kg	☼	06/24/15 09:12	06/24/15 19:22	1
Lead	56		0.28	0.14	mg/Kg	☼	06/24/15 09:12	06/24/15 19:22	1
Magnesium	21000	B	5.6	2.3	mg/Kg	☼	06/24/15 09:12	06/24/15 19:22	1
Manganese	430	B	0.56	0.11	mg/Kg	☼	06/24/15 09:12	06/24/15 19:22	1
Nickel	27		0.56	0.15	mg/Kg	☼	06/24/15 09:12	06/24/15 19:22	1
Potassium	1800		28	4.5	mg/Kg	☼	06/24/15 09:12	06/24/15 19:22	1
Selenium	<0.56		0.56	0.28	mg/Kg	☼	06/24/15 09:12	06/24/15 19:22	1
Silver	<0.28		0.28	0.065	mg/Kg	☼	06/24/15 09:12	06/24/15 19:22	1
Sodium	370		56	7.4	mg/Kg	☼	06/24/15 09:12	06/24/15 19:22	1
Thallium	<0.56		0.56	0.27	mg/Kg	☼	06/24/15 09:12	06/24/15 19:22	1
Vanadium	17		0.28	0.081	mg/Kg	☼	06/24/15 09:12	06/24/15 19:22	1
Zinc	110	B	1.1	0.35	mg/Kg	☼	06/24/15 09:12	06/24/15 19:22	1

Method: 7471B - Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.045		0.018	0.0062	mg/Kg	☼	06/22/15 13:00	06/23/15 15:01	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97615-1

Client Sample ID: 1860-23-B26(6-8)

Lab Sample ID: 500-97615-2

Date Collected: 06/19/15 10:00

Matrix: Solid

Date Received: 06/19/15 17:05

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	-	06/24/15 09:00	06/24/15 18:20	1
Beryllium	<0.0040		0.0040	0.0040	mg/L	-	06/24/15 09:00	06/24/15 18:20	1
Boron	0.069	J	0.50	0.050	mg/L	-	06/24/15 09:00	06/24/15 18:20	1
Cadmium	0.0026	J	0.0050	0.0020	mg/L	-	06/24/15 09:00	06/24/15 18:20	1
Chromium	<0.025		0.025	0.010	mg/L	-	06/24/15 09:00	06/24/15 18:20	1
Cobalt	0.036		0.025	0.010	mg/L	-	06/24/15 09:00	06/24/15 18:20	1
Iron	<0.20		0.20	0.20	mg/L	-	06/24/15 09:00	06/24/15 18:20	1
Lead	<0.0075		0.0075	0.0075	mg/L	-	06/24/15 09:00	06/24/15 18:20	1
Manganese	10		0.025	0.010	mg/L	-	06/24/15 09:00	06/24/15 18:20	1
Nickel	0.030		0.025	0.010	mg/L	-	06/24/15 09:00	06/24/15 18:20	1
Selenium	<0.050		0.050	0.020	mg/L	-	06/24/15 09:00	06/24/15 18:20	1
Silver	<0.025		0.025	0.010	mg/L	-	06/24/15 09:00	06/24/15 18:20	1
Zinc	0.031	J B ^	0.10	0.020	mg/L	-	06/24/15 09:00	06/24/15 18:20	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.078		0.025	0.010	mg/L	-	06/29/15 10:35	06/30/15 12:00	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	-	06/24/15 09:00	06/24/15 18:32	1
Thallium	<0.0020		0.0020	0.0020	mg/L	-	06/24/15 09:00	06/24/15 18:32	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	-	06/24/15 09:30	06/24/15 13:50	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.39		0.200	0.200	SU	-		06/22/15 14:44	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97615-1

Client Sample ID: 1860-23-B26(6-8)

Lab Sample ID: 500-97615-2

Date Collected: 06/19/15 10:00

Matrix: Solid

Date Received: 06/19/15 17:05

Percent Solids: 78.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	0.0076		0.0047	0.0036	mg/Kg	☼	06/20/15 15:07	06/25/15 19:42	1
Benzene	<0.0047		0.0047	0.0010	mg/Kg	☼	06/20/15 15:07	06/25/15 19:42	1
Bromodichloromethane	<0.0047		0.0047	0.00079	mg/Kg	☼	06/20/15 15:07	06/25/15 19:42	1
Bromoform	<0.0047		0.0047	0.00095	mg/Kg	☼	06/20/15 15:07	06/25/15 19:42	1
Bromomethane	<0.0047 *		0.0047	0.0017	mg/Kg	☼	06/20/15 15:07	06/25/15 19:42	1
2-Butanone (MEK)	<0.0047		0.0047	0.0017	mg/Kg	☼	06/20/15 15:07	06/25/15 19:42	1
Carbon disulfide	<0.0047		0.0047	0.0017	mg/Kg	☼	06/20/15 15:07	06/25/15 19:42	1
Carbon tetrachloride	<0.0047		0.0047	0.0010	mg/Kg	☼	06/20/15 15:07	06/25/15 19:42	1
Chlorobenzene	<0.0047		0.0047	0.0011	mg/Kg	☼	06/20/15 15:07	06/25/15 19:42	1
Chloroethane	<0.0047 *		0.0047	0.0020	mg/Kg	☼	06/20/15 15:07	06/25/15 19:42	1
Chloroform	<0.0047		0.0047	0.00091	mg/Kg	☼	06/20/15 15:07	06/25/15 19:42	1
Chloromethane	<0.0047		0.0047	0.0011	mg/Kg	☼	06/20/15 15:07	06/25/15 19:42	1
cis-1,2-Dichloroethene	<0.0047		0.0047	0.00095	mg/Kg	☼	06/20/15 15:07	06/25/15 19:42	1
cis-1,3-Dichloropropene	<0.0047		0.0047	0.0011	mg/Kg	☼	06/20/15 15:07	06/25/15 19:42	1
Dibromochloromethane	<0.0047		0.0047	0.00054	mg/Kg	☼	06/20/15 15:07	06/25/15 19:42	1
1,1-Dichloroethane	<0.0047		0.0047	0.00096	mg/Kg	☼	06/20/15 15:07	06/25/15 19:42	1
1,2-Dichloroethane	<0.0047		0.0047	0.00069	mg/Kg	☼	06/20/15 15:07	06/25/15 19:42	1
1,1-Dichloroethene	<0.0047		0.0047	0.0017	mg/Kg	☼	06/20/15 15:07	06/25/15 19:42	1
1,2-Dichloropropane	<0.0047		0.0047	0.0012	mg/Kg	☼	06/20/15 15:07	06/25/15 19:42	1
1,3-Dichloropropane, Total	<0.0047		0.0047	0.0013	mg/Kg	☼	06/20/15 15:07	06/25/15 19:42	1
Ethylbenzene	<0.0047		0.0047	0.0012	mg/Kg	☼	06/20/15 15:07	06/25/15 19:42	1
2-Hexanone	<0.0047		0.0047	0.0014	mg/Kg	☼	06/20/15 15:07	06/25/15 19:42	1
Methylene Chloride	<0.0047		0.0047	0.0035	mg/Kg	☼	06/20/15 15:07	06/25/15 19:42	1
4-Methyl-2-pentanone (MIBK)	<0.0047		0.0047	0.00096	mg/Kg	☼	06/20/15 15:07	06/25/15 19:42	1
Methyl tert-butyl ether	<0.0047		0.0047	0.0011	mg/Kg	☼	06/20/15 15:07	06/25/15 19:42	1
Styrene	<0.0047		0.0047	0.0011	mg/Kg	☼	06/20/15 15:07	06/25/15 19:42	1
1,1,2,2-Tetrachloroethane	<0.0047		0.0047	0.00074	mg/Kg	☼	06/20/15 15:07	06/25/15 19:42	1
Tetrachloroethene	<0.0047		0.0047	0.00097	mg/Kg	☼	06/20/15 15:07	06/25/15 19:42	1
Toluene	<0.0047		0.0047	0.0016	mg/Kg	☼	06/20/15 15:07	06/25/15 19:42	1
trans-1,2-Dichloroethene	<0.0047		0.0047	0.0012	mg/Kg	☼	06/20/15 15:07	06/25/15 19:42	1
trans-1,3-Dichloropropene	<0.0047		0.0047	0.0013	mg/Kg	☼	06/20/15 15:07	06/25/15 19:42	1
1,1,1-Trichloroethane	<0.0047		0.0047	0.0011	mg/Kg	☼	06/20/15 15:07	06/25/15 19:42	1
1,1,2-Trichloroethane	<0.0047		0.0047	0.00090	mg/Kg	☼	06/20/15 15:07	06/25/15 19:42	1
Trichloroethene	<0.0047		0.0047	0.0013	mg/Kg	☼	06/20/15 15:07	06/25/15 19:42	1
Vinyl acetate	<0.0047		0.0047	0.0012	mg/Kg	☼	06/20/15 15:07	06/25/15 19:42	1
Vinyl chloride	<0.0047		0.0047	0.0011	mg/Kg	☼	06/20/15 15:07	06/25/15 19:42	1
Xylenes, Total	<0.0093		0.0093	0.0017	mg/Kg	☼	06/20/15 15:07	06/25/15 19:42	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	89		70 - 122	06/20/15 15:07	06/25/15 19:42	1
Dibromofluoromethane	108		75 - 120	06/20/15 15:07	06/25/15 19:42	1
1,2-Dichloroethane-d4 (Surr)	102		70 - 134	06/20/15 15:07	06/25/15 19:42	1
Toluene-d8 (Surr)	96		75 - 122	06/20/15 15:07	06/25/15 19:42	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	☼	06/25/15 07:25	06/26/15 15:51	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.060	mg/Kg	☼	06/25/15 07:25	06/26/15 15:51	1
1,3-Dichlorobenzene	<0.20		0.20	0.045	mg/Kg	☼	06/25/15 07:25	06/26/15 15:51	1
1,4-Dichlorobenzene	<0.20		0.20	0.051	mg/Kg	☼	06/25/15 07:25	06/26/15 15:51	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97615-1

Client Sample ID: 1860-23-B26(6-8)

Lab Sample ID: 500-97615-2

Date Collected: 06/19/15 10:00

Matrix: Solid

Date Received: 06/19/15 17:05

Percent Solids: 78.8

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	0.048	mg/Kg	☼	06/25/15 07:25	06/26/15 15:51	1
2-Methylphenol	<0.20		0.20	0.064	mg/Kg	☼	06/25/15 07:25	06/26/15 15:51	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.046	mg/Kg	☼	06/25/15 07:25	06/26/15 15:51	1
N-Nitrosodi-n-propylamine	<0.20		0.20	0.049	mg/Kg	☼	06/25/15 07:25	06/26/15 15:51	1
Hexachloroethane	<0.20		0.20	0.061	mg/Kg	☼	06/25/15 07:25	06/26/15 15:51	1
2-Chlorophenol	<0.20		0.20	0.068	mg/Kg	☼	06/25/15 07:25	06/26/15 15:51	1
Nitrobenzene	<0.040		0.040	0.010	mg/Kg	☼	06/25/15 07:25	06/26/15 15:51	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.041	mg/Kg	☼	06/25/15 07:25	06/26/15 15:51	1
1,2,4-Trichlorobenzene	<0.20		0.20	0.043	mg/Kg	☼	06/25/15 07:25	06/26/15 15:51	1
Isophorone	<0.20		0.20	0.045	mg/Kg	☼	06/25/15 07:25	06/26/15 15:51	1
2,4-Dimethylphenol	<0.40		0.40	0.15	mg/Kg	☼	06/25/15 07:25	06/26/15 15:51	1
Hexachlorobutadiene	<0.20		0.20	0.063	mg/Kg	☼	06/25/15 07:25	06/26/15 15:51	1
Naphthalene	<0.040		0.040	0.0062	mg/Kg	☼	06/25/15 07:25	06/26/15 15:51	1
2,4-Dichlorophenol	<0.40		0.40	0.095	mg/Kg	☼	06/25/15 07:25	06/26/15 15:51	1
4-Chloroaniline	<0.81		0.81	0.19	mg/Kg	☼	06/25/15 07:25	06/26/15 15:51	1
2,4,6-Trichlorophenol	<0.40		0.40	0.14	mg/Kg	☼	06/25/15 07:25	06/26/15 15:51	1
2,4,5-Trichlorophenol	<0.40		0.40	0.091	mg/Kg	☼	06/25/15 07:25	06/26/15 15:51	1
Hexachlorocyclopentadiene	<0.81		0.81	0.23	mg/Kg	☼	06/25/15 07:25	06/26/15 15:51	1
2-Methylnaphthalene	0.010	J	0.040	0.0074	mg/Kg	☼	06/25/15 07:25	06/26/15 15:51	1
2-Nitroaniline	<0.20		0.20	0.054	mg/Kg	☼	06/25/15 07:25	06/26/15 15:51	1
2-Chloronaphthalene	<0.20		0.20	0.044	mg/Kg	☼	06/25/15 07:25	06/26/15 15:51	1
4-Chloro-3-methylphenol	<0.40		0.40	0.14	mg/Kg	☼	06/25/15 07:25	06/26/15 15:51	1
2,6-Dinitrotoluene	<0.20		0.20	0.079	mg/Kg	☼	06/25/15 07:25	06/26/15 15:51	1
2-Nitrophenol	<0.40		0.40	0.095	mg/Kg	☼	06/25/15 07:25	06/26/15 15:51	1
3-Nitroaniline	<0.40		0.40	0.12	mg/Kg	☼	06/25/15 07:25	06/26/15 15:51	1
Dimethyl phthalate	<0.20		0.20	0.052	mg/Kg	☼	06/25/15 07:25	06/26/15 15:51	1
2,4-Dinitrophenol	<0.81		0.81	0.71	mg/Kg	☼	06/25/15 07:25	06/26/15 15:51	1
Acenaphthylene	<0.040		0.040	0.0053	mg/Kg	☼	06/25/15 07:25	06/26/15 15:51	1
2,4-Dinitrotoluene	<0.20		0.20	0.064	mg/Kg	☼	06/25/15 07:25	06/26/15 15:51	1
Acenaphthene	<0.040		0.040	0.0072	mg/Kg	☼	06/25/15 07:25	06/26/15 15:51	1
Dibenzofuran	<0.20		0.20	0.047	mg/Kg	☼	06/25/15 07:25	06/26/15 15:51	1
4-Nitrophenol	<0.81		0.81	0.38	mg/Kg	☼	06/25/15 07:25	06/26/15 15:51	1
Fluorene	<0.040		0.040	0.0056	mg/Kg	☼	06/25/15 07:25	06/26/15 15:51	1
4-Nitroaniline	<0.40		0.40	0.17	mg/Kg	☼	06/25/15 07:25	06/26/15 15:51	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.053	mg/Kg	☼	06/25/15 07:25	06/26/15 15:51	1
Hexachlorobenzene	<0.081		0.081	0.0093	mg/Kg	☼	06/25/15 07:25	06/26/15 15:51	1
Diethyl phthalate	<0.20		0.20	0.068	mg/Kg	☼	06/25/15 07:25	06/26/15 15:51	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.047	mg/Kg	☼	06/25/15 07:25	06/26/15 15:51	1
Pentachlorophenol	<0.81		0.81	0.64	mg/Kg	☼	06/25/15 07:25	06/26/15 15:51	1
N-Nitrosodiphenylamine	<0.20		0.20	0.047	mg/Kg	☼	06/25/15 07:25	06/26/15 15:51	1
4,6-Dinitro-2-methylphenol	<0.40		0.40	0.32	mg/Kg	☼	06/25/15 07:25	06/26/15 15:51	1
Phenanthrene	0.024	J	0.040	0.0056	mg/Kg	☼	06/25/15 07:25	06/26/15 15:51	1
Anthracene	<0.040		0.040	0.0067	mg/Kg	☼	06/25/15 07:25	06/26/15 15:51	1
Carbazole	<0.20		0.20	0.10	mg/Kg	☼	06/25/15 07:25	06/26/15 15:51	1
Di-n-butyl phthalate	<0.20		0.20	0.061	mg/Kg	☼	06/25/15 07:25	06/26/15 15:51	1
Fluoranthene	0.016	J	0.040	0.0074	mg/Kg	☼	06/25/15 07:25	06/26/15 15:51	1
Pyrene	0.016	J	0.040	0.0080	mg/Kg	☼	06/25/15 07:25	06/26/15 15:51	1
Butyl benzyl phthalate	<0.20		0.20	0.076	mg/Kg	☼	06/25/15 07:25	06/26/15 15:51	1
Benzo[a]anthracene	0.0090	J	0.040	0.0054	mg/Kg	☼	06/25/15 07:25	06/26/15 15:51	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97615-1

Client Sample ID: 1860-23-B26(6-8)

Lab Sample ID: 500-97615-2

Date Collected: 06/19/15 10:00

Matrix: Solid

Date Received: 06/19/15 17:05

Percent Solids: 78.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.015	J	0.040	0.011	mg/Kg	☼	06/25/15 07:25	06/26/15 15:51	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.056	mg/Kg	☼	06/25/15 07:25	06/26/15 15:51	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.073	mg/Kg	☼	06/25/15 07:25	06/26/15 15:51	1
Di-n-octyl phthalate	<0.20		0.20	0.065	mg/Kg	☼	06/25/15 07:25	06/26/15 15:51	1
Benzo[b]fluoranthene	0.010	J	0.040	0.0086	mg/Kg	☼	06/25/15 07:25	06/26/15 15:51	1
Benzo[k]fluoranthene	<0.040		0.040	0.012	mg/Kg	☼	06/25/15 07:25	06/26/15 15:51	1
Benzo[a]pyrene	0.0084	J	0.040	0.0078	mg/Kg	☼	06/25/15 07:25	06/26/15 15:51	1
Indeno[1,2,3-cd]pyrene	<0.040		0.040	0.010	mg/Kg	☼	06/25/15 07:25	06/26/15 15:51	1
Dibenz(a,h)anthracene	<0.040		0.040	0.0077	mg/Kg	☼	06/25/15 07:25	06/26/15 15:51	1
Benzo[g,h,i]perylene	<0.040		0.040	0.013	mg/Kg	☼	06/25/15 07:25	06/26/15 15:51	1
3 & 4 Methylphenol	<0.20		0.20	0.067	mg/Kg	☼	06/25/15 07:25	06/26/15 15:51	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	53		25 - 110	06/25/15 07:25	06/26/15 15:51	1
Phenol-d5	51		31 - 110	06/25/15 07:25	06/26/15 15:51	1
Nitrobenzene-d5	45		25 - 115	06/25/15 07:25	06/26/15 15:51	1
2-Fluorobiphenyl	56		25 - 119	06/25/15 07:25	06/26/15 15:51	1
2,4,6-Tribromophenol	61		35 - 137	06/25/15 07:25	06/26/15 15:51	1
Terphenyl-d14	76		36 - 134	06/25/15 07:25	06/26/15 15:51	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.1		1.1	0.23	mg/Kg	☼	06/24/15 09:12	06/24/15 19:27	1
Arsenic	7.8		0.54	0.25	mg/Kg	☼	06/24/15 09:12	06/24/15 19:27	1
Barium	64		0.54	0.10	mg/Kg	☼	06/24/15 09:12	06/24/15 19:27	1
Beryllium	0.60		0.22	0.047	mg/Kg	☼	06/24/15 09:12	06/24/15 19:27	1
Boron	10		2.7	0.38	mg/Kg	☼	06/24/15 09:12	06/24/15 19:27	1
Cadmium	0.24		0.11	0.032	mg/Kg	☼	06/24/15 09:12	06/24/15 19:27	1
Calcium	56000		54	18	mg/Kg	☼	06/24/15 09:12	06/25/15 12:43	5
Chromium	14		0.54	0.094	mg/Kg	☼	06/24/15 09:12	06/24/15 19:27	1
Cobalt	13		0.27	0.062	mg/Kg	☼	06/24/15 09:12	06/24/15 19:27	1
Copper	23		0.54	0.12	mg/Kg	☼	06/24/15 09:12	06/24/15 19:27	1
Iron	20000	B	11	4.2	mg/Kg	☼	06/24/15 09:12	06/24/15 19:27	1
Lead	18		0.27	0.14	mg/Kg	☼	06/24/15 09:12	06/24/15 19:27	1
Magnesium	27000	B	5.4	2.2	mg/Kg	☼	06/24/15 09:12	06/24/15 19:27	1
Manganese	520	B	0.54	0.11	mg/Kg	☼	06/24/15 09:12	06/24/15 19:27	1
Nickel	27		0.54	0.15	mg/Kg	☼	06/24/15 09:12	06/24/15 19:27	1
Potassium	1700		27	4.4	mg/Kg	☼	06/24/15 09:12	06/24/15 19:27	1
Selenium	0.36	J	0.54	0.27	mg/Kg	☼	06/24/15 09:12	06/24/15 19:27	1
Silver	<0.27		0.27	0.064	mg/Kg	☼	06/24/15 09:12	06/24/15 19:27	1
Sodium	300		54	7.2	mg/Kg	☼	06/24/15 09:12	06/24/15 19:27	1
Thallium	<0.54		0.54	0.27	mg/Kg	☼	06/24/15 09:12	06/24/15 19:27	1
Vanadium	19		0.27	0.079	mg/Kg	☼	06/24/15 09:12	06/24/15 19:27	1
Zinc	80	B	1.1	0.34	mg/Kg	☼	06/24/15 09:12	06/24/15 19:27	1

Method: 7471B - Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.029		0.020	0.0070	mg/Kg	☼	06/22/15 13:00	06/23/15 15:09	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97615-1

Client Sample ID: 1860-23-B08(0-2)

Lab Sample ID: 500-97615-5

Date Collected: 06/19/15 11:55

Matrix: Solid

Date Received: 06/19/15 17:05

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		06/24/15 09:00	06/24/15 18:35	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		06/24/15 09:00	06/24/15 18:35	1
Boron	0.64		0.50	0.050	mg/L		06/24/15 09:00	06/24/15 18:35	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		06/24/15 09:00	06/24/15 18:35	1
Chromium	<0.025		0.025	0.010	mg/L		06/24/15 09:00	06/24/15 18:35	1
Cobalt	<0.025		0.025	0.010	mg/L		06/24/15 09:00	06/24/15 18:35	1
Iron	<0.20		0.20	0.20	mg/L		06/24/15 09:00	06/24/15 18:35	1
Lead	<0.0075		0.0075	0.0075	mg/L		06/24/15 09:00	06/24/15 18:35	1
Manganese	1.3		0.025	0.010	mg/L		06/24/15 09:00	06/24/15 18:35	1
Nickel	0.013	J	0.025	0.010	mg/L		06/24/15 09:00	06/24/15 18:35	1
Selenium	0.022	J	0.050	0.020	mg/L		06/24/15 09:00	06/24/15 18:35	1
Silver	<0.025		0.025	0.010	mg/L		06/24/15 09:00	06/24/15 18:35	1
Zinc	0.31	B	0.10	0.020	mg/L		06/24/15 09:00	06/25/15 11:42	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	<0.025		0.025	0.010	mg/L		06/29/15 10:35	06/30/15 12:19	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		06/24/15 09:00	06/24/15 18:54	1
Thallium	<0.0020		0.0020	0.0020	mg/L		06/24/15 09:00	06/24/15 18:54	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		06/24/15 09:30	06/24/15 13:59	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.02		0.200	0.200	SU			06/22/15 14:50	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97615-1

Client Sample ID: 1860-23-B08(0-2)

Lab Sample ID: 500-97615-5

Date Collected: 06/19/15 11:55

Matrix: Solid

Date Received: 06/19/15 17:05

Percent Solids: 84.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.0046		0.0046	0.0035	mg/Kg	☼	06/20/15 15:07	06/25/15 20:54	1
Benzene	<0.0046		0.0046	0.0010	mg/Kg	☼	06/20/15 15:07	06/25/15 20:54	1
Bromodichloromethane	<0.0046		0.0046	0.00077	mg/Kg	☼	06/20/15 15:07	06/25/15 20:54	1
Bromoform	<0.0046		0.0046	0.00093	mg/Kg	☼	06/20/15 15:07	06/25/15 20:54	1
Bromomethane	<0.0046	*	0.0046	0.0017	mg/Kg	☼	06/20/15 15:07	06/25/15 20:54	1
2-Butanone (MEK)	<0.0046		0.0046	0.0016	mg/Kg	☼	06/20/15 15:07	06/25/15 20:54	1
Carbon disulfide	<0.0046		0.0046	0.0017	mg/Kg	☼	06/20/15 15:07	06/25/15 20:54	1
Carbon tetrachloride	<0.0046		0.0046	0.00098	mg/Kg	☼	06/20/15 15:07	06/25/15 20:54	1
Chlorobenzene	<0.0046		0.0046	0.0011	mg/Kg	☼	06/20/15 15:07	06/25/15 20:54	1
Chloroethane	<0.0046	*	0.0046	0.0019	mg/Kg	☼	06/20/15 15:07	06/25/15 20:54	1
Chloroform	<0.0046		0.0046	0.00089	mg/Kg	☼	06/20/15 15:07	06/25/15 20:54	1
Chloromethane	<0.0046		0.0046	0.0011	mg/Kg	☼	06/20/15 15:07	06/25/15 20:54	1
cis-1,2-Dichloroethene	<0.0046		0.0046	0.00093	mg/Kg	☼	06/20/15 15:07	06/25/15 20:54	1
cis-1,3-Dichloropropene	<0.0046		0.0046	0.0010	mg/Kg	☼	06/20/15 15:07	06/25/15 20:54	1
Dibromochloromethane	<0.0046		0.0046	0.00053	mg/Kg	☼	06/20/15 15:07	06/25/15 20:54	1
1,1-Dichloroethane	<0.0046		0.0046	0.00094	mg/Kg	☼	06/20/15 15:07	06/25/15 20:54	1
1,2-Dichloroethane	<0.0046		0.0046	0.00068	mg/Kg	☼	06/20/15 15:07	06/25/15 20:54	1
1,1-Dichloroethene	<0.0046		0.0046	0.0017	mg/Kg	☼	06/20/15 15:07	06/25/15 20:54	1
1,2-Dichloropropane	<0.0046		0.0046	0.0012	mg/Kg	☼	06/20/15 15:07	06/25/15 20:54	1
1,3-Dichloropropane, Total	<0.0046		0.0046	0.0013	mg/Kg	☼	06/20/15 15:07	06/25/15 20:54	1
Ethylbenzene	<0.0046		0.0046	0.0011	mg/Kg	☼	06/20/15 15:07	06/25/15 20:54	1
2-Hexanone	<0.0046		0.0046	0.0014	mg/Kg	☼	06/20/15 15:07	06/25/15 20:54	1
Methylene Chloride	<0.0046		0.0046	0.0035	mg/Kg	☼	06/20/15 15:07	06/25/15 20:54	1
4-Methyl-2-pentanone (MIBK)	<0.0046		0.0046	0.00094	mg/Kg	☼	06/20/15 15:07	06/25/15 20:54	1
Methyl tert-butyl ether	<0.0046		0.0046	0.0011	mg/Kg	☼	06/20/15 15:07	06/25/15 20:54	1
Styrene	<0.0046		0.0046	0.0011	mg/Kg	☼	06/20/15 15:07	06/25/15 20:54	1
1,1,2,2-Tetrachloroethane	<0.0046		0.0046	0.00073	mg/Kg	☼	06/20/15 15:07	06/25/15 20:54	1
Tetrachloroethene	<0.0046		0.0046	0.00095	mg/Kg	☼	06/20/15 15:07	06/25/15 20:54	1
Toluene	<0.0046		0.0046	0.0016	mg/Kg	☼	06/20/15 15:07	06/25/15 20:54	1
trans-1,2-Dichloroethene	<0.0046		0.0046	0.0011	mg/Kg	☼	06/20/15 15:07	06/25/15 20:54	1
trans-1,3-Dichloropropene	<0.0046		0.0046	0.0013	mg/Kg	☼	06/20/15 15:07	06/25/15 20:54	1
1,1,1-Trichloroethane	<0.0046		0.0046	0.0011	mg/Kg	☼	06/20/15 15:07	06/25/15 20:54	1
1,1,2-Trichloroethane	<0.0046		0.0046	0.00089	mg/Kg	☼	06/20/15 15:07	06/25/15 20:54	1
Trichloroethene	<0.0046		0.0046	0.0012	mg/Kg	☼	06/20/15 15:07	06/25/15 20:54	1
Vinyl acetate	<0.0046		0.0046	0.0012	mg/Kg	☼	06/20/15 15:07	06/25/15 20:54	1
Vinyl chloride	<0.0046		0.0046	0.0011	mg/Kg	☼	06/20/15 15:07	06/25/15 20:54	1
Xylenes, Total	<0.0092		0.0092	0.0017	mg/Kg	☼	06/20/15 15:07	06/25/15 20:54	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	84		70 - 122	06/20/15 15:07	06/25/15 20:54	1
Dibromofluoromethane	101		75 - 120	06/20/15 15:07	06/25/15 20:54	1
1,2-Dichloroethane-d4 (Surr)	95		70 - 134	06/20/15 15:07	06/25/15 20:54	1
Toluene-d8 (Surr)	97		75 - 122	06/20/15 15:07	06/25/15 20:54	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.19		0.19	0.083	mg/Kg	☼	06/25/15 07:25	06/26/15 16:55	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.056	mg/Kg	☼	06/25/15 07:25	06/26/15 16:55	1
1,3-Dichlorobenzene	<0.19		0.19	0.042	mg/Kg	☼	06/25/15 07:25	06/26/15 16:55	1
1,4-Dichlorobenzene	<0.19		0.19	0.048	mg/Kg	☼	06/25/15 07:25	06/26/15 16:55	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97615-1

Client Sample ID: 1860-23-B08(0-2)

Lab Sample ID: 500-97615-5

Date Collected: 06/19/15 11:55

Matrix: Solid

Date Received: 06/19/15 17:05

Percent Solids: 84.8

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	☼	06/25/15 07:25	06/26/15 16:55	1
2-Methylphenol	<0.19		0.19	0.060	mg/Kg	☼	06/25/15 07:25	06/26/15 16:55	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.043	mg/Kg	☼	06/25/15 07:25	06/26/15 16:55	1
N-Nitrosodi-n-propylamine	<0.19		0.19	0.045	mg/Kg	☼	06/25/15 07:25	06/26/15 16:55	1
Hexachloroethane	<0.19		0.19	0.057	mg/Kg	☼	06/25/15 07:25	06/26/15 16:55	1
2-Chlorophenol	<0.19		0.19	0.063	mg/Kg	☼	06/25/15 07:25	06/26/15 16:55	1
Nitrobenzene	<0.037		0.037	0.0093	mg/Kg	☼	06/25/15 07:25	06/26/15 16:55	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.038	mg/Kg	☼	06/25/15 07:25	06/26/15 16:55	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.040	mg/Kg	☼	06/25/15 07:25	06/26/15 16:55	1
Isophorone	<0.19		0.19	0.042	mg/Kg	☼	06/25/15 07:25	06/26/15 16:55	1
2,4-Dimethylphenol	<0.37		0.37	0.14	mg/Kg	☼	06/25/15 07:25	06/26/15 16:55	1
Hexachlorobutadiene	<0.19		0.19	0.058	mg/Kg	☼	06/25/15 07:25	06/26/15 16:55	1
Naphthalene	<0.037		0.037	0.0057	mg/Kg	☼	06/25/15 07:25	06/26/15 16:55	1
2,4-Dichlorophenol	<0.37		0.37	0.088	mg/Kg	☼	06/25/15 07:25	06/26/15 16:55	1
4-Chloroaniline	<0.75		0.75	0.17	mg/Kg	☼	06/25/15 07:25	06/26/15 16:55	1
2,4,6-Trichlorophenol	<0.37		0.37	0.13	mg/Kg	☼	06/25/15 07:25	06/26/15 16:55	1
2,4,5-Trichlorophenol	<0.37		0.37	0.085	mg/Kg	☼	06/25/15 07:25	06/26/15 16:55	1
Hexachlorocyclopentadiene	<0.75		0.75	0.21	mg/Kg	☼	06/25/15 07:25	06/26/15 16:55	1
2-Methylnaphthalene	<0.037		0.037	0.0068	mg/Kg	☼	06/25/15 07:25	06/26/15 16:55	1
2-Nitroaniline	<0.19		0.19	0.050	mg/Kg	☼	06/25/15 07:25	06/26/15 16:55	1
2-Chloronaphthalene	<0.19		0.19	0.041	mg/Kg	☼	06/25/15 07:25	06/26/15 16:55	1
4-Chloro-3-methylphenol	<0.37		0.37	0.13	mg/Kg	☼	06/25/15 07:25	06/26/15 16:55	1
2,6-Dinitrotoluene	<0.19		0.19	0.073	mg/Kg	☼	06/25/15 07:25	06/26/15 16:55	1
2-Nitrophenol	<0.37		0.37	0.088	mg/Kg	☼	06/25/15 07:25	06/26/15 16:55	1
3-Nitroaniline	<0.37		0.37	0.12	mg/Kg	☼	06/25/15 07:25	06/26/15 16:55	1
Dimethyl phthalate	<0.19		0.19	0.049	mg/Kg	☼	06/25/15 07:25	06/26/15 16:55	1
2,4-Dinitrophenol	<0.75		0.75	0.65	mg/Kg	☼	06/25/15 07:25	06/26/15 16:55	1
Acenaphthylene	<0.037		0.037	0.0049	mg/Kg	☼	06/25/15 07:25	06/26/15 16:55	1
2,4-Dinitrotoluene	<0.19		0.19	0.059	mg/Kg	☼	06/25/15 07:25	06/26/15 16:55	1
Acenaphthene	<0.037		0.037	0.0067	mg/Kg	☼	06/25/15 07:25	06/26/15 16:55	1
Dibenzofuran	<0.19		0.19	0.044	mg/Kg	☼	06/25/15 07:25	06/26/15 16:55	1
4-Nitrophenol	<0.75		0.75	0.35	mg/Kg	☼	06/25/15 07:25	06/26/15 16:55	1
Fluorene	<0.037		0.037	0.0052	mg/Kg	☼	06/25/15 07:25	06/26/15 16:55	1
4-Nitroaniline	<0.37		0.37	0.16	mg/Kg	☼	06/25/15 07:25	06/26/15 16:55	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.049	mg/Kg	☼	06/25/15 07:25	06/26/15 16:55	1
Hexachlorobenzene	<0.075		0.075	0.0086	mg/Kg	☼	06/25/15 07:25	06/26/15 16:55	1
Diethyl phthalate	<0.19		0.19	0.063	mg/Kg	☼	06/25/15 07:25	06/26/15 16:55	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.043	mg/Kg	☼	06/25/15 07:25	06/26/15 16:55	1
Pentachlorophenol	<0.75		0.75	0.60	mg/Kg	☼	06/25/15 07:25	06/26/15 16:55	1
N-Nitrosodiphenylamine	<0.19		0.19	0.044	mg/Kg	☼	06/25/15 07:25	06/26/15 16:55	1
4,6-Dinitro-2-methylphenol	<0.37		0.37	0.30	mg/Kg	☼	06/25/15 07:25	06/26/15 16:55	1
Phenanthrene	0.018	J	0.037	0.0052	mg/Kg	☼	06/25/15 07:25	06/26/15 16:55	1
Anthracene	<0.037		0.037	0.0062	mg/Kg	☼	06/25/15 07:25	06/26/15 16:55	1
Carbazole	<0.19		0.19	0.096	mg/Kg	☼	06/25/15 07:25	06/26/15 16:55	1
Di-n-butyl phthalate	<0.19		0.19	0.057	mg/Kg	☼	06/25/15 07:25	06/26/15 16:55	1
Fluoranthene	0.014	J	0.037	0.0069	mg/Kg	☼	06/25/15 07:25	06/26/15 16:55	1
Pyrene	0.020	J	0.037	0.0074	mg/Kg	☼	06/25/15 07:25	06/26/15 16:55	1
Butyl benzyl phthalate	<0.19		0.19	0.071	mg/Kg	☼	06/25/15 07:25	06/26/15 16:55	1
Benzo[a]anthracene	0.011	J	0.037	0.0050	mg/Kg	☼	06/25/15 07:25	06/26/15 16:55	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97615-1

Client Sample ID: 1860-23-B08(0-2)

Lab Sample ID: 500-97615-5

Date Collected: 06/19/15 11:55

Matrix: Solid

Date Received: 06/19/15 17:05

Percent Solids: 84.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.016	J	0.037	0.010	mg/Kg	☼	06/25/15 07:25	06/26/15 16:55	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.052	mg/Kg	☼	06/25/15 07:25	06/26/15 16:55	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.068	mg/Kg	☼	06/25/15 07:25	06/26/15 16:55	1
Di-n-octyl phthalate	<0.19		0.19	0.061	mg/Kg	☼	06/25/15 07:25	06/26/15 16:55	1
Benzo[b]fluoranthene	0.015	J	0.037	0.0080	mg/Kg	☼	06/25/15 07:25	06/26/15 16:55	1
Benzo[k]fluoranthene	<0.037		0.037	0.011	mg/Kg	☼	06/25/15 07:25	06/26/15 16:55	1
Benzo[a]pyrene	0.0099	J	0.037	0.0072	mg/Kg	☼	06/25/15 07:25	06/26/15 16:55	1
Indeno[1,2,3-cd]pyrene	<0.037		0.037	0.0096	mg/Kg	☼	06/25/15 07:25	06/26/15 16:55	1
Dibenz(a,h)anthracene	<0.037		0.037	0.0072	mg/Kg	☼	06/25/15 07:25	06/26/15 16:55	1
Benzo[g,h,i]perylene	0.018	J	0.037	0.012	mg/Kg	☼	06/25/15 07:25	06/26/15 16:55	1
3 & 4 Methylphenol	<0.19		0.19	0.062	mg/Kg	☼	06/25/15 07:25	06/26/15 16:55	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	65		25 - 110	06/25/15 07:25	06/26/15 16:55	1
Phenol-d5	60		31 - 110	06/25/15 07:25	06/26/15 16:55	1
Nitrobenzene-d5	68		25 - 115	06/25/15 07:25	06/26/15 16:55	1
2-Fluorobiphenyl	76		25 - 119	06/25/15 07:25	06/26/15 16:55	1
2,4,6-Tribromophenol	96		35 - 137	06/25/15 07:25	06/26/15 16:55	1
Terphenyl-d14	88		36 - 134	06/25/15 07:25	06/26/15 16:55	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.0		1.0	0.22	mg/Kg	☼	06/24/15 09:12	06/24/15 19:49	1
Arsenic	7.6		0.52	0.24	mg/Kg	☼	06/24/15 09:12	06/24/15 19:49	1
Barium	49		0.52	0.096	mg/Kg	☼	06/24/15 09:12	06/24/15 19:49	1
Beryllium	0.68		0.21	0.045	mg/Kg	☼	06/24/15 09:12	06/24/15 19:49	1
Boron	12		2.6	0.37	mg/Kg	☼	06/24/15 09:12	06/24/15 19:49	1
Cadmium	0.12		0.10	0.030	mg/Kg	☼	06/24/15 09:12	06/24/15 19:49	1
Calcium	62000		52	17	mg/Kg	☼	06/24/15 09:12	06/25/15 12:56	5
Chromium	17		0.52	0.090	mg/Kg	☼	06/24/15 09:12	06/24/15 19:49	1
Cobalt	14		0.26	0.059	mg/Kg	☼	06/24/15 09:12	06/24/15 19:49	1
Copper	25		0.52	0.11	mg/Kg	☼	06/24/15 09:12	06/24/15 19:49	1
Iron	20000	B	10	4.0	mg/Kg	☼	06/24/15 09:12	06/24/15 19:49	1
Lead	18		0.26	0.13	mg/Kg	☼	06/24/15 09:12	06/24/15 19:49	1
Magnesium	25000	B	5.2	2.1	mg/Kg	☼	06/24/15 09:12	06/24/15 19:49	1
Manganese	410	B	0.52	0.10	mg/Kg	☼	06/24/15 09:12	06/24/15 19:49	1
Nickel	36		0.52	0.14	mg/Kg	☼	06/24/15 09:12	06/24/15 19:49	1
Potassium	2400		26	4.3	mg/Kg	☼	06/24/15 09:12	06/24/15 19:49	1
Selenium	0.30	J	0.52	0.26	mg/Kg	☼	06/24/15 09:12	06/24/15 19:49	1
Silver	<0.26		0.26	0.061	mg/Kg	☼	06/24/15 09:12	06/24/15 19:49	1
Sodium	760		52	6.9	mg/Kg	☼	06/24/15 09:12	06/24/15 19:49	1
Thallium	<0.52		0.52	0.26	mg/Kg	☼	06/24/15 09:12	06/24/15 19:49	1
Vanadium	20		0.26	0.076	mg/Kg	☼	06/24/15 09:12	06/24/15 19:49	1
Zinc	68	B	1.0	0.33	mg/Kg	☼	06/24/15 09:12	06/24/15 19:49	1

Method: 7471B - Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.034		0.018	0.0062	mg/Kg	☼	06/22/15 13:00	06/23/15 15:19	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97615-1

Client Sample ID: 1860-23-B08(8-10)

Lab Sample ID: 500-97615-6

Date Collected: 06/19/15 12:00

Matrix: Solid

Date Received: 06/19/15 17:05

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	-	06/24/15 09:00	06/24/15 18:40	1
Beryllium	<0.0040		0.0040	0.0040	mg/L	-	06/24/15 09:00	06/24/15 18:40	1
Boron	0.83		0.50	0.050	mg/L	-	06/24/15 09:00	06/24/15 18:40	1
Cadmium	<0.0050		0.0050	0.0020	mg/L	-	06/24/15 09:00	06/24/15 18:40	1
Chromium	<0.025		0.025	0.010	mg/L	-	06/24/15 09:00	06/24/15 18:40	1
Cobalt	0.013	J	0.025	0.010	mg/L	-	06/24/15 09:00	06/24/15 18:40	1
Iron	<0.20		0.20	0.20	mg/L	-	06/24/15 09:00	06/24/15 18:40	1
Lead	<0.0075		0.0075	0.0075	mg/L	-	06/24/15 09:00	06/24/15 18:40	1
Manganese	2.0		0.025	0.010	mg/L	-	06/24/15 09:00	06/24/15 18:40	1
Nickel	0.025		0.025	0.010	mg/L	-	06/24/15 09:00	06/24/15 18:40	1
Selenium	<0.050		0.050	0.020	mg/L	-	06/24/15 09:00	06/24/15 18:40	1
Silver	<0.025		0.025	0.010	mg/L	-	06/24/15 09:00	06/24/15 18:40	1
Zinc	0.070	J B ^	0.10	0.020	mg/L	-	06/24/15 09:00	06/24/15 18:40	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.043		0.025	0.010	mg/L	-	06/29/15 10:35	06/30/15 12:23	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	-	06/24/15 09:00	06/24/15 18:58	1
Thallium	<0.0020		0.0020	0.0020	mg/L	-	06/24/15 09:00	06/24/15 18:58	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	-	06/24/15 09:30	06/24/15 14:01	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.22		0.200	0.200	SU	-		06/22/15 14:53	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97615-1

Client Sample ID: 1860-23-B08(8-10)

Lab Sample ID: 500-97615-6

Date Collected: 06/19/15 12:00

Matrix: Solid

Date Received: 06/19/15 17:05

Percent Solids: 84.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	0.010		0.0047	0.0036	mg/Kg	☼	06/20/15 15:07	06/25/15 21:19	1
Benzene	<0.0047		0.0047	0.0010	mg/Kg	☼	06/20/15 15:07	06/25/15 21:19	1
Bromodichloromethane	<0.0047		0.0047	0.00079	mg/Kg	☼	06/20/15 15:07	06/25/15 21:19	1
Bromoform	<0.0047		0.0047	0.00096	mg/Kg	☼	06/20/15 15:07	06/25/15 21:19	1
Bromomethane	<0.0047 *		0.0047	0.0017	mg/Kg	☼	06/20/15 15:07	06/25/15 21:19	1
2-Butanone (MEK)	<0.0047		0.0047	0.0017	mg/Kg	☼	06/20/15 15:07	06/25/15 21:19	1
Carbon disulfide	<0.0047		0.0047	0.0017	mg/Kg	☼	06/20/15 15:07	06/25/15 21:19	1
Carbon tetrachloride	<0.0047		0.0047	0.0010	mg/Kg	☼	06/20/15 15:07	06/25/15 21:19	1
Chlorobenzene	<0.0047		0.0047	0.0011	mg/Kg	☼	06/20/15 15:07	06/25/15 21:19	1
Chloroethane	<0.0047 *		0.0047	0.0020	mg/Kg	☼	06/20/15 15:07	06/25/15 21:19	1
Chloroform	<0.0047		0.0047	0.00091	mg/Kg	☼	06/20/15 15:07	06/25/15 21:19	1
Chloromethane	<0.0047		0.0047	0.0011	mg/Kg	☼	06/20/15 15:07	06/25/15 21:19	1
cis-1,2-Dichloroethene	<0.0047		0.0047	0.00096	mg/Kg	☼	06/20/15 15:07	06/25/15 21:19	1
cis-1,3-Dichloropropene	<0.0047		0.0047	0.0011	mg/Kg	☼	06/20/15 15:07	06/25/15 21:19	1
Dibromochloromethane	<0.0047		0.0047	0.00054	mg/Kg	☼	06/20/15 15:07	06/25/15 21:19	1
1,1-Dichloroethane	<0.0047		0.0047	0.00096	mg/Kg	☼	06/20/15 15:07	06/25/15 21:19	1
1,2-Dichloroethane	<0.0047		0.0047	0.00069	mg/Kg	☼	06/20/15 15:07	06/25/15 21:19	1
1,1-Dichloroethene	<0.0047		0.0047	0.0017	mg/Kg	☼	06/20/15 15:07	06/25/15 21:19	1
1,2-Dichloropropane	<0.0047		0.0047	0.0012	mg/Kg	☼	06/20/15 15:07	06/25/15 21:19	1
1,3-Dichloropropane, Total	<0.0047		0.0047	0.0013	mg/Kg	☼	06/20/15 15:07	06/25/15 21:19	1
Ethylbenzene	<0.0047		0.0047	0.0012	mg/Kg	☼	06/20/15 15:07	06/25/15 21:19	1
2-Hexanone	<0.0047		0.0047	0.0015	mg/Kg	☼	06/20/15 15:07	06/25/15 21:19	1
Methylene Chloride	<0.0047		0.0047	0.0035	mg/Kg	☼	06/20/15 15:07	06/25/15 21:19	1
4-Methyl-2-pentanone (MIBK)	<0.0047		0.0047	0.00096	mg/Kg	☼	06/20/15 15:07	06/25/15 21:19	1
Methyl tert-butyl ether	<0.0047		0.0047	0.0011	mg/Kg	☼	06/20/15 15:07	06/25/15 21:19	1
Styrene	<0.0047		0.0047	0.0011	mg/Kg	☼	06/20/15 15:07	06/25/15 21:19	1
1,1,2,2-Tetrachloroethane	<0.0047		0.0047	0.00074	mg/Kg	☼	06/20/15 15:07	06/25/15 21:19	1
Tetrachloroethene	<0.0047		0.0047	0.00097	mg/Kg	☼	06/20/15 15:07	06/25/15 21:19	1
Toluene	<0.0047		0.0047	0.0016	mg/Kg	☼	06/20/15 15:07	06/25/15 21:19	1
trans-1,2-Dichloroethene	<0.0047		0.0047	0.0012	mg/Kg	☼	06/20/15 15:07	06/25/15 21:19	1
trans-1,3-Dichloropropene	<0.0047		0.0047	0.0013	mg/Kg	☼	06/20/15 15:07	06/25/15 21:19	1
1,1,1-Trichloroethane	<0.0047		0.0047	0.0011	mg/Kg	☼	06/20/15 15:07	06/25/15 21:19	1
1,1,2-Trichloroethane	<0.0047		0.0047	0.00091	mg/Kg	☼	06/20/15 15:07	06/25/15 21:19	1
Trichloroethene	<0.0047		0.0047	0.0013	mg/Kg	☼	06/20/15 15:07	06/25/15 21:19	1
Vinyl acetate	<0.0047		0.0047	0.0013	mg/Kg	☼	06/20/15 15:07	06/25/15 21:19	1
Vinyl chloride	<0.0047		0.0047	0.0011	mg/Kg	☼	06/20/15 15:07	06/25/15 21:19	1
Xylenes, Total	<0.0094		0.0094	0.0017	mg/Kg	☼	06/20/15 15:07	06/25/15 21:19	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	88		70 - 122	06/20/15 15:07	06/25/15 21:19	1
Dibromofluoromethane	106		75 - 120	06/20/15 15:07	06/25/15 21:19	1
1,2-Dichloroethane-d4 (Surr)	99		70 - 134	06/20/15 15:07	06/25/15 21:19	1
Toluene-d8 (Surr)	96		75 - 122	06/20/15 15:07	06/25/15 21:19	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	☼	06/25/15 07:25	06/26/15 17:17	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.056	mg/Kg	☼	06/25/15 07:25	06/26/15 17:17	1
1,3-Dichlorobenzene	<0.19		0.19	0.042	mg/Kg	☼	06/25/15 07:25	06/26/15 17:17	1
1,4-Dichlorobenzene	<0.19		0.19	0.048	mg/Kg	☼	06/25/15 07:25	06/26/15 17:17	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97615-1

Client Sample ID: 1860-23-B08(8-10)

Lab Sample ID: 500-97615-6

Date Collected: 06/19/15 12:00

Matrix: Solid

Date Received: 06/19/15 17:05

Percent Solids: 84.4

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	☼	06/25/15 07:25	06/26/15 17:17	1
2-Methylphenol	<0.19		0.19	0.060	mg/Kg	☼	06/25/15 07:25	06/26/15 17:17	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.043	mg/Kg	☼	06/25/15 07:25	06/26/15 17:17	1
N-Nitrosodi-n-propylamine	<0.19		0.19	0.046	mg/Kg	☼	06/25/15 07:25	06/26/15 17:17	1
Hexachloroethane	<0.19		0.19	0.057	mg/Kg	☼	06/25/15 07:25	06/26/15 17:17	1
2-Chlorophenol	<0.19		0.19	0.064	mg/Kg	☼	06/25/15 07:25	06/26/15 17:17	1
Nitrobenzene	<0.037		0.037	0.0093	mg/Kg	☼	06/25/15 07:25	06/26/15 17:17	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.038	mg/Kg	☼	06/25/15 07:25	06/26/15 17:17	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.040	mg/Kg	☼	06/25/15 07:25	06/26/15 17:17	1
Isophorone	<0.19		0.19	0.042	mg/Kg	☼	06/25/15 07:25	06/26/15 17:17	1
2,4-Dimethylphenol	<0.37		0.37	0.14	mg/Kg	☼	06/25/15 07:25	06/26/15 17:17	1
Hexachlorobutadiene	<0.19		0.19	0.059	mg/Kg	☼	06/25/15 07:25	06/26/15 17:17	1
Naphthalene	<0.037		0.037	0.0058	mg/Kg	☼	06/25/15 07:25	06/26/15 17:17	1
2,4-Dichlorophenol	<0.37		0.37	0.089	mg/Kg	☼	06/25/15 07:25	06/26/15 17:17	1
4-Chloroaniline	<0.75		0.75	0.18	mg/Kg	☼	06/25/15 07:25	06/26/15 17:17	1
2,4,6-Trichlorophenol	<0.37		0.37	0.13	mg/Kg	☼	06/25/15 07:25	06/26/15 17:17	1
2,4,5-Trichlorophenol	<0.37		0.37	0.085	mg/Kg	☼	06/25/15 07:25	06/26/15 17:17	1
Hexachlorocyclopentadiene	<0.75		0.75	0.22	mg/Kg	☼	06/25/15 07:25	06/26/15 17:17	1
2-Methylnaphthalene	<0.037		0.037	0.0069	mg/Kg	☼	06/25/15 07:25	06/26/15 17:17	1
2-Nitroaniline	<0.19		0.19	0.050	mg/Kg	☼	06/25/15 07:25	06/26/15 17:17	1
2-Chloronaphthalene	<0.19		0.19	0.041	mg/Kg	☼	06/25/15 07:25	06/26/15 17:17	1
4-Chloro-3-methylphenol	<0.37		0.37	0.13	mg/Kg	☼	06/25/15 07:25	06/26/15 17:17	1
2,6-Dinitrotoluene	<0.19		0.19	0.074	mg/Kg	☼	06/25/15 07:25	06/26/15 17:17	1
2-Nitrophenol	<0.37		0.37	0.088	mg/Kg	☼	06/25/15 07:25	06/26/15 17:17	1
3-Nitroaniline	<0.37		0.37	0.12	mg/Kg	☼	06/25/15 07:25	06/26/15 17:17	1
Dimethyl phthalate	<0.19		0.19	0.049	mg/Kg	☼	06/25/15 07:25	06/26/15 17:17	1
2,4-Dinitrophenol	<0.75		0.75	0.66	mg/Kg	☼	06/25/15 07:25	06/26/15 17:17	1
Acenaphthylene	<0.037		0.037	0.0049	mg/Kg	☼	06/25/15 07:25	06/26/15 17:17	1
2,4-Dinitrotoluene	<0.19		0.19	0.059	mg/Kg	☼	06/25/15 07:25	06/26/15 17:17	1
Acenaphthene	<0.037		0.037	0.0067	mg/Kg	☼	06/25/15 07:25	06/26/15 17:17	1
Dibenzofuran	<0.19		0.19	0.044	mg/Kg	☼	06/25/15 07:25	06/26/15 17:17	1
4-Nitrophenol	<0.75		0.75	0.36	mg/Kg	☼	06/25/15 07:25	06/26/15 17:17	1
Fluorene	<0.037		0.037	0.0053	mg/Kg	☼	06/25/15 07:25	06/26/15 17:17	1
4-Nitroaniline	<0.37		0.37	0.16	mg/Kg	☼	06/25/15 07:25	06/26/15 17:17	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.049	mg/Kg	☼	06/25/15 07:25	06/26/15 17:17	1
Hexachlorobenzene	<0.075		0.075	0.0087	mg/Kg	☼	06/25/15 07:25	06/26/15 17:17	1
Diethyl phthalate	<0.19		0.19	0.063	mg/Kg	☼	06/25/15 07:25	06/26/15 17:17	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.044	mg/Kg	☼	06/25/15 07:25	06/26/15 17:17	1
Pentachlorophenol	<0.75		0.75	0.60	mg/Kg	☼	06/25/15 07:25	06/26/15 17:17	1
N-Nitrosodiphenylamine	<0.19		0.19	0.044	mg/Kg	☼	06/25/15 07:25	06/26/15 17:17	1
4,6-Dinitro-2-methylphenol	<0.37		0.37	0.30	mg/Kg	☼	06/25/15 07:25	06/26/15 17:17	1
Phenanthrene	0.015	J	0.037	0.0052	mg/Kg	☼	06/25/15 07:25	06/26/15 17:17	1
Anthracene	<0.037		0.037	0.0063	mg/Kg	☼	06/25/15 07:25	06/26/15 17:17	1
Carbazole	<0.19		0.19	0.097	mg/Kg	☼	06/25/15 07:25	06/26/15 17:17	1
Di-n-butyl phthalate	<0.19		0.19	0.057	mg/Kg	☼	06/25/15 07:25	06/26/15 17:17	1
Fluoranthene	<0.037		0.037	0.0069	mg/Kg	☼	06/25/15 07:25	06/26/15 17:17	1
Pyrene	<0.037		0.037	0.0074	mg/Kg	☼	06/25/15 07:25	06/26/15 17:17	1
Butyl benzyl phthalate	<0.19		0.19	0.071	mg/Kg	☼	06/25/15 07:25	06/26/15 17:17	1
Benzo[a]anthracene	<0.037		0.037	0.0050	mg/Kg	☼	06/25/15 07:25	06/26/15 17:17	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97615-1

Client Sample ID: 1860-23-B08(8-10)

Lab Sample ID: 500-97615-6

Date Collected: 06/19/15 12:00

Matrix: Solid

Date Received: 06/19/15 17:05

Percent Solids: 84.4

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	☼	06/25/15 07:25	06/26/15 17:17	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.052	mg/Kg	☼	06/25/15 07:25	06/26/15 17:17	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.068	mg/Kg	☼	06/25/15 07:25	06/26/15 17:17	1
Di-n-octyl phthalate	<0.19		0.19	0.061	mg/Kg	☼	06/25/15 07:25	06/26/15 17:17	1
Benzo[b]fluoranthene	<0.037		0.037	0.0081	mg/Kg	☼	06/25/15 07:25	06/26/15 17:17	1
Benzo[k]fluoranthene	<0.037		0.037	0.011	mg/Kg	☼	06/25/15 07:25	06/26/15 17:17	1
Benzo[a]pyrene	<0.037		0.037	0.0072	mg/Kg	☼	06/25/15 07:25	06/26/15 17:17	1
Indeno[1,2,3-cd]pyrene	<0.037		0.037	0.0097	mg/Kg	☼	06/25/15 07:25	06/26/15 17:17	1
Dibenz(a,h)anthracene	<0.037		0.037	0.0072	mg/Kg	☼	06/25/15 07:25	06/26/15 17:17	1
Benzo[g,h,i]perylene	<0.037		0.037	0.012	mg/Kg	☼	06/25/15 07:25	06/26/15 17:17	1
3 & 4 Methylphenol	<0.19		0.19	0.062	mg/Kg	☼	06/25/15 07:25	06/26/15 17:17	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	59		25 - 110	06/25/15 07:25	06/26/15 17:17	1
Phenol-d5	53		31 - 110	06/25/15 07:25	06/26/15 17:17	1
Nitrobenzene-d5	51		25 - 115	06/25/15 07:25	06/26/15 17:17	1
2-Fluorobiphenyl	59		25 - 119	06/25/15 07:25	06/26/15 17:17	1
2,4,6-Tribromophenol	73		35 - 137	06/25/15 07:25	06/26/15 17:17	1
Terphenyl-d14	69		36 - 134	06/25/15 07:25	06/26/15 17:17	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.1		1.1	0.23	mg/Kg	☼	06/24/15 09:12	06/24/15 19:54	1
Arsenic	8.5		0.55	0.25	mg/Kg	☼	06/24/15 09:12	06/24/15 19:54	1
Barium	54		0.55	0.10	mg/Kg	☼	06/24/15 09:12	06/24/15 19:54	1
Beryllium	0.72		0.22	0.048	mg/Kg	☼	06/24/15 09:12	06/24/15 19:54	1
Boron	11		2.7	0.38	mg/Kg	☼	06/24/15 09:12	06/24/15 19:54	1
Cadmium	0.067	J	0.11	0.032	mg/Kg	☼	06/24/15 09:12	06/24/15 19:54	1
Calcium	53000		55	18	mg/Kg	☼	06/24/15 09:12	06/25/15 13:00	5
Chromium	19		0.55	0.095	mg/Kg	☼	06/24/15 09:12	06/24/15 19:54	1
Cobalt	18		0.27	0.062	mg/Kg	☼	06/24/15 09:12	06/24/15 19:54	1
Copper	26		0.55	0.12	mg/Kg	☼	06/24/15 09:12	06/24/15 19:54	1
Iron	20000	B	11	4.2	mg/Kg	☼	06/24/15 09:12	06/24/15 19:54	1
Lead	14		0.27	0.14	mg/Kg	☼	06/24/15 09:12	06/24/15 19:54	1
Magnesium	21000	B	5.5	2.2	mg/Kg	☼	06/24/15 09:12	06/24/15 19:54	1
Manganese	360	B	0.55	0.11	mg/Kg	☼	06/24/15 09:12	06/24/15 19:54	1
Nickel	37		0.55	0.15	mg/Kg	☼	06/24/15 09:12	06/24/15 19:54	1
Potassium	2500		27	4.5	mg/Kg	☼	06/24/15 09:12	06/24/15 19:54	1
Selenium	0.41	J	0.55	0.27	mg/Kg	☼	06/24/15 09:12	06/24/15 19:54	1
Silver	<0.27		0.27	0.064	mg/Kg	☼	06/24/15 09:12	06/24/15 19:54	1
Sodium	140		55	7.3	mg/Kg	☼	06/24/15 09:12	06/24/15 19:54	1
Thallium	<0.55		0.55	0.27	mg/Kg	☼	06/24/15 09:12	06/24/15 19:54	1
Vanadium	20		0.27	0.080	mg/Kg	☼	06/24/15 09:12	06/24/15 19:54	1
Zinc	63	B	1.1	0.35	mg/Kg	☼	06/24/15 09:12	06/24/15 19:54	1

Method: 7471B - Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.031		0.018	0.0062	mg/Kg	☼	06/22/15 13:00	06/23/15 15:21	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97615-1

Client Sample ID: 1860-23-B06(4-6)

Lab Sample ID: 500-97615-7

Date Collected: 06/19/15 12:20

Matrix: Solid

Date Received: 06/19/15 17:05

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		06/24/15 09:00	06/24/15 18:45	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		06/24/15 09:00	06/24/15 18:45	1
Boron	1.2		0.50	0.050	mg/L		06/24/15 09:00	06/24/15 18:45	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		06/24/15 09:00	06/24/15 18:45	1
Chromium	<0.025		0.025	0.010	mg/L		06/24/15 09:00	06/24/15 18:45	1
Cobalt	<0.025		0.025	0.010	mg/L		06/24/15 09:00	06/24/15 18:45	1
Iron	<0.20		0.20	0.20	mg/L		06/24/15 09:00	06/24/15 18:45	1
Lead	<0.0075		0.0075	0.0075	mg/L		06/24/15 09:00	06/24/15 18:45	1
Manganese	1.8		0.025	0.010	mg/L		06/24/15 09:00	06/24/15 18:45	1
Nickel	0.018	J	0.025	0.010	mg/L		06/24/15 09:00	06/24/15 18:45	1
Selenium	<0.050		0.050	0.020	mg/L		06/24/15 09:00	06/24/15 18:45	1
Silver	<0.025		0.025	0.010	mg/L		06/24/15 09:00	06/24/15 18:45	1
Zinc	0.19	B	0.10	0.020	mg/L		06/24/15 09:00	06/25/15 11:47	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.083		0.025	0.010	mg/L		06/29/15 10:35	06/30/15 12:27	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		06/24/15 09:00	06/24/15 19:02	1
Thallium	<0.0020		0.0020	0.0020	mg/L		06/24/15 09:00	06/24/15 19:02	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		06/24/15 09:30	06/24/15 14:03	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.22		0.200	0.200	SU			06/22/15 14:55	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97615-1

Client Sample ID: 1860-23-B06(4-6)

Lab Sample ID: 500-97615-7

Date Collected: 06/19/15 12:20

Matrix: Solid

Date Received: 06/19/15 17:05

Percent Solids: 82.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.0048		0.0048	0.0037	mg/Kg	☼	06/20/15 15:07	06/25/15 21:44	1
Benzene	<0.0048		0.0048	0.0011	mg/Kg	☼	06/20/15 15:07	06/25/15 21:44	1
Bromodichloromethane	<0.0048		0.0048	0.00082	mg/Kg	☼	06/20/15 15:07	06/25/15 21:44	1
Bromoform	<0.0048		0.0048	0.00099	mg/Kg	☼	06/20/15 15:07	06/25/15 21:44	1
Bromomethane	<0.0048	*	0.0048	0.0018	mg/Kg	☼	06/20/15 15:07	06/25/15 21:44	1
2-Butanone (MEK)	<0.0048		0.0048	0.0017	mg/Kg	☼	06/20/15 15:07	06/25/15 21:44	1
Carbon disulfide	<0.0048		0.0048	0.0018	mg/Kg	☼	06/20/15 15:07	06/25/15 21:44	1
Carbon tetrachloride	<0.0048		0.0048	0.0010	mg/Kg	☼	06/20/15 15:07	06/25/15 21:44	1
Chlorobenzene	<0.0048		0.0048	0.0011	mg/Kg	☼	06/20/15 15:07	06/25/15 21:44	1
Chloroethane	<0.0048	*	0.0048	0.0020	mg/Kg	☼	06/20/15 15:07	06/25/15 21:44	1
Chloroform	<0.0048		0.0048	0.00094	mg/Kg	☼	06/20/15 15:07	06/25/15 21:44	1
Chloromethane	<0.0048		0.0048	0.0012	mg/Kg	☼	06/20/15 15:07	06/25/15 21:44	1
cis-1,2-Dichloroethene	<0.0048		0.0048	0.00099	mg/Kg	☼	06/20/15 15:07	06/25/15 21:44	1
cis-1,3-Dichloropropene	<0.0048		0.0048	0.0011	mg/Kg	☼	06/20/15 15:07	06/25/15 21:44	1
Dibromochloromethane	<0.0048		0.0048	0.00056	mg/Kg	☼	06/20/15 15:07	06/25/15 21:44	1
1,1-Dichloroethane	<0.0048		0.0048	0.0010	mg/Kg	☼	06/20/15 15:07	06/25/15 21:44	1
1,2-Dichloroethane	<0.0048		0.0048	0.00072	mg/Kg	☼	06/20/15 15:07	06/25/15 21:44	1
1,1-Dichloroethene	<0.0048		0.0048	0.0018	mg/Kg	☼	06/20/15 15:07	06/25/15 21:44	1
1,2-Dichloropropane	<0.0048		0.0048	0.0013	mg/Kg	☼	06/20/15 15:07	06/25/15 21:44	1
1,3-Dichloropropane, Total	<0.0048		0.0048	0.0014	mg/Kg	☼	06/20/15 15:07	06/25/15 21:44	1
Ethylbenzene	<0.0048		0.0048	0.0012	mg/Kg	☼	06/20/15 15:07	06/25/15 21:44	1
2-Hexanone	<0.0048		0.0048	0.0015	mg/Kg	☼	06/20/15 15:07	06/25/15 21:44	1
Methylene Chloride	<0.0048		0.0048	0.0037	mg/Kg	☼	06/20/15 15:07	06/25/15 21:44	1
4-Methyl-2-pentanone (MIBK)	<0.0048		0.0048	0.0010	mg/Kg	☼	06/20/15 15:07	06/25/15 21:44	1
Methyl tert-butyl ether	<0.0048		0.0048	0.0011	mg/Kg	☼	06/20/15 15:07	06/25/15 21:44	1
Styrene	<0.0048		0.0048	0.0011	mg/Kg	☼	06/20/15 15:07	06/25/15 21:44	1
1,1,2,2-Tetrachloroethane	<0.0048		0.0048	0.00077	mg/Kg	☼	06/20/15 15:07	06/25/15 21:44	1
Tetrachloroethene	<0.0048		0.0048	0.0010	mg/Kg	☼	06/20/15 15:07	06/25/15 21:44	1
Toluene	<0.0048		0.0048	0.0017	mg/Kg	☼	06/20/15 15:07	06/25/15 21:44	1
trans-1,2-Dichloroethene	<0.0048		0.0048	0.0012	mg/Kg	☼	06/20/15 15:07	06/25/15 21:44	1
trans-1,3-Dichloropropene	<0.0048		0.0048	0.0014	mg/Kg	☼	06/20/15 15:07	06/25/15 21:44	1
1,1,1-Trichloroethane	<0.0048		0.0048	0.0011	mg/Kg	☼	06/20/15 15:07	06/25/15 21:44	1
1,1,2-Trichloroethane	<0.0048		0.0048	0.00094	mg/Kg	☼	06/20/15 15:07	06/25/15 21:44	1
Trichloroethene	<0.0048		0.0048	0.0013	mg/Kg	☼	06/20/15 15:07	06/25/15 21:44	1
Vinyl acetate	<0.0048		0.0048	0.0013	mg/Kg	☼	06/20/15 15:07	06/25/15 21:44	1
Vinyl chloride	<0.0048		0.0048	0.0012	mg/Kg	☼	06/20/15 15:07	06/25/15 21:44	1
Xylenes, Total	<0.0097		0.0097	0.0018	mg/Kg	☼	06/20/15 15:07	06/25/15 21:44	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	90		70 - 122	06/20/15 15:07	06/25/15 21:44	1
Dibromofluoromethane	100		75 - 120	06/20/15 15:07	06/25/15 21:44	1
1,2-Dichloroethane-d4 (Surr)	99		70 - 134	06/20/15 15:07	06/25/15 21:44	1
Toluene-d8 (Surr)	96		75 - 122	06/20/15 15:07	06/25/15 21:44	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	☼	06/25/15 07:25	06/26/15 14:46	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.057	mg/Kg	☼	06/25/15 07:25	06/26/15 14:46	1
1,3-Dichlorobenzene	<0.19		0.19	0.042	mg/Kg	☼	06/25/15 07:25	06/26/15 14:46	1
1,4-Dichlorobenzene	<0.19		0.19	0.048	mg/Kg	☼	06/25/15 07:25	06/26/15 14:46	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97615-1

Client Sample ID: 1860-23-B06(4-6)

Lab Sample ID: 500-97615-7

Date Collected: 06/19/15 12:20

Matrix: Solid

Date Received: 06/19/15 17:05

Percent Solids: 82.7

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	0.045	mg/Kg	☼	06/25/15 07:25	06/26/15 14:46	1
2-Methylphenol	<0.19		0.19	0.061	mg/Kg	☼	06/25/15 07:25	06/26/15 14:46	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.044	mg/Kg	☼	06/25/15 07:25	06/26/15 14:46	1
N-Nitrosodi-n-propylamine	<0.19		0.19	0.046	mg/Kg	☼	06/25/15 07:25	06/26/15 14:46	1
Hexachloroethane	<0.19		0.19	0.057	mg/Kg	☼	06/25/15 07:25	06/26/15 14:46	1
2-Chlorophenol	<0.19		0.19	0.064	mg/Kg	☼	06/25/15 07:25	06/26/15 14:46	1
Nitrobenzene	<0.037		0.037	0.0094	mg/Kg	☼	06/25/15 07:25	06/26/15 14:46	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.039	mg/Kg	☼	06/25/15 07:25	06/26/15 14:46	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.041	mg/Kg	☼	06/25/15 07:25	06/26/15 14:46	1
Isophorone	<0.19		0.19	0.042	mg/Kg	☼	06/25/15 07:25	06/26/15 14:46	1
2,4-Dimethylphenol	<0.37		0.37	0.14	mg/Kg	☼	06/25/15 07:25	06/26/15 14:46	1
Hexachlorobutadiene	<0.19		0.19	0.059	mg/Kg	☼	06/25/15 07:25	06/26/15 14:46	1
Naphthalene	<0.037		0.037	0.0058	mg/Kg	☼	06/25/15 07:25	06/26/15 14:46	1
2,4-Dichlorophenol	<0.37		0.37	0.090	mg/Kg	☼	06/25/15 07:25	06/26/15 14:46	1
4-Chloroaniline	<0.76		0.76	0.18	mg/Kg	☼	06/25/15 07:25	06/26/15 14:46	1
2,4,6-Trichlorophenol	<0.37		0.37	0.13	mg/Kg	☼	06/25/15 07:25	06/26/15 14:46	1
2,4,5-Trichlorophenol	<0.37		0.37	0.086	mg/Kg	☼	06/25/15 07:25	06/26/15 14:46	1
Hexachlorocyclopentadiene	<0.76		0.76	0.22	mg/Kg	☼	06/25/15 07:25	06/26/15 14:46	1
2-Methylnaphthalene	0.0097	J	0.037	0.0069	mg/Kg	☼	06/25/15 07:25	06/26/15 14:46	1
2-Nitroaniline	<0.19		0.19	0.051	mg/Kg	☼	06/25/15 07:25	06/26/15 14:46	1
2-Chloronaphthalene	<0.19		0.19	0.042	mg/Kg	☼	06/25/15 07:25	06/26/15 14:46	1
4-Chloro-3-methylphenol	<0.37		0.37	0.13	mg/Kg	☼	06/25/15 07:25	06/26/15 14:46	1
2,6-Dinitrotoluene	<0.19		0.19	0.074	mg/Kg	☼	06/25/15 07:25	06/26/15 14:46	1
2-Nitrophenol	<0.37		0.37	0.089	mg/Kg	☼	06/25/15 07:25	06/26/15 14:46	1
3-Nitroaniline	<0.37		0.37	0.12	mg/Kg	☼	06/25/15 07:25	06/26/15 14:46	1
Dimethyl phthalate	<0.19		0.19	0.049	mg/Kg	☼	06/25/15 07:25	06/26/15 14:46	1
2,4-Dinitrophenol	<0.76		0.76	0.66	mg/Kg	☼	06/25/15 07:25	06/26/15 14:46	1
Acenaphthylene	<0.037		0.037	0.0050	mg/Kg	☼	06/25/15 07:25	06/26/15 14:46	1
2,4-Dinitrotoluene	<0.19		0.19	0.060	mg/Kg	☼	06/25/15 07:25	06/26/15 14:46	1
Acenaphthene	<0.037		0.037	0.0068	mg/Kg	☼	06/25/15 07:25	06/26/15 14:46	1
Dibenzofuran	<0.19		0.19	0.044	mg/Kg	☼	06/25/15 07:25	06/26/15 14:46	1
4-Nitrophenol	<0.76		0.76	0.36	mg/Kg	☼	06/25/15 07:25	06/26/15 14:46	1
Fluorene	<0.037		0.037	0.0053	mg/Kg	☼	06/25/15 07:25	06/26/15 14:46	1
4-Nitroaniline	<0.37		0.37	0.16	mg/Kg	☼	06/25/15 07:25	06/26/15 14:46	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.050	mg/Kg	☼	06/25/15 07:25	06/26/15 14:46	1
Hexachlorobenzene	<0.076		0.076	0.0087	mg/Kg	☼	06/25/15 07:25	06/26/15 14:46	1
Diethyl phthalate	<0.19		0.19	0.064	mg/Kg	☼	06/25/15 07:25	06/26/15 14:46	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.044	mg/Kg	☼	06/25/15 07:25	06/26/15 14:46	1
Pentachlorophenol	<0.76		0.76	0.61	mg/Kg	☼	06/25/15 07:25	06/26/15 14:46	1
N-Nitrosodiphenylamine	<0.19		0.19	0.045	mg/Kg	☼	06/25/15 07:25	06/26/15 14:46	1
4,6-Dinitro-2-methylphenol	<0.37		0.37	0.30	mg/Kg	☼	06/25/15 07:25	06/26/15 14:46	1
Phenanthrene	0.011	J	0.037	0.0053	mg/Kg	☼	06/25/15 07:25	06/26/15 14:46	1
Anthracene	<0.037		0.037	0.0063	mg/Kg	☼	06/25/15 07:25	06/26/15 14:46	1
Carbazole	<0.19		0.19	0.097	mg/Kg	☼	06/25/15 07:25	06/26/15 14:46	1
Di-n-butyl phthalate	<0.19		0.19	0.057	mg/Kg	☼	06/25/15 07:25	06/26/15 14:46	1
Fluoranthene	<0.037		0.037	0.0070	mg/Kg	☼	06/25/15 07:25	06/26/15 14:46	1
Pyrene	<0.037		0.037	0.0075	mg/Kg	☼	06/25/15 07:25	06/26/15 14:46	1
Butyl benzyl phthalate	<0.19		0.19	0.072	mg/Kg	☼	06/25/15 07:25	06/26/15 14:46	1
Benzo[a]anthracene	<0.037		0.037	0.0051	mg/Kg	☼	06/25/15 07:25	06/26/15 14:46	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97615-1

Client Sample ID: 1860-23-B06(4-6)

Lab Sample ID: 500-97615-7

Date Collected: 06/19/15 12:20

Matrix: Solid

Date Received: 06/19/15 17:05

Percent Solids: 82.7

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	☼	06/25/15 07:25	06/26/15 14:46	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.053	mg/Kg	☼	06/25/15 07:25	06/26/15 14:46	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.069	mg/Kg	☼	06/25/15 07:25	06/26/15 14:46	1
Di-n-octyl phthalate	<0.19		0.19	0.062	mg/Kg	☼	06/25/15 07:25	06/26/15 14:46	1
Benzo[b]fluoranthene	<0.037		0.037	0.0081	mg/Kg	☼	06/25/15 07:25	06/26/15 14:46	1
Benzo[k]fluoranthene	<0.037		0.037	0.011	mg/Kg	☼	06/25/15 07:25	06/26/15 14:46	1
Benzo[a]pyrene	<0.037		0.037	0.0073	mg/Kg	☼	06/25/15 07:25	06/26/15 14:46	1
Indeno[1,2,3-cd]pyrene	<0.037		0.037	0.0098	mg/Kg	☼	06/25/15 07:25	06/26/15 14:46	1
Dibenz(a,h)anthracene	<0.037		0.037	0.0073	mg/Kg	☼	06/25/15 07:25	06/26/15 14:46	1
Benzo[g,h,i]perylene	<0.037		0.037	0.012	mg/Kg	☼	06/25/15 07:25	06/26/15 14:46	1
3 & 4 Methylphenol	<0.19		0.19	0.063	mg/Kg	☼	06/25/15 07:25	06/26/15 14:46	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorophenol	41		25 - 110				06/25/15 07:25	06/26/15 14:46	1
Phenol-d5	36		31 - 110				06/25/15 07:25	06/26/15 14:46	1
Nitrobenzene-d5	39		25 - 115				06/25/15 07:25	06/26/15 14:46	1
2-Fluorobiphenyl	41		25 - 119				06/25/15 07:25	06/26/15 14:46	1
2,4,6-Tribromophenol	47		35 - 137				06/25/15 07:25	06/26/15 14:46	1
Terphenyl-d14	47		36 - 134				06/25/15 07:25	06/26/15 14:46	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.0		1.0	0.22	mg/Kg	☼	06/24/15 09:12	06/24/15 19:59	1
Arsenic	7.3		0.52	0.24	mg/Kg	☼	06/24/15 09:12	06/24/15 19:59	1
Barium	50		0.52	0.095	mg/Kg	☼	06/24/15 09:12	06/24/15 19:59	1
Beryllium	0.70		0.21	0.045	mg/Kg	☼	06/24/15 09:12	06/24/15 19:59	1
Boron	12		2.6	0.36	mg/Kg	☼	06/24/15 09:12	06/24/15 19:59	1
Cadmium	0.049	J	0.10	0.030	mg/Kg	☼	06/24/15 09:12	06/24/15 19:59	1
Calcium	56000		52	17	mg/Kg	☼	06/24/15 09:12	06/25/15 13:15	5
Chromium	19		0.52	0.090	mg/Kg	☼	06/24/15 09:12	06/24/15 19:59	1
Cobalt	12		0.26	0.059	mg/Kg	☼	06/24/15 09:12	06/24/15 19:59	1
Copper	25		0.52	0.11	mg/Kg	☼	06/24/15 09:12	06/24/15 19:59	1
Iron	20000	B	10	4.0	mg/Kg	☼	06/24/15 09:12	06/24/15 19:59	1
Lead	14		0.26	0.13	mg/Kg	☼	06/24/15 09:12	06/24/15 19:59	1
Magnesium	20000	B	5.2	2.1	mg/Kg	☼	06/24/15 09:12	06/24/15 19:59	1
Manganese	310	B	0.52	0.10	mg/Kg	☼	06/24/15 09:12	06/24/15 19:59	1
Nickel	36		0.52	0.14	mg/Kg	☼	06/24/15 09:12	06/24/15 19:59	1
Potassium	2500		26	4.3	mg/Kg	☼	06/24/15 09:12	06/24/15 19:59	1
Selenium	0.40	J	0.52	0.26	mg/Kg	☼	06/24/15 09:12	06/24/15 19:59	1
Silver	<0.26		0.26	0.061	mg/Kg	☼	06/24/15 09:12	06/24/15 19:59	1
Sodium	710		52	6.9	mg/Kg	☼	06/24/15 09:12	06/24/15 19:59	1
Thallium	<0.52		0.52	0.26	mg/Kg	☼	06/24/15 09:12	06/24/15 19:59	1
Vanadium	22		0.26	0.076	mg/Kg	☼	06/24/15 09:12	06/24/15 19:59	1
Zinc	61	B	1.0	0.33	mg/Kg	☼	06/24/15 09:12	06/24/15 19:59	1

Method: 7471B - Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.022		0.018	0.0063	mg/Kg	☼	06/22/15 13:00	06/23/15 15:23	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97615-1

Client Sample ID: 1860-23-B05(6-8)

Lab Sample ID: 500-97615-8

Date Collected: 06/19/15 13:30

Matrix: Solid

Date Received: 06/19/15 17:05

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.55		0.50	0.050	mg/L		06/24/15 09:00	06/24/15 18:57	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		06/24/15 09:00	06/24/15 18:57	1
Boron	0.96		0.50	0.050	mg/L		06/24/15 09:00	06/24/15 18:57	1
Cadmium	0.0026	J	0.0050	0.0020	mg/L		06/24/15 09:00	06/24/15 18:57	1
Chromium	<0.025		0.025	0.010	mg/L		06/24/15 09:00	06/24/15 18:57	1
Cobalt	0.016	J	0.025	0.010	mg/L		06/24/15 09:00	06/24/15 18:57	1
Iron	<0.20		0.20	0.20	mg/L		06/24/15 09:00	06/24/15 18:57	1
Lead	<0.0075		0.0075	0.0075	mg/L		06/24/15 09:00	06/24/15 18:57	1
Manganese	5.1		0.025	0.010	mg/L		06/24/15 09:00	06/24/15 18:57	1
Nickel	0.018	J	0.025	0.010	mg/L		06/24/15 09:00	06/24/15 18:57	1
Selenium	<0.050		0.050	0.020	mg/L		06/24/15 09:00	06/24/15 18:57	1
Silver	<0.025		0.025	0.010	mg/L		06/24/15 09:00	06/24/15 18:57	1
Zinc	0.092	J B ^	0.10	0.020	mg/L		06/24/15 09:00	06/24/15 18:57	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		06/29/15 10:35	06/30/15 12:31	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		06/24/15 09:00	06/24/15 19:06	1
Thallium	<0.0020		0.0020	0.0020	mg/L		06/24/15 09:00	06/24/15 19:06	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		06/24/15 09:30	06/24/15 14:05	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.06		0.200	0.200	SU			06/22/15 14:57	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97615-1

Client Sample ID: 1860-23-B05(6-8)

Lab Sample ID: 500-97615-8

Date Collected: 06/19/15 13:30

Matrix: Solid

Date Received: 06/19/15 17:05

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		0.0048	0.0037	mg/Kg	☼	06/20/15 15:07	06/25/15 22:08	1
Benzene	<0.0048		0.0048	0.0011	mg/Kg	☼	06/20/15 15:07	06/25/15 22:08	1
Bromodichloromethane	<0.0048		0.0048	0.00081	mg/Kg	☼	06/20/15 15:07	06/25/15 22:08	1
Bromoform	<0.0048		0.0048	0.00098	mg/Kg	☼	06/20/15 15:07	06/25/15 22:08	1
Bromomethane	<0.0048 *		0.0048	0.0018	mg/Kg	☼	06/20/15 15:07	06/25/15 22:08	1
2-Butanone (MEK)	<0.0048		0.0048	0.0017	mg/Kg	☼	06/20/15 15:07	06/25/15 22:08	1
Carbon disulfide	<0.0048		0.0048	0.0018	mg/Kg	☼	06/20/15 15:07	06/25/15 22:08	1
Carbon tetrachloride	<0.0048		0.0048	0.0010	mg/Kg	☼	06/20/15 15:07	06/25/15 22:08	1
Chlorobenzene	<0.0048		0.0048	0.0011	mg/Kg	☼	06/20/15 15:07	06/25/15 22:08	1
Chloroethane	<0.0048 *		0.0048	0.0020	mg/Kg	☼	06/20/15 15:07	06/25/15 22:08	1
Chloroform	<0.0048		0.0048	0.00094	mg/Kg	☼	06/20/15 15:07	06/25/15 22:08	1
Chloromethane	<0.0048		0.0048	0.0012	mg/Kg	☼	06/20/15 15:07	06/25/15 22:08	1
cis-1,2-Dichloroethene	<0.0048		0.0048	0.00098	mg/Kg	☼	06/20/15 15:07	06/25/15 22:08	1
cis-1,3-Dichloropropene	<0.0048		0.0048	0.0011	mg/Kg	☼	06/20/15 15:07	06/25/15 22:08	1
Dibromochloromethane	<0.0048		0.0048	0.00055	mg/Kg	☼	06/20/15 15:07	06/25/15 22:08	1
1,1-Dichloroethane	<0.0048		0.0048	0.00099	mg/Kg	☼	06/20/15 15:07	06/25/15 22:08	1
1,2-Dichloroethane	<0.0048		0.0048	0.00071	mg/Kg	☼	06/20/15 15:07	06/25/15 22:08	1
1,1-Dichloroethene	<0.0048		0.0048	0.0018	mg/Kg	☼	06/20/15 15:07	06/25/15 22:08	1
1,2-Dichloropropane	<0.0048		0.0048	0.0013	mg/Kg	☼	06/20/15 15:07	06/25/15 22:08	1
1,3-Dichloropropane, Total	<0.0048		0.0048	0.0014	mg/Kg	☼	06/20/15 15:07	06/25/15 22:08	1
Ethylbenzene	<0.0048		0.0048	0.0012	mg/Kg	☼	06/20/15 15:07	06/25/15 22:08	1
2-Hexanone	<0.0048		0.0048	0.0015	mg/Kg	☼	06/20/15 15:07	06/25/15 22:08	1
Methylene Chloride	<0.0048		0.0048	0.0036	mg/Kg	☼	06/20/15 15:07	06/25/15 22:08	1
4-Methyl-2-pentanone (MIBK)	<0.0048		0.0048	0.00099	mg/Kg	☼	06/20/15 15:07	06/25/15 22:08	1
Methyl tert-butyl ether	<0.0048		0.0048	0.0011	mg/Kg	☼	06/20/15 15:07	06/25/15 22:08	1
Styrene	<0.0048		0.0048	0.0011	mg/Kg	☼	06/20/15 15:07	06/25/15 22:08	1
1,1,2,2-Tetrachloroethane	<0.0048		0.0048	0.00076	mg/Kg	☼	06/20/15 15:07	06/25/15 22:08	1
Tetrachloroethene	<0.0048		0.0048	0.0010	mg/Kg	☼	06/20/15 15:07	06/25/15 22:08	1
Toluene	<0.0048		0.0048	0.0017	mg/Kg	☼	06/20/15 15:07	06/25/15 22:08	1
trans-1,2-Dichloroethene	<0.0048		0.0048	0.0012	mg/Kg	☼	06/20/15 15:07	06/25/15 22:08	1
trans-1,3-Dichloropropene	<0.0048		0.0048	0.0014	mg/Kg	☼	06/20/15 15:07	06/25/15 22:08	1
1,1,1-Trichloroethane	<0.0048		0.0048	0.0011	mg/Kg	☼	06/20/15 15:07	06/25/15 22:08	1
1,1,2-Trichloroethane	<0.0048		0.0048	0.00093	mg/Kg	☼	06/20/15 15:07	06/25/15 22:08	1
Trichloroethene	<0.0048		0.0048	0.0013	mg/Kg	☼	06/20/15 15:07	06/25/15 22:08	1
Vinyl acetate	<0.0048		0.0048	0.0013	mg/Kg	☼	06/20/15 15:07	06/25/15 22:08	1
Vinyl chloride	<0.0048		0.0048	0.0011	mg/Kg	☼	06/20/15 15:07	06/25/15 22:08	1
Xylenes, Total	<0.0096		0.0096	0.0018	mg/Kg	☼	06/20/15 15:07	06/25/15 22:08	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	86		70 - 122	06/20/15 15:07	06/25/15 22:08	1
Dibromofluoromethane	102		75 - 120	06/20/15 15:07	06/25/15 22:08	1
1,2-Dichloroethane-d4 (Surr)	98		70 - 134	06/20/15 15:07	06/25/15 22:08	1
Toluene-d8 (Surr)	93		75 - 122	06/20/15 15:07	06/25/15 22:08	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	☼	06/25/15 07:25	06/26/15 17:38	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.061	mg/Kg	☼	06/25/15 07:25	06/26/15 17:38	1
1,3-Dichlorobenzene	<0.20		0.20	0.046	mg/Kg	☼	06/25/15 07:25	06/26/15 17:38	1
1,4-Dichlorobenzene	<0.20		0.20	0.052	mg/Kg	☼	06/25/15 07:25	06/26/15 17:38	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97615-1

Client Sample ID: 1860-23-B05(6-8)

Lab Sample ID: 500-97615-8

Date Collected: 06/19/15 13:30

Matrix: Solid

Date Received: 06/19/15 17:05

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	☼	06/25/15 07:25	06/26/15 17:38	1
2-Methylphenol	<0.20		0.20	0.065	mg/Kg	☼	06/25/15 07:25	06/26/15 17:38	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.047	mg/Kg	☼	06/25/15 07:25	06/26/15 17:38	1
N-Nitrosodi-n-propylamine	<0.20		0.20	0.049	mg/Kg	☼	06/25/15 07:25	06/26/15 17:38	1
Hexachloroethane	<0.20		0.20	0.061	mg/Kg	☼	06/25/15 07:25	06/26/15 17:38	1
2-Chlorophenol	<0.20		0.20	0.069	mg/Kg	☼	06/25/15 07:25	06/26/15 17:38	1
Nitrobenzene	<0.040		0.040	0.010	mg/Kg	☼	06/25/15 07:25	06/26/15 17:38	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.041	mg/Kg	☼	06/25/15 07:25	06/26/15 17:38	1
1,2,4-Trichlorobenzene	<0.20		0.20	0.044	mg/Kg	☼	06/25/15 07:25	06/26/15 17:38	1
Isophorone	<0.20		0.20	0.045	mg/Kg	☼	06/25/15 07:25	06/26/15 17:38	1
2,4-Dimethylphenol	<0.40		0.40	0.15	mg/Kg	☼	06/25/15 07:25	06/26/15 17:38	1
Hexachlorobutadiene	<0.20		0.20	0.064	mg/Kg	☼	06/25/15 07:25	06/26/15 17:38	1
Naphthalene	<0.040		0.040	0.0062	mg/Kg	☼	06/25/15 07:25	06/26/15 17:38	1
2,4-Dichlorophenol	<0.40		0.40	0.096	mg/Kg	☼	06/25/15 07:25	06/26/15 17:38	1
4-Chloroaniline	<0.82		0.82	0.19	mg/Kg	☼	06/25/15 07:25	06/26/15 17:38	1
2,4,6-Trichlorophenol	<0.40		0.40	0.14	mg/Kg	☼	06/25/15 07:25	06/26/15 17:38	1
2,4,5-Trichlorophenol	<0.40		0.40	0.092	mg/Kg	☼	06/25/15 07:25	06/26/15 17:38	1
Hexachlorocyclopentadiene	<0.82		0.82	0.23	mg/Kg	☼	06/25/15 07:25	06/26/15 17:38	1
2-Methylnaphthalene	<0.040		0.040	0.0074	mg/Kg	☼	06/25/15 07:25	06/26/15 17:38	1
2-Nitroaniline	<0.20		0.20	0.054	mg/Kg	☼	06/25/15 07:25	06/26/15 17:38	1
2-Chloronaphthalene	<0.20		0.20	0.045	mg/Kg	☼	06/25/15 07:25	06/26/15 17:38	1
4-Chloro-3-methylphenol	<0.40		0.40	0.14	mg/Kg	☼	06/25/15 07:25	06/26/15 17:38	1
2,6-Dinitrotoluene	<0.20		0.20	0.079	mg/Kg	☼	06/25/15 07:25	06/26/15 17:38	1
2-Nitrophenol	<0.40		0.40	0.096	mg/Kg	☼	06/25/15 07:25	06/26/15 17:38	1
3-Nitroaniline	<0.40		0.40	0.13	mg/Kg	☼	06/25/15 07:25	06/26/15 17:38	1
Dimethyl phthalate	<0.20		0.20	0.053	mg/Kg	☼	06/25/15 07:25	06/26/15 17:38	1
2,4-Dinitrophenol	<0.82		0.82	0.71	mg/Kg	☼	06/25/15 07:25	06/26/15 17:38	1
Acenaphthylene	<0.040		0.040	0.0053	mg/Kg	☼	06/25/15 07:25	06/26/15 17:38	1
2,4-Dinitrotoluene	<0.20		0.20	0.064	mg/Kg	☼	06/25/15 07:25	06/26/15 17:38	1
Acenaphthene	<0.040		0.040	0.0073	mg/Kg	☼	06/25/15 07:25	06/26/15 17:38	1
Dibenzofuran	<0.20		0.20	0.047	mg/Kg	☼	06/25/15 07:25	06/26/15 17:38	1
4-Nitrophenol	<0.82		0.82	0.38	mg/Kg	☼	06/25/15 07:25	06/26/15 17:38	1
Fluorene	<0.040		0.040	0.0057	mg/Kg	☼	06/25/15 07:25	06/26/15 17:38	1
4-Nitroaniline	<0.40		0.40	0.17	mg/Kg	☼	06/25/15 07:25	06/26/15 17:38	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.053	mg/Kg	☼	06/25/15 07:25	06/26/15 17:38	1
Hexachlorobenzene	<0.082		0.082	0.0094	mg/Kg	☼	06/25/15 07:25	06/26/15 17:38	1
Diethyl phthalate	<0.20		0.20	0.069	mg/Kg	☼	06/25/15 07:25	06/26/15 17:38	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.047	mg/Kg	☼	06/25/15 07:25	06/26/15 17:38	1
Pentachlorophenol	<0.82		0.82	0.65	mg/Kg	☼	06/25/15 07:25	06/26/15 17:38	1
N-Nitrosodiphenylamine	<0.20		0.20	0.048	mg/Kg	☼	06/25/15 07:25	06/26/15 17:38	1
4,6-Dinitro-2-methylphenol	<0.40		0.40	0.32	mg/Kg	☼	06/25/15 07:25	06/26/15 17:38	1
Phenanthrene	0.030	J	0.040	0.0056	mg/Kg	☼	06/25/15 07:25	06/26/15 17:38	1
Anthracene	<0.040		0.040	0.0068	mg/Kg	☼	06/25/15 07:25	06/26/15 17:38	1
Carbazole	<0.20		0.20	0.10	mg/Kg	☼	06/25/15 07:25	06/26/15 17:38	1
Di-n-butyl phthalate	<0.20		0.20	0.062	mg/Kg	☼	06/25/15 07:25	06/26/15 17:38	1
Fluoranthene	0.050		0.040	0.0075	mg/Kg	☼	06/25/15 07:25	06/26/15 17:38	1
Pyrene	0.050		0.040	0.0080	mg/Kg	☼	06/25/15 07:25	06/26/15 17:38	1
Butyl benzyl phthalate	<0.20		0.20	0.077	mg/Kg	☼	06/25/15 07:25	06/26/15 17:38	1
Benzo[a]anthracene	0.026	J	0.040	0.0054	mg/Kg	☼	06/25/15 07:25	06/26/15 17:38	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97615-1

Client Sample ID: 1860-23-B05(6-8)

Lab Sample ID: 500-97615-8

Date Collected: 06/19/15 13:30

Matrix: Solid

Date Received: 06/19/15 17:05

Percent Solids: 81.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.033	J	0.040	0.011	mg/Kg	☼	06/25/15 07:25	06/26/15 17:38	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.057	mg/Kg	☼	06/25/15 07:25	06/26/15 17:38	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.074	mg/Kg	☼	06/25/15 07:25	06/26/15 17:38	1
Di-n-octyl phthalate	<0.20		0.20	0.066	mg/Kg	☼	06/25/15 07:25	06/26/15 17:38	1
Benzo[b]fluoranthene	0.032	J	0.040	0.0087	mg/Kg	☼	06/25/15 07:25	06/26/15 17:38	1
Benzo[k]fluoranthene	0.014	J	0.040	0.012	mg/Kg	☼	06/25/15 07:25	06/26/15 17:38	1
Benzo[a]pyrene	0.028	J	0.040	0.0078	mg/Kg	☼	06/25/15 07:25	06/26/15 17:38	1
Indeno[1,2,3-cd]pyrene	0.017	J	0.040	0.010	mg/Kg	☼	06/25/15 07:25	06/26/15 17:38	1
Dibenz(a,h)anthracene	<0.040		0.040	0.0078	mg/Kg	☼	06/25/15 07:25	06/26/15 17:38	1
Benzo[g,h,i]perylene	0.031	J	0.040	0.013	mg/Kg	☼	06/25/15 07:25	06/26/15 17:38	1
3 & 4 Methylphenol	<0.20		0.20	0.067	mg/Kg	☼	06/25/15 07:25	06/26/15 17:38	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	42		25 - 110	06/25/15 07:25	06/26/15 17:38	1
Phenol-d5	43		31 - 110	06/25/15 07:25	06/26/15 17:38	1
Nitrobenzene-d5	45		25 - 115	06/25/15 07:25	06/26/15 17:38	1
2-Fluorobiphenyl	51		25 - 119	06/25/15 07:25	06/26/15 17:38	1
2,4,6-Tribromophenol	58		35 - 137	06/25/15 07:25	06/26/15 17:38	1
Terphenyl-d14	55		36 - 134	06/25/15 07:25	06/26/15 17:38	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.1		1.1	0.23	mg/Kg	☼	06/24/15 09:12	06/24/15 20:04	1
Arsenic	6.8		0.55	0.25	mg/Kg	☼	06/24/15 09:12	06/24/15 20:04	1
Barium	54		0.55	0.10	mg/Kg	☼	06/24/15 09:12	06/24/15 20:04	1
Beryllium	0.67		0.22	0.048	mg/Kg	☼	06/24/15 09:12	06/24/15 20:04	1
Boron	10		2.8	0.39	mg/Kg	☼	06/24/15 09:12	06/24/15 20:04	1
Cadmium	0.19		0.11	0.032	mg/Kg	☼	06/24/15 09:12	06/24/15 20:04	1
Calcium	47000		55	18	mg/Kg	☼	06/24/15 09:12	06/25/15 13:19	5
Chromium	17		0.55	0.095	mg/Kg	☼	06/24/15 09:12	06/24/15 20:04	1
Cobalt	12		0.28	0.062	mg/Kg	☼	06/24/15 09:12	06/24/15 20:04	1
Copper	25		0.55	0.12	mg/Kg	☼	06/24/15 09:12	06/24/15 20:04	1
Iron	18000	B	11	4.3	mg/Kg	☼	06/24/15 09:12	06/24/15 20:04	1
Lead	20		0.28	0.14	mg/Kg	☼	06/24/15 09:12	06/24/15 20:04	1
Magnesium	19000	B	5.5	2.2	mg/Kg	☼	06/24/15 09:12	06/24/15 20:04	1
Manganese	330	B	0.55	0.11	mg/Kg	☼	06/24/15 09:12	06/24/15 20:04	1
Nickel	32		0.55	0.15	mg/Kg	☼	06/24/15 09:12	06/24/15 20:04	1
Potassium	2000		28	4.5	mg/Kg	☼	06/24/15 09:12	06/24/15 20:04	1
Selenium	0.45	J	0.55	0.27	mg/Kg	☼	06/24/15 09:12	06/24/15 20:04	1
Silver	<0.28		0.28	0.065	mg/Kg	☼	06/24/15 09:12	06/24/15 20:04	1
Sodium	940		55	7.3	mg/Kg	☼	06/24/15 09:12	06/24/15 20:04	1
Thallium	<0.55		0.55	0.27	mg/Kg	☼	06/24/15 09:12	06/24/15 20:04	1
Vanadium	21		0.28	0.081	mg/Kg	☼	06/24/15 09:12	06/24/15 20:04	1
Zinc	67	B	1.1	0.35	mg/Kg	☼	06/24/15 09:12	06/24/15 20:04	1

Method: 7471B - Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.039		0.018	0.0061	mg/Kg	☼	06/22/15 13:00	06/23/15 15:25	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97615-1

Client Sample ID: 1860-23-B05(12-14)

Lab Sample ID: 500-97615-9

Date Collected: 06/19/15 13:35

Matrix: Solid

Date Received: 06/19/15 17:05

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	-	06/24/15 09:00	06/24/15 19:02	1
Beryllium	<0.0040		0.0040	0.0040	mg/L	-	06/24/15 09:00	06/24/15 19:02	1
Boron	0.65		0.50	0.050	mg/L	-	06/24/15 09:00	06/24/15 19:02	1
Cadmium	<0.0050		0.0050	0.0020	mg/L	-	06/24/15 09:00	06/24/15 19:02	1
Chromium	<0.025		0.025	0.010	mg/L	-	06/24/15 09:00	06/24/15 19:02	1
Cobalt	0.034		0.025	0.010	mg/L	-	06/24/15 09:00	06/24/15 19:02	1
Iron	<0.20		0.20	0.20	mg/L	-	06/24/15 09:00	06/24/15 19:02	1
Lead	<0.0075		0.0075	0.0075	mg/L	-	06/24/15 09:00	06/24/15 19:02	1
Manganese	1.7		0.025	0.010	mg/L	-	06/24/15 09:00	06/24/15 19:02	1
Nickel	0.071		0.025	0.010	mg/L	-	06/24/15 09:00	06/24/15 19:02	1
Selenium	0.020	J	0.050	0.020	mg/L	-	06/24/15 09:00	06/24/15 19:02	1
Silver	<0.025		0.025	0.010	mg/L	-	06/24/15 09:00	06/24/15 19:02	1
Zinc	0.33	B	0.10	0.020	mg/L	-	06/24/15 09:00	06/25/15 11:52	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.022	J	0.025	0.010	mg/L	-	06/29/15 10:35	06/30/15 12:35	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	-	06/24/15 09:00	06/24/15 19:10	1
Thallium	<0.0020		0.0020	0.0020	mg/L	-	06/24/15 09:00	06/24/15 19:10	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	-	06/24/15 09:30	06/24/15 14:07	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.96		0.200	0.200	SU	-		06/22/15 14:59	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97615-1

Client Sample ID: 1860-23-B05(12-14)

Lab Sample ID: 500-97615-9

Date Collected: 06/19/15 13:35

Matrix: Solid

Date Received: 06/19/15 17:05

Percent Solids: 89.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.26		0.26	0.069	mg/Kg	☼	06/19/15 13:35	07/01/15 16:37	50
Benzene	<0.013		0.013	0.0039	mg/Kg	☼	06/19/15 13:35	07/01/15 16:37	50
Bromodichloromethane	<0.11		0.11	0.018	mg/Kg	☼	06/19/15 13:35	07/01/15 16:37	50
Bromoform	<0.11		0.11	0.023	mg/Kg	☼	06/19/15 13:35	07/01/15 16:37	50
Bromomethane	<0.11		0.11	0.036	mg/Kg	☼	06/19/15 13:35	07/01/15 16:37	50
2-Butanone (MEK)	<0.26		0.26	0.078	mg/Kg	☼	06/19/15 13:35	07/01/15 16:37	50
Carbon disulfide	<0.26		0.26	0.023	mg/Kg	☼	06/19/15 13:35	07/01/15 16:37	50
Carbon tetrachloride	<0.053		0.053	0.014	mg/Kg	☼	06/19/15 13:35	07/01/15 16:37	50
Chlorobenzene	<0.053		0.053	0.0076	mg/Kg	☼	06/19/15 13:35	07/01/15 16:37	50
Chloroethane	<0.11		0.11	0.023	mg/Kg	☼	06/19/15 13:35	07/01/15 16:37	50
Chloroform	<0.053		0.053	0.011	mg/Kg	☼	06/19/15 13:35	07/01/15 16:37	50
Chloromethane	<0.11		0.11	0.024	mg/Kg	☼	06/19/15 13:35	07/01/15 16:37	50
cis-1,2-Dichloroethene	<0.053		0.053	0.0065	mg/Kg	☼	06/19/15 13:35	07/01/15 16:37	50
cis-1,3-Dichloropropene	<0.053		0.053	0.0094	mg/Kg	☼	06/19/15 13:35	07/01/15 16:37	50
Dibromochloromethane	<0.11		0.11	0.018	mg/Kg	☼	06/19/15 13:35	07/01/15 16:37	50
1,1-Dichloroethane	<0.053		0.053	0.0098	mg/Kg	☼	06/19/15 13:35	07/01/15 16:37	50
1,2-Dichloroethane	<0.053		0.053	0.015	mg/Kg	☼	06/19/15 13:35	07/01/15 16:37	50
1,1-Dichloroethene	<0.053		0.053	0.016	mg/Kg	☼	06/19/15 13:35	07/01/15 16:37	50
1,2-Dichloropropane	<0.053		0.053	0.010	mg/Kg	☼	06/19/15 13:35	07/01/15 16:37	50
1,3-Dichloropropane, Total	<0.053		0.053	0.0094	mg/Kg	☼	06/19/15 13:35	07/01/15 16:37	50
Ethylbenzene	<0.013		0.013	0.0067	mg/Kg	☼	06/19/15 13:35	07/01/15 16:37	50
2-Hexanone	<0.26		0.26	0.030	mg/Kg	☼	06/19/15 13:35	07/01/15 16:37	50
Methylene Chloride	<0.26		0.26	0.036	mg/Kg	☼	06/19/15 13:35	07/01/15 16:37	50
4-Methyl-2-pentanone (MIBK)	<0.26		0.26	0.018	mg/Kg	☼	06/19/15 13:35	07/01/15 16:37	50
Methyl tert-butyl ether	<0.11		0.11	0.023	mg/Kg	☼	06/19/15 13:35	07/01/15 16:37	50
Styrene	<0.053		0.053	0.0052	mg/Kg	☼	06/19/15 13:35	07/01/15 16:37	50
1,1,2,2-Tetrachloroethane	<0.053		0.053	0.012	mg/Kg	☼	06/19/15 13:35	07/01/15 16:37	50
Tetrachloroethene	<0.053		0.053	0.0088	mg/Kg	☼	06/19/15 13:35	07/01/15 16:37	50
Toluene	<0.013		0.013	0.0061	mg/Kg	☼	06/19/15 13:35	07/01/15 16:37	50
trans-1,2-Dichloroethene	<0.053		0.053	0.013	mg/Kg	☼	06/19/15 13:35	07/01/15 16:37	50
trans-1,3-Dichloropropene	<0.053		0.053	0.011	mg/Kg	☼	06/19/15 13:35	07/01/15 16:37	50
1,1,1-Trichloroethane	<0.053		0.053	0.011	mg/Kg	☼	06/19/15 13:35	07/01/15 16:37	50
1,1,2-Trichloroethane	<0.053		0.053	0.015	mg/Kg	☼	06/19/15 13:35	07/01/15 16:37	50
Trichloroethene	<0.026		0.026	0.0098	mg/Kg	☼	06/19/15 13:35	07/01/15 16:37	50
Vinyl acetate	<0.11		0.11	0.018	mg/Kg	☼	06/19/15 13:35	07/01/15 16:37	50
Vinyl chloride	<0.013		0.013	0.0055	mg/Kg	☼	06/19/15 13:35	07/01/15 16:37	50
Xylenes, Total	<0.026		0.026	0.0036	mg/Kg	☼	06/19/15 13:35	07/01/15 16:37	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	90		75 - 120	06/19/15 13:35	07/01/15 16:37	50
Dibromofluoromethane	96		75 - 120	06/19/15 13:35	07/01/15 16:37	50
1,2-Dichloroethane-d4 (Surr)	88		75 - 125	06/19/15 13:35	07/01/15 16:37	50
Toluene-d8 (Surr)	98		75 - 120	06/19/15 13:35	07/01/15 16:37	50

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	☼	06/25/15 07:25	06/26/15 18:00	1
Bis(2-chloroethyl)ether	<0.18		0.18	0.053	mg/Kg	☼	06/25/15 07:25	06/26/15 18:00	1
1,3-Dichlorobenzene	<0.18		0.18	0.040	mg/Kg	☼	06/25/15 07:25	06/26/15 18:00	1
1,4-Dichlorobenzene	<0.18		0.18	0.045	mg/Kg	☼	06/25/15 07:25	06/26/15 18:00	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97615-1

Client Sample ID: 1860-23-B05(12-14)

Lab Sample ID: 500-97615-9

Date Collected: 06/19/15 13:35

Matrix: Solid

Date Received: 06/19/15 17:05

Percent Solids: 89.3

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	☼	06/25/15 07:25	06/26/15 18:00	1
2-Methylphenol	<0.18		0.18	0.056	mg/Kg	☼	06/25/15 07:25	06/26/15 18:00	1
2,2'-oxybis[1-chloropropane]	<0.18		0.18	0.041	mg/Kg	☼	06/25/15 07:25	06/26/15 18:00	1
N-Nitrosodi-n-propylamine	<0.18		0.18	0.043	mg/Kg	☼	06/25/15 07:25	06/26/15 18:00	1
Hexachloroethane	<0.18		0.18	0.053	mg/Kg	☼	06/25/15 07:25	06/26/15 18:00	1
2-Chlorophenol	<0.18		0.18	0.060	mg/Kg	☼	06/25/15 07:25	06/26/15 18:00	1
Nitrobenzene	<0.035		0.035	0.0088	mg/Kg	☼	06/25/15 07:25	06/26/15 18:00	1
Bis(2-chloroethoxy)methane	<0.18		0.18	0.036	mg/Kg	☼	06/25/15 07:25	06/26/15 18:00	1
1,2,4-Trichlorobenzene	<0.18		0.18	0.038	mg/Kg	☼	06/25/15 07:25	06/26/15 18:00	1
Isophorone	<0.18		0.18	0.039	mg/Kg	☼	06/25/15 07:25	06/26/15 18:00	1
2,4-Dimethylphenol	<0.35		0.35	0.13	mg/Kg	☼	06/25/15 07:25	06/26/15 18:00	1
Hexachlorobutadiene	<0.18		0.18	0.055	mg/Kg	☼	06/25/15 07:25	06/26/15 18:00	1
Naphthalene	<0.035		0.035	0.0054	mg/Kg	☼	06/25/15 07:25	06/26/15 18:00	1
2,4-Dichlorophenol	<0.35		0.35	0.083	mg/Kg	☼	06/25/15 07:25	06/26/15 18:00	1
4-Chloroaniline	<0.71		0.71	0.17	mg/Kg	☼	06/25/15 07:25	06/26/15 18:00	1
2,4,6-Trichlorophenol	<0.35		0.35	0.12	mg/Kg	☼	06/25/15 07:25	06/26/15 18:00	1
2,4,5-Trichlorophenol	<0.35		0.35	0.080	mg/Kg	☼	06/25/15 07:25	06/26/15 18:00	1
Hexachlorocyclopentadiene	<0.71		0.71	0.20	mg/Kg	☼	06/25/15 07:25	06/26/15 18:00	1
2-Methylnaphthalene	0.051		0.035	0.0065	mg/Kg	☼	06/25/15 07:25	06/26/15 18:00	1
2-Nitroaniline	<0.18		0.18	0.047	mg/Kg	☼	06/25/15 07:25	06/26/15 18:00	1
2-Chloronaphthalene	<0.18		0.18	0.039	mg/Kg	☼	06/25/15 07:25	06/26/15 18:00	1
4-Chloro-3-methylphenol	<0.35		0.35	0.12	mg/Kg	☼	06/25/15 07:25	06/26/15 18:00	1
2,6-Dinitrotoluene	<0.18		0.18	0.069	mg/Kg	☼	06/25/15 07:25	06/26/15 18:00	1
2-Nitrophenol	<0.35		0.35	0.083	mg/Kg	☼	06/25/15 07:25	06/26/15 18:00	1
3-Nitroaniline	<0.35		0.35	0.11	mg/Kg	☼	06/25/15 07:25	06/26/15 18:00	1
Dimethyl phthalate	<0.18		0.18	0.046	mg/Kg	☼	06/25/15 07:25	06/26/15 18:00	1
2,4-Dinitrophenol	<0.71		0.71	0.62	mg/Kg	☼	06/25/15 07:25	06/26/15 18:00	1
Acenaphthylene	<0.035		0.035	0.0046	mg/Kg	☼	06/25/15 07:25	06/26/15 18:00	1
2,4-Dinitrotoluene	<0.18		0.18	0.056	mg/Kg	☼	06/25/15 07:25	06/26/15 18:00	1
Acenaphthene	<0.035		0.035	0.0063	mg/Kg	☼	06/25/15 07:25	06/26/15 18:00	1
Dibenzofuran	<0.18		0.18	0.041	mg/Kg	☼	06/25/15 07:25	06/26/15 18:00	1
4-Nitrophenol	<0.71		0.71	0.33	mg/Kg	☼	06/25/15 07:25	06/26/15 18:00	1
Fluorene	<0.035		0.035	0.0049	mg/Kg	☼	06/25/15 07:25	06/26/15 18:00	1
4-Nitroaniline	<0.35		0.35	0.15	mg/Kg	☼	06/25/15 07:25	06/26/15 18:00	1
4-Bromophenyl phenyl ether	<0.18		0.18	0.046	mg/Kg	☼	06/25/15 07:25	06/26/15 18:00	1
Hexachlorobenzene	<0.071		0.071	0.0081	mg/Kg	☼	06/25/15 07:25	06/26/15 18:00	1
Diethyl phthalate	<0.18		0.18	0.060	mg/Kg	☼	06/25/15 07:25	06/26/15 18:00	1
4-Chlorophenyl phenyl ether	<0.18		0.18	0.041	mg/Kg	☼	06/25/15 07:25	06/26/15 18:00	1
Pentachlorophenol	<0.71		0.71	0.56	mg/Kg	☼	06/25/15 07:25	06/26/15 18:00	1
N-Nitrosodiphenylamine	<0.18		0.18	0.041	mg/Kg	☼	06/25/15 07:25	06/26/15 18:00	1
4,6-Dinitro-2-methylphenol	<0.35		0.35	0.28	mg/Kg	☼	06/25/15 07:25	06/26/15 18:00	1
Phenanthrene	0.072		0.035	0.0049	mg/Kg	☼	06/25/15 07:25	06/26/15 18:00	1
Anthracene	<0.035		0.035	0.0059	mg/Kg	☼	06/25/15 07:25	06/26/15 18:00	1
Carbazole	<0.18		0.18	0.091	mg/Kg	☼	06/25/15 07:25	06/26/15 18:00	1
Di-n-butyl phthalate	<0.18		0.18	0.054	mg/Kg	☼	06/25/15 07:25	06/26/15 18:00	1
Fluoranthene	<0.035		0.035	0.0065	mg/Kg	☼	06/25/15 07:25	06/26/15 18:00	1
Pyrene	<0.035		0.035	0.0070	mg/Kg	☼	06/25/15 07:25	06/26/15 18:00	1
Butyl benzyl phthalate	<0.18		0.18	0.067	mg/Kg	☼	06/25/15 07:25	06/26/15 18:00	1
Benzo[a]anthracene	<0.035		0.035	0.0047	mg/Kg	☼	06/25/15 07:25	06/26/15 18:00	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97615-1

Client Sample ID: 1860-23-B05(12-14)

Lab Sample ID: 500-97615-9

Date Collected: 06/19/15 13:35

Matrix: Solid

Date Received: 06/19/15 17:05

Percent Solids: 89.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.016	J	0.035	0.0096	mg/Kg	☼	06/25/15 07:25	06/26/15 18:00	1
3,3'-Dichlorobenzidine	<0.18		0.18	0.049	mg/Kg	☼	06/25/15 07:25	06/26/15 18:00	1
Bis(2-ethylhexyl) phthalate	<0.18		0.18	0.064	mg/Kg	☼	06/25/15 07:25	06/26/15 18:00	1
Di-n-octyl phthalate	<0.18		0.18	0.057	mg/Kg	☼	06/25/15 07:25	06/26/15 18:00	1
Benzo[b]fluoranthene	<0.035		0.035	0.0076	mg/Kg	☼	06/25/15 07:25	06/26/15 18:00	1
Benzo[k]fluoranthene	<0.035		0.035	0.010	mg/Kg	☼	06/25/15 07:25	06/26/15 18:00	1
Benzo[a]pyrene	<0.035		0.035	0.0068	mg/Kg	☼	06/25/15 07:25	06/26/15 18:00	1
Indeno[1,2,3-cd]pyrene	<0.035		0.035	0.0091	mg/Kg	☼	06/25/15 07:25	06/26/15 18:00	1
Dibenz(a,h)anthracene	<0.035		0.035	0.0068	mg/Kg	☼	06/25/15 07:25	06/26/15 18:00	1
Benzo[g,h,i]perylene	0.016	J	0.035	0.011	mg/Kg	☼	06/25/15 07:25	06/26/15 18:00	1
3 & 4 Methylphenol	<0.18		0.18	0.059	mg/Kg	☼	06/25/15 07:25	06/26/15 18:00	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	60		25 - 110	06/25/15 07:25	06/26/15 18:00	1
Phenol-d5	51		31 - 110	06/25/15 07:25	06/26/15 18:00	1
Nitrobenzene-d5	62		25 - 115	06/25/15 07:25	06/26/15 18:00	1
2-Fluorobiphenyl	64		25 - 119	06/25/15 07:25	06/26/15 18:00	1
2,4,6-Tribromophenol	56		35 - 137	06/25/15 07:25	06/26/15 18:00	1
Terphenyl-d14	82		36 - 134	06/25/15 07:25	06/26/15 18:00	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.0		1.0	0.21	mg/Kg	☼	06/24/15 09:12	06/24/15 20:09	1
Arsenic	10		0.50	0.23	mg/Kg	☼	06/24/15 09:12	06/24/15 20:09	1
Barium	15		0.50	0.091	mg/Kg	☼	06/24/15 09:12	06/24/15 20:09	1
Beryllium	0.41		0.20	0.043	mg/Kg	☼	06/24/15 09:12	06/24/15 20:09	1
Boron	7.7		2.5	0.35	mg/Kg	☼	06/24/15 09:12	06/24/15 20:09	1
Cadmium	0.28		0.10	0.029	mg/Kg	☼	06/24/15 09:12	06/24/15 20:09	1
Calcium	71000		50	16	mg/Kg	☼	06/24/15 09:12	06/25/15 13:23	5
Chromium	9.5		0.50	0.086	mg/Kg	☼	06/24/15 09:12	06/24/15 20:09	1
Cobalt	11		0.25	0.056	mg/Kg	☼	06/24/15 09:12	06/24/15 20:09	1
Copper	26		0.50	0.11	mg/Kg	☼	06/24/15 09:12	06/24/15 20:09	1
Iron	18000	B	10	3.8	mg/Kg	☼	06/24/15 09:12	06/24/15 20:09	1
Lead	14		0.25	0.12	mg/Kg	☼	06/24/15 09:12	06/24/15 20:09	1
Magnesium	33000	B	5.0	2.0	mg/Kg	☼	06/24/15 09:12	06/24/15 20:09	1
Manganese	390	B	0.50	0.099	mg/Kg	☼	06/24/15 09:12	06/24/15 20:09	1
Nickel	25		0.50	0.14	mg/Kg	☼	06/24/15 09:12	06/24/15 20:09	1
Potassium	1400		25	4.1	mg/Kg	☼	06/24/15 09:12	06/24/15 20:09	1
Selenium	0.38	J	0.50	0.25	mg/Kg	☼	06/24/15 09:12	06/24/15 20:09	1
Silver	<0.25		0.25	0.058	mg/Kg	☼	06/24/15 09:12	06/24/15 20:09	1
Sodium	290		50	6.6	mg/Kg	☼	06/24/15 09:12	06/24/15 20:09	1
Thallium	1.4		0.50	0.25	mg/Kg	☼	06/24/15 09:12	06/24/15 20:09	1
Vanadium	12		0.25	0.073	mg/Kg	☼	06/24/15 09:12	06/24/15 20:09	1
Zinc	110	B	1.0	0.32	mg/Kg	☼	06/24/15 09:12	06/24/15 20:09	1

Method: 7471B - Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.024		0.018	0.0063	mg/Kg	☼	06/22/15 13:00	06/23/15 15:27	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97615-1

Client Sample ID: 1860-23-B05(12-14)D

Lab Sample ID: 500-97615-10

Date Collected: 06/19/15 13:35

Matrix: Solid

Date Received: 06/19/15 17:05

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	-	06/24/15 09:00	06/24/15 19:23	1
Beryllium	<0.0040		0.0040	0.0040	mg/L	-	06/24/15 09:00	06/24/15 19:23	1
Boron	0.73		0.50	0.050	mg/L	-	06/24/15 09:00	06/24/15 19:23	1
Cadmium	<0.0050		0.0050	0.0020	mg/L	-	06/24/15 09:00	06/24/15 19:23	1
Chromium	<0.025		0.025	0.010	mg/L	-	06/24/15 09:00	06/24/15 19:23	1
Cobalt	0.034		0.025	0.010	mg/L	-	06/24/15 09:00	06/24/15 19:23	1
Iron	<0.20		0.20	0.20	mg/L	-	06/24/15 09:00	06/24/15 19:23	1
Lead	<0.0075		0.0075	0.0075	mg/L	-	06/24/15 09:00	06/24/15 19:23	1
Manganese	1.8		0.025	0.010	mg/L	-	06/24/15 09:00	06/24/15 19:23	1
Nickel	0.074		0.025	0.010	mg/L	-	06/24/15 09:00	06/24/15 19:23	1
Selenium	<0.050		0.050	0.020	mg/L	-	06/24/15 09:00	06/24/15 19:23	1
Silver	<0.025		0.025	0.010	mg/L	-	06/24/15 09:00	06/24/15 19:23	1
Zinc	0.084	J B ^	0.10	0.020	mg/L	-	06/24/15 09:00	06/24/15 19:23	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.013	J	0.025	0.010	mg/L	-	06/29/15 10:35	06/30/15 12:39	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	-	06/24/15 09:00	06/24/15 19:36	1
Thallium	<0.0020		0.0020	0.0020	mg/L	-	06/24/15 09:00	06/24/15 19:36	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	-	06/24/15 09:30	06/24/15 14:09	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.01		0.200	0.200	SU	-		06/22/15 15:01	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97615-1

Client Sample ID: 1860-23-B05(12-14)D

Lab Sample ID: 500-97615-10

Date Collected: 06/19/15 13:35

Matrix: Solid

Date Received: 06/19/15 17:05

Percent Solids: 90.2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.28		0.28	0.072	mg/Kg	☼	06/19/15 13:35	07/01/15 17:04	50
Benzene	<0.014		0.014	0.0041	mg/Kg	☼	06/19/15 13:35	07/01/15 17:04	50
Bromodichloromethane	<0.11		0.11	0.019	mg/Kg	☼	06/19/15 13:35	07/01/15 17:04	50
Bromoform	<0.11		0.11	0.024	mg/Kg	☼	06/19/15 13:35	07/01/15 17:04	50
Bromomethane	<0.11		0.11	0.038	mg/Kg	☼	06/19/15 13:35	07/01/15 17:04	50
2-Butanone (MEK)	<0.28		0.28	0.081	mg/Kg	☼	06/19/15 13:35	07/01/15 17:04	50
Carbon disulfide	<0.28		0.28	0.024	mg/Kg	☼	06/19/15 13:35	07/01/15 17:04	50
Carbon tetrachloride	<0.055		0.055	0.014	mg/Kg	☼	06/19/15 13:35	07/01/15 17:04	50
Chlorobenzene	<0.055		0.055	0.0079	mg/Kg	☼	06/19/15 13:35	07/01/15 17:04	50
Chloroethane	<0.11		0.11	0.024	mg/Kg	☼	06/19/15 13:35	07/01/15 17:04	50
Chloroform	<0.055		0.055	0.011	mg/Kg	☼	06/19/15 13:35	07/01/15 17:04	50
Chloromethane	<0.11		0.11	0.026	mg/Kg	☼	06/19/15 13:35	07/01/15 17:04	50
cis-1,2-Dichloroethene	<0.055		0.055	0.0068	mg/Kg	☼	06/19/15 13:35	07/01/15 17:04	50
cis-1,3-Dichloropropene	<0.055		0.055	0.0098	mg/Kg	☼	06/19/15 13:35	07/01/15 17:04	50
Dibromochloromethane	<0.11		0.11	0.019	mg/Kg	☼	06/19/15 13:35	07/01/15 17:04	50
1,1-Dichloroethane	<0.055		0.055	0.010	mg/Kg	☼	06/19/15 13:35	07/01/15 17:04	50
1,2-Dichloroethane	<0.055		0.055	0.016	mg/Kg	☼	06/19/15 13:35	07/01/15 17:04	50
1,1-Dichloroethene	<0.055		0.055	0.017	mg/Kg	☼	06/19/15 13:35	07/01/15 17:04	50
1,2-Dichloropropane	<0.055		0.055	0.011	mg/Kg	☼	06/19/15 13:35	07/01/15 17:04	50
1,3-Dichloropropane, Total	<0.055		0.055	0.0098	mg/Kg	☼	06/19/15 13:35	07/01/15 17:04	50
Ethylbenzene	<0.014		0.014	0.0070	mg/Kg	☼	06/19/15 13:35	07/01/15 17:04	50
2-Hexanone	<0.28		0.28	0.031	mg/Kg	☼	06/19/15 13:35	07/01/15 17:04	50
Methylene Chloride	<0.28		0.28	0.038	mg/Kg	☼	06/19/15 13:35	07/01/15 17:04	50
4-Methyl-2-pentanone (MIBK)	<0.28		0.28	0.018	mg/Kg	☼	06/19/15 13:35	07/01/15 17:04	50
Methyl tert-butyl ether	<0.11		0.11	0.024	mg/Kg	☼	06/19/15 13:35	07/01/15 17:04	50
Styrene	<0.055		0.055	0.0055	mg/Kg	☼	06/19/15 13:35	07/01/15 17:04	50
1,1,2,2-Tetrachloroethane	<0.055		0.055	0.013	mg/Kg	☼	06/19/15 13:35	07/01/15 17:04	50
Tetrachloroethene	<0.055		0.055	0.0092	mg/Kg	☼	06/19/15 13:35	07/01/15 17:04	50
Toluene	<0.014		0.014	0.0064	mg/Kg	☼	06/19/15 13:35	07/01/15 17:04	50
trans-1,2-Dichloroethene	<0.055		0.055	0.014	mg/Kg	☼	06/19/15 13:35	07/01/15 17:04	50
trans-1,3-Dichloropropene	<0.055		0.055	0.012	mg/Kg	☼	06/19/15 13:35	07/01/15 17:04	50
1,1,1-Trichloroethane	<0.055		0.055	0.011	mg/Kg	☼	06/19/15 13:35	07/01/15 17:04	50
1,1,2-Trichloroethane	<0.055		0.055	0.015	mg/Kg	☼	06/19/15 13:35	07/01/15 17:04	50
Trichloroethene	<0.028		0.028	0.010	mg/Kg	☼	06/19/15 13:35	07/01/15 17:04	50
Vinyl acetate	<0.11		0.11	0.018	mg/Kg	☼	06/19/15 13:35	07/01/15 17:04	50
Vinyl chloride	<0.014		0.014	0.0058	mg/Kg	☼	06/19/15 13:35	07/01/15 17:04	50
Xylenes, Total	<0.028		0.028	0.0038	mg/Kg	☼	06/19/15 13:35	07/01/15 17:04	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	93		75 - 120	06/19/15 13:35	07/01/15 17:04	50
Dibromofluoromethane	97		75 - 120	06/19/15 13:35	07/01/15 17:04	50
1,2-Dichloroethane-d4 (Surr)	87		75 - 125	06/19/15 13:35	07/01/15 17:04	50
Toluene-d8 (Surr)	98		75 - 120	06/19/15 13:35	07/01/15 17:04	50

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	☼	06/25/15 07:25	06/26/15 18:21	1
Bis(2-chloroethyl)ether	<0.18		0.18	0.053	mg/Kg	☼	06/25/15 07:25	06/26/15 18:21	1
1,3-Dichlorobenzene	<0.18		0.18	0.040	mg/Kg	☼	06/25/15 07:25	06/26/15 18:21	1
1,4-Dichlorobenzene	<0.18		0.18	0.045	mg/Kg	☼	06/25/15 07:25	06/26/15 18:21	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97615-1

Client Sample ID: 1860-23-B05(12-14)D

Lab Sample ID: 500-97615-10

Date Collected: 06/19/15 13:35

Matrix: Solid

Date Received: 06/19/15 17:05

Percent Solids: 90.2

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	0.042	mg/Kg	☼	06/25/15 07:25	06/26/15 18:21	1
2-Methylphenol	<0.18		0.18	0.057	mg/Kg	☼	06/25/15 07:25	06/26/15 18:21	1
2,2'-oxybis[1-chloropropane]	<0.18		0.18	0.041	mg/Kg	☼	06/25/15 07:25	06/26/15 18:21	1
N-Nitrosodi-n-propylamine	<0.18		0.18	0.043	mg/Kg	☼	06/25/15 07:25	06/26/15 18:21	1
Hexachloroethane	<0.18		0.18	0.054	mg/Kg	☼	06/25/15 07:25	06/26/15 18:21	1
2-Chlorophenol	<0.18		0.18	0.060	mg/Kg	☼	06/25/15 07:25	06/26/15 18:21	1
Nitrobenzene	<0.035		0.035	0.0088	mg/Kg	☼	06/25/15 07:25	06/26/15 18:21	1
Bis(2-chloroethoxy)methane	<0.18		0.18	0.036	mg/Kg	☼	06/25/15 07:25	06/26/15 18:21	1
1,2,4-Trichlorobenzene	<0.18		0.18	0.038	mg/Kg	☼	06/25/15 07:25	06/26/15 18:21	1
Isophorone	<0.18		0.18	0.040	mg/Kg	☼	06/25/15 07:25	06/26/15 18:21	1
2,4-Dimethylphenol	<0.35		0.35	0.13	mg/Kg	☼	06/25/15 07:25	06/26/15 18:21	1
Hexachlorobutadiene	<0.18		0.18	0.055	mg/Kg	☼	06/25/15 07:25	06/26/15 18:21	1
Naphthalene	<0.035		0.035	0.0054	mg/Kg	☼	06/25/15 07:25	06/26/15 18:21	1
2,4-Dichlorophenol	<0.35		0.35	0.084	mg/Kg	☼	06/25/15 07:25	06/26/15 18:21	1
4-Chloroaniline	<0.71		0.71	0.17	mg/Kg	☼	06/25/15 07:25	06/26/15 18:21	1
2,4,6-Trichlorophenol	<0.35		0.35	0.12	mg/Kg	☼	06/25/15 07:25	06/26/15 18:21	1
2,4,5-Trichlorophenol	<0.35		0.35	0.081	mg/Kg	☼	06/25/15 07:25	06/26/15 18:21	1
Hexachlorocyclopentadiene	<0.71		0.71	0.20	mg/Kg	☼	06/25/15 07:25	06/26/15 18:21	1
2-Methylnaphthalene	0.071		0.035	0.0065	mg/Kg	☼	06/25/15 07:25	06/26/15 18:21	1
2-Nitroaniline	<0.18		0.18	0.048	mg/Kg	☼	06/25/15 07:25	06/26/15 18:21	1
2-Chloronaphthalene	<0.18		0.18	0.039	mg/Kg	☼	06/25/15 07:25	06/26/15 18:21	1
4-Chloro-3-methylphenol	<0.35		0.35	0.12	mg/Kg	☼	06/25/15 07:25	06/26/15 18:21	1
2,6-Dinitrotoluene	<0.18		0.18	0.069	mg/Kg	☼	06/25/15 07:25	06/26/15 18:21	1
2-Nitrophenol	<0.35		0.35	0.083	mg/Kg	☼	06/25/15 07:25	06/26/15 18:21	1
3-Nitroaniline	<0.35		0.35	0.11	mg/Kg	☼	06/25/15 07:25	06/26/15 18:21	1
Dimethyl phthalate	<0.18		0.18	0.046	mg/Kg	☼	06/25/15 07:25	06/26/15 18:21	1
2,4-Dinitrophenol	<0.71		0.71	0.62	mg/Kg	☼	06/25/15 07:25	06/26/15 18:21	1
Acenaphthylene	<0.035		0.035	0.0047	mg/Kg	☼	06/25/15 07:25	06/26/15 18:21	1
2,4-Dinitrotoluene	<0.18		0.18	0.056	mg/Kg	☼	06/25/15 07:25	06/26/15 18:21	1
Acenaphthene	<0.035		0.035	0.0063	mg/Kg	☼	06/25/15 07:25	06/26/15 18:21	1
Dibenzofuran	<0.18		0.18	0.041	mg/Kg	☼	06/25/15 07:25	06/26/15 18:21	1
4-Nitrophenol	<0.71		0.71	0.34	mg/Kg	☼	06/25/15 07:25	06/26/15 18:21	1
Fluorene	<0.035		0.035	0.0050	mg/Kg	☼	06/25/15 07:25	06/26/15 18:21	1
4-Nitroaniline	<0.35		0.35	0.15	mg/Kg	☼	06/25/15 07:25	06/26/15 18:21	1
4-Bromophenyl phenyl ether	<0.18		0.18	0.047	mg/Kg	☼	06/25/15 07:25	06/26/15 18:21	1
Hexachlorobenzene	<0.071		0.071	0.0082	mg/Kg	☼	06/25/15 07:25	06/26/15 18:21	1
Diethyl phthalate	<0.18		0.18	0.060	mg/Kg	☼	06/25/15 07:25	06/26/15 18:21	1
4-Chlorophenyl phenyl ether	<0.18		0.18	0.041	mg/Kg	☼	06/25/15 07:25	06/26/15 18:21	1
Pentachlorophenol	<0.71		0.71	0.57	mg/Kg	☼	06/25/15 07:25	06/26/15 18:21	1
N-Nitrosodiphenylamine	<0.18		0.18	0.042	mg/Kg	☼	06/25/15 07:25	06/26/15 18:21	1
4,6-Dinitro-2-methylphenol	<0.35		0.35	0.28	mg/Kg	☼	06/25/15 07:25	06/26/15 18:21	1
Phenanthrene	0.082		0.035	0.0049	mg/Kg	☼	06/25/15 07:25	06/26/15 18:21	1
Anthracene	<0.035		0.035	0.0059	mg/Kg	☼	06/25/15 07:25	06/26/15 18:21	1
Carbazole	<0.18		0.18	0.091	mg/Kg	☼	06/25/15 07:25	06/26/15 18:21	1
Di-n-butyl phthalate	<0.18		0.18	0.054	mg/Kg	☼	06/25/15 07:25	06/26/15 18:21	1
Fluoranthene	<0.035		0.035	0.0065	mg/Kg	☼	06/25/15 07:25	06/26/15 18:21	1
Pyrene	0.015 J		0.035	0.0070	mg/Kg	☼	06/25/15 07:25	06/26/15 18:21	1
Butyl benzyl phthalate	<0.18		0.18	0.067	mg/Kg	☼	06/25/15 07:25	06/26/15 18:21	1
Benzo[a]anthracene	<0.035		0.035	0.0048	mg/Kg	☼	06/25/15 07:25	06/26/15 18:21	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97615-1

Client Sample ID: 1860-23-B05(12-14)D

Lab Sample ID: 500-97615-10

Date Collected: 06/19/15 13:35

Matrix: Solid

Date Received: 06/19/15 17:05

Percent Solids: 90.2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.029	J	0.035	0.0096	mg/Kg	☼	06/25/15 07:25	06/26/15 18:21	1
3,3'-Dichlorobenzidine	<0.18		0.18	0.049	mg/Kg	☼	06/25/15 07:25	06/26/15 18:21	1
Bis(2-ethylhexyl) phthalate	<0.18		0.18	0.065	mg/Kg	☼	06/25/15 07:25	06/26/15 18:21	1
Di-n-octyl phthalate	<0.18		0.18	0.058	mg/Kg	☼	06/25/15 07:25	06/26/15 18:21	1
Benzo[b]fluoranthene	<0.035		0.035	0.0076	mg/Kg	☼	06/25/15 07:25	06/26/15 18:21	1
Benzo[k]fluoranthene	<0.035		0.035	0.010	mg/Kg	☼	06/25/15 07:25	06/26/15 18:21	1
Benzo[a]pyrene	<0.035		0.035	0.0068	mg/Kg	☼	06/25/15 07:25	06/26/15 18:21	1
Indeno[1,2,3-cd]pyrene	<0.035		0.035	0.0092	mg/Kg	☼	06/25/15 07:25	06/26/15 18:21	1
Dibenz(a,h)anthracene	<0.035		0.035	0.0068	mg/Kg	☼	06/25/15 07:25	06/26/15 18:21	1
Benzo[g,h,i]perylene	0.015	J	0.035	0.011	mg/Kg	☼	06/25/15 07:25	06/26/15 18:21	1
3 & 4 Methylphenol	<0.18		0.18	0.059	mg/Kg	☼	06/25/15 07:25	06/26/15 18:21	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	62		25 - 110	06/25/15 07:25	06/26/15 18:21	1
Phenol-d5	61		31 - 110	06/25/15 07:25	06/26/15 18:21	1
Nitrobenzene-d5	71		25 - 115	06/25/15 07:25	06/26/15 18:21	1
2-Fluorobiphenyl	68		25 - 119	06/25/15 07:25	06/26/15 18:21	1
2,4,6-Tribromophenol	63		35 - 137	06/25/15 07:25	06/26/15 18:21	1
Terphenyl-d14	92		36 - 134	06/25/15 07:25	06/26/15 18:21	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	☼	06/24/15 09:12	06/24/15 20:14	1
Arsenic	11		0.53	0.24	mg/Kg	☼	06/24/15 09:12	06/24/15 20:14	1
Barium	16		0.53	0.097	mg/Kg	☼	06/24/15 09:12	06/24/15 20:14	1
Beryllium	0.45		0.21	0.046	mg/Kg	☼	06/24/15 09:12	06/24/15 20:14	1
Boron	8.1		2.6	0.37	mg/Kg	☼	06/24/15 09:12	06/24/15 20:14	1
Cadmium	0.26		0.11	0.031	mg/Kg	☼	06/24/15 09:12	06/24/15 20:14	1
Calcium	88000		53	17	mg/Kg	☼	06/24/15 09:12	06/25/15 13:27	5
Chromium	13		0.53	0.091	mg/Kg	☼	06/24/15 09:12	06/24/15 20:14	1
Cobalt	12		0.26	0.060	mg/Kg	☼	06/24/15 09:12	06/24/15 20:14	1
Copper	29		0.53	0.11	mg/Kg	☼	06/24/15 09:12	06/24/15 20:14	1
Iron	18000	B	11	4.1	mg/Kg	☼	06/24/15 09:12	06/24/15 20:14	1
Lead	16		0.26	0.13	mg/Kg	☼	06/24/15 09:12	06/24/15 20:14	1
Magnesium	40000	B	5.3	2.1	mg/Kg	☼	06/24/15 09:12	06/24/15 20:14	1
Manganese	470	B	0.53	0.10	mg/Kg	☼	06/24/15 09:12	06/24/15 20:14	1
Nickel	30		0.53	0.14	mg/Kg	☼	06/24/15 09:12	06/24/15 20:14	1
Potassium	1500		26	4.3	mg/Kg	☼	06/24/15 09:12	06/24/15 20:14	1
Selenium	0.67		0.53	0.26	mg/Kg	☼	06/24/15 09:12	06/24/15 20:14	1
Silver	<0.26		0.26	0.062	mg/Kg	☼	06/24/15 09:12	06/24/15 20:14	1
Sodium	330		53	7.0	mg/Kg	☼	06/24/15 09:12	06/24/15 20:14	1
Thallium	0.75		0.53	0.26	mg/Kg	☼	06/24/15 09:12	06/24/15 20:14	1
Vanadium	12		0.26	0.077	mg/Kg	☼	06/24/15 09:12	06/24/15 20:14	1
Zinc	81	B	1.1	0.33	mg/Kg	☼	06/24/15 09:12	06/24/15 20:14	1

Method: 7471B - Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.024		0.018	0.0064	mg/Kg	☼	06/22/15 13:00	06/23/15 15:29	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97615-1

Client Sample ID: 1860-23-B24(4-5)

Lab Sample ID: 500-97615-11

Date Collected: 06/19/15 14:40

Matrix: Solid

Date Received: 06/19/15 17:05

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	-	06/24/15 09:00	06/24/15 19:28	1
Beryllium	<0.0040		0.0040	0.0040	mg/L	-	06/24/15 09:00	06/24/15 19:28	1
Boron	0.76		0.50	0.050	mg/L	-	06/24/15 09:00	06/24/15 19:28	1
Cadmium	<0.0050		0.0050	0.0020	mg/L	-	06/24/15 09:00	06/24/15 19:28	1
Chromium	<0.025		0.025	0.010	mg/L	-	06/24/15 09:00	06/24/15 19:28	1
Cobalt	0.017	J	0.025	0.010	mg/L	-	06/24/15 09:00	06/24/15 19:28	1
Iron	<0.20		0.20	0.20	mg/L	-	06/24/15 09:00	06/24/15 19:28	1
Lead	<0.0075		0.0075	0.0075	mg/L	-	06/24/15 09:00	06/24/15 19:28	1
Manganese	4.8		0.025	0.010	mg/L	-	06/24/15 09:00	06/24/15 19:28	1
Nickel	0.016	J	0.025	0.010	mg/L	-	06/24/15 09:00	06/24/15 19:28	1
Selenium	<0.050		0.050	0.020	mg/L	-	06/24/15 09:00	06/24/15 19:28	1
Silver	<0.025		0.025	0.010	mg/L	-	06/24/15 09:00	06/24/15 19:28	1
Zinc	0.33	B	0.10	0.020	mg/L	-	06/24/15 09:00	06/25/15 12:20	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	-	06/29/15 10:35	06/30/15 12:43	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	-	06/24/15 09:00	06/24/15 19:40	1
Thallium	<0.0020		0.0020	0.0020	mg/L	-	06/24/15 09:00	06/24/15 19:40	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00024		0.00020	0.00020	mg/L	-	06/24/15 09:30	06/24/15 14:11	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.96		0.200	0.200	SU	-		06/22/15 15:04	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97615-1

Client Sample ID: 1860-23-B24(4-5)

Lab Sample ID: 500-97615-11

Date Collected: 06/19/15 14:40

Matrix: Solid

Date Received: 06/19/15 17:05

Percent Solids: 83.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	0.0088		0.0049	0.0038	mg/Kg	☼	06/20/15 15:07	06/25/15 22:32	1
Benzene	<0.0049		0.0049	0.0011	mg/Kg	☼	06/20/15 15:07	06/25/15 22:32	1
Bromodichloromethane	<0.0049		0.0049	0.00083	mg/Kg	☼	06/20/15 15:07	06/25/15 22:32	1
Bromoform	<0.0049		0.0049	0.0010	mg/Kg	☼	06/20/15 15:07	06/25/15 22:32	1
Bromomethane	<0.0049	*	0.0049	0.0018	mg/Kg	☼	06/20/15 15:07	06/25/15 22:32	1
2-Butanone (MEK)	<0.0049		0.0049	0.0017	mg/Kg	☼	06/20/15 15:07	06/25/15 22:32	1
Carbon disulfide	<0.0049		0.0049	0.0018	mg/Kg	☼	06/20/15 15:07	06/25/15 22:32	1
Carbon tetrachloride	<0.0049		0.0049	0.0011	mg/Kg	☼	06/20/15 15:07	06/25/15 22:32	1
Chlorobenzene	<0.0049		0.0049	0.0012	mg/Kg	☼	06/20/15 15:07	06/25/15 22:32	1
Chloroethane	<0.0049	*	0.0049	0.0021	mg/Kg	☼	06/20/15 15:07	06/25/15 22:32	1
Chloroform	<0.0049		0.0049	0.00096	mg/Kg	☼	06/20/15 15:07	06/25/15 22:32	1
Chloromethane	<0.0049		0.0049	0.0012	mg/Kg	☼	06/20/15 15:07	06/25/15 22:32	1
cis-1,2-Dichloroethene	<0.0049		0.0049	0.0010	mg/Kg	☼	06/20/15 15:07	06/25/15 22:32	1
cis-1,3-Dichloropropene	<0.0049		0.0049	0.0011	mg/Kg	☼	06/20/15 15:07	06/25/15 22:32	1
Dibromochloromethane	<0.0049		0.0049	0.00057	mg/Kg	☼	06/20/15 15:07	06/25/15 22:32	1
1,1-Dichloroethane	<0.0049		0.0049	0.0010	mg/Kg	☼	06/20/15 15:07	06/25/15 22:32	1
1,2-Dichloroethane	<0.0049		0.0049	0.00073	mg/Kg	☼	06/20/15 15:07	06/25/15 22:32	1
1,1-Dichloroethene	<0.0049		0.0049	0.0018	mg/Kg	☼	06/20/15 15:07	06/25/15 22:32	1
1,2-Dichloropropane	<0.0049		0.0049	0.0013	mg/Kg	☼	06/20/15 15:07	06/25/15 22:32	1
1,3-Dichloropropane, Total	<0.0049		0.0049	0.0014	mg/Kg	☼	06/20/15 15:07	06/25/15 22:32	1
Ethylbenzene	<0.0049		0.0049	0.0012	mg/Kg	☼	06/20/15 15:07	06/25/15 22:32	1
2-Hexanone	<0.0049		0.0049	0.0015	mg/Kg	☼	06/20/15 15:07	06/25/15 22:32	1
Methylene Chloride	<0.0049		0.0049	0.0037	mg/Kg	☼	06/20/15 15:07	06/25/15 22:32	1
4-Methyl-2-pentanone (MIBK)	<0.0049		0.0049	0.0010	mg/Kg	☼	06/20/15 15:07	06/25/15 22:32	1
Methyl tert-butyl ether	<0.0049		0.0049	0.0012	mg/Kg	☼	06/20/15 15:07	06/25/15 22:32	1
Styrene	<0.0049		0.0049	0.0011	mg/Kg	☼	06/20/15 15:07	06/25/15 22:32	1
1,1,2,2-Tetrachloroethane	<0.0049		0.0049	0.00078	mg/Kg	☼	06/20/15 15:07	06/25/15 22:32	1
Tetrachloroethene	<0.0049		0.0049	0.0010	mg/Kg	☼	06/20/15 15:07	06/25/15 22:32	1
Toluene	<0.0049		0.0049	0.0017	mg/Kg	☼	06/20/15 15:07	06/25/15 22:32	1
trans-1,2-Dichloroethene	<0.0049		0.0049	0.0012	mg/Kg	☼	06/20/15 15:07	06/25/15 22:32	1
trans-1,3-Dichloropropene	<0.0049		0.0049	0.0014	mg/Kg	☼	06/20/15 15:07	06/25/15 22:32	1
1,1,1-Trichloroethane	<0.0049		0.0049	0.0011	mg/Kg	☼	06/20/15 15:07	06/25/15 22:32	1
1,1,2-Trichloroethane	<0.0049		0.0049	0.00095	mg/Kg	☼	06/20/15 15:07	06/25/15 22:32	1
Trichloroethene	<0.0049		0.0049	0.0013	mg/Kg	☼	06/20/15 15:07	06/25/15 22:32	1
Vinyl acetate	<0.0049		0.0049	0.0013	mg/Kg	☼	06/20/15 15:07	06/25/15 22:32	1
Vinyl chloride	<0.0049		0.0049	0.0012	mg/Kg	☼	06/20/15 15:07	06/25/15 22:32	1
Xylenes, Total	<0.0098		0.0098	0.0018	mg/Kg	☼	06/20/15 15:07	06/25/15 22:32	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	85		70 - 122	06/20/15 15:07	06/25/15 22:32	1
Dibromofluoromethane	102		75 - 120	06/20/15 15:07	06/25/15 22:32	1
1,2-Dichloroethane-d4 (Surr)	96		70 - 134	06/20/15 15:07	06/25/15 22:32	1
Toluene-d8 (Surr)	96		75 - 122	06/20/15 15:07	06/25/15 22:32	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	☼	06/25/15 07:25	06/26/15 15:08	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.057	mg/Kg	☼	06/25/15 07:25	06/26/15 15:08	1
1,3-Dichlorobenzene	<0.19		0.19	0.043	mg/Kg	☼	06/25/15 07:25	06/26/15 15:08	1
1,4-Dichlorobenzene	<0.19		0.19	0.049	mg/Kg	☼	06/25/15 07:25	06/26/15 15:08	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97615-1

Client Sample ID: 1860-23-B24(4-5)

Lab Sample ID: 500-97615-11

Date Collected: 06/19/15 14:40

Matrix: Solid

Date Received: 06/19/15 17:05

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	☼	06/25/15 07:25	06/26/15 15:08	1
2-Methylphenol	<0.19		0.19	0.061	mg/Kg	☼	06/25/15 07:25	06/26/15 15:08	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.044	mg/Kg	☼	06/25/15 07:25	06/26/15 15:08	1
N-Nitrosodi-n-propylamine	<0.19		0.19	0.046	mg/Kg	☼	06/25/15 07:25	06/26/15 15:08	1
Hexachloroethane	<0.19		0.19	0.058	mg/Kg	☼	06/25/15 07:25	06/26/15 15:08	1
2-Chlorophenol	<0.19		0.19	0.065	mg/Kg	☼	06/25/15 07:25	06/26/15 15:08	1
Nitrobenzene	<0.038		0.038	0.0095	mg/Kg	☼	06/25/15 07:25	06/26/15 15:08	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.039	mg/Kg	☼	06/25/15 07:25	06/26/15 15:08	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.041	mg/Kg	☼	06/25/15 07:25	06/26/15 15:08	1
Isophorone	<0.19		0.19	0.043	mg/Kg	☼	06/25/15 07:25	06/26/15 15:08	1
2,4-Dimethylphenol	<0.38		0.38	0.14	mg/Kg	☼	06/25/15 07:25	06/26/15 15:08	1
Hexachlorobutadiene	<0.19		0.19	0.060	mg/Kg	☼	06/25/15 07:25	06/26/15 15:08	1
Naphthalene	<0.038		0.038	0.0058	mg/Kg	☼	06/25/15 07:25	06/26/15 15:08	1
2,4-Dichlorophenol	<0.38		0.38	0.090	mg/Kg	☼	06/25/15 07:25	06/26/15 15:08	1
4-Chloroaniline	<0.76		0.76	0.18	mg/Kg	☼	06/25/15 07:25	06/26/15 15:08	1
2,4,6-Trichlorophenol	<0.38		0.38	0.13	mg/Kg	☼	06/25/15 07:25	06/26/15 15:08	1
2,4,5-Trichlorophenol	<0.38		0.38	0.086	mg/Kg	☼	06/25/15 07:25	06/26/15 15:08	1
Hexachlorocyclopentadiene	<0.76		0.76	0.22	mg/Kg	☼	06/25/15 07:25	06/26/15 15:08	1
2-Methylnaphthalene	0.011	J	0.038	0.0070	mg/Kg	☼	06/25/15 07:25	06/26/15 15:08	1
2-Nitroaniline	<0.19		0.19	0.051	mg/Kg	☼	06/25/15 07:25	06/26/15 15:08	1
2-Chloronaphthalene	<0.19		0.19	0.042	mg/Kg	☼	06/25/15 07:25	06/26/15 15:08	1
4-Chloro-3-methylphenol	<0.38		0.38	0.13	mg/Kg	☼	06/25/15 07:25	06/26/15 15:08	1
2,6-Dinitrotoluene	<0.19		0.19	0.074	mg/Kg	☼	06/25/15 07:25	06/26/15 15:08	1
2-Nitrophenol	<0.38		0.38	0.090	mg/Kg	☼	06/25/15 07:25	06/26/15 15:08	1
3-Nitroaniline	<0.38		0.38	0.12	mg/Kg	☼	06/25/15 07:25	06/26/15 15:08	1
Dimethyl phthalate	<0.19		0.19	0.050	mg/Kg	☼	06/25/15 07:25	06/26/15 15:08	1
2,4-Dinitrophenol	<0.76		0.76	0.67	mg/Kg	☼	06/25/15 07:25	06/26/15 15:08	1
Acenaphthylene	<0.038		0.038	0.0050	mg/Kg	☼	06/25/15 07:25	06/26/15 15:08	1
2,4-Dinitrotoluene	<0.19		0.19	0.060	mg/Kg	☼	06/25/15 07:25	06/26/15 15:08	1
Acenaphthene	<0.038		0.038	0.0068	mg/Kg	☼	06/25/15 07:25	06/26/15 15:08	1
Dibenzofuran	<0.19		0.19	0.044	mg/Kg	☼	06/25/15 07:25	06/26/15 15:08	1
4-Nitrophenol	<0.76		0.76	0.36	mg/Kg	☼	06/25/15 07:25	06/26/15 15:08	1
Fluorene	<0.038		0.038	0.0053	mg/Kg	☼	06/25/15 07:25	06/26/15 15:08	1
4-Nitroaniline	<0.38		0.38	0.16	mg/Kg	☼	06/25/15 07:25	06/26/15 15:08	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.050	mg/Kg	☼	06/25/15 07:25	06/26/15 15:08	1
Hexachlorobenzene	<0.076		0.076	0.0088	mg/Kg	☼	06/25/15 07:25	06/26/15 15:08	1
Diethyl phthalate	<0.19		0.19	0.064	mg/Kg	☼	06/25/15 07:25	06/26/15 15:08	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.044	mg/Kg	☼	06/25/15 07:25	06/26/15 15:08	1
Pentachlorophenol	<0.76		0.76	0.61	mg/Kg	☼	06/25/15 07:25	06/26/15 15:08	1
N-Nitrosodiphenylamine	<0.19		0.19	0.045	mg/Kg	☼	06/25/15 07:25	06/26/15 15:08	1
4,6-Dinitro-2-methylphenol	<0.38		0.38	0.30	mg/Kg	☼	06/25/15 07:25	06/26/15 15:08	1
Phenanthrene	0.015	J	0.038	0.0053	mg/Kg	☼	06/25/15 07:25	06/26/15 15:08	1
Anthracene	<0.038		0.038	0.0063	mg/Kg	☼	06/25/15 07:25	06/26/15 15:08	1
Carbazole	<0.19		0.19	0.098	mg/Kg	☼	06/25/15 07:25	06/26/15 15:08	1
Di-n-butyl phthalate	<0.19		0.19	0.058	mg/Kg	☼	06/25/15 07:25	06/26/15 15:08	1
Fluoranthene	<0.038		0.038	0.0070	mg/Kg	☼	06/25/15 07:25	06/26/15 15:08	1
Pyrene	<0.038		0.038	0.0075	mg/Kg	☼	06/25/15 07:25	06/26/15 15:08	1
Butyl benzyl phthalate	<0.19		0.19	0.072	mg/Kg	☼	06/25/15 07:25	06/26/15 15:08	1
Benzo[a]anthracene	<0.038		0.038	0.0051	mg/Kg	☼	06/25/15 07:25	06/26/15 15:08	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97615-1

Client Sample ID: 1860-23-B24(4-5)

Lab Sample ID: 500-97615-11

Date Collected: 06/19/15 14:40

Matrix: Solid

Date Received: 06/19/15 17:05

Percent Solids: 83.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	<0.038		0.038	0.010	mg/Kg	☼	06/25/15 07:25	06/26/15 15:08	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.053	mg/Kg	☼	06/25/15 07:25	06/26/15 15:08	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.069	mg/Kg	☼	06/25/15 07:25	06/26/15 15:08	1
Di-n-octyl phthalate	<0.19		0.19	0.062	mg/Kg	☼	06/25/15 07:25	06/26/15 15:08	1
Benzo[b]fluoranthene	<0.038		0.038	0.0082	mg/Kg	☼	06/25/15 07:25	06/26/15 15:08	1
Benzo[k]fluoranthene	<0.038		0.038	0.011	mg/Kg	☼	06/25/15 07:25	06/26/15 15:08	1
Benzo[a]pyrene	<0.038		0.038	0.0073	mg/Kg	☼	06/25/15 07:25	06/26/15 15:08	1
Indeno[1,2,3-cd]pyrene	<0.038		0.038	0.0098	mg/Kg	☼	06/25/15 07:25	06/26/15 15:08	1
Dibenz(a,h)anthracene	<0.038		0.038	0.0073	mg/Kg	☼	06/25/15 07:25	06/26/15 15:08	1
Benzo[g,h,i]perylene	<0.038		0.038	0.012	mg/Kg	☼	06/25/15 07:25	06/26/15 15:08	1
3 & 4 Methylphenol	<0.19		0.19	0.063	mg/Kg	☼	06/25/15 07:25	06/26/15 15:08	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	57		25 - 110	06/25/15 07:25	06/26/15 15:08	1
Phenol-d5	47		31 - 110	06/25/15 07:25	06/26/15 15:08	1
Nitrobenzene-d5	49		25 - 115	06/25/15 07:25	06/26/15 15:08	1
2-Fluorobiphenyl	53		25 - 119	06/25/15 07:25	06/26/15 15:08	1
2,4,6-Tribromophenol	60		35 - 137	06/25/15 07:25	06/26/15 15:08	1
Terphenyl-d14	64		36 - 134	06/25/15 07:25	06/26/15 15:08	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.0		1.0	0.22	mg/Kg	☼	06/24/15 09:12	06/24/15 20:27	1
Arsenic	8.5		0.52	0.24	mg/Kg	☼	06/24/15 09:12	06/24/15 20:27	1
Barium	67		0.52	0.095	mg/Kg	☼	06/24/15 09:12	06/24/15 20:27	1
Beryllium	0.76		0.21	0.045	mg/Kg	☼	06/24/15 09:12	06/24/15 20:27	1
Boron	9.3		2.6	0.36	mg/Kg	☼	06/24/15 09:12	06/24/15 20:27	1
Cadmium	0.11		0.10	0.030	mg/Kg	☼	06/24/15 09:12	06/24/15 20:27	1
Calcium	47000		52	17	mg/Kg	☼	06/24/15 09:12	06/24/15 20:32	5
Chromium	18		0.52	0.089	mg/Kg	☼	06/24/15 09:12	06/24/15 20:27	1
Cobalt	17		0.26	0.059	mg/Kg	☼	06/24/15 09:12	06/24/15 20:27	1
Copper	29		0.52	0.11	mg/Kg	☼	06/24/15 09:12	06/24/15 20:27	1
Iron	20000 B		10	4.0	mg/Kg	☼	06/24/15 09:12	06/24/15 20:27	1
Lead	17		0.26	0.13	mg/Kg	☼	06/24/15 09:12	06/24/15 20:27	1
Magnesium	20000 B		5.2	2.1	mg/Kg	☼	06/24/15 09:12	06/24/15 20:27	1
Manganese	400 B		0.52	0.10	mg/Kg	☼	06/24/15 09:12	06/24/15 20:27	1
Nickel	40		0.52	0.14	mg/Kg	☼	06/24/15 09:12	06/24/15 20:27	1
Potassium	2100		26	4.2	mg/Kg	☼	06/24/15 09:12	06/24/15 20:27	1
Selenium	0.39 J		0.52	0.26	mg/Kg	☼	06/24/15 09:12	06/24/15 20:27	1
Silver	<0.26		0.26	0.061	mg/Kg	☼	06/24/15 09:12	06/24/15 20:27	1
Sodium	1400		52	6.8	mg/Kg	☼	06/24/15 09:12	06/24/15 20:27	1
Thallium	0.41 J		0.52	0.26	mg/Kg	☼	06/24/15 09:12	06/24/15 20:27	1
Vanadium	21		0.26	0.076	mg/Kg	☼	06/24/15 09:12	06/24/15 20:27	1
Zinc	62 B		1.0	0.33	mg/Kg	☼	06/24/15 09:12	06/24/15 20:27	1

Method: 7471B - Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.023		0.019	0.0067	mg/Kg	☼	06/22/15 13:00	06/23/15 15:31	1

TestAmerica Chicago

Definitions/Glossary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97615-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance 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.

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, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
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
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 - IL 171 - WO 031

TestAmerica Job ID: 500-97615-1

GC/MS VOA

Prep Batch: 292832

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-97615-9	1860-23-B05(12-14)	Total/NA	Solid	5035	
500-97615-10	1860-23-B05(12-14)D	Total/NA	Solid	5035	

Prep Batch: 293028

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-97615-1	1860-23-B26(0-2)	Total/NA	Solid	5035	
500-97615-2	1860-23-B26(6-8)	Total/NA	Solid	5035	
500-97615-3	1860-23-B25(2-4)	Total/NA	Solid	5035	
500-97615-4	1860-23-B25(10-11.5)	Total/NA	Solid	5035	
500-97615-5	1860-23-B08(0-2)	Total/NA	Solid	5035	
500-97615-6	1860-23-B08(8-10)	Total/NA	Solid	5035	
500-97615-7	1860-23-B06(4-6)	Total/NA	Solid	5035	
500-97615-8	1860-23-B05(6-8)	Total/NA	Solid	5035	
500-97615-11	1860-23-B24(4-5)	Total/NA	Solid	5035	

Analysis Batch: 293320

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-97615-1	1860-23-B26(0-2)	Total/NA	Solid	8260B	293028
500-97615-2	1860-23-B26(6-8)	Total/NA	Solid	8260B	293028
500-97615-3	1860-23-B25(2-4)	Total/NA	Solid	8260B	293028
500-97615-4	1860-23-B25(10-11.5)	Total/NA	Solid	8260B	293028
500-97615-5	1860-23-B08(0-2)	Total/NA	Solid	8260B	293028
500-97615-6	1860-23-B08(8-10)	Total/NA	Solid	8260B	293028
500-97615-7	1860-23-B06(4-6)	Total/NA	Solid	8260B	293028
500-97615-8	1860-23-B05(6-8)	Total/NA	Solid	8260B	293028
500-97615-11	1860-23-B24(4-5)	Total/NA	Solid	8260B	293028
LCS 500-293320/5	Lab Control Sample	Total/NA	Solid	8260B	
LCSD 500-293320/6	Lab Control Sample Dup	Total/NA	Solid	8260B	
MB 500-293320/4	Method Blank	Total/NA	Solid	8260B	

Analysis Batch: 293992

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-97615-9	1860-23-B05(12-14)	Total/NA	Solid	8260B	292832
500-97615-10	1860-23-B05(12-14)D	Total/NA	Solid	8260B	292832
LCS 500-293992/4	Lab Control Sample	Total/NA	Solid	8260B	
MB 500-293992/7	Method Blank	Total/NA	Solid	8260B	

GC/MS Semi VOA

Prep Batch: 293269

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-97615-1	1860-23-B26(0-2)	Total/NA	Solid	3541	
500-97615-1 MS	1860-23-B26(0-2)	Total/NA	Solid	3541	
500-97615-1 MSD	1860-23-B26(0-2)	Total/NA	Solid	3541	
500-97615-2	1860-23-B26(6-8)	Total/NA	Solid	3541	
500-97615-3	1860-23-B25(2-4)	Total/NA	Solid	3541	
500-97615-4	1860-23-B25(10-11.5)	Total/NA	Solid	3541	
500-97615-5	1860-23-B08(0-2)	Total/NA	Solid	3541	
500-97615-6	1860-23-B08(8-10)	Total/NA	Solid	3541	
500-97615-7	1860-23-B06(4-6)	Total/NA	Solid	3541	

TestAmerica Chicago

QC Association Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97615-1

GC/MS Semi VOA (Continued)

Prep Batch: 293269 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-97615-8	1860-23-B05(6-8)	Total/NA	Solid	3541	
500-97615-9	1860-23-B05(12-14)	Total/NA	Solid	3541	
500-97615-10	1860-23-B05(12-14)D	Total/NA	Solid	3541	
500-97615-11	1860-23-B24(4-5)	Total/NA	Solid	3541	
LCS 500-293269/2-A	Lab Control Sample	Total/NA	Solid	3541	
MB 500-293269/1-A	Method Blank	Total/NA	Solid	3541	

Analysis Batch: 293417

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 500-293269/2-A	Lab Control Sample	Total/NA	Solid	8270D	293269
MB 500-293269/1-A	Method Blank	Total/NA	Solid	8270D	293269

Analysis Batch: 293473

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-97615-1	1860-23-B26(0-2)	Total/NA	Solid	8270D	293269
500-97615-1 MS	1860-23-B26(0-2)	Total/NA	Solid	8270D	293269
500-97615-1 MSD	1860-23-B26(0-2)	Total/NA	Solid	8270D	293269
500-97615-2	1860-23-B26(6-8)	Total/NA	Solid	8270D	293269
500-97615-3	1860-23-B25(2-4)	Total/NA	Solid	8270D	293269
500-97615-4	1860-23-B25(10-11.5)	Total/NA	Solid	8270D	293269
500-97615-5	1860-23-B08(0-2)	Total/NA	Solid	8270D	293269
500-97615-6	1860-23-B08(8-10)	Total/NA	Solid	8270D	293269
500-97615-7	1860-23-B06(4-6)	Total/NA	Solid	8270D	293269
500-97615-8	1860-23-B05(6-8)	Total/NA	Solid	8270D	293269
500-97615-9	1860-23-B05(12-14)	Total/NA	Solid	8270D	293269
500-97615-10	1860-23-B05(12-14)D	Total/NA	Solid	8270D	293269
500-97615-11	1860-23-B24(4-5)	Total/NA	Solid	8270D	293269

Metals

Prep Batch: 292811

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-97615-1	1860-23-B26(0-2)	Total/NA	Solid	7471B	
500-97615-1 DU	1860-23-B26(0-2)	Total/NA	Solid	7471B	
500-97615-1 MS	1860-23-B26(0-2)	Total/NA	Solid	7471B	
500-97615-1 MSD	1860-23-B26(0-2)	Total/NA	Solid	7471B	
500-97615-2	1860-23-B26(6-8)	Total/NA	Solid	7471B	
500-97615-3	1860-23-B25(2-4)	Total/NA	Solid	7471B	
500-97615-4	1860-23-B25(10-11.5)	Total/NA	Solid	7471B	
500-97615-5	1860-23-B08(0-2)	Total/NA	Solid	7471B	
500-97615-6	1860-23-B08(8-10)	Total/NA	Solid	7471B	
500-97615-7	1860-23-B06(4-6)	Total/NA	Solid	7471B	
500-97615-8	1860-23-B05(6-8)	Total/NA	Solid	7471B	
500-97615-9	1860-23-B05(12-14)	Total/NA	Solid	7471B	
500-97615-10	1860-23-B05(12-14)D	Total/NA	Solid	7471B	
500-97615-11	1860-23-B24(4-5)	Total/NA	Solid	7471B	
LCS 500-292811/13-A	Lab Control Sample	Total/NA	Solid	7471B	
MB 500-292811/12-A	Method Blank	Total/NA	Solid	7471B	

TestAmerica Chicago

QC Association Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97615-1

Metals (Continued)

Leach Batch: 293020

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-97615-1	1860-23-B26(0-2)	TCLP	Solid	1311	
500-97615-1 DU	1860-23-B26(0-2)	TCLP	Solid	1311	
500-97615-1 MS	1860-23-B26(0-2)	TCLP	Solid	1311	
500-97615-2	1860-23-B26(6-8)	TCLP	Solid	1311	
500-97615-3	1860-23-B25(2-4)	TCLP	Solid	1311	
500-97615-4	1860-23-B25(10-11.5)	TCLP	Solid	1311	
500-97615-5	1860-23-B08(0-2)	TCLP	Solid	1311	
500-97615-6	1860-23-B08(8-10)	TCLP	Solid	1311	
500-97615-7	1860-23-B06(4-6)	TCLP	Solid	1311	
500-97615-8	1860-23-B05(6-8)	TCLP	Solid	1311	
500-97615-9	1860-23-B05(12-14)	TCLP	Solid	1311	
500-97615-9 DU	1860-23-B05(12-14)	TCLP	Solid	1311	
500-97615-9 MS	1860-23-B05(12-14)	TCLP	Solid	1311	
500-97615-10	1860-23-B05(12-14)D	TCLP	Solid	1311	
500-97615-11	1860-23-B24(4-5)	TCLP	Solid	1311	
LB 500-293020/1-B	Method Blank	TCLP	Solid	1311	
LB 500-293020/1-C	Method Blank	TCLP	Solid	1311	

Analysis Batch: 293090

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-97615-1	1860-23-B26(0-2)	Total/NA	Solid	7471B	292811
500-97615-1 DU	1860-23-B26(0-2)	Total/NA	Solid	7471B	292811
500-97615-1 MS	1860-23-B26(0-2)	Total/NA	Solid	7471B	292811
500-97615-1 MSD	1860-23-B26(0-2)	Total/NA	Solid	7471B	292811
500-97615-2	1860-23-B26(6-8)	Total/NA	Solid	7471B	292811
500-97615-3	1860-23-B25(2-4)	Total/NA	Solid	7471B	292811
500-97615-4	1860-23-B25(10-11.5)	Total/NA	Solid	7471B	292811
500-97615-5	1860-23-B08(0-2)	Total/NA	Solid	7471B	292811
500-97615-6	1860-23-B08(8-10)	Total/NA	Solid	7471B	292811
500-97615-7	1860-23-B06(4-6)	Total/NA	Solid	7471B	292811
500-97615-8	1860-23-B05(6-8)	Total/NA	Solid	7471B	292811
500-97615-9	1860-23-B05(12-14)	Total/NA	Solid	7471B	292811
500-97615-10	1860-23-B05(12-14)D	Total/NA	Solid	7471B	292811
500-97615-11	1860-23-B24(4-5)	Total/NA	Solid	7471B	292811
LCS 500-292811/13-A	Lab Control Sample	Total/NA	Solid	7471B	292811
MB 500-292811/12-A	Method Blank	Total/NA	Solid	7471B	292811

Prep Batch: 293114

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-97615-1	1860-23-B26(0-2)	Total/NA	Solid	3050B	
500-97615-2	1860-23-B26(6-8)	Total/NA	Solid	3050B	
500-97615-3	1860-23-B25(2-4)	Total/NA	Solid	3050B	
500-97615-4	1860-23-B25(10-11.5)	Total/NA	Solid	3050B	
500-97615-5	1860-23-B08(0-2)	Total/NA	Solid	3050B	
500-97615-6	1860-23-B08(8-10)	Total/NA	Solid	3050B	
500-97615-7	1860-23-B06(4-6)	Total/NA	Solid	3050B	
500-97615-8	1860-23-B05(6-8)	Total/NA	Solid	3050B	
500-97615-9	1860-23-B05(12-14)	Total/NA	Solid	3050B	
500-97615-10	1860-23-B05(12-14)D	Total/NA	Solid	3050B	
500-97615-11	1860-23-B24(4-5)	Total/NA	Solid	3050B	
LCS 500-293114/2-A	Lab Control Sample	Total/NA	Solid	3050B	

TestAmerica Chicago

QC Association Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97615-1

Metals (Continued)

Prep Batch: 293114 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 500-293114/1-A	Method Blank	Total/NA	Solid	3050B	

Prep Batch: 293118

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-97615-1	1860-23-B26(0-2)	TCLP	Solid	7470A	293020
500-97615-1 DU	1860-23-B26(0-2)	TCLP	Solid	7470A	293020
500-97615-1 MS	1860-23-B26(0-2)	TCLP	Solid	7470A	293020
500-97615-2	1860-23-B26(6-8)	TCLP	Solid	7470A	293020
500-97615-3	1860-23-B25(2-4)	TCLP	Solid	7470A	293020
500-97615-4	1860-23-B25(10-11.5)	TCLP	Solid	7470A	293020
500-97615-5	1860-23-B08(0-2)	TCLP	Solid	7470A	293020
500-97615-6	1860-23-B08(8-10)	TCLP	Solid	7470A	293020
500-97615-7	1860-23-B06(4-6)	TCLP	Solid	7470A	293020
500-97615-8	1860-23-B05(6-8)	TCLP	Solid	7470A	293020
500-97615-9	1860-23-B05(12-14)	TCLP	Solid	7470A	293020
500-97615-10	1860-23-B05(12-14)D	TCLP	Solid	7470A	293020
500-97615-11	1860-23-B24(4-5)	TCLP	Solid	7470A	293020
LB 500-293020/1-C	Method Blank	TCLP	Solid	7470A	293020
LCS 500-293118/13-A	Lab Control Sample	Total/NA	Solid	7470A	
MB 500-293118/12-A	Method Blank	Total/NA	Solid	7470A	

Prep Batch: 293120

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-97615-1	1860-23-B26(0-2)	TCLP	Solid	3010A	293020
500-97615-2	1860-23-B26(6-8)	TCLP	Solid	3010A	293020
500-97615-3	1860-23-B25(2-4)	TCLP	Solid	3010A	293020
500-97615-4	1860-23-B25(10-11.5)	TCLP	Solid	3010A	293020
500-97615-5	1860-23-B08(0-2)	TCLP	Solid	3010A	293020
500-97615-6	1860-23-B08(8-10)	TCLP	Solid	3010A	293020
500-97615-7	1860-23-B06(4-6)	TCLP	Solid	3010A	293020
500-97615-8	1860-23-B05(6-8)	TCLP	Solid	3010A	293020
500-97615-9	1860-23-B05(12-14)	TCLP	Solid	3010A	293020
500-97615-9 DU	1860-23-B05(12-14)	TCLP	Solid	3010A	293020
500-97615-9 MS	1860-23-B05(12-14)	TCLP	Solid	3010A	293020
500-97615-10	1860-23-B05(12-14)D	TCLP	Solid	3010A	293020
500-97615-11	1860-23-B24(4-5)	TCLP	Solid	3010A	293020
LB 500-293020/1-B	Method Blank	TCLP	Solid	3010A	293020
LCS 500-293120/2-A	Lab Control Sample	Total/NA	Solid	3010A	

Analysis Batch: 293193

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-97615-1	1860-23-B26(0-2)	TCLP	Solid	7470A	293118
500-97615-1 DU	1860-23-B26(0-2)	TCLP	Solid	7470A	293118
500-97615-1 MS	1860-23-B26(0-2)	TCLP	Solid	7470A	293118
500-97615-2	1860-23-B26(6-8)	TCLP	Solid	7470A	293118
500-97615-3	1860-23-B25(2-4)	TCLP	Solid	7470A	293118
500-97615-4	1860-23-B25(10-11.5)	TCLP	Solid	7470A	293118
500-97615-5	1860-23-B08(0-2)	TCLP	Solid	7470A	293118
500-97615-6	1860-23-B08(8-10)	TCLP	Solid	7470A	293118
500-97615-7	1860-23-B06(4-6)	TCLP	Solid	7470A	293118
500-97615-8	1860-23-B05(6-8)	TCLP	Solid	7470A	293118

TestAmerica Chicago

QC Association Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97615-1

Metals (Continued)

Analysis Batch: 293193 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-97615-9	1860-23-B05(12-14)	TCLP	Solid	7470A	293118
500-97615-10	1860-23-B05(12-14)D	TCLP	Solid	7470A	293118
500-97615-11	1860-23-B24(4-5)	TCLP	Solid	7470A	293118
LB 500-293020/1-C	Method Blank	TCLP	Solid	7470A	293118
LCS 500-293118/13-A	Lab Control Sample	Total/NA	Solid	7470A	293118
MB 500-293118/12-A	Method Blank	Total/NA	Solid	7470A	293118

Analysis Batch: 293278

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-97615-1	1860-23-B26(0-2)	Total/NA	Solid	6010B	293114
500-97615-2	1860-23-B26(6-8)	Total/NA	Solid	6010B	293114
500-97615-3	1860-23-B25(2-4)	Total/NA	Solid	6010B	293114
500-97615-4	1860-23-B25(10-11.5)	Total/NA	Solid	6010B	293114
500-97615-5	1860-23-B08(0-2)	Total/NA	Solid	6010B	293114
500-97615-6	1860-23-B08(8-10)	Total/NA	Solid	6010B	293114
500-97615-7	1860-23-B06(4-6)	Total/NA	Solid	6010B	293114
500-97615-8	1860-23-B05(6-8)	Total/NA	Solid	6010B	293114
500-97615-9	1860-23-B05(12-14)	Total/NA	Solid	6010B	293114
500-97615-10	1860-23-B05(12-14)D	Total/NA	Solid	6010B	293114
500-97615-11	1860-23-B24(4-5)	Total/NA	Solid	6010B	293114
500-97615-11	1860-23-B24(4-5)	Total/NA	Solid	6010B	293114
LCS 500-293114/2-A	Lab Control Sample	Total/NA	Solid	6010B	293114
MB 500-293114/1-A	Method Blank	Total/NA	Solid	6010B	293114

Analysis Batch: 293281

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-97615-1	1860-23-B26(0-2)	TCLP	Solid	6010B	293120
500-97615-2	1860-23-B26(6-8)	TCLP	Solid	6010B	293120
500-97615-3	1860-23-B25(2-4)	TCLP	Solid	6010B	293120
500-97615-4	1860-23-B25(10-11.5)	TCLP	Solid	6010B	293120
500-97615-5	1860-23-B08(0-2)	TCLP	Solid	6010B	293120
500-97615-6	1860-23-B08(8-10)	TCLP	Solid	6010B	293120
500-97615-7	1860-23-B06(4-6)	TCLP	Solid	6010B	293120
500-97615-8	1860-23-B05(6-8)	TCLP	Solid	6010B	293120
500-97615-9	1860-23-B05(12-14)	TCLP	Solid	6010B	293120
500-97615-9 DU	1860-23-B05(12-14)	TCLP	Solid	6010B	293120
500-97615-9 MS	1860-23-B05(12-14)	TCLP	Solid	6010B	293120
500-97615-10	1860-23-B05(12-14)D	TCLP	Solid	6010B	293120
500-97615-11	1860-23-B24(4-5)	TCLP	Solid	6010B	293120
LB 500-293020/1-B	Method Blank	TCLP	Solid	6010B	293120
LCS 500-293120/2-A	Lab Control Sample	Total/NA	Solid	6010B	293120

Analysis Batch: 293352

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-97615-1	1860-23-B26(0-2)	TCLP	Solid	6020A	293120
500-97615-2	1860-23-B26(6-8)	TCLP	Solid	6020A	293120
500-97615-3	1860-23-B25(2-4)	TCLP	Solid	6020A	293120
500-97615-4	1860-23-B25(10-11.5)	TCLP	Solid	6020A	293120
500-97615-5	1860-23-B08(0-2)	TCLP	Solid	6020A	293120
500-97615-6	1860-23-B08(8-10)	TCLP	Solid	6020A	293120
500-97615-7	1860-23-B06(4-6)	TCLP	Solid	6020A	293120

TestAmerica Chicago

QC Association Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97615-1

Metals (Continued)

Analysis Batch: 293352 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-97615-8	1860-23-B05(6-8)	TCLP	Solid	6020A	293120
500-97615-9	1860-23-B05(12-14)	TCLP	Solid	6020A	293120
500-97615-9 DU	1860-23-B05(12-14)	TCLP	Solid	6020A	293120
500-97615-9 MS	1860-23-B05(12-14)	TCLP	Solid	6020A	293120
500-97615-10	1860-23-B05(12-14)D	TCLP	Solid	6020A	293120
500-97615-11	1860-23-B24(4-5)	TCLP	Solid	6020A	293120
LB 500-293020/1-B	Method Blank	TCLP	Solid	6020A	293120
LCS 500-293120/2-A	Lab Control Sample	Total/NA	Solid	6020A	293120

Analysis Batch: 293455

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-97615-1	1860-23-B26(0-2)	Total/NA	Solid	6010B	293114
500-97615-2	1860-23-B26(6-8)	Total/NA	Solid	6010B	293114
500-97615-3	1860-23-B25(2-4)	TCLP	Solid	6010B	293120
500-97615-3	1860-23-B25(2-4)	Total/NA	Solid	6010B	293114
500-97615-4	1860-23-B25(10-11.5)	Total/NA	Solid	6010B	293114
500-97615-5	1860-23-B08(0-2)	TCLP	Solid	6010B	293120
500-97615-5	1860-23-B08(0-2)	Total/NA	Solid	6010B	293114
500-97615-6	1860-23-B08(8-10)	Total/NA	Solid	6010B	293114
500-97615-7	1860-23-B06(4-6)	TCLP	Solid	6010B	293120
500-97615-7	1860-23-B06(4-6)	Total/NA	Solid	6010B	293114
500-97615-8	1860-23-B05(6-8)	Total/NA	Solid	6010B	293114
500-97615-9	1860-23-B05(12-14)	TCLP	Solid	6010B	293120
500-97615-9	1860-23-B05(12-14)	Total/NA	Solid	6010B	293114
500-97615-9 DU	1860-23-B05(12-14)	TCLP	Solid	6010B	293120
500-97615-9 MS	1860-23-B05(12-14)	TCLP	Solid	6010B	293120
500-97615-10	1860-23-B05(12-14)D	Total/NA	Solid	6010B	293114
500-97615-11	1860-23-B24(4-5)	TCLP	Solid	6010B	293120

Leach Batch: 293602

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-97615-1	1860-23-B26(0-2)	SPLP East	Solid	1312	
500-97615-1 DU	1860-23-B26(0-2)	SPLP East	Solid	1312	
500-97615-1 MS	1860-23-B26(0-2)	SPLP East	Solid	1312	
500-97615-2	1860-23-B26(6-8)	SPLP East	Solid	1312	
500-97615-3	1860-23-B25(2-4)	SPLP East	Solid	1312	
500-97615-4	1860-23-B25(10-11.5)	SPLP East	Solid	1312	
500-97615-5	1860-23-B08(0-2)	SPLP East	Solid	1312	
500-97615-6	1860-23-B08(8-10)	SPLP East	Solid	1312	
500-97615-7	1860-23-B06(4-6)	SPLP East	Solid	1312	
500-97615-8	1860-23-B05(6-8)	SPLP East	Solid	1312	
500-97615-9	1860-23-B05(12-14)	SPLP East	Solid	1312	
500-97615-10	1860-23-B05(12-14)D	SPLP East	Solid	1312	
500-97615-11	1860-23-B24(4-5)	SPLP East	Solid	1312	

Prep Batch: 293764

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-97615-1	1860-23-B26(0-2)	SPLP East	Solid	3010A	293602
500-97615-1 DU	1860-23-B26(0-2)	SPLP East	Solid	3010A	293602
500-97615-1 MS	1860-23-B26(0-2)	SPLP East	Solid	3010A	293602
500-97615-2	1860-23-B26(6-8)	SPLP East	Solid	3010A	293602

TestAmerica Chicago

QC Association Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97615-1

Metals (Continued)

Prep Batch: 293764 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-97615-3	1860-23-B25(2-4)	SPLP East	Solid	3010A	293602
500-97615-4	1860-23-B25(10-11.5)	SPLP East	Solid	3010A	293602
500-97615-5	1860-23-B08(0-2)	SPLP East	Solid	3010A	293602
500-97615-6	1860-23-B08(8-10)	SPLP East	Solid	3010A	293602
500-97615-7	1860-23-B06(4-6)	SPLP East	Solid	3010A	293602
500-97615-8	1860-23-B05(6-8)	SPLP East	Solid	3010A	293602
500-97615-9	1860-23-B05(12-14)	SPLP East	Solid	3010A	293602
500-97615-10	1860-23-B05(12-14)D	SPLP East	Solid	3010A	293602
500-97615-11	1860-23-B24(4-5)	SPLP East	Solid	3010A	293602
LB 500-293764/1-A	Method Blank	Total/NA	Solid	3010A	
LCS 500-293764/2-A	Lab Control Sample	Total/NA	Solid	3010A	

Analysis Batch: 293904

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-97615-1	1860-23-B26(0-2)	SPLP East	Solid	6010B	293764
500-97615-1 DU	1860-23-B26(0-2)	SPLP East	Solid	6010B	293764
500-97615-1 MS	1860-23-B26(0-2)	SPLP East	Solid	6010B	293764
500-97615-2	1860-23-B26(6-8)	SPLP East	Solid	6010B	293764
500-97615-3	1860-23-B25(2-4)	SPLP East	Solid	6010B	293764
500-97615-4	1860-23-B25(10-11.5)	SPLP East	Solid	6010B	293764
500-97615-5	1860-23-B08(0-2)	SPLP East	Solid	6010B	293764
500-97615-6	1860-23-B08(8-10)	SPLP East	Solid	6010B	293764
500-97615-7	1860-23-B06(4-6)	SPLP East	Solid	6010B	293764
500-97615-8	1860-23-B05(6-8)	SPLP East	Solid	6010B	293764
500-97615-9	1860-23-B05(12-14)	SPLP East	Solid	6010B	293764
500-97615-10	1860-23-B05(12-14)D	SPLP East	Solid	6010B	293764
500-97615-11	1860-23-B24(4-5)	SPLP East	Solid	6010B	293764
LB 500-293764/1-A	Method Blank	Total/NA	Solid	6010B	293764
LCS 500-293764/2-A	Lab Control Sample	Total/NA	Solid	6010B	293764

General Chemistry

Analysis Batch: 292825

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-97615-1	1860-23-B26(0-2)	Total/NA	Solid	Moisture	
500-97615-1 DU	1860-23-B26(0-2)	Total/NA	Solid	Moisture	
500-97615-2	1860-23-B26(6-8)	Total/NA	Solid	Moisture	
500-97615-3	1860-23-B25(2-4)	Total/NA	Solid	Moisture	
500-97615-4	1860-23-B25(10-11.5)	Total/NA	Solid	Moisture	
500-97615-5	1860-23-B08(0-2)	Total/NA	Solid	Moisture	
500-97615-6	1860-23-B08(8-10)	Total/NA	Solid	Moisture	
500-97615-7	1860-23-B06(4-6)	Total/NA	Solid	Moisture	
500-97615-8	1860-23-B05(6-8)	Total/NA	Solid	Moisture	
500-97615-9	1860-23-B05(12-14)	Total/NA	Solid	Moisture	
500-97615-10	1860-23-B05(12-14)D	Total/NA	Solid	Moisture	
500-97615-11	1860-23-B24(4-5)	Total/NA	Solid	Moisture	

Analysis Batch: 292869

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-97615-1	1860-23-B26(0-2)	Total/NA	Solid	9045D	

TestAmerica Chicago

QC Association Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97615-1

General Chemistry (Continued)

Analysis Batch: 292869 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-97615-2	1860-23-B26(6-8)	Total/NA	Solid	9045D	
500-97615-3	1860-23-B25(2-4)	Total/NA	Solid	9045D	
500-97615-4	1860-23-B25(10-11.5)	Total/NA	Solid	9045D	
500-97615-5	1860-23-B08(0-2)	Total/NA	Solid	9045D	
500-97615-6	1860-23-B08(8-10)	Total/NA	Solid	9045D	
500-97615-7	1860-23-B06(4-6)	Total/NA	Solid	9045D	
500-97615-8	1860-23-B05(6-8)	Total/NA	Solid	9045D	
500-97615-9	1860-23-B05(12-14)	Total/NA	Solid	9045D	
500-97615-10	1860-23-B05(12-14)D	Total/NA	Solid	9045D	
500-97615-11	1860-23-B24(4-5)	Total/NA	Solid	9045D	
500-97615-11 DU	1860-23-B24(4-5)	Total/NA	Solid	9045D	

Surrogate Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97615-1

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

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		BFB (70-122)	DBFM (75-120)	12DCE (70-134)	TOL (75-122)
500-97615-1	1860-23-B26(0-2)	88	100	93	96
500-97615-2	1860-23-B26(6-8)	89	108	102	96
500-97615-3	1860-23-B25(2-4)	87	103	99	98
500-97615-4	1860-23-B25(10-11.5)	86	100	95	96
500-97615-5	1860-23-B08(0-2)	84	101	95	97
500-97615-6	1860-23-B08(8-10)	88	106	99	96
500-97615-7	1860-23-B06(4-6)	90	100	99	96
500-97615-8	1860-23-B05(6-8)	86	102	98	93
500-97615-11	1860-23-B24(4-5)	85	102	96	96
LCS 500-293320/5	Lab Control Sample	93	98	89	98
LCS 500-293320/6	Lab Control Sample Dup	92	95	94	98
MB 500-293320/4	Method Blank	91	95	88	95

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

DBFM = Dibromofluoromethane

12DCE = 1,2-Dichloroethane-d4 (Surr)

TOL = Toluene-d8 (Surr)

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

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		BFB (75-120)	DBFM (75-120)	12DCE (75-125)	TOL (75-120)
500-97615-9	1860-23-B05(12-14)	90	96	88	98
500-97615-10	1860-23-B05(12-14)D	93	97	87	98
LCS 500-293992/4	Lab Control Sample	89	101	87	97
MB 500-293992/7	Method Blank	89	98	88	98

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

DBFM = Dibromofluoromethane

12DCE = 1,2-Dichloroethane-d4 (Surr)

TOL = Toluene-d8 (Surr)

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

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		2FP (25-110)	PHL (31-110)	NBZ (25-115)	FBP (25-119)	TBP (35-137)	TPH (36-134)
500-97615-1	1860-23-B26(0-2)	65	64	61	68	90	76
500-97615-1 MS	1860-23-B26(0-2)	46	53	50	53	55	47
500-97615-1 MSD	1860-23-B26(0-2)	47	57	49	64	73	56
500-97615-2	1860-23-B26(6-8)	53	51	45	56	61	76
500-97615-3	1860-23-B25(2-4)	57	56	74	72	70	72
500-97615-4	1860-23-B25(10-11.5)	54	56	56	74	71	75
500-97615-5	1860-23-B08(0-2)	65	60	68	76	96	88
500-97615-6	1860-23-B08(8-10)	59	53	51	59	73	69

TestAmerica Chicago

Surrogate Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97615-1

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

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	2FP	PHL	NBZ	FBP	TBP	TPH
		(25-110)	(31-110)	(25-115)	(25-119)	(35-137)	(36-134)
500-97615-7	1860-23-B06(4-6)	41	36	39	41	47	47
500-97615-8	1860-23-B05(6-8)	42	43	45	51	58	55
500-97615-9	1860-23-B05(12-14)	60	51	62	64	56	82
500-97615-10	1860-23-B05(12-14)D	62	61	71	68	63	92
500-97615-11	1860-23-B24(4-5)	57	47	49	53	60	64
LCS 500-293269/2-A	Lab Control Sample	92	95	96	93	99	102
MB 500-293269/1-A	Method Blank	91	89	83	92	87	102

Surrogate Legend

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

QC Sample Results

Client: Ecology and Environment, Inc.
 Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97615-1

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

Lab Sample ID: MB 500-293320/4
Matrix: Solid
Analysis Batch: 293320

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.0050		0.0050	0.0039	mg/Kg			06/25/15 13:11	1
Benzene	<0.0050		0.0050	0.0011	mg/Kg			06/25/15 13:11	1
Bromodichloromethane	<0.0050		0.0050	0.00084	mg/Kg			06/25/15 13:11	1
Bromoform	<0.0050		0.0050	0.0010	mg/Kg			06/25/15 13:11	1
Bromomethane	<0.0050		0.0050	0.0018	mg/Kg			06/25/15 13:11	1
2-Butanone (MEK)	<0.0050		0.0050	0.0018	mg/Kg			06/25/15 13:11	1
Carbon disulfide	<0.0050		0.0050	0.0018	mg/Kg			06/25/15 13:11	1
Carbon tetrachloride	<0.0050		0.0050	0.0011	mg/Kg			06/25/15 13:11	1
Chlorobenzene	<0.0050		0.0050	0.0012	mg/Kg			06/25/15 13:11	1
Chloroethane	<0.0050		0.0050	0.0021	mg/Kg			06/25/15 13:11	1
Chloroform	<0.0050		0.0050	0.00098	mg/Kg			06/25/15 13:11	1
Chloromethane	<0.0050		0.0050	0.0012	mg/Kg			06/25/15 13:11	1
cis-1,2-Dichloroethene	<0.0050		0.0050	0.0010	mg/Kg			06/25/15 13:11	1
cis-1,3-Dichloropropene	<0.0050		0.0050	0.0011	mg/Kg			06/25/15 13:11	1
Dibromochloromethane	<0.0050		0.0050	0.00058	mg/Kg			06/25/15 13:11	1
1,1-Dichloroethane	<0.0050		0.0050	0.0010	mg/Kg			06/25/15 13:11	1
1,2-Dichloroethane	<0.0050		0.0050	0.00074	mg/Kg			06/25/15 13:11	1
1,1-Dichloroethene	<0.0050		0.0050	0.0018	mg/Kg			06/25/15 13:11	1
1,2-Dichloropropane	<0.0050		0.0050	0.0013	mg/Kg			06/25/15 13:11	1
1,3-Dichloropropene, Total	<0.0050		0.0050	0.0014	mg/Kg			06/25/15 13:11	1
Ethylbenzene	<0.0050		0.0050	0.0012	mg/Kg			06/25/15 13:11	1
2-Hexanone	<0.0050		0.0050	0.0016	mg/Kg			06/25/15 13:11	1
Methylene Chloride	<0.0050		0.0050	0.0038	mg/Kg			06/25/15 13:11	1
4-Methyl-2-pentanone (MIBK)	<0.0050		0.0050	0.0010	mg/Kg			06/25/15 13:11	1
Methyl tert-butyl ether	<0.0050		0.0050	0.0012	mg/Kg			06/25/15 13:11	1
Styrene	<0.0050		0.0050	0.0012	mg/Kg			06/25/15 13:11	1
1,1,2,2-Tetrachloroethane	<0.0050		0.0050	0.00079	mg/Kg			06/25/15 13:11	1
Tetrachloroethene	<0.0050		0.0050	0.0010	mg/Kg			06/25/15 13:11	1
Toluene	<0.0050		0.0050	0.0017	mg/Kg			06/25/15 13:11	1
trans-1,2-Dichloroethene	<0.0050		0.0050	0.0013	mg/Kg			06/25/15 13:11	1
trans-1,3-Dichloropropene	<0.0050		0.0050	0.0014	mg/Kg			06/25/15 13:11	1
1,1,1-Trichloroethane	<0.0050		0.0050	0.0012	mg/Kg			06/25/15 13:11	1
1,1,2-Trichloroethane	<0.0050		0.0050	0.00097	mg/Kg			06/25/15 13:11	1
Trichloroethene	<0.0050		0.0050	0.0014	mg/Kg			06/25/15 13:11	1
Vinyl acetate	<0.0050		0.0050	0.0013	mg/Kg			06/25/15 13:11	1
Vinyl chloride	<0.0050		0.0050	0.0012	mg/Kg			06/25/15 13:11	1
Xylenes, Total	<0.010		0.010	0.0019	mg/Kg			06/25/15 13:11	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	91		70 - 122		06/25/15 13:11	1
Dibromofluoromethane	95		75 - 120		06/25/15 13:11	1
1,2-Dichloroethane-d4 (Surr)	88		70 - 134		06/25/15 13:11	1
Toluene-d8 (Surr)	95		75 - 122		06/25/15 13:11	1

TestAmerica Chicago

QC Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97615-1

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

Lab Sample ID: LCS 500-293320/5

Matrix: Solid

Analysis Batch: 293320

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	0.0480		mg/Kg		96	50 - 133
Benzene	0.0500	0.0506		mg/Kg		101	70 - 120
Bromodichloromethane	0.0500	0.0501		mg/Kg		100	69 - 120
Bromoform	0.0500	0.0526		mg/Kg		105	51 - 127
Bromomethane	0.0500	0.0684	*	mg/Kg		137	69 - 120
2-Butanone (MEK)	0.0500	0.0515		mg/Kg		103	50 - 148
Carbon disulfide	0.0500	0.0383		mg/Kg		77	58 - 120
Carbon tetrachloride	0.0500	0.0462		mg/Kg		92	51 - 124
Chlorobenzene	0.0500	0.0516		mg/Kg		103	70 - 120
Chloroethane	0.0500	0.0630	*	mg/Kg		126	49 - 125
Chloroform	0.0500	0.0487		mg/Kg		97	70 - 120
Chloromethane	0.0500	0.0516		mg/Kg		103	63 - 126
cis-1,2-Dichloroethene	0.0500	0.0487		mg/Kg		97	70 - 120
Dibromochloromethane	0.0500	0.0544		mg/Kg		109	69 - 126
1,1-Dichloroethane	0.0500	0.0461		mg/Kg		92	70 - 120
1,2-Dichloroethane	0.0500	0.0491		mg/Kg		98	70 - 128
1,1-Dichloroethene	0.0500	0.0410		mg/Kg		82	67 - 120
1,2-Dichloropropane	0.0500	0.0499		mg/Kg		100	70 - 120
Ethylbenzene	0.0500	0.0490		mg/Kg		98	70 - 120
2-Hexanone	0.0500	0.0461		mg/Kg		92	50 - 150
Methylene Chloride	0.0500	0.0466		mg/Kg		93	70 - 120
4-Methyl-2-pentanone (MIBK)	0.0500	0.0499		mg/Kg		100	50 - 150
Methyl tert-butyl ether	0.0500	0.0472		mg/Kg		94	70 - 120
Styrene	0.0500	0.0499		mg/Kg		100	70 - 120
1,1,2,2-Tetrachloroethane	0.0500	0.0532		mg/Kg		106	70 - 133
Tetrachloroethene	0.0500	0.0515		mg/Kg		103	70 - 120
Toluene	0.0500	0.0484		mg/Kg		97	70 - 120
trans-1,2-Dichloroethene	0.0500	0.0455		mg/Kg		91	70 - 120
1,1,1-Trichloroethane	0.0500	0.0462		mg/Kg		92	70 - 120
1,1,2-Trichloroethane	0.0500	0.0527		mg/Kg		105	70 - 120
Trichloroethene	0.0500	0.0512		mg/Kg		102	70 - 120
Vinyl acetate	0.0500	0.0567		mg/Kg		113	60 - 150
Vinyl chloride	0.0500	0.0495		mg/Kg		99	69 - 120
Xylenes, Total	0.100	0.0975		mg/Kg		97	70 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	93		70 - 122
Dibromofluoromethane	98		75 - 120
1,2-Dichloroethane-d4 (Surr)	89		70 - 134
Toluene-d8 (Surr)	98		75 - 122

Lab Sample ID: LCSD 500-293320/6

Matrix: Solid

Analysis Batch: 293320

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	0.0556		mg/Kg		111	50 - 133	15	30
Benzene	0.0500	0.0486		mg/Kg		97	70 - 120	4	30

TestAmerica Chicago

QC Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97615-1

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

Lab Sample ID: LCSD 500-293320/6
Matrix: Solid
Analysis Batch: 293320

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
Bromodichloromethane	0.0500	0.0482		mg/Kg		96	69 - 120	4	30
Bromoform	0.0500	0.0527		mg/Kg		105	51 - 127	0	30
Bromomethane	0.0500	0.0587		mg/Kg		117	69 - 120	15	30
2-Butanone (MEK)	0.0500	0.0577		mg/Kg		115	50 - 148	11	30
Carbon disulfide	0.0500	0.0357		mg/Kg		71	58 - 120	7	30
Carbon tetrachloride	0.0500	0.0436		mg/Kg		87	51 - 124	6	30
Chlorobenzene	0.0500	0.0491		mg/Kg		98	70 - 120	5	30
Chloroethane	0.0500	0.0576		mg/Kg		115	49 - 125	9	30
Chloroform	0.0500	0.0469		mg/Kg		94	70 - 120	4	30
Chloromethane	0.0500	0.0463		mg/Kg		93	63 - 126	11	30
cis-1,2-Dichloroethene	0.0500	0.0465		mg/Kg		93	70 - 120	5	30
Dibromochloromethane	0.0500	0.0547		mg/Kg		109	69 - 126	0	30
1,1-Dichloroethane	0.0500	0.0444		mg/Kg		89	70 - 120	4	30
1,2-Dichloroethane	0.0500	0.0486		mg/Kg		97	70 - 128	1	30
1,1-Dichloroethene	0.0500	0.0391		mg/Kg		78	67 - 120	5	30
1,2-Dichloropropane	0.0500	0.0493		mg/Kg		99	70 - 120	1	30
Ethylbenzene	0.0500	0.0470		mg/Kg		94	70 - 120	4	30
2-Hexanone	0.0500	0.0535		mg/Kg		107	50 - 150	15	30
Methylene Chloride	0.0500	0.0451		mg/Kg		90	70 - 120	3	30
4-Methyl-2-pentanone (MIBK)	0.0500	0.0552		mg/Kg		110	50 - 150	10	30
Methyl tert-butyl ether	0.0500	0.0469		mg/Kg		94	70 - 120	1	30
Styrene	0.0500	0.0484		mg/Kg		97	70 - 120	3	30
1,1,2,2-Tetrachloroethane	0.0500	0.0540		mg/Kg		108	70 - 133	1	30
Tetrachloroethene	0.0500	0.0492		mg/Kg		98	70 - 120	5	30
Toluene	0.0500	0.0458		mg/Kg		92	70 - 120	6	30
trans-1,2-Dichloroethene	0.0500	0.0425		mg/Kg		85	70 - 120	7	30
1,1,1-Trichloroethane	0.0500	0.0441		mg/Kg		88	70 - 120	5	30
1,1,2-Trichloroethane	0.0500	0.0532		mg/Kg		106	70 - 120	1	30
Trichloroethene	0.0500	0.0488		mg/Kg		98	70 - 120	5	30
Vinyl acetate	0.0500	0.0574		mg/Kg		115	60 - 150	1	30
Vinyl chloride	0.0500	0.0447		mg/Kg		89	69 - 120	10	30
Xylenes, Total	0.100	0.0924		mg/Kg		92	70 - 120	5	30

Surrogate	LCSD %Recovery	LCSD Qualifier	LCSD Limits
4-Bromofluorobenzene (Surr)	92		70 - 122
Dibromofluoromethane	95		75 - 120
1,2-Dichloroethane-d4 (Surr)	94		70 - 134
Toluene-d8 (Surr)	98		75 - 122

Lab Sample ID: MB 500-293992/7
Matrix: Solid
Analysis Batch: 293992

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.0050		0.0050	0.0013	mg/Kg			07/01/15 10:51	1
Benzene	<0.00025		0.00025	0.000074	mg/Kg			07/01/15 10:51	1
Bromodichloromethane	<0.0020		0.0020	0.00034	mg/Kg			07/01/15 10:51	1
Bromoform	<0.0020		0.0020	0.00044	mg/Kg			07/01/15 10:51	1

TestAmerica Chicago

QC Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97615-1

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

Lab Sample ID: MB 500-293992/7
Matrix: Solid
Analysis Batch: 293992

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromomethane	<0.0020		0.0020	0.00068	mg/Kg			07/01/15 10:51	1
2-Butanone (MEK)	<0.0050		0.0050	0.0015	mg/Kg			07/01/15 10:51	1
Carbon disulfide	<0.0050		0.0050	0.00043	mg/Kg			07/01/15 10:51	1
Carbon tetrachloride	<0.0010		0.0010	0.00026	mg/Kg			07/01/15 10:51	1
Chlorobenzene	<0.0010		0.0010	0.00014	mg/Kg			07/01/15 10:51	1
Chloroethane	<0.0020		0.0020	0.00044	mg/Kg			07/01/15 10:51	1
Chloroform	<0.0010		0.0010	0.00021	mg/Kg			07/01/15 10:51	1
Chloromethane	<0.0020		0.0020	0.00046	mg/Kg			07/01/15 10:51	1
cis-1,2-Dichloroethene	<0.0010		0.0010	0.00012	mg/Kg			07/01/15 10:51	1
cis-1,3-Dichloropropene	<0.0010		0.0010	0.00018	mg/Kg			07/01/15 10:51	1
Dibromochloromethane	<0.0020		0.0020	0.00035	mg/Kg			07/01/15 10:51	1
1,1-Dichloroethane	<0.0010		0.0010	0.00019	mg/Kg			07/01/15 10:51	1
1,2-Dichloroethane	<0.0010		0.0010	0.00029	mg/Kg			07/01/15 10:51	1
1,1-Dichloroethene	<0.0010		0.0010	0.00031	mg/Kg			07/01/15 10:51	1
1,2-Dichloropropane	<0.0010		0.0010	0.00020	mg/Kg			07/01/15 10:51	1
1,3-Dichloropropene, Total	<0.0010		0.0010	0.00018	mg/Kg			07/01/15 10:51	1
Ethylbenzene	<0.00025		0.00025	0.00013	mg/Kg			07/01/15 10:51	1
2-Hexanone	<0.0050		0.0050	0.00056	mg/Kg			07/01/15 10:51	1
Methylene Chloride	<0.0050		0.0050	0.00068	mg/Kg			07/01/15 10:51	1
4-Methyl-2-pentanone (MIBK)	<0.0050		0.0050	0.00033	mg/Kg			07/01/15 10:51	1
Methyl tert-butyl ether	<0.0020		0.0020	0.00043	mg/Kg			07/01/15 10:51	1
Styrene	<0.0010		0.0010	0.000099	mg/Kg			07/01/15 10:51	1
1,1,2,2-Tetrachloroethane	<0.0010		0.0010	0.00023	mg/Kg			07/01/15 10:51	1
Tetrachloroethene	<0.0010		0.0010	0.00017	mg/Kg			07/01/15 10:51	1
Toluene	<0.00025		0.00025	0.00012	mg/Kg			07/01/15 10:51	1
trans-1,2-Dichloroethene	<0.0010		0.0010	0.00025	mg/Kg			07/01/15 10:51	1
trans-1,3-Dichloropropene	<0.0010		0.0010	0.00021	mg/Kg			07/01/15 10:51	1
1,1,1-Trichloroethane	<0.0010		0.0010	0.00020	mg/Kg			07/01/15 10:51	1
1,1,2-Trichloroethane	<0.0010		0.0010	0.00028	mg/Kg			07/01/15 10:51	1
Trichloroethene	<0.00050		0.00050	0.00019	mg/Kg			07/01/15 10:51	1
Vinyl acetate	<0.0020		0.0020	0.00033	mg/Kg			07/01/15 10:51	1
Vinyl chloride	<0.00025		0.00025	0.00010	mg/Kg			07/01/15 10:51	1
Xylenes, Total	<0.00050		0.00050	0.000068	mg/Kg			07/01/15 10:51	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	89		75 - 120		07/01/15 10:51	1
Dibromofluoromethane	98		75 - 120		07/01/15 10:51	1
1,2-Dichloroethane-d4 (Surr)	88		75 - 125		07/01/15 10:51	1
Toluene-d8 (Surr)	98		75 - 120		07/01/15 10:51	1

Lab Sample ID: LCS 500-293992/4
Matrix: Solid
Analysis Batch: 293992

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	0.0331		mg/Kg		66	47 - 131
Benzene	0.0500	0.0472		mg/Kg		94	70 - 120
Bromodichloromethane	0.0500	0.0424		mg/Kg		85	70 - 127

TestAmerica Chicago

QC Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97615-1

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

Lab Sample ID: LCS 500-293992/4
Matrix: Solid
Analysis Batch: 293992

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromoform	0.0500	0.0418		mg/Kg		84	70 - 135
Bromomethane	0.0500	0.0447		mg/Kg		89	30 - 170
2-Butanone (MEK)	0.0500	0.0349		mg/Kg		70	51 - 134
Carbon disulfide	0.0500	0.0466		mg/Kg		93	61 - 120
Carbon tetrachloride	0.0500	0.0460		mg/Kg		92	70 - 136
Chlorobenzene	0.0500	0.0486		mg/Kg		97	70 - 120
Chloroethane	0.0500	0.0482		mg/Kg		96	40 - 150
Chloroform	0.0500	0.0467		mg/Kg		93	70 - 120
Chloromethane	0.0500	0.0351		mg/Kg		70	45 - 140
cis-1,2-Dichloroethene	0.0500	0.0493		mg/Kg		99	70 - 120
Dibromochloromethane	0.0500	0.0451		mg/Kg		90	70 - 120
1,1-Dichloroethane	0.0500	0.0455		mg/Kg		91	70 - 127
1,2-Dichloroethane	0.0500	0.0436		mg/Kg		87	66 - 132
1,1-Dichloroethene	0.0500	0.0503		mg/Kg		101	68 - 121
1,2-Dichloropropane	0.0500	0.0433		mg/Kg		87	70 - 127
Ethylbenzene	0.0500	0.0472		mg/Kg		94	70 - 125
2-Hexanone	0.0500	0.0319		mg/Kg		64	53 - 140
Methylene Chloride	0.0500	0.0462		mg/Kg		92	70 - 120
4-Methyl-2-pentanone (MIBK)	0.0500	0.0339		mg/Kg		68	53 - 135
Methyl tert-butyl ether	0.0500	0.0444		mg/Kg		89	65 - 120
Styrene	0.0500	0.0488		mg/Kg		98	70 - 120
1,1,2,2-Tetrachloroethane	0.0500	0.0461		mg/Kg		92	68 - 133
Tetrachloroethene	0.0500	0.0471		mg/Kg		94	70 - 129
Toluene	0.0500	0.0448		mg/Kg		90	70 - 120
trans-1,2-Dichloroethene	0.0500	0.0480		mg/Kg		96	70 - 120
1,1,1-Trichloroethane	0.0500	0.0460		mg/Kg		92	70 - 125
1,1,2-Trichloroethane	0.0500	0.0468		mg/Kg		94	70 - 125
Trichloroethene	0.0500	0.0518		mg/Kg		104	70 - 122
Vinyl acetate	0.0500	0.0704		mg/Kg		141	30 - 150
Vinyl chloride	0.0500	0.0434		mg/Kg		87	63 - 127
Xylenes, Total	0.100	0.0920		mg/Kg		92	70 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	89		75 - 120
Dibromofluoromethane	101		75 - 120
1,2-Dichloroethane-d4 (Surr)	87		75 - 125
Toluene-d8 (Surr)	97		75 - 120

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

Lab Sample ID: MB 500-293269/1-A
Matrix: Solid
Analysis Batch: 293417

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 293269

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.17		0.17	0.074	mg/Kg		06/25/15 07:25	06/25/15 20:54	1
Bis(2-chloroethyl)ether	<0.17		0.17	0.050	mg/Kg		06/25/15 07:25	06/25/15 20:54	1
1,3-Dichlorobenzene	<0.17		0.17	0.037	mg/Kg		06/25/15 07:25	06/25/15 20:54	1

TestAmerica Chicago

QC Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97615-1

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

Lab Sample ID: MB 500-293269/1-A
Matrix: Solid
Analysis Batch: 293417

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 293269

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1,4-Dichlorobenzene	<0.17		0.17	0.043	mg/Kg		06/25/15 07:25	06/25/15 20:54	1
1,2-Dichlorobenzene	<0.17		0.17	0.040	mg/Kg		06/25/15 07:25	06/25/15 20:54	1
2-Methylphenol	<0.17		0.17	0.053	mg/Kg		06/25/15 07:25	06/25/15 20:54	1
2,2'-oxybis[1-chloropropane]	<0.17		0.17	0.039	mg/Kg		06/25/15 07:25	06/25/15 20:54	1
N-Nitrosodi-n-propylamine	<0.17		0.17	0.041	mg/Kg		06/25/15 07:25	06/25/15 20:54	1
Hexachloroethane	<0.17		0.17	0.051	mg/Kg		06/25/15 07:25	06/25/15 20:54	1
2-Chlorophenol	<0.17		0.17	0.057	mg/Kg		06/25/15 07:25	06/25/15 20:54	1
Nitrobenzene	<0.033		0.033	0.0083	mg/Kg		06/25/15 07:25	06/25/15 20:54	1
Bis(2-chloroethoxy)methane	<0.17		0.17	0.034	mg/Kg		06/25/15 07:25	06/25/15 20:54	1
1,2,4-Trichlorobenzene	<0.17		0.17	0.036	mg/Kg		06/25/15 07:25	06/25/15 20:54	1
Isophorone	<0.17		0.17	0.037	mg/Kg		06/25/15 07:25	06/25/15 20:54	1
2,4-Dimethylphenol	<0.33		0.33	0.13	mg/Kg		06/25/15 07:25	06/25/15 20:54	1
Hexachlorobutadiene	<0.17		0.17	0.052	mg/Kg		06/25/15 07:25	06/25/15 20:54	1
Naphthalene	<0.033		0.033	0.0051	mg/Kg		06/25/15 07:25	06/25/15 20:54	1
2,4-Dichlorophenol	<0.33		0.33	0.079	mg/Kg		06/25/15 07:25	06/25/15 20:54	1
4-Chloroaniline	<0.67		0.67	0.16	mg/Kg		06/25/15 07:25	06/25/15 20:54	1
2,4,6-Trichlorophenol	<0.33		0.33	0.11	mg/Kg		06/25/15 07:25	06/25/15 20:54	1
2,4,5-Trichlorophenol	<0.33		0.33	0.076	mg/Kg		06/25/15 07:25	06/25/15 20:54	1
Hexachlorocyclopentadiene	<0.67		0.67	0.19	mg/Kg		06/25/15 07:25	06/25/15 20:54	1
2-Methylnaphthalene	<0.033		0.033	0.0061	mg/Kg		06/25/15 07:25	06/25/15 20:54	1
2-Nitroaniline	<0.17		0.17	0.045	mg/Kg		06/25/15 07:25	06/25/15 20:54	1
2-Chloronaphthalene	<0.17		0.17	0.037	mg/Kg		06/25/15 07:25	06/25/15 20:54	1
4-Chloro-3-methylphenol	<0.33		0.33	0.11	mg/Kg		06/25/15 07:25	06/25/15 20:54	1
2,6-Dinitrotoluene	<0.17		0.17	0.065	mg/Kg		06/25/15 07:25	06/25/15 20:54	1
2-Nitrophenol	<0.33		0.33	0.079	mg/Kg		06/25/15 07:25	06/25/15 20:54	1
3-Nitroaniline	<0.33		0.33	0.10	mg/Kg		06/25/15 07:25	06/25/15 20:54	1
Dimethyl phthalate	<0.17		0.17	0.043	mg/Kg		06/25/15 07:25	06/25/15 20:54	1
2,4-Dinitrophenol	<0.67		0.67	0.59	mg/Kg		06/25/15 07:25	06/25/15 20:54	1
Acenaphthylene	<0.033		0.033	0.0044	mg/Kg		06/25/15 07:25	06/25/15 20:54	1
2,4-Dinitrotoluene	<0.17		0.17	0.053	mg/Kg		06/25/15 07:25	06/25/15 20:54	1
Acenaphthene	<0.033		0.033	0.0060	mg/Kg		06/25/15 07:25	06/25/15 20:54	1
Dibenzofuran	<0.17		0.17	0.039	mg/Kg		06/25/15 07:25	06/25/15 20:54	1
4-Nitrophenol	<0.67		0.67	0.32	mg/Kg		06/25/15 07:25	06/25/15 20:54	1
Fluorene	<0.033		0.033	0.0047	mg/Kg		06/25/15 07:25	06/25/15 20:54	1
4-Nitroaniline	<0.33		0.33	0.14	mg/Kg		06/25/15 07:25	06/25/15 20:54	1
4-Bromophenyl phenyl ether	<0.17		0.17	0.044	mg/Kg		06/25/15 07:25	06/25/15 20:54	1
Hexachlorobenzene	<0.067		0.067	0.0077	mg/Kg		06/25/15 07:25	06/25/15 20:54	1
Diethyl phthalate	<0.17		0.17	0.056	mg/Kg		06/25/15 07:25	06/25/15 20:54	1
4-Chlorophenyl phenyl ether	<0.17		0.17	0.039	mg/Kg		06/25/15 07:25	06/25/15 20:54	1
Pentachlorophenol	<0.67		0.67	0.53	mg/Kg		06/25/15 07:25	06/25/15 20:54	1
N-Nitrosodiphenylamine	<0.17		0.17	0.039	mg/Kg		06/25/15 07:25	06/25/15 20:54	1
4,6-Dinitro-2-methylphenol	<0.33		0.33	0.27	mg/Kg		06/25/15 07:25	06/25/15 20:54	1
Phenanthrene	<0.033		0.033	0.0046	mg/Kg		06/25/15 07:25	06/25/15 20:54	1
Anthracene	<0.033		0.033	0.0056	mg/Kg		06/25/15 07:25	06/25/15 20:54	1
Carbazole	<0.17		0.17	0.086	mg/Kg		06/25/15 07:25	06/25/15 20:54	1
Di-n-butyl phthalate	<0.17		0.17	0.051	mg/Kg		06/25/15 07:25	06/25/15 20:54	1
Fluoranthene	<0.033		0.033	0.0062	mg/Kg		06/25/15 07:25	06/25/15 20:54	1
Pyrene	<0.033		0.033	0.0066	mg/Kg		06/25/15 07:25	06/25/15 20:54	1

TestAmerica Chicago

QC Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97615-1

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

Lab Sample ID: MB 500-293269/1-A
Matrix: Solid
Analysis Batch: 293417

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 293269

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Butyl benzyl phthalate	<0.17		0.17	0.063	mg/Kg		06/25/15 07:25	06/25/15 20:54	1
Benzo[a]anthracene	<0.033		0.033	0.0045	mg/Kg		06/25/15 07:25	06/25/15 20:54	1
Chrysene	<0.033		0.033	0.0091	mg/Kg		06/25/15 07:25	06/25/15 20:54	1
3,3'-Dichlorobenzidine	<0.17		0.17	0.047	mg/Kg		06/25/15 07:25	06/25/15 20:54	1
Bis(2-ethylhexyl) phthalate	<0.17		0.17	0.061	mg/Kg		06/25/15 07:25	06/25/15 20:54	1
Di-n-octyl phthalate	<0.17		0.17	0.054	mg/Kg		06/25/15 07:25	06/25/15 20:54	1
Benzo[b]fluoranthene	<0.033		0.033	0.0072	mg/Kg		06/25/15 07:25	06/25/15 20:54	1
Benzo[k]fluoranthene	<0.033		0.033	0.0098	mg/Kg		06/25/15 07:25	06/25/15 20:54	1
Benzo[a]pyrene	<0.033		0.033	0.0064	mg/Kg		06/25/15 07:25	06/25/15 20:54	1
Indeno[1,2,3-cd]pyrene	<0.033		0.033	0.0086	mg/Kg		06/25/15 07:25	06/25/15 20:54	1
Dibenz(a,h)anthracene	<0.033		0.033	0.0064	mg/Kg		06/25/15 07:25	06/25/15 20:54	1
Benzo[g,h,i]perylene	<0.033		0.033	0.011	mg/Kg		06/25/15 07:25	06/25/15 20:54	1
3 & 4 Methylphenol	<0.17		0.17	0.055	mg/Kg		06/25/15 07:25	06/25/15 20:54	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	91		25 - 110	06/25/15 07:25	06/25/15 20:54	1
Phenol-d5	89		31 - 110	06/25/15 07:25	06/25/15 20:54	1
Nitrobenzene-d5	83		25 - 115	06/25/15 07:25	06/25/15 20:54	1
2-Fluorobiphenyl	92		25 - 119	06/25/15 07:25	06/25/15 20:54	1
2,4,6-Tribromophenol	87		35 - 137	06/25/15 07:25	06/25/15 20:54	1
Terphenyl-d14	102		36 - 134	06/25/15 07:25	06/25/15 20:54	1

Lab Sample ID: LCS 500-293269/2-A
Matrix: Solid
Analysis Batch: 293417

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 293269

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Phenol	1.33	1.25		mg/Kg		94	41 - 110
Bis(2-chloroethyl)ether	1.33	1.39		mg/Kg		104	32 - 110
1,3-Dichlorobenzene	1.33	1.13		mg/Kg		84	44 - 110
1,4-Dichlorobenzene	1.33	1.15		mg/Kg		86	45 - 110
1,2-Dichlorobenzene	1.33	1.16		mg/Kg		87	48 - 110
2-Methylphenol	1.33	1.25		mg/Kg		94	44 - 110
2,2'-oxybis[1-chloropropane]	1.33	1.17		mg/Kg		88	30 - 115
N-Nitrosodi-n-propylamine	1.33	1.21		mg/Kg		91	24 - 123
Hexachloroethane	1.33	1.14		mg/Kg		86	44 - 110
2-Chlorophenol	1.33	1.25		mg/Kg		94	47 - 114
Nitrobenzene	1.33	1.21		mg/Kg		91	35 - 113
Bis(2-chloroethoxy)methane	1.33	1.25		mg/Kg		94	42 - 110
1,2,4-Trichlorobenzene	1.33	1.21		mg/Kg		91	49 - 110
Isophorone	1.33	1.24		mg/Kg		93	35 - 110
2,4-Dimethylphenol	1.33	1.27		mg/Kg		95	49 - 110
Hexachlorobutadiene	1.33	1.20		mg/Kg		90	47 - 114
Naphthalene	1.33	1.22		mg/Kg		91	48 - 110
2,4-Dichlorophenol	1.33	1.28		mg/Kg		96	53 - 113
4-Chloroaniline	1.33	0.798		mg/Kg		60	16 - 118
2,4,6-Trichlorophenol	1.33	1.29		mg/Kg		97	44 - 118
2,4,5-Trichlorophenol	1.33	1.32		mg/Kg		99	41 - 120

TestAmerica Chicago

QC Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97615-1

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

Lab Sample ID: LCS 500-293269/2-A
Matrix: Solid
Analysis Batch: 293417

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 293269

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Hexachlorocyclopentadiene	1.33	1.07		mg/Kg		80	10 - 110
2-Methylnaphthalene	1.33	1.23		mg/Kg		92	48 - 110
2-Nitroaniline	1.33	1.29		mg/Kg		97	42 - 122
2-Chloronaphthalene	1.33	1.24		mg/Kg		93	52 - 114
4-Chloro-3-methylphenol	1.33	1.26		mg/Kg		95	52 - 111
2,6-Dinitrotoluene	1.33	1.40		mg/Kg		105	54 - 117
2-Nitrophenol	1.33	1.27		mg/Kg		95	48 - 113
3-Nitroaniline	1.33	1.19		mg/Kg		89	36 - 131
Dimethyl phthalate	1.33	1.05		mg/Kg		79	56 - 113
2,4-Dinitrophenol	2.67	0.805		mg/Kg		30	10 - 110
Acenaphthylene	1.33	1.23		mg/Kg		92	49 - 110
2,4-Dinitrotoluene	1.33	1.37		mg/Kg		103	53 - 122
Acenaphthene	1.33	1.15		mg/Kg		86	46 - 110
Dibenzofuran	1.33	1.26		mg/Kg		95	51 - 119
4-Nitrophenol	2.67	2.55		mg/Kg		96	10 - 157
Fluorene	1.33	1.28		mg/Kg		96	47 - 121
4-Nitroaniline	1.33	1.38		mg/Kg		104	28 - 157
4-Bromophenyl phenyl ether	1.33	1.28		mg/Kg		96	55 - 113
Hexachlorobenzene	1.33	1.27		mg/Kg		95	54 - 114
Diethyl phthalate	1.33	1.31		mg/Kg		98	50 - 128
4-Chlorophenyl phenyl ether	1.33	1.28		mg/Kg		96	53 - 117
Pentachlorophenol	2.67	2.46		mg/Kg		92	10 - 124
N-Nitrosodiphenylamine	2.67	2.59		mg/Kg		97	52 - 111
4,6-Dinitro-2-methylphenol	2.67	1.36		mg/Kg		51	10 - 110
Phenanthrene	1.33	1.29		mg/Kg		97	48 - 121
Anthracene	1.33	1.30		mg/Kg		97	48 - 118
Carbazole	1.33	1.38		mg/Kg		104	26 - 188
Di-n-butyl phthalate	1.33	1.34		mg/Kg		101	50 - 128
Fluoranthene	1.33	1.30		mg/Kg		97	48 - 128
Pyrene	1.33	1.31		mg/Kg		98	46 - 114
Butyl benzyl phthalate	1.33	1.32		mg/Kg		99	49 - 121
Benzo[a]anthracene	1.33	1.33		mg/Kg		100	49 - 121
Chrysene	1.33	1.31		mg/Kg		98	45 - 118
3,3'-Dichlorobenzidine	1.33	1.19		mg/Kg		89	26 - 128
Bis(2-ethylhexyl) phthalate	1.33	1.31		mg/Kg		98	47 - 133
Di-n-octyl phthalate	1.33	1.36		mg/Kg		102	46 - 138
Benzo[b]fluoranthene	1.33	1.35		mg/Kg		101	54 - 122
Benzo[k]fluoranthene	1.33	1.29		mg/Kg		96	44 - 137
Benzo[a]pyrene	1.33	1.33		mg/Kg		99	53 - 122
Indeno[1,2,3-cd]pyrene	1.33	1.26		mg/Kg		95	49 - 132
Dibenz(a,h)anthracene	1.33	1.30		mg/Kg		98	48 - 134
Benzo[g,h,i]perylene	1.33	1.21		mg/Kg		91	52 - 125
3 & 4 Methylphenol	1.33	1.24		mg/Kg		93	37 - 122

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
2-Fluorophenol	92		25 - 110
Phenol-d5	95		31 - 110
Nitrobenzene-d5	96		25 - 115

TestAmerica Chicago

QC Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97615-1

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

Lab Sample ID: LCS 500-293269/2-A
Matrix: Solid
Analysis Batch: 293417

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 293269

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorobiphenyl	93		25 - 119
2,4,6-Tribromophenol	99		35 - 137
Terphenyl-d14	102		36 - 134

Lab Sample ID: 500-97615-1 MS
Matrix: Solid
Analysis Batch: 293473

Client Sample ID: 1860-23-B26(0-2)
Prep Type: Total/NA
Prep Batch: 293269

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Phenol	<0.20		1.59	0.780		mg/Kg	☼	49	41 - 110
Bis(2-chloroethyl)ether	<0.20		1.59	0.735		mg/Kg	☼	46	32 - 110
1,3-Dichlorobenzene	<0.20	F1	1.59	0.643	F1	mg/Kg	☼	41	44 - 110
1,4-Dichlorobenzene	<0.20	F1	1.59	0.657	F1	mg/Kg	☼	41	45 - 110
1,2-Dichlorobenzene	<0.20	F1	1.59	0.676	F1	mg/Kg	☼	43	48 - 110
2-Methylphenol	<0.20		1.59	0.985		mg/Kg	☼	62	44 - 110
2,2'-oxybis[1-chloropropane]	<0.20		1.59	0.747		mg/Kg	☼	47	30 - 115
N-Nitrosodi-n-propylamine	<0.20		1.59	0.732		mg/Kg	☼	46	24 - 123
Hexachloroethane	<0.20	F1	1.59	0.502	F1	mg/Kg	☼	32	44 - 110
2-Chlorophenol	<0.20		1.59	0.810		mg/Kg	☼	51	47 - 114
Nitrobenzene	<0.039		1.59	0.801		mg/Kg	☼	50	35 - 113
Bis(2-chloroethoxy)methane	<0.20	F1	1.59	0.719		mg/Kg	☼	45	42 - 110
1,2,4-Trichlorobenzene	<0.20		1.59	0.840		mg/Kg	☼	53	49 - 110
Isophorone	<0.20		1.59	0.708		mg/Kg	☼	45	35 - 110
2,4-Dimethylphenol	<0.39		1.59	0.856		mg/Kg	☼	54	49 - 110
Hexachlorobutadiene	<0.20		1.59	0.888		mg/Kg	☼	56	47 - 114
Naphthalene	<0.039		1.59	0.774		mg/Kg	☼	49	48 - 110
2,4-Dichlorophenol	<0.39		1.59	1.00		mg/Kg	☼	63	53 - 113
4-Chloroaniline	<0.78		1.59	0.807		mg/Kg	☼	51	16 - 118
2,4,6-Trichlorophenol	<0.39		1.59	0.929		mg/Kg	☼	59	44 - 118
2,4,5-Trichlorophenol	<0.39		1.59	0.974		mg/Kg	☼	61	41 - 120
Hexachlorocyclopentadiene	<0.78	F1	1.59	<0.80	F1	mg/Kg	☼	0	10 - 110
2-Methylnaphthalene	<0.039		1.59	0.951		mg/Kg	☼	60	48 - 110
2-Nitroaniline	<0.20		1.59	0.813		mg/Kg	☼	51	42 - 122
2-Chloronaphthalene	<0.20	F1	1.59	0.792	F1	mg/Kg	☼	50	52 - 114
4-Chloro-3-methylphenol	<0.39		1.59	1.03		mg/Kg	☼	65	52 - 111
2,6-Dinitrotoluene	<0.20		1.59	0.907		mg/Kg	☼	57	54 - 117
2-Nitrophenol	<0.39		1.59	0.762		mg/Kg	☼	48	48 - 113
3-Nitroaniline	<0.39		1.59	1.02		mg/Kg	☼	64	36 - 131
Dimethyl phthalate	<0.20		1.59	0.956		mg/Kg	☼	60	56 - 113
2,4-Dinitrophenol	<0.78	F1	3.17	<0.80	F1	mg/Kg	☼	0	10 - 110
Acenaphthylene	<0.039		1.59	0.775		mg/Kg	☼	49	49 - 110
2,4-Dinitrotoluene	<0.20	F1 F2	1.59	0.789	F1	mg/Kg	☼	50	53 - 122
Acenaphthene	<0.039	F2	1.59	0.806		mg/Kg	☼	51	46 - 110
Dibenzofuran	<0.20		1.59	0.909		mg/Kg	☼	57	51 - 119
4-Nitrophenol	<0.78		3.17	1.48		mg/Kg	☼	47	10 - 157
Fluorene	<0.039	F2	1.59	0.896		mg/Kg	☼	57	47 - 121
4-Nitroaniline	<0.39	F2	1.59	0.766		mg/Kg	☼	48	28 - 157
4-Bromophenyl phenyl ether	<0.20		1.59	1.15		mg/Kg	☼	72	55 - 113

TestAmerica Chicago

QC Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97615-1

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

Lab Sample ID: 500-97615-1 MS

Matrix: Solid

Analysis Batch: 293473

Client Sample ID: 1860-23-B26(0-2)

Prep Type: Total/NA

Prep Batch: 293269

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	Limits
	Result	Qualifier	Added	Result	Qualifier				
Hexachlorobenzene	<0.078		1.59	1.18		mg/Kg	☼	74	54 - 114
Diethyl phthalate	<0.20	F2	1.59	0.872		mg/Kg	☼	55	50 - 128
4-Chlorophenyl phenyl ether	<0.20	F2	1.59	0.866		mg/Kg	☼	55	53 - 117
Pentachlorophenol	<0.78		3.17	0.634	J	mg/Kg	☼	20	10 - 124
N-Nitrosodiphenylamine	<0.20		3.17	2.00		mg/Kg	☼	63	52 - 111
4,6-Dinitro-2-methylphenol	<0.39		3.17	1.21		mg/Kg	☼	38	10 - 110
Phenanthrene	0.097		1.59	1.28		mg/Kg	☼	75	48 - 121
Anthracene	0.019	J	1.59	1.19		mg/Kg	☼	74	48 - 118
Carbazole	<0.20		1.59	1.39		mg/Kg	☼	88	26 - 188
Di-n-butyl phthalate	<0.20		1.59	1.25		mg/Kg	☼	78	50 - 128
Fluoranthene	0.17		1.59	1.42		mg/Kg	☼	79	48 - 128
Pyrene	0.12	F2	1.59	0.845		mg/Kg	☼	46	46 - 114
Butyl benzyl phthalate	<0.20	F1 F2	1.59	0.747	F1	mg/Kg	☼	47	49 - 121
Benzo[a]anthracene	0.086		1.59	1.08		mg/Kg	☼	63	49 - 121
Chrysene	0.098		1.59	0.961		mg/Kg	☼	54	45 - 118
3,3'-Dichlorobenzidine	<0.20	F2	1.59	0.457		mg/Kg	☼	29	26 - 128
Bis(2-ethylhexyl) phthalate	<0.20		1.59	0.994		mg/Kg	☼	63	47 - 133
Di-n-octyl phthalate	<0.20		1.59	1.65		mg/Kg	☼	104	46 - 138
Benzo[b]fluoranthene	0.11	F2	1.59	1.10		mg/Kg	☼	62	54 - 122
Benzo[k]fluoranthene	0.052		1.59	1.30		mg/Kg	☼	79	44 - 137
Benzo[a]pyrene	0.083		1.59	1.16		mg/Kg	☼	68	53 - 122
Indeno[1,2,3-cd]pyrene	0.061		1.59	1.20		mg/Kg	☼	72	49 - 132
Dibenz(a,h)anthracene	0.019	J	1.59	1.21		mg/Kg	☼	75	48 - 134
Benzo[g,h,i]perylene	0.071		1.59	1.11		mg/Kg	☼	65	52 - 125
3 & 4 Methylphenol	<0.20		1.59	0.844		mg/Kg	☼	53	37 - 122

Surrogate	MS	MS	Limits
	%Recovery	Qualifier	
2-Fluorophenol	46		25 - 110
Phenol-d5	53		31 - 110
Nitrobenzene-d5	50		25 - 115
2-Fluorobiphenyl	53		25 - 119
2,4,6-Tribromophenol	55		35 - 137
Terphenyl-d14	47		36 - 134

Lab Sample ID: 500-97615-1 MSD

Matrix: Solid

Analysis Batch: 293473

Client Sample ID: 1860-23-B26(0-2)

Prep Type: Total/NA

Prep Batch: 293269

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	Limits	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier						
Phenol	<0.20		1.62	0.844		mg/Kg	☼	52	41 - 110	8	30
Bis(2-chloroethyl)ether	<0.20		1.62	0.781		mg/Kg	☼	48	32 - 110	6	30
1,3-Dichlorobenzene	<0.20	F1	1.62	0.678	F1	mg/Kg	☼	42	44 - 110	5	30
1,4-Dichlorobenzene	<0.20	F1	1.62	0.744		mg/Kg	☼	46	45 - 110	12	30
1,2-Dichlorobenzene	<0.20	F1	1.62	0.691	F1	mg/Kg	☼	43	48 - 110	2	30
2-Methylphenol	<0.20		1.62	0.908		mg/Kg	☼	56	44 - 110	8	30
2,2'-oxybis[1-chloropropane]	<0.20		1.62	0.757		mg/Kg	☼	47	30 - 115	1	30
N-Nitrosodi-n-propylamine	<0.20		1.62	0.775		mg/Kg	☼	48	24 - 123	6	30
Hexachloroethane	<0.20	F1	1.62	0.512	F1	mg/Kg	☼	32	44 - 110	2	30

TestAmerica Chicago

QC Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97615-1

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

Lab Sample ID: 500-97615-1 MSD
Matrix: Solid
Analysis Batch: 293473

Client Sample ID: 1860-23-B26(0-2)
Prep Type: Total/NA
Prep Batch: 293269

Analyte	Sample	Sample Qualifier	Spike Added	MSD	MSD Qualifier	Unit	D	%Rec	%Rec.	RPD	Limit
	Result			Result					Limits		
2-Chlorophenol	<0.20		1.62	0.918		mg/Kg	☼	57	47 - 114	13	30
Nitrobenzene	<0.039		1.62	0.819		mg/Kg	☼	51	35 - 113	2	30
Bis(2-chloroethoxy)methane	<0.20	F1	1.62	0.634	F1	mg/Kg	☼	39	42 - 110	13	30
1,2,4-Trichlorobenzene	<0.20		1.62	0.950		mg/Kg	☼	59	49 - 110	12	30
Isophorone	<0.20		1.62	0.575		mg/Kg	☼	36	35 - 110	21	30
2,4-Dimethylphenol	<0.39		1.62	0.891		mg/Kg	☼	55	49 - 110	4	30
Hexachlorobutadiene	<0.20		1.62	0.929		mg/Kg	☼	57	47 - 114	4	30
Naphthalene	<0.039		1.62	0.865		mg/Kg	☼	53	48 - 110	11	30
2,4-Dichlorophenol	<0.39		1.62	1.14		mg/Kg	☼	71	53 - 113	13	30
4-Chloroaniline	<0.78		1.62	0.776	J	mg/Kg	☼	48	16 - 118	4	30
2,4,6-Trichlorophenol	<0.39		1.62	1.03		mg/Kg	☼	63	44 - 118	10	30
2,4,5-Trichlorophenol	<0.39		1.62	1.22		mg/Kg	☼	76	41 - 120	23	30
Hexachlorocyclopentadiene	<0.78	F1	1.62	<0.81	F1	mg/Kg	☼	0	10 - 110	NC	30
2-Methylnaphthalene	<0.039		1.62	0.839		mg/Kg	☼	52	48 - 110	13	30
2-Nitroaniline	<0.20		1.62	1.04		mg/Kg	☼	65	42 - 122	25	30
2-Chloronaphthalene	<0.20	F1	1.62	0.991		mg/Kg	☼	61	52 - 114	22	30
4-Chloro-3-methylphenol	<0.39		1.62	1.01		mg/Kg	☼	63	52 - 111	1	30
2,6-Dinitrotoluene	<0.20		1.62	1.09		mg/Kg	☼	67	54 - 117	18	30
2-Nitrophenol	<0.39		1.62	0.838		mg/Kg	☼	52	48 - 113	10	30
3-Nitroaniline	<0.39		1.62	1.15		mg/Kg	☼	71	36 - 131	13	30
Dimethyl phthalate	<0.20		1.62	1.27		mg/Kg	☼	79	56 - 113	28	30
2,4-Dinitrophenol	<0.78	F1	3.23	0.893		mg/Kg	☼	28	10 - 110	NC	30
Acenaphthylene	<0.039		1.62	1.04		mg/Kg	☼	65	49 - 110	30	30
2,4-Dinitrotoluene	<0.20	F1 F2	1.62	1.15	F2	mg/Kg	☼	71	53 - 122	37	30
Acenaphthene	<0.039	F2	1.62	1.10	F2	mg/Kg	☼	68	46 - 110	31	30
Dibenzofuran	<0.20		1.62	1.10		mg/Kg	☼	68	51 - 119	19	30
4-Nitrophenol	<0.78		3.23	1.95		mg/Kg	☼	60	10 - 157	28	30
Fluorene	<0.039	F2	1.62	1.34	F2	mg/Kg	☼	83	47 - 121	39	30
4-Nitroaniline	<0.39	F2	1.62	1.20	F2	mg/Kg	☼	74	28 - 157	44	30
4-Bromophenyl phenyl ether	<0.20		1.62	1.21		mg/Kg	☼	75	55 - 113	5	30
Hexachlorobenzene	<0.078		1.62	1.28		mg/Kg	☼	79	54 - 114	8	30
Diethyl phthalate	<0.20	F2	1.62	1.26	F2	mg/Kg	☼	78	50 - 128	37	30
4-Chlorophenyl phenyl ether	<0.20	F2	1.62	1.30	F2	mg/Kg	☼	80	53 - 117	40	30
Pentachlorophenol	<0.78		3.23	0.675	J	mg/Kg	☼	21	10 - 124	6	30
N-Nitrosodiphenylamine	<0.20		3.23	2.46		mg/Kg	☼	76	52 - 111	21	30
4,6-Dinitro-2-methylphenol	<0.39		3.23	1.25		mg/Kg	☼	39	10 - 110	3	30
Phenanthrene	0.097		1.62	1.43		mg/Kg	☼	82	48 - 121	10	30
Anthracene	0.019	J	1.62	1.30		mg/Kg	☼	79	48 - 118	9	30
Carbazole	<0.20		1.62	1.66		mg/Kg	☼	103	26 - 188	17	30
Di-n-butyl phthalate	<0.20		1.62	1.39		mg/Kg	☼	86	50 - 128	11	30
Fluoranthene	0.17		1.62	1.56		mg/Kg	☼	86	48 - 128	9	30
Pyrene	0.12	F2	1.62	1.19	F2	mg/Kg	☼	66	46 - 114	34	30
Butyl benzyl phthalate	<0.20	F1 F2	1.62	1.02	F2	mg/Kg	☼	63	49 - 121	31	30
Benzo[a]anthracene	0.086		1.62	1.23		mg/Kg	☼	71	49 - 121	13	30
Chrysene	0.098		1.62	1.12		mg/Kg	☼	63	45 - 118	16	30
3,3'-Dichlorobenzidine	<0.20	F2	1.62	0.640	F2	mg/Kg	☼	40	26 - 128	33	30
Bis(2-ethylhexyl) phthalate	<0.20		1.62	1.17		mg/Kg	☼	72	47 - 133	16	30
Di-n-octyl phthalate	<0.20		1.62	1.78		mg/Kg	☼	110	46 - 138	8	30

TestAmerica Chicago

QC Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97615-1

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

Lab Sample ID: 500-97615-1 MSD
Matrix: Solid
Analysis Batch: 293473

Client Sample ID: 1860-23-B26(0-2)
Prep Type: Total/NA
Prep Batch: 293269

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier						
Benzo[b]fluoranthene	0.11	F2	1.62	1.54	F2	mg/Kg	☼	88	54 - 122	33	30
Benzo[k]fluoranthene	0.052		1.62	1.29		mg/Kg	☼	77	44 - 137	1	30
Benzo[a]pyrene	0.083		1.62	1.40		mg/Kg	☼	81	53 - 122	19	30
Indeno[1,2,3-cd]pyrene	0.061		1.62	1.49		mg/Kg	☼	88	49 - 132	22	30
Dibenz(a,h)anthracene	0.019	J	1.62	1.50		mg/Kg	☼	91	48 - 134	21	30
Benzo[g,h,i]perylene	0.071		1.62	1.41		mg/Kg	☼	82	52 - 125	24	30
3 & 4 Methylphenol	<0.20		1.62	0.811		mg/Kg	☼	50	37 - 122	4	30

Surrogate	MSD %Recovery	MSD Qualifier	Limits
2-Fluorophenol	47		25 - 110
Phenol-d5	57		31 - 110
Nitrobenzene-d5	49		25 - 115
2-Fluorobiphenyl	64		25 - 119
2,4,6-Tribromophenol	73		35 - 137
Terphenyl-d14	56		36 - 134

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 500-293114/1-A
Matrix: Solid
Analysis Batch: 293278

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 293114

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Antimony	<2.0		2.0	0.42	mg/Kg		06/24/15 09:12	06/24/15 18:54	1
Arsenic	<1.0		1.0	0.46	mg/Kg		06/24/15 09:12	06/24/15 18:54	1
Barium	<1.0		1.0	0.18	mg/Kg		06/24/15 09:12	06/24/15 18:54	1
Beryllium	<0.40		0.40	0.087	mg/Kg		06/24/15 09:12	06/24/15 18:54	1
Boron	<5.0		5.0	0.70	mg/Kg		06/24/15 09:12	06/24/15 18:54	1
Cadmium	<0.20		0.20	0.058	mg/Kg		06/24/15 09:12	06/24/15 18:54	1
Calcium	<20		20	6.4	mg/Kg		06/24/15 09:12	06/24/15 18:54	1
Chromium	<1.0		1.0	0.17	mg/Kg		06/24/15 09:12	06/24/15 18:54	1
Cobalt	<0.50		0.50	0.11	mg/Kg		06/24/15 09:12	06/24/15 18:54	1
Copper	<1.0		1.0	0.22	mg/Kg		06/24/15 09:12	06/24/15 18:54	1
Iron	10.0	J	20	7.7	mg/Kg		06/24/15 09:12	06/24/15 18:54	1
Lead	<0.50		0.50	0.25	mg/Kg		06/24/15 09:12	06/24/15 18:54	1
Magnesium	4.34	J	10	4.1	mg/Kg		06/24/15 09:12	06/24/15 18:54	1
Manganese	0.360	J	1.0	0.20	mg/Kg		06/24/15 09:12	06/24/15 18:54	1
Nickel	<1.0		1.0	0.27	mg/Kg		06/24/15 09:12	06/24/15 18:54	1
Potassium	<50		50	8.2	mg/Kg		06/24/15 09:12	06/24/15 18:54	1
Selenium	<1.0		1.0	0.50	mg/Kg		06/24/15 09:12	06/24/15 18:54	1
Silver	<0.50		0.50	0.12	mg/Kg		06/24/15 09:12	06/24/15 18:54	1
Sodium	<100		100	13	mg/Kg		06/24/15 09:12	06/24/15 18:54	1
Thallium	<1.0		1.0	0.49	mg/Kg		06/24/15 09:12	06/24/15 18:54	1
Vanadium	<0.50		0.50	0.15	mg/Kg		06/24/15 09:12	06/24/15 18:54	1
Zinc	1.26	J	2.0	0.63	mg/Kg		06/24/15 09:12	06/24/15 18:54	1

TestAmerica Chicago

QC Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97615-1

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

Lab Sample ID: LCS 500-293114/2-A
Matrix: Solid
Analysis Batch: 293278

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 293114
%Rec.

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Antimony	50.0	49.7		mg/Kg		99	80 - 120
Arsenic	10.0	10.1		mg/Kg		101	80 - 120
Barium	200	199		mg/Kg		100	80 - 120
Beryllium	5.00	5.07		mg/Kg		101	80 - 120
Boron	100	92.6		mg/Kg		93	80 - 120
Cadmium	5.00	5.04		mg/Kg		101	80 - 120
Calcium	1000	1020		mg/Kg		102	80 - 120
Chromium	20.0	20.8		mg/Kg		104	80 - 120
Cobalt	50.0	51.1		mg/Kg		102	80 - 120
Copper	25.0	26.5		mg/Kg		106	80 - 120
Iron	100	103		mg/Kg		103	80 - 120
Lead	10.0	10.4		mg/Kg		104	80 - 120
Magnesium	1000	976		mg/Kg		98	80 - 120
Manganese	50.0	50.5		mg/Kg		101	80 - 120
Nickel	50.0	51.4		mg/Kg		103	80 - 120
Potassium	1000	1030		mg/Kg		103	80 - 120
Selenium	10.0	8.66		mg/Kg		87	80 - 120
Silver	5.00	4.87		mg/Kg		97	80 - 120
Sodium	1000	1070		mg/Kg		107	80 - 120
Thallium	10.0	9.37		mg/Kg		94	80 - 120
Vanadium	50.0	52.3		mg/Kg		105	80 - 120
Zinc	50.0	51.8		mg/Kg		104	80 - 120

Lab Sample ID: LCS 500-293120/2-A
Matrix: Solid
Analysis Batch: 293281

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 293120
%Rec.

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Barium	0.500	0.502		mg/L		100	80 - 120
Beryllium	0.0500	0.0491		mg/L		98	80 - 120
Boron	1.00	0.917		mg/L		92	80 - 120
Cadmium	0.0500	0.0488		mg/L		98	80 - 120
Chromium	0.200	0.198		mg/L		99	80 - 120
Cobalt	0.500	0.512		mg/L		102	80 - 120
Iron	1.00	1.08		mg/L		108	80 - 120
Lead	0.100	0.101		mg/L		101	80 - 120
Manganese	0.500	0.501		mg/L		100	80 - 120
Nickel	0.500	0.504		mg/L		101	80 - 120
Selenium	0.100	0.0929		mg/L		93	80 - 120
Silver	0.0500	0.0482		mg/L		96	80 - 120
Zinc	0.500	0.507	^	mg/L		101	80 - 120

Lab Sample ID: LB 500-293764/1-A
Matrix: Solid
Analysis Batch: 293904

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 293764

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		06/29/15 10:35	06/30/15 11:36	1

TestAmerica Chicago

QC Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97615-1

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

Lab Sample ID: LB 500-293764/1-A
Matrix: Solid
Analysis Batch: 293904

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 293764

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	<0.050		0.050	0.0075	mg/L		06/29/15 10:35	06/30/15 11:36	1
Manganese	<0.025		0.025	0.010	mg/L		06/29/15 10:35	06/30/15 11:36	1

Lab Sample ID: LCS 500-293764/2-A
Matrix: Solid
Analysis Batch: 293904

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 293764

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Cadmium	0.0500	0.0486		mg/L		97	80 - 120
Lead	0.100	0.0989		mg/L		99	80 - 120
Manganese	0.500	0.494		mg/L		99	80 - 120

Lab Sample ID: LB 500-293020/1-B
Matrix: Solid
Analysis Batch: 293281

Client Sample ID: Method Blank
Prep Type: TCLP
Prep Batch: 293120

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	<0.50		0.50	0.050	mg/L		06/24/15 09:00	06/24/15 18:01	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		06/24/15 09:00	06/24/15 18:01	1
Boron	<0.50		0.50	0.050	mg/L		06/24/15 09:00	06/24/15 18:01	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		06/24/15 09:00	06/24/15 18:01	1
Chromium	<0.025		0.025	0.010	mg/L		06/24/15 09:00	06/24/15 18:01	1
Cobalt	<0.025		0.025	0.010	mg/L		06/24/15 09:00	06/24/15 18:01	1
Iron	<0.20		0.20	0.20	mg/L		06/24/15 09:00	06/24/15 18:01	1
Lead	<0.0075		0.0075	0.0075	mg/L		06/24/15 09:00	06/24/15 18:01	1
Manganese	<0.025		0.025	0.010	mg/L		06/24/15 09:00	06/24/15 18:01	1
Nickel	<0.025		0.025	0.010	mg/L		06/24/15 09:00	06/24/15 18:01	1
Selenium	<0.050		0.050	0.020	mg/L		06/24/15 09:00	06/24/15 18:01	1
Silver	<0.025		0.025	0.010	mg/L		06/24/15 09:00	06/24/15 18:01	1
Zinc	0.0293	J ^	0.10	0.020	mg/L		06/24/15 09:00	06/24/15 18:01	1

Lab Sample ID: 500-97615-9 MS
Matrix: Solid
Analysis Batch: 293281

Client Sample ID: 1860-23-B05(12-14)
Prep Type: TCLP
Prep Batch: 293120

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Barium	0.25	J	0.500	0.739		mg/L		98	50 - 150
Beryllium	<0.0040		0.0500	0.0499		mg/L		100	50 - 150
Boron	0.65		1.00	1.54		mg/L		89	50 - 150
Cadmium	<0.0050		0.0500	0.0530		mg/L		106	50 - 150
Chromium	<0.025		0.200	0.191		mg/L		95	50 - 150
Cobalt	0.034		0.500	0.593		mg/L		112	50 - 150
Iron	<0.20		1.00	1.07		mg/L		107	50 - 150
Lead	<0.0075		0.100	0.105		mg/L		105	50 - 150
Manganese	1.7		0.500	2.21		mg/L		100	50 - 150
Nickel	0.071		0.500	0.616		mg/L		109	50 - 150
Selenium	0.020	J	0.100	0.119		mg/L		119	50 - 150
Silver	<0.025		0.0500	0.0531		mg/L		106	50 - 150

TestAmerica Chicago

QC Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97615-1

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

Lab Sample ID: 500-97615-9 MS

Matrix: Solid

Analysis Batch: 293455

Client Sample ID: 1860-23-B05(12-14)

Prep Type: TCLP

Prep Batch: 293120

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Zinc	0.33	B	0.500	0.865		mg/L		106	50 - 150

Lab Sample ID: 500-97615-9 DU

Matrix: Solid

Analysis Batch: 293281

Client Sample ID: 1860-23-B05(12-14)

Prep Type: TCLP

Prep Batch: 293120

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Barium	0.25	J	0.259	J	mg/L		3	20
Beryllium	<0.0040		<0.0040		mg/L		NC	20
Boron	0.65		0.670		mg/L		3	20
Cadmium	<0.0050		<0.0050		mg/L		NC	20
Chromium	<0.025		<0.025		mg/L		NC	20
Cobalt	0.034		0.0349		mg/L		3	20
Iron	<0.20		<0.20		mg/L		NC	20
Lead	<0.0075		<0.0075		mg/L		NC	20
Manganese	1.7		1.78		mg/L		4	20
Nickel	0.071		0.0742		mg/L		4	20
Selenium	0.020	J	0.0239	J	mg/L		18	20
Silver	<0.025		<0.025		mg/L		NC	20

Lab Sample ID: 500-97615-9 DU

Matrix: Solid

Analysis Batch: 293455

Client Sample ID: 1860-23-B05(12-14)

Prep Type: TCLP

Prep Batch: 293120

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Zinc	0.33	B	0.341		mg/L		2	20

Lab Sample ID: 500-97615-1 MS

Matrix: Solid

Analysis Batch: 293904

Client Sample ID: 1860-23-B26(0-2)

Prep Type: SPLP East

Prep Batch: 293764

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Manganese	0.059		0.500	0.526		mg/L		93	50 - 150

Lab Sample ID: 500-97615-1 DU

Matrix: Solid

Analysis Batch: 293904

Client Sample ID: 1860-23-B26(0-2)

Prep Type: SPLP East

Prep Batch: 293764

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Manganese	0.059		0.0560		mg/L		6	20

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: LCS 500-293120/2-A

Matrix: Solid

Analysis Batch: 293352

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 293120

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Antimony	0.500	0.436		mg/L		87	80 - 120

TestAmerica Chicago

QC Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97615-1

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

Lab Sample ID: LCS 500-293120/2-A
Matrix: Solid
Analysis Batch: 293352

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 293120
%Rec.

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Thallium	0.100	0.100		mg/L		100	80 - 120

Lab Sample ID: LB 500-293020/1-B
Matrix: Solid
Analysis Batch: 293352

Client Sample ID: Method Blank
Prep Type: TCLP
Prep Batch: 293120

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		06/24/15 09:00	06/24/15 18:20	1
Thallium	<0.0020		0.0020	0.0020	mg/L		06/24/15 09:00	06/24/15 18:20	1

Lab Sample ID: 500-97615-9 MS
Matrix: Solid
Analysis Batch: 293352

Client Sample ID: 1860-23-B05(12-14)
Prep Type: TCLP
Prep Batch: 293120
%Rec.

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Antimony	<0.0060		0.500	0.428		mg/L		86	50 - 150
Thallium	<0.0020		0.100	0.109		mg/L		109	50 - 150

Lab Sample ID: 500-97615-9 DU
Matrix: Solid
Analysis Batch: 293352

Client Sample ID: 1860-23-B05(12-14)
Prep Type: TCLP
Prep Batch: 293120

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
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 500-293118/12-A
Matrix: Solid
Analysis Batch: 293193

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 293118

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		06/24/15 09:30	06/24/15 13:36	1

Lab Sample ID: LCS 500-293118/13-A
Matrix: Solid
Analysis Batch: 293193

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 293118
%Rec.

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Mercury	0.00200	0.00209		mg/L		104	80 - 120

Lab Sample ID: LB 500-293020/1-C
Matrix: Solid
Analysis Batch: 293193

Client Sample ID: Method Blank
Prep Type: TCLP
Prep Batch: 293118

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		06/24/15 09:30	06/24/15 13:40	1

TestAmerica Chicago

QC Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97615-1

Method: 7470A - TCLP Mercury (Continued)

Lab Sample ID: 500-97615-1 MS
Matrix: Solid
Analysis Batch: 293193

Client Sample ID: 1860-23-B26(0-2)
Prep Type: TCLP
Prep Batch: 293118

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Mercury	<0.00020		0.00100	0.00103		mg/L		103	50 - 150

Lab Sample ID: 500-97615-1 DU
Matrix: Solid
Analysis Batch: 293193

Client Sample ID: 1860-23-B26(0-2)
Prep Type: TCLP
Prep Batch: 293118

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 in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Lab Sample ID: MB 500-292811/12-A
Matrix: Solid
Analysis Batch: 293090

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 292811

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.017		0.017	0.0058	mg/Kg		06/22/15 13:00	06/23/15 14:57	1

Lab Sample ID: LCS 500-292811/13-A
Matrix: Solid
Analysis Batch: 293090

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 292811

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Mercury	0.167	0.181		mg/Kg		108	80 - 120

Lab Sample ID: 500-97615-1 MS
Matrix: Solid
Analysis Batch: 293090

Client Sample ID: 1860-23-B26(0-2)
Prep Type: Total/NA
Prep Batch: 292811

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Mercury	0.045		0.0895	0.140		mg/Kg	☼	106	80 - 120

Lab Sample ID: 500-97615-1 MSD
Matrix: Solid
Analysis Batch: 293090

Client Sample ID: 1860-23-B26(0-2)
Prep Type: Total/NA
Prep Batch: 292811

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Mercury	0.045		0.0959	0.151		mg/Kg	☼	111	80 - 120	8	20

Lab Sample ID: 500-97615-1 DU
Matrix: Solid
Analysis Batch: 293090

Client Sample ID: 1860-23-B26(0-2)
Prep Type: Total/NA
Prep Batch: 292811

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Mercury	0.045		0.0501		mg/Kg	☼	10	20

TestAmerica Chicago

QC Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97615-1

Method: 9045D - pH

Lab Sample ID: 500-97615-11 DU
Matrix: Solid
Analysis Batch: 292869

Client Sample ID: 1860-23-B24(4-5)
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
pH	7.96		7.980		SU		0.3	

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15

Lab Chronicle

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97615-1

Client Sample ID: 1860-23-B26(0-2)

Lab Sample ID: 500-97615-1

Date Collected: 06/19/15 09:55

Matrix: Solid

Date Received: 06/19/15 17:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
SPLP East	Leach	1312			293602	06/27/15 13:00	CMV	TAL CHI
SPLP East	Prep	3010A			293764	06/29/15 10:35	JML	TAL CHI
SPLP East	Analysis	6010B		1	293904	06/30/15 11:44	PJ1	TAL CHI
TCLP	Leach	1311			293020	06/23/15 13:00	CMV	TAL CHI
TCLP	Prep	3010A			293120	06/24/15 09:00	DAJ	TAL CHI
TCLP	Analysis	6010B		1	293281	06/24/15 18:15	PJ1	TAL CHI
TCLP	Leach	1311			293020	06/23/15 13:00	CMV	TAL CHI
TCLP	Prep	3010A			293120	06/24/15 09:00	DAJ	TAL CHI
TCLP	Analysis	6020A		1	293352	06/24/15 18:28	PFK	TAL CHI
TCLP	Leach	1311			293020	06/23/15 13:00	CMV	TAL CHI
TCLP	Prep	7470A			293118	06/24/15 09:30	MJD	TAL CHI
TCLP	Analysis	7470A		1	293193	06/24/15 13:44	MJD	TAL CHI
Total/NA	Analysis	9045D		1	292869		SMO	TAL CHI
					(Start)	06/22/15 14:42		
					(End)	06/22/15 14:44		
Total/NA	Analysis	Moisture		1	292825	06/22/15 13:43	LWN	TAL CHI

Client Sample ID: 1860-23-B26(0-2)

Lab Sample ID: 500-97615-1

Date Collected: 06/19/15 09:55

Matrix: Solid

Date Received: 06/19/15 17:05

Percent Solids: 82.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			293028	06/20/15 15:07	WRE	TAL CHI
Total/NA	Analysis	8260B		1	293320	06/25/15 19:18	DJD	TAL CHI
Total/NA	Prep	3541			293269	06/25/15 07:25	STW	TAL CHI
Total/NA	Analysis	8270D		1	293473	06/26/15 15:29	BJH	TAL CHI
Total/NA	Prep	3050B			293114	06/24/15 09:12	JML	TAL CHI
Total/NA	Analysis	6010B		1	293278	06/24/15 19:22	PJ1	TAL CHI
Total/NA	Prep	3050B			293114	06/24/15 09:12	JML	TAL CHI
Total/NA	Analysis	6010B		5	293455	06/25/15 12:39	KML	TAL CHI
Total/NA	Prep	7471B			292811	06/22/15 13:00	MJD	TAL CHI
Total/NA	Analysis	7471B		1	293090	06/23/15 15:01	MJD	TAL CHI

Client Sample ID: 1860-23-B26(6-8)

Lab Sample ID: 500-97615-2

Date Collected: 06/19/15 10:00

Matrix: Solid

Date Received: 06/19/15 17:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
SPLP East	Leach	1312			293602	06/27/15 13:00	CMV	TAL CHI
SPLP East	Prep	3010A			293764	06/29/15 10:35	JML	TAL CHI
SPLP East	Analysis	6010B		1	293904	06/30/15 12:00	PJ1	TAL CHI
TCLP	Leach	1311			293020	06/23/15 13:00	CMV	TAL CHI
TCLP	Prep	3010A			293120	06/24/15 09:00	DAJ	TAL CHI
TCLP	Analysis	6010B		1	293281	06/24/15 18:20	PJ1	TAL CHI

TestAmerica Chicago

Lab Chronicle

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97615-1

Client Sample ID: 1860-23-B26(6-8)

Lab Sample ID: 500-97615-2

Date Collected: 06/19/15 10:00

Matrix: Solid

Date Received: 06/19/15 17:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Leach	1311			293020	06/23/15 13:00	CMV	TAL CHI
TCLP	Prep	3010A			293120	06/24/15 09:00	DAJ	TAL CHI
TCLP	Analysis	6020A		1	293352	06/24/15 18:32	PFK	TAL CHI
TCLP	Leach	1311			293020	06/23/15 13:00	CMV	TAL CHI
TCLP	Prep	7470A			293118	06/24/15 09:30	MJD	TAL CHI
TCLP	Analysis	7470A		1	293193	06/24/15 13:50	MJD	TAL CHI
Total/NA	Analysis	9045D		1	292869	(Start) 06/22/15 14:44 (End) 06/22/15 14:46	SMO	TAL CHI
Total/NA	Analysis	Moisture		1	292825	06/22/15 13:43	LWN	TAL CHI

Client Sample ID: 1860-23-B26(6-8)

Lab Sample ID: 500-97615-2

Date Collected: 06/19/15 10:00

Matrix: Solid

Date Received: 06/19/15 17:05

Percent Solids: 78.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			293028	06/20/15 15:07	WRE	TAL CHI
Total/NA	Analysis	8260B		1	293320	06/25/15 19:42	DJD	TAL CHI
Total/NA	Prep	3541			293269	06/25/15 07:25	STW	TAL CHI
Total/NA	Analysis	8270D		1	293473	06/26/15 15:51	BJH	TAL CHI
Total/NA	Prep	3050B			293114	06/24/15 09:12	JML	TAL CHI
Total/NA	Analysis	6010B		1	293278	06/24/15 19:27	PJ1	TAL CHI
Total/NA	Prep	3050B			293114	06/24/15 09:12	JML	TAL CHI
Total/NA	Analysis	6010B		5	293455	06/25/15 12:43	KML	TAL CHI
Total/NA	Prep	7471B			292811	06/22/15 13:00	MJD	TAL CHI
Total/NA	Analysis	7471B		1	293090	06/23/15 15:09	MJD	TAL CHI

Client Sample ID: 1860-23-B25(2-4)

Lab Sample ID: 500-97615-3

Date Collected: 06/19/15 10:55

Matrix: Solid

Date Received: 06/19/15 17:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
SPLP East	Leach	1312			293602	06/27/15 13:00	CMV	TAL CHI
SPLP East	Prep	3010A			293764	06/29/15 10:35	JML	TAL CHI
SPLP East	Analysis	6010B		1	293904	06/30/15 12:04	PJ1	TAL CHI
TCLP	Leach	1311			293020	06/23/15 13:00	CMV	TAL CHI
TCLP	Prep	3010A			293120	06/24/15 09:00	DAJ	TAL CHI
TCLP	Analysis	6010B		1	293281	06/24/15 18:25	PJ1	TAL CHI
TCLP	Leach	1311			293020	06/23/15 13:00	CMV	TAL CHI
TCLP	Prep	3010A			293120	06/24/15 09:00	DAJ	TAL CHI
TCLP	Analysis	6010B		1	293455	06/25/15 11:37	KML	TAL CHI
TCLP	Leach	1311			293020	06/23/15 13:00	CMV	TAL CHI
TCLP	Prep	3010A			293120	06/24/15 09:00	DAJ	TAL CHI
TCLP	Analysis	6020A		1	293352	06/24/15 18:47	PFK	TAL CHI

TestAmerica Chicago

Lab Chronicle

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97615-1

Client Sample ID: 1860-23-B25(2-4)

Lab Sample ID: 500-97615-3

Date Collected: 06/19/15 10:55

Matrix: Solid

Date Received: 06/19/15 17:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Leach	1311			293020	06/23/15 13:00	CMV	TAL CHI
TCLP	Prep	7470A			293118	06/24/15 09:30	MJD	TAL CHI
TCLP	Analysis	7470A		1	293193	06/24/15 13:52	MJD	TAL CHI
Total/NA	Analysis	9045D		1	292869		SMO	TAL CHI
					(Start)	06/22/15 14:46		
					(End)	06/22/15 14:48		
Total/NA	Analysis	Moisture		1	292825	06/22/15 13:43	LWN	TAL CHI

Client Sample ID: 1860-23-B25(2-4)

Lab Sample ID: 500-97615-3

Date Collected: 06/19/15 10:55

Matrix: Solid

Date Received: 06/19/15 17:05

Percent Solids: 85.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			293028	06/20/15 15:07	WRE	TAL CHI
Total/NA	Analysis	8260B		1	293320	06/25/15 20:06	DJD	TAL CHI
Total/NA	Prep	3541			293269	06/25/15 07:25	STW	TAL CHI
Total/NA	Analysis	8270D		5	293473	06/26/15 16:12	BJH	TAL CHI
Total/NA	Prep	3050B			293114	06/24/15 09:12	JML	TAL CHI
Total/NA	Analysis	6010B		1	293278	06/24/15 19:32	PJ1	TAL CHI
Total/NA	Prep	3050B			293114	06/24/15 09:12	JML	TAL CHI
Total/NA	Analysis	6010B		5	293455	06/25/15 12:47	KML	TAL CHI
Total/NA	Prep	7471B			292811	06/22/15 13:00	MJD	TAL CHI
Total/NA	Analysis	7471B		1	293090	06/23/15 15:11	MJD	TAL CHI

Client Sample ID: 1860-23-B25(10-11.5)

Lab Sample ID: 500-97615-4

Date Collected: 06/19/15 11:00

Matrix: Solid

Date Received: 06/19/15 17:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
SPLP East	Leach	1312			293602	06/27/15 13:00	CMV	TAL CHI
SPLP East	Prep	3010A			293764	06/29/15 10:35	JML	TAL CHI
SPLP East	Analysis	6010B		1	293904	06/30/15 12:08	PJ1	TAL CHI
TCLP	Leach	1311			293020	06/23/15 13:00	CMV	TAL CHI
TCLP	Prep	3010A			293120	06/24/15 09:00	DAJ	TAL CHI
TCLP	Analysis	6010B		1	293281	06/24/15 18:30	PJ1	TAL CHI
TCLP	Leach	1311			293020	06/23/15 13:00	CMV	TAL CHI
TCLP	Prep	3010A			293120	06/24/15 09:00	DAJ	TAL CHI
TCLP	Analysis	6020A		1	293352	06/24/15 18:51	PFK	TAL CHI
TCLP	Leach	1311			293020	06/23/15 13:00	CMV	TAL CHI
TCLP	Prep	7470A			293118	06/24/15 09:30	MJD	TAL CHI
TCLP	Analysis	7470A		1	293193	06/24/15 13:58	MJD	TAL CHI
Total/NA	Analysis	9045D		1	292869		SMO	TAL CHI
					(Start)	06/22/15 14:48		
					(End)	06/22/15 14:50		

TestAmerica Chicago

Lab Chronicle

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97615-1

Client Sample ID: 1860-23-B25(10-11.5)

Lab Sample ID: 500-97615-4

Date Collected: 06/19/15 11:00

Matrix: Solid

Date Received: 06/19/15 17:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	292825	06/22/15 13:43	LWN	TAL CHI

Client Sample ID: 1860-23-B25(10-11.5)

Lab Sample ID: 500-97615-4

Date Collected: 06/19/15 11:00

Matrix: Solid

Date Received: 06/19/15 17:05

Percent Solids: 84.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			293028	06/20/15 15:07	WRE	TAL CHI
Total/NA	Analysis	8260B		1	293320	06/25/15 20:30	DJD	TAL CHI
Total/NA	Prep	3541			293269	06/25/15 07:25	STW	TAL CHI
Total/NA	Analysis	8270D		1	293473	06/26/15 16:34	BJH	TAL CHI
Total/NA	Prep	3050B			293114	06/24/15 09:12	JML	TAL CHI
Total/NA	Analysis	6010B		1	293278	06/24/15 19:37	PJ1	TAL CHI
Total/NA	Prep	3050B			293114	06/24/15 09:12	JML	TAL CHI
Total/NA	Analysis	6010B		5	293455	06/25/15 12:52	KML	TAL CHI
Total/NA	Prep	7471B			292811	06/22/15 13:00	MJD	TAL CHI
Total/NA	Analysis	7471B		1	293090	06/23/15 15:13	MJD	TAL CHI

Client Sample ID: 1860-23-B08(0-2)

Lab Sample ID: 500-97615-5

Date Collected: 06/19/15 11:55

Matrix: Solid

Date Received: 06/19/15 17:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
SPLP East	Leach	1312			293602	06/27/15 13:00	CMV	TAL CHI
SPLP East	Prep	3010A			293764	06/29/15 10:35	JML	TAL CHI
SPLP East	Analysis	6010B		1	293904	06/30/15 12:19	PJ1	TAL CHI
TCLP	Leach	1311			293020	06/23/15 13:00	CMV	TAL CHI
TCLP	Prep	3010A			293120	06/24/15 09:00	DAJ	TAL CHI
TCLP	Analysis	6010B		1	293281	06/24/15 18:35	PJ1	TAL CHI
TCLP	Leach	1311			293020	06/23/15 13:00	CMV	TAL CHI
TCLP	Prep	3010A			293120	06/24/15 09:00	DAJ	TAL CHI
TCLP	Analysis	6010B		1	293455	06/25/15 11:42	KML	TAL CHI
TCLP	Leach	1311			293020	06/23/15 13:00	CMV	TAL CHI
TCLP	Prep	3010A			293120	06/24/15 09:00	DAJ	TAL CHI
TCLP	Analysis	6020A		1	293352	06/24/15 18:54	PFK	TAL CHI
TCLP	Leach	1311			293020	06/23/15 13:00	CMV	TAL CHI
TCLP	Prep	7470A			293118	06/24/15 09:30	MJD	TAL CHI
TCLP	Analysis	7470A		1	293193	06/24/15 13:59	MJD	TAL CHI
Total/NA	Analysis	9045D		1	292869		SMO	TAL CHI
					(Start)	06/22/15 14:50		
					(End)	06/22/15 14:53		
Total/NA	Analysis	Moisture		1	292825	06/22/15 13:43	LWN	TAL CHI

TestAmerica Chicago

Lab Chronicle

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97615-1

Client Sample ID: 1860-23-B08(0-2)

Lab Sample ID: 500-97615-5

Date Collected: 06/19/15 11:55

Matrix: Solid

Date Received: 06/19/15 17:05

Percent Solids: 84.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			293028	06/20/15 15:07	WRE	TAL CHI
Total/NA	Analysis	8260B		1	293320	06/25/15 20:54	DJD	TAL CHI
Total/NA	Prep	3541			293269	06/25/15 07:25	STW	TAL CHI
Total/NA	Analysis	8270D		1	293473	06/26/15 16:55	BJH	TAL CHI
Total/NA	Prep	3050B			293114	06/24/15 09:12	JML	TAL CHI
Total/NA	Analysis	6010B		1	293278	06/24/15 19:49	PJ1	TAL CHI
Total/NA	Prep	3050B			293114	06/24/15 09:12	JML	TAL CHI
Total/NA	Analysis	6010B		5	293455	06/25/15 12:56	KML	TAL CHI
Total/NA	Prep	7471B			292811	06/22/15 13:00	MJD	TAL CHI
Total/NA	Analysis	7471B		1	293090	06/23/15 15:19	MJD	TAL CHI

Client Sample ID: 1860-23-B08(8-10)

Lab Sample ID: 500-97615-6

Date Collected: 06/19/15 12:00

Matrix: Solid

Date Received: 06/19/15 17:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
SPLP East	Leach	1312			293602	06/27/15 13:00	CMV	TAL CHI
SPLP East	Prep	3010A			293764	06/29/15 10:35	JML	TAL CHI
SPLP East	Analysis	6010B		1	293904	06/30/15 12:23	PJ1	TAL CHI
TCLP	Leach	1311			293020	06/23/15 13:00	CMV	TAL CHI
TCLP	Prep	3010A			293120	06/24/15 09:00	DAJ	TAL CHI
TCLP	Analysis	6010B		1	293281	06/24/15 18:40	PJ1	TAL CHI
TCLP	Leach	1311			293020	06/23/15 13:00	CMV	TAL CHI
TCLP	Prep	3010A			293120	06/24/15 09:00	DAJ	TAL CHI
TCLP	Analysis	6020A		1	293352	06/24/15 18:58	PFK	TAL CHI
TCLP	Leach	1311			293020	06/23/15 13:00	CMV	TAL CHI
TCLP	Prep	7470A			293118	06/24/15 09:30	MJD	TAL CHI
TCLP	Analysis	7470A		1	293193	06/24/15 14:01	MJD	TAL CHI
Total/NA	Analysis	9045D		1	292869		SMO	TAL CHI
					(Start)	06/22/15 14:53		
					(End)	06/22/15 14:55		
Total/NA	Analysis	Moisture		1	292825	06/22/15 13:43	LWN	TAL CHI

Client Sample ID: 1860-23-B08(8-10)

Lab Sample ID: 500-97615-6

Date Collected: 06/19/15 12:00

Matrix: Solid

Date Received: 06/19/15 17:05

Percent Solids: 84.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			293028	06/20/15 15:07	WRE	TAL CHI
Total/NA	Analysis	8260B		1	293320	06/25/15 21:19	DJD	TAL CHI
Total/NA	Prep	3541			293269	06/25/15 07:25	STW	TAL CHI
Total/NA	Analysis	8270D		1	293473	06/26/15 17:17	BJH	TAL CHI
Total/NA	Prep	3050B			293114	06/24/15 09:12	JML	TAL CHI
Total/NA	Analysis	6010B		1	293278	06/24/15 19:54	PJ1	TAL CHI

TestAmerica Chicago

Lab Chronicle

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97615-1

Client Sample ID: 1860-23-B08(8-10)

Lab Sample ID: 500-97615-6

Date Collected: 06/19/15 12:00

Matrix: Solid

Date Received: 06/19/15 17:05

Percent Solids: 84.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			293114	06/24/15 09:12	JML	TAL CHI
Total/NA	Analysis	6010B		5	293455	06/25/15 13:00	KML	TAL CHI
Total/NA	Prep	7471B			292811	06/22/15 13:00	MJD	TAL CHI
Total/NA	Analysis	7471B		1	293090	06/23/15 15:21	MJD	TAL CHI

Client Sample ID: 1860-23-B06(4-6)

Lab Sample ID: 500-97615-7

Date Collected: 06/19/15 12:20

Matrix: Solid

Date Received: 06/19/15 17:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
SPLP East	Leach	1312			293602	06/27/15 13:00	CMV	TAL CHI
SPLP East	Prep	3010A			293764	06/29/15 10:35	JML	TAL CHI
SPLP East	Analysis	6010B		1	293904	06/30/15 12:27	PJ1	TAL CHI
TCLP	Leach	1311			293020	06/23/15 13:00	CMV	TAL CHI
TCLP	Prep	3010A			293120	06/24/15 09:00	DAJ	TAL CHI
TCLP	Analysis	6010B		1	293281	06/24/15 18:45	PJ1	TAL CHI
TCLP	Leach	1311			293020	06/23/15 13:00	CMV	TAL CHI
TCLP	Prep	3010A			293120	06/24/15 09:00	DAJ	TAL CHI
TCLP	Analysis	6010B		1	293455	06/25/15 11:47	KML	TAL CHI
TCLP	Leach	1311			293020	06/23/15 13:00	CMV	TAL CHI
TCLP	Prep	3010A			293120	06/24/15 09:00	DAJ	TAL CHI
TCLP	Analysis	6020A		1	293352	06/24/15 19:02	PFK	TAL CHI
TCLP	Leach	1311			293020	06/23/15 13:00	CMV	TAL CHI
TCLP	Prep	7470A			293118	06/24/15 09:30	MJD	TAL CHI
TCLP	Analysis	7470A		1	293193	06/24/15 14:03	MJD	TAL CHI
Total/NA	Analysis	9045D		1	292869		SMO	TAL CHI
					(Start)	06/22/15 14:55		
					(End)	06/22/15 14:57		
Total/NA	Analysis	Moisture		1	292825	06/22/15 13:43	LWN	TAL CHI

Client Sample ID: 1860-23-B06(4-6)

Lab Sample ID: 500-97615-7

Date Collected: 06/19/15 12:20

Matrix: Solid

Date Received: 06/19/15 17:05

Percent Solids: 82.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			293028	06/20/15 15:07	WRE	TAL CHI
Total/NA	Analysis	8260B		1	293320	06/25/15 21:44	DJD	TAL CHI
Total/NA	Prep	3541			293269	06/25/15 07:25	STW	TAL CHI
Total/NA	Analysis	8270D		1	293473	06/26/15 14:46	BJH	TAL CHI
Total/NA	Prep	3050B			293114	06/24/15 09:12	JML	TAL CHI
Total/NA	Analysis	6010B		1	293278	06/24/15 19:59	PJ1	TAL CHI
Total/NA	Prep	3050B			293114	06/24/15 09:12	JML	TAL CHI
Total/NA	Analysis	6010B		5	293455	06/25/15 13:15	KML	TAL CHI
Total/NA	Prep	7471B			292811	06/22/15 13:00	MJD	TAL CHI

TestAmerica Chicago

Lab Chronicle

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97615-1

Client Sample ID: 1860-23-B06(4-6)

Lab Sample ID: 500-97615-7

Date Collected: 06/19/15 12:20

Matrix: Solid

Date Received: 06/19/15 17:05

Percent Solids: 82.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	7471B		1	293090	06/23/15 15:23	MJD	TAL CHI

Client Sample ID: 1860-23-B05(6-8)

Lab Sample ID: 500-97615-8

Date Collected: 06/19/15 13:30

Matrix: Solid

Date Received: 06/19/15 17:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
SPLP East	Leach	1312			293602	06/27/15 13:00	CMV	TAL CHI
SPLP East	Prep	3010A			293764	06/29/15 10:35	JML	TAL CHI
SPLP East	Analysis	6010B		1	293904	06/30/15 12:31	PJ1	TAL CHI
TCLP	Leach	1311			293020	06/23/15 13:00	CMV	TAL CHI
TCLP	Prep	3010A			293120	06/24/15 09:00	DAJ	TAL CHI
TCLP	Analysis	6010B		1	293281	06/24/15 18:57	PJ1	TAL CHI
TCLP	Leach	1311			293020	06/23/15 13:00	CMV	TAL CHI
TCLP	Prep	3010A			293120	06/24/15 09:00	DAJ	TAL CHI
TCLP	Analysis	6020A		1	293352	06/24/15 19:06	PFK	TAL CHI
TCLP	Leach	1311			293020	06/23/15 13:00	CMV	TAL CHI
TCLP	Prep	7470A			293118	06/24/15 09:30	MJD	TAL CHI
TCLP	Analysis	7470A		1	293193	06/24/15 14:05	MJD	TAL CHI
Total/NA	Analysis	9045D		1	292869	(Start) 06/22/15 14:57 (End) 06/22/15 14:59	SMO	TAL CHI
Total/NA	Analysis	Moisture		1	292825	06/22/15 13:43	LWN	TAL CHI

Client Sample ID: 1860-23-B05(6-8)

Lab Sample ID: 500-97615-8

Date Collected: 06/19/15 13:30

Matrix: Solid

Date Received: 06/19/15 17:05

Percent Solids: 81.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			293028	06/20/15 15:07	WRE	TAL CHI
Total/NA	Analysis	8260B		1	293320	06/25/15 22:08	DJD	TAL CHI
Total/NA	Prep	3541			293269	06/25/15 07:25	STW	TAL CHI
Total/NA	Analysis	8270D		1	293473	06/26/15 17:38	BJH	TAL CHI
Total/NA	Prep	3050B			293114	06/24/15 09:12	JML	TAL CHI
Total/NA	Analysis	6010B		1	293278	06/24/15 20:04	PJ1	TAL CHI
Total/NA	Prep	3050B			293114	06/24/15 09:12	JML	TAL CHI
Total/NA	Analysis	6010B		5	293455	06/25/15 13:19	KML	TAL CHI
Total/NA	Prep	7471B			292811	06/22/15 13:00	MJD	TAL CHI
Total/NA	Analysis	7471B		1	293090	06/23/15 15:25	MJD	TAL CHI

TestAmerica Chicago

Lab Chronicle

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97615-1

Client Sample ID: 1860-23-B05(12-14)

Lab Sample ID: 500-97615-9

Date Collected: 06/19/15 13:35

Matrix: Solid

Date Received: 06/19/15 17:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
SPLP East	Leach	1312			293602	06/27/15 13:00	CMV	TAL CHI
SPLP East	Prep	3010A			293764	06/29/15 10:35	JML	TAL CHI
SPLP East	Analysis	6010B		1	293904	06/30/15 12:35	PJ1	TAL CHI
TCLP	Leach	1311			293020	06/23/15 13:00	CMV	TAL CHI
TCLP	Prep	3010A			293120	06/24/15 09:00	DAJ	TAL CHI
TCLP	Analysis	6010B		1	293281	06/24/15 19:02	PJ1	TAL CHI
TCLP	Leach	1311			293020	06/23/15 13:00	CMV	TAL CHI
TCLP	Prep	3010A			293120	06/24/15 09:00	DAJ	TAL CHI
TCLP	Analysis	6010B		1	293455	06/25/15 11:52	KML	TAL CHI
TCLP	Leach	1311			293020	06/23/15 13:00	CMV	TAL CHI
TCLP	Prep	3010A			293120	06/24/15 09:00	DAJ	TAL CHI
TCLP	Analysis	6020A		1	293352	06/24/15 19:10	PFK	TAL CHI
TCLP	Leach	1311			293020	06/23/15 13:00	CMV	TAL CHI
TCLP	Prep	7470A			293118	06/24/15 09:30	MJD	TAL CHI
TCLP	Analysis	7470A		1	293193	06/24/15 14:07	MJD	TAL CHI
Total/NA	Analysis	9045D		1	292869	(Start) 06/22/15 14:59 (End) 06/22/15 15:01	SMO	TAL CHI
Total/NA	Analysis	Moisture		1	292825	06/22/15 13:43	LWN	TAL CHI

Client Sample ID: 1860-23-B05(12-14)

Lab Sample ID: 500-97615-9

Date Collected: 06/19/15 13:35

Matrix: Solid

Date Received: 06/19/15 17:05

Percent Solids: 89.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			292832	06/19/15 13:35	BDW	TAL CHI
Total/NA	Analysis	8260B		50	293992	07/01/15 16:37	EMA	TAL CHI
Total/NA	Prep	3541			293269	06/25/15 07:25	STW	TAL CHI
Total/NA	Analysis	8270D		1	293473	06/26/15 18:00	BJH	TAL CHI
Total/NA	Prep	3050B			293114	06/24/15 09:12	JML	TAL CHI
Total/NA	Analysis	6010B		1	293278	06/24/15 20:09	PJ1	TAL CHI
Total/NA	Prep	3050B			293114	06/24/15 09:12	JML	TAL CHI
Total/NA	Analysis	6010B		5	293455	06/25/15 13:23	KML	TAL CHI
Total/NA	Prep	7471B			292811	06/22/15 13:00	MJD	TAL CHI
Total/NA	Analysis	7471B		1	293090	06/23/15 15:27	MJD	TAL CHI

Client Sample ID: 1860-23-B05(12-14)D

Lab Sample ID: 500-97615-10

Date Collected: 06/19/15 13:35

Matrix: Solid

Date Received: 06/19/15 17:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
SPLP East	Leach	1312			293602	06/27/15 13:00	CMV	TAL CHI
SPLP East	Prep	3010A			293764	06/29/15 10:35	JML	TAL CHI
SPLP East	Analysis	6010B		1	293904	06/30/15 12:39	PJ1	TAL CHI

TestAmerica Chicago

Lab Chronicle

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97615-1

Client Sample ID: 1860-23-B05(12-14)D

Lab Sample ID: 500-97615-10

Date Collected: 06/19/15 13:35

Matrix: Solid

Date Received: 06/19/15 17:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Leach	1311			293020	06/23/15 13:00	CMV	TAL CHI
TCLP	Prep	3010A			293120	06/24/15 09:00	DAJ	TAL CHI
TCLP	Analysis	6010B		1	293281	06/24/15 19:23	PJ1	TAL CHI
TCLP	Leach	1311			293020	06/23/15 13:00	CMV	TAL CHI
TCLP	Prep	3010A			293120	06/24/15 09:00	DAJ	TAL CHI
TCLP	Analysis	6020A		1	293352	06/24/15 19:36	PFK	TAL CHI
TCLP	Leach	1311			293020	06/23/15 13:00	CMV	TAL CHI
TCLP	Prep	7470A			293118	06/24/15 09:30	MJD	TAL CHI
TCLP	Analysis	7470A		1	293193	06/24/15 14:09	MJD	TAL CHI
Total/NA	Analysis	9045D		1	292869		SMO	TAL CHI
					(Start)	06/22/15 15:01		
					(End)	06/22/15 15:04		
Total/NA	Analysis	Moisture		1	292825	06/22/15 13:43	LWN	TAL CHI

Client Sample ID: 1860-23-B05(12-14)D

Lab Sample ID: 500-97615-10

Date Collected: 06/19/15 13:35

Matrix: Solid

Date Received: 06/19/15 17:05

Percent Solids: 90.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			292832	06/19/15 13:35	BDW	TAL CHI
Total/NA	Analysis	8260B		50	293992	07/01/15 17:04	EMA	TAL CHI
Total/NA	Prep	3541			293269	06/25/15 07:25	STW	TAL CHI
Total/NA	Analysis	8270D		1	293473	06/26/15 18:21	BJH	TAL CHI
Total/NA	Prep	3050B			293114	06/24/15 09:12	JML	TAL CHI
Total/NA	Analysis	6010B		1	293278	06/24/15 20:14	PJ1	TAL CHI
Total/NA	Prep	3050B			293114	06/24/15 09:12	JML	TAL CHI
Total/NA	Analysis	6010B		5	293455	06/25/15 13:27	KML	TAL CHI
Total/NA	Prep	7471B			292811	06/22/15 13:00	MJD	TAL CHI
Total/NA	Analysis	7471B		1	293090	06/23/15 15:29	MJD	TAL CHI

Client Sample ID: 1860-23-B24(4-5)

Lab Sample ID: 500-97615-11

Date Collected: 06/19/15 14:40

Matrix: Solid

Date Received: 06/19/15 17:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
SPLP East	Leach	1312			293602	06/27/15 13:00	CMV	TAL CHI
SPLP East	Prep	3010A			293764	06/29/15 10:35	JML	TAL CHI
SPLP East	Analysis	6010B		1	293904	06/30/15 12:43	PJ1	TAL CHI
TCLP	Leach	1311			293020	06/23/15 13:00	CMV	TAL CHI
TCLP	Prep	3010A			293120	06/24/15 09:00	DAJ	TAL CHI
TCLP	Analysis	6010B		1	293281	06/24/15 19:28	PJ1	TAL CHI
TCLP	Leach	1311			293020	06/23/15 13:00	CMV	TAL CHI
TCLP	Prep	3010A			293120	06/24/15 09:00	DAJ	TAL CHI
TCLP	Analysis	6010B		1	293455	06/25/15 12:20	KML	TAL CHI

TestAmerica Chicago

Lab Chronicle

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97615-1

Client Sample ID: 1860-23-B24(4-5)

Lab Sample ID: 500-97615-11

Date Collected: 06/19/15 14:40

Matrix: Solid

Date Received: 06/19/15 17:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Leach	1311			293020	06/23/15 13:00	CMV	TAL CHI
TCLP	Prep	3010A			293120	06/24/15 09:00	DAJ	TAL CHI
TCLP	Analysis	6020A		1	293352	06/24/15 19:40	PFK	TAL CHI
TCLP	Leach	1311			293020	06/23/15 13:00	CMV	TAL CHI
TCLP	Prep	7470A			293118	06/24/15 09:30	MJD	TAL CHI
TCLP	Analysis	7470A		1	293193	06/24/15 14:11	MJD	TAL CHI
Total/NA	Analysis	9045D		1	292869		SMO	TAL CHI
					(Start)	06/22/15 15:04		
					(End)	06/22/15 15:06		
Total/NA	Analysis	Moisture		1	292825	06/22/15 13:43	LWN	TAL CHI

Client Sample ID: 1860-23-B24(4-5)

Lab Sample ID: 500-97615-11

Date Collected: 06/19/15 14:40

Matrix: Solid

Date Received: 06/19/15 17:05

Percent Solids: 83.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			293028	06/20/15 15:07	WRE	TAL CHI
Total/NA	Analysis	8260B		1	293320	06/25/15 22:32	DJD	TAL CHI
Total/NA	Prep	3541			293269	06/25/15 07:25	STW	TAL CHI
Total/NA	Analysis	8270D		1	293473	06/26/15 15:08	BJH	TAL CHI
Total/NA	Prep	3050B			293114	06/24/15 09:12	JML	TAL CHI
Total/NA	Analysis	6010B		1	293278	06/24/15 20:27	PJ1	TAL CHI
Total/NA	Prep	3050B			293114	06/24/15 09:12	JML	TAL CHI
Total/NA	Analysis	6010B		5	293278	06/24/15 20:32	PJ1	TAL CHI
Total/NA	Prep	7471B			292811	06/22/15 13:00	MJD	TAL CHI
Total/NA	Analysis	7471B		1	293090	06/23/15 15:31	MJD	TAL CHI

Laboratory References:

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

Certification Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97615-1

Laboratory: TestAmerica Chicago

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Illinois	NELAP	5	100201	04-30-16

The following analytes are included in this report, but certification is not offered by the governing authority:

Analysis Method	Prep Method	Matrix	Analyte
6020A	3010A	Solid	Antimony
6020A	3010A	Solid	Thallium
7470A	7470A	Solid	Mercury
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# _____



500-97615 COC

Chain of Custody Record

Lab Job # 500-97615

Chain of Custody Number: _____

Page _____ of _____

Temperature °C of Cooler: _____

Client		Client Project #		Preservative		Parameter		Matrix		Comments	
EE		1009008-0031-01									
Project Name		Lab Project #		# of Containers		Matrix		Matrix		Comments	
IL 171		50411058									
Project Location/State		Lab PM		Date		Time		Matrix		Comments	
Cook County, IL		D. W. J. J. J.									
Sampler		Sample ID		Date		Time		Matrix		Comments	
S. Cooper											
1	MS/MSD	1860-23-B26(0-2)	6-19-15	0955	2	S	X	X	X	X	
2	MS/MSD	1860-23-B26(6-8)	6-19-15	1000	2	S	X	X	X	X	
3	MS/MSD	1860-23-B25(2-4)	6-19-15	1055	2	S	X	X	X	X	
4	MS/MSD	1860-23-B25(10-11.5)	6-19-15	1100	2	S	X	X	X	X	
5	MS/MSD	1860-23-B08(0-2)	6-19-15	1155	2	S	X	X	X	X	
6	MS/MSD	1860-23-B08(8-10)	6-19-15	1200	2	S	X	X	X	X	
7	MS/MSD	1860-23-B06(4-6)	6-19-15	1220	2	S	X	X	X	X	
8	MS/MSD	1860-23-B05(6-8)	6-19-15	1330	2	S	X	X	X	X	
9	MS/MSD	1860-23-B05(12-14)	6-19-15	1335	2	S	X	X	X	X	
10	MS/MSD	1860-23-B05(12-M)D	6-19-15	1335	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 	Company EE	Date 6-19-15	Time 1502	Received By 	Company TA	Date 6/19/15	Time 1502
Relinquished By 	Company TA	Date 6/19/15	Time 1705	Received By 	Company TA	Date 6/19/15	Time 1905
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 - Wipe
 - DW - Drinking Water
 - O - Other

Client Comments:

Lab Comments:

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 #: 500-77615

Chain of Custody Number: _____

Page _____ of _____

Temperature °C of Cooler: _____

Client		Client Project #		Preservative		Parameter		Matrix		Comments	
Lab ID	MS/MSD	Sample ID	Date	Time	# of Containers	Matrix					
EE		1009008-0031-01									
Project Name TL 121		Lab Project # 50011058									
Project Location/State Cook County, IL		Lab PM D. Wright									
Sampler S. Cooper											
							VOC	SUOL	TOTL METALS	TUPLSPUD METALS	PH/OR SILET
11		1860-23-1324 (4-5)	6-19-15	1440	2	1	X	X	X	X	X
6-19-15											

- 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) _____
 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>EE</u>	Date: <u>6-19-15</u>	Time: <u>1502</u>	Received By: <u>[Signature]</u>	Company: <u>TH</u>	Date: <u>6/19/15</u>	Time: <u>1502</u>	Lab Courier: _____
Relinquished By: <u>[Signature]</u>	Company: <u>TH</u>	Date: <u>6/19/15</u>	Time: <u>1705</u>	Received By: <u>[Signature]</u>	Company: <u>TH</u>	Date: <u>6/19/15</u>	Time: <u>1705</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: 500-97615-1

Login Number: 97615
List Number: 1
Creator: James, Jeff A

List Source: TestAmerica Chicago

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
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.	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: 500-97658-1
Client Project/Site: IDOT - IL 171 - WO 031

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

Attn: Mr. Dean Tiebout



Authorized for release by:
7/7/2015 2:26:30 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.

1

2

3

4

5

6

7

8

9



Table of Contents

Cover Page	1
Table of Contents	2
Case Narrative	3
Detection Summary	4
Sample Summary	14
Client Sample Results	15
Definitions	60
Chain of Custody	61
Receipt Checklists	63

Case Narrative

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97658-1

Job ID: 500-97658-1

Laboratory: TestAmerica Chicago

Narrative

Job Narrative 500-97658-1

Receipt

The samples were received on 6/22/2015 4:10 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 2.8° C and 3.1° C.

GC/MS VOA

Method(s) 8260B: The following sample was diluted due to the abundance of non-target analytes: 1860-23-B04 (10-12) (500-97658-7). Elevated reporting limits (RLs) are provided.

Method(s) 8260B: The laboratory control sample (LCS) for batch 293320 recovered outside control limits for the following analytes: Bromomethane, Chloroethane. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method(s) 8260B: The MS/ MSD (matrix spike/matrix spike duplicate) samples in batch 293320 were analyzed beginning 33 minutes outside the method specified 12 hour tune time.

1860-23-B04 (10-12) (500-97658-7)

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 continuing calibration blanks (CCB) at lines 26 and 50 for analytical batch 500-293597 contained Nickel greater than the reporting limit (RL), and the associated samples were not reanalyzed because they had results for Nickel below the method reporting limit. 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 - IL 171 - WO 031

TestAmerica Job ID: 500-97658-1

Client Sample ID: 1860-23-B13 (2-4)

Lab Sample ID: 500-97658-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	0.011		0.0045	0.0035	mg/Kg	1	☼	8260B	Total/NA
Naphthalene	0.0088	J	0.038	0.0059	mg/Kg	1	☼	8270D	Total/NA
2-Methylnaphthalene	0.033	J	0.038	0.0070	mg/Kg	1	☼	8270D	Total/NA
Phenanthrene	0.058		0.038	0.0053	mg/Kg	1	☼	8270D	Total/NA
Anthracene	0.012	J	0.038	0.0064	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.040		0.038	0.0071	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.044		0.038	0.0076	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.027	J	0.038	0.0051	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.043		0.038	0.010	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.024	J	0.038	0.0082	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.014	J	0.038	0.011	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.020	J	0.038	0.0074	mg/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.014	J	0.038	0.0099	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.019	J	0.038	0.012	mg/Kg	1	☼	8270D	Total/NA
Arsenic	7.1		0.58	0.27	mg/Kg	1	☼	6010B	Total/NA
Barium	49		0.58	0.11	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.44		0.23	0.050	mg/Kg	1	☼	6010B	Total/NA
Boron	9.4		2.9	0.40	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.63	F1	0.12	0.033	mg/Kg	1	☼	6010B	Total/NA
Calcium	65000		58	19	mg/Kg	5	☼	6010B	Total/NA
Chromium	16	F1	0.58	0.099	mg/Kg	1	☼	6010B	Total/NA
Cobalt	9.9		0.29	0.065	mg/Kg	1	☼	6010B	Total/NA
Copper	29	B F1	0.58	0.13	mg/Kg	1	☼	6010B	Total/NA
Iron	17000	B	12	4.5	mg/Kg	1	☼	6010B	Total/NA
Lead	33		0.29	0.14	mg/Kg	1	☼	6010B	Total/NA
Magnesium	31000		5.8	2.3	mg/Kg	1	☼	6010B	Total/NA
Manganese	350		0.58	0.11	mg/Kg	1	☼	6010B	Total/NA
Nickel	26		0.58	0.16	mg/Kg	1	☼	6010B	Total/NA
Potassium	1700	F1	29	4.7	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.44	J	0.58	0.29	mg/Kg	1	☼	6010B	Total/NA
Silver	0.17	J	0.29	0.068	mg/Kg	1	☼	6010B	Total/NA
Sodium	1300	F1	58	7.6	mg/Kg	1	☼	6010B	Total/NA
Vanadium	13		0.29	0.084	mg/Kg	1	☼	6010B	Total/NA
Zinc	83	B F1	1.2	0.37	mg/Kg	1	☼	6010B	Total/NA
Barium	0.22	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.98		0.50	0.050	mg/L	1		6010B	TCLP
Cadmium	0.0039	J	0.0050	0.0020	mg/L	1		6010B	TCLP
Cobalt	0.014	J	0.025	0.010	mg/L	1		6010B	TCLP
Manganese	2.3		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.026		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.098	J B	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.054		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.027	F1	0.017	0.0060	mg/Kg	1	☼	7471B	Total/NA
pH	8.13		0.200	0.200	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 - IL 171 - WO 031

TestAmerica Job ID: 500-97658-1

1

2

3

4

5

6

7

8

9

Client Sample ID: 1860-23-B16 (0-2)

Lab Sample ID: 500-97658-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Phenanthrene	0.031	J	0.039	0.0055	mg/Kg	1	*		8270D	Total/NA
Fluoranthene	0.030	J	0.039	0.0073	mg/Kg	1	*		8270D	Total/NA
Pyrene	0.044		0.039	0.0078	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 - IL 171 - WO 031

TestAmerica Job ID: 500-97658-1

Client Sample ID: 1860-23-B16 (0-2) (Continued)

Lab Sample ID: 500-97658-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]anthracene	0.020	J	0.039	0.0053	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.049		0.039	0.011	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.033	J	0.039	0.0085	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.018	J	0.039	0.012	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.027	J	0.039	0.0076	mg/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.024	J	0.039	0.010	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.026	J	0.039	0.013	mg/Kg	1	☼	8270D	Total/NA
Arsenic	11		0.59	0.27	mg/Kg	1	☼	6010B	Total/NA
Barium	36		0.59	0.11	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.39		0.24	0.051	mg/Kg	1	☼	6010B	Total/NA
Boron	7.9		3.0	0.41	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.38		0.12	0.034	mg/Kg	1	☼	6010B	Total/NA
Calcium	69000		59	19	mg/Kg	5	☼	6010B	Total/NA
Chromium	9.3		0.59	0.10	mg/Kg	1	☼	6010B	Total/NA
Cobalt	12		0.30	0.067	mg/Kg	1	☼	6010B	Total/NA
Copper	31	B	0.59	0.13	mg/Kg	1	☼	6010B	Total/NA
Iron	18000	B	12	4.6	mg/Kg	1	☼	6010B	Total/NA
Lead	30		0.30	0.15	mg/Kg	1	☼	6010B	Total/NA
Magnesium	34000		5.9	2.4	mg/Kg	1	☼	6010B	Total/NA
Manganese	420		0.59	0.12	mg/Kg	1	☼	6010B	Total/NA
Nickel	27		0.59	0.16	mg/Kg	1	☼	6010B	Total/NA
Potassium	1300		30	4.8	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.80		0.59	0.29	mg/Kg	1	☼	6010B	Total/NA
Silver	0.079	J	0.30	0.069	mg/Kg	1	☼	6010B	Total/NA
Sodium	470		59	7.8	mg/Kg	1	☼	6010B	Total/NA
Thallium	0.43	J	0.59	0.29	mg/Kg	1	☼	6010B	Total/NA
Vanadium	12		0.30	0.086	mg/Kg	1	☼	6010B	Total/NA
Zinc	88	B	1.2	0.37	mg/Kg	1	☼	6010B	Total/NA
Barium	0.24	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	1.0		0.50	0.050	mg/L	1		6010B	TCLP
Cadmium	0.0033	J	0.0050	0.0020	mg/L	1		6010B	TCLP
Manganese	1.5		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.015	J ^	0.025	0.010	mg/L	1		6010B	TCLP
Selenium	0.022	J	0.050	0.020	mg/L	1		6010B	TCLP
Zinc	0.055	J B	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.013	J	0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.044		0.017	0.0061	mg/Kg	1	☼	7471B	Total/NA
pH	7.70		0.200	0.200	SU	1		9045D	Total/NA

Client Sample ID: 1860-23-B14 (0-2)

Lab Sample ID: 500-97658-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Phenanthrene	0.071		0.039	0.0055	mg/Kg	1	☼	8270D	Total/NA
Anthracene	0.019	J	0.039	0.0066	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.11		0.039	0.0074	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.13		0.039	0.0079	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.085		0.039	0.0053	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.10		0.039	0.011	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.084		0.039	0.0086	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.027	J	0.039	0.012	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 - IL 171 - WO 031

TestAmerica Job ID: 500-97658-1

Client Sample ID: 1860-23-B14 (0-2) (Continued)

Lab Sample ID: 500-97658-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]pyrene	0.057		0.039	0.0077	mg/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.036	J	0.039	0.010	mg/Kg	1	☼	8270D	Total/NA
Dibenz(a,h)anthracene	0.015	J	0.039	0.0077	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.041		0.039	0.013	mg/Kg	1	☼	8270D	Total/NA
Antimony	0.29	J	1.2	0.24	mg/Kg	1	☼	6010B	Total/NA
Arsenic	9.3		0.59	0.27	mg/Kg	1	☼	6010B	Total/NA
Barium	50		0.59	0.11	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.49		0.23	0.051	mg/Kg	1	☼	6010B	Total/NA
Boron	9.8		2.9	0.41	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.61		0.12	0.034	mg/Kg	1	☼	6010B	Total/NA
Calcium	62000		59	19	mg/Kg	5	☼	6010B	Total/NA
Chromium	12		0.59	0.10	mg/Kg	1	☼	6010B	Total/NA
Cobalt	11		0.29	0.066	mg/Kg	1	☼	6010B	Total/NA
Copper	31	B	0.59	0.13	mg/Kg	1	☼	6010B	Total/NA
Iron	19000	B	12	4.5	mg/Kg	1	☼	6010B	Total/NA
Lead	54		0.29	0.15	mg/Kg	1	☼	6010B	Total/NA
Magnesium	33000		5.9	2.4	mg/Kg	1	☼	6010B	Total/NA
Manganese	400		0.59	0.12	mg/Kg	1	☼	6010B	Total/NA
Nickel	26		0.59	0.16	mg/Kg	1	☼	6010B	Total/NA
Potassium	1700		29	4.8	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.64		0.59	0.29	mg/Kg	1	☼	6010B	Total/NA
Silver	0.072	J	0.29	0.069	mg/Kg	1	☼	6010B	Total/NA
Sodium	860		59	7.7	mg/Kg	1	☼	6010B	Total/NA
Vanadium	15		0.29	0.086	mg/Kg	1	☼	6010B	Total/NA
Zinc	110	B	1.2	0.37	mg/Kg	1	☼	6010B	Total/NA
Barium	0.40	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.68		0.50	0.050	mg/L	1		6010B	TCLP
Cadmium	0.0036	J	0.0050	0.0020	mg/L	1		6010B	TCLP
Manganese	0.65		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.015	J ^	0.025	0.010	mg/L	1		6010B	TCLP
Selenium	0.020	J	0.050	0.020	mg/L	1		6010B	TCLP
Zinc	0.27	J B	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.25		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.049		0.020	0.0069	mg/Kg	1	☼	7471B	Total/NA
pH	8.25		0.200	0.200	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 - IL 171 - WO 031

TestAmerica Job ID: 500-97658-1



Client Sample ID: 1860-23-B04 (2-4)

Lab Sample ID: 500-97658-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Acetone	0.030		0.0045	0.0035	mg/Kg	1	☼		8260B	Total/NA
2-Methylnaphthalene	0.021	J	0.037	0.0068	mg/Kg	1	☼		8270D	Total/NA
Phenanthrene	0.058		0.037	0.0052	mg/Kg	1	☼		8270D	Total/NA
Fluoranthene	0.024	J	0.037	0.0069	mg/Kg	1	☼		8270D	Total/NA
Pyrene	0.030	J	0.037	0.0074	mg/Kg	1	☼		8270D	Total/NA
Benzo[a]anthracene	0.016	J	0.037	0.0050	mg/Kg	1	☼		8270D	Total/NA
Chrysene	0.033	J	0.037	0.010	mg/Kg	1	☼		8270D	Total/NA
Benzo[b]fluoranthene	0.021	J	0.037	0.0080	mg/Kg	1	☼		8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.012	J	0.037	0.0096	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 - IL 171 - WO 031

TestAmerica Job ID: 500-97658-1

Client Sample ID: 1860-23-B04 (2-4) (Continued)

Lab Sample ID: 500-97658-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzof[g,h,i]perylene	0.022	J	0.037	0.012	mg/Kg	1	☼	8270D	Total/NA
Arsenic	8.7		0.57	0.26	mg/Kg	1	☼	6010B	Total/NA
Barium	27		0.57	0.10	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.47		0.23	0.049	mg/Kg	1	☼	6010B	Total/NA
Boron	8.8		2.8	0.40	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.27		0.11	0.033	mg/Kg	1	☼	6010B	Total/NA
Calcium	68000		57	18	mg/Kg	5	☼	6010B	Total/NA
Chromium	11		0.57	0.097	mg/Kg	1	☼	6010B	Total/NA
Cobalt	12		0.28	0.064	mg/Kg	1	☼	6010B	Total/NA
Copper	27	B	0.57	0.12	mg/Kg	1	☼	6010B	Total/NA
Iron	19000	B	11	4.4	mg/Kg	1	☼	6010B	Total/NA
Lead	19		0.28	0.14	mg/Kg	1	☼	6010B	Total/NA
Magnesium	32000		5.7	2.3	mg/Kg	1	☼	6010B	Total/NA
Manganese	380		0.57	0.11	mg/Kg	1	☼	6010B	Total/NA
Nickel	28		0.57	0.15	mg/Kg	1	☼	6010B	Total/NA
Potassium	1500		28	4.6	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.82		0.57	0.28	mg/Kg	1	☼	6010B	Total/NA
Sodium	1400		57	7.5	mg/Kg	1	☼	6010B	Total/NA
Vanadium	14		0.28	0.083	mg/Kg	1	☼	6010B	Total/NA
Zinc	71	B	1.1	0.36	mg/Kg	1	☼	6010B	Total/NA
Barium	0.13	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.81		0.50	0.050	mg/L	1		6010B	TCLP
Cadmium	0.0029	J	0.0050	0.0020	mg/L	1		6010B	TCLP
Cobalt	0.019	J	0.025	0.010	mg/L	1		6010B	TCLP
Manganese	4.4		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.016	J ^	0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.10	J B	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.16		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.032		0.018	0.0063	mg/Kg	1	☼	7471B	Total/NA
pH	7.59		0.200	0.200	SU	1		9045D	Total/NA

Client Sample ID: 1860-23-B04 (10-12)

Lab Sample ID: 500-97658-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Ethylbenzene	0.017		0.012	0.0061	mg/Kg	50	☼	8260B	Total/NA
Trichloroethene	0.016	J	0.024	0.0091	mg/Kg	50	☼	8260B	Total/NA
Xylenes, Total	0.053		0.024	0.0033	mg/Kg	50	☼	8260B	Total/NA
Naphthalene	0.027	J	0.035	0.0054	mg/Kg	1	☼	8270D	Total/NA
2-Methylnaphthalene	0.11		0.035	0.0064	mg/Kg	1	☼	8270D	Total/NA
Phenanthrene	0.089		0.035	0.0049	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.016	J	0.035	0.011	mg/Kg	1	☼	8270D	Total/NA
Arsenic	10		0.55	0.25	mg/Kg	1	☼	6010B	Total/NA
Barium	19		0.55	0.10	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.43		0.22	0.047	mg/Kg	1	☼	6010B	Total/NA
Boron	8.6		2.7	0.38	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.24		0.11	0.032	mg/Kg	1	☼	6010B	Total/NA
Calcium	86000		55	18	mg/Kg	5	☼	6010B	Total/NA
Chromium	9.5		0.55	0.094	mg/Kg	1	☼	6010B	Total/NA
Cobalt	11		0.27	0.062	mg/Kg	1	☼	6010B	Total/NA
Copper	25	B	0.55	0.12	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 - IL 171 - WO 031

TestAmerica Job ID: 500-97658-1

Client Sample ID: 1860-23-B04 (10-12) (Continued)

Lab Sample ID: 500-97658-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Iron	17000	B	11	4.2	mg/Kg	1	☼	6010B	Total/NA
Lead	14		0.27	0.14	mg/Kg	1	☼	6010B	Total/NA
Magnesium	40000		5.5	2.2	mg/Kg	1	☼	6010B	Total/NA
Manganese	410		0.55	0.11	mg/Kg	1	☼	6010B	Total/NA
Nickel	25		0.55	0.15	mg/Kg	1	☼	6010B	Total/NA
Potassium	1800		27	4.4	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.30	J	0.55	0.27	mg/Kg	1	☼	6010B	Total/NA
Sodium	420		55	7.2	mg/Kg	1	☼	6010B	Total/NA
Thallium	0.45	J	0.55	0.27	mg/Kg	1	☼	6010B	Total/NA
Vanadium	12		0.27	0.080	mg/Kg	1	☼	6010B	Total/NA
Zinc	69	B	1.1	0.35	mg/Kg	1	☼	6010B	Total/NA
Barium	0.31	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.76		0.50	0.050	mg/L	1		6010B	TCLP
Cobalt	0.036		0.025	0.010	mg/L	1		6010B	TCLP
Manganese	2.1		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.080		0.025	0.010	mg/L	1		6010B	TCLP
Selenium	0.021	J	0.050	0.020	mg/L	1		6010B	TCLP
Zinc	0.059	J B	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.027		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.028		0.016	0.0057	mg/Kg	1	☼	7471B	Total/NA
pH	7.86		0.200	0.200	SU	1		9045D	Total/NA

Client Sample ID: 1860-23-B21 (0-2)

Lab Sample ID: 500-97658-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	0.0094		0.0048	0.0038	mg/Kg	1	☼	8260B	Total/NA
Pyrene	0.0082	J	0.037	0.0075	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.013	J	0.037	0.012	mg/Kg	1	☼	8270D	Total/NA
Arsenic	6.3		0.58	0.27	mg/Kg	1	☼	6010B	Total/NA
Barium	60		0.58	0.11	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.69		0.23	0.050	mg/Kg	1	☼	6010B	Total/NA
Boron	10		2.9	0.41	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.12		0.12	0.034	mg/Kg	1	☼	6010B	Total/NA
Calcium	54000		58	19	mg/Kg	5	☼	6010B	Total/NA
Chromium	17		0.58	0.10	mg/Kg	1	☼	6010B	Total/NA
Cobalt	12		0.29	0.066	mg/Kg	1	☼	6010B	Total/NA
Copper	23	B	0.58	0.13	mg/Kg	1	☼	6010B	Total/NA
Iron	20000	B	12	4.5	mg/Kg	1	☼	6010B	Total/NA
Lead	14		0.29	0.14	mg/Kg	1	☼	6010B	Total/NA
Magnesium	20000		5.8	2.4	mg/Kg	1	☼	6010B	Total/NA
Manganese	330		0.58	0.12	mg/Kg	1	☼	6010B	Total/NA
Nickel	31		0.58	0.16	mg/Kg	1	☼	6010B	Total/NA
Potassium	2300		29	4.7	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.59		0.58	0.29	mg/Kg	1	☼	6010B	Total/NA
Sodium	670		58	7.7	mg/Kg	1	☼	6010B	Total/NA
Vanadium	21		0.29	0.085	mg/Kg	1	☼	6010B	Total/NA
Zinc	56	B	1.2	0.37	mg/Kg	1	☼	6010B	Total/NA
Barium	0.46	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	1.0		0.50	0.050	mg/L	1		6010B	TCLP
Manganese	0.41		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 - IL 171 - WO 031

TestAmerica Job ID: 500-97658-1

Client Sample ID: 1860-23-B21 (0-2) (Continued)

Lab Sample ID: 500-97658-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Zinc	0.19	J B	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.25		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.028		0.019	0.0067	mg/Kg	1	☼	7471B	Total/NA
pH	8.08		0.200	0.200	SU	1		9045D	Total/NA

Client Sample ID: 1860-23-B19 (2-4)

Lab Sample ID: 500-97658-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	0.018		0.0049	0.0038	mg/Kg	1	☼	8260B	Total/NA
Arsenic	5.4		0.58	0.27	mg/Kg	1	☼	6010B	Total/NA
Barium	97		0.58	0.11	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.85		0.23	0.050	mg/Kg	1	☼	6010B	Total/NA
Boron	5.8		2.9	0.40	mg/Kg	1	☼	6010B	Total/NA
Calcium	12000		12	3.7	mg/Kg	1	☼	6010B	Total/NA
Chromium	19		0.58	0.099	mg/Kg	1	☼	6010B	Total/NA
Cobalt	13		0.29	0.065	mg/Kg	1	☼	6010B	Total/NA
Copper	18	B	0.58	0.12	mg/Kg	1	☼	6010B	Total/NA
Iron	20000	B	12	4.4	mg/Kg	1	☼	6010B	Total/NA
Lead	16		0.29	0.14	mg/Kg	1	☼	6010B	Total/NA
Magnesium	8900		5.8	2.3	mg/Kg	1	☼	6010B	Total/NA
Manganese	190		0.58	0.11	mg/Kg	1	☼	6010B	Total/NA
Nickel	30		0.58	0.16	mg/Kg	1	☼	6010B	Total/NA
Potassium	1900		29	4.7	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.65		0.58	0.29	mg/Kg	1	☼	6010B	Total/NA
Sodium	1000		58	7.6	mg/Kg	1	☼	6010B	Total/NA
Vanadium	27		0.29	0.084	mg/Kg	1	☼	6010B	Total/NA
Zinc	52	B	1.2	0.36	mg/Kg	1	☼	6010B	Total/NA
Barium	0.49	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.96		0.50	0.050	mg/L	1		6010B	TCLP
Manganese	0.59		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.062	J B	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.062		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.037		0.018	0.0063	mg/Kg	1	☼	7471B	Total/NA
pH	7.86		0.200	0.200	SU	1		9045D	Total/NA

Client Sample ID: 1860-23-B22 (2-3)

Lab Sample ID: 500-97658-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	0.012		0.0056	0.0043	mg/Kg	1	☼	8260B	Total/NA
Phenanthrene	0.014	J	0.038	0.0053	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.0090	J	0.038	0.0070	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.012	J	0.038	0.0075	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.012	J	0.038	0.010	mg/Kg	1	☼	8270D	Total/NA
Arsenic	6.7		0.57	0.26	mg/Kg	1	☼	6010B	Total/NA
Barium	50		0.57	0.10	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.61		0.23	0.049	mg/Kg	1	☼	6010B	Total/NA
Boron	9.4		2.8	0.40	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.065	J	0.11	0.033	mg/Kg	1	☼	6010B	Total/NA
Calcium	72000		57	18	mg/Kg	5	☼	6010B	Total/NA
Chromium	16		0.57	0.098	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 - IL 171 - WO 031

TestAmerica Job ID: 500-97658-1

Client Sample ID: 1860-23-B22 (2-3) (Continued)

Lab Sample ID: 500-97658-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cobalt	14		0.28	0.064	mg/Kg	1	☼	6010B	Total/NA
Copper	18	B	0.57	0.12	mg/Kg	1	☼	6010B	Total/NA
Iron	23000	B	11	4.4	mg/Kg	1	☼	6010B	Total/NA
Lead	11		0.28	0.14	mg/Kg	1	☼	6010B	Total/NA
Magnesium	24000		5.7	2.3	mg/Kg	1	☼	6010B	Total/NA
Manganese	340		0.57	0.11	mg/Kg	1	☼	6010B	Total/NA
Nickel	31		0.57	0.15	mg/Kg	1	☼	6010B	Total/NA
Potassium	2300		28	4.6	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.28	J	0.57	0.28	mg/Kg	1	☼	6010B	Total/NA
Sodium	1100		57	7.5	mg/Kg	1	☼	6010B	Total/NA
Vanadium	18		0.28	0.083	mg/Kg	1	☼	6010B	Total/NA
Zinc	50	B	1.1	0.36	mg/Kg	1	☼	6010B	Total/NA
Barium	0.22	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.83		0.50	0.050	mg/L	1		6010B	TCLP
Cadmium	0.0028	J	0.0050	0.0020	mg/L	1		6010B	TCLP
Manganese	2.0		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.016	J ^	0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.30	J B	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.057		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.060		0.018	0.0062	mg/Kg	1	☼	7471B	Total/NA
pH	7.57		0.200	0.200	SU	1		9045D	Total/NA

Client Sample ID: 1860-23-B20 (0-2)

Lab Sample ID: 500-97658-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	0.048		0.0045	0.0035	mg/Kg	1	☼	8260B	Total/NA
Methylene Chloride	0.0093		0.0045	0.0034	mg/Kg	1	☼	8260B	Total/NA
Phenanthrene	0.036	J	0.037	0.0052	mg/Kg	1	☼	8270D	Total/NA
Anthracene	0.011	J	0.037	0.0063	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.038		0.037	0.0070	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.045		0.037	0.0075	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.027	J	0.037	0.0051	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.036	J	0.037	0.010	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.030	J	0.037	0.0081	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.011	J	0.037	0.011	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.021	J	0.037	0.0073	mg/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.011	J	0.037	0.0097	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.018	J	0.037	0.012	mg/Kg	1	☼	8270D	Total/NA
Arsenic	7.4		0.55	0.26	mg/Kg	1	☼	6010B	Total/NA
Barium	54		0.55	0.10	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.50		0.22	0.048	mg/Kg	1	☼	6010B	Total/NA
Boron	8.3		2.8	0.39	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.72		0.11	0.032	mg/Kg	1	☼	6010B	Total/NA
Calcium	63000		55	18	mg/Kg	5	☼	6010B	Total/NA
Chromium	16		0.55	0.095	mg/Kg	1	☼	6010B	Total/NA
Cobalt	13		0.28	0.063	mg/Kg	1	☼	6010B	Total/NA
Copper	27	B	0.55	0.12	mg/Kg	1	☼	6010B	Total/NA
Iron	20000	B	11	4.3	mg/Kg	1	☼	6010B	Total/NA
Lead	22		0.28	0.14	mg/Kg	1	☼	6010B	Total/NA
Magnesium	29000		5.5	2.2	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 - IL 171 - WO 031

TestAmerica Job ID: 500-97658-1

Client Sample ID: 1860-23-B20 (0-2) (Continued)

Lab Sample ID: 500-97658-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Manganese	450		0.55	0.11	mg/Kg	1	☼	6010B	Total/NA
Nickel	29		0.55	0.15	mg/Kg	1	☼	6010B	Total/NA
Potassium	1700		28	4.5	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.77		0.55	0.27	mg/Kg	1	☼	6010B	Total/NA
Silver	0.18	J	0.28	0.065	mg/Kg	1	☼	6010B	Total/NA
Sodium	860		55	7.3	mg/Kg	1	☼	6010B	Total/NA
Thallium	0.40	J	0.55	0.27	mg/Kg	1	☼	6010B	Total/NA
Vanadium	16		0.28	0.081	mg/Kg	1	☼	6010B	Total/NA
Zinc	81	B	1.1	0.35	mg/Kg	1	☼	6010B	Total/NA
Barium	0.089	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.81		0.50	0.050	mg/L	1		6010B	TCLP
Cadmium	0.0073		0.0050	0.0020	mg/L	1		6010B	TCLP
Manganese	0.33		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.018	J ^	0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.13	J B	0.50	0.020	mg/L	1		6010B	TCLP
Mercury	0.044		0.017	0.0061	mg/Kg	1	☼	7471B	Total/NA
pH	7.07		0.200	0.200	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 - IL 171 - WO 031

TestAmerica Job ID: 500-97658-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-97658-1	1860-23-B13 (2-4)	Solid	06/22/15 08:50	06/22/15 16:10
500-97658-3	1860-23-B16 (0-2)	Solid	06/22/15 10:00	06/22/15 16:10
500-97658-4	1860-23-B14 (0-2)	Solid	06/22/15 10:15	06/22/15 16:10
500-97658-6	1860-23-B04 (2-4)	Solid	06/22/15 11:35	06/22/15 16:10
500-97658-7	1860-23-B04 (10-12)	Solid	06/22/15 11:40	06/22/15 16:10
500-97658-8	1860-23-B21 (0-2)	Solid	06/22/15 13:55	06/22/15 16:10
500-97658-9	1860-23-B19 (2-4)	Solid	06/22/15 14:10	06/22/15 16:10
500-97658-10	1860-23-B22 (2-3)	Solid	06/22/15 14:35	06/22/15 16:10
500-97658-11	1860-23-B20 (0-2)	Solid	06/22/15 14:40	06/22/15 16:10

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97658-1

Client Sample ID: 1860-23-B13 (2-4)

Lab Sample ID: 500-97658-1

Date Collected: 06/22/15 08:50

Matrix: Solid

Date Received: 06/22/15 16:10

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		06/25/15 12:00	06/26/15 13:33	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		06/25/15 12:00	06/26/15 13:33	1
Boron	0.98		0.50	0.050	mg/L		06/25/15 12:00	06/26/15 13:33	1
Cadmium	0.0039	J	0.0050	0.0020	mg/L		06/25/15 12:00	06/26/15 13:33	1
Chromium	<0.025		0.025	0.010	mg/L		06/25/15 12:00	06/26/15 13:33	1
Cobalt	0.014	J	0.025	0.010	mg/L		06/25/15 12:00	06/26/15 13:33	1
Iron	<0.20		0.20	0.20	mg/L		06/25/15 12:00	06/26/15 13:33	1
Lead	<0.0075		0.0075	0.0075	mg/L		06/25/15 12:00	06/26/15 13:33	1
Manganese	2.3		0.025	0.010	mg/L		06/25/15 12:00	06/26/15 13:33	1
Nickel	0.026		0.025	0.010	mg/L		06/25/15 12:00	06/26/15 16:34	1
Selenium	<0.050		0.050	0.020	mg/L		06/25/15 12:00	06/26/15 13:33	1
Silver	<0.025		0.025	0.010	mg/L		06/25/15 12:00	06/26/15 13:33	1
Zinc	0.098	J B	0.50	0.020	mg/L		06/25/15 12:00	06/26/15 13:33	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		07/01/15 11:20	07/02/15 11:46	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		06/25/15 12:00	06/26/15 20:05	1
Thallium	<0.0020		0.0020	0.0020	mg/L		06/25/15 12:00	06/26/15 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		06/25/15 10:30	06/26/15 09:11	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.13		0.200	0.200	SU			06/23/15 15:37	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97658-1

Client Sample ID: 1860-23-B13 (2-4)

Lab Sample ID: 500-97658-1

Date Collected: 06/22/15 08:50

Matrix: Solid

Date Received: 06/22/15 16:10

Percent Solids: 86.2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	0.011		0.0045	0.0035	mg/Kg	☼	06/23/15 09:30	06/25/15 14:25	1
Benzene	<0.0045		0.0045	0.0010	mg/Kg	☼	06/23/15 09:30	06/25/15 14:25	1
Bromodichloromethane	<0.0045		0.0045	0.00076	mg/Kg	☼	06/23/15 09:30	06/25/15 14:25	1
Bromoform	<0.0045		0.0045	0.00092	mg/Kg	☼	06/23/15 09:30	06/25/15 14:25	1
Bromomethane	<0.0045 *		0.0045	0.0017	mg/Kg	☼	06/23/15 09:30	06/25/15 14:25	1
2-Butanone (MEK)	<0.0045		0.0045	0.0016	mg/Kg	☼	06/23/15 09:30	06/25/15 14:25	1
Carbon disulfide	<0.0045		0.0045	0.0017	mg/Kg	☼	06/23/15 09:30	06/25/15 14:25	1
Carbon tetrachloride	<0.0045		0.0045	0.00097	mg/Kg	☼	06/23/15 09:30	06/25/15 14:25	1
Chlorobenzene	<0.0045		0.0045	0.0011	mg/Kg	☼	06/23/15 09:30	06/25/15 14:25	1
Chloroethane	<0.0045 *		0.0045	0.0019	mg/Kg	☼	06/23/15 09:30	06/25/15 14:25	1
Chloroform	<0.0045		0.0045	0.00088	mg/Kg	☼	06/23/15 09:30	06/25/15 14:25	1
Chloromethane	<0.0045		0.0045	0.0011	mg/Kg	☼	06/23/15 09:30	06/25/15 14:25	1
cis-1,2-Dichloroethene	<0.0045		0.0045	0.00092	mg/Kg	☼	06/23/15 09:30	06/25/15 14:25	1
cis-1,3-Dichloropropene	<0.0045		0.0045	0.0010	mg/Kg	☼	06/23/15 09:30	06/25/15 14:25	1
Dibromochloromethane	<0.0045		0.0045	0.00052	mg/Kg	☼	06/23/15 09:30	06/25/15 14:25	1
1,1-Dichloroethane	<0.0045		0.0045	0.00093	mg/Kg	☼	06/23/15 09:30	06/25/15 14:25	1
1,2-Dichloroethane	<0.0045		0.0045	0.00067	mg/Kg	☼	06/23/15 09:30	06/25/15 14:25	1
1,1-Dichloroethene	<0.0045		0.0045	0.0016	mg/Kg	☼	06/23/15 09:30	06/25/15 14:25	1
1,2-Dichloropropane	<0.0045		0.0045	0.0012	mg/Kg	☼	06/23/15 09:30	06/25/15 14:25	1
1,3-Dichloropropane, Total	<0.0045		0.0045	0.0013	mg/Kg	☼	06/23/15 09:30	06/25/15 14:25	1
Ethylbenzene	<0.0045		0.0045	0.0011	mg/Kg	☼	06/23/15 09:30	06/25/15 14:25	1
2-Hexanone	<0.0045		0.0045	0.0014	mg/Kg	☼	06/23/15 09:30	06/25/15 14:25	1
Methylene Chloride	<0.0045		0.0045	0.0034	mg/Kg	☼	06/23/15 09:30	06/25/15 14:25	1
4-Methyl-2-pentanone (MIBK)	<0.0045		0.0045	0.00093	mg/Kg	☼	06/23/15 09:30	06/25/15 14:25	1
Methyl tert-butyl ether	<0.0045		0.0045	0.0011	mg/Kg	☼	06/23/15 09:30	06/25/15 14:25	1
Styrene	<0.0045		0.0045	0.0011	mg/Kg	☼	06/23/15 09:30	06/25/15 14:25	1
1,1,1,2-Tetrachloroethane	<0.0045		0.0045	0.00072	mg/Kg	☼	06/23/15 09:30	06/25/15 14:25	1
Tetrachloroethene	<0.0045		0.0045	0.00094	mg/Kg	☼	06/23/15 09:30	06/25/15 14:25	1
Toluene	<0.0045		0.0045	0.0016	mg/Kg	☼	06/23/15 09:30	06/25/15 14:25	1
trans-1,2-Dichloroethene	<0.0045		0.0045	0.0011	mg/Kg	☼	06/23/15 09:30	06/25/15 14:25	1
trans-1,3-Dichloropropene	<0.0045		0.0045	0.0013	mg/Kg	☼	06/23/15 09:30	06/25/15 14:25	1
1,1,1-Trichloroethane	<0.0045		0.0045	0.0010	mg/Kg	☼	06/23/15 09:30	06/25/15 14:25	1
1,1,2-Trichloroethane	<0.0045		0.0045	0.00088	mg/Kg	☼	06/23/15 09:30	06/25/15 14:25	1
Trichloroethene	<0.0045		0.0045	0.0012	mg/Kg	☼	06/23/15 09:30	06/25/15 14:25	1
Vinyl acetate	<0.0045		0.0045	0.0012	mg/Kg	☼	06/23/15 09:30	06/25/15 14:25	1
Vinyl chloride	<0.0045		0.0045	0.0011	mg/Kg	☼	06/23/15 09:30	06/25/15 14:25	1
Xylenes, Total	<0.0090		0.0090	0.0017	mg/Kg	☼	06/23/15 09:30	06/25/15 14:25	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	86		70 - 122	06/23/15 09:30	06/25/15 14:25	1
Dibromofluoromethane	93		75 - 120	06/23/15 09:30	06/25/15 14:25	1
1,2-Dichloroethane-d4 (Surr)	91		70 - 134	06/23/15 09:30	06/25/15 14:25	1
Toluene-d8 (Surr)	98		75 - 122	06/23/15 09:30	06/25/15 14:25	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.19		0.19	0.085	mg/Kg	☼	06/26/15 07:33	06/30/15 14:27	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.057	mg/Kg	☼	06/26/15 07:33	06/30/15 14:27	1
1,3-Dichlorobenzene	<0.19		0.19	0.043	mg/Kg	☼	06/26/15 07:33	06/30/15 14:27	1
1,4-Dichlorobenzene	<0.19		0.19	0.049	mg/Kg	☼	06/26/15 07:33	06/30/15 14:27	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97658-1

Client Sample ID: 1860-23-B13 (2-4)

Lab Sample ID: 500-97658-1

Date Collected: 06/22/15 08:50

Matrix: Solid

Date Received: 06/22/15 16:10

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	☼	06/26/15 07:33	06/30/15 14:27	1
2-Methylphenol	<0.19		0.19	0.061	mg/Kg	☼	06/26/15 07:33	06/30/15 14:27	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.044	mg/Kg	☼	06/26/15 07:33	06/30/15 14:27	1
N-Nitrosodi-n-propylamine	<0.19		0.19	0.047	mg/Kg	☼	06/26/15 07:33	06/30/15 14:27	1
Hexachloroethane	<0.19		0.19	0.058	mg/Kg	☼	06/26/15 07:33	06/30/15 14:27	1
2-Chlorophenol	<0.19		0.19	0.065	mg/Kg	☼	06/26/15 07:33	06/30/15 14:27	1
Nitrobenzene	<0.038		0.038	0.0095	mg/Kg	☼	06/26/15 07:33	06/30/15 14:27	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.039	mg/Kg	☼	06/26/15 07:33	06/30/15 14:27	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.041	mg/Kg	☼	06/26/15 07:33	06/30/15 14:27	1
Isophorone	<0.19		0.19	0.043	mg/Kg	☼	06/26/15 07:33	06/30/15 14:27	1
2,4-Dimethylphenol	<0.38		0.38	0.14	mg/Kg	☼	06/26/15 07:33	06/30/15 14:27	1
Hexachlorobutadiene	<0.19		0.19	0.060	mg/Kg	☼	06/26/15 07:33	06/30/15 14:27	1
Naphthalene	0.0088	J	0.038	0.0059	mg/Kg	☼	06/26/15 07:33	06/30/15 14:27	1
2,4-Dichlorophenol	<0.38		0.38	0.091	mg/Kg	☼	06/26/15 07:33	06/30/15 14:27	1
4-Chloroaniline	<0.77		0.77	0.18	mg/Kg	☼	06/26/15 07:33	06/30/15 14:27	1
2,4,6-Trichlorophenol	<0.38		0.38	0.13	mg/Kg	☼	06/26/15 07:33	06/30/15 14:27	1
2,4,5-Trichlorophenol	<0.38		0.38	0.087	mg/Kg	☼	06/26/15 07:33	06/30/15 14:27	1
Hexachlorocyclopentadiene	<0.77		0.77	0.22	mg/Kg	☼	06/26/15 07:33	06/30/15 14:27	1
2-Methylnaphthalene	0.033	J	0.038	0.0070	mg/Kg	☼	06/26/15 07:33	06/30/15 14:27	1
2-Nitroaniline	<0.19		0.19	0.051	mg/Kg	☼	06/26/15 07:33	06/30/15 14:27	1
2-Chloronaphthalene	<0.19		0.19	0.042	mg/Kg	☼	06/26/15 07:33	06/30/15 14:27	1
4-Chloro-3-methylphenol	<0.38		0.38	0.13	mg/Kg	☼	06/26/15 07:33	06/30/15 14:27	1
2,6-Dinitrotoluene	<0.19		0.19	0.075	mg/Kg	☼	06/26/15 07:33	06/30/15 14:27	1
2-Nitrophenol	<0.38		0.38	0.090	mg/Kg	☼	06/26/15 07:33	06/30/15 14:27	1
3-Nitroaniline	<0.38		0.38	0.12	mg/Kg	☼	06/26/15 07:33	06/30/15 14:27	1
Dimethyl phthalate	<0.19		0.19	0.050	mg/Kg	☼	06/26/15 07:33	06/30/15 14:27	1
2,4-Dinitrophenol	<0.77		0.77	0.67	mg/Kg	☼	06/26/15 07:33	06/30/15 14:27	1
Acenaphthylene	<0.038		0.038	0.0050	mg/Kg	☼	06/26/15 07:33	06/30/15 14:27	1
2,4-Dinitrotoluene	<0.19		0.19	0.061	mg/Kg	☼	06/26/15 07:33	06/30/15 14:27	1
Acenaphthene	<0.038		0.038	0.0069	mg/Kg	☼	06/26/15 07:33	06/30/15 14:27	1
Dibenzofuran	<0.19		0.19	0.045	mg/Kg	☼	06/26/15 07:33	06/30/15 14:27	1
4-Nitrophenol	<0.77		0.77	0.36	mg/Kg	☼	06/26/15 07:33	06/30/15 14:27	1
Fluorene	<0.038		0.038	0.0054	mg/Kg	☼	06/26/15 07:33	06/30/15 14:27	1
4-Nitroaniline	<0.38		0.38	0.16	mg/Kg	☼	06/26/15 07:33	06/30/15 14:27	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.050	mg/Kg	☼	06/26/15 07:33	06/30/15 14:27	1
Hexachlorobenzene	<0.077		0.077	0.0088	mg/Kg	☼	06/26/15 07:33	06/30/15 14:27	1
Diethyl phthalate	<0.19		0.19	0.065	mg/Kg	☼	06/26/15 07:33	06/30/15 14:27	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.045	mg/Kg	☼	06/26/15 07:33	06/30/15 14:27	1
Pentachlorophenol	<0.77		0.77	0.61	mg/Kg	☼	06/26/15 07:33	06/30/15 14:27	1
N-Nitrosodiphenylamine	<0.19		0.19	0.045	mg/Kg	☼	06/26/15 07:33	06/30/15 14:27	1
4,6-Dinitro-2-methylphenol	<0.38		0.38	0.31	mg/Kg	☼	06/26/15 07:33	06/30/15 14:27	1
Phenanthrene	0.058		0.038	0.0053	mg/Kg	☼	06/26/15 07:33	06/30/15 14:27	1
Anthracene	0.012	J	0.038	0.0064	mg/Kg	☼	06/26/15 07:33	06/30/15 14:27	1
Carbazole	<0.19		0.19	0.099	mg/Kg	☼	06/26/15 07:33	06/30/15 14:27	1
Di-n-butyl phthalate	<0.19		0.19	0.058	mg/Kg	☼	06/26/15 07:33	06/30/15 14:27	1
Fluoranthene	0.040		0.038	0.0071	mg/Kg	☼	06/26/15 07:33	06/30/15 14:27	1
Pyrene	0.044		0.038	0.0076	mg/Kg	☼	06/26/15 07:33	06/30/15 14:27	1
Butyl benzyl phthalate	<0.19		0.19	0.073	mg/Kg	☼	06/26/15 07:33	06/30/15 14:27	1
Benzo[a]anthracene	0.027	J	0.038	0.0051	mg/Kg	☼	06/26/15 07:33	06/30/15 14:27	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97658-1

Client Sample ID: 1860-23-B13 (2-4)

Lab Sample ID: 500-97658-1

Date Collected: 06/22/15 08:50

Matrix: Solid

Date Received: 06/22/15 16:10

Percent Solids: 86.2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.043		0.038	0.010	mg/Kg	☼	06/26/15 07:33	06/30/15 14:27	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.053	mg/Kg	☼	06/26/15 07:33	06/30/15 14:27	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.070	mg/Kg	☼	06/26/15 07:33	06/30/15 14:27	1
Di-n-octyl phthalate	<0.19		0.19	0.062	mg/Kg	☼	06/26/15 07:33	06/30/15 14:27	1
Benzo[b]fluoranthene	0.024	J	0.038	0.0082	mg/Kg	☼	06/26/15 07:33	06/30/15 14:27	1
Benzo[k]fluoranthene	0.014	J	0.038	0.011	mg/Kg	☼	06/26/15 07:33	06/30/15 14:27	1
Benzo[a]pyrene	0.020	J	0.038	0.0074	mg/Kg	☼	06/26/15 07:33	06/30/15 14:27	1
Indeno[1,2,3-cd]pyrene	0.014	J	0.038	0.0099	mg/Kg	☼	06/26/15 07:33	06/30/15 14:27	1
Dibenz(a,h)anthracene	<0.038		0.038	0.0074	mg/Kg	☼	06/26/15 07:33	06/30/15 14:27	1
Benzo[g,h,i]perylene	0.019	J	0.038	0.012	mg/Kg	☼	06/26/15 07:33	06/30/15 14:27	1
3 & 4 Methylphenol	<0.19		0.19	0.064	mg/Kg	☼	06/26/15 07:33	06/30/15 14:27	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	63		25 - 110	06/26/15 07:33	06/30/15 14:27	1
Phenol-d5	63		31 - 110	06/26/15 07:33	06/30/15 14:27	1
Nitrobenzene-d5	62		25 - 115	06/26/15 07:33	06/30/15 14:27	1
2-Fluorobiphenyl	60		25 - 119	06/26/15 07:33	06/30/15 14:27	1
2,4,6-Tribromophenol	69		35 - 137	06/26/15 07:33	06/30/15 14:27	1
Terphenyl-d14	86		36 - 134	06/26/15 07:33	06/30/15 14:27	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	☼	06/23/15 18:00	06/24/15 12:02	1
Arsenic	7.1		0.58	0.27	mg/Kg	☼	06/23/15 18:00	06/24/15 12:02	1
Barium	49		0.58	0.11	mg/Kg	☼	06/23/15 18:00	06/24/15 12:02	1
Beryllium	0.44		0.23	0.050	mg/Kg	☼	06/23/15 18:00	06/24/15 12:02	1
Boron	9.4		2.9	0.40	mg/Kg	☼	06/23/15 18:00	06/24/15 12:02	1
Cadmium	0.63	F1	0.12	0.033	mg/Kg	☼	06/23/15 18:00	06/24/15 12:02	1
Calcium	65000		58	19	mg/Kg	☼	06/23/15 18:00	06/24/15 13:49	5
Chromium	16	F1	0.58	0.099	mg/Kg	☼	06/23/15 18:00	06/24/15 12:02	1
Cobalt	9.9		0.29	0.065	mg/Kg	☼	06/23/15 18:00	06/24/15 12:02	1
Copper	29	B F1	0.58	0.13	mg/Kg	☼	06/23/15 18:00	06/24/15 12:02	1
Iron	17000	B	12	4.5	mg/Kg	☼	06/23/15 18:00	06/24/15 12:02	1
Lead	33		0.29	0.14	mg/Kg	☼	06/23/15 18:00	06/24/15 12:02	1
Magnesium	31000		5.8	2.3	mg/Kg	☼	06/23/15 18:00	06/24/15 12:02	1
Manganese	350		0.58	0.11	mg/Kg	☼	06/23/15 18:00	06/24/15 12:02	1
Nickel	26		0.58	0.16	mg/Kg	☼	06/23/15 18:00	06/24/15 12:02	1
Potassium	1700	F1	29	4.7	mg/Kg	☼	06/23/15 18:00	06/24/15 12:02	1
Selenium	0.44	J	0.58	0.29	mg/Kg	☼	06/23/15 18:00	06/24/15 12:02	1
Silver	0.17	J	0.29	0.068	mg/Kg	☼	06/23/15 18:00	06/24/15 12:02	1
Sodium	1300	F1	58	7.6	mg/Kg	☼	06/23/15 18:00	06/24/15 12:02	1
Thallium	<0.58		0.58	0.28	mg/Kg	☼	06/23/15 18:00	06/24/15 12:02	1
Vanadium	13		0.29	0.084	mg/Kg	☼	06/23/15 18:00	06/24/15 12:02	1
Zinc	83	B F1	1.2	0.37	mg/Kg	☼	06/23/15 18:00	06/24/15 12:02	1

Method: 7471B - Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.027	F1	0.017	0.0060	mg/Kg	☼	06/23/15 11:30	06/24/15 12:12	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97658-1

Client Sample ID: 1860-23-B16 (0-2)

Lab Sample ID: 500-97658-3

Date Collected: 06/22/15 10:00

Matrix: Solid

Date Received: 06/22/15 16:10

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.24	J	0.50	0.050	mg/L		06/25/15 12:00	06/26/15 13:43	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		06/25/15 12:00	06/26/15 13:43	1
Boron	1.0		0.50	0.050	mg/L		06/25/15 12:00	06/26/15 13:43	1
Cadmium	0.0033	J	0.0050	0.0020	mg/L		06/25/15 12:00	06/26/15 13:43	1
Chromium	<0.025		0.025	0.010	mg/L		06/25/15 12:00	06/26/15 13:43	1
Cobalt	<0.025		0.025	0.010	mg/L		06/25/15 12:00	06/26/15 13:43	1
Iron	<0.20		0.20	0.20	mg/L		06/25/15 12:00	06/26/15 13:43	1
Lead	<0.0075		0.0075	0.0075	mg/L		06/25/15 12:00	06/26/15 13:43	1
Manganese	1.5		0.025	0.010	mg/L		06/25/15 12:00	06/26/15 13:43	1
Nickel	0.015	J ^	0.025	0.010	mg/L		06/25/15 12:00	06/26/15 13:43	1
Selenium	0.022	J	0.050	0.020	mg/L		06/25/15 12:00	06/26/15 13:43	1
Silver	<0.025		0.025	0.010	mg/L		06/25/15 12:00	06/26/15 13:43	1
Zinc	0.055	J B	0.50	0.020	mg/L		06/25/15 12:00	06/26/15 13:43	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.013	J	0.025	0.010	mg/L		07/01/15 11:20	07/02/15 12:02	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		06/25/15 12:00	06/26/15 20:12	1
Thallium	<0.0020		0.0020	0.0020	mg/L		06/25/15 12:00	06/26/15 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		06/25/15 10:30	06/26/15 09:15	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.70		0.200	0.200	SU			06/23/15 15:42	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97658-1

Client Sample ID: 1860-23-B16 (0-2)

Lab Sample ID: 500-97658-3

Date Collected: 06/22/15 10:00

Matrix: Solid

Date Received: 06/22/15 16:10

Percent Solids: 82.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.0049		0.0049	0.0038	mg/Kg	☼	06/23/15 09:30	06/25/15 15:13	1
Benzene	<0.0049		0.0049	0.0011	mg/Kg	☼	06/23/15 09:30	06/25/15 15:13	1
Bromodichloromethane	<0.0049		0.0049	0.00082	mg/Kg	☼	06/23/15 09:30	06/25/15 15:13	1
Bromoform	<0.0049		0.0049	0.0010	mg/Kg	☼	06/23/15 09:30	06/25/15 15:13	1
Bromomethane	<0.0049	*	0.0049	0.0018	mg/Kg	☼	06/23/15 09:30	06/25/15 15:13	1
2-Butanone (MEK)	<0.0049		0.0049	0.0017	mg/Kg	☼	06/23/15 09:30	06/25/15 15:13	1
Carbon disulfide	<0.0049		0.0049	0.0018	mg/Kg	☼	06/23/15 09:30	06/25/15 15:13	1
Carbon tetrachloride	<0.0049		0.0049	0.0010	mg/Kg	☼	06/23/15 09:30	06/25/15 15:13	1
Chlorobenzene	<0.0049		0.0049	0.0012	mg/Kg	☼	06/23/15 09:30	06/25/15 15:13	1
Chloroethane	<0.0049	*	0.0049	0.0021	mg/Kg	☼	06/23/15 09:30	06/25/15 15:13	1
Chloroform	<0.0049		0.0049	0.00095	mg/Kg	☼	06/23/15 09:30	06/25/15 15:13	1
Chloromethane	<0.0049		0.0049	0.0012	mg/Kg	☼	06/23/15 09:30	06/25/15 15:13	1
cis-1,2-Dichloroethene	<0.0049		0.0049	0.0010	mg/Kg	☼	06/23/15 09:30	06/25/15 15:13	1
cis-1,3-Dichloropropene	<0.0049		0.0049	0.0011	mg/Kg	☼	06/23/15 09:30	06/25/15 15:13	1
Dibromochloromethane	<0.0049		0.0049	0.00056	mg/Kg	☼	06/23/15 09:30	06/25/15 15:13	1
1,1-Dichloroethane	<0.0049		0.0049	0.0010	mg/Kg	☼	06/23/15 09:30	06/25/15 15:13	1
1,2-Dichloroethane	<0.0049		0.0049	0.00072	mg/Kg	☼	06/23/15 09:30	06/25/15 15:13	1
1,1-Dichloroethene	<0.0049		0.0049	0.0018	mg/Kg	☼	06/23/15 09:30	06/25/15 15:13	1
1,2-Dichloropropane	<0.0049		0.0049	0.0013	mg/Kg	☼	06/23/15 09:30	06/25/15 15:13	1
1,3-Dichloropropane, Total	<0.0049		0.0049	0.0014	mg/Kg	☼	06/23/15 09:30	06/25/15 15:13	1
Ethylbenzene	<0.0049		0.0049	0.0012	mg/Kg	☼	06/23/15 09:30	06/25/15 15:13	1
2-Hexanone	<0.0049		0.0049	0.0015	mg/Kg	☼	06/23/15 09:30	06/25/15 15:13	1
Methylene Chloride	<0.0049		0.0049	0.0037	mg/Kg	☼	06/23/15 09:30	06/25/15 15:13	1
4-Methyl-2-pentanone (MIBK)	<0.0049		0.0049	0.0010	mg/Kg	☼	06/23/15 09:30	06/25/15 15:13	1
Methyl tert-butyl ether	<0.0049		0.0049	0.0012	mg/Kg	☼	06/23/15 09:30	06/25/15 15:13	1
Styrene	<0.0049		0.0049	0.0011	mg/Kg	☼	06/23/15 09:30	06/25/15 15:13	1
1,1,1,2-Tetrachloroethane	<0.0049		0.0049	0.00078	mg/Kg	☼	06/23/15 09:30	06/25/15 15:13	1
Tetrachloroethene	<0.0049		0.0049	0.0010	mg/Kg	☼	06/23/15 09:30	06/25/15 15:13	1
Toluene	<0.0049		0.0049	0.0017	mg/Kg	☼	06/23/15 09:30	06/25/15 15:13	1
trans-1,2-Dichloroethene	<0.0049		0.0049	0.0012	mg/Kg	☼	06/23/15 09:30	06/25/15 15:13	1
trans-1,3-Dichloropropene	<0.0049		0.0049	0.0014	mg/Kg	☼	06/23/15 09:30	06/25/15 15:13	1
1,1,1-Trichloroethane	<0.0049		0.0049	0.0011	mg/Kg	☼	06/23/15 09:30	06/25/15 15:13	1
1,1,2-Trichloroethane	<0.0049		0.0049	0.00095	mg/Kg	☼	06/23/15 09:30	06/25/15 15:13	1
Trichloroethene	<0.0049		0.0049	0.0013	mg/Kg	☼	06/23/15 09:30	06/25/15 15:13	1
Vinyl acetate	<0.0049		0.0049	0.0013	mg/Kg	☼	06/23/15 09:30	06/25/15 15:13	1
Vinyl chloride	<0.0049		0.0049	0.0012	mg/Kg	☼	06/23/15 09:30	06/25/15 15:13	1
Xylenes, Total	<0.0098		0.0098	0.0018	mg/Kg	☼	06/23/15 09:30	06/25/15 15:13	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	87		70 - 122	06/23/15 09:30	06/25/15 15:13	1
Dibromofluoromethane	96		75 - 120	06/23/15 09:30	06/25/15 15:13	1
1,2-Dichloroethane-d4 (Surr)	96		70 - 134	06/23/15 09:30	06/25/15 15:13	1
Toluene-d8 (Surr)	99		75 - 122	06/23/15 09:30	06/25/15 15:13	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	☼	06/26/15 07:33	06/29/15 18:18	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.059	mg/Kg	☼	06/26/15 07:33	06/29/15 18:18	1
1,3-Dichlorobenzene	<0.20		0.20	0.044	mg/Kg	☼	06/26/15 07:33	06/29/15 18:18	1
1,4-Dichlorobenzene	<0.20		0.20	0.050	mg/Kg	☼	06/26/15 07:33	06/29/15 18:18	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97658-1

Client Sample ID: 1860-23-B16 (0-2)

Lab Sample ID: 500-97658-3

Date Collected: 06/22/15 10:00

Matrix: Solid

Date Received: 06/22/15 16:10

Percent Solids: 82.9

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	0.047	mg/Kg	☼	06/26/15 07:33	06/29/15 18:18	1
2-Methylphenol	<0.20		0.20	0.063	mg/Kg	☼	06/26/15 07:33	06/29/15 18:18	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.046	mg/Kg	☼	06/26/15 07:33	06/29/15 18:18	1
N-Nitrosodi-n-propylamine	<0.20		0.20	0.048	mg/Kg	☼	06/26/15 07:33	06/29/15 18:18	1
Hexachloroethane	<0.20		0.20	0.060	mg/Kg	☼	06/26/15 07:33	06/29/15 18:18	1
2-Chlorophenol	<0.20		0.20	0.067	mg/Kg	☼	06/26/15 07:33	06/29/15 18:18	1
Nitrobenzene	<0.039		0.039	0.0098	mg/Kg	☼	06/26/15 07:33	06/29/15 18:18	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.040	mg/Kg	☼	06/26/15 07:33	06/29/15 18:18	1
1,2,4-Trichlorobenzene	<0.20		0.20	0.042	mg/Kg	☼	06/26/15 07:33	06/29/15 18:18	1
Isophorone	<0.20		0.20	0.044	mg/Kg	☼	06/26/15 07:33	06/29/15 18:18	1
2,4-Dimethylphenol	<0.39		0.39	0.15	mg/Kg	☼	06/26/15 07:33	06/29/15 18:18	1
Hexachlorobutadiene	<0.20		0.20	0.062	mg/Kg	☼	06/26/15 07:33	06/29/15 18:18	1
Naphthalene	<0.039		0.039	0.0061	mg/Kg	☼	06/26/15 07:33	06/29/15 18:18	1
2,4-Dichlorophenol	<0.39		0.39	0.093	mg/Kg	☼	06/26/15 07:33	06/29/15 18:18	1
4-Chloroaniline	<0.79		0.79	0.18	mg/Kg	☼	06/26/15 07:33	06/29/15 18:18	1
2,4,6-Trichlorophenol	<0.39		0.39	0.14	mg/Kg	☼	06/26/15 07:33	06/29/15 18:18	1
2,4,5-Trichlorophenol	<0.39		0.39	0.090	mg/Kg	☼	06/26/15 07:33	06/29/15 18:18	1
Hexachlorocyclopentadiene	<0.79		0.79	0.23	mg/Kg	☼	06/26/15 07:33	06/29/15 18:18	1
2-Methylnaphthalene	<0.039		0.039	0.0072	mg/Kg	☼	06/26/15 07:33	06/29/15 18:18	1
2-Nitroaniline	<0.20		0.20	0.053	mg/Kg	☼	06/26/15 07:33	06/29/15 18:18	1
2-Chloronaphthalene	<0.20		0.20	0.043	mg/Kg	☼	06/26/15 07:33	06/29/15 18:18	1
4-Chloro-3-methylphenol	<0.39		0.39	0.13	mg/Kg	☼	06/26/15 07:33	06/29/15 18:18	1
2,6-Dinitrotoluene	<0.20		0.20	0.077	mg/Kg	☼	06/26/15 07:33	06/29/15 18:18	1
2-Nitrophenol	<0.39		0.39	0.093	mg/Kg	☼	06/26/15 07:33	06/29/15 18:18	1
3-Nitroaniline	<0.39		0.39	0.12	mg/Kg	☼	06/26/15 07:33	06/29/15 18:18	1
Dimethyl phthalate	<0.20		0.20	0.051	mg/Kg	☼	06/26/15 07:33	06/29/15 18:18	1
2,4-Dinitrophenol	<0.79		0.79	0.69	mg/Kg	☼	06/26/15 07:33	06/29/15 18:18	1
Acenaphthylene	<0.039		0.039	0.0052	mg/Kg	☼	06/26/15 07:33	06/29/15 18:18	1
2,4-Dinitrotoluene	<0.20		0.20	0.063	mg/Kg	☼	06/26/15 07:33	06/29/15 18:18	1
Acenaphthene	<0.039		0.039	0.0071	mg/Kg	☼	06/26/15 07:33	06/29/15 18:18	1
Dibenzofuran	<0.20		0.20	0.046	mg/Kg	☼	06/26/15 07:33	06/29/15 18:18	1
4-Nitrophenol	<0.79		0.79	0.37	mg/Kg	☼	06/26/15 07:33	06/29/15 18:18	1
Fluorene	<0.039		0.039	0.0055	mg/Kg	☼	06/26/15 07:33	06/29/15 18:18	1
4-Nitroaniline	<0.39		0.39	0.16	mg/Kg	☼	06/26/15 07:33	06/29/15 18:18	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.052	mg/Kg	☼	06/26/15 07:33	06/29/15 18:18	1
Hexachlorobenzene	<0.079		0.079	0.0091	mg/Kg	☼	06/26/15 07:33	06/29/15 18:18	1
Diethyl phthalate	<0.20		0.20	0.067	mg/Kg	☼	06/26/15 07:33	06/29/15 18:18	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.046	mg/Kg	☼	06/26/15 07:33	06/29/15 18:18	1
Pentachlorophenol	<0.79		0.79	0.63	mg/Kg	☼	06/26/15 07:33	06/29/15 18:18	1
N-Nitrosodiphenylamine	<0.20		0.20	0.046	mg/Kg	☼	06/26/15 07:33	06/29/15 18:18	1
4,6-Dinitro-2-methylphenol	<0.39		0.39	0.32	mg/Kg	☼	06/26/15 07:33	06/29/15 18:18	1
Phenanthrene	0.031	J	0.039	0.0055	mg/Kg	☼	06/26/15 07:33	06/29/15 18:18	1
Anthracene	<0.039		0.039	0.0066	mg/Kg	☼	06/26/15 07:33	06/29/15 18:18	1
Carbazole	<0.20		0.20	0.10	mg/Kg	☼	06/26/15 07:33	06/29/15 18:18	1
Di-n-butyl phthalate	<0.20		0.20	0.060	mg/Kg	☼	06/26/15 07:33	06/29/15 18:18	1
Fluoranthene	0.030	J	0.039	0.0073	mg/Kg	☼	06/26/15 07:33	06/29/15 18:18	1
Pyrene	0.044		0.039	0.0078	mg/Kg	☼	06/26/15 07:33	06/29/15 18:18	1
Butyl benzyl phthalate	<0.20		0.20	0.075	mg/Kg	☼	06/26/15 07:33	06/29/15 18:18	1
Benzo[a]anthracene	0.020	J	0.039	0.0053	mg/Kg	☼	06/26/15 07:33	06/29/15 18:18	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97658-1

Client Sample ID: 1860-23-B16 (0-2)

Lab Sample ID: 500-97658-3

Date Collected: 06/22/15 10:00

Matrix: Solid

Date Received: 06/22/15 16:10

Percent Solids: 82.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.049		0.039	0.011	mg/Kg	☼	06/26/15 07:33	06/29/15 18:18	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.055	mg/Kg	☼	06/26/15 07:33	06/29/15 18:18	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.072	mg/Kg	☼	06/26/15 07:33	06/29/15 18:18	1
Di-n-octyl phthalate	<0.20		0.20	0.064	mg/Kg	☼	06/26/15 07:33	06/29/15 18:18	1
Benzo[b]fluoranthene	0.033	J	0.039	0.0085	mg/Kg	☼	06/26/15 07:33	06/29/15 18:18	1
Benzo[k]fluoranthene	0.018	J	0.039	0.012	mg/Kg	☼	06/26/15 07:33	06/29/15 18:18	1
Benzo[a]pyrene	0.027	J	0.039	0.0076	mg/Kg	☼	06/26/15 07:33	06/29/15 18:18	1
Indeno[1,2,3-cd]pyrene	0.024	J	0.039	0.010	mg/Kg	☼	06/26/15 07:33	06/29/15 18:18	1
Dibenz(a,h)anthracene	<0.039		0.039	0.0076	mg/Kg	☼	06/26/15 07:33	06/29/15 18:18	1
Benzo[g,h,i]perylene	0.026	J	0.039	0.013	mg/Kg	☼	06/26/15 07:33	06/29/15 18:18	1
3 & 4 Methylphenol	<0.20		0.20	0.066	mg/Kg	☼	06/26/15 07:33	06/29/15 18:18	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	53		25 - 110	06/26/15 07:33	06/29/15 18:18	1
Phenol-d5	44		31 - 110	06/26/15 07:33	06/29/15 18:18	1
Nitrobenzene-d5	41		25 - 115	06/26/15 07:33	06/29/15 18:18	1
2-Fluorobiphenyl	52		25 - 119	06/26/15 07:33	06/29/15 18:18	1
2,4,6-Tribromophenol	58		35 - 137	06/26/15 07:33	06/29/15 18:18	1
Terphenyl-d14	81		36 - 134	06/26/15 07:33	06/29/15 18:18	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.2		1.2	0.25	mg/Kg	☼	06/23/15 18:00	06/24/15 12:48	1
Arsenic	11		0.59	0.27	mg/Kg	☼	06/23/15 18:00	06/24/15 12:48	1
Barium	36		0.59	0.11	mg/Kg	☼	06/23/15 18:00	06/24/15 12:48	1
Beryllium	0.39		0.24	0.051	mg/Kg	☼	06/23/15 18:00	06/24/15 12:48	1
Boron	7.9		3.0	0.41	mg/Kg	☼	06/23/15 18:00	06/24/15 12:48	1
Cadmium	0.38		0.12	0.034	mg/Kg	☼	06/23/15 18:00	06/24/15 12:48	1
Calcium	69000		59	19	mg/Kg	☼	06/23/15 18:00	06/24/15 14:09	5
Chromium	9.3		0.59	0.10	mg/Kg	☼	06/23/15 18:00	06/24/15 12:48	1
Cobalt	12		0.30	0.067	mg/Kg	☼	06/23/15 18:00	06/24/15 12:48	1
Copper	31	B	0.59	0.13	mg/Kg	☼	06/23/15 18:00	06/24/15 12:48	1
Iron	18000	B	12	4.6	mg/Kg	☼	06/23/15 18:00	06/24/15 12:48	1
Lead	30		0.30	0.15	mg/Kg	☼	06/23/15 18:00	06/24/15 12:48	1
Magnesium	34000		5.9	2.4	mg/Kg	☼	06/23/15 18:00	06/24/15 12:48	1
Manganese	420		0.59	0.12	mg/Kg	☼	06/23/15 18:00	06/24/15 12:48	1
Nickel	27		0.59	0.16	mg/Kg	☼	06/23/15 18:00	06/24/15 12:48	1
Potassium	1300		30	4.8	mg/Kg	☼	06/23/15 18:00	06/24/15 12:48	1
Selenium	0.80		0.59	0.29	mg/Kg	☼	06/23/15 18:00	06/24/15 12:48	1
Silver	0.079	J	0.30	0.069	mg/Kg	☼	06/23/15 18:00	06/24/15 12:48	1
Sodium	470		59	7.8	mg/Kg	☼	06/23/15 18:00	06/24/15 12:48	1
Thallium	0.43	J	0.59	0.29	mg/Kg	☼	06/23/15 18:00	06/24/15 12:48	1
Vanadium	12		0.30	0.086	mg/Kg	☼	06/23/15 18:00	06/24/15 12:48	1
Zinc	88	B	1.2	0.37	mg/Kg	☼	06/23/15 18:00	06/24/15 12:48	1

Method: 7471B - Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.044		0.017	0.0061	mg/Kg	☼	06/23/15 11:30	06/24/15 12:26	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97658-1

Client Sample ID: 1860-23-B14 (0-2)

Lab Sample ID: 500-97658-4

Date Collected: 06/22/15 10:15

Matrix: Solid

Date Received: 06/22/15 16:10

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		06/25/15 12:00	06/26/15 14:11	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		06/25/15 12:00	06/26/15 14:11	1
Boron	0.68		0.50	0.050	mg/L		06/25/15 12:00	06/26/15 14:11	1
Cadmium	0.0036	J	0.0050	0.0020	mg/L		06/25/15 12:00	06/26/15 14:11	1
Chromium	<0.025		0.025	0.010	mg/L		06/25/15 12:00	06/26/15 14:11	1
Cobalt	<0.025		0.025	0.010	mg/L		06/25/15 12:00	06/26/15 14:11	1
Iron	<0.20		0.20	0.20	mg/L		06/25/15 12:00	06/26/15 14:11	1
Lead	<0.0075		0.0075	0.0075	mg/L		06/25/15 12:00	06/26/15 14:11	1
Manganese	0.65		0.025	0.010	mg/L		06/25/15 12:00	06/26/15 14:11	1
Nickel	0.015	J ^	0.025	0.010	mg/L		06/25/15 12:00	06/26/15 14:11	1
Selenium	0.020	J	0.050	0.020	mg/L		06/25/15 12:00	06/26/15 14:11	1
Silver	<0.025		0.025	0.010	mg/L		06/25/15 12:00	06/26/15 14:11	1
Zinc	0.27	J B	0.50	0.020	mg/L		06/25/15 12:00	06/26/15 14:11	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		07/01/15 11:20	07/02/15 12:06	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		06/25/15 12:00	06/26/15 20:28	1
Thallium	<0.0020		0.0020	0.0020	mg/L		06/25/15 12:00	06/26/15 20:28	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		06/25/15 10:30	06/26/15 09:17	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.25		0.200	0.200	SU			06/23/15 15:44	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97658-1

Client Sample ID: 1860-23-B14 (0-2)

Lab Sample ID: 500-97658-4

Date Collected: 06/22/15 10:15

Matrix: Solid

Date Received: 06/22/15 16:10

Percent Solids: 81.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.0050		0.0050	0.0039	mg/Kg	☼	06/23/15 09:30	06/25/15 15:38	1
Benzene	<0.0050		0.0050	0.0011	mg/Kg	☼	06/23/15 09:30	06/25/15 15:38	1
Bromodichloromethane	<0.0050		0.0050	0.00085	mg/Kg	☼	06/23/15 09:30	06/25/15 15:38	1
Bromoform	<0.0050		0.0050	0.0010	mg/Kg	☼	06/23/15 09:30	06/25/15 15:38	1
Bromomethane	<0.0050	*	0.0050	0.0019	mg/Kg	☼	06/23/15 09:30	06/25/15 15:38	1
2-Butanone (MEK)	<0.0050		0.0050	0.0018	mg/Kg	☼	06/23/15 09:30	06/25/15 15:38	1
Carbon disulfide	<0.0050		0.0050	0.0019	mg/Kg	☼	06/23/15 09:30	06/25/15 15:38	1
Carbon tetrachloride	<0.0050		0.0050	0.0011	mg/Kg	☼	06/23/15 09:30	06/25/15 15:38	1
Chlorobenzene	<0.0050		0.0050	0.0012	mg/Kg	☼	06/23/15 09:30	06/25/15 15:38	1
Chloroethane	<0.0050	*	0.0050	0.0021	mg/Kg	☼	06/23/15 09:30	06/25/15 15:38	1
Chloroform	<0.0050		0.0050	0.00098	mg/Kg	☼	06/23/15 09:30	06/25/15 15:38	1
Chloromethane	<0.0050		0.0050	0.0012	mg/Kg	☼	06/23/15 09:30	06/25/15 15:38	1
cis-1,2-Dichloroethene	<0.0050		0.0050	0.0010	mg/Kg	☼	06/23/15 09:30	06/25/15 15:38	1
cis-1,3-Dichloropropene	<0.0050		0.0050	0.0011	mg/Kg	☼	06/23/15 09:30	06/25/15 15:38	1
Dibromochloromethane	<0.0050		0.0050	0.00058	mg/Kg	☼	06/23/15 09:30	06/25/15 15:38	1
1,1-Dichloroethane	<0.0050		0.0050	0.0010	mg/Kg	☼	06/23/15 09:30	06/25/15 15:38	1
1,2-Dichloroethane	<0.0050		0.0050	0.00075	mg/Kg	☼	06/23/15 09:30	06/25/15 15:38	1
1,1-Dichloroethene	<0.0050		0.0050	0.0018	mg/Kg	☼	06/23/15 09:30	06/25/15 15:38	1
1,2-Dichloropropane	<0.0050		0.0050	0.0013	mg/Kg	☼	06/23/15 09:30	06/25/15 15:38	1
1,3-Dichloropropane, Total	<0.0050		0.0050	0.0014	mg/Kg	☼	06/23/15 09:30	06/25/15 15:38	1
Ethylbenzene	<0.0050		0.0050	0.0013	mg/Kg	☼	06/23/15 09:30	06/25/15 15:38	1
2-Hexanone	<0.0050		0.0050	0.0016	mg/Kg	☼	06/23/15 09:30	06/25/15 15:38	1
Methylene Chloride	<0.0050		0.0050	0.0038	mg/Kg	☼	06/23/15 09:30	06/25/15 15:38	1
4-Methyl-2-pentanone (MIBK)	<0.0050		0.0050	0.0010	mg/Kg	☼	06/23/15 09:30	06/25/15 15:38	1
Methyl tert-butyl ether	<0.0050		0.0050	0.0012	mg/Kg	☼	06/23/15 09:30	06/25/15 15:38	1
Styrene	<0.0050		0.0050	0.0012	mg/Kg	☼	06/23/15 09:30	06/25/15 15:38	1
1,1,2,2-Tetrachloroethane	<0.0050		0.0050	0.00080	mg/Kg	☼	06/23/15 09:30	06/25/15 15:38	1
Tetrachloroethene	<0.0050		0.0050	0.0010	mg/Kg	☼	06/23/15 09:30	06/25/15 15:38	1
Toluene	<0.0050		0.0050	0.0018	mg/Kg	☼	06/23/15 09:30	06/25/15 15:38	1
trans-1,2-Dichloroethene	<0.0050		0.0050	0.0013	mg/Kg	☼	06/23/15 09:30	06/25/15 15:38	1
trans-1,3-Dichloropropene	<0.0050		0.0050	0.0014	mg/Kg	☼	06/23/15 09:30	06/25/15 15:38	1
1,1,1-Trichloroethane	<0.0050		0.0050	0.0012	mg/Kg	☼	06/23/15 09:30	06/25/15 15:38	1
1,1,2-Trichloroethane	<0.0050		0.0050	0.00098	mg/Kg	☼	06/23/15 09:30	06/25/15 15:38	1
Trichloroethene	<0.0050		0.0050	0.0014	mg/Kg	☼	06/23/15 09:30	06/25/15 15:38	1
Vinyl acetate	<0.0050		0.0050	0.0014	mg/Kg	☼	06/23/15 09:30	06/25/15 15:38	1
Vinyl chloride	<0.0050		0.0050	0.0012	mg/Kg	☼	06/23/15 09:30	06/25/15 15:38	1
Xylenes, Total	<0.010		0.010	0.0019	mg/Kg	☼	06/23/15 09:30	06/25/15 15:38	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	84		70 - 122	06/23/15 09:30	06/25/15 15:38	1
Dibromofluoromethane	94		75 - 120	06/23/15 09:30	06/25/15 15:38	1
1,2-Dichloroethane-d4 (Surr)	90		70 - 134	06/23/15 09:30	06/25/15 15:38	1
Toluene-d8 (Surr)	97		75 - 122	06/23/15 09:30	06/25/15 15:38	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	☼	06/26/15 07:33	06/30/15 15:11	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.059	mg/Kg	☼	06/26/15 07:33	06/30/15 15:11	1
1,3-Dichlorobenzene	<0.20		0.20	0.045	mg/Kg	☼	06/26/15 07:33	06/30/15 15:11	1
1,4-Dichlorobenzene	<0.20		0.20	0.051	mg/Kg	☼	06/26/15 07:33	06/30/15 15:11	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97658-1

Client Sample ID: 1860-23-B14 (0-2)

Lab Sample ID: 500-97658-4

Date Collected: 06/22/15 10:15

Matrix: Solid

Date Received: 06/22/15 16:10

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	0.047	mg/Kg	☼	06/26/15 07:33	06/30/15 15:11	1
2-Methylphenol	<0.20		0.20	0.064	mg/Kg	☼	06/26/15 07:33	06/30/15 15:11	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.046	mg/Kg	☼	06/26/15 07:33	06/30/15 15:11	1
N-Nitrosodi-n-propylamine	<0.20		0.20	0.048	mg/Kg	☼	06/26/15 07:33	06/30/15 15:11	1
Hexachloroethane	<0.20		0.20	0.060	mg/Kg	☼	06/26/15 07:33	06/30/15 15:11	1
2-Chlorophenol	<0.20		0.20	0.068	mg/Kg	☼	06/26/15 07:33	06/30/15 15:11	1
Nitrobenzene	<0.039		0.039	0.0099	mg/Kg	☼	06/26/15 07:33	06/30/15 15:11	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.040	mg/Kg	☼	06/26/15 07:33	06/30/15 15:11	1
1,2,4-Trichlorobenzene	<0.20		0.20	0.043	mg/Kg	☼	06/26/15 07:33	06/30/15 15:11	1
Isophorone	<0.20		0.20	0.045	mg/Kg	☼	06/26/15 07:33	06/30/15 15:11	1
2,4-Dimethylphenol	<0.39		0.39	0.15	mg/Kg	☼	06/26/15 07:33	06/30/15 15:11	1
Hexachlorobutadiene	<0.20		0.20	0.062	mg/Kg	☼	06/26/15 07:33	06/30/15 15:11	1
Naphthalene	<0.039		0.039	0.0061	mg/Kg	☼	06/26/15 07:33	06/30/15 15:11	1
2,4-Dichlorophenol	<0.39		0.39	0.094	mg/Kg	☼	06/26/15 07:33	06/30/15 15:11	1
4-Chloroaniline	<0.80		0.80	0.19	mg/Kg	☼	06/26/15 07:33	06/30/15 15:11	1
2,4,6-Trichlorophenol	<0.39		0.39	0.14	mg/Kg	☼	06/26/15 07:33	06/30/15 15:11	1
2,4,5-Trichlorophenol	<0.39		0.39	0.091	mg/Kg	☼	06/26/15 07:33	06/30/15 15:11	1
Hexachlorocyclopentadiene	<0.80		0.80	0.23	mg/Kg	☼	06/26/15 07:33	06/30/15 15:11	1
2-Methylnaphthalene	<0.039		0.039	0.0073	mg/Kg	☼	06/26/15 07:33	06/30/15 15:11	1
2-Nitroaniline	<0.20		0.20	0.053	mg/Kg	☼	06/26/15 07:33	06/30/15 15:11	1
2-Chloronaphthalene	<0.20		0.20	0.044	mg/Kg	☼	06/26/15 07:33	06/30/15 15:11	1
4-Chloro-3-methylphenol	<0.39		0.39	0.13	mg/Kg	☼	06/26/15 07:33	06/30/15 15:11	1
2,6-Dinitrotoluene	<0.20		0.20	0.078	mg/Kg	☼	06/26/15 07:33	06/30/15 15:11	1
2-Nitrophenol	<0.39		0.39	0.094	mg/Kg	☼	06/26/15 07:33	06/30/15 15:11	1
3-Nitroaniline	<0.39		0.39	0.12	mg/Kg	☼	06/26/15 07:33	06/30/15 15:11	1
Dimethyl phthalate	<0.20		0.20	0.052	mg/Kg	☼	06/26/15 07:33	06/30/15 15:11	1
2,4-Dinitrophenol	<0.80		0.80	0.70	mg/Kg	☼	06/26/15 07:33	06/30/15 15:11	1
Acenaphthylene	<0.039		0.039	0.0052	mg/Kg	☼	06/26/15 07:33	06/30/15 15:11	1
2,4-Dinitrotoluene	<0.20		0.20	0.063	mg/Kg	☼	06/26/15 07:33	06/30/15 15:11	1
Acenaphthene	<0.039		0.039	0.0071	mg/Kg	☼	06/26/15 07:33	06/30/15 15:11	1
Dibenzofuran	<0.20		0.20	0.046	mg/Kg	☼	06/26/15 07:33	06/30/15 15:11	1
4-Nitrophenol	<0.80		0.80	0.38	mg/Kg	☼	06/26/15 07:33	06/30/15 15:11	1
Fluorene	<0.039		0.039	0.0056	mg/Kg	☼	06/26/15 07:33	06/30/15 15:11	1
4-Nitroaniline	<0.39		0.39	0.17	mg/Kg	☼	06/26/15 07:33	06/30/15 15:11	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.052	mg/Kg	☼	06/26/15 07:33	06/30/15 15:11	1
Hexachlorobenzene	<0.080		0.080	0.0092	mg/Kg	☼	06/26/15 07:33	06/30/15 15:11	1
Diethyl phthalate	<0.20		0.20	0.067	mg/Kg	☼	06/26/15 07:33	06/30/15 15:11	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.046	mg/Kg	☼	06/26/15 07:33	06/30/15 15:11	1
Pentachlorophenol	<0.80		0.80	0.64	mg/Kg	☼	06/26/15 07:33	06/30/15 15:11	1
N-Nitrosodiphenylamine	<0.20		0.20	0.047	mg/Kg	☼	06/26/15 07:33	06/30/15 15:11	1
4,6-Dinitro-2-methylphenol	<0.39		0.39	0.32	mg/Kg	☼	06/26/15 07:33	06/30/15 15:11	1
Phenanthrene	0.071		0.039	0.0055	mg/Kg	☼	06/26/15 07:33	06/30/15 15:11	1
Anthracene	0.019 J		0.039	0.0066	mg/Kg	☼	06/26/15 07:33	06/30/15 15:11	1
Carbazole	<0.20		0.20	0.10	mg/Kg	☼	06/26/15 07:33	06/30/15 15:11	1
Di-n-butyl phthalate	<0.20		0.20	0.060	mg/Kg	☼	06/26/15 07:33	06/30/15 15:11	1
Fluoranthene	0.11		0.039	0.0074	mg/Kg	☼	06/26/15 07:33	06/30/15 15:11	1
Pyrene	0.13		0.039	0.0079	mg/Kg	☼	06/26/15 07:33	06/30/15 15:11	1
Butyl benzyl phthalate	<0.20		0.20	0.075	mg/Kg	☼	06/26/15 07:33	06/30/15 15:11	1
Benzo[a]anthracene	0.085		0.039	0.0053	mg/Kg	☼	06/26/15 07:33	06/30/15 15:11	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97658-1

Client Sample ID: 1860-23-B14 (0-2)

Lab Sample ID: 500-97658-4

Date Collected: 06/22/15 10:15

Matrix: Solid

Date Received: 06/22/15 16:10

Percent Solids: 81.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.10		0.039	0.011	mg/Kg	☼	06/26/15 07:33	06/30/15 15:11	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.056	mg/Kg	☼	06/26/15 07:33	06/30/15 15:11	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.073	mg/Kg	☼	06/26/15 07:33	06/30/15 15:11	1
Di-n-octyl phthalate	<0.20		0.20	0.065	mg/Kg	☼	06/26/15 07:33	06/30/15 15:11	1
Benzo[b]fluoranthene	0.084		0.039	0.0086	mg/Kg	☼	06/26/15 07:33	06/30/15 15:11	1
Benzo[k]fluoranthene	0.027 J		0.039	0.012	mg/Kg	☼	06/26/15 07:33	06/30/15 15:11	1
Benzo[a]pyrene	0.057		0.039	0.0077	mg/Kg	☼	06/26/15 07:33	06/30/15 15:11	1
Indeno[1,2,3-cd]pyrene	0.036 J		0.039	0.010	mg/Kg	☼	06/26/15 07:33	06/30/15 15:11	1
Dibenz(a,h)anthracene	0.015 J		0.039	0.0077	mg/Kg	☼	06/26/15 07:33	06/30/15 15:11	1
Benzo[g,h,i]perylene	0.041		0.039	0.013	mg/Kg	☼	06/26/15 07:33	06/30/15 15:11	1
3 & 4 Methylphenol	<0.20		0.20	0.066	mg/Kg	☼	06/26/15 07:33	06/30/15 15:11	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	65		25 - 110	06/26/15 07:33	06/30/15 15:11	1
Phenol-d5	65		31 - 110	06/26/15 07:33	06/30/15 15:11	1
Nitrobenzene-d5	64		25 - 115	06/26/15 07:33	06/30/15 15:11	1
2-Fluorobiphenyl	62		25 - 119	06/26/15 07:33	06/30/15 15:11	1
2,4,6-Tribromophenol	68		35 - 137	06/26/15 07:33	06/30/15 15:11	1
Terphenyl-d14	91		36 - 134	06/26/15 07:33	06/30/15 15:11	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.29 J		1.2	0.24	mg/Kg	☼	06/23/15 18:00	06/24/15 12:53	1
Arsenic	9.3		0.59	0.27	mg/Kg	☼	06/23/15 18:00	06/24/15 12:53	1
Barium	50		0.59	0.11	mg/Kg	☼	06/23/15 18:00	06/24/15 12:53	1
Beryllium	0.49		0.23	0.051	mg/Kg	☼	06/23/15 18:00	06/24/15 12:53	1
Boron	9.8		2.9	0.41	mg/Kg	☼	06/23/15 18:00	06/24/15 12:53	1
Cadmium	0.61		0.12	0.034	mg/Kg	☼	06/23/15 18:00	06/24/15 12:53	1
Calcium	62000		59	19	mg/Kg	☼	06/23/15 18:00	06/24/15 14:58	5
Chromium	12		0.59	0.10	mg/Kg	☼	06/23/15 18:00	06/24/15 12:53	1
Cobalt	11		0.29	0.066	mg/Kg	☼	06/23/15 18:00	06/24/15 12:53	1
Copper	31 B		0.59	0.13	mg/Kg	☼	06/23/15 18:00	06/24/15 12:53	1
Iron	19000 B		12	4.5	mg/Kg	☼	06/23/15 18:00	06/24/15 12:53	1
Lead	54		0.29	0.15	mg/Kg	☼	06/23/15 18:00	06/24/15 12:53	1
Magnesium	33000		5.9	2.4	mg/Kg	☼	06/23/15 18:00	06/24/15 12:53	1
Manganese	400		0.59	0.12	mg/Kg	☼	06/23/15 18:00	06/24/15 12:53	1
Nickel	26		0.59	0.16	mg/Kg	☼	06/23/15 18:00	06/24/15 12:53	1
Potassium	1700		29	4.8	mg/Kg	☼	06/23/15 18:00	06/24/15 12:53	1
Selenium	0.64		0.59	0.29	mg/Kg	☼	06/23/15 18:00	06/24/15 12:53	1
Silver	0.072 J		0.29	0.069	mg/Kg	☼	06/23/15 18:00	06/24/15 12:53	1
Sodium	860		59	7.7	mg/Kg	☼	06/23/15 18:00	06/24/15 12:53	1
Thallium	<0.59		0.59	0.29	mg/Kg	☼	06/23/15 18:00	06/24/15 12:53	1
Vanadium	15		0.29	0.086	mg/Kg	☼	06/23/15 18:00	06/24/15 12:53	1
Zinc	110 B		1.2	0.37	mg/Kg	☼	06/23/15 18:00	06/24/15 12:53	1

Method: 7471B - Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.049		0.020	0.0069	mg/Kg	☼	06/23/15 11:30	06/24/15 12:28	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97658-1

Client Sample ID: 1860-23-B04 (2-4)

Lab Sample ID: 500-97658-6

Date Collected: 06/22/15 11:35

Matrix: Solid

Date Received: 06/22/15 16:10

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.13	J	0.50	0.050	mg/L		06/25/15 12:00	06/26/15 14:21	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		06/25/15 12:00	06/26/15 14:21	1
Boron	0.81		0.50	0.050	mg/L		06/25/15 12:00	06/26/15 14:21	1
Cadmium	0.0029	J	0.0050	0.0020	mg/L		06/25/15 12:00	06/26/15 14:21	1
Chromium	<0.025		0.025	0.010	mg/L		06/25/15 12:00	06/26/15 14:21	1
Cobalt	0.019	J	0.025	0.010	mg/L		06/25/15 12:00	06/26/15 14:21	1
Iron	<0.20		0.20	0.20	mg/L		06/25/15 12:00	06/26/15 14:21	1
Lead	<0.0075		0.0075	0.0075	mg/L		06/25/15 12:00	06/26/15 14:21	1
Manganese	4.4		0.025	0.010	mg/L		06/25/15 12:00	06/26/15 14:21	1
Nickel	0.016	J ^	0.025	0.010	mg/L		06/25/15 12:00	06/26/15 14:21	1
Selenium	<0.050		0.050	0.020	mg/L		06/25/15 12:00	06/26/15 14:21	1
Silver	<0.025		0.025	0.010	mg/L		06/25/15 12:00	06/26/15 14:21	1
Zinc	0.10	J B	0.50	0.020	mg/L		06/25/15 12:00	06/26/15 14:21	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		07/01/15 11:20	07/02/15 12:14	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		06/25/15 12:00	06/26/15 20:47	1
Thallium	<0.0020		0.0020	0.0020	mg/L		06/25/15 12:00	06/26/15 20:47	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		06/25/15 10:30	06/26/15 09:21	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.59		0.200	0.200	SU			06/23/15 15:49	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97658-1

Client Sample ID: 1860-23-B04 (2-4)

Lab Sample ID: 500-97658-6

Date Collected: 06/22/15 11:35

Matrix: Solid

Date Received: 06/22/15 16:10

Percent Solids: 88.2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	0.030		0.0045	0.0035	mg/Kg	☼	06/23/15 09:30	06/25/15 16:27	1
Benzene	<0.0045		0.0045	0.0010	mg/Kg	☼	06/23/15 09:30	06/25/15 16:27	1
Bromodichloromethane	<0.0045		0.0045	0.00076	mg/Kg	☼	06/23/15 09:30	06/25/15 16:27	1
Bromoform	<0.0045		0.0045	0.00092	mg/Kg	☼	06/23/15 09:30	06/25/15 16:27	1
Bromomethane	<0.0045	*	0.0045	0.0017	mg/Kg	☼	06/23/15 09:30	06/25/15 16:27	1
2-Butanone (MEK)	<0.0045		0.0045	0.0016	mg/Kg	☼	06/23/15 09:30	06/25/15 16:27	1
Carbon disulfide	<0.0045		0.0045	0.0017	mg/Kg	☼	06/23/15 09:30	06/25/15 16:27	1
Carbon tetrachloride	<0.0045		0.0045	0.00097	mg/Kg	☼	06/23/15 09:30	06/25/15 16:27	1
Chlorobenzene	<0.0045		0.0045	0.0011	mg/Kg	☼	06/23/15 09:30	06/25/15 16:27	1
Chloroethane	<0.0045	*	0.0045	0.0019	mg/Kg	☼	06/23/15 09:30	06/25/15 16:27	1
Chloroform	<0.0045		0.0045	0.00088	mg/Kg	☼	06/23/15 09:30	06/25/15 16:27	1
Chloromethane	<0.0045		0.0045	0.0011	mg/Kg	☼	06/23/15 09:30	06/25/15 16:27	1
cis-1,2-Dichloroethene	<0.0045		0.0045	0.00092	mg/Kg	☼	06/23/15 09:30	06/25/15 16:27	1
cis-1,3-Dichloropropene	<0.0045		0.0045	0.0010	mg/Kg	☼	06/23/15 09:30	06/25/15 16:27	1
Dibromochloromethane	<0.0045		0.0045	0.00052	mg/Kg	☼	06/23/15 09:30	06/25/15 16:27	1
1,1-Dichloroethane	<0.0045		0.0045	0.00093	mg/Kg	☼	06/23/15 09:30	06/25/15 16:27	1
1,2-Dichloroethane	<0.0045		0.0045	0.00067	mg/Kg	☼	06/23/15 09:30	06/25/15 16:27	1
1,1-Dichloroethene	<0.0045		0.0045	0.0016	mg/Kg	☼	06/23/15 09:30	06/25/15 16:27	1
1,2-Dichloropropane	<0.0045		0.0045	0.0012	mg/Kg	☼	06/23/15 09:30	06/25/15 16:27	1
1,3-Dichloropropane, Total	<0.0045		0.0045	0.0013	mg/Kg	☼	06/23/15 09:30	06/25/15 16:27	1
Ethylbenzene	<0.0045		0.0045	0.0011	mg/Kg	☼	06/23/15 09:30	06/25/15 16:27	1
2-Hexanone	<0.0045		0.0045	0.0014	mg/Kg	☼	06/23/15 09:30	06/25/15 16:27	1
Methylene Chloride	<0.0045		0.0045	0.0034	mg/Kg	☼	06/23/15 09:30	06/25/15 16:27	1
4-Methyl-2-pentanone (MIBK)	<0.0045		0.0045	0.00093	mg/Kg	☼	06/23/15 09:30	06/25/15 16:27	1
Methyl tert-butyl ether	<0.0045		0.0045	0.0011	mg/Kg	☼	06/23/15 09:30	06/25/15 16:27	1
Styrene	<0.0045		0.0045	0.0011	mg/Kg	☼	06/23/15 09:30	06/25/15 16:27	1
1,1,2,2-Tetrachloroethane	<0.0045		0.0045	0.00072	mg/Kg	☼	06/23/15 09:30	06/25/15 16:27	1
Tetrachloroethene	<0.0045		0.0045	0.00094	mg/Kg	☼	06/23/15 09:30	06/25/15 16:27	1
Toluene	<0.0045		0.0045	0.0016	mg/Kg	☼	06/23/15 09:30	06/25/15 16:27	1
trans-1,2-Dichloroethene	<0.0045		0.0045	0.0011	mg/Kg	☼	06/23/15 09:30	06/25/15 16:27	1
trans-1,3-Dichloropropene	<0.0045		0.0045	0.0013	mg/Kg	☼	06/23/15 09:30	06/25/15 16:27	1
1,1,1-Trichloroethane	<0.0045		0.0045	0.0010	mg/Kg	☼	06/23/15 09:30	06/25/15 16:27	1
1,1,2-Trichloroethane	<0.0045		0.0045	0.00088	mg/Kg	☼	06/23/15 09:30	06/25/15 16:27	1
Trichloroethene	<0.0045		0.0045	0.0012	mg/Kg	☼	06/23/15 09:30	06/25/15 16:27	1
Vinyl acetate	<0.0045		0.0045	0.0012	mg/Kg	☼	06/23/15 09:30	06/25/15 16:27	1
Vinyl chloride	<0.0045		0.0045	0.0011	mg/Kg	☼	06/23/15 09:30	06/25/15 16:27	1
Xylenes, Total	<0.0090		0.0090	0.0017	mg/Kg	☼	06/23/15 09:30	06/25/15 16:27	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	83		70 - 122	06/23/15 09:30	06/25/15 16:27	1
Dibromofluoromethane	100		75 - 120	06/23/15 09:30	06/25/15 16:27	1
1,2-Dichloroethane-d4 (Surr)	97		70 - 134	06/23/15 09:30	06/25/15 16:27	1
Toluene-d8 (Surr)	96		75 - 122	06/23/15 09:30	06/25/15 16:27	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.19		0.19	0.083	mg/Kg	☼	06/26/15 07:33	06/29/15 19:22	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.056	mg/Kg	☼	06/26/15 07:33	06/29/15 19:22	1
1,3-Dichlorobenzene	<0.19		0.19	0.042	mg/Kg	☼	06/26/15 07:33	06/29/15 19:22	1
1,4-Dichlorobenzene	<0.19		0.19	0.048	mg/Kg	☼	06/26/15 07:33	06/29/15 19:22	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97658-1

Client Sample ID: 1860-23-B04 (2-4)

Lab Sample ID: 500-97658-6

Date Collected: 06/22/15 11:35

Matrix: Solid

Date Received: 06/22/15 16:10

Percent Solids: 88.2

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	0.044	mg/Kg	☼	06/26/15 07:33	06/29/15 19:22	1
2-Methylphenol	<0.19		0.19	0.060	mg/Kg	☼	06/26/15 07:33	06/29/15 19:22	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.043	mg/Kg	☼	06/26/15 07:33	06/29/15 19:22	1
N-Nitrosodi-n-propylamine	<0.19		0.19	0.045	mg/Kg	☼	06/26/15 07:33	06/29/15 19:22	1
Hexachloroethane	<0.19		0.19	0.056	mg/Kg	☼	06/26/15 07:33	06/29/15 19:22	1
2-Chlorophenol	<0.19		0.19	0.063	mg/Kg	☼	06/26/15 07:33	06/29/15 19:22	1
Nitrobenzene	<0.037		0.037	0.0093	mg/Kg	☼	06/26/15 07:33	06/29/15 19:22	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.038	mg/Kg	☼	06/26/15 07:33	06/29/15 19:22	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.040	mg/Kg	☼	06/26/15 07:33	06/29/15 19:22	1
Isophorone	<0.19		0.19	0.042	mg/Kg	☼	06/26/15 07:33	06/29/15 19:22	1
2,4-Dimethylphenol	<0.37		0.37	0.14	mg/Kg	☼	06/26/15 07:33	06/29/15 19:22	1
Hexachlorobutadiene	<0.19		0.19	0.058	mg/Kg	☼	06/26/15 07:33	06/29/15 19:22	1
Naphthalene	<0.037		0.037	0.0057	mg/Kg	☼	06/26/15 07:33	06/29/15 19:22	1
2,4-Dichlorophenol	<0.37		0.37	0.088	mg/Kg	☼	06/26/15 07:33	06/29/15 19:22	1
4-Chloroaniline	<0.75		0.75	0.17	mg/Kg	☼	06/26/15 07:33	06/29/15 19:22	1
2,4,6-Trichlorophenol	<0.37		0.37	0.13	mg/Kg	☼	06/26/15 07:33	06/29/15 19:22	1
2,4,5-Trichlorophenol	<0.37		0.37	0.085	mg/Kg	☼	06/26/15 07:33	06/29/15 19:22	1
Hexachlorocyclopentadiene	<0.75		0.75	0.21	mg/Kg	☼	06/26/15 07:33	06/29/15 19:22	1
2-Methylnaphthalene	0.021	J	0.037	0.0068	mg/Kg	☼	06/26/15 07:33	06/29/15 19:22	1
2-Nitroaniline	<0.19		0.19	0.050	mg/Kg	☼	06/26/15 07:33	06/29/15 19:22	1
2-Chloronaphthalene	<0.19		0.19	0.041	mg/Kg	☼	06/26/15 07:33	06/29/15 19:22	1
4-Chloro-3-methylphenol	<0.37		0.37	0.13	mg/Kg	☼	06/26/15 07:33	06/29/15 19:22	1
2,6-Dinitrotoluene	<0.19		0.19	0.073	mg/Kg	☼	06/26/15 07:33	06/29/15 19:22	1
2-Nitrophenol	<0.37		0.37	0.088	mg/Kg	☼	06/26/15 07:33	06/29/15 19:22	1
3-Nitroaniline	<0.37		0.37	0.12	mg/Kg	☼	06/26/15 07:33	06/29/15 19:22	1
Dimethyl phthalate	<0.19		0.19	0.049	mg/Kg	☼	06/26/15 07:33	06/29/15 19:22	1
2,4-Dinitrophenol	<0.75		0.75	0.65	mg/Kg	☼	06/26/15 07:33	06/29/15 19:22	1
Acenaphthylene	<0.037		0.037	0.0049	mg/Kg	☼	06/26/15 07:33	06/29/15 19:22	1
2,4-Dinitrotoluene	<0.19		0.19	0.059	mg/Kg	☼	06/26/15 07:33	06/29/15 19:22	1
Acenaphthene	<0.037		0.037	0.0067	mg/Kg	☼	06/26/15 07:33	06/29/15 19:22	1
Dibenzofuran	<0.19		0.19	0.043	mg/Kg	☼	06/26/15 07:33	06/29/15 19:22	1
4-Nitrophenol	<0.75		0.75	0.35	mg/Kg	☼	06/26/15 07:33	06/29/15 19:22	1
Fluorene	<0.037		0.037	0.0052	mg/Kg	☼	06/26/15 07:33	06/29/15 19:22	1
4-Nitroaniline	<0.37		0.37	0.16	mg/Kg	☼	06/26/15 07:33	06/29/15 19:22	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.049	mg/Kg	☼	06/26/15 07:33	06/29/15 19:22	1
Hexachlorobenzene	<0.075		0.075	0.0086	mg/Kg	☼	06/26/15 07:33	06/29/15 19:22	1
Diethyl phthalate	<0.19		0.19	0.063	mg/Kg	☼	06/26/15 07:33	06/29/15 19:22	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.043	mg/Kg	☼	06/26/15 07:33	06/29/15 19:22	1
Pentachlorophenol	<0.75		0.75	0.60	mg/Kg	☼	06/26/15 07:33	06/29/15 19:22	1
N-Nitrosodiphenylamine	<0.19		0.19	0.044	mg/Kg	☼	06/26/15 07:33	06/29/15 19:22	1
4,6-Dinitro-2-methylphenol	<0.37		0.37	0.30	mg/Kg	☼	06/26/15 07:33	06/29/15 19:22	1
Phenanthrene	0.058		0.037	0.0052	mg/Kg	☼	06/26/15 07:33	06/29/15 19:22	1
Anthracene	<0.037		0.037	0.0062	mg/Kg	☼	06/26/15 07:33	06/29/15 19:22	1
Carbazole	<0.19		0.19	0.096	mg/Kg	☼	06/26/15 07:33	06/29/15 19:22	1
Di-n-butyl phthalate	<0.19		0.19	0.057	mg/Kg	☼	06/26/15 07:33	06/29/15 19:22	1
Fluoranthene	0.024	J	0.037	0.0069	mg/Kg	☼	06/26/15 07:33	06/29/15 19:22	1
Pyrene	0.030	J	0.037	0.0074	mg/Kg	☼	06/26/15 07:33	06/29/15 19:22	1
Butyl benzyl phthalate	<0.19		0.19	0.071	mg/Kg	☼	06/26/15 07:33	06/29/15 19:22	1
Benzo[a]anthracene	0.016	J	0.037	0.0050	mg/Kg	☼	06/26/15 07:33	06/29/15 19:22	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97658-1

Client Sample ID: 1860-23-B04 (2-4)

Lab Sample ID: 500-97658-6

Date Collected: 06/22/15 11:35

Matrix: Solid

Date Received: 06/22/15 16:10

Percent Solids: 88.2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.033	J	0.037	0.010	mg/Kg	☼	06/26/15 07:33	06/29/15 19:22	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.052	mg/Kg	☼	06/26/15 07:33	06/29/15 19:22	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.068	mg/Kg	☼	06/26/15 07:33	06/29/15 19:22	1
Di-n-octyl phthalate	<0.19		0.19	0.061	mg/Kg	☼	06/26/15 07:33	06/29/15 19:22	1
Benzo[b]fluoranthene	0.021	J	0.037	0.0080	mg/Kg	☼	06/26/15 07:33	06/29/15 19:22	1
Benzo[k]fluoranthene	<0.037		0.037	0.011	mg/Kg	☼	06/26/15 07:33	06/29/15 19:22	1
Benzo[a]pyrene	<0.037		0.037	0.0072	mg/Kg	☼	06/26/15 07:33	06/29/15 19:22	1
Indeno[1,2,3-cd]pyrene	0.012	J	0.037	0.0096	mg/Kg	☼	06/26/15 07:33	06/29/15 19:22	1
Dibenz(a,h)anthracene	<0.037		0.037	0.0072	mg/Kg	☼	06/26/15 07:33	06/29/15 19:22	1
Benzo[g,h,i]perylene	0.022	J	0.037	0.012	mg/Kg	☼	06/26/15 07:33	06/29/15 19:22	1
3 & 4 Methylphenol	<0.19		0.19	0.062	mg/Kg	☼	06/26/15 07:33	06/29/15 19:22	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	68		25 - 110	06/26/15 07:33	06/29/15 19:22	1
Phenol-d5	57		31 - 110	06/26/15 07:33	06/29/15 19:22	1
Nitrobenzene-d5	53		25 - 115	06/26/15 07:33	06/29/15 19:22	1
2-Fluorobiphenyl	55		25 - 119	06/26/15 07:33	06/29/15 19:22	1
2,4,6-Tribromophenol	63		35 - 137	06/26/15 07:33	06/29/15 19:22	1
Terphenyl-d14	71		36 - 134	06/26/15 07:33	06/29/15 19:22	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.1		1.1	0.23	mg/Kg	☼	06/23/15 18:00	06/24/15 13:03	1
Arsenic	8.7		0.57	0.26	mg/Kg	☼	06/23/15 18:00	06/24/15 13:03	1
Barium	27		0.57	0.10	mg/Kg	☼	06/23/15 18:00	06/24/15 13:03	1
Beryllium	0.47		0.23	0.049	mg/Kg	☼	06/23/15 18:00	06/24/15 13:03	1
Boron	8.8		2.8	0.40	mg/Kg	☼	06/23/15 18:00	06/24/15 13:03	1
Cadmium	0.27		0.11	0.033	mg/Kg	☼	06/23/15 18:00	06/24/15 13:03	1
Calcium	68000		57	18	mg/Kg	☼	06/23/15 18:00	06/24/15 15:15	5
Chromium	11		0.57	0.097	mg/Kg	☼	06/23/15 18:00	06/24/15 13:03	1
Cobalt	12		0.28	0.064	mg/Kg	☼	06/23/15 18:00	06/24/15 13:03	1
Copper	27	B	0.57	0.12	mg/Kg	☼	06/23/15 18:00	06/24/15 13:03	1
Iron	19000	B	11	4.4	mg/Kg	☼	06/23/15 18:00	06/24/15 13:03	1
Lead	19		0.28	0.14	mg/Kg	☼	06/23/15 18:00	06/24/15 13:03	1
Magnesium	32000		5.7	2.3	mg/Kg	☼	06/23/15 18:00	06/24/15 13:03	1
Manganese	380		0.57	0.11	mg/Kg	☼	06/23/15 18:00	06/24/15 13:03	1
Nickel	28		0.57	0.15	mg/Kg	☼	06/23/15 18:00	06/24/15 13:03	1
Potassium	1500		28	4.6	mg/Kg	☼	06/23/15 18:00	06/24/15 13:03	1
Selenium	0.82		0.57	0.28	mg/Kg	☼	06/23/15 18:00	06/24/15 13:03	1
Silver	<0.28		0.28	0.066	mg/Kg	☼	06/23/15 18:00	06/24/15 13:03	1
Sodium	1400		57	7.5	mg/Kg	☼	06/23/15 18:00	06/24/15 13:03	1
Thallium	<0.57		0.57	0.28	mg/Kg	☼	06/23/15 18:00	06/24/15 13:03	1
Vanadium	14		0.28	0.083	mg/Kg	☼	06/23/15 18:00	06/24/15 13:03	1
Zinc	71	B	1.1	0.36	mg/Kg	☼	06/23/15 18:00	06/24/15 13:03	1

Method: 7471B - Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.032		0.018	0.0063	mg/Kg	☼	06/23/15 11:30	06/24/15 12:32	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97658-1

Client Sample ID: 1860-23-B04 (10-12)

Lab Sample ID: 500-97658-7

Date Collected: 06/22/15 11:40

Matrix: Solid

Date Received: 06/22/15 16:10

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		06/25/15 12:00	06/26/15 14:26	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		06/25/15 12:00	06/26/15 14:26	1
Boron	0.76		0.50	0.050	mg/L		06/25/15 12:00	06/26/15 14:26	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		06/25/15 12:00	06/26/15 14:26	1
Chromium	<0.025		0.025	0.010	mg/L		06/25/15 12:00	06/26/15 14:26	1
Cobalt	0.036		0.025	0.010	mg/L		06/25/15 12:00	06/26/15 14:26	1
Iron	<0.20		0.20	0.20	mg/L		06/25/15 12:00	06/26/15 14:26	1
Lead	<0.0075		0.0075	0.0075	mg/L		06/25/15 12:00	06/26/15 14:26	1
Manganese	2.1		0.025	0.010	mg/L		06/25/15 12:00	06/26/15 14:26	1
Nickel	0.080		0.025	0.010	mg/L		06/25/15 12:00	06/27/15 15:20	1
Selenium	0.021	J	0.050	0.020	mg/L		06/25/15 12:00	06/26/15 14:26	1
Silver	<0.025		0.025	0.010	mg/L		06/25/15 12:00	06/26/15 14:26	1
Zinc	0.059	J B	0.50	0.020	mg/L		06/25/15 12:00	06/26/15 14:26	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.027		0.025	0.010	mg/L		07/01/15 11:20	07/02/15 12:25	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		06/25/15 12:00	06/26/15 20:50	1
Thallium	<0.0020		0.0020	0.0020	mg/L		06/25/15 12:00	06/26/15 20:50	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		06/25/15 10:30	06/26/15 09:23	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.86		0.200	0.200	SU			06/23/15 15:51	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97658-1

Client Sample ID: 1860-23-B04 (10-12)

Lab Sample ID: 500-97658-7

Date Collected: 06/22/15 11:40

Matrix: Solid

Date Received: 06/22/15 16:10

Percent Solids: 91.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.24		0.24	0.063	mg/Kg	☼	06/22/15 11:40	07/01/15 20:08	50
Benzene	<0.012		0.012	0.0036	mg/Kg	☼	06/22/15 11:40	07/01/15 20:08	50
Bromodichloromethane	<0.097		0.097	0.016	mg/Kg	☼	06/22/15 11:40	07/01/15 20:08	50
Bromoform	<0.097		0.097	0.021	mg/Kg	☼	06/22/15 11:40	07/01/15 20:08	50
Bromomethane	<0.097		0.097	0.033	mg/Kg	☼	06/22/15 11:40	07/01/15 20:08	50
2-Butanone (MEK)	<0.24		0.24	0.072	mg/Kg	☼	06/22/15 11:40	07/01/15 20:08	50
Carbon disulfide	<0.24		0.24	0.021	mg/Kg	☼	06/22/15 11:40	07/01/15 20:08	50
Carbon tetrachloride	<0.049		0.049	0.013	mg/Kg	☼	06/22/15 11:40	07/01/15 20:08	50
Chlorobenzene	<0.049		0.049	0.0070	mg/Kg	☼	06/22/15 11:40	07/01/15 20:08	50
Chloroethane	<0.097		0.097	0.021	mg/Kg	☼	06/22/15 11:40	07/01/15 20:08	50
Chloroform	<0.049		0.049	0.010	mg/Kg	☼	06/22/15 11:40	07/01/15 20:08	50
Chloromethane	<0.097		0.097	0.023	mg/Kg	☼	06/22/15 11:40	07/01/15 20:08	50
cis-1,2-Dichloroethene	<0.049		0.049	0.0060	mg/Kg	☼	06/22/15 11:40	07/01/15 20:08	50
cis-1,3-Dichloropropene	<0.049		0.049	0.0087	mg/Kg	☼	06/22/15 11:40	07/01/15 20:08	50
Dibromochloromethane	<0.097		0.097	0.017	mg/Kg	☼	06/22/15 11:40	07/01/15 20:08	50
1,1-Dichloroethane	<0.049		0.049	0.0090	mg/Kg	☼	06/22/15 11:40	07/01/15 20:08	50
1,2-Dichloroethane	<0.049		0.049	0.014	mg/Kg	☼	06/22/15 11:40	07/01/15 20:08	50
1,1-Dichloroethene	<0.049		0.049	0.015	mg/Kg	☼	06/22/15 11:40	07/01/15 20:08	50
1,2-Dichloropropane	<0.049		0.049	0.0095	mg/Kg	☼	06/22/15 11:40	07/01/15 20:08	50
1,3-Dichloropropane, Total	<0.049		0.049	0.0087	mg/Kg	☼	06/22/15 11:40	07/01/15 20:08	50
Ethylbenzene	0.017		0.012	0.0061	mg/Kg	☼	06/22/15 11:40	07/01/15 20:08	50
2-Hexanone	<0.24		0.24	0.027	mg/Kg	☼	06/22/15 11:40	07/01/15 20:08	50
Methylene Chloride	<0.24		0.24	0.033	mg/Kg	☼	06/22/15 11:40	07/01/15 20:08	50
4-Methyl-2-pentanone (MIBK)	<0.24		0.24	0.016	mg/Kg	☼	06/22/15 11:40	07/01/15 20:08	50
Methyl tert-butyl ether	<0.097		0.097	0.021	mg/Kg	☼	06/22/15 11:40	07/01/15 20:08	50
Styrene	<0.049		0.049	0.0048	mg/Kg	☼	06/22/15 11:40	07/01/15 20:08	50
1,1,1,2-Tetrachloroethane	<0.049		0.049	0.011	mg/Kg	☼	06/22/15 11:40	07/01/15 20:08	50
Tetrachloroethene	<0.049		0.049	0.0081	mg/Kg	☼	06/22/15 11:40	07/01/15 20:08	50
Toluene	<0.012		0.012	0.0056	mg/Kg	☼	06/22/15 11:40	07/01/15 20:08	50
trans-1,2-Dichloroethene	<0.049		0.049	0.012	mg/Kg	☼	06/22/15 11:40	07/01/15 20:08	50
trans-1,3-Dichloropropene	<0.049		0.049	0.010	mg/Kg	☼	06/22/15 11:40	07/01/15 20:08	50
1,1,1-Trichloroethane	<0.049		0.049	0.0098	mg/Kg	☼	06/22/15 11:40	07/01/15 20:08	50
1,1,2-Trichloroethane	<0.049		0.049	0.014	mg/Kg	☼	06/22/15 11:40	07/01/15 20:08	50
Trichloroethene	0.016 J		0.024	0.0091	mg/Kg	☼	06/22/15 11:40	07/01/15 20:08	50
Vinyl acetate	<0.097		0.097	0.016	mg/Kg	☼	06/22/15 11:40	07/01/15 20:08	50
Vinyl chloride	<0.012		0.012	0.0051	mg/Kg	☼	06/22/15 11:40	07/01/15 20:08	50
Xylenes, Total	0.053		0.024	0.0033	mg/Kg	☼	06/22/15 11:40	07/01/15 20:08	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	92		75 - 120	06/22/15 11:40	07/01/15 20:08	50
Dibromofluoromethane	99		75 - 120	06/22/15 11:40	07/01/15 20:08	50
1,2-Dichloroethane-d4 (Surr)	90		75 - 125	06/22/15 11:40	07/01/15 20:08	50
Toluene-d8 (Surr)	98		75 - 120	06/22/15 11:40	07/01/15 20:08	50

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	☼	06/26/15 07:33	06/29/15 19:44	1
Bis(2-chloroethyl)ether	<0.18		0.18	0.053	mg/Kg	☼	06/26/15 07:33	06/29/15 19:44	1
1,3-Dichlorobenzene	<0.18		0.18	0.039	mg/Kg	☼	06/26/15 07:33	06/29/15 19:44	1
1,4-Dichlorobenzene	<0.18		0.18	0.045	mg/Kg	☼	06/26/15 07:33	06/29/15 19:44	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97658-1

Client Sample ID: 1860-23-B04 (10-12)

Lab Sample ID: 500-97658-7

Date Collected: 06/22/15 11:40

Matrix: Solid

Date Received: 06/22/15 16:10

Percent Solids: 91.5

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	0.042	mg/Kg	☼	06/26/15 07:33	06/29/15 19:44	1
2-Methylphenol	<0.18		0.18	0.056	mg/Kg	☼	06/26/15 07:33	06/29/15 19:44	1
2,2'-oxybis[1-chloropropane]	<0.18		0.18	0.041	mg/Kg	☼	06/26/15 07:33	06/29/15 19:44	1
N-Nitrosodi-n-propylamine	<0.18		0.18	0.043	mg/Kg	☼	06/26/15 07:33	06/29/15 19:44	1
Hexachloroethane	<0.18		0.18	0.053	mg/Kg	☼	06/26/15 07:33	06/29/15 19:44	1
2-Chlorophenol	<0.18		0.18	0.060	mg/Kg	☼	06/26/15 07:33	06/29/15 19:44	1
Nitrobenzene	<0.035		0.035	0.0087	mg/Kg	☼	06/26/15 07:33	06/29/15 19:44	1
Bis(2-chloroethoxy)methane	<0.18		0.18	0.036	mg/Kg	☼	06/26/15 07:33	06/29/15 19:44	1
1,2,4-Trichlorobenzene	<0.18		0.18	0.038	mg/Kg	☼	06/26/15 07:33	06/29/15 19:44	1
Isophorone	<0.18		0.18	0.039	mg/Kg	☼	06/26/15 07:33	06/29/15 19:44	1
2,4-Dimethylphenol	<0.35		0.35	0.13	mg/Kg	☼	06/26/15 07:33	06/29/15 19:44	1
Hexachlorobutadiene	<0.18		0.18	0.055	mg/Kg	☼	06/26/15 07:33	06/29/15 19:44	1
Naphthalene	0.027	J	0.035	0.0054	mg/Kg	☼	06/26/15 07:33	06/29/15 19:44	1
2,4-Dichlorophenol	<0.35		0.35	0.083	mg/Kg	☼	06/26/15 07:33	06/29/15 19:44	1
4-Chloroaniline	<0.71		0.71	0.16	mg/Kg	☼	06/26/15 07:33	06/29/15 19:44	1
2,4,6-Trichlorophenol	<0.35		0.35	0.12	mg/Kg	☼	06/26/15 07:33	06/29/15 19:44	1
2,4,5-Trichlorophenol	<0.35		0.35	0.080	mg/Kg	☼	06/26/15 07:33	06/29/15 19:44	1
Hexachlorocyclopentadiene	<0.71		0.71	0.20	mg/Kg	☼	06/26/15 07:33	06/29/15 19:44	1
2-Methylnaphthalene	0.11		0.035	0.0064	mg/Kg	☼	06/26/15 07:33	06/29/15 19:44	1
2-Nitroaniline	<0.18		0.18	0.047	mg/Kg	☼	06/26/15 07:33	06/29/15 19:44	1
2-Chloronaphthalene	<0.18		0.18	0.039	mg/Kg	☼	06/26/15 07:33	06/29/15 19:44	1
4-Chloro-3-methylphenol	<0.35		0.35	0.12	mg/Kg	☼	06/26/15 07:33	06/29/15 19:44	1
2,6-Dinitrotoluene	<0.18		0.18	0.069	mg/Kg	☼	06/26/15 07:33	06/29/15 19:44	1
2-Nitrophenol	<0.35		0.35	0.083	mg/Kg	☼	06/26/15 07:33	06/29/15 19:44	1
3-Nitroaniline	<0.35		0.35	0.11	mg/Kg	☼	06/26/15 07:33	06/29/15 19:44	1
Dimethyl phthalate	<0.18		0.18	0.046	mg/Kg	☼	06/26/15 07:33	06/29/15 19:44	1
2,4-Dinitrophenol	<0.71		0.71	0.62	mg/Kg	☼	06/26/15 07:33	06/29/15 19:44	1
Acenaphthylene	<0.035		0.035	0.0046	mg/Kg	☼	06/26/15 07:33	06/29/15 19:44	1
2,4-Dinitrotoluene	<0.18		0.18	0.056	mg/Kg	☼	06/26/15 07:33	06/29/15 19:44	1
Acenaphthene	<0.035		0.035	0.0063	mg/Kg	☼	06/26/15 07:33	06/29/15 19:44	1
Dibenzofuran	<0.18		0.18	0.041	mg/Kg	☼	06/26/15 07:33	06/29/15 19:44	1
4-Nitrophenol	<0.71		0.71	0.33	mg/Kg	☼	06/26/15 07:33	06/29/15 19:44	1
Fluorene	<0.035		0.035	0.0049	mg/Kg	☼	06/26/15 07:33	06/29/15 19:44	1
4-Nitroaniline	<0.35		0.35	0.15	mg/Kg	☼	06/26/15 07:33	06/29/15 19:44	1
4-Bromophenyl phenyl ether	<0.18		0.18	0.046	mg/Kg	☼	06/26/15 07:33	06/29/15 19:44	1
Hexachlorobenzene	<0.071		0.071	0.0081	mg/Kg	☼	06/26/15 07:33	06/29/15 19:44	1
Diethyl phthalate	<0.18		0.18	0.059	mg/Kg	☼	06/26/15 07:33	06/29/15 19:44	1
4-Chlorophenyl phenyl ether	<0.18		0.18	0.041	mg/Kg	☼	06/26/15 07:33	06/29/15 19:44	1
Pentachlorophenol	<0.71		0.71	0.56	mg/Kg	☼	06/26/15 07:33	06/29/15 19:44	1
N-Nitrosodiphenylamine	<0.18		0.18	0.041	mg/Kg	☼	06/26/15 07:33	06/29/15 19:44	1
4,6-Dinitro-2-methylphenol	<0.35		0.35	0.28	mg/Kg	☼	06/26/15 07:33	06/29/15 19:44	1
Phenanthrene	0.089		0.035	0.0049	mg/Kg	☼	06/26/15 07:33	06/29/15 19:44	1
Anthracene	<0.035		0.035	0.0059	mg/Kg	☼	06/26/15 07:33	06/29/15 19:44	1
Carbazole	<0.18		0.18	0.091	mg/Kg	☼	06/26/15 07:33	06/29/15 19:44	1
Di-n-butyl phthalate	<0.18		0.18	0.053	mg/Kg	☼	06/26/15 07:33	06/29/15 19:44	1
Fluoranthene	<0.035		0.035	0.0065	mg/Kg	☼	06/26/15 07:33	06/29/15 19:44	1
Pyrene	<0.035		0.035	0.0070	mg/Kg	☼	06/26/15 07:33	06/29/15 19:44	1
Butyl benzyl phthalate	<0.18		0.18	0.067	mg/Kg	☼	06/26/15 07:33	06/29/15 19:44	1
Benzo[a]anthracene	<0.035		0.035	0.0047	mg/Kg	☼	06/26/15 07:33	06/29/15 19:44	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97658-1

Client Sample ID: 1860-23-B04 (10-12)

Lab Sample ID: 500-97658-7

Date Collected: 06/22/15 11:40

Matrix: Solid

Date Received: 06/22/15 16:10

Percent Solids: 91.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	<0.035		0.035	0.0096	mg/Kg	☼	06/26/15 07:33	06/29/15 19:44	1
3,3'-Dichlorobenzidine	<0.18		0.18	0.049	mg/Kg	☼	06/26/15 07:33	06/29/15 19:44	1
Bis(2-ethylhexyl) phthalate	<0.18		0.18	0.064	mg/Kg	☼	06/26/15 07:33	06/29/15 19:44	1
Di-n-octyl phthalate	<0.18		0.18	0.057	mg/Kg	☼	06/26/15 07:33	06/29/15 19:44	1
Benzo[b]fluoranthene	<0.035		0.035	0.0076	mg/Kg	☼	06/26/15 07:33	06/29/15 19:44	1
Benzo[k]fluoranthene	<0.035		0.035	0.010	mg/Kg	☼	06/26/15 07:33	06/29/15 19:44	1
Benzo[a]pyrene	<0.035		0.035	0.0068	mg/Kg	☼	06/26/15 07:33	06/29/15 19:44	1
Indeno[1,2,3-cd]pyrene	<0.035		0.035	0.0091	mg/Kg	☼	06/26/15 07:33	06/29/15 19:44	1
Dibenz(a,h)anthracene	<0.035		0.035	0.0068	mg/Kg	☼	06/26/15 07:33	06/29/15 19:44	1
Benzo[g,h,i]perylene	0.016	J	0.035	0.011	mg/Kg	☼	06/26/15 07:33	06/29/15 19:44	1
3 & 4 Methylphenol	<0.18		0.18	0.058	mg/Kg	☼	06/26/15 07:33	06/29/15 19:44	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	58		25 - 110	06/26/15 07:33	06/29/15 19:44	1
Phenol-d5	49		31 - 110	06/26/15 07:33	06/29/15 19:44	1
Nitrobenzene-d5	59		25 - 115	06/26/15 07:33	06/29/15 19:44	1
2-Fluorobiphenyl	55		25 - 119	06/26/15 07:33	06/29/15 19:44	1
2,4,6-Tribromophenol	48		35 - 137	06/26/15 07:33	06/29/15 19:44	1
Terphenyl-d14	72		36 - 134	06/26/15 07:33	06/29/15 19:44	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.1		1.1	0.23	mg/Kg	☼	06/23/15 18:00	06/24/15 13:08	1
Arsenic	10		0.55	0.25	mg/Kg	☼	06/23/15 18:00	06/24/15 13:08	1
Barium	19		0.55	0.10	mg/Kg	☼	06/23/15 18:00	06/24/15 13:08	1
Beryllium	0.43		0.22	0.047	mg/Kg	☼	06/23/15 18:00	06/24/15 13:08	1
Boron	8.6		2.7	0.38	mg/Kg	☼	06/23/15 18:00	06/24/15 13:08	1
Cadmium	0.24		0.11	0.032	mg/Kg	☼	06/23/15 18:00	06/24/15 13:08	1
Calcium	86000		55	18	mg/Kg	☼	06/23/15 18:00	06/24/15 15:19	5
Chromium	9.5		0.55	0.094	mg/Kg	☼	06/23/15 18:00	06/24/15 13:08	1
Cobalt	11		0.27	0.062	mg/Kg	☼	06/23/15 18:00	06/24/15 13:08	1
Copper	25	B	0.55	0.12	mg/Kg	☼	06/23/15 18:00	06/24/15 13:08	1
Iron	17000	B	11	4.2	mg/Kg	☼	06/23/15 18:00	06/24/15 13:08	1
Lead	14		0.27	0.14	mg/Kg	☼	06/23/15 18:00	06/24/15 13:08	1
Magnesium	40000		5.5	2.2	mg/Kg	☼	06/23/15 18:00	06/24/15 13:08	1
Manganese	410		0.55	0.11	mg/Kg	☼	06/23/15 18:00	06/24/15 13:08	1
Nickel	25		0.55	0.15	mg/Kg	☼	06/23/15 18:00	06/24/15 13:08	1
Potassium	1800		27	4.4	mg/Kg	☼	06/23/15 18:00	06/24/15 13:08	1
Selenium	0.30	J	0.55	0.27	mg/Kg	☼	06/23/15 18:00	06/24/15 13:08	1
Silver	<0.27		0.27	0.064	mg/Kg	☼	06/23/15 18:00	06/24/15 13:08	1
Sodium	420		55	7.2	mg/Kg	☼	06/23/15 18:00	06/24/15 13:08	1
Thallium	0.45	J	0.55	0.27	mg/Kg	☼	06/23/15 18:00	06/24/15 13:08	1
Vanadium	12		0.27	0.080	mg/Kg	☼	06/23/15 18:00	06/24/15 13:08	1
Zinc	69	B	1.1	0.35	mg/Kg	☼	06/23/15 18:00	06/24/15 13:08	1

Method: 7471B - Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.028		0.016	0.0057	mg/Kg	☼	06/23/15 11:30	06/24/15 12:34	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97658-1

Client Sample ID: 1860-23-B21 (0-2)

Lab Sample ID: 500-97658-8

Date Collected: 06/22/15 13:55

Matrix: Solid

Date Received: 06/22/15 16:10

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		06/25/15 12:00	06/26/15 14:31	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		06/25/15 12:00	06/26/15 14:31	1
Boron	1.0		0.50	0.050	mg/L		06/25/15 12:00	06/26/15 14:31	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		06/25/15 12:00	06/26/15 14:31	1
Chromium	<0.025		0.025	0.010	mg/L		06/25/15 12:00	06/26/15 14:31	1
Cobalt	<0.025		0.025	0.010	mg/L		06/25/15 12:00	06/26/15 14:31	1
Iron	<0.20		0.20	0.20	mg/L		06/25/15 12:00	06/26/15 14:31	1
Lead	<0.0075		0.0075	0.0075	mg/L		06/25/15 12:00	06/26/15 14:31	1
Manganese	0.41		0.025	0.010	mg/L		06/25/15 12:00	06/26/15 14:31	1
Nickel	<0.025		0.025	0.010	mg/L		06/25/15 12:00	06/26/15 14:31	1
Selenium	<0.050		0.050	0.020	mg/L		06/25/15 12:00	06/26/15 14:31	1
Silver	<0.025		0.025	0.010	mg/L		06/25/15 12:00	06/26/15 14:31	1
Zinc	0.19	J B	0.50	0.020	mg/L		06/25/15 12:00	06/26/15 14:31	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		07/01/15 11:20	07/02/15 12:29	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		06/25/15 12:00	06/26/15 20:54	1
Thallium	<0.0020		0.0020	0.0020	mg/L		06/25/15 12:00	06/26/15 20:54	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		06/25/15 10:30	06/26/15 09:25	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.08		0.200	0.200	SU			06/23/15 15:53	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97658-1

Client Sample ID: 1860-23-B21 (0-2)

Lab Sample ID: 500-97658-8

Date Collected: 06/22/15 13:55

Matrix: Solid

Date Received: 06/22/15 16:10

Percent Solids: 84.2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	0.0094		0.0048	0.0038	mg/Kg	☼	06/23/15 09:30	06/25/15 16:51	1
Benzene	<0.0048		0.0048	0.0011	mg/Kg	☼	06/23/15 09:30	06/25/15 16:51	1
Bromodichloromethane	<0.0048		0.0048	0.00082	mg/Kg	☼	06/23/15 09:30	06/25/15 16:51	1
Bromoform	<0.0048		0.0048	0.00099	mg/Kg	☼	06/23/15 09:30	06/25/15 16:51	1
Bromomethane	<0.0048	*	0.0048	0.0018	mg/Kg	☼	06/23/15 09:30	06/25/15 16:51	1
2-Butanone (MEK)	<0.0048		0.0048	0.0017	mg/Kg	☼	06/23/15 09:30	06/25/15 16:51	1
Carbon disulfide	<0.0048		0.0048	0.0018	mg/Kg	☼	06/23/15 09:30	06/25/15 16:51	1
Carbon tetrachloride	<0.0048		0.0048	0.0010	mg/Kg	☼	06/23/15 09:30	06/25/15 16:51	1
Chlorobenzene	<0.0048		0.0048	0.0011	mg/Kg	☼	06/23/15 09:30	06/25/15 16:51	1
Chloroethane	<0.0048	*	0.0048	0.0020	mg/Kg	☼	06/23/15 09:30	06/25/15 16:51	1
Chloroform	<0.0048		0.0048	0.00095	mg/Kg	☼	06/23/15 09:30	06/25/15 16:51	1
Chloromethane	<0.0048		0.0048	0.0012	mg/Kg	☼	06/23/15 09:30	06/25/15 16:51	1
cis-1,2-Dichloroethene	<0.0048		0.0048	0.00099	mg/Kg	☼	06/23/15 09:30	06/25/15 16:51	1
cis-1,3-Dichloropropene	<0.0048		0.0048	0.0011	mg/Kg	☼	06/23/15 09:30	06/25/15 16:51	1
Dibromochloromethane	<0.0048		0.0048	0.00056	mg/Kg	☼	06/23/15 09:30	06/25/15 16:51	1
1,1-Dichloroethane	<0.0048		0.0048	0.0010	mg/Kg	☼	06/23/15 09:30	06/25/15 16:51	1
1,2-Dichloroethane	<0.0048		0.0048	0.00072	mg/Kg	☼	06/23/15 09:30	06/25/15 16:51	1
1,1-Dichloroethene	<0.0048		0.0048	0.0018	mg/Kg	☼	06/23/15 09:30	06/25/15 16:51	1
1,2-Dichloropropane	<0.0048		0.0048	0.0013	mg/Kg	☼	06/23/15 09:30	06/25/15 16:51	1
1,3-Dichloropropane, Total	<0.0048		0.0048	0.0014	mg/Kg	☼	06/23/15 09:30	06/25/15 16:51	1
Ethylbenzene	<0.0048		0.0048	0.0012	mg/Kg	☼	06/23/15 09:30	06/25/15 16:51	1
2-Hexanone	<0.0048		0.0048	0.0015	mg/Kg	☼	06/23/15 09:30	06/25/15 16:51	1
Methylene Chloride	<0.0048		0.0048	0.0037	mg/Kg	☼	06/23/15 09:30	06/25/15 16:51	1
4-Methyl-2-pentanone (MIBK)	<0.0048		0.0048	0.0010	mg/Kg	☼	06/23/15 09:30	06/25/15 16:51	1
Methyl tert-butyl ether	<0.0048		0.0048	0.0011	mg/Kg	☼	06/23/15 09:30	06/25/15 16:51	1
Styrene	<0.0048		0.0048	0.0011	mg/Kg	☼	06/23/15 09:30	06/25/15 16:51	1
1,1,2,2-Tetrachloroethane	<0.0048		0.0048	0.00077	mg/Kg	☼	06/23/15 09:30	06/25/15 16:51	1
Tetrachloroethene	<0.0048		0.0048	0.0010	mg/Kg	☼	06/23/15 09:30	06/25/15 16:51	1
Toluene	<0.0048		0.0048	0.0017	mg/Kg	☼	06/23/15 09:30	06/25/15 16:51	1
trans-1,2-Dichloroethene	<0.0048		0.0048	0.0012	mg/Kg	☼	06/23/15 09:30	06/25/15 16:51	1
trans-1,3-Dichloropropene	<0.0048		0.0048	0.0014	mg/Kg	☼	06/23/15 09:30	06/25/15 16:51	1
1,1,1-Trichloroethane	<0.0048		0.0048	0.0011	mg/Kg	☼	06/23/15 09:30	06/25/15 16:51	1
1,1,2-Trichloroethane	<0.0048		0.0048	0.00094	mg/Kg	☼	06/23/15 09:30	06/25/15 16:51	1
Trichloroethene	<0.0048		0.0048	0.0013	mg/Kg	☼	06/23/15 09:30	06/25/15 16:51	1
Vinyl acetate	<0.0048		0.0048	0.0013	mg/Kg	☼	06/23/15 09:30	06/25/15 16:51	1
Vinyl chloride	<0.0048		0.0048	0.0012	mg/Kg	☼	06/23/15 09:30	06/25/15 16:51	1
Xylenes, Total	<0.0097		0.0097	0.0018	mg/Kg	☼	06/23/15 09:30	06/25/15 16:51	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	88		70 - 122	06/23/15 09:30	06/25/15 16:51	1
Dibromofluoromethane	98		75 - 120	06/23/15 09:30	06/25/15 16:51	1
1,2-Dichloroethane-d4 (Surr)	98		70 - 134	06/23/15 09:30	06/25/15 16:51	1
Toluene-d8 (Surr)	96		75 - 122	06/23/15 09:30	06/25/15 16:51	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.19		0.19	0.084	mg/Kg	☼	06/26/15 07:33	06/29/15 20:05	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.056	mg/Kg	☼	06/26/15 07:33	06/29/15 20:05	1
1,3-Dichlorobenzene	<0.19		0.19	0.042	mg/Kg	☼	06/26/15 07:33	06/29/15 20:05	1
1,4-Dichlorobenzene	<0.19		0.19	0.048	mg/Kg	☼	06/26/15 07:33	06/29/15 20:05	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97658-1

Client Sample ID: 1860-23-B21 (0-2)

Lab Sample ID: 500-97658-8

Date Collected: 06/22/15 13:55

Matrix: Solid

Date Received: 06/22/15 16:10

Percent Solids: 84.2

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	0.045	mg/Kg	☼	06/26/15 07:33	06/29/15 20:05	1
2-Methylphenol	<0.19		0.19	0.060	mg/Kg	☼	06/26/15 07:33	06/29/15 20:05	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.044	mg/Kg	☼	06/26/15 07:33	06/29/15 20:05	1
N-Nitrosodi-n-propylamine	<0.19		0.19	0.046	mg/Kg	☼	06/26/15 07:33	06/29/15 20:05	1
Hexachloroethane	<0.19		0.19	0.057	mg/Kg	☼	06/26/15 07:33	06/29/15 20:05	1
2-Chlorophenol	<0.19		0.19	0.064	mg/Kg	☼	06/26/15 07:33	06/29/15 20:05	1
Nitrobenzene	<0.037		0.037	0.0094	mg/Kg	☼	06/26/15 07:33	06/29/15 20:05	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.038	mg/Kg	☼	06/26/15 07:33	06/29/15 20:05	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.041	mg/Kg	☼	06/26/15 07:33	06/29/15 20:05	1
Isophorone	<0.19		0.19	0.042	mg/Kg	☼	06/26/15 07:33	06/29/15 20:05	1
2,4-Dimethylphenol	<0.37		0.37	0.14	mg/Kg	☼	06/26/15 07:33	06/29/15 20:05	1
Hexachlorobutadiene	<0.19		0.19	0.059	mg/Kg	☼	06/26/15 07:33	06/29/15 20:05	1
Naphthalene	<0.037		0.037	0.0058	mg/Kg	☼	06/26/15 07:33	06/29/15 20:05	1
2,4-Dichlorophenol	<0.37		0.37	0.089	mg/Kg	☼	06/26/15 07:33	06/29/15 20:05	1
4-Chloroaniline	<0.76		0.76	0.18	mg/Kg	☼	06/26/15 07:33	06/29/15 20:05	1
2,4,6-Trichlorophenol	<0.37		0.37	0.13	mg/Kg	☼	06/26/15 07:33	06/29/15 20:05	1
2,4,5-Trichlorophenol	<0.37		0.37	0.086	mg/Kg	☼	06/26/15 07:33	06/29/15 20:05	1
Hexachlorocyclopentadiene	<0.76		0.76	0.22	mg/Kg	☼	06/26/15 07:33	06/29/15 20:05	1
2-Methylnaphthalene	<0.037		0.037	0.0069	mg/Kg	☼	06/26/15 07:33	06/29/15 20:05	1
2-Nitroaniline	<0.19		0.19	0.051	mg/Kg	☼	06/26/15 07:33	06/29/15 20:05	1
2-Chloronaphthalene	<0.19		0.19	0.042	mg/Kg	☼	06/26/15 07:33	06/29/15 20:05	1
4-Chloro-3-methylphenol	<0.37		0.37	0.13	mg/Kg	☼	06/26/15 07:33	06/29/15 20:05	1
2,6-Dinitrotoluene	<0.19		0.19	0.074	mg/Kg	☼	06/26/15 07:33	06/29/15 20:05	1
2-Nitrophenol	<0.37		0.37	0.089	mg/Kg	☼	06/26/15 07:33	06/29/15 20:05	1
3-Nitroaniline	<0.37		0.37	0.12	mg/Kg	☼	06/26/15 07:33	06/29/15 20:05	1
Dimethyl phthalate	<0.19		0.19	0.049	mg/Kg	☼	06/26/15 07:33	06/29/15 20:05	1
2,4-Dinitrophenol	<0.76		0.76	0.66	mg/Kg	☼	06/26/15 07:33	06/29/15 20:05	1
Acenaphthylene	<0.037		0.037	0.0050	mg/Kg	☼	06/26/15 07:33	06/29/15 20:05	1
2,4-Dinitrotoluene	<0.19		0.19	0.060	mg/Kg	☼	06/26/15 07:33	06/29/15 20:05	1
Acenaphthene	<0.037		0.037	0.0068	mg/Kg	☼	06/26/15 07:33	06/29/15 20:05	1
Dibenzofuran	<0.19		0.19	0.044	mg/Kg	☼	06/26/15 07:33	06/29/15 20:05	1
4-Nitrophenol	<0.76		0.76	0.36	mg/Kg	☼	06/26/15 07:33	06/29/15 20:05	1
Fluorene	<0.037		0.037	0.0053	mg/Kg	☼	06/26/15 07:33	06/29/15 20:05	1
4-Nitroaniline	<0.37		0.37	0.16	mg/Kg	☼	06/26/15 07:33	06/29/15 20:05	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.050	mg/Kg	☼	06/26/15 07:33	06/29/15 20:05	1
Hexachlorobenzene	<0.076		0.076	0.0087	mg/Kg	☼	06/26/15 07:33	06/29/15 20:05	1
Diethyl phthalate	<0.19		0.19	0.064	mg/Kg	☼	06/26/15 07:33	06/29/15 20:05	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.044	mg/Kg	☼	06/26/15 07:33	06/29/15 20:05	1
Pentachlorophenol	<0.76		0.76	0.60	mg/Kg	☼	06/26/15 07:33	06/29/15 20:05	1
N-Nitrosodiphenylamine	<0.19		0.19	0.044	mg/Kg	☼	06/26/15 07:33	06/29/15 20:05	1
4,6-Dinitro-2-methylphenol	<0.37		0.37	0.30	mg/Kg	☼	06/26/15 07:33	06/29/15 20:05	1
Phenanthrene	<0.037		0.037	0.0052	mg/Kg	☼	06/26/15 07:33	06/29/15 20:05	1
Anthracene	<0.037		0.037	0.0063	mg/Kg	☼	06/26/15 07:33	06/29/15 20:05	1
Carbazole	<0.19		0.19	0.097	mg/Kg	☼	06/26/15 07:33	06/29/15 20:05	1
Di-n-butyl phthalate	<0.19		0.19	0.057	mg/Kg	☼	06/26/15 07:33	06/29/15 20:05	1
Fluoranthene	<0.037		0.037	0.0070	mg/Kg	☼	06/26/15 07:33	06/29/15 20:05	1
Pyrene	0.0082	J	0.037	0.0075	mg/Kg	☼	06/26/15 07:33	06/29/15 20:05	1
Butyl benzyl phthalate	<0.19		0.19	0.072	mg/Kg	☼	06/26/15 07:33	06/29/15 20:05	1
Benzo[a]anthracene	<0.037		0.037	0.0051	mg/Kg	☼	06/26/15 07:33	06/29/15 20:05	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97658-1

Client Sample ID: 1860-23-B21 (0-2)

Lab Sample ID: 500-97658-8

Date Collected: 06/22/15 13:55

Matrix: Solid

Date Received: 06/22/15 16:10

Percent Solids: 84.2

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	☼	06/26/15 07:33	06/29/15 20:05	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.053	mg/Kg	☼	06/26/15 07:33	06/29/15 20:05	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.069	mg/Kg	☼	06/26/15 07:33	06/29/15 20:05	1
Di-n-octyl phthalate	<0.19		0.19	0.061	mg/Kg	☼	06/26/15 07:33	06/29/15 20:05	1
Benzo[b]fluoranthene	<0.037		0.037	0.0081	mg/Kg	☼	06/26/15 07:33	06/29/15 20:05	1
Benzo[k]fluoranthene	<0.037		0.037	0.011	mg/Kg	☼	06/26/15 07:33	06/29/15 20:05	1
Benzo[a]pyrene	<0.037		0.037	0.0073	mg/Kg	☼	06/26/15 07:33	06/29/15 20:05	1
Indeno[1,2,3-cd]pyrene	<0.037		0.037	0.0098	mg/Kg	☼	06/26/15 07:33	06/29/15 20:05	1
Dibenz(a,h)anthracene	<0.037		0.037	0.0073	mg/Kg	☼	06/26/15 07:33	06/29/15 20:05	1
Benzo[g,h,i]perylene	0.013	J	0.037	0.012	mg/Kg	☼	06/26/15 07:33	06/29/15 20:05	1
3 & 4 Methylphenol	<0.19		0.19	0.063	mg/Kg	☼	06/26/15 07:33	06/29/15 20:05	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	62		25 - 110	06/26/15 07:33	06/29/15 20:05	1
Phenol-d5	47		31 - 110	06/26/15 07:33	06/29/15 20:05	1
Nitrobenzene-d5	44		25 - 115	06/26/15 07:33	06/29/15 20:05	1
2-Fluorobiphenyl	51		25 - 119	06/26/15 07:33	06/29/15 20:05	1
2,4,6-Tribromophenol	59		35 - 137	06/26/15 07:33	06/29/15 20:05	1
Terphenyl-d14	64		36 - 134	06/26/15 07:33	06/29/15 20:05	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	☼	06/23/15 18:00	06/24/15 13:12	1
Arsenic	6.3		0.58	0.27	mg/Kg	☼	06/23/15 18:00	06/24/15 13:12	1
Barium	60		0.58	0.11	mg/Kg	☼	06/23/15 18:00	06/24/15 13:12	1
Beryllium	0.69		0.23	0.050	mg/Kg	☼	06/23/15 18:00	06/24/15 13:12	1
Boron	10		2.9	0.41	mg/Kg	☼	06/23/15 18:00	06/24/15 13:12	1
Cadmium	0.12		0.12	0.034	mg/Kg	☼	06/23/15 18:00	06/24/15 13:12	1
Calcium	54000		58	19	mg/Kg	☼	06/23/15 18:00	06/24/15 15:23	5
Chromium	17		0.58	0.10	mg/Kg	☼	06/23/15 18:00	06/24/15 13:12	1
Cobalt	12		0.29	0.066	mg/Kg	☼	06/23/15 18:00	06/24/15 13:12	1
Copper	23	B	0.58	0.13	mg/Kg	☼	06/23/15 18:00	06/24/15 13:12	1
Iron	20000	B	12	4.5	mg/Kg	☼	06/23/15 18:00	06/24/15 13:12	1
Lead	14		0.29	0.14	mg/Kg	☼	06/23/15 18:00	06/24/15 13:12	1
Magnesium	20000		5.8	2.4	mg/Kg	☼	06/23/15 18:00	06/24/15 13:12	1
Manganese	330		0.58	0.12	mg/Kg	☼	06/23/15 18:00	06/24/15 13:12	1
Nickel	31		0.58	0.16	mg/Kg	☼	06/23/15 18:00	06/24/15 13:12	1
Potassium	2300		29	4.7	mg/Kg	☼	06/23/15 18:00	06/24/15 13:12	1
Selenium	0.59		0.58	0.29	mg/Kg	☼	06/23/15 18:00	06/24/15 13:12	1
Silver	<0.29		0.29	0.068	mg/Kg	☼	06/23/15 18:00	06/24/15 13:12	1
Sodium	670		58	7.7	mg/Kg	☼	06/23/15 18:00	06/24/15 13:12	1
Thallium	<0.58		0.58	0.29	mg/Kg	☼	06/23/15 18:00	06/24/15 13:12	1
Vanadium	21		0.29	0.085	mg/Kg	☼	06/23/15 18:00	06/24/15 13:12	1
Zinc	56	B	1.2	0.37	mg/Kg	☼	06/23/15 18:00	06/24/15 13:12	1

Method: 7471B - Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.028		0.019	0.0067	mg/Kg	☼	06/23/15 11:30	06/24/15 12:36	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97658-1

Client Sample ID: 1860-23-B19 (2-4)

Lab Sample ID: 500-97658-9

Date Collected: 06/22/15 14:10

Matrix: Solid

Date Received: 06/22/15 16:10

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		06/25/15 12:00	06/26/15 14:36	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		06/25/15 12:00	06/26/15 14:36	1
Boron	0.96		0.50	0.050	mg/L		06/25/15 12:00	06/26/15 14:36	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		06/25/15 12:00	06/26/15 14:36	1
Chromium	<0.025		0.025	0.010	mg/L		06/25/15 12:00	06/26/15 14:36	1
Cobalt	<0.025		0.025	0.010	mg/L		06/25/15 12:00	06/26/15 14:36	1
Iron	<0.20		0.20	0.20	mg/L		06/25/15 12:00	06/26/15 14:36	1
Lead	<0.0075		0.0075	0.0075	mg/L		06/25/15 12:00	06/26/15 14:36	1
Manganese	0.59		0.025	0.010	mg/L		06/25/15 12:00	06/26/15 14:36	1
Nickel	<0.025		0.025	0.010	mg/L		06/25/15 12:00	06/26/15 14:36	1
Selenium	<0.050		0.050	0.020	mg/L		06/25/15 12:00	06/26/15 14:36	1
Silver	<0.025		0.025	0.010	mg/L		06/25/15 12:00	06/26/15 14:36	1
Zinc	0.062	J B	0.50	0.020	mg/L		06/25/15 12:00	06/26/15 14:36	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.062		0.025	0.010	mg/L		07/01/15 11:20	07/02/15 12:33	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		06/25/15 12:00	06/26/15 20:58	1
Thallium	<0.0020		0.0020	0.0020	mg/L		06/25/15 12:00	06/26/15 20:58	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		06/25/15 10:30	06/26/15 09:31	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.86		0.200	0.200	SU			06/23/15 15:56	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97658-1

Client Sample ID: 1860-23-B19 (2-4)

Lab Sample ID: 500-97658-9

Date Collected: 06/22/15 14:10

Matrix: Solid

Date Received: 06/22/15 16:10

Percent Solids: 82.2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	0.018		0.0049	0.0038	mg/Kg	☼	06/23/15 09:30	06/25/15 17:16	1
Benzene	<0.0049		0.0049	0.0011	mg/Kg	☼	06/23/15 09:30	06/25/15 17:16	1
Bromodichloromethane	<0.0049		0.0049	0.00082	mg/Kg	☼	06/23/15 09:30	06/25/15 17:16	1
Bromoform	<0.0049		0.0049	0.00099	mg/Kg	☼	06/23/15 09:30	06/25/15 17:16	1
Bromomethane	<0.0049	*	0.0049	0.0018	mg/Kg	☼	06/23/15 09:30	06/25/15 17:16	1
2-Butanone (MEK)	<0.0049		0.0049	0.0017	mg/Kg	☼	06/23/15 09:30	06/25/15 17:16	1
Carbon disulfide	<0.0049		0.0049	0.0018	mg/Kg	☼	06/23/15 09:30	06/25/15 17:16	1
Carbon tetrachloride	<0.0049		0.0049	0.0010	mg/Kg	☼	06/23/15 09:30	06/25/15 17:16	1
Chlorobenzene	<0.0049		0.0049	0.0012	mg/Kg	☼	06/23/15 09:30	06/25/15 17:16	1
Chloroethane	<0.0049	*	0.0049	0.0020	mg/Kg	☼	06/23/15 09:30	06/25/15 17:16	1
Chloroform	<0.0049		0.0049	0.00095	mg/Kg	☼	06/23/15 09:30	06/25/15 17:16	1
Chloromethane	<0.0049		0.0049	0.0012	mg/Kg	☼	06/23/15 09:30	06/25/15 17:16	1
cis-1,2-Dichloroethene	<0.0049		0.0049	0.00099	mg/Kg	☼	06/23/15 09:30	06/25/15 17:16	1
cis-1,3-Dichloropropene	<0.0049		0.0049	0.0011	mg/Kg	☼	06/23/15 09:30	06/25/15 17:16	1
Dibromochloromethane	<0.0049		0.0049	0.00056	mg/Kg	☼	06/23/15 09:30	06/25/15 17:16	1
1,1-Dichloroethane	<0.0049		0.0049	0.0010	mg/Kg	☼	06/23/15 09:30	06/25/15 17:16	1
1,2-Dichloroethane	<0.0049		0.0049	0.00072	mg/Kg	☼	06/23/15 09:30	06/25/15 17:16	1
1,1-Dichloroethene	<0.0049		0.0049	0.0018	mg/Kg	☼	06/23/15 09:30	06/25/15 17:16	1
1,2-Dichloropropane	<0.0049		0.0049	0.0013	mg/Kg	☼	06/23/15 09:30	06/25/15 17:16	1
1,3-Dichloropropane, Total	<0.0049		0.0049	0.0014	mg/Kg	☼	06/23/15 09:30	06/25/15 17:16	1
Ethylbenzene	<0.0049		0.0049	0.0012	mg/Kg	☼	06/23/15 09:30	06/25/15 17:16	1
2-Hexanone	<0.0049		0.0049	0.0015	mg/Kg	☼	06/23/15 09:30	06/25/15 17:16	1
Methylene Chloride	<0.0049		0.0049	0.0037	mg/Kg	☼	06/23/15 09:30	06/25/15 17:16	1
4-Methyl-2-pentanone (MIBK)	<0.0049		0.0049	0.0010	mg/Kg	☼	06/23/15 09:30	06/25/15 17:16	1
Methyl tert-butyl ether	<0.0049		0.0049	0.0012	mg/Kg	☼	06/23/15 09:30	06/25/15 17:16	1
Styrene	<0.0049		0.0049	0.0011	mg/Kg	☼	06/23/15 09:30	06/25/15 17:16	1
1,1,2,2-Tetrachloroethane	<0.0049		0.0049	0.00077	mg/Kg	☼	06/23/15 09:30	06/25/15 17:16	1
Tetrachloroethene	<0.0049		0.0049	0.0010	mg/Kg	☼	06/23/15 09:30	06/25/15 17:16	1
Toluene	<0.0049		0.0049	0.0017	mg/Kg	☼	06/23/15 09:30	06/25/15 17:16	1
trans-1,2-Dichloroethene	<0.0049		0.0049	0.0012	mg/Kg	☼	06/23/15 09:30	06/25/15 17:16	1
trans-1,3-Dichloropropene	<0.0049		0.0049	0.0014	mg/Kg	☼	06/23/15 09:30	06/25/15 17:16	1
1,1,1-Trichloroethane	<0.0049		0.0049	0.0011	mg/Kg	☼	06/23/15 09:30	06/25/15 17:16	1
1,1,2-Trichloroethane	<0.0049		0.0049	0.00094	mg/Kg	☼	06/23/15 09:30	06/25/15 17:16	1
Trichloroethene	<0.0049		0.0049	0.0013	mg/Kg	☼	06/23/15 09:30	06/25/15 17:16	1
Vinyl acetate	<0.0049		0.0049	0.0013	mg/Kg	☼	06/23/15 09:30	06/25/15 17:16	1
Vinyl chloride	<0.0049		0.0049	0.0012	mg/Kg	☼	06/23/15 09:30	06/25/15 17:16	1
Xylenes, Total	<0.0097		0.0097	0.0018	mg/Kg	☼	06/23/15 09:30	06/25/15 17:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	87		70 - 122	06/23/15 09:30	06/25/15 17:16	1
Dibromofluoromethane	95		75 - 120	06/23/15 09:30	06/25/15 17:16	1
1,2-Dichloroethane-d4 (Surr)	94		70 - 134	06/23/15 09:30	06/25/15 17:16	1
Toluene-d8 (Surr)	97		75 - 122	06/23/15 09:30	06/25/15 17:16	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	☼	06/26/15 07:33	06/29/15 20:27	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.060	mg/Kg	☼	06/26/15 07:33	06/29/15 20:27	1
1,3-Dichlorobenzene	<0.20		0.20	0.045	mg/Kg	☼	06/26/15 07:33	06/29/15 20:27	1
1,4-Dichlorobenzene	<0.20		0.20	0.051	mg/Kg	☼	06/26/15 07:33	06/29/15 20:27	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97658-1

Client Sample ID: 1860-23-B19 (2-4)

Lab Sample ID: 500-97658-9

Date Collected: 06/22/15 14:10

Matrix: Solid

Date Received: 06/22/15 16:10

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	0.048	mg/Kg	☼	06/26/15 07:33	06/29/15 20:27	1
2-Methylphenol	<0.20		0.20	0.064	mg/Kg	☼	06/26/15 07:33	06/29/15 20:27	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.046	mg/Kg	☼	06/26/15 07:33	06/29/15 20:27	1
N-Nitrosodi-n-propylamine	<0.20		0.20	0.049	mg/Kg	☼	06/26/15 07:33	06/29/15 20:27	1
Hexachloroethane	<0.20		0.20	0.060	mg/Kg	☼	06/26/15 07:33	06/29/15 20:27	1
2-Chlorophenol	<0.20		0.20	0.068	mg/Kg	☼	06/26/15 07:33	06/29/15 20:27	1
Nitrobenzene	<0.040		0.040	0.0099	mg/Kg	☼	06/26/15 07:33	06/29/15 20:27	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.041	mg/Kg	☼	06/26/15 07:33	06/29/15 20:27	1
1,2,4-Trichlorobenzene	<0.20		0.20	0.043	mg/Kg	☼	06/26/15 07:33	06/29/15 20:27	1
Isophorone	<0.20		0.20	0.045	mg/Kg	☼	06/26/15 07:33	06/29/15 20:27	1
2,4-Dimethylphenol	<0.40		0.40	0.15	mg/Kg	☼	06/26/15 07:33	06/29/15 20:27	1
Hexachlorobutadiene	<0.20		0.20	0.063	mg/Kg	☼	06/26/15 07:33	06/29/15 20:27	1
Naphthalene	<0.040		0.040	0.0061	mg/Kg	☼	06/26/15 07:33	06/29/15 20:27	1
2,4-Dichlorophenol	<0.40		0.40	0.094	mg/Kg	☼	06/26/15 07:33	06/29/15 20:27	1
4-Chloroaniline	<0.80		0.80	0.19	mg/Kg	☼	06/26/15 07:33	06/29/15 20:27	1
2,4,6-Trichlorophenol	<0.40		0.40	0.14	mg/Kg	☼	06/26/15 07:33	06/29/15 20:27	1
2,4,5-Trichlorophenol	<0.40		0.40	0.091	mg/Kg	☼	06/26/15 07:33	06/29/15 20:27	1
Hexachlorocyclopentadiene	<0.80		0.80	0.23	mg/Kg	☼	06/26/15 07:33	06/29/15 20:27	1
2-Methylnaphthalene	<0.040		0.040	0.0073	mg/Kg	☼	06/26/15 07:33	06/29/15 20:27	1
2-Nitroaniline	<0.20		0.20	0.054	mg/Kg	☼	06/26/15 07:33	06/29/15 20:27	1
2-Chloronaphthalene	<0.20		0.20	0.044	mg/Kg	☼	06/26/15 07:33	06/29/15 20:27	1
4-Chloro-3-methylphenol	<0.40		0.40	0.14	mg/Kg	☼	06/26/15 07:33	06/29/15 20:27	1
2,6-Dinitrotoluene	<0.20		0.20	0.078	mg/Kg	☼	06/26/15 07:33	06/29/15 20:27	1
2-Nitrophenol	<0.40		0.40	0.094	mg/Kg	☼	06/26/15 07:33	06/29/15 20:27	1
3-Nitroaniline	<0.40		0.40	0.12	mg/Kg	☼	06/26/15 07:33	06/29/15 20:27	1
Dimethyl phthalate	<0.20		0.20	0.052	mg/Kg	☼	06/26/15 07:33	06/29/15 20:27	1
2,4-Dinitrophenol	<0.80		0.80	0.70	mg/Kg	☼	06/26/15 07:33	06/29/15 20:27	1
Acenaphthylene	<0.040		0.040	0.0052	mg/Kg	☼	06/26/15 07:33	06/29/15 20:27	1
2,4-Dinitrotoluene	<0.20		0.20	0.063	mg/Kg	☼	06/26/15 07:33	06/29/15 20:27	1
Acenaphthene	<0.040		0.040	0.0071	mg/Kg	☼	06/26/15 07:33	06/29/15 20:27	1
Dibenzofuran	<0.20		0.20	0.047	mg/Kg	☼	06/26/15 07:33	06/29/15 20:27	1
4-Nitrophenol	<0.80		0.80	0.38	mg/Kg	☼	06/26/15 07:33	06/29/15 20:27	1
Fluorene	<0.040		0.040	0.0056	mg/Kg	☼	06/26/15 07:33	06/29/15 20:27	1
4-Nitroaniline	<0.40		0.40	0.17	mg/Kg	☼	06/26/15 07:33	06/29/15 20:27	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.052	mg/Kg	☼	06/26/15 07:33	06/29/15 20:27	1
Hexachlorobenzene	<0.080		0.080	0.0092	mg/Kg	☼	06/26/15 07:33	06/29/15 20:27	1
Diethyl phthalate	<0.20		0.20	0.067	mg/Kg	☼	06/26/15 07:33	06/29/15 20:27	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.046	mg/Kg	☼	06/26/15 07:33	06/29/15 20:27	1
Pentachlorophenol	<0.80		0.80	0.64	mg/Kg	☼	06/26/15 07:33	06/29/15 20:27	1
N-Nitrosodiphenylamine	<0.20		0.20	0.047	mg/Kg	☼	06/26/15 07:33	06/29/15 20:27	1
4,6-Dinitro-2-methylphenol	<0.40		0.40	0.32	mg/Kg	☼	06/26/15 07:33	06/29/15 20:27	1
Phenanthrene	<0.040		0.040	0.0055	mg/Kg	☼	06/26/15 07:33	06/29/15 20:27	1
Anthracene	<0.040		0.040	0.0066	mg/Kg	☼	06/26/15 07:33	06/29/15 20:27	1
Carbazole	<0.20		0.20	0.10	mg/Kg	☼	06/26/15 07:33	06/29/15 20:27	1
Di-n-butyl phthalate	<0.20		0.20	0.061	mg/Kg	☼	06/26/15 07:33	06/29/15 20:27	1
Fluoranthene	<0.040		0.040	0.0074	mg/Kg	☼	06/26/15 07:33	06/29/15 20:27	1
Pyrene	<0.040		0.040	0.0079	mg/Kg	☼	06/26/15 07:33	06/29/15 20:27	1
Butyl benzyl phthalate	<0.20		0.20	0.076	mg/Kg	☼	06/26/15 07:33	06/29/15 20:27	1
Benzo[a]anthracene	<0.040		0.040	0.0054	mg/Kg	☼	06/26/15 07:33	06/29/15 20:27	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97658-1

Client Sample ID: 1860-23-B19 (2-4)

Lab Sample ID: 500-97658-9

Date Collected: 06/22/15 14:10

Matrix: Solid

Date Received: 06/22/15 16:10

Percent Solids: 82.2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	<0.040		0.040	0.011	mg/Kg	☼	06/26/15 07:33	06/29/15 20:27	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.056	mg/Kg	☼	06/26/15 07:33	06/29/15 20:27	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.073	mg/Kg	☼	06/26/15 07:33	06/29/15 20:27	1
Di-n-octyl phthalate	<0.20		0.20	0.065	mg/Kg	☼	06/26/15 07:33	06/29/15 20:27	1
Benzo[b]fluoranthene	<0.040		0.040	0.0086	mg/Kg	☼	06/26/15 07:33	06/29/15 20:27	1
Benzo[k]fluoranthene	<0.040		0.040	0.012	mg/Kg	☼	06/26/15 07:33	06/29/15 20:27	1
Benzo[a]pyrene	<0.040		0.040	0.0077	mg/Kg	☼	06/26/15 07:33	06/29/15 20:27	1
Indeno[1,2,3-cd]pyrene	<0.040		0.040	0.010	mg/Kg	☼	06/26/15 07:33	06/29/15 20:27	1
Dibenz(a,h)anthracene	<0.040		0.040	0.0077	mg/Kg	☼	06/26/15 07:33	06/29/15 20:27	1
Benzo[g,h,i]perylene	<0.040		0.040	0.013	mg/Kg	☼	06/26/15 07:33	06/29/15 20:27	1
3 & 4 Methylphenol	<0.20		0.20	0.066	mg/Kg	☼	06/26/15 07:33	06/29/15 20:27	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	66		25 - 110	06/26/15 07:33	06/29/15 20:27	1
Phenol-d5	51		31 - 110	06/26/15 07:33	06/29/15 20:27	1
Nitrobenzene-d5	50		25 - 115	06/26/15 07:33	06/29/15 20:27	1
2-Fluorobiphenyl	53		25 - 119	06/26/15 07:33	06/29/15 20:27	1
2,4,6-Tribromophenol	65		35 - 137	06/26/15 07:33	06/29/15 20:27	1
Terphenyl-d14	69		36 - 134	06/26/15 07:33	06/29/15 20:27	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	☼	06/23/15 18:00	06/24/15 13:17	1
Arsenic	5.4		0.58	0.27	mg/Kg	☼	06/23/15 18:00	06/24/15 13:17	1
Barium	97		0.58	0.11	mg/Kg	☼	06/23/15 18:00	06/24/15 13:17	1
Beryllium	0.85		0.23	0.050	mg/Kg	☼	06/23/15 18:00	06/24/15 13:17	1
Boron	5.8		2.9	0.40	mg/Kg	☼	06/23/15 18:00	06/24/15 13:17	1
Cadmium	<0.12		0.12	0.033	mg/Kg	☼	06/23/15 18:00	06/24/15 13:17	1
Calcium	12000		12	3.7	mg/Kg	☼	06/23/15 18:00	06/24/15 13:17	1
Chromium	19		0.58	0.099	mg/Kg	☼	06/23/15 18:00	06/24/15 13:17	1
Cobalt	13		0.29	0.065	mg/Kg	☼	06/23/15 18:00	06/24/15 13:17	1
Copper	18 B		0.58	0.12	mg/Kg	☼	06/23/15 18:00	06/24/15 13:17	1
Iron	20000 B		12	4.4	mg/Kg	☼	06/23/15 18:00	06/24/15 13:17	1
Lead	16		0.29	0.14	mg/Kg	☼	06/23/15 18:00	06/24/15 13:17	1
Magnesium	8900		5.8	2.3	mg/Kg	☼	06/23/15 18:00	06/24/15 13:17	1
Manganese	190		0.58	0.11	mg/Kg	☼	06/23/15 18:00	06/24/15 13:17	1
Nickel	30		0.58	0.16	mg/Kg	☼	06/23/15 18:00	06/24/15 13:17	1
Potassium	1900		29	4.7	mg/Kg	☼	06/23/15 18:00	06/24/15 13:17	1
Selenium	0.65		0.58	0.29	mg/Kg	☼	06/23/15 18:00	06/24/15 13:17	1
Silver	<0.29		0.29	0.067	mg/Kg	☼	06/23/15 18:00	06/24/15 13:17	1
Sodium	1000		58	7.6	mg/Kg	☼	06/23/15 18:00	06/24/15 13:17	1
Thallium	<0.58		0.58	0.28	mg/Kg	☼	06/23/15 18:00	06/24/15 13:17	1
Vanadium	27		0.29	0.084	mg/Kg	☼	06/23/15 18:00	06/24/15 13:17	1
Zinc	52 B		1.2	0.36	mg/Kg	☼	06/23/15 18:00	06/24/15 13:17	1

Method: 7471B - Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.037		0.018	0.0063	mg/Kg	☼	06/23/15 11:30	06/24/15 12:38	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97658-1

Client Sample ID: 1860-23-B22 (2-3)

Lab Sample ID: 500-97658-10

Date Collected: 06/22/15 14:35

Matrix: Solid

Date Received: 06/22/15 16:10

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		06/25/15 12:00	06/26/15 14:41	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		06/25/15 12:00	06/26/15 14:41	1
Boron	0.83		0.50	0.050	mg/L		06/25/15 12:00	06/26/15 14:41	1
Cadmium	0.0028	J	0.0050	0.0020	mg/L		06/25/15 12:00	06/26/15 14:41	1
Chromium	<0.025		0.025	0.010	mg/L		06/25/15 12:00	06/26/15 14:41	1
Cobalt	<0.025		0.025	0.010	mg/L		06/25/15 12:00	06/26/15 14:41	1
Iron	<0.20		0.20	0.20	mg/L		06/25/15 12:00	06/26/15 14:41	1
Lead	<0.0075		0.0075	0.0075	mg/L		06/25/15 12:00	06/26/15 14:41	1
Manganese	2.0		0.025	0.010	mg/L		06/25/15 12:00	06/26/15 14:41	1
Nickel	0.016	J ^	0.025	0.010	mg/L		06/25/15 12:00	06/26/15 14:41	1
Selenium	<0.050		0.050	0.020	mg/L		06/25/15 12:00	06/26/15 14:41	1
Silver	<0.025		0.025	0.010	mg/L		06/25/15 12:00	06/26/15 14:41	1
Zinc	0.30	J B	0.50	0.020	mg/L		06/25/15 12:00	06/26/15 14:41	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.057		0.025	0.010	mg/L		07/01/15 11:20	07/02/15 12:37	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		06/25/15 12:00	06/26/15 21:02	1
Thallium	<0.0020		0.0020	0.0020	mg/L		06/25/15 12:00	06/26/15 21:02	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		06/25/15 10:30	06/26/15 09:32	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.57		0.200	0.200	SU			06/23/15 15:58	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97658-1

Client Sample ID: 1860-23-B22 (2-3)

Lab Sample ID: 500-97658-10

Date Collected: 06/22/15 14:35

Matrix: Solid

Date Received: 06/22/15 16:10

Percent Solids: 85.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	0.012		0.0056	0.0043	mg/Kg	☼	06/23/15 09:30	06/25/15 17:41	1
Benzene	<0.0056		0.0056	0.0012	mg/Kg	☼	06/23/15 09:30	06/25/15 17:41	1
Bromodichloromethane	<0.0056		0.0056	0.00095	mg/Kg	☼	06/23/15 09:30	06/25/15 17:41	1
Bromoform	<0.0056		0.0056	0.0011	mg/Kg	☼	06/23/15 09:30	06/25/15 17:41	1
Bromomethane	<0.0056	*	0.0056	0.0021	mg/Kg	☼	06/23/15 09:30	06/25/15 17:41	1
2-Butanone (MEK)	<0.0056		0.0056	0.0020	mg/Kg	☼	06/23/15 09:30	06/25/15 17:41	1
Carbon disulfide	<0.0056		0.0056	0.0021	mg/Kg	☼	06/23/15 09:30	06/25/15 17:41	1
Carbon tetrachloride	<0.0056		0.0056	0.0012	mg/Kg	☼	06/23/15 09:30	06/25/15 17:41	1
Chlorobenzene	<0.0056		0.0056	0.0013	mg/Kg	☼	06/23/15 09:30	06/25/15 17:41	1
Chloroethane	<0.0056	*	0.0056	0.0024	mg/Kg	☼	06/23/15 09:30	06/25/15 17:41	1
Chloroform	<0.0056		0.0056	0.0011	mg/Kg	☼	06/23/15 09:30	06/25/15 17:41	1
Chloromethane	<0.0056		0.0056	0.0013	mg/Kg	☼	06/23/15 09:30	06/25/15 17:41	1
cis-1,2-Dichloroethene	<0.0056		0.0056	0.0011	mg/Kg	☼	06/23/15 09:30	06/25/15 17:41	1
cis-1,3-Dichloropropene	<0.0056		0.0056	0.0013	mg/Kg	☼	06/23/15 09:30	06/25/15 17:41	1
Dibromochloromethane	<0.0056		0.0056	0.00065	mg/Kg	☼	06/23/15 09:30	06/25/15 17:41	1
1,1-Dichloroethane	<0.0056		0.0056	0.0012	mg/Kg	☼	06/23/15 09:30	06/25/15 17:41	1
1,2-Dichloroethane	<0.0056		0.0056	0.00083	mg/Kg	☼	06/23/15 09:30	06/25/15 17:41	1
1,1-Dichloroethene	<0.0056		0.0056	0.0020	mg/Kg	☼	06/23/15 09:30	06/25/15 17:41	1
1,2-Dichloropropane	<0.0056		0.0056	0.0015	mg/Kg	☼	06/23/15 09:30	06/25/15 17:41	1
1,3-Dichloropropene, Total	<0.0056		0.0056	0.0016	mg/Kg	☼	06/23/15 09:30	06/25/15 17:41	1
Ethylbenzene	<0.0056		0.0056	0.0014	mg/Kg	☼	06/23/15 09:30	06/25/15 17:41	1
2-Hexanone	<0.0056		0.0056	0.0017	mg/Kg	☼	06/23/15 09:30	06/25/15 17:41	1
Methylene Chloride	<0.0056		0.0056	0.0042	mg/Kg	☼	06/23/15 09:30	06/25/15 17:41	1
4-Methyl-2-pentanone (MIBK)	<0.0056		0.0056	0.0012	mg/Kg	☼	06/23/15 09:30	06/25/15 17:41	1
Methyl tert-butyl ether	<0.0056		0.0056	0.0013	mg/Kg	☼	06/23/15 09:30	06/25/15 17:41	1
Styrene	<0.0056		0.0056	0.0013	mg/Kg	☼	06/23/15 09:30	06/25/15 17:41	1
1,1,2,2-Tetrachloroethane	<0.0056		0.0056	0.00089	mg/Kg	☼	06/23/15 09:30	06/25/15 17:41	1
Tetrachloroethene	<0.0056		0.0056	0.0012	mg/Kg	☼	06/23/15 09:30	06/25/15 17:41	1
Toluene	<0.0056		0.0056	0.0020	mg/Kg	☼	06/23/15 09:30	06/25/15 17:41	1
trans-1,2-Dichloroethene	<0.0056		0.0056	0.0014	mg/Kg	☼	06/23/15 09:30	06/25/15 17:41	1
trans-1,3-Dichloropropene	<0.0056		0.0056	0.0016	mg/Kg	☼	06/23/15 09:30	06/25/15 17:41	1
1,1,1-Trichloroethane	<0.0056		0.0056	0.0013	mg/Kg	☼	06/23/15 09:30	06/25/15 17:41	1
1,1,2-Trichloroethane	<0.0056		0.0056	0.0011	mg/Kg	☼	06/23/15 09:30	06/25/15 17:41	1
Trichloroethene	<0.0056		0.0056	0.0015	mg/Kg	☼	06/23/15 09:30	06/25/15 17:41	1
Vinyl acetate	<0.0056		0.0056	0.0015	mg/Kg	☼	06/23/15 09:30	06/25/15 17:41	1
Vinyl chloride	<0.0056		0.0056	0.0013	mg/Kg	☼	06/23/15 09:30	06/25/15 17:41	1
Xylenes, Total	<0.011		0.011	0.0021	mg/Kg	☼	06/23/15 09:30	06/25/15 17:41	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	87		70 - 122	06/23/15 09:30	06/25/15 17:41	1
Dibromofluoromethane	100		75 - 120	06/23/15 09:30	06/25/15 17:41	1
1,2-Dichloroethane-d4 (Surr)	96		70 - 134	06/23/15 09:30	06/25/15 17:41	1
Toluene-d8 (Surr)	95		75 - 122	06/23/15 09:30	06/25/15 17:41	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	☼	06/26/15 07:33	06/29/15 20:49	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.057	mg/Kg	☼	06/26/15 07:33	06/29/15 20:49	1
1,3-Dichlorobenzene	<0.19		0.19	0.043	mg/Kg	☼	06/26/15 07:33	06/29/15 20:49	1
1,4-Dichlorobenzene	<0.19		0.19	0.049	mg/Kg	☼	06/26/15 07:33	06/29/15 20:49	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97658-1

Client Sample ID: 1860-23-B22 (2-3)

Lab Sample ID: 500-97658-10

Date Collected: 06/22/15 14:35

Matrix: Solid

Date Received: 06/22/15 16:10

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	<0.19		0.19	0.045	mg/Kg	☼	06/26/15 07:33	06/29/15 20:49	1
2-Methylphenol	<0.19		0.19	0.061	mg/Kg	☼	06/26/15 07:33	06/29/15 20:49	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.044	mg/Kg	☼	06/26/15 07:33	06/29/15 20:49	1
N-Nitrosodi-n-propylamine	<0.19		0.19	0.046	mg/Kg	☼	06/26/15 07:33	06/29/15 20:49	1
Hexachloroethane	<0.19		0.19	0.058	mg/Kg	☼	06/26/15 07:33	06/29/15 20:49	1
2-Chlorophenol	<0.19		0.19	0.065	mg/Kg	☼	06/26/15 07:33	06/29/15 20:49	1
Nitrobenzene	<0.038		0.038	0.0095	mg/Kg	☼	06/26/15 07:33	06/29/15 20:49	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.039	mg/Kg	☼	06/26/15 07:33	06/29/15 20:49	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.041	mg/Kg	☼	06/26/15 07:33	06/29/15 20:49	1
Isophorone	<0.19		0.19	0.043	mg/Kg	☼	06/26/15 07:33	06/29/15 20:49	1
2,4-Dimethylphenol	<0.38		0.38	0.14	mg/Kg	☼	06/26/15 07:33	06/29/15 20:49	1
Hexachlorobutadiene	<0.19		0.19	0.060	mg/Kg	☼	06/26/15 07:33	06/29/15 20:49	1
Naphthalene	<0.038		0.038	0.0058	mg/Kg	☼	06/26/15 07:33	06/29/15 20:49	1
2,4-Dichlorophenol	<0.38		0.38	0.090	mg/Kg	☼	06/26/15 07:33	06/29/15 20:49	1
4-Chloroaniline	<0.77		0.77	0.18	mg/Kg	☼	06/26/15 07:33	06/29/15 20:49	1
2,4,6-Trichlorophenol	<0.38		0.38	0.13	mg/Kg	☼	06/26/15 07:33	06/29/15 20:49	1
2,4,5-Trichlorophenol	<0.38		0.38	0.087	mg/Kg	☼	06/26/15 07:33	06/29/15 20:49	1
Hexachlorocyclopentadiene	<0.77		0.77	0.22	mg/Kg	☼	06/26/15 07:33	06/29/15 20:49	1
2-Methylnaphthalene	<0.038		0.038	0.0070	mg/Kg	☼	06/26/15 07:33	06/29/15 20:49	1
2-Nitroaniline	<0.19		0.19	0.051	mg/Kg	☼	06/26/15 07:33	06/29/15 20:49	1
2-Chloronaphthalene	<0.19		0.19	0.042	mg/Kg	☼	06/26/15 07:33	06/29/15 20:49	1
4-Chloro-3-methylphenol	<0.38		0.38	0.13	mg/Kg	☼	06/26/15 07:33	06/29/15 20:49	1
2,6-Dinitrotoluene	<0.19		0.19	0.075	mg/Kg	☼	06/26/15 07:33	06/29/15 20:49	1
2-Nitrophenol	<0.38		0.38	0.090	mg/Kg	☼	06/26/15 07:33	06/29/15 20:49	1
3-Nitroaniline	<0.38		0.38	0.12	mg/Kg	☼	06/26/15 07:33	06/29/15 20:49	1
Dimethyl phthalate	<0.19		0.19	0.050	mg/Kg	☼	06/26/15 07:33	06/29/15 20:49	1
2,4-Dinitrophenol	<0.77		0.77	0.67	mg/Kg	☼	06/26/15 07:33	06/29/15 20:49	1
Acenaphthylene	<0.038		0.038	0.0050	mg/Kg	☼	06/26/15 07:33	06/29/15 20:49	1
2,4-Dinitrotoluene	<0.19		0.19	0.060	mg/Kg	☼	06/26/15 07:33	06/29/15 20:49	1
Acenaphthene	<0.038		0.038	0.0068	mg/Kg	☼	06/26/15 07:33	06/29/15 20:49	1
Dibenzofuran	<0.19		0.19	0.044	mg/Kg	☼	06/26/15 07:33	06/29/15 20:49	1
4-Nitrophenol	<0.77		0.77	0.36	mg/Kg	☼	06/26/15 07:33	06/29/15 20:49	1
Fluorene	<0.038		0.038	0.0053	mg/Kg	☼	06/26/15 07:33	06/29/15 20:49	1
4-Nitroaniline	<0.38		0.38	0.16	mg/Kg	☼	06/26/15 07:33	06/29/15 20:49	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.050	mg/Kg	☼	06/26/15 07:33	06/29/15 20:49	1
Hexachlorobenzene	<0.077		0.077	0.0088	mg/Kg	☼	06/26/15 07:33	06/29/15 20:49	1
Diethyl phthalate	<0.19		0.19	0.064	mg/Kg	☼	06/26/15 07:33	06/29/15 20:49	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.044	mg/Kg	☼	06/26/15 07:33	06/29/15 20:49	1
Pentachlorophenol	<0.77		0.77	0.61	mg/Kg	☼	06/26/15 07:33	06/29/15 20:49	1
N-Nitrosodiphenylamine	<0.19		0.19	0.045	mg/Kg	☼	06/26/15 07:33	06/29/15 20:49	1
4,6-Dinitro-2-methylphenol	<0.38		0.38	0.31	mg/Kg	☼	06/26/15 07:33	06/29/15 20:49	1
Phenanthrene	0.014	J	0.038	0.0053	mg/Kg	☼	06/26/15 07:33	06/29/15 20:49	1
Anthracene	<0.038		0.038	0.0063	mg/Kg	☼	06/26/15 07:33	06/29/15 20:49	1
Carbazole	<0.19		0.19	0.098	mg/Kg	☼	06/26/15 07:33	06/29/15 20:49	1
Di-n-butyl phthalate	<0.19		0.19	0.058	mg/Kg	☼	06/26/15 07:33	06/29/15 20:49	1
Fluoranthene	0.0090	J	0.038	0.0070	mg/Kg	☼	06/26/15 07:33	06/29/15 20:49	1
Pyrene	0.012	J	0.038	0.0075	mg/Kg	☼	06/26/15 07:33	06/29/15 20:49	1
Butyl benzyl phthalate	<0.19		0.19	0.072	mg/Kg	☼	06/26/15 07:33	06/29/15 20:49	1
Benzo[a]anthracene	<0.038		0.038	0.0051	mg/Kg	☼	06/26/15 07:33	06/29/15 20:49	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97658-1

Client Sample ID: 1860-23-B22 (2-3)

Lab Sample ID: 500-97658-10

Date Collected: 06/22/15 14:35

Matrix: Solid

Date Received: 06/22/15 16:10

Percent Solids: 85.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.012	J	0.038	0.010	mg/Kg	☼	06/26/15 07:33	06/29/15 20:49	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.053	mg/Kg	☼	06/26/15 07:33	06/29/15 20:49	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.069	mg/Kg	☼	06/26/15 07:33	06/29/15 20:49	1
Di-n-octyl phthalate	<0.19		0.19	0.062	mg/Kg	☼	06/26/15 07:33	06/29/15 20:49	1
Benzo[b]fluoranthene	<0.038		0.038	0.0082	mg/Kg	☼	06/26/15 07:33	06/29/15 20:49	1
Benzo[k]fluoranthene	<0.038		0.038	0.011	mg/Kg	☼	06/26/15 07:33	06/29/15 20:49	1
Benzo[a]pyrene	<0.038		0.038	0.0073	mg/Kg	☼	06/26/15 07:33	06/29/15 20:49	1
Indeno[1,2,3-cd]pyrene	<0.038		0.038	0.0098	mg/Kg	☼	06/26/15 07:33	06/29/15 20:49	1
Dibenz(a,h)anthracene	<0.038		0.038	0.0073	mg/Kg	☼	06/26/15 07:33	06/29/15 20:49	1
Benzo[g,h,i]perylene	<0.038		0.038	0.012	mg/Kg	☼	06/26/15 07:33	06/29/15 20:49	1
3 & 4 Methylphenol	<0.19		0.19	0.063	mg/Kg	☼	06/26/15 07:33	06/29/15 20:49	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	67		25 - 110	06/26/15 07:33	06/29/15 20:49	1
Phenol-d5	54		31 - 110	06/26/15 07:33	06/29/15 20:49	1
Nitrobenzene-d5	54		25 - 115	06/26/15 07:33	06/29/15 20:49	1
2-Fluorobiphenyl	56		25 - 119	06/26/15 07:33	06/29/15 20:49	1
2,4,6-Tribromophenol	63		35 - 137	06/26/15 07:33	06/29/15 20:49	1
Terphenyl-d14	72		36 - 134	06/26/15 07:33	06/29/15 20:49	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.1		1.1	0.24	mg/Kg	☼	06/23/15 18:00	06/24/15 13:29	1
Arsenic	6.7		0.57	0.26	mg/Kg	☼	06/23/15 18:00	06/24/15 13:29	1
Barium	50		0.57	0.10	mg/Kg	☼	06/23/15 18:00	06/24/15 13:29	1
Beryllium	0.61		0.23	0.049	mg/Kg	☼	06/23/15 18:00	06/24/15 13:29	1
Boron	9.4		2.8	0.40	mg/Kg	☼	06/23/15 18:00	06/24/15 13:29	1
Cadmium	0.065	J	0.11	0.033	mg/Kg	☼	06/23/15 18:00	06/24/15 13:29	1
Calcium	72000		57	18	mg/Kg	☼	06/23/15 18:00	06/24/15 15:27	5
Chromium	16		0.57	0.098	mg/Kg	☼	06/23/15 18:00	06/24/15 13:29	1
Cobalt	14		0.28	0.064	mg/Kg	☼	06/23/15 18:00	06/24/15 13:29	1
Copper	18	B	0.57	0.12	mg/Kg	☼	06/23/15 18:00	06/24/15 13:29	1
Iron	23000	B	11	4.4	mg/Kg	☼	06/23/15 18:00	06/24/15 13:29	1
Lead	11		0.28	0.14	mg/Kg	☼	06/23/15 18:00	06/24/15 13:29	1
Magnesium	24000		5.7	2.3	mg/Kg	☼	06/23/15 18:00	06/24/15 13:29	1
Manganese	340		0.57	0.11	mg/Kg	☼	06/23/15 18:00	06/24/15 13:29	1
Nickel	31		0.57	0.15	mg/Kg	☼	06/23/15 18:00	06/24/15 13:29	1
Potassium	2300		28	4.6	mg/Kg	☼	06/23/15 18:00	06/24/15 13:29	1
Selenium	0.28	J	0.57	0.28	mg/Kg	☼	06/23/15 18:00	06/24/15 13:29	1
Silver	<0.28		0.28	0.066	mg/Kg	☼	06/23/15 18:00	06/24/15 13:29	1
Sodium	1100		57	7.5	mg/Kg	☼	06/23/15 18:00	06/24/15 13:29	1
Thallium	<0.57		0.57	0.28	mg/Kg	☼	06/23/15 18:00	06/24/15 13:29	1
Vanadium	18		0.28	0.083	mg/Kg	☼	06/23/15 18:00	06/24/15 13:29	1
Zinc	50	B	1.1	0.36	mg/Kg	☼	06/23/15 18:00	06/24/15 13:29	1

Method: 7471B - Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.060		0.018	0.0062	mg/Kg	☼	06/23/15 11:30	06/24/15 12:40	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97658-1

Client Sample ID: 1860-23-B20 (0-2)

Lab Sample ID: 500-97658-11

Date Collected: 06/22/15 14:40

Matrix: Solid

Date Received: 06/22/15 16:10

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.089	J	0.50	0.050	mg/L	-	06/25/15 12:00	06/26/15 14:54	1
Beryllium	<0.0040		0.0040	0.0040	mg/L	-	06/25/15 12:00	06/26/15 14:54	1
Boron	0.81		0.50	0.050	mg/L	-	06/25/15 12:00	06/26/15 14:54	1
Cadmium	0.0073		0.0050	0.0020	mg/L	-	06/25/15 12:00	06/26/15 14:54	1
Chromium	<0.025		0.025	0.010	mg/L	-	06/25/15 12:00	06/26/15 14:54	1
Cobalt	<0.025		0.025	0.010	mg/L	-	06/25/15 12:00	06/26/15 14:54	1
Iron	<0.20		0.20	0.20	mg/L	-	06/25/15 12:00	06/26/15 14:54	1
Lead	<0.0075		0.0075	0.0075	mg/L	-	06/25/15 12:00	06/26/15 14:54	1
Manganese	0.33		0.025	0.010	mg/L	-	06/25/15 12:00	06/26/15 14:54	1
Nickel	0.018	J ^	0.025	0.010	mg/L	-	06/25/15 12:00	06/26/15 14:54	1
Selenium	<0.050		0.050	0.020	mg/L	-	06/25/15 12:00	06/26/15 14:54	1
Silver	<0.025		0.025	0.010	mg/L	-	06/25/15 12:00	06/26/15 14:54	1
Zinc	0.13	J B	0.50	0.020	mg/L	-	06/25/15 12:00	06/26/15 14:54	1

Method: 6010B - SPLP Metals - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L	-	07/01/15 11:20	07/02/15 12:41	1
Manganese	<0.025		0.025	0.010	mg/L	-	07/01/15 11:20	07/02/15 12:41	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	-	06/25/15 12:00	06/26/15 21:06	1
Thallium	<0.0020		0.0020	0.0020	mg/L	-	06/25/15 12:00	06/26/15 21:06	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	-	06/25/15 10:30	06/26/15 09:34	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.07		0.200	0.200	SU	-		06/23/15 16:00	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97658-1

Client Sample ID: 1860-23-B20 (0-2)

Lab Sample ID: 500-97658-11

Date Collected: 06/22/15 14:40

Matrix: Solid

Date Received: 06/22/15 16:10

Percent Solids: 86.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	0.048		0.0045	0.0035	mg/Kg	☼	06/23/15 09:30	06/25/15 18:05	1
Benzene	<0.0045		0.0045	0.0010	mg/Kg	☼	06/23/15 09:30	06/25/15 18:05	1
Bromodichloromethane	<0.0045		0.0045	0.00076	mg/Kg	☼	06/23/15 09:30	06/25/15 18:05	1
Bromoform	<0.0045		0.0045	0.00092	mg/Kg	☼	06/23/15 09:30	06/25/15 18:05	1
Bromomethane	<0.0045 *		0.0045	0.0017	mg/Kg	☼	06/23/15 09:30	06/25/15 18:05	1
2-Butanone (MEK)	<0.0045		0.0045	0.0016	mg/Kg	☼	06/23/15 09:30	06/25/15 18:05	1
Carbon disulfide	<0.0045		0.0045	0.0017	mg/Kg	☼	06/23/15 09:30	06/25/15 18:05	1
Carbon tetrachloride	<0.0045		0.0045	0.00097	mg/Kg	☼	06/23/15 09:30	06/25/15 18:05	1
Chlorobenzene	<0.0045		0.0045	0.0011	mg/Kg	☼	06/23/15 09:30	06/25/15 18:05	1
Chloroethane	<0.0045 *		0.0045	0.0019	mg/Kg	☼	06/23/15 09:30	06/25/15 18:05	1
Chloroform	<0.0045		0.0045	0.00088	mg/Kg	☼	06/23/15 09:30	06/25/15 18:05	1
Chloromethane	<0.0045		0.0045	0.0011	mg/Kg	☼	06/23/15 09:30	06/25/15 18:05	1
cis-1,2-Dichloroethene	<0.0045		0.0045	0.00092	mg/Kg	☼	06/23/15 09:30	06/25/15 18:05	1
cis-1,3-Dichloropropene	<0.0045		0.0045	0.0010	mg/Kg	☼	06/23/15 09:30	06/25/15 18:05	1
Dibromochloromethane	<0.0045		0.0045	0.00052	mg/Kg	☼	06/23/15 09:30	06/25/15 18:05	1
1,1-Dichloroethane	<0.0045		0.0045	0.00093	mg/Kg	☼	06/23/15 09:30	06/25/15 18:05	1
1,2-Dichloroethane	<0.0045		0.0045	0.00067	mg/Kg	☼	06/23/15 09:30	06/25/15 18:05	1
1,1-Dichloroethene	<0.0045		0.0045	0.0016	mg/Kg	☼	06/23/15 09:30	06/25/15 18:05	1
1,2-Dichloropropane	<0.0045		0.0045	0.0012	mg/Kg	☼	06/23/15 09:30	06/25/15 18:05	1
1,3-Dichloropropane, Total	<0.0045		0.0045	0.0013	mg/Kg	☼	06/23/15 09:30	06/25/15 18:05	1
Ethylbenzene	<0.0045		0.0045	0.0011	mg/Kg	☼	06/23/15 09:30	06/25/15 18:05	1
2-Hexanone	<0.0045		0.0045	0.0014	mg/Kg	☼	06/23/15 09:30	06/25/15 18:05	1
Methylene Chloride	0.0093		0.0045	0.0034	mg/Kg	☼	06/23/15 09:30	06/25/15 18:05	1
4-Methyl-2-pentanone (MIBK)	<0.0045		0.0045	0.00093	mg/Kg	☼	06/23/15 09:30	06/25/15 18:05	1
Methyl tert-butyl ether	<0.0045		0.0045	0.0011	mg/Kg	☼	06/23/15 09:30	06/25/15 18:05	1
Styrene	<0.0045		0.0045	0.0011	mg/Kg	☼	06/23/15 09:30	06/25/15 18:05	1
1,1,1,2-Tetrachloroethane	<0.0045		0.0045	0.00072	mg/Kg	☼	06/23/15 09:30	06/25/15 18:05	1
Tetrachloroethene	<0.0045		0.0045	0.00094	mg/Kg	☼	06/23/15 09:30	06/25/15 18:05	1
Toluene	<0.0045		0.0045	0.0016	mg/Kg	☼	06/23/15 09:30	06/25/15 18:05	1
trans-1,2-Dichloroethene	<0.0045		0.0045	0.0011	mg/Kg	☼	06/23/15 09:30	06/25/15 18:05	1
trans-1,3-Dichloropropene	<0.0045		0.0045	0.0013	mg/Kg	☼	06/23/15 09:30	06/25/15 18:05	1
1,1,1-Trichloroethane	<0.0045		0.0045	0.0011	mg/Kg	☼	06/23/15 09:30	06/25/15 18:05	1
1,1,2-Trichloroethane	<0.0045		0.0045	0.00088	mg/Kg	☼	06/23/15 09:30	06/25/15 18:05	1
Trichloroethene	<0.0045		0.0045	0.0012	mg/Kg	☼	06/23/15 09:30	06/25/15 18:05	1
Vinyl acetate	<0.0045		0.0045	0.0012	mg/Kg	☼	06/23/15 09:30	06/25/15 18:05	1
Vinyl chloride	<0.0045		0.0045	0.0011	mg/Kg	☼	06/23/15 09:30	06/25/15 18:05	1
Xylenes, Total	<0.0091		0.0091	0.0017	mg/Kg	☼	06/23/15 09:30	06/25/15 18:05	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	86		70 - 122	06/23/15 09:30	06/25/15 18:05	1
Dibromofluoromethane	101		75 - 120	06/23/15 09:30	06/25/15 18:05	1
1,2-Dichloroethane-d4 (Surr)	102		70 - 134	06/23/15 09:30	06/25/15 18:05	1
Toluene-d8 (Surr)	97		75 - 122	06/23/15 09:30	06/25/15 18:05	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	☼	06/26/15 07:33	06/30/15 15:32	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.056	mg/Kg	☼	06/26/15 07:33	06/30/15 15:32	1
1,3-Dichlorobenzene	<0.19		0.19	0.042	mg/Kg	☼	06/26/15 07:33	06/30/15 15:32	1
1,4-Dichlorobenzene	<0.19		0.19	0.048	mg/Kg	☼	06/26/15 07:33	06/30/15 15:32	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97658-1

Client Sample ID: 1860-23-B20 (0-2)

Lab Sample ID: 500-97658-11

Date Collected: 06/22/15 14:40

Matrix: Solid

Date Received: 06/22/15 16:10

Percent Solids: 86.5

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	☼	06/26/15 07:33	06/30/15 15:32	1
2-Methylphenol	<0.19		0.19	0.060	mg/Kg	☼	06/26/15 07:33	06/30/15 15:32	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.044	mg/Kg	☼	06/26/15 07:33	06/30/15 15:32	1
N-Nitrosodi-n-propylamine	<0.19		0.19	0.046	mg/Kg	☼	06/26/15 07:33	06/30/15 15:32	1
Hexachloroethane	<0.19		0.19	0.057	mg/Kg	☼	06/26/15 07:33	06/30/15 15:32	1
2-Chlorophenol	<0.19		0.19	0.064	mg/Kg	☼	06/26/15 07:33	06/30/15 15:32	1
Nitrobenzene	<0.037		0.037	0.0094	mg/Kg	☼	06/26/15 07:33	06/30/15 15:32	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.038	mg/Kg	☼	06/26/15 07:33	06/30/15 15:32	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.040	mg/Kg	☼	06/26/15 07:33	06/30/15 15:32	1
Isophorone	<0.19		0.19	0.042	mg/Kg	☼	06/26/15 07:33	06/30/15 15:32	1
2,4-Dimethylphenol	<0.37		0.37	0.14	mg/Kg	☼	06/26/15 07:33	06/30/15 15:32	1
Hexachlorobutadiene	<0.19		0.19	0.059	mg/Kg	☼	06/26/15 07:33	06/30/15 15:32	1
Naphthalene	<0.037		0.037	0.0058	mg/Kg	☼	06/26/15 07:33	06/30/15 15:32	1
2,4-Dichlorophenol	<0.37		0.37	0.089	mg/Kg	☼	06/26/15 07:33	06/30/15 15:32	1
4-Chloroaniline	<0.76		0.76	0.18	mg/Kg	☼	06/26/15 07:33	06/30/15 15:32	1
2,4,6-Trichlorophenol	<0.37		0.37	0.13	mg/Kg	☼	06/26/15 07:33	06/30/15 15:32	1
2,4,5-Trichlorophenol	<0.37		0.37	0.086	mg/Kg	☼	06/26/15 07:33	06/30/15 15:32	1
Hexachlorocyclopentadiene	<0.76		0.76	0.22	mg/Kg	☼	06/26/15 07:33	06/30/15 15:32	1
2-Methylnaphthalene	<0.037		0.037	0.0069	mg/Kg	☼	06/26/15 07:33	06/30/15 15:32	1
2-Nitroaniline	<0.19		0.19	0.051	mg/Kg	☼	06/26/15 07:33	06/30/15 15:32	1
2-Chloronaphthalene	<0.19		0.19	0.042	mg/Kg	☼	06/26/15 07:33	06/30/15 15:32	1
4-Chloro-3-methylphenol	<0.37		0.37	0.13	mg/Kg	☼	06/26/15 07:33	06/30/15 15:32	1
2,6-Dinitrotoluene	<0.19		0.19	0.074	mg/Kg	☼	06/26/15 07:33	06/30/15 15:32	1
2-Nitrophenol	<0.37		0.37	0.089	mg/Kg	☼	06/26/15 07:33	06/30/15 15:32	1
3-Nitroaniline	<0.37		0.37	0.12	mg/Kg	☼	06/26/15 07:33	06/30/15 15:32	1
Dimethyl phthalate	<0.19		0.19	0.049	mg/Kg	☼	06/26/15 07:33	06/30/15 15:32	1
2,4-Dinitrophenol	<0.76		0.76	0.66	mg/Kg	☼	06/26/15 07:33	06/30/15 15:32	1
Acenaphthylene	<0.037		0.037	0.0050	mg/Kg	☼	06/26/15 07:33	06/30/15 15:32	1
2,4-Dinitrotoluene	<0.19		0.19	0.060	mg/Kg	☼	06/26/15 07:33	06/30/15 15:32	1
Acenaphthene	<0.037		0.037	0.0068	mg/Kg	☼	06/26/15 07:33	06/30/15 15:32	1
Dibenzofuran	<0.19		0.19	0.044	mg/Kg	☼	06/26/15 07:33	06/30/15 15:32	1
4-Nitrophenol	<0.76		0.76	0.36	mg/Kg	☼	06/26/15 07:33	06/30/15 15:32	1
Fluorene	<0.037		0.037	0.0053	mg/Kg	☼	06/26/15 07:33	06/30/15 15:32	1
4-Nitroaniline	<0.37		0.37	0.16	mg/Kg	☼	06/26/15 07:33	06/30/15 15:32	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.050	mg/Kg	☼	06/26/15 07:33	06/30/15 15:32	1
Hexachlorobenzene	<0.076		0.076	0.0087	mg/Kg	☼	06/26/15 07:33	06/30/15 15:32	1
Diethyl phthalate	<0.19		0.19	0.064	mg/Kg	☼	06/26/15 07:33	06/30/15 15:32	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.044	mg/Kg	☼	06/26/15 07:33	06/30/15 15:32	1
Pentachlorophenol	<0.76		0.76	0.60	mg/Kg	☼	06/26/15 07:33	06/30/15 15:32	1
N-Nitrosodiphenylamine	<0.19		0.19	0.044	mg/Kg	☼	06/26/15 07:33	06/30/15 15:32	1
4,6-Dinitro-2-methylphenol	<0.37		0.37	0.30	mg/Kg	☼	06/26/15 07:33	06/30/15 15:32	1
Phenanthrene	0.036	J	0.037	0.0052	mg/Kg	☼	06/26/15 07:33	06/30/15 15:32	1
Anthracene	0.011	J	0.037	0.0063	mg/Kg	☼	06/26/15 07:33	06/30/15 15:32	1
Carbazole	<0.19		0.19	0.097	mg/Kg	☼	06/26/15 07:33	06/30/15 15:32	1
Di-n-butyl phthalate	<0.19		0.19	0.057	mg/Kg	☼	06/26/15 07:33	06/30/15 15:32	1
Fluoranthene	0.038		0.037	0.0070	mg/Kg	☼	06/26/15 07:33	06/30/15 15:32	1
Pyrene	0.045		0.037	0.0075	mg/Kg	☼	06/26/15 07:33	06/30/15 15:32	1
Butyl benzyl phthalate	<0.19		0.19	0.071	mg/Kg	☼	06/26/15 07:33	06/30/15 15:32	1
Benzo[a]anthracene	0.027	J	0.037	0.0051	mg/Kg	☼	06/26/15 07:33	06/30/15 15:32	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97658-1

Client Sample ID: 1860-23-B20 (0-2)

Lab Sample ID: 500-97658-11

Date Collected: 06/22/15 14:40

Matrix: Solid

Date Received: 06/22/15 16:10

Percent Solids: 86.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.036	J	0.037	0.010	mg/Kg	☼	06/26/15 07:33	06/30/15 15:32	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.053	mg/Kg	☼	06/26/15 07:33	06/30/15 15:32	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.069	mg/Kg	☼	06/26/15 07:33	06/30/15 15:32	1
Di-n-octyl phthalate	<0.19		0.19	0.061	mg/Kg	☼	06/26/15 07:33	06/30/15 15:32	1
Benzo[b]fluoranthene	0.030	J	0.037	0.0081	mg/Kg	☼	06/26/15 07:33	06/30/15 15:32	1
Benzo[k]fluoranthene	0.011	J	0.037	0.011	mg/Kg	☼	06/26/15 07:33	06/30/15 15:32	1
Benzo[a]pyrene	0.021	J	0.037	0.0073	mg/Kg	☼	06/26/15 07:33	06/30/15 15:32	1
Indeno[1,2,3-cd]pyrene	0.011	J	0.037	0.0097	mg/Kg	☼	06/26/15 07:33	06/30/15 15:32	1
Dibenz(a,h)anthracene	<0.037		0.037	0.0073	mg/Kg	☼	06/26/15 07:33	06/30/15 15:32	1
Benzo[g,h,i]perylene	0.018	J	0.037	0.012	mg/Kg	☼	06/26/15 07:33	06/30/15 15:32	1
3 & 4 Methylphenol	<0.19		0.19	0.063	mg/Kg	☼	06/26/15 07:33	06/30/15 15:32	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	56		25 - 110	06/26/15 07:33	06/30/15 15:32	1
Phenol-d5	57		31 - 110	06/26/15 07:33	06/30/15 15:32	1
Nitrobenzene-d5	53		25 - 115	06/26/15 07:33	06/30/15 15:32	1
2-Fluorobiphenyl	54		25 - 119	06/26/15 07:33	06/30/15 15:32	1
2,4,6-Tribromophenol	64		35 - 137	06/26/15 07:33	06/30/15 15:32	1
Terphenyl-d14	73		36 - 134	06/26/15 07:33	06/30/15 15:32	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.1		1.1	0.23	mg/Kg	☼	06/23/15 18:00	06/24/15 13:34	1
Arsenic	7.4		0.55	0.26	mg/Kg	☼	06/23/15 18:00	06/24/15 13:34	1
Barium	54		0.55	0.10	mg/Kg	☼	06/23/15 18:00	06/24/15 13:34	1
Beryllium	0.50		0.22	0.048	mg/Kg	☼	06/23/15 18:00	06/24/15 13:34	1
Boron	8.3		2.8	0.39	mg/Kg	☼	06/23/15 18:00	06/24/15 13:34	1
Cadmium	0.72		0.11	0.032	mg/Kg	☼	06/23/15 18:00	06/24/15 13:34	1
Calcium	63000		55	18	mg/Kg	☼	06/23/15 18:00	06/24/15 15:31	5
Chromium	16		0.55	0.095	mg/Kg	☼	06/23/15 18:00	06/24/15 13:34	1
Cobalt	13		0.28	0.063	mg/Kg	☼	06/23/15 18:00	06/24/15 13:34	1
Copper	27	B	0.55	0.12	mg/Kg	☼	06/23/15 18:00	06/24/15 13:34	1
Iron	20000	B	11	4.3	mg/Kg	☼	06/23/15 18:00	06/24/15 13:34	1
Lead	22		0.28	0.14	mg/Kg	☼	06/23/15 18:00	06/24/15 13:34	1
Magnesium	29000		5.5	2.2	mg/Kg	☼	06/23/15 18:00	06/24/15 13:34	1
Manganese	450		0.55	0.11	mg/Kg	☼	06/23/15 18:00	06/24/15 13:34	1
Nickel	29		0.55	0.15	mg/Kg	☼	06/23/15 18:00	06/24/15 13:34	1
Potassium	1700		28	4.5	mg/Kg	☼	06/23/15 18:00	06/24/15 13:34	1
Selenium	0.77		0.55	0.27	mg/Kg	☼	06/23/15 18:00	06/24/15 13:34	1
Silver	0.18	J	0.28	0.065	mg/Kg	☼	06/23/15 18:00	06/24/15 13:34	1
Sodium	860		55	7.3	mg/Kg	☼	06/23/15 18:00	06/24/15 13:34	1
Thallium	0.40	J	0.55	0.27	mg/Kg	☼	06/23/15 18:00	06/24/15 13:34	1
Vanadium	16		0.28	0.081	mg/Kg	☼	06/23/15 18:00	06/24/15 13:34	1
Zinc	81	B	1.1	0.35	mg/Kg	☼	06/23/15 18:00	06/24/15 13:34	1

Method: 7471B - Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.044		0.017	0.0061	mg/Kg	☼	06/23/15 11:30	06/24/15 12:46	1

TestAmerica Chicago

Definitions/Glossary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97658-1

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.

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.
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.
^	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, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
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
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)

TestAmerica

THE LEADER IN ENVIRONMENTAL

2417 Bond Street, University Park, IL
Phone: 708.534.5200 Fax: 708.4



500-97658 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 #: 500-97658

Chain of Custody Number: _____

Page _____ of _____

Temperature °C of Cooler: 28.311

Client		Client Project #		Preservative		Parameter		Matrix		Comments	
EE		1009008-0631.01									
Project Name		Lab Project #		Date		Time		# of Containers		Matrix	
TU171		50011058									
Project Location/State		Lab PM		Date		Time		# of Containers		Matrix	
Cook County, IL		D. Wright									
Sampler		Sample ID		Date		Time		# of Containers		Matrix	
S. Cooper											
1	MS/MSD	1860-23-B13 (2-4)	6-22-15	0850	2	5	X	X	X	X	X
2		1860-23-B12 (2-3)	6-22-15	0935	2	5	X	X	X	X	X
3		1860-23-B16 (0-2)	6-22-15	1000	2	5	X	X	X	X	X
4		1860-23-B14 (0-2)	6-22-15	1015	2	5	X	X	X	X	X
5		1860-23-B01 (2-3)	6-22-15	1110	2	5	X	X	X	X	X
6		1860-23-B04 (2-4)	6-22-15	1135	2	5	X	X	X	X	X
7		1860-23-B04 (10-12)	6-22-15	1140	2	5	X	X	X	X	X
8		1860-23-B21 (0-2)	6-22-15	1355	2	5	X	X	X	X	X
9		1860-23-B19 (2-4)	6-22-15	1410	2	5	X	X	X	X	X
10		1860-23-B22 (2-3)	6-22-15	1435	2	5	X	X	X	X	X

- 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

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>TE</u>	Date: <u>6-22-15</u>	Time: <u>1518</u>	Received By: <u>[Signature]</u>	Company: <u>TE</u>	Date: <u>6/22/15</u>	Time: <u>1518</u>
Relinquished By: <u>[Signature]</u>	Company: <u>TA</u>	Date: <u>6/22/15</u>	Time: <u>1610</u>	Received By: <u>[Signature]</u>	Company: <u>TA-CERT</u>	Date: <u>6/23/15</u>	Time: <u>0720</u>
Relinquished By: _____	Company: _____	Date: _____	Time: _____	Received By: _____	Company: _____	Date: _____	Time: _____

Lab Courier: TA

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 - Wipes
 - DW - Drinking Water
 - O - Other

Client Comments:

Lab Comments:

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 # 500-97658
 Chain of Custody Number: _____
 Page _____ of _____
 Temperature °C of Cooler: _____

Client		Client Project #		Preservative		Parameter		Matrix		Preservative Key	
Project Name		Lab Project #		Parameter		Matrix		Matrix			
EE		1009008 0001-v1								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	
FL 171		500/1058									
Cook County, IL		D. Wright								Comments	
S. Cooper											
Lab ID	MS/MSD	Sample ID	Date	Time	# of Containers	Matrix					
11		1860-23-B20 (02)	6/22/15	1440	2	J	VOC	SVOC	Total-Metals	TCUP/SPPC TAL Metals	PH/9.5dL
_____										74.5 project is complete.	

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	Company	Date	Time	Received By	Company	Date	Time
<i>[Signature]</i>	EE	6/22/15	1518	<i>[Signature]</i>	TA	6/22/15	1518
Relinquished By	Company	Date	Time	Received By	Company	Date	Time
<i>[Signature]</i>	TA	6/22/15	1610	<i>[Signature]</i>	TA-CHT	6/23/15	0720
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: 500-97658-1

Login Number: 97658
List Number: 1
Creator: Scott, Sherri L

List Source: TestAmerica Chicago

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	2.8,3.1
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.	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	





Bureau of Land • 1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276

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 372/373 (Illinois Route 171) Office Phone Number, if available: _____

Physical Site Location (address, including number and street):
Between 1-55 and the Chicago Sanitary and Ship Canal

City: Summit State: IL Zip Code: 60501

County: Cook Township: Lyons

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

Latitude: 41.790443 Longitude: -87.823207
(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: _____

II. Owner/Operator Information for Source Site

Site Owner

Site Operator

Name: Illinois Department of Transportation

Name: _____

Street Address: 201 West Center Court

Street Address: _____

PO Box: _____

PO Box: _____

City: Schaumburg State: IL

City: _____ State: _____

Zip Code: 60196-1096 Phone: 847-705-4159

Zip Code: _____ Phone: _____

Contact: Sam Mead

Contact: _____

Email, if available: Sam.Mead@illinois.gov

Email, if available: _____

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.

Project Name: FAP 372/373 (Illinois Route 171)

Latitude: 41.790443 Longitude: -87.823207

Uncontaminated Site 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 1860-24-B01 and 1860-24-B02 were sampled within the construction zone adjacent to ISGS #1860-24 (Metropolitan Water Reclamation District of Greater Chicago). Refer to PSI Report for ISGS #1860-24 (Metropolitan Water Reclamation District of Greater Chicago) including Table 4-3, and Figures 4-3A & B.

- 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 500-97546-2.

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

I, Neil J. 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 Street
 City: Chicago State: IL Zip Code: 60603
 Phone: 312-578-9243

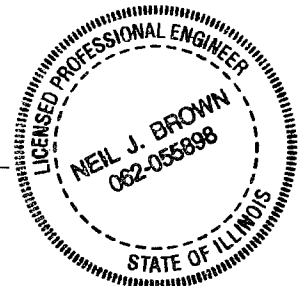
Neil J. Brown
 Printed Name:

Neil J. Brown

Licensed Professional Engineer or
 Licensed Professional Geologist Signature:

7/22/15

Date:






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

Analytical Data Summary
PTB #172-27; Work Order 31 - IDOT Job # D-91-191-10

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.
- SCGIER = Soil Component of the Groundwater Ingestion Exposure Route
- SPLP = Synthetic Precipitation Leaching Procedure.
- ND = Not detected.
- NA = Not analyzed.
- J = Estimated value.
- U = Analyte was analyzed for but not detected.

Criteria Qualifiers and Shading

- † = Concentration exceeds the most stringent MAC.
- m = Concentration exceeds the MAC for an MSA.
- * = Concentration exceeds the MAC for Chicago corporate limits.
- L = The detected TCLP/SPLP concentration exceeds the TACO Tier 1 RO for the SCGIER.
-  = Concentration exceeds the most stringent MAC, but is below the MAC for an MSA.
-  = Concentration exceeds the most stringent MAC and the MAC for Chicago corporate limits.
-  = Concentration exceeds applicable comparison criteria.

PTB #172-27; Work Order 31 - IDOT Job # D-91-191-10

DETECTED ANALYTES

SITE	ISGS #1860-24 (Metropolitan Water Reclamation District of Greater Chicago)		Comparison Criteria			
	1860-24-B01	1860-24-B02	MACs			TACO
SAMPLE	1860-24-B01 (2-3)	1860-24-B02 (0-2)	Most Stringent	Within an MSA	Within Chicago	SCGIER
MATRIX	Soil	Soil				
DEPTH (feet)	2-3	0-2				
pH	7.34	7.79				
VOCs (None Detected)						
SVOCs (mg/kg)						
2-Methylnaphthalene	ND U	0.026 J	--	--	--	--
Acenaphthene	ND U	0.025 J	570	--	--	--
Acenaphthylene	ND U	0.068	--	--	--	--
Anthracene	ND U	0.12	12,000	--	--	--
Benzo[a]anthracene	ND U	0.44	0.9	1.8	1.1	--
Benzo[a]pyrene	0.012 J	0.48 †	0.09	2.1	1.3	--
Benzo[b]fluoranthene	ND U	0.47	0.9	2.1	1.5	--
Benzo[g,h,i]perylene	0.016 J	0.3	--	--	--	--
Benzo[k]fluoranthene	ND U	0.23	9	--	--	--
Chrysene	0.02 J	0.49	88	--	--	--
Dibenzo(a,h)anthracene	ND U	0.073	0.09	0.42	0.2	--
Fluoranthene	0.016 J	0.58	3,100	--	--	--
Fluorene	ND U	0.026 J	560	--	--	--
Indeno[1,2,3-cd]pyrene	ND U	0.22	0.9	1.6	0.9	--
Naphthalene	ND U	0.041	1.8	--	--	--
Phenanthrene	0.019 J	0.41	--	--	--	--
Pyrene	0.021 J	0.73	2,300	--	--	--
Inorganics (mg/kg)						
Antimony	0.26 J	0.25 J	5	--	--	--
Arsenic	9.8	7.9	11.3	13	--	--
Barium	60	73	1,500	--	--	--
Beryllium	0.36	0.94	22	--	--	--
Boron	8.6	10	40	--	--	--
Cadmium	0.24	0.64	5.2	--	--	--
Calcium	99,000	88,000	--	--	--	--
Chromium	9.2	14	21	--	--	--
Cobalt	9.6	9.1	20	--	--	--
Copper	27	29	2,900	--	--	--
Iron	17,000 †m	16,000 †m	15,000	15,900	--	--
Lead	23	62	107	--	--	--
Magnesium	46,000	37,000	325,000	--	--	--
Manganese	510	470	630	636	--	--
Mercury	0.038	0.061	0.89	--	--	--
Nickel	23	25	100	--	--	--
Potassium	1,400	1,500	--	--	--	--
Silver	ND U	0.1 J	4.4	--	--	--
Sodium	550	570	--	--	--	--
Thallium	0.38 J	0.3 J	2.6	--	--	--
Vanadium	12	13	550	--	--	--
Zinc	67	170	5,100	--	--	--
TCLP Metals (mg/L)						
Barium	0.12 J	0.17 J	--	--	--	2
Boron	0.49 J	0.56	--	--	--	2
Cadmium	0.0043 J	0.0053 L	--	--	--	0.005
Cobalt	0.038	ND U	--	--	--	1
Iron	ND U	ND U	--	--	--	5
Manganese	2.1 L	0.19 L	--	--	--	0.15
Nickel	0.034	0.022 J	--	--	--	0.1
Zinc	0.06 J	0.13	--	--	--	5
SPLP Metals (mg/L)						
Cadmium	NA	ND U	--	--	--	0.005
Manganese	0.029	ND U	--	--	--	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: 500-97546-2
Client Project/Site: IDOT - IL 171 - WO 031

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

Attn: Mr. Dean Tiebout



Authorized for release by:
7/1/2015 4:49:05 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

8

9



Table of Contents

Cover Page	1
Table of Contents	2
Case Narrative	3
Detection Summary	4
Sample Summary	6
Client Sample Results	7
Definitions	15
Chain of Custody	16
Receipt Checklists	17

Case Narrative

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97546-2

Job ID: 500-97546-2

Laboratory: TestAmerica Chicago

Narrative

Job Narrative 500-97546-2

Comments

No additional comments.

Receipt

The samples were received on 6/19/2015 8:00 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.4° C.

GC/MS VOA

Method(s) 8260B: The continuing calibration verification (CCV) associated with batch 500-293461 recovered above the upper control limit for Vinyl Acetate. The samples associated with this CCV were non-detects for the affected analyte; therefore, the data has been reported.

Method(s) 8260B: The laboratory control sample (LCS) for batch 500-293461 recovered outside control limits for the following analytes: Chloromethane and Vinyl Acetate. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data has 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 had one surrogate outside of limits: 1860-24-B01 (2-3) (500-97546-2), (500-97546-E-1-J MS) and (500-97546-E-1-K MSD). All other surrogate recoveries were within limits for these samples. No further action was required.

Method(s) 8270D: A full list spike was utilized for this method. Due to the large number of spiked analytes, there is a high probability that one or more analytes will recover outside acceptance limits. The laboratory's SOP allows for 3 analytes to recover outside criteria for this method when a full list spike is utilized. The LCS associated with batch 500-293416 had 2 known poor performing analytes outside control limits: 2,4-Dinitrophenol at 6% (10-110%) and Pentachlorophenol at 8% (20-124%); therefore, corrective action was not performed. These results have been reported and qualified. LCS 500-293416/2-A

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 - IL 171 - WO 031

TestAmerica Job ID: 500-97546-2

Client Sample ID: 1860-24-B01 (2-3)

Lab Sample ID: 500-97546-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Phenanthrene	0.019	J	0.040	0.0056	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.016	J	0.040	0.0074	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.021	J	0.040	0.0079	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.020	J	0.040	0.011	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.012	J	0.040	0.0077	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.016	J	0.040	0.013	mg/Kg	1	☼	8270D	Total/NA
Antimony	0.26	J	1.2	0.25	mg/Kg	1	☼	6010B	Total/NA
Arsenic	9.8		0.60	0.28	mg/Kg	1	☼	6010B	Total/NA
Barium	60		0.60	0.11	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.36		0.24	0.052	mg/Kg	1	☼	6010B	Total/NA
Boron	8.6		3.0	0.42	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.24		0.12	0.035	mg/Kg	1	☼	6010B	Total/NA
Calcium	99000		60	19	mg/Kg	5	☼	6010B	Total/NA
Chromium	9.2		0.60	0.10	mg/Kg	1	☼	6010B	Total/NA
Cobalt	9.6		0.30	0.067	mg/Kg	1	☼	6010B	Total/NA
Copper	27		0.60	0.13	mg/Kg	1	☼	6010B	Total/NA
Iron	17000		12	4.6	mg/Kg	1	☼	6010B	Total/NA
Lead	23		0.30	0.15	mg/Kg	1	☼	6010B	Total/NA
Magnesium	46000		6.0	2.4	mg/Kg	1	☼	6010B	Total/NA
Manganese	510		0.60	0.12	mg/Kg	1	☼	6010B	Total/NA
Nickel	23		0.60	0.16	mg/Kg	1	☼	6010B	Total/NA
Potassium	1400		30	4.9	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.70	B	0.60	0.30	mg/Kg	1	☼	6010B	Total/NA
Sodium	550		60	7.9	mg/Kg	1	☼	6010B	Total/NA
Thallium	0.38	J	0.60	0.29	mg/Kg	1	☼	6010B	Total/NA
Vanadium	12		0.30	0.087	mg/Kg	1	☼	6010B	Total/NA
Zinc	67	B	1.2	0.38	mg/Kg	1	☼	6010B	Total/NA
Barium	0.12	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.49	J	0.50	0.050	mg/L	1		6010B	TCLP
Cadmium	0.0043	J	0.0050	0.0020	mg/L	1		6010B	TCLP
Cobalt	0.038		0.025	0.010	mg/L	1		6010B	TCLP
Manganese	2.1		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.034		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.060	J	0.10	0.020	mg/L	1		6010B	TCLP
Manganese	0.029		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.038		0.018	0.0062	mg/Kg	1	☼	7471B	Total/NA
pH	7.34		0.200	0.200	SU	1		9045D	Total/NA

Client Sample ID: 1860-24-B02 (0-2)

Lab Sample ID: 500-97546-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Naphthalene	0.041		0.036	0.0056	mg/Kg	1	☼	8270D	Total/NA
2-Methylnaphthalene	0.026	J	0.036	0.0067	mg/Kg	1	☼	8270D	Total/NA
Acenaphthylene	0.068		0.036	0.0048	mg/Kg	1	☼	8270D	Total/NA
Acenaphthene	0.025	J	0.036	0.0065	mg/Kg	1	☼	8270D	Total/NA
Fluorene	0.026	J	0.036	0.0051	mg/Kg	1	☼	8270D	Total/NA
Phenanthrene	0.41		0.036	0.0051	mg/Kg	1	☼	8270D	Total/NA
Anthracene	0.12		0.036	0.0061	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.58		0.036	0.0067	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.73		0.036	0.0072	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 - IL 171 - WO 031

TestAmerica Job ID: 500-97546-2

Client Sample ID: 1860-24-B02 (0-2) (Continued)

Lab Sample ID: 500-97546-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]anthracene	0.44		0.036	0.0049	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.49		0.036	0.0099	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.47		0.036	0.0078	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.23		0.036	0.011	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.48		0.036	0.0070	mg/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.22		0.036	0.0094	mg/Kg	1	☼	8270D	Total/NA
Dibenz(a,h)anthracene	0.073		0.036	0.0070	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.30		0.036	0.012	mg/Kg	1	☼	8270D	Total/NA
Antimony	0.25	J	1.2	0.24	mg/Kg	1	☼	6010B	Total/NA
Arsenic	7.9		0.58	0.27	mg/Kg	1	☼	6010B	Total/NA
Barium	73		0.58	0.11	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.94		0.23	0.050	mg/Kg	1	☼	6010B	Total/NA
Boron	10		2.9	0.40	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.64		0.12	0.033	mg/Kg	1	☼	6010B	Total/NA
Calcium	88000		58	19	mg/Kg	5	☼	6010B	Total/NA
Chromium	14		0.58	0.099	mg/Kg	1	☼	6010B	Total/NA
Cobalt	9.1		0.29	0.065	mg/Kg	1	☼	6010B	Total/NA
Copper	29		0.58	0.12	mg/Kg	1	☼	6010B	Total/NA
Iron	16000		12	4.4	mg/Kg	1	☼	6010B	Total/NA
Lead	62		0.29	0.14	mg/Kg	1	☼	6010B	Total/NA
Magnesium	37000		5.8	2.3	mg/Kg	1	☼	6010B	Total/NA
Manganese	470		0.58	0.11	mg/Kg	1	☼	6010B	Total/NA
Nickel	25		0.58	0.16	mg/Kg	1	☼	6010B	Total/NA
Potassium	1500		29	4.7	mg/Kg	1	☼	6010B	Total/NA
Selenium	1.3	B	0.58	0.28	mg/Kg	1	☼	6010B	Total/NA
Silver	0.10	J	0.29	0.067	mg/Kg	1	☼	6010B	Total/NA
Sodium	570		58	7.6	mg/Kg	1	☼	6010B	Total/NA
Thallium	0.30	J	0.58	0.28	mg/Kg	1	☼	6010B	Total/NA
Vanadium	13		0.29	0.084	mg/Kg	1	☼	6010B	Total/NA
Zinc	170	B	1.2	0.36	mg/Kg	1	☼	6010B	Total/NA
Barium	0.17	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.56		0.50	0.050	mg/L	1		6010B	TCLP
Cadmium	0.0053		0.0050	0.0020	mg/L	1		6010B	TCLP
Manganese	0.19		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.022	J	0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.13		0.10	0.020	mg/L	1		6010B	TCLP
Mercury	0.061		0.019	0.0067	mg/Kg	1	☼	7471B	Total/NA
pH	7.79		0.200	0.200	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 - IL 171 - WO 031

TestAmerica Job ID: 500-97546-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-97546-2	1860-24-B01 (2-3)	Solid	06/18/15 09:40	06/19/15 08:00
500-97546-3	1860-24-B02 (0-2)	Solid	06/18/15 09:55	06/19/15 08:00

1

2

3

4

5

6

7

8

9

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97546-2

Client Sample ID: 1860-24-B01 (2-3)

Lab Sample ID: 500-97546-2

Date Collected: 06/18/15 09:40

Matrix: Solid

Date Received: 06/19/15 08:00

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		06/23/15 09:04	06/23/15 18:09	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		06/23/15 09:04	06/23/15 18:09	1
Boron	0.49	J	0.50	0.050	mg/L		06/23/15 09:04	06/23/15 18:09	1
Cadmium	0.0043	J	0.0050	0.0020	mg/L		06/23/15 09:04	06/23/15 18:09	1
Chromium	<0.025		0.025	0.010	mg/L		06/23/15 09:04	06/23/15 18:09	1
Cobalt	0.038		0.025	0.010	mg/L		06/23/15 09:04	06/23/15 18:09	1
Iron	<0.20		0.20	0.20	mg/L		06/23/15 09:04	06/23/15 18:09	1
Lead	<0.0075		0.0075	0.0075	mg/L		06/23/15 09:04	06/23/15 18:09	1
Manganese	2.1		0.025	0.010	mg/L		06/23/15 09:04	06/23/15 18:09	1
Nickel	0.034		0.025	0.010	mg/L		06/23/15 09:04	06/23/15 18:09	1
Selenium	<0.050		0.050	0.020	mg/L		06/23/15 09:04	06/23/15 18:09	1
Silver	<0.025		0.025	0.010	mg/L		06/23/15 09:04	06/23/15 18:09	1
Zinc	0.060	J	0.10	0.020	mg/L		06/23/15 09:04	06/23/15 18:09	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.029		0.025	0.010	mg/L		06/26/15 10:50	06/27/15 14:24	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		06/23/15 09:04	06/24/15 17:27	1
Thallium	<0.0020		0.0020	0.0020	mg/L		06/23/15 09:04	06/24/15 17:27	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		06/23/15 11:00	06/24/15 09:35	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.34		0.200	0.200	SU			06/19/15 14:39	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97546-2

Client Sample ID: 1860-24-B01 (2-3)

Lab Sample ID: 500-97546-2

Date Collected: 06/18/15 09:40

Matrix: Solid

Date Received: 06/19/15 08:00

Percent Solids: 82.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.0043		0.0043	0.0033	mg/Kg	☼	06/19/15 08:35	06/26/15 17:04	1
Benzene	<0.0043		0.0043	0.00095	mg/Kg	☼	06/19/15 08:35	06/26/15 17:04	1
Bromodichloromethane	<0.0043		0.0043	0.00072	mg/Kg	☼	06/19/15 08:35	06/26/15 17:04	1
Bromoform	<0.0043		0.0043	0.00087	mg/Kg	☼	06/19/15 08:35	06/26/15 17:04	1
Bromomethane	<0.0043		0.0043	0.0016	mg/Kg	☼	06/19/15 08:35	06/26/15 17:04	1
2-Butanone (MEK)	<0.0043		0.0043	0.0015	mg/Kg	☼	06/19/15 08:35	06/26/15 17:04	1
Carbon disulfide	<0.0043		0.0043	0.0016	mg/Kg	☼	06/19/15 08:35	06/26/15 17:04	1
Carbon tetrachloride	<0.0043		0.0043	0.00092	mg/Kg	☼	06/19/15 08:35	06/26/15 17:04	1
Chlorobenzene	<0.0043		0.0043	0.0010	mg/Kg	☼	06/19/15 08:35	06/26/15 17:04	1
Chloroethane	<0.0043		0.0043	0.0018	mg/Kg	☼	06/19/15 08:35	06/26/15 17:04	1
Chloroform	<0.0043		0.0043	0.00084	mg/Kg	☼	06/19/15 08:35	06/26/15 17:04	1
Chloromethane	<0.0043	*	0.0043	0.0010	mg/Kg	☼	06/19/15 08:35	06/26/15 17:04	1
cis-1,2-Dichloroethene	<0.0043		0.0043	0.00087	mg/Kg	☼	06/19/15 08:35	06/26/15 17:04	1
cis-1,3-Dichloropropene	<0.0043		0.0043	0.00098	mg/Kg	☼	06/19/15 08:35	06/26/15 17:04	1
Dibromochloromethane	<0.0043		0.0043	0.00049	mg/Kg	☼	06/19/15 08:35	06/26/15 17:04	1
1,1-Dichloroethane	<0.0043		0.0043	0.00088	mg/Kg	☼	06/19/15 08:35	06/26/15 17:04	1
1,2-Dichloroethane	<0.0043		0.0043	0.00064	mg/Kg	☼	06/19/15 08:35	06/26/15 17:04	1
1,1-Dichloroethene	<0.0043		0.0043	0.0016	mg/Kg	☼	06/19/15 08:35	06/26/15 17:04	1
1,2-Dichloropropane	<0.0043		0.0043	0.0011	mg/Kg	☼	06/19/15 08:35	06/26/15 17:04	1
1,3-Dichloropropane, Total	<0.0043		0.0043	0.0012	mg/Kg	☼	06/19/15 08:35	06/26/15 17:04	1
Ethylbenzene	<0.0043		0.0043	0.0011	mg/Kg	☼	06/19/15 08:35	06/26/15 17:04	1
2-Hexanone	<0.0043		0.0043	0.0013	mg/Kg	☼	06/19/15 08:35	06/26/15 17:04	1
Methylene Chloride	<0.0043		0.0043	0.0032	mg/Kg	☼	06/19/15 08:35	06/26/15 17:04	1
4-Methyl-2-pentanone (MIBK)	<0.0043		0.0043	0.00088	mg/Kg	☼	06/19/15 08:35	06/26/15 17:04	1
Methyl tert-butyl ether	<0.0043		0.0043	0.0010	mg/Kg	☼	06/19/15 08:35	06/26/15 17:04	1
Styrene	<0.0043		0.0043	0.0010	mg/Kg	☼	06/19/15 08:35	06/26/15 17:04	1
1,1,2,2-Tetrachloroethane	<0.0043		0.0043	0.00068	mg/Kg	☼	06/19/15 08:35	06/26/15 17:04	1
Tetrachloroethene	<0.0043		0.0043	0.00089	mg/Kg	☼	06/19/15 08:35	06/26/15 17:04	1
Toluene	<0.0043		0.0043	0.0015	mg/Kg	☼	06/19/15 08:35	06/26/15 17:04	1
trans-1,2-Dichloroethene	<0.0043		0.0043	0.0011	mg/Kg	☼	06/19/15 08:35	06/26/15 17:04	1
trans-1,3-Dichloropropene	<0.0043		0.0043	0.0012	mg/Kg	☼	06/19/15 08:35	06/26/15 17:04	1
1,1,1-Trichloroethane	<0.0043		0.0043	0.00099	mg/Kg	☼	06/19/15 08:35	06/26/15 17:04	1
1,1,2-Trichloroethane	<0.0043		0.0043	0.00083	mg/Kg	☼	06/19/15 08:35	06/26/15 17:04	1
Trichloroethene	<0.0043		0.0043	0.0012	mg/Kg	☼	06/19/15 08:35	06/26/15 17:04	1
Vinyl acetate	<0.0043	*	0.0043	0.0011	mg/Kg	☼	06/19/15 08:35	06/26/15 17:04	1
Vinyl chloride	<0.0043		0.0043	0.0010	mg/Kg	☼	06/19/15 08:35	06/26/15 17:04	1
Xylenes, Total	<0.0086		0.0086	0.0016	mg/Kg	☼	06/19/15 08:35	06/26/15 17:04	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		70 - 122	06/19/15 08:35	06/26/15 17:04	1
Dibromofluoromethane	108		75 - 120	06/19/15 08:35	06/26/15 17:04	1
1,2-Dichloroethane-d4 (Surr)	113		70 - 134	06/19/15 08:35	06/26/15 17:04	1
Toluene-d8 (Surr)	115		75 - 122	06/19/15 08:35	06/26/15 17:04	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	☼	06/25/15 17:24	06/30/15 14:15	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.060	mg/Kg	☼	06/25/15 17:24	06/30/15 14:15	1
1,3-Dichlorobenzene	<0.20		0.20	0.045	mg/Kg	☼	06/25/15 17:24	06/30/15 14:15	1
1,4-Dichlorobenzene	<0.20		0.20	0.051	mg/Kg	☼	06/25/15 17:24	06/30/15 14:15	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97546-2

Client Sample ID: 1860-24-B01 (2-3)

Lab Sample ID: 500-97546-2

Date Collected: 06/18/15 09:40

Matrix: Solid

Date Received: 06/19/15 08:00

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	<0.20		0.20	0.048	mg/Kg	☼	06/25/15 17:24	06/30/15 14:15	1
2-Methylphenol	<0.20		0.20	0.064	mg/Kg	☼	06/25/15 17:24	06/30/15 14:15	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.046	mg/Kg	☼	06/25/15 17:24	06/30/15 14:15	1
N-Nitrosodi-n-propylamine	<0.20		0.20	0.049	mg/Kg	☼	06/25/15 17:24	06/30/15 14:15	1
Hexachloroethane	<0.20		0.20	0.061	mg/Kg	☼	06/25/15 17:24	06/30/15 14:15	1
2-Chlorophenol	<0.20		0.20	0.068	mg/Kg	☼	06/25/15 17:24	06/30/15 14:15	1
Nitrobenzene	<0.040		0.040	0.010	mg/Kg	☼	06/25/15 17:24	06/30/15 14:15	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.041	mg/Kg	☼	06/25/15 17:24	06/30/15 14:15	1
1,2,4-Trichlorobenzene	<0.20		0.20	0.043	mg/Kg	☼	06/25/15 17:24	06/30/15 14:15	1
Isophorone	<0.20		0.20	0.045	mg/Kg	☼	06/25/15 17:24	06/30/15 14:15	1
2,4-Dimethylphenol	<0.40		0.40	0.15	mg/Kg	☼	06/25/15 17:24	06/30/15 14:15	1
Hexachlorobutadiene	<0.20		0.20	0.063	mg/Kg	☼	06/25/15 17:24	06/30/15 14:15	1
Naphthalene	<0.040		0.040	0.0061	mg/Kg	☼	06/25/15 17:24	06/30/15 14:15	1
2,4-Dichlorophenol	<0.40		0.40	0.095	mg/Kg	☼	06/25/15 17:24	06/30/15 14:15	1
4-Chloroaniline	<0.81		0.81	0.19	mg/Kg	☼	06/25/15 17:24	06/30/15 14:15	1
2,4,6-Trichlorophenol	<0.40		0.40	0.14	mg/Kg	☼	06/25/15 17:24	06/30/15 14:15	1
2,4,5-Trichlorophenol	<0.40		0.40	0.091	mg/Kg	☼	06/25/15 17:24	06/30/15 14:15	1
Hexachlorocyclopentadiene	<0.81		0.81	0.23	mg/Kg	☼	06/25/15 17:24	06/30/15 14:15	1
2-Methylnaphthalene	<0.040		0.040	0.0073	mg/Kg	☼	06/25/15 17:24	06/30/15 14:15	1
2-Nitroaniline	<0.20		0.20	0.054	mg/Kg	☼	06/25/15 17:24	06/30/15 14:15	1
2-Chloronaphthalene	<0.20		0.20	0.044	mg/Kg	☼	06/25/15 17:24	06/30/15 14:15	1
4-Chloro-3-methylphenol	<0.40		0.40	0.14	mg/Kg	☼	06/25/15 17:24	06/30/15 14:15	1
2,6-Dinitrotoluene	<0.20		0.20	0.078	mg/Kg	☼	06/25/15 17:24	06/30/15 14:15	1
2-Nitrophenol	<0.40		0.40	0.094	mg/Kg	☼	06/25/15 17:24	06/30/15 14:15	1
3-Nitroaniline	<0.40		0.40	0.12	mg/Kg	☼	06/25/15 17:24	06/30/15 14:15	1
Dimethyl phthalate	<0.20		0.20	0.052	mg/Kg	☼	06/25/15 17:24	06/30/15 14:15	1
2,4-Dinitrophenol	<0.81	*	0.81	0.70	mg/Kg	☼	06/25/15 17:24	06/30/15 14:15	1
Acenaphthylene	<0.040		0.040	0.0053	mg/Kg	☼	06/25/15 17:24	06/30/15 14:15	1
2,4-Dinitrotoluene	<0.20		0.20	0.063	mg/Kg	☼	06/25/15 17:24	06/30/15 14:15	1
Acenaphthene	<0.040		0.040	0.0072	mg/Kg	☼	06/25/15 17:24	06/30/15 14:15	1
Dibenzofuran	<0.20		0.20	0.047	mg/Kg	☼	06/25/15 17:24	06/30/15 14:15	1
4-Nitrophenol	<0.81		0.81	0.38	mg/Kg	☼	06/25/15 17:24	06/30/15 14:15	1
Fluorene	<0.040		0.040	0.0056	mg/Kg	☼	06/25/15 17:24	06/30/15 14:15	1
4-Nitroaniline	<0.40		0.40	0.17	mg/Kg	☼	06/25/15 17:24	06/30/15 14:15	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.053	mg/Kg	☼	06/25/15 17:24	06/30/15 14:15	1
Hexachlorobenzene	<0.081		0.081	0.0093	mg/Kg	☼	06/25/15 17:24	06/30/15 14:15	1
Diethyl phthalate	<0.20		0.20	0.068	mg/Kg	☼	06/25/15 17:24	06/30/15 14:15	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.047	mg/Kg	☼	06/25/15 17:24	06/30/15 14:15	1
Pentachlorophenol	<0.81	*	0.81	0.64	mg/Kg	☼	06/25/15 17:24	06/30/15 14:15	1
N-Nitrosodiphenylamine	<0.20		0.20	0.047	mg/Kg	☼	06/25/15 17:24	06/30/15 14:15	1
4,6-Dinitro-2-methylphenol	<0.40		0.40	0.32	mg/Kg	☼	06/25/15 17:24	06/30/15 14:15	1
Phenanthrene	0.019	J	0.040	0.0056	mg/Kg	☼	06/25/15 17:24	06/30/15 14:15	1
Anthracene	<0.040		0.040	0.0067	mg/Kg	☼	06/25/15 17:24	06/30/15 14:15	1
Carbazole	<0.20		0.20	0.10	mg/Kg	☼	06/25/15 17:24	06/30/15 14:15	1
Di-n-butyl phthalate	<0.20		0.20	0.061	mg/Kg	☼	06/25/15 17:24	06/30/15 14:15	1
Fluoranthene	0.016	J	0.040	0.0074	mg/Kg	☼	06/25/15 17:24	06/30/15 14:15	1
Pyrene	0.021	J	0.040	0.0079	mg/Kg	☼	06/25/15 17:24	06/30/15 14:15	1
Butyl benzyl phthalate	<0.20		0.20	0.076	mg/Kg	☼	06/25/15 17:24	06/30/15 14:15	1
Benzo[a]anthracene	<0.040		0.040	0.0054	mg/Kg	☼	06/25/15 17:24	06/30/15 14:15	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97546-2

Client Sample ID: 1860-24-B01 (2-3)

Lab Sample ID: 500-97546-2

Date Collected: 06/18/15 09:40

Matrix: Solid

Date Received: 06/19/15 08:00

Percent Solids: 82.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.020	J	0.040	0.011	mg/Kg	☼	06/25/15 17:24	06/30/15 14:15	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.056	mg/Kg	☼	06/25/15 17:24	06/30/15 14:15	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.073	mg/Kg	☼	06/25/15 17:24	06/30/15 14:15	1
Di-n-octyl phthalate	<0.20		0.20	0.065	mg/Kg	☼	06/25/15 17:24	06/30/15 14:15	1
Benzo[b]fluoranthene	<0.040		0.040	0.0086	mg/Kg	☼	06/25/15 17:24	06/30/15 14:15	1
Benzo[k]fluoranthene	<0.040		0.040	0.012	mg/Kg	☼	06/25/15 17:24	06/30/15 14:15	1
Benzo[a]pyrene	0.012	J	0.040	0.0077	mg/Kg	☼	06/25/15 17:24	06/30/15 14:15	1
Indeno[1,2,3-cd]pyrene	<0.040		0.040	0.010	mg/Kg	☼	06/25/15 17:24	06/30/15 14:15	1
Dibenz(a,h)anthracene	<0.040		0.040	0.0077	mg/Kg	☼	06/25/15 17:24	06/30/15 14:15	1
Benzo[g,h,i]perylene	0.016	J	0.040	0.013	mg/Kg	☼	06/25/15 17:24	06/30/15 14:15	1
3 & 4 Methylphenol	<0.20		0.20	0.067	mg/Kg	☼	06/25/15 17:24	06/30/15 14:15	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	41		25 - 110	06/25/15 17:24	06/30/15 14:15	1
Phenol-d5	28	X	31 - 110	06/25/15 17:24	06/30/15 14:15	1
Nitrobenzene-d5	32		25 - 115	06/25/15 17:24	06/30/15 14:15	1
2-Fluorobiphenyl	42		25 - 119	06/25/15 17:24	06/30/15 14:15	1
2,4,6-Tribromophenol	41		35 - 137	06/25/15 17:24	06/30/15 14:15	1
Terphenyl-d14	68		36 - 134	06/25/15 17:24	06/30/15 14:15	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.26	J	1.2	0.25	mg/Kg	☼	06/21/15 16:35	06/22/15 23:41	1
Arsenic	9.8		0.60	0.28	mg/Kg	☼	06/21/15 16:35	06/22/15 23:41	1
Barium	60		0.60	0.11	mg/Kg	☼	06/21/15 16:35	06/23/15 17:38	1
Beryllium	0.36		0.24	0.052	mg/Kg	☼	06/21/15 16:35	06/22/15 23:41	1
Boron	8.6		3.0	0.42	mg/Kg	☼	06/21/15 16:35	06/22/15 23:41	1
Cadmium	0.24		0.12	0.035	mg/Kg	☼	06/21/15 16:35	06/22/15 23:41	1
Calcium	99000		60	19	mg/Kg	☼	06/21/15 16:35	06/23/15 17:43	5
Chromium	9.2		0.60	0.10	mg/Kg	☼	06/21/15 16:35	06/22/15 23:41	1
Cobalt	9.6		0.30	0.067	mg/Kg	☼	06/21/15 16:35	06/22/15 23:41	1
Copper	27		0.60	0.13	mg/Kg	☼	06/21/15 16:35	06/22/15 23:41	1
Iron	17000		12	4.6	mg/Kg	☼	06/21/15 16:35	06/22/15 23:41	1
Lead	23		0.30	0.15	mg/Kg	☼	06/21/15 16:35	06/22/15 23:41	1
Magnesium	46000		6.0	2.4	mg/Kg	☼	06/21/15 16:35	06/23/15 17:38	1
Manganese	510		0.60	0.12	mg/Kg	☼	06/21/15 16:35	06/22/15 23:41	1
Nickel	23		0.60	0.16	mg/Kg	☼	06/21/15 16:35	06/22/15 23:41	1
Potassium	1400		30	4.9	mg/Kg	☼	06/21/15 16:35	06/22/15 23:41	1
Selenium	0.70	B	0.60	0.30	mg/Kg	☼	06/21/15 16:35	06/23/15 17:38	1
Silver	<0.30		0.30	0.070	mg/Kg	☼	06/21/15 16:35	06/22/15 23:41	1
Sodium	550		60	7.9	mg/Kg	☼	06/21/15 16:35	06/22/15 23:41	1
Thallium	0.38	J	0.60	0.29	mg/Kg	☼	06/21/15 16:35	06/22/15 23:41	1
Vanadium	12		0.30	0.087	mg/Kg	☼	06/21/15 16:35	06/22/15 23:41	1
Zinc	67	B	1.2	0.38	mg/Kg	☼	06/21/15 16:35	06/23/15 17:38	1

Method: 7471B - Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.038		0.018	0.0062	mg/Kg	☼	06/19/15 14:30	06/22/15 15:01	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97546-2

Client Sample ID: 1860-24-B02 (0-2)

Lab Sample ID: 500-97546-3

Date Collected: 06/18/15 09:55

Matrix: Solid

Date Received: 06/19/15 08:00

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		06/23/15 09:04	06/23/15 18:15	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		06/23/15 09:04	06/23/15 18:15	1
Boron	0.56		0.50	0.050	mg/L		06/23/15 09:04	06/23/15 18:15	1
Cadmium	0.0053		0.0050	0.0020	mg/L		06/23/15 09:04	06/23/15 18:15	1
Chromium	<0.025		0.025	0.010	mg/L		06/23/15 09:04	06/23/15 18:15	1
Cobalt	<0.025		0.025	0.010	mg/L		06/23/15 09:04	06/23/15 18:15	1
Iron	<0.20		0.20	0.20	mg/L		06/23/15 09:04	06/23/15 18:15	1
Lead	<0.0075		0.0075	0.0075	mg/L		06/23/15 09:04	06/23/15 18:15	1
Manganese	0.19		0.025	0.010	mg/L		06/23/15 09:04	06/23/15 18:15	1
Nickel	0.022	J	0.025	0.010	mg/L		06/23/15 09:04	06/23/15 18:15	1
Selenium	<0.050		0.050	0.020	mg/L		06/23/15 09:04	06/23/15 18:15	1
Silver	<0.025		0.025	0.010	mg/L		06/23/15 09:04	06/23/15 18:15	1
Zinc	0.13		0.10	0.020	mg/L		06/23/15 09:04	06/23/15 18:15	1

Method: 6010B - SPLP Metals - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		06/26/15 10:50	06/27/15 14:28	1
Manganese	<0.025		0.025	0.010	mg/L		06/26/15 10:50	06/27/15 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		06/23/15 09:04	06/24/15 17:31	1
Thallium	<0.0020		0.0020	0.0020	mg/L		06/23/15 09:04	06/24/15 17:31	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		06/23/15 11:00	06/24/15 09:37	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.79		0.200	0.200	SU			06/19/15 14:42	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97546-2

Client Sample ID: 1860-24-B02 (0-2)

Lab Sample ID: 500-97546-3

Date Collected: 06/18/15 09:55

Matrix: Solid

Date Received: 06/19/15 08:00

Percent Solids: 86.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.0042		0.0042	0.0032	mg/Kg	☼	06/19/15 08:35	06/26/15 17:28	1
Benzene	<0.0042		0.0042	0.00092	mg/Kg	☼	06/19/15 08:35	06/26/15 17:28	1
Bromodichloromethane	<0.0042		0.0042	0.00070	mg/Kg	☼	06/19/15 08:35	06/26/15 17:28	1
Bromoform	<0.0042		0.0042	0.00085	mg/Kg	☼	06/19/15 08:35	06/26/15 17:28	1
Bromomethane	<0.0042		0.0042	0.0015	mg/Kg	☼	06/19/15 08:35	06/26/15 17:28	1
2-Butanone (MEK)	<0.0042		0.0042	0.0015	mg/Kg	☼	06/19/15 08:35	06/26/15 17:28	1
Carbon disulfide	<0.0042		0.0042	0.0015	mg/Kg	☼	06/19/15 08:35	06/26/15 17:28	1
Carbon tetrachloride	<0.0042		0.0042	0.00089	mg/Kg	☼	06/19/15 08:35	06/26/15 17:28	1
Chlorobenzene	<0.0042		0.0042	0.00098	mg/Kg	☼	06/19/15 08:35	06/26/15 17:28	1
Chloroethane	<0.0042		0.0042	0.0017	mg/Kg	☼	06/19/15 08:35	06/26/15 17:28	1
Chloroform	<0.0042		0.0042	0.00081	mg/Kg	☼	06/19/15 08:35	06/26/15 17:28	1
Chloromethane	<0.0042	*	0.0042	0.0010	mg/Kg	☼	06/19/15 08:35	06/26/15 17:28	1
cis-1,2-Dichloroethene	<0.0042		0.0042	0.00085	mg/Kg	☼	06/19/15 08:35	06/26/15 17:28	1
cis-1,3-Dichloropropene	<0.0042		0.0042	0.00095	mg/Kg	☼	06/19/15 08:35	06/26/15 17:28	1
Dibromochloromethane	<0.0042		0.0042	0.00048	mg/Kg	☼	06/19/15 08:35	06/26/15 17:28	1
1,1-Dichloroethane	<0.0042		0.0042	0.00086	mg/Kg	☼	06/19/15 08:35	06/26/15 17:28	1
1,2-Dichloroethane	<0.0042		0.0042	0.00062	mg/Kg	☼	06/19/15 08:35	06/26/15 17:28	1
1,1-Dichloroethene	<0.0042		0.0042	0.0015	mg/Kg	☼	06/19/15 08:35	06/26/15 17:28	1
1,2-Dichloropropane	<0.0042		0.0042	0.0011	mg/Kg	☼	06/19/15 08:35	06/26/15 17:28	1
1,3-Dichloropropane, Total	<0.0042		0.0042	0.0012	mg/Kg	☼	06/19/15 08:35	06/26/15 17:28	1
Ethylbenzene	<0.0042		0.0042	0.0010	mg/Kg	☼	06/19/15 08:35	06/26/15 17:28	1
2-Hexanone	<0.0042		0.0042	0.0013	mg/Kg	☼	06/19/15 08:35	06/26/15 17:28	1
Methylene Chloride	<0.0042		0.0042	0.0031	mg/Kg	☼	06/19/15 08:35	06/26/15 17:28	1
4-Methyl-2-pentanone (MIBK)	<0.0042		0.0042	0.00086	mg/Kg	☼	06/19/15 08:35	06/26/15 17:28	1
Methyl tert-butyl ether	<0.0042		0.0042	0.00098	mg/Kg	☼	06/19/15 08:35	06/26/15 17:28	1
Styrene	<0.0042		0.0042	0.00097	mg/Kg	☼	06/19/15 08:35	06/26/15 17:28	1
1,1,2,2-Tetrachloroethane	<0.0042		0.0042	0.00066	mg/Kg	☼	06/19/15 08:35	06/26/15 17:28	1
Tetrachloroethene	<0.0042		0.0042	0.00087	mg/Kg	☼	06/19/15 08:35	06/26/15 17:28	1
Toluene	<0.0042		0.0042	0.0014	mg/Kg	☼	06/19/15 08:35	06/26/15 17:28	1
trans-1,2-Dichloroethene	<0.0042		0.0042	0.0010	mg/Kg	☼	06/19/15 08:35	06/26/15 17:28	1
trans-1,3-Dichloropropene	<0.0042		0.0042	0.0012	mg/Kg	☼	06/19/15 08:35	06/26/15 17:28	1
1,1,1-Trichloroethane	<0.0042		0.0042	0.00096	mg/Kg	☼	06/19/15 08:35	06/26/15 17:28	1
1,1,2-Trichloroethane	<0.0042		0.0042	0.00081	mg/Kg	☼	06/19/15 08:35	06/26/15 17:28	1
Trichloroethene	<0.0042		0.0042	0.0011	mg/Kg	☼	06/19/15 08:35	06/26/15 17:28	1
Vinyl acetate	<0.0042	*	0.0042	0.0011	mg/Kg	☼	06/19/15 08:35	06/26/15 17:28	1
Vinyl chloride	<0.0042		0.0042	0.00099	mg/Kg	☼	06/19/15 08:35	06/26/15 17:28	1
Xylenes, Total	<0.0083		0.0083	0.0015	mg/Kg	☼	06/19/15 08:35	06/26/15 17:28	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		70 - 122	06/19/15 08:35	06/26/15 17:28	1
Dibromofluoromethane	107		75 - 120	06/19/15 08:35	06/26/15 17:28	1
1,2-Dichloroethane-d4 (Surr)	112		70 - 134	06/19/15 08:35	06/26/15 17:28	1
Toluene-d8 (Surr)	113		75 - 122	06/19/15 08:35	06/26/15 17:28	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	☼	06/25/15 17:24	06/30/15 14:38	1
Bis(2-chloroethyl)ether	<0.18		0.18	0.054	mg/Kg	☼	06/25/15 17:24	06/30/15 14:38	1
1,3-Dichlorobenzene	<0.18		0.18	0.041	mg/Kg	☼	06/25/15 17:24	06/30/15 14:38	1
1,4-Dichlorobenzene	<0.18		0.18	0.047	mg/Kg	☼	06/25/15 17:24	06/30/15 14:38	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97546-2

Client Sample ID: 1860-24-B02 (0-2)

Lab Sample ID: 500-97546-3

Date Collected: 06/18/15 09:55

Matrix: Solid

Date Received: 06/19/15 08:00

Percent Solids: 86.4

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	☼	06/25/15 17:24	06/30/15 14:38	1
2-Methylphenol	<0.18		0.18	0.058	mg/Kg	☼	06/25/15 17:24	06/30/15 14:38	1
2,2'-oxybis[1-chloropropane]	<0.18		0.18	0.042	mg/Kg	☼	06/25/15 17:24	06/30/15 14:38	1
N-Nitrosodi-n-propylamine	<0.18		0.18	0.044	mg/Kg	☼	06/25/15 17:24	06/30/15 14:38	1
Hexachloroethane	<0.18		0.18	0.055	mg/Kg	☼	06/25/15 17:24	06/30/15 14:38	1
2-Chlorophenol	<0.18		0.18	0.062	mg/Kg	☼	06/25/15 17:24	06/30/15 14:38	1
Nitrobenzene	<0.036		0.036	0.0091	mg/Kg	☼	06/25/15 17:24	06/30/15 14:38	1
Bis(2-chloroethoxy)methane	<0.18		0.18	0.037	mg/Kg	☼	06/25/15 17:24	06/30/15 14:38	1
1,2,4-Trichlorobenzene	<0.18		0.18	0.039	mg/Kg	☼	06/25/15 17:24	06/30/15 14:38	1
Isophorone	<0.18		0.18	0.041	mg/Kg	☼	06/25/15 17:24	06/30/15 14:38	1
2,4-Dimethylphenol	<0.36		0.36	0.14	mg/Kg	☼	06/25/15 17:24	06/30/15 14:38	1
Hexachlorobutadiene	<0.18		0.18	0.057	mg/Kg	☼	06/25/15 17:24	06/30/15 14:38	1
Naphthalene	0.041		0.036	0.0056	mg/Kg	☼	06/25/15 17:24	06/30/15 14:38	1
2,4-Dichlorophenol	<0.36		0.36	0.086	mg/Kg	☼	06/25/15 17:24	06/30/15 14:38	1
4-Chloroaniline	<0.73		0.73	0.17	mg/Kg	☼	06/25/15 17:24	06/30/15 14:38	1
2,4,6-Trichlorophenol	<0.36		0.36	0.12	mg/Kg	☼	06/25/15 17:24	06/30/15 14:38	1
2,4,5-Trichlorophenol	<0.36		0.36	0.083	mg/Kg	☼	06/25/15 17:24	06/30/15 14:38	1
Hexachlorocyclopentadiene	<0.73		0.73	0.21	mg/Kg	☼	06/25/15 17:24	06/30/15 14:38	1
2-Methylnaphthalene	0.026 J		0.036	0.0067	mg/Kg	☼	06/25/15 17:24	06/30/15 14:38	1
2-Nitroaniline	<0.18		0.18	0.049	mg/Kg	☼	06/25/15 17:24	06/30/15 14:38	1
2-Chloronaphthalene	<0.18		0.18	0.040	mg/Kg	☼	06/25/15 17:24	06/30/15 14:38	1
4-Chloro-3-methylphenol	<0.36		0.36	0.12	mg/Kg	☼	06/25/15 17:24	06/30/15 14:38	1
2,6-Dinitrotoluene	<0.18		0.18	0.071	mg/Kg	☼	06/25/15 17:24	06/30/15 14:38	1
2-Nitrophenol	<0.36		0.36	0.086	mg/Kg	☼	06/25/15 17:24	06/30/15 14:38	1
3-Nitroaniline	<0.36		0.36	0.11	mg/Kg	☼	06/25/15 17:24	06/30/15 14:38	1
Dimethyl phthalate	<0.18		0.18	0.047	mg/Kg	☼	06/25/15 17:24	06/30/15 14:38	1
2,4-Dinitrophenol	<0.73 *		0.73	0.64	mg/Kg	☼	06/25/15 17:24	06/30/15 14:38	1
Acenaphthylene	0.068		0.036	0.0048	mg/Kg	☼	06/25/15 17:24	06/30/15 14:38	1
2,4-Dinitrotoluene	<0.18		0.18	0.058	mg/Kg	☼	06/25/15 17:24	06/30/15 14:38	1
Acenaphthene	0.025 J		0.036	0.0065	mg/Kg	☼	06/25/15 17:24	06/30/15 14:38	1
Dibenzofuran	<0.18		0.18	0.042	mg/Kg	☼	06/25/15 17:24	06/30/15 14:38	1
4-Nitrophenol	<0.73		0.73	0.35	mg/Kg	☼	06/25/15 17:24	06/30/15 14:38	1
Fluorene	0.026 J		0.036	0.0051	mg/Kg	☼	06/25/15 17:24	06/30/15 14:38	1
4-Nitroaniline	<0.36		0.36	0.15	mg/Kg	☼	06/25/15 17:24	06/30/15 14:38	1
4-Bromophenyl phenyl ether	<0.18		0.18	0.048	mg/Kg	☼	06/25/15 17:24	06/30/15 14:38	1
Hexachlorobenzene	<0.073		0.073	0.0084	mg/Kg	☼	06/25/15 17:24	06/30/15 14:38	1
Diethyl phthalate	<0.18		0.18	0.061	mg/Kg	☼	06/25/15 17:24	06/30/15 14:38	1
4-Chlorophenyl phenyl ether	<0.18		0.18	0.042	mg/Kg	☼	06/25/15 17:24	06/30/15 14:38	1
Pentachlorophenol	<0.73 *		0.73	0.58	mg/Kg	☼	06/25/15 17:24	06/30/15 14:38	1
N-Nitrosodiphenylamine	<0.18		0.18	0.043	mg/Kg	☼	06/25/15 17:24	06/30/15 14:38	1
4,6-Dinitro-2-methylphenol	<0.36		0.36	0.29	mg/Kg	☼	06/25/15 17:24	06/30/15 14:38	1
Phenanthrene	0.41		0.036	0.0051	mg/Kg	☼	06/25/15 17:24	06/30/15 14:38	1
Anthracene	0.12		0.036	0.0061	mg/Kg	☼	06/25/15 17:24	06/30/15 14:38	1
Carbazole	<0.18		0.18	0.094	mg/Kg	☼	06/25/15 17:24	06/30/15 14:38	1
Di-n-butyl phthalate	<0.18		0.18	0.055	mg/Kg	☼	06/25/15 17:24	06/30/15 14:38	1
Fluoranthene	0.58		0.036	0.0067	mg/Kg	☼	06/25/15 17:24	06/30/15 14:38	1
Pyrene	0.73		0.036	0.0072	mg/Kg	☼	06/25/15 17:24	06/30/15 14:38	1
Butyl benzyl phthalate	<0.18		0.18	0.069	mg/Kg	☼	06/25/15 17:24	06/30/15 14:38	1
Benzo[a]anthracene	0.44		0.036	0.0049	mg/Kg	☼	06/25/15 17:24	06/30/15 14:38	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97546-2

Client Sample ID: 1860-24-B02 (0-2)

Lab Sample ID: 500-97546-3

Date Collected: 06/18/15 09:55

Matrix: Solid

Date Received: 06/19/15 08:00

Percent Solids: 86.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.49		0.036	0.0099	mg/Kg	☼	06/25/15 17:24	06/30/15 14:38	1
3,3'-Dichlorobenzidine	<0.18		0.18	0.051	mg/Kg	☼	06/25/15 17:24	06/30/15 14:38	1
Bis(2-ethylhexyl) phthalate	<0.18		0.18	0.066	mg/Kg	☼	06/25/15 17:24	06/30/15 14:38	1
Di-n-octyl phthalate	<0.18		0.18	0.059	mg/Kg	☼	06/25/15 17:24	06/30/15 14:38	1
Benzo[b]fluoranthene	0.47		0.036	0.0078	mg/Kg	☼	06/25/15 17:24	06/30/15 14:38	1
Benzo[k]fluoranthene	0.23		0.036	0.011	mg/Kg	☼	06/25/15 17:24	06/30/15 14:38	1
Benzo[a]pyrene	0.48		0.036	0.0070	mg/Kg	☼	06/25/15 17:24	06/30/15 14:38	1
Indeno[1,2,3-cd]pyrene	0.22		0.036	0.0094	mg/Kg	☼	06/25/15 17:24	06/30/15 14:38	1
Dibenz(a,h)anthracene	0.073		0.036	0.0070	mg/Kg	☼	06/25/15 17:24	06/30/15 14:38	1
Benzo[g,h,i]perylene	0.30		0.036	0.012	mg/Kg	☼	06/25/15 17:24	06/30/15 14:38	1
3 & 4 Methylphenol	<0.18		0.18	0.060	mg/Kg	☼	06/25/15 17:24	06/30/15 14:38	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	55		25 - 110	06/25/15 17:24	06/30/15 14:38	1
Phenol-d5	56		31 - 110	06/25/15 17:24	06/30/15 14:38	1
Nitrobenzene-d5	44		25 - 115	06/25/15 17:24	06/30/15 14:38	1
2-Fluorobiphenyl	57		25 - 119	06/25/15 17:24	06/30/15 14:38	1
2,4,6-Tribromophenol	58		35 - 137	06/25/15 17:24	06/30/15 14:38	1
Terphenyl-d14	69		36 - 134	06/25/15 17:24	06/30/15 14:38	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.25	J	1.2	0.24	mg/Kg	☼	06/21/15 16:35	06/22/15 23:45	1
Arsenic	7.9		0.58	0.27	mg/Kg	☼	06/21/15 16:35	06/22/15 23:45	1
Barium	73		0.58	0.11	mg/Kg	☼	06/21/15 16:35	06/23/15 17:47	1
Beryllium	0.94		0.23	0.050	mg/Kg	☼	06/21/15 16:35	06/22/15 23:45	1
Boron	10		2.9	0.40	mg/Kg	☼	06/21/15 16:35	06/22/15 23:45	1
Cadmium	0.64		0.12	0.033	mg/Kg	☼	06/21/15 16:35	06/22/15 23:45	1
Calcium	88000		58	19	mg/Kg	☼	06/21/15 16:35	06/23/15 17:52	5
Chromium	14		0.58	0.099	mg/Kg	☼	06/21/15 16:35	06/22/15 23:45	1
Cobalt	9.1		0.29	0.065	mg/Kg	☼	06/21/15 16:35	06/22/15 23:45	1
Copper	29		0.58	0.12	mg/Kg	☼	06/21/15 16:35	06/22/15 23:45	1
Iron	16000		12	4.4	mg/Kg	☼	06/21/15 16:35	06/22/15 23:45	1
Lead	62		0.29	0.14	mg/Kg	☼	06/21/15 16:35	06/22/15 23:45	1
Magnesium	37000		5.8	2.3	mg/Kg	☼	06/21/15 16:35	06/23/15 17:47	1
Manganese	470		0.58	0.11	mg/Kg	☼	06/21/15 16:35	06/22/15 23:45	1
Nickel	25		0.58	0.16	mg/Kg	☼	06/21/15 16:35	06/22/15 23:45	1
Potassium	1500		29	4.7	mg/Kg	☼	06/21/15 16:35	06/22/15 23:45	1
Selenium	1.3	B	0.58	0.28	mg/Kg	☼	06/21/15 16:35	06/23/15 17:47	1
Silver	0.10	J	0.29	0.067	mg/Kg	☼	06/21/15 16:35	06/22/15 23:45	1
Sodium	570		58	7.6	mg/Kg	☼	06/21/15 16:35	06/22/15 23:45	1
Thallium	0.30	J	0.58	0.28	mg/Kg	☼	06/21/15 16:35	06/22/15 23:45	1
Vanadium	13		0.29	0.084	mg/Kg	☼	06/21/15 16:35	06/22/15 23:45	1
Zinc	170	B	1.2	0.36	mg/Kg	☼	06/21/15 16:35	06/23/15 17:47	1

Method: 7471B - Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.061		0.019	0.0067	mg/Kg	☼	06/19/15 14:30	06/22/15 15:03	1

TestAmerica Chicago

Definitions/Glossary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97546-2

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance 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
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, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
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
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)

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 #: 500-97546
 Chain of Custody Number: _____
 Page _____ of _____
 Temperature °C of Cooler: 3.4

Client		Client Project #		Preservative		Parameter		Matrix		Comments			
Lab ID	MS/MSD	Sample ID	Sampling		# of Containers	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		Project Location/State		Lab Project #		SAMPLER		Lab PM		Date		Time	
EE		108960E-0031-01											
Project Name <u>36171</u>		Project Location/State <u>Cook County, IL</u>		Lab Project # <u>58011058</u>		SAMPLER <u>S-Cooper</u>		Lab PM <u>D. Wright</u>					
2		<u>1860-24-B01 (23)</u>	<u>6/18/15</u>	<u>0940</u>	<u>2 S</u>	<u>VOC</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>		
3		<u>1860-24-B02 (22)</u>	<u>6/18/15</u>	<u>0955</u>	<u>2 S</u>	<u>S VOC</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>		
6-18-15													

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>EE</u>	Date <u>6/18/15</u>	Time <u>1522</u>	Received By <u>[Signature]</u>	Company <u>TA</u>	Date <u>6/18/15</u>	Time <u>1522</u>
Relinquished By <u>[Signature]</u>	Company <u>TA</u>	Date <u>6/18/15</u>	Time <u>1715</u>	Received By <u>[Signature]</u>	Company <u>TAL</u>	Date <u>6/19/15</u>	Time <u>0800</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: 500-97546-2

Login Number: 97546

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	3.4c
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.	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.	True	





Bureau of Land • 1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276

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 372/373 (Illinois Route 171) Office Phone Number, if available: _____

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

North bank of the Chicago Sanitary and Ship Canal

City: Summit State: IL Zip Code: 60501

County: Cook Township: Lyons

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

Latitude: 41.792383 Longitude: -87.818132
(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: _____

II. Owner/Operator Information for Source Site

Site Owner

Site Operator

Name: Illinois Department of Transportation

Name: _____

Street Address: 201 West Center Court

Street Address: _____

PO Box: _____

PO Box: _____

City: Schaumburg State: IL

City: _____ State: _____

Zip Code: 60196-1096 Phone: 847-705-4159

Zip Code: _____ Phone: _____

Contact: Sam Mead

Contact: _____

Email, if available: Sam.Mead@illinois.gov

Email, if available: _____

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.

Project Name: FAP 372/373 (Illinois Route 171)

Latitude: 41.792383 Longitude: -87.818132

Uncontaminated Site 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 1860-25-B01, 1860-25-B02, 1860-25-B03, and 1860-25-B04 were sampled within the construction zone adjacent to ISGS #1860-25 (Natural Gas Pipeline Company of America pipeline). Refer to PSI Report for ISGS #1860-25 (Natural Gas Pipeline Company of America pipeline) including Table 4-3, and Figures 4-2A & B and 4-7A & B.

- 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 500-97481-1, 500-97546-3, and 500-97658-2 .

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

I, Neil J. 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 Street
 City: Chicago State: IL Zip Code: 60603
 Phone: 312-578-9243

Neil J. Brown
 Printed Name:

Neil J. Brown

7/22/15

Licensed Professional Engineer or
 Licensed Professional Geologist Signature:

Date:



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

Analytical Data Summary
PTB #172-27; Work Order 31 - IDOT Job # D-91-191-10

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.

SCGIER = Soil Component of the Groundwater Ingestion Exposure Route

SPLP = Synthetic Precipitation Leaching Procedure.

ND = Not detected.

NA = Not analyzed.

J = Estimated value.

U = Analyte was analyzed for but not detected.


Criteria Qualifiers and Shading

† = Concentration exceeds the most stringent MAC.

m = Concentration exceeds the MAC for an MSA.

* = Concentration exceeds the MAC for Chicago corporate limits.

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

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

 = Concentration exceeds the most stringent MAC and the MAC for Chicago corporate limits.

 = Concentration exceeds applicable comparison criteria.

PTB #172-27; Work Order 31 - IDOT Job # D-91-191-10

DETECTED ANALYTES

SITE	ISGS #1860-25 (Natural Gas Pipeline Company of America pipeline)					Comparison Criteria				
	1860-25-B01		1860-25-B02	1860-25-B03	1860-25-B04	MACs			TACO	
BORING	1860-25-B01 (2-3)		1860-25-B01 (2-3)D	1860-25-B02 (2-3)	1860-25-B03 (0-2)	1860-25-B04 (0-2)				
SAMPLE	Soil		Soil	Soil	Soil	Soil				
MATRIX	Soil		Soil	Soil	Soil	Soil				
DEPTH (feet)	2-3		2-3	2-3	0-2	0-2				
pH	7.74	7.66	7.94	8.08	8.51					
						Most Stringent	Within an MSA	Within Chicago		SCGIER
VOCs (mg/kg)										
Acetone	0.0091	0.086	0.0065	ND U	ND U	25	--	--	--	--
Methylene Chloride	ND U	0.014	ND U	ND U	ND U	0.02	--	--	--	--
SVOCs (mg/kg)										
2-Methylnaphthalene	ND U	ND U	0.012 J	0.0089 J	ND U	--	--	--	--	--
Anthracene	ND U	ND U	ND U	0.015 J	ND U	12,000	--	--	--	--
Benzo[a]anthracene	0.02 J	ND U	0.018 J	0.091	ND U	0.9	1.8	1.1	--	--
Benzo[a]pyrene	0.022 J	ND U	0.018 J	0.1 †	ND U	0.09	2.1	1.3	--	--
Benzo[b]fluoranthene	0.032 J	ND U	0.021 J	0.15	ND U	0.9	2.1	1.5	--	--
Benzo[g,h,i]perylene	0.021 J	ND U	0.02 J	0.092	ND U	--	--	--	--	--
Benzo[k]fluoranthene	0.011 J	ND U	ND U	0.047	ND U	9	--	--	--	--
Bis(2-ethylhexyl) phthalate	ND U	ND U	ND U	ND U	0.12 J	46	--	--	--	--
Chrysene	0.028 J	ND U	0.022 J	0.12	ND U	88	--	--	--	--
Dibenzo(a,h)anthracene	ND U	ND U	ND U	0.023 J	ND U	0.09	0.42	0.2	--	--
Fluoranthene	0.021 J	ND U	0.022 J	0.18	0.011 J	3,100	--	--	--	--
Indeno[1,2,3-cd]pyrene	0.017 J	ND U	0.012 J	0.072	ND U	0.9	1.6	0.9	--	--
Phenanthrene	0.012 J	ND U	0.027 J	0.086	ND U	--	--	--	--	--
Pyrene	0.031 J	ND U	0.025 J	0.17	0.0085 J	2,300	--	--	--	--
Inorganics (mg/kg)										
Antimony	ND U	ND U	0.41 J	0.33 J	ND U	5	--	--	--	--
Arsenic	7.8	6	7.1	5.2	6.6	11.3	13	--	--	--
Barium	67	63	49 J	68	100	1,500	--	--	--	--
Beryllium	0.62	0.62	0.56	0.57	0.67	22	--	--	--	--
Boron	8.7	8.4	8.8 J	4.5	10	40	--	--	--	--
Cadmium	0.2	0.15	0.15 J	0.36	0.22	5.2	--	--	--	--
Calcium	52,000	29,000	53,000	18,000	33,000	--	--	--	--	--
Chromium	16	15	15	15	18	21	--	--	--	--
Cobalt	9.6	9.5	13	8	13	20	--	--	--	--
Copper	26	24	21	22	24	2,900	--	--	--	--
Iron	22,000 †m	19,000 †m	18,000 †m	15,000	19,000 †m	15,000	15,900	--	--	--
Lead	19	14	17 J	36	20	107	--	--	--	--
Magnesium	20,000	23,000	22,000	11,000	18,000	325,000	--	--	--	--
Manganese	270	300	370	250	410	630	636	--	--	--
Mercury	0.031	0.037	0.038	0.13	0.045	0.89	--	--	--	--
Nickel	29	29	32	21	33	100	--	--	--	--
Potassium	1,900	1,900	2,000 J	1,400	2,100	--	--	--	--	--
Selenium	0.49 J	ND U	ND UJ	0.33 J	ND U	1.3	--	--	--	--
Sodium	610	580	920	480	650	--	--	--	--	--
Vanadium	20	19	17	17	21	550	--	--	--	--
Zinc	62	54	65	97	70	5,100	--	--	--	--
TCLP Metals (mg/L)										
Barium	0.47 J	0.55	0.29 J	0.43 J	0.68	--	--	--	--	2
Boron	0.84	0.74	ND U	0.66	0.71	--	--	--	--	2
Cadmium	0.0025 J	0.0023 J	0.0024 J	0.003 J	0.0027 J	--	--	--	--	0.005
Cobalt	ND U	ND U	0.011 J	0.016 J	ND U	--	--	--	--	1
Iron	ND U	ND U	ND U	ND U	ND U	--	--	--	--	5
Manganese	0.79 L	0.6 L	1.7 L	0.49 L	0.54 L	--	--	--	--	0.15
Zinc	ND U	ND U	ND U	0.14	0.04 J	--	--	--	--	5
SPLP Metals (mg/L)										
Manganese	0.17 L	ND U	ND U	0.37 L	0.13	--	--	--	--	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: 500-97481-1
Client Project/Site: IDOT - IL 171 - WO 031

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

Attn: Mr. Dean Tiebout



Authorized for release by:
6/30/2015 4:03:27 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

8

9



Table of Contents

Cover Page	1
Table of Contents	2
Case Narrative	3
Detection Summary	4
Sample Summary	6
Client Sample Results	7
Definitions	15
Chain of Custody	16
Receipt Checklists	17

Case Narrative

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97481-1

Job ID: 500-97481-1

Laboratory: TestAmerica Chicago

Narrative

Job Narrative 500-97481-1

Receipt

The samples were received on 6/17/2015 4:40 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.4° C.

GC/MS VOA

Method(s) 8260B: The following analyte recovered outside control limits for the LCS associated with 500-293268: Bromomethane. This is not indicative of a systematic control problem because this was a random marginal exceedance. Qualified results have been reported.

Method(s) 8260B: The laboratory control sample (LCS) for batch 500-293268 recovered outside control limits for the following analyte: Chloromethane. This analyte was biased high in the LCS and was not detected in the associated samples; therefore, the data has 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: A full list spike was utilized for this method. Due to the large number of spiked analytes, there is a high probability that one or more analytes will recover outside acceptance limits. The laboratory's SOP allows for 3 analytes to recover outside criteria for this method when a full list spike is utilized. The LCS associated with batch 500-293096 had 3 analytes {2-Chloronaphthalene at 51%; 4-Bromophenyl phenyl ether at 54%; and Hexachlorobenzene at 53%} outside control limits; therefore, corrective action was not performed. These results have been reported and qualified. (LCS 500-293096/2-A)

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 - IL 171 - WO 031

TestAmerica Job ID: 500-97481-1

Client Sample ID: 1860-25-B03 (0-2)

Lab Sample ID: 500-97481-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Methylnaphthalene	0.0089	J	0.042	0.0078	mg/Kg	1	☼	8270D	Total/NA
Phenanthrene	0.086		0.042	0.0059	mg/Kg	1	☼	8270D	Total/NA
Anthracene	0.015	J	0.042	0.0071	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.18		0.042	0.0079	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.17		0.042	0.0084	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.091		0.042	0.0057	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.12		0.042	0.012	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.15		0.042	0.0092	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.047		0.042	0.012	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.10		0.042	0.0082	mg/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.072		0.042	0.011	mg/Kg	1	☼	8270D	Total/NA
Dibenz(a,h)anthracene	0.023	J	0.042	0.0082	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.092		0.042	0.014	mg/Kg	1	☼	8270D	Total/NA
Antimony	0.33	J	1.2	0.25	mg/Kg	1	☼	6010B	Total/NA
Arsenic	5.2		0.61	0.28	mg/Kg	1	☼	6010B	Total/NA
Barium	68		0.61	0.11	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.57		0.24	0.053	mg/Kg	1	☼	6010B	Total/NA
Boron	4.5		3.0	0.43	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.36		0.12	0.035	mg/Kg	1	☼	6010B	Total/NA
Calcium	18000		12	3.9	mg/Kg	1	☼	6010B	Total/NA
Chromium	15		0.61	0.10	mg/Kg	1	☼	6010B	Total/NA
Cobalt	8.0		0.30	0.069	mg/Kg	1	☼	6010B	Total/NA
Copper	22		0.61	0.13	mg/Kg	1	☼	6010B	Total/NA
Iron	15000		12	4.7	mg/Kg	1	☼	6010B	Total/NA
Lead	36		0.30	0.15	mg/Kg	1	☼	6010B	Total/NA
Magnesium	11000		6.1	2.5	mg/Kg	1	☼	6010B	Total/NA
Manganese	250		0.61	0.12	mg/Kg	1	☼	6010B	Total/NA
Nickel	21		0.61	0.17	mg/Kg	1	☼	6010B	Total/NA
Potassium	1400		30	5.0	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.33	J	0.61	0.30	mg/Kg	1	☼	6010B	Total/NA
Sodium	480		61	8.1	mg/Kg	1	☼	6010B	Total/NA
Vanadium	17		0.30	0.089	mg/Kg	1	☼	6010B	Total/NA
Zinc	97	B	1.2	0.39	mg/Kg	1	☼	6010B	Total/NA
Barium	0.43	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.66		0.50	0.050	mg/L	1		6010B	TCLP
Cadmium	0.0030	J	0.0050	0.0020	mg/L	1		6010B	TCLP
Cobalt	0.016	J	0.025	0.010	mg/L	1		6010B	TCLP
Manganese	0.49		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.14		0.10	0.020	mg/L	1		6010B	TCLP
Manganese	0.37		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.13		0.019	0.0068	mg/Kg	1	☼	7471B	Total/NA
pH	8.08		0.200	0.200	SU	1		9045D	Total/NA

Client Sample ID: 1860-25-B02 (2-3)

Lab Sample ID: 500-97481-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	0.0065		0.0039	0.0030	mg/Kg	1	☼	8260B	Total/NA
2-Methylnaphthalene	0.012	J	0.037	0.0069	mg/Kg	1	☼	8270D	Total/NA
Phenanthrene	0.027	J	0.037	0.0052	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.022	J	0.037	0.0069	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 - IL 171 - WO 031

TestAmerica Job ID: 500-97481-1

Client Sample ID: 1860-25-B02 (2-3) (Continued)

Lab Sample ID: 500-97481-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Pyrene	0.025	J	0.037	0.0074	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.018	J	0.037	0.0050	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.022	J	0.037	0.010	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.021	J	0.037	0.0080	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.018	J	0.037	0.0072	mg/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.012	J	0.037	0.0097	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.020	J	0.037	0.012	mg/Kg	1	☼	8270D	Total/NA
Antimony	0.41	J F1	1.1	0.22	mg/Kg	1	☼	6010B	Total/NA
Arsenic	7.1		0.54	0.25	mg/Kg	1	☼	6010B	Total/NA
Barium	49	F1	0.54	0.098	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.56		0.21	0.046	mg/Kg	1	☼	6010B	Total/NA
Boron	8.8	F1	2.7	0.37	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.15	F1	0.11	0.031	mg/Kg	1	☼	6010B	Total/NA
Calcium	53000		54	17	mg/Kg	5	☼	6010B	Total/NA
Chromium	15		0.54	0.092	mg/Kg	1	☼	6010B	Total/NA
Cobalt	13		0.27	0.061	mg/Kg	1	☼	6010B	Total/NA
Copper	21		0.54	0.12	mg/Kg	1	☼	6010B	Total/NA
Iron	18000		11	4.1	mg/Kg	1	☼	6010B	Total/NA
Lead	17	F1	0.27	0.13	mg/Kg	1	☼	6010B	Total/NA
Magnesium	22000		5.4	2.2	mg/Kg	1	☼	6010B	Total/NA
Manganese	370		0.54	0.11	mg/Kg	1	☼	6010B	Total/NA
Nickel	32		0.54	0.15	mg/Kg	1	☼	6010B	Total/NA
Potassium	2000	F1	27	4.4	mg/Kg	1	☼	6010B	Total/NA
Sodium	920		54	7.1	mg/Kg	1	☼	6010B	Total/NA
Vanadium	17		0.27	0.078	mg/Kg	1	☼	6010B	Total/NA
Zinc	65	B	1.1	0.34	mg/Kg	1	☼	6010B	Total/NA
Barium	0.29	J	0.50	0.050	mg/L	1		6010B	TCLP
Cadmium	0.0024	J	0.0050	0.0020	mg/L	1		6010B	TCLP
Cobalt	0.011	J	0.025	0.010	mg/L	1		6010B	TCLP
Manganese	1.7		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.020	J	0.025	0.010	mg/L	1		6010B	TCLP
Mercury	0.038		0.019	0.0066	mg/Kg	1	☼	7471B	Total/NA
pH	7.94		0.200	0.200	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 - IL 171 - WO 031

TestAmerica Job ID: 500-97481-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-97481-1	1860-25-B03 (0-2)	Solid	06/17/15 10:10	06/17/15 16:40
500-97481-2	1860-25-B02 (2-3)	Solid	06/17/15 13:00	06/17/15 16:40

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97481-1

Client Sample ID: 1860-25-B03 (0-2)

Lab Sample ID: 500-97481-1

Date Collected: 06/17/15 10:10

Matrix: Solid

Date Received: 06/17/15 16:40

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		06/21/15 14:00	06/22/15 16:22	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		06/21/15 14:00	06/22/15 16:22	1
Boron	0.66		0.50	0.050	mg/L		06/21/15 14:00	06/22/15 16:22	1
Cadmium	0.0030	J	0.0050	0.0020	mg/L		06/21/15 14:00	06/22/15 16:22	1
Chromium	<0.025		0.025	0.010	mg/L		06/21/15 14:00	06/22/15 16:22	1
Cobalt	0.016	J	0.025	0.010	mg/L		06/21/15 14:00	06/22/15 16:22	1
Iron	<0.20		0.20	0.20	mg/L		06/21/15 14:00	06/22/15 16:22	1
Lead	<0.0075		0.0075	0.0075	mg/L		06/21/15 14:00	06/22/15 16:22	1
Manganese	0.49		0.025	0.010	mg/L		06/21/15 14:00	06/22/15 16:22	1
Nickel	<0.025		0.025	0.010	mg/L		06/21/15 14:00	06/22/15 16:22	1
Selenium	<0.050		0.050	0.020	mg/L		06/21/15 14:00	06/22/15 16:22	1
Silver	<0.025		0.025	0.010	mg/L		06/21/15 14:00	06/22/15 16:22	1
Zinc	0.14		0.10	0.020	mg/L		06/21/15 14:00	06/22/15 16:22	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		06/25/15 08:30	06/25/15 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		06/21/15 14:00	06/22/15 18:25	1
Thallium	<0.0020		0.0020	0.0020	mg/L		06/21/15 14:00	06/22/15 18:25	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		06/22/15 11:00	06/23/15 12:12	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.08		0.200	0.200	SU			06/19/15 12:58	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97481-1

Client Sample ID: 1860-25-B03 (0-2)

Lab Sample ID: 500-97481-1

Date Collected: 06/17/15 10:10

Matrix: Solid

Date Received: 06/17/15 16:40

Percent Solids: 77.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.0073		0.0073	0.0056	mg/Kg	☼	06/18/15 07:30	06/25/15 16:10	1
Benzene	<0.0073		0.0073	0.0016	mg/Kg	☼	06/18/15 07:30	06/25/15 16:10	1
Bromodichloromethane	<0.0073		0.0073	0.0012	mg/Kg	☼	06/18/15 07:30	06/25/15 16:10	1
Bromoform	<0.0073		0.0073	0.0015	mg/Kg	☼	06/18/15 07:30	06/25/15 16:10	1
Bromomethane	<0.0073	*	0.0073	0.0027	mg/Kg	☼	06/18/15 07:30	06/25/15 16:10	1
2-Butanone (MEK)	<0.0073		0.0073	0.0026	mg/Kg	☼	06/18/15 07:30	06/25/15 16:10	1
Carbon disulfide	<0.0073		0.0073	0.0027	mg/Kg	☼	06/18/15 07:30	06/25/15 16:10	1
Carbon tetrachloride	<0.0073		0.0073	0.0016	mg/Kg	☼	06/18/15 07:30	06/25/15 16:10	1
Chlorobenzene	<0.0073		0.0073	0.0017	mg/Kg	☼	06/18/15 07:30	06/25/15 16:10	1
Chloroethane	<0.0073		0.0073	0.0031	mg/Kg	☼	06/18/15 07:30	06/25/15 16:10	1
Chloroform	<0.0073		0.0073	0.0014	mg/Kg	☼	06/18/15 07:30	06/25/15 16:10	1
Chloromethane	<0.0073	*	0.0073	0.0017	mg/Kg	☼	06/18/15 07:30	06/25/15 16:10	1
cis-1,2-Dichloroethene	<0.0073		0.0073	0.0015	mg/Kg	☼	06/18/15 07:30	06/25/15 16:10	1
cis-1,3-Dichloropropene	<0.0073		0.0073	0.0017	mg/Kg	☼	06/18/15 07:30	06/25/15 16:10	1
Dibromochloromethane	<0.0073		0.0073	0.00084	mg/Kg	☼	06/18/15 07:30	06/25/15 16:10	1
1,1-Dichloroethane	<0.0073		0.0073	0.0015	mg/Kg	☼	06/18/15 07:30	06/25/15 16:10	1
1,2-Dichloroethane	<0.0073		0.0073	0.0011	mg/Kg	☼	06/18/15 07:30	06/25/15 16:10	1
1,1-Dichloroethene	<0.0073		0.0073	0.0027	mg/Kg	☼	06/18/15 07:30	06/25/15 16:10	1
1,2-Dichloropropane	<0.0073		0.0073	0.0019	mg/Kg	☼	06/18/15 07:30	06/25/15 16:10	1
1,3-Dichloropropane, Total	<0.0073		0.0073	0.0021	mg/Kg	☼	06/18/15 07:30	06/25/15 16:10	1
Ethylbenzene	<0.0073		0.0073	0.0018	mg/Kg	☼	06/18/15 07:30	06/25/15 16:10	1
2-Hexanone	<0.0073		0.0073	0.0023	mg/Kg	☼	06/18/15 07:30	06/25/15 16:10	1
Methylene Chloride	<0.0073		0.0073	0.0055	mg/Kg	☼	06/18/15 07:30	06/25/15 16:10	1
4-Methyl-2-pentanone (MIBK)	<0.0073		0.0073	0.0015	mg/Kg	☼	06/18/15 07:30	06/25/15 16:10	1
Methyl tert-butyl ether	<0.0073		0.0073	0.0017	mg/Kg	☼	06/18/15 07:30	06/25/15 16:10	1
Styrene	<0.0073		0.0073	0.0017	mg/Kg	☼	06/18/15 07:30	06/25/15 16:10	1
1,1,2,2-Tetrachloroethane	<0.0073		0.0073	0.0012	mg/Kg	☼	06/18/15 07:30	06/25/15 16:10	1
Tetrachloroethene	<0.0073		0.0073	0.0015	mg/Kg	☼	06/18/15 07:30	06/25/15 16:10	1
Toluene	<0.0073		0.0073	0.0025	mg/Kg	☼	06/18/15 07:30	06/25/15 16:10	1
trans-1,2-Dichloroethene	<0.0073		0.0073	0.0018	mg/Kg	☼	06/18/15 07:30	06/25/15 16:10	1
trans-1,3-Dichloropropene	<0.0073		0.0073	0.0021	mg/Kg	☼	06/18/15 07:30	06/25/15 16:10	1
1,1,1-Trichloroethane	<0.0073		0.0073	0.0017	mg/Kg	☼	06/18/15 07:30	06/25/15 16:10	1
1,1,2-Trichloroethane	<0.0073		0.0073	0.0014	mg/Kg	☼	06/18/15 07:30	06/25/15 16:10	1
Trichloroethene	<0.0073		0.0073	0.0020	mg/Kg	☼	06/18/15 07:30	06/25/15 16:10	1
Vinyl acetate	<0.0073		0.0073	0.0020	mg/Kg	☼	06/18/15 07:30	06/25/15 16:10	1
Vinyl chloride	<0.0073		0.0073	0.0017	mg/Kg	☼	06/18/15 07:30	06/25/15 16:10	1
Xylenes, Total	<0.015		0.015	0.0027	mg/Kg	☼	06/18/15 07:30	06/25/15 16:10	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102		70 - 122	06/18/15 07:30	06/25/15 16:10	1
Dibromofluoromethane	113		75 - 120	06/18/15 07:30	06/25/15 16:10	1
1,2-Dichloroethane-d4 (Surr)	115		70 - 134	06/18/15 07:30	06/25/15 16:10	1
Toluene-d8 (Surr)	115		75 - 122	06/18/15 07:30	06/25/15 16:10	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	☼	06/24/15 07:31	06/26/15 12:15	1
Bis(2-chloroethyl)ether	<0.21		0.21	0.064	mg/Kg	☼	06/24/15 07:31	06/26/15 12:15	1
1,3-Dichlorobenzene	<0.21		0.21	0.048	mg/Kg	☼	06/24/15 07:31	06/26/15 12:15	1
1,4-Dichlorobenzene	<0.21		0.21	0.054	mg/Kg	☼	06/24/15 07:31	06/26/15 12:15	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97481-1

Client Sample ID: 1860-25-B03 (0-2)

Lab Sample ID: 500-97481-1

Date Collected: 06/17/15 10:10

Matrix: Solid

Date Received: 06/17/15 16:40

Percent Solids: 77.9

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	☼	06/24/15 07:31	06/26/15 12:15	1
2-Methylphenol	<0.21		0.21	0.068	mg/Kg	☼	06/24/15 07:31	06/26/15 12:15	1
2,2'-oxybis[1-chloropropane]	<0.21		0.21	0.049	mg/Kg	☼	06/24/15 07:31	06/26/15 12:15	1
N-Nitrosodi-n-propylamine	<0.21		0.21	0.052	mg/Kg	☼	06/24/15 07:31	06/26/15 12:15	1
Hexachloroethane	<0.21		0.21	0.064	mg/Kg	☼	06/24/15 07:31	06/26/15 12:15	1
2-Chlorophenol	<0.21		0.21	0.072	mg/Kg	☼	06/24/15 07:31	06/26/15 12:15	1
Nitrobenzene	<0.042		0.042	0.011	mg/Kg	☼	06/24/15 07:31	06/26/15 12:15	1
Bis(2-chloroethoxy)methane	<0.21		0.21	0.043	mg/Kg	☼	06/24/15 07:31	06/26/15 12:15	1
1,2,4-Trichlorobenzene	<0.21		0.21	0.046	mg/Kg	☼	06/24/15 07:31	06/26/15 12:15	1
Isophorone	<0.21		0.21	0.048	mg/Kg	☼	06/24/15 07:31	06/26/15 12:15	1
2,4-Dimethylphenol	<0.42		0.42	0.16	mg/Kg	☼	06/24/15 07:31	06/26/15 12:15	1
Hexachlorobutadiene	<0.21		0.21	0.067	mg/Kg	☼	06/24/15 07:31	06/26/15 12:15	1
Naphthalene	<0.042		0.042	0.0065	mg/Kg	☼	06/24/15 07:31	06/26/15 12:15	1
2,4-Dichlorophenol	<0.42		0.42	0.10	mg/Kg	☼	06/24/15 07:31	06/26/15 12:15	1
4-Chloroaniline	<0.86		0.86	0.20	mg/Kg	☼	06/24/15 07:31	06/26/15 12:15	1
2,4,6-Trichlorophenol	<0.42		0.42	0.15	mg/Kg	☼	06/24/15 07:31	06/26/15 12:15	1
2,4,5-Trichlorophenol	<0.42		0.42	0.097	mg/Kg	☼	06/24/15 07:31	06/26/15 12:15	1
Hexachlorocyclopentadiene	<0.86		0.86	0.24	mg/Kg	☼	06/24/15 07:31	06/26/15 12:15	1
2-Methylnaphthalene	0.0089	J	0.042	0.0078	mg/Kg	☼	06/24/15 07:31	06/26/15 12:15	1
2-Nitroaniline	<0.21		0.21	0.057	mg/Kg	☼	06/24/15 07:31	06/26/15 12:15	1
2-Chloronaphthalene	<0.21	*	0.21	0.047	mg/Kg	☼	06/24/15 07:31	06/26/15 12:15	1
4-Chloro-3-methylphenol	<0.42		0.42	0.14	mg/Kg	☼	06/24/15 07:31	06/26/15 12:15	1
2,6-Dinitrotoluene	<0.21		0.21	0.083	mg/Kg	☼	06/24/15 07:31	06/26/15 12:15	1
2-Nitrophenol	<0.42		0.42	0.10	mg/Kg	☼	06/24/15 07:31	06/26/15 12:15	1
3-Nitroaniline	<0.42		0.42	0.13	mg/Kg	☼	06/24/15 07:31	06/26/15 12:15	1
Dimethyl phthalate	<0.21		0.21	0.055	mg/Kg	☼	06/24/15 07:31	06/26/15 12:15	1
2,4-Dinitrophenol	<0.86		0.86	0.75	mg/Kg	☼	06/24/15 07:31	06/26/15 12:15	1
Acenaphthylene	<0.042		0.042	0.0056	mg/Kg	☼	06/24/15 07:31	06/26/15 12:15	1
2,4-Dinitrotoluene	<0.21		0.21	0.067	mg/Kg	☼	06/24/15 07:31	06/26/15 12:15	1
Acenaphthene	<0.042		0.042	0.0076	mg/Kg	☼	06/24/15 07:31	06/26/15 12:15	1
Dibenzofuran	<0.21		0.21	0.050	mg/Kg	☼	06/24/15 07:31	06/26/15 12:15	1
4-Nitrophenol	<0.86		0.86	0.40	mg/Kg	☼	06/24/15 07:31	06/26/15 12:15	1
Fluorene	<0.042		0.042	0.0060	mg/Kg	☼	06/24/15 07:31	06/26/15 12:15	1
4-Nitroaniline	<0.42		0.42	0.18	mg/Kg	☼	06/24/15 07:31	06/26/15 12:15	1
4-Bromophenyl phenyl ether	<0.21	*	0.21	0.056	mg/Kg	☼	06/24/15 07:31	06/26/15 12:15	1
Hexachlorobenzene	<0.086	*	0.086	0.0098	mg/Kg	☼	06/24/15 07:31	06/26/15 12:15	1
Diethyl phthalate	<0.21		0.21	0.072	mg/Kg	☼	06/24/15 07:31	06/26/15 12:15	1
4-Chlorophenyl phenyl ether	<0.21		0.21	0.050	mg/Kg	☼	06/24/15 07:31	06/26/15 12:15	1
Pentachlorophenol	<0.86		0.86	0.68	mg/Kg	☼	06/24/15 07:31	06/26/15 12:15	1
N-Nitrosodiphenylamine	<0.21		0.21	0.050	mg/Kg	☼	06/24/15 07:31	06/26/15 12:15	1
4,6-Dinitro-2-methylphenol	<0.42		0.42	0.34	mg/Kg	☼	06/24/15 07:31	06/26/15 12:15	1
Phenanthrene	0.086		0.042	0.0059	mg/Kg	☼	06/24/15 07:31	06/26/15 12:15	1
Anthracene	0.015	J	0.042	0.0071	mg/Kg	☼	06/24/15 07:31	06/26/15 12:15	1
Carbazole	<0.21		0.21	0.11	mg/Kg	☼	06/24/15 07:31	06/26/15 12:15	1
Di-n-butyl phthalate	<0.21		0.21	0.065	mg/Kg	☼	06/24/15 07:31	06/26/15 12:15	1
Fluoranthene	0.18		0.042	0.0079	mg/Kg	☼	06/24/15 07:31	06/26/15 12:15	1
Pyrene	0.17		0.042	0.0084	mg/Kg	☼	06/24/15 07:31	06/26/15 12:15	1
Butyl benzyl phthalate	<0.21		0.21	0.081	mg/Kg	☼	06/24/15 07:31	06/26/15 12:15	1
Benzo[a]anthracene	0.091		0.042	0.0057	mg/Kg	☼	06/24/15 07:31	06/26/15 12:15	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97481-1

Client Sample ID: 1860-25-B03 (0-2)

Lab Sample ID: 500-97481-1

Date Collected: 06/17/15 10:10

Matrix: Solid

Date Received: 06/17/15 16:40

Percent Solids: 77.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.12		0.042	0.012	mg/Kg	☼	06/24/15 07:31	06/26/15 12:15	1
3,3'-Dichlorobenzidine	<0.21		0.21	0.059	mg/Kg	☼	06/24/15 07:31	06/26/15 12:15	1
Bis(2-ethylhexyl) phthalate	<0.21		0.21	0.077	mg/Kg	☼	06/24/15 07:31	06/26/15 12:15	1
Di-n-octyl phthalate	<0.21		0.21	0.069	mg/Kg	☼	06/24/15 07:31	06/26/15 12:15	1
Benzo[b]fluoranthene	0.15		0.042	0.0092	mg/Kg	☼	06/24/15 07:31	06/26/15 12:15	1
Benzo[k]fluoranthene	0.047		0.042	0.012	mg/Kg	☼	06/24/15 07:31	06/26/15 12:15	1
Benzo[a]pyrene	0.10		0.042	0.0082	mg/Kg	☼	06/24/15 07:31	06/26/15 12:15	1
Indeno[1,2,3-cd]pyrene	0.072		0.042	0.011	mg/Kg	☼	06/24/15 07:31	06/26/15 12:15	1
Dibenz(a,h)anthracene	0.023	J	0.042	0.0082	mg/Kg	☼	06/24/15 07:31	06/26/15 12:15	1
Benzo[g,h,i]perylene	0.092		0.042	0.014	mg/Kg	☼	06/24/15 07:31	06/26/15 12:15	1
3 & 4 Methylphenol	<0.21		0.21	0.071	mg/Kg	☼	06/24/15 07:31	06/26/15 12:15	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	50		25 - 110	06/24/15 07:31	06/26/15 12:15	1
Phenol-d5	56		31 - 110	06/24/15 07:31	06/26/15 12:15	1
Nitrobenzene-d5	50		25 - 115	06/24/15 07:31	06/26/15 12:15	1
2-Fluorobiphenyl	59		25 - 119	06/24/15 07:31	06/26/15 12:15	1
2,4,6-Tribromophenol	67		35 - 137	06/24/15 07:31	06/26/15 12:15	1
Terphenyl-d14	87		36 - 134	06/24/15 07:31	06/26/15 12:15	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.33	J	1.2	0.25	mg/Kg	☼	06/19/15 13:00	06/20/15 16:54	1
Arsenic	5.2		0.61	0.28	mg/Kg	☼	06/19/15 13:00	06/20/15 16:54	1
Barium	68		0.61	0.11	mg/Kg	☼	06/19/15 13:00	06/20/15 16:54	1
Beryllium	0.57		0.24	0.053	mg/Kg	☼	06/19/15 13:00	06/20/15 16:54	1
Boron	4.5		3.0	0.43	mg/Kg	☼	06/19/15 13:00	06/20/15 16:54	1
Cadmium	0.36		0.12	0.035	mg/Kg	☼	06/19/15 13:00	06/20/15 16:54	1
Calcium	18000		12	3.9	mg/Kg	☼	06/19/15 13:00	06/20/15 16:54	1
Chromium	15		0.61	0.10	mg/Kg	☼	06/19/15 13:00	06/20/15 16:54	1
Cobalt	8.0		0.30	0.069	mg/Kg	☼	06/19/15 13:00	06/20/15 16:54	1
Copper	22		0.61	0.13	mg/Kg	☼	06/19/15 13:00	06/20/15 16:54	1
Iron	15000		12	4.7	mg/Kg	☼	06/19/15 13:00	06/20/15 16:54	1
Lead	36		0.30	0.15	mg/Kg	☼	06/19/15 13:00	06/20/15 16:54	1
Magnesium	11000		6.1	2.5	mg/Kg	☼	06/19/15 13:00	06/20/15 16:54	1
Manganese	250		0.61	0.12	mg/Kg	☼	06/19/15 13:00	06/20/15 16:54	1
Nickel	21		0.61	0.17	mg/Kg	☼	06/19/15 13:00	06/20/15 16:54	1
Potassium	1400		30	5.0	mg/Kg	☼	06/19/15 13:00	06/20/15 16:54	1
Selenium	0.33	J	0.61	0.30	mg/Kg	☼	06/19/15 13:00	06/20/15 16:54	1
Silver	<0.30		0.30	0.071	mg/Kg	☼	06/19/15 13:00	06/20/15 16:54	1
Sodium	480		61	8.1	mg/Kg	☼	06/19/15 13:00	06/20/15 16:54	1
Thallium	<0.61		0.61	0.30	mg/Kg	☼	06/19/15 13:00	06/20/15 16:54	1
Vanadium	17		0.30	0.089	mg/Kg	☼	06/19/15 13:00	06/20/15 16:54	1
Zinc	97	B	1.2	0.39	mg/Kg	☼	06/19/15 13:00	06/20/15 16:54	1

Method: 7471B - Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.13		0.019	0.0068	mg/Kg	☼	06/18/15 12:25	06/19/15 10:17	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97481-1

Client Sample ID: 1860-25-B02 (2-3)

Lab Sample ID: 500-97481-2

Date Collected: 06/17/15 13:00

Matrix: Solid

Date Received: 06/17/15 16:40

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		06/21/15 14:00	06/22/15 16:42	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		06/21/15 14:00	06/22/15 16:42	1
Boron	<0.50		0.50	0.050	mg/L		06/21/15 14:00	06/22/15 16:42	1
Cadmium	0.0024	J	0.0050	0.0020	mg/L		06/21/15 14:00	06/22/15 16:42	1
Chromium	<0.025		0.025	0.010	mg/L		06/21/15 14:00	06/22/15 16:42	1
Cobalt	0.011	J	0.025	0.010	mg/L		06/21/15 14:00	06/22/15 16:42	1
Iron	<0.20		0.20	0.20	mg/L		06/21/15 14:00	06/22/15 16:42	1
Lead	<0.0075		0.0075	0.0075	mg/L		06/21/15 14:00	06/22/15 16:42	1
Manganese	1.7		0.025	0.010	mg/L		06/21/15 14:00	06/22/15 16:42	1
Nickel	0.020	J	0.025	0.010	mg/L		06/21/15 14:00	06/22/15 16:42	1
Selenium	<0.050		0.050	0.020	mg/L		06/21/15 14:00	06/22/15 16:42	1
Silver	<0.025		0.025	0.010	mg/L		06/21/15 14:00	06/22/15 16:42	1
Zinc	<0.10		0.10	0.020	mg/L		06/21/15 14:00	06/22/15 16:42	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	<0.025		0.025	0.010	mg/L		06/25/15 08:30	06/25/15 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		06/21/15 14:00	06/22/15 18:40	1
Thallium	<0.0020		0.0020	0.0020	mg/L		06/21/15 14:00	06/22/15 18:40	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		06/22/15 11:00	06/23/15 12:18	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.94		0.200	0.200	SU			06/19/15 13:00	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97481-1

Client Sample ID: 1860-25-B02 (2-3)

Lab Sample ID: 500-97481-2

Date Collected: 06/17/15 13:00

Matrix: Solid

Date Received: 06/17/15 16:40

Percent Solids: 84.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	0.0065		0.0039	0.0030	mg/Kg	☼	06/18/15 07:30	06/25/15 16:34	1
Benzene	<0.0039		0.0039	0.00087	mg/Kg	☼	06/18/15 07:30	06/25/15 16:34	1
Bromodichloromethane	<0.0039		0.0039	0.00066	mg/Kg	☼	06/18/15 07:30	06/25/15 16:34	1
Bromoform	<0.0039		0.0039	0.00080	mg/Kg	☼	06/18/15 07:30	06/25/15 16:34	1
Bromomethane	<0.0039	*	0.0039	0.0014	mg/Kg	☼	06/18/15 07:30	06/25/15 16:34	1
2-Butanone (MEK)	<0.0039		0.0039	0.0014	mg/Kg	☼	06/18/15 07:30	06/25/15 16:34	1
Carbon disulfide	<0.0039		0.0039	0.0014	mg/Kg	☼	06/18/15 07:30	06/25/15 16:34	1
Carbon tetrachloride	<0.0039		0.0039	0.00084	mg/Kg	☼	06/18/15 07:30	06/25/15 16:34	1
Chlorobenzene	<0.0039		0.0039	0.00092	mg/Kg	☼	06/18/15 07:30	06/25/15 16:34	1
Chloroethane	<0.0039		0.0039	0.0016	mg/Kg	☼	06/18/15 07:30	06/25/15 16:34	1
Chloroform	<0.0039		0.0039	0.00076	mg/Kg	☼	06/18/15 07:30	06/25/15 16:34	1
Chloromethane	<0.0039	*	0.0039	0.00094	mg/Kg	☼	06/18/15 07:30	06/25/15 16:34	1
cis-1,2-Dichloroethene	<0.0039		0.0039	0.00080	mg/Kg	☼	06/18/15 07:30	06/25/15 16:34	1
cis-1,3-Dichloropropene	<0.0039		0.0039	0.00089	mg/Kg	☼	06/18/15 07:30	06/25/15 16:34	1
Dibromochloromethane	<0.0039		0.0039	0.00045	mg/Kg	☼	06/18/15 07:30	06/25/15 16:34	1
1,1-Dichloroethane	<0.0039		0.0039	0.00081	mg/Kg	☼	06/18/15 07:30	06/25/15 16:34	1
1,2-Dichloroethane	<0.0039		0.0039	0.00058	mg/Kg	☼	06/18/15 07:30	06/25/15 16:34	1
1,1-Dichloroethene	<0.0039		0.0039	0.0014	mg/Kg	☼	06/18/15 07:30	06/25/15 16:34	1
1,2-Dichloropropane	<0.0039		0.0039	0.0010	mg/Kg	☼	06/18/15 07:30	06/25/15 16:34	1
1,3-Dichloropropane, Total	<0.0039		0.0039	0.0011	mg/Kg	☼	06/18/15 07:30	06/25/15 16:34	1
Ethylbenzene	<0.0039		0.0039	0.00097	mg/Kg	☼	06/18/15 07:30	06/25/15 16:34	1
2-Hexanone	<0.0039		0.0039	0.0012	mg/Kg	☼	06/18/15 07:30	06/25/15 16:34	1
Methylene Chloride	<0.0039		0.0039	0.0030	mg/Kg	☼	06/18/15 07:30	06/25/15 16:34	1
4-Methyl-2-pentanone (MIBK)	<0.0039		0.0039	0.00081	mg/Kg	☼	06/18/15 07:30	06/25/15 16:34	1
Methyl tert-butyl ether	<0.0039		0.0039	0.00092	mg/Kg	☼	06/18/15 07:30	06/25/15 16:34	1
Styrene	<0.0039		0.0039	0.00092	mg/Kg	☼	06/18/15 07:30	06/25/15 16:34	1
1,1,2,2-Tetrachloroethane	<0.0039		0.0039	0.00062	mg/Kg	☼	06/18/15 07:30	06/25/15 16:34	1
Tetrachloroethene	<0.0039		0.0039	0.00082	mg/Kg	☼	06/18/15 07:30	06/25/15 16:34	1
Toluene	<0.0039		0.0039	0.0014	mg/Kg	☼	06/18/15 07:30	06/25/15 16:34	1
trans-1,2-Dichloroethene	<0.0039		0.0039	0.00098	mg/Kg	☼	06/18/15 07:30	06/25/15 16:34	1
trans-1,3-Dichloropropene	<0.0039		0.0039	0.0011	mg/Kg	☼	06/18/15 07:30	06/25/15 16:34	1
1,1,1-Trichloroethane	<0.0039		0.0039	0.00091	mg/Kg	☼	06/18/15 07:30	06/25/15 16:34	1
1,1,2-Trichloroethane	<0.0039		0.0039	0.00076	mg/Kg	☼	06/18/15 07:30	06/25/15 16:34	1
Trichloroethene	<0.0039		0.0039	0.0011	mg/Kg	☼	06/18/15 07:30	06/25/15 16:34	1
Vinyl acetate	<0.0039		0.0039	0.0011	mg/Kg	☼	06/18/15 07:30	06/25/15 16:34	1
Vinyl chloride	<0.0039		0.0039	0.00093	mg/Kg	☼	06/18/15 07:30	06/25/15 16:34	1
Xylenes, Total	<0.0078		0.0078	0.0015	mg/Kg	☼	06/18/15 07:30	06/25/15 16:34	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	104		70 - 122	06/18/15 07:30	06/25/15 16:34	1
Dibromofluoromethane	112		75 - 120	06/18/15 07:30	06/25/15 16:34	1
1,2-Dichloroethane-d4 (Surr)	121		70 - 134	06/18/15 07:30	06/25/15 16:34	1
Toluene-d8 (Surr)	114		75 - 122	06/18/15 07:30	06/25/15 16:34	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.19		0.19	0.083	mg/Kg	☼	06/24/15 07:31	06/26/15 12:36	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.056	mg/Kg	☼	06/24/15 07:31	06/26/15 12:36	1
1,3-Dichlorobenzene	<0.19		0.19	0.042	mg/Kg	☼	06/24/15 07:31	06/26/15 12:36	1
1,4-Dichlorobenzene	<0.19		0.19	0.048	mg/Kg	☼	06/24/15 07:31	06/26/15 12:36	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97481-1

Client Sample ID: 1860-25-B02 (2-3)

Lab Sample ID: 500-97481-2

Date Collected: 06/17/15 13:00

Matrix: Solid

Date Received: 06/17/15 16:40

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	0.045	mg/Kg	☼	06/24/15 07:31	06/26/15 12:36	1
2-Methylphenol	<0.19		0.19	0.060	mg/Kg	☼	06/24/15 07:31	06/26/15 12:36	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.043	mg/Kg	☼	06/24/15 07:31	06/26/15 12:36	1
N-Nitrosodi-n-propylamine	<0.19		0.19	0.046	mg/Kg	☼	06/24/15 07:31	06/26/15 12:36	1
Hexachloroethane	<0.19		0.19	0.057	mg/Kg	☼	06/24/15 07:31	06/26/15 12:36	1
2-Chlorophenol	<0.19		0.19	0.064	mg/Kg	☼	06/24/15 07:31	06/26/15 12:36	1
Nitrobenzene	<0.037		0.037	0.0093	mg/Kg	☼	06/24/15 07:31	06/26/15 12:36	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.038	mg/Kg	☼	06/24/15 07:31	06/26/15 12:36	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.040	mg/Kg	☼	06/24/15 07:31	06/26/15 12:36	1
Isophorone	<0.19		0.19	0.042	mg/Kg	☼	06/24/15 07:31	06/26/15 12:36	1
2,4-Dimethylphenol	<0.37		0.37	0.14	mg/Kg	☼	06/24/15 07:31	06/26/15 12:36	1
Hexachlorobutadiene	<0.19		0.19	0.059	mg/Kg	☼	06/24/15 07:31	06/26/15 12:36	1
Naphthalene	<0.037		0.037	0.0057	mg/Kg	☼	06/24/15 07:31	06/26/15 12:36	1
2,4-Dichlorophenol	<0.37		0.37	0.088	mg/Kg	☼	06/24/15 07:31	06/26/15 12:36	1
4-Chloroaniline	<0.75		0.75	0.17	mg/Kg	☼	06/24/15 07:31	06/26/15 12:36	1
2,4,6-Trichlorophenol	<0.37		0.37	0.13	mg/Kg	☼	06/24/15 07:31	06/26/15 12:36	1
2,4,5-Trichlorophenol	<0.37		0.37	0.085	mg/Kg	☼	06/24/15 07:31	06/26/15 12:36	1
Hexachlorocyclopentadiene	<0.75		0.75	0.21	mg/Kg	☼	06/24/15 07:31	06/26/15 12:36	1
2-Methylnaphthalene	0.012	J	0.037	0.0069	mg/Kg	☼	06/24/15 07:31	06/26/15 12:36	1
2-Nitroaniline	<0.19		0.19	0.050	mg/Kg	☼	06/24/15 07:31	06/26/15 12:36	1
2-Chloronaphthalene	<0.19	*	0.19	0.041	mg/Kg	☼	06/24/15 07:31	06/26/15 12:36	1
4-Chloro-3-methylphenol	<0.37		0.37	0.13	mg/Kg	☼	06/24/15 07:31	06/26/15 12:36	1
2,6-Dinitrotoluene	<0.19		0.19	0.073	mg/Kg	☼	06/24/15 07:31	06/26/15 12:36	1
2-Nitrophenol	<0.37		0.37	0.088	mg/Kg	☼	06/24/15 07:31	06/26/15 12:36	1
3-Nitroaniline	<0.37		0.37	0.12	mg/Kg	☼	06/24/15 07:31	06/26/15 12:36	1
Dimethyl phthalate	<0.19		0.19	0.049	mg/Kg	☼	06/24/15 07:31	06/26/15 12:36	1
2,4-Dinitrophenol	<0.75		0.75	0.66	mg/Kg	☼	06/24/15 07:31	06/26/15 12:36	1
Acenaphthylene	<0.037		0.037	0.0049	mg/Kg	☼	06/24/15 07:31	06/26/15 12:36	1
2,4-Dinitrotoluene	<0.19		0.19	0.059	mg/Kg	☼	06/24/15 07:31	06/26/15 12:36	1
Acenaphthene	<0.037		0.037	0.0067	mg/Kg	☼	06/24/15 07:31	06/26/15 12:36	1
Dibenzofuran	<0.19		0.19	0.044	mg/Kg	☼	06/24/15 07:31	06/26/15 12:36	1
4-Nitrophenol	<0.75		0.75	0.35	mg/Kg	☼	06/24/15 07:31	06/26/15 12:36	1
Fluorene	<0.037		0.037	0.0052	mg/Kg	☼	06/24/15 07:31	06/26/15 12:36	1
4-Nitroaniline	<0.37		0.37	0.16	mg/Kg	☼	06/24/15 07:31	06/26/15 12:36	1
4-Bromophenyl phenyl ether	<0.19	*	0.19	0.049	mg/Kg	☼	06/24/15 07:31	06/26/15 12:36	1
Hexachlorobenzene	<0.075	*	0.075	0.0086	mg/Kg	☼	06/24/15 07:31	06/26/15 12:36	1
Diethyl phthalate	<0.19		0.19	0.063	mg/Kg	☼	06/24/15 07:31	06/26/15 12:36	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.044	mg/Kg	☼	06/24/15 07:31	06/26/15 12:36	1
Pentachlorophenol	<0.75		0.75	0.60	mg/Kg	☼	06/24/15 07:31	06/26/15 12:36	1
N-Nitrosodiphenylamine	<0.19		0.19	0.044	mg/Kg	☼	06/24/15 07:31	06/26/15 12:36	1
4,6-Dinitro-2-methylphenol	<0.37		0.37	0.30	mg/Kg	☼	06/24/15 07:31	06/26/15 12:36	1
Phenanthrene	0.027	J	0.037	0.0052	mg/Kg	☼	06/24/15 07:31	06/26/15 12:36	1
Anthracene	<0.037		0.037	0.0062	mg/Kg	☼	06/24/15 07:31	06/26/15 12:36	1
Carbazole	<0.19		0.19	0.096	mg/Kg	☼	06/24/15 07:31	06/26/15 12:36	1
Di-n-butyl phthalate	<0.19		0.19	0.057	mg/Kg	☼	06/24/15 07:31	06/26/15 12:36	1
Fluoranthene	0.022	J	0.037	0.0069	mg/Kg	☼	06/24/15 07:31	06/26/15 12:36	1
Pyrene	0.025	J	0.037	0.0074	mg/Kg	☼	06/24/15 07:31	06/26/15 12:36	1
Butyl benzyl phthalate	<0.19		0.19	0.071	mg/Kg	☼	06/24/15 07:31	06/26/15 12:36	1
Benzo[a]anthracene	0.018	J	0.037	0.0050	mg/Kg	☼	06/24/15 07:31	06/26/15 12:36	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97481-1

Client Sample ID: 1860-25-B02 (2-3)

Lab Sample ID: 500-97481-2

Date Collected: 06/17/15 13:00

Matrix: Solid

Date Received: 06/17/15 16:40

Percent Solids: 84.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.022	J	0.037	0.010	mg/Kg	☼	06/24/15 07:31	06/26/15 12:36	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.052	mg/Kg	☼	06/24/15 07:31	06/26/15 12:36	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.068	mg/Kg	☼	06/24/15 07:31	06/26/15 12:36	1
Di-n-octyl phthalate	<0.19		0.19	0.061	mg/Kg	☼	06/24/15 07:31	06/26/15 12:36	1
Benzo[b]fluoranthene	0.021	J	0.037	0.0080	mg/Kg	☼	06/24/15 07:31	06/26/15 12:36	1
Benzo[k]fluoranthene	<0.037		0.037	0.011	mg/Kg	☼	06/24/15 07:31	06/26/15 12:36	1
Benzo[a]pyrene	0.018	J	0.037	0.0072	mg/Kg	☼	06/24/15 07:31	06/26/15 12:36	1
Indeno[1,2,3-cd]pyrene	0.012	J	0.037	0.0097	mg/Kg	☼	06/24/15 07:31	06/26/15 12:36	1
Dibenz(a,h)anthracene	<0.037		0.037	0.0072	mg/Kg	☼	06/24/15 07:31	06/26/15 12:36	1
Benzo[g,h,i]perylene	0.020	J	0.037	0.012	mg/Kg	☼	06/24/15 07:31	06/26/15 12:36	1
3 & 4 Methylphenol	<0.19		0.19	0.062	mg/Kg	☼	06/24/15 07:31	06/26/15 12:36	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	49		25 - 110	06/24/15 07:31	06/26/15 12:36	1
Phenol-d5	56		31 - 110	06/24/15 07:31	06/26/15 12:36	1
Nitrobenzene-d5	64		25 - 115	06/24/15 07:31	06/26/15 12:36	1
2-Fluorobiphenyl	69		25 - 119	06/24/15 07:31	06/26/15 12:36	1
2,4,6-Tribromophenol	64		35 - 137	06/24/15 07:31	06/26/15 12:36	1
Terphenyl-d14	64		36 - 134	06/24/15 07:31	06/26/15 12:36	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.41	J F1	1.1	0.22	mg/Kg	☼	06/19/15 13:00	06/20/15 16:59	1
Arsenic	7.1		0.54	0.25	mg/Kg	☼	06/19/15 13:00	06/20/15 16:59	1
Barium	49	F1	0.54	0.098	mg/Kg	☼	06/19/15 13:00	06/20/15 16:59	1
Beryllium	0.56		0.21	0.046	mg/Kg	☼	06/19/15 13:00	06/20/15 16:59	1
Boron	8.8	F1	2.7	0.37	mg/Kg	☼	06/19/15 13:00	06/20/15 16:59	1
Cadmium	0.15	F1	0.11	0.031	mg/Kg	☼	06/19/15 13:00	06/20/15 16:59	1
Calcium	53000		54	17	mg/Kg	☼	06/19/15 13:00	06/20/15 18:26	5
Chromium	15		0.54	0.092	mg/Kg	☼	06/19/15 13:00	06/20/15 16:59	1
Cobalt	13		0.27	0.061	mg/Kg	☼	06/19/15 13:00	06/20/15 16:59	1
Copper	21		0.54	0.12	mg/Kg	☼	06/19/15 13:00	06/20/15 16:59	1
Iron	18000		11	4.1	mg/Kg	☼	06/19/15 13:00	06/20/15 16:59	1
Lead	17	F1	0.27	0.13	mg/Kg	☼	06/19/15 13:00	06/20/15 16:59	1
Magnesium	22000		5.4	2.2	mg/Kg	☼	06/19/15 13:00	06/20/15 16:59	1
Manganese	370		0.54	0.11	mg/Kg	☼	06/19/15 13:00	06/20/15 16:59	1
Nickel	32		0.54	0.15	mg/Kg	☼	06/19/15 13:00	06/20/15 16:59	1
Potassium	2000	F1	27	4.4	mg/Kg	☼	06/19/15 13:00	06/20/15 16:59	1
Selenium	<0.54	F1	0.54	0.27	mg/Kg	☼	06/19/15 13:00	06/20/15 16:59	1
Silver	<0.27		0.27	0.063	mg/Kg	☼	06/19/15 13:00	06/20/15 16:59	1
Sodium	920		54	7.1	mg/Kg	☼	06/19/15 13:00	06/20/15 16:59	1
Thallium	<0.54		0.54	0.26	mg/Kg	☼	06/19/15 13:00	06/20/15 16:59	1
Vanadium	17		0.27	0.078	mg/Kg	☼	06/19/15 13:00	06/20/15 16:59	1
Zinc	65	B	1.1	0.34	mg/Kg	☼	06/19/15 13:00	06/20/15 16:59	1

Method: 7471B - Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.038		0.019	0.0066	mg/Kg	☼	06/18/15 12:25	06/19/15 10:23	1

TestAmerica Chicago

Definitions/Glossary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97481-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance 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.

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.
F1	MS and/or MSD Recovery is outside acceptance limits.
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, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
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
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)

TestAmerica

THE LEADER IN ENVIRONMENTAL

2417 Bond Street, University Park, IL 6
Phone: 708.534.5200 Fax: 708.53



500-97481 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

Lab Job #: 500-97481
Chain of Custody Number: _____
Page _____ of _____
Temperature °C of Cooler: 2.4

Client: <u>EE</u>		Client Project # <u>1009008-0031-01</u>		Preservative							Preservative Key				
Project Name <u>FL 171</u>		Lab Project # <u>50011058</u>		Parameter							Comments				
Project Location/State <u>Cook County, IL</u>		Lab Project #													
Sampler <u>S. Cooper</u>		Lab PM <u>D. Wright</u>													
Lab ID	MS/MSD	Sample ID	Sampling		# of Containers	Matrix									
			Date	Time											
<u>1</u>		<u>1860-25-B03(0-2)</u>	<u>6-17-15</u>	<u>1010</u>	<u>2</u>	<u>S</u>	<u>VOC</u>	<u>Suol</u>	<u>Top Layer</u>	<u>Water</u>	<u>TOP/SUP</u>	<u>TAC</u>	<u>metals</u>	<u>PK/90 Sil-55</u>	
<u>2</u>		<u>1860-25-B02(2-3)</u>	<u>6-17-15</u>	<u>1300</u>	<u>2</u>	<u>S</u>	<u>VOC</u>	<u>Suol</u>	<u>Top Layer</u>	<u>Water</u>	<u>TOP/SUP</u>	<u>TAC</u>	<u>metals</u>	<u>PK/90 Sil-55</u>	
6-17-15															

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>EE</u>	Date <u>6-17-15</u>	Time <u>1550</u>	Received By <u>[Signature]</u>	Company <u>EA</u>	Date <u>6/17/15</u>	Time <u>1550</u>
Relinquished By <u>[Signature]</u>	Company <u>EA</u>	Date <u>6/17/15</u>	Time <u>1640</u>	Received By <u>[Signature]</u>	Company <u>EA-CST</u>	Date <u>6/18/15</u>	Time <u>0720</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: 500-97481-1

Login Number: 97481
List Number: 1
Creator: Scott, Sherri L

List Source: TestAmerica Chicago

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	2.4
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.	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: 500-97546-3
Client Project/Site: IDOT - IL 171 - WO 031

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

Attn: Mr. Dean Tiebout



Authorized for release by:
7/1/2015 4:49:27 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

8

9



Table of Contents

Cover Page	1
Table of Contents	2
Case Narrative	3
Detection Summary	4
Sample Summary	5
Client Sample Results	6
Definitions	10
Chain of Custody	11
Receipt Checklists	12

Case Narrative

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97546-3

Job ID: 500-97546-3

Laboratory: TestAmerica Chicago

Narrative

Job Narrative 500-97546-3

Comments

No additional comments.

Receipt

The samples were received on 6/19/2015 8:00 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.4° C.

GC/MS VOA

Method(s) 8260B: The continuing calibration verification (CCV) associated with batch 500-293461 recovered above the upper control limit for Vinyl Acetate. The samples associated with this CCV were non-detects for the affected analyte; therefore, the data has been reported.

Method(s) 8260B: The laboratory control sample (LCS) for batch 500-293461 recovered outside control limits for the following analytes: Chloromethane and Vinyl Acetate. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data has 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 had one surrogate outside of limits: (500-97546-E-1-J MS) and (500-97546-E-1-K MSD). All other surrogate recoveries were within limits for these samples. No further action was required.

Method(s) 8270D: A full list spike was utilized for this method. Due to the large number of spiked analytes, there is a high probability that one or more analytes will recover outside acceptance limits. The laboratory's SOP allows for 3 analytes to recover outside criteria for this method when a full list spike is utilized. The LCS associated with batch 500-293416 had 2 known poor performing analytes outside control limits: 2,4-Dinitrophenol at 6% (10-110%) and Pentachlorophenol at 8% (20-124%); therefore, corrective action was not performed. These results have been reported and qualified. LCS 500-293416/2-A

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 - IL 171 - WO 031

TestAmerica Job ID: 500-97546-3

Client Sample ID: 1860-25-B04 (0-2)

Lab Sample ID: 500-97546-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Fluoranthene	0.011	J	0.040	0.0075	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.0085	J	0.040	0.0081	mg/Kg	1	☼	8270D	Total/NA
Bis(2-ethylhexyl) phthalate	0.12	J	0.20	0.074	mg/Kg	1	☼	8270D	Total/NA
Arsenic	6.6		0.60	0.28	mg/Kg	1	☼	6010B	Total/NA
Barium	100		0.60	0.11	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.67		0.24	0.052	mg/Kg	1	☼	6010B	Total/NA
Boron	10		3.0	0.42	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.22		0.12	0.035	mg/Kg	1	☼	6010B	Total/NA
Calcium	33000		12	3.9	mg/Kg	1	☼	6010B	Total/NA
Chromium	18		0.60	0.10	mg/Kg	1	☼	6010B	Total/NA
Cobalt	13		0.30	0.068	mg/Kg	1	☼	6010B	Total/NA
Copper	24		0.60	0.13	mg/Kg	1	☼	6010B	Total/NA
Iron	19000		12	4.6	mg/Kg	1	☼	6010B	Total/NA
Lead	20		0.30	0.15	mg/Kg	1	☼	6010B	Total/NA
Magnesium	18000		6.0	2.4	mg/Kg	1	☼	6010B	Total/NA
Manganese	410		0.60	0.12	mg/Kg	1	☼	6010B	Total/NA
Nickel	33		0.60	0.16	mg/Kg	1	☼	6010B	Total/NA
Potassium	2100		30	4.9	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.62	B	0.60	0.30	mg/Kg	1	☼	6010B	Total/NA
Sodium	650		60	7.9	mg/Kg	1	☼	6010B	Total/NA
Vanadium	21		0.30	0.088	mg/Kg	1	☼	6010B	Total/NA
Zinc	70	B	1.2	0.38	mg/Kg	1	☼	6010B	Total/NA
Barium	0.68		0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.71		0.50	0.050	mg/L	1		6010B	TCLP
Cadmium	0.0027	J	0.0050	0.0020	mg/L	1		6010B	TCLP
Manganese	0.54		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.040	J	0.10	0.020	mg/L	1		6010B	TCLP
Manganese	0.13		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.045		0.019	0.0068	mg/Kg	1	☼	7471B	Total/NA
pH	8.51		0.200	0.200	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 - IL 171 - WO 031

TestAmerica Job ID: 500-97546-3

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-97546-4	1860-25-B04 (0-2)	Solid	06/18/15 10:30	06/19/15 08:00

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97546-3

Client Sample ID: 1860-25-B04 (0-2)

Lab Sample ID: 500-97546-4

Date Collected: 06/18/15 10:30

Matrix: Solid

Date Received: 06/19/15 08:00

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.68		0.50	0.050	mg/L		06/23/15 09:04	06/23/15 18:20	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		06/23/15 09:04	06/23/15 18:20	1
Boron	0.71		0.50	0.050	mg/L		06/23/15 09:04	06/23/15 18:20	1
Cadmium	0.0027	J	0.0050	0.0020	mg/L		06/23/15 09:04	06/23/15 18:20	1
Chromium	<0.025		0.025	0.010	mg/L		06/23/15 09:04	06/23/15 18:20	1
Cobalt	<0.025		0.025	0.010	mg/L		06/23/15 09:04	06/23/15 18:20	1
Iron	<0.20		0.20	0.20	mg/L		06/23/15 09:04	06/23/15 18:20	1
Lead	<0.0075		0.0075	0.0075	mg/L		06/23/15 09:04	06/23/15 18:20	1
Manganese	0.54		0.025	0.010	mg/L		06/23/15 09:04	06/23/15 18:20	1
Nickel	<0.025		0.025	0.010	mg/L		06/23/15 09:04	06/23/15 18:20	1
Selenium	<0.050		0.050	0.020	mg/L		06/23/15 09:04	06/23/15 18:20	1
Silver	<0.025		0.025	0.010	mg/L		06/23/15 09:04	06/23/15 18:20	1
Zinc	0.040	J	0.10	0.020	mg/L		06/23/15 09:04	06/23/15 18:20	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		06/26/15 10:50	06/27/15 14:32	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		06/23/15 09:04	06/24/15 17:35	1
Thallium	<0.0020		0.0020	0.0020	mg/L		06/23/15 09:04	06/24/15 17:35	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		06/23/15 11:00	06/24/15 09:39	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.51		0.200	0.200	SU			06/19/15 14:44	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97546-3

Client Sample ID: 1860-25-B04 (0-2)

Lab Sample ID: 500-97546-4

Date Collected: 06/18/15 10:30

Matrix: Solid

Date Received: 06/19/15 08:00

Percent Solids: 81.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.0047		0.0047	0.0036	mg/Kg	☼	06/19/15 08:35	06/26/15 17:53	1
Benzene	<0.0047		0.0047	0.0010	mg/Kg	☼	06/19/15 08:35	06/26/15 17:53	1
Bromodichloromethane	<0.0047		0.0047	0.00079	mg/Kg	☼	06/19/15 08:35	06/26/15 17:53	1
Bromoform	<0.0047		0.0047	0.00096	mg/Kg	☼	06/19/15 08:35	06/26/15 17:53	1
Bromomethane	<0.0047		0.0047	0.0017	mg/Kg	☼	06/19/15 08:35	06/26/15 17:53	1
2-Butanone (MEK)	<0.0047		0.0047	0.0017	mg/Kg	☼	06/19/15 08:35	06/26/15 17:53	1
Carbon disulfide	<0.0047		0.0047	0.0017	mg/Kg	☼	06/19/15 08:35	06/26/15 17:53	1
Carbon tetrachloride	<0.0047		0.0047	0.0010	mg/Kg	☼	06/19/15 08:35	06/26/15 17:53	1
Chlorobenzene	<0.0047		0.0047	0.0011	mg/Kg	☼	06/19/15 08:35	06/26/15 17:53	1
Chloroethane	<0.0047		0.0047	0.0020	mg/Kg	☼	06/19/15 08:35	06/26/15 17:53	1
Chloroform	<0.0047		0.0047	0.00091	mg/Kg	☼	06/19/15 08:35	06/26/15 17:53	1
Chloromethane	<0.0047	*	0.0047	0.0011	mg/Kg	☼	06/19/15 08:35	06/26/15 17:53	1
cis-1,2-Dichloroethene	<0.0047		0.0047	0.00096	mg/Kg	☼	06/19/15 08:35	06/26/15 17:53	1
cis-1,3-Dichloropropene	<0.0047		0.0047	0.0011	mg/Kg	☼	06/19/15 08:35	06/26/15 17:53	1
Dibromochloromethane	<0.0047		0.0047	0.00054	mg/Kg	☼	06/19/15 08:35	06/26/15 17:53	1
1,1-Dichloroethane	<0.0047		0.0047	0.00097	mg/Kg	☼	06/19/15 08:35	06/26/15 17:53	1
1,2-Dichloroethane	<0.0047		0.0047	0.00069	mg/Kg	☼	06/19/15 08:35	06/26/15 17:53	1
1,1-Dichloroethene	<0.0047		0.0047	0.0017	mg/Kg	☼	06/19/15 08:35	06/26/15 17:53	1
1,2-Dichloropropane	<0.0047		0.0047	0.0012	mg/Kg	☼	06/19/15 08:35	06/26/15 17:53	1
1,3-Dichloropropane, Total	<0.0047		0.0047	0.0013	mg/Kg	☼	06/19/15 08:35	06/26/15 17:53	1
Ethylbenzene	<0.0047		0.0047	0.0012	mg/Kg	☼	06/19/15 08:35	06/26/15 17:53	1
2-Hexanone	<0.0047		0.0047	0.0015	mg/Kg	☼	06/19/15 08:35	06/26/15 17:53	1
Methylene Chloride	<0.0047		0.0047	0.0035	mg/Kg	☼	06/19/15 08:35	06/26/15 17:53	1
4-Methyl-2-pentanone (MIBK)	<0.0047		0.0047	0.00097	mg/Kg	☼	06/19/15 08:35	06/26/15 17:53	1
Methyl tert-butyl ether	<0.0047		0.0047	0.0011	mg/Kg	☼	06/19/15 08:35	06/26/15 17:53	1
Styrene	<0.0047		0.0047	0.0011	mg/Kg	☼	06/19/15 08:35	06/26/15 17:53	1
1,1,1,2-Tetrachloroethane	<0.0047		0.0047	0.00074	mg/Kg	☼	06/19/15 08:35	06/26/15 17:53	1
Tetrachloroethene	<0.0047		0.0047	0.00097	mg/Kg	☼	06/19/15 08:35	06/26/15 17:53	1
Toluene	<0.0047		0.0047	0.0016	mg/Kg	☼	06/19/15 08:35	06/26/15 17:53	1
trans-1,2-Dichloroethene	<0.0047		0.0047	0.0012	mg/Kg	☼	06/19/15 08:35	06/26/15 17:53	1
trans-1,3-Dichloropropene	<0.0047		0.0047	0.0013	mg/Kg	☼	06/19/15 08:35	06/26/15 17:53	1
1,1,1-Trichloroethane	<0.0047		0.0047	0.0011	mg/Kg	☼	06/19/15 08:35	06/26/15 17:53	1
1,1,2-Trichloroethane	<0.0047		0.0047	0.00091	mg/Kg	☼	06/19/15 08:35	06/26/15 17:53	1
Trichloroethene	<0.0047		0.0047	0.0013	mg/Kg	☼	06/19/15 08:35	06/26/15 17:53	1
Vinyl acetate	<0.0047	*	0.0047	0.0013	mg/Kg	☼	06/19/15 08:35	06/26/15 17:53	1
Vinyl chloride	<0.0047		0.0047	0.0011	mg/Kg	☼	06/19/15 08:35	06/26/15 17:53	1
Xylenes, Total	<0.0094		0.0094	0.0017	mg/Kg	☼	06/19/15 08:35	06/26/15 17:53	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	103		70 - 122	06/19/15 08:35	06/26/15 17:53	1
Dibromofluoromethane	109		75 - 120	06/19/15 08:35	06/26/15 17:53	1
1,2-Dichloroethane-d4 (Surr)	117		70 - 134	06/19/15 08:35	06/26/15 17:53	1
Toluene-d8 (Surr)	113		75 - 122	06/19/15 08:35	06/26/15 17:53	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.20		0.20	0.090	mg/Kg	☼	06/25/15 17:24	06/30/15 13:14	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.061	mg/Kg	☼	06/25/15 17:24	06/30/15 13:14	1
1,3-Dichlorobenzene	<0.20		0.20	0.046	mg/Kg	☼	06/25/15 17:24	06/30/15 13:14	1
1,4-Dichlorobenzene	<0.20		0.20	0.052	mg/Kg	☼	06/25/15 17:24	06/30/15 13:14	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97546-3

Client Sample ID: 1860-25-B04 (0-2)

Lab Sample ID: 500-97546-4

Date Collected: 06/18/15 10:30

Matrix: Solid

Date Received: 06/19/15 08:00

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	0.049	mg/Kg	☼	06/25/15 17:24	06/30/15 13:14	1
2-Methylphenol	<0.20		0.20	0.065	mg/Kg	☼	06/25/15 17:24	06/30/15 13:14	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.047	mg/Kg	☼	06/25/15 17:24	06/30/15 13:14	1
N-Nitrosodi-n-propylamine	<0.20		0.20	0.050	mg/Kg	☼	06/25/15 17:24	06/30/15 13:14	1
Hexachloroethane	<0.20		0.20	0.062	mg/Kg	☼	06/25/15 17:24	06/30/15 13:14	1
2-Chlorophenol	<0.20		0.20	0.069	mg/Kg	☼	06/25/15 17:24	06/30/15 13:14	1
Nitrobenzene	<0.040		0.040	0.010	mg/Kg	☼	06/25/15 17:24	06/30/15 13:14	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.041	mg/Kg	☼	06/25/15 17:24	06/30/15 13:14	1
1,2,4-Trichlorobenzene	<0.20		0.20	0.044	mg/Kg	☼	06/25/15 17:24	06/30/15 13:14	1
Isophorone	<0.20		0.20	0.046	mg/Kg	☼	06/25/15 17:24	06/30/15 13:14	1
2,4-Dimethylphenol	<0.40		0.40	0.15	mg/Kg	☼	06/25/15 17:24	06/30/15 13:14	1
Hexachlorobutadiene	<0.20		0.20	0.064	mg/Kg	☼	06/25/15 17:24	06/30/15 13:14	1
Naphthalene	<0.040		0.040	0.0063	mg/Kg	☼	06/25/15 17:24	06/30/15 13:14	1
2,4-Dichlorophenol	<0.40		0.40	0.097	mg/Kg	☼	06/25/15 17:24	06/30/15 13:14	1
4-Chloroaniline	<0.82		0.82	0.19	mg/Kg	☼	06/25/15 17:24	06/30/15 13:14	1
2,4,6-Trichlorophenol	<0.40		0.40	0.14	mg/Kg	☼	06/25/15 17:24	06/30/15 13:14	1
2,4,5-Trichlorophenol	<0.40		0.40	0.093	mg/Kg	☼	06/25/15 17:24	06/30/15 13:14	1
Hexachlorocyclopentadiene	<0.82		0.82	0.23	mg/Kg	☼	06/25/15 17:24	06/30/15 13:14	1
2-Methylnaphthalene	<0.040		0.040	0.0075	mg/Kg	☼	06/25/15 17:24	06/30/15 13:14	1
2-Nitroaniline	<0.20		0.20	0.055	mg/Kg	☼	06/25/15 17:24	06/30/15 13:14	1
2-Chloronaphthalene	<0.20		0.20	0.045	mg/Kg	☼	06/25/15 17:24	06/30/15 13:14	1
4-Chloro-3-methylphenol	<0.40		0.40	0.14	mg/Kg	☼	06/25/15 17:24	06/30/15 13:14	1
2,6-Dinitrotoluene	<0.20		0.20	0.080	mg/Kg	☼	06/25/15 17:24	06/30/15 13:14	1
2-Nitrophenol	<0.40		0.40	0.096	mg/Kg	☼	06/25/15 17:24	06/30/15 13:14	1
3-Nitroaniline	<0.40		0.40	0.13	mg/Kg	☼	06/25/15 17:24	06/30/15 13:14	1
Dimethyl phthalate	<0.20		0.20	0.053	mg/Kg	☼	06/25/15 17:24	06/30/15 13:14	1
2,4-Dinitrophenol	<0.82	*	0.82	0.72	mg/Kg	☼	06/25/15 17:24	06/30/15 13:14	1
Acenaphthylene	<0.040		0.040	0.0054	mg/Kg	☼	06/25/15 17:24	06/30/15 13:14	1
2,4-Dinitrotoluene	<0.20		0.20	0.065	mg/Kg	☼	06/25/15 17:24	06/30/15 13:14	1
Acenaphthene	<0.040		0.040	0.0073	mg/Kg	☼	06/25/15 17:24	06/30/15 13:14	1
Dibenzofuran	<0.20		0.20	0.048	mg/Kg	☼	06/25/15 17:24	06/30/15 13:14	1
4-Nitrophenol	<0.82		0.82	0.39	mg/Kg	☼	06/25/15 17:24	06/30/15 13:14	1
Fluorene	<0.040		0.040	0.0057	mg/Kg	☼	06/25/15 17:24	06/30/15 13:14	1
4-Nitroaniline	<0.40		0.40	0.17	mg/Kg	☼	06/25/15 17:24	06/30/15 13:14	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.054	mg/Kg	☼	06/25/15 17:24	06/30/15 13:14	1
Hexachlorobenzene	<0.082		0.082	0.0094	mg/Kg	☼	06/25/15 17:24	06/30/15 13:14	1
Diethyl phthalate	<0.20		0.20	0.069	mg/Kg	☼	06/25/15 17:24	06/30/15 13:14	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.047	mg/Kg	☼	06/25/15 17:24	06/30/15 13:14	1
Pentachlorophenol	<0.82	*	0.82	0.65	mg/Kg	☼	06/25/15 17:24	06/30/15 13:14	1
N-Nitrosodiphenylamine	<0.20		0.20	0.048	mg/Kg	☼	06/25/15 17:24	06/30/15 13:14	1
4,6-Dinitro-2-methylphenol	<0.40		0.40	0.33	mg/Kg	☼	06/25/15 17:24	06/30/15 13:14	1
Phenanthrene	<0.040		0.040	0.0057	mg/Kg	☼	06/25/15 17:24	06/30/15 13:14	1
Anthracene	<0.040		0.040	0.0068	mg/Kg	☼	06/25/15 17:24	06/30/15 13:14	1
Carbazole	<0.20		0.20	0.11	mg/Kg	☼	06/25/15 17:24	06/30/15 13:14	1
Di-n-butyl phthalate	<0.20		0.20	0.062	mg/Kg	☼	06/25/15 17:24	06/30/15 13:14	1
Fluoranthene	0.011	J	0.040	0.0075	mg/Kg	☼	06/25/15 17:24	06/30/15 13:14	1
Pyrene	0.0085	J	0.040	0.0081	mg/Kg	☼	06/25/15 17:24	06/30/15 13:14	1
Butyl benzyl phthalate	<0.20		0.20	0.077	mg/Kg	☼	06/25/15 17:24	06/30/15 13:14	1
Benzo[a]anthracene	<0.040		0.040	0.0055	mg/Kg	☼	06/25/15 17:24	06/30/15 13:14	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97546-3

Client Sample ID: 1860-25-B04 (0-2)

Lab Sample ID: 500-97546-4

Date Collected: 06/18/15 10:30

Matrix: Solid

Date Received: 06/19/15 08:00

Percent Solids: 81.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	<0.040		0.040	0.011	mg/Kg	☼	06/25/15 17:24	06/30/15 13:14	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.057	mg/Kg	☼	06/25/15 17:24	06/30/15 13:14	1
Bis(2-ethylhexyl) phthalate	0.12	J	0.20	0.074	mg/Kg	☼	06/25/15 17:24	06/30/15 13:14	1
Di-n-octyl phthalate	<0.20		0.20	0.066	mg/Kg	☼	06/25/15 17:24	06/30/15 13:14	1
Benzo[b]fluoranthene	<0.040		0.040	0.0088	mg/Kg	☼	06/25/15 17:24	06/30/15 13:14	1
Benzo[k]fluoranthene	<0.040		0.040	0.012	mg/Kg	☼	06/25/15 17:24	06/30/15 13:14	1
Benzo[a]pyrene	<0.040		0.040	0.0079	mg/Kg	☼	06/25/15 17:24	06/30/15 13:14	1
Indeno[1,2,3-cd]pyrene	<0.040		0.040	0.011	mg/Kg	☼	06/25/15 17:24	06/30/15 13:14	1
Dibenz(a,h)anthracene	<0.040		0.040	0.0079	mg/Kg	☼	06/25/15 17:24	06/30/15 13:14	1
Benzo[g,h,i]perylene	<0.040		0.040	0.013	mg/Kg	☼	06/25/15 17:24	06/30/15 13:14	1
3 & 4 Methylphenol	<0.20		0.20	0.068	mg/Kg	☼	06/25/15 17:24	06/30/15 13:14	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	60		25 - 110	06/25/15 17:24	06/30/15 13:14	1
Phenol-d5	53		31 - 110	06/25/15 17:24	06/30/15 13:14	1
Nitrobenzene-d5	50		25 - 115	06/25/15 17:24	06/30/15 13:14	1
2-Fluorobiphenyl	84		25 - 119	06/25/15 17:24	06/30/15 13:14	1
2,4,6-Tribromophenol	42		35 - 137	06/25/15 17:24	06/30/15 13:14	1
Terphenyl-d14	69		36 - 134	06/25/15 17:24	06/30/15 13:14	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.2		1.2	0.25	mg/Kg	☼	06/21/15 16:35	06/22/15 23:59	1
Arsenic	6.6		0.60	0.28	mg/Kg	☼	06/21/15 16:35	06/22/15 23:59	1
Barium	100		0.60	0.11	mg/Kg	☼	06/21/15 16:35	06/23/15 17:56	1
Beryllium	0.67		0.24	0.052	mg/Kg	☼	06/21/15 16:35	06/22/15 23:59	1
Boron	10		3.0	0.42	mg/Kg	☼	06/21/15 16:35	06/22/15 23:59	1
Cadmium	0.22		0.12	0.035	mg/Kg	☼	06/21/15 16:35	06/22/15 23:59	1
Calcium	33000		12	3.9	mg/Kg	☼	06/21/15 16:35	06/23/15 17:56	1
Chromium	18		0.60	0.10	mg/Kg	☼	06/21/15 16:35	06/22/15 23:59	1
Cobalt	13		0.30	0.068	mg/Kg	☼	06/21/15 16:35	06/22/15 23:59	1
Copper	24		0.60	0.13	mg/Kg	☼	06/21/15 16:35	06/22/15 23:59	1
Iron	19000		12	4.6	mg/Kg	☼	06/21/15 16:35	06/23/15 17:56	1
Lead	20		0.30	0.15	mg/Kg	☼	06/21/15 16:35	06/22/15 23:59	1
Magnesium	18000		6.0	2.4	mg/Kg	☼	06/21/15 16:35	06/23/15 17:56	1
Manganese	410		0.60	0.12	mg/Kg	☼	06/21/15 16:35	06/22/15 23:59	1
Nickel	33		0.60	0.16	mg/Kg	☼	06/21/15 16:35	06/22/15 23:59	1
Potassium	2100		30	4.9	mg/Kg	☼	06/21/15 16:35	06/22/15 23:59	1
Selenium	0.62	B	0.60	0.30	mg/Kg	☼	06/21/15 16:35	06/23/15 17:56	1
Silver	<0.30		0.30	0.070	mg/Kg	☼	06/21/15 16:35	06/22/15 23:59	1
Sodium	650		60	7.9	mg/Kg	☼	06/21/15 16:35	06/22/15 23:59	1
Thallium	<0.60		0.60	0.30	mg/Kg	☼	06/21/15 16:35	06/22/15 23:59	1
Vanadium	21		0.30	0.088	mg/Kg	☼	06/21/15 16:35	06/22/15 23:59	1
Zinc	70	B	1.2	0.38	mg/Kg	☼	06/21/15 16:35	06/23/15 17:56	1

Method: 7471B - Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.045		0.019	0.0068	mg/Kg	☼	06/19/15 14:30	06/22/15 15:05	1

TestAmerica Chicago

Definitions/Glossary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97546-3

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance 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.

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, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
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
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)

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 #: 500-97546
 Chain of Custody Number: _____
 Page _____ of _____
 Temperature °C of Cooler: 3.4

Client		Client Project #		Preservative		Parameter		Sampler		Lab Project #		Lab PM		Preservative Key	
EE		1009008.0071.01						S. Cooper		50011058		D. Wright		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	
Lab ID	MS/MSD	Sample ID		Sampling		# of Containers	Matrix							Comments	
		Date	Time												
4		1860-25-B04 (0-2)	6/15/15	1030	2	5	Voc	X	X	X	X	X			
							SUOC								
							TotH TAL								
							MNHLS								
							TUPLSPU								
							TAL MABLE								
							PH/gal. i.d.								

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>KE</u> Date: <u>6-18-15</u> Time: <u>1122</u>	Received By: <u>[Signature]</u> Company: <u>TAL</u> Date: <u>6/18/15</u> Time: <u>1522</u>	Lab Courier: _____
Relinquished By: <u>[Signature]</u> Company: <u>TAL</u> Date: <u>6/18/15</u> Time: <u>1715</u>	Received By: <u>[Signature]</u> Company: <u>TAL</u> Date: <u>06/19/15</u> Time: <u>0800</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: 500-97546-3

Login Number: 97546

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	3.4c
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.	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.	True	

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: 500-97658-2
Client Project/Site: IDOT - IL 171 - WO 031

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

Attn: Mr. Dean Tiebout



Authorized for release by:
7/7/2015 2:27:05 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

8

9



Table of Contents

Cover Page	1
Table of Contents	2
Case Narrative	3
Detection Summary	4
Sample Summary	6
Client Sample Results	7
Definitions	15
Chain of Custody	16
Receipt Checklists	17

Case Narrative

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97658-2

Job ID: 500-97658-2

Laboratory: TestAmerica Chicago

Narrative

Job Narrative 500-97658-2

Receipt

The samples were received on 6/22/2015 4:10 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 2.8° C and 3.1° C.

GC/MS VOA

Method(s) 8260B: The laboratory control sample (LCS) for batch 293320 recovered outside control limits for the following analytes: Bromomethane, Chloroethane. 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

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

Metals

Method(s) 6010B: The continuing calibration blanks (CCB) at lines 26 and 50 for analytical batch 500-293597 contained Nickel greater than the reporting limit (RL), and the associated samples were not reanalyzed because they had results for Nickel below the method reporting limit. 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 - IL 171 - WO 031

TestAmerica Job ID: 500-97658-2

Client Sample ID: 1860-25-B01 (2-3)

Lab Sample ID: 500-97658-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	0.0091		0.0048	0.0037	mg/Kg	1	☼	8260B	Total/NA
Phenanthrene	0.012	J	0.038	0.0053	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.021	J	0.038	0.0070	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.031	J	0.038	0.0075	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.020	J	0.038	0.0051	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.028	J	0.038	0.010	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.032	J	0.038	0.0082	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.011	J	0.038	0.011	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.022	J	0.038	0.0073	mg/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.017	J	0.038	0.0098	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.021	J	0.038	0.012	mg/Kg	1	☼	8270D	Total/NA
Arsenic	7.8		0.58	0.27	mg/Kg	1	☼	6010B	Total/NA
Barium	67		0.58	0.11	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.62		0.23	0.050	mg/Kg	1	☼	6010B	Total/NA
Boron	8.7		2.9	0.41	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.20		0.12	0.034	mg/Kg	1	☼	6010B	Total/NA
Calcium	52000		58	19	mg/Kg	5	☼	6010B	Total/NA
Chromium	16		0.58	0.10	mg/Kg	1	☼	6010B	Total/NA
Cobalt	9.6		0.29	0.066	mg/Kg	1	☼	6010B	Total/NA
Copper	26	B	0.58	0.13	mg/Kg	1	☼	6010B	Total/NA
Iron	22000	B	12	4.5	mg/Kg	1	☼	6010B	Total/NA
Lead	19		0.29	0.14	mg/Kg	1	☼	6010B	Total/NA
Magnesium	20000		5.8	2.4	mg/Kg	1	☼	6010B	Total/NA
Manganese	270		0.58	0.11	mg/Kg	1	☼	6010B	Total/NA
Nickel	29		0.58	0.16	mg/Kg	1	☼	6010B	Total/NA
Potassium	1900		29	4.7	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.49	J	0.58	0.29	mg/Kg	1	☼	6010B	Total/NA
Sodium	610		58	7.7	mg/Kg	1	☼	6010B	Total/NA
Vanadium	20		0.29	0.085	mg/Kg	1	☼	6010B	Total/NA
Zinc	62	B	1.2	0.37	mg/Kg	1	☼	6010B	Total/NA
Barium	0.47	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.84		0.50	0.050	mg/L	1		6010B	TCLP
Cadmium	0.0025	J	0.0050	0.0020	mg/L	1		6010B	TCLP
Manganese	0.79		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.33	J B	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.17		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.031		0.017	0.0061	mg/Kg	1	☼	7471B	Total/NA
pH	7.74		0.200	0.200	SU	1		9045D	Total/NA

Client Sample ID: 1860-25-B01 (2-3)D

Lab Sample ID: 500-97658-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	0.086		0.0050	0.0038	mg/Kg	1	☼	8260B	Total/NA
Methylene Chloride	0.014		0.0050	0.0037	mg/Kg	1	☼	8260B	Total/NA
Arsenic	6.0		0.56	0.26	mg/Kg	1	☼	6010B	Total/NA
Barium	63		0.56	0.10	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.62		0.22	0.048	mg/Kg	1	☼	6010B	Total/NA
Boron	8.4		2.8	0.39	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.15		0.11	0.032	mg/Kg	1	☼	6010B	Total/NA
Calcium	29000		56	18	mg/Kg	5	☼	6010B	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97658-2

Client Sample ID: 1860-25-B01 (2-3)D (Continued)

Lab Sample ID: 500-97658-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chromium	15		0.56	0.096	mg/Kg	1	☼	6010B	Total/NA
Cobalt	9.5		0.28	0.063	mg/Kg	1	☼	6010B	Total/NA
Copper	24	B	0.56	0.12	mg/Kg	1	☼	6010B	Total/NA
Iron	19000	B	11	4.3	mg/Kg	1	☼	6010B	Total/NA
Lead	14		0.28	0.14	mg/Kg	1	☼	6010B	Total/NA
Magnesium	23000		5.6	2.3	mg/Kg	1	☼	6010B	Total/NA
Manganese	300		0.56	0.11	mg/Kg	1	☼	6010B	Total/NA
Nickel	29		0.56	0.15	mg/Kg	1	☼	6010B	Total/NA
Potassium	1900		28	4.6	mg/Kg	1	☼	6010B	Total/NA
Sodium	580		56	7.4	mg/Kg	1	☼	6010B	Total/NA
Vanadium	19		0.28	0.082	mg/Kg	1	☼	6010B	Total/NA
Zinc	54	B	1.1	0.35	mg/Kg	1	☼	6010B	Total/NA
Barium	0.55		0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.74		0.50	0.050	mg/L	1		6010B	TCLP
Cadmium	0.0023	J	0.0050	0.0020	mg/L	1		6010B	TCLP
Manganese	0.60		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.049	J B	0.50	0.020	mg/L	1		6010B	TCLP
Mercury	0.037		0.019	0.0067	mg/Kg	1	☼	7471B	Total/NA
pH	7.66		0.200	0.200	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 - IL 171 - WO 031

TestAmerica Job ID: 500-97658-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-97658-12	1860-25-B01 (2-3)	Solid	06/22/15 13:20	06/22/15 16:10
500-97658-13	1860-25-B01 (2-3)D	Solid	06/22/15 13:20	06/22/15 16:10

1

2

3

4

5

6

7

8

9

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97658-2

Client Sample ID: 1860-25-B01 (2-3)

Lab Sample ID: 500-97658-12

Date Collected: 06/22/15 13:20

Matrix: Solid

Date Received: 06/22/15 16:10

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		06/25/15 12:00	06/26/15 15:00	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		06/25/15 12:00	06/26/15 15:00	1
Boron	0.84		0.50	0.050	mg/L		06/25/15 12:00	06/26/15 15:00	1
Cadmium	0.0025	J	0.0050	0.0020	mg/L		06/25/15 12:00	06/26/15 15:00	1
Chromium	<0.025		0.025	0.010	mg/L		06/25/15 12:00	06/26/15 15:00	1
Cobalt	<0.025		0.025	0.010	mg/L		06/25/15 12:00	06/26/15 15:00	1
Iron	<0.20		0.20	0.20	mg/L		06/25/15 12:00	06/26/15 15:00	1
Lead	<0.0075		0.0075	0.0075	mg/L		06/25/15 12:00	06/26/15 15:00	1
Manganese	0.79		0.025	0.010	mg/L		06/25/15 12:00	06/26/15 15:00	1
Nickel	<0.025		0.025	0.010	mg/L		06/25/15 12:00	06/26/15 15:00	1
Selenium	<0.050		0.050	0.020	mg/L		06/25/15 12:00	06/26/15 15:00	1
Silver	<0.025		0.025	0.010	mg/L		06/25/15 12:00	06/26/15 15:00	1
Zinc	0.33	J B	0.50	0.020	mg/L		06/25/15 12:00	06/26/15 15:00	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.17		0.025	0.010	mg/L		07/01/15 11:20	07/02/15 12:45	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		06/25/15 12:00	06/26/15 21:09	1
Thallium	<0.0020		0.0020	0.0020	mg/L		06/25/15 12:00	06/26/15 21:09	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		06/25/15 10:30	06/26/15 09:36	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.74		0.200	0.200	SU			06/23/15 16:05	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97658-2

Client Sample ID: 1860-25-B01 (2-3)

Lab Sample ID: 500-97658-12

Date Collected: 06/22/15 13:20

Matrix: Solid

Date Received: 06/22/15 16:10

Percent Solids: 85.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	0.0091		0.0048	0.0037	mg/Kg	☼	06/23/15 09:30	06/25/15 18:30	1
Benzene	<0.0048		0.0048	0.0011	mg/Kg	☼	06/23/15 09:30	06/25/15 18:30	1
Bromodichloromethane	<0.0048		0.0048	0.00081	mg/Kg	☼	06/23/15 09:30	06/25/15 18:30	1
Bromoform	<0.0048		0.0048	0.00098	mg/Kg	☼	06/23/15 09:30	06/25/15 18:30	1
Bromomethane	<0.0048 *		0.0048	0.0018	mg/Kg	☼	06/23/15 09:30	06/25/15 18:30	1
2-Butanone (MEK)	<0.0048		0.0048	0.0017	mg/Kg	☼	06/23/15 09:30	06/25/15 18:30	1
Carbon disulfide	<0.0048		0.0048	0.0018	mg/Kg	☼	06/23/15 09:30	06/25/15 18:30	1
Carbon tetrachloride	<0.0048		0.0048	0.0010	mg/Kg	☼	06/23/15 09:30	06/25/15 18:30	1
Chlorobenzene	<0.0048		0.0048	0.0011	mg/Kg	☼	06/23/15 09:30	06/25/15 18:30	1
Chloroethane	<0.0048 *		0.0048	0.0020	mg/Kg	☼	06/23/15 09:30	06/25/15 18:30	1
Chloroform	<0.0048		0.0048	0.00094	mg/Kg	☼	06/23/15 09:30	06/25/15 18:30	1
Chloromethane	<0.0048		0.0048	0.0012	mg/Kg	☼	06/23/15 09:30	06/25/15 18:30	1
cis-1,2-Dichloroethene	<0.0048		0.0048	0.00098	mg/Kg	☼	06/23/15 09:30	06/25/15 18:30	1
cis-1,3-Dichloropropene	<0.0048		0.0048	0.0011	mg/Kg	☼	06/23/15 09:30	06/25/15 18:30	1
Dibromochloromethane	<0.0048		0.0048	0.00055	mg/Kg	☼	06/23/15 09:30	06/25/15 18:30	1
1,1-Dichloroethane	<0.0048		0.0048	0.00099	mg/Kg	☼	06/23/15 09:30	06/25/15 18:30	1
1,2-Dichloroethane	<0.0048		0.0048	0.00071	mg/Kg	☼	06/23/15 09:30	06/25/15 18:30	1
1,1-Dichloroethene	<0.0048		0.0048	0.0018	mg/Kg	☼	06/23/15 09:30	06/25/15 18:30	1
1,2-Dichloropropane	<0.0048		0.0048	0.0013	mg/Kg	☼	06/23/15 09:30	06/25/15 18:30	1
1,3-Dichloropropane, Total	<0.0048		0.0048	0.0014	mg/Kg	☼	06/23/15 09:30	06/25/15 18:30	1
Ethylbenzene	<0.0048		0.0048	0.0012	mg/Kg	☼	06/23/15 09:30	06/25/15 18:30	1
2-Hexanone	<0.0048		0.0048	0.0015	mg/Kg	☼	06/23/15 09:30	06/25/15 18:30	1
Methylene Chloride	<0.0048		0.0048	0.0036	mg/Kg	☼	06/23/15 09:30	06/25/15 18:30	1
4-Methyl-2-pentanone (MIBK)	<0.0048		0.0048	0.00099	mg/Kg	☼	06/23/15 09:30	06/25/15 18:30	1
Methyl tert-butyl ether	<0.0048		0.0048	0.0011	mg/Kg	☼	06/23/15 09:30	06/25/15 18:30	1
Styrene	<0.0048		0.0048	0.0011	mg/Kg	☼	06/23/15 09:30	06/25/15 18:30	1
1,1,2,2-Tetrachloroethane	<0.0048		0.0048	0.00077	mg/Kg	☼	06/23/15 09:30	06/25/15 18:30	1
Tetrachloroethene	<0.0048		0.0048	0.0010	mg/Kg	☼	06/23/15 09:30	06/25/15 18:30	1
Toluene	<0.0048		0.0048	0.0017	mg/Kg	☼	06/23/15 09:30	06/25/15 18:30	1
trans-1,2-Dichloroethene	<0.0048		0.0048	0.0012	mg/Kg	☼	06/23/15 09:30	06/25/15 18:30	1
trans-1,3-Dichloropropene	<0.0048		0.0048	0.0014	mg/Kg	☼	06/23/15 09:30	06/25/15 18:30	1
1,1,1-Trichloroethane	<0.0048		0.0048	0.0011	mg/Kg	☼	06/23/15 09:30	06/25/15 18:30	1
1,1,2-Trichloroethane	<0.0048		0.0048	0.00093	mg/Kg	☼	06/23/15 09:30	06/25/15 18:30	1
Trichloroethene	<0.0048		0.0048	0.0013	mg/Kg	☼	06/23/15 09:30	06/25/15 18:30	1
Vinyl acetate	<0.0048		0.0048	0.0013	mg/Kg	☼	06/23/15 09:30	06/25/15 18:30	1
Vinyl chloride	<0.0048		0.0048	0.0011	mg/Kg	☼	06/23/15 09:30	06/25/15 18:30	1
Xylenes, Total	<0.0096		0.0096	0.0018	mg/Kg	☼	06/23/15 09:30	06/25/15 18:30	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	86		70 - 122	06/23/15 09:30	06/25/15 18:30	1
Dibromofluoromethane	99		75 - 120	06/23/15 09:30	06/25/15 18:30	1
1,2-Dichloroethane-d4 (Surr)	99		70 - 134	06/23/15 09:30	06/25/15 18:30	1
Toluene-d8 (Surr)	95		75 - 122	06/23/15 09:30	06/25/15 18:30	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	☼	06/26/15 07:33	06/30/15 20:37	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.057	mg/Kg	☼	06/26/15 07:33	06/30/15 20:37	1
1,3-Dichlorobenzene	<0.19		0.19	0.043	mg/Kg	☼	06/26/15 07:33	06/30/15 20:37	1
1,4-Dichlorobenzene	<0.19		0.19	0.048	mg/Kg	☼	06/26/15 07:33	06/30/15 20:37	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97658-2

Client Sample ID: 1860-25-B01 (2-3)

Lab Sample ID: 500-97658-12

Date Collected: 06/22/15 13:20

Matrix: Solid

Date Received: 06/22/15 16:10

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	0.045	mg/Kg	☼	06/26/15 07:33	06/30/15 20:37	1
2-Methylphenol	<0.19		0.19	0.061	mg/Kg	☼	06/26/15 07:33	06/30/15 20:37	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.044	mg/Kg	☼	06/26/15 07:33	06/30/15 20:37	1
N-Nitrosodi-n-propylamine	<0.19		0.19	0.046	mg/Kg	☼	06/26/15 07:33	06/30/15 20:37	1
Hexachloroethane	<0.19		0.19	0.057	mg/Kg	☼	06/26/15 07:33	06/30/15 20:37	1
2-Chlorophenol	<0.19		0.19	0.065	mg/Kg	☼	06/26/15 07:33	06/30/15 20:37	1
Nitrobenzene	<0.038		0.038	0.0094	mg/Kg	☼	06/26/15 07:33	06/30/15 20:37	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.039	mg/Kg	☼	06/26/15 07:33	06/30/15 20:37	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.041	mg/Kg	☼	06/26/15 07:33	06/30/15 20:37	1
Isophorone	<0.19		0.19	0.042	mg/Kg	☼	06/26/15 07:33	06/30/15 20:37	1
2,4-Dimethylphenol	<0.38		0.38	0.14	mg/Kg	☼	06/26/15 07:33	06/30/15 20:37	1
Hexachlorobutadiene	<0.19		0.19	0.059	mg/Kg	☼	06/26/15 07:33	06/30/15 20:37	1
Naphthalene	<0.038		0.038	0.0058	mg/Kg	☼	06/26/15 07:33	06/30/15 20:37	1
2,4-Dichlorophenol	<0.38		0.38	0.090	mg/Kg	☼	06/26/15 07:33	06/30/15 20:37	1
4-Chloroaniline	<0.76		0.76	0.18	mg/Kg	☼	06/26/15 07:33	06/30/15 20:37	1
2,4,6-Trichlorophenol	<0.38		0.38	0.13	mg/Kg	☼	06/26/15 07:33	06/30/15 20:37	1
2,4,5-Trichlorophenol	<0.38		0.38	0.086	mg/Kg	☼	06/26/15 07:33	06/30/15 20:37	1
Hexachlorocyclopentadiene	<0.76		0.76	0.22	mg/Kg	☼	06/26/15 07:33	06/30/15 20:37	1
2-Methylnaphthalene	<0.038		0.038	0.0070	mg/Kg	☼	06/26/15 07:33	06/30/15 20:37	1
2-Nitroaniline	<0.19		0.19	0.051	mg/Kg	☼	06/26/15 07:33	06/30/15 20:37	1
2-Chloronaphthalene	<0.19		0.19	0.042	mg/Kg	☼	06/26/15 07:33	06/30/15 20:37	1
4-Chloro-3-methylphenol	<0.38		0.38	0.13	mg/Kg	☼	06/26/15 07:33	06/30/15 20:37	1
2,6-Dinitrotoluene	<0.19		0.19	0.074	mg/Kg	☼	06/26/15 07:33	06/30/15 20:37	1
2-Nitrophenol	<0.38		0.38	0.089	mg/Kg	☼	06/26/15 07:33	06/30/15 20:37	1
3-Nitroaniline	<0.38		0.38	0.12	mg/Kg	☼	06/26/15 07:33	06/30/15 20:37	1
Dimethyl phthalate	<0.19		0.19	0.049	mg/Kg	☼	06/26/15 07:33	06/30/15 20:37	1
2,4-Dinitrophenol	<0.76		0.76	0.67	mg/Kg	☼	06/26/15 07:33	06/30/15 20:37	1
Acenaphthylene	<0.038		0.038	0.0050	mg/Kg	☼	06/26/15 07:33	06/30/15 20:37	1
2,4-Dinitrotoluene	<0.19		0.19	0.060	mg/Kg	☼	06/26/15 07:33	06/30/15 20:37	1
Acenaphthene	<0.038		0.038	0.0068	mg/Kg	☼	06/26/15 07:33	06/30/15 20:37	1
Dibenzofuran	<0.19		0.19	0.044	mg/Kg	☼	06/26/15 07:33	06/30/15 20:37	1
4-Nitrophenol	<0.76		0.76	0.36	mg/Kg	☼	06/26/15 07:33	06/30/15 20:37	1
Fluorene	<0.038		0.038	0.0053	mg/Kg	☼	06/26/15 07:33	06/30/15 20:37	1
4-Nitroaniline	<0.38		0.38	0.16	mg/Kg	☼	06/26/15 07:33	06/30/15 20:37	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.050	mg/Kg	☼	06/26/15 07:33	06/30/15 20:37	1
Hexachlorobenzene	<0.076		0.076	0.0088	mg/Kg	☼	06/26/15 07:33	06/30/15 20:37	1
Diethyl phthalate	<0.19		0.19	0.064	mg/Kg	☼	06/26/15 07:33	06/30/15 20:37	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.044	mg/Kg	☼	06/26/15 07:33	06/30/15 20:37	1
Pentachlorophenol	<0.76		0.76	0.61	mg/Kg	☼	06/26/15 07:33	06/30/15 20:37	1
N-Nitrosodiphenylamine	<0.19		0.19	0.045	mg/Kg	☼	06/26/15 07:33	06/30/15 20:37	1
4,6-Dinitro-2-methylphenol	<0.38		0.38	0.30	mg/Kg	☼	06/26/15 07:33	06/30/15 20:37	1
Phenanthrene	0.012	J	0.038	0.0053	mg/Kg	☼	06/26/15 07:33	06/30/15 20:37	1
Anthracene	<0.038		0.038	0.0063	mg/Kg	☼	06/26/15 07:33	06/30/15 20:37	1
Carbazole	<0.19		0.19	0.098	mg/Kg	☼	06/26/15 07:33	06/30/15 20:37	1
Di-n-butyl phthalate	<0.19		0.19	0.058	mg/Kg	☼	06/26/15 07:33	06/30/15 20:37	1
Fluoranthene	0.021	J	0.038	0.0070	mg/Kg	☼	06/26/15 07:33	06/30/15 20:37	1
Pyrene	0.031	J	0.038	0.0075	mg/Kg	☼	06/26/15 07:33	06/30/15 20:37	1
Butyl benzyl phthalate	<0.19		0.19	0.072	mg/Kg	☼	06/26/15 07:33	06/30/15 20:37	1
Benzo[a]anthracene	0.020	J	0.038	0.0051	mg/Kg	☼	06/26/15 07:33	06/30/15 20:37	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97658-2

Client Sample ID: 1860-25-B01 (2-3)

Lab Sample ID: 500-97658-12

Date Collected: 06/22/15 13:20

Matrix: Solid

Date Received: 06/22/15 16:10

Percent Solids: 85.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.028	J	0.038	0.010	mg/Kg	☼	06/26/15 07:33	06/30/15 20:37	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.053	mg/Kg	☼	06/26/15 07:33	06/30/15 20:37	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.069	mg/Kg	☼	06/26/15 07:33	06/30/15 20:37	1
Di-n-octyl phthalate	<0.19		0.19	0.062	mg/Kg	☼	06/26/15 07:33	06/30/15 20:37	1
Benzo[b]fluoranthene	0.032	J	0.038	0.0082	mg/Kg	☼	06/26/15 07:33	06/30/15 20:37	1
Benzo[k]fluoranthene	0.011	J	0.038	0.011	mg/Kg	☼	06/26/15 07:33	06/30/15 20:37	1
Benzo[a]pyrene	0.022	J	0.038	0.0073	mg/Kg	☼	06/26/15 07:33	06/30/15 20:37	1
Indeno[1,2,3-cd]pyrene	0.017	J	0.038	0.0098	mg/Kg	☼	06/26/15 07:33	06/30/15 20:37	1
Dibenz(a,h)anthracene	<0.038		0.038	0.0073	mg/Kg	☼	06/26/15 07:33	06/30/15 20:37	1
Benzo[g,h,i]perylene	0.021	J	0.038	0.012	mg/Kg	☼	06/26/15 07:33	06/30/15 20:37	1
3 & 4 Methylphenol	<0.19		0.19	0.063	mg/Kg	☼	06/26/15 07:33	06/30/15 20:37	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	63		25 - 110	06/26/15 07:33	06/30/15 20:37	1
Phenol-d5	53		31 - 110	06/26/15 07:33	06/30/15 20:37	1
Nitrobenzene-d5	57		25 - 115	06/26/15 07:33	06/30/15 20:37	1
2-Fluorobiphenyl	58		25 - 119	06/26/15 07:33	06/30/15 20:37	1
2,4,6-Tribromophenol	69		35 - 137	06/26/15 07:33	06/30/15 20:37	1
Terphenyl-d14	104		36 - 134	06/26/15 07:33	06/30/15 20:37	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	☼	06/23/15 18:00	06/24/15 13:39	1
Arsenic	7.8		0.58	0.27	mg/Kg	☼	06/23/15 18:00	06/24/15 13:39	1
Barium	67		0.58	0.11	mg/Kg	☼	06/23/15 18:00	06/24/15 13:39	1
Beryllium	0.62		0.23	0.050	mg/Kg	☼	06/23/15 18:00	06/24/15 13:39	1
Boron	8.7		2.9	0.41	mg/Kg	☼	06/23/15 18:00	06/24/15 13:39	1
Cadmium	0.20		0.12	0.034	mg/Kg	☼	06/23/15 18:00	06/24/15 13:39	1
Calcium	52000		58	19	mg/Kg	☼	06/23/15 18:00	06/24/15 15:35	5
Chromium	16		0.58	0.10	mg/Kg	☼	06/23/15 18:00	06/24/15 13:39	1
Cobalt	9.6		0.29	0.066	mg/Kg	☼	06/23/15 18:00	06/24/15 13:39	1
Copper	26	B	0.58	0.13	mg/Kg	☼	06/23/15 18:00	06/24/15 13:39	1
Iron	22000	B	12	4.5	mg/Kg	☼	06/23/15 18:00	06/24/15 13:39	1
Lead	19		0.29	0.14	mg/Kg	☼	06/23/15 18:00	06/24/15 13:39	1
Magnesium	20000		5.8	2.4	mg/Kg	☼	06/23/15 18:00	06/24/15 13:39	1
Manganese	270		0.58	0.11	mg/Kg	☼	06/23/15 18:00	06/24/15 13:39	1
Nickel	29		0.58	0.16	mg/Kg	☼	06/23/15 18:00	06/24/15 13:39	1
Potassium	1900		29	4.7	mg/Kg	☼	06/23/15 18:00	06/24/15 13:39	1
Selenium	0.49	J	0.58	0.29	mg/Kg	☼	06/23/15 18:00	06/24/15 13:39	1
Silver	<0.29		0.29	0.068	mg/Kg	☼	06/23/15 18:00	06/24/15 13:39	1
Sodium	610		58	7.7	mg/Kg	☼	06/23/15 18:00	06/24/15 13:39	1
Thallium	<0.58		0.58	0.29	mg/Kg	☼	06/23/15 18:00	06/24/15 13:39	1
Vanadium	20		0.29	0.085	mg/Kg	☼	06/23/15 18:00	06/24/15 13:39	1
Zinc	62	B	1.2	0.37	mg/Kg	☼	06/23/15 18:00	06/24/15 13:39	1

Method: 7471B - Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.031		0.017	0.0061	mg/Kg	☼	06/23/15 11:30	06/24/15 12:47	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97658-2

Client Sample ID: 1860-25-B01 (2-3)D

Lab Sample ID: 500-97658-13

Date Collected: 06/22/15 13:20

Matrix: Solid

Date Received: 06/22/15 16:10

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.55		0.50	0.050	mg/L		06/25/15 12:00	06/26/15 15:05	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		06/25/15 12:00	06/26/15 15:05	1
Boron	0.74		0.50	0.050	mg/L		06/25/15 12:00	06/26/15 15:05	1
Cadmium	0.0023	J	0.0050	0.0020	mg/L		06/25/15 12:00	06/26/15 15:05	1
Chromium	<0.025		0.025	0.010	mg/L		06/25/15 12:00	06/26/15 15:05	1
Cobalt	<0.025		0.025	0.010	mg/L		06/25/15 12:00	06/26/15 15:05	1
Iron	<0.20		0.20	0.20	mg/L		06/25/15 12:00	06/26/15 15:05	1
Lead	<0.0075		0.0075	0.0075	mg/L		06/25/15 12:00	06/26/15 15:05	1
Manganese	0.60		0.025	0.010	mg/L		06/25/15 12:00	06/26/15 15:05	1
Nickel	<0.025		0.025	0.010	mg/L		06/25/15 12:00	06/26/15 15:05	1
Selenium	<0.050		0.050	0.020	mg/L		06/25/15 12:00	06/26/15 15:05	1
Silver	<0.025		0.025	0.010	mg/L		06/25/15 12:00	06/26/15 15:05	1
Zinc	0.049	J B	0.50	0.020	mg/L		06/25/15 12:00	06/26/15 15:05	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	<0.025		0.025	0.010	mg/L		07/01/15 11:20	07/02/15 12:49	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		06/25/15 12:00	06/26/15 21:13	1
Thallium	<0.0020		0.0020	0.0020	mg/L		06/25/15 12:00	06/26/15 21:13	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		06/25/15 10:30	06/26/15 09:38	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.66		0.200	0.200	SU			06/23/15 16:07	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97658-2

Client Sample ID: 1860-25-B01 (2-3)D

Lab Sample ID: 500-97658-13

Date Collected: 06/22/15 13:20

Matrix: Solid

Date Received: 06/22/15 16:10

Percent Solids: 84.2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	0.086		0.0050	0.0038	mg/Kg	☼	06/23/15 09:30	06/25/15 18:54	1
Benzene	<0.0050		0.0050	0.0011	mg/Kg	☼	06/23/15 09:30	06/25/15 18:54	1
Bromodichloromethane	<0.0050		0.0050	0.00084	mg/Kg	☼	06/23/15 09:30	06/25/15 18:54	1
Bromoform	<0.0050		0.0050	0.0010	mg/Kg	☼	06/23/15 09:30	06/25/15 18:54	1
Bromomethane	<0.0050 *		0.0050	0.0018	mg/Kg	☼	06/23/15 09:30	06/25/15 18:54	1
2-Butanone (MEK)	<0.0050		0.0050	0.0018	mg/Kg	☼	06/23/15 09:30	06/25/15 18:54	1
Carbon disulfide	<0.0050		0.0050	0.0018	mg/Kg	☼	06/23/15 09:30	06/25/15 18:54	1
Carbon tetrachloride	<0.0050		0.0050	0.0011	mg/Kg	☼	06/23/15 09:30	06/25/15 18:54	1
Chlorobenzene	<0.0050		0.0050	0.0012	mg/Kg	☼	06/23/15 09:30	06/25/15 18:54	1
Chloroethane	<0.0050 *		0.0050	0.0021	mg/Kg	☼	06/23/15 09:30	06/25/15 18:54	1
Chloroform	<0.0050		0.0050	0.00097	mg/Kg	☼	06/23/15 09:30	06/25/15 18:54	1
Chloromethane	<0.0050		0.0050	0.0012	mg/Kg	☼	06/23/15 09:30	06/25/15 18:54	1
cis-1,2-Dichloroethene	<0.0050		0.0050	0.0010	mg/Kg	☼	06/23/15 09:30	06/25/15 18:54	1
cis-1,3-Dichloropropene	<0.0050		0.0050	0.0011	mg/Kg	☼	06/23/15 09:30	06/25/15 18:54	1
Dibromochloromethane	<0.0050		0.0050	0.00057	mg/Kg	☼	06/23/15 09:30	06/25/15 18:54	1
1,1-Dichloroethane	<0.0050		0.0050	0.0010	mg/Kg	☼	06/23/15 09:30	06/25/15 18:54	1
1,2-Dichloroethane	<0.0050		0.0050	0.00073	mg/Kg	☼	06/23/15 09:30	06/25/15 18:54	1
1,1-Dichloroethene	<0.0050		0.0050	0.0018	mg/Kg	☼	06/23/15 09:30	06/25/15 18:54	1
1,2-Dichloropropane	<0.0050		0.0050	0.0013	mg/Kg	☼	06/23/15 09:30	06/25/15 18:54	1
1,3-Dichloropropane, Total	<0.0050		0.0050	0.0014	mg/Kg	☼	06/23/15 09:30	06/25/15 18:54	1
Ethylbenzene	<0.0050		0.0050	0.0012	mg/Kg	☼	06/23/15 09:30	06/25/15 18:54	1
2-Hexanone	<0.0050		0.0050	0.0015	mg/Kg	☼	06/23/15 09:30	06/25/15 18:54	1
Methylene Chloride	0.014		0.0050	0.0037	mg/Kg	☼	06/23/15 09:30	06/25/15 18:54	1
4-Methyl-2-pentanone (MIBK)	<0.0050		0.0050	0.0010	mg/Kg	☼	06/23/15 09:30	06/25/15 18:54	1
Methyl tert-butyl ether	<0.0050		0.0050	0.0012	mg/Kg	☼	06/23/15 09:30	06/25/15 18:54	1
Styrene	<0.0050		0.0050	0.0012	mg/Kg	☼	06/23/15 09:30	06/25/15 18:54	1
1,1,2,2-Tetrachloroethane	<0.0050		0.0050	0.00079	mg/Kg	☼	06/23/15 09:30	06/25/15 18:54	1
Tetrachloroethene	<0.0050		0.0050	0.0010	mg/Kg	☼	06/23/15 09:30	06/25/15 18:54	1
Toluene	<0.0050		0.0050	0.0017	mg/Kg	☼	06/23/15 09:30	06/25/15 18:54	1
trans-1,2-Dichloroethene	<0.0050		0.0050	0.0012	mg/Kg	☼	06/23/15 09:30	06/25/15 18:54	1
trans-1,3-Dichloropropene	<0.0050		0.0050	0.0014	mg/Kg	☼	06/23/15 09:30	06/25/15 18:54	1
1,1,1-Trichloroethane	<0.0050		0.0050	0.0011	mg/Kg	☼	06/23/15 09:30	06/25/15 18:54	1
1,1,2-Trichloroethane	<0.0050		0.0050	0.00096	mg/Kg	☼	06/23/15 09:30	06/25/15 18:54	1
Trichloroethene	<0.0050		0.0050	0.0013	mg/Kg	☼	06/23/15 09:30	06/25/15 18:54	1
Vinyl acetate	<0.0050		0.0050	0.0013	mg/Kg	☼	06/23/15 09:30	06/25/15 18:54	1
Vinyl chloride	<0.0050		0.0050	0.0012	mg/Kg	☼	06/23/15 09:30	06/25/15 18:54	1
Xylenes, Total	<0.0099		0.0099	0.0018	mg/Kg	☼	06/23/15 09:30	06/25/15 18:54	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	89		70 - 122	06/23/15 09:30	06/25/15 18:54	1
Dibromofluoromethane	102		75 - 120	06/23/15 09:30	06/25/15 18:54	1
1,2-Dichloroethane-d4 (Surr)	99		70 - 134	06/23/15 09:30	06/25/15 18:54	1
Toluene-d8 (Surr)	97		75 - 122	06/23/15 09:30	06/25/15 18:54	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.19		0.19	0.084	mg/Kg	☼	06/26/15 07:33	06/30/15 21:20	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.057	mg/Kg	☼	06/26/15 07:33	06/30/15 21:20	1
1,3-Dichlorobenzene	<0.19		0.19	0.042	mg/Kg	☼	06/26/15 07:33	06/30/15 21:20	1
1,4-Dichlorobenzene	<0.19		0.19	0.048	mg/Kg	☼	06/26/15 07:33	06/30/15 21:20	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97658-2

Client Sample ID: 1860-25-B01 (2-3)D

Lab Sample ID: 500-97658-13

Date Collected: 06/22/15 13:20

Matrix: Solid

Date Received: 06/22/15 16:10

Percent Solids: 84.2

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	0.045	mg/Kg	☼	06/26/15 07:33	06/30/15 21:20	1
2-Methylphenol	<0.19		0.19	0.060	mg/Kg	☼	06/26/15 07:33	06/30/15 21:20	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.044	mg/Kg	☼	06/26/15 07:33	06/30/15 21:20	1
N-Nitrosodi-n-propylamine	<0.19		0.19	0.046	mg/Kg	☼	06/26/15 07:33	06/30/15 21:20	1
Hexachloroethane	<0.19		0.19	0.057	mg/Kg	☼	06/26/15 07:33	06/30/15 21:20	1
2-Chlorophenol	<0.19		0.19	0.064	mg/Kg	☼	06/26/15 07:33	06/30/15 21:20	1
Nitrobenzene	<0.037		0.037	0.0094	mg/Kg	☼	06/26/15 07:33	06/30/15 21:20	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.038	mg/Kg	☼	06/26/15 07:33	06/30/15 21:20	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.041	mg/Kg	☼	06/26/15 07:33	06/30/15 21:20	1
Isophorone	<0.19		0.19	0.042	mg/Kg	☼	06/26/15 07:33	06/30/15 21:20	1
2,4-Dimethylphenol	<0.37		0.37	0.14	mg/Kg	☼	06/26/15 07:33	06/30/15 21:20	1
Hexachlorobutadiene	<0.19		0.19	0.059	mg/Kg	☼	06/26/15 07:33	06/30/15 21:20	1
Naphthalene	<0.037		0.037	0.0058	mg/Kg	☼	06/26/15 07:33	06/30/15 21:20	1
2,4-Dichlorophenol	<0.37		0.37	0.090	mg/Kg	☼	06/26/15 07:33	06/30/15 21:20	1
4-Chloroaniline	<0.76		0.76	0.18	mg/Kg	☼	06/26/15 07:33	06/30/15 21:20	1
2,4,6-Trichlorophenol	<0.37		0.37	0.13	mg/Kg	☼	06/26/15 07:33	06/30/15 21:20	1
2,4,5-Trichlorophenol	<0.37		0.37	0.086	mg/Kg	☼	06/26/15 07:33	06/30/15 21:20	1
Hexachlorocyclopentadiene	<0.76		0.76	0.22	mg/Kg	☼	06/26/15 07:33	06/30/15 21:20	1
2-Methylnaphthalene	<0.037		0.037	0.0069	mg/Kg	☼	06/26/15 07:33	06/30/15 21:20	1
2-Nitroaniline	<0.19		0.19	0.051	mg/Kg	☼	06/26/15 07:33	06/30/15 21:20	1
2-Chloronaphthalene	<0.19		0.19	0.042	mg/Kg	☼	06/26/15 07:33	06/30/15 21:20	1
4-Chloro-3-methylphenol	<0.37		0.37	0.13	mg/Kg	☼	06/26/15 07:33	06/30/15 21:20	1
2,6-Dinitrotoluene	<0.19		0.19	0.074	mg/Kg	☼	06/26/15 07:33	06/30/15 21:20	1
2-Nitrophenol	<0.37		0.37	0.089	mg/Kg	☼	06/26/15 07:33	06/30/15 21:20	1
3-Nitroaniline	<0.37		0.37	0.12	mg/Kg	☼	06/26/15 07:33	06/30/15 21:20	1
Dimethyl phthalate	<0.19		0.19	0.049	mg/Kg	☼	06/26/15 07:33	06/30/15 21:20	1
2,4-Dinitrophenol	<0.76		0.76	0.66	mg/Kg	☼	06/26/15 07:33	06/30/15 21:20	1
Acenaphthylene	<0.037		0.037	0.0050	mg/Kg	☼	06/26/15 07:33	06/30/15 21:20	1
2,4-Dinitrotoluene	<0.19		0.19	0.060	mg/Kg	☼	06/26/15 07:33	06/30/15 21:20	1
Acenaphthene	<0.037		0.037	0.0068	mg/Kg	☼	06/26/15 07:33	06/30/15 21:20	1
Dibenzofuran	<0.19		0.19	0.044	mg/Kg	☼	06/26/15 07:33	06/30/15 21:20	1
4-Nitrophenol	<0.76		0.76	0.36	mg/Kg	☼	06/26/15 07:33	06/30/15 21:20	1
Fluorene	<0.037		0.037	0.0053	mg/Kg	☼	06/26/15 07:33	06/30/15 21:20	1
4-Nitroaniline	<0.37		0.37	0.16	mg/Kg	☼	06/26/15 07:33	06/30/15 21:20	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.050	mg/Kg	☼	06/26/15 07:33	06/30/15 21:20	1
Hexachlorobenzene	<0.076		0.076	0.0087	mg/Kg	☼	06/26/15 07:33	06/30/15 21:20	1
Diethyl phthalate	<0.19		0.19	0.064	mg/Kg	☼	06/26/15 07:33	06/30/15 21:20	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.044	mg/Kg	☼	06/26/15 07:33	06/30/15 21:20	1
Pentachlorophenol	<0.76		0.76	0.60	mg/Kg	☼	06/26/15 07:33	06/30/15 21:20	1
N-Nitrosodiphenylamine	<0.19		0.19	0.044	mg/Kg	☼	06/26/15 07:33	06/30/15 21:20	1
4,6-Dinitro-2-methylphenol	<0.37		0.37	0.30	mg/Kg	☼	06/26/15 07:33	06/30/15 21:20	1
Phenanthrene	<0.037		0.037	0.0053	mg/Kg	☼	06/26/15 07:33	06/30/15 21:20	1
Anthracene	<0.037		0.037	0.0063	mg/Kg	☼	06/26/15 07:33	06/30/15 21:20	1
Carbazole	<0.19		0.19	0.097	mg/Kg	☼	06/26/15 07:33	06/30/15 21:20	1
Di-n-butyl phthalate	<0.19		0.19	0.057	mg/Kg	☼	06/26/15 07:33	06/30/15 21:20	1
Fluoranthene	<0.037		0.037	0.0070	mg/Kg	☼	06/26/15 07:33	06/30/15 21:20	1
Pyrene	<0.037		0.037	0.0075	mg/Kg	☼	06/26/15 07:33	06/30/15 21:20	1
Butyl benzyl phthalate	<0.19		0.19	0.072	mg/Kg	☼	06/26/15 07:33	06/30/15 21:20	1
Benzo[a]anthracene	<0.037		0.037	0.0051	mg/Kg	☼	06/26/15 07:33	06/30/15 21:20	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97658-2

Client Sample ID: 1860-25-B01 (2-3)D

Lab Sample ID: 500-97658-13

Date Collected: 06/22/15 13:20

Matrix: Solid

Date Received: 06/22/15 16:10

Percent Solids: 84.2

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	☼	06/26/15 07:33	06/30/15 21:20	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.053	mg/Kg	☼	06/26/15 07:33	06/30/15 21:20	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.069	mg/Kg	☼	06/26/15 07:33	06/30/15 21:20	1
Di-n-octyl phthalate	<0.19		0.19	0.062	mg/Kg	☼	06/26/15 07:33	06/30/15 21:20	1
Benzo[b]fluoranthene	<0.037		0.037	0.0081	mg/Kg	☼	06/26/15 07:33	06/30/15 21:20	1
Benzo[k]fluoranthene	<0.037		0.037	0.011	mg/Kg	☼	06/26/15 07:33	06/30/15 21:20	1
Benzo[a]pyrene	<0.037		0.037	0.0073	mg/Kg	☼	06/26/15 07:33	06/30/15 21:20	1
Indeno[1,2,3-cd]pyrene	<0.037		0.037	0.0098	mg/Kg	☼	06/26/15 07:33	06/30/15 21:20	1
Dibenz(a,h)anthracene	<0.037		0.037	0.0073	mg/Kg	☼	06/26/15 07:33	06/30/15 21:20	1
Benzo[g,h,i]perylene	<0.037		0.037	0.012	mg/Kg	☼	06/26/15 07:33	06/30/15 21:20	1
3 & 4 Methylphenol	<0.19		0.19	0.063	mg/Kg	☼	06/26/15 07:33	06/30/15 21:20	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	50		25 - 110	06/26/15 07:33	06/30/15 21:20	1
Phenol-d5	49		31 - 110	06/26/15 07:33	06/30/15 21:20	1
Nitrobenzene-d5	55		25 - 115	06/26/15 07:33	06/30/15 21:20	1
2-Fluorobiphenyl	58		25 - 119	06/26/15 07:33	06/30/15 21:20	1
2,4,6-Tribromophenol	49		35 - 137	06/26/15 07:33	06/30/15 21:20	1
Terphenyl-d14	65		36 - 134	06/26/15 07:33	06/30/15 21:20	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.1		1.1	0.23	mg/Kg	☼	06/23/15 18:00	06/24/15 13:44	1
Arsenic	6.0		0.56	0.26	mg/Kg	☼	06/23/15 18:00	06/24/15 13:44	1
Barium	63		0.56	0.10	mg/Kg	☼	06/23/15 18:00	06/24/15 13:44	1
Beryllium	0.62		0.22	0.048	mg/Kg	☼	06/23/15 18:00	06/24/15 13:44	1
Boron	8.4		2.8	0.39	mg/Kg	☼	06/23/15 18:00	06/24/15 13:44	1
Cadmium	0.15		0.11	0.032	mg/Kg	☼	06/23/15 18:00	06/24/15 13:44	1
Calcium	29000		56	18	mg/Kg	☼	06/23/15 18:00	06/24/15 15:39	5
Chromium	15		0.56	0.096	mg/Kg	☼	06/23/15 18:00	06/24/15 13:44	1
Cobalt	9.5		0.28	0.063	mg/Kg	☼	06/23/15 18:00	06/24/15 13:44	1
Copper	24 B		0.56	0.12	mg/Kg	☼	06/23/15 18:00	06/24/15 13:44	1
Iron	19000 B		11	4.3	mg/Kg	☼	06/23/15 18:00	06/24/15 13:44	1
Lead	14		0.28	0.14	mg/Kg	☼	06/23/15 18:00	06/24/15 13:44	1
Magnesium	23000		5.6	2.3	mg/Kg	☼	06/23/15 18:00	06/24/15 13:44	1
Manganese	300		0.56	0.11	mg/Kg	☼	06/23/15 18:00	06/24/15 13:44	1
Nickel	29		0.56	0.15	mg/Kg	☼	06/23/15 18:00	06/24/15 13:44	1
Potassium	1900		28	4.6	mg/Kg	☼	06/23/15 18:00	06/24/15 13:44	1
Selenium	<0.56		0.56	0.28	mg/Kg	☼	06/23/15 18:00	06/24/15 13:44	1
Silver	<0.28		0.28	0.065	mg/Kg	☼	06/23/15 18:00	06/24/15 13:44	1
Sodium	580		56	7.4	mg/Kg	☼	06/23/15 18:00	06/24/15 13:44	1
Thallium	<0.56		0.56	0.27	mg/Kg	☼	06/23/15 18:00	06/24/15 13:44	1
Vanadium	19		0.28	0.082	mg/Kg	☼	06/23/15 18:00	06/24/15 13:44	1
Zinc	54 B		1.1	0.35	mg/Kg	☼	06/23/15 18:00	06/24/15 13:44	1

Method: 7471B - Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.037		0.019	0.0067	mg/Kg	☼	06/23/15 11:30	06/24/15 12:49	1

TestAmerica Chicago

Definitions/Glossary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97658-2

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.

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.
*	ISTD response or retention time outside acceptable 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, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
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
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)

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 #: 500-97658
 Chain of Custody Number: _____
 Page _____ of _____
 Temperature °C of Cooler: _____

Client		Client Project #		Preservative		Parameter		Matrix		Comments	
Project Name		Lab Project #		Sampling		# of Containers		Matrix		Preservative Key	
Project Location/State		Lab Project #		Date		Time		Matrix		Preservative Key	
Sampler		Lab P/N		Date		Time		Matrix		Preservative Key	
Lab ID	MS/MSD	Sample ID	Date	Time	# of Containers	Matrix					
EE		1409608-0631.0									
IL171											
Cook County, IL											
S. Cooper											
12		1860-25-B01 (2-3)	6/22/15	1320	2	5	X	X	X	X	X
13		1860-25-B01 (2-3)D	6/22/15	1320	2	5	X	X	X	X	X
<i>[Handwritten signature and date 6/22/15]</i>											

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>[Signature]</i> Company: EE Date: 6/22/15 Time: 1510	Received By: <i>[Signature]</i> Company: JA Date: 6/22/15 Time: 1518	Lab Courier: <i>[Signature]</i>
Relinquished By: <i>[Signature]</i> Company: JA Date: 6/22/15 Time: 1610	Received By: <i>[Signature]</i> Company: JA-CPI Date: 6/23/15 Time: 0720	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: 500-97658-2

Login Number: 97658
List Number: 1
Creator: Scott, Sherri L

List Source: TestAmerica Chicago

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	2.8,3.1
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.	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	





Bureau of Land • 1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276

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 372/373 (Illinois Route 171) Office Phone Number, if available: _____

Physical Site Location (address, including number and street):
Between the Chicago Sanitary and Ship Canal and the Canadian National/Illinois Central Railroad

City: Summit State: IL Zip Code: 60501

County: Cook Township: Lyons

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

Latitude: 41.791928 Longitude: -87.816683
(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: _____

II. Owner/Operator Information for Source Site

Site Owner

Site Operator

Name: Illinois Department of Transportation

Name: _____

Street Address: 201 West Center Court

Street Address: _____

PO Box: _____

PO Box: _____

City: Schaumburg State: IL

City: _____ State: _____

Zip Code: 60196-1096 Phone: 847-705-4159

Zip Code: _____ Phone: _____

Contact: Sam Mead

Contact: _____

Email, if available: Sam.Mead@illinois.gov

Email, if available: _____

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.

Project Name: FAP 372/373 (Illinois Route 171)

Latitude: 41.791928 Longitude: -87.816683

Uncontaminated Site 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 1860-27-B01, 1860-27-B03, and 1860-27-B04 were sampled within the construction zone adjacent to ISGS #1860-27 (Metropolitan Water Reclamation District of Greater Chicago). Refer to PSI Report for ISGS #1860-27 (Metropolitan Water Reclamation District of Greater Chicago) including Table 4-3, and Figures 4-2A & B.

- 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 500-97179-1.

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

I, Neil J. 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 Street
 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:

7/22/15
 Date:



Analytical Data Summary
PTB #172-27; Work Order 31 - IDOT Job # D-91-191-10

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.

SCGIER = Soil Component of the Groundwater Ingestion Exposure Route

SPLP = Synthetic Precipitation Leaching Procedure.

ND = Not detected.

NA = Not analyzed.

J = Estimated value.

U = Analyte was analyzed for but not detected.


Criteria Qualifiers and Shading

† = Concentration exceeds the most stringent MAC.

m = Concentration exceeds the MAC for an MSA.

* = Concentration exceeds the MAC for Chicago corporate limits.

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

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

 = Concentration exceeds the most stringent MAC and the MAC for Chicago corporate limits.

 = Concentration exceeds applicable comparison criteria.

**PTB #172-27; Work Order 31 - IDOT Job # D-91-191-10
DETECTED ANALYTES**

SITE	ISGS #1860-27 (Metropolitan Water Reclamation District of Greater Chicago)			Comparison Criteria			
	1860-27-B01	1860-27-B03	1860-27-B04	MACs			TACO
BORING	1860-27-B01 (2-4)	1860-27-B03 (2-4)	1860-27-B04 (4-5)	Most Stringent	Within an MSA	Within Chicago	SCGIER
SAMPLE	Soil	Soil	Soil				
MATRIX	2-4	2-4	4-5				
DEPTH (feet)	8.76	7.77	7.82				
pH							
VOCs (mg/kg)							
Acetone	0.028	0.055	0.019	25	--	--	--
SVOCs (mg/kg)							
Benzo[a]anthracene	ND U	ND U	0.0082 J	0.9	1.8	1.1	--
Fluoranthene	ND U	0.15 J	0.014 J	3,100	--	--	--
Pyrene	ND U	0.092 J	0.013 J	2,300	--	--	--
Inorganics (mg/kg)							
Arsenic	5.7	10	6.8	11.3	13	--	--
Barium	53	40	38	1,500	--	--	--
Beryllium	0.62	0.47	0.45	22	--	--	--
Boron	8.8	8.2	7.3	40	--	--	--
Cadmium	0.045 J	0.17	0.17	5.2	--	--	--
Calcium	57,000	69,000	65,000	--	--	--	--
Chromium	17	12	11	21	--	--	--
Cobalt	11	12	11	20	--	--	--
Copper	20	25	20	2,900	--	--	--
Iron	17,000 †m	19,000 †m	14,000	15,000	15,900	--	--
Lead	13	18	25	107	--	--	--
Magnesium	23,000	30,000	26,000	325,000	--	--	--
Manganese	280	440	380	630	636	--	--
Mercury	0.026	0.055 J	0.026	0.89	--	--	--
Nickel	29	28	22	100	--	--	--
Potassium	1,900	1,800	1,200	--	--	--	--
Selenium	0.59	0.53 J	ND U	1.3	--	--	--
Sodium	400	1,100	560	--	--	--	--
Vanadium	20	15	15	550	--	--	--
Zinc	57	74	60	5,100	--	--	--
TCLP Metals (mg/L)							
Barium	0.42 J	0.23 J	0.2 J	--	--	--	2
Boron	0.64	0.65	0.63	--	--	--	2
Cadmium	0.0022 J	ND U	0.0026 J	--	--	--	0.005
Cobalt	ND U	ND U	0.026	--	--	--	1
Iron	ND U	ND U	ND U	--	--	--	5
Manganese	0.95 L	3.5 L	4.6 L	--	--	--	0.15
Nickel	ND U	ND U	0.019 J	--	--	--	0.1
SPLP Metals (mg/L)							
Manganese	0.3 L	0.092	0.1	--	--	--	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: 500-97179-1
Client Project/Site: IDOT - IL 171 - WO 031

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

Attn: Mr. Dean Tiebout



Authorized for release by:
6/25/2015 3:01:25 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

8

9



Table of Contents

Cover Page	1
Table of Contents	2
Case Narrative	3
Detection Summary	4
Sample Summary	7
Client Sample Results	8
Definitions	24
Chain of Custody	25
Receipt Checklists	26

Case Narrative

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97179-1

Job ID: 500-97179-1

Laboratory: TestAmerica Chicago

Narrative

Job Narrative 500-97179-1

Receipt

The samples were received on 6/11/2015 7:20 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.3° C.

Receipt Exceptions

The lab received all bottles for sample 8 with an ID of 1860-50-B03 (12-14), however the sample was logged per the COC.

GC/MS VOA

Method(s) 8260B: The %RPD of the laboratory control sample (LCS) and laboratory control standard duplicate (LCSD) for preparation batch 292055 recovered outside control limits for Acetone.

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: A full list spike was utilized for this method. Due to the large number of spiked analytes, there is a high probability that one or more analytes will recover outside acceptance limits. The laboratory's SOP allows for 3 analytes to recover outside criteria for this method when a full list spike is utilized. The LCS associated with preparation batch 500-292518 and analytical batch 500-292688 had 2 analytes outside control limits: 2,2'-oxybis[1-chloropropane] and 2-Nitroaniline; therefore, corrective action was not performed. These results have been reported and qualified.

Method(s) 8270D: The following samples contained one acid surrogate outside acceptance limits: 1860-27-B02 (0-2) (500-97179-3) and 1860-27-B01 (2-4) (500-97179-4). 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 samples were diluted due to the nature of the sample matrix: 1860-27-B03 (2-4) (500-97179-1), 1860-50-B01 (0-2) (500-97179-5) and 1860-49-B01 (12-14) (500-97179-10). Elevated reporting limits (RLs) are provided.

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 - IL 171 - WO 031

TestAmerica Job ID: 500-97179-1

Client Sample ID: 1860-27-B03 (2-4)

Lab Sample ID: 500-97179-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	0.055	*	0.0046	0.0036	mg/Kg	1	☼	8260B	Total/NA
Fluoranthene	0.15	J	0.18	0.034	mg/Kg	5	☼	8270D	Total/NA
Pyrene	0.092	J	0.18	0.036	mg/Kg	5	☼	8270D	Total/NA
Arsenic	10		0.56	0.26	mg/Kg	1	☼	6010B	Total/NA
Barium	40		0.56	0.10	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.47		0.23	0.049	mg/Kg	1	☼	6010B	Total/NA
Boron	8.2		2.8	0.39	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.17		0.11	0.033	mg/Kg	1	☼	6010B	Total/NA
Calcium	69000		56	18	mg/Kg	5	☼	6010B	Total/NA
Chromium	12		0.56	0.097	mg/Kg	1	☼	6010B	Total/NA
Cobalt	12		0.28	0.064	mg/Kg	1	☼	6010B	Total/NA
Copper	25		0.56	0.12	mg/Kg	1	☼	6010B	Total/NA
Iron	19000		11	4.4	mg/Kg	1	☼	6010B	Total/NA
Lead	18		0.28	0.14	mg/Kg	1	☼	6010B	Total/NA
Magnesium	30000	B	5.6	2.3	mg/Kg	1	☼	6010B	Total/NA
Manganese	440		0.56	0.11	mg/Kg	1	☼	6010B	Total/NA
Nickel	28		0.56	0.15	mg/Kg	1	☼	6010B	Total/NA
Potassium	1800		28	4.6	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.53	J	0.56	0.28	mg/Kg	1	☼	6010B	Total/NA
Sodium	1100		56	7.5	mg/Kg	1	☼	6010B	Total/NA
Vanadium	15		0.28	0.082	mg/Kg	1	☼	6010B	Total/NA
Zinc	74	B	1.1	0.36	mg/Kg	1	☼	6010B	Total/NA
Barium	0.23	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.65		0.50	0.050	mg/L	1		6010B	TCLP
Manganese	3.5		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.051	J B	0.10	0.020	mg/L	1		6010B	TCLP
Manganese	0.092		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.055	F1	0.018	0.0062	mg/Kg	1	☼	7471B	Total/NA
pH	7.77		0.200	0.200	SU	1		9045D	Total/NA

Client Sample ID: 1860-27-B04 (4-5)

Lab Sample ID: 500-97179-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	0.019	*	0.0048	0.0037	mg/Kg	1	☼	8260B	Total/NA
Fluoranthene	0.014	J	0.037	0.0070	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.013	J	0.037	0.0075	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.0082	J	0.037	0.0050	mg/Kg	1	☼	8270D	Total/NA
Arsenic	6.8		0.54	0.25	mg/Kg	1	☼	6010B	Total/NA
Barium	38		0.54	0.098	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.45		0.22	0.047	mg/Kg	1	☼	6010B	Total/NA
Boron	7.3		2.7	0.38	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.17		0.11	0.031	mg/Kg	1	☼	6010B	Total/NA
Calcium	65000		54	17	mg/Kg	5	☼	6010B	Total/NA
Chromium	11		0.54	0.092	mg/Kg	1	☼	6010B	Total/NA
Cobalt	11		0.27	0.061	mg/Kg	1	☼	6010B	Total/NA
Copper	20		0.54	0.12	mg/Kg	1	☼	6010B	Total/NA
Iron	14000		11	4.1	mg/Kg	1	☼	6010B	Total/NA
Lead	25		0.27	0.13	mg/Kg	1	☼	6010B	Total/NA
Magnesium	26000	B	5.4	2.2	mg/Kg	1	☼	6010B	Total/NA
Manganese	380		0.54	0.11	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 - IL 171 - WO 031

TestAmerica Job ID: 500-97179-1

Client Sample ID: 1860-27-B04 (4-5) (Continued)

Lab Sample ID: 500-97179-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Nickel	22		0.54	0.15	mg/Kg	1	☼	6010B	Total/NA
Potassium	1200		27	4.4	mg/Kg	1	☼	6010B	Total/NA
Sodium	560		54	7.1	mg/Kg	1	☼	6010B	Total/NA
Vanadium	15		0.27	0.078	mg/Kg	1	☼	6010B	Total/NA
Zinc	60	B	1.1	0.34	mg/Kg	1	☼	6010B	Total/NA
Barium	0.20	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.63		0.50	0.050	mg/L	1		6010B	TCLP
Cadmium	0.0026	J	0.0050	0.0020	mg/L	1		6010B	TCLP
Cobalt	0.026		0.025	0.010	mg/L	1		6010B	TCLP
Manganese	4.6		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.019	J	0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.047	J B	0.10	0.020	mg/L	1		6010B	TCLP
Manganese	0.10		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.026		0.019	0.0066	mg/Kg	1	☼	7471B	Total/NA
pH	7.82		0.200	0.200	SU	1		9045D	Total/NA

Client Sample ID: 1860-27-B01 (2-4)

Lab Sample ID: 500-97179-4

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Ecology and Environment, Inc.
 Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97179-1

Client Sample ID: 1860-27-B01 (2-4) (Continued)

Lab Sample ID: 500-97179-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Acetone	0.028	*	0.0054	0.0042	mg/Kg	1	☼	8260B		Total/NA
Arsenic	5.7		0.58	0.27	mg/Kg	1	☼	6010B		Total/NA
Barium	53		0.58	0.11	mg/Kg	1	☼	6010B		Total/NA
Beryllium	0.62		0.23	0.050	mg/Kg	1	☼	6010B		Total/NA
Boron	8.8		2.9	0.41	mg/Kg	1	☼	6010B		Total/NA
Cadmium	0.045	J	0.12	0.034	mg/Kg	1	☼	6010B		Total/NA
Calcium	57000		58	19	mg/Kg	5	☼	6010B		Total/NA
Chromium	17		0.58	0.10	mg/Kg	1	☼	6010B		Total/NA
Cobalt	11		0.29	0.066	mg/Kg	1	☼	6010B		Total/NA
Copper	20		0.58	0.13	mg/Kg	1	☼	6010B		Total/NA
Iron	17000		12	4.5	mg/Kg	1	☼	6010B		Total/NA
Lead	13		0.29	0.14	mg/Kg	1	☼	6010B		Total/NA
Magnesium	23000	B	5.8	2.4	mg/Kg	1	☼	6010B		Total/NA
Manganese	280		0.58	0.12	mg/Kg	1	☼	6010B		Total/NA
Nickel	29		0.58	0.16	mg/Kg	1	☼	6010B		Total/NA
Potassium	1900		29	4.7	mg/Kg	1	☼	6010B		Total/NA
Selenium	0.59		0.58	0.29	mg/Kg	1	☼	6010B		Total/NA
Sodium	400		58	7.7	mg/Kg	1	☼	6010B		Total/NA
Vanadium	20		0.29	0.085	mg/Kg	1	☼	6010B		Total/NA
Zinc	57	B	1.2	0.37	mg/Kg	1	☼	6010B		Total/NA
Barium	0.42	J	0.50	0.050	mg/L	1		6010B		TCLP
Boron	0.64		0.50	0.050	mg/L	1		6010B		TCLP
Cadmium	0.0022	J	0.0050	0.0020	mg/L	1		6010B		TCLP
Manganese	0.95		0.025	0.010	mg/L	1		6010B		TCLP
Zinc	0.034	J B	0.10	0.020	mg/L	1		6010B		TCLP
Manganese	0.30		0.025	0.010	mg/L	1		6010B		SPLP East
Mercury	0.026		0.019	0.0066	mg/Kg	1	☼	7471B		Total/NA
pH	8.76		0.200	0.200	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 - IL 171 - WO 031

TestAmerica Job ID: 500-97179-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-97179-1	1860-27-B03 (2-4)	Solid	06/10/15 10:05	06/11/15 07:20
500-97179-2	1860-27-B04 (4-5)	Solid	06/10/15 10:15	06/11/15 07:20
500-97179-4	1860-27-B01 (2-4)	Solid	06/10/15 11:15	06/11/15 07:20

1

2

3

4

5

6

7

8

9

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97179-1

Client Sample ID: 1860-27-B03 (2-4)

Lab Sample ID: 500-97179-1

Date Collected: 06/10/15 10:05

Matrix: Solid

Date Received: 06/11/15 07:20

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	-	06/12/15 09:10	06/12/15 21:15	1
Beryllium	<0.0040		0.0040	0.0040	mg/L	-	06/12/15 09:10	06/12/15 21:15	1
Boron	0.65		0.50	0.050	mg/L	-	06/12/15 09:10	06/12/15 21:15	1
Cadmium	<0.0050		0.0050	0.0020	mg/L	-	06/12/15 09:10	06/12/15 21:15	1
Chromium	<0.025		0.025	0.010	mg/L	-	06/12/15 09:10	06/12/15 21:15	1
Cobalt	<0.025		0.025	0.010	mg/L	-	06/12/15 09:10	06/12/15 21:15	1
Iron	<0.20		0.20	0.20	mg/L	-	06/12/15 09:10	06/12/15 21:15	1
Lead	<0.0075		0.0075	0.0075	mg/L	-	06/12/15 09:10	06/12/15 21:15	1
Manganese	3.5		0.025	0.010	mg/L	-	06/12/15 09:10	06/12/15 21:15	1
Nickel	<0.025		0.025	0.010	mg/L	-	06/12/15 09:10	06/12/15 21:15	1
Selenium	<0.050		0.050	0.020	mg/L	-	06/12/15 09:10	06/12/15 21:15	1
Silver	<0.025		0.025	0.010	mg/L	-	06/12/15 09:10	06/12/15 21:15	1
Zinc	0.051	J B	0.10	0.020	mg/L	-	06/12/15 09:10	06/12/15 21:15	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.092		0.025	0.010	mg/L	-	06/17/15 09:00	06/17/15 20:37	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	-	06/12/15 09:10	06/16/15 18:11	1
Thallium	<0.0020		0.0020	0.0020	mg/L	-	06/12/15 09:10	06/16/15 18:11	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	-	06/12/15 11:00	06/15/15 12:03	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.77		0.200	0.200	SU	-		06/11/15 16:49	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97179-1

Client Sample ID: 1860-27-B03 (2-4)

Lab Sample ID: 500-97179-1

Date Collected: 06/10/15 10:05

Matrix: Solid

Date Received: 06/11/15 07:20

Percent Solids: 85.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	0.055	*	0.0046	0.0036	mg/Kg	☼	06/11/15 07:50	06/16/15 11:47	1
Benzene	<0.0046		0.0046	0.0010	mg/Kg	☼	06/11/15 07:50	06/16/15 11:47	1
Bromodichloromethane	<0.0046		0.0046	0.00078	mg/Kg	☼	06/11/15 07:50	06/16/15 11:47	1
Bromoform	<0.0046		0.0046	0.00094	mg/Kg	☼	06/11/15 07:50	06/16/15 11:47	1
Bromomethane	<0.0046		0.0046	0.0017	mg/Kg	☼	06/11/15 07:50	06/16/15 11:47	1
2-Butanone (MEK)	<0.0046		0.0046	0.0016	mg/Kg	☼	06/11/15 07:50	06/16/15 11:47	1
Carbon disulfide	<0.0046		0.0046	0.0017	mg/Kg	☼	06/11/15 07:50	06/16/15 11:47	1
Carbon tetrachloride	<0.0046		0.0046	0.00099	mg/Kg	☼	06/11/15 07:50	06/16/15 11:47	1
Chlorobenzene	<0.0046		0.0046	0.0011	mg/Kg	☼	06/11/15 07:50	06/16/15 11:47	1
Chloroethane	<0.0046		0.0046	0.0019	mg/Kg	☼	06/11/15 07:50	06/16/15 11:47	1
Chloroform	<0.0046		0.0046	0.00090	mg/Kg	☼	06/11/15 07:50	06/16/15 11:47	1
Chloromethane	<0.0046		0.0046	0.0011	mg/Kg	☼	06/11/15 07:50	06/16/15 11:47	1
cis-1,2-Dichloroethene	<0.0046		0.0046	0.00094	mg/Kg	☼	06/11/15 07:50	06/16/15 11:47	1
cis-1,3-Dichloropropene	<0.0046		0.0046	0.0010	mg/Kg	☼	06/11/15 07:50	06/16/15 11:47	1
Dibromochloromethane	<0.0046		0.0046	0.00053	mg/Kg	☼	06/11/15 07:50	06/16/15 11:47	1
1,1-Dichloroethane	<0.0046		0.0046	0.00095	mg/Kg	☼	06/11/15 07:50	06/16/15 11:47	1
1,2-Dichloroethane	<0.0046		0.0046	0.00068	mg/Kg	☼	06/11/15 07:50	06/16/15 11:47	1
1,1-Dichloroethene	<0.0046		0.0046	0.0017	mg/Kg	☼	06/11/15 07:50	06/16/15 11:47	1
1,2-Dichloropropane	<0.0046		0.0046	0.0012	mg/Kg	☼	06/11/15 07:50	06/16/15 11:47	1
1,3-Dichloropropane, Total	<0.0046		0.0046	0.0013	mg/Kg	☼	06/11/15 07:50	06/16/15 11:47	1
Ethylbenzene	<0.0046		0.0046	0.0011	mg/Kg	☼	06/11/15 07:50	06/16/15 11:47	1
2-Hexanone	<0.0046		0.0046	0.0014	mg/Kg	☼	06/11/15 07:50	06/16/15 11:47	1
Methylene Chloride	<0.0046		0.0046	0.0035	mg/Kg	☼	06/11/15 07:50	06/16/15 11:47	1
4-Methyl-2-pentanone (MIBK)	<0.0046		0.0046	0.00095	mg/Kg	☼	06/11/15 07:50	06/16/15 11:47	1
Methyl tert-butyl ether	<0.0046		0.0046	0.0011	mg/Kg	☼	06/11/15 07:50	06/16/15 11:47	1
Styrene	<0.0046		0.0046	0.0011	mg/Kg	☼	06/11/15 07:50	06/16/15 11:47	1
1,1,2,2-Tetrachloroethane	<0.0046		0.0046	0.00073	mg/Kg	☼	06/11/15 07:50	06/16/15 11:47	1
Tetrachloroethene	<0.0046		0.0046	0.00096	mg/Kg	☼	06/11/15 07:50	06/16/15 11:47	1
Toluene	<0.0046		0.0046	0.0016	mg/Kg	☼	06/11/15 07:50	06/16/15 11:47	1
trans-1,2-Dichloroethene	<0.0046		0.0046	0.0012	mg/Kg	☼	06/11/15 07:50	06/16/15 11:47	1
trans-1,3-Dichloropropene	<0.0046		0.0046	0.0013	mg/Kg	☼	06/11/15 07:50	06/16/15 11:47	1
1,1,1-Trichloroethane	<0.0046		0.0046	0.0011	mg/Kg	☼	06/11/15 07:50	06/16/15 11:47	1
1,1,2-Trichloroethane	<0.0046		0.0046	0.00089	mg/Kg	☼	06/11/15 07:50	06/16/15 11:47	1
Trichloroethene	<0.0046		0.0046	0.0012	mg/Kg	☼	06/11/15 07:50	06/16/15 11:47	1
Vinyl acetate	<0.0046		0.0046	0.0012	mg/Kg	☼	06/11/15 07:50	06/16/15 11:47	1
Vinyl chloride	<0.0046		0.0046	0.0011	mg/Kg	☼	06/11/15 07:50	06/16/15 11:47	1
Xylenes, Total	<0.0092		0.0092	0.0017	mg/Kg	☼	06/11/15 07:50	06/16/15 11:47	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	89		70 - 122	06/11/15 07:50	06/16/15 11:47	1
Dibromofluoromethane	101		75 - 120	06/11/15 07:50	06/16/15 11:47	1
1,2-Dichloroethane-d4 (Surr)	103		70 - 134	06/11/15 07:50	06/16/15 11:47	1
Toluene-d8 (Surr)	101		75 - 122	06/11/15 07:50	06/16/15 11:47	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.92		0.92	0.41	mg/Kg	☼	06/18/15 17:36	06/20/15 06:05	5
Bis(2-chloroethyl)ether	<0.92		0.92	0.27	mg/Kg	☼	06/18/15 17:36	06/20/15 06:05	5
1,3-Dichlorobenzene	<0.92		0.92	0.21	mg/Kg	☼	06/18/15 17:36	06/20/15 06:05	5
1,4-Dichlorobenzene	<0.92		0.92	0.24	mg/Kg	☼	06/18/15 17:36	06/20/15 06:05	5

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97179-1

Client Sample ID: 1860-27-B03 (2-4)

Lab Sample ID: 500-97179-1

Date Collected: 06/10/15 10:05

Matrix: Solid

Date Received: 06/11/15 07:20

Percent Solids: 85.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.92		0.92	0.22	mg/Kg	☼	06/18/15 17:36	06/20/15 06:05	5
2-Methylphenol	<0.92		0.92	0.29	mg/Kg	☼	06/18/15 17:36	06/20/15 06:05	5
2,2'-oxybis[1-chloropropane]	<0.92	*	0.92	0.21	mg/Kg	☼	06/18/15 17:36	06/20/15 06:05	5
N-Nitrosodi-n-propylamine	<0.92		0.92	0.22	mg/Kg	☼	06/18/15 17:36	06/20/15 06:05	5
Hexachloroethane	<0.92		0.92	0.28	mg/Kg	☼	06/18/15 17:36	06/20/15 06:05	5
2-Chlorophenol	<0.92		0.92	0.31	mg/Kg	☼	06/18/15 17:36	06/20/15 06:05	5
Nitrobenzene	<0.18		0.18	0.046	mg/Kg	☼	06/18/15 17:36	06/20/15 06:05	5
Bis(2-chloroethoxy)methane	<0.92		0.92	0.19	mg/Kg	☼	06/18/15 17:36	06/20/15 06:05	5
1,2,4-Trichlorobenzene	<0.92		0.92	0.20	mg/Kg	☼	06/18/15 17:36	06/20/15 06:05	5
Isophorone	<0.92		0.92	0.21	mg/Kg	☼	06/18/15 17:36	06/20/15 06:05	5
2,4-Dimethylphenol	<1.8		1.8	0.70	mg/Kg	☼	06/18/15 17:36	06/20/15 06:05	5
Hexachlorobutadiene	<0.92		0.92	0.29	mg/Kg	☼	06/18/15 17:36	06/20/15 06:05	5
Naphthalene	<0.18		0.18	0.028	mg/Kg	☼	06/18/15 17:36	06/20/15 06:05	5
2,4-Dichlorophenol	<1.8		1.8	0.44	mg/Kg	☼	06/18/15 17:36	06/20/15 06:05	5
4-Chloroaniline	<3.7		3.7	0.86	mg/Kg	☼	06/18/15 17:36	06/20/15 06:05	5
2,4,6-Trichlorophenol	<1.8		1.8	0.63	mg/Kg	☼	06/18/15 17:36	06/20/15 06:05	5
2,4,5-Trichlorophenol	<1.8		1.8	0.42	mg/Kg	☼	06/18/15 17:36	06/20/15 06:05	5
Hexachlorocyclopentadiene	<3.7		3.7	1.1	mg/Kg	☼	06/18/15 17:36	06/20/15 06:05	5
2-Methylnaphthalene	<0.18		0.18	0.034	mg/Kg	☼	06/18/15 17:36	06/20/15 06:05	5
2-Nitroaniline	<0.92	*	0.92	0.25	mg/Kg	☼	06/18/15 17:36	06/20/15 06:05	5
2-Chloronaphthalene	<0.92		0.92	0.20	mg/Kg	☼	06/18/15 17:36	06/20/15 06:05	5
4-Chloro-3-methylphenol	<1.8		1.8	0.62	mg/Kg	☼	06/18/15 17:36	06/20/15 06:05	5
2,6-Dinitrotoluene	<0.92		0.92	0.36	mg/Kg	☼	06/18/15 17:36	06/20/15 06:05	5
2-Nitrophenol	<1.8		1.8	0.43	mg/Kg	☼	06/18/15 17:36	06/20/15 06:05	5
3-Nitroaniline	<1.8		1.8	0.57	mg/Kg	☼	06/18/15 17:36	06/20/15 06:05	5
Dimethyl phthalate	<0.92		0.92	0.24	mg/Kg	☼	06/18/15 17:36	06/20/15 06:05	5
2,4-Dinitrophenol	<3.7		3.7	3.2	mg/Kg	☼	06/18/15 17:36	06/20/15 06:05	5
Acenaphthylene	<0.18		0.18	0.024	mg/Kg	☼	06/18/15 17:36	06/20/15 06:05	5
2,4-Dinitrotoluene	<0.92		0.92	0.29	mg/Kg	☼	06/18/15 17:36	06/20/15 06:05	5
Acenaphthene	<0.18		0.18	0.033	mg/Kg	☼	06/18/15 17:36	06/20/15 06:05	5
Dibenzofuran	<0.92		0.92	0.21	mg/Kg	☼	06/18/15 17:36	06/20/15 06:05	5
4-Nitrophenol	<3.7		3.7	1.7	mg/Kg	☼	06/18/15 17:36	06/20/15 06:05	5
Fluorene	<0.18		0.18	0.026	mg/Kg	☼	06/18/15 17:36	06/20/15 06:05	5
4-Nitroaniline	<1.8		1.8	0.77	mg/Kg	☼	06/18/15 17:36	06/20/15 06:05	5
4-Bromophenyl phenyl ether	<0.92		0.92	0.24	mg/Kg	☼	06/18/15 17:36	06/20/15 06:05	5
Hexachlorobenzene	<0.37		0.37	0.043	mg/Kg	☼	06/18/15 17:36	06/20/15 06:05	5
Diethyl phthalate	<0.92		0.92	0.31	mg/Kg	☼	06/18/15 17:36	06/20/15 06:05	5
4-Chlorophenyl phenyl ether	<0.92		0.92	0.21	mg/Kg	☼	06/18/15 17:36	06/20/15 06:05	5
Pentachlorophenol	<3.7		3.7	2.9	mg/Kg	☼	06/18/15 17:36	06/20/15 06:05	5
N-Nitrosodiphenylamine	<0.92		0.92	0.22	mg/Kg	☼	06/18/15 17:36	06/20/15 06:05	5
4,6-Dinitro-2-methylphenol	<1.8		1.8	1.5	mg/Kg	☼	06/18/15 17:36	06/20/15 06:05	5
Phenanthrene	<0.18		0.18	0.026	mg/Kg	☼	06/18/15 17:36	06/20/15 06:05	5
Anthracene	<0.18		0.18	0.031	mg/Kg	☼	06/18/15 17:36	06/20/15 06:05	5
Carbazole	<0.92		0.92	0.47	mg/Kg	☼	06/18/15 17:36	06/20/15 06:05	5
Di-n-butyl phthalate	<0.92		0.92	0.28	mg/Kg	☼	06/18/15 17:36	06/20/15 06:05	5
Fluoranthene	0.15	J	0.18	0.034	mg/Kg	☼	06/18/15 17:36	06/20/15 06:05	5
Pyrene	0.092	J	0.18	0.036	mg/Kg	☼	06/18/15 17:36	06/20/15 06:05	5
Butyl benzyl phthalate	<0.92		0.92	0.35	mg/Kg	☼	06/18/15 17:36	06/20/15 06:05	5
Benzo[a]anthracene	<0.18		0.18	0.025	mg/Kg	☼	06/18/15 17:36	06/20/15 06:05	5

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97179-1

Client Sample ID: 1860-27-B03 (2-4)

Lab Sample ID: 500-97179-1

Date Collected: 06/10/15 10:05

Matrix: Solid

Date Received: 06/11/15 07:20

Percent Solids: 85.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	<0.18		0.18	0.050	mg/Kg	☼	06/18/15 17:36	06/20/15 06:05	5
3,3'-Dichlorobenzidine	<0.92		0.92	0.26	mg/Kg	☼	06/18/15 17:36	06/20/15 06:05	5
Bis(2-ethylhexyl) phthalate	<0.92		0.92	0.34	mg/Kg	☼	06/18/15 17:36	06/20/15 06:05	5
Di-n-octyl phthalate	<0.92		0.92	0.30	mg/Kg	☼	06/18/15 17:36	06/20/15 06:05	5
Benzo[b]fluoranthene	<0.18		0.18	0.040	mg/Kg	☼	06/18/15 17:36	06/20/15 06:05	5
Benzo[k]fluoranthene	<0.18		0.18	0.054	mg/Kg	☼	06/18/15 17:36	06/20/15 06:05	5
Benzo[a]pyrene	<0.18		0.18	0.035	mg/Kg	☼	06/18/15 17:36	06/20/15 06:05	5
Indeno[1,2,3-cd]pyrene	<0.18		0.18	0.048	mg/Kg	☼	06/18/15 17:36	06/20/15 06:05	5
Dibenz(a,h)anthracene	<0.18		0.18	0.035	mg/Kg	☼	06/18/15 17:36	06/20/15 06:05	5
Benzo[g,h,i]perylene	<0.18		0.18	0.059	mg/Kg	☼	06/18/15 17:36	06/20/15 06:05	5
3 & 4 Methylphenol	<0.92		0.92	0.31	mg/Kg	☼	06/18/15 17:36	06/20/15 06:05	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	42		25 - 110	06/18/15 17:36	06/20/15 06:05	5
Phenol-d5	45		31 - 110	06/18/15 17:36	06/20/15 06:05	5
Nitrobenzene-d5	45		25 - 115	06/18/15 17:36	06/20/15 06:05	5
2-Fluorobiphenyl	54		25 - 119	06/18/15 17:36	06/20/15 06:05	5
2,4,6-Tribromophenol	51		35 - 137	06/18/15 17:36	06/20/15 06:05	5
Terphenyl-d14	61		36 - 134	06/18/15 17:36	06/20/15 06:05	5

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.1		1.1	0.23	mg/Kg	☼	06/16/15 17:41	06/17/15 22:06	1
Arsenic	10		0.56	0.26	mg/Kg	☼	06/16/15 17:41	06/17/15 22:06	1
Barium	40		0.56	0.10	mg/Kg	☼	06/16/15 17:41	06/17/15 22:06	1
Beryllium	0.47		0.23	0.049	mg/Kg	☼	06/16/15 17:41	06/17/15 22:06	1
Boron	8.2		2.8	0.39	mg/Kg	☼	06/16/15 17:41	06/17/15 22:06	1
Cadmium	0.17		0.11	0.033	mg/Kg	☼	06/16/15 17:41	06/17/15 22:06	1
Calcium	69000		56	18	mg/Kg	☼	06/16/15 17:41	06/18/15 22:29	5
Chromium	12		0.56	0.097	mg/Kg	☼	06/16/15 17:41	06/17/15 22:06	1
Cobalt	12		0.28	0.064	mg/Kg	☼	06/16/15 17:41	06/17/15 22:06	1
Copper	25		0.56	0.12	mg/Kg	☼	06/16/15 17:41	06/17/15 22:06	1
Iron	19000		11	4.4	mg/Kg	☼	06/16/15 17:41	06/17/15 22:06	1
Lead	18		0.28	0.14	mg/Kg	☼	06/16/15 17:41	06/17/15 22:06	1
Magnesium	30000	B	5.6	2.3	mg/Kg	☼	06/16/15 17:41	06/17/15 22:06	1
Manganese	440		0.56	0.11	mg/Kg	☼	06/16/15 17:41	06/17/15 22:06	1
Nickel	28		0.56	0.15	mg/Kg	☼	06/16/15 17:41	06/17/15 22:06	1
Potassium	1800		28	4.6	mg/Kg	☼	06/16/15 17:41	06/17/15 22:06	1
Selenium	0.53	J	0.56	0.28	mg/Kg	☼	06/16/15 17:41	06/17/15 22:06	1
Silver	<0.28		0.28	0.066	mg/Kg	☼	06/16/15 17:41	06/17/15 22:06	1
Sodium	1100		56	7.5	mg/Kg	☼	06/16/15 17:41	06/18/15 20:45	1
Thallium	<0.56		0.56	0.28	mg/Kg	☼	06/16/15 17:41	06/17/15 22:06	1
Vanadium	15		0.28	0.082	mg/Kg	☼	06/16/15 17:41	06/17/15 22:06	1
Zinc	74	B	1.1	0.36	mg/Kg	☼	06/16/15 17:41	06/18/15 20:45	1

Method: 7471B - Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.055	F1	0.018	0.0062	mg/Kg	☼	06/11/15 14:00	06/12/15 08:59	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97179-1

Client Sample ID: 1860-27-B04 (4-5)

Lab Sample ID: 500-97179-2

Date Collected: 06/10/15 10:15

Matrix: Solid

Date Received: 06/11/15 07:20

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	-	06/12/15 09:10	06/12/15 21:43	1
Beryllium	<0.0040		0.0040	0.0040	mg/L	-	06/12/15 09:10	06/12/15 21:43	1
Boron	0.63		0.50	0.050	mg/L	-	06/12/15 09:10	06/12/15 21:43	1
Cadmium	0.0026	J	0.0050	0.0020	mg/L	-	06/12/15 09:10	06/12/15 21:43	1
Chromium	<0.025		0.025	0.010	mg/L	-	06/12/15 09:10	06/12/15 21:43	1
Cobalt	0.026		0.025	0.010	mg/L	-	06/12/15 09:10	06/12/15 21:43	1
Iron	<0.20		0.20	0.20	mg/L	-	06/12/15 09:10	06/12/15 21:43	1
Lead	<0.0075		0.0075	0.0075	mg/L	-	06/12/15 09:10	06/12/15 21:43	1
Manganese	4.6		0.025	0.010	mg/L	-	06/12/15 09:10	06/12/15 21:43	1
Nickel	0.019	J	0.025	0.010	mg/L	-	06/12/15 09:10	06/12/15 21:43	1
Selenium	<0.050		0.050	0.020	mg/L	-	06/12/15 09:10	06/12/15 21:43	1
Silver	<0.025		0.025	0.010	mg/L	-	06/12/15 09:10	06/12/15 21:43	1
Zinc	0.047	J B	0.10	0.020	mg/L	-	06/12/15 09:10	06/12/15 21:43	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.10		0.025	0.010	mg/L	-	06/17/15 09:00	06/17/15 20:41	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	-	06/12/15 09:10	06/16/15 18:27	1
Thallium	<0.0020		0.0020	0.0020	mg/L	-	06/12/15 09:10	06/16/15 18:27	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	-	06/12/15 11:00	06/15/15 12:05	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.82		0.200	0.200	SU	-		06/11/15 16:51	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97179-1

Client Sample ID: 1860-27-B04 (4-5)

Lab Sample ID: 500-97179-2

Date Collected: 06/10/15 10:15

Matrix: Solid

Date Received: 06/11/15 07:20

Percent Solids: 85.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	0.019	*	0.0048	0.0037	mg/Kg	☼	06/11/15 07:50	06/16/15 12:11	1
Benzene	<0.0048		0.0048	0.0011	mg/Kg	☼	06/11/15 07:50	06/16/15 12:11	1
Bromodichloromethane	<0.0048		0.0048	0.00081	mg/Kg	☼	06/11/15 07:50	06/16/15 12:11	1
Bromoform	<0.0048		0.0048	0.00098	mg/Kg	☼	06/11/15 07:50	06/16/15 12:11	1
Bromomethane	<0.0048		0.0048	0.0018	mg/Kg	☼	06/11/15 07:50	06/16/15 12:11	1
2-Butanone (MEK)	<0.0048		0.0048	0.0017	mg/Kg	☼	06/11/15 07:50	06/16/15 12:11	1
Carbon disulfide	<0.0048		0.0048	0.0018	mg/Kg	☼	06/11/15 07:50	06/16/15 12:11	1
Carbon tetrachloride	<0.0048		0.0048	0.0010	mg/Kg	☼	06/11/15 07:50	06/16/15 12:11	1
Chlorobenzene	<0.0048		0.0048	0.0011	mg/Kg	☼	06/11/15 07:50	06/16/15 12:11	1
Chloroethane	<0.0048		0.0048	0.0020	mg/Kg	☼	06/11/15 07:50	06/16/15 12:11	1
Chloroform	<0.0048		0.0048	0.00094	mg/Kg	☼	06/11/15 07:50	06/16/15 12:11	1
Chloromethane	<0.0048		0.0048	0.0012	mg/Kg	☼	06/11/15 07:50	06/16/15 12:11	1
cis-1,2-Dichloroethene	<0.0048		0.0048	0.00098	mg/Kg	☼	06/11/15 07:50	06/16/15 12:11	1
cis-1,3-Dichloropropene	<0.0048		0.0048	0.0011	mg/Kg	☼	06/11/15 07:50	06/16/15 12:11	1
Dibromochloromethane	<0.0048		0.0048	0.00055	mg/Kg	☼	06/11/15 07:50	06/16/15 12:11	1
1,1-Dichloroethane	<0.0048		0.0048	0.00099	mg/Kg	☼	06/11/15 07:50	06/16/15 12:11	1
1,2-Dichloroethane	<0.0048		0.0048	0.00071	mg/Kg	☼	06/11/15 07:50	06/16/15 12:11	1
1,1-Dichloroethene	<0.0048		0.0048	0.0017	mg/Kg	☼	06/11/15 07:50	06/16/15 12:11	1
1,2-Dichloropropane	<0.0048		0.0048	0.0013	mg/Kg	☼	06/11/15 07:50	06/16/15 12:11	1
1,3-Dichloropropane, Total	<0.0048		0.0048	0.0014	mg/Kg	☼	06/11/15 07:50	06/16/15 12:11	1
Ethylbenzene	<0.0048		0.0048	0.0012	mg/Kg	☼	06/11/15 07:50	06/16/15 12:11	1
2-Hexanone	<0.0048		0.0048	0.0015	mg/Kg	☼	06/11/15 07:50	06/16/15 12:11	1
Methylene Chloride	<0.0048		0.0048	0.0036	mg/Kg	☼	06/11/15 07:50	06/16/15 12:11	1
4-Methyl-2-pentanone (MIBK)	<0.0048		0.0048	0.00099	mg/Kg	☼	06/11/15 07:50	06/16/15 12:11	1
Methyl tert-butyl ether	<0.0048		0.0048	0.0011	mg/Kg	☼	06/11/15 07:50	06/16/15 12:11	1
Styrene	<0.0048		0.0048	0.0011	mg/Kg	☼	06/11/15 07:50	06/16/15 12:11	1
1,1,1,2-Tetrachloroethane	<0.0048		0.0048	0.00076	mg/Kg	☼	06/11/15 07:50	06/16/15 12:11	1
Tetrachloroethene	<0.0048		0.0048	0.0010	mg/Kg	☼	06/11/15 07:50	06/16/15 12:11	1
Toluene	<0.0048		0.0048	0.0017	mg/Kg	☼	06/11/15 07:50	06/16/15 12:11	1
trans-1,2-Dichloroethene	<0.0048		0.0048	0.0012	mg/Kg	☼	06/11/15 07:50	06/16/15 12:11	1
trans-1,3-Dichloropropene	<0.0048		0.0048	0.0014	mg/Kg	☼	06/11/15 07:50	06/16/15 12:11	1
1,1,1-Trichloroethane	<0.0048		0.0048	0.0011	mg/Kg	☼	06/11/15 07:50	06/16/15 12:11	1
1,1,2-Trichloroethane	<0.0048		0.0048	0.00093	mg/Kg	☼	06/11/15 07:50	06/16/15 12:11	1
Trichloroethene	<0.0048		0.0048	0.0013	mg/Kg	☼	06/11/15 07:50	06/16/15 12:11	1
Vinyl acetate	<0.0048		0.0048	0.0013	mg/Kg	☼	06/11/15 07:50	06/16/15 12:11	1
Vinyl chloride	<0.0048		0.0048	0.0011	mg/Kg	☼	06/11/15 07:50	06/16/15 12:11	1
Xylenes, Total	<0.0096		0.0096	0.0018	mg/Kg	☼	06/11/15 07:50	06/16/15 12:11	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	88		70 - 122	06/11/15 07:50	06/16/15 12:11	1
Dibromofluoromethane	97		75 - 120	06/11/15 07:50	06/16/15 12:11	1
1,2-Dichloroethane-d4 (Surr)	97		70 - 134	06/11/15 07:50	06/16/15 12:11	1
Toluene-d8 (Surr)	99		75 - 122	06/11/15 07:50	06/16/15 12:11	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	☼	06/18/15 17:36	06/20/15 02:45	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.056	mg/Kg	☼	06/18/15 17:36	06/20/15 02:45	1
1,3-Dichlorobenzene	<0.19		0.19	0.042	mg/Kg	☼	06/18/15 17:36	06/20/15 02:45	1
1,4-Dichlorobenzene	<0.19		0.19	0.048	mg/Kg	☼	06/18/15 17:36	06/20/15 02:45	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97179-1

Client Sample ID: 1860-27-B04 (4-5)

Lab Sample ID: 500-97179-2

Date Collected: 06/10/15 10:15

Matrix: Solid

Date Received: 06/11/15 07:20

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	<0.19		0.19	0.045	mg/Kg	☼	06/18/15 17:36	06/20/15 02:45	1
2-Methylphenol	<0.19		0.19	0.060	mg/Kg	☼	06/18/15 17:36	06/20/15 02:45	1
2,2'-oxybis[1-chloropropane]	<0.19	*	0.19	0.043	mg/Kg	☼	06/18/15 17:36	06/20/15 02:45	1
N-Nitrosodi-n-propylamine	<0.19		0.19	0.046	mg/Kg	☼	06/18/15 17:36	06/20/15 02:45	1
Hexachloroethane	<0.19		0.19	0.057	mg/Kg	☼	06/18/15 17:36	06/20/15 02:45	1
2-Chlorophenol	<0.19		0.19	0.064	mg/Kg	☼	06/18/15 17:36	06/20/15 02:45	1
Nitrobenzene	<0.037		0.037	0.0094	mg/Kg	☼	06/18/15 17:36	06/20/15 02:45	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.038	mg/Kg	☼	06/18/15 17:36	06/20/15 02:45	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.040	mg/Kg	☼	06/18/15 17:36	06/20/15 02:45	1
Isophorone	<0.19		0.19	0.042	mg/Kg	☼	06/18/15 17:36	06/20/15 02:45	1
2,4-Dimethylphenol	<0.37		0.37	0.14	mg/Kg	☼	06/18/15 17:36	06/20/15 02:45	1
Hexachlorobutadiene	<0.19		0.19	0.059	mg/Kg	☼	06/18/15 17:36	06/20/15 02:45	1
Naphthalene	<0.037		0.037	0.0058	mg/Kg	☼	06/18/15 17:36	06/20/15 02:45	1
2,4-Dichlorophenol	<0.37		0.37	0.089	mg/Kg	☼	06/18/15 17:36	06/20/15 02:45	1
4-Chloroaniline	<0.76		0.76	0.18	mg/Kg	☼	06/18/15 17:36	06/20/15 02:45	1
2,4,6-Trichlorophenol	<0.37		0.37	0.13	mg/Kg	☼	06/18/15 17:36	06/20/15 02:45	1
2,4,5-Trichlorophenol	<0.37		0.37	0.086	mg/Kg	☼	06/18/15 17:36	06/20/15 02:45	1
Hexachlorocyclopentadiene	<0.76		0.76	0.22	mg/Kg	☼	06/18/15 17:36	06/20/15 02:45	1
2-Methylnaphthalene	<0.037		0.037	0.0069	mg/Kg	☼	06/18/15 17:36	06/20/15 02:45	1
2-Nitroaniline	<0.19	*	0.19	0.050	mg/Kg	☼	06/18/15 17:36	06/20/15 02:45	1
2-Chloronaphthalene	<0.19		0.19	0.041	mg/Kg	☼	06/18/15 17:36	06/20/15 02:45	1
4-Chloro-3-methylphenol	<0.37		0.37	0.13	mg/Kg	☼	06/18/15 17:36	06/20/15 02:45	1
2,6-Dinitrotoluene	<0.19		0.19	0.074	mg/Kg	☼	06/18/15 17:36	06/20/15 02:45	1
2-Nitrophenol	<0.37		0.37	0.089	mg/Kg	☼	06/18/15 17:36	06/20/15 02:45	1
3-Nitroaniline	<0.37		0.37	0.12	mg/Kg	☼	06/18/15 17:36	06/20/15 02:45	1
Dimethyl phthalate	<0.19		0.19	0.049	mg/Kg	☼	06/18/15 17:36	06/20/15 02:45	1
2,4-Dinitrophenol	<0.76		0.76	0.66	mg/Kg	☼	06/18/15 17:36	06/20/15 02:45	1
Acenaphthylene	<0.037		0.037	0.0049	mg/Kg	☼	06/18/15 17:36	06/20/15 02:45	1
2,4-Dinitrotoluene	<0.19		0.19	0.060	mg/Kg	☼	06/18/15 17:36	06/20/15 02:45	1
Acenaphthene	<0.037		0.037	0.0067	mg/Kg	☼	06/18/15 17:36	06/20/15 02:45	1
Dibenzofuran	<0.19		0.19	0.044	mg/Kg	☼	06/18/15 17:36	06/20/15 02:45	1
4-Nitrophenol	<0.76		0.76	0.36	mg/Kg	☼	06/18/15 17:36	06/20/15 02:45	1
Fluorene	<0.037		0.037	0.0053	mg/Kg	☼	06/18/15 17:36	06/20/15 02:45	1
4-Nitroaniline	<0.37		0.37	0.16	mg/Kg	☼	06/18/15 17:36	06/20/15 02:45	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.049	mg/Kg	☼	06/18/15 17:36	06/20/15 02:45	1
Hexachlorobenzene	<0.076		0.076	0.0087	mg/Kg	☼	06/18/15 17:36	06/20/15 02:45	1
Diethyl phthalate	<0.19		0.19	0.064	mg/Kg	☼	06/18/15 17:36	06/20/15 02:45	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.044	mg/Kg	☼	06/18/15 17:36	06/20/15 02:45	1
Pentachlorophenol	<0.76		0.76	0.60	mg/Kg	☼	06/18/15 17:36	06/20/15 02:45	1
N-Nitrosodiphenylamine	<0.19		0.19	0.044	mg/Kg	☼	06/18/15 17:36	06/20/15 02:45	1
4,6-Dinitro-2-methylphenol	<0.37		0.37	0.30	mg/Kg	☼	06/18/15 17:36	06/20/15 02:45	1
Phenanthrene	<0.037		0.037	0.0052	mg/Kg	☼	06/18/15 17:36	06/20/15 02:45	1
Anthracene	<0.037		0.037	0.0063	mg/Kg	☼	06/18/15 17:36	06/20/15 02:45	1
Carbazole	<0.19		0.19	0.097	mg/Kg	☼	06/18/15 17:36	06/20/15 02:45	1
Di-n-butyl phthalate	<0.19		0.19	0.057	mg/Kg	☼	06/18/15 17:36	06/20/15 02:45	1
Fluoranthene	0.014	J	0.037	0.0070	mg/Kg	☼	06/18/15 17:36	06/20/15 02:45	1
Pyrene	0.013	J	0.037	0.0075	mg/Kg	☼	06/18/15 17:36	06/20/15 02:45	1
Butyl benzyl phthalate	<0.19		0.19	0.071	mg/Kg	☼	06/18/15 17:36	06/20/15 02:45	1
Benzo[a]anthracene	0.0082	J	0.037	0.0050	mg/Kg	☼	06/18/15 17:36	06/20/15 02:45	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97179-1

Client Sample ID: 1860-27-B04 (4-5)

Lab Sample ID: 500-97179-2

Date Collected: 06/10/15 10:15

Matrix: Solid

Date Received: 06/11/15 07:20

Percent Solids: 85.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	<0.037		0.037	0.010	mg/Kg	☼	06/18/15 17:36	06/20/15 02:45	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.052	mg/Kg	☼	06/18/15 17:36	06/20/15 02:45	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.069	mg/Kg	☼	06/18/15 17:36	06/20/15 02:45	1
Di-n-octyl phthalate	<0.19		0.19	0.061	mg/Kg	☼	06/18/15 17:36	06/20/15 02:45	1
Benzo[b]fluoranthene	<0.037		0.037	0.0081	mg/Kg	☼	06/18/15 17:36	06/20/15 02:45	1
Benzo[k]fluoranthene	<0.037		0.037	0.011	mg/Kg	☼	06/18/15 17:36	06/20/15 02:45	1
Benzo[a]pyrene	<0.037		0.037	0.0073	mg/Kg	☼	06/18/15 17:36	06/20/15 02:45	1
Indeno[1,2,3-cd]pyrene	<0.037		0.037	0.0097	mg/Kg	☼	06/18/15 17:36	06/20/15 02:45	1
Dibenz(a,h)anthracene	<0.037		0.037	0.0072	mg/Kg	☼	06/18/15 17:36	06/20/15 02:45	1
Benzo[g,h,i]perylene	<0.037		0.037	0.012	mg/Kg	☼	06/18/15 17:36	06/20/15 02:45	1
3 & 4 Methylphenol	<0.19		0.19	0.063	mg/Kg	☼	06/18/15 17:36	06/20/15 02:45	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	49		25 - 110	06/18/15 17:36	06/20/15 02:45	1
Phenol-d5	35		31 - 110	06/18/15 17:36	06/20/15 02:45	1
Nitrobenzene-d5	40		25 - 115	06/18/15 17:36	06/20/15 02:45	1
2-Fluorobiphenyl	41		25 - 119	06/18/15 17:36	06/20/15 02:45	1
2,4,6-Tribromophenol	35		35 - 137	06/18/15 17:36	06/20/15 02:45	1
Terphenyl-d14	72		36 - 134	06/18/15 17:36	06/20/15 02:45	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	☼	06/16/15 17:41	06/17/15 22:19	1
Arsenic	6.8		0.54	0.25	mg/Kg	☼	06/16/15 17:41	06/17/15 22:19	1
Barium	38		0.54	0.098	mg/Kg	☼	06/16/15 17:41	06/17/15 22:19	1
Beryllium	0.45		0.22	0.047	mg/Kg	☼	06/16/15 17:41	06/17/15 22:19	1
Boron	7.3		2.7	0.38	mg/Kg	☼	06/16/15 17:41	06/17/15 22:19	1
Cadmium	0.17		0.11	0.031	mg/Kg	☼	06/16/15 17:41	06/17/15 22:19	1
Calcium	65000		54	17	mg/Kg	☼	06/16/15 17:41	06/18/15 22:33	5
Chromium	11		0.54	0.092	mg/Kg	☼	06/16/15 17:41	06/17/15 22:19	1
Cobalt	11		0.27	0.061	mg/Kg	☼	06/16/15 17:41	06/17/15 22:19	1
Copper	20		0.54	0.12	mg/Kg	☼	06/16/15 17:41	06/17/15 22:19	1
Iron	14000		11	4.1	mg/Kg	☼	06/16/15 17:41	06/17/15 22:19	1
Lead	25		0.27	0.13	mg/Kg	☼	06/16/15 17:41	06/17/15 22:19	1
Magnesium	26000	B	5.4	2.2	mg/Kg	☼	06/16/15 17:41	06/17/15 22:19	1
Manganese	380		0.54	0.11	mg/Kg	☼	06/16/15 17:41	06/17/15 22:19	1
Nickel	22		0.54	0.15	mg/Kg	☼	06/16/15 17:41	06/17/15 22:19	1
Potassium	1200		27	4.4	mg/Kg	☼	06/16/15 17:41	06/18/15 20:50	1
Selenium	<0.54		0.54	0.27	mg/Kg	☼	06/16/15 17:41	06/17/15 22:19	1
Silver	<0.27		0.27	0.063	mg/Kg	☼	06/16/15 17:41	06/17/15 22:19	1
Sodium	560		54	7.1	mg/Kg	☼	06/16/15 17:41	06/18/15 20:50	1
Thallium	<0.54		0.54	0.26	mg/Kg	☼	06/16/15 17:41	06/17/15 22:19	1
Vanadium	15		0.27	0.078	mg/Kg	☼	06/16/15 17:41	06/17/15 22:19	1
Zinc	60	B	1.1	0.34	mg/Kg	☼	06/16/15 17:41	06/18/15 20:50	1

Method: 7471B - Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.026		0.019	0.0066	mg/Kg	☼	06/11/15 14:00	06/12/15 09:12	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97179-1

Client Sample ID: 1860-27-B01 (2-4)

Lab Sample ID: 500-97179-4

Date Collected: 06/10/15 11:15

Matrix: Solid

Date Received: 06/11/15 07:20

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	-	06/12/15 09:10	06/12/15 21:54	1
Beryllium	<0.0040		0.0040	0.0040	mg/L	-	06/12/15 09:10	06/12/15 21:54	1
Boron	0.64		0.50	0.050	mg/L	-	06/12/15 09:10	06/12/15 21:54	1
Cadmium	0.0022	J	0.0050	0.0020	mg/L	-	06/12/15 09:10	06/12/15 21:54	1
Chromium	<0.025		0.025	0.010	mg/L	-	06/12/15 09:10	06/12/15 21:54	1
Cobalt	<0.025		0.025	0.010	mg/L	-	06/12/15 09:10	06/12/15 21:54	1
Iron	<0.20		0.20	0.20	mg/L	-	06/12/15 09:10	06/12/15 21:54	1
Lead	<0.0075		0.0075	0.0075	mg/L	-	06/12/15 09:10	06/12/15 21:54	1
Manganese	0.95		0.025	0.010	mg/L	-	06/12/15 09:10	06/12/15 21:54	1
Nickel	<0.025		0.025	0.010	mg/L	-	06/12/15 09:10	06/12/15 21:54	1
Selenium	<0.050		0.050	0.020	mg/L	-	06/12/15 09:10	06/12/15 21:54	1
Silver	<0.025		0.025	0.010	mg/L	-	06/12/15 09:10	06/12/15 21:54	1
Zinc	0.034	J B	0.10	0.020	mg/L	-	06/12/15 09:10	06/12/15 21:54	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	-	06/17/15 09:00	06/17/15 21:09	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	-	06/12/15 09:10	06/16/15 18:35	1
Thallium	<0.0020		0.0020	0.0020	mg/L	-	06/12/15 09:10	06/16/15 18:35	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	-	06/12/15 11:00	06/15/15 12:09	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.76		0.200	0.200	SU	-		06/11/15 16:53	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97179-1

Client Sample ID: 1860-27-B01 (2-4)

Lab Sample ID: 500-97179-4

Date Collected: 06/10/15 11:15

Matrix: Solid

Date Received: 06/11/15 07:20

Percent Solids: 84.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	0.028	*	0.0054	0.0042	mg/Kg	☼	06/11/15 07:50	06/16/15 12:58	1
Benzene	<0.0054		0.0054	0.0012	mg/Kg	☼	06/11/15 07:50	06/16/15 12:58	1
Bromodichloromethane	<0.0054		0.0054	0.00091	mg/Kg	☼	06/11/15 07:50	06/16/15 12:58	1
Bromoform	<0.0054		0.0054	0.0011	mg/Kg	☼	06/11/15 07:50	06/16/15 12:58	1
Bromomethane	<0.0054		0.0054	0.0020	mg/Kg	☼	06/11/15 07:50	06/16/15 12:58	1
2-Butanone (MEK)	<0.0054		0.0054	0.0019	mg/Kg	☼	06/11/15 07:50	06/16/15 12:58	1
Carbon disulfide	<0.0054		0.0054	0.0020	mg/Kg	☼	06/11/15 07:50	06/16/15 12:58	1
Carbon tetrachloride	<0.0054		0.0054	0.0012	mg/Kg	☼	06/11/15 07:50	06/16/15 12:58	1
Chlorobenzene	<0.0054		0.0054	0.0013	mg/Kg	☼	06/11/15 07:50	06/16/15 12:58	1
Chloroethane	<0.0054		0.0054	0.0023	mg/Kg	☼	06/11/15 07:50	06/16/15 12:58	1
Chloroform	<0.0054		0.0054	0.0011	mg/Kg	☼	06/11/15 07:50	06/16/15 12:58	1
Chloromethane	<0.0054		0.0054	0.0013	mg/Kg	☼	06/11/15 07:50	06/16/15 12:58	1
cis-1,2-Dichloroethene	<0.0054		0.0054	0.0011	mg/Kg	☼	06/11/15 07:50	06/16/15 12:58	1
cis-1,3-Dichloropropene	<0.0054		0.0054	0.0012	mg/Kg	☼	06/11/15 07:50	06/16/15 12:58	1
Dibromochloromethane	<0.0054		0.0054	0.00062	mg/Kg	☼	06/11/15 07:50	06/16/15 12:58	1
1,1-Dichloroethane	<0.0054		0.0054	0.0011	mg/Kg	☼	06/11/15 07:50	06/16/15 12:58	1
1,2-Dichloroethane	<0.0054		0.0054	0.00080	mg/Kg	☼	06/11/15 07:50	06/16/15 12:58	1
1,1-Dichloroethene	<0.0054		0.0054	0.0020	mg/Kg	☼	06/11/15 07:50	06/16/15 12:58	1
1,2-Dichloropropane	<0.0054		0.0054	0.0014	mg/Kg	☼	06/11/15 07:50	06/16/15 12:58	1
1,3-Dichloropropane, Total	<0.0054		0.0054	0.0015	mg/Kg	☼	06/11/15 07:50	06/16/15 12:58	1
Ethylbenzene	<0.0054		0.0054	0.0013	mg/Kg	☼	06/11/15 07:50	06/16/15 12:58	1
2-Hexanone	<0.0054		0.0054	0.0017	mg/Kg	☼	06/11/15 07:50	06/16/15 12:58	1
Methylene Chloride	<0.0054		0.0054	0.0041	mg/Kg	☼	06/11/15 07:50	06/16/15 12:58	1
4-Methyl-2-pentanone (MIBK)	<0.0054		0.0054	0.0011	mg/Kg	☼	06/11/15 07:50	06/16/15 12:58	1
Methyl tert-butyl ether	<0.0054		0.0054	0.0013	mg/Kg	☼	06/11/15 07:50	06/16/15 12:58	1
Styrene	<0.0054		0.0054	0.0013	mg/Kg	☼	06/11/15 07:50	06/16/15 12:58	1
1,1,2,2-Tetrachloroethane	<0.0054		0.0054	0.00086	mg/Kg	☼	06/11/15 07:50	06/16/15 12:58	1
Tetrachloroethene	<0.0054		0.0054	0.0011	mg/Kg	☼	06/11/15 07:50	06/16/15 12:58	1
Toluene	<0.0054		0.0054	0.0019	mg/Kg	☼	06/11/15 07:50	06/16/15 12:58	1
trans-1,2-Dichloroethene	<0.0054		0.0054	0.0014	mg/Kg	☼	06/11/15 07:50	06/16/15 12:58	1
trans-1,3-Dichloropropene	<0.0054		0.0054	0.0015	mg/Kg	☼	06/11/15 07:50	06/16/15 12:58	1
1,1,1-Trichloroethane	<0.0054		0.0054	0.0013	mg/Kg	☼	06/11/15 07:50	06/16/15 12:58	1
1,1,2-Trichloroethane	<0.0054		0.0054	0.0010	mg/Kg	☼	06/11/15 07:50	06/16/15 12:58	1
Trichloroethene	<0.0054		0.0054	0.0015	mg/Kg	☼	06/11/15 07:50	06/16/15 12:58	1
Vinyl acetate	<0.0054		0.0054	0.0014	mg/Kg	☼	06/11/15 07:50	06/16/15 12:58	1
Vinyl chloride	<0.0054		0.0054	0.0013	mg/Kg	☼	06/11/15 07:50	06/16/15 12:58	1
Xylenes, Total	<0.011		0.011	0.0020	mg/Kg	☼	06/11/15 07:50	06/16/15 12:58	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	93		70 - 122	06/11/15 07:50	06/16/15 12:58	1
Dibromofluoromethane	101		75 - 120	06/11/15 07:50	06/16/15 12:58	1
1,2-Dichloroethane-d4 (Surr)	96		70 - 134	06/11/15 07:50	06/16/15 12:58	1
Toluene-d8 (Surr)	99		75 - 122	06/11/15 07:50	06/16/15 12:58	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	☼	06/18/15 17:36	06/20/15 03:29	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.058	mg/Kg	☼	06/18/15 17:36	06/20/15 03:29	1
1,3-Dichlorobenzene	<0.19		0.19	0.044	mg/Kg	☼	06/18/15 17:36	06/20/15 03:29	1
1,4-Dichlorobenzene	<0.19		0.19	0.050	mg/Kg	☼	06/18/15 17:36	06/20/15 03:29	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97179-1

Client Sample ID: 1860-27-B01 (2-4)

Lab Sample ID: 500-97179-4

Date Collected: 06/10/15 11:15

Matrix: Solid

Date Received: 06/11/15 07:20

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	☼	06/18/15 17:36	06/20/15 03:29	1
2-Methylphenol	<0.19		0.19	0.062	mg/Kg	☼	06/18/15 17:36	06/20/15 03:29	1
2,2'-oxybis[1-chloropropane]	<0.19	*	0.19	0.045	mg/Kg	☼	06/18/15 17:36	06/20/15 03:29	1
N-Nitrosodi-n-propylamine	<0.19		0.19	0.047	mg/Kg	☼	06/18/15 17:36	06/20/15 03:29	1
Hexachloroethane	<0.19		0.19	0.059	mg/Kg	☼	06/18/15 17:36	06/20/15 03:29	1
2-Chlorophenol	<0.19		0.19	0.066	mg/Kg	☼	06/18/15 17:36	06/20/15 03:29	1
Nitrobenzene	<0.038		0.038	0.0097	mg/Kg	☼	06/18/15 17:36	06/20/15 03:29	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.040	mg/Kg	☼	06/18/15 17:36	06/20/15 03:29	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.042	mg/Kg	☼	06/18/15 17:36	06/20/15 03:29	1
Isophorone	<0.19		0.19	0.043	mg/Kg	☼	06/18/15 17:36	06/20/15 03:29	1
2,4-Dimethylphenol	<0.38		0.38	0.15	mg/Kg	☼	06/18/15 17:36	06/20/15 03:29	1
Hexachlorobutadiene	<0.19		0.19	0.061	mg/Kg	☼	06/18/15 17:36	06/20/15 03:29	1
Naphthalene	<0.038		0.038	0.0060	mg/Kg	☼	06/18/15 17:36	06/20/15 03:29	1
2,4-Dichlorophenol	<0.38		0.38	0.092	mg/Kg	☼	06/18/15 17:36	06/20/15 03:29	1
4-Chloroaniline	<0.78		0.78	0.18	mg/Kg	☼	06/18/15 17:36	06/20/15 03:29	1
2,4,6-Trichlorophenol	<0.38		0.38	0.13	mg/Kg	☼	06/18/15 17:36	06/20/15 03:29	1
2,4,5-Trichlorophenol	<0.38		0.38	0.088	mg/Kg	☼	06/18/15 17:36	06/20/15 03:29	1
Hexachlorocyclopentadiene	<0.78		0.78	0.22	mg/Kg	☼	06/18/15 17:36	06/20/15 03:29	1
2-Methylnaphthalene	<0.038		0.038	0.0071	mg/Kg	☼	06/18/15 17:36	06/20/15 03:29	1
2-Nitroaniline	<0.19	*	0.19	0.052	mg/Kg	☼	06/18/15 17:36	06/20/15 03:29	1
2-Chloronaphthalene	<0.19		0.19	0.043	mg/Kg	☼	06/18/15 17:36	06/20/15 03:29	1
4-Chloro-3-methylphenol	<0.38		0.38	0.13	mg/Kg	☼	06/18/15 17:36	06/20/15 03:29	1
2,6-Dinitrotoluene	<0.19		0.19	0.076	mg/Kg	☼	06/18/15 17:36	06/20/15 03:29	1
2-Nitrophenol	<0.38		0.38	0.092	mg/Kg	☼	06/18/15 17:36	06/20/15 03:29	1
3-Nitroaniline	<0.38		0.38	0.12	mg/Kg	☼	06/18/15 17:36	06/20/15 03:29	1
Dimethyl phthalate	<0.19		0.19	0.051	mg/Kg	☼	06/18/15 17:36	06/20/15 03:29	1
2,4-Dinitrophenol	<0.78		0.78	0.68	mg/Kg	☼	06/18/15 17:36	06/20/15 03:29	1
Acenaphthylene	<0.038		0.038	0.0051	mg/Kg	☼	06/18/15 17:36	06/20/15 03:29	1
2,4-Dinitrotoluene	<0.19		0.19	0.062	mg/Kg	☼	06/18/15 17:36	06/20/15 03:29	1
Acenaphthene	<0.038		0.038	0.0070	mg/Kg	☼	06/18/15 17:36	06/20/15 03:29	1
Dibenzofuran	<0.19		0.19	0.045	mg/Kg	☼	06/18/15 17:36	06/20/15 03:29	1
4-Nitrophenol	<0.78		0.78	0.37	mg/Kg	☼	06/18/15 17:36	06/20/15 03:29	1
Fluorene	<0.038		0.038	0.0054	mg/Kg	☼	06/18/15 17:36	06/20/15 03:29	1
4-Nitroaniline	<0.38		0.38	0.16	mg/Kg	☼	06/18/15 17:36	06/20/15 03:29	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.051	mg/Kg	☼	06/18/15 17:36	06/20/15 03:29	1
Hexachlorobenzene	<0.078		0.078	0.0090	mg/Kg	☼	06/18/15 17:36	06/20/15 03:29	1
Diethyl phthalate	<0.19		0.19	0.066	mg/Kg	☼	06/18/15 17:36	06/20/15 03:29	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.045	mg/Kg	☼	06/18/15 17:36	06/20/15 03:29	1
Pentachlorophenol	<0.78		0.78	0.62	mg/Kg	☼	06/18/15 17:36	06/20/15 03:29	1
N-Nitrosodiphenylamine	<0.19		0.19	0.046	mg/Kg	☼	06/18/15 17:36	06/20/15 03:29	1
4,6-Dinitro-2-methylphenol	<0.38		0.38	0.31	mg/Kg	☼	06/18/15 17:36	06/20/15 03:29	1
Phenanthrene	<0.038		0.038	0.0054	mg/Kg	☼	06/18/15 17:36	06/20/15 03:29	1
Anthracene	<0.038		0.038	0.0065	mg/Kg	☼	06/18/15 17:36	06/20/15 03:29	1
Carbazole	<0.19		0.19	0.10	mg/Kg	☼	06/18/15 17:36	06/20/15 03:29	1
Di-n-butyl phthalate	<0.19		0.19	0.059	mg/Kg	☼	06/18/15 17:36	06/20/15 03:29	1
Fluoranthene	<0.038		0.038	0.0072	mg/Kg	☼	06/18/15 17:36	06/20/15 03:29	1
Pyrene	<0.038		0.038	0.0077	mg/Kg	☼	06/18/15 17:36	06/20/15 03:29	1
Butyl benzyl phthalate	<0.19		0.19	0.074	mg/Kg	☼	06/18/15 17:36	06/20/15 03:29	1
Benzo[a]anthracene	<0.038		0.038	0.0052	mg/Kg	☼	06/18/15 17:36	06/20/15 03:29	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97179-1

Client Sample ID: 1860-27-B01 (2-4)

Lab Sample ID: 500-97179-4

Date Collected: 06/10/15 11:15

Matrix: Solid

Date Received: 06/11/15 07:20

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	☼	06/18/15 17:36	06/20/15 03:29	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.054	mg/Kg	☼	06/18/15 17:36	06/20/15 03:29	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.071	mg/Kg	☼	06/18/15 17:36	06/20/15 03:29	1
Di-n-octyl phthalate	<0.19		0.19	0.063	mg/Kg	☼	06/18/15 17:36	06/20/15 03:29	1
Benzo[b]fluoranthene	<0.038		0.038	0.0084	mg/Kg	☼	06/18/15 17:36	06/20/15 03:29	1
Benzo[k]fluoranthene	<0.038		0.038	0.011	mg/Kg	☼	06/18/15 17:36	06/20/15 03:29	1
Benzo[a]pyrene	<0.038		0.038	0.0075	mg/Kg	☼	06/18/15 17:36	06/20/15 03:29	1
Indeno[1,2,3-cd]pyrene	<0.038		0.038	0.010	mg/Kg	☼	06/18/15 17:36	06/20/15 03:29	1
Dibenz(a,h)anthracene	<0.038		0.038	0.0075	mg/Kg	☼	06/18/15 17:36	06/20/15 03:29	1
Benzo[g,h,i]perylene	<0.038		0.038	0.012	mg/Kg	☼	06/18/15 17:36	06/20/15 03:29	1
3 & 4 Methylphenol	<0.19		0.19	0.065	mg/Kg	☼	06/18/15 17:36	06/20/15 03:29	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	55		25 - 110	06/18/15 17:36	06/20/15 03:29	1
Phenol-d5	40		31 - 110	06/18/15 17:36	06/20/15 03:29	1
Nitrobenzene-d5	44		25 - 115	06/18/15 17:36	06/20/15 03:29	1
2-Fluorobiphenyl	52		25 - 119	06/18/15 17:36	06/20/15 03:29	1
2,4,6-Tribromophenol	19	X	35 - 137	06/18/15 17:36	06/20/15 03:29	1
Terphenyl-d14	77		36 - 134	06/18/15 17:36	06/20/15 03:29	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	☼	06/16/15 17:41	06/17/15 22:29	1
Arsenic	5.7		0.58	0.27	mg/Kg	☼	06/16/15 17:41	06/17/15 22:29	1
Barium	53		0.58	0.11	mg/Kg	☼	06/16/15 17:41	06/17/15 22:29	1
Beryllium	0.62		0.23	0.050	mg/Kg	☼	06/16/15 17:41	06/17/15 22:29	1
Boron	8.8		2.9	0.41	mg/Kg	☼	06/16/15 17:41	06/17/15 22:29	1
Cadmium	0.045	J	0.12	0.034	mg/Kg	☼	06/16/15 17:41	06/17/15 22:29	1
Calcium	57000		58	19	mg/Kg	☼	06/16/15 17:41	06/18/15 22:41	5
Chromium	17		0.58	0.10	mg/Kg	☼	06/16/15 17:41	06/17/15 22:29	1
Cobalt	11		0.29	0.066	mg/Kg	☼	06/16/15 17:41	06/17/15 22:29	1
Copper	20		0.58	0.13	mg/Kg	☼	06/16/15 17:41	06/17/15 22:29	1
Iron	17000		12	4.5	mg/Kg	☼	06/16/15 17:41	06/17/15 22:29	1
Lead	13		0.29	0.14	mg/Kg	☼	06/16/15 17:41	06/17/15 22:29	1
Magnesium	23000	B	5.8	2.4	mg/Kg	☼	06/16/15 17:41	06/17/15 22:29	1
Manganese	280		0.58	0.12	mg/Kg	☼	06/16/15 17:41	06/17/15 22:29	1
Nickel	29		0.58	0.16	mg/Kg	☼	06/16/15 17:41	06/17/15 22:29	1
Potassium	1900		29	4.7	mg/Kg	☼	06/16/15 17:41	06/18/15 21:00	1
Selenium	0.59		0.58	0.29	mg/Kg	☼	06/16/15 17:41	06/17/15 22:29	1
Silver	<0.29		0.29	0.068	mg/Kg	☼	06/16/15 17:41	06/17/15 22:29	1
Sodium	400		58	7.7	mg/Kg	☼	06/16/15 17:41	06/18/15 21:00	1
Thallium	<0.58		0.58	0.29	mg/Kg	☼	06/16/15 17:41	06/17/15 22:29	1
Vanadium	20		0.29	0.085	mg/Kg	☼	06/16/15 17:41	06/17/15 22:29	1
Zinc	57	B	1.2	0.37	mg/Kg	☼	06/16/15 17:41	06/18/15 21:00	1

Method: 7471B - Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.026		0.019	0.0066	mg/Kg	☼	06/11/15 14:00	06/12/15 09:16	1

TestAmerica Chicago

Definitions/Glossary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97179-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	RPD of the LCS and LCSD exceeds the 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
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.
B	Compound was found in the blank and sample.
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, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
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
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)

TestAmerica

THE LEADER IN ENVIRONMENTAL

2417 Bond Street, University Park, IL 6
Phone: 708.534.5200 Fax: 708.53



500-97179 COC

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

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

Chain of Custody Record

Lab Job #: 500-97179

Chain of Custody Number: _____

Page _____ of _____

Temperature °C of Cooler: 3.3

Client		Client Project #		Preservative							Preservative Key 1. HCL, Cool to 4° 2. H2SO4, Cool to 4° 3. HNO3, Cool to 4° 4. NaOH/Zn, Cool to 4° 5. NaOH/Zn, Cool to 4° 6. NaHSO4 7. Cool to 4° 8. None 9. Other	
Project Name		Lab Project #		Parameter								
Project Location/State		Lab Project #		Matrix								
Sampler		Lab PM		Matrix								
Lab ID	MS/MSD	Sample ID	Sampling		# of Containers						Comments	
			Date	Time								
1		1860-27-B03(24)	6/10/15	1005	2 S	VOC	X	X	X	X	X	
2		1860-27-B04(4-5)	6/10/15	1015	2 S		X	X	X	X	X	
3		1860-27-B02(0-2)	6/10/15	1045	2 S		X	X	X	X	X	
4		1860-27-B01(24)	6/10/15	1115	2 S		X	X	X	X	X	
6-10-15												

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>ISS</u> Date: <u>6/10/15</u> Time: <u>1500</u>	Received By: <u>[Signature]</u> Company: <u>ISS</u> Date: <u>6/10/15</u> Time: <u>1500</u>
Relinquished By: <u>[Signature]</u> Company: <u>ISS</u> Date: <u>6/10/15</u> Time: <u>1530</u>	Received By: <u>[Signature]</u> Company: <u>ISS</u> Date: <u>6/10/15</u> Time: <u>1530</u>
Relinquished By: <u>[Signature]</u> Company: <u>ISS</u> Date: <u>6/10/15</u> Time: <u>1800</u>	Received By: <u>[Signature]</u> Company: <u>ISS</u> Date: <u>6/11/15</u> Time: <u>0720</u>

Lab Courier: TA
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: 500-97179-1

Login Number: 97179
List Number: 1
Creator: Scott, Sherri L

List Source: TestAmerica Chicago

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	3.3
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.	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

Bureau of Land • 1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276

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 372/373 (Illinois Route 171) Office Phone Number, if available: _____

Physical Site Location (address, including number and street):
Between the Chicago Sanitary and Ship Canal and S. Archer Road

City: Summit State: IL Zip Code: 60501

County: Cook Township: Lyons

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

Latitude: 41.791295 Longitude: -87.814867
(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: _____

II. Owner/Operator Information for Source Site

Site Owner

Site Operator

Name: Illinois Department of Transportation

Street Address: 201 West Center Court

PO Box: _____

City: Schaumburg State: IL

Zip Code: 60196-1096 Phone: 847-705-4159

Contact: Sam Mead

Email, if available: Sam.Mead@illinois.gov

Name: _____

Street Address: _____

PO Box: _____

City: _____ State: _____

Zip Code: _____ Phone: _____

Contact: _____

Email, if available: _____

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

Project Name: FAP 372/373 (Illinois Route 171)

Latitude: 41.791295 Longitude: -87.814867

Uncontaminated Site 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 1860-28-B03 and 1860-28-B04 were sampled within the construction zone adjacent to ISGS #1860-28 (Canadian National/Illinois Central Railroad). Refer to PSI Report for ISGS #1860-28 (Canadian National/Illinois Central Railroad) including Table 4-3, and Figures 4-2A & B.

- 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 500-97262-3.

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

I, Neil J. 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 Street
 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:

7/12/15
 Date:



Analytical Data Summary
PTB #172-27; Work Order 31 - IDOT Job # D-91-191-10

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.

SCGIER = Soil Component of the Groundwater Ingestion Exposure Route

SPLP = Synthetic Precipitation Leaching Procedure.

ND = Not detected.

NA = Not analyzed.

J = Estimated value.

U = Analyte was analyzed for but not detected.


Criteria Qualifiers and Shading

† = Concentration exceeds the most stringent MAC.

m = Concentration exceeds the MAC for an MSA.

* = Concentration exceeds the MAC for Chicago corporate limits.

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

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

 = Concentration exceeds the most stringent MAC and the MAC for Chicago corporate limits.

 = Concentration exceeds applicable comparison criteria.

DETECTED ANALYTES

SITE	ISGS #1860-28 (Canadian National/Illinois Central Railroad)		Comparison Criteria			
	1860-28-B03	1860-28-B04	MACs			TACO
SAMPLE	1860-28-B03 (2-4)	1860-28-B04 (4-6)	Most Stringent	Within an MSA	Within Chicago	SCGIER
MATRIX	Soil	Soil				
DEPTH (feet)	2-4	4-6				
pH	8.58	8.29				
VOCs (None Detected)						
SVOCs (mg/kg)						
2-Methylnaphthalene	0.008 J	ND U	--	--	--	--
Anthracene	ND U	0.0066 J	12,000	--	--	--
Benzo[a]anthracene	ND U	0.018 J	0.9	1.8	1.1	--
Benzo[a]pyrene	ND U	0.017 J	0.09	2.1	1.3	--
Benzo[b]fluoranthene	ND U	0.025 J	0.9	2.1	1.5	--
Benzo[g,h,i]perylene	ND U	0.016 J	--	--	--	--
Chrysene	ND U	0.024 J	88	--	--	--
Fluoranthene	ND U	0.034 J	3,100	--	--	--
Indeno[1,2,3-cd]pyrene	ND U	0.01 J	0.9	1.6	0.9	--
Phenanthrene	0.014 J	0.027 J	--	--	--	--
Pyrene	ND U	0.031 J	2,300	--	--	--
Inorganics (mg/kg)						
Arsenic	6	8.2	11.3	13	--	--
Barium	45	20	1,500	--	--	--
Beryllium	0.64	0.33	22	--	--	--
Boron	9.9	8.2	40	--	--	--
Cadmium	0.093 J	0.14	5.2	--	--	--
Calcium	76,000	120,000	--	--	--	--
Chromium	16	8.4	21	--	--	--
Cobalt	10	6.5	20	--	--	--
Copper	19	18	2,900	--	--	--
Iron	21,000 tm	12,000	15,000	15,900	--	--
Lead	14	13	107	--	--	--
Magnesium	29,000	73,000	325,000	--	--	--
Manganese	510	260	630	636	--	--
Mercury	0.026	0.025	0.89	--	--	--
Nickel	29	16	100	--	--	--
Potassium	2,200	1,200	--	--	--	--
Selenium	0.94	ND U	1.3	--	--	--
Sodium	1,700	510	--	--	--	--
Vanadium	18	11	550	--	--	--
Zinc	56	51	5,100	--	--	--
TCLP Metals (mg/L)						
Barium	0.53	0.4 J	--	--	--	2
Boron	0.7	0.68	--	--	--	2
Cadmium	0.0021 J	0.0033 J	--	--	--	0.005
Iron	ND U	0.24	--	--	--	5
Manganese	1.2 L	1.3 L	--	--	--	0.15
Nickel	0.015 J	0.016 J	--	--	--	0.1
Zinc	0.15	0.065 J	--	--	--	5
SPLP Metals (mg/L)						
Manganese	0.06	1.2 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: 500-97262-3
Client Project/Site: IDOT - IL 171 - WO 031

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

Attn: Mr. Dean Tiebout



Authorized for release by:
6/25/2015 3:21:10 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

8

9



Table of Contents

Cover Page	1
Table of Contents	2
Case Narrative	3
Detection Summary	4
Sample Summary	6
Client Sample Results	7
Definitions	15
Chain of Custody	16
Receipt Checklists	17

Case Narrative

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97262-3

Job ID: 500-97262-3

Laboratory: TestAmerica Chicago

Narrative

Job Narrative 500-97262-3

Receipt

The samples were received on 6/11/2015 4:10 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.8° C.

GC/MS VOA

Method(s) 8260B: The %RPD of the laboratory control sample (LCS) and laboratory control standard duplicate (LCSD) for preparation batch 97262 recovered outside control limits for Acetone.

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 outside acceptance limits: (MB 500-292787/1-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: A full list spike was utilized for this method. Due to the large number of spiked analytes, there is a high probability that one or more analytes will recover outside acceptance limits. The laboratory's SOP allows for 3 analytes to recover outside criteria for this method when a full list spike is utilized. The LCS associated with preparation batch 500-292787 and analytical batch 500-293060 had 3 analytes outside control limits: 4,6-Dinitro-2-methylphenol, Dibenz(a,h)anthracene, and Indeno[1,2,3-cd]pyrene; therefore, corrective action 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 verifications (CCV's) associated with batch 500-292053 recovered above the upper control limit for Zinc. The samples associated with these CCV's were non-detects for the affected analyte; therefore, the data have been reported. The following sample is impacted: 1860-28-B04 (4-6) (500-97262-10).

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 - IL 171 - WO 031

TestAmerica Job ID: 500-97262-3

Client Sample ID: 1860-28-B03 (2-4)

Lab Sample ID: 500-97262-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Methylnaphthalene	0.0080	J	0.038	0.0070	mg/Kg	1	☼	8270D	Total/NA
Phenanthrene	0.014	J	0.038	0.0053	mg/Kg	1	☼	8270D	Total/NA
Arsenic	6.0		0.58	0.27	mg/Kg	1	☼	6010B	Total/NA
Barium	45		0.58	0.11	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.64		0.23	0.050	mg/Kg	1	☼	6010B	Total/NA
Boron	9.9		2.9	0.41	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.093	J	0.12	0.034	mg/Kg	1	☼	6010B	Total/NA
Calcium	76000		58	19	mg/Kg	5	☼	6010B	Total/NA
Chromium	16		0.58	0.10	mg/Kg	1	☼	6010B	Total/NA
Cobalt	10		0.29	0.066	mg/Kg	1	☼	6010B	Total/NA
Copper	19		0.58	0.13	mg/Kg	1	☼	6010B	Total/NA
Iron	21000		12	4.5	mg/Kg	1	☼	6010B	Total/NA
Lead	14		0.29	0.14	mg/Kg	1	☼	6010B	Total/NA
Magnesium	29000	B	5.8	2.4	mg/Kg	1	☼	6010B	Total/NA
Manganese	510		0.58	0.11	mg/Kg	1	☼	6010B	Total/NA
Nickel	29		0.58	0.16	mg/Kg	1	☼	6010B	Total/NA
Potassium	2200		29	4.7	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.94		0.58	0.29	mg/Kg	1	☼	6010B	Total/NA
Sodium	1700		58	7.7	mg/Kg	1	☼	6010B	Total/NA
Vanadium	18		0.29	0.085	mg/Kg	1	☼	6010B	Total/NA
Zinc	56	B	1.2	0.37	mg/Kg	1	☼	6010B	Total/NA
Barium	0.53		0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.70		0.50	0.050	mg/L	1		6010B	TCLP
Cadmium	0.0021	J	0.0050	0.0020	mg/L	1		6010B	TCLP
Manganese	1.2		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.015	J	0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.15		0.10	0.020	mg/L	1		6010B	TCLP
Manganese	0.060		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.026		0.018	0.0061	mg/Kg	1	☼	7471B	Total/NA
pH	8.58		0.200	0.200	SU	1		9045D	Total/NA

Client Sample ID: 1860-28-B04 (4-6)

Lab Sample ID: 500-97262-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Phenanthrene	0.027	J	0.039	0.0055	mg/Kg	1	☼	8270D	Total/NA
Anthracene	0.0066	J	0.039	0.0066	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.034	J	0.039	0.0073	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.031	J	0.039	0.0078	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.018	J	0.039	0.0053	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.024	J	0.039	0.011	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.025	J	0.039	0.0085	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.017	J	0.039	0.0076	mg/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.010	J*	0.039	0.010	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.016	J	0.039	0.013	mg/Kg	1	☼	8270D	Total/NA
Arsenic	8.2		0.58	0.27	mg/Kg	1	☼	6010B	Total/NA
Barium	20		0.58	0.11	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.33		0.23	0.050	mg/Kg	1	☼	6010B	Total/NA
Boron	8.2		2.9	0.41	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.14		0.12	0.034	mg/Kg	1	☼	6010B	Total/NA
Calcium	120000		58	19	mg/Kg	5	☼	6010B	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97262-3

Client Sample ID: 1860-28-B04 (4-6) (Continued)

Lab Sample ID: 500-97262-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chromium	8.4		0.58	0.10	mg/Kg	1	☼	6010B	Total/NA
Cobalt	6.5		0.29	0.066	mg/Kg	1	☼	6010B	Total/NA
Copper	18		0.58	0.13	mg/Kg	1	☼	6010B	Total/NA
Iron	12000		12	4.5	mg/Kg	1	☼	6010B	Total/NA
Lead	13		0.29	0.14	mg/Kg	1	☼	6010B	Total/NA
Magnesium	73000		29	12	mg/Kg	5	☼	6010B	Total/NA
Manganese	260		0.58	0.12	mg/Kg	1	☼	6010B	Total/NA
Nickel	16		0.58	0.16	mg/Kg	1	☼	6010B	Total/NA
Potassium	1200		29	4.7	mg/Kg	1	☼	6010B	Total/NA
Sodium	510		58	7.7	mg/Kg	1	☼	6010B	Total/NA
Vanadium	11		0.29	0.085	mg/Kg	1	☼	6010B	Total/NA
Zinc	51	B	1.2	0.37	mg/Kg	1	☼	6010B	Total/NA
Barium	0.40	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.68		0.50	0.050	mg/L	1		6010B	TCLP
Cadmium	0.0033	J	0.0050	0.0020	mg/L	1		6010B	TCLP
Iron	0.24		0.20	0.20	mg/L	1		6010B	TCLP
Manganese	1.3		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.016	J	0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.065	J ^	0.10	0.020	mg/L	1		6010B	TCLP
Manganese	1.2		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.025		0.019	0.0067	mg/Kg	1	☼	7471B	Total/NA
pH	8.29		0.200	0.200	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 - IL 171 - WO 031

TestAmerica Job ID: 500-97262-3

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-97262-9	1860-28-B03 (2-4)	Solid	06/11/15 14:40	06/11/15 16:10
500-97262-10	1860-28-B04 (4-6)	Solid	06/11/15 15:05	06/11/15 16:10

1

2

3

4

5

6

7

8

9

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97262-3

Client Sample ID: 1860-28-B03 (2-4)

Lab Sample ID: 500-97262-9

Date Collected: 06/11/15 14:40

Matrix: Solid

Date Received: 06/11/15 16:10

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		06/14/15 14:10	06/15/15 21:54	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		06/14/15 14:10	06/15/15 21:54	1
Boron	0.70		0.50	0.050	mg/L		06/14/15 14:10	06/15/15 21:54	1
Cadmium	0.0021	J	0.0050	0.0020	mg/L		06/14/15 14:10	06/15/15 21:54	1
Chromium	<0.025		0.025	0.010	mg/L		06/14/15 14:10	06/15/15 21:54	1
Cobalt	<0.025		0.025	0.010	mg/L		06/14/15 14:10	06/15/15 21:54	1
Iron	<0.20		0.20	0.20	mg/L		06/14/15 14:10	06/15/15 21:54	1
Lead	<0.0075		0.0075	0.0075	mg/L		06/14/15 14:10	06/16/15 17:34	1
Manganese	1.2		0.025	0.010	mg/L		06/14/15 14:10	06/15/15 21:54	1
Nickel	0.015	J	0.025	0.010	mg/L		06/14/15 14:10	06/15/15 21:54	1
Selenium	<0.050		0.050	0.020	mg/L		06/14/15 14:10	06/15/15 21:54	1
Silver	<0.025		0.025	0.010	mg/L		06/14/15 14:10	06/15/15 21:54	1
Zinc	0.15		0.10	0.020	mg/L		06/14/15 14:10	06/16/15 17:34	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.060		0.025	0.010	mg/L		06/21/15 14:00	06/22/15 13:36	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		06/14/15 14:10	06/17/15 14:00	1
Thallium	<0.0020		0.0020	0.0020	mg/L		06/14/15 14:10	06/16/15 21:24	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		06/15/15 11:30	06/16/15 10:53	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.58		0.200	0.200	SU			06/12/15 13:34	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97262-3

Client Sample ID: 1860-28-B03 (2-4)

Lab Sample ID: 500-97262-9

Date Collected: 06/11/15 14:40

Matrix: Solid

Date Received: 06/11/15 16:10

Percent Solids: 84.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.0052	*	0.0052	0.0040	mg/Kg	☼	06/11/15 17:25	06/16/15 19:47	1
Benzene	<0.0052		0.0052	0.0011	mg/Kg	☼	06/11/15 17:25	06/16/15 19:47	1
Bromodichloromethane	<0.0052		0.0052	0.00087	mg/Kg	☼	06/11/15 17:25	06/16/15 19:47	1
Bromoform	<0.0052		0.0052	0.0011	mg/Kg	☼	06/11/15 17:25	06/16/15 19:47	1
Bromomethane	<0.0052		0.0052	0.0019	mg/Kg	☼	06/11/15 17:25	06/16/15 19:47	1
2-Butanone (MEK)	<0.0052		0.0052	0.0018	mg/Kg	☼	06/11/15 17:25	06/16/15 19:47	1
Carbon disulfide	<0.0052		0.0052	0.0019	mg/Kg	☼	06/11/15 17:25	06/16/15 19:47	1
Carbon tetrachloride	<0.0052		0.0052	0.0011	mg/Kg	☼	06/11/15 17:25	06/16/15 19:47	1
Chlorobenzene	<0.0052		0.0052	0.0012	mg/Kg	☼	06/11/15 17:25	06/16/15 19:47	1
Chloroethane	<0.0052		0.0052	0.0022	mg/Kg	☼	06/11/15 17:25	06/16/15 19:47	1
Chloroform	<0.0052		0.0052	0.0010	mg/Kg	☼	06/11/15 17:25	06/16/15 19:47	1
Chloromethane	<0.0052		0.0052	0.0012	mg/Kg	☼	06/11/15 17:25	06/16/15 19:47	1
cis-1,2-Dichloroethene	<0.0052		0.0052	0.0011	mg/Kg	☼	06/11/15 17:25	06/16/15 19:47	1
cis-1,3-Dichloropropene	<0.0052		0.0052	0.0012	mg/Kg	☼	06/11/15 17:25	06/16/15 19:47	1
Dibromochloromethane	<0.0052		0.0052	0.00059	mg/Kg	☼	06/11/15 17:25	06/16/15 19:47	1
1,1-Dichloroethane	<0.0052		0.0052	0.0011	mg/Kg	☼	06/11/15 17:25	06/16/15 19:47	1
1,2-Dichloroethane	<0.0052		0.0052	0.00076	mg/Kg	☼	06/11/15 17:25	06/16/15 19:47	1
1,1-Dichloroethene	<0.0052		0.0052	0.0019	mg/Kg	☼	06/11/15 17:25	06/16/15 19:47	1
1,2-Dichloropropane	<0.0052		0.0052	0.0014	mg/Kg	☼	06/11/15 17:25	06/16/15 19:47	1
1,3-Dichloropropane, Total	<0.0052		0.0052	0.0015	mg/Kg	☼	06/11/15 17:25	06/16/15 19:47	1
Ethylbenzene	<0.0052		0.0052	0.0013	mg/Kg	☼	06/11/15 17:25	06/16/15 19:47	1
2-Hexanone	<0.0052		0.0052	0.0016	mg/Kg	☼	06/11/15 17:25	06/16/15 19:47	1
Methylene Chloride	<0.0052		0.0052	0.0039	mg/Kg	☼	06/11/15 17:25	06/16/15 19:47	1
4-Methyl-2-pentanone (MIBK)	<0.0052		0.0052	0.0011	mg/Kg	☼	06/11/15 17:25	06/16/15 19:47	1
Methyl tert-butyl ether	<0.0052		0.0052	0.0012	mg/Kg	☼	06/11/15 17:25	06/16/15 19:47	1
Styrene	<0.0052		0.0052	0.0012	mg/Kg	☼	06/11/15 17:25	06/16/15 19:47	1
1,1,2,2-Tetrachloroethane	<0.0052		0.0052	0.00082	mg/Kg	☼	06/11/15 17:25	06/16/15 19:47	1
Tetrachloroethene	<0.0052		0.0052	0.0011	mg/Kg	☼	06/11/15 17:25	06/16/15 19:47	1
Toluene	<0.0052		0.0052	0.0018	mg/Kg	☼	06/11/15 17:25	06/16/15 19:47	1
trans-1,2-Dichloroethene	<0.0052		0.0052	0.0013	mg/Kg	☼	06/11/15 17:25	06/16/15 19:47	1
trans-1,3-Dichloropropene	<0.0052		0.0052	0.0015	mg/Kg	☼	06/11/15 17:25	06/16/15 19:47	1
1,1,1-Trichloroethane	<0.0052		0.0052	0.0012	mg/Kg	☼	06/11/15 17:25	06/16/15 19:47	1
1,1,2-Trichloroethane	<0.0052		0.0052	0.0010	mg/Kg	☼	06/11/15 17:25	06/16/15 19:47	1
Trichloroethene	<0.0052		0.0052	0.0014	mg/Kg	☼	06/11/15 17:25	06/16/15 19:47	1
Vinyl acetate	<0.0052		0.0052	0.0014	mg/Kg	☼	06/11/15 17:25	06/16/15 19:47	1
Vinyl chloride	<0.0052		0.0052	0.0012	mg/Kg	☼	06/11/15 17:25	06/16/15 19:47	1
Xylenes, Total	<0.010		0.010	0.0019	mg/Kg	☼	06/11/15 17:25	06/16/15 19:47	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	90		70 - 122	06/11/15 17:25	06/16/15 19:47	1
Dibromofluoromethane	102		75 - 120	06/11/15 17:25	06/16/15 19:47	1
1,2-Dichloroethane-d4 (Surr)	101		70 - 134	06/11/15 17:25	06/16/15 19:47	1
Toluene-d8 (Surr)	97		75 - 122	06/11/15 17:25	06/16/15 19:47	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.19		0.19	0.084	mg/Kg	☼	06/22/15 09:27	06/24/15 01:32	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.057	mg/Kg	☼	06/22/15 09:27	06/24/15 01:32	1
1,3-Dichlorobenzene	<0.19		0.19	0.043	mg/Kg	☼	06/22/15 09:27	06/24/15 01:32	1
1,4-Dichlorobenzene	<0.19		0.19	0.049	mg/Kg	☼	06/22/15 09:27	06/24/15 01:32	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97262-3

Client Sample ID: 1860-28-B03 (2-4)

Lab Sample ID: 500-97262-9

Date Collected: 06/11/15 14:40

Matrix: Solid

Date Received: 06/11/15 16:10

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	☼	06/22/15 09:27	06/24/15 01:32	1
2-Methylphenol	<0.19		0.19	0.061	mg/Kg	☼	06/22/15 09:27	06/24/15 01:32	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.044	mg/Kg	☼	06/22/15 09:27	06/24/15 01:32	1
N-Nitrosodi-n-propylamine	<0.19		0.19	0.046	mg/Kg	☼	06/22/15 09:27	06/24/15 01:32	1
Hexachloroethane	<0.19		0.19	0.058	mg/Kg	☼	06/22/15 09:27	06/24/15 01:32	1
2-Chlorophenol	<0.19		0.19	0.065	mg/Kg	☼	06/22/15 09:27	06/24/15 01:32	1
Nitrobenzene	<0.038		0.038	0.0095	mg/Kg	☼	06/22/15 09:27	06/24/15 01:32	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.039	mg/Kg	☼	06/22/15 09:27	06/24/15 01:32	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.041	mg/Kg	☼	06/22/15 09:27	06/24/15 01:32	1
Isophorone	<0.19		0.19	0.043	mg/Kg	☼	06/22/15 09:27	06/24/15 01:32	1
2,4-Dimethylphenol	<0.38		0.38	0.14	mg/Kg	☼	06/22/15 09:27	06/24/15 01:32	1
Hexachlorobutadiene	<0.19		0.19	0.060	mg/Kg	☼	06/22/15 09:27	06/24/15 01:32	1
Naphthalene	<0.038		0.038	0.0058	mg/Kg	☼	06/22/15 09:27	06/24/15 01:32	1
2,4-Dichlorophenol	<0.38		0.38	0.090	mg/Kg	☼	06/22/15 09:27	06/24/15 01:32	1
4-Chloroaniline	<0.76		0.76	0.18	mg/Kg	☼	06/22/15 09:27	06/24/15 01:32	1
2,4,6-Trichlorophenol	<0.38		0.38	0.13	mg/Kg	☼	06/22/15 09:27	06/24/15 01:32	1
2,4,5-Trichlorophenol	<0.38		0.38	0.086	mg/Kg	☼	06/22/15 09:27	06/24/15 01:32	1
Hexachlorocyclopentadiene	<0.76		0.76	0.22	mg/Kg	☼	06/22/15 09:27	06/24/15 01:32	1
2-Methylnaphthalene	0.0080	J	0.038	0.0070	mg/Kg	☼	06/22/15 09:27	06/24/15 01:32	1
2-Nitroaniline	<0.19		0.19	0.051	mg/Kg	☼	06/22/15 09:27	06/24/15 01:32	1
2-Chloronaphthalene	<0.19		0.19	0.042	mg/Kg	☼	06/22/15 09:27	06/24/15 01:32	1
4-Chloro-3-methylphenol	<0.38		0.38	0.13	mg/Kg	☼	06/22/15 09:27	06/24/15 01:32	1
2,6-Dinitrotoluene	<0.19		0.19	0.074	mg/Kg	☼	06/22/15 09:27	06/24/15 01:32	1
2-Nitrophenol	<0.38		0.38	0.089	mg/Kg	☼	06/22/15 09:27	06/24/15 01:32	1
3-Nitroaniline	<0.38		0.38	0.12	mg/Kg	☼	06/22/15 09:27	06/24/15 01:32	1
Dimethyl phthalate	<0.19		0.19	0.049	mg/Kg	☼	06/22/15 09:27	06/24/15 01:32	1
2,4-Dinitrophenol	<0.76		0.76	0.67	mg/Kg	☼	06/22/15 09:27	06/24/15 01:32	1
Acenaphthylene	<0.038		0.038	0.0050	mg/Kg	☼	06/22/15 09:27	06/24/15 01:32	1
2,4-Dinitrotoluene	<0.19		0.19	0.060	mg/Kg	☼	06/22/15 09:27	06/24/15 01:32	1
Acenaphthene	<0.038		0.038	0.0068	mg/Kg	☼	06/22/15 09:27	06/24/15 01:32	1
Dibenzofuran	<0.19		0.19	0.044	mg/Kg	☼	06/22/15 09:27	06/24/15 01:32	1
4-Nitrophenol	<0.76		0.76	0.36	mg/Kg	☼	06/22/15 09:27	06/24/15 01:32	1
Fluorene	<0.038		0.038	0.0053	mg/Kg	☼	06/22/15 09:27	06/24/15 01:32	1
4-Nitroaniline	<0.38		0.38	0.16	mg/Kg	☼	06/22/15 09:27	06/24/15 01:32	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.050	mg/Kg	☼	06/22/15 09:27	06/24/15 01:32	1
Hexachlorobenzene	<0.076		0.076	0.0088	mg/Kg	☼	06/22/15 09:27	06/24/15 01:32	1
Diethyl phthalate	<0.19		0.19	0.064	mg/Kg	☼	06/22/15 09:27	06/24/15 01:32	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.044	mg/Kg	☼	06/22/15 09:27	06/24/15 01:32	1
Pentachlorophenol	<0.76		0.76	0.61	mg/Kg	☼	06/22/15 09:27	06/24/15 01:32	1
N-Nitrosodiphenylamine	<0.19		0.19	0.045	mg/Kg	☼	06/22/15 09:27	06/24/15 01:32	1
4,6-Dinitro-2-methylphenol	<0.38	*	0.38	0.30	mg/Kg	☼	06/22/15 09:27	06/24/15 01:32	1
Phenanthrene	0.014	J	0.038	0.0053	mg/Kg	☼	06/22/15 09:27	06/24/15 01:32	1
Anthracene	<0.038		0.038	0.0063	mg/Kg	☼	06/22/15 09:27	06/24/15 01:32	1
Carbazole	<0.19		0.19	0.098	mg/Kg	☼	06/22/15 09:27	06/24/15 01:32	1
Di-n-butyl phthalate	<0.19		0.19	0.058	mg/Kg	☼	06/22/15 09:27	06/24/15 01:32	1
Fluoranthene	<0.038		0.038	0.0070	mg/Kg	☼	06/22/15 09:27	06/24/15 01:32	1
Pyrene	<0.038		0.038	0.0075	mg/Kg	☼	06/22/15 09:27	06/24/15 01:32	1
Butyl benzyl phthalate	<0.19		0.19	0.072	mg/Kg	☼	06/22/15 09:27	06/24/15 01:32	1
Benzo[a]anthracene	<0.038		0.038	0.0051	mg/Kg	☼	06/22/15 09:27	06/24/15 01:32	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97262-3

Client Sample ID: 1860-28-B03 (2-4)

Lab Sample ID: 500-97262-9

Date Collected: 06/11/15 14:40

Matrix: Solid

Date Received: 06/11/15 16:10

Percent Solids: 84.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	<0.038		0.038	0.010	mg/Kg	☼	06/22/15 09:27	06/24/15 01:32	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.053	mg/Kg	☼	06/22/15 09:27	06/24/15 01:32	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.069	mg/Kg	☼	06/22/15 09:27	06/24/15 01:32	1
Di-n-octyl phthalate	<0.19		0.19	0.062	mg/Kg	☼	06/22/15 09:27	06/24/15 01:32	1
Benzo[b]fluoranthene	<0.038		0.038	0.0082	mg/Kg	☼	06/22/15 09:27	06/24/15 01:32	1
Benzo[k]fluoranthene	<0.038		0.038	0.011	mg/Kg	☼	06/22/15 09:27	06/24/15 01:32	1
Benzo[a]pyrene	<0.038		0.038	0.0073	mg/Kg	☼	06/22/15 09:27	06/24/15 01:32	1
Indeno[1,2,3-cd]pyrene	<0.038 *		0.038	0.0098	mg/Kg	☼	06/22/15 09:27	06/24/15 01:32	1
Dibenz(a,h)anthracene	<0.038 *		0.038	0.0073	mg/Kg	☼	06/22/15 09:27	06/24/15 01:32	1
Benzo[g,h,i]perylene	<0.038		0.038	0.012	mg/Kg	☼	06/22/15 09:27	06/24/15 01:32	1
3 & 4 Methylphenol	<0.19		0.19	0.063	mg/Kg	☼	06/22/15 09:27	06/24/15 01:32	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	66		25 - 110	06/22/15 09:27	06/24/15 01:32	1
Phenol-d5	69		31 - 110	06/22/15 09:27	06/24/15 01:32	1
Nitrobenzene-d5	61		25 - 115	06/22/15 09:27	06/24/15 01:32	1
2-Fluorobiphenyl	58		25 - 119	06/22/15 09:27	06/24/15 01:32	1
2,4,6-Tribromophenol	60		35 - 137	06/22/15 09:27	06/24/15 01:32	1
Terphenyl-d14	88		36 - 134	06/22/15 09:27	06/24/15 01:32	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	☼	06/16/15 17:41	06/17/15 20:30	1
Arsenic	6.0		0.58	0.27	mg/Kg	☼	06/16/15 17:41	06/17/15 20:30	1
Barium	45		0.58	0.11	mg/Kg	☼	06/16/15 17:41	06/17/15 20:30	1
Beryllium	0.64		0.23	0.050	mg/Kg	☼	06/16/15 17:41	06/17/15 20:30	1
Boron	9.9		2.9	0.41	mg/Kg	☼	06/16/15 17:41	06/17/15 20:30	1
Cadmium	0.093 J		0.12	0.034	mg/Kg	☼	06/16/15 17:41	06/17/15 20:30	1
Calcium	76000		58	19	mg/Kg	☼	06/16/15 17:41	06/18/15 22:07	5
Chromium	16		0.58	0.10	mg/Kg	☼	06/16/15 17:41	06/17/15 20:30	1
Cobalt	10		0.29	0.066	mg/Kg	☼	06/16/15 17:41	06/17/15 20:30	1
Copper	19		0.58	0.13	mg/Kg	☼	06/16/15 17:41	06/17/15 20:30	1
Iron	21000		12	4.5	mg/Kg	☼	06/16/15 17:41	06/17/15 20:30	1
Lead	14		0.29	0.14	mg/Kg	☼	06/16/15 17:41	06/17/15 20:30	1
Magnesium	29000 B		5.8	2.4	mg/Kg	☼	06/16/15 17:41	06/17/15 20:30	1
Manganese	510		0.58	0.11	mg/Kg	☼	06/16/15 17:41	06/17/15 20:30	1
Nickel	29		0.58	0.16	mg/Kg	☼	06/16/15 17:41	06/17/15 20:30	1
Potassium	2200		29	4.7	mg/Kg	☼	06/16/15 17:41	06/17/15 20:30	1
Selenium	0.94		0.58	0.29	mg/Kg	☼	06/16/15 17:41	06/17/15 20:30	1
Silver	<0.29		0.29	0.068	mg/Kg	☼	06/16/15 17:41	06/17/15 20:30	1
Sodium	1700		58	7.7	mg/Kg	☼	06/16/15 17:41	06/17/15 20:30	1
Thallium	<0.58		0.58	0.29	mg/Kg	☼	06/16/15 17:41	06/17/15 20:30	1
Vanadium	18		0.29	0.085	mg/Kg	☼	06/16/15 17:41	06/17/15 20:30	1
Zinc	56 B		1.2	0.37	mg/Kg	☼	06/16/15 17:41	06/18/15 21:21	1

Method: 7471B - Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.026		0.018	0.0061	mg/Kg	☼	06/12/15 14:00	06/15/15 14:09	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97262-3

Client Sample ID: 1860-28-B04 (4-6)

Lab Sample ID: 500-97262-10

Date Collected: 06/11/15 15:05

Matrix: Solid

Date Received: 06/11/15 16:10

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		06/14/15 14:10	06/15/15 22:00	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		06/14/15 14:10	06/15/15 22:00	1
Boron	0.68		0.50	0.050	mg/L		06/14/15 14:10	06/15/15 22:00	1
Cadmium	0.0033	J	0.0050	0.0020	mg/L		06/14/15 14:10	06/15/15 22:00	1
Chromium	<0.025		0.025	0.010	mg/L		06/14/15 14:10	06/15/15 22:00	1
Cobalt	<0.025		0.025	0.010	mg/L		06/14/15 14:10	06/15/15 22:00	1
Iron	0.24		0.20	0.20	mg/L		06/14/15 14:10	06/15/15 22:00	1
Lead	<0.0075		0.0075	0.0075	mg/L		06/14/15 14:10	06/16/15 17:40	1
Manganese	1.3		0.025	0.010	mg/L		06/14/15 14:10	06/15/15 22:00	1
Nickel	0.016	J	0.025	0.010	mg/L		06/14/15 14:10	06/15/15 22:00	1
Selenium	<0.050		0.050	0.020	mg/L		06/14/15 14:10	06/15/15 22:00	1
Silver	<0.025		0.025	0.010	mg/L		06/14/15 14:10	06/15/15 22:00	1
Zinc	0.065	J ^	0.10	0.020	mg/L		06/14/15 14:10	06/15/15 22:00	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	1.2		0.025	0.010	mg/L		06/21/15 14:00	06/22/15 13:40	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		06/14/15 14:10	06/17/15 14:04	1
Thallium	<0.0020		0.0020	0.0020	mg/L		06/14/15 14:10	06/16/15 21:28	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		06/15/15 11:30	06/16/15 10:55	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.29		0.200	0.200	SU			06/12/15 13:35	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97262-3

Client Sample ID: 1860-28-B04 (4-6)

Lab Sample ID: 500-97262-10

Date Collected: 06/11/15 15:05

Matrix: Solid

Date Received: 06/11/15 16:10

Percent Solids: 83.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.0044	*	0.0044	0.0034	mg/Kg	☼	06/11/15 17:25	06/16/15 20:12	1
Benzene	<0.0044		0.0044	0.00098	mg/Kg	☼	06/11/15 17:25	06/16/15 20:12	1
Bromodichloromethane	<0.0044		0.0044	0.00074	mg/Kg	☼	06/11/15 17:25	06/16/15 20:12	1
Bromoform	<0.0044		0.0044	0.00090	mg/Kg	☼	06/11/15 17:25	06/16/15 20:12	1
Bromomethane	<0.0044		0.0044	0.0016	mg/Kg	☼	06/11/15 17:25	06/16/15 20:12	1
2-Butanone (MEK)	<0.0044		0.0044	0.0016	mg/Kg	☼	06/11/15 17:25	06/16/15 20:12	1
Carbon disulfide	<0.0044		0.0044	0.0016	mg/Kg	☼	06/11/15 17:25	06/16/15 20:12	1
Carbon tetrachloride	<0.0044		0.0044	0.00094	mg/Kg	☼	06/11/15 17:25	06/16/15 20:12	1
Chlorobenzene	<0.0044		0.0044	0.0010	mg/Kg	☼	06/11/15 17:25	06/16/15 20:12	1
Chloroethane	<0.0044		0.0044	0.0018	mg/Kg	☼	06/11/15 17:25	06/16/15 20:12	1
Chloroform	<0.0044		0.0044	0.00086	mg/Kg	☼	06/11/15 17:25	06/16/15 20:12	1
Chloromethane	<0.0044		0.0044	0.0011	mg/Kg	☼	06/11/15 17:25	06/16/15 20:12	1
cis-1,2-Dichloroethene	<0.0044		0.0044	0.00090	mg/Kg	☼	06/11/15 17:25	06/16/15 20:12	1
cis-1,3-Dichloropropene	<0.0044		0.0044	0.0010	mg/Kg	☼	06/11/15 17:25	06/16/15 20:12	1
Dibromochloromethane	<0.0044		0.0044	0.00051	mg/Kg	☼	06/11/15 17:25	06/16/15 20:12	1
1,1-Dichloroethane	<0.0044		0.0044	0.00091	mg/Kg	☼	06/11/15 17:25	06/16/15 20:12	1
1,2-Dichloroethane	<0.0044		0.0044	0.00065	mg/Kg	☼	06/11/15 17:25	06/16/15 20:12	1
1,1-Dichloroethene	<0.0044		0.0044	0.0016	mg/Kg	☼	06/11/15 17:25	06/16/15 20:12	1
1,2-Dichloropropane	<0.0044		0.0044	0.0012	mg/Kg	☼	06/11/15 17:25	06/16/15 20:12	1
1,3-Dichloropropane, Total	<0.0044		0.0044	0.0012	mg/Kg	☼	06/11/15 17:25	06/16/15 20:12	1
Ethylbenzene	<0.0044		0.0044	0.0011	mg/Kg	☼	06/11/15 17:25	06/16/15 20:12	1
2-Hexanone	<0.0044		0.0044	0.0014	mg/Kg	☼	06/11/15 17:25	06/16/15 20:12	1
Methylene Chloride	<0.0044		0.0044	0.0033	mg/Kg	☼	06/11/15 17:25	06/16/15 20:12	1
4-Methyl-2-pentanone (MIBK)	<0.0044		0.0044	0.00091	mg/Kg	☼	06/11/15 17:25	06/16/15 20:12	1
Methyl tert-butyl ether	<0.0044		0.0044	0.0010	mg/Kg	☼	06/11/15 17:25	06/16/15 20:12	1
Styrene	<0.0044		0.0044	0.0010	mg/Kg	☼	06/11/15 17:25	06/16/15 20:12	1
1,1,1,2-Tetrachloroethane	<0.0044		0.0044	0.00070	mg/Kg	☼	06/11/15 17:25	06/16/15 20:12	1
Tetrachloroethene	<0.0044		0.0044	0.00091	mg/Kg	☼	06/11/15 17:25	06/16/15 20:12	1
Toluene	<0.0044		0.0044	0.0015	mg/Kg	☼	06/11/15 17:25	06/16/15 20:12	1
trans-1,2-Dichloroethene	<0.0044		0.0044	0.0011	mg/Kg	☼	06/11/15 17:25	06/16/15 20:12	1
trans-1,3-Dichloropropene	<0.0044		0.0044	0.0012	mg/Kg	☼	06/11/15 17:25	06/16/15 20:12	1
1,1,1-Trichloroethane	<0.0044		0.0044	0.0010	mg/Kg	☼	06/11/15 17:25	06/16/15 20:12	1
1,1,2-Trichloroethane	<0.0044		0.0044	0.00085	mg/Kg	☼	06/11/15 17:25	06/16/15 20:12	1
Trichloroethene	<0.0044		0.0044	0.0012	mg/Kg	☼	06/11/15 17:25	06/16/15 20:12	1
Vinyl acetate	<0.0044		0.0044	0.0012	mg/Kg	☼	06/11/15 17:25	06/16/15 20:12	1
Vinyl chloride	<0.0044		0.0044	0.0010	mg/Kg	☼	06/11/15 17:25	06/16/15 20:12	1
Xylenes, Total	<0.0088		0.0088	0.0016	mg/Kg	☼	06/11/15 17:25	06/16/15 20:12	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	88		70 - 122	06/11/15 17:25	06/16/15 20:12	1
Dibromofluoromethane	106		75 - 120	06/11/15 17:25	06/16/15 20:12	1
1,2-Dichloroethane-d4 (Surr)	100		70 - 134	06/11/15 17:25	06/16/15 20:12	1
Toluene-d8 (Surr)	97		75 - 122	06/11/15 17:25	06/16/15 20:12	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	☼	06/22/15 09:27	06/24/15 01:53	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.059	mg/Kg	☼	06/22/15 09:27	06/24/15 01:53	1
1,3-Dichlorobenzene	<0.20		0.20	0.044	mg/Kg	☼	06/22/15 09:27	06/24/15 01:53	1
1,4-Dichlorobenzene	<0.20		0.20	0.051	mg/Kg	☼	06/22/15 09:27	06/24/15 01:53	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97262-3

Client Sample ID: 1860-28-B04 (4-6)

Lab Sample ID: 500-97262-10

Date Collected: 06/11/15 15:05

Matrix: Solid

Date Received: 06/11/15 16:10

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	☼	06/22/15 09:27	06/24/15 01:53	1
2-Methylphenol	<0.20		0.20	0.063	mg/Kg	☼	06/22/15 09:27	06/24/15 01:53	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.046	mg/Kg	☼	06/22/15 09:27	06/24/15 01:53	1
N-Nitrosodi-n-propylamine	<0.20		0.20	0.048	mg/Kg	☼	06/22/15 09:27	06/24/15 01:53	1
Hexachloroethane	<0.20		0.20	0.060	mg/Kg	☼	06/22/15 09:27	06/24/15 01:53	1
2-Chlorophenol	<0.20		0.20	0.067	mg/Kg	☼	06/22/15 09:27	06/24/15 01:53	1
Nitrobenzene	<0.039		0.039	0.0098	mg/Kg	☼	06/22/15 09:27	06/24/15 01:53	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.040	mg/Kg	☼	06/22/15 09:27	06/24/15 01:53	1
1,2,4-Trichlorobenzene	<0.20		0.20	0.043	mg/Kg	☼	06/22/15 09:27	06/24/15 01:53	1
Isophorone	<0.20		0.20	0.044	mg/Kg	☼	06/22/15 09:27	06/24/15 01:53	1
2,4-Dimethylphenol	<0.39		0.39	0.15	mg/Kg	☼	06/22/15 09:27	06/24/15 01:53	1
Hexachlorobutadiene	<0.20		0.20	0.062	mg/Kg	☼	06/22/15 09:27	06/24/15 01:53	1
Naphthalene	<0.039		0.039	0.0061	mg/Kg	☼	06/22/15 09:27	06/24/15 01:53	1
2,4-Dichlorophenol	<0.39		0.39	0.094	mg/Kg	☼	06/22/15 09:27	06/24/15 01:53	1
4-Chloroaniline	<0.80		0.80	0.19	mg/Kg	☼	06/22/15 09:27	06/24/15 01:53	1
2,4,6-Trichlorophenol	<0.39		0.39	0.14	mg/Kg	☼	06/22/15 09:27	06/24/15 01:53	1
2,4,5-Trichlorophenol	<0.39		0.39	0.090	mg/Kg	☼	06/22/15 09:27	06/24/15 01:53	1
Hexachlorocyclopentadiene	<0.80		0.80	0.23	mg/Kg	☼	06/22/15 09:27	06/24/15 01:53	1
2-Methylnaphthalene	<0.039		0.039	0.0073	mg/Kg	☼	06/22/15 09:27	06/24/15 01:53	1
2-Nitroaniline	<0.20		0.20	0.053	mg/Kg	☼	06/22/15 09:27	06/24/15 01:53	1
2-Chloronaphthalene	<0.20		0.20	0.044	mg/Kg	☼	06/22/15 09:27	06/24/15 01:53	1
4-Chloro-3-methylphenol	<0.39		0.39	0.13	mg/Kg	☼	06/22/15 09:27	06/24/15 01:53	1
2,6-Dinitrotoluene	<0.20		0.20	0.078	mg/Kg	☼	06/22/15 09:27	06/24/15 01:53	1
2-Nitrophenol	<0.39		0.39	0.093	mg/Kg	☼	06/22/15 09:27	06/24/15 01:53	1
3-Nitroaniline	<0.39		0.39	0.12	mg/Kg	☼	06/22/15 09:27	06/24/15 01:53	1
Dimethyl phthalate	<0.20		0.20	0.052	mg/Kg	☼	06/22/15 09:27	06/24/15 01:53	1
2,4-Dinitrophenol	<0.80		0.80	0.69	mg/Kg	☼	06/22/15 09:27	06/24/15 01:53	1
Acenaphthylene	<0.039		0.039	0.0052	mg/Kg	☼	06/22/15 09:27	06/24/15 01:53	1
2,4-Dinitrotoluene	<0.20		0.20	0.063	mg/Kg	☼	06/22/15 09:27	06/24/15 01:53	1
Acenaphthene	<0.039		0.039	0.0071	mg/Kg	☼	06/22/15 09:27	06/24/15 01:53	1
Dibenzofuran	<0.20		0.20	0.046	mg/Kg	☼	06/22/15 09:27	06/24/15 01:53	1
4-Nitrophenol	<0.80		0.80	0.38	mg/Kg	☼	06/22/15 09:27	06/24/15 01:53	1
Fluorene	<0.039		0.039	0.0055	mg/Kg	☼	06/22/15 09:27	06/24/15 01:53	1
4-Nitroaniline	<0.39		0.39	0.17	mg/Kg	☼	06/22/15 09:27	06/24/15 01:53	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.052	mg/Kg	☼	06/22/15 09:27	06/24/15 01:53	1
Hexachlorobenzene	<0.080		0.080	0.0091	mg/Kg	☼	06/22/15 09:27	06/24/15 01:53	1
Diethyl phthalate	<0.20		0.20	0.067	mg/Kg	☼	06/22/15 09:27	06/24/15 01:53	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.046	mg/Kg	☼	06/22/15 09:27	06/24/15 01:53	1
Pentachlorophenol	<0.80		0.80	0.63	mg/Kg	☼	06/22/15 09:27	06/24/15 01:53	1
N-Nitrosodiphenylamine	<0.20		0.20	0.047	mg/Kg	☼	06/22/15 09:27	06/24/15 01:53	1
4,6-Dinitro-2-methylphenol	<0.39	*	0.39	0.32	mg/Kg	☼	06/22/15 09:27	06/24/15 01:53	1
Phenanthrene	0.027	J	0.039	0.0055	mg/Kg	☼	06/22/15 09:27	06/24/15 01:53	1
Anthracene	0.0066	J	0.039	0.0066	mg/Kg	☼	06/22/15 09:27	06/24/15 01:53	1
Carbazole	<0.20		0.20	0.10	mg/Kg	☼	06/22/15 09:27	06/24/15 01:53	1
Di-n-butyl phthalate	<0.20		0.20	0.060	mg/Kg	☼	06/22/15 09:27	06/24/15 01:53	1
Fluoranthene	0.034	J	0.039	0.0073	mg/Kg	☼	06/22/15 09:27	06/24/15 01:53	1
Pyrene	0.031	J	0.039	0.0078	mg/Kg	☼	06/22/15 09:27	06/24/15 01:53	1
Butyl benzyl phthalate	<0.20		0.20	0.075	mg/Kg	☼	06/22/15 09:27	06/24/15 01:53	1
Benzo[a]anthracene	0.018	J	0.039	0.0053	mg/Kg	☼	06/22/15 09:27	06/24/15 01:53	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97262-3

Client Sample ID: 1860-28-B04 (4-6)

Lab Sample ID: 500-97262-10

Date Collected: 06/11/15 15:05

Matrix: Solid

Date Received: 06/11/15 16:10

Percent Solids: 83.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.024	J	0.039	0.011	mg/Kg	☼	06/22/15 09:27	06/24/15 01:53	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.055	mg/Kg	☼	06/22/15 09:27	06/24/15 01:53	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.072	mg/Kg	☼	06/22/15 09:27	06/24/15 01:53	1
Di-n-octyl phthalate	<0.20		0.20	0.064	mg/Kg	☼	06/22/15 09:27	06/24/15 01:53	1
Benzo[b]fluoranthene	0.025	J	0.039	0.0085	mg/Kg	☼	06/22/15 09:27	06/24/15 01:53	1
Benzo[k]fluoranthene	<0.039		0.039	0.012	mg/Kg	☼	06/22/15 09:27	06/24/15 01:53	1
Benzo[a]pyrene	0.017	J	0.039	0.0076	mg/Kg	☼	06/22/15 09:27	06/24/15 01:53	1
Indeno[1,2,3-cd]pyrene	0.010	J*	0.039	0.010	mg/Kg	☼	06/22/15 09:27	06/24/15 01:53	1
Dibenz(a,h)anthracene	<0.039	*	0.039	0.0076	mg/Kg	☼	06/22/15 09:27	06/24/15 01:53	1
Benzo[g,h,i]perylene	0.016	J	0.039	0.013	mg/Kg	☼	06/22/15 09:27	06/24/15 01:53	1
3 & 4 Methylphenol	<0.20		0.20	0.066	mg/Kg	☼	06/22/15 09:27	06/24/15 01:53	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	62		25 - 110	06/22/15 09:27	06/24/15 01:53	1
Phenol-d5	58		31 - 110	06/22/15 09:27	06/24/15 01:53	1
Nitrobenzene-d5	52		25 - 115	06/22/15 09:27	06/24/15 01:53	1
2-Fluorobiphenyl	52		25 - 119	06/22/15 09:27	06/24/15 01:53	1
2,4,6-Tribromophenol	56		35 - 137	06/22/15 09:27	06/24/15 01:53	1
Terphenyl-d14	80		36 - 134	06/22/15 09:27	06/24/15 01:53	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	☼	06/16/15 17:41	06/17/15 20:35	1
Arsenic	8.2		0.58	0.27	mg/Kg	☼	06/16/15 17:41	06/17/15 20:35	1
Barium	20		0.58	0.11	mg/Kg	☼	06/16/15 17:41	06/17/15 20:35	1
Beryllium	0.33		0.23	0.050	mg/Kg	☼	06/16/15 17:41	06/17/15 20:35	1
Boron	8.2		2.9	0.41	mg/Kg	☼	06/16/15 17:41	06/17/15 20:35	1
Cadmium	0.14		0.12	0.034	mg/Kg	☼	06/16/15 17:41	06/17/15 20:35	1
Calcium	120000		58	19	mg/Kg	☼	06/16/15 17:41	06/18/15 22:11	5
Chromium	8.4		0.58	0.10	mg/Kg	☼	06/16/15 17:41	06/17/15 20:35	1
Cobalt	6.5		0.29	0.066	mg/Kg	☼	06/16/15 17:41	06/17/15 20:35	1
Copper	18		0.58	0.13	mg/Kg	☼	06/16/15 17:41	06/17/15 20:35	1
Iron	12000		12	4.5	mg/Kg	☼	06/16/15 17:41	06/17/15 20:35	1
Lead	13		0.29	0.14	mg/Kg	☼	06/16/15 17:41	06/17/15 20:35	1
Magnesium	73000		29	12	mg/Kg	☼	06/16/15 17:41	06/18/15 22:11	5
Manganese	260		0.58	0.12	mg/Kg	☼	06/16/15 17:41	06/17/15 20:35	1
Nickel	16		0.58	0.16	mg/Kg	☼	06/16/15 17:41	06/17/15 20:35	1
Potassium	1200		29	4.7	mg/Kg	☼	06/16/15 17:41	06/17/15 20:35	1
Selenium	<0.58		0.58	0.29	mg/Kg	☼	06/16/15 17:41	06/17/15 20:35	1
Silver	<0.29		0.29	0.068	mg/Kg	☼	06/16/15 17:41	06/17/15 20:35	1
Sodium	510		58	7.7	mg/Kg	☼	06/16/15 17:41	06/17/15 20:35	1
Thallium	<0.58		0.58	0.29	mg/Kg	☼	06/16/15 17:41	06/17/15 20:35	1
Vanadium	11		0.29	0.085	mg/Kg	☼	06/16/15 17:41	06/17/15 20:35	1
Zinc	51	B	1.2	0.37	mg/Kg	☼	06/16/15 17:41	06/18/15 21:26	1

Method: 7471B - Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.025		0.019	0.0067	mg/Kg	☼	06/12/15 14:00	06/15/15 14:11	1

TestAmerica Chicago

Definitions/Glossary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97262-3

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	RPD of the LCS and LCSD exceeds the 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
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.
B	Compound was found in the blank and sample.

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, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
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
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)

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 #: 500-97262
 Chain of Custody Number: _____
 Page _____ of _____
 Temperature °C of Cooler: _____

Lab ID	MS/MSD	Sample ID	Sampling		# of Containers	Matrix	Preservative	Parameter	Comments
			Date	Time					
9		1860-28-B03(2-4)	6-11-15	1440	25		VOC		
10		1860-28-B04(4-6)	6-11-15	1505	23		SUOC		
							Total PAH Metals		
							TCU/PS/P		
							PAH metals		
							P X / 6/15/15		

- 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

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>EE</u>	Date: <u>6-11-15</u>	Time: <u>1512</u>	Received By: <u>[Signature]</u>	Company: <u>TA</u>	Date: <u>6/11/15</u>	Time: <u>1512</u>
Relinquished By: <u>[Signature]</u>	Company: <u>TA</u>	Date: <u>6/11/15</u>	Time: <u>1610</u>	Received By: <u>[Signature]</u>	Company: <u>TA-CH</u>	Date: <u>6/11/15</u>	Time: <u>1610</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: 500-97262-3

Login Number: 97262
List Number: 1
Creator: Scott, Sherri L

List Source: TestAmerica Chicago

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	2.8
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.	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

Bureau of Land • 1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276

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 372/373 (Illinois Route 171) Office Phone Number, if available: _____

Physical Site Location (address, including number and street):
Between the Canadian National/Illinois Central Railroad and CSSC

City: Summit State: IL Zip Code: 60501

County: Cook Township: Lyons

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

Latitude: 41.795924 Longitude: -87.810541
(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: _____

II. Owner/Operator Information for Source Site

Site Owner

Site Operator

Name: Illinois Department of Transportation

Name: _____

Street Address: 201 West Center Court

Street Address: _____

PO Box: _____

PO Box: _____

City: Schaumburg State: IL

City: _____ State: _____

Zip Code: 60196-1096 Phone: 847-705-4159

Zip Code: _____ Phone: _____

Contact: Sam Mead

Contact: _____

Email, if available: Sam.Mead@illinois.gov

Email, if available: _____

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.

Project Name: FAP 372/373 (Illinois Route 171)

Latitude: 41.795924 Longitude: -87.810541

Uncontaminated Site 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 1860-50-B02, 1860-50-B03, 1860-50-B04, and 1860-50-B05 were sampled within the construction zone adjacent to ISGS #1860-50 (Metropolitan Water Reclamation District). Refer to PSI Report for ISGS #1860-50 (Metropolitan Water Reclamation District) including Table 4-3, and Figures 4-9A & B.

- 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 500-97179-2 and 500-97546-4.

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

I, Neil J. 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 Street

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:

7/22/15

Date:



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

Analytical Data Summary
PTB #172-27; Work Order 31 - IDOT Job # D-91-191-10

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.

SCGIER = Soil Component of the Groundwater Ingestion Exposure Route

SPLP = Synthetic Precipitation Leaching Procedure.

ND = Not detected.

NA = Not analyzed.

J = Estimated value.

U = Analyte was analyzed for but not detected.


Criteria Qualifiers and Shading

† = Concentration exceeds the most stringent MAC.

m = Concentration exceeds the MAC for an MSA.

* = Concentration exceeds the MAC for Chicago corporate limits.

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

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

 = Concentration exceeds the most stringent MAC and the MAC for Chicago corporate limits.

 = Concentration exceeds applicable comparison criteria.

PTB #172-27; Work Order 31 - IDOT Job # D-91-191-10

DETECTED ANALYTES

SITE	ISGS #1860-50 (Metropolitan Water Reclamation District)					Comparison Criteria			
	1860-50-B02	1860-50-B03		1860-50-B04	1860-50-B05	MACs			TACO
SAMPLE	1860-50-B02 (6-7.5)	1860-50-B03 (2-4)	1860-50-B03 (14-15)	1860-50-B04 (6-7.5)	1860-50-B05 (4-6)	Most Stringent	Within an MSA	Within Chicago	SCGIER
MATRIX	Soil	Soil	Soil	Soil	Soil				
DEPTH (feet)	6-7.5	2-4	12-14	6-7.5	4-6				
pH	8.05	8.01	7.98	7.91	7.65				
VOCs (mg/kg)									
Acetone	0.011	0.012	0.024	0.0084	0.0056	25	--	--	--
SVOCs (mg/kg)									
2-Methylnaphthalene	0.014 J	0.037	ND U	0.022 J	0.029 J	--	--	--	--
Acenaphthene	ND U	0.013 J	ND U	0.021 J	0.031 J	570	--	--	--
Anthracene	0.016 J	0.048	ND U	0.055	0.066	12,000	--	--	--
Benzo[a]anthracene	0.032 J	0.16	ND U	0.086	0.11	0.9	1.8	1.1	--
Benzo[a]pyrene	0.035 J	0.17 †	ND U	0.077	0.085	0.09	2.1	1.3	--
Benzo[b]fluoranthene	0.04	0.24	ND U	0.1	0.13	0.9	2.1	1.5	--
Benzo[g,h,i]perylene	0.026 J	0.1	ND U	0.039	0.11	--	--	--	--
Benzo[k]fluoranthene	0.021 J	0.097	ND U	0.063	0.087	9	--	--	--
Bis(2-ethylhexyl) phthalate	0.11 J	ND U	ND U	0.13 J	0.19	46	--	--	--
Chrysene	0.042	0.19	ND U	0.1	0.12	88	--	--	--
Dibenzo(a,h)anthracene	ND U	0.05	ND U	0.014 J	ND U	0.09	0.42	0.2	--
Fluoranthene	0.072	0.36	ND U	0.19	0.18	3,100	--	--	--
Fluorene	0.0091 J	0.019 J	ND U	0.037 J	0.042	560	--	--	--
Indeno[1,2,3-cd]pyrene	0.02 J	0.087	ND U	0.036 J	0.09	0.9	1.6	0.9	--
Naphthalene	0.0092 J	0.023 J	ND U	0.011 J	0.018 J	1.8	--	--	--
Phenanthrene	0.06	0.23	ND U	0.18	0.2	--	--	--	--
Pyrene	0.073	0.24	ND U	0.17	0.62	2,300	--	--	--
Inorganics (mg/kg)									
Arsenic	8.3	13 †	2.8	9.1	9.1	11.3	13	--	--
Barium	62	84	24	46	40	1,500	--	--	--
Beryllium	0.62	0.68	0.37	0.64	0.6	22	--	--	--
Boron	11	12	6.3	12	12	40	--	--	--
Cadmium	0.23	0.26	0.1 J	0.19	0.21	5.2	--	--	--
Calcium	48,000	54,000	92,000	57,000	59,000	--	--	--	--
Chromium	14	15	10	15	16	21	--	--	--
Cobalt	13	12	7.2	14	12	20	--	--	--
Copper	35	30	13	25	27	2,900	--	--	--
Iron	19,000 †m	22,000 †m	10,000	17,000 †m	17,000 †m	15,000	15,900	--	--
Lead	35	50	9	52	33	107	--	--	--
Magnesium	20,000	24,000	32,000	22,000	23,000	325,000	--	--	--
Manganese	290	430	420	400	370	630	636	--	--
Mercury	0.14	0.063	0.024	0.051	0.046	0.89	--	--	--
Nickel	32	32	18	32	35	100	--	--	--
Potassium	2,000	1,900	1,100	2,300	2,300	--	--	--	--
Selenium	ND U	1	ND U	ND U	ND U	1.3	--	--	--
Sodium	620	570	250	530	550	--	--	--	--
Thallium	ND U	0.29 J	ND U	ND U	ND U	2.6	--	--	--
Vanadium	20	17	12	19	19	550	--	--	--
Zinc	76	85	27	75	66	5,100	--	--	--
TCLP Metals (mg/L)									
Barium	0.35 J	0.27 J	0.23 J	0.36 J	0.23 J	--	--	--	2
Boron	0.69	0.73	0.62	0.6	0.58	--	--	--	2
Cadmium	0.004 J	0.0042 J	ND U	0.0031 J	0.0034 J	--	--	--	0.005
Cobalt	0.022 J	0.029	ND U	0.022 J	0.026	--	--	--	1
Iron	ND U	ND U	ND U	ND U	ND U	--	--	--	5
Lead	ND U	0.042 L	ND U	0.012 L	ND U	--	--	--	0.0075
Manganese	3.4 L	3.7 L	3.1 L	4 L	3.9 L	--	--	--	0.15
Nickel	0.038	0.033	ND U	0.025	0.068	--	--	--	0.1
Zinc	0.046 J	0.49	ND U	0.092 J	0.069 J	--	--	--	5
SPLP Metals (mg/L)									
Manganese	0.072	0.048	0.1	0.14	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: 500-97179-2
Client Project/Site: IDOT - IL 171 - WO 031

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

Attn: Mr. Dean Tiebout



Authorized for release by:
6/25/2015 3:01:54 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

8

9



Table of Contents

Cover Page	1
Table of Contents	2
Case Narrative	3
Detection Summary	4
Sample Summary	8
Client Sample Results	9
Definitions	25
Chain of Custody	26
Receipt Checklists	27

Case Narrative

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97179-2

Job ID: 500-97179-2

Laboratory: TestAmerica Chicago

Narrative

Job Narrative 500-97179-2

Receipt

The samples were received on 6/11/2015 7:20 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.3° C.

Receipt Exceptions

The lab received all bottles for sample 8 with an ID of 1860-50-B03 (12-14), however the sample was logged per the COC.

GC/MS VOA

Method(s) 8260B: The %RPD of the laboratory control sample (LCS) and laboratory control standard duplicate (LCSD) for preparation batch 292055 recovered outside control limits for Acetone.

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: A full list spike was utilized for this method. Due to the large number of spiked analytes, there is a high probability that one or more analytes will recover outside acceptance limits. The laboratory's SOP allows for 3 analytes to recover outside criteria for this method when a full list spike is utilized. The LCS associated with preparation batch 500-292518 and analytical batch 500-292688 had 2 analytes outside control limits: 2,2'-oxybis[1-chloropropane] and 2-Nitroaniline; therefore, corrective action was not performed. These results have been reported and qualified.

Method(s) 8270D: The following sample was diluted due to the nature of the sample matrix: 1860-50-B01 (0-2) (500-97179-5). Elevated reporting limits (RLs) are provided.

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 due to the abundance of non-target analytes: 1860-50-B01 (0-2) (500-97179-5). Elevated reporting limits (RLs) are provided.

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 - IL 171 - WO 031

TestAmerica Job ID: 500-97179-2

Client Sample ID: 1860-50-B03 (2-4) (Continued)

Lab Sample ID: 500-97179-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	0.012	*	0.0047	0.0037	mg/Kg	1	☼	8260B	Total/NA
Naphthalene	0.023	J	0.037	0.0058	mg/Kg	1	☼	8270D	Total/NA
2-Methylnaphthalene	0.037		0.037	0.0069	mg/Kg	1	☼	8270D	Total/NA
Acenaphthene	0.013	J	0.037	0.0067	mg/Kg	1	☼	8270D	Total/NA
Fluorene	0.019	J	0.037	0.0053	mg/Kg	1	☼	8270D	Total/NA
Phenanthrene	0.23		0.037	0.0052	mg/Kg	1	☼	8270D	Total/NA
Anthracene	0.048		0.037	0.0063	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.36		0.037	0.0069	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.24		0.037	0.0074	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.16		0.037	0.0050	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.19		0.037	0.010	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.24		0.037	0.0081	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.097		0.037	0.011	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.17		0.037	0.0072	mg/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.087		0.037	0.0097	mg/Kg	1	☼	8270D	Total/NA
Dibenz(a,h)anthracene	0.050		0.037	0.0072	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.10		0.037	0.012	mg/Kg	1	☼	8270D	Total/NA
Arsenic	13		0.55	0.25	mg/Kg	1	☼	6010B	Total/NA
Barium	84		0.55	0.10	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.68		0.22	0.048	mg/Kg	1	☼	6010B	Total/NA
Boron	12		2.8	0.38	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.26		0.11	0.032	mg/Kg	1	☼	6010B	Total/NA
Calcium	54000		55	18	mg/Kg	5	☼	6010B	Total/NA
Chromium	15		0.55	0.095	mg/Kg	1	☼	6010B	Total/NA
Cobalt	12		0.28	0.062	mg/Kg	1	☼	6010B	Total/NA
Copper	30		0.55	0.12	mg/Kg	1	☼	6010B	Total/NA
Iron	22000		11	4.2	mg/Kg	1	☼	6010B	Total/NA
Lead	50		0.28	0.14	mg/Kg	1	☼	6010B	Total/NA
Magnesium	24000	B	5.5	2.2	mg/Kg	1	☼	6010B	Total/NA
Manganese	430		0.55	0.11	mg/Kg	1	☼	6010B	Total/NA
Nickel	32		0.55	0.15	mg/Kg	1	☼	6010B	Total/NA
Potassium	1900		28	4.5	mg/Kg	1	☼	6010B	Total/NA
Selenium	1.0		0.55	0.27	mg/Kg	1	☼	6010B	Total/NA
Sodium	570		55	7.3	mg/Kg	1	☼	6010B	Total/NA
Thallium	0.29	J	0.55	0.27	mg/Kg	1	☼	6010B	Total/NA
Vanadium	17		0.28	0.080	mg/Kg	1	☼	6010B	Total/NA
Zinc	85	B	1.1	0.35	mg/Kg	1	☼	6010B	Total/NA
Barium	0.27	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.73		0.50	0.050	mg/L	1		6010B	TCLP
Cadmium	0.0042	J	0.0050	0.0020	mg/L	1		6010B	TCLP
Cobalt	0.029		0.025	0.010	mg/L	1		6010B	TCLP
Lead	0.042		0.0075	0.0075	mg/L	1		6010B	TCLP
Manganese	3.7		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.033		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.49	B	0.10	0.020	mg/L	1		6010B	TCLP
Manganese	0.048		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.063		0.017	0.0060	mg/Kg	1	☼	7471B	Total/NA
pH	8.01		0.200	0.200	SU	1		9045D	Total/NA

Client Sample ID: 1860-50-B03 (12-14)

Lab Sample ID: 500-97179-8

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97179-2

Client Sample ID: 1860-50-B03 (12-14) (Continued)

Lab Sample ID: 500-97179-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	0.024	*	0.0050	0.0039	mg/Kg	1	☼	8260B	Total/NA
Arsenic	2.8		0.59	0.27	mg/Kg	1	☼	6010B	Total/NA
Barium	24		0.59	0.11	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.37		0.24	0.051	mg/Kg	1	☼	6010B	Total/NA
Boron	6.3		3.0	0.41	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.10	J	0.12	0.034	mg/Kg	1	☼	6010B	Total/NA
Calcium	92000		59	19	mg/Kg	5	☼	6010B	Total/NA
Chromium	10		0.59	0.10	mg/Kg	1	☼	6010B	Total/NA
Cobalt	7.2		0.30	0.067	mg/Kg	1	☼	6010B	Total/NA
Copper	13		0.59	0.13	mg/Kg	1	☼	6010B	Total/NA
Iron	10000		12	4.6	mg/Kg	1	☼	6010B	Total/NA
Lead	9.0		0.30	0.15	mg/Kg	1	☼	6010B	Total/NA
Magnesium	32000	B	5.9	2.4	mg/Kg	1	☼	6010B	Total/NA
Manganese	420		0.59	0.12	mg/Kg	1	☼	6010B	Total/NA
Nickel	18		0.59	0.16	mg/Kg	1	☼	6010B	Total/NA
Potassium	1100		30	4.8	mg/Kg	1	☼	6010B	Total/NA
Sodium	250		59	7.8	mg/Kg	1	☼	6010B	Total/NA
Vanadium	12		0.30	0.086	mg/Kg	1	☼	6010B	Total/NA
Zinc	27	B	1.2	0.37	mg/Kg	1	☼	6010B	Total/NA
Barium	0.23	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.62		0.50	0.050	mg/L	1		6010B	TCLP
Manganese	3.1		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.043	J B	0.10	0.020	mg/L	1		6010B	TCLP
Manganese	0.10		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.024		0.018	0.0064	mg/Kg	1	☼	7471B	Total/NA
pH	7.98		0.200	0.200	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 - IL 171 - WO 031

TestAmerica Job ID: 500-97179-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-97179-7	1860-50-B03 (2-4)	Solid	06/10/15 12:45	06/11/15 07:20
500-97179-8	1860-50-B03 (12-14)	Solid	06/10/15 12:50	06/11/15 07:20

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97179-2

Client Sample ID: 1860-50-B03 (2-4)

Lab Sample ID: 500-97179-7

Date Collected: 06/10/15 12:45

Matrix: Solid

Date Received: 06/11/15 07:20

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		06/12/15 09:10	06/12/15 22:09	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		06/12/15 09:10	06/12/15 22:09	1
Boron	0.73		0.50	0.050	mg/L		06/12/15 09:10	06/12/15 22:09	1
Cadmium	0.0042	J	0.0050	0.0020	mg/L		06/12/15 09:10	06/12/15 22:09	1
Chromium	<0.025		0.025	0.010	mg/L		06/12/15 09:10	06/12/15 22:09	1
Cobalt	0.029		0.025	0.010	mg/L		06/12/15 09:10	06/12/15 22:09	1
Iron	<0.20		0.20	0.20	mg/L		06/12/15 09:10	06/12/15 22:09	1
Lead	0.042		0.0075	0.0075	mg/L		06/12/15 09:10	06/12/15 22:09	1
Manganese	3.7		0.025	0.010	mg/L		06/12/15 09:10	06/12/15 22:09	1
Nickel	0.033		0.025	0.010	mg/L		06/12/15 09:10	06/12/15 22:09	1
Selenium	<0.050		0.050	0.020	mg/L		06/12/15 09:10	06/12/15 22:09	1
Silver	<0.025		0.025	0.010	mg/L		06/12/15 09:10	06/12/15 22:09	1
Zinc	0.49	B	0.10	0.020	mg/L		06/12/15 09:10	06/12/15 22:09	1

Method: 6010B - SPLP Metals - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	<0.0075		0.0075	0.0075	mg/L		06/17/15 09:00	06/17/15 21:21	1
Manganese	0.048		0.025	0.010	mg/L		06/17/15 09:00	06/17/15 21:21	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		06/12/15 09:10	06/16/15 18:55	1
Thallium	<0.0020		0.0020	0.0020	mg/L		06/12/15 09:10	06/16/15 18:55	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		06/12/15 11:00	06/15/15 12:15	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.01		0.200	0.200	SU			06/11/15 16:57	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97179-2

Client Sample ID: 1860-50-B03 (2-4)

Lab Sample ID: 500-97179-7

Date Collected: 06/10/15 12:45

Matrix: Solid

Date Received: 06/11/15 07:20

Percent Solids: 85.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	0.012	*	0.0047	0.0037	mg/Kg	☼	06/11/15 07:50	06/16/15 14:11	1
Benzene	<0.0047		0.0047	0.0011	mg/Kg	☼	06/11/15 07:50	06/16/15 14:11	1
Bromodichloromethane	<0.0047		0.0047	0.00080	mg/Kg	☼	06/11/15 07:50	06/16/15 14:11	1
Bromoform	<0.0047		0.0047	0.00097	mg/Kg	☼	06/11/15 07:50	06/16/15 14:11	1
Bromomethane	<0.0047		0.0047	0.0017	mg/Kg	☼	06/11/15 07:50	06/16/15 14:11	1
2-Butanone (MEK)	<0.0047		0.0047	0.0017	mg/Kg	☼	06/11/15 07:50	06/16/15 14:11	1
Carbon disulfide	<0.0047		0.0047	0.0017	mg/Kg	☼	06/11/15 07:50	06/16/15 14:11	1
Carbon tetrachloride	<0.0047		0.0047	0.0010	mg/Kg	☼	06/11/15 07:50	06/16/15 14:11	1
Chlorobenzene	<0.0047		0.0047	0.0011	mg/Kg	☼	06/11/15 07:50	06/16/15 14:11	1
Chloroethane	<0.0047		0.0047	0.0020	mg/Kg	☼	06/11/15 07:50	06/16/15 14:11	1
Chloroform	<0.0047		0.0047	0.00092	mg/Kg	☼	06/11/15 07:50	06/16/15 14:11	1
Chloromethane	<0.0047		0.0047	0.0011	mg/Kg	☼	06/11/15 07:50	06/16/15 14:11	1
cis-1,2-Dichloroethene	<0.0047		0.0047	0.00097	mg/Kg	☼	06/11/15 07:50	06/16/15 14:11	1
cis-1,3-Dichloropropene	<0.0047		0.0047	0.0011	mg/Kg	☼	06/11/15 07:50	06/16/15 14:11	1
Dibromochloromethane	<0.0047		0.0047	0.00055	mg/Kg	☼	06/11/15 07:50	06/16/15 14:11	1
1,1-Dichloroethane	<0.0047		0.0047	0.00098	mg/Kg	☼	06/11/15 07:50	06/16/15 14:11	1
1,2-Dichloroethane	<0.0047		0.0047	0.00070	mg/Kg	☼	06/11/15 07:50	06/16/15 14:11	1
1,1-Dichloroethene	<0.0047		0.0047	0.0017	mg/Kg	☼	06/11/15 07:50	06/16/15 14:11	1
1,2-Dichloropropane	<0.0047		0.0047	0.0012	mg/Kg	☼	06/11/15 07:50	06/16/15 14:11	1
1,3-Dichloropropene, Total	<0.0047		0.0047	0.0013	mg/Kg	☼	06/11/15 07:50	06/16/15 14:11	1
Ethylbenzene	<0.0047		0.0047	0.0012	mg/Kg	☼	06/11/15 07:50	06/16/15 14:11	1
2-Hexanone	<0.0047		0.0047	0.0015	mg/Kg	☼	06/11/15 07:50	06/16/15 14:11	1
Methylene Chloride	<0.0047		0.0047	0.0036	mg/Kg	☼	06/11/15 07:50	06/16/15 14:11	1
4-Methyl-2-pentanone (MIBK)	<0.0047		0.0047	0.00098	mg/Kg	☼	06/11/15 07:50	06/16/15 14:11	1
Methyl tert-butyl ether	<0.0047		0.0047	0.0011	mg/Kg	☼	06/11/15 07:50	06/16/15 14:11	1
Styrene	<0.0047		0.0047	0.0011	mg/Kg	☼	06/11/15 07:50	06/16/15 14:11	1
1,1,1,2-Tetrachloroethane	<0.0047		0.0047	0.00075	mg/Kg	☼	06/11/15 07:50	06/16/15 14:11	1
Tetrachloroethene	<0.0047		0.0047	0.00099	mg/Kg	☼	06/11/15 07:50	06/16/15 14:11	1
Toluene	<0.0047		0.0047	0.0016	mg/Kg	☼	06/11/15 07:50	06/16/15 14:11	1
trans-1,2-Dichloroethene	<0.0047		0.0047	0.0012	mg/Kg	☼	06/11/15 07:50	06/16/15 14:11	1
trans-1,3-Dichloropropene	<0.0047		0.0047	0.0013	mg/Kg	☼	06/11/15 07:50	06/16/15 14:11	1
1,1,1-Trichloroethane	<0.0047		0.0047	0.0011	mg/Kg	☼	06/11/15 07:50	06/16/15 14:11	1
1,1,2-Trichloroethane	<0.0047		0.0047	0.00092	mg/Kg	☼	06/11/15 07:50	06/16/15 14:11	1
Trichloroethene	<0.0047		0.0047	0.0013	mg/Kg	☼	06/11/15 07:50	06/16/15 14:11	1
Vinyl acetate	<0.0047		0.0047	0.0013	mg/Kg	☼	06/11/15 07:50	06/16/15 14:11	1
Vinyl chloride	<0.0047		0.0047	0.0011	mg/Kg	☼	06/11/15 07:50	06/16/15 14:11	1
Xylenes, Total	<0.0095		0.0095	0.0018	mg/Kg	☼	06/11/15 07:50	06/16/15 14:11	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	89		70 - 122	06/11/15 07:50	06/16/15 14:11	1
Dibromofluoromethane	102		75 - 120	06/11/15 07:50	06/16/15 14:11	1
1,2-Dichloroethane-d4 (Surr)	101		70 - 134	06/11/15 07:50	06/16/15 14:11	1
Toluene-d8 (Surr)	97		75 - 122	06/11/15 07:50	06/16/15 14:11	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	☼	06/18/15 17:36	06/20/15 04:14	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.056	mg/Kg	☼	06/18/15 17:36	06/20/15 04:14	1
1,3-Dichlorobenzene	<0.19		0.19	0.042	mg/Kg	☼	06/18/15 17:36	06/20/15 04:14	1
1,4-Dichlorobenzene	<0.19		0.19	0.048	mg/Kg	☼	06/18/15 17:36	06/20/15 04:14	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97179-2

Client Sample ID: 1860-50-B03 (2-4)

Lab Sample ID: 500-97179-7

Date Collected: 06/10/15 12:45

Matrix: Solid

Date Received: 06/11/15 07:20

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	☼	06/18/15 17:36	06/20/15 04:14	1
2-Methylphenol	<0.19		0.19	0.060	mg/Kg	☼	06/18/15 17:36	06/20/15 04:14	1
2,2'-oxybis[1-chloropropane]	<0.19	*	0.19	0.043	mg/Kg	☼	06/18/15 17:36	06/20/15 04:14	1
N-Nitrosodi-n-propylamine	<0.19		0.19	0.046	mg/Kg	☼	06/18/15 17:36	06/20/15 04:14	1
Hexachloroethane	<0.19		0.19	0.057	mg/Kg	☼	06/18/15 17:36	06/20/15 04:14	1
2-Chlorophenol	<0.19		0.19	0.064	mg/Kg	☼	06/18/15 17:36	06/20/15 04:14	1
Nitrobenzene	<0.037		0.037	0.0093	mg/Kg	☼	06/18/15 17:36	06/20/15 04:14	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.038	mg/Kg	☼	06/18/15 17:36	06/20/15 04:14	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.040	mg/Kg	☼	06/18/15 17:36	06/20/15 04:14	1
Isophorone	<0.19		0.19	0.042	mg/Kg	☼	06/18/15 17:36	06/20/15 04:14	1
2,4-Dimethylphenol	<0.37		0.37	0.14	mg/Kg	☼	06/18/15 17:36	06/20/15 04:14	1
Hexachlorobutadiene	<0.19		0.19	0.059	mg/Kg	☼	06/18/15 17:36	06/20/15 04:14	1
Naphthalene	0.023	J	0.037	0.0058	mg/Kg	☼	06/18/15 17:36	06/20/15 04:14	1
2,4-Dichlorophenol	<0.37		0.37	0.089	mg/Kg	☼	06/18/15 17:36	06/20/15 04:14	1
4-Chloroaniline	<0.76		0.76	0.18	mg/Kg	☼	06/18/15 17:36	06/20/15 04:14	1
2,4,6-Trichlorophenol	<0.37		0.37	0.13	mg/Kg	☼	06/18/15 17:36	06/20/15 04:14	1
2,4,5-Trichlorophenol	<0.37		0.37	0.085	mg/Kg	☼	06/18/15 17:36	06/20/15 04:14	1
Hexachlorocyclopentadiene	<0.76		0.76	0.22	mg/Kg	☼	06/18/15 17:36	06/20/15 04:14	1
2-Methylnaphthalene	0.037		0.037	0.0069	mg/Kg	☼	06/18/15 17:36	06/20/15 04:14	1
2-Nitroaniline	<0.19	*	0.19	0.050	mg/Kg	☼	06/18/15 17:36	06/20/15 04:14	1
2-Chloronaphthalene	<0.19		0.19	0.041	mg/Kg	☼	06/18/15 17:36	06/20/15 04:14	1
4-Chloro-3-methylphenol	<0.37		0.37	0.13	mg/Kg	☼	06/18/15 17:36	06/20/15 04:14	1
2,6-Dinitrotoluene	<0.19		0.19	0.074	mg/Kg	☼	06/18/15 17:36	06/20/15 04:14	1
2-Nitrophenol	<0.37		0.37	0.088	mg/Kg	☼	06/18/15 17:36	06/20/15 04:14	1
3-Nitroaniline	<0.37		0.37	0.12	mg/Kg	☼	06/18/15 17:36	06/20/15 04:14	1
Dimethyl phthalate	<0.19		0.19	0.049	mg/Kg	☼	06/18/15 17:36	06/20/15 04:14	1
2,4-Dinitrophenol	<0.76		0.76	0.66	mg/Kg	☼	06/18/15 17:36	06/20/15 04:14	1
Acenaphthylene	<0.037		0.037	0.0049	mg/Kg	☼	06/18/15 17:36	06/20/15 04:14	1
2,4-Dinitrotoluene	<0.19		0.19	0.060	mg/Kg	☼	06/18/15 17:36	06/20/15 04:14	1
Acenaphthene	0.013	J	0.037	0.0067	mg/Kg	☼	06/18/15 17:36	06/20/15 04:14	1
Dibenzofuran	<0.19		0.19	0.044	mg/Kg	☼	06/18/15 17:36	06/20/15 04:14	1
4-Nitrophenol	<0.76		0.76	0.36	mg/Kg	☼	06/18/15 17:36	06/20/15 04:14	1
Fluorene	0.019	J	0.037	0.0053	mg/Kg	☼	06/18/15 17:36	06/20/15 04:14	1
4-Nitroaniline	<0.37		0.37	0.16	mg/Kg	☼	06/18/15 17:36	06/20/15 04:14	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.049	mg/Kg	☼	06/18/15 17:36	06/20/15 04:14	1
Hexachlorobenzene	<0.076		0.076	0.0087	mg/Kg	☼	06/18/15 17:36	06/20/15 04:14	1
Diethyl phthalate	<0.19		0.19	0.063	mg/Kg	☼	06/18/15 17:36	06/20/15 04:14	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.044	mg/Kg	☼	06/18/15 17:36	06/20/15 04:14	1
Pentachlorophenol	<0.76		0.76	0.60	mg/Kg	☼	06/18/15 17:36	06/20/15 04:14	1
N-Nitrosodiphenylamine	<0.19		0.19	0.044	mg/Kg	☼	06/18/15 17:36	06/20/15 04:14	1
4,6-Dinitro-2-methylphenol	<0.37		0.37	0.30	mg/Kg	☼	06/18/15 17:36	06/20/15 04:14	1
Phenanthrene	0.23		0.037	0.0052	mg/Kg	☼	06/18/15 17:36	06/20/15 04:14	1
Anthracene	0.048		0.037	0.0063	mg/Kg	☼	06/18/15 17:36	06/20/15 04:14	1
Carbazole	<0.19		0.19	0.097	mg/Kg	☼	06/18/15 17:36	06/20/15 04:14	1
Di-n-butyl phthalate	<0.19		0.19	0.057	mg/Kg	☼	06/18/15 17:36	06/20/15 04:14	1
Fluoranthene	0.36		0.037	0.0069	mg/Kg	☼	06/18/15 17:36	06/20/15 04:14	1
Pyrene	0.24		0.037	0.0074	mg/Kg	☼	06/18/15 17:36	06/20/15 04:14	1
Butyl benzyl phthalate	<0.19		0.19	0.071	mg/Kg	☼	06/18/15 17:36	06/20/15 04:14	1
Benzo[a]anthracene	0.16		0.037	0.0050	mg/Kg	☼	06/18/15 17:36	06/20/15 04:14	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97179-2

Client Sample ID: 1860-50-B03 (2-4)

Lab Sample ID: 500-97179-7

Date Collected: 06/10/15 12:45

Matrix: Solid

Date Received: 06/11/15 07:20

Percent Solids: 85.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.19		0.037	0.010	mg/Kg	☼	06/18/15 17:36	06/20/15 04:14	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.052	mg/Kg	☼	06/18/15 17:36	06/20/15 04:14	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.068	mg/Kg	☼	06/18/15 17:36	06/20/15 04:14	1
Di-n-octyl phthalate	<0.19		0.19	0.061	mg/Kg	☼	06/18/15 17:36	06/20/15 04:14	1
Benzo[b]fluoranthene	0.24		0.037	0.0081	mg/Kg	☼	06/18/15 17:36	06/20/15 04:14	1
Benzo[k]fluoranthene	0.097		0.037	0.011	mg/Kg	☼	06/18/15 17:36	06/20/15 04:14	1
Benzo[a]pyrene	0.17		0.037	0.0072	mg/Kg	☼	06/18/15 17:36	06/20/15 04:14	1
Indeno[1,2,3-cd]pyrene	0.087		0.037	0.0097	mg/Kg	☼	06/18/15 17:36	06/20/15 04:14	1
Dibenz(a,h)anthracene	0.050		0.037	0.0072	mg/Kg	☼	06/18/15 17:36	06/20/15 04:14	1
Benzo[g,h,i]perylene	0.10		0.037	0.012	mg/Kg	☼	06/18/15 17:36	06/20/15 04:14	1
3 & 4 Methylphenol	<0.19		0.19	0.062	mg/Kg	☼	06/18/15 17:36	06/20/15 04:14	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	52		25 - 110	06/18/15 17:36	06/20/15 04:14	1
Phenol-d5	45		31 - 110	06/18/15 17:36	06/20/15 04:14	1
Nitrobenzene-d5	44		25 - 115	06/18/15 17:36	06/20/15 04:14	1
2-Fluorobiphenyl	51		25 - 119	06/18/15 17:36	06/20/15 04:14	1
2,4,6-Tribromophenol	57		35 - 137	06/18/15 17:36	06/20/15 04:14	1
Terphenyl-d14	78		36 - 134	06/18/15 17:36	06/20/15 04:14	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.1		1.1	0.23	mg/Kg	☼	06/16/15 17:41	06/17/15 22:43	1
Arsenic	13		0.55	0.25	mg/Kg	☼	06/16/15 17:41	06/17/15 22:43	1
Barium	84		0.55	0.10	mg/Kg	☼	06/16/15 17:41	06/17/15 22:43	1
Beryllium	0.68		0.22	0.048	mg/Kg	☼	06/16/15 17:41	06/17/15 22:43	1
Boron	12		2.8	0.38	mg/Kg	☼	06/16/15 17:41	06/17/15 22:43	1
Cadmium	0.26		0.11	0.032	mg/Kg	☼	06/16/15 17:41	06/17/15 22:43	1
Calcium	54000		55	18	mg/Kg	☼	06/16/15 17:41	06/18/15 23:01	5
Chromium	15		0.55	0.095	mg/Kg	☼	06/16/15 17:41	06/17/15 22:43	1
Cobalt	12		0.28	0.062	mg/Kg	☼	06/16/15 17:41	06/17/15 22:43	1
Copper	30		0.55	0.12	mg/Kg	☼	06/16/15 17:41	06/17/15 22:43	1
Iron	22000		11	4.2	mg/Kg	☼	06/16/15 17:41	06/17/15 22:43	1
Lead	50		0.28	0.14	mg/Kg	☼	06/16/15 17:41	06/17/15 22:43	1
Magnesium	24000	B	5.5	2.2	mg/Kg	☼	06/16/15 17:41	06/17/15 22:43	1
Manganese	430		0.55	0.11	mg/Kg	☼	06/16/15 17:41	06/17/15 22:43	1
Nickel	32		0.55	0.15	mg/Kg	☼	06/16/15 17:41	06/17/15 22:43	1
Potassium	1900		28	4.5	mg/Kg	☼	06/16/15 17:41	06/18/15 21:23	1
Selenium	1.0		0.55	0.27	mg/Kg	☼	06/16/15 17:41	06/17/15 22:43	1
Silver	<0.28		0.28	0.064	mg/Kg	☼	06/16/15 17:41	06/17/15 22:43	1
Sodium	570		55	7.3	mg/Kg	☼	06/16/15 17:41	06/18/15 21:23	1
Thallium	0.29	J	0.55	0.27	mg/Kg	☼	06/16/15 17:41	06/17/15 22:43	1
Vanadium	17		0.28	0.080	mg/Kg	☼	06/16/15 17:41	06/17/15 22:43	1
Zinc	85	B	1.1	0.35	mg/Kg	☼	06/16/15 17:41	06/19/15 15:06	1

Method: 7471B - Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.063		0.017	0.0060	mg/Kg	☼	06/11/15 14:00	06/12/15 09:22	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97179-2

Client Sample ID: 1860-50-B03 (12-14)

Lab Sample ID: 500-97179-8

Date Collected: 06/10/15 12:50

Matrix: Solid

Date Received: 06/11/15 07:20

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		06/12/15 09:10	06/12/15 22:14	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		06/12/15 09:10	06/12/15 22:14	1
Boron	0.62		0.50	0.050	mg/L		06/12/15 09:10	06/12/15 22:14	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		06/12/15 09:10	06/12/15 22:14	1
Chromium	<0.025		0.025	0.010	mg/L		06/12/15 09:10	06/12/15 22:14	1
Cobalt	<0.025		0.025	0.010	mg/L		06/12/15 09:10	06/12/15 22:14	1
Iron	<0.20		0.20	0.20	mg/L		06/12/15 09:10	06/12/15 22:14	1
Lead	<0.0075		0.0075	0.0075	mg/L		06/12/15 09:10	06/12/15 22:14	1
Manganese	3.1		0.025	0.010	mg/L		06/12/15 09:10	06/12/15 22:14	1
Nickel	<0.025		0.025	0.010	mg/L		06/12/15 09:10	06/12/15 22:14	1
Selenium	<0.050		0.050	0.020	mg/L		06/12/15 09:10	06/12/15 22:14	1
Silver	<0.025		0.025	0.010	mg/L		06/12/15 09:10	06/12/15 22:14	1
Zinc	0.043	J B	0.10	0.020	mg/L		06/12/15 09:10	06/12/15 22:14	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.10		0.025	0.010	mg/L		06/17/15 09:00	06/17/15 21:26	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		06/12/15 09:10	06/16/15 18:59	1
Thallium	<0.0020		0.0020	0.0020	mg/L		06/12/15 09:10	06/16/15 18:59	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		06/12/15 11:00	06/15/15 12:21	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.98		0.200	0.200	SU			06/11/15 16:59	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97179-2

Client Sample ID: 1860-50-B03 (12-14)

Lab Sample ID: 500-97179-8

Date Collected: 06/10/15 12:50

Matrix: Solid

Date Received: 06/11/15 07:20

Percent Solids: 79.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	0.024	*	0.0050	0.0039	mg/Kg	☼	06/11/15 07:50	06/16/15 14:34	1
Benzene	<0.0050		0.0050	0.0011	mg/Kg	☼	06/11/15 07:50	06/16/15 14:34	1
Bromodichloromethane	<0.0050		0.0050	0.00084	mg/Kg	☼	06/11/15 07:50	06/16/15 14:34	1
Bromoform	<0.0050		0.0050	0.0010	mg/Kg	☼	06/11/15 07:50	06/16/15 14:34	1
Bromomethane	<0.0050		0.0050	0.0018	mg/Kg	☼	06/11/15 07:50	06/16/15 14:34	1
2-Butanone (MEK)	<0.0050		0.0050	0.0018	mg/Kg	☼	06/11/15 07:50	06/16/15 14:34	1
Carbon disulfide	<0.0050		0.0050	0.0018	mg/Kg	☼	06/11/15 07:50	06/16/15 14:34	1
Carbon tetrachloride	<0.0050		0.0050	0.0011	mg/Kg	☼	06/11/15 07:50	06/16/15 14:34	1
Chlorobenzene	<0.0050		0.0050	0.0012	mg/Kg	☼	06/11/15 07:50	06/16/15 14:34	1
Chloroethane	<0.0050		0.0050	0.0021	mg/Kg	☼	06/11/15 07:50	06/16/15 14:34	1
Chloroform	<0.0050		0.0050	0.00097	mg/Kg	☼	06/11/15 07:50	06/16/15 14:34	1
Chloromethane	<0.0050		0.0050	0.0012	mg/Kg	☼	06/11/15 07:50	06/16/15 14:34	1
cis-1,2-Dichloroethene	<0.0050		0.0050	0.0010	mg/Kg	☼	06/11/15 07:50	06/16/15 14:34	1
cis-1,3-Dichloropropene	<0.0050		0.0050	0.0011	mg/Kg	☼	06/11/15 07:50	06/16/15 14:34	1
Dibromochloromethane	<0.0050		0.0050	0.00057	mg/Kg	☼	06/11/15 07:50	06/16/15 14:34	1
1,1-Dichloroethane	<0.0050		0.0050	0.0010	mg/Kg	☼	06/11/15 07:50	06/16/15 14:34	1
1,2-Dichloroethane	<0.0050		0.0050	0.00074	mg/Kg	☼	06/11/15 07:50	06/16/15 14:34	1
1,1-Dichloroethene	<0.0050		0.0050	0.0018	mg/Kg	☼	06/11/15 07:50	06/16/15 14:34	1
1,2-Dichloropropane	<0.0050		0.0050	0.0013	mg/Kg	☼	06/11/15 07:50	06/16/15 14:34	1
1,3-Dichloropropane, Total	<0.0050		0.0050	0.0014	mg/Kg	☼	06/11/15 07:50	06/16/15 14:34	1
Ethylbenzene	<0.0050		0.0050	0.0012	mg/Kg	☼	06/11/15 07:50	06/16/15 14:34	1
2-Hexanone	<0.0050		0.0050	0.0015	mg/Kg	☼	06/11/15 07:50	06/16/15 14:34	1
Methylene Chloride	<0.0050		0.0050	0.0038	mg/Kg	☼	06/11/15 07:50	06/16/15 14:34	1
4-Methyl-2-pentanone (MIBK)	<0.0050		0.0050	0.0010	mg/Kg	☼	06/11/15 07:50	06/16/15 14:34	1
Methyl tert-butyl ether	<0.0050		0.0050	0.0012	mg/Kg	☼	06/11/15 07:50	06/16/15 14:34	1
Styrene	<0.0050		0.0050	0.0012	mg/Kg	☼	06/11/15 07:50	06/16/15 14:34	1
1,1,2,2-Tetrachloroethane	<0.0050		0.0050	0.00079	mg/Kg	☼	06/11/15 07:50	06/16/15 14:34	1
Tetrachloroethene	<0.0050		0.0050	0.0010	mg/Kg	☼	06/11/15 07:50	06/16/15 14:34	1
Toluene	<0.0050		0.0050	0.0017	mg/Kg	☼	06/11/15 07:50	06/16/15 14:34	1
trans-1,2-Dichloroethene	<0.0050		0.0050	0.0012	mg/Kg	☼	06/11/15 07:50	06/16/15 14:34	1
trans-1,3-Dichloropropene	<0.0050		0.0050	0.0014	mg/Kg	☼	06/11/15 07:50	06/16/15 14:34	1
1,1,1-Trichloroethane	<0.0050		0.0050	0.0012	mg/Kg	☼	06/11/15 07:50	06/16/15 14:34	1
1,1,2-Trichloroethane	<0.0050		0.0050	0.00096	mg/Kg	☼	06/11/15 07:50	06/16/15 14:34	1
Trichloroethene	<0.0050		0.0050	0.0013	mg/Kg	☼	06/11/15 07:50	06/16/15 14:34	1
Vinyl acetate	<0.0050		0.0050	0.0013	mg/Kg	☼	06/11/15 07:50	06/16/15 14:34	1
Vinyl chloride	<0.0050		0.0050	0.0012	mg/Kg	☼	06/11/15 07:50	06/16/15 14:34	1
Xylenes, Total	<0.010		0.010	0.0018	mg/Kg	☼	06/11/15 07:50	06/16/15 14:34	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	90		70 - 122	06/11/15 07:50	06/16/15 14:34	1
Dibromofluoromethane	99		75 - 120	06/11/15 07:50	06/16/15 14:34	1
1,2-Dichloroethane-d4 (Surr)	101		70 - 134	06/11/15 07:50	06/16/15 14:34	1
Toluene-d8 (Surr)	97		75 - 122	06/11/15 07:50	06/16/15 14:34	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	☼	06/18/15 17:36	06/20/15 04:36	1
Bis(2-chloroethyl)ether	<0.21		0.21	0.061	mg/Kg	☼	06/18/15 17:36	06/20/15 04:36	1
1,3-Dichlorobenzene	<0.21		0.21	0.046	mg/Kg	☼	06/18/15 17:36	06/20/15 04:36	1
1,4-Dichlorobenzene	<0.21		0.21	0.052	mg/Kg	☼	06/18/15 17:36	06/20/15 04:36	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97179-2

Client Sample ID: 1860-50-B03 (12-14)

Lab Sample ID: 500-97179-8

Date Collected: 06/10/15 12:50

Matrix: Solid

Date Received: 06/11/15 07:20

Percent Solids: 79.7

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	☼	06/18/15 17:36	06/20/15 04:36	1
2-Methylphenol	<0.21		0.21	0.066	mg/Kg	☼	06/18/15 17:36	06/20/15 04:36	1
2,2'-oxybis[1-chloropropane]	<0.21	*	0.21	0.047	mg/Kg	☼	06/18/15 17:36	06/20/15 04:36	1
N-Nitrosodi-n-propylamine	<0.21		0.21	0.050	mg/Kg	☼	06/18/15 17:36	06/20/15 04:36	1
Hexachloroethane	<0.21		0.21	0.062	mg/Kg	☼	06/18/15 17:36	06/20/15 04:36	1
2-Chlorophenol	<0.21		0.21	0.070	mg/Kg	☼	06/18/15 17:36	06/20/15 04:36	1
Nitrobenzene	<0.041		0.041	0.010	mg/Kg	☼	06/18/15 17:36	06/20/15 04:36	1
Bis(2-chloroethoxy)methane	<0.21		0.21	0.042	mg/Kg	☼	06/18/15 17:36	06/20/15 04:36	1
1,2,4-Trichlorobenzene	<0.21		0.21	0.044	mg/Kg	☼	06/18/15 17:36	06/20/15 04:36	1
Isophorone	<0.21		0.21	0.046	mg/Kg	☼	06/18/15 17:36	06/20/15 04:36	1
2,4-Dimethylphenol	<0.41		0.41	0.15	mg/Kg	☼	06/18/15 17:36	06/20/15 04:36	1
Hexachlorobutadiene	<0.21		0.21	0.064	mg/Kg	☼	06/18/15 17:36	06/20/15 04:36	1
Naphthalene	<0.041		0.041	0.0063	mg/Kg	☼	06/18/15 17:36	06/20/15 04:36	1
2,4-Dichlorophenol	<0.41		0.41	0.097	mg/Kg	☼	06/18/15 17:36	06/20/15 04:36	1
4-Chloroaniline	<0.82		0.82	0.19	mg/Kg	☼	06/18/15 17:36	06/20/15 04:36	1
2,4,6-Trichlorophenol	<0.41		0.41	0.14	mg/Kg	☼	06/18/15 17:36	06/20/15 04:36	1
2,4,5-Trichlorophenol	<0.41		0.41	0.093	mg/Kg	☼	06/18/15 17:36	06/20/15 04:36	1
Hexachlorocyclopentadiene	<0.82		0.82	0.23	mg/Kg	☼	06/18/15 17:36	06/20/15 04:36	1
2-Methylnaphthalene	<0.041		0.041	0.0075	mg/Kg	☼	06/18/15 17:36	06/20/15 04:36	1
2-Nitroaniline	<0.21	*	0.21	0.055	mg/Kg	☼	06/18/15 17:36	06/20/15 04:36	1
2-Chloronaphthalene	<0.21		0.21	0.045	mg/Kg	☼	06/18/15 17:36	06/20/15 04:36	1
4-Chloro-3-methylphenol	<0.41		0.41	0.14	mg/Kg	☼	06/18/15 17:36	06/20/15 04:36	1
2,6-Dinitrotoluene	<0.21		0.21	0.080	mg/Kg	☼	06/18/15 17:36	06/20/15 04:36	1
2-Nitrophenol	<0.41		0.41	0.097	mg/Kg	☼	06/18/15 17:36	06/20/15 04:36	1
3-Nitroaniline	<0.41		0.41	0.13	mg/Kg	☼	06/18/15 17:36	06/20/15 04:36	1
Dimethyl phthalate	<0.21		0.21	0.053	mg/Kg	☼	06/18/15 17:36	06/20/15 04:36	1
2,4-Dinitrophenol	<0.82		0.82	0.72	mg/Kg	☼	06/18/15 17:36	06/20/15 04:36	1
Acenaphthylene	<0.041		0.041	0.0054	mg/Kg	☼	06/18/15 17:36	06/20/15 04:36	1
2,4-Dinitrotoluene	<0.21		0.21	0.065	mg/Kg	☼	06/18/15 17:36	06/20/15 04:36	1
Acenaphthene	<0.041		0.041	0.0073	mg/Kg	☼	06/18/15 17:36	06/20/15 04:36	1
Dibenzofuran	<0.21		0.21	0.048	mg/Kg	☼	06/18/15 17:36	06/20/15 04:36	1
4-Nitrophenol	<0.82		0.82	0.39	mg/Kg	☼	06/18/15 17:36	06/20/15 04:36	1
Fluorene	<0.041		0.041	0.0057	mg/Kg	☼	06/18/15 17:36	06/20/15 04:36	1
4-Nitroaniline	<0.41		0.41	0.17	mg/Kg	☼	06/18/15 17:36	06/20/15 04:36	1
4-Bromophenyl phenyl ether	<0.21		0.21	0.054	mg/Kg	☼	06/18/15 17:36	06/20/15 04:36	1
Hexachlorobenzene	<0.082		0.082	0.0095	mg/Kg	☼	06/18/15 17:36	06/20/15 04:36	1
Diethyl phthalate	<0.21		0.21	0.069	mg/Kg	☼	06/18/15 17:36	06/20/15 04:36	1
4-Chlorophenyl phenyl ether	<0.21		0.21	0.048	mg/Kg	☼	06/18/15 17:36	06/20/15 04:36	1
Pentachlorophenol	<0.82		0.82	0.66	mg/Kg	☼	06/18/15 17:36	06/20/15 04:36	1
N-Nitrosodiphenylamine	<0.21		0.21	0.048	mg/Kg	☼	06/18/15 17:36	06/20/15 04:36	1
4,6-Dinitro-2-methylphenol	<0.41		0.41	0.33	mg/Kg	☼	06/18/15 17:36	06/20/15 04:36	1
Phenanthrene	<0.041		0.041	0.0057	mg/Kg	☼	06/18/15 17:36	06/20/15 04:36	1
Anthracene	<0.041		0.041	0.0068	mg/Kg	☼	06/18/15 17:36	06/20/15 04:36	1
Carbazole	<0.21		0.21	0.11	mg/Kg	☼	06/18/15 17:36	06/20/15 04:36	1
Di-n-butyl phthalate	<0.21		0.21	0.062	mg/Kg	☼	06/18/15 17:36	06/20/15 04:36	1
Fluoranthene	<0.041		0.041	0.0076	mg/Kg	☼	06/18/15 17:36	06/20/15 04:36	1
Pyrene	<0.041		0.041	0.0081	mg/Kg	☼	06/18/15 17:36	06/20/15 04:36	1
Butyl benzyl phthalate	<0.21		0.21	0.078	mg/Kg	☼	06/18/15 17:36	06/20/15 04:36	1
Benzo[a]anthracene	<0.041		0.041	0.0055	mg/Kg	☼	06/18/15 17:36	06/20/15 04:36	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97179-2

Client Sample ID: 1860-50-B03 (12-14)

Lab Sample ID: 500-97179-8

Date Collected: 06/10/15 12:50

Matrix: Solid

Date Received: 06/11/15 07:20

Percent Solids: 79.7

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	☼	06/18/15 17:36	06/20/15 04:36	1
3,3'-Dichlorobenzidine	<0.21		0.21	0.057	mg/Kg	☼	06/18/15 17:36	06/20/15 04:36	1
Bis(2-ethylhexyl) phthalate	<0.21		0.21	0.075	mg/Kg	☼	06/18/15 17:36	06/20/15 04:36	1
Di-n-octyl phthalate	<0.21		0.21	0.067	mg/Kg	☼	06/18/15 17:36	06/20/15 04:36	1
Benzo[b]fluoranthene	<0.041		0.041	0.0088	mg/Kg	☼	06/18/15 17:36	06/20/15 04:36	1
Benzo[k]fluoranthene	<0.041		0.041	0.012	mg/Kg	☼	06/18/15 17:36	06/20/15 04:36	1
Benzo[a]pyrene	<0.041		0.041	0.0079	mg/Kg	☼	06/18/15 17:36	06/20/15 04:36	1
Indeno[1,2,3-cd]pyrene	<0.041		0.041	0.011	mg/Kg	☼	06/18/15 17:36	06/20/15 04:36	1
Dibenz(a,h)anthracene	<0.041		0.041	0.0079	mg/Kg	☼	06/18/15 17:36	06/20/15 04:36	1
Benzo[g,h,i]perylene	<0.041		0.041	0.013	mg/Kg	☼	06/18/15 17:36	06/20/15 04:36	1
3 & 4 Methylphenol	<0.21		0.21	0.068	mg/Kg	☼	06/18/15 17:36	06/20/15 04:36	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	55		25 - 110	06/18/15 17:36	06/20/15 04:36	1
Phenol-d5	42		31 - 110	06/18/15 17:36	06/20/15 04:36	1
Nitrobenzene-d5	48		25 - 115	06/18/15 17:36	06/20/15 04:36	1
2-Fluorobiphenyl	50		25 - 119	06/18/15 17:36	06/20/15 04:36	1
2,4,6-Tribromophenol	48		35 - 137	06/18/15 17:36	06/20/15 04:36	1
Terphenyl-d14	79		36 - 134	06/18/15 17:36	06/20/15 04:36	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	☼	06/16/15 17:41	06/17/15 22:48	1
Arsenic	2.8		0.59	0.27	mg/Kg	☼	06/16/15 17:41	06/17/15 22:48	1
Barium	24		0.59	0.11	mg/Kg	☼	06/16/15 17:41	06/17/15 22:48	1
Beryllium	0.37		0.24	0.051	mg/Kg	☼	06/16/15 17:41	06/17/15 22:48	1
Boron	6.3		3.0	0.41	mg/Kg	☼	06/16/15 17:41	06/17/15 22:48	1
Cadmium	0.10 J		0.12	0.034	mg/Kg	☼	06/16/15 17:41	06/17/15 22:48	1
Calcium	92000		59	19	mg/Kg	☼	06/16/15 17:41	06/18/15 23:05	5
Chromium	10		0.59	0.10	mg/Kg	☼	06/16/15 17:41	06/17/15 22:48	1
Cobalt	7.2		0.30	0.067	mg/Kg	☼	06/16/15 17:41	06/17/15 22:48	1
Copper	13		0.59	0.13	mg/Kg	☼	06/16/15 17:41	06/17/15 22:48	1
Iron	10000		12	4.6	mg/Kg	☼	06/16/15 17:41	06/17/15 22:48	1
Lead	9.0		0.30	0.15	mg/Kg	☼	06/16/15 17:41	06/17/15 22:48	1
Magnesium	32000 B		5.9	2.4	mg/Kg	☼	06/16/15 17:41	06/17/15 22:48	1
Manganese	420		0.59	0.12	mg/Kg	☼	06/16/15 17:41	06/17/15 22:48	1
Nickel	18		0.59	0.16	mg/Kg	☼	06/16/15 17:41	06/17/15 22:48	1
Potassium	1100		30	4.8	mg/Kg	☼	06/16/15 17:41	06/18/15 21:28	1
Selenium	<0.59		0.59	0.29	mg/Kg	☼	06/16/15 17:41	06/17/15 22:48	1
Silver	<0.30		0.30	0.069	mg/Kg	☼	06/16/15 17:41	06/17/15 22:48	1
Sodium	250		59	7.8	mg/Kg	☼	06/16/15 17:41	06/18/15 21:28	1
Thallium	<0.59		0.59	0.29	mg/Kg	☼	06/16/15 17:41	06/17/15 22:48	1
Vanadium	12		0.30	0.086	mg/Kg	☼	06/16/15 17:41	06/17/15 22:48	1
Zinc	27 B		1.2	0.37	mg/Kg	☼	06/16/15 17:41	06/19/15 15:12	1

Method: 7471B - Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.024		0.018	0.0064	mg/Kg	☼	06/11/15 14:00	06/12/15 09:24	1

TestAmerica Chicago

Definitions/Glossary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97179-2

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	RPD of the LCS and LCSD exceeds the 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.
*	ISTD response or retention time outside acceptable 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, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
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
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)

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

2417 Bord 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 #: 500-97179
 Chain of Custody Number: _____
 Page _____ of _____
 Temperature °C of Cooler: _____

Client		Client Project #		Preservative		Parameter		Matrix		Comments	
Project Name		Lab Project #		Sampling		Matrix		Matrix		Comments	
Project Location/State		Lab PM		Date	Time	# of Containers	Matrix	Matrix	Matrix	Matrix	Comments
EE	1009008-003101	IL 171	50011058								
S. Cooper		p. Wright									
5	1860-50-B01 (0-2)	6/10/15	0930	2	S	X	X	X	X	X	
6	1860-50-B01 (6-8)	6/10/15	0935	2	S	X	X	X	X	X	
7	1860-50-B03 (2-4)	6/10/15	1245	2	S	X	X	X	X	X	
8	1860-50-B03 (14-15)	6/10/15	1250	2	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)

Requested Due Date: 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	Company	Date	Time	Received By	Company	Date	Time
[Signature]	EA	6/10/15	1500	[Signature]	EA	6/10/15	1500
[Signature]	EA	6/10/15	1530	[Signature]	EA	6/10/15	1530
[Signature]	EA	6/10/15	1800	[Signature]	EA	6/11/15	0720

Lab Courier: JA
 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: 500-97179-2

Login Number: 97179
List Number: 1
Creator: Scott, Sherri L

List Source: TestAmerica Chicago

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	3.3
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.	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: 500-97546-4
Client Project/Site: IDOT - IL 171 - WO 031

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

Attn: Mr. Dean Tiebout



Authorized for release by:
7/1/2015 4:49:49 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

8

9



Table of Contents

Cover Page	1
Table of Contents	2
Case Narrative	3
Detection Summary	4
Sample Summary	7
Client Sample Results	8
Definitions	20
Chain of Custody	21
Receipt Checklists	22

Case Narrative

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97546-4

Job ID: 500-97546-4

Laboratory: TestAmerica Chicago

Narrative

Job Narrative 500-97546-4

Comments

No additional comments.

Receipt

The samples were received on 6/19/2015 8:00 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.4° C.

GC/MS VOA

Method(s) 8260B: The continuing calibration verification (CCV) associated with batch 500-293461 recovered above the upper control limit for Vinyl Acetate. The samples associated with this CCV were non-detects for the affected analyte; therefore, the data has been reported.

Method(s) 8260B: The laboratory control sample (LCS) for batch 500-293461 recovered outside control limits for the following analytes: Chloromethane and Vinyl Acetate. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data has 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 had one surrogate outside of limits: 1860-50-B05 (4-6) (500-97546-6), (500-97546-E-1-J MS) and (500-97546-E-1-K MSD). All other surrogate recoveries were within limits for these samples. No further action was required.

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 - IL 171 - WO 031

TestAmerica Job ID: 500-97546-4

Client Sample ID: 1860-50-B02 (6-7.5)

Lab Sample ID: 500-97546-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	0.011		0.0054	0.0042	mg/Kg	1	☼	8260B	Total/NA
Naphthalene	0.0092	J	0.038	0.0059	mg/Kg	1	☼	8270D	Total/NA
2-Methylnaphthalene	0.014	J	0.038	0.0071	mg/Kg	1	☼	8270D	Total/NA
Fluorene	0.0091	J	0.038	0.0054	mg/Kg	1	☼	8270D	Total/NA
Phenanthrene	0.060		0.038	0.0054	mg/Kg	1	☼	8270D	Total/NA
Anthracene	0.016	J	0.038	0.0064	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.072		0.038	0.0071	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.073		0.038	0.0077	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.032	J	0.038	0.0052	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.042		0.038	0.011	mg/Kg	1	☼	8270D	Total/NA
Bis(2-ethylhexyl) phthalate	0.11	J	0.19	0.070	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.040		0.038	0.0083	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.021	J	0.038	0.011	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.035	J	0.038	0.0075	mg/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.020	J	0.038	0.010	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.026	J	0.038	0.012	mg/Kg	1	☼	8270D	Total/NA
Arsenic	8.3		0.55	0.25	mg/Kg	1	☼	6010B	Total/NA
Barium	62		0.55	0.10	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.62		0.22	0.048	mg/Kg	1	☼	6010B	Total/NA
Boron	11		2.7	0.38	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.23		0.11	0.032	mg/Kg	1	☼	6010B	Total/NA
Calcium	48000		55	18	mg/Kg	5	☼	6010B	Total/NA
Chromium	14		0.55	0.094	mg/Kg	1	☼	6010B	Total/NA
Cobalt	13		0.27	0.062	mg/Kg	1	☼	6010B	Total/NA
Copper	35		0.55	0.12	mg/Kg	1	☼	6010B	Total/NA
Iron	19000		11	4.2	mg/Kg	1	☼	6010B	Total/NA
Lead	35		0.27	0.14	mg/Kg	1	☼	6010B	Total/NA
Magnesium	20000		5.5	2.2	mg/Kg	1	☼	6010B	Total/NA
Manganese	290		0.55	0.11	mg/Kg	1	☼	6010B	Total/NA
Nickel	32		0.55	0.15	mg/Kg	1	☼	6010B	Total/NA
Potassium	2000		27	4.5	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.82	B	0.55	0.27	mg/Kg	1	☼	6010B	Total/NA
Sodium	620		55	7.2	mg/Kg	1	☼	6010B	Total/NA
Vanadium	20		0.27	0.080	mg/Kg	1	☼	6010B	Total/NA
Zinc	76	B	1.1	0.35	mg/Kg	1	☼	6010B	Total/NA
Barium	0.35	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.69		0.50	0.050	mg/L	1		6010B	TCLP
Cadmium	0.0040	J	0.0050	0.0020	mg/L	1		6010B	TCLP
Cobalt	0.022	J	0.025	0.010	mg/L	1		6010B	TCLP
Manganese	3.4		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.038		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.046	J	0.10	0.020	mg/L	1		6010B	TCLP
Manganese	0.072		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.14		0.018	0.0064	mg/Kg	1	☼	7471B	Total/NA
pH	8.05		0.200	0.200	SU	1		9045D	Total/NA

Client Sample ID: 1860-50-B05 (4-6)

Lab Sample ID: 500-97546-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	0.0056		0.0041	0.0032	mg/Kg	1	☼	8260B	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97546-4

Client Sample ID: 1860-50-B05 (4-6) (Continued)

Lab Sample ID: 500-97546-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Naphthalene	0.018	J	0.038	0.0058	mg/Kg	1	☼	8270D	Total/NA
2-Methylnaphthalene	0.029	J	0.038	0.0070	mg/Kg	1	☼	8270D	Total/NA
Acenaphthene	0.031	J	0.038	0.0068	mg/Kg	1	☼	8270D	Total/NA
Fluorene	0.042		0.038	0.0053	mg/Kg	1	☼	8270D	Total/NA
Phenanthrene	0.20		0.038	0.0053	mg/Kg	1	☼	8270D	Total/NA
Anthracene	0.066		0.038	0.0063	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.18		0.038	0.0070	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.62		0.038	0.0075	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.11		0.038	0.0051	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.12		0.038	0.010	mg/Kg	1	☼	8270D	Total/NA
Bis(2-ethylhexyl) phthalate	0.19		0.19	0.069	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.13		0.038	0.0082	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.087		0.038	0.011	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.085		0.038	0.0073	mg/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.090		0.038	0.0098	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.11		0.038	0.012	mg/Kg	1	☼	8270D	Total/NA
Arsenic	9.1		0.54	0.25	mg/Kg	1	☼	6010B	Total/NA
Barium	40		0.54	0.10	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.60		0.22	0.047	mg/Kg	1	☼	6010B	Total/NA
Boron	12		2.7	0.38	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.21		0.11	0.032	mg/Kg	1	☼	6010B	Total/NA
Calcium	59000		54	18	mg/Kg	5	☼	6010B	Total/NA
Chromium	16		0.54	0.094	mg/Kg	1	☼	6010B	Total/NA
Cobalt	12		0.27	0.062	mg/Kg	1	☼	6010B	Total/NA
Copper	27		0.54	0.12	mg/Kg	1	☼	6010B	Total/NA
Iron	17000		11	4.2	mg/Kg	1	☼	6010B	Total/NA
Lead	33		0.27	0.14	mg/Kg	1	☼	6010B	Total/NA
Magnesium	23000		5.4	2.2	mg/Kg	1	☼	6010B	Total/NA
Manganese	370		0.54	0.11	mg/Kg	1	☼	6010B	Total/NA
Nickel	35		0.54	0.15	mg/Kg	1	☼	6010B	Total/NA
Potassium	2300		27	4.4	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.68	B	0.54	0.27	mg/Kg	1	☼	6010B	Total/NA
Sodium	550		54	7.2	mg/Kg	1	☼	6010B	Total/NA
Vanadium	19		0.27	0.080	mg/Kg	1	☼	6010B	Total/NA
Zinc	66	B	1.1	0.34	mg/Kg	1	☼	6010B	Total/NA
Barium	0.23	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.58		0.50	0.050	mg/L	1		6010B	TCLP
Cadmium	0.0034	J	0.0050	0.0020	mg/L	1		6010B	TCLP
Cobalt	0.026		0.025	0.010	mg/L	1		6010B	TCLP
Manganese	3.9		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.068		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.069	J	0.10	0.020	mg/L	1		6010B	TCLP
Manganese	0.12		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.046		0.017	0.0060	mg/Kg	1	☼	7471B	Total/NA
pH	7.65		0.200	0.200	SU	1		9045D	Total/NA

Client Sample ID: 1860-50-B04 (6-7.5)

Lab Sample ID: 500-97546-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	0.0084		0.0045	0.0035	mg/Kg	1	☼	8260B	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97546-4

Client Sample ID: 1860-50-B04 (6-7.5) (Continued)

Lab Sample ID: 500-97546-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Naphthalene	0.011	J	0.039	0.0060	mg/Kg	1	☼	8270D	Total/NA
2-Methylnaphthalene	0.022	J	0.039	0.0072	mg/Kg	1	☼	8270D	Total/NA
Acenaphthene	0.021	J	0.039	0.0070	mg/Kg	1	☼	8270D	Total/NA
Fluorene	0.037	J	0.039	0.0055	mg/Kg	1	☼	8270D	Total/NA
Phenanthrene	0.18		0.039	0.0054	mg/Kg	1	☼	8270D	Total/NA
Anthracene	0.055		0.039	0.0065	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.19		0.039	0.0072	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.17		0.039	0.0077	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.086		0.039	0.0052	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.10		0.039	0.011	mg/Kg	1	☼	8270D	Total/NA
Bis(2-ethylhexyl) phthalate	0.13	J	0.20	0.071	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.10		0.039	0.0084	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.063		0.039	0.011	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.077		0.039	0.0075	mg/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.036	J	0.039	0.010	mg/Kg	1	☼	8270D	Total/NA
Dibenz(a,h)anthracene	0.014	J	0.039	0.0075	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.039		0.039	0.013	mg/Kg	1	☼	8270D	Total/NA
Arsenic	9.1		0.58	0.27	mg/Kg	1	☼	6010B	Total/NA
Barium	46		0.58	0.11	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.64		0.23	0.051	mg/Kg	1	☼	6010B	Total/NA
Boron	12		2.9	0.41	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.19		0.12	0.034	mg/Kg	1	☼	6010B	Total/NA
Calcium	57000		58	19	mg/Kg	5	☼	6010B	Total/NA
Chromium	15		0.58	0.10	mg/Kg	1	☼	6010B	Total/NA
Cobalt	14		0.29	0.066	mg/Kg	1	☼	6010B	Total/NA
Copper	25		0.58	0.13	mg/Kg	1	☼	6010B	Total/NA
Iron	17000		12	4.5	mg/Kg	1	☼	6010B	Total/NA
Lead	52		0.29	0.15	mg/Kg	1	☼	6010B	Total/NA
Magnesium	22000		5.8	2.4	mg/Kg	1	☼	6010B	Total/NA
Manganese	400		0.58	0.12	mg/Kg	1	☼	6010B	Total/NA
Nickel	32		0.58	0.16	mg/Kg	1	☼	6010B	Total/NA
Potassium	2300		29	4.8	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.51	J B	0.58	0.29	mg/Kg	1	☼	6010B	Total/NA
Sodium	530		58	7.7	mg/Kg	1	☼	6010B	Total/NA
Vanadium	19		0.29	0.085	mg/Kg	1	☼	6010B	Total/NA
Zinc	75	B	1.2	0.37	mg/Kg	1	☼	6010B	Total/NA
Barium	0.36	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.60		0.50	0.050	mg/L	1		6010B	TCLP
Cadmium	0.0031	J	0.0050	0.0020	mg/L	1		6010B	TCLP
Cobalt	0.022	J	0.025	0.010	mg/L	1		6010B	TCLP
Lead	0.012		0.0075	0.0075	mg/L	1		6010B	TCLP
Manganese	4.0		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.025		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.092	J	0.10	0.020	mg/L	1		6010B	TCLP
Manganese	0.14		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.051		0.020	0.0068	mg/Kg	1	☼	7471B	Total/NA
pH	7.91		0.200	0.200	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 - IL 171 - WO 031

TestAmerica Job ID: 500-97546-4

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-97546-5	1860-50-B02 (6-7.5)	Solid	06/18/15 11:45	06/19/15 08:00
500-97546-6	1860-50-B05 (4-6)	Solid	06/18/15 12:05	06/19/15 08:00
500-97546-7	1860-50-B04 (6-7.5)	Solid	06/18/15 12:50	06/19/15 08:00

1

2

3

4

5

6

7

8

9

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97546-4

Client Sample ID: 1860-50-B02 (6-7.5)

Lab Sample ID: 500-97546-5

Date Collected: 06/18/15 11:45

Matrix: Solid

Date Received: 06/19/15 08:00

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	-	06/23/15 09:04	06/23/15 18:25	1
Beryllium	<0.0040		0.0040	0.0040	mg/L	-	06/23/15 09:04	06/23/15 18:25	1
Boron	0.69		0.50	0.050	mg/L	-	06/23/15 09:04	06/23/15 18:25	1
Cadmium	0.0040	J	0.0050	0.0020	mg/L	-	06/23/15 09:04	06/23/15 18:25	1
Chromium	<0.025		0.025	0.010	mg/L	-	06/23/15 09:04	06/23/15 18:25	1
Cobalt	0.022	J	0.025	0.010	mg/L	-	06/23/15 09:04	06/23/15 18:25	1
Iron	<0.20		0.20	0.20	mg/L	-	06/23/15 09:04	06/23/15 18:25	1
Lead	<0.0075		0.0075	0.0075	mg/L	-	06/23/15 09:04	06/23/15 18:25	1
Manganese	3.4		0.025	0.010	mg/L	-	06/23/15 09:04	06/23/15 18:25	1
Nickel	0.038		0.025	0.010	mg/L	-	06/23/15 09:04	06/23/15 18:25	1
Selenium	<0.050		0.050	0.020	mg/L	-	06/23/15 09:04	06/23/15 18:25	1
Silver	<0.025		0.025	0.010	mg/L	-	06/23/15 09:04	06/23/15 18:25	1
Zinc	0.046	J	0.10	0.020	mg/L	-	06/23/15 09:04	06/23/15 18:25	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.072		0.025	0.010	mg/L	-	06/26/15 10:50	06/27/15 14:36	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	-	06/23/15 09:04	06/24/15 17:39	1
Thallium	<0.0020		0.0020	0.0020	mg/L	-	06/23/15 09:04	06/24/15 17:39	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	-	06/23/15 11:00	06/24/15 09:41	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.05		0.200	0.200	SU	-		06/19/15 14:47	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97546-4

Client Sample ID: 1860-50-B02 (6-7.5)

Lab Sample ID: 500-97546-5

Date Collected: 06/18/15 11:45

Matrix: Solid

Date Received: 06/19/15 08:00

Percent Solids: 86.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	0.011		0.0054	0.0042	mg/Kg	☼	06/19/15 08:35	06/26/15 18:17	1
Benzene	<0.0054		0.0054	0.0012	mg/Kg	☼	06/19/15 08:35	06/26/15 18:17	1
Bromodichloromethane	<0.0054		0.0054	0.00092	mg/Kg	☼	06/19/15 08:35	06/26/15 18:17	1
Bromoform	<0.0054		0.0054	0.0011	mg/Kg	☼	06/19/15 08:35	06/26/15 18:17	1
Bromomethane	<0.0054		0.0054	0.0020	mg/Kg	☼	06/19/15 08:35	06/26/15 18:17	1
2-Butanone (MEK)	<0.0054		0.0054	0.0019	mg/Kg	☼	06/19/15 08:35	06/26/15 18:17	1
Carbon disulfide	<0.0054		0.0054	0.0020	mg/Kg	☼	06/19/15 08:35	06/26/15 18:17	1
Carbon tetrachloride	<0.0054		0.0054	0.0012	mg/Kg	☼	06/19/15 08:35	06/26/15 18:17	1
Chlorobenzene	<0.0054		0.0054	0.0013	mg/Kg	☼	06/19/15 08:35	06/26/15 18:17	1
Chloroethane	<0.0054		0.0054	0.0023	mg/Kg	☼	06/19/15 08:35	06/26/15 18:17	1
Chloroform	<0.0054		0.0054	0.0011	mg/Kg	☼	06/19/15 08:35	06/26/15 18:17	1
Chloromethane	<0.0054	*	0.0054	0.0013	mg/Kg	☼	06/19/15 08:35	06/26/15 18:17	1
cis-1,2-Dichloroethene	<0.0054		0.0054	0.0011	mg/Kg	☼	06/19/15 08:35	06/26/15 18:17	1
cis-1,3-Dichloropropene	<0.0054		0.0054	0.0012	mg/Kg	☼	06/19/15 08:35	06/26/15 18:17	1
Dibromochloromethane	<0.0054		0.0054	0.00063	mg/Kg	☼	06/19/15 08:35	06/26/15 18:17	1
1,1-Dichloroethane	<0.0054		0.0054	0.0011	mg/Kg	☼	06/19/15 08:35	06/26/15 18:17	1
1,2-Dichloroethane	<0.0054		0.0054	0.00081	mg/Kg	☼	06/19/15 08:35	06/26/15 18:17	1
1,1-Dichloroethene	<0.0054		0.0054	0.0020	mg/Kg	☼	06/19/15 08:35	06/26/15 18:17	1
1,2-Dichloropropane	<0.0054		0.0054	0.0014	mg/Kg	☼	06/19/15 08:35	06/26/15 18:17	1
1,3-Dichloropropane, Total	<0.0054		0.0054	0.0015	mg/Kg	☼	06/19/15 08:35	06/26/15 18:17	1
Ethylbenzene	<0.0054		0.0054	0.0013	mg/Kg	☼	06/19/15 08:35	06/26/15 18:17	1
2-Hexanone	<0.0054		0.0054	0.0017	mg/Kg	☼	06/19/15 08:35	06/26/15 18:17	1
Methylene Chloride	<0.0054		0.0054	0.0041	mg/Kg	☼	06/19/15 08:35	06/26/15 18:17	1
4-Methyl-2-pentanone (MIBK)	<0.0054		0.0054	0.0011	mg/Kg	☼	06/19/15 08:35	06/26/15 18:17	1
Methyl tert-butyl ether	<0.0054		0.0054	0.0013	mg/Kg	☼	06/19/15 08:35	06/26/15 18:17	1
Styrene	<0.0054		0.0054	0.0013	mg/Kg	☼	06/19/15 08:35	06/26/15 18:17	1
1,1,2,2-Tetrachloroethane	<0.0054		0.0054	0.00086	mg/Kg	☼	06/19/15 08:35	06/26/15 18:17	1
Tetrachloroethene	<0.0054		0.0054	0.0011	mg/Kg	☼	06/19/15 08:35	06/26/15 18:17	1
Toluene	<0.0054		0.0054	0.0019	mg/Kg	☼	06/19/15 08:35	06/26/15 18:17	1
trans-1,2-Dichloroethene	<0.0054		0.0054	0.0014	mg/Kg	☼	06/19/15 08:35	06/26/15 18:17	1
trans-1,3-Dichloropropene	<0.0054		0.0054	0.0015	mg/Kg	☼	06/19/15 08:35	06/26/15 18:17	1
1,1,1-Trichloroethane	<0.0054		0.0054	0.0013	mg/Kg	☼	06/19/15 08:35	06/26/15 18:17	1
1,1,2-Trichloroethane	<0.0054		0.0054	0.0011	mg/Kg	☼	06/19/15 08:35	06/26/15 18:17	1
Trichloroethene	<0.0054		0.0054	0.0015	mg/Kg	☼	06/19/15 08:35	06/26/15 18:17	1
Vinyl acetate	<0.0054	*	0.0054	0.0015	mg/Kg	☼	06/19/15 08:35	06/26/15 18:17	1
Vinyl chloride	<0.0054		0.0054	0.0013	mg/Kg	☼	06/19/15 08:35	06/26/15 18:17	1
Xylenes, Total	<0.011		0.011	0.0020	mg/Kg	☼	06/19/15 08:35	06/26/15 18:17	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	105		70 - 122	06/19/15 08:35	06/26/15 18:17	1
Dibromofluoromethane	111		75 - 120	06/19/15 08:35	06/26/15 18:17	1
1,2-Dichloroethane-d4 (Surr)	113		70 - 134	06/19/15 08:35	06/26/15 18:17	1
Toluene-d8 (Surr)	112		75 - 122	06/19/15 08:35	06/26/15 18:17	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	☼	06/25/15 17:24	06/30/15 13:34	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.058	mg/Kg	☼	06/25/15 17:24	06/30/15 13:34	1
1,3-Dichlorobenzene	<0.19		0.19	0.043	mg/Kg	☼	06/25/15 17:24	06/30/15 13:34	1
1,4-Dichlorobenzene	<0.19		0.19	0.049	mg/Kg	☼	06/25/15 17:24	06/30/15 13:34	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97546-4

Client Sample ID: 1860-50-B02 (6-7.5)

Lab Sample ID: 500-97546-5

Date Collected: 06/18/15 11:45

Matrix: Solid

Date Received: 06/19/15 08:00

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	0.046	mg/Kg	☼	06/25/15 17:24	06/30/15 13:34	1
2-Methylphenol	<0.19		0.19	0.062	mg/Kg	☼	06/25/15 17:24	06/30/15 13:34	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.045	mg/Kg	☼	06/25/15 17:24	06/30/15 13:34	1
N-Nitrosodi-n-propylamine	<0.19		0.19	0.047	mg/Kg	☼	06/25/15 17:24	06/30/15 13:34	1
Hexachloroethane	<0.19		0.19	0.059	mg/Kg	☼	06/25/15 17:24	06/30/15 13:34	1
2-Chlorophenol	<0.19		0.19	0.066	mg/Kg	☼	06/25/15 17:24	06/30/15 13:34	1
Nitrobenzene	<0.038		0.038	0.0096	mg/Kg	☼	06/25/15 17:24	06/30/15 13:34	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.039	mg/Kg	☼	06/25/15 17:24	06/30/15 13:34	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.042	mg/Kg	☼	06/25/15 17:24	06/30/15 13:34	1
Isophorone	<0.19		0.19	0.043	mg/Kg	☼	06/25/15 17:24	06/30/15 13:34	1
2,4-Dimethylphenol	<0.38		0.38	0.15	mg/Kg	☼	06/25/15 17:24	06/30/15 13:34	1
Hexachlorobutadiene	<0.19		0.19	0.061	mg/Kg	☼	06/25/15 17:24	06/30/15 13:34	1
Naphthalene	0.0092	J	0.038	0.0059	mg/Kg	☼	06/25/15 17:24	06/30/15 13:34	1
2,4-Dichlorophenol	<0.38		0.38	0.092	mg/Kg	☼	06/25/15 17:24	06/30/15 13:34	1
4-Chloroaniline	<0.78		0.78	0.18	mg/Kg	☼	06/25/15 17:24	06/30/15 13:34	1
2,4,6-Trichlorophenol	<0.38		0.38	0.13	mg/Kg	☼	06/25/15 17:24	06/30/15 13:34	1
2,4,5-Trichlorophenol	<0.38		0.38	0.088	mg/Kg	☼	06/25/15 17:24	06/30/15 13:34	1
Hexachlorocyclopentadiene	<0.78		0.78	0.22	mg/Kg	☼	06/25/15 17:24	06/30/15 13:34	1
2-Methylnaphthalene	0.014	J	0.038	0.0071	mg/Kg	☼	06/25/15 17:24	06/30/15 13:34	1
2-Nitroaniline	<0.19		0.19	0.052	mg/Kg	☼	06/25/15 17:24	06/30/15 13:34	1
2-Chloronaphthalene	<0.19		0.19	0.043	mg/Kg	☼	06/25/15 17:24	06/30/15 13:34	1
4-Chloro-3-methylphenol	<0.38		0.38	0.13	mg/Kg	☼	06/25/15 17:24	06/30/15 13:34	1
2,6-Dinitrotoluene	<0.19		0.19	0.076	mg/Kg	☼	06/25/15 17:24	06/30/15 13:34	1
2-Nitrophenol	<0.38		0.38	0.091	mg/Kg	☼	06/25/15 17:24	06/30/15 13:34	1
3-Nitroaniline	<0.38		0.38	0.12	mg/Kg	☼	06/25/15 17:24	06/30/15 13:34	1
Dimethyl phthalate	<0.19		0.19	0.050	mg/Kg	☼	06/25/15 17:24	06/30/15 13:34	1
2,4-Dinitrophenol	<0.78	*	0.78	0.68	mg/Kg	☼	06/25/15 17:24	06/30/15 13:34	1
Acenaphthylene	<0.038		0.038	0.0051	mg/Kg	☼	06/25/15 17:24	06/30/15 13:34	1
2,4-Dinitrotoluene	<0.19		0.19	0.061	mg/Kg	☼	06/25/15 17:24	06/30/15 13:34	1
Acenaphthene	<0.038		0.038	0.0069	mg/Kg	☼	06/25/15 17:24	06/30/15 13:34	1
Dibenzofuran	<0.19		0.19	0.045	mg/Kg	☼	06/25/15 17:24	06/30/15 13:34	1
4-Nitrophenol	<0.78		0.78	0.37	mg/Kg	☼	06/25/15 17:24	06/30/15 13:34	1
Fluorene	0.0091	J	0.038	0.0054	mg/Kg	☼	06/25/15 17:24	06/30/15 13:34	1
4-Nitroaniline	<0.38		0.38	0.16	mg/Kg	☼	06/25/15 17:24	06/30/15 13:34	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.051	mg/Kg	☼	06/25/15 17:24	06/30/15 13:34	1
Hexachlorobenzene	<0.078		0.078	0.0089	mg/Kg	☼	06/25/15 17:24	06/30/15 13:34	1
Diethyl phthalate	<0.19		0.19	0.065	mg/Kg	☼	06/25/15 17:24	06/30/15 13:34	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.045	mg/Kg	☼	06/25/15 17:24	06/30/15 13:34	1
Pentachlorophenol	<0.78	*	0.78	0.62	mg/Kg	☼	06/25/15 17:24	06/30/15 13:34	1
N-Nitrosodiphenylamine	<0.19		0.19	0.045	mg/Kg	☼	06/25/15 17:24	06/30/15 13:34	1
4,6-Dinitro-2-methylphenol	<0.38		0.38	0.31	mg/Kg	☼	06/25/15 17:24	06/30/15 13:34	1
Phenanthrene	0.060		0.038	0.0054	mg/Kg	☼	06/25/15 17:24	06/30/15 13:34	1
Anthracene	0.016	J	0.038	0.0064	mg/Kg	☼	06/25/15 17:24	06/30/15 13:34	1
Carbazole	<0.19		0.19	0.10	mg/Kg	☼	06/25/15 17:24	06/30/15 13:34	1
Di-n-butyl phthalate	<0.19		0.19	0.059	mg/Kg	☼	06/25/15 17:24	06/30/15 13:34	1
Fluoranthene	0.072		0.038	0.0071	mg/Kg	☼	06/25/15 17:24	06/30/15 13:34	1
Pyrene	0.073		0.038	0.0077	mg/Kg	☼	06/25/15 17:24	06/30/15 13:34	1
Butyl benzyl phthalate	<0.19		0.19	0.073	mg/Kg	☼	06/25/15 17:24	06/30/15 13:34	1
Benzo[a]anthracene	0.032	J	0.038	0.0052	mg/Kg	☼	06/25/15 17:24	06/30/15 13:34	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97546-4

Client Sample ID: 1860-50-B02 (6-7.5)

Lab Sample ID: 500-97546-5

Date Collected: 06/18/15 11:45

Matrix: Solid

Date Received: 06/19/15 08:00

Percent Solids: 86.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.042		0.038	0.011	mg/Kg	☼	06/25/15 17:24	06/30/15 13:34	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.054	mg/Kg	☼	06/25/15 17:24	06/30/15 13:34	1
Bis(2-ethylhexyl) phthalate	0.11	J	0.19	0.070	mg/Kg	☼	06/25/15 17:24	06/30/15 13:34	1
Di-n-octyl phthalate	<0.19		0.19	0.063	mg/Kg	☼	06/25/15 17:24	06/30/15 13:34	1
Benzo[b]fluoranthene	0.040		0.038	0.0083	mg/Kg	☼	06/25/15 17:24	06/30/15 13:34	1
Benzo[k]fluoranthene	0.021	J	0.038	0.011	mg/Kg	☼	06/25/15 17:24	06/30/15 13:34	1
Benzo[a]pyrene	0.035	J	0.038	0.0075	mg/Kg	☼	06/25/15 17:24	06/30/15 13:34	1
Indeno[1,2,3-cd]pyrene	0.020	J	0.038	0.010	mg/Kg	☼	06/25/15 17:24	06/30/15 13:34	1
Dibenz(a,h)anthracene	<0.038		0.038	0.0074	mg/Kg	☼	06/25/15 17:24	06/30/15 13:34	1
Benzo[g,h,i]perylene	0.026	J	0.038	0.012	mg/Kg	☼	06/25/15 17:24	06/30/15 13:34	1
3 & 4 Methylphenol	<0.19		0.19	0.064	mg/Kg	☼	06/25/15 17:24	06/30/15 13:34	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	51		25 - 110	06/25/15 17:24	06/30/15 13:34	1
Phenol-d5	50		31 - 110	06/25/15 17:24	06/30/15 13:34	1
Nitrobenzene-d5	41		25 - 115	06/25/15 17:24	06/30/15 13:34	1
2-Fluorobiphenyl	48		25 - 119	06/25/15 17:24	06/30/15 13:34	1
2,4,6-Tribromophenol	45		35 - 137	06/25/15 17:24	06/30/15 13:34	1
Terphenyl-d14	60		36 - 134	06/25/15 17:24	06/30/15 13:34	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.1		1.1	0.23	mg/Kg	☼	06/21/15 16:35	06/23/15 00:04	1
Arsenic	8.3		0.55	0.25	mg/Kg	☼	06/21/15 16:35	06/23/15 00:04	1
Barium	62		0.55	0.10	mg/Kg	☼	06/21/15 16:35	06/23/15 18:09	1
Beryllium	0.62		0.22	0.048	mg/Kg	☼	06/21/15 16:35	06/23/15 00:04	1
Boron	11		2.7	0.38	mg/Kg	☼	06/21/15 16:35	06/23/15 00:04	1
Cadmium	0.23		0.11	0.032	mg/Kg	☼	06/21/15 16:35	06/23/15 00:04	1
Calcium	48000		55	18	mg/Kg	☼	06/21/15 16:35	06/23/15 18:13	5
Chromium	14		0.55	0.094	mg/Kg	☼	06/21/15 16:35	06/23/15 00:04	1
Cobalt	13		0.27	0.062	mg/Kg	☼	06/21/15 16:35	06/23/15 00:04	1
Copper	35		0.55	0.12	mg/Kg	☼	06/21/15 16:35	06/23/15 00:04	1
Iron	19000		11	4.2	mg/Kg	☼	06/21/15 16:35	06/23/15 18:09	1
Lead	35		0.27	0.14	mg/Kg	☼	06/21/15 16:35	06/23/15 00:04	1
Magnesium	20000		5.5	2.2	mg/Kg	☼	06/21/15 16:35	06/23/15 18:09	1
Manganese	290		0.55	0.11	mg/Kg	☼	06/21/15 16:35	06/23/15 00:04	1
Nickel	32		0.55	0.15	mg/Kg	☼	06/21/15 16:35	06/23/15 00:04	1
Potassium	2000		27	4.5	mg/Kg	☼	06/21/15 16:35	06/23/15 00:04	1
Selenium	0.82	B	0.55	0.27	mg/Kg	☼	06/21/15 16:35	06/23/15 18:09	1
Silver	<0.27		0.27	0.064	mg/Kg	☼	06/21/15 16:35	06/23/15 00:04	1
Sodium	620		55	7.2	mg/Kg	☼	06/21/15 16:35	06/23/15 00:04	1
Thallium	<0.55		0.55	0.27	mg/Kg	☼	06/21/15 16:35	06/23/15 00:04	1
Vanadium	20		0.27	0.080	mg/Kg	☼	06/21/15 16:35	06/23/15 00:04	1
Zinc	76	B	1.1	0.35	mg/Kg	☼	06/21/15 16:35	06/23/15 18:09	1

Method: 7471B - Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14		0.018	0.0064	mg/Kg	☼	06/19/15 14:30	06/22/15 15:07	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97546-4

Client Sample ID: 1860-50-B05 (4-6)

Lab Sample ID: 500-97546-6

Date Collected: 06/18/15 12:05

Matrix: Solid

Date Received: 06/19/15 08:00

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	-	06/23/15 09:04	06/23/15 18:30	1
Beryllium	<0.0040		0.0040	0.0040	mg/L	-	06/23/15 09:04	06/23/15 18:30	1
Boron	0.58		0.50	0.050	mg/L	-	06/23/15 09:04	06/23/15 18:30	1
Cadmium	0.0034	J	0.0050	0.0020	mg/L	-	06/23/15 09:04	06/23/15 18:30	1
Chromium	<0.025		0.025	0.010	mg/L	-	06/23/15 09:04	06/23/15 18:30	1
Cobalt	0.026		0.025	0.010	mg/L	-	06/23/15 09:04	06/23/15 18:30	1
Iron	<0.20		0.20	0.20	mg/L	-	06/23/15 09:04	06/23/15 18:30	1
Lead	<0.0075		0.0075	0.0075	mg/L	-	06/23/15 09:04	06/23/15 18:30	1
Manganese	3.9		0.025	0.010	mg/L	-	06/23/15 09:04	06/23/15 18:30	1
Nickel	0.068		0.025	0.010	mg/L	-	06/23/15 09:04	06/23/15 18:30	1
Selenium	<0.050		0.050	0.020	mg/L	-	06/23/15 09:04	06/23/15 18:30	1
Silver	<0.025		0.025	0.010	mg/L	-	06/23/15 09:04	06/23/15 18:30	1
Zinc	0.069	J	0.10	0.020	mg/L	-	06/23/15 09:04	06/23/15 18:30	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	-	06/26/15 10:50	06/27/15 14:40	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	-	06/23/15 09:04	06/24/15 17:42	1
Thallium	<0.0020		0.0020	0.0020	mg/L	-	06/23/15 09:04	06/24/15 17:42	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	-	06/23/15 11:00	06/24/15 09:43	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.65		0.200	0.200	SU	-		06/19/15 14:49	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97546-4

Client Sample ID: 1860-50-B05 (4-6)

Lab Sample ID: 500-97546-6

Date Collected: 06/18/15 12:05

Matrix: Solid

Date Received: 06/19/15 08:00

Percent Solids: 83.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	0.0056		0.0041	0.0032	mg/Kg	☼	06/19/15 08:35	06/26/15 18:41	1
Benzene	<0.0041		0.0041	0.00091	mg/Kg	☼	06/19/15 08:35	06/26/15 18:41	1
Bromodichloromethane	<0.0041		0.0041	0.00069	mg/Kg	☼	06/19/15 08:35	06/26/15 18:41	1
Bromoform	<0.0041		0.0041	0.00084	mg/Kg	☼	06/19/15 08:35	06/26/15 18:41	1
Bromomethane	<0.0041		0.0041	0.0015	mg/Kg	☼	06/19/15 08:35	06/26/15 18:41	1
2-Butanone (MEK)	<0.0041		0.0041	0.0015	mg/Kg	☼	06/19/15 08:35	06/26/15 18:41	1
Carbon disulfide	<0.0041		0.0041	0.0015	mg/Kg	☼	06/19/15 08:35	06/26/15 18:41	1
Carbon tetrachloride	<0.0041		0.0041	0.00088	mg/Kg	☼	06/19/15 08:35	06/26/15 18:41	1
Chlorobenzene	<0.0041		0.0041	0.00097	mg/Kg	☼	06/19/15 08:35	06/26/15 18:41	1
Chloroethane	<0.0041		0.0041	0.0017	mg/Kg	☼	06/19/15 08:35	06/26/15 18:41	1
Chloroform	<0.0041		0.0041	0.00080	mg/Kg	☼	06/19/15 08:35	06/26/15 18:41	1
Chloromethane	<0.0041	*	0.0041	0.00098	mg/Kg	☼	06/19/15 08:35	06/26/15 18:41	1
cis-1,2-Dichloroethene	<0.0041		0.0041	0.00084	mg/Kg	☼	06/19/15 08:35	06/26/15 18:41	1
cis-1,3-Dichloropropene	<0.0041		0.0041	0.00093	mg/Kg	☼	06/19/15 08:35	06/26/15 18:41	1
Dibromochloromethane	<0.0041		0.0041	0.00047	mg/Kg	☼	06/19/15 08:35	06/26/15 18:41	1
1,1-Dichloroethane	<0.0041		0.0041	0.00084	mg/Kg	☼	06/19/15 08:35	06/26/15 18:41	1
1,2-Dichloroethane	<0.0041		0.0041	0.00061	mg/Kg	☼	06/19/15 08:35	06/26/15 18:41	1
1,1-Dichloroethene	<0.0041		0.0041	0.0015	mg/Kg	☼	06/19/15 08:35	06/26/15 18:41	1
1,2-Dichloropropane	<0.0041		0.0041	0.0011	mg/Kg	☼	06/19/15 08:35	06/26/15 18:41	1
1,3-Dichloropropane, Total	<0.0041		0.0041	0.0012	mg/Kg	☼	06/19/15 08:35	06/26/15 18:41	1
Ethylbenzene	<0.0041		0.0041	0.0010	mg/Kg	☼	06/19/15 08:35	06/26/15 18:41	1
2-Hexanone	<0.0041		0.0041	0.0013	mg/Kg	☼	06/19/15 08:35	06/26/15 18:41	1
Methylene Chloride	<0.0041		0.0041	0.0031	mg/Kg	☼	06/19/15 08:35	06/26/15 18:41	1
4-Methyl-2-pentanone (MIBK)	<0.0041		0.0041	0.00084	mg/Kg	☼	06/19/15 08:35	06/26/15 18:41	1
Methyl tert-butyl ether	<0.0041		0.0041	0.00097	mg/Kg	☼	06/19/15 08:35	06/26/15 18:41	1
Styrene	<0.0041		0.0041	0.00096	mg/Kg	☼	06/19/15 08:35	06/26/15 18:41	1
1,1,2,2-Tetrachloroethane	<0.0041		0.0041	0.00065	mg/Kg	☼	06/19/15 08:35	06/26/15 18:41	1
Tetrachloroethene	<0.0041		0.0041	0.00085	mg/Kg	☼	06/19/15 08:35	06/26/15 18:41	1
Toluene	<0.0041		0.0041	0.0014	mg/Kg	☼	06/19/15 08:35	06/26/15 18:41	1
trans-1,2-Dichloroethene	<0.0041		0.0041	0.0010	mg/Kg	☼	06/19/15 08:35	06/26/15 18:41	1
trans-1,3-Dichloropropene	<0.0041		0.0041	0.0012	mg/Kg	☼	06/19/15 08:35	06/26/15 18:41	1
1,1,1-Trichloroethane	<0.0041		0.0041	0.00095	mg/Kg	☼	06/19/15 08:35	06/26/15 18:41	1
1,1,2-Trichloroethane	<0.0041		0.0041	0.00079	mg/Kg	☼	06/19/15 08:35	06/26/15 18:41	1
Trichloroethene	<0.0041		0.0041	0.0011	mg/Kg	☼	06/19/15 08:35	06/26/15 18:41	1
Vinyl acetate	<0.0041	*	0.0041	0.0011	mg/Kg	☼	06/19/15 08:35	06/26/15 18:41	1
Vinyl chloride	<0.0041		0.0041	0.00098	mg/Kg	☼	06/19/15 08:35	06/26/15 18:41	1
Xylenes, Total	<0.0082		0.0082	0.0015	mg/Kg	☼	06/19/15 08:35	06/26/15 18:41	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	103		70 - 122	06/19/15 08:35	06/26/15 18:41	1
Dibromofluoromethane	111		75 - 120	06/19/15 08:35	06/26/15 18:41	1
1,2-Dichloroethane-d4 (Surr)	112		70 - 134	06/19/15 08:35	06/26/15 18:41	1
Toluene-d8 (Surr)	114		75 - 122	06/19/15 08:35	06/26/15 18:41	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	☼	06/25/15 17:24	06/30/15 16:42	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.057	mg/Kg	☼	06/25/15 17:24	06/30/15 16:42	1
1,3-Dichlorobenzene	<0.19		0.19	0.043	mg/Kg	☼	06/25/15 17:24	06/30/15 16:42	1
1,4-Dichlorobenzene	<0.19		0.19	0.049	mg/Kg	☼	06/25/15 17:24	06/30/15 16:42	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97546-4

Client Sample ID: 1860-50-B05 (4-6)

Lab Sample ID: 500-97546-6

Date Collected: 06/18/15 12:05

Matrix: Solid

Date Received: 06/19/15 08:00

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	☼	06/25/15 17:24	06/30/15 16:42	1
2-Methylphenol	<0.19		0.19	0.061	mg/Kg	☼	06/25/15 17:24	06/30/15 16:42	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.044	mg/Kg	☼	06/25/15 17:24	06/30/15 16:42	1
N-Nitrosodi-n-propylamine	<0.19		0.19	0.046	mg/Kg	☼	06/25/15 17:24	06/30/15 16:42	1
Hexachloroethane	<0.19		0.19	0.058	mg/Kg	☼	06/25/15 17:24	06/30/15 16:42	1
2-Chlorophenol	<0.19		0.19	0.065	mg/Kg	☼	06/25/15 17:24	06/30/15 16:42	1
Nitrobenzene	<0.038		0.038	0.0095	mg/Kg	☼	06/25/15 17:24	06/30/15 16:42	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.039	mg/Kg	☼	06/25/15 17:24	06/30/15 16:42	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.041	mg/Kg	☼	06/25/15 17:24	06/30/15 16:42	1
Isophorone	<0.19		0.19	0.043	mg/Kg	☼	06/25/15 17:24	06/30/15 16:42	1
2,4-Dimethylphenol	<0.38		0.38	0.14	mg/Kg	☼	06/25/15 17:24	06/30/15 16:42	1
Hexachlorobutadiene	<0.19		0.19	0.060	mg/Kg	☼	06/25/15 17:24	06/30/15 16:42	1
Naphthalene	0.018	J	0.038	0.0058	mg/Kg	☼	06/25/15 17:24	06/30/15 16:42	1
2,4-Dichlorophenol	<0.38		0.38	0.090	mg/Kg	☼	06/25/15 17:24	06/30/15 16:42	1
4-Chloroaniline	<0.76		0.76	0.18	mg/Kg	☼	06/25/15 17:24	06/30/15 16:42	1
2,4,6-Trichlorophenol	<0.38		0.38	0.13	mg/Kg	☼	06/25/15 17:24	06/30/15 16:42	1
2,4,5-Trichlorophenol	<0.38		0.38	0.087	mg/Kg	☼	06/25/15 17:24	06/30/15 16:42	1
Hexachlorocyclopentadiene	<0.76		0.76	0.22	mg/Kg	☼	06/25/15 17:24	06/30/15 16:42	1
2-Methylnaphthalene	0.029	J	0.038	0.0070	mg/Kg	☼	06/25/15 17:24	06/30/15 16:42	1
2-Nitroaniline	<0.19		0.19	0.051	mg/Kg	☼	06/25/15 17:24	06/30/15 16:42	1
2-Chloronaphthalene	<0.19		0.19	0.042	mg/Kg	☼	06/25/15 17:24	06/30/15 16:42	1
4-Chloro-3-methylphenol	<0.38		0.38	0.13	mg/Kg	☼	06/25/15 17:24	06/30/15 16:42	1
2,6-Dinitrotoluene	<0.19		0.19	0.075	mg/Kg	☼	06/25/15 17:24	06/30/15 16:42	1
2-Nitrophenol	<0.38		0.38	0.090	mg/Kg	☼	06/25/15 17:24	06/30/15 16:42	1
3-Nitroaniline	<0.38		0.38	0.12	mg/Kg	☼	06/25/15 17:24	06/30/15 16:42	1
Dimethyl phthalate	<0.19		0.19	0.050	mg/Kg	☼	06/25/15 17:24	06/30/15 16:42	1
2,4-Dinitrophenol	<0.76	*	0.76	0.67	mg/Kg	☼	06/25/15 17:24	06/30/15 16:42	1
Acenaphthylene	<0.038		0.038	0.0050	mg/Kg	☼	06/25/15 17:24	06/30/15 16:42	1
2,4-Dinitrotoluene	<0.19		0.19	0.060	mg/Kg	☼	06/25/15 17:24	06/30/15 16:42	1
Acenaphthene	0.031	J	0.038	0.0068	mg/Kg	☼	06/25/15 17:24	06/30/15 16:42	1
Dibenzofuran	<0.19		0.19	0.044	mg/Kg	☼	06/25/15 17:24	06/30/15 16:42	1
4-Nitrophenol	<0.76		0.76	0.36	mg/Kg	☼	06/25/15 17:24	06/30/15 16:42	1
Fluorene	0.042		0.038	0.0053	mg/Kg	☼	06/25/15 17:24	06/30/15 16:42	1
4-Nitroaniline	<0.38		0.38	0.16	mg/Kg	☼	06/25/15 17:24	06/30/15 16:42	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.050	mg/Kg	☼	06/25/15 17:24	06/30/15 16:42	1
Hexachlorobenzene	<0.076		0.076	0.0088	mg/Kg	☼	06/25/15 17:24	06/30/15 16:42	1
Diethyl phthalate	<0.19		0.19	0.064	mg/Kg	☼	06/25/15 17:24	06/30/15 16:42	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.044	mg/Kg	☼	06/25/15 17:24	06/30/15 16:42	1
Pentachlorophenol	<0.76	*	0.76	0.61	mg/Kg	☼	06/25/15 17:24	06/30/15 16:42	1
N-Nitrosodiphenylamine	<0.19		0.19	0.045	mg/Kg	☼	06/25/15 17:24	06/30/15 16:42	1
4,6-Dinitro-2-methylphenol	<0.38		0.38	0.30	mg/Kg	☼	06/25/15 17:24	06/30/15 16:42	1
Phenanthrene	0.20		0.038	0.0053	mg/Kg	☼	06/25/15 17:24	06/30/15 16:42	1
Anthracene	0.066		0.038	0.0063	mg/Kg	☼	06/25/15 17:24	06/30/15 16:42	1
Carbazole	<0.19		0.19	0.098	mg/Kg	☼	06/25/15 17:24	06/30/15 16:42	1
Di-n-butyl phthalate	<0.19		0.19	0.058	mg/Kg	☼	06/25/15 17:24	06/30/15 16:42	1
Fluoranthene	0.18		0.038	0.0070	mg/Kg	☼	06/25/15 17:24	06/30/15 16:42	1
Pyrene	0.62		0.038	0.0075	mg/Kg	☼	06/25/15 17:24	06/30/15 16:42	1
Butyl benzyl phthalate	<0.19		0.19	0.072	mg/Kg	☼	06/25/15 17:24	06/30/15 16:42	1
Benzo[a]anthracene	0.11		0.038	0.0051	mg/Kg	☼	06/25/15 17:24	06/30/15 16:42	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97546-4

Client Sample ID: 1860-50-B05 (4-6)

Lab Sample ID: 500-97546-6

Date Collected: 06/18/15 12:05

Matrix: Solid

Date Received: 06/19/15 08:00

Percent Solids: 83.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.12		0.038	0.010	mg/Kg	☼	06/25/15 17:24	06/30/15 16:42	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.053	mg/Kg	☼	06/25/15 17:24	06/30/15 16:42	1
Bis(2-ethylhexyl) phthalate	0.19		0.19	0.069	mg/Kg	☼	06/25/15 17:24	06/30/15 16:42	1
Di-n-octyl phthalate	<0.19		0.19	0.062	mg/Kg	☼	06/25/15 17:24	06/30/15 16:42	1
Benzo[b]fluoranthene	0.13		0.038	0.0082	mg/Kg	☼	06/25/15 17:24	06/30/15 16:42	1
Benzo[k]fluoranthene	0.087		0.038	0.011	mg/Kg	☼	06/25/15 17:24	06/30/15 16:42	1
Benzo[a]pyrene	0.085		0.038	0.0073	mg/Kg	☼	06/25/15 17:24	06/30/15 16:42	1
Indeno[1,2,3-cd]pyrene	0.090		0.038	0.0098	mg/Kg	☼	06/25/15 17:24	06/30/15 16:42	1
Dibenz(a,h)anthracene	<0.038		0.038	0.0073	mg/Kg	☼	06/25/15 17:24	06/30/15 16:42	1
Benzo[g,h,i]perylene	0.11		0.038	0.012	mg/Kg	☼	06/25/15 17:24	06/30/15 16:42	1
3 & 4 Methylphenol	<0.19		0.19	0.063	mg/Kg	☼	06/25/15 17:24	06/30/15 16:42	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	51		25 - 110	06/25/15 17:24	06/30/15 16:42	1
Phenol-d5	52		31 - 110	06/25/15 17:24	06/30/15 16:42	1
Nitrobenzene-d5	41		25 - 115	06/25/15 17:24	06/30/15 16:42	1
2-Fluorobiphenyl	54		25 - 119	06/25/15 17:24	06/30/15 16:42	1
2,4,6-Tribromophenol	42		35 - 137	06/25/15 17:24	06/30/15 16:42	1
Terphenyl-d14	194	X	36 - 134	06/25/15 17:24	06/30/15 16:42	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.1		1.1	0.23	mg/Kg	☼	06/21/15 16:35	06/23/15 00:08	1
Arsenic	9.1		0.54	0.25	mg/Kg	☼	06/21/15 16:35	06/23/15 00:08	1
Barium	40		0.54	0.10	mg/Kg	☼	06/21/15 16:35	06/23/15 18:17	1
Beryllium	0.60		0.22	0.047	mg/Kg	☼	06/21/15 16:35	06/23/15 00:08	1
Boron	12		2.7	0.38	mg/Kg	☼	06/21/15 16:35	06/23/15 00:08	1
Cadmium	0.21		0.11	0.032	mg/Kg	☼	06/21/15 16:35	06/23/15 00:08	1
Calcium	59000		54	18	mg/Kg	☼	06/21/15 16:35	06/23/15 18:22	5
Chromium	16		0.54	0.094	mg/Kg	☼	06/21/15 16:35	06/23/15 00:08	1
Cobalt	12		0.27	0.062	mg/Kg	☼	06/21/15 16:35	06/23/15 00:08	1
Copper	27		0.54	0.12	mg/Kg	☼	06/21/15 16:35	06/23/15 00:08	1
Iron	17000		11	4.2	mg/Kg	☼	06/21/15 16:35	06/23/15 18:17	1
Lead	33		0.27	0.14	mg/Kg	☼	06/21/15 16:35	06/23/15 00:08	1
Magnesium	23000		5.4	2.2	mg/Kg	☼	06/21/15 16:35	06/23/15 18:17	1
Manganese	370		0.54	0.11	mg/Kg	☼	06/21/15 16:35	06/23/15 00:08	1
Nickel	35		0.54	0.15	mg/Kg	☼	06/21/15 16:35	06/23/15 00:08	1
Potassium	2300		27	4.4	mg/Kg	☼	06/21/15 16:35	06/23/15 00:08	1
Selenium	0.68	B	0.54	0.27	mg/Kg	☼	06/21/15 16:35	06/23/15 18:17	1
Silver	<0.27		0.27	0.064	mg/Kg	☼	06/21/15 16:35	06/23/15 00:08	1
Sodium	550		54	7.2	mg/Kg	☼	06/21/15 16:35	06/23/15 00:08	1
Thallium	<0.54		0.54	0.27	mg/Kg	☼	06/21/15 16:35	06/23/15 00:08	1
Vanadium	19		0.27	0.080	mg/Kg	☼	06/21/15 16:35	06/23/15 00:08	1
Zinc	66	B	1.1	0.34	mg/Kg	☼	06/21/15 16:35	06/23/15 18:17	1

Method: 7471B - Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.046		0.017	0.0060	mg/Kg	☼	06/19/15 14:30	06/22/15 15:09	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97546-4

Client Sample ID: 1860-50-B04 (6-7.5)

Lab Sample ID: 500-97546-7

Date Collected: 06/18/15 12:50

Matrix: Solid

Date Received: 06/19/15 08:00

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	-	06/23/15 09:04	06/23/15 18:42	1
Beryllium	<0.0040		0.0040	0.0040	mg/L	-	06/23/15 09:04	06/23/15 18:42	1
Boron	0.60		0.50	0.050	mg/L	-	06/23/15 09:04	06/23/15 18:42	1
Cadmium	0.0031	J	0.0050	0.0020	mg/L	-	06/23/15 09:04	06/23/15 18:42	1
Chromium	<0.025		0.025	0.010	mg/L	-	06/23/15 09:04	06/23/15 18:42	1
Cobalt	0.022	J	0.025	0.010	mg/L	-	06/23/15 09:04	06/23/15 18:42	1
Iron	<0.20		0.20	0.20	mg/L	-	06/23/15 09:04	06/23/15 18:42	1
Lead	0.012		0.0075	0.0075	mg/L	-	06/23/15 09:04	06/23/15 18:42	1
Manganese	4.0		0.025	0.010	mg/L	-	06/23/15 09:04	06/23/15 18:42	1
Nickel	0.025		0.025	0.010	mg/L	-	06/23/15 09:04	06/23/15 18:42	1
Selenium	<0.050		0.050	0.020	mg/L	-	06/23/15 09:04	06/23/15 18:42	1
Silver	<0.025		0.025	0.010	mg/L	-	06/23/15 09:04	06/23/15 18:42	1
Zinc	0.092	J	0.10	0.020	mg/L	-	06/23/15 09:04	06/23/15 18:42	1

Method: 6010B - SPLP Metals - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	<0.0075		0.0075	0.0075	mg/L	-	06/26/15 10:50	06/27/15 15:03	1
Manganese	0.14		0.025	0.010	mg/L	-	06/26/15 10:50	06/27/15 15:03	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	-	06/23/15 09:04	06/24/15 17:46	1
Thallium	<0.0020		0.0020	0.0020	mg/L	-	06/23/15 09:04	06/24/15 17:46	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	-	06/23/15 11:00	06/24/15 09:45	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.91		0.200	0.200	SU	-		06/19/15 14:52	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97546-4

Client Sample ID: 1860-50-B04 (6-7.5)

Lab Sample ID: 500-97546-7

Date Collected: 06/18/15 12:50

Matrix: Solid

Date Received: 06/19/15 08:00

Percent Solids: 82.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	0.0084		0.0045	0.0035	mg/Kg	☼	06/19/15 08:35	06/26/15 19:06	1
Benzene	<0.0045		0.0045	0.00099	mg/Kg	☼	06/19/15 08:35	06/26/15 19:06	1
Bromodichloromethane	<0.0045		0.0045	0.00075	mg/Kg	☼	06/19/15 08:35	06/26/15 19:06	1
Bromoform	<0.0045		0.0045	0.00091	mg/Kg	☼	06/19/15 08:35	06/26/15 19:06	1
Bromomethane	<0.0045		0.0045	0.0016	mg/Kg	☼	06/19/15 08:35	06/26/15 19:06	1
2-Butanone (MEK)	<0.0045		0.0045	0.0016	mg/Kg	☼	06/19/15 08:35	06/26/15 19:06	1
Carbon disulfide	<0.0045		0.0045	0.0016	mg/Kg	☼	06/19/15 08:35	06/26/15 19:06	1
Carbon tetrachloride	<0.0045		0.0045	0.00096	mg/Kg	☼	06/19/15 08:35	06/26/15 19:06	1
Chlorobenzene	<0.0045		0.0045	0.0011	mg/Kg	☼	06/19/15 08:35	06/26/15 19:06	1
Chloroethane	<0.0045		0.0045	0.0019	mg/Kg	☼	06/19/15 08:35	06/26/15 19:06	1
Chloroform	<0.0045		0.0045	0.00087	mg/Kg	☼	06/19/15 08:35	06/26/15 19:06	1
Chloromethane	<0.0045	*	0.0045	0.0011	mg/Kg	☼	06/19/15 08:35	06/26/15 19:06	1
cis-1,2-Dichloroethene	<0.0045		0.0045	0.00091	mg/Kg	☼	06/19/15 08:35	06/26/15 19:06	1
cis-1,3-Dichloropropene	<0.0045		0.0045	0.0010	mg/Kg	☼	06/19/15 08:35	06/26/15 19:06	1
Dibromochloromethane	<0.0045		0.0045	0.00051	mg/Kg	☼	06/19/15 08:35	06/26/15 19:06	1
1,1-Dichloroethane	<0.0045		0.0045	0.00092	mg/Kg	☼	06/19/15 08:35	06/26/15 19:06	1
1,2-Dichloroethane	<0.0045		0.0045	0.00066	mg/Kg	☼	06/19/15 08:35	06/26/15 19:06	1
1,1-Dichloroethene	<0.0045		0.0045	0.0016	mg/Kg	☼	06/19/15 08:35	06/26/15 19:06	1
1,2-Dichloropropane	<0.0045		0.0045	0.0012	mg/Kg	☼	06/19/15 08:35	06/26/15 19:06	1
1,3-Dichloropropane, Total	<0.0045		0.0045	0.0013	mg/Kg	☼	06/19/15 08:35	06/26/15 19:06	1
Ethylbenzene	<0.0045		0.0045	0.0011	mg/Kg	☼	06/19/15 08:35	06/26/15 19:06	1
2-Hexanone	<0.0045		0.0045	0.0014	mg/Kg	☼	06/19/15 08:35	06/26/15 19:06	1
Methylene Chloride	<0.0045		0.0045	0.0034	mg/Kg	☼	06/19/15 08:35	06/26/15 19:06	1
4-Methyl-2-pentanone (MIBK)	<0.0045		0.0045	0.00092	mg/Kg	☼	06/19/15 08:35	06/26/15 19:06	1
Methyl tert-butyl ether	<0.0045		0.0045	0.0011	mg/Kg	☼	06/19/15 08:35	06/26/15 19:06	1
Styrene	<0.0045		0.0045	0.0010	mg/Kg	☼	06/19/15 08:35	06/26/15 19:06	1
1,1,1,2-Tetrachloroethane	<0.0045		0.0045	0.00071	mg/Kg	☼	06/19/15 08:35	06/26/15 19:06	1
Tetrachloroethene	<0.0045		0.0045	0.00093	mg/Kg	☼	06/19/15 08:35	06/26/15 19:06	1
Toluene	<0.0045		0.0045	0.0016	mg/Kg	☼	06/19/15 08:35	06/26/15 19:06	1
trans-1,2-Dichloroethene	<0.0045		0.0045	0.0011	mg/Kg	☼	06/19/15 08:35	06/26/15 19:06	1
trans-1,3-Dichloropropene	<0.0045		0.0045	0.0013	mg/Kg	☼	06/19/15 08:35	06/26/15 19:06	1
1,1,1-Trichloroethane	<0.0045		0.0045	0.0010	mg/Kg	☼	06/19/15 08:35	06/26/15 19:06	1
1,1,2-Trichloroethane	<0.0045		0.0045	0.00086	mg/Kg	☼	06/19/15 08:35	06/26/15 19:06	1
Trichloroethene	<0.0045		0.0045	0.0012	mg/Kg	☼	06/19/15 08:35	06/26/15 19:06	1
Vinyl acetate	<0.0045	*	0.0045	0.0012	mg/Kg	☼	06/19/15 08:35	06/26/15 19:06	1
Vinyl chloride	<0.0045		0.0045	0.0011	mg/Kg	☼	06/19/15 08:35	06/26/15 19:06	1
Xylenes, Total	<0.0089		0.0089	0.0017	mg/Kg	☼	06/19/15 08:35	06/26/15 19:06	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	105		70 - 122	06/19/15 08:35	06/26/15 19:06	1
Dibromofluoromethane	111		75 - 120	06/19/15 08:35	06/26/15 19:06	1
1,2-Dichloroethane-d4 (Surr)	114		70 - 134	06/19/15 08:35	06/26/15 19:06	1
Toluene-d8 (Surr)	115		75 - 122	06/19/15 08:35	06/26/15 19:06	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	☼	06/25/15 17:24	06/30/15 13:55	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.058	mg/Kg	☼	06/25/15 17:24	06/30/15 13:55	1
1,3-Dichlorobenzene	<0.20		0.20	0.044	mg/Kg	☼	06/25/15 17:24	06/30/15 13:55	1
1,4-Dichlorobenzene	<0.20		0.20	0.050	mg/Kg	☼	06/25/15 17:24	06/30/15 13:55	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97546-4

Client Sample ID: 1860-50-B04 (6-7.5)

Lab Sample ID: 500-97546-7

Date Collected: 06/18/15 12:50

Matrix: Solid

Date Received: 06/19/15 08:00

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	<0.20		0.20	0.047	mg/Kg	☼	06/25/15 17:24	06/30/15 13:55	1
2-Methylphenol	<0.20		0.20	0.062	mg/Kg	☼	06/25/15 17:24	06/30/15 13:55	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.045	mg/Kg	☼	06/25/15 17:24	06/30/15 13:55	1
N-Nitrosodi-n-propylamine	<0.20		0.20	0.048	mg/Kg	☼	06/25/15 17:24	06/30/15 13:55	1
Hexachloroethane	<0.20		0.20	0.059	mg/Kg	☼	06/25/15 17:24	06/30/15 13:55	1
2-Chlorophenol	<0.20		0.20	0.066	mg/Kg	☼	06/25/15 17:24	06/30/15 13:55	1
Nitrobenzene	<0.039		0.039	0.0097	mg/Kg	☼	06/25/15 17:24	06/30/15 13:55	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.040	mg/Kg	☼	06/25/15 17:24	06/30/15 13:55	1
1,2,4-Trichlorobenzene	<0.20		0.20	0.042	mg/Kg	☼	06/25/15 17:24	06/30/15 13:55	1
Isophorone	<0.20		0.20	0.044	mg/Kg	☼	06/25/15 17:24	06/30/15 13:55	1
2,4-Dimethylphenol	<0.39		0.39	0.15	mg/Kg	☼	06/25/15 17:24	06/30/15 13:55	1
Hexachlorobutadiene	<0.20		0.20	0.061	mg/Kg	☼	06/25/15 17:24	06/30/15 13:55	1
Naphthalene	0.011	J	0.039	0.0060	mg/Kg	☼	06/25/15 17:24	06/30/15 13:55	1
2,4-Dichlorophenol	<0.39		0.39	0.092	mg/Kg	☼	06/25/15 17:24	06/30/15 13:55	1
4-Chloroaniline	<0.79		0.79	0.18	mg/Kg	☼	06/25/15 17:24	06/30/15 13:55	1
2,4,6-Trichlorophenol	<0.39		0.39	0.13	mg/Kg	☼	06/25/15 17:24	06/30/15 13:55	1
2,4,5-Trichlorophenol	<0.39		0.39	0.089	mg/Kg	☼	06/25/15 17:24	06/30/15 13:55	1
Hexachlorocyclopentadiene	<0.79		0.79	0.22	mg/Kg	☼	06/25/15 17:24	06/30/15 13:55	1
2-Methylnaphthalene	0.022	J	0.039	0.0072	mg/Kg	☼	06/25/15 17:24	06/30/15 13:55	1
2-Nitroaniline	<0.20		0.20	0.052	mg/Kg	☼	06/25/15 17:24	06/30/15 13:55	1
2-Chloronaphthalene	<0.20		0.20	0.043	mg/Kg	☼	06/25/15 17:24	06/30/15 13:55	1
4-Chloro-3-methylphenol	<0.39		0.39	0.13	mg/Kg	☼	06/25/15 17:24	06/30/15 13:55	1
2,6-Dinitrotoluene	<0.20		0.20	0.077	mg/Kg	☼	06/25/15 17:24	06/30/15 13:55	1
2-Nitrophenol	<0.39		0.39	0.092	mg/Kg	☼	06/25/15 17:24	06/30/15 13:55	1
3-Nitroaniline	<0.39		0.39	0.12	mg/Kg	☼	06/25/15 17:24	06/30/15 13:55	1
Dimethyl phthalate	<0.20		0.20	0.051	mg/Kg	☼	06/25/15 17:24	06/30/15 13:55	1
2,4-Dinitrophenol	<0.79		0.79	0.69	mg/Kg	☼	06/25/15 17:24	06/30/15 13:55	1
Acenaphthylene	<0.039		0.039	0.0051	mg/Kg	☼	06/25/15 17:24	06/30/15 13:55	1
2,4-Dinitrotoluene	<0.20		0.20	0.062	mg/Kg	☼	06/25/15 17:24	06/30/15 13:55	1
Acenaphthene	0.021	J	0.039	0.0070	mg/Kg	☼	06/25/15 17:24	06/30/15 13:55	1
Dibenzofuran	<0.20		0.20	0.046	mg/Kg	☼	06/25/15 17:24	06/30/15 13:55	1
4-Nitrophenol	<0.79		0.79	0.37	mg/Kg	☼	06/25/15 17:24	06/30/15 13:55	1
Fluorene	0.037	J	0.039	0.0055	mg/Kg	☼	06/25/15 17:24	06/30/15 13:55	1
4-Nitroaniline	<0.39		0.39	0.16	mg/Kg	☼	06/25/15 17:24	06/30/15 13:55	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.051	mg/Kg	☼	06/25/15 17:24	06/30/15 13:55	1
Hexachlorobenzene	<0.079		0.079	0.0090	mg/Kg	☼	06/25/15 17:24	06/30/15 13:55	1
Diethyl phthalate	<0.20		0.20	0.066	mg/Kg	☼	06/25/15 17:24	06/30/15 13:55	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.045	mg/Kg	☼	06/25/15 17:24	06/30/15 13:55	1
Pentachlorophenol	<0.79		0.79	0.62	mg/Kg	☼	06/25/15 17:24	06/30/15 13:55	1
N-Nitrosodiphenylamine	<0.20		0.20	0.046	mg/Kg	☼	06/25/15 17:24	06/30/15 13:55	1
4,6-Dinitro-2-methylphenol	<0.39		0.39	0.31	mg/Kg	☼	06/25/15 17:24	06/30/15 13:55	1
Phenanthrene	0.18		0.039	0.0054	mg/Kg	☼	06/25/15 17:24	06/30/15 13:55	1
Anthracene	0.055		0.039	0.0065	mg/Kg	☼	06/25/15 17:24	06/30/15 13:55	1
Carbazole	<0.20		0.20	0.10	mg/Kg	☼	06/25/15 17:24	06/30/15 13:55	1
Di-n-butyl phthalate	<0.20		0.20	0.059	mg/Kg	☼	06/25/15 17:24	06/30/15 13:55	1
Fluoranthene	0.19		0.039	0.0072	mg/Kg	☼	06/25/15 17:24	06/30/15 13:55	1
Pyrene	0.17		0.039	0.0077	mg/Kg	☼	06/25/15 17:24	06/30/15 13:55	1
Butyl benzyl phthalate	<0.20		0.20	0.074	mg/Kg	☼	06/25/15 17:24	06/30/15 13:55	1
Benzo[a]anthracene	0.086		0.039	0.0052	mg/Kg	☼	06/25/15 17:24	06/30/15 13:55	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97546-4

Client Sample ID: 1860-50-B04 (6-7.5)

Lab Sample ID: 500-97546-7

Date Collected: 06/18/15 12:50

Matrix: Solid

Date Received: 06/19/15 08:00

Percent Solids: 82.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.10		0.039	0.011	mg/Kg	☼	06/25/15 17:24	06/30/15 13:55	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.055	mg/Kg	☼	06/25/15 17:24	06/30/15 13:55	1
Bis(2-ethylhexyl) phthalate	0.13	J	0.20	0.071	mg/Kg	☼	06/25/15 17:24	06/30/15 13:55	1
Di-n-octyl phthalate	<0.20		0.20	0.064	mg/Kg	☼	06/25/15 17:24	06/30/15 13:55	1
Benzo[b]fluoranthene	0.10		0.039	0.0084	mg/Kg	☼	06/25/15 17:24	06/30/15 13:55	1
Benzo[k]fluoranthene	0.063		0.039	0.011	mg/Kg	☼	06/25/15 17:24	06/30/15 13:55	1
Benzo[a]pyrene	0.077		0.039	0.0075	mg/Kg	☼	06/25/15 17:24	06/30/15 13:55	1
Indeno[1,2,3-cd]pyrene	0.036	J	0.039	0.010	mg/Kg	☼	06/25/15 17:24	06/30/15 13:55	1
Dibenz(a,h)anthracene	0.014	J	0.039	0.0075	mg/Kg	☼	06/25/15 17:24	06/30/15 13:55	1
Benzo[g,h,i]perylene	0.039		0.039	0.013	mg/Kg	☼	06/25/15 17:24	06/30/15 13:55	1
3 & 4 Methylphenol	<0.20		0.20	0.065	mg/Kg	☼	06/25/15 17:24	06/30/15 13:55	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	48		25 - 110	06/25/15 17:24	06/30/15 13:55	1
Phenol-d5	49		31 - 110	06/25/15 17:24	06/30/15 13:55	1
Nitrobenzene-d5	37		25 - 115	06/25/15 17:24	06/30/15 13:55	1
2-Fluorobiphenyl	46		25 - 119	06/25/15 17:24	06/30/15 13:55	1
2,4,6-Tribromophenol	48		35 - 137	06/25/15 17:24	06/30/15 13:55	1
Terphenyl-d14	68		36 - 134	06/25/15 17:24	06/30/15 13:55	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	☼	06/21/15 16:35	06/23/15 00:13	1
Arsenic	9.1		0.58	0.27	mg/Kg	☼	06/21/15 16:35	06/23/15 00:13	1
Barium	46		0.58	0.11	mg/Kg	☼	06/21/15 16:35	06/23/15 18:26	1
Beryllium	0.64		0.23	0.051	mg/Kg	☼	06/21/15 16:35	06/23/15 00:13	1
Boron	12		2.9	0.41	mg/Kg	☼	06/21/15 16:35	06/23/15 00:13	1
Cadmium	0.19		0.12	0.034	mg/Kg	☼	06/21/15 16:35	06/23/15 00:13	1
Calcium	57000		58	19	mg/Kg	☼	06/21/15 16:35	06/23/15 18:31	5
Chromium	15		0.58	0.10	mg/Kg	☼	06/21/15 16:35	06/23/15 00:13	1
Cobalt	14		0.29	0.066	mg/Kg	☼	06/21/15 16:35	06/23/15 00:13	1
Copper	25		0.58	0.13	mg/Kg	☼	06/21/15 16:35	06/23/15 00:13	1
Iron	17000		12	4.5	mg/Kg	☼	06/21/15 16:35	06/23/15 18:26	1
Lead	52		0.29	0.15	mg/Kg	☼	06/21/15 16:35	06/23/15 00:13	1
Magnesium	22000		5.8	2.4	mg/Kg	☼	06/21/15 16:35	06/23/15 18:26	1
Manganese	400		0.58	0.12	mg/Kg	☼	06/21/15 16:35	06/23/15 00:13	1
Nickel	32		0.58	0.16	mg/Kg	☼	06/21/15 16:35	06/23/15 00:13	1
Potassium	2300		29	4.8	mg/Kg	☼	06/21/15 16:35	06/23/15 00:13	1
Selenium	0.51	J B	0.58	0.29	mg/Kg	☼	06/21/15 16:35	06/23/15 18:26	1
Silver	<0.29		0.29	0.068	mg/Kg	☼	06/21/15 16:35	06/23/15 00:13	1
Sodium	530		58	7.7	mg/Kg	☼	06/21/15 16:35	06/23/15 00:13	1
Thallium	<0.58		0.58	0.29	mg/Kg	☼	06/21/15 16:35	06/23/15 00:13	1
Vanadium	19		0.29	0.085	mg/Kg	☼	06/21/15 16:35	06/23/15 00:13	1
Zinc	75	B	1.2	0.37	mg/Kg	☼	06/21/15 16:35	06/23/15 18:26	1

Method: 7471B - Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.051		0.020	0.0068	mg/Kg	☼	06/19/15 14:30	06/22/15 15:15	1

TestAmerica Chicago

Definitions/Glossary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97546-4

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance 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
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, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
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
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)

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 #: 500-97546
 Chain of Custody Number: _____
 Page _____ of _____
 Temperature °C of Cooler: 3.4

Client		Client Project #		Preservative		Parameter		Matrix		Comments	
EE		100900E-0031.01								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					
FL 171		5001105E									
Project Location/State		Lab Project #		Date		Time					
Leak County, IL		5001105E									
Sampler		Lab PM		Date		Time					
S. Cooper		D. Wengert									
Lab ID	M/S/MSD	Sample ID	Date	Time	# of Containers	Matrix					
5		1860-50-1302 (6-7.5)	6-18-15	1145	2	S	VOC				
6		1860-50-1305 (4-6)	6-18-15	1205	2	S	SUOC				
7		1860-50-1304 (6-7.5)	6-18-15	1250	2	S	Total TAC Metal TAC TAC pH / G.S.L.-L				

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>EE</u> Date: <u>6-18-15</u> Time: <u>1522</u>	Received By: <u>[Signature]</u> Company: <u>TAL</u> Date: <u>6/18/15</u> Time: <u>1502</u>	Lab Courier: _____
Relinquished By: <u>[Signature]</u> Company: <u>TAL</u> Date: <u>6/18/15</u> Time: <u>1115</u>	Received By: <u>[Signature]</u> Company: <u>TAL</u> Date: <u>6/19/15</u> Time: <u>0800</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: 500-97546-4

Login Number: 97546

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	3.4c
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.	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.	True	





Bureau of Land • 1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276

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 372/373 (Illinois Route 171) Office Phone Number, if available: _____

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

5005 South Harlem Avenue

City: Berwyn State: IL Zip Code: 60402

County: Cook Township: Stickney

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

Latitude: 41.797005 Longitude: -87.808019

(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: 0310215065 BOW: _____ BOA: _____

II. Owner/Operator Information for Source Site

Site Owner

Site Operator

Name: Illinois Department of Transportation

Name: _____

Street Address: 201 West Center Court

Street Address: _____

PO Box: _____

PO Box: _____

City: Schaumburg State: IL

City: _____ State: _____

Zip Code: 60196-1096 Phone: 847-705-4159

Zip Code: _____ Phone: _____

Contact: Sam Mead

Contact: _____

Email, if available: Sam.Mead@illinois.gov

Email, if available: _____

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.

Project Name: FAP 372/373 (Illinois Route 171)

Latitude: 41.797005 Longitude: -87.808019

Uncontaminated Site 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 1860-51-B01, 1860-51-B02, and 1860-51-B03 were sampled within the construction zone adjacent to ISGS #1860-51 (Vacant industrial complex). Refer to PSI Report for ISGS #1860-51 (Vacant industrial complex) including Table 4-3, and Figures 4-9A & B.

- 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 500-97481-2 and 500-97546-5.

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

I, Neil J. 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 Street

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:

7/22/15

Date:



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

Analytical Data Summary
PTB #172-27; Work Order 31 - IDOT Job # D-91-191-10

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.

SCGIER = Soil Component of the Groundwater Ingestion Exposure Route

SPLP = Synthetic Precipitation Leaching Procedure.

ND = Not detected.

NA = Not analyzed.

J = Estimated value.

U = Analyte was analyzed for but not detected.


Criteria Qualifiers and Shading

† = Concentration exceeds the most stringent MAC.

m = Concentration exceeds the MAC for an MSA.

* = Concentration exceeds the MAC for Chicago corporate limits.

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

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

 = Concentration exceeds the most stringent MAC and the MAC for Chicago corporate limits.

 = Concentration exceeds applicable comparison criteria.

DETECTED ANALYTES

SITE	ISGS #1860-51 (Vacant industrial complex)				Comparison Criteria			
	1860-51-B01	1860-51-B02	1860-51-B03		MACs			TACO
BORING	1860-51-B01 (0-2)	1860-51-B02 (6-7.5)	1860-51-B03 (4-6)	1860-51-B03 (4-6)D	Most Stringent	Within an MSA	Within Chicago	SCGIER
SAMPLE								
MATRIX	Soil	Soil	Soil	Soil				
DEPTH (feet)	0-2	6-7.5	4-6	4-6				
pH	8.9	7.46	7.93	7.96				
VOCs (mg/kg)								
Acetone	ND U	0.012	ND U	0.005	25	--	--	--
SVOCs (mg/kg)								
2-Methylnaphthalene	ND U	0.036 J	0.022 J	0.032 J	--	--	--	--
Anthracene	0.012 J	0.036 J	ND U	0.012 J	12,000	--	--	--
Benzo[a]anthracene	0.059	0.049	0.012 J	0.039	0.9	1.8	1.1	--
Benzo[a]pyrene	0.061	0.043	0.011 J	0.033 J	0.09	2.1	1.3	--
Benzo[b]fluoranthene	0.082	0.06	0.015 J	0.044	0.9	2.1	1.5	--
Benzo[g,h,i]perylene	0.051	0.032 J	0.024 J	0.031 J	--	--	--	--
Benzo[k]fluoranthene	0.04	0.032 J	ND U	0.017 J	9	--	--	--
Bis(2-ethylhexyl) phthalate	ND U	0.1 J	ND U	ND U	46	--	--	--
Chrysene	0.073	0.062	0.018 J	0.045	88	--	--	--
Dibenzo(a,h)anthracene	0.014 J	ND U	ND U	ND U	0.09	0.42	0.2	--
Fluoranthene	0.11	0.11	0.019 J	0.075	3,100	--	--	--
Fluorene	ND U	0.018 J	ND U	0.0083 J	560	--	--	--
Indeno[1,2,3-cd]pyrene	0.04	0.024 J	ND U	0.019 J	0.9	1.6	0.9	--
Naphthalene	ND U	0.03 J	0.011 J	0.016 J	1.8	--	--	--
Phenanthrene	0.053	0.088	0.037	0.067	--	--	--	--
Pyrene	0.092	0.098	0.027 J	0.065	2,300	--	--	--
Inorganics (mg/kg)								
Antimony	0.43 J	ND U	ND U	0.4 J	5	--	--	--
Arsenic	6.4	8.5	5.9	5.6	11.3	13	--	--
Barium	33	44	38	39	1,500	--	--	--
Beryllium	0.39	0.77	0.61	0.59	22	--	--	--
Boron	8.6	16	13	11	40	--	--	--
Cadmium	0.33	0.23	0.063 J	0.082 J	5.2	--	--	--
Calcium	92,000	60,000	60,000	51,000	--	--	--	--
Chromium	10	15	17	16	21	--	--	--
Cobalt	8.3	12	13	12	20	--	--	--
Copper	20	28	20	20	2,900	--	--	--
Iron	14,000	18,000 †m	18,000 †m	17,000 †m	15,000	15,900	--	--
Lead	29	37	14	17	107	--	--	--
Magnesium	44,000	23,000	21,000	20,000	325,000	--	--	--
Manganese	270	350	290	280	630	636	--	--
Mercury	0.038	0.074	0.027	0.029	0.89	--	--	--
Nickel	21	32	32	32	100	--	--	--
Potassium	1,300	2,200	2,700	2,400	--	--	--	--
Sodium	570	840	960	940	--	--	--	--
Vanadium	13	18	17	16	550	--	--	--
Zinc	75	100	60	61	5,100	--	--	--
TCLP Metals (mg/L)								
Barium	0.38 J	0.29 J	0.2 J	0.21 J	--	--	--	2
Boron	0.96	0.67	1.1	1	--	--	--	2
Cadmium	0.0037 J	0.003 J	0.0023 J	0.0025 J	--	--	--	0.005
Cobalt	ND U	0.02 J	0.014 J	0.025	--	--	--	1
Iron	ND U	ND U	ND U	ND U	--	--	--	5
Manganese	0.62 L	4.5 L	2.5 L	2.9 L	--	--	--	0.15
Nickel	0.011 J	0.024 J	0.023 J	0.033	--	--	--	0.1
Zinc	0.27	0.064 J	0.12	0.046 J	--	--	--	5
SPLP Metals (mg/L)								
Manganese	0.39 L	0.23 L	0.13	0.095	--	--	--	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: 500-97481-2
Client Project/Site: IDOT - IL 171 - WO 031

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

Attn: Mr. Dean Tiebout



Authorized for release by:
6/30/2015 4:03:46 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

8

9



Table of Contents

Cover Page	1
Table of Contents	2
Case Narrative	3
Detection Summary	4
Sample Summary	7
Client Sample Results	8
Definitions	20
Chain of Custody	21
Receipt Checklists	22

Case Narrative

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97481-2

Job ID: 500-97481-2

Laboratory: TestAmerica Chicago

Narrative

Job Narrative 500-97481-2

Receipt

The samples were received on 6/17/2015 4:40 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.4° C.

GC/MS VOA

Method(s) 8260B: The following analyte recovered outside control limits for the LCS associated with 500-293268: Bromomethane. This is not indicative of a systematic control problem because this was a random marginal exceedance. Qualified results have been reported.

Method(s) 8260B: The laboratory control sample (LCS) for batch 500-293268 recovered outside control limits for the following analyte: Chloromethane. This analyte was biased high in the LCS and was not detected in the associated samples; therefore, the data has 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: A full list spike was utilized for this method. Due to the large number of spiked analytes, there is a high probability that one or more analytes will recover outside acceptance limits. The laboratory's SOP allows for 3 analytes to recover outside criteria for this method when a full list spike is utilized. The LCS associated with batch 500-293096 had 3 analytes {2-Chloronaphthalene at 51%; 4-Bromophenyl phenyl ether at 54%; and Hexachlorobenzene at 53%} outside control limits; therefore, corrective action was not performed. These results have been reported and qualified. (LCS 500-293096/2-A)

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 - IL 171 - WO 031

TestAmerica Job ID: 500-97481-2

Client Sample ID: 1860-51-B03 (4-6)

Lab Sample ID: 500-97481-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Naphthalene	0.011	J	0.037	0.0058	mg/Kg	1	☼	8270D	Total/NA
2-Methylnaphthalene	0.022	J	0.037	0.0069	mg/Kg	1	☼	8270D	Total/NA
Phenanthrene	0.037		0.037	0.0052	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.019	J	0.037	0.0070	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.027	J	0.037	0.0075	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.012	J	0.037	0.0051	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.018	J	0.037	0.010	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.015	J	0.037	0.0081	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.011	J	0.037	0.0073	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.024	J	0.037	0.012	mg/Kg	1	☼	8270D	Total/NA
Arsenic	5.9		0.58	0.27	mg/Kg	1	☼	6010B	Total/NA
Barium	38		0.58	0.11	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.61		0.23	0.050	mg/Kg	1	☼	6010B	Total/NA
Boron	13		2.9	0.41	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.063	J	0.12	0.034	mg/Kg	1	☼	6010B	Total/NA
Calcium	60000		58	19	mg/Kg	5	☼	6010B	Total/NA
Chromium	17		0.58	0.10	mg/Kg	1	☼	6010B	Total/NA
Cobalt	13		0.29	0.065	mg/Kg	1	☼	6010B	Total/NA
Copper	20		0.58	0.13	mg/Kg	1	☼	6010B	Total/NA
Iron	18000		12	4.5	mg/Kg	1	☼	6010B	Total/NA
Lead	14		0.29	0.14	mg/Kg	1	☼	6010B	Total/NA
Magnesium	21000		5.8	2.4	mg/Kg	1	☼	6010B	Total/NA
Manganese	290		0.58	0.11	mg/Kg	1	☼	6010B	Total/NA
Nickel	32		0.58	0.16	mg/Kg	1	☼	6010B	Total/NA
Potassium	2700		29	4.7	mg/Kg	1	☼	6010B	Total/NA
Sodium	960		58	7.7	mg/Kg	1	☼	6010B	Total/NA
Vanadium	17		0.29	0.085	mg/Kg	1	☼	6010B	Total/NA
Zinc	60	B	1.2	0.37	mg/Kg	1	☼	6010B	Total/NA
Barium	0.20	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	1.1		0.50	0.050	mg/L	1		6010B	TCLP
Cadmium	0.0023	J	0.0050	0.0020	mg/L	1		6010B	TCLP
Cobalt	0.014	J	0.025	0.010	mg/L	1		6010B	TCLP
Manganese	2.5		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.023	J	0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.12		0.10	0.020	mg/L	1		6010B	TCLP
Manganese	0.13		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.027		0.020	0.0068	mg/Kg	1	☼	7471B	Total/NA
pH	7.93		0.200	0.200	SU	1		9045D	Total/NA

Client Sample ID: 1860-51-B03 (4-6)D

Lab Sample ID: 500-97481-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	0.0050		0.0048	0.0037	mg/Kg	1	☼	8260B	Total/NA
Naphthalene	0.016	J	0.038	0.0059	mg/Kg	1	☼	8270D	Total/NA
2-Methylnaphthalene	0.032	J	0.038	0.0071	mg/Kg	1	☼	8270D	Total/NA
Fluorene	0.0083	J	0.038	0.0054	mg/Kg	1	☼	8270D	Total/NA
Phenanthrene	0.067		0.038	0.0054	mg/Kg	1	☼	8270D	Total/NA
Anthracene	0.012	J	0.038	0.0065	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.075		0.038	0.0072	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.065		0.038	0.0077	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 - IL 171 - WO 031

TestAmerica Job ID: 500-97481-2

Client Sample ID: 1860-51-B03 (4-6)D (Continued)

Lab Sample ID: 500-97481-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]anthracene	0.039		0.038	0.0052	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.045		0.038	0.011	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.044		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	0.033	J	0.038	0.0075	mg/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.019	J	0.038	0.010	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.031	J	0.038	0.012	mg/Kg	1	☼	8270D	Total/NA
Antimony	0.40	J	1.1	0.23	mg/Kg	1	☼	6010B	Total/NA
Arsenic	5.6		0.56	0.26	mg/Kg	1	☼	6010B	Total/NA
Barium	39		0.56	0.10	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.59		0.22	0.049	mg/Kg	1	☼	6010B	Total/NA
Boron	11		2.8	0.39	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.082	J	0.11	0.033	mg/Kg	1	☼	6010B	Total/NA
Calcium	51000		56	18	mg/Kg	5	☼	6010B	Total/NA
Chromium	16		0.56	0.097	mg/Kg	1	☼	6010B	Total/NA
Cobalt	12		0.28	0.063	mg/Kg	1	☼	6010B	Total/NA
Copper	20		0.56	0.12	mg/Kg	1	☼	6010B	Total/NA
Iron	17000		11	4.3	mg/Kg	1	☼	6010B	Total/NA
Lead	17		0.28	0.14	mg/Kg	1	☼	6010B	Total/NA
Magnesium	20000		5.6	2.3	mg/Kg	1	☼	6010B	Total/NA
Manganese	280		0.56	0.11	mg/Kg	1	☼	6010B	Total/NA
Nickel	32		0.56	0.15	mg/Kg	1	☼	6010B	Total/NA
Potassium	2400		28	4.6	mg/Kg	1	☼	6010B	Total/NA
Sodium	940		56	7.4	mg/Kg	1	☼	6010B	Total/NA
Vanadium	16		0.28	0.082	mg/Kg	1	☼	6010B	Total/NA
Zinc	61	B	1.1	0.36	mg/Kg	1	☼	6010B	Total/NA
Barium	0.21	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	1.0		0.50	0.050	mg/L	1		6010B	TCLP
Cadmium	0.0025	J	0.0050	0.0020	mg/L	1		6010B	TCLP
Cobalt	0.025		0.025	0.010	mg/L	1		6010B	TCLP
Manganese	2.9		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.033		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.046	J	0.10	0.020	mg/L	1		6010B	TCLP
Manganese	0.095		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.029		0.018	0.0062	mg/Kg	1	☼	7471B	Total/NA
pH	7.96		0.200	0.200	SU	1		9045D	Total/NA

Client Sample ID: 1860-51-B01 (0-2)

Lab Sample ID: 500-97481-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Phenanthrene	0.053		0.036	0.0050	mg/Kg	1	☼	8270D	Total/NA
Anthracene	0.012	J	0.036	0.0060	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.11		0.036	0.0066	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.092		0.036	0.0071	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.059		0.036	0.0048	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.073		0.036	0.0098	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.082		0.036	0.0077	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.040		0.036	0.011	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.061		0.036	0.0069	mg/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.040		0.036	0.0093	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 - IL 171 - WO 031

TestAmerica Job ID: 500-97481-2

Client Sample ID: 1860-51-B01 (0-2) (Continued)

Lab Sample ID: 500-97481-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Dibenz(a,h)anthracene	0.014	J	0.036	0.0069	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.051		0.036	0.012	mg/Kg	1	☼	8270D	Total/NA
Antimony	0.43	J	1.1	0.23	mg/Kg	1	☼	6010B	Total/NA
Arsenic	6.4		0.55	0.26	mg/Kg	1	☼	6010B	Total/NA
Barium	33		0.55	0.10	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.39		0.22	0.048	mg/Kg	1	☼	6010B	Total/NA
Boron	8.6		2.8	0.39	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.33		0.11	0.032	mg/Kg	1	☼	6010B	Total/NA
Calcium	92000		55	18	mg/Kg	5	☼	6010B	Total/NA
Chromium	10		0.55	0.095	mg/Kg	1	☼	6010B	Total/NA
Cobalt	8.3		0.28	0.062	mg/Kg	1	☼	6010B	Total/NA
Copper	20		0.55	0.12	mg/Kg	1	☼	6010B	Total/NA
Iron	14000		11	4.3	mg/Kg	1	☼	6010B	Total/NA
Lead	29		0.28	0.14	mg/Kg	1	☼	6010B	Total/NA
Magnesium	44000		5.5	2.2	mg/Kg	1	☼	6010B	Total/NA
Manganese	270		0.55	0.11	mg/Kg	1	☼	6010B	Total/NA
Nickel	21		0.55	0.15	mg/Kg	1	☼	6010B	Total/NA
Potassium	1300		28	4.5	mg/Kg	1	☼	6010B	Total/NA
Sodium	570		55	7.3	mg/Kg	1	☼	6010B	Total/NA
Vanadium	13		0.28	0.081	mg/Kg	1	☼	6010B	Total/NA
Zinc	75	B	1.1	0.35	mg/Kg	1	☼	6010B	Total/NA
Barium	0.38	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.96		0.50	0.050	mg/L	1		6010B	TCLP
Cadmium	0.0037	J	0.0050	0.0020	mg/L	1		6010B	TCLP
Manganese	0.62		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.011	J	0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.27		0.10	0.020	mg/L	1		6010B	TCLP
Manganese	0.39		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.038		0.018	0.0063	mg/Kg	1	☼	7471B	Total/NA
pH	8.90		0.200	0.200	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 - IL 171 - WO 031

TestAmerica Job ID: 500-97481-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-97481-3	1860-51-B03 (4-6)	Solid	06/17/15 14:40	06/17/15 16:40
500-97481-4	1860-51-B03 (4-6)D	Solid	06/17/15 14:40	06/17/15 16:40
500-97481-5	1860-51-B01 (0-2)	Solid	06/17/15 15:25	06/17/15 16:40

1

2

3

4

5

6

7

8

9

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97481-2

Client Sample ID: 1860-51-B03 (4-6)

Lab Sample ID: 500-97481-3

Date Collected: 06/17/15 14:40

Matrix: Solid

Date Received: 06/17/15 16:40

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	-	06/21/15 14:00	06/22/15 16:47	1
Beryllium	<0.0040		0.0040	0.0040	mg/L	-	06/21/15 14:00	06/22/15 16:47	1
Boron	1.1		0.50	0.050	mg/L	-	06/21/15 14:00	06/22/15 16:47	1
Cadmium	0.0023	J	0.0050	0.0020	mg/L	-	06/21/15 14:00	06/22/15 16:47	1
Chromium	<0.025		0.025	0.010	mg/L	-	06/21/15 14:00	06/22/15 16:47	1
Cobalt	0.014	J	0.025	0.010	mg/L	-	06/21/15 14:00	06/22/15 16:47	1
Iron	<0.20		0.20	0.20	mg/L	-	06/21/15 14:00	06/22/15 16:47	1
Lead	<0.0075		0.0075	0.0075	mg/L	-	06/21/15 14:00	06/22/15 16:47	1
Manganese	2.5		0.025	0.010	mg/L	-	06/21/15 14:00	06/22/15 16:47	1
Nickel	0.023	J	0.025	0.010	mg/L	-	06/21/15 14:00	06/22/15 16:47	1
Selenium	<0.050		0.050	0.020	mg/L	-	06/21/15 14:00	06/22/15 16:47	1
Silver	<0.025		0.025	0.010	mg/L	-	06/21/15 14:00	06/22/15 16:47	1
Zinc	0.12		0.10	0.020	mg/L	-	06/21/15 14:00	06/22/15 16:47	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	-	06/25/15 08:30	06/25/15 15:26	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	-	06/21/15 14:00	06/22/15 18:44	1
Thallium	<0.0020		0.0020	0.0020	mg/L	-	06/21/15 14:00	06/22/15 18:44	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	-	06/22/15 11:00	06/23/15 12:20	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.93		0.200	0.200	SU	-		06/19/15 13:03	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97481-2

Client Sample ID: 1860-51-B03 (4-6)

Lab Sample ID: 500-97481-3

Date Collected: 06/17/15 14:40

Matrix: Solid

Date Received: 06/17/15 16:40

Percent Solids: 83.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.0046		0.0046	0.0036	mg/Kg	☼	06/18/15 07:30	06/25/15 16:58	1
Benzene	<0.0046		0.0046	0.0010	mg/Kg	☼	06/18/15 07:30	06/25/15 16:58	1
Bromodichloromethane	<0.0046		0.0046	0.00078	mg/Kg	☼	06/18/15 07:30	06/25/15 16:58	1
Bromoform	<0.0046		0.0046	0.00095	mg/Kg	☼	06/18/15 07:30	06/25/15 16:58	1
Bromomethane	<0.0046	*	0.0046	0.0017	mg/Kg	☼	06/18/15 07:30	06/25/15 16:58	1
2-Butanone (MEK)	<0.0046		0.0046	0.0017	mg/Kg	☼	06/18/15 07:30	06/25/15 16:58	1
Carbon disulfide	<0.0046		0.0046	0.0017	mg/Kg	☼	06/18/15 07:30	06/25/15 16:58	1
Carbon tetrachloride	<0.0046		0.0046	0.00099	mg/Kg	☼	06/18/15 07:30	06/25/15 16:58	1
Chlorobenzene	<0.0046		0.0046	0.0011	mg/Kg	☼	06/18/15 07:30	06/25/15 16:58	1
Chloroethane	<0.0046		0.0046	0.0020	mg/Kg	☼	06/18/15 07:30	06/25/15 16:58	1
Chloroform	<0.0046		0.0046	0.00091	mg/Kg	☼	06/18/15 07:30	06/25/15 16:58	1
Chloromethane	<0.0046	*	0.0046	0.0011	mg/Kg	☼	06/18/15 07:30	06/25/15 16:58	1
cis-1,2-Dichloroethene	<0.0046		0.0046	0.00095	mg/Kg	☼	06/18/15 07:30	06/25/15 16:58	1
cis-1,3-Dichloropropene	<0.0046		0.0046	0.0011	mg/Kg	☼	06/18/15 07:30	06/25/15 16:58	1
Dibromochloromethane	<0.0046		0.0046	0.00053	mg/Kg	☼	06/18/15 07:30	06/25/15 16:58	1
1,1-Dichloroethane	<0.0046		0.0046	0.00096	mg/Kg	☼	06/18/15 07:30	06/25/15 16:58	1
1,2-Dichloroethane	<0.0046		0.0046	0.00069	mg/Kg	☼	06/18/15 07:30	06/25/15 16:58	1
1,1-Dichloroethene	<0.0046		0.0046	0.0017	mg/Kg	☼	06/18/15 07:30	06/25/15 16:58	1
1,2-Dichloropropane	<0.0046		0.0046	0.0012	mg/Kg	☼	06/18/15 07:30	06/25/15 16:58	1
1,3-Dichloropropane, Total	<0.0046		0.0046	0.0013	mg/Kg	☼	06/18/15 07:30	06/25/15 16:58	1
Ethylbenzene	<0.0046		0.0046	0.0012	mg/Kg	☼	06/18/15 07:30	06/25/15 16:58	1
2-Hexanone	<0.0046		0.0046	0.0014	mg/Kg	☼	06/18/15 07:30	06/25/15 16:58	1
Methylene Chloride	<0.0046		0.0046	0.0035	mg/Kg	☼	06/18/15 07:30	06/25/15 16:58	1
4-Methyl-2-pentanone (MIBK)	<0.0046		0.0046	0.00096	mg/Kg	☼	06/18/15 07:30	06/25/15 16:58	1
Methyl tert-butyl ether	<0.0046		0.0046	0.0011	mg/Kg	☼	06/18/15 07:30	06/25/15 16:58	1
Styrene	<0.0046		0.0046	0.0011	mg/Kg	☼	06/18/15 07:30	06/25/15 16:58	1
1,1,2,2-Tetrachloroethane	<0.0046		0.0046	0.00074	mg/Kg	☼	06/18/15 07:30	06/25/15 16:58	1
Tetrachloroethene	<0.0046		0.0046	0.00097	mg/Kg	☼	06/18/15 07:30	06/25/15 16:58	1
Toluene	<0.0046		0.0046	0.0016	mg/Kg	☼	06/18/15 07:30	06/25/15 16:58	1
trans-1,2-Dichloroethene	<0.0046		0.0046	0.0012	mg/Kg	☼	06/18/15 07:30	06/25/15 16:58	1
trans-1,3-Dichloropropene	<0.0046		0.0046	0.0013	mg/Kg	☼	06/18/15 07:30	06/25/15 16:58	1
1,1,1-Trichloroethane	<0.0046		0.0046	0.0011	mg/Kg	☼	06/18/15 07:30	06/25/15 16:58	1
1,1,2-Trichloroethane	<0.0046		0.0046	0.00090	mg/Kg	☼	06/18/15 07:30	06/25/15 16:58	1
Trichloroethene	<0.0046		0.0046	0.0013	mg/Kg	☼	06/18/15 07:30	06/25/15 16:58	1
Vinyl acetate	<0.0046		0.0046	0.0012	mg/Kg	☼	06/18/15 07:30	06/25/15 16:58	1
Vinyl chloride	<0.0046		0.0046	0.0011	mg/Kg	☼	06/18/15 07:30	06/25/15 16:58	1
Xylenes, Total	<0.0093		0.0093	0.0017	mg/Kg	☼	06/18/15 07:30	06/25/15 16:58	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	105		70 - 122	06/18/15 07:30	06/25/15 16:58	1
Dibromofluoromethane	112		75 - 120	06/18/15 07:30	06/25/15 16:58	1
1,2-Dichloroethane-d4 (Surr)	117		70 - 134	06/18/15 07:30	06/25/15 16:58	1
Toluene-d8 (Surr)	113		75 - 122	06/18/15 07:30	06/25/15 16:58	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	☼	06/24/15 07:31	06/26/15 12:58	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.056	mg/Kg	☼	06/24/15 07:31	06/26/15 12:58	1
1,3-Dichlorobenzene	<0.19		0.19	0.042	mg/Kg	☼	06/24/15 07:31	06/26/15 12:58	1
1,4-Dichlorobenzene	<0.19		0.19	0.048	mg/Kg	☼	06/24/15 07:31	06/26/15 12:58	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97481-2

Client Sample ID: 1860-51-B03 (4-6)

Lab Sample ID: 500-97481-3

Date Collected: 06/17/15 14:40

Matrix: Solid

Date Received: 06/17/15 16:40

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		0.19	0.045	mg/Kg	☼	06/24/15 07:31	06/26/15 12:58	1
2-Methylphenol	<0.19		0.19	0.060	mg/Kg	☼	06/24/15 07:31	06/26/15 12:58	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.044	mg/Kg	☼	06/24/15 07:31	06/26/15 12:58	1
N-Nitrosodi-n-propylamine	<0.19		0.19	0.046	mg/Kg	☼	06/24/15 07:31	06/26/15 12:58	1
Hexachloroethane	<0.19		0.19	0.057	mg/Kg	☼	06/24/15 07:31	06/26/15 12:58	1
2-Chlorophenol	<0.19		0.19	0.064	mg/Kg	☼	06/24/15 07:31	06/26/15 12:58	1
Nitrobenzene	<0.037		0.037	0.0094	mg/Kg	☼	06/24/15 07:31	06/26/15 12:58	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.038	mg/Kg	☼	06/24/15 07:31	06/26/15 12:58	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.041	mg/Kg	☼	06/24/15 07:31	06/26/15 12:58	1
Isophorone	<0.19		0.19	0.042	mg/Kg	☼	06/24/15 07:31	06/26/15 12:58	1
2,4-Dimethylphenol	<0.37		0.37	0.14	mg/Kg	☼	06/24/15 07:31	06/26/15 12:58	1
Hexachlorobutadiene	<0.19		0.19	0.059	mg/Kg	☼	06/24/15 07:31	06/26/15 12:58	1
Naphthalene	0.011	J	0.037	0.0058	mg/Kg	☼	06/24/15 07:31	06/26/15 12:58	1
2,4-Dichlorophenol	<0.37		0.37	0.089	mg/Kg	☼	06/24/15 07:31	06/26/15 12:58	1
4-Chloroaniline	<0.76		0.76	0.18	mg/Kg	☼	06/24/15 07:31	06/26/15 12:58	1
2,4,6-Trichlorophenol	<0.37		0.37	0.13	mg/Kg	☼	06/24/15 07:31	06/26/15 12:58	1
2,4,5-Trichlorophenol	<0.37		0.37	0.086	mg/Kg	☼	06/24/15 07:31	06/26/15 12:58	1
Hexachlorocyclopentadiene	<0.76		0.76	0.22	mg/Kg	☼	06/24/15 07:31	06/26/15 12:58	1
2-Methylnaphthalene	0.022	J	0.037	0.0069	mg/Kg	☼	06/24/15 07:31	06/26/15 12:58	1
2-Nitroaniline	<0.19		0.19	0.051	mg/Kg	☼	06/24/15 07:31	06/26/15 12:58	1
2-Chloronaphthalene	<0.19	*	0.19	0.042	mg/Kg	☼	06/24/15 07:31	06/26/15 12:58	1
4-Chloro-3-methylphenol	<0.37		0.37	0.13	mg/Kg	☼	06/24/15 07:31	06/26/15 12:58	1
2,6-Dinitrotoluene	<0.19		0.19	0.074	mg/Kg	☼	06/24/15 07:31	06/26/15 12:58	1
2-Nitrophenol	<0.37		0.37	0.089	mg/Kg	☼	06/24/15 07:31	06/26/15 12:58	1
3-Nitroaniline	<0.37		0.37	0.12	mg/Kg	☼	06/24/15 07:31	06/26/15 12:58	1
Dimethyl phthalate	<0.19		0.19	0.049	mg/Kg	☼	06/24/15 07:31	06/26/15 12:58	1
2,4-Dinitrophenol	<0.76		0.76	0.66	mg/Kg	☼	06/24/15 07:31	06/26/15 12:58	1
Acenaphthylene	<0.037		0.037	0.0050	mg/Kg	☼	06/24/15 07:31	06/26/15 12:58	1
2,4-Dinitrotoluene	<0.19		0.19	0.060	mg/Kg	☼	06/24/15 07:31	06/26/15 12:58	1
Acenaphthene	<0.037		0.037	0.0068	mg/Kg	☼	06/24/15 07:31	06/26/15 12:58	1
Dibenzofuran	<0.19		0.19	0.044	mg/Kg	☼	06/24/15 07:31	06/26/15 12:58	1
4-Nitrophenol	<0.76		0.76	0.36	mg/Kg	☼	06/24/15 07:31	06/26/15 12:58	1
Fluorene	<0.037		0.037	0.0053	mg/Kg	☼	06/24/15 07:31	06/26/15 12:58	1
4-Nitroaniline	<0.37		0.37	0.16	mg/Kg	☼	06/24/15 07:31	06/26/15 12:58	1
4-Bromophenyl phenyl ether	<0.19	*	0.19	0.050	mg/Kg	☼	06/24/15 07:31	06/26/15 12:58	1
Hexachlorobenzene	<0.076	*	0.076	0.0087	mg/Kg	☼	06/24/15 07:31	06/26/15 12:58	1
Diethyl phthalate	<0.19		0.19	0.064	mg/Kg	☼	06/24/15 07:31	06/26/15 12:58	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.044	mg/Kg	☼	06/24/15 07:31	06/26/15 12:58	1
Pentachlorophenol	<0.76		0.76	0.60	mg/Kg	☼	06/24/15 07:31	06/26/15 12:58	1
N-Nitrosodiphenylamine	<0.19		0.19	0.044	mg/Kg	☼	06/24/15 07:31	06/26/15 12:58	1
4,6-Dinitro-2-methylphenol	<0.37		0.37	0.30	mg/Kg	☼	06/24/15 07:31	06/26/15 12:58	1
Phenanthrene	0.037		0.037	0.0052	mg/Kg	☼	06/24/15 07:31	06/26/15 12:58	1
Anthracene	<0.037		0.037	0.0063	mg/Kg	☼	06/24/15 07:31	06/26/15 12:58	1
Carbazole	<0.19		0.19	0.097	mg/Kg	☼	06/24/15 07:31	06/26/15 12:58	1
Di-n-butyl phthalate	<0.19		0.19	0.057	mg/Kg	☼	06/24/15 07:31	06/26/15 12:58	1
Fluoranthene	0.019	J	0.037	0.0070	mg/Kg	☼	06/24/15 07:31	06/26/15 12:58	1
Pyrene	0.027	J	0.037	0.0075	mg/Kg	☼	06/24/15 07:31	06/26/15 12:58	1
Butyl benzyl phthalate	<0.19		0.19	0.072	mg/Kg	☼	06/24/15 07:31	06/26/15 12:58	1
Benzo[a]anthracene	0.012	J	0.037	0.0051	mg/Kg	☼	06/24/15 07:31	06/26/15 12:58	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97481-2

Client Sample ID: 1860-51-B03 (4-6)

Lab Sample ID: 500-97481-3

Date Collected: 06/17/15 14:40

Matrix: Solid

Date Received: 06/17/15 16:40

Percent Solids: 83.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.018	J	0.037	0.010	mg/Kg	☼	06/24/15 07:31	06/26/15 12:58	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.053	mg/Kg	☼	06/24/15 07:31	06/26/15 12:58	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.069	mg/Kg	☼	06/24/15 07:31	06/26/15 12:58	1
Di-n-octyl phthalate	<0.19		0.19	0.061	mg/Kg	☼	06/24/15 07:31	06/26/15 12:58	1
Benzo[b]fluoranthene	0.015	J	0.037	0.0081	mg/Kg	☼	06/24/15 07:31	06/26/15 12:58	1
Benzo[k]fluoranthene	<0.037		0.037	0.011	mg/Kg	☼	06/24/15 07:31	06/26/15 12:58	1
Benzo[a]pyrene	0.011	J	0.037	0.0073	mg/Kg	☼	06/24/15 07:31	06/26/15 12:58	1
Indeno[1,2,3-cd]pyrene	<0.037		0.037	0.0098	mg/Kg	☼	06/24/15 07:31	06/26/15 12:58	1
Dibenz(a,h)anthracene	<0.037		0.037	0.0073	mg/Kg	☼	06/24/15 07:31	06/26/15 12:58	1
Benzo[g,h,i]perylene	0.024	J	0.037	0.012	mg/Kg	☼	06/24/15 07:31	06/26/15 12:58	1
3 & 4 Methylphenol	<0.19		0.19	0.063	mg/Kg	☼	06/24/15 07:31	06/26/15 12:58	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	47		25 - 110	06/24/15 07:31	06/26/15 12:58	1
Phenol-d5	47		31 - 110	06/24/15 07:31	06/26/15 12:58	1
Nitrobenzene-d5	48		25 - 115	06/24/15 07:31	06/26/15 12:58	1
2-Fluorobiphenyl	51		25 - 119	06/24/15 07:31	06/26/15 12:58	1
2,4,6-Tribromophenol	59		35 - 137	06/24/15 07:31	06/26/15 12:58	1
Terphenyl-d14	86		36 - 134	06/24/15 07:31	06/26/15 12:58	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	☼	06/19/15 13:00	06/20/15 17:30	1
Arsenic	5.9		0.58	0.27	mg/Kg	☼	06/19/15 13:00	06/20/15 17:30	1
Barium	38		0.58	0.11	mg/Kg	☼	06/19/15 13:00	06/20/15 17:30	1
Beryllium	0.61		0.23	0.050	mg/Kg	☼	06/19/15 13:00	06/20/15 17:30	1
Boron	13		2.9	0.41	mg/Kg	☼	06/19/15 13:00	06/20/15 17:30	1
Cadmium	0.063	J	0.12	0.034	mg/Kg	☼	06/19/15 13:00	06/20/15 17:30	1
Calcium	60000		58	19	mg/Kg	☼	06/19/15 13:00	06/22/15 19:11	5
Chromium	17		0.58	0.10	mg/Kg	☼	06/19/15 13:00	06/20/15 17:30	1
Cobalt	13		0.29	0.065	mg/Kg	☼	06/19/15 13:00	06/20/15 17:30	1
Copper	20		0.58	0.13	mg/Kg	☼	06/19/15 13:00	06/20/15 17:30	1
Iron	18000		12	4.5	mg/Kg	☼	06/19/15 13:00	06/20/15 17:30	1
Lead	14		0.29	0.14	mg/Kg	☼	06/19/15 13:00	06/20/15 17:30	1
Magnesium	21000		5.8	2.4	mg/Kg	☼	06/19/15 13:00	06/20/15 17:30	1
Manganese	290		0.58	0.11	mg/Kg	☼	06/19/15 13:00	06/20/15 17:30	1
Nickel	32		0.58	0.16	mg/Kg	☼	06/19/15 13:00	06/20/15 17:30	1
Potassium	2700		29	4.7	mg/Kg	☼	06/19/15 13:00	06/20/15 17:30	1
Selenium	<0.58		0.58	0.29	mg/Kg	☼	06/19/15 13:00	06/20/15 17:30	1
Silver	<0.29		0.29	0.068	mg/Kg	☼	06/19/15 13:00	06/20/15 17:30	1
Sodium	960		58	7.7	mg/Kg	☼	06/19/15 13:00	06/20/15 17:30	1
Thallium	<0.58		0.58	0.29	mg/Kg	☼	06/19/15 13:00	06/20/15 17:30	1
Vanadium	17		0.29	0.085	mg/Kg	☼	06/19/15 13:00	06/20/15 17:30	1
Zinc	60	B	1.2	0.37	mg/Kg	☼	06/19/15 13:00	06/20/15 17:30	1

Method: 7471B - Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.027		0.020	0.0068	mg/Kg	☼	06/18/15 12:25	06/19/15 10:25	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97481-2

Client Sample ID: 1860-51-B03 (4-6)D

Lab Sample ID: 500-97481-4

Date Collected: 06/17/15 14:40

Matrix: Solid

Date Received: 06/17/15 16:40

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	-	06/21/15 14:00	06/22/15 16:53	1
Beryllium	<0.0040		0.0040	0.0040	mg/L	-	06/21/15 14:00	06/22/15 16:53	1
Boron	1.0		0.50	0.050	mg/L	-	06/21/15 14:00	06/22/15 16:53	1
Cadmium	0.0025	J	0.0050	0.0020	mg/L	-	06/21/15 14:00	06/22/15 16:53	1
Chromium	<0.025		0.025	0.010	mg/L	-	06/21/15 14:00	06/22/15 16:53	1
Cobalt	0.025		0.025	0.010	mg/L	-	06/21/15 14:00	06/22/15 16:53	1
Iron	<0.20		0.20	0.20	mg/L	-	06/21/15 14:00	06/22/15 16:53	1
Lead	<0.0075		0.0075	0.0075	mg/L	-	06/21/15 14:00	06/22/15 16:53	1
Manganese	2.9		0.025	0.010	mg/L	-	06/21/15 14:00	06/22/15 16:53	1
Nickel	0.033		0.025	0.010	mg/L	-	06/21/15 14:00	06/22/15 16:53	1
Selenium	<0.050		0.050	0.020	mg/L	-	06/21/15 14:00	06/22/15 16:53	1
Silver	<0.025		0.025	0.010	mg/L	-	06/21/15 14:00	06/22/15 16:53	1
Zinc	0.046	J	0.10	0.020	mg/L	-	06/21/15 14:00	06/22/15 16:53	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.095		0.025	0.010	mg/L	-	06/25/15 08:30	06/25/15 15:30	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	-	06/21/15 14:00	06/22/15 18:48	1
Thallium	<0.0020		0.0020	0.0020	mg/L	-	06/21/15 14:00	06/22/15 18:48	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	-	06/22/15 11:00	06/23/15 12:22	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.96		0.200	0.200	SU	-		06/19/15 13:05	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97481-2

Client Sample ID: 1860-51-B03 (4-6)D

Lab Sample ID: 500-97481-4

Date Collected: 06/17/15 14:40

Matrix: Solid

Date Received: 06/17/15 16:40

Percent Solids: 83.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	0.0050		0.0048	0.0037	mg/Kg	☼	06/18/15 07:30	06/25/15 17:22	1
Benzene	<0.0048		0.0048	0.0011	mg/Kg	☼	06/18/15 07:30	06/25/15 17:22	1
Bromodichloromethane	<0.0048		0.0048	0.00081	mg/Kg	☼	06/18/15 07:30	06/25/15 17:22	1
Bromoform	<0.0048		0.0048	0.00098	mg/Kg	☼	06/18/15 07:30	06/25/15 17:22	1
Bromomethane	<0.0048 *		0.0048	0.0018	mg/Kg	☼	06/18/15 07:30	06/25/15 17:22	1
2-Butanone (MEK)	<0.0048		0.0048	0.0017	mg/Kg	☼	06/18/15 07:30	06/25/15 17:22	1
Carbon disulfide	<0.0048		0.0048	0.0018	mg/Kg	☼	06/18/15 07:30	06/25/15 17:22	1
Carbon tetrachloride	<0.0048		0.0048	0.0010	mg/Kg	☼	06/18/15 07:30	06/25/15 17:22	1
Chlorobenzene	<0.0048		0.0048	0.0011	mg/Kg	☼	06/18/15 07:30	06/25/15 17:22	1
Chloroethane	<0.0048		0.0048	0.0020	mg/Kg	☼	06/18/15 07:30	06/25/15 17:22	1
Chloroform	<0.0048		0.0048	0.00094	mg/Kg	☼	06/18/15 07:30	06/25/15 17:22	1
Chloromethane	<0.0048 *		0.0048	0.0012	mg/Kg	☼	06/18/15 07:30	06/25/15 17:22	1
cis-1,2-Dichloroethene	<0.0048		0.0048	0.00098	mg/Kg	☼	06/18/15 07:30	06/25/15 17:22	1
cis-1,3-Dichloropropene	<0.0048		0.0048	0.0011	mg/Kg	☼	06/18/15 07:30	06/25/15 17:22	1
Dibromochloromethane	<0.0048		0.0048	0.00055	mg/Kg	☼	06/18/15 07:30	06/25/15 17:22	1
1,1-Dichloroethane	<0.0048		0.0048	0.00099	mg/Kg	☼	06/18/15 07:30	06/25/15 17:22	1
1,2-Dichloroethane	<0.0048		0.0048	0.00071	mg/Kg	☼	06/18/15 07:30	06/25/15 17:22	1
1,1-Dichloroethene	<0.0048		0.0048	0.0018	mg/Kg	☼	06/18/15 07:30	06/25/15 17:22	1
1,2-Dichloropropane	<0.0048		0.0048	0.0013	mg/Kg	☼	06/18/15 07:30	06/25/15 17:22	1
1,3-Dichloropropane, Total	<0.0048		0.0048	0.0014	mg/Kg	☼	06/18/15 07:30	06/25/15 17:22	1
Ethylbenzene	<0.0048		0.0048	0.0012	mg/Kg	☼	06/18/15 07:30	06/25/15 17:22	1
2-Hexanone	<0.0048		0.0048	0.0015	mg/Kg	☼	06/18/15 07:30	06/25/15 17:22	1
Methylene Chloride	<0.0048		0.0048	0.0036	mg/Kg	☼	06/18/15 07:30	06/25/15 17:22	1
4-Methyl-2-pentanone (MIBK)	<0.0048		0.0048	0.00099	mg/Kg	☼	06/18/15 07:30	06/25/15 17:22	1
Methyl tert-butyl ether	<0.0048		0.0048	0.0011	mg/Kg	☼	06/18/15 07:30	06/25/15 17:22	1
Styrene	<0.0048		0.0048	0.0011	mg/Kg	☼	06/18/15 07:30	06/25/15 17:22	1
1,1,2,2-Tetrachloroethane	<0.0048		0.0048	0.00077	mg/Kg	☼	06/18/15 07:30	06/25/15 17:22	1
Tetrachloroethene	<0.0048		0.0048	0.0010	mg/Kg	☼	06/18/15 07:30	06/25/15 17:22	1
Toluene	<0.0048		0.0048	0.0017	mg/Kg	☼	06/18/15 07:30	06/25/15 17:22	1
trans-1,2-Dichloroethene	<0.0048		0.0048	0.0012	mg/Kg	☼	06/18/15 07:30	06/25/15 17:22	1
trans-1,3-Dichloropropene	<0.0048		0.0048	0.0014	mg/Kg	☼	06/18/15 07:30	06/25/15 17:22	1
1,1,1-Trichloroethane	<0.0048		0.0048	0.0011	mg/Kg	☼	06/18/15 07:30	06/25/15 17:22	1
1,1,2-Trichloroethane	<0.0048		0.0048	0.00093	mg/Kg	☼	06/18/15 07:30	06/25/15 17:22	1
Trichloroethene	<0.0048		0.0048	0.0013	mg/Kg	☼	06/18/15 07:30	06/25/15 17:22	1
Vinyl acetate	<0.0048		0.0048	0.0013	mg/Kg	☼	06/18/15 07:30	06/25/15 17:22	1
Vinyl chloride	<0.0048		0.0048	0.0011	mg/Kg	☼	06/18/15 07:30	06/25/15 17:22	1
Xylenes, Total	<0.0096		0.0096	0.0018	mg/Kg	☼	06/18/15 07:30	06/25/15 17:22	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	103		70 - 122	06/18/15 07:30	06/25/15 17:22	1
Dibromofluoromethane	105		75 - 120	06/18/15 07:30	06/25/15 17:22	1
1,2-Dichloroethane-d4 (Surr)	119		70 - 134	06/18/15 07:30	06/25/15 17:22	1
Toluene-d8 (Surr)	116		75 - 122	06/18/15 07:30	06/25/15 17:22	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	☼	06/24/15 07:31	06/26/15 13:19	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.058	mg/Kg	☼	06/24/15 07:31	06/26/15 13:19	1
1,3-Dichlorobenzene	<0.19		0.19	0.043	mg/Kg	☼	06/24/15 07:31	06/26/15 13:19	1
1,4-Dichlorobenzene	<0.19		0.19	0.050	mg/Kg	☼	06/24/15 07:31	06/26/15 13:19	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97481-2

Client Sample ID: 1860-51-B03 (4-6)D

Lab Sample ID: 500-97481-4

Date Collected: 06/17/15 14:40

Matrix: Solid

Date Received: 06/17/15 16:40

Percent Solids: 83.9

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	☼	06/24/15 07:31	06/26/15 13:19	1
2-Methylphenol	<0.19		0.19	0.062	mg/Kg	☼	06/24/15 07:31	06/26/15 13:19	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.045	mg/Kg	☼	06/24/15 07:31	06/26/15 13:19	1
N-Nitrosodi-n-propylamine	<0.19		0.19	0.047	mg/Kg	☼	06/24/15 07:31	06/26/15 13:19	1
Hexachloroethane	<0.19		0.19	0.059	mg/Kg	☼	06/24/15 07:31	06/26/15 13:19	1
2-Chlorophenol	<0.19		0.19	0.066	mg/Kg	☼	06/24/15 07:31	06/26/15 13:19	1
Nitrobenzene	<0.038		0.038	0.0096	mg/Kg	☼	06/24/15 07:31	06/26/15 13:19	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.039	mg/Kg	☼	06/24/15 07:31	06/26/15 13:19	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.042	mg/Kg	☼	06/24/15 07:31	06/26/15 13:19	1
Isophorone	<0.19		0.19	0.043	mg/Kg	☼	06/24/15 07:31	06/26/15 13:19	1
2,4-Dimethylphenol	<0.38		0.38	0.15	mg/Kg	☼	06/24/15 07:31	06/26/15 13:19	1
Hexachlorobutadiene	<0.19		0.19	0.061	mg/Kg	☼	06/24/15 07:31	06/26/15 13:19	1
Naphthalene	0.016	J	0.038	0.0059	mg/Kg	☼	06/24/15 07:31	06/26/15 13:19	1
2,4-Dichlorophenol	<0.38		0.38	0.092	mg/Kg	☼	06/24/15 07:31	06/26/15 13:19	1
4-Chloroaniline	<0.78		0.78	0.18	mg/Kg	☼	06/24/15 07:31	06/26/15 13:19	1
2,4,6-Trichlorophenol	<0.38		0.38	0.13	mg/Kg	☼	06/24/15 07:31	06/26/15 13:19	1
2,4,5-Trichlorophenol	<0.38		0.38	0.088	mg/Kg	☼	06/24/15 07:31	06/26/15 13:19	1
Hexachlorocyclopentadiene	<0.78		0.78	0.22	mg/Kg	☼	06/24/15 07:31	06/26/15 13:19	1
2-Methylnaphthalene	0.032	J	0.038	0.0071	mg/Kg	☼	06/24/15 07:31	06/26/15 13:19	1
2-Nitroaniline	<0.19		0.19	0.052	mg/Kg	☼	06/24/15 07:31	06/26/15 13:19	1
2-Chloronaphthalene	<0.19	*	0.19	0.043	mg/Kg	☼	06/24/15 07:31	06/26/15 13:19	1
4-Chloro-3-methylphenol	<0.38		0.38	0.13	mg/Kg	☼	06/24/15 07:31	06/26/15 13:19	1
2,6-Dinitrotoluene	<0.19		0.19	0.076	mg/Kg	☼	06/24/15 07:31	06/26/15 13:19	1
2-Nitrophenol	<0.38		0.38	0.091	mg/Kg	☼	06/24/15 07:31	06/26/15 13:19	1
3-Nitroaniline	<0.38		0.38	0.12	mg/Kg	☼	06/24/15 07:31	06/26/15 13:19	1
Dimethyl phthalate	<0.19		0.19	0.050	mg/Kg	☼	06/24/15 07:31	06/26/15 13:19	1
2,4-Dinitrophenol	<0.78		0.78	0.68	mg/Kg	☼	06/24/15 07:31	06/26/15 13:19	1
Acenaphthylene	<0.038		0.038	0.0051	mg/Kg	☼	06/24/15 07:31	06/26/15 13:19	1
2,4-Dinitrotoluene	<0.19		0.19	0.061	mg/Kg	☼	06/24/15 07:31	06/26/15 13:19	1
Acenaphthene	<0.038		0.038	0.0069	mg/Kg	☼	06/24/15 07:31	06/26/15 13:19	1
Dibenzofuran	<0.19		0.19	0.045	mg/Kg	☼	06/24/15 07:31	06/26/15 13:19	1
4-Nitrophenol	<0.78		0.78	0.37	mg/Kg	☼	06/24/15 07:31	06/26/15 13:19	1
Fluorene	0.0083	J	0.038	0.0054	mg/Kg	☼	06/24/15 07:31	06/26/15 13:19	1
4-Nitroaniline	<0.38		0.38	0.16	mg/Kg	☼	06/24/15 07:31	06/26/15 13:19	1
4-Bromophenyl phenyl ether	<0.19	*	0.19	0.051	mg/Kg	☼	06/24/15 07:31	06/26/15 13:19	1
Hexachlorobenzene	<0.078	*	0.078	0.0090	mg/Kg	☼	06/24/15 07:31	06/26/15 13:19	1
Diethyl phthalate	<0.19		0.19	0.065	mg/Kg	☼	06/24/15 07:31	06/26/15 13:19	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.045	mg/Kg	☼	06/24/15 07:31	06/26/15 13:19	1
Pentachlorophenol	<0.78		0.78	0.62	mg/Kg	☼	06/24/15 07:31	06/26/15 13:19	1
N-Nitrosodiphenylamine	<0.19		0.19	0.046	mg/Kg	☼	06/24/15 07:31	06/26/15 13:19	1
4,6-Dinitro-2-methylphenol	<0.38		0.38	0.31	mg/Kg	☼	06/24/15 07:31	06/26/15 13:19	1
Phenanthrene	0.067		0.038	0.0054	mg/Kg	☼	06/24/15 07:31	06/26/15 13:19	1
Anthracene	0.012	J	0.038	0.0065	mg/Kg	☼	06/24/15 07:31	06/26/15 13:19	1
Carbazole	<0.19		0.19	0.10	mg/Kg	☼	06/24/15 07:31	06/26/15 13:19	1
Di-n-butyl phthalate	<0.19		0.19	0.059	mg/Kg	☼	06/24/15 07:31	06/26/15 13:19	1
Fluoranthene	0.075		0.038	0.0072	mg/Kg	☼	06/24/15 07:31	06/26/15 13:19	1
Pyrene	0.065		0.038	0.0077	mg/Kg	☼	06/24/15 07:31	06/26/15 13:19	1
Butyl benzyl phthalate	<0.19		0.19	0.073	mg/Kg	☼	06/24/15 07:31	06/26/15 13:19	1
Benzo[a]anthracene	0.039		0.038	0.0052	mg/Kg	☼	06/24/15 07:31	06/26/15 13:19	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97481-2

Client Sample ID: 1860-51-B03 (4-6)D

Lab Sample ID: 500-97481-4

Date Collected: 06/17/15 14:40

Matrix: Solid

Date Received: 06/17/15 16:40

Percent Solids: 83.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.045		0.038	0.011	mg/Kg	☼	06/24/15 07:31	06/26/15 13:19	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.054	mg/Kg	☼	06/24/15 07:31	06/26/15 13:19	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.071	mg/Kg	☼	06/24/15 07:31	06/26/15 13:19	1
Di-n-octyl phthalate	<0.19		0.19	0.063	mg/Kg	☼	06/24/15 07:31	06/26/15 13:19	1
Benzo[b]fluoranthene	0.044		0.038	0.0083	mg/Kg	☼	06/24/15 07:31	06/26/15 13:19	1
Benzo[k]fluoranthene	0.017 J		0.038	0.011	mg/Kg	☼	06/24/15 07:31	06/26/15 13:19	1
Benzo[a]pyrene	0.033 J		0.038	0.0075	mg/Kg	☼	06/24/15 07:31	06/26/15 13:19	1
Indeno[1,2,3-cd]pyrene	0.019 J		0.038	0.010	mg/Kg	☼	06/24/15 07:31	06/26/15 13:19	1
Dibenz(a,h)anthracene	<0.038		0.038	0.0075	mg/Kg	☼	06/24/15 07:31	06/26/15 13:19	1
Benzo[g,h,i]perylene	0.031 J		0.038	0.012	mg/Kg	☼	06/24/15 07:31	06/26/15 13:19	1
3 & 4 Methylphenol	<0.19		0.19	0.064	mg/Kg	☼	06/24/15 07:31	06/26/15 13:19	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	44		25 - 110	06/24/15 07:31	06/26/15 13:19	1
Phenol-d5	43		31 - 110	06/24/15 07:31	06/26/15 13:19	1
Nitrobenzene-d5	53		25 - 115	06/24/15 07:31	06/26/15 13:19	1
2-Fluorobiphenyl	56		25 - 119	06/24/15 07:31	06/26/15 13:19	1
2,4,6-Tribromophenol	66		35 - 137	06/24/15 07:31	06/26/15 13:19	1
Terphenyl-d14	72		36 - 134	06/24/15 07:31	06/26/15 13:19	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.40 J		1.1	0.23	mg/Kg	☼	06/19/15 13:00	06/20/15 17:35	1
Arsenic	5.6		0.56	0.26	mg/Kg	☼	06/19/15 13:00	06/20/15 17:35	1
Barium	39		0.56	0.10	mg/Kg	☼	06/19/15 13:00	06/20/15 17:35	1
Beryllium	0.59		0.22	0.049	mg/Kg	☼	06/19/15 13:00	06/20/15 17:35	1
Boron	11		2.8	0.39	mg/Kg	☼	06/19/15 13:00	06/20/15 17:35	1
Cadmium	0.082 J		0.11	0.033	mg/Kg	☼	06/19/15 13:00	06/20/15 17:35	1
Calcium	51000		56	18	mg/Kg	☼	06/19/15 13:00	06/22/15 19:15	5
Chromium	16		0.56	0.097	mg/Kg	☼	06/19/15 13:00	06/20/15 17:35	1
Cobalt	12		0.28	0.063	mg/Kg	☼	06/19/15 13:00	06/20/15 17:35	1
Copper	20		0.56	0.12	mg/Kg	☼	06/19/15 13:00	06/20/15 17:35	1
Iron	17000		11	4.3	mg/Kg	☼	06/19/15 13:00	06/20/15 17:35	1
Lead	17		0.28	0.14	mg/Kg	☼	06/19/15 13:00	06/20/15 17:35	1
Magnesium	20000		5.6	2.3	mg/Kg	☼	06/19/15 13:00	06/20/15 17:35	1
Manganese	280		0.56	0.11	mg/Kg	☼	06/19/15 13:00	06/20/15 17:35	1
Nickel	32		0.56	0.15	mg/Kg	☼	06/19/15 13:00	06/20/15 17:35	1
Potassium	2400		28	4.6	mg/Kg	☼	06/19/15 13:00	06/20/15 17:35	1
Selenium	<0.56		0.56	0.28	mg/Kg	☼	06/19/15 13:00	06/20/15 17:35	1
Silver	<0.28		0.28	0.066	mg/Kg	☼	06/19/15 13:00	06/20/15 17:35	1
Sodium	940		56	7.4	mg/Kg	☼	06/19/15 13:00	06/20/15 17:35	1
Thallium	<0.56		0.56	0.28	mg/Kg	☼	06/19/15 13:00	06/20/15 17:35	1
Vanadium	16		0.28	0.082	mg/Kg	☼	06/19/15 13:00	06/20/15 17:35	1
Zinc	61 B		1.1	0.36	mg/Kg	☼	06/19/15 13:00	06/20/15 17:35	1

Method: 7471B - Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.029		0.018	0.0062	mg/Kg	☼	06/18/15 12:25	06/19/15 10:27	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97481-2

Client Sample ID: 1860-51-B01 (0-2)

Lab Sample ID: 500-97481-5

Date Collected: 06/17/15 15:25

Matrix: Solid

Date Received: 06/17/15 16:40

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		06/21/15 14:00	06/22/15 16:58	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		06/21/15 14:00	06/22/15 16:58	1
Boron	0.96		0.50	0.050	mg/L		06/21/15 14:00	06/22/15 16:58	1
Cadmium	0.0037	J	0.0050	0.0020	mg/L		06/21/15 14:00	06/22/15 16:58	1
Chromium	<0.025		0.025	0.010	mg/L		06/21/15 14:00	06/22/15 16:58	1
Cobalt	<0.025		0.025	0.010	mg/L		06/21/15 14:00	06/22/15 16:58	1
Iron	<0.20		0.20	0.20	mg/L		06/21/15 14:00	06/22/15 16:58	1
Lead	<0.0075		0.0075	0.0075	mg/L		06/21/15 14:00	06/22/15 16:58	1
Manganese	0.62		0.025	0.010	mg/L		06/21/15 14:00	06/22/15 16:58	1
Nickel	0.011	J	0.025	0.010	mg/L		06/21/15 14:00	06/22/15 16:58	1
Selenium	<0.050		0.050	0.020	mg/L		06/21/15 14:00	06/22/15 16:58	1
Silver	<0.025		0.025	0.010	mg/L		06/21/15 14:00	06/22/15 16:58	1
Zinc	0.27		0.10	0.020	mg/L		06/21/15 14:00	06/22/15 16:58	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		06/25/15 08:30	06/25/15 15:42	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		06/21/15 14:00	06/22/15 18:52	1
Thallium	<0.0020		0.0020	0.0020	mg/L		06/21/15 14:00	06/22/15 18:52	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		06/22/15 11:00	06/23/15 12:24	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.90		0.200	0.200	SU			06/19/15 13:08	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97481-2

Client Sample ID: 1860-51-B01 (0-2)

Lab Sample ID: 500-97481-5

Date Collected: 06/17/15 15:25

Matrix: Solid

Date Received: 06/17/15 16:40

Percent Solids: 89.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.0047		0.0047	0.0036	mg/Kg	☼	06/18/15 07:30	06/25/15 17:46	1
Benzene	<0.0047		0.0047	0.0010	mg/Kg	☼	06/18/15 07:30	06/25/15 17:46	1
Bromodichloromethane	<0.0047		0.0047	0.00079	mg/Kg	☼	06/18/15 07:30	06/25/15 17:46	1
Bromoform	<0.0047		0.0047	0.00095	mg/Kg	☼	06/18/15 07:30	06/25/15 17:46	1
Bromomethane	<0.0047	*	0.0047	0.0017	mg/Kg	☼	06/18/15 07:30	06/25/15 17:46	1
2-Butanone (MEK)	<0.0047		0.0047	0.0017	mg/Kg	☼	06/18/15 07:30	06/25/15 17:46	1
Carbon disulfide	<0.0047		0.0047	0.0017	mg/Kg	☼	06/18/15 07:30	06/25/15 17:46	1
Carbon tetrachloride	<0.0047		0.0047	0.0010	mg/Kg	☼	06/18/15 07:30	06/25/15 17:46	1
Chlorobenzene	<0.0047		0.0047	0.0011	mg/Kg	☼	06/18/15 07:30	06/25/15 17:46	1
Chloroethane	<0.0047		0.0047	0.0020	mg/Kg	☼	06/18/15 07:30	06/25/15 17:46	1
Chloroform	<0.0047		0.0047	0.00091	mg/Kg	☼	06/18/15 07:30	06/25/15 17:46	1
Chloromethane	<0.0047	*	0.0047	0.0011	mg/Kg	☼	06/18/15 07:30	06/25/15 17:46	1
cis-1,2-Dichloroethene	<0.0047		0.0047	0.00095	mg/Kg	☼	06/18/15 07:30	06/25/15 17:46	1
cis-1,3-Dichloropropene	<0.0047		0.0047	0.0011	mg/Kg	☼	06/18/15 07:30	06/25/15 17:46	1
Dibromochloromethane	<0.0047		0.0047	0.00054	mg/Kg	☼	06/18/15 07:30	06/25/15 17:46	1
1,1-Dichloroethane	<0.0047		0.0047	0.00096	mg/Kg	☼	06/18/15 07:30	06/25/15 17:46	1
1,2-Dichloroethane	<0.0047		0.0047	0.00069	mg/Kg	☼	06/18/15 07:30	06/25/15 17:46	1
1,1-Dichloroethene	<0.0047		0.0047	0.0017	mg/Kg	☼	06/18/15 07:30	06/25/15 17:46	1
1,2-Dichloropropane	<0.0047		0.0047	0.0012	mg/Kg	☼	06/18/15 07:30	06/25/15 17:46	1
1,3-Dichloropropane, Total	<0.0047		0.0047	0.0013	mg/Kg	☼	06/18/15 07:30	06/25/15 17:46	1
Ethylbenzene	<0.0047		0.0047	0.0012	mg/Kg	☼	06/18/15 07:30	06/25/15 17:46	1
2-Hexanone	<0.0047		0.0047	0.0014	mg/Kg	☼	06/18/15 07:30	06/25/15 17:46	1
Methylene Chloride	<0.0047		0.0047	0.0035	mg/Kg	☼	06/18/15 07:30	06/25/15 17:46	1
4-Methyl-2-pentanone (MIBK)	<0.0047		0.0047	0.00096	mg/Kg	☼	06/18/15 07:30	06/25/15 17:46	1
Methyl tert-butyl ether	<0.0047		0.0047	0.0011	mg/Kg	☼	06/18/15 07:30	06/25/15 17:46	1
Styrene	<0.0047		0.0047	0.0011	mg/Kg	☼	06/18/15 07:30	06/25/15 17:46	1
1,1,2,2-Tetrachloroethane	<0.0047		0.0047	0.00074	mg/Kg	☼	06/18/15 07:30	06/25/15 17:46	1
Tetrachloroethene	<0.0047		0.0047	0.00097	mg/Kg	☼	06/18/15 07:30	06/25/15 17:46	1
Toluene	<0.0047		0.0047	0.0016	mg/Kg	☼	06/18/15 07:30	06/25/15 17:46	1
trans-1,2-Dichloroethene	<0.0047		0.0047	0.0012	mg/Kg	☼	06/18/15 07:30	06/25/15 17:46	1
trans-1,3-Dichloropropene	<0.0047		0.0047	0.0013	mg/Kg	☼	06/18/15 07:30	06/25/15 17:46	1
1,1,1-Trichloroethane	<0.0047		0.0047	0.0011	mg/Kg	☼	06/18/15 07:30	06/25/15 17:46	1
1,1,2-Trichloroethane	<0.0047		0.0047	0.00090	mg/Kg	☼	06/18/15 07:30	06/25/15 17:46	1
Trichloroethene	<0.0047		0.0047	0.0013	mg/Kg	☼	06/18/15 07:30	06/25/15 17:46	1
Vinyl acetate	<0.0047		0.0047	0.0013	mg/Kg	☼	06/18/15 07:30	06/25/15 17:46	1
Vinyl chloride	<0.0047		0.0047	0.0011	mg/Kg	☼	06/18/15 07:30	06/25/15 17:46	1
Xylenes, Total	<0.0093		0.0093	0.0017	mg/Kg	☼	06/18/15 07:30	06/25/15 17:46	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102		70 - 122	06/18/15 07:30	06/25/15 17:46	1
Dibromofluoromethane	111		75 - 120	06/18/15 07:30	06/25/15 17:46	1
1,2-Dichloroethane-d4 (Surr)	117		70 - 134	06/18/15 07:30	06/25/15 17:46	1
Toluene-d8 (Surr)	113		75 - 122	06/18/15 07:30	06/25/15 17:46	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.18		0.18	0.080	mg/Kg	☼	06/24/15 07:31	06/26/15 13:41	1
Bis(2-chloroethyl)ether	<0.18		0.18	0.054	mg/Kg	☼	06/24/15 07:31	06/26/15 13:41	1
1,3-Dichlorobenzene	<0.18		0.18	0.040	mg/Kg	☼	06/24/15 07:31	06/26/15 13:41	1
1,4-Dichlorobenzene	<0.18		0.18	0.046	mg/Kg	☼	06/24/15 07:31	06/26/15 13:41	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97481-2

Client Sample ID: 1860-51-B01 (0-2)

Lab Sample ID: 500-97481-5

Date Collected: 06/17/15 15:25

Matrix: Solid

Date Received: 06/17/15 16:40

Percent Solids: 89.0

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	☼	06/24/15 07:31	06/26/15 13:41	1
2-Methylphenol	<0.18		0.18	0.057	mg/Kg	☼	06/24/15 07:31	06/26/15 13:41	1
2,2'-oxybis[1-chloropropane]	<0.18		0.18	0.042	mg/Kg	☼	06/24/15 07:31	06/26/15 13:41	1
N-Nitrosodi-n-propylamine	<0.18		0.18	0.044	mg/Kg	☼	06/24/15 07:31	06/26/15 13:41	1
Hexachloroethane	<0.18		0.18	0.054	mg/Kg	☼	06/24/15 07:31	06/26/15 13:41	1
2-Chlorophenol	<0.18		0.18	0.061	mg/Kg	☼	06/24/15 07:31	06/26/15 13:41	1
Nitrobenzene	<0.036		0.036	0.0089	mg/Kg	☼	06/24/15 07:31	06/26/15 13:41	1
Bis(2-chloroethoxy)methane	<0.18		0.18	0.037	mg/Kg	☼	06/24/15 07:31	06/26/15 13:41	1
1,2,4-Trichlorobenzene	<0.18		0.18	0.039	mg/Kg	☼	06/24/15 07:31	06/26/15 13:41	1
Isophorone	<0.18		0.18	0.040	mg/Kg	☼	06/24/15 07:31	06/26/15 13:41	1
2,4-Dimethylphenol	<0.36		0.36	0.14	mg/Kg	☼	06/24/15 07:31	06/26/15 13:41	1
Hexachlorobutadiene	<0.18		0.18	0.056	mg/Kg	☼	06/24/15 07:31	06/26/15 13:41	1
Naphthalene	<0.036		0.036	0.0055	mg/Kg	☼	06/24/15 07:31	06/26/15 13:41	1
2,4-Dichlorophenol	<0.36		0.36	0.085	mg/Kg	☼	06/24/15 07:31	06/26/15 13:41	1
4-Chloroaniline	<0.72		0.72	0.17	mg/Kg	☼	06/24/15 07:31	06/26/15 13:41	1
2,4,6-Trichlorophenol	<0.36		0.36	0.12	mg/Kg	☼	06/24/15 07:31	06/26/15 13:41	1
2,4,5-Trichlorophenol	<0.36		0.36	0.082	mg/Kg	☼	06/24/15 07:31	06/26/15 13:41	1
Hexachlorocyclopentadiene	<0.72		0.72	0.21	mg/Kg	☼	06/24/15 07:31	06/26/15 13:41	1
2-Methylnaphthalene	<0.036		0.036	0.0066	mg/Kg	☼	06/24/15 07:31	06/26/15 13:41	1
2-Nitroaniline	<0.18		0.18	0.048	mg/Kg	☼	06/24/15 07:31	06/26/15 13:41	1
2-Chloronaphthalene	<0.18	*	0.18	0.040	mg/Kg	☼	06/24/15 07:31	06/26/15 13:41	1
4-Chloro-3-methylphenol	<0.36		0.36	0.12	mg/Kg	☼	06/24/15 07:31	06/26/15 13:41	1
2,6-Dinitrotoluene	<0.18		0.18	0.070	mg/Kg	☼	06/24/15 07:31	06/26/15 13:41	1
2-Nitrophenol	<0.36		0.36	0.085	mg/Kg	☼	06/24/15 07:31	06/26/15 13:41	1
3-Nitroaniline	<0.36		0.36	0.11	mg/Kg	☼	06/24/15 07:31	06/26/15 13:41	1
Dimethyl phthalate	<0.18		0.18	0.047	mg/Kg	☼	06/24/15 07:31	06/26/15 13:41	1
2,4-Dinitrophenol	<0.72		0.72	0.63	mg/Kg	☼	06/24/15 07:31	06/26/15 13:41	1
Acenaphthylene	<0.036		0.036	0.0047	mg/Kg	☼	06/24/15 07:31	06/26/15 13:41	1
2,4-Dinitrotoluene	<0.18		0.18	0.057	mg/Kg	☼	06/24/15 07:31	06/26/15 13:41	1
Acenaphthene	<0.036		0.036	0.0064	mg/Kg	☼	06/24/15 07:31	06/26/15 13:41	1
Dibenzofuran	<0.18		0.18	0.042	mg/Kg	☼	06/24/15 07:31	06/26/15 13:41	1
4-Nitrophenol	<0.72		0.72	0.34	mg/Kg	☼	06/24/15 07:31	06/26/15 13:41	1
Fluorene	<0.036		0.036	0.0050	mg/Kg	☼	06/24/15 07:31	06/26/15 13:41	1
4-Nitroaniline	<0.36		0.36	0.15	mg/Kg	☼	06/24/15 07:31	06/26/15 13:41	1
4-Bromophenyl phenyl ether	<0.18	*	0.18	0.047	mg/Kg	☼	06/24/15 07:31	06/26/15 13:41	1
Hexachlorobenzene	<0.072	*	0.072	0.0083	mg/Kg	☼	06/24/15 07:31	06/26/15 13:41	1
Diethyl phthalate	<0.18		0.18	0.061	mg/Kg	☼	06/24/15 07:31	06/26/15 13:41	1
4-Chlorophenyl phenyl ether	<0.18		0.18	0.042	mg/Kg	☼	06/24/15 07:31	06/26/15 13:41	1
Pentachlorophenol	<0.72		0.72	0.57	mg/Kg	☼	06/24/15 07:31	06/26/15 13:41	1
N-Nitrosodiphenylamine	<0.18		0.18	0.042	mg/Kg	☼	06/24/15 07:31	06/26/15 13:41	1
4,6-Dinitro-2-methylphenol	<0.36		0.36	0.29	mg/Kg	☼	06/24/15 07:31	06/26/15 13:41	1
Phenanthrene	0.053		0.036	0.0050	mg/Kg	☼	06/24/15 07:31	06/26/15 13:41	1
Anthracene	0.012	J	0.036	0.0060	mg/Kg	☼	06/24/15 07:31	06/26/15 13:41	1
Carbazole	<0.18		0.18	0.093	mg/Kg	☼	06/24/15 07:31	06/26/15 13:41	1
Di-n-butyl phthalate	<0.18		0.18	0.055	mg/Kg	☼	06/24/15 07:31	06/26/15 13:41	1
Fluoranthene	0.11		0.036	0.0066	mg/Kg	☼	06/24/15 07:31	06/26/15 13:41	1
Pyrene	0.092		0.036	0.0071	mg/Kg	☼	06/24/15 07:31	06/26/15 13:41	1
Butyl benzyl phthalate	<0.18		0.18	0.068	mg/Kg	☼	06/24/15 07:31	06/26/15 13:41	1
Benzo[a]anthracene	0.059		0.036	0.0048	mg/Kg	☼	06/24/15 07:31	06/26/15 13:41	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97481-2

Client Sample ID: 1860-51-B01 (0-2)

Lab Sample ID: 500-97481-5

Date Collected: 06/17/15 15:25

Matrix: Solid

Date Received: 06/17/15 16:40

Percent Solids: 89.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.073		0.036	0.0098	mg/Kg	☼	06/24/15 07:31	06/26/15 13:41	1
3,3'-Dichlorobenzidine	<0.18		0.18	0.050	mg/Kg	☼	06/24/15 07:31	06/26/15 13:41	1
Bis(2-ethylhexyl) phthalate	<0.18		0.18	0.065	mg/Kg	☼	06/24/15 07:31	06/26/15 13:41	1
Di-n-octyl phthalate	<0.18		0.18	0.058	mg/Kg	☼	06/24/15 07:31	06/26/15 13:41	1
Benzo[b]fluoranthene	0.082		0.036	0.0077	mg/Kg	☼	06/24/15 07:31	06/26/15 13:41	1
Benzo[k]fluoranthene	0.040		0.036	0.011	mg/Kg	☼	06/24/15 07:31	06/26/15 13:41	1
Benzo[a]pyrene	0.061		0.036	0.0069	mg/Kg	☼	06/24/15 07:31	06/26/15 13:41	1
Indeno[1,2,3-cd]pyrene	0.040		0.036	0.0093	mg/Kg	☼	06/24/15 07:31	06/26/15 13:41	1
Dibenz(a,h)anthracene	0.014	J	0.036	0.0069	mg/Kg	☼	06/24/15 07:31	06/26/15 13:41	1
Benzo[g,h,i]perylene	0.051		0.036	0.012	mg/Kg	☼	06/24/15 07:31	06/26/15 13:41	1
3 & 4 Methylphenol	<0.18		0.18	0.060	mg/Kg	☼	06/24/15 07:31	06/26/15 13:41	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	66		25 - 110	06/24/15 07:31	06/26/15 13:41	1
Phenol-d5	65		31 - 110	06/24/15 07:31	06/26/15 13:41	1
Nitrobenzene-d5	65		25 - 115	06/24/15 07:31	06/26/15 13:41	1
2-Fluorobiphenyl	68		25 - 119	06/24/15 07:31	06/26/15 13:41	1
2,4,6-Tribromophenol	70		35 - 137	06/24/15 07:31	06/26/15 13:41	1
Terphenyl-d14	90		36 - 134	06/24/15 07:31	06/26/15 13:41	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.43	J	1.1	0.23	mg/Kg	☼	06/19/15 13:00	06/20/15 17:39	1
Arsenic	6.4		0.55	0.26	mg/Kg	☼	06/19/15 13:00	06/20/15 17:39	1
Barium	33		0.55	0.10	mg/Kg	☼	06/19/15 13:00	06/20/15 17:39	1
Beryllium	0.39		0.22	0.048	mg/Kg	☼	06/19/15 13:00	06/20/15 17:39	1
Boron	8.6		2.8	0.39	mg/Kg	☼	06/19/15 13:00	06/20/15 17:39	1
Cadmium	0.33		0.11	0.032	mg/Kg	☼	06/19/15 13:00	06/20/15 17:39	1
Calcium	92000		55	18	mg/Kg	☼	06/19/15 13:00	06/22/15 19:19	5
Chromium	10		0.55	0.095	mg/Kg	☼	06/19/15 13:00	06/20/15 17:39	1
Cobalt	8.3		0.28	0.062	mg/Kg	☼	06/19/15 13:00	06/20/15 17:39	1
Copper	20		0.55	0.12	mg/Kg	☼	06/19/15 13:00	06/20/15 17:39	1
Iron	14000		11	4.3	mg/Kg	☼	06/19/15 13:00	06/20/15 17:39	1
Lead	29		0.28	0.14	mg/Kg	☼	06/19/15 13:00	06/20/15 17:39	1
Magnesium	44000		5.5	2.2	mg/Kg	☼	06/19/15 13:00	06/20/15 17:39	1
Manganese	270		0.55	0.11	mg/Kg	☼	06/19/15 13:00	06/20/15 17:39	1
Nickel	21		0.55	0.15	mg/Kg	☼	06/19/15 13:00	06/20/15 17:39	1
Potassium	1300		28	4.5	mg/Kg	☼	06/19/15 13:00	06/20/15 17:39	1
Selenium	<0.55		0.55	0.27	mg/Kg	☼	06/19/15 13:00	06/20/15 17:39	1
Silver	<0.28		0.28	0.065	mg/Kg	☼	06/19/15 13:00	06/20/15 17:39	1
Sodium	570		55	7.3	mg/Kg	☼	06/19/15 13:00	06/20/15 17:39	1
Thallium	<0.55		0.55	0.27	mg/Kg	☼	06/19/15 13:00	06/20/15 17:39	1
Vanadium	13		0.28	0.081	mg/Kg	☼	06/19/15 13:00	06/20/15 17:39	1
Zinc	75	B	1.1	0.35	mg/Kg	☼	06/19/15 13:00	06/20/15 17:39	1

Method: 7471B - Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.038		0.018	0.0063	mg/Kg	☼	06/18/15 12:25	06/19/15 10:29	1

TestAmerica Chicago

Definitions/Glossary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97481-2

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance 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.

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, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
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
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)

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 #: 500-97481

Chain of Custody Number: _____

Page _____ of _____

Temperature °C of Cooler: _____

Client		Client Project #		Preservative		Parameter		Matrix		Comments		
Lab ID	MS/MSD	Sample ID	Date	Time	# of Containers	Matrix	Vol	S Vol	Total Vol	Wet Wt	Dry Wt	Wet Wt % Solids
3		1860-51-1303(4-6)	6/17/15	1440	2	S	X	X	X	X	X	X
4		1860-51-1303(4-6)D	6/17/15	1440	2	S	X	X	X	X	X	X
5		1860-51-1301(02)	6/17/15	1525	2	S	X	X	X	X	X	X
6/17/15												

- 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: <u>[Signature]</u> Company: <u>EE</u> Date: <u>6/17/15</u> Time: <u>1550</u>	Received By: <u>[Signature]</u> Company: <u>TA</u> Date: <u>6/17/15</u> Time: <u>1550</u>
Relinquished By: <u>[Signature]</u> Company: <u>TA</u> Date: <u>6/17/15</u> Time: <u>1648</u>	Received By: <u>[Signature]</u> Company: <u>TA-CRT</u> Date: <u>6/18/15</u> Time: <u>0720</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: 500-97481-2

Login Number: 97481
List Number: 1
Creator: Scott, Sherri L

List Source: TestAmerica Chicago

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	2.4
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.	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: 500-97546-5
Client Project/Site: IDOT - IL 171 - WO 031

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

Attn: Mr. Dean Tiebout



Authorized for release by:
7/1/2015 4:50:12 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

8

9



Table of Contents

Cover Page	1
Table of Contents	2
Case Narrative	3
Detection Summary	4
Sample Summary	5
Client Sample Results	6
Definitions	10
Chain of Custody	11
Receipt Checklists	12

Case Narrative

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97546-5

Job ID: 500-97546-5

Laboratory: TestAmerica Chicago

Narrative

Job Narrative 500-97546-5

Comments

No additional comments.

Receipt

The samples were received on 6/19/2015 8:00 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.4° C.

GC/MS VOA

Method(s) 8260B: The continuing calibration verification (CCV) associated with batch 500-293461 recovered above the upper control limit for Vinyl Acetate. The samples associated with this CCV were non-detects for the affected analyte; therefore, the data has been reported.

Method(s) 8260B: The laboratory control sample (LCS) for batch 500-293461 recovered outside control limits for the following analytes: Chloromethane and Vinyl Acetate. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data has 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 had one surrogate outside of limits: 1860-51-B02 (6-7.5) (500-97546-8), (500-97546-E-1-J MS) and (500-97546-E-1-K MSD). All other surrogate recoveries were within limits for these samples. No further action was required.

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 - IL 171 - WO 031

TestAmerica Job ID: 500-97546-5

Client Sample ID: 1860-51-B02 (6-7.5)

Lab Sample ID: 500-97546-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	0.012		0.0046	0.0036	mg/Kg	1	☼	8260B	Total/NA
Naphthalene	0.030	J	0.037	0.0058	mg/Kg	1	☼	8270D	Total/NA
2-Methylnaphthalene	0.036	J	0.037	0.0069	mg/Kg	1	☼	8270D	Total/NA
Fluorene	0.018	J	0.037	0.0053	mg/Kg	1	☼	8270D	Total/NA
Phenanthrene	0.088		0.037	0.0052	mg/Kg	1	☼	8270D	Total/NA
Anthracene	0.036	J	0.037	0.0063	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.11		0.037	0.0070	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.098		0.037	0.0075	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.049		0.037	0.0051	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.062		0.037	0.010	mg/Kg	1	☼	8270D	Total/NA
Bis(2-ethylhexyl) phthalate	0.10	J	0.19	0.069	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.060		0.037	0.0081	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.032	J	0.037	0.011	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.043		0.037	0.0073	mg/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.024	J	0.037	0.0098	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.032	J	0.037	0.012	mg/Kg	1	☼	8270D	Total/NA
Arsenic	8.5		0.55	0.26	mg/Kg	1	☼	6010B	Total/NA
Barium	44		0.55	0.10	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.77		0.22	0.048	mg/Kg	1	☼	6010B	Total/NA
Boron	16		2.8	0.39	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.23		0.11	0.032	mg/Kg	1	☼	6010B	Total/NA
Calcium	60000		55	18	mg/Kg	5	☼	6010B	Total/NA
Chromium	15		0.55	0.095	mg/Kg	1	☼	6010B	Total/NA
Cobalt	12		0.28	0.062	mg/Kg	1	☼	6010B	Total/NA
Copper	28		0.55	0.12	mg/Kg	1	☼	6010B	Total/NA
Iron	18000		11	4.3	mg/Kg	1	☼	6010B	Total/NA
Lead	37		0.28	0.14	mg/Kg	1	☼	6010B	Total/NA
Magnesium	23000		5.5	2.2	mg/Kg	1	☼	6010B	Total/NA
Manganese	350		0.55	0.11	mg/Kg	1	☼	6010B	Total/NA
Nickel	32		0.55	0.15	mg/Kg	1	☼	6010B	Total/NA
Potassium	2200		28	4.5	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.94	B	0.55	0.27	mg/Kg	1	☼	6010B	Total/NA
Sodium	840		55	7.3	mg/Kg	1	☼	6010B	Total/NA
Vanadium	18		0.28	0.081	mg/Kg	1	☼	6010B	Total/NA
Zinc	100	B	1.1	0.35	mg/Kg	1	☼	6010B	Total/NA
Barium	0.29	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.67		0.50	0.050	mg/L	1		6010B	TCLP
Cadmium	0.0030	J	0.0050	0.0020	mg/L	1		6010B	TCLP
Cobalt	0.020	J	0.025	0.010	mg/L	1		6010B	TCLP
Manganese	4.5		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.024	J	0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.064	J	0.10	0.020	mg/L	1		6010B	TCLP
Manganese	0.23		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.074		0.018	0.0061	mg/Kg	1	☼	7471B	Total/NA
pH	7.46		0.200	0.200	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 - IL 171 - WO 031

TestAmerica Job ID: 500-97546-5

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-97546-8	1860-51-B02 (6-7.5)	Solid	06/18/15 13:55	06/19/15 08:00

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97546-5

Client Sample ID: 1860-51-B02 (6-7.5)

Lab Sample ID: 500-97546-8

Date Collected: 06/18/15 13:55

Matrix: Solid

Date Received: 06/19/15 08:00

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	-	06/23/15 09:04	06/23/15 18:48	1
Beryllium	<0.0040		0.0040	0.0040	mg/L	-	06/23/15 09:04	06/23/15 18:48	1
Boron	0.67		0.50	0.050	mg/L	-	06/23/15 09:04	06/23/15 18:48	1
Cadmium	0.0030	J	0.0050	0.0020	mg/L	-	06/23/15 09:04	06/23/15 18:48	1
Chromium	<0.025		0.025	0.010	mg/L	-	06/23/15 09:04	06/23/15 18:48	1
Cobalt	0.020	J	0.025	0.010	mg/L	-	06/23/15 09:04	06/23/15 18:48	1
Iron	<0.20		0.20	0.20	mg/L	-	06/23/15 09:04	06/23/15 18:48	1
Lead	<0.0075		0.0075	0.0075	mg/L	-	06/23/15 09:04	06/23/15 18:48	1
Manganese	4.5		0.025	0.010	mg/L	-	06/23/15 09:04	06/23/15 18:48	1
Nickel	0.024	J	0.025	0.010	mg/L	-	06/23/15 09:04	06/23/15 18:48	1
Selenium	<0.050		0.050	0.020	mg/L	-	06/23/15 09:04	06/23/15 18:48	1
Silver	<0.025		0.025	0.010	mg/L	-	06/23/15 09:04	06/23/15 18:48	1
Zinc	0.064	J	0.10	0.020	mg/L	-	06/23/15 09:04	06/23/15 18:48	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	-	06/26/15 10:50	06/27/15 15:07	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	-	06/23/15 09:04	06/24/15 18:01	1
Thallium	<0.0020		0.0020	0.0020	mg/L	-	06/23/15 09:04	06/24/15 18:01	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	-	06/23/15 11:00	06/24/15 09:47	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.46		0.200	0.200	SU	-		06/19/15 14:54	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97546-5

Client Sample ID: 1860-51-B02 (6-7.5)

Lab Sample ID: 500-97546-8

Date Collected: 06/18/15 13:55

Matrix: Solid

Date Received: 06/19/15 08:00

Percent Solids: 85.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	0.012		0.0046	0.0036	mg/Kg	☼	06/19/15 08:35	06/26/15 19:30	1
Benzene	<0.0046		0.0046	0.0010	mg/Kg	☼	06/19/15 08:35	06/26/15 19:30	1
Bromodichloromethane	<0.0046		0.0046	0.00078	mg/Kg	☼	06/19/15 08:35	06/26/15 19:30	1
Bromoform	<0.0046		0.0046	0.00094	mg/Kg	☼	06/19/15 08:35	06/26/15 19:30	1
Bromomethane	<0.0046		0.0046	0.0017	mg/Kg	☼	06/19/15 08:35	06/26/15 19:30	1
2-Butanone (MEK)	<0.0046		0.0046	0.0016	mg/Kg	☼	06/19/15 08:35	06/26/15 19:30	1
Carbon disulfide	<0.0046		0.0046	0.0017	mg/Kg	☼	06/19/15 08:35	06/26/15 19:30	1
Carbon tetrachloride	<0.0046		0.0046	0.00099	mg/Kg	☼	06/19/15 08:35	06/26/15 19:30	1
Chlorobenzene	<0.0046		0.0046	0.0011	mg/Kg	☼	06/19/15 08:35	06/26/15 19:30	1
Chloroethane	<0.0046		0.0046	0.0019	mg/Kg	☼	06/19/15 08:35	06/26/15 19:30	1
Chloroform	<0.0046		0.0046	0.00090	mg/Kg	☼	06/19/15 08:35	06/26/15 19:30	1
Chloromethane	<0.0046	*	0.0046	0.0011	mg/Kg	☼	06/19/15 08:35	06/26/15 19:30	1
cis-1,2-Dichloroethene	<0.0046		0.0046	0.00094	mg/Kg	☼	06/19/15 08:35	06/26/15 19:30	1
cis-1,3-Dichloropropene	<0.0046		0.0046	0.0011	mg/Kg	☼	06/19/15 08:35	06/26/15 19:30	1
Dibromochloromethane	<0.0046		0.0046	0.00053	mg/Kg	☼	06/19/15 08:35	06/26/15 19:30	1
1,1-Dichloroethane	<0.0046		0.0046	0.00095	mg/Kg	☼	06/19/15 08:35	06/26/15 19:30	1
1,2-Dichloroethane	<0.0046		0.0046	0.00068	mg/Kg	☼	06/19/15 08:35	06/26/15 19:30	1
1,1-Dichloroethene	<0.0046		0.0046	0.0017	mg/Kg	☼	06/19/15 08:35	06/26/15 19:30	1
1,2-Dichloropropane	<0.0046		0.0046	0.0012	mg/Kg	☼	06/19/15 08:35	06/26/15 19:30	1
1,3-Dichloropropane, Total	<0.0046		0.0046	0.0013	mg/Kg	☼	06/19/15 08:35	06/26/15 19:30	1
Ethylbenzene	<0.0046		0.0046	0.0011	mg/Kg	☼	06/19/15 08:35	06/26/15 19:30	1
2-Hexanone	<0.0046		0.0046	0.0014	mg/Kg	☼	06/19/15 08:35	06/26/15 19:30	1
Methylene Chloride	<0.0046		0.0046	0.0035	mg/Kg	☼	06/19/15 08:35	06/26/15 19:30	1
4-Methyl-2-pentanone (MIBK)	<0.0046		0.0046	0.00095	mg/Kg	☼	06/19/15 08:35	06/26/15 19:30	1
Methyl tert-butyl ether	<0.0046		0.0046	0.0011	mg/Kg	☼	06/19/15 08:35	06/26/15 19:30	1
Styrene	<0.0046		0.0046	0.0011	mg/Kg	☼	06/19/15 08:35	06/26/15 19:30	1
1,1,1,2-Tetrachloroethane	<0.0046		0.0046	0.00073	mg/Kg	☼	06/19/15 08:35	06/26/15 19:30	1
Tetrachloroethene	<0.0046		0.0046	0.00096	mg/Kg	☼	06/19/15 08:35	06/26/15 19:30	1
Toluene	<0.0046		0.0046	0.0016	mg/Kg	☼	06/19/15 08:35	06/26/15 19:30	1
trans-1,2-Dichloroethene	<0.0046		0.0046	0.0012	mg/Kg	☼	06/19/15 08:35	06/26/15 19:30	1
trans-1,3-Dichloropropene	<0.0046		0.0046	0.0013	mg/Kg	☼	06/19/15 08:35	06/26/15 19:30	1
1,1,1-Trichloroethane	<0.0046		0.0046	0.0011	mg/Kg	☼	06/19/15 08:35	06/26/15 19:30	1
1,1,2-Trichloroethane	<0.0046		0.0046	0.00089	mg/Kg	☼	06/19/15 08:35	06/26/15 19:30	1
Trichloroethene	<0.0046		0.0046	0.0012	mg/Kg	☼	06/19/15 08:35	06/26/15 19:30	1
Vinyl acetate	<0.0046	*	0.0046	0.0012	mg/Kg	☼	06/19/15 08:35	06/26/15 19:30	1
Vinyl chloride	<0.0046		0.0046	0.0011	mg/Kg	☼	06/19/15 08:35	06/26/15 19:30	1
Xylenes, Total	<0.0092		0.0092	0.0017	mg/Kg	☼	06/19/15 08:35	06/26/15 19:30	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102		70 - 122	06/19/15 08:35	06/26/15 19:30	1
Dibromofluoromethane	112		75 - 120	06/19/15 08:35	06/26/15 19:30	1
1,2-Dichloroethane-d4 (Surr)	117		70 - 134	06/19/15 08:35	06/26/15 19:30	1
Toluene-d8 (Surr)	109		75 - 122	06/19/15 08:35	06/26/15 19:30	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	☼	06/25/15 17:24	06/30/15 14:58	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.056	mg/Kg	☼	06/25/15 17:24	06/30/15 14:58	1
1,3-Dichlorobenzene	<0.19		0.19	0.042	mg/Kg	☼	06/25/15 17:24	06/30/15 14:58	1
1,4-Dichlorobenzene	<0.19		0.19	0.048	mg/Kg	☼	06/25/15 17:24	06/30/15 14:58	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97546-5

Client Sample ID: 1860-51-B02 (6-7.5)

Lab Sample ID: 500-97546-8

Date Collected: 06/18/15 13:55

Matrix: Solid

Date Received: 06/19/15 08:00

Percent Solids: 85.9

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	0.045	mg/Kg	☼	06/25/15 17:24	06/30/15 14:58	1
2-Methylphenol	<0.19		0.19	0.060	mg/Kg	☼	06/25/15 17:24	06/30/15 14:58	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.044	mg/Kg	☼	06/25/15 17:24	06/30/15 14:58	1
N-Nitrosodi-n-propylamine	<0.19		0.19	0.046	mg/Kg	☼	06/25/15 17:24	06/30/15 14:58	1
Hexachloroethane	<0.19		0.19	0.057	mg/Kg	☼	06/25/15 17:24	06/30/15 14:58	1
2-Chlorophenol	<0.19		0.19	0.064	mg/Kg	☼	06/25/15 17:24	06/30/15 14:58	1
Nitrobenzene	<0.037		0.037	0.0094	mg/Kg	☼	06/25/15 17:24	06/30/15 14:58	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.038	mg/Kg	☼	06/25/15 17:24	06/30/15 14:58	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.041	mg/Kg	☼	06/25/15 17:24	06/30/15 14:58	1
Isophorone	<0.19		0.19	0.042	mg/Kg	☼	06/25/15 17:24	06/30/15 14:58	1
2,4-Dimethylphenol	<0.37		0.37	0.14	mg/Kg	☼	06/25/15 17:24	06/30/15 14:58	1
Hexachlorobutadiene	<0.19		0.19	0.059	mg/Kg	☼	06/25/15 17:24	06/30/15 14:58	1
Naphthalene	0.030	J	0.037	0.0058	mg/Kg	☼	06/25/15 17:24	06/30/15 14:58	1
2,4-Dichlorophenol	<0.37		0.37	0.089	mg/Kg	☼	06/25/15 17:24	06/30/15 14:58	1
4-Chloroaniline	<0.76		0.76	0.18	mg/Kg	☼	06/25/15 17:24	06/30/15 14:58	1
2,4,6-Trichlorophenol	<0.37		0.37	0.13	mg/Kg	☼	06/25/15 17:24	06/30/15 14:58	1
2,4,5-Trichlorophenol	<0.37		0.37	0.086	mg/Kg	☼	06/25/15 17:24	06/30/15 14:58	1
Hexachlorocyclopentadiene	<0.76		0.76	0.22	mg/Kg	☼	06/25/15 17:24	06/30/15 14:58	1
2-Methylnaphthalene	0.036	J	0.037	0.0069	mg/Kg	☼	06/25/15 17:24	06/30/15 14:58	1
2-Nitroaniline	<0.19		0.19	0.051	mg/Kg	☼	06/25/15 17:24	06/30/15 14:58	1
2-Chloronaphthalene	<0.19		0.19	0.042	mg/Kg	☼	06/25/15 17:24	06/30/15 14:58	1
4-Chloro-3-methylphenol	<0.37		0.37	0.13	mg/Kg	☼	06/25/15 17:24	06/30/15 14:58	1
2,6-Dinitrotoluene	<0.19		0.19	0.074	mg/Kg	☼	06/25/15 17:24	06/30/15 14:58	1
2-Nitrophenol	<0.37		0.37	0.089	mg/Kg	☼	06/25/15 17:24	06/30/15 14:58	1
3-Nitroaniline	<0.37		0.37	0.12	mg/Kg	☼	06/25/15 17:24	06/30/15 14:58	1
Dimethyl phthalate	<0.19		0.19	0.049	mg/Kg	☼	06/25/15 17:24	06/30/15 14:58	1
2,4-Dinitrophenol	<0.76		0.76	0.66	mg/Kg	☼	06/25/15 17:24	06/30/15 14:58	1
Acenaphthylene	<0.037		0.037	0.0050	mg/Kg	☼	06/25/15 17:24	06/30/15 14:58	1
2,4-Dinitrotoluene	<0.19		0.19	0.060	mg/Kg	☼	06/25/15 17:24	06/30/15 14:58	1
Acenaphthene	<0.037		0.037	0.0068	mg/Kg	☼	06/25/15 17:24	06/30/15 14:58	1
Dibenzofuran	<0.19		0.19	0.044	mg/Kg	☼	06/25/15 17:24	06/30/15 14:58	1
4-Nitrophenol	<0.76		0.76	0.36	mg/Kg	☼	06/25/15 17:24	06/30/15 14:58	1
Fluorene	0.018	J	0.037	0.0053	mg/Kg	☼	06/25/15 17:24	06/30/15 14:58	1
4-Nitroaniline	<0.37		0.37	0.16	mg/Kg	☼	06/25/15 17:24	06/30/15 14:58	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.050	mg/Kg	☼	06/25/15 17:24	06/30/15 14:58	1
Hexachlorobenzene	<0.076		0.076	0.0087	mg/Kg	☼	06/25/15 17:24	06/30/15 14:58	1
Diethyl phthalate	<0.19		0.19	0.064	mg/Kg	☼	06/25/15 17:24	06/30/15 14:58	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.044	mg/Kg	☼	06/25/15 17:24	06/30/15 14:58	1
Pentachlorophenol	<0.76		0.76	0.60	mg/Kg	☼	06/25/15 17:24	06/30/15 14:58	1
N-Nitrosodiphenylamine	<0.19		0.19	0.044	mg/Kg	☼	06/25/15 17:24	06/30/15 14:58	1
4,6-Dinitro-2-methylphenol	<0.37		0.37	0.30	mg/Kg	☼	06/25/15 17:24	06/30/15 14:58	1
Phenanthrene	0.088		0.037	0.0052	mg/Kg	☼	06/25/15 17:24	06/30/15 14:58	1
Anthracene	0.036	J	0.037	0.0063	mg/Kg	☼	06/25/15 17:24	06/30/15 14:58	1
Carbazole	<0.19		0.19	0.097	mg/Kg	☼	06/25/15 17:24	06/30/15 14:58	1
Di-n-butyl phthalate	<0.19		0.19	0.057	mg/Kg	☼	06/25/15 17:24	06/30/15 14:58	1
Fluoranthene	0.11		0.037	0.0070	mg/Kg	☼	06/25/15 17:24	06/30/15 14:58	1
Pyrene	0.098		0.037	0.0075	mg/Kg	☼	06/25/15 17:24	06/30/15 14:58	1
Butyl benzyl phthalate	<0.19		0.19	0.072	mg/Kg	☼	06/25/15 17:24	06/30/15 14:58	1
Benzo[a]anthracene	0.049		0.037	0.0051	mg/Kg	☼	06/25/15 17:24	06/30/15 14:58	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97546-5

Client Sample ID: 1860-51-B02 (6-7.5)

Lab Sample ID: 500-97546-8

Date Collected: 06/18/15 13:55

Matrix: Solid

Date Received: 06/19/15 08:00

Percent Solids: 85.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.062		0.037	0.010	mg/Kg	☼	06/25/15 17:24	06/30/15 14:58	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.053	mg/Kg	☼	06/25/15 17:24	06/30/15 14:58	1
Bis(2-ethylhexyl) phthalate	0.10	J	0.19	0.069	mg/Kg	☼	06/25/15 17:24	06/30/15 14:58	1
Di-n-octyl phthalate	<0.19		0.19	0.061	mg/Kg	☼	06/25/15 17:24	06/30/15 14:58	1
Benzo[b]fluoranthene	0.060		0.037	0.0081	mg/Kg	☼	06/25/15 17:24	06/30/15 14:58	1
Benzo[k]fluoranthene	0.032	J	0.037	0.011	mg/Kg	☼	06/25/15 17:24	06/30/15 14:58	1
Benzo[a]pyrene	0.043		0.037	0.0073	mg/Kg	☼	06/25/15 17:24	06/30/15 14:58	1
Indeno[1,2,3-cd]pyrene	0.024	J	0.037	0.0098	mg/Kg	☼	06/25/15 17:24	06/30/15 14:58	1
Dibenz(a,h)anthracene	<0.037		0.037	0.0073	mg/Kg	☼	06/25/15 17:24	06/30/15 14:58	1
Benzo[g,h,i]perylene	0.032	J	0.037	0.012	mg/Kg	☼	06/25/15 17:24	06/30/15 14:58	1
3 & 4 Methylphenol	<0.19		0.19	0.063	mg/Kg	☼	06/25/15 17:24	06/30/15 14:58	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	30		25 - 110	06/25/15 17:24	06/30/15 14:58	1
Phenol-d5	32		31 - 110	06/25/15 17:24	06/30/15 14:58	1
Nitrobenzene-d5	23	X	25 - 115	06/25/15 17:24	06/30/15 14:58	1
2-Fluorobiphenyl	28		25 - 119	06/25/15 17:24	06/30/15 14:58	1
2,4,6-Tribromophenol	37		35 - 137	06/25/15 17:24	06/30/15 14:58	1
Terphenyl-d14	56		36 - 134	06/25/15 17:24	06/30/15 14:58	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.1		1.1	0.23	mg/Kg	☼	06/21/15 16:35	06/23/15 00:18	1
Arsenic	8.5		0.55	0.26	mg/Kg	☼	06/21/15 16:35	06/23/15 00:18	1
Barium	44		0.55	0.10	mg/Kg	☼	06/21/15 16:35	06/23/15 18:35	1
Beryllium	0.77		0.22	0.048	mg/Kg	☼	06/21/15 16:35	06/23/15 00:18	1
Boron	16		2.8	0.39	mg/Kg	☼	06/21/15 16:35	06/23/15 00:18	1
Cadmium	0.23		0.11	0.032	mg/Kg	☼	06/21/15 16:35	06/23/15 00:18	1
Calcium	60000		55	18	mg/Kg	☼	06/21/15 16:35	06/23/15 18:40	5
Chromium	15		0.55	0.095	mg/Kg	☼	06/21/15 16:35	06/23/15 00:18	1
Cobalt	12		0.28	0.062	mg/Kg	☼	06/21/15 16:35	06/23/15 00:18	1
Copper	28		0.55	0.12	mg/Kg	☼	06/21/15 16:35	06/23/15 00:18	1
Iron	18000		11	4.3	mg/Kg	☼	06/21/15 16:35	06/23/15 18:35	1
Lead	37		0.28	0.14	mg/Kg	☼	06/21/15 16:35	06/23/15 00:18	1
Magnesium	23000		5.5	2.2	mg/Kg	☼	06/21/15 16:35	06/23/15 18:35	1
Manganese	350		0.55	0.11	mg/Kg	☼	06/21/15 16:35	06/23/15 00:18	1
Nickel	32		0.55	0.15	mg/Kg	☼	06/21/15 16:35	06/23/15 00:18	1
Potassium	2200		28	4.5	mg/Kg	☼	06/21/15 16:35	06/23/15 00:18	1
Selenium	0.94	B	0.55	0.27	mg/Kg	☼	06/21/15 16:35	06/23/15 18:35	1
Silver	<0.28		0.28	0.065	mg/Kg	☼	06/21/15 16:35	06/23/15 00:18	1
Sodium	840		55	7.3	mg/Kg	☼	06/21/15 16:35	06/23/15 00:18	1
Thallium	<0.55		0.55	0.27	mg/Kg	☼	06/21/15 16:35	06/23/15 00:18	1
Vanadium	18		0.28	0.081	mg/Kg	☼	06/21/15 16:35	06/23/15 00:18	1
Zinc	100	B	1.1	0.35	mg/Kg	☼	06/21/15 16:35	06/23/15 18:35	1

Method: 7471B - Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.074		0.018	0.0061	mg/Kg	☼	06/19/15 14:30	06/22/15 15:17	1

TestAmerica Chicago

Definitions/Glossary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97546-5

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.

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
*	LCS or LCSD is outside acceptance 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, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
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
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)

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 #: 500-97546
 Chain of Custody Number: _____
 Page _____ of _____
 Temperature °C of Cooler: 3.4

Client		Client Project #		Preservative		Parameter		Matrix		Comments		
EE		1009008-0031-01								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		
IL 171		50011058		Date Time		Matrix						
Project Location/State		Lab Project #		Sampling		# of Containers		Matrix		Comments		
Cook County, IL		50011058		Date Time		Matrix						
Sampler		Lab Pk		Sampling		# of Containers		Matrix		Comments		
S. Cooper		D. Wright		Date Time		Matrix						
Lab ID	MS/MSD	Sample ID	Date	Time	# of Containers	Matrix						
8		1860-51-13 02 (6-7-5)	6-18-15	1355	2	S	Voc	Srac	Total TAL	meth	Temp/SPUP TAL meth-V	P47% S1-d

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	Company	Date	Time	Received By	Company	Date	Time
<i>[Signature]</i>	EE	6-18-15	1522	<i>[Signature]</i>	TA	6/18/15	1522
Relinquished By	Company	Date	Time	Received By	Company	Date	Time
<i>[Signature]</i>	TA	6/18/15	1715	<i>[Signature]</i>	TAL	06/19/15	0800
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: 500-97546-5

Login Number: 97546

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	3.4c
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.	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 $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	True	



Bureau of Land • 1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276

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 372/373 (Illinois Route 171) Office Phone Number, if available: _____

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

Between the Des Plaines River and the Chicago Sanitary and Ship Canal west of IL 43

City: Summit State: IL Zip Code: 60501

County: Cook Township: Lyons

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

Latitude: 41.796385 Longitude: -87.815768

(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: 0311740014 BOW: _____ BOA: _____

II. Owner/Operator Information for Source Site

Site Owner

Site Operator

Name: Illinois Department of Transportation

Name: _____

Street Address: 201 West Center Court

Street Address: _____

PO Box: _____

PO Box: _____

City: Schaumburg State: IL

City: _____ State: _____

Zip Code: 60196-1096 Phone: 847-705-4159

Zip Code: _____ Phone: _____

Contact: Sam Mead

Contact: _____

Email, if available: Sam.Mead@illinois.gov

Email, if available: _____

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.

Project Name: FAP 372/373 (Illinois Route 171)

Latitude: 41.796385 Longitude: -87.815768

Uncontaminated Site 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 1860-52-B02, 1860-52-B03, 1860-52-B04, and 1860-52-B05 were sampled within the construction zone adjacent to ISGS #1860-52 (MWRD/Harlem Avenue Dump). Refer to PSI Report for ISGS #1860-52 (MWRD/Harlem Avenue Dump) including Table 4-3, and Figures 4-7A & B and 4-8A & B.

- 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 500-97344-2, 500-97428-2, and 500-97481-3.

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

I, Neil J. 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 Street

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:

7/22/15
 Date:



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

Analytical Data Summary
PTB #172-27; Work Order 31 - IDOT Job # D-91-191-10

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.

SCGIER = Soil Component of the Groundwater Ingestion Exposure Route

SPLP = Synthetic Precipitation Leaching Procedure.

ND = Not detected.

NA = Not analyzed.

J = Estimated value.

U = Analyte was analyzed for but not detected.


Criteria Qualifiers and Shading

† = Concentration exceeds the most stringent MAC.

m = Concentration exceeds the MAC for an MSA.

* = Concentration exceeds the MAC for Chicago corporate limits.

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

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

 = Concentration exceeds the most stringent MAC and the MAC for Chicago corporate limits.

 = Concentration exceeds applicable comparison criteria.

**PTB #172-27; Work Order 31 - IDOT Job # D-91-191-10
DETECTED ANALYTES**

SITE	ISGS #1860-52 (MWRD/Harlem Avenue Dump)					Comparison Criteria				
	1860-52-B02		1860-52-B03	1860-52-B04	1860-52-B05	MACs			TACO	
BORING	1860-52-B02 (2-4)		1860-52-B02 (10-12)	1860-52-B03 (6-7)	1860-52-B04 (4-6)	1860-52-B05 (2-4)	Most Stringent	Within an MSA	Within Chicago	SCGIER
SAMPLE										
MATRIX	Soil		Soil	Soil	Soil	Soil				
DEPTH (feet)	2-4		10-12	6-7	4-6	2-4				
pH	7.94		7.32	7.93	7.93	8.17				
VOCs (mg/kg)										
Acetone	0.026	0.027	0.012	0.0094	0.0086		25	--	--	--
SVOCs (mg/kg)										
2-Methylnaphthalene	0.045	0.04	ND U	0.027 J	0.017 J		--	--	--	--
Acenaphthene	0.0093 J	0.018 J	0.032 J	ND U	ND U		570	--	--	--
Anthracene	0.013 J	0.041	0.13	ND U	ND U		12,000	--	--	--
Benzo[a]anthracene	0.033 J	0.041	0.31	ND U	ND U		0.9	1.8	1.1	--
Benzo[a]pyrene	ND U	0.038 J	0.23 †	ND U	ND U		0.09	2.1	1.3	--
Benzo[b]fluoranthene	ND UJ	ND UJ	0.35 J	ND U	ND U		0.9	2.1	1.5	--
Benzo[g,h,i]perylene	0.028 J	0.027 J	0.14	0.014 J	ND U		--	--	--	--
Benzo[k]fluoranthene	ND U	ND U	0.18	ND U	ND U		9	--	--	--
Chrysene	0.041	0.056	0.26	0.012 J	ND U		88	--	--	--
Dibenzo(a,h)anthracene	ND U	ND U	0.051	ND U	ND U		0.09	0.42	0.2	--
Fluoranthene	0.056	0.091	0.65	ND U	ND U		3,100	--	--	--
Fluorene	0.011 J	0.022 J	0.037 J	ND U	ND U		560	--	--	--
Indeno[1,2,3-cd]pyrene	0.013 J	0.02 J	0.14	ND U	ND U		0.9	1.6	0.9	--
Naphthalene	0.016 J	0.015 J	ND U	0.0081 J	ND U		1.8	--	--	--
Phenanthrene	0.08	0.15	0.3	0.025 J	0.014 J		--	--	--	--
Pyrene	0.06	0.14	0.41	0.01 J	ND U		2,300	--	--	--
Inorganics (mg/kg)										
Antimony	ND U	ND U	0.25 J	0.31 J	0.33 J		5	--	--	--
Arsenic	8.4	8.9	5.1	5.7	5.4		11.3	13	--	--
Barium	47	56	43	45	41		1,500	--	--	--
Beryllium	0.57	0.75	0.45	0.56	0.61		22	--	--	--
Boron	10	13	4.5	9.6	11		40	--	--	--
Cadmium	0.36	0.18	0.14	0.093 J	0.054 J		5.2	--	--	--
Calcium	62,000	54,000	47,000	57,000	63,000		--	--	--	--
Chromium	16	20	12	16	16		21	--	--	--
Cobalt	12	18	11	12	12		20	--	--	--
Copper	27	29	17	21	17		2,900	--	--	--
Iron	18,000 †m	23,000 †m	17,000 †m	18,000 †m	18,000 †m		15,000	15,900	--	--
Lead	23	17	13	13	11		107	--	--	--
Magnesium	26,000	23,000	23,000	22,000	22,000		325,000	--	--	--
Manganese	360	390	450	300	410		630	636	--	--
Mercury	0.048	0.031	0.026	0.026	0.035		0.89	--	--	--
Nickel	29	43	23	31	31		100	--	--	--
Potassium	1,900	2,700	1,000	2,200	2,500		--	--	--	--
Selenium	0.3 J	0.51 J	0.28 J	0.38 J	ND U		1.3	--	--	--
Sodium	990	260	690	670	1,300		--	--	--	--
Vanadium	17	23	15	18	18		550	--	--	--
Zinc	77 J	70 J	55	52	50		5,100	--	--	--
TCLP Metals (mg/L)										
Barium	0.14 J	0.33 J	0.34 J	0.54	0.65		--	--	--	2
Boron	0.67	0.84	0.5	1.1	1.1		--	--	--	2
Cadmium	0.0041 J	0.0023 J	0.0035 J	ND U	ND U		--	--	--	0.005
Cobalt	0.021 J	0.024 J	0.042	0.023 J	0.02 J		--	--	--	1
Iron	ND U	ND U	ND U	ND U	1.4		--	--	--	5
Manganese	3.4 L	6.1 L	12 L	2.7 L	2.6 L		--	--	--	0.15
Nickel	0.022 J	0.021 J	0.032	0.045	0.041		--	--	--	0.1
Selenium	ND U	0.021 J	0.032 J	ND U	ND U		--	--	--	0.05
Zinc	0.055 J	0.033 J	ND U	0.31	0.13		--	--	--	5
SPLP Metals (mg/L)										
Manganese	0.09	0.11	0.11	0.06	0.97 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: 500-97344-2
Client Project/Site: IDOT - IL 171 - WO 031

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

Attn: Mr. Dean Tiebout



Authorized for release by:
6/26/2015 3:07:17 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

8

9



Table of Contents

Cover Page	1
Table of Contents	2
Case Narrative	3
Detection Summary	4
Sample Summary	6
Client Sample Results	7
Definitions	15
Chain of Custody	16
Receipt Checklists	17

Case Narrative

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97344-2

Job ID: 500-97344-2

Laboratory: TestAmerica Chicago

Narrative

Job Narrative 500-97344-2

Comments

No additional comments.

Receipt

The samples were received on 6/13/2015 7:30 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 2.9° C and 3.2° 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 sample contained one acid surrogate outside acceptance limits: (LCS 500-292924/2-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.

Method(s) 8270D: A full list spike was utilized for this method. Due to the large number of spiked analytes, there is a high probability that one or more analytes will recover outside acceptance limits. The laboratory's SOP allows for 3 analytes to recover outside criteria for this method when a full list spike is utilized. The LCS associated with preparation batch 500-292924 and analytical batch 500-293107 had 3 analytes outside control limits: 2-Methylphenol, Benzo[b]fluoranthene, and Phenol-d5; therefore, corrective action was not performed. These results have been reported and qualified.

Method(s) 8270D: The method blank for preparation batch 500-292924 and analytical batch 500-293107 contained Benzo[a]pyrene and Dibenz(a,h)anthracene above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

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 - IL 171 - WO 031

TestAmerica Job ID: 500-97344-2

Client Sample ID: 1860-52-B02 (2-4)

Lab Sample ID: 500-97344-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	0.026		0.0041	0.0032	mg/Kg	1	☼	8260B	Total/NA
Naphthalene	0.016	J	0.036	0.0055	mg/Kg	1	☼	8270D	Total/NA
2-Methylnaphthalene	0.045		0.036	0.0066	mg/Kg	1	☼	8270D	Total/NA
Acenaphthene	0.0093	J	0.036	0.0064	mg/Kg	1	☼	8270D	Total/NA
Fluorene	0.011	J	0.036	0.0050	mg/Kg	1	☼	8270D	Total/NA
Phenanthrene	0.080		0.036	0.0050	mg/Kg	1	☼	8270D	Total/NA
Anthracene	0.013	J	0.036	0.0060	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.056		0.036	0.0066	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.060		0.036	0.0071	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.033	J	0.036	0.0048	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.041		0.036	0.0098	mg/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.013	J	0.036	0.0093	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.028	J	0.036	0.012	mg/Kg	1	☼	8270D	Total/NA
Arsenic	8.4		0.55	0.25	mg/Kg	1	☼	6010B	Total/NA
Barium	47		0.55	0.10	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.57		0.22	0.047	mg/Kg	1	☼	6010B	Total/NA
Boron	10		2.7	0.38	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.36		0.11	0.032	mg/Kg	1	☼	6010B	Total/NA
Calcium	62000		55	18	mg/Kg	5	☼	6010B	Total/NA
Chromium	16		0.55	0.094	mg/Kg	1	☼	6010B	Total/NA
Cobalt	12		0.27	0.062	mg/Kg	1	☼	6010B	Total/NA
Copper	27	B	0.55	0.12	mg/Kg	1	☼	6010B	Total/NA
Iron	18000		11	4.2	mg/Kg	1	☼	6010B	Total/NA
Lead	23		0.27	0.14	mg/Kg	1	☼	6010B	Total/NA
Magnesium	26000		5.5	2.2	mg/Kg	1	☼	6010B	Total/NA
Manganese	360		0.55	0.11	mg/Kg	1	☼	6010B	Total/NA
Nickel	29		0.55	0.15	mg/Kg	1	☼	6010B	Total/NA
Potassium	1900		27	4.4	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.30	J	0.55	0.27	mg/Kg	1	☼	6010B	Total/NA
Sodium	990		55	7.2	mg/Kg	1	☼	6010B	Total/NA
Vanadium	17		0.27	0.080	mg/Kg	1	☼	6010B	Total/NA
Zinc	77	B	1.1	0.35	mg/Kg	1	☼	6010B	Total/NA
Barium	0.14	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.67		0.50	0.050	mg/L	1		6010B	TCLP
Cadmium	0.0041	J	0.0050	0.0020	mg/L	1		6010B	TCLP
Cobalt	0.021	J	0.025	0.010	mg/L	1		6010B	TCLP
Manganese	3.4		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.022	J	0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.055	J	0.10	0.020	mg/L	1		6010B	TCLP
Manganese	0.090		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.048		0.017	0.0059	mg/Kg	1	☼	7471B	Total/NA
pH	7.94		0.200	0.200	SU	1		9045D	Total/NA

Client Sample ID: 1860-52-B02 (10-12)

Lab Sample ID: 500-97344-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	0.027		0.0050	0.0039	mg/Kg	1	☼	8260B	Total/NA
Naphthalene	0.015	J	0.040	0.0062	mg/Kg	1	☼	8270D	Total/NA
2-Methylnaphthalene	0.040		0.040	0.0075	mg/Kg	1	☼	8270D	Total/NA
Acenaphthene	0.018	J	0.040	0.0073	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 - IL 171 - WO 031

TestAmerica Job ID: 500-97344-2

Client Sample ID: 1860-52-B02 (10-12) (Continued)

Lab Sample ID: 500-97344-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Fluorene	0.022	J	0.040	0.0057	mg/Kg	1	☼	8270D	Total/NA
Phenanthrene	0.15		0.040	0.0057	mg/Kg	1	☼	8270D	Total/NA
Anthracene	0.041		0.040	0.0068	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.091		0.040	0.0075	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.14		0.040	0.0081	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.041		0.040	0.0055	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.056		0.040	0.011	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.038	J B	0.040	0.0079	mg/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.020	J	0.040	0.011	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.027	J	0.040	0.013	mg/Kg	1	☼	8270D	Total/NA
Arsenic	8.9		0.61	0.28	mg/Kg	1	☼	6010B	Total/NA
Barium	56		0.61	0.11	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.75		0.24	0.053	mg/Kg	1	☼	6010B	Total/NA
Boron	13		3.0	0.42	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.18		0.12	0.035	mg/Kg	1	☼	6010B	Total/NA
Calcium	54000		61	20	mg/Kg	5	☼	6010B	Total/NA
Chromium	20		0.61	0.10	mg/Kg	1	☼	6010B	Total/NA
Cobalt	18		0.30	0.069	mg/Kg	1	☼	6010B	Total/NA
Copper	29	B	0.61	0.13	mg/Kg	1	☼	6010B	Total/NA
Iron	23000		12	4.7	mg/Kg	1	☼	6010B	Total/NA
Lead	17		0.30	0.15	mg/Kg	1	☼	6010B	Total/NA
Magnesium	23000		6.1	2.5	mg/Kg	1	☼	6010B	Total/NA
Manganese	390		0.61	0.12	mg/Kg	1	☼	6010B	Total/NA
Nickel	43		0.61	0.16	mg/Kg	1	☼	6010B	Total/NA
Potassium	2700		30	5.0	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.51	J	0.61	0.30	mg/Kg	1	☼	6010B	Total/NA
Sodium	260		61	8.0	mg/Kg	1	☼	6010B	Total/NA
Vanadium	23		0.30	0.089	mg/Kg	1	☼	6010B	Total/NA
Zinc	70	B	1.2	0.38	mg/Kg	1	☼	6010B	Total/NA
Barium	0.33	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.84		0.50	0.050	mg/L	1		6010B	TCLP
Cadmium	0.0023	J	0.0050	0.0020	mg/L	1		6010B	TCLP
Cobalt	0.024	J	0.025	0.010	mg/L	1		6010B	TCLP
Manganese	6.1		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.021	J	0.025	0.010	mg/L	1		6010B	TCLP
Selenium	0.021	J	0.050	0.020	mg/L	1		6010B	TCLP
Zinc	0.033	J	0.10	0.020	mg/L	1		6010B	TCLP
Manganese	0.11		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.031		0.018	0.0064	mg/Kg	1	☼	7471B	Total/NA
pH	7.32		0.200	0.200	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 - IL 171 - WO 031

TestAmerica Job ID: 500-97344-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-97344-11	1860-52-B02 (2-4)	Solid	06/12/15 10:30	06/13/15 07:30
500-97344-12	1860-52-B02 (10-12)	Solid	06/12/15 10:35	06/13/15 07:30

1

2

3

4

5

6

7

8

9

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97344-2

Client Sample ID: 1860-52-B02 (2-4)

Lab Sample ID: 500-97344-11

Date Collected: 06/12/15 10:30

Matrix: Solid

Date Received: 06/13/15 07:30

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.14	J	0.50	0.050	mg/L		06/16/15 09:34	06/16/15 19:47	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		06/16/15 09:34	06/16/15 19:47	1
Boron	0.67		0.50	0.050	mg/L		06/16/15 09:34	06/17/15 15:35	1
Cadmium	0.0041	J	0.0050	0.0020	mg/L		06/16/15 09:34	06/16/15 19:47	1
Chromium	<0.025		0.025	0.010	mg/L		06/16/15 09:34	06/16/15 19:47	1
Cobalt	0.021	J	0.025	0.010	mg/L		06/16/15 09:34	06/16/15 19:47	1
Iron	<0.20		0.20	0.20	mg/L		06/16/15 09:34	06/16/15 19:47	1
Lead	<0.0075		0.0075	0.0075	mg/L		06/16/15 09:34	06/16/15 19:47	1
Manganese	3.4		0.025	0.010	mg/L		06/16/15 09:34	06/16/15 19:47	1
Nickel	0.022	J	0.025	0.010	mg/L		06/16/15 09:34	06/16/15 19:47	1
Selenium	<0.050		0.050	0.020	mg/L		06/16/15 09:34	06/16/15 19:47	1
Silver	<0.025		0.025	0.010	mg/L		06/16/15 09:34	06/16/15 19:47	1
Zinc	0.055	J	0.10	0.020	mg/L		06/16/15 09:34	06/16/15 19:47	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.090		0.025	0.010	mg/L		06/23/15 14:00	06/24/15 12:26	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		06/16/15 09:34	06/17/15 15:46	1
Thallium	<0.0020		0.0020	0.0020	mg/L		06/16/15 09:34	06/17/15 15:46	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		06/15/15 11:30	06/16/15 11:37	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.94		0.200	0.200	SU			06/16/15 11:45	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97344-2

Client Sample ID: 1860-52-B02 (2-4)

Lab Sample ID: 500-97344-11

Date Collected: 06/12/15 10:30

Matrix: Solid

Date Received: 06/13/15 07:30

Percent Solids: 87.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	0.026		0.0041	0.0032	mg/Kg	☼	06/13/15 09:45	06/17/15 19:27	1
Benzene	<0.0041		0.0041	0.00091	mg/Kg	☼	06/13/15 09:45	06/17/15 19:27	1
Bromodichloromethane	<0.0041		0.0041	0.00070	mg/Kg	☼	06/13/15 09:45	06/17/15 19:27	1
Bromoform	<0.0041		0.0041	0.00084	mg/Kg	☼	06/13/15 09:45	06/17/15 19:27	1
Bromomethane	<0.0041		0.0041	0.0015	mg/Kg	☼	06/13/15 09:45	06/17/15 19:27	1
2-Butanone (MEK)	<0.0041		0.0041	0.0015	mg/Kg	☼	06/13/15 09:45	06/17/15 19:27	1
Carbon disulfide	<0.0041		0.0041	0.0015	mg/Kg	☼	06/13/15 09:45	06/17/15 19:27	1
Carbon tetrachloride	<0.0041		0.0041	0.00088	mg/Kg	☼	06/13/15 09:45	06/17/15 19:27	1
Chlorobenzene	<0.0041		0.0041	0.00097	mg/Kg	☼	06/13/15 09:45	06/17/15 19:27	1
Chloroethane	<0.0041		0.0041	0.0017	mg/Kg	☼	06/13/15 09:45	06/17/15 19:27	1
Chloroform	<0.0041		0.0041	0.00080	mg/Kg	☼	06/13/15 09:45	06/17/15 19:27	1
Chloromethane	<0.0041		0.0041	0.00099	mg/Kg	☼	06/13/15 09:45	06/17/15 19:27	1
cis-1,2-Dichloroethene	<0.0041		0.0041	0.00084	mg/Kg	☼	06/13/15 09:45	06/17/15 19:27	1
cis-1,3-Dichloropropene	<0.0041		0.0041	0.00094	mg/Kg	☼	06/13/15 09:45	06/17/15 19:27	1
Dibromochloromethane	<0.0041		0.0041	0.00047	mg/Kg	☼	06/13/15 09:45	06/17/15 19:27	1
1,1-Dichloroethane	<0.0041		0.0041	0.00085	mg/Kg	☼	06/13/15 09:45	06/17/15 19:27	1
1,2-Dichloroethane	<0.0041		0.0041	0.00061	mg/Kg	☼	06/13/15 09:45	06/17/15 19:27	1
1,1-Dichloroethene	<0.0041		0.0041	0.0015	mg/Kg	☼	06/13/15 09:45	06/17/15 19:27	1
1,2-Dichloropropane	<0.0041		0.0041	0.0011	mg/Kg	☼	06/13/15 09:45	06/17/15 19:27	1
1,3-Dichloropropane, Total	<0.0041		0.0041	0.0012	mg/Kg	☼	06/13/15 09:45	06/17/15 19:27	1
Ethylbenzene	<0.0041		0.0041	0.0010	mg/Kg	☼	06/13/15 09:45	06/17/15 19:27	1
2-Hexanone	<0.0041		0.0041	0.0013	mg/Kg	☼	06/13/15 09:45	06/17/15 19:27	1
Methylene Chloride	<0.0041		0.0041	0.0031	mg/Kg	☼	06/13/15 09:45	06/17/15 19:27	1
4-Methyl-2-pentanone (MIBK)	<0.0041		0.0041	0.00085	mg/Kg	☼	06/13/15 09:45	06/17/15 19:27	1
Methyl tert-butyl ether	<0.0041		0.0041	0.00097	mg/Kg	☼	06/13/15 09:45	06/17/15 19:27	1
Styrene	<0.0041		0.0041	0.00096	mg/Kg	☼	06/13/15 09:45	06/17/15 19:27	1
1,1,2,2-Tetrachloroethane	<0.0041		0.0041	0.00065	mg/Kg	☼	06/13/15 09:45	06/17/15 19:27	1
Tetrachloroethene	<0.0041		0.0041	0.00086	mg/Kg	☼	06/13/15 09:45	06/17/15 19:27	1
Toluene	<0.0041		0.0041	0.0014	mg/Kg	☼	06/13/15 09:45	06/17/15 19:27	1
trans-1,2-Dichloroethene	<0.0041		0.0041	0.0010	mg/Kg	☼	06/13/15 09:45	06/17/15 19:27	1
trans-1,3-Dichloropropene	<0.0041		0.0041	0.0012	mg/Kg	☼	06/13/15 09:45	06/17/15 19:27	1
1,1,1-Trichloroethane	<0.0041		0.0041	0.00096	mg/Kg	☼	06/13/15 09:45	06/17/15 19:27	1
1,1,2-Trichloroethane	<0.0041		0.0041	0.00080	mg/Kg	☼	06/13/15 09:45	06/17/15 19:27	1
Trichloroethene	<0.0041		0.0041	0.0011	mg/Kg	☼	06/13/15 09:45	06/17/15 19:27	1
Vinyl acetate	<0.0041		0.0041	0.0011	mg/Kg	☼	06/13/15 09:45	06/17/15 19:27	1
Vinyl chloride	<0.0041		0.0041	0.00098	mg/Kg	☼	06/13/15 09:45	06/17/15 19:27	1
Xylenes, Total	<0.0082		0.0082	0.0015	mg/Kg	☼	06/13/15 09:45	06/17/15 19:27	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	105		70 - 122	06/13/15 09:45	06/17/15 19:27	1
Dibromofluoromethane	112		75 - 120	06/13/15 09:45	06/17/15 19:27	1
1,2-Dichloroethane-d4 (Surr)	117		70 - 134	06/13/15 09:45	06/17/15 19:27	1
Toluene-d8 (Surr)	114		75 - 122	06/13/15 09:45	06/17/15 19:27	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	☼	06/23/15 07:29	06/25/15 20:36	1
Bis(2-chloroethyl)ether	<0.18		0.18	0.054	mg/Kg	☼	06/23/15 07:29	06/25/15 20:36	1
1,3-Dichlorobenzene	<0.18		0.18	0.040	mg/Kg	☼	06/23/15 07:29	06/25/15 20:36	1
1,4-Dichlorobenzene	<0.18		0.18	0.046	mg/Kg	☼	06/23/15 07:29	06/25/15 20:36	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97344-2

Client Sample ID: 1860-52-B02 (2-4)

Lab Sample ID: 500-97344-11

Date Collected: 06/12/15 10:30

Matrix: Solid

Date Received: 06/13/15 07:30

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	<0.18		0.18	0.043	mg/Kg	☼	06/23/15 07:29	06/25/15 20:36	1
2-Methylphenol	<0.18	*	0.18	0.057	mg/Kg	☼	06/23/15 07:29	06/25/15 20:36	1
2,2'-oxybis[1-chloropropane]	<0.18		0.18	0.041	mg/Kg	☼	06/23/15 07:29	06/25/15 20:36	1
N-Nitrosodi-n-propylamine	<0.18		0.18	0.044	mg/Kg	☼	06/23/15 07:29	06/25/15 20:36	1
Hexachloroethane	<0.18		0.18	0.054	mg/Kg	☼	06/23/15 07:29	06/25/15 20:36	1
2-Chlorophenol	<0.18		0.18	0.061	mg/Kg	☼	06/23/15 07:29	06/25/15 20:36	1
Nitrobenzene	<0.036		0.036	0.0089	mg/Kg	☼	06/23/15 07:29	06/25/15 20:36	1
Bis(2-chloroethoxy)methane	<0.18		0.18	0.037	mg/Kg	☼	06/23/15 07:29	06/25/15 20:36	1
1,2,4-Trichlorobenzene	<0.18		0.18	0.039	mg/Kg	☼	06/23/15 07:29	06/25/15 20:36	1
Isophorone	<0.18		0.18	0.040	mg/Kg	☼	06/23/15 07:29	06/25/15 20:36	1
2,4-Dimethylphenol	<0.36		0.36	0.14	mg/Kg	☼	06/23/15 07:29	06/25/15 20:36	1
Hexachlorobutadiene	<0.18		0.18	0.056	mg/Kg	☼	06/23/15 07:29	06/25/15 20:36	1
Naphthalene	0.016	J	0.036	0.0055	mg/Kg	☼	06/23/15 07:29	06/25/15 20:36	1
2,4-Dichlorophenol	<0.36		0.36	0.085	mg/Kg	☼	06/23/15 07:29	06/25/15 20:36	1
4-Chloroaniline	<0.72		0.72	0.17	mg/Kg	☼	06/23/15 07:29	06/25/15 20:36	1
2,4,6-Trichlorophenol	<0.36		0.36	0.12	mg/Kg	☼	06/23/15 07:29	06/25/15 20:36	1
2,4,5-Trichlorophenol	<0.36		0.36	0.082	mg/Kg	☼	06/23/15 07:29	06/25/15 20:36	1
Hexachlorocyclopentadiene	<0.72		0.72	0.21	mg/Kg	☼	06/23/15 07:29	06/25/15 20:36	1
2-Methylnaphthalene	0.045		0.036	0.0066	mg/Kg	☼	06/23/15 07:29	06/25/15 20:36	1
2-Nitroaniline	<0.18		0.18	0.048	mg/Kg	☼	06/23/15 07:29	06/25/15 20:36	1
2-Chloronaphthalene	<0.18		0.18	0.040	mg/Kg	☼	06/23/15 07:29	06/25/15 20:36	1
4-Chloro-3-methylphenol	<0.36		0.36	0.12	mg/Kg	☼	06/23/15 07:29	06/25/15 20:36	1
2,6-Dinitrotoluene	<0.18		0.18	0.070	mg/Kg	☼	06/23/15 07:29	06/25/15 20:36	1
2-Nitrophenol	<0.36		0.36	0.085	mg/Kg	☼	06/23/15 07:29	06/25/15 20:36	1
3-Nitroaniline	<0.36		0.36	0.11	mg/Kg	☼	06/23/15 07:29	06/25/15 20:36	1
Dimethyl phthalate	<0.18		0.18	0.047	mg/Kg	☼	06/23/15 07:29	06/25/15 20:36	1
2,4-Dinitrophenol	<0.72		0.72	0.63	mg/Kg	☼	06/23/15 07:29	06/25/15 20:36	1
Acenaphthylene	<0.036		0.036	0.0047	mg/Kg	☼	06/23/15 07:29	06/25/15 20:36	1
2,4-Dinitrotoluene	<0.18		0.18	0.057	mg/Kg	☼	06/23/15 07:29	06/25/15 20:36	1
Acenaphthene	0.0093	J	0.036	0.0064	mg/Kg	☼	06/23/15 07:29	06/25/15 20:36	1
Dibenzofuran	<0.18		0.18	0.042	mg/Kg	☼	06/23/15 07:29	06/25/15 20:36	1
4-Nitrophenol	<0.72		0.72	0.34	mg/Kg	☼	06/23/15 07:29	06/25/15 20:36	1
Fluorene	0.011	J	0.036	0.0050	mg/Kg	☼	06/23/15 07:29	06/25/15 20:36	1
4-Nitroaniline	<0.36		0.36	0.15	mg/Kg	☼	06/23/15 07:29	06/25/15 20:36	1
4-Bromophenyl phenyl ether	<0.18		0.18	0.047	mg/Kg	☼	06/23/15 07:29	06/25/15 20:36	1
Hexachlorobenzene	<0.072		0.072	0.0083	mg/Kg	☼	06/23/15 07:29	06/25/15 20:36	1
Diethyl phthalate	<0.18		0.18	0.061	mg/Kg	☼	06/23/15 07:29	06/25/15 20:36	1
4-Chlorophenyl phenyl ether	<0.18		0.18	0.042	mg/Kg	☼	06/23/15 07:29	06/25/15 20:36	1
Pentachlorophenol	<0.72		0.72	0.57	mg/Kg	☼	06/23/15 07:29	06/25/15 20:36	1
N-Nitrosodiphenylamine	<0.18		0.18	0.042	mg/Kg	☼	06/23/15 07:29	06/25/15 20:36	1
4,6-Dinitro-2-methylphenol	<0.36		0.36	0.29	mg/Kg	☼	06/23/15 07:29	06/25/15 20:36	1
Phenanthrene	0.080		0.036	0.0050	mg/Kg	☼	06/23/15 07:29	06/25/15 20:36	1
Anthracene	0.013	J	0.036	0.0060	mg/Kg	☼	06/23/15 07:29	06/25/15 20:36	1
Carbazole	<0.18		0.18	0.092	mg/Kg	☼	06/23/15 07:29	06/25/15 20:36	1
Di-n-butyl phthalate	<0.18		0.18	0.054	mg/Kg	☼	06/23/15 07:29	06/25/15 20:36	1
Fluoranthene	0.056		0.036	0.0066	mg/Kg	☼	06/23/15 07:29	06/25/15 20:36	1
Pyrene	0.060		0.036	0.0071	mg/Kg	☼	06/23/15 07:29	06/25/15 20:36	1
Butyl benzyl phthalate	<0.18		0.18	0.068	mg/Kg	☼	06/23/15 07:29	06/25/15 20:36	1
Benzo[a]anthracene	0.033	J	0.036	0.0048	mg/Kg	☼	06/23/15 07:29	06/25/15 20:36	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97344-2

Client Sample ID: 1860-52-B02 (2-4)

Lab Sample ID: 500-97344-11

Date Collected: 06/12/15 10:30

Matrix: Solid

Date Received: 06/13/15 07:30

Percent Solids: 87.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.041		0.036	0.0098	mg/Kg	☼	06/23/15 07:29	06/25/15 20:36	1
3,3'-Dichlorobenzidine	<0.18		0.18	0.050	mg/Kg	☼	06/23/15 07:29	06/25/15 20:36	1
Bis(2-ethylhexyl) phthalate	<0.18		0.18	0.065	mg/Kg	☼	06/23/15 07:29	06/25/15 20:36	1
Di-n-octyl phthalate	<0.18		0.18	0.058	mg/Kg	☼	06/23/15 07:29	06/25/15 20:36	1
Benzo[b]fluoranthene	<0.036 *		0.036	0.0077	mg/Kg	☼	06/23/15 07:29	06/25/15 20:36	1
Benzo[k]fluoranthene	<0.036		0.036	0.011	mg/Kg	☼	06/23/15 07:29	06/25/15 20:36	1
Benzo[a]pyrene	<0.036		0.036	0.0069	mg/Kg	☼	06/23/15 07:29	06/25/15 20:36	1
Indeno[1,2,3-cd]pyrene	0.013 J		0.036	0.0093	mg/Kg	☼	06/23/15 07:29	06/25/15 20:36	1
Dibenz(a,h)anthracene	<0.036		0.036	0.0069	mg/Kg	☼	06/23/15 07:29	06/25/15 20:36	1
Benzo[g,h,i]perylene	0.028 J		0.036	0.012	mg/Kg	☼	06/23/15 07:29	06/25/15 20:36	1
3 & 4 Methylphenol	<0.18		0.18	0.060	mg/Kg	☼	06/23/15 07:29	06/25/15 20:36	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	71		25 - 110	06/23/15 07:29	06/25/15 20:36	1
Phenol-d5	67		31 - 110	06/23/15 07:29	06/25/15 20:36	1
Nitrobenzene-d5	59		25 - 115	06/23/15 07:29	06/25/15 20:36	1
2-Fluorobiphenyl	59		25 - 119	06/23/15 07:29	06/25/15 20:36	1
2,4,6-Tribromophenol	75		35 - 137	06/23/15 07:29	06/25/15 20:36	1
Terphenyl-d14	87		36 - 134	06/23/15 07:29	06/25/15 20:36	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.1		1.1	0.23	mg/Kg	☼	06/16/15 17:41	06/17/15 19:04	1
Arsenic	8.4		0.55	0.25	mg/Kg	☼	06/16/15 17:41	06/17/15 19:04	1
Barium	47		0.55	0.10	mg/Kg	☼	06/16/15 17:41	06/17/15 19:04	1
Beryllium	0.57		0.22	0.047	mg/Kg	☼	06/16/15 17:41	06/17/15 19:04	1
Boron	10		2.7	0.38	mg/Kg	☼	06/16/15 17:41	06/17/15 19:04	1
Cadmium	0.36		0.11	0.032	mg/Kg	☼	06/16/15 17:41	06/17/15 19:04	1
Calcium	62000		55	18	mg/Kg	☼	06/16/15 17:41	06/18/15 14:41	5
Chromium	16		0.55	0.094	mg/Kg	☼	06/16/15 17:41	06/17/15 19:04	1
Cobalt	12		0.27	0.062	mg/Kg	☼	06/16/15 17:41	06/17/15 19:04	1
Copper	27 B		0.55	0.12	mg/Kg	☼	06/16/15 17:41	06/17/15 19:04	1
Iron	18000		11	4.2	mg/Kg	☼	06/16/15 17:41	06/17/15 19:04	1
Lead	23		0.27	0.14	mg/Kg	☼	06/16/15 17:41	06/17/15 19:04	1
Magnesium	26000		5.5	2.2	mg/Kg	☼	06/16/15 17:41	06/17/15 19:04	1
Manganese	360		0.55	0.11	mg/Kg	☼	06/16/15 17:41	06/17/15 19:04	1
Nickel	29		0.55	0.15	mg/Kg	☼	06/16/15 17:41	06/17/15 19:04	1
Potassium	1900		27	4.4	mg/Kg	☼	06/16/15 17:41	06/17/15 19:04	1
Selenium	0.30 J		0.55	0.27	mg/Kg	☼	06/16/15 17:41	06/17/15 19:04	1
Silver	<0.27		0.27	0.064	mg/Kg	☼	06/16/15 17:41	06/17/15 19:04	1
Sodium	990		55	7.2	mg/Kg	☼	06/16/15 17:41	06/17/15 19:04	1
Thallium	<0.55		0.55	0.27	mg/Kg	☼	06/16/15 17:41	06/17/15 19:04	1
Vanadium	17		0.27	0.080	mg/Kg	☼	06/16/15 17:41	06/17/15 19:04	1
Zinc	77 B		1.1	0.35	mg/Kg	☼	06/16/15 17:41	06/18/15 13:57	1

Method: 7471B - Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.048		0.017	0.0059	mg/Kg	☼	06/15/15 13:00	06/17/15 09:08	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97344-2

Client Sample ID: 1860-52-B02 (10-12)

Lab Sample ID: 500-97344-12

Date Collected: 06/12/15 10:35

Matrix: Solid

Date Received: 06/13/15 07:30

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		06/16/15 09:34	06/16/15 19:52	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		06/16/15 09:34	06/16/15 19:52	1
Boron	0.84		0.50	0.050	mg/L		06/16/15 09:34	06/17/15 15:41	1
Cadmium	0.0023	J	0.0050	0.0020	mg/L		06/16/15 09:34	06/16/15 19:52	1
Chromium	<0.025		0.025	0.010	mg/L		06/16/15 09:34	06/16/15 19:52	1
Cobalt	0.024	J	0.025	0.010	mg/L		06/16/15 09:34	06/16/15 19:52	1
Iron	<0.20		0.20	0.20	mg/L		06/16/15 09:34	06/16/15 19:52	1
Lead	<0.0075		0.0075	0.0075	mg/L		06/16/15 09:34	06/16/15 19:52	1
Manganese	6.1		0.025	0.010	mg/L		06/16/15 09:34	06/16/15 19:52	1
Nickel	0.021	J	0.025	0.010	mg/L		06/16/15 09:34	06/16/15 19:52	1
Selenium	0.021	J	0.050	0.020	mg/L		06/16/15 09:34	06/16/15 19:52	1
Silver	<0.025		0.025	0.010	mg/L		06/16/15 09:34	06/16/15 19:52	1
Zinc	0.033	J	0.10	0.020	mg/L		06/16/15 09:34	06/16/15 19:52	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.11		0.025	0.010	mg/L		06/23/15 14:00	06/24/15 12:30	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		06/16/15 09:34	06/17/15 15:50	1
Thallium	<0.0020		0.0020	0.0020	mg/L		06/16/15 09:34	06/17/15 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		06/15/15 11:30	06/16/15 11:38	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.32		0.200	0.200	SU			06/16/15 11:48	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97344-2

Client Sample ID: 1860-52-B02 (10-12)

Lab Sample ID: 500-97344-12

Date Collected: 06/12/15 10:35

Matrix: Solid

Date Received: 06/13/15 07:30

Percent Solids: 79.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	0.027		0.0050	0.0039	mg/Kg	☼	06/13/15 09:45	06/17/15 19:51	1
Benzene	<0.0050		0.0050	0.0011	mg/Kg	☼	06/13/15 09:45	06/17/15 19:51	1
Bromodichloromethane	<0.0050		0.0050	0.00085	mg/Kg	☼	06/13/15 09:45	06/17/15 19:51	1
Bromoform	<0.0050		0.0050	0.0010	mg/Kg	☼	06/13/15 09:45	06/17/15 19:51	1
Bromomethane	<0.0050		0.0050	0.0019	mg/Kg	☼	06/13/15 09:45	06/17/15 19:51	1
2-Butanone (MEK)	<0.0050		0.0050	0.0018	mg/Kg	☼	06/13/15 09:45	06/17/15 19:51	1
Carbon disulfide	<0.0050		0.0050	0.0019	mg/Kg	☼	06/13/15 09:45	06/17/15 19:51	1
Carbon tetrachloride	<0.0050		0.0050	0.0011	mg/Kg	☼	06/13/15 09:45	06/17/15 19:51	1
Chlorobenzene	<0.0050		0.0050	0.0012	mg/Kg	☼	06/13/15 09:45	06/17/15 19:51	1
Chloroethane	<0.0050		0.0050	0.0021	mg/Kg	☼	06/13/15 09:45	06/17/15 19:51	1
Chloroform	<0.0050		0.0050	0.00098	mg/Kg	☼	06/13/15 09:45	06/17/15 19:51	1
Chloromethane	<0.0050		0.0050	0.0012	mg/Kg	☼	06/13/15 09:45	06/17/15 19:51	1
cis-1,2-Dichloroethene	<0.0050		0.0050	0.0010	mg/Kg	☼	06/13/15 09:45	06/17/15 19:51	1
cis-1,3-Dichloropropene	<0.0050		0.0050	0.0012	mg/Kg	☼	06/13/15 09:45	06/17/15 19:51	1
Dibromochloromethane	<0.0050		0.0050	0.00058	mg/Kg	☼	06/13/15 09:45	06/17/15 19:51	1
1,1-Dichloroethane	<0.0050		0.0050	0.0010	mg/Kg	☼	06/13/15 09:45	06/17/15 19:51	1
1,2-Dichloroethane	<0.0050		0.0050	0.00075	mg/Kg	☼	06/13/15 09:45	06/17/15 19:51	1
1,1-Dichloroethene	<0.0050		0.0050	0.0018	mg/Kg	☼	06/13/15 09:45	06/17/15 19:51	1
1,2-Dichloropropane	<0.0050		0.0050	0.0013	mg/Kg	☼	06/13/15 09:45	06/17/15 19:51	1
1,3-Dichloropropene, Total	<0.0050		0.0050	0.0014	mg/Kg	☼	06/13/15 09:45	06/17/15 19:51	1
Ethylbenzene	<0.0050		0.0050	0.0013	mg/Kg	☼	06/13/15 09:45	06/17/15 19:51	1
2-Hexanone	<0.0050		0.0050	0.0016	mg/Kg	☼	06/13/15 09:45	06/17/15 19:51	1
Methylene Chloride	<0.0050		0.0050	0.0038	mg/Kg	☼	06/13/15 09:45	06/17/15 19:51	1
4-Methyl-2-pentanone (MIBK)	<0.0050		0.0050	0.0010	mg/Kg	☼	06/13/15 09:45	06/17/15 19:51	1
Methyl tert-butyl ether	<0.0050		0.0050	0.0012	mg/Kg	☼	06/13/15 09:45	06/17/15 19:51	1
Styrene	<0.0050		0.0050	0.0012	mg/Kg	☼	06/13/15 09:45	06/17/15 19:51	1
1,1,2,2-Tetrachloroethane	<0.0050		0.0050	0.00080	mg/Kg	☼	06/13/15 09:45	06/17/15 19:51	1
Tetrachloroethene	<0.0050		0.0050	0.0010	mg/Kg	☼	06/13/15 09:45	06/17/15 19:51	1
Toluene	<0.0050		0.0050	0.0018	mg/Kg	☼	06/13/15 09:45	06/17/15 19:51	1
trans-1,2-Dichloroethene	<0.0050		0.0050	0.0013	mg/Kg	☼	06/13/15 09:45	06/17/15 19:51	1
trans-1,3-Dichloropropene	<0.0050		0.0050	0.0014	mg/Kg	☼	06/13/15 09:45	06/17/15 19:51	1
1,1,1-Trichloroethane	<0.0050		0.0050	0.0012	mg/Kg	☼	06/13/15 09:45	06/17/15 19:51	1
1,1,2-Trichloroethane	<0.0050		0.0050	0.00098	mg/Kg	☼	06/13/15 09:45	06/17/15 19:51	1
Trichloroethene	<0.0050		0.0050	0.0014	mg/Kg	☼	06/13/15 09:45	06/17/15 19:51	1
Vinyl acetate	<0.0050		0.0050	0.0014	mg/Kg	☼	06/13/15 09:45	06/17/15 19:51	1
Vinyl chloride	<0.0050		0.0050	0.0012	mg/Kg	☼	06/13/15 09:45	06/17/15 19:51	1
Xylenes, Total	<0.010		0.010	0.0019	mg/Kg	☼	06/13/15 09:45	06/17/15 19:51	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102		70 - 122	06/13/15 09:45	06/17/15 19:51	1
Dibromofluoromethane	113		75 - 120	06/13/15 09:45	06/17/15 19:51	1
1,2-Dichloroethane-d4 (Surr)	111		70 - 134	06/13/15 09:45	06/17/15 19:51	1
Toluene-d8 (Surr)	109		75 - 122	06/13/15 09:45	06/17/15 19:51	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	☼	06/23/15 07:29	06/25/15 08:23	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.061	mg/Kg	☼	06/23/15 07:29	06/25/15 08:23	1
1,3-Dichlorobenzene	<0.20		0.20	0.046	mg/Kg	☼	06/23/15 07:29	06/25/15 08:23	1
1,4-Dichlorobenzene	<0.20		0.20	0.052	mg/Kg	☼	06/23/15 07:29	06/25/15 08:23	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97344-2

Client Sample ID: 1860-52-B02 (10-12)

Lab Sample ID: 500-97344-12

Date Collected: 06/12/15 10:35

Matrix: Solid

Date Received: 06/13/15 07:30

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	0.048	mg/Kg	☼	06/23/15 07:29	06/25/15 08:23	1
2-Methylphenol	<0.20	*	0.20	0.065	mg/Kg	☼	06/23/15 07:29	06/25/15 08:23	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.047	mg/Kg	☼	06/23/15 07:29	06/25/15 08:23	1
N-Nitrosodi-n-propylamine	<0.20		0.20	0.050	mg/Kg	☼	06/23/15 07:29	06/25/15 08:23	1
Hexachloroethane	<0.20		0.20	0.062	mg/Kg	☼	06/23/15 07:29	06/25/15 08:23	1
2-Chlorophenol	<0.20		0.20	0.069	mg/Kg	☼	06/23/15 07:29	06/25/15 08:23	1
Nitrobenzene	<0.040		0.040	0.010	mg/Kg	☼	06/23/15 07:29	06/25/15 08:23	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.041	mg/Kg	☼	06/23/15 07:29	06/25/15 08:23	1
1,2,4-Trichlorobenzene	<0.20		0.20	0.044	mg/Kg	☼	06/23/15 07:29	06/25/15 08:23	1
Isophorone	<0.20		0.20	0.046	mg/Kg	☼	06/23/15 07:29	06/25/15 08:23	1
2,4-Dimethylphenol	<0.40		0.40	0.15	mg/Kg	☼	06/23/15 07:29	06/25/15 08:23	1
Hexachlorobutadiene	<0.20		0.20	0.064	mg/Kg	☼	06/23/15 07:29	06/25/15 08:23	1
Naphthalene	0.015	J	0.040	0.0062	mg/Kg	☼	06/23/15 07:29	06/25/15 08:23	1
2,4-Dichlorophenol	<0.40		0.40	0.096	mg/Kg	☼	06/23/15 07:29	06/25/15 08:23	1
4-Chloroaniline	<0.82		0.82	0.19	mg/Kg	☼	06/23/15 07:29	06/25/15 08:23	1
2,4,6-Trichlorophenol	<0.40		0.40	0.14	mg/Kg	☼	06/23/15 07:29	06/25/15 08:23	1
2,4,5-Trichlorophenol	<0.40		0.40	0.093	mg/Kg	☼	06/23/15 07:29	06/25/15 08:23	1
Hexachlorocyclopentadiene	<0.82		0.82	0.23	mg/Kg	☼	06/23/15 07:29	06/25/15 08:23	1
2-Methylnaphthalene	0.040		0.040	0.0075	mg/Kg	☼	06/23/15 07:29	06/25/15 08:23	1
2-Nitroaniline	<0.20		0.20	0.055	mg/Kg	☼	06/23/15 07:29	06/25/15 08:23	1
2-Chloronaphthalene	<0.20		0.20	0.045	mg/Kg	☼	06/23/15 07:29	06/25/15 08:23	1
4-Chloro-3-methylphenol	<0.40		0.40	0.14	mg/Kg	☼	06/23/15 07:29	06/25/15 08:23	1
2,6-Dinitrotoluene	<0.20		0.20	0.080	mg/Kg	☼	06/23/15 07:29	06/25/15 08:23	1
2-Nitrophenol	<0.40		0.40	0.096	mg/Kg	☼	06/23/15 07:29	06/25/15 08:23	1
3-Nitroaniline	<0.40		0.40	0.13	mg/Kg	☼	06/23/15 07:29	06/25/15 08:23	1
Dimethyl phthalate	<0.20		0.20	0.053	mg/Kg	☼	06/23/15 07:29	06/25/15 08:23	1
2,4-Dinitrophenol	<0.82		0.82	0.71	mg/Kg	☼	06/23/15 07:29	06/25/15 08:23	1
Acenaphthylene	<0.040		0.040	0.0053	mg/Kg	☼	06/23/15 07:29	06/25/15 08:23	1
2,4-Dinitrotoluene	<0.20		0.20	0.064	mg/Kg	☼	06/23/15 07:29	06/25/15 08:23	1
Acenaphthene	0.018	J	0.040	0.0073	mg/Kg	☼	06/23/15 07:29	06/25/15 08:23	1
Dibenzofuran	<0.20		0.20	0.048	mg/Kg	☼	06/23/15 07:29	06/25/15 08:23	1
4-Nitrophenol	<0.82		0.82	0.39	mg/Kg	☼	06/23/15 07:29	06/25/15 08:23	1
Fluorene	0.022	J	0.040	0.0057	mg/Kg	☼	06/23/15 07:29	06/25/15 08:23	1
4-Nitroaniline	<0.40		0.40	0.17	mg/Kg	☼	06/23/15 07:29	06/25/15 08:23	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.053	mg/Kg	☼	06/23/15 07:29	06/25/15 08:23	1
Hexachlorobenzene	<0.082		0.082	0.0094	mg/Kg	☼	06/23/15 07:29	06/25/15 08:23	1
Diethyl phthalate	<0.20		0.20	0.069	mg/Kg	☼	06/23/15 07:29	06/25/15 08:23	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.047	mg/Kg	☼	06/23/15 07:29	06/25/15 08:23	1
Pentachlorophenol	<0.82		0.82	0.65	mg/Kg	☼	06/23/15 07:29	06/25/15 08:23	1
N-Nitrosodiphenylamine	<0.20		0.20	0.048	mg/Kg	☼	06/23/15 07:29	06/25/15 08:23	1
4,6-Dinitro-2-methylphenol	<0.40		0.40	0.33	mg/Kg	☼	06/23/15 07:29	06/25/15 08:23	1
Phenanthrene	0.15		0.040	0.0057	mg/Kg	☼	06/23/15 07:29	06/25/15 08:23	1
Anthracene	0.041		0.040	0.0068	mg/Kg	☼	06/23/15 07:29	06/25/15 08:23	1
Carbazole	<0.20		0.20	0.10	mg/Kg	☼	06/23/15 07:29	06/25/15 08:23	1
Di-n-butyl phthalate	<0.20		0.20	0.062	mg/Kg	☼	06/23/15 07:29	06/25/15 08:23	1
Fluoranthene	0.091		0.040	0.0075	mg/Kg	☼	06/23/15 07:29	06/25/15 08:23	1
Pyrene	0.14		0.040	0.0081	mg/Kg	☼	06/23/15 07:29	06/25/15 08:23	1
Butyl benzyl phthalate	<0.20		0.20	0.077	mg/Kg	☼	06/23/15 07:29	06/25/15 08:23	1
Benzo[a]anthracene	0.041		0.040	0.0055	mg/Kg	☼	06/23/15 07:29	06/25/15 08:23	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97344-2

Client Sample ID: 1860-52-B02 (10-12)

Lab Sample ID: 500-97344-12

Date Collected: 06/12/15 10:35

Matrix: Solid

Date Received: 06/13/15 07:30

Percent Solids: 79.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.056		0.040	0.011	mg/Kg	☼	06/23/15 07:29	06/25/15 08:23	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.057	mg/Kg	☼	06/23/15 07:29	06/25/15 08:23	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.074	mg/Kg	☼	06/23/15 07:29	06/25/15 08:23	1
Di-n-octyl phthalate	<0.20		0.20	0.066	mg/Kg	☼	06/23/15 07:29	06/25/15 08:23	1
Benzo[b]fluoranthene	<0.040	*	0.040	0.0088	mg/Kg	☼	06/23/15 07:29	06/25/15 08:23	1
Benzo[k]fluoranthene	<0.040		0.040	0.012	mg/Kg	☼	06/23/15 07:29	06/25/15 08:23	1
Benzo[a]pyrene	0.038	J B	0.040	0.0079	mg/Kg	☼	06/23/15 07:29	06/25/15 08:23	1
Indeno[1,2,3-cd]pyrene	0.020	J	0.040	0.011	mg/Kg	☼	06/23/15 07:29	06/25/15 08:23	1
Dibenz(a,h)anthracene	<0.040		0.040	0.0078	mg/Kg	☼	06/23/15 07:29	06/25/15 08:23	1
Benzo[g,h,i]perylene	0.027	J	0.040	0.013	mg/Kg	☼	06/23/15 07:29	06/25/15 08:23	1
3 & 4 Methylphenol	<0.20		0.20	0.068	mg/Kg	☼	06/23/15 07:29	06/25/15 08:23	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	70		25 - 110	06/23/15 07:29	06/25/15 08:23	1
Phenol-d5	63		31 - 110	06/23/15 07:29	06/25/15 08:23	1
Nitrobenzene-d5	61		25 - 115	06/23/15 07:29	06/25/15 08:23	1
2-Fluorobiphenyl	65		25 - 119	06/23/15 07:29	06/25/15 08:23	1
2,4,6-Tribromophenol	76		35 - 137	06/23/15 07:29	06/25/15 08:23	1
Terphenyl-d14	120		36 - 134	06/23/15 07:29	06/25/15 08:23	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.2		1.2	0.25	mg/Kg	☼	06/16/15 17:41	06/17/15 19:16	1
Arsenic	8.9		0.61	0.28	mg/Kg	☼	06/16/15 17:41	06/17/15 19:16	1
Barium	56		0.61	0.11	mg/Kg	☼	06/16/15 17:41	06/17/15 19:16	1
Beryllium	0.75		0.24	0.053	mg/Kg	☼	06/16/15 17:41	06/17/15 19:16	1
Boron	13		3.0	0.42	mg/Kg	☼	06/16/15 17:41	06/17/15 19:16	1
Cadmium	0.18		0.12	0.035	mg/Kg	☼	06/16/15 17:41	06/17/15 19:16	1
Calcium	54000		61	20	mg/Kg	☼	06/16/15 17:41	06/18/15 14:45	5
Chromium	20		0.61	0.10	mg/Kg	☼	06/16/15 17:41	06/17/15 19:16	1
Cobalt	18		0.30	0.069	mg/Kg	☼	06/16/15 17:41	06/17/15 19:16	1
Copper	29	B	0.61	0.13	mg/Kg	☼	06/16/15 17:41	06/17/15 19:16	1
Iron	23000		12	4.7	mg/Kg	☼	06/16/15 17:41	06/17/15 19:16	1
Lead	17		0.30	0.15	mg/Kg	☼	06/16/15 17:41	06/17/15 19:16	1
Magnesium	23000		6.1	2.5	mg/Kg	☼	06/16/15 17:41	06/17/15 19:16	1
Manganese	390		0.61	0.12	mg/Kg	☼	06/16/15 17:41	06/17/15 19:16	1
Nickel	43		0.61	0.16	mg/Kg	☼	06/16/15 17:41	06/17/15 19:16	1
Potassium	2700		30	5.0	mg/Kg	☼	06/16/15 17:41	06/17/15 19:16	1
Selenium	0.51	J	0.61	0.30	mg/Kg	☼	06/16/15 17:41	06/17/15 19:16	1
Silver	<0.30		0.30	0.071	mg/Kg	☼	06/16/15 17:41	06/17/15 19:16	1
Sodium	260		61	8.0	mg/Kg	☼	06/16/15 17:41	06/17/15 19:16	1
Thallium	<0.61		0.61	0.30	mg/Kg	☼	06/16/15 17:41	06/17/15 19:16	1
Vanadium	23		0.30	0.089	mg/Kg	☼	06/16/15 17:41	06/17/15 19:16	1
Zinc	70	B	1.2	0.38	mg/Kg	☼	06/16/15 17:41	06/18/15 14:02	1

Method: 7471B - Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.031		0.018	0.0064	mg/Kg	☼	06/15/15 13:00	06/17/15 09:10	1

TestAmerica Chicago

Definitions/Glossary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97344-2

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.
B	Compound was found in the blank and sample.
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.
^	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, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
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
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)

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 #: 500-97344

Chain of Custody Number: _____

Page _____ of _____

Temperature °C of Cooler: _____

Client		Client Project #		Preservative		Parameter					Preservative Key			
Project Name		Lab Project #		Parameter										
Project Location/State		Lab Project #		Parameter							Comments			
Sampler		Lab #		Parameter										
Lab ID	MS/MSD	Sample ID	Sampling		# of Containers	Matrix								
			Date	Time										
EE		1009008-0031-01												
FL 151														
Cook County, IL														
S. Cooper														
11		1860-52-302 (2-4)	6-12-15	1030	2	S	VOC	SVEC	TOTAL TA	Metals	TURBIDITY	TAC metals	PH/% s.i.d.	
12		1860-52-302 (10-12)	6-12-15	1035	2	S	VOC	SVEC	TOTAL TA	Metals	TURBIDITY	TAC metals	PH/% s.i.d.	
<i>[Large handwritten signature and date 6-12-15]</i>														

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>[Signature]</i>	Company: <u>EE</u>	Date: <u>6-12-15</u>	Time: <u>1518</u>	Received By: <i>[Signature]</i>	Company: <u>TA</u>	Date: <u>6/12/15</u>	Time: <u>1518</u>
Relinquished By: <i>[Signature]</i>	Company: <u>TA</u>	Date: <u>6/12/15</u>	Time: <u>1710</u>	Received By: <i>[Signature]</i>	Company: <u>TA-CHI</u>	Date: <u>6/13/15</u>	Time: <u>0730</u>

Lab Courier: TA

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 - Wipes
 - DW - Drinking Water
 - O - Other

Client Comments:

Lab Comments:

Login Sample Receipt Checklist

Client: Ecology and Environment, Inc.

Job Number: 500-97344-2

Login Number: 97344
List Number: 1
Creator: Scott, Sherri L

List Source: TestAmerica Chicago

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	2.9,3.2
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.	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: 500-97428-2
Client Project/Site: IDOT - IL 171 - WO 031

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

Attn: Mr. Dean Tiebout



Authorized for release by:
6/30/2015 3:33:49 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

8

9



Table of Contents

Cover Page	1
Table of Contents	2
Case Narrative	3
Detection Summary	4
Sample Summary	5
Client Sample Results	6
Definitions	10
Chain of Custody	11
Receipt Checklists	12

Case Narrative

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97428-2

Job ID: 500-97428-2

Laboratory: TestAmerica Chicago

Narrative

Job Narrative 500-97428-2

Receipt

The samples were received on 6/16/2015 4:20 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.3° C.

GC/MS VOA

Method(s) 8260B: The following analyte recovered outside control limits for the LCS associated with 500-292392: Bromomethane. This is not indicative of a systematic control problem because these was a random marginal exceedance. 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) 3541: A full list spike was utilized for this method. Due to the large number of spiked analytes, there is a high probability that one or more analytes will recover outside acceptance limits. The laboratory's SOP allows for 3 analytes to recover outside criteria for this method when a full list spike is utilized. The LCS associated with batch 293223 had 1 analyte outside control limits: Benzo[b]fluoranthene; therefore, corrective action was not performed. These results have been reported and qualified. 1860-52-B03 (6-7) (500-97428-7)

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 500-292716 recovered above the upper control limit for Zinc. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The following sample is impacted: 1860-52-B03 (6-7) (500-97428-7).

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 - IL 171 - WO 031

TestAmerica Job ID: 500-97428-2

Client Sample ID: 1860-52-B03 (6-7)

Lab Sample ID: 500-97428-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	0.012		0.0042	0.0033	mg/Kg	1	☼	8260B	Total/NA
Acenaphthene	0.032	J	0.039	0.0071	mg/Kg	1	☼	8270D	Total/NA
Fluorene	0.037	J	0.039	0.0055	mg/Kg	1	☼	8270D	Total/NA
Phenanthrene	0.30		0.039	0.0055	mg/Kg	1	☼	8270D	Total/NA
Anthracene	0.13		0.039	0.0066	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.65		0.039	0.0073	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.41		0.039	0.0078	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.31		0.039	0.0053	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.26		0.039	0.011	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.35	*	0.039	0.0085	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.18		0.039	0.012	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.23		0.039	0.0076	mg/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.14		0.039	0.010	mg/Kg	1	☼	8270D	Total/NA
Dibenz(a,h)anthracene	0.051		0.039	0.0076	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.14		0.039	0.013	mg/Kg	1	☼	8270D	Total/NA
Antimony	0.25	J	1.1	0.23	mg/Kg	1	☼	6010B	Total/NA
Arsenic	5.1		0.56	0.26	mg/Kg	1	☼	6010B	Total/NA
Barium	43		0.56	0.10	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.45		0.23	0.049	mg/Kg	1	☼	6010B	Total/NA
Boron	4.5		2.8	0.39	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.14		0.11	0.033	mg/Kg	1	☼	6010B	Total/NA
Calcium	47000		56	18	mg/Kg	5	☼	6010B	Total/NA
Chromium	12		0.56	0.097	mg/Kg	1	☼	6010B	Total/NA
Cobalt	11		0.28	0.064	mg/Kg	1	☼	6010B	Total/NA
Copper	17		0.56	0.12	mg/Kg	1	☼	6010B	Total/NA
Iron	17000		11	4.3	mg/Kg	1	☼	6010B	Total/NA
Lead	13		0.28	0.14	mg/Kg	1	☼	6010B	Total/NA
Magnesium	23000		5.6	2.3	mg/Kg	1	☼	6010B	Total/NA
Manganese	450		0.56	0.11	mg/Kg	1	☼	6010B	Total/NA
Nickel	23		0.56	0.15	mg/Kg	1	☼	6010B	Total/NA
Potassium	1000		28	4.6	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.28	J	0.56	0.28	mg/Kg	1	☼	6010B	Total/NA
Sodium	690		56	7.4	mg/Kg	1	☼	6010B	Total/NA
Vanadium	15		0.28	0.082	mg/Kg	1	☼	6010B	Total/NA
Zinc	55	B	1.1	0.36	mg/Kg	1	☼	6010B	Total/NA
Barium	0.34	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.50		0.50	0.050	mg/L	1		6010B	TCLP
Cadmium	0.0035	J	0.0050	0.0020	mg/L	1		6010B	TCLP
Cobalt	0.042		0.025	0.010	mg/L	1		6010B	TCLP
Manganese	12		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.032		0.025	0.010	mg/L	1		6010B	TCLP
Selenium	0.032	J	0.050	0.020	mg/L	1		6010B	TCLP
Zinc	0.076	J B ^	0.10	0.020	mg/L	1		6010B	TCLP
Manganese	0.11		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.026		0.018	0.0064	mg/Kg	1	☼	7471B	Total/NA
pH	7.93		0.200	0.200	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 - IL 171 - WO 031

TestAmerica Job ID: 500-97428-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-97428-7	1860-52-B03 (6-7)	Solid	06/16/15 14:20	06/16/15 16:20

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97428-2

Client Sample ID: 1860-52-B03 (6-7)

Lab Sample ID: 500-97428-7

Date Collected: 06/16/15 14:20

Matrix: Solid

Date Received: 06/16/15 16:20

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.34	J	0.50	0.050	mg/L		06/19/15 09:15	06/19/15 22:55	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		06/19/15 09:15	06/19/15 22:55	1
Boron	0.50		0.50	0.050	mg/L		06/19/15 09:15	06/19/15 22:55	1
Cadmium	0.0035	J	0.0050	0.0020	mg/L		06/19/15 09:15	06/19/15 22:55	1
Chromium	<0.025		0.025	0.010	mg/L		06/19/15 09:15	06/19/15 22:55	1
Cobalt	0.042		0.025	0.010	mg/L		06/19/15 09:15	06/19/15 22:55	1
Iron	<0.20		0.20	0.20	mg/L		06/19/15 09:15	06/19/15 22:55	1
Lead	<0.0075		0.0075	0.0075	mg/L		06/19/15 09:15	06/19/15 22:55	1
Manganese	12		0.025	0.010	mg/L		06/19/15 09:15	06/19/15 22:55	1
Nickel	0.032		0.025	0.010	mg/L		06/19/15 09:15	06/19/15 22:55	1
Selenium	0.032	J	0.050	0.020	mg/L		06/19/15 09:15	06/20/15 16:41	1
Silver	<0.025		0.025	0.010	mg/L		06/19/15 09:15	06/19/15 22:55	1
Zinc	0.076	J B ^	0.10	0.020	mg/L		06/19/15 09:15	06/19/15 22:55	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.11		0.025	0.010	mg/L		06/24/15 08:40	06/24/15 17:30	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		06/19/15 09:15	06/22/15 18:02	1
Thallium	<0.0020		0.0020	0.0020	mg/L		06/19/15 09:15	06/22/15 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		06/19/15 12:15	06/22/15 13:16	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.93		0.200	0.200	SU			06/18/15 11:20	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97428-2

Client Sample ID: 1860-52-B03 (6-7)

Lab Sample ID: 500-97428-7

Date Collected: 06/16/15 14:20

Matrix: Solid

Date Received: 06/16/15 16:20

Percent Solids: 83.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	0.012		0.0042	0.0033	mg/Kg	☼	06/17/15 09:40	06/18/15 16:21	1
Benzene	<0.0042		0.0042	0.00093	mg/Kg	☼	06/17/15 09:40	06/18/15 16:21	1
Bromodichloromethane	<0.0042		0.0042	0.00071	mg/Kg	☼	06/17/15 09:40	06/18/15 16:21	1
Bromoform	<0.0042		0.0042	0.00086	mg/Kg	☼	06/17/15 09:40	06/18/15 16:21	1
Bromomethane	<0.0042 *		0.0042	0.0015	mg/Kg	☼	06/17/15 09:40	06/18/15 16:21	1
2-Butanone (MEK)	<0.0042		0.0042	0.0015	mg/Kg	☼	06/17/15 09:40	06/18/15 16:21	1
Carbon disulfide	<0.0042		0.0042	0.0015	mg/Kg	☼	06/17/15 09:40	06/18/15 16:21	1
Carbon tetrachloride	<0.0042		0.0042	0.00090	mg/Kg	☼	06/17/15 09:40	06/18/15 16:21	1
Chlorobenzene	<0.0042		0.0042	0.00099	mg/Kg	☼	06/17/15 09:40	06/18/15 16:21	1
Chloroethane	<0.0042		0.0042	0.0018	mg/Kg	☼	06/17/15 09:40	06/18/15 16:21	1
Chloroform	<0.0042		0.0042	0.00082	mg/Kg	☼	06/17/15 09:40	06/18/15 16:21	1
Chloromethane	<0.0042		0.0042	0.0010	mg/Kg	☼	06/17/15 09:40	06/18/15 16:21	1
cis-1,2-Dichloroethene	<0.0042		0.0042	0.00086	mg/Kg	☼	06/17/15 09:40	06/18/15 16:21	1
cis-1,3-Dichloropropene	<0.0042		0.0042	0.00096	mg/Kg	☼	06/17/15 09:40	06/18/15 16:21	1
Dibromochloromethane	<0.0042		0.0042	0.00048	mg/Kg	☼	06/17/15 09:40	06/18/15 16:21	1
1,1-Dichloroethane	<0.0042		0.0042	0.00087	mg/Kg	☼	06/17/15 09:40	06/18/15 16:21	1
1,2-Dichloroethane	<0.0042		0.0042	0.00062	mg/Kg	☼	06/17/15 09:40	06/18/15 16:21	1
1,1-Dichloroethene	<0.0042		0.0042	0.0015	mg/Kg	☼	06/17/15 09:40	06/18/15 16:21	1
1,2-Dichloropropane	<0.0042		0.0042	0.0011	mg/Kg	☼	06/17/15 09:40	06/18/15 16:21	1
1,3-Dichloropropane, Total	<0.0042		0.0042	0.0012	mg/Kg	☼	06/17/15 09:40	06/18/15 16:21	1
Ethylbenzene	<0.0042		0.0042	0.0010	mg/Kg	☼	06/17/15 09:40	06/18/15 16:21	1
2-Hexanone	<0.0042		0.0042	0.0013	mg/Kg	☼	06/17/15 09:40	06/18/15 16:21	1
Methylene Chloride	<0.0042		0.0042	0.0032	mg/Kg	☼	06/17/15 09:40	06/18/15 16:21	1
4-Methyl-2-pentanone (MIBK)	<0.0042		0.0042	0.00087	mg/Kg	☼	06/17/15 09:40	06/18/15 16:21	1
Methyl tert-butyl ether	<0.0042		0.0042	0.00099	mg/Kg	☼	06/17/15 09:40	06/18/15 16:21	1
Styrene	<0.0042		0.0042	0.00098	mg/Kg	☼	06/17/15 09:40	06/18/15 16:21	1
1,1,2,2-Tetrachloroethane	<0.0042		0.0042	0.00067	mg/Kg	☼	06/17/15 09:40	06/18/15 16:21	1
Tetrachloroethene	<0.0042		0.0042	0.00088	mg/Kg	☼	06/17/15 09:40	06/18/15 16:21	1
Toluene	<0.0042		0.0042	0.0015	mg/Kg	☼	06/17/15 09:40	06/18/15 16:21	1
trans-1,2-Dichloroethene	<0.0042		0.0042	0.0011	mg/Kg	☼	06/17/15 09:40	06/18/15 16:21	1
trans-1,3-Dichloropropene	<0.0042		0.0042	0.0012	mg/Kg	☼	06/17/15 09:40	06/18/15 16:21	1
1,1,1-Trichloroethane	<0.0042		0.0042	0.00098	mg/Kg	☼	06/17/15 09:40	06/18/15 16:21	1
1,1,2-Trichloroethane	<0.0042		0.0042	0.00081	mg/Kg	☼	06/17/15 09:40	06/18/15 16:21	1
Trichloroethene	<0.0042		0.0042	0.0011	mg/Kg	☼	06/17/15 09:40	06/18/15 16:21	1
Vinyl acetate	<0.0042		0.0042	0.0011	mg/Kg	☼	06/17/15 09:40	06/18/15 16:21	1
Vinyl chloride	<0.0042		0.0042	0.0010	mg/Kg	☼	06/17/15 09:40	06/18/15 16:21	1
Xylenes, Total	<0.0084		0.0084	0.0016	mg/Kg	☼	06/17/15 09:40	06/18/15 16:21	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	105		70 - 122	06/17/15 09:40	06/18/15 16:21	1
Dibromofluoromethane	111		75 - 120	06/17/15 09:40	06/18/15 16:21	1
1,2-Dichloroethane-d4 (Surr)	115		70 - 134	06/17/15 09:40	06/18/15 16:21	1
Toluene-d8 (Surr)	110		75 - 122	06/17/15 09:40	06/18/15 16:21	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	☼	06/24/15 18:34	06/25/15 19:09	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.059	mg/Kg	☼	06/24/15 18:34	06/25/15 19:09	1
1,3-Dichlorobenzene	<0.20		0.20	0.044	mg/Kg	☼	06/24/15 18:34	06/25/15 19:09	1
1,4-Dichlorobenzene	<0.20		0.20	0.050	mg/Kg	☼	06/24/15 18:34	06/25/15 19:09	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97428-2

Client Sample ID: 1860-52-B03 (6-7)

Lab Sample ID: 500-97428-7

Date Collected: 06/16/15 14:20

Matrix: Solid

Date Received: 06/16/15 16:20

Percent Solids: 83.8

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	☼	06/24/15 18:34	06/25/15 19:09	1
2-Methylphenol	<0.20		0.20	0.063	mg/Kg	☼	06/24/15 18:34	06/25/15 19:09	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.045	mg/Kg	☼	06/24/15 18:34	06/25/15 19:09	1
N-Nitrosodi-n-propylamine	<0.20		0.20	0.048	mg/Kg	☼	06/24/15 18:34	06/25/15 19:09	1
Hexachloroethane	<0.20		0.20	0.060	mg/Kg	☼	06/24/15 18:34	06/25/15 19:09	1
2-Chlorophenol	<0.20		0.20	0.067	mg/Kg	☼	06/24/15 18:34	06/25/15 19:09	1
Nitrobenzene	<0.039		0.039	0.0098	mg/Kg	☼	06/24/15 18:34	06/25/15 19:09	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.040	mg/Kg	☼	06/24/15 18:34	06/25/15 19:09	1
1,2,4-Trichlorobenzene	<0.20		0.20	0.042	mg/Kg	☼	06/24/15 18:34	06/25/15 19:09	1
Isophorone	<0.20		0.20	0.044	mg/Kg	☼	06/24/15 18:34	06/25/15 19:09	1
2,4-Dimethylphenol	<0.39		0.39	0.15	mg/Kg	☼	06/24/15 18:34	06/25/15 19:09	1
Hexachlorobutadiene	<0.20		0.20	0.062	mg/Kg	☼	06/24/15 18:34	06/25/15 19:09	1
Naphthalene	<0.039		0.039	0.0060	mg/Kg	☼	06/24/15 18:34	06/25/15 19:09	1
2,4-Dichlorophenol	<0.39		0.39	0.093	mg/Kg	☼	06/24/15 18:34	06/25/15 19:09	1
4-Chloroaniline	<0.79		0.79	0.18	mg/Kg	☼	06/24/15 18:34	06/25/15 19:09	1
2,4,6-Trichlorophenol	<0.39		0.39	0.13	mg/Kg	☼	06/24/15 18:34	06/25/15 19:09	1
2,4,5-Trichlorophenol	<0.39		0.39	0.090	mg/Kg	☼	06/24/15 18:34	06/25/15 19:09	1
Hexachlorocyclopentadiene	<0.79		0.79	0.23	mg/Kg	☼	06/24/15 18:34	06/25/15 19:09	1
2-Methylnaphthalene	<0.039		0.039	0.0072	mg/Kg	☼	06/24/15 18:34	06/25/15 19:09	1
2-Nitroaniline	<0.20		0.20	0.053	mg/Kg	☼	06/24/15 18:34	06/25/15 19:09	1
2-Chloronaphthalene	<0.20		0.20	0.043	mg/Kg	☼	06/24/15 18:34	06/25/15 19:09	1
4-Chloro-3-methylphenol	<0.39		0.39	0.13	mg/Kg	☼	06/24/15 18:34	06/25/15 19:09	1
2,6-Dinitrotoluene	<0.20		0.20	0.077	mg/Kg	☼	06/24/15 18:34	06/25/15 19:09	1
2-Nitrophenol	<0.39		0.39	0.093	mg/Kg	☼	06/24/15 18:34	06/25/15 19:09	1
3-Nitroaniline	<0.39		0.39	0.12	mg/Kg	☼	06/24/15 18:34	06/25/15 19:09	1
Dimethyl phthalate	<0.20		0.20	0.051	mg/Kg	☼	06/24/15 18:34	06/25/15 19:09	1
2,4-Dinitrophenol	<0.79		0.79	0.69	mg/Kg	☼	06/24/15 18:34	06/25/15 19:09	1
Acenaphthylene	<0.039		0.039	0.0052	mg/Kg	☼	06/24/15 18:34	06/25/15 19:09	1
2,4-Dinitrotoluene	<0.20		0.20	0.062	mg/Kg	☼	06/24/15 18:34	06/25/15 19:09	1
Acenaphthene	0.032	J	0.039	0.0071	mg/Kg	☼	06/24/15 18:34	06/25/15 19:09	1
Dibenzofuran	<0.20		0.20	0.046	mg/Kg	☼	06/24/15 18:34	06/25/15 19:09	1
4-Nitrophenol	<0.79		0.79	0.37	mg/Kg	☼	06/24/15 18:34	06/25/15 19:09	1
Fluorene	0.037	J	0.039	0.0055	mg/Kg	☼	06/24/15 18:34	06/25/15 19:09	1
4-Nitroaniline	<0.39		0.39	0.16	mg/Kg	☼	06/24/15 18:34	06/25/15 19:09	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.052	mg/Kg	☼	06/24/15 18:34	06/25/15 19:09	1
Hexachlorobenzene	<0.079		0.079	0.0091	mg/Kg	☼	06/24/15 18:34	06/25/15 19:09	1
Diethyl phthalate	<0.20		0.20	0.067	mg/Kg	☼	06/24/15 18:34	06/25/15 19:09	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.046	mg/Kg	☼	06/24/15 18:34	06/25/15 19:09	1
Pentachlorophenol	<0.79		0.79	0.63	mg/Kg	☼	06/24/15 18:34	06/25/15 19:09	1
N-Nitrosodiphenylamine	<0.20		0.20	0.046	mg/Kg	☼	06/24/15 18:34	06/25/15 19:09	1
4,6-Dinitro-2-methylphenol	<0.39		0.39	0.32	mg/Kg	☼	06/24/15 18:34	06/25/15 19:09	1
Phenanthrene	0.30		0.039	0.0055	mg/Kg	☼	06/24/15 18:34	06/25/15 19:09	1
Anthracene	0.13		0.039	0.0066	mg/Kg	☼	06/24/15 18:34	06/25/15 19:09	1
Carbazole	<0.20		0.20	0.10	mg/Kg	☼	06/24/15 18:34	06/25/15 19:09	1
Di-n-butyl phthalate	<0.20		0.20	0.060	mg/Kg	☼	06/24/15 18:34	06/25/15 19:09	1
Fluoranthene	0.65		0.039	0.0073	mg/Kg	☼	06/24/15 18:34	06/25/15 19:09	1
Pyrene	0.41		0.039	0.0078	mg/Kg	☼	06/24/15 18:34	06/25/15 19:09	1
Butyl benzyl phthalate	<0.20		0.20	0.075	mg/Kg	☼	06/24/15 18:34	06/25/15 19:09	1
Benzo[a]anthracene	0.31		0.039	0.0053	mg/Kg	☼	06/24/15 18:34	06/25/15 19:09	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97428-2

Client Sample ID: 1860-52-B03 (6-7)

Lab Sample ID: 500-97428-7

Date Collected: 06/16/15 14:20

Matrix: Solid

Date Received: 06/16/15 16:20

Percent Solids: 83.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.26		0.039	0.011	mg/Kg	☼	06/24/15 18:34	06/25/15 19:09	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.055	mg/Kg	☼	06/24/15 18:34	06/25/15 19:09	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.072	mg/Kg	☼	06/24/15 18:34	06/25/15 19:09	1
Di-n-octyl phthalate	<0.20		0.20	0.064	mg/Kg	☼	06/24/15 18:34	06/25/15 19:09	1
Benzo[b]fluoranthene	0.35	*	0.039	0.0085	mg/Kg	☼	06/24/15 18:34	06/25/15 19:09	1
Benzo[k]fluoranthene	0.18		0.039	0.012	mg/Kg	☼	06/24/15 18:34	06/25/15 19:09	1
Benzo[a]pyrene	0.23		0.039	0.0076	mg/Kg	☼	06/24/15 18:34	06/25/15 19:09	1
Indeno[1,2,3-cd]pyrene	0.14		0.039	0.010	mg/Kg	☼	06/24/15 18:34	06/25/15 19:09	1
Dibenz(a,h)anthracene	0.051		0.039	0.0076	mg/Kg	☼	06/24/15 18:34	06/25/15 19:09	1
Benzo[g,h,i]perylene	0.14		0.039	0.013	mg/Kg	☼	06/24/15 18:34	06/25/15 19:09	1
3 & 4 Methylphenol	<0.20		0.20	0.065	mg/Kg	☼	06/24/15 18:34	06/25/15 19:09	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	57		25 - 110	06/24/15 18:34	06/25/15 19:09	1
Phenol-d5	52		31 - 110	06/24/15 18:34	06/25/15 19:09	1
Nitrobenzene-d5	55		25 - 115	06/24/15 18:34	06/25/15 19:09	1
2-Fluorobiphenyl	58		25 - 119	06/24/15 18:34	06/25/15 19:09	1
2,4,6-Tribromophenol	64		35 - 137	06/24/15 18:34	06/25/15 19:09	1
Terphenyl-d14	56		36 - 134	06/24/15 18:34	06/25/15 19:09	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.25	J	1.1	0.23	mg/Kg	☼	06/19/15 13:00	06/20/15 16:49	1
Arsenic	5.1		0.56	0.26	mg/Kg	☼	06/19/15 13:00	06/20/15 16:49	1
Barium	43		0.56	0.10	mg/Kg	☼	06/19/15 13:00	06/20/15 16:49	1
Beryllium	0.45		0.23	0.049	mg/Kg	☼	06/19/15 13:00	06/20/15 16:49	1
Boron	4.5		2.8	0.39	mg/Kg	☼	06/19/15 13:00	06/20/15 16:49	1
Cadmium	0.14		0.11	0.033	mg/Kg	☼	06/19/15 13:00	06/20/15 16:49	1
Calcium	47000		56	18	mg/Kg	☼	06/19/15 13:00	06/20/15 18:22	5
Chromium	12		0.56	0.097	mg/Kg	☼	06/19/15 13:00	06/20/15 16:49	1
Cobalt	11		0.28	0.064	mg/Kg	☼	06/19/15 13:00	06/20/15 16:49	1
Copper	17		0.56	0.12	mg/Kg	☼	06/19/15 13:00	06/20/15 16:49	1
Iron	17000		11	4.3	mg/Kg	☼	06/19/15 13:00	06/20/15 16:49	1
Lead	13		0.28	0.14	mg/Kg	☼	06/19/15 13:00	06/20/15 16:49	1
Magnesium	23000		5.6	2.3	mg/Kg	☼	06/19/15 13:00	06/20/15 16:49	1
Manganese	450		0.56	0.11	mg/Kg	☼	06/19/15 13:00	06/20/15 16:49	1
Nickel	23		0.56	0.15	mg/Kg	☼	06/19/15 13:00	06/20/15 16:49	1
Potassium	1000		28	4.6	mg/Kg	☼	06/19/15 13:00	06/20/15 16:49	1
Selenium	0.28	J	0.56	0.28	mg/Kg	☼	06/19/15 13:00	06/20/15 16:49	1
Silver	<0.28		0.28	0.066	mg/Kg	☼	06/19/15 13:00	06/20/15 16:49	1
Sodium	690		56	7.4	mg/Kg	☼	06/19/15 13:00	06/20/15 16:49	1
Thallium	<0.56		0.56	0.28	mg/Kg	☼	06/19/15 13:00	06/20/15 16:49	1
Vanadium	15		0.28	0.082	mg/Kg	☼	06/19/15 13:00	06/20/15 16:49	1
Zinc	55	B	1.1	0.36	mg/Kg	☼	06/19/15 13:00	06/20/15 16:49	1

Method: 7471B - Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.026		0.018	0.0064	mg/Kg	☼	06/17/15 12:15	06/18/15 10:08	1

TestAmerica Chicago

Definitions/Glossary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97428-2

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.

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.
*	LCS or LCSD is outside acceptance 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.
^	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.

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, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
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
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)

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 #: 500-97428

Chain of Custody Number: _____

Page _____ of _____

Temperature °C of Cooler: _____

Client		Client Project #		Preservative		Parameter		Matrix		Comments	
EE		1009006-0031-01									
Project Name		Project Location/State		Lab Project #		Lab PM					
N 171		Cook County, IL		S011058		D. Wright					
Sampler		Sample ID		Sampling		# of Containers		Matrix			
S. Cooper				Date Time							
Lab ID	MS/MSD										
7		1800-S2-B03 (6-7)		6-16-15 1920		2 5		VOC SVOC Total PAH Neutral TCE/PCP/PAH Metab PX/90 Solid			

- 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

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:	Company: EE	Date: 6/16/15	Time: 1534	Received By:	Company: TA	Date: 6/16/15	Time: 1534
Relinquished By:	Company: TA	Date: 6/16/15	Time: 1620	Received By:	Company: TA-CHEM	Date: 6/17/15	Time: 0720

Lab Courier: TA
 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
 - WL - Wipe
 - DW - Drinking Water
 - O - Other

Client Comments:

Lab Comments:

Login Sample Receipt Checklist

Client: Ecology and Environment, Inc.

Job Number: 500-97428-2

Login Number: 97428
List Number: 1
Creator: Scott, Sherri L

List Source: TestAmerica Chicago

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	3.3
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.	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: 500-97481-3
Client Project/Site: IDOT - IL 171 - WO 031

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

Attn: Mr. Dean Tiebout



Authorized for release by:
6/30/2015 4:04:06 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

8

9



Table of Contents

Cover Page	1
Table of Contents	2
Case Narrative	3
Detection Summary	4
Sample Summary	6
Client Sample Results	7
Definitions	15
Chain of Custody	16
Receipt Checklists	17

Case Narrative

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97481-3

Job ID: 500-97481-3

Laboratory: TestAmerica Chicago

Narrative

Job Narrative 500-97481-3

Receipt

The samples were received on 6/17/2015 4:40 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.4° C.

GC/MS VOA

Method(s) 8260B: The following analyte recovered outside control limits for the LCS associated with 500-293268: Bromomethane. This is not indicative of a systematic control problem because this was a random marginal exceedance. Qualified results have been reported.

Method(s) 8260B: The laboratory control sample (LCS) for batch 500-293268 recovered outside control limits for the following analyte: Chloromethane. This analyte was biased high in the LCS and was not detected in the associated samples; therefore, the data has 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: A full list spike was utilized for this method. Due to the large number of spiked analytes, there is a high probability that one or more analytes will recover outside acceptance limits. The laboratory's SOP allows for 3 analytes to recover outside criteria for this method when a full list spike is utilized. The LCS associated with batch 500-293096 had 3 analytes {2-Chloronaphthalene at 51%; 4-Bromophenyl phenyl ether at 54%; and Hexachlorobenzene at 53%} outside control limits; therefore, corrective action was not performed. These results have been reported and qualified. (LCS 500-293096/2-A)

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 - IL 171 - WO 031

TestAmerica Job ID: 500-97481-3

Client Sample ID: 1860-52-B05 (2-4)

Lab Sample ID: 500-97481-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	0.0086		0.0049	0.0038	mg/Kg	1	☼	8260B	Total/NA
2-Methylnaphthalene	0.017	J	0.038	0.0070	mg/Kg	1	☼	8270D	Total/NA
Phenanthrene	0.014	J	0.038	0.0053	mg/Kg	1	☼	8270D	Total/NA
Antimony	0.33	J	1.2	0.24	mg/Kg	1	☼	6010B	Total/NA
Arsenic	5.4		0.58	0.27	mg/Kg	1	☼	6010B	Total/NA
Barium	41		0.58	0.11	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.61		0.23	0.050	mg/Kg	1	☼	6010B	Total/NA
Boron	11		2.9	0.41	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.054	J	0.12	0.034	mg/Kg	1	☼	6010B	Total/NA
Calcium	63000		58	19	mg/Kg	5	☼	6010B	Total/NA
Chromium	16		0.58	0.10	mg/Kg	1	☼	6010B	Total/NA
Cobalt	12		0.29	0.066	mg/Kg	1	☼	6010B	Total/NA
Copper	17		0.58	0.13	mg/Kg	1	☼	6010B	Total/NA
Iron	18000		12	4.5	mg/Kg	1	☼	6010B	Total/NA
Lead	11		0.29	0.15	mg/Kg	1	☼	6010B	Total/NA
Magnesium	22000		5.8	2.4	mg/Kg	1	☼	6010B	Total/NA
Manganese	410		0.58	0.12	mg/Kg	1	☼	6010B	Total/NA
Nickel	31		0.58	0.16	mg/Kg	1	☼	6010B	Total/NA
Potassium	2500		29	4.8	mg/Kg	1	☼	6010B	Total/NA
Sodium	1300		58	7.7	mg/Kg	1	☼	6010B	Total/NA
Vanadium	18		0.29	0.085	mg/Kg	1	☼	6010B	Total/NA
Zinc	50	B	1.2	0.37	mg/Kg	1	☼	6010B	Total/NA
Barium	0.65		0.50	0.050	mg/L	1		6010B	TCLP
Boron	1.1		0.50	0.050	mg/L	1		6010B	TCLP
Cobalt	0.020	J	0.025	0.010	mg/L	1		6010B	TCLP
Iron	1.4		0.20	0.20	mg/L	1		6010B	TCLP
Manganese	2.6		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.041		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.13		0.10	0.020	mg/L	1		6010B	TCLP
Manganese	0.97		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.035		0.019	0.0066	mg/Kg	1	☼	7471B	Total/NA
pH	8.17		0.200	0.200	SU	1		9045D	Total/NA

Client Sample ID: 1860-52-B04 (4-6)

Lab Sample ID: 500-97481-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	0.0094		0.0047	0.0036	mg/Kg	1	☼	8260B	Total/NA
Naphthalene	0.0081	J	0.040	0.0061	mg/Kg	1	☼	8270D	Total/NA
2-Methylnaphthalene	0.027	J	0.040	0.0073	mg/Kg	1	☼	8270D	Total/NA
Phenanthrene	0.025	J	0.040	0.0055	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.010	J	0.040	0.0079	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.012	J	0.040	0.011	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.014	J	0.040	0.013	mg/Kg	1	☼	8270D	Total/NA
Antimony	0.31	J	1.1	0.23	mg/Kg	1	☼	6010B	Total/NA
Arsenic	5.7		0.56	0.26	mg/Kg	1	☼	6010B	Total/NA
Barium	45		0.56	0.10	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.56		0.22	0.049	mg/Kg	1	☼	6010B	Total/NA
Boron	9.6		2.8	0.39	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.093	J	0.11	0.033	mg/Kg	1	☼	6010B	Total/NA
Calcium	57000		56	18	mg/Kg	5	☼	6010B	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97481-3

Client Sample ID: 1860-52-B04 (4-6) (Continued)

Lab Sample ID: 500-97481-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chromium	16		0.56	0.097	mg/Kg	1	☼	6010B	Total/NA
Cobalt	12		0.28	0.064	mg/Kg	1	☼	6010B	Total/NA
Copper	21		0.56	0.12	mg/Kg	1	☼	6010B	Total/NA
Iron	18000		11	4.3	mg/Kg	1	☼	6010B	Total/NA
Lead	13		0.28	0.14	mg/Kg	1	☼	6010B	Total/NA
Magnesium	22000		5.6	2.3	mg/Kg	1	☼	6010B	Total/NA
Manganese	300		0.56	0.11	mg/Kg	1	☼	6010B	Total/NA
Nickel	31		0.56	0.15	mg/Kg	1	☼	6010B	Total/NA
Potassium	2200		28	4.6	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.38	J	0.56	0.28	mg/Kg	1	☼	6010B	Total/NA
Sodium	670		56	7.4	mg/Kg	1	☼	6010B	Total/NA
Vanadium	18		0.28	0.082	mg/Kg	1	☼	6010B	Total/NA
Zinc	52	B	1.1	0.36	mg/Kg	1	☼	6010B	Total/NA
Barium	0.54		0.50	0.050	mg/L	1		6010B	TCLP
Boron	1.1		0.50	0.050	mg/L	1		6010B	TCLP
Cobalt	0.023	J	0.025	0.010	mg/L	1		6010B	TCLP
Manganese	2.7		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.045		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.31		0.10	0.020	mg/L	1		6010B	TCLP
Manganese	0.060		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.026		0.018	0.0063	mg/Kg	1	☼	7471B	Total/NA
pH	7.93		0.200	0.200	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 - IL 171 - WO 031

TestAmerica Job ID: 500-97481-3

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-97481-6	1860-52-B05 (2-4)	Solid	06/17/15 11:35	06/17/15 16:40
500-97481-7	1860-52-B04 (4-6)	Solid	06/17/15 13:45	06/17/15 16:40

1

2

3

4

5

6

7

8

9

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97481-3

Client Sample ID: 1860-52-B05 (2-4)

Lab Sample ID: 500-97481-6

Date Collected: 06/17/15 11:35

Matrix: Solid

Date Received: 06/17/15 16:40

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.65		0.50	0.050	mg/L		06/21/15 14:00	06/22/15 17:03	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		06/21/15 14:00	06/22/15 17:03	1
Boron	1.1		0.50	0.050	mg/L		06/21/15 14:00	06/22/15 17:03	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		06/21/15 14:00	06/22/15 17:03	1
Chromium	<0.025		0.025	0.010	mg/L		06/21/15 14:00	06/22/15 17:03	1
Cobalt	0.020	J	0.025	0.010	mg/L		06/21/15 14:00	06/22/15 17:03	1
Iron	1.4		0.20	0.20	mg/L		06/21/15 14:00	06/22/15 17:03	1
Lead	<0.0075		0.0075	0.0075	mg/L		06/21/15 14:00	06/22/15 17:03	1
Manganese	2.6		0.025	0.010	mg/L		06/21/15 14:00	06/22/15 17:03	1
Nickel	0.041		0.025	0.010	mg/L		06/21/15 14:00	06/22/15 17:03	1
Selenium	<0.050		0.050	0.020	mg/L		06/21/15 14:00	06/22/15 17:03	1
Silver	<0.025		0.025	0.010	mg/L		06/21/15 14:00	06/22/15 17:03	1
Zinc	0.13		0.10	0.020	mg/L		06/21/15 14:00	06/22/15 17:03	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.97		0.025	0.010	mg/L		06/25/15 08:30	06/25/15 15:46	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		06/21/15 14:00	06/22/15 19:03	1
Thallium	<0.0020		0.0020	0.0020	mg/L		06/21/15 14:00	06/22/15 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		06/22/15 11:00	06/23/15 12:26	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.17		0.200	0.200	SU			06/19/15 13:10	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97481-3

Client Sample ID: 1860-52-B05 (2-4)

Lab Sample ID: 500-97481-6

Date Collected: 06/17/15 11:35

Matrix: Solid

Date Received: 06/17/15 16:40

Percent Solids: 83.2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	0.0086		0.0049	0.0038	mg/Kg	☼	06/18/15 07:30	06/25/15 18:10	1
Benzene	<0.0049		0.0049	0.0011	mg/Kg	☼	06/18/15 07:30	06/25/15 18:10	1
Bromodichloromethane	<0.0049		0.0049	0.00082	mg/Kg	☼	06/18/15 07:30	06/25/15 18:10	1
Bromoform	<0.0049		0.0049	0.00099	mg/Kg	☼	06/18/15 07:30	06/25/15 18:10	1
Bromomethane	<0.0049	*	0.0049	0.0018	mg/Kg	☼	06/18/15 07:30	06/25/15 18:10	1
2-Butanone (MEK)	<0.0049		0.0049	0.0017	mg/Kg	☼	06/18/15 07:30	06/25/15 18:10	1
Carbon disulfide	<0.0049		0.0049	0.0018	mg/Kg	☼	06/18/15 07:30	06/25/15 18:10	1
Carbon tetrachloride	<0.0049		0.0049	0.0010	mg/Kg	☼	06/18/15 07:30	06/25/15 18:10	1
Chlorobenzene	<0.0049		0.0049	0.0012	mg/Kg	☼	06/18/15 07:30	06/25/15 18:10	1
Chloroethane	<0.0049		0.0049	0.0020	mg/Kg	☼	06/18/15 07:30	06/25/15 18:10	1
Chloroform	<0.0049		0.0049	0.00095	mg/Kg	☼	06/18/15 07:30	06/25/15 18:10	1
Chloromethane	<0.0049	*	0.0049	0.0012	mg/Kg	☼	06/18/15 07:30	06/25/15 18:10	1
cis-1,2-Dichloroethene	<0.0049		0.0049	0.00099	mg/Kg	☼	06/18/15 07:30	06/25/15 18:10	1
cis-1,3-Dichloropropene	<0.0049		0.0049	0.0011	mg/Kg	☼	06/18/15 07:30	06/25/15 18:10	1
Dibromochloromethane	<0.0049		0.0049	0.00056	mg/Kg	☼	06/18/15 07:30	06/25/15 18:10	1
1,1-Dichloroethane	<0.0049		0.0049	0.0010	mg/Kg	☼	06/18/15 07:30	06/25/15 18:10	1
1,2-Dichloroethane	<0.0049		0.0049	0.00072	mg/Kg	☼	06/18/15 07:30	06/25/15 18:10	1
1,1-Dichloroethene	<0.0049		0.0049	0.0018	mg/Kg	☼	06/18/15 07:30	06/25/15 18:10	1
1,2-Dichloropropane	<0.0049		0.0049	0.0013	mg/Kg	☼	06/18/15 07:30	06/25/15 18:10	1
1,3-Dichloropropane, Total	<0.0049		0.0049	0.0014	mg/Kg	☼	06/18/15 07:30	06/25/15 18:10	1
Ethylbenzene	<0.0049		0.0049	0.0012	mg/Kg	☼	06/18/15 07:30	06/25/15 18:10	1
2-Hexanone	<0.0049		0.0049	0.0015	mg/Kg	☼	06/18/15 07:30	06/25/15 18:10	1
Methylene Chloride	<0.0049		0.0049	0.0037	mg/Kg	☼	06/18/15 07:30	06/25/15 18:10	1
4-Methyl-2-pentanone (MIBK)	<0.0049		0.0049	0.0010	mg/Kg	☼	06/18/15 07:30	06/25/15 18:10	1
Methyl tert-butyl ether	<0.0049		0.0049	0.0012	mg/Kg	☼	06/18/15 07:30	06/25/15 18:10	1
Styrene	<0.0049		0.0049	0.0011	mg/Kg	☼	06/18/15 07:30	06/25/15 18:10	1
1,1,1,2-Tetrachloroethane	<0.0049		0.0049	0.00077	mg/Kg	☼	06/18/15 07:30	06/25/15 18:10	1
Tetrachloroethene	<0.0049		0.0049	0.0010	mg/Kg	☼	06/18/15 07:30	06/25/15 18:10	1
Toluene	<0.0049		0.0049	0.0017	mg/Kg	☼	06/18/15 07:30	06/25/15 18:10	1
trans-1,2-Dichloroethene	<0.0049		0.0049	0.0012	mg/Kg	☼	06/18/15 07:30	06/25/15 18:10	1
trans-1,3-Dichloropropene	<0.0049		0.0049	0.0014	mg/Kg	☼	06/18/15 07:30	06/25/15 18:10	1
1,1,1-Trichloroethane	<0.0049		0.0049	0.0011	mg/Kg	☼	06/18/15 07:30	06/25/15 18:10	1
1,1,2-Trichloroethane	<0.0049		0.0049	0.00094	mg/Kg	☼	06/18/15 07:30	06/25/15 18:10	1
Trichloroethene	<0.0049		0.0049	0.0013	mg/Kg	☼	06/18/15 07:30	06/25/15 18:10	1
Vinyl acetate	<0.0049		0.0049	0.0013	mg/Kg	☼	06/18/15 07:30	06/25/15 18:10	1
Vinyl chloride	<0.0049		0.0049	0.0012	mg/Kg	☼	06/18/15 07:30	06/25/15 18:10	1
Xylenes, Total	<0.0098		0.0098	0.0018	mg/Kg	☼	06/18/15 07:30	06/25/15 18:10	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	103		70 - 122	06/18/15 07:30	06/25/15 18:10	1
Dibromofluoromethane	113		75 - 120	06/18/15 07:30	06/25/15 18:10	1
1,2-Dichloroethane-d4 (Surr)	124		70 - 134	06/18/15 07:30	06/25/15 18:10	1
Toluene-d8 (Surr)	112		75 - 122	06/18/15 07:30	06/25/15 18:10	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.19		0.19	0.085	mg/Kg	☼	06/24/15 07:31	06/26/15 14:03	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.057	mg/Kg	☼	06/24/15 07:31	06/26/15 14:03	1
1,3-Dichlorobenzene	<0.19		0.19	0.043	mg/Kg	☼	06/24/15 07:31	06/26/15 14:03	1
1,4-Dichlorobenzene	<0.19		0.19	0.049	mg/Kg	☼	06/24/15 07:31	06/26/15 14:03	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97481-3

Client Sample ID: 1860-52-B05 (2-4)

Lab Sample ID: 500-97481-6

Date Collected: 06/17/15 11:35

Matrix: Solid

Date Received: 06/17/15 16:40

Percent Solids: 83.2

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	☼	06/24/15 07:31	06/26/15 14:03	1
2-Methylphenol	<0.19		0.19	0.061	mg/Kg	☼	06/24/15 07:31	06/26/15 14:03	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.044	mg/Kg	☼	06/24/15 07:31	06/26/15 14:03	1
N-Nitrosodi-n-propylamine	<0.19		0.19	0.047	mg/Kg	☼	06/24/15 07:31	06/26/15 14:03	1
Hexachloroethane	<0.19		0.19	0.058	mg/Kg	☼	06/24/15 07:31	06/26/15 14:03	1
2-Chlorophenol	<0.19		0.19	0.065	mg/Kg	☼	06/24/15 07:31	06/26/15 14:03	1
Nitrobenzene	<0.038		0.038	0.0095	mg/Kg	☼	06/24/15 07:31	06/26/15 14:03	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.039	mg/Kg	☼	06/24/15 07:31	06/26/15 14:03	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.041	mg/Kg	☼	06/24/15 07:31	06/26/15 14:03	1
Isophorone	<0.19		0.19	0.043	mg/Kg	☼	06/24/15 07:31	06/26/15 14:03	1
2,4-Dimethylphenol	<0.38		0.38	0.14	mg/Kg	☼	06/24/15 07:31	06/26/15 14:03	1
Hexachlorobutadiene	<0.19		0.19	0.060	mg/Kg	☼	06/24/15 07:31	06/26/15 14:03	1
Naphthalene	<0.038		0.038	0.0059	mg/Kg	☼	06/24/15 07:31	06/26/15 14:03	1
2,4-Dichlorophenol	<0.38		0.38	0.091	mg/Kg	☼	06/24/15 07:31	06/26/15 14:03	1
4-Chloroaniline	<0.77		0.77	0.18	mg/Kg	☼	06/24/15 07:31	06/26/15 14:03	1
2,4,6-Trichlorophenol	<0.38		0.38	0.13	mg/Kg	☼	06/24/15 07:31	06/26/15 14:03	1
2,4,5-Trichlorophenol	<0.38		0.38	0.087	mg/Kg	☼	06/24/15 07:31	06/26/15 14:03	1
Hexachlorocyclopentadiene	<0.77		0.77	0.22	mg/Kg	☼	06/24/15 07:31	06/26/15 14:03	1
2-Methylnaphthalene	0.017	J	0.038	0.0070	mg/Kg	☼	06/24/15 07:31	06/26/15 14:03	1
2-Nitroaniline	<0.19		0.19	0.051	mg/Kg	☼	06/24/15 07:31	06/26/15 14:03	1
2-Chloronaphthalene	<0.19	*	0.19	0.042	mg/Kg	☼	06/24/15 07:31	06/26/15 14:03	1
4-Chloro-3-methylphenol	<0.38		0.38	0.13	mg/Kg	☼	06/24/15 07:31	06/26/15 14:03	1
2,6-Dinitrotoluene	<0.19		0.19	0.075	mg/Kg	☼	06/24/15 07:31	06/26/15 14:03	1
2-Nitrophenol	<0.38		0.38	0.090	mg/Kg	☼	06/24/15 07:31	06/26/15 14:03	1
3-Nitroaniline	<0.38		0.38	0.12	mg/Kg	☼	06/24/15 07:31	06/26/15 14:03	1
Dimethyl phthalate	<0.19		0.19	0.050	mg/Kg	☼	06/24/15 07:31	06/26/15 14:03	1
2,4-Dinitrophenol	<0.77		0.77	0.67	mg/Kg	☼	06/24/15 07:31	06/26/15 14:03	1
Acenaphthylene	<0.038		0.038	0.0050	mg/Kg	☼	06/24/15 07:31	06/26/15 14:03	1
2,4-Dinitrotoluene	<0.19		0.19	0.061	mg/Kg	☼	06/24/15 07:31	06/26/15 14:03	1
Acenaphthene	<0.038		0.038	0.0069	mg/Kg	☼	06/24/15 07:31	06/26/15 14:03	1
Dibenzofuran	<0.19		0.19	0.045	mg/Kg	☼	06/24/15 07:31	06/26/15 14:03	1
4-Nitrophenol	<0.77		0.77	0.36	mg/Kg	☼	06/24/15 07:31	06/26/15 14:03	1
Fluorene	<0.038		0.038	0.0054	mg/Kg	☼	06/24/15 07:31	06/26/15 14:03	1
4-Nitroaniline	<0.38		0.38	0.16	mg/Kg	☼	06/24/15 07:31	06/26/15 14:03	1
4-Bromophenyl phenyl ether	<0.19	*	0.19	0.050	mg/Kg	☼	06/24/15 07:31	06/26/15 14:03	1
Hexachlorobenzene	<0.077	*	0.077	0.0088	mg/Kg	☼	06/24/15 07:31	06/26/15 14:03	1
Diethyl phthalate	<0.19		0.19	0.065	mg/Kg	☼	06/24/15 07:31	06/26/15 14:03	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.045	mg/Kg	☼	06/24/15 07:31	06/26/15 14:03	1
Pentachlorophenol	<0.77		0.77	0.61	mg/Kg	☼	06/24/15 07:31	06/26/15 14:03	1
N-Nitrosodiphenylamine	<0.19		0.19	0.045	mg/Kg	☼	06/24/15 07:31	06/26/15 14:03	1
4,6-Dinitro-2-methylphenol	<0.38		0.38	0.31	mg/Kg	☼	06/24/15 07:31	06/26/15 14:03	1
Phenanthrene	0.014	J	0.038	0.0053	mg/Kg	☼	06/24/15 07:31	06/26/15 14:03	1
Anthracene	<0.038		0.038	0.0064	mg/Kg	☼	06/24/15 07:31	06/26/15 14:03	1
Carbazole	<0.19		0.19	0.098	mg/Kg	☼	06/24/15 07:31	06/26/15 14:03	1
Di-n-butyl phthalate	<0.19		0.19	0.058	mg/Kg	☼	06/24/15 07:31	06/26/15 14:03	1
Fluoranthene	<0.038		0.038	0.0071	mg/Kg	☼	06/24/15 07:31	06/26/15 14:03	1
Pyrene	<0.038		0.038	0.0076	mg/Kg	☼	06/24/15 07:31	06/26/15 14:03	1
Butyl benzyl phthalate	<0.19		0.19	0.073	mg/Kg	☼	06/24/15 07:31	06/26/15 14:03	1
Benzo[a]anthracene	<0.038		0.038	0.0051	mg/Kg	☼	06/24/15 07:31	06/26/15 14:03	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97481-3

Client Sample ID: 1860-52-B05 (2-4)

Lab Sample ID: 500-97481-6

Date Collected: 06/17/15 11:35

Matrix: Solid

Date Received: 06/17/15 16:40

Percent Solids: 83.2

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	☼	06/24/15 07:31	06/26/15 14:03	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.053	mg/Kg	☼	06/24/15 07:31	06/26/15 14:03	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.070	mg/Kg	☼	06/24/15 07:31	06/26/15 14:03	1
Di-n-octyl phthalate	<0.19		0.19	0.062	mg/Kg	☼	06/24/15 07:31	06/26/15 14:03	1
Benzo[b]fluoranthene	<0.038		0.038	0.0082	mg/Kg	☼	06/24/15 07:31	06/26/15 14:03	1
Benzo[k]fluoranthene	<0.038		0.038	0.011	mg/Kg	☼	06/24/15 07:31	06/26/15 14:03	1
Benzo[a]pyrene	<0.038		0.038	0.0074	mg/Kg	☼	06/24/15 07:31	06/26/15 14:03	1
Indeno[1,2,3-cd]pyrene	<0.038		0.038	0.0099	mg/Kg	☼	06/24/15 07:31	06/26/15 14:03	1
Dibenz(a,h)anthracene	<0.038		0.038	0.0074	mg/Kg	☼	06/24/15 07:31	06/26/15 14:03	1
Benzo[g,h,i]perylene	<0.038		0.038	0.012	mg/Kg	☼	06/24/15 07:31	06/26/15 14:03	1
3 & 4 Methylphenol	<0.19		0.19	0.064	mg/Kg	☼	06/24/15 07:31	06/26/15 14:03	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	55		25 - 110	06/24/15 07:31	06/26/15 14:03	1
Phenol-d5	51		31 - 110	06/24/15 07:31	06/26/15 14:03	1
Nitrobenzene-d5	45		25 - 115	06/24/15 07:31	06/26/15 14:03	1
2-Fluorobiphenyl	49		25 - 119	06/24/15 07:31	06/26/15 14:03	1
2,4,6-Tribromophenol	67		35 - 137	06/24/15 07:31	06/26/15 14:03	1
Terphenyl-d14	78		36 - 134	06/24/15 07:31	06/26/15 14:03	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.33	J	1.2	0.24	mg/Kg	☼	06/19/15 13:00	06/20/15 17:44	1
Arsenic	5.4		0.58	0.27	mg/Kg	☼	06/19/15 13:00	06/20/15 17:44	1
Barium	41		0.58	0.11	mg/Kg	☼	06/19/15 13:00	06/20/15 17:44	1
Beryllium	0.61		0.23	0.050	mg/Kg	☼	06/19/15 13:00	06/20/15 17:44	1
Boron	11		2.9	0.41	mg/Kg	☼	06/19/15 13:00	06/20/15 17:44	1
Cadmium	0.054	J	0.12	0.034	mg/Kg	☼	06/19/15 13:00	06/20/15 17:44	1
Calcium	63000		58	19	mg/Kg	☼	06/19/15 13:00	06/22/15 19:31	5
Chromium	16		0.58	0.10	mg/Kg	☼	06/19/15 13:00	06/20/15 17:44	1
Cobalt	12		0.29	0.066	mg/Kg	☼	06/19/15 13:00	06/20/15 17:44	1
Copper	17		0.58	0.13	mg/Kg	☼	06/19/15 13:00	06/20/15 17:44	1
Iron	18000		12	4.5	mg/Kg	☼	06/19/15 13:00	06/20/15 17:44	1
Lead	11		0.29	0.15	mg/Kg	☼	06/19/15 13:00	06/20/15 17:44	1
Magnesium	22000		5.8	2.4	mg/Kg	☼	06/19/15 13:00	06/20/15 17:44	1
Manganese	410		0.58	0.12	mg/Kg	☼	06/19/15 13:00	06/20/15 17:44	1
Nickel	31		0.58	0.16	mg/Kg	☼	06/19/15 13:00	06/20/15 17:44	1
Potassium	2500		29	4.8	mg/Kg	☼	06/19/15 13:00	06/20/15 17:44	1
Selenium	<0.58		0.58	0.29	mg/Kg	☼	06/19/15 13:00	06/20/15 17:44	1
Silver	<0.29		0.29	0.068	mg/Kg	☼	06/19/15 13:00	06/20/15 17:44	1
Sodium	1300		58	7.7	mg/Kg	☼	06/19/15 13:00	06/20/15 17:44	1
Thallium	<0.58		0.58	0.29	mg/Kg	☼	06/19/15 13:00	06/20/15 17:44	1
Vanadium	18		0.29	0.085	mg/Kg	☼	06/19/15 13:00	06/20/15 17:44	1
Zinc	50	B	1.2	0.37	mg/Kg	☼	06/19/15 13:00	06/20/15 17:44	1

Method: 7471B - Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.035		0.019	0.0066	mg/Kg	☼	06/18/15 12:25	06/19/15 10:31	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97481-3

Client Sample ID: 1860-52-B04 (4-6)

Lab Sample ID: 500-97481-7

Date Collected: 06/17/15 13:45

Matrix: Solid

Date Received: 06/17/15 16:40

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		06/21/15 14:00	06/22/15 17:08	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		06/21/15 14:00	06/22/15 17:08	1
Boron	1.1		0.50	0.050	mg/L		06/21/15 14:00	06/22/15 17:08	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		06/21/15 14:00	06/22/15 17:08	1
Chromium	<0.025		0.025	0.010	mg/L		06/21/15 14:00	06/22/15 17:08	1
Cobalt	0.023	J	0.025	0.010	mg/L		06/21/15 14:00	06/22/15 17:08	1
Iron	<0.20		0.20	0.20	mg/L		06/21/15 14:00	06/22/15 17:08	1
Lead	<0.0075		0.0075	0.0075	mg/L		06/21/15 14:00	06/22/15 17:08	1
Manganese	2.7		0.025	0.010	mg/L		06/21/15 14:00	06/22/15 17:08	1
Nickel	0.045		0.025	0.010	mg/L		06/21/15 14:00	06/22/15 17:08	1
Selenium	<0.050		0.050	0.020	mg/L		06/21/15 14:00	06/22/15 17:08	1
Silver	<0.025		0.025	0.010	mg/L		06/21/15 14:00	06/22/15 17:08	1
Zinc	0.31		0.10	0.020	mg/L		06/21/15 14:00	06/22/15 17:08	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.060		0.025	0.010	mg/L		06/25/15 08:30	06/25/15 15:50	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		06/21/15 14:00	06/22/15 19:07	1
Thallium	<0.0020		0.0020	0.0020	mg/L		06/21/15 14:00	06/22/15 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		06/22/15 11:00	06/23/15 12:28	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.93		0.200	0.200	SU			06/19/15 13:13	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97481-3

Client Sample ID: 1860-52-B04 (4-6)

Lab Sample ID: 500-97481-7

Date Collected: 06/17/15 13:45

Matrix: Solid

Date Received: 06/17/15 16:40

Percent Solids: 83.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	0.0094		0.0047	0.0036	mg/Kg	☼	06/18/15 07:30	06/25/15 18:34	1
Benzene	<0.0047		0.0047	0.0010	mg/Kg	☼	06/18/15 07:30	06/25/15 18:34	1
Bromodichloromethane	<0.0047		0.0047	0.00079	mg/Kg	☼	06/18/15 07:30	06/25/15 18:34	1
Bromoform	<0.0047		0.0047	0.00096	mg/Kg	☼	06/18/15 07:30	06/25/15 18:34	1
Bromomethane	<0.0047 *		0.0047	0.0017	mg/Kg	☼	06/18/15 07:30	06/25/15 18:34	1
2-Butanone (MEK)	<0.0047		0.0047	0.0017	mg/Kg	☼	06/18/15 07:30	06/25/15 18:34	1
Carbon disulfide	<0.0047		0.0047	0.0017	mg/Kg	☼	06/18/15 07:30	06/25/15 18:34	1
Carbon tetrachloride	<0.0047		0.0047	0.0010	mg/Kg	☼	06/18/15 07:30	06/25/15 18:34	1
Chlorobenzene	<0.0047		0.0047	0.0011	mg/Kg	☼	06/18/15 07:30	06/25/15 18:34	1
Chloroethane	<0.0047		0.0047	0.0020	mg/Kg	☼	06/18/15 07:30	06/25/15 18:34	1
Chloroform	<0.0047		0.0047	0.00092	mg/Kg	☼	06/18/15 07:30	06/25/15 18:34	1
Chloromethane	<0.0047 *		0.0047	0.0011	mg/Kg	☼	06/18/15 07:30	06/25/15 18:34	1
cis-1,2-Dichloroethene	<0.0047		0.0047	0.00096	mg/Kg	☼	06/18/15 07:30	06/25/15 18:34	1
cis-1,3-Dichloropropene	<0.0047		0.0047	0.0011	mg/Kg	☼	06/18/15 07:30	06/25/15 18:34	1
Dibromochloromethane	<0.0047		0.0047	0.00054	mg/Kg	☼	06/18/15 07:30	06/25/15 18:34	1
1,1-Dichloroethane	<0.0047		0.0047	0.00097	mg/Kg	☼	06/18/15 07:30	06/25/15 18:34	1
1,2-Dichloroethane	<0.0047		0.0047	0.00070	mg/Kg	☼	06/18/15 07:30	06/25/15 18:34	1
1,1-Dichloroethene	<0.0047		0.0047	0.0017	mg/Kg	☼	06/18/15 07:30	06/25/15 18:34	1
1,2-Dichloropropane	<0.0047		0.0047	0.0012	mg/Kg	☼	06/18/15 07:30	06/25/15 18:34	1
1,3-Dichloropropane, Total	<0.0047		0.0047	0.0013	mg/Kg	☼	06/18/15 07:30	06/25/15 18:34	1
Ethylbenzene	<0.0047		0.0047	0.0012	mg/Kg	☼	06/18/15 07:30	06/25/15 18:34	1
2-Hexanone	<0.0047		0.0047	0.0015	mg/Kg	☼	06/18/15 07:30	06/25/15 18:34	1
Methylene Chloride	<0.0047		0.0047	0.0036	mg/Kg	☼	06/18/15 07:30	06/25/15 18:34	1
4-Methyl-2-pentanone (MIBK)	<0.0047		0.0047	0.00097	mg/Kg	☼	06/18/15 07:30	06/25/15 18:34	1
Methyl tert-butyl ether	<0.0047		0.0047	0.0011	mg/Kg	☼	06/18/15 07:30	06/25/15 18:34	1
Styrene	<0.0047		0.0047	0.0011	mg/Kg	☼	06/18/15 07:30	06/25/15 18:34	1
1,1,2,2-Tetrachloroethane	<0.0047		0.0047	0.00075	mg/Kg	☼	06/18/15 07:30	06/25/15 18:34	1
Tetrachloroethene	<0.0047		0.0047	0.00098	mg/Kg	☼	06/18/15 07:30	06/25/15 18:34	1
Toluene	<0.0047		0.0047	0.0016	mg/Kg	☼	06/18/15 07:30	06/25/15 18:34	1
trans-1,2-Dichloroethene	<0.0047		0.0047	0.0012	mg/Kg	☼	06/18/15 07:30	06/25/15 18:34	1
trans-1,3-Dichloropropene	<0.0047		0.0047	0.0013	mg/Kg	☼	06/18/15 07:30	06/25/15 18:34	1
1,1,1-Trichloroethane	<0.0047		0.0047	0.0011	mg/Kg	☼	06/18/15 07:30	06/25/15 18:34	1
1,1,2-Trichloroethane	<0.0047		0.0047	0.00091	mg/Kg	☼	06/18/15 07:30	06/25/15 18:34	1
Trichloroethene	<0.0047		0.0047	0.0013	mg/Kg	☼	06/18/15 07:30	06/25/15 18:34	1
Vinyl acetate	<0.0047		0.0047	0.0013	mg/Kg	☼	06/18/15 07:30	06/25/15 18:34	1
Vinyl chloride	<0.0047		0.0047	0.0011	mg/Kg	☼	06/18/15 07:30	06/25/15 18:34	1
Xylenes, Total	<0.0094		0.0094	0.0017	mg/Kg	☼	06/18/15 07:30	06/25/15 18:34	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	106		70 - 122	06/18/15 07:30	06/25/15 18:34	1
Dibromofluoromethane	107		75 - 120	06/18/15 07:30	06/25/15 18:34	1
1,2-Dichloroethane-d4 (Surr)	118		70 - 134	06/18/15 07:30	06/25/15 18:34	1
Toluene-d8 (Surr)	114		75 - 122	06/18/15 07:30	06/25/15 18:34	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	☼	06/24/15 07:31	06/26/15 14:24	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.060	mg/Kg	☼	06/24/15 07:31	06/26/15 14:24	1
1,3-Dichlorobenzene	<0.20		0.20	0.045	mg/Kg	☼	06/24/15 07:31	06/26/15 14:24	1
1,4-Dichlorobenzene	<0.20		0.20	0.051	mg/Kg	☼	06/24/15 07:31	06/26/15 14:24	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97481-3

Client Sample ID: 1860-52-B04 (4-6)

Lab Sample ID: 500-97481-7

Date Collected: 06/17/15 13:45

Matrix: Solid

Date Received: 06/17/15 16:40

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	0.048	mg/Kg	☼	06/24/15 07:31	06/26/15 14:24	1
2-Methylphenol	<0.20		0.20	0.064	mg/Kg	☼	06/24/15 07:31	06/26/15 14:24	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.046	mg/Kg	☼	06/24/15 07:31	06/26/15 14:24	1
N-Nitrosodi-n-propylamine	<0.20		0.20	0.049	mg/Kg	☼	06/24/15 07:31	06/26/15 14:24	1
Hexachloroethane	<0.20		0.20	0.060	mg/Kg	☼	06/24/15 07:31	06/26/15 14:24	1
2-Chlorophenol	<0.20		0.20	0.068	mg/Kg	☼	06/24/15 07:31	06/26/15 14:24	1
Nitrobenzene	<0.040		0.040	0.0099	mg/Kg	☼	06/24/15 07:31	06/26/15 14:24	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.041	mg/Kg	☼	06/24/15 07:31	06/26/15 14:24	1
1,2,4-Trichlorobenzene	<0.20		0.20	0.043	mg/Kg	☼	06/24/15 07:31	06/26/15 14:24	1
Isophorone	<0.20		0.20	0.045	mg/Kg	☼	06/24/15 07:31	06/26/15 14:24	1
2,4-Dimethylphenol	<0.40		0.40	0.15	mg/Kg	☼	06/24/15 07:31	06/26/15 14:24	1
Hexachlorobutadiene	<0.20		0.20	0.063	mg/Kg	☼	06/24/15 07:31	06/26/15 14:24	1
Naphthalene	0.0081	J	0.040	0.0061	mg/Kg	☼	06/24/15 07:31	06/26/15 14:24	1
2,4-Dichlorophenol	<0.40		0.40	0.095	mg/Kg	☼	06/24/15 07:31	06/26/15 14:24	1
4-Chloroaniline	<0.80		0.80	0.19	mg/Kg	☼	06/24/15 07:31	06/26/15 14:24	1
2,4,6-Trichlorophenol	<0.40		0.40	0.14	mg/Kg	☼	06/24/15 07:31	06/26/15 14:24	1
2,4,5-Trichlorophenol	<0.40		0.40	0.091	mg/Kg	☼	06/24/15 07:31	06/26/15 14:24	1
Hexachlorocyclopentadiene	<0.80		0.80	0.23	mg/Kg	☼	06/24/15 07:31	06/26/15 14:24	1
2-Methylnaphthalene	0.027	J	0.040	0.0073	mg/Kg	☼	06/24/15 07:31	06/26/15 14:24	1
2-Nitroaniline	<0.20		0.20	0.054	mg/Kg	☼	06/24/15 07:31	06/26/15 14:24	1
2-Chloronaphthalene	<0.20	*	0.20	0.044	mg/Kg	☼	06/24/15 07:31	06/26/15 14:24	1
4-Chloro-3-methylphenol	<0.40		0.40	0.14	mg/Kg	☼	06/24/15 07:31	06/26/15 14:24	1
2,6-Dinitrotoluene	<0.20		0.20	0.078	mg/Kg	☼	06/24/15 07:31	06/26/15 14:24	1
2-Nitrophenol	<0.40		0.40	0.094	mg/Kg	☼	06/24/15 07:31	06/26/15 14:24	1
3-Nitroaniline	<0.40		0.40	0.12	mg/Kg	☼	06/24/15 07:31	06/26/15 14:24	1
Dimethyl phthalate	<0.20		0.20	0.052	mg/Kg	☼	06/24/15 07:31	06/26/15 14:24	1
2,4-Dinitrophenol	<0.80		0.80	0.70	mg/Kg	☼	06/24/15 07:31	06/26/15 14:24	1
Acenaphthylene	<0.040		0.040	0.0052	mg/Kg	☼	06/24/15 07:31	06/26/15 14:24	1
2,4-Dinitrotoluene	<0.20		0.20	0.063	mg/Kg	☼	06/24/15 07:31	06/26/15 14:24	1
Acenaphthene	<0.040		0.040	0.0072	mg/Kg	☼	06/24/15 07:31	06/26/15 14:24	1
Dibenzofuran	<0.20		0.20	0.047	mg/Kg	☼	06/24/15 07:31	06/26/15 14:24	1
4-Nitrophenol	<0.80		0.80	0.38	mg/Kg	☼	06/24/15 07:31	06/26/15 14:24	1
Fluorene	<0.040		0.040	0.0056	mg/Kg	☼	06/24/15 07:31	06/26/15 14:24	1
4-Nitroaniline	<0.40		0.40	0.17	mg/Kg	☼	06/24/15 07:31	06/26/15 14:24	1
4-Bromophenyl phenyl ether	<0.20	*	0.20	0.052	mg/Kg	☼	06/24/15 07:31	06/26/15 14:24	1
Hexachlorobenzene	<0.080	*	0.080	0.0092	mg/Kg	☼	06/24/15 07:31	06/26/15 14:24	1
Diethyl phthalate	<0.20		0.20	0.067	mg/Kg	☼	06/24/15 07:31	06/26/15 14:24	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.046	mg/Kg	☼	06/24/15 07:31	06/26/15 14:24	1
Pentachlorophenol	<0.80		0.80	0.64	mg/Kg	☼	06/24/15 07:31	06/26/15 14:24	1
N-Nitrosodiphenylamine	<0.20		0.20	0.047	mg/Kg	☼	06/24/15 07:31	06/26/15 14:24	1
4,6-Dinitro-2-methylphenol	<0.40		0.40	0.32	mg/Kg	☼	06/24/15 07:31	06/26/15 14:24	1
Phenanthrene	0.025	J	0.040	0.0055	mg/Kg	☼	06/24/15 07:31	06/26/15 14:24	1
Anthracene	<0.040		0.040	0.0066	mg/Kg	☼	06/24/15 07:31	06/26/15 14:24	1
Carbazole	<0.20		0.20	0.10	mg/Kg	☼	06/24/15 07:31	06/26/15 14:24	1
Di-n-butyl phthalate	<0.20		0.20	0.061	mg/Kg	☼	06/24/15 07:31	06/26/15 14:24	1
Fluoranthene	<0.040		0.040	0.0074	mg/Kg	☼	06/24/15 07:31	06/26/15 14:24	1
Pyrene	0.010	J	0.040	0.0079	mg/Kg	☼	06/24/15 07:31	06/26/15 14:24	1
Butyl benzyl phthalate	<0.20		0.20	0.076	mg/Kg	☼	06/24/15 07:31	06/26/15 14:24	1
Benzo[a]anthracene	<0.040		0.040	0.0054	mg/Kg	☼	06/24/15 07:31	06/26/15 14:24	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97481-3

Client Sample ID: 1860-52-B04 (4-6)

Lab Sample ID: 500-97481-7

Date Collected: 06/17/15 13:45

Matrix: Solid

Date Received: 06/17/15 16:40

Percent Solids: 83.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.012	J	0.040	0.011	mg/Kg	☼	06/24/15 07:31	06/26/15 14:24	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.056	mg/Kg	☼	06/24/15 07:31	06/26/15 14:24	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.073	mg/Kg	☼	06/24/15 07:31	06/26/15 14:24	1
Di-n-octyl phthalate	<0.20		0.20	0.065	mg/Kg	☼	06/24/15 07:31	06/26/15 14:24	1
Benzo[b]fluoranthene	<0.040		0.040	0.0086	mg/Kg	☼	06/24/15 07:31	06/26/15 14:24	1
Benzo[k]fluoranthene	<0.040		0.040	0.012	mg/Kg	☼	06/24/15 07:31	06/26/15 14:24	1
Benzo[a]pyrene	<0.040		0.040	0.0077	mg/Kg	☼	06/24/15 07:31	06/26/15 14:24	1
Indeno[1,2,3-cd]pyrene	<0.040		0.040	0.010	mg/Kg	☼	06/24/15 07:31	06/26/15 14:24	1
Dibenz(a,h)anthracene	<0.040		0.040	0.0077	mg/Kg	☼	06/24/15 07:31	06/26/15 14:24	1
Benzo[g,h,i]perylene	0.014	J	0.040	0.013	mg/Kg	☼	06/24/15 07:31	06/26/15 14:24	1
3 & 4 Methylphenol	<0.20		0.20	0.066	mg/Kg	☼	06/24/15 07:31	06/26/15 14:24	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	76		25 - 110	06/24/15 07:31	06/26/15 14:24	1
Phenol-d5	71		31 - 110	06/24/15 07:31	06/26/15 14:24	1
Nitrobenzene-d5	72		25 - 115	06/24/15 07:31	06/26/15 14:24	1
2-Fluorobiphenyl	73		25 - 119	06/24/15 07:31	06/26/15 14:24	1
2,4,6-Tribromophenol	72		35 - 137	06/24/15 07:31	06/26/15 14:24	1
Terphenyl-d14	94		36 - 134	06/24/15 07:31	06/26/15 14:24	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.31	J	1.1	0.23	mg/Kg	☼	06/19/15 13:00	06/20/15 17:49	1
Arsenic	5.7		0.56	0.26	mg/Kg	☼	06/19/15 13:00	06/20/15 17:49	1
Barium	45		0.56	0.10	mg/Kg	☼	06/19/15 13:00	06/20/15 17:49	1
Beryllium	0.56		0.22	0.049	mg/Kg	☼	06/19/15 13:00	06/20/15 17:49	1
Boron	9.6		2.8	0.39	mg/Kg	☼	06/19/15 13:00	06/20/15 17:49	1
Cadmium	0.093	J	0.11	0.033	mg/Kg	☼	06/19/15 13:00	06/20/15 17:49	1
Calcium	57000		56	18	mg/Kg	☼	06/19/15 13:00	06/22/15 19:35	5
Chromium	16		0.56	0.097	mg/Kg	☼	06/19/15 13:00	06/20/15 17:49	1
Cobalt	12		0.28	0.064	mg/Kg	☼	06/19/15 13:00	06/20/15 17:49	1
Copper	21		0.56	0.12	mg/Kg	☼	06/19/15 13:00	06/20/15 17:49	1
Iron	18000		11	4.3	mg/Kg	☼	06/19/15 13:00	06/20/15 17:49	1
Lead	13		0.28	0.14	mg/Kg	☼	06/19/15 13:00	06/20/15 17:49	1
Magnesium	22000		5.6	2.3	mg/Kg	☼	06/19/15 13:00	06/20/15 17:49	1
Manganese	300		0.56	0.11	mg/Kg	☼	06/19/15 13:00	06/20/15 17:49	1
Nickel	31		0.56	0.15	mg/Kg	☼	06/19/15 13:00	06/20/15 17:49	1
Potassium	2200		28	4.6	mg/Kg	☼	06/19/15 13:00	06/20/15 17:49	1
Selenium	0.38	J	0.56	0.28	mg/Kg	☼	06/19/15 13:00	06/20/15 17:49	1
Silver	<0.28		0.28	0.066	mg/Kg	☼	06/19/15 13:00	06/20/15 17:49	1
Sodium	670		56	7.4	mg/Kg	☼	06/19/15 13:00	06/20/15 17:49	1
Thallium	<0.56		0.56	0.28	mg/Kg	☼	06/19/15 13:00	06/20/15 17:49	1
Vanadium	18		0.28	0.082	mg/Kg	☼	06/19/15 13:00	06/20/15 17:49	1
Zinc	52	B	1.1	0.36	mg/Kg	☼	06/19/15 13:00	06/20/15 17:49	1

Method: 7471B - Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.026		0.018	0.0063	mg/Kg	☼	06/18/15 12:25	06/19/15 10:33	1

TestAmerica Chicago

Definitions/Glossary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97481-3

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance 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.

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, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
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
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)

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

2417 Bond Street, University Park, IL 60464
 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 #: 500-97481
 Chain of Custody Number: _____
 Page _____ of _____
 Temperature °C of Cooler: _____

Client		Client Project #		Preservative		Parameter		Matrix		Comments	
EE		1009008-0031.01									
Project Name		Lab Project #		Sampling		# of Containers		Matrix		Preservative Key	
FL 171		50011058		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		Date		Time		Matrix		Comments	
Cook County, IL		S. Cooper		6/17/15		1345		VOL			
Lab ID	MS/MSD	Sample ID	Date	Time	# of Containers	Matrix	Matrix	Matrix	Matrix	Matrix	Matrix
6		1860-52-1305(2-4)	6/17/15	1135	2	S	VOL	SUBC	Total TAC	TAC metal	part/100 solids
7		1860-52-1304(4-6)	6/17/15	1345	2	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: EE Date: 6/17/15 Time: 1550	Received By: <u>[Signature]</u> Company: TAC Date: 6/17/15 Time: 1550	Lab Courier: <u>JTA</u>
Relinquished By: <u>[Signature]</u> Company: TAC Date: 6/17/15 Time: 1640	Received By: <u>[Signature]</u> Company: TAC-CPD Date: 6/18/15 Time: 0720	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: 500-97481-3

Login Number: 97481
List Number: 1
Creator: Scott, Sherri L

List Source: TestAmerica Chicago

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	2.4
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.	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

Bureau of Land • 1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276

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 372/373 (Illinois Route 171) Office Phone Number, if available: _____

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

8401 West 47th Street

City: McCook State: IL Zip Code: 60525

County: Cook Township: Lyons

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

Latitude: 41.80256 Longitude: -87.833243
(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: 0311740009 BOW: _____ BOA: _____

II. Owner/Operator Information for Source Site

Site Owner

Site Operator

Name: Illinois Department of Transportation

Name: _____

Street Address: 201 West Center Court

Street Address: _____

PO Box: _____

PO Box: _____

City: Schaumburg State: IL

City: _____ State: _____

Zip Code: 60196-1096 Phone: 847-705-4159

Zip Code: _____ Phone: _____

Contact: Sam Mead

Contact: _____

Email, if available: Sam.Mead@illinois.gov

Email, if available: _____

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.

Project Name: FAP 372/373 (Illinois Route 171)

Latitude: 41.80256 Longitude: -87.833243

Uncontaminated Site 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 1860-64-B01 and 1860-64-B02 were sampled within the construction zone adjacent to ISGS #1860-64 (Vacant land). Refer to PSI Report for ISGS #1860-64 (Vacant land) including Table 4-3, and Figures 4-6A & B.

- 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 500-97262-1.

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

I, Neil J. 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 Street

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:

7/22/15
 Date:



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

Analytical Data Summary
PTB #172-27; Work Order 31 - IDOT Job # D-91-191-10

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.

SCGIER = Soil Component of the Groundwater Ingestion Exposure Route

SPLP = Synthetic Precipitation Leaching Procedure.

ND = Not detected.

NA = Not analyzed.

J = Estimated value.

U = Analyte was analyzed for but not detected.


Criteria Qualifiers and Shading

† = Concentration exceeds the most stringent MAC.

m = Concentration exceeds the MAC for an MSA.

* = Concentration exceeds the MAC for Chicago corporate limits.

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

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

 = Concentration exceeds the most stringent MAC and the MAC for Chicago corporate limits.

 = Concentration exceeds applicable comparison criteria.

PTB #172-27; Work Order 31 - IDOT Job # D-91-191-10

DETECTED ANALYTES

SITE	ISGS #1860-64 (Vacant land)				Comparison Criteria			
	1860-64-B01		1860-64-B02		MACs			TACO
BORING								
SAMPLE	1860-64-B01 (2-4)	1860-64-B01 (8-10)	1860-64-B02 (4-6)	1860-64-B02 (12-14)	Most Stringent	Within an MSA	Within Chicago	SCGIER
MATRIX	Soil	Soil	Soil	Soil				
DEPTH (feet)	2-4	8-10	4-6	12-14				
pH	8.05	8.24	7.92	7.97				
VOCs (mg/kg)								
Acetone	ND U	ND U	0.0098	ND U	25	--	--	--
SVOCs (mg/kg)								
2-Methylnaphthalene	ND U	ND U	0.021 J	ND U	--	--	--	--
Acenaphthene	ND U	ND U	0.027 J	ND U	570	--	--	--
Anthracene	ND U	ND U	0.054	ND U	12,000	--	--	--
Benzo[a]anthracene	ND U	ND U	0.095	ND U	0.9	1.8	1.1	--
Benzo[a]pyrene	ND U	ND U	0.071	ND U	0.09	2.1	1.3	--
Benzo[b]fluoranthene	ND U	ND U	0.095	ND U	0.9	2.1	1.5	--
Benzo[g,h,i]perylene	ND U	0.019 J	0.046	0.016 J	--	--	--	--
Benzo[k]fluoranthene	ND U	ND U	0.049	ND U	9	--	--	--
Chrysene	ND U	ND U	0.1	ND U	88	--	--	--
Dibenzo(a,h)anthracene	ND U	ND U	0.012 J	ND U	0.09	0.42	0.2	--
Fluoranthene	ND U	0.009 J	0.23	ND U	3,100	--	--	--
Fluorene	ND U	ND U	0.033 J	ND U	560	--	--	--
Indeno[1,2,3-cd]pyrene	ND U	ND U	0.036 J	ND U	0.9	1.6	0.9	--
Naphthalene	ND U	ND U	0.024 J	ND U	1.8	--	--	--
Phenanthrene	ND U	0.042	0.17	0.011 J	--	--	--	--
Pyrene	ND U	0.02 J	0.18	ND U	2,300	--	--	--
Pesticides (mg/kg)								
Endosulfan (total)	ND	ND	0.02	ND	--	--	--	--
Endosulfan II	ND U	ND U	0.02	ND U	--	--	--	--
Inorganics (mg/kg)								
Arsenic	5.6	9.7	9	8	11.3	13	--	--
Barium	32	25	44	23	1,500	--	--	--
Beryllium	0.54	0.37	0.68	0.41	22	--	--	--
Boron	7.8	8.1	9.8	7.4	40	--	--	--
Cadmium	ND U	0.12	0.061 J	0.097 J	5.2	--	--	--
Calcium	31,000	74,000	54,000	76,000	--	--	--	--
Chromium	15	10	16	10	21	--	--	--
Cobalt	7	11	14	11	20	--	--	--
Copper	18	25	26	22	2,900	--	--	--
Iron	15,000	15,000	19,000 †m	15,000	15,000	15,900	--	--
Lead	12	14	17	13	107	--	--	--
Magnesium	21,000	34,000	22,000	35,000	325,000	--	--	--
Manganese	180	350	310	380	630	636	--	--
Mercury	0.026	0.032	0.027	0.021	0.89	--	--	--
Nickel	23	26	35	25	100	--	--	--
Potassium	1,800	1,600	2,300	1,600	--	--	--	--
Selenium	ND U	0.61	0.28 J	0.43 J	1.3	--	--	--
Sodium	350	180	470	150	--	--	--	--
Thallium	ND U	0.3 J	ND U	0.45 J	2.6	--	--	--
Vanadium	16	13	18	13	550	--	--	--
Zinc	58	56	60	64	5,100	--	--	--
TCLP Metals (mg/L)								
Barium	0.26 J	0.45 J	0.35 J	0.44 J	--	--	--	2
Boron	0.75	0.65	0.75	0.52	--	--	--	2
Cadmium	0.0022 J	ND U	0.0025 J	ND U	--	--	--	0.005
Cobalt	ND U	0.021 J	0.018 J	0.021 J	--	--	--	1
Iron	ND U	ND U	ND U	ND U	--	--	--	5
Manganese	0.68 L	1.7 L	3.2 L	1.7 L	--	--	--	0.15
Nickel	ND U	0.05	0.02 J	0.053	--	--	--	0.1
Zinc	0.07 J	0.048 J	0.07 J	0.027 J	--	--	--	5
SPLP Metals (mg/L)								
Manganese	0.083	0.023 J	0.16 L	0.034	--	--	--	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: 500-97262-1
Client Project/Site: IDOT - IL 171 - WO 031

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

Attn: Mr. Dean Tiebout



Authorized for release by:
6/25/2015 3:19:47 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

8

9



Table of Contents

Cover Page	1
Table of Contents	2
Case Narrative	3
Detection Summary	4
Sample Summary	7
Client Sample Results	8
Definitions	28
Chain of Custody	29
Receipt Checklists	30

Case Narrative

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97262-1

Job ID: 500-97262-1

Laboratory: TestAmerica Chicago

Narrative

Job Narrative 500-97262-1

Receipt

The samples were received on 6/11/2015 4:10 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.8° C.

GC/MS VOA

Method(s) 8260B: The following sample was diluted to bring the concentration of target analytes within the calibration range: 1860-64-B01 (2-4) (500-97262-1). Elevated reporting limits (RLs) are provided.

Method(s) 8260B: The %RPD of the laboratory control sample (LCS) and laboratory control standard duplicate (LCSD) for preparation batch 97262 recovered outside control limits for Acetone.

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 outside acceptance limits: 1860-64-B01 (2-4) (500-97262-1) and (MB 500-292787/1-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: A full list spike was utilized for this method. Due to the large number of spiked analytes, there is a high probability that one or more analytes will recover outside acceptance limits. The laboratory's SOP allows for 3 analytes to recover outside criteria for this method when a full list spike is utilized. The LCS associated with preparation batch 500-292787 and analytical batch 500-293060 had 3 analytes outside control limits: 4,6-Dinitro-2-methylphenol, Dibenz(a,h)anthracene, and Indeno[1,2,3-cd]pyrene; therefore, corrective action 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.

GC Semi VOA

Method(s) 8081B: The following samples were diluted due to the nature of the sample matrix: 1860-64-B01 (8-10) (500-97262-2), 1860-64-B02 (4-6) (500-97262-3) and 1860-64-B02 (12-14) (500-97262-4). Elevated reporting limits (RLs) are provided.

Method(s) 8081B: The following samples required a mercury clean-up, via EPA Method 3660A, to reduce matrix interferences caused by sulfur: 1860-64-B01 (2-4) (500-97262-1). The reagent lot number used was: 97315.

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 verifications (CCV's) associated with batch 500-292053 recovered above the upper control limit for Zinc. The samples associated with these CCV's were non-detects for the affected analyte; therefore, the data have been reported. The following samples are impacted: 1860-64-B01 (2-4) (500-97262-1), 1860-64-B01 (8-10) (500-97262-2), 1860-64-B02 (4-6) (500-97262-3), 1860-64-B02 (12-14) (500-97262-4), 1860-17-B02 (0-2) (500-97262-5), 1860-17-B01 (8-10) (500-97262-7), 1860-17-B01 (20-22) (500-97262-8) and 1860-28-B04 (4-6) (500-97262-10).

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 - IL 171 - WO 031

TestAmerica Job ID: 500-97262-1

Client Sample ID: 1860-64-B01 (2-4)

Lab Sample ID: 500-97262-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	5.6		0.58	0.27	mg/Kg	1	☼	6010B	Total/NA
Barium	32		0.58	0.11	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.54		0.23	0.050	mg/Kg	1	☼	6010B	Total/NA
Boron	7.8		2.9	0.41	mg/Kg	1	☼	6010B	Total/NA
Calcium	31000		12	3.8	mg/Kg	1	☼	6010B	Total/NA
Chromium	15		0.58	0.10	mg/Kg	1	☼	6010B	Total/NA
Cobalt	7.0		0.29	0.066	mg/Kg	1	☼	6010B	Total/NA
Copper	18		0.58	0.13	mg/Kg	1	☼	6010B	Total/NA
Iron	15000		12	4.5	mg/Kg	1	☼	6010B	Total/NA
Lead	12		0.29	0.15	mg/Kg	1	☼	6010B	Total/NA
Magnesium	21000	B	5.8	2.4	mg/Kg	1	☼	6010B	Total/NA
Manganese	180		0.58	0.12	mg/Kg	1	☼	6010B	Total/NA
Nickel	23		0.58	0.16	mg/Kg	1	☼	6010B	Total/NA
Potassium	1800		29	4.8	mg/Kg	1	☼	6010B	Total/NA
Sodium	350		58	7.7	mg/Kg	1	☼	6010B	Total/NA
Vanadium	16		0.29	0.085	mg/Kg	1	☼	6010B	Total/NA
Zinc	58	B	1.2	0.37	mg/Kg	1	☼	6010B	Total/NA
Barium	0.26	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.75		0.50	0.050	mg/L	1		6010B	TCLP
Cadmium	0.0022	J	0.0050	0.0020	mg/L	1		6010B	TCLP
Manganese	0.68		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.070	J ^	0.10	0.020	mg/L	1		6010B	TCLP
Manganese	0.083		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.026		0.019	0.0066	mg/Kg	1	☼	7471B	Total/NA
pH	8.05		0.200	0.200	SU	1		9045D	Total/NA

Client Sample ID: 1860-64-B01 (8-10)

Lab Sample ID: 500-97262-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Phenanthrene	0.042		0.036	0.0050	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.0090	J	0.036	0.0067	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.020	J	0.036	0.0071	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.019	J	0.036	0.012	mg/Kg	1	☼	8270D	Total/NA
Arsenic	9.7		0.54	0.25	mg/Kg	1	☼	6010B	Total/NA
Barium	25		0.54	0.099	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.37		0.22	0.047	mg/Kg	1	☼	6010B	Total/NA
Boron	8.1		2.7	0.38	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.12		0.11	0.031	mg/Kg	1	☼	6010B	Total/NA
Calcium	74000		54	17	mg/Kg	5	☼	6010B	Total/NA
Chromium	10		0.54	0.093	mg/Kg	1	☼	6010B	Total/NA
Cobalt	11		0.27	0.061	mg/Kg	1	☼	6010B	Total/NA
Copper	25		0.54	0.12	mg/Kg	1	☼	6010B	Total/NA
Iron	15000		11	4.2	mg/Kg	1	☼	6010B	Total/NA
Lead	14		0.27	0.13	mg/Kg	1	☼	6010B	Total/NA
Magnesium	34000	B	5.4	2.2	mg/Kg	1	☼	6010B	Total/NA
Manganese	350		0.54	0.11	mg/Kg	1	☼	6010B	Total/NA
Nickel	26		0.54	0.15	mg/Kg	1	☼	6010B	Total/NA
Potassium	1600		27	4.4	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.61		0.54	0.27	mg/Kg	1	☼	6010B	Total/NA
Sodium	180		54	7.1	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 - IL 171 - WO 031

TestAmerica Job ID: 500-97262-1

Client Sample ID: 1860-64-B01 (8-10) (Continued)

Lab Sample ID: 500-97262-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Thallium	0.30	J	0.54	0.26	mg/Kg	1	☼	6010B	Total/NA
Vanadium	13		0.27	0.079	mg/Kg	1	☼	6010B	Total/NA
Zinc	56	B	1.1	0.34	mg/Kg	1	☼	6010B	Total/NA
Barium	0.45	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.65		0.50	0.050	mg/L	1		6010B	TCLP
Cobalt	0.021	J	0.025	0.010	mg/L	1		6010B	TCLP
Manganese	1.7		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.050		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.048	J ^	0.10	0.020	mg/L	1		6010B	TCLP
Manganese	0.023	J	0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.032		0.017	0.0058	mg/Kg	1	☼	7471B	Total/NA
pH	8.24		0.200	0.200	SU	1		9045D	Total/NA

Client Sample ID: 1860-64-B02 (4-6)

Lab Sample ID: 500-97262-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	0.0098	*	0.0042	0.0032	mg/Kg	1	☼	8260B	Total/NA
Naphthalene	0.024	J	0.037	0.0057	mg/Kg	1	☼	8270D	Total/NA
2-Methylnaphthalene	0.021	J	0.037	0.0069	mg/Kg	1	☼	8270D	Total/NA
Acenaphthene	0.027	J	0.037	0.0067	mg/Kg	1	☼	8270D	Total/NA
Fluorene	0.033	J	0.037	0.0053	mg/Kg	1	☼	8270D	Total/NA
Phenanthrene	0.17		0.037	0.0052	mg/Kg	1	☼	8270D	Total/NA
Anthracene	0.054		0.037	0.0062	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.23		0.037	0.0069	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.18		0.037	0.0074	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.095		0.037	0.0050	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.10		0.037	0.010	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.095		0.037	0.0081	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.049		0.037	0.011	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.071		0.037	0.0072	mg/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.036	J *	0.037	0.0097	mg/Kg	1	☼	8270D	Total/NA
Dibenz(a,h)anthracene	0.012	J *	0.037	0.0072	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.046		0.037	0.012	mg/Kg	1	☼	8270D	Total/NA
Endosulfan II	0.020		0.019	0.0030	mg/Kg	10	☼	8081B	Total/NA
Arsenic	9.0		0.54	0.25	mg/Kg	1	☼	6010B	Total/NA
Barium	44		0.54	0.099	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.68		0.22	0.047	mg/Kg	1	☼	6010B	Total/NA
Boron	9.8		2.7	0.38	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.061	J	0.11	0.031	mg/Kg	1	☼	6010B	Total/NA
Calcium	54000		54	17	mg/Kg	5	☼	6010B	Total/NA
Chromium	16		0.54	0.093	mg/Kg	1	☼	6010B	Total/NA
Cobalt	14		0.27	0.061	mg/Kg	1	☼	6010B	Total/NA
Copper	26		0.54	0.12	mg/Kg	1	☼	6010B	Total/NA
Iron	19000		11	4.2	mg/Kg	1	☼	6010B	Total/NA
Lead	17		0.27	0.14	mg/Kg	1	☼	6010B	Total/NA
Magnesium	22000	B	5.4	2.2	mg/Kg	1	☼	6010B	Total/NA
Manganese	310		0.54	0.11	mg/Kg	1	☼	6010B	Total/NA
Nickel	35		0.54	0.15	mg/Kg	1	☼	6010B	Total/NA
Potassium	2300		27	4.4	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.28	J	0.54	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 - IL 171 - WO 031

TestAmerica Job ID: 500-97262-1

Client Sample ID: 1860-64-B02 (4-6) (Continued)

Lab Sample ID: 500-97262-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sodium	470		54	7.2	mg/Kg	1	☼	6010B	Total/NA
Vanadium	18		0.27	0.079	mg/Kg	1	☼	6010B	Total/NA
Zinc	60	B	1.1	0.34	mg/Kg	1	☼	6010B	Total/NA
Barium	0.35	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.75		0.50	0.050	mg/L	1		6010B	TCLP
Cadmium	0.0025	J	0.0050	0.0020	mg/L	1		6010B	TCLP
Cobalt	0.018	J	0.025	0.010	mg/L	1		6010B	TCLP
Manganese	3.2		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.020	J	0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.070	J ^	0.10	0.020	mg/L	1		6010B	TCLP
Manganese	0.16		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.027		0.018	0.0065	mg/Kg	1	☼	7471B	Total/NA
pH	7.92		0.200	0.200	SU	1		9045D	Total/NA

Client Sample ID: 1860-64-B02 (12-14)

Lab Sample ID: 500-97262-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Phenanthrene	0.011	J	0.037	0.0051	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.016	J	0.037	0.012	mg/Kg	1	☼	8270D	Total/NA
Arsenic	8.0		0.53	0.25	mg/Kg	1	☼	6010B	Total/NA
Barium	23		0.53	0.098	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.41		0.21	0.046	mg/Kg	1	☼	6010B	Total/NA
Boron	7.4		2.7	0.37	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.097	J	0.11	0.031	mg/Kg	1	☼	6010B	Total/NA
Calcium	76000		53	17	mg/Kg	5	☼	6010B	Total/NA
Chromium	10		0.53	0.092	mg/Kg	1	☼	6010B	Total/NA
Cobalt	11		0.27	0.060	mg/Kg	1	☼	6010B	Total/NA
Copper	22		0.53	0.12	mg/Kg	1	☼	6010B	Total/NA
Iron	15000		11	4.1	mg/Kg	1	☼	6010B	Total/NA
Lead	13		0.27	0.13	mg/Kg	1	☼	6010B	Total/NA
Magnesium	35000	B	5.3	2.2	mg/Kg	1	☼	6010B	Total/NA
Manganese	380		0.53	0.11	mg/Kg	1	☼	6010B	Total/NA
Nickel	25		0.53	0.14	mg/Kg	1	☼	6010B	Total/NA
Potassium	1600		27	4.4	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.43	J	0.53	0.26	mg/Kg	1	☼	6010B	Total/NA
Sodium	150		53	7.0	mg/Kg	1	☼	6010B	Total/NA
Thallium	0.45	J	0.53	0.26	mg/Kg	1	☼	6010B	Total/NA
Vanadium	13		0.27	0.078	mg/Kg	1	☼	6010B	Total/NA
Zinc	64	B	1.1	0.34	mg/Kg	1	☼	6010B	Total/NA
Barium	0.44	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.52		0.50	0.050	mg/L	1		6010B	TCLP
Cobalt	0.021	J	0.025	0.010	mg/L	1		6010B	TCLP
Manganese	1.7		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.053		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.027	J ^	0.10	0.020	mg/L	1		6010B	TCLP
Manganese	0.034		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.021		0.017	0.0058	mg/Kg	1	☼	7471B	Total/NA
pH	7.97		0.200	0.200	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 - IL 171 - WO 031

TestAmerica Job ID: 500-97262-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-97262-1	1860-64-B01 (2-4)	Solid	06/11/15 09:45	06/11/15 16:10
500-97262-2	1860-64-B01 (8-10)	Solid	06/11/15 09:50	06/11/15 16:10
500-97262-3	1860-64-B02 (4-6)	Solid	06/11/15 10:40	06/11/15 16:10
500-97262-4	1860-64-B02 (12-14)	Solid	06/11/15 10:45	06/11/15 16:10

1

2

3

4

5

6

7

8

9

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97262-1

Client Sample ID: 1860-64-B01 (2-4)

Lab Sample ID: 500-97262-1

Date Collected: 06/11/15 09:45

Matrix: Solid

Date Received: 06/11/15 16:10

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		06/14/15 14:10	06/15/15 21:06	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		06/14/15 14:10	06/15/15 21:06	1
Boron	0.75		0.50	0.050	mg/L		06/14/15 14:10	06/15/15 21:06	1
Cadmium	0.0022	J	0.0050	0.0020	mg/L		06/14/15 14:10	06/15/15 21:06	1
Chromium	<0.025		0.025	0.010	mg/L		06/14/15 14:10	06/15/15 21:06	1
Cobalt	<0.025		0.025	0.010	mg/L		06/14/15 14:10	06/15/15 21:06	1
Iron	<0.20		0.20	0.20	mg/L		06/14/15 14:10	06/15/15 21:06	1
Lead	<0.0075		0.0075	0.0075	mg/L		06/14/15 14:10	06/16/15 16:29	1
Manganese	0.68		0.025	0.010	mg/L		06/14/15 14:10	06/15/15 21:06	1
Nickel	<0.025		0.025	0.010	mg/L		06/14/15 14:10	06/15/15 21:06	1
Selenium	<0.050		0.050	0.020	mg/L		06/14/15 14:10	06/15/15 21:06	1
Silver	<0.025		0.025	0.010	mg/L		06/14/15 14:10	06/15/15 21:06	1
Zinc	0.070	J ^	0.10	0.020	mg/L		06/14/15 14:10	06/15/15 21:06	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.083		0.025	0.010	mg/L		06/21/15 14:00	06/22/15 12:52	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		06/14/15 14:10	06/17/15 13:21	1
Thallium	<0.0020		0.0020	0.0020	mg/L		06/14/15 14:10	06/16/15 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		06/15/15 11:30	06/16/15 10:29	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.05		0.200	0.200	SU			06/12/15 13:22	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97262-1

Client Sample ID: 1860-64-B01 (2-4)

Lab Sample ID: 500-97262-1

Date Collected: 06/11/15 09:45

Matrix: Solid

Date Received: 06/11/15 16:10

Percent Solids: 84.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.26		0.26	0.068	mg/Kg	☼	06/11/15 09:45	06/18/15 19:05	50
Benzene	<0.013		0.013	0.0039	mg/Kg	☼	06/11/15 09:45	06/18/15 19:05	50
Bromodichloromethane	<0.10		0.10	0.018	mg/Kg	☼	06/11/15 09:45	06/18/15 19:05	50
Bromoform	<0.10		0.10	0.023	mg/Kg	☼	06/11/15 09:45	06/18/15 19:05	50
Bromomethane	<0.10		0.10	0.036	mg/Kg	☼	06/11/15 09:45	06/18/15 19:05	50
2-Butanone (MEK)	<0.26		0.26	0.077	mg/Kg	☼	06/11/15 09:45	06/18/15 19:05	50
Carbon disulfide	<0.26		0.26	0.022	mg/Kg	☼	06/11/15 09:45	06/18/15 19:05	50
Carbon tetrachloride	<0.052		0.052	0.013	mg/Kg	☼	06/11/15 09:45	06/18/15 19:05	50
Chlorobenzene	<0.052		0.052	0.0075	mg/Kg	☼	06/11/15 09:45	06/18/15 19:05	50
Chloroethane	<0.10		0.10	0.023	mg/Kg	☼	06/11/15 09:45	06/18/15 19:05	50
Chloroform	<0.052		0.052	0.011	mg/Kg	☼	06/11/15 09:45	06/18/15 19:05	50
Chloromethane	<0.10		0.10	0.024	mg/Kg	☼	06/11/15 09:45	06/18/15 19:05	50
cis-1,2-Dichloroethene	<0.052		0.052	0.0064	mg/Kg	☼	06/11/15 09:45	06/18/15 19:05	50
cis-1,3-Dichloropropene	<0.052		0.052	0.0093	mg/Kg	☼	06/11/15 09:45	06/18/15 19:05	50
Dibromochloromethane	<0.10		0.10	0.018	mg/Kg	☼	06/11/15 09:45	06/18/15 19:05	50
1,1-Dichloroethane	<0.052		0.052	0.0097	mg/Kg	☼	06/11/15 09:45	06/18/15 19:05	50
1,2-Dichloroethane	<0.052		0.052	0.015	mg/Kg	☼	06/11/15 09:45	06/18/15 19:05	50
1,1-Dichloroethene	<0.052		0.052	0.016	mg/Kg	☼	06/11/15 09:45	06/18/15 19:05	50
1,2-Dichloropropane	<0.052		0.052	0.010	mg/Kg	☼	06/11/15 09:45	06/18/15 19:05	50
1,3-Dichloropropane, Total	<0.052		0.052	0.0093	mg/Kg	☼	06/11/15 09:45	06/18/15 19:05	50
Ethylbenzene	<0.013		0.013	0.0066	mg/Kg	☼	06/11/15 09:45	06/18/15 19:05	50
2-Hexanone	<0.26		0.26	0.029	mg/Kg	☼	06/11/15 09:45	06/18/15 19:05	50
Methylene Chloride	<0.26		0.26	0.036	mg/Kg	☼	06/11/15 09:45	06/18/15 19:05	50
4-Methyl-2-pentanone (MIBK)	<0.26		0.26	0.017	mg/Kg	☼	06/11/15 09:45	06/18/15 19:05	50
Methyl tert-butyl ether	<0.10		0.10	0.023	mg/Kg	☼	06/11/15 09:45	06/18/15 19:05	50
Styrene	<0.052		0.052	0.0052	mg/Kg	☼	06/11/15 09:45	06/18/15 19:05	50
1,1,2,2-Tetrachloroethane	<0.052		0.052	0.012	mg/Kg	☼	06/11/15 09:45	06/18/15 19:05	50
Tetrachloroethene	<0.052		0.052	0.0087	mg/Kg	☼	06/11/15 09:45	06/18/15 19:05	50
Toluene	<0.013		0.013	0.0060	mg/Kg	☼	06/11/15 09:45	06/18/15 19:05	50
trans-1,2-Dichloroethene	<0.052		0.052	0.013	mg/Kg	☼	06/11/15 09:45	06/18/15 19:05	50
trans-1,3-Dichloropropene	<0.052		0.052	0.011	mg/Kg	☼	06/11/15 09:45	06/18/15 19:05	50
1,1,1-Trichloroethane	<0.052		0.052	0.011	mg/Kg	☼	06/11/15 09:45	06/18/15 19:05	50
1,1,2-Trichloroethane	<0.052		0.052	0.015	mg/Kg	☼	06/11/15 09:45	06/18/15 19:05	50
Trichloroethene	<0.026		0.026	0.0097	mg/Kg	☼	06/11/15 09:45	06/18/15 19:05	50
Vinyl acetate	<0.10		0.10	0.017	mg/Kg	☼	06/11/15 09:45	06/18/15 19:05	50
Vinyl chloride	<0.013		0.013	0.0054	mg/Kg	☼	06/11/15 09:45	06/18/15 19:05	50
Xylenes, Total	<0.026		0.026	0.0036	mg/Kg	☼	06/11/15 09:45	06/18/15 19:05	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		75 - 120	06/11/15 09:45	06/18/15 19:05	50
Dibromofluoromethane	97		75 - 120	06/11/15 09:45	06/18/15 19:05	50
1,2-Dichloroethane-d4 (Surr)	97		75 - 125	06/11/15 09:45	06/18/15 19:05	50
Toluene-d8 (Surr)	95		75 - 120	06/11/15 09:45	06/18/15 19:05	50

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	☼	06/22/15 09:27	06/23/15 22:44	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.056	mg/Kg	☼	06/22/15 09:27	06/23/15 22:44	1
1,3-Dichlorobenzene	<0.19		0.19	0.042	mg/Kg	☼	06/22/15 09:27	06/23/15 22:44	1
1,4-Dichlorobenzene	<0.19		0.19	0.048	mg/Kg	☼	06/22/15 09:27	06/23/15 22:44	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97262-1

Client Sample ID: 1860-64-B01 (2-4)

Lab Sample ID: 500-97262-1

Date Collected: 06/11/15 09:45

Matrix: Solid

Date Received: 06/11/15 16:10

Percent Solids: 84.8

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	☼	06/22/15 09:27	06/23/15 22:44	1
2-Methylphenol	<0.19		0.19	0.060	mg/Kg	☼	06/22/15 09:27	06/23/15 22:44	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.043	mg/Kg	☼	06/22/15 09:27	06/23/15 22:44	1
N-Nitrosodi-n-propylamine	<0.19		0.19	0.046	mg/Kg	☼	06/22/15 09:27	06/23/15 22:44	1
Hexachloroethane	<0.19		0.19	0.057	mg/Kg	☼	06/22/15 09:27	06/23/15 22:44	1
2-Chlorophenol	<0.19		0.19	0.064	mg/Kg	☼	06/22/15 09:27	06/23/15 22:44	1
Nitrobenzene	<0.037		0.037	0.0093	mg/Kg	☼	06/22/15 09:27	06/23/15 22:44	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.038	mg/Kg	☼	06/22/15 09:27	06/23/15 22:44	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.040	mg/Kg	☼	06/22/15 09:27	06/23/15 22:44	1
Isophorone	<0.19		0.19	0.042	mg/Kg	☼	06/22/15 09:27	06/23/15 22:44	1
2,4-Dimethylphenol	<0.37		0.37	0.14	mg/Kg	☼	06/22/15 09:27	06/23/15 22:44	1
Hexachlorobutadiene	<0.19		0.19	0.059	mg/Kg	☼	06/22/15 09:27	06/23/15 22:44	1
Naphthalene	<0.037		0.037	0.0057	mg/Kg	☼	06/22/15 09:27	06/23/15 22:44	1
2,4-Dichlorophenol	<0.37		0.37	0.089	mg/Kg	☼	06/22/15 09:27	06/23/15 22:44	1
4-Chloroaniline	<0.75		0.75	0.18	mg/Kg	☼	06/22/15 09:27	06/23/15 22:44	1
2,4,6-Trichlorophenol	<0.37		0.37	0.13	mg/Kg	☼	06/22/15 09:27	06/23/15 22:44	1
2,4,5-Trichlorophenol	<0.37		0.37	0.085	mg/Kg	☼	06/22/15 09:27	06/23/15 22:44	1
Hexachlorocyclopentadiene	<0.75		0.75	0.21	mg/Kg	☼	06/22/15 09:27	06/23/15 22:44	1
2-Methylnaphthalene	<0.037		0.037	0.0069	mg/Kg	☼	06/22/15 09:27	06/23/15 22:44	1
2-Nitroaniline	<0.19		0.19	0.050	mg/Kg	☼	06/22/15 09:27	06/23/15 22:44	1
2-Chloronaphthalene	<0.19		0.19	0.041	mg/Kg	☼	06/22/15 09:27	06/23/15 22:44	1
4-Chloro-3-methylphenol	<0.37		0.37	0.13	mg/Kg	☼	06/22/15 09:27	06/23/15 22:44	1
2,6-Dinitrotoluene	<0.19		0.19	0.073	mg/Kg	☼	06/22/15 09:27	06/23/15 22:44	1
2-Nitrophenol	<0.37		0.37	0.088	mg/Kg	☼	06/22/15 09:27	06/23/15 22:44	1
3-Nitroaniline	<0.37		0.37	0.12	mg/Kg	☼	06/22/15 09:27	06/23/15 22:44	1
Dimethyl phthalate	<0.19		0.19	0.049	mg/Kg	☼	06/22/15 09:27	06/23/15 22:44	1
2,4-Dinitrophenol	<0.75		0.75	0.66	mg/Kg	☼	06/22/15 09:27	06/23/15 22:44	1
Acenaphthylene	<0.037		0.037	0.0049	mg/Kg	☼	06/22/15 09:27	06/23/15 22:44	1
2,4-Dinitrotoluene	<0.19		0.19	0.059	mg/Kg	☼	06/22/15 09:27	06/23/15 22:44	1
Acenaphthene	<0.037		0.037	0.0067	mg/Kg	☼	06/22/15 09:27	06/23/15 22:44	1
Dibenzofuran	<0.19		0.19	0.044	mg/Kg	☼	06/22/15 09:27	06/23/15 22:44	1
4-Nitrophenol	<0.75		0.75	0.35	mg/Kg	☼	06/22/15 09:27	06/23/15 22:44	1
Fluorene	<0.037		0.037	0.0052	mg/Kg	☼	06/22/15 09:27	06/23/15 22:44	1
4-Nitroaniline	<0.37		0.37	0.16	mg/Kg	☼	06/22/15 09:27	06/23/15 22:44	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.049	mg/Kg	☼	06/22/15 09:27	06/23/15 22:44	1
Hexachlorobenzene	<0.075		0.075	0.0086	mg/Kg	☼	06/22/15 09:27	06/23/15 22:44	1
Diethyl phthalate	<0.19		0.19	0.063	mg/Kg	☼	06/22/15 09:27	06/23/15 22:44	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.044	mg/Kg	☼	06/22/15 09:27	06/23/15 22:44	1
Pentachlorophenol	<0.75		0.75	0.60	mg/Kg	☼	06/22/15 09:27	06/23/15 22:44	1
N-Nitrosodiphenylamine	<0.19		0.19	0.044	mg/Kg	☼	06/22/15 09:27	06/23/15 22:44	1
4,6-Dinitro-2-methylphenol	<0.37 *		0.37	0.30	mg/Kg	☼	06/22/15 09:27	06/23/15 22:44	1
Phenanthrene	<0.037		0.037	0.0052	mg/Kg	☼	06/22/15 09:27	06/23/15 22:44	1
Anthracene	<0.037		0.037	0.0062	mg/Kg	☼	06/22/15 09:27	06/23/15 22:44	1
Carbazole	<0.19		0.19	0.096	mg/Kg	☼	06/22/15 09:27	06/23/15 22:44	1
Di-n-butyl phthalate	<0.19		0.19	0.057	mg/Kg	☼	06/22/15 09:27	06/23/15 22:44	1
Fluoranthene	<0.037		0.037	0.0069	mg/Kg	☼	06/22/15 09:27	06/23/15 22:44	1
Pyrene	<0.037		0.037	0.0074	mg/Kg	☼	06/22/15 09:27	06/23/15 22:44	1
Butyl benzyl phthalate	<0.19		0.19	0.071	mg/Kg	☼	06/22/15 09:27	06/23/15 22:44	1
Benzo[a]anthracene	<0.037		0.037	0.0050	mg/Kg	☼	06/22/15 09:27	06/23/15 22:44	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97262-1

Client Sample ID: 1860-64-B01 (2-4)

Lab Sample ID: 500-97262-1

Date Collected: 06/11/15 09:45

Matrix: Solid

Date Received: 06/11/15 16:10

Percent Solids: 84.8

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	☼	06/22/15 09:27	06/23/15 22:44	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.052	mg/Kg	☼	06/22/15 09:27	06/23/15 22:44	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.068	mg/Kg	☼	06/22/15 09:27	06/23/15 22:44	1
Di-n-octyl phthalate	<0.19		0.19	0.061	mg/Kg	☼	06/22/15 09:27	06/23/15 22:44	1
Benzo[b]fluoranthene	<0.037		0.037	0.0080	mg/Kg	☼	06/22/15 09:27	06/23/15 22:44	1
Benzo[k]fluoranthene	<0.037		0.037	0.011	mg/Kg	☼	06/22/15 09:27	06/23/15 22:44	1
Benzo[a]pyrene	<0.037		0.037	0.0072	mg/Kg	☼	06/22/15 09:27	06/23/15 22:44	1
Indeno[1,2,3-cd]pyrene	<0.037 *		0.037	0.0097	mg/Kg	☼	06/22/15 09:27	06/23/15 22:44	1
Dibenz(a,h)anthracene	<0.037 *		0.037	0.0072	mg/Kg	☼	06/22/15 09:27	06/23/15 22:44	1
Benzo[g,h,i]perylene	<0.037		0.037	0.012	mg/Kg	☼	06/22/15 09:27	06/23/15 22:44	1
3 & 4 Methylphenol	<0.19		0.19	0.062	mg/Kg	☼	06/22/15 09:27	06/23/15 22:44	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	51		25 - 110	06/22/15 09:27	06/23/15 22:44	1
Phenol-d5	57		31 - 110	06/22/15 09:27	06/23/15 22:44	1
Nitrobenzene-d5	41		25 - 115	06/22/15 09:27	06/23/15 22:44	1
2-Fluorobiphenyl	47		25 - 119	06/22/15 09:27	06/23/15 22:44	1
2,4,6-Tribromophenol	22 X		35 - 137	06/22/15 09:27	06/23/15 22:44	1
Terphenyl-d14	94		36 - 134	06/22/15 09:27	06/23/15 22:44	1

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin	<0.0019		0.0019	0.00077	mg/Kg	☼	06/18/15 07:01	06/19/15 17:00	1
alpha-BHC	<0.0019		0.0019	0.00047	mg/Kg	☼	06/18/15 07:01	06/19/15 17:00	1
alpha-Chlordane	<0.0019		0.0019	0.00094	mg/Kg	☼	06/18/15 07:01	06/19/15 17:00	1
beta-BHC	<0.0019		0.0019	0.00058	mg/Kg	☼	06/18/15 07:01	06/19/15 17:00	1
4,4'-DDD	<0.0019		0.0019	0.00037	mg/Kg	☼	06/18/15 07:01	06/19/15 17:00	1
4,4'-DDE	<0.0019		0.0019	0.00031	mg/Kg	☼	06/18/15 07:01	06/19/15 17:00	1
4,4'-DDT	<0.0019		0.0019	0.00098	mg/Kg	☼	06/18/15 07:01	06/19/15 17:00	1
delta-BHC	<0.0019		0.0019	0.00058	mg/Kg	☼	06/18/15 07:01	06/19/15 17:00	1
Dieldrin	<0.0019		0.0019	0.00025	mg/Kg	☼	06/18/15 07:01	06/19/15 17:00	1
Endosulfan I	<0.0019		0.0019	0.00081	mg/Kg	☼	06/18/15 07:01	06/19/15 17:00	1
Endosulfan II	<0.0019		0.0019	0.00030	mg/Kg	☼	06/18/15 07:01	06/19/15 17:00	1
Endosulfan sulfate	<0.0019		0.0019	0.00034	mg/Kg	☼	06/18/15 07:01	06/19/15 17:00	1
Endrin	<0.0019		0.0019	0.00026	mg/Kg	☼	06/18/15 07:01	06/19/15 17:00	1
Endrin aldehyde	<0.0019		0.0019	0.00031	mg/Kg	☼	06/18/15 07:01	06/19/15 17:00	1
Endrin ketone	<0.0019		0.0019	0.00042	mg/Kg	☼	06/18/15 07:01	06/19/15 17:00	1
gamma-BHC (Lindane)	<0.0019		0.0019	0.00040	mg/Kg	☼	06/18/15 07:01	06/19/15 17:00	1
gamma-Chlordane	<0.0019		0.0019	0.00049	mg/Kg	☼	06/18/15 07:01	06/19/15 17:00	1
Heptachlor	<0.0019		0.0019	0.00078	mg/Kg	☼	06/18/15 07:01	06/19/15 17:00	1
Heptachlor epoxide	<0.0019		0.0019	0.00066	mg/Kg	☼	06/18/15 07:01	06/19/15 17:00	1
Methoxychlor	<0.0092		0.0092	0.00036	mg/Kg	☼	06/18/15 07:01	06/19/15 17:00	1
Toxaphene	<0.019		0.019	0.0078	mg/Kg	☼	06/18/15 07:01	06/19/15 17:00	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	91		56 - 128	06/18/15 07:01	06/19/15 17:00	1
Tetrachloro-m-xylene	63		45 - 112	06/18/15 07:01	06/19/15 17:00	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97262-1

Client Sample ID: 1860-64-B01 (2-4)

Lab Sample ID: 500-97262-1

Date Collected: 06/11/15 09:45

Matrix: Solid

Date Received: 06/11/15 16:10

Percent Solids: 84.8

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dicamba	<0.38		0.38	0.079	mg/Kg	☼	06/16/15 19:45	06/22/15 13:31	10
Dichlorprop	<0.38		0.38	0.10	mg/Kg	☼	06/16/15 19:45	06/22/15 13:31	10
2,4-D	<0.38		0.38	0.11	mg/Kg	☼	06/16/15 19:45	06/22/15 13:31	10
Silvex (2,4,5-TP)	<0.38		0.38	0.098	mg/Kg	☼	06/16/15 19:45	06/22/15 13:31	10
2,4,5-T	<0.38		0.38	0.093	mg/Kg	☼	06/16/15 19:45	06/22/15 13:31	10
2,4-DB	<0.38		0.38	0.11	mg/Kg	☼	06/16/15 19:45	06/22/15 13:31	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCAA	114		32 - 122	06/16/15 19:45	06/22/15 13:31	10

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.2		1.2	0.24	mg/Kg	☼	06/16/15 17:41	06/17/15 19:43	1
Arsenic	5.6		0.58	0.27	mg/Kg	☼	06/16/15 17:41	06/17/15 19:43	1
Barium	32		0.58	0.11	mg/Kg	☼	06/16/15 17:41	06/17/15 19:43	1
Beryllium	0.54		0.23	0.050	mg/Kg	☼	06/16/15 17:41	06/17/15 19:43	1
Boron	7.8		2.9	0.41	mg/Kg	☼	06/16/15 17:41	06/17/15 19:43	1
Cadmium	<0.12		0.12	0.034	mg/Kg	☼	06/16/15 17:41	06/17/15 19:43	1
Calcium	31000		12	3.8	mg/Kg	☼	06/16/15 17:41	06/17/15 19:43	1
Chromium	15		0.58	0.10	mg/Kg	☼	06/16/15 17:41	06/17/15 19:43	1
Cobalt	7.0		0.29	0.066	mg/Kg	☼	06/16/15 17:41	06/17/15 19:43	1
Copper	18		0.58	0.13	mg/Kg	☼	06/16/15 17:41	06/17/15 19:43	1
Iron	15000		12	4.5	mg/Kg	☼	06/16/15 17:41	06/17/15 19:43	1
Lead	12		0.29	0.15	mg/Kg	☼	06/16/15 17:41	06/17/15 19:43	1
Magnesium	21000	B	5.8	2.4	mg/Kg	☼	06/16/15 17:41	06/17/15 19:43	1
Manganese	180		0.58	0.12	mg/Kg	☼	06/16/15 17:41	06/17/15 19:43	1
Nickel	23		0.58	0.16	mg/Kg	☼	06/16/15 17:41	06/17/15 19:43	1
Potassium	1800		29	4.8	mg/Kg	☼	06/16/15 17:41	06/17/15 19:43	1
Selenium	<0.58		0.58	0.29	mg/Kg	☼	06/16/15 17:41	06/17/15 19:43	1
Silver	<0.29		0.29	0.068	mg/Kg	☼	06/16/15 17:41	06/17/15 19:43	1
Sodium	350		58	7.7	mg/Kg	☼	06/16/15 17:41	06/17/15 19:43	1
Thallium	<0.58		0.58	0.29	mg/Kg	☼	06/16/15 17:41	06/17/15 19:43	1
Vanadium	16		0.29	0.085	mg/Kg	☼	06/16/15 17:41	06/17/15 19:43	1
Zinc	58	B	1.2	0.37	mg/Kg	☼	06/16/15 17:41	06/18/15 20:34	1

Method: 7471B - Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.026		0.019	0.0066	mg/Kg	☼	06/12/15 14:00	06/15/15 13:49	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97262-1

Client Sample ID: 1860-64-B01 (8-10)

Lab Sample ID: 500-97262-2

Date Collected: 06/11/15 09:50

Matrix: Solid

Date Received: 06/11/15 16:10

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		06/14/15 14:10	06/15/15 21:11	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		06/14/15 14:10	06/15/15 21:11	1
Boron	0.65		0.50	0.050	mg/L		06/14/15 14:10	06/15/15 21:11	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		06/14/15 14:10	06/15/15 21:11	1
Chromium	<0.025		0.025	0.010	mg/L		06/14/15 14:10	06/15/15 21:11	1
Cobalt	0.021	J	0.025	0.010	mg/L		06/14/15 14:10	06/15/15 21:11	1
Iron	<0.20		0.20	0.20	mg/L		06/14/15 14:10	06/15/15 21:11	1
Lead	<0.0075		0.0075	0.0075	mg/L		06/14/15 14:10	06/16/15 16:35	1
Manganese	1.7		0.025	0.010	mg/L		06/14/15 14:10	06/15/15 21:11	1
Nickel	0.050		0.025	0.010	mg/L		06/14/15 14:10	06/15/15 21:11	1
Selenium	<0.050		0.050	0.020	mg/L		06/14/15 14:10	06/15/15 21:11	1
Silver	<0.025		0.025	0.010	mg/L		06/14/15 14:10	06/15/15 21:11	1
Zinc	0.048	J ^	0.10	0.020	mg/L		06/14/15 14:10	06/15/15 21:11	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.023	J	0.025	0.010	mg/L		06/21/15 14:00	06/22/15 12:56	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		06/14/15 14:10	06/17/15 13:25	1
Thallium	<0.0020		0.0020	0.0020	mg/L		06/14/15 14:10	06/16/15 20:47	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		06/15/15 11:30	06/16/15 10:35	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.24		0.200	0.200	SU			06/12/15 13:23	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97262-1

Client Sample ID: 1860-64-B01 (8-10)

Lab Sample ID: 500-97262-2

Date Collected: 06/11/15 09:50

Matrix: Solid

Date Received: 06/11/15 16:10

Percent Solids: 91.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.0045	*	0.0045	0.0035	mg/Kg	☼	06/11/15 17:25	06/16/15 16:58	1
Benzene	<0.0045		0.0045	0.0010	mg/Kg	☼	06/11/15 17:25	06/16/15 16:58	1
Bromodichloromethane	<0.0045		0.0045	0.00076	mg/Kg	☼	06/11/15 17:25	06/16/15 16:58	1
Bromoform	<0.0045		0.0045	0.00092	mg/Kg	☼	06/11/15 17:25	06/16/15 16:58	1
Bromomethane	<0.0045		0.0045	0.0017	mg/Kg	☼	06/11/15 17:25	06/16/15 16:58	1
2-Butanone (MEK)	<0.0045		0.0045	0.0016	mg/Kg	☼	06/11/15 17:25	06/16/15 16:58	1
Carbon disulfide	<0.0045		0.0045	0.0017	mg/Kg	☼	06/11/15 17:25	06/16/15 16:58	1
Carbon tetrachloride	<0.0045		0.0045	0.00096	mg/Kg	☼	06/11/15 17:25	06/16/15 16:58	1
Chlorobenzene	<0.0045		0.0045	0.0011	mg/Kg	☼	06/11/15 17:25	06/16/15 16:58	1
Chloroethane	<0.0045		0.0045	0.0019	mg/Kg	☼	06/11/15 17:25	06/16/15 16:58	1
Chloroform	<0.0045		0.0045	0.00087	mg/Kg	☼	06/11/15 17:25	06/16/15 16:58	1
Chloromethane	<0.0045		0.0045	0.0011	mg/Kg	☼	06/11/15 17:25	06/16/15 16:58	1
cis-1,2-Dichloroethene	<0.0045		0.0045	0.00092	mg/Kg	☼	06/11/15 17:25	06/16/15 16:58	1
cis-1,3-Dichloropropene	<0.0045		0.0045	0.0010	mg/Kg	☼	06/11/15 17:25	06/16/15 16:58	1
Dibromochloromethane	<0.0045		0.0045	0.00052	mg/Kg	☼	06/11/15 17:25	06/16/15 16:58	1
1,1-Dichloroethane	<0.0045		0.0045	0.00092	mg/Kg	☼	06/11/15 17:25	06/16/15 16:58	1
1,2-Dichloroethane	<0.0045		0.0045	0.00066	mg/Kg	☼	06/11/15 17:25	06/16/15 16:58	1
1,1-Dichloroethene	<0.0045		0.0045	0.0016	mg/Kg	☼	06/11/15 17:25	06/16/15 16:58	1
1,2-Dichloropropane	<0.0045		0.0045	0.0012	mg/Kg	☼	06/11/15 17:25	06/16/15 16:58	1
1,3-Dichloropropane, Total	<0.0045		0.0045	0.0013	mg/Kg	☼	06/11/15 17:25	06/16/15 16:58	1
Ethylbenzene	<0.0045		0.0045	0.0011	mg/Kg	☼	06/11/15 17:25	06/16/15 16:58	1
2-Hexanone	<0.0045		0.0045	0.0014	mg/Kg	☼	06/11/15 17:25	06/16/15 16:58	1
Methylene Chloride	<0.0045		0.0045	0.0034	mg/Kg	☼	06/11/15 17:25	06/16/15 16:58	1
4-Methyl-2-pentanone (MIBK)	<0.0045		0.0045	0.00092	mg/Kg	☼	06/11/15 17:25	06/16/15 16:58	1
Methyl tert-butyl ether	<0.0045		0.0045	0.0011	mg/Kg	☼	06/11/15 17:25	06/16/15 16:58	1
Styrene	<0.0045		0.0045	0.0010	mg/Kg	☼	06/11/15 17:25	06/16/15 16:58	1
1,1,2,2-Tetrachloroethane	<0.0045		0.0045	0.00071	mg/Kg	☼	06/11/15 17:25	06/16/15 16:58	1
Tetrachloroethene	<0.0045		0.0045	0.00093	mg/Kg	☼	06/11/15 17:25	06/16/15 16:58	1
Toluene	<0.0045		0.0045	0.0016	mg/Kg	☼	06/11/15 17:25	06/16/15 16:58	1
trans-1,2-Dichloroethene	<0.0045		0.0045	0.0011	mg/Kg	☼	06/11/15 17:25	06/16/15 16:58	1
trans-1,3-Dichloropropene	<0.0045		0.0045	0.0013	mg/Kg	☼	06/11/15 17:25	06/16/15 16:58	1
1,1,1-Trichloroethane	<0.0045		0.0045	0.0010	mg/Kg	☼	06/11/15 17:25	06/16/15 16:58	1
1,1,2-Trichloroethane	<0.0045		0.0045	0.00087	mg/Kg	☼	06/11/15 17:25	06/16/15 16:58	1
Trichloroethene	<0.0045		0.0045	0.0012	mg/Kg	☼	06/11/15 17:25	06/16/15 16:58	1
Vinyl acetate	<0.0045		0.0045	0.0012	mg/Kg	☼	06/11/15 17:25	06/16/15 16:58	1
Vinyl chloride	<0.0045		0.0045	0.0011	mg/Kg	☼	06/11/15 17:25	06/16/15 16:58	1
Xylenes, Total	<0.0090		0.0090	0.0017	mg/Kg	☼	06/11/15 17:25	06/16/15 16:58	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	85		70 - 122	06/11/15 17:25	06/16/15 16:58	1
Dibromofluoromethane	104		75 - 120	06/11/15 17:25	06/16/15 16:58	1
1,2-Dichloroethane-d4 (Surr)	97		70 - 134	06/11/15 17:25	06/16/15 16:58	1
Toluene-d8 (Surr)	102		75 - 122	06/11/15 17:25	06/16/15 16:58	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	☼	06/22/15 09:27	06/23/15 23:05	1
Bis(2-chloroethyl)ether	<0.18		0.18	0.054	mg/Kg	☼	06/22/15 09:27	06/23/15 23:05	1
1,3-Dichlorobenzene	<0.18		0.18	0.040	mg/Kg	☼	06/22/15 09:27	06/23/15 23:05	1
1,4-Dichlorobenzene	<0.18		0.18	0.046	mg/Kg	☼	06/22/15 09:27	06/23/15 23:05	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97262-1

Client Sample ID: 1860-64-B01 (8-10)

Lab Sample ID: 500-97262-2

Date Collected: 06/11/15 09:50

Matrix: Solid

Date Received: 06/11/15 16:10

Percent Solids: 91.8

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	☼	06/22/15 09:27	06/23/15 23:05	1
2-Methylphenol	<0.18		0.18	0.058	mg/Kg	☼	06/22/15 09:27	06/23/15 23:05	1
2,2'-oxybis[1-chloropropane]	<0.18		0.18	0.042	mg/Kg	☼	06/22/15 09:27	06/23/15 23:05	1
N-Nitrosodi-n-propylamine	<0.18		0.18	0.044	mg/Kg	☼	06/22/15 09:27	06/23/15 23:05	1
Hexachloroethane	<0.18		0.18	0.055	mg/Kg	☼	06/22/15 09:27	06/23/15 23:05	1
2-Chlorophenol	<0.18		0.18	0.061	mg/Kg	☼	06/22/15 09:27	06/23/15 23:05	1
Nitrobenzene	<0.036		0.036	0.0089	mg/Kg	☼	06/22/15 09:27	06/23/15 23:05	1
Bis(2-chloroethoxy)methane	<0.18		0.18	0.037	mg/Kg	☼	06/22/15 09:27	06/23/15 23:05	1
1,2,4-Trichlorobenzene	<0.18		0.18	0.039	mg/Kg	☼	06/22/15 09:27	06/23/15 23:05	1
Isophorone	<0.18		0.18	0.040	mg/Kg	☼	06/22/15 09:27	06/23/15 23:05	1
2,4-Dimethylphenol	<0.36		0.36	0.14	mg/Kg	☼	06/22/15 09:27	06/23/15 23:05	1
Hexachlorobutadiene	<0.18		0.18	0.056	mg/Kg	☼	06/22/15 09:27	06/23/15 23:05	1
Naphthalene	<0.036		0.036	0.0055	mg/Kg	☼	06/22/15 09:27	06/23/15 23:05	1
2,4-Dichlorophenol	<0.36		0.36	0.085	mg/Kg	☼	06/22/15 09:27	06/23/15 23:05	1
4-Chloroaniline	<0.72		0.72	0.17	mg/Kg	☼	06/22/15 09:27	06/23/15 23:05	1
2,4,6-Trichlorophenol	<0.36		0.36	0.12	mg/Kg	☼	06/22/15 09:27	06/23/15 23:05	1
2,4,5-Trichlorophenol	<0.36		0.36	0.082	mg/Kg	☼	06/22/15 09:27	06/23/15 23:05	1
Hexachlorocyclopentadiene	<0.72		0.72	0.21	mg/Kg	☼	06/22/15 09:27	06/23/15 23:05	1
2-Methylnaphthalene	<0.036		0.036	0.0066	mg/Kg	☼	06/22/15 09:27	06/23/15 23:05	1
2-Nitroaniline	<0.18		0.18	0.048	mg/Kg	☼	06/22/15 09:27	06/23/15 23:05	1
2-Chloronaphthalene	<0.18		0.18	0.040	mg/Kg	☼	06/22/15 09:27	06/23/15 23:05	1
4-Chloro-3-methylphenol	<0.36		0.36	0.12	mg/Kg	☼	06/22/15 09:27	06/23/15 23:05	1
2,6-Dinitrotoluene	<0.18		0.18	0.070	mg/Kg	☼	06/22/15 09:27	06/23/15 23:05	1
2-Nitrophenol	<0.36		0.36	0.085	mg/Kg	☼	06/22/15 09:27	06/23/15 23:05	1
3-Nitroaniline	<0.36		0.36	0.11	mg/Kg	☼	06/22/15 09:27	06/23/15 23:05	1
Dimethyl phthalate	<0.18		0.18	0.047	mg/Kg	☼	06/22/15 09:27	06/23/15 23:05	1
2,4-Dinitrophenol	<0.72		0.72	0.63	mg/Kg	☼	06/22/15 09:27	06/23/15 23:05	1
Acenaphthylene	<0.036		0.036	0.0047	mg/Kg	☼	06/22/15 09:27	06/23/15 23:05	1
2,4-Dinitrotoluene	<0.18		0.18	0.057	mg/Kg	☼	06/22/15 09:27	06/23/15 23:05	1
Acenaphthene	<0.036		0.036	0.0064	mg/Kg	☼	06/22/15 09:27	06/23/15 23:05	1
Dibenzofuran	<0.18		0.18	0.042	mg/Kg	☼	06/22/15 09:27	06/23/15 23:05	1
4-Nitrophenol	<0.72		0.72	0.34	mg/Kg	☼	06/22/15 09:27	06/23/15 23:05	1
Fluorene	<0.036		0.036	0.0050	mg/Kg	☼	06/22/15 09:27	06/23/15 23:05	1
4-Nitroaniline	<0.36		0.36	0.15	mg/Kg	☼	06/22/15 09:27	06/23/15 23:05	1
4-Bromophenyl phenyl ether	<0.18		0.18	0.047	mg/Kg	☼	06/22/15 09:27	06/23/15 23:05	1
Hexachlorobenzene	<0.072		0.072	0.0083	mg/Kg	☼	06/22/15 09:27	06/23/15 23:05	1
Diethyl phthalate	<0.18		0.18	0.061	mg/Kg	☼	06/22/15 09:27	06/23/15 23:05	1
4-Chlorophenyl phenyl ether	<0.18		0.18	0.042	mg/Kg	☼	06/22/15 09:27	06/23/15 23:05	1
Pentachlorophenol	<0.72		0.72	0.58	mg/Kg	☼	06/22/15 09:27	06/23/15 23:05	1
N-Nitrosodiphenylamine	<0.18		0.18	0.042	mg/Kg	☼	06/22/15 09:27	06/23/15 23:05	1
4,6-Dinitro-2-methylphenol	<0.36	*	0.36	0.29	mg/Kg	☼	06/22/15 09:27	06/23/15 23:05	1
Phenanthrene	0.042		0.036	0.0050	mg/Kg	☼	06/22/15 09:27	06/23/15 23:05	1
Anthracene	<0.036		0.036	0.0060	mg/Kg	☼	06/22/15 09:27	06/23/15 23:05	1
Carbazole	<0.18		0.18	0.093	mg/Kg	☼	06/22/15 09:27	06/23/15 23:05	1
Di-n-butyl phthalate	<0.18		0.18	0.055	mg/Kg	☼	06/22/15 09:27	06/23/15 23:05	1
Fluoranthene	0.0090	J	0.036	0.0067	mg/Kg	☼	06/22/15 09:27	06/23/15 23:05	1
Pyrene	0.020	J	0.036	0.0071	mg/Kg	☼	06/22/15 09:27	06/23/15 23:05	1
Butyl benzyl phthalate	<0.18		0.18	0.068	mg/Kg	☼	06/22/15 09:27	06/23/15 23:05	1
Benzo[a]anthracene	<0.036		0.036	0.0048	mg/Kg	☼	06/22/15 09:27	06/23/15 23:05	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97262-1

Client Sample ID: 1860-64-B01 (8-10)

Lab Sample ID: 500-97262-2

Date Collected: 06/11/15 09:50

Matrix: Solid

Date Received: 06/11/15 16:10

Percent Solids: 91.8

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	☼	06/22/15 09:27	06/23/15 23:05	1
3,3'-Dichlorobenzidine	<0.18		0.18	0.050	mg/Kg	☼	06/22/15 09:27	06/23/15 23:05	1
Bis(2-ethylhexyl) phthalate	<0.18		0.18	0.066	mg/Kg	☼	06/22/15 09:27	06/23/15 23:05	1
Di-n-octyl phthalate	<0.18		0.18	0.059	mg/Kg	☼	06/22/15 09:27	06/23/15 23:05	1
Benzo[b]fluoranthene	<0.036		0.036	0.0077	mg/Kg	☼	06/22/15 09:27	06/23/15 23:05	1
Benzo[k]fluoranthene	<0.036		0.036	0.011	mg/Kg	☼	06/22/15 09:27	06/23/15 23:05	1
Benzo[a]pyrene	<0.036		0.036	0.0069	mg/Kg	☼	06/22/15 09:27	06/23/15 23:05	1
Indeno[1,2,3-cd]pyrene	<0.036	*	0.036	0.0093	mg/Kg	☼	06/22/15 09:27	06/23/15 23:05	1
Dibenz(a,h)anthracene	<0.036	*	0.036	0.0069	mg/Kg	☼	06/22/15 09:27	06/23/15 23:05	1
Benzo[g,h,i]perylene	0.019	J	0.036	0.012	mg/Kg	☼	06/22/15 09:27	06/23/15 23:05	1
3 & 4 Methylphenol	<0.18		0.18	0.060	mg/Kg	☼	06/22/15 09:27	06/23/15 23:05	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	61		25 - 110	06/22/15 09:27	06/23/15 23:05	1
Phenol-d5	62		31 - 110	06/22/15 09:27	06/23/15 23:05	1
Nitrobenzene-d5	61		25 - 115	06/22/15 09:27	06/23/15 23:05	1
2-Fluorobiphenyl	59		25 - 119	06/22/15 09:27	06/23/15 23:05	1
2,4,6-Tribromophenol	46		35 - 137	06/22/15 09:27	06/23/15 23:05	1
Terphenyl-d14	86		36 - 134	06/22/15 09:27	06/23/15 23:05	1

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin	<0.018		0.018	0.0075	mg/Kg	☼	06/18/15 07:01	06/18/15 18:20	10
alpha-BHC	<0.018		0.018	0.0046	mg/Kg	☼	06/18/15 07:01	06/18/15 18:20	10
alpha-Chlordane	<0.018		0.018	0.0092	mg/Kg	☼	06/18/15 07:01	06/18/15 18:20	10
beta-BHC	<0.018		0.018	0.0056	mg/Kg	☼	06/18/15 07:01	06/18/15 18:20	10
4,4'-DDD	<0.018		0.018	0.0036	mg/Kg	☼	06/18/15 07:01	06/18/15 18:20	10
4,4'-DDE	<0.018		0.018	0.0030	mg/Kg	☼	06/18/15 07:01	06/18/15 18:20	10
4,4'-DDT	<0.018		0.018	0.0095	mg/Kg	☼	06/18/15 07:01	06/18/15 18:20	10
delta-BHC	<0.018		0.018	0.0057	mg/Kg	☼	06/18/15 07:01	06/18/15 18:20	10
Dieldrin	<0.018		0.018	0.0025	mg/Kg	☼	06/18/15 07:01	06/18/15 18:20	10
Endosulfan I	<0.018		0.018	0.0079	mg/Kg	☼	06/18/15 07:01	06/18/15 18:20	10
Endosulfan II	<0.018		0.018	0.0029	mg/Kg	☼	06/18/15 07:01	06/18/15 18:20	10
Endosulfan sulfate	<0.018		0.018	0.0033	mg/Kg	☼	06/18/15 07:01	06/18/15 18:20	10
Endrin	<0.018		0.018	0.0025	mg/Kg	☼	06/18/15 07:01	06/18/15 18:20	10
Endrin aldehyde	<0.018		0.018	0.0030	mg/Kg	☼	06/18/15 07:01	06/18/15 18:20	10
Endrin ketone	<0.018		0.018	0.0041	mg/Kg	☼	06/18/15 07:01	06/18/15 18:20	10
gamma-BHC (Lindane)	<0.018		0.018	0.0039	mg/Kg	☼	06/18/15 07:01	06/18/15 18:20	10
gamma-Chlordane	<0.018		0.018	0.0047	mg/Kg	☼	06/18/15 07:01	06/18/15 18:20	10
Heptachlor	<0.018		0.018	0.0076	mg/Kg	☼	06/18/15 07:01	06/18/15 18:20	10
Heptachlor epoxide	<0.018		0.018	0.0064	mg/Kg	☼	06/18/15 07:01	06/18/15 18:20	10
Methoxychlor	<0.090		0.090	0.0035	mg/Kg	☼	06/18/15 07:01	06/18/15 18:20	10
Toxaphene	<0.18		0.18	0.076	mg/Kg	☼	06/18/15 07:01	06/18/15 18:20	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	73		56 - 128	06/18/15 07:01	06/18/15 18:20	10
Tetrachloro-m-xylene	66		45 - 112	06/18/15 07:01	06/18/15 18:20	10

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97262-1

Client Sample ID: 1860-64-B01 (8-10)

Lab Sample ID: 500-97262-2

Date Collected: 06/11/15 09:50

Matrix: Solid

Date Received: 06/11/15 16:10

Percent Solids: 91.8

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dicamba	<0.36		0.36	0.074	mg/Kg	☼	06/16/15 19:45	06/22/15 13:54	10
Dichlorprop	<0.36		0.36	0.097	mg/Kg	☼	06/16/15 19:45	06/22/15 13:54	10
2,4-D	<0.36		0.36	0.10	mg/Kg	☼	06/16/15 19:45	06/22/15 13:54	10
Silvex (2,4,5-TP)	<0.36		0.36	0.091	mg/Kg	☼	06/16/15 19:45	06/22/15 13:54	10
2,4,5-T	<0.36		0.36	0.087	mg/Kg	☼	06/16/15 19:45	06/22/15 13:54	10
2,4-DB	<0.36		0.36	0.11	mg/Kg	☼	06/16/15 19:45	06/22/15 13:54	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCAA	90		32 - 122	06/16/15 19:45	06/22/15 13:54	10

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.1		1.1	0.22	mg/Kg	☼	06/16/15 17:41	06/17/15 19:47	1
Arsenic	9.7		0.54	0.25	mg/Kg	☼	06/16/15 17:41	06/17/15 19:47	1
Barium	25		0.54	0.099	mg/Kg	☼	06/16/15 17:41	06/17/15 19:47	1
Beryllium	0.37		0.22	0.047	mg/Kg	☼	06/16/15 17:41	06/17/15 19:47	1
Boron	8.1		2.7	0.38	mg/Kg	☼	06/16/15 17:41	06/17/15 19:47	1
Cadmium	0.12		0.11	0.031	mg/Kg	☼	06/16/15 17:41	06/17/15 19:47	1
Calcium	74000		54	17	mg/Kg	☼	06/16/15 17:41	06/18/15 21:31	5
Chromium	10		0.54	0.093	mg/Kg	☼	06/16/15 17:41	06/17/15 19:47	1
Cobalt	11		0.27	0.061	mg/Kg	☼	06/16/15 17:41	06/17/15 19:47	1
Copper	25		0.54	0.12	mg/Kg	☼	06/16/15 17:41	06/17/15 19:47	1
Iron	15000		11	4.2	mg/Kg	☼	06/16/15 17:41	06/17/15 19:47	1
Lead	14		0.27	0.13	mg/Kg	☼	06/16/15 17:41	06/17/15 19:47	1
Magnesium	34000	B	5.4	2.2	mg/Kg	☼	06/16/15 17:41	06/17/15 19:47	1
Manganese	350		0.54	0.11	mg/Kg	☼	06/16/15 17:41	06/17/15 19:47	1
Nickel	26		0.54	0.15	mg/Kg	☼	06/16/15 17:41	06/17/15 19:47	1
Potassium	1600		27	4.4	mg/Kg	☼	06/16/15 17:41	06/17/15 19:47	1
Selenium	0.61		0.54	0.27	mg/Kg	☼	06/16/15 17:41	06/17/15 19:47	1
Silver	<0.27		0.27	0.063	mg/Kg	☼	06/16/15 17:41	06/17/15 19:47	1
Sodium	180		54	7.1	mg/Kg	☼	06/16/15 17:41	06/17/15 19:47	1
Thallium	0.30	J	0.54	0.26	mg/Kg	☼	06/16/15 17:41	06/17/15 19:47	1
Vanadium	13		0.27	0.079	mg/Kg	☼	06/16/15 17:41	06/17/15 19:47	1
Zinc	56	B	1.1	0.34	mg/Kg	☼	06/16/15 17:41	06/18/15 20:39	1

Method: 7471B - Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.032		0.017	0.0058	mg/Kg	☼	06/12/15 14:00	06/15/15 13:51	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97262-1

Client Sample ID: 1860-64-B02 (4-6)

Lab Sample ID: 500-97262-3

Date Collected: 06/11/15 10:40

Matrix: Solid

Date Received: 06/11/15 16:10

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		06/14/15 14:10	06/15/15 21:17	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		06/14/15 14:10	06/15/15 21:17	1
Boron	0.75		0.50	0.050	mg/L		06/14/15 14:10	06/15/15 21:17	1
Cadmium	0.0025	J	0.0050	0.0020	mg/L		06/14/15 14:10	06/15/15 21:17	1
Chromium	<0.025		0.025	0.010	mg/L		06/14/15 14:10	06/15/15 21:17	1
Cobalt	0.018	J	0.025	0.010	mg/L		06/14/15 14:10	06/15/15 21:17	1
Iron	<0.20		0.20	0.20	mg/L		06/14/15 14:10	06/15/15 21:17	1
Lead	<0.0075		0.0075	0.0075	mg/L		06/14/15 14:10	06/16/15 16:41	1
Manganese	3.2		0.025	0.010	mg/L		06/14/15 14:10	06/15/15 21:17	1
Nickel	0.020	J	0.025	0.010	mg/L		06/14/15 14:10	06/15/15 21:17	1
Selenium	<0.050		0.050	0.020	mg/L		06/14/15 14:10	06/15/15 21:17	1
Silver	<0.025		0.025	0.010	mg/L		06/14/15 14:10	06/15/15 21:17	1
Zinc	0.070	J ^	0.10	0.020	mg/L		06/14/15 14:10	06/15/15 21:17	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		06/21/15 14:00	06/22/15 13:00	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		06/14/15 14:10	06/17/15 13:28	1
Thallium	<0.0020		0.0020	0.0020	mg/L		06/14/15 14:10	06/16/15 20:52	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		06/15/15 11:30	06/16/15 10:41	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.92		0.200	0.200	SU			06/12/15 13:25	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97262-1

Client Sample ID: 1860-64-B02 (4-6)

Lab Sample ID: 500-97262-3

Date Collected: 06/11/15 10:40

Matrix: Solid

Date Received: 06/11/15 16:10

Percent Solids: 86.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	0.0098	*	0.0042	0.0032	mg/Kg	☼	06/11/15 17:25	06/16/15 17:22	1
Benzene	<0.0042		0.0042	0.00093	mg/Kg	☼	06/11/15 17:25	06/16/15 17:22	1
Bromodichloromethane	<0.0042		0.0042	0.00071	mg/Kg	☼	06/11/15 17:25	06/16/15 17:22	1
Bromoform	<0.0042		0.0042	0.00086	mg/Kg	☼	06/11/15 17:25	06/16/15 17:22	1
Bromomethane	<0.0042		0.0042	0.0015	mg/Kg	☼	06/11/15 17:25	06/16/15 17:22	1
2-Butanone (MEK)	<0.0042		0.0042	0.0015	mg/Kg	☼	06/11/15 17:25	06/16/15 17:22	1
Carbon disulfide	<0.0042		0.0042	0.0015	mg/Kg	☼	06/11/15 17:25	06/16/15 17:22	1
Carbon tetrachloride	<0.0042		0.0042	0.00090	mg/Kg	☼	06/11/15 17:25	06/16/15 17:22	1
Chlorobenzene	<0.0042		0.0042	0.00099	mg/Kg	☼	06/11/15 17:25	06/16/15 17:22	1
Chloroethane	<0.0042		0.0042	0.0018	mg/Kg	☼	06/11/15 17:25	06/16/15 17:22	1
Chloroform	<0.0042		0.0042	0.00082	mg/Kg	☼	06/11/15 17:25	06/16/15 17:22	1
Chloromethane	<0.0042		0.0042	0.0010	mg/Kg	☼	06/11/15 17:25	06/16/15 17:22	1
cis-1,2-Dichloroethene	<0.0042		0.0042	0.00086	mg/Kg	☼	06/11/15 17:25	06/16/15 17:22	1
cis-1,3-Dichloropropene	<0.0042		0.0042	0.00096	mg/Kg	☼	06/11/15 17:25	06/16/15 17:22	1
Dibromochloromethane	<0.0042		0.0042	0.00048	mg/Kg	☼	06/11/15 17:25	06/16/15 17:22	1
1,1-Dichloroethane	<0.0042		0.0042	0.00086	mg/Kg	☼	06/11/15 17:25	06/16/15 17:22	1
1,2-Dichloroethane	<0.0042		0.0042	0.00062	mg/Kg	☼	06/11/15 17:25	06/16/15 17:22	1
1,1-Dichloroethene	<0.0042		0.0042	0.0015	mg/Kg	☼	06/11/15 17:25	06/16/15 17:22	1
1,2-Dichloropropane	<0.0042		0.0042	0.0011	mg/Kg	☼	06/11/15 17:25	06/16/15 17:22	1
1,3-Dichloropropane, Total	<0.0042		0.0042	0.0012	mg/Kg	☼	06/11/15 17:25	06/16/15 17:22	1
Ethylbenzene	<0.0042		0.0042	0.0010	mg/Kg	☼	06/11/15 17:25	06/16/15 17:22	1
2-Hexanone	<0.0042		0.0042	0.0013	mg/Kg	☼	06/11/15 17:25	06/16/15 17:22	1
Methylene Chloride	<0.0042		0.0042	0.0032	mg/Kg	☼	06/11/15 17:25	06/16/15 17:22	1
4-Methyl-2-pentanone (MIBK)	<0.0042		0.0042	0.00086	mg/Kg	☼	06/11/15 17:25	06/16/15 17:22	1
Methyl tert-butyl ether	<0.0042		0.0042	0.00099	mg/Kg	☼	06/11/15 17:25	06/16/15 17:22	1
Styrene	<0.0042		0.0042	0.00098	mg/Kg	☼	06/11/15 17:25	06/16/15 17:22	1
1,1,1,2-Tetrachloroethane	<0.0042		0.0042	0.00067	mg/Kg	☼	06/11/15 17:25	06/16/15 17:22	1
Tetrachloroethene	<0.0042		0.0042	0.00087	mg/Kg	☼	06/11/15 17:25	06/16/15 17:22	1
Toluene	<0.0042		0.0042	0.0015	mg/Kg	☼	06/11/15 17:25	06/16/15 17:22	1
trans-1,2-Dichloroethene	<0.0042		0.0042	0.0010	mg/Kg	☼	06/11/15 17:25	06/16/15 17:22	1
trans-1,3-Dichloropropene	<0.0042		0.0042	0.0012	mg/Kg	☼	06/11/15 17:25	06/16/15 17:22	1
1,1,1-Trichloroethane	<0.0042		0.0042	0.00097	mg/Kg	☼	06/11/15 17:25	06/16/15 17:22	1
1,1,2-Trichloroethane	<0.0042		0.0042	0.00081	mg/Kg	☼	06/11/15 17:25	06/16/15 17:22	1
Trichloroethene	<0.0042		0.0042	0.0011	mg/Kg	☼	06/11/15 17:25	06/16/15 17:22	1
Vinyl acetate	<0.0042		0.0042	0.0011	mg/Kg	☼	06/11/15 17:25	06/16/15 17:22	1
Vinyl chloride	<0.0042		0.0042	0.0010	mg/Kg	☼	06/11/15 17:25	06/16/15 17:22	1
Xylenes, Total	<0.0084		0.0084	0.0016	mg/Kg	☼	06/11/15 17:25	06/16/15 17:22	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	91		70 - 122	06/11/15 17:25	06/16/15 17:22	1
Dibromofluoromethane	103		75 - 120	06/11/15 17:25	06/16/15 17:22	1
1,2-Dichloroethane-d4 (Surr)	98		70 - 134	06/11/15 17:25	06/16/15 17:22	1
Toluene-d8 (Surr)	97		75 - 122	06/11/15 17:25	06/16/15 17:22	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	☼	06/22/15 09:27	06/23/15 23:26	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.056	mg/Kg	☼	06/22/15 09:27	06/23/15 23:26	1
1,3-Dichlorobenzene	<0.19		0.19	0.042	mg/Kg	☼	06/22/15 09:27	06/23/15 23:26	1
1,4-Dichlorobenzene	<0.19		0.19	0.048	mg/Kg	☼	06/22/15 09:27	06/23/15 23:26	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97262-1

Client Sample ID: 1860-64-B02 (4-6)

Lab Sample ID: 500-97262-3

Date Collected: 06/11/15 10:40

Matrix: Solid

Date Received: 06/11/15 16:10

Percent Solids: 86.9

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	0.045	mg/Kg	☼	06/22/15 09:27	06/23/15 23:26	1
2-Methylphenol	<0.19		0.19	0.060	mg/Kg	☼	06/22/15 09:27	06/23/15 23:26	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.043	mg/Kg	☼	06/22/15 09:27	06/23/15 23:26	1
N-Nitrosodi-n-propylamine	<0.19		0.19	0.046	mg/Kg	☼	06/22/15 09:27	06/23/15 23:26	1
Hexachloroethane	<0.19		0.19	0.057	mg/Kg	☼	06/22/15 09:27	06/23/15 23:26	1
2-Chlorophenol	<0.19		0.19	0.064	mg/Kg	☼	06/22/15 09:27	06/23/15 23:26	1
Nitrobenzene	<0.037		0.037	0.0093	mg/Kg	☼	06/22/15 09:27	06/23/15 23:26	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.038	mg/Kg	☼	06/22/15 09:27	06/23/15 23:26	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.040	mg/Kg	☼	06/22/15 09:27	06/23/15 23:26	1
Isophorone	<0.19		0.19	0.042	mg/Kg	☼	06/22/15 09:27	06/23/15 23:26	1
2,4-Dimethylphenol	<0.37		0.37	0.14	mg/Kg	☼	06/22/15 09:27	06/23/15 23:26	1
Hexachlorobutadiene	<0.19		0.19	0.059	mg/Kg	☼	06/22/15 09:27	06/23/15 23:26	1
Naphthalene	0.024	J	0.037	0.0057	mg/Kg	☼	06/22/15 09:27	06/23/15 23:26	1
2,4-Dichlorophenol	<0.37		0.37	0.089	mg/Kg	☼	06/22/15 09:27	06/23/15 23:26	1
4-Chloroaniline	<0.75		0.75	0.18	mg/Kg	☼	06/22/15 09:27	06/23/15 23:26	1
2,4,6-Trichlorophenol	<0.37		0.37	0.13	mg/Kg	☼	06/22/15 09:27	06/23/15 23:26	1
2,4,5-Trichlorophenol	<0.37		0.37	0.085	mg/Kg	☼	06/22/15 09:27	06/23/15 23:26	1
Hexachlorocyclopentadiene	<0.75		0.75	0.21	mg/Kg	☼	06/22/15 09:27	06/23/15 23:26	1
2-Methylnaphthalene	0.021	J	0.037	0.0069	mg/Kg	☼	06/22/15 09:27	06/23/15 23:26	1
2-Nitroaniline	<0.19		0.19	0.050	mg/Kg	☼	06/22/15 09:27	06/23/15 23:26	1
2-Chloronaphthalene	<0.19		0.19	0.041	mg/Kg	☼	06/22/15 09:27	06/23/15 23:26	1
4-Chloro-3-methylphenol	<0.37		0.37	0.13	mg/Kg	☼	06/22/15 09:27	06/23/15 23:26	1
2,6-Dinitrotoluene	<0.19		0.19	0.073	mg/Kg	☼	06/22/15 09:27	06/23/15 23:26	1
2-Nitrophenol	<0.37		0.37	0.088	mg/Kg	☼	06/22/15 09:27	06/23/15 23:26	1
3-Nitroaniline	<0.37		0.37	0.12	mg/Kg	☼	06/22/15 09:27	06/23/15 23:26	1
Dimethyl phthalate	<0.19		0.19	0.049	mg/Kg	☼	06/22/15 09:27	06/23/15 23:26	1
2,4-Dinitrophenol	<0.75		0.75	0.66	mg/Kg	☼	06/22/15 09:27	06/23/15 23:26	1
Acenaphthylene	<0.037		0.037	0.0049	mg/Kg	☼	06/22/15 09:27	06/23/15 23:26	1
2,4-Dinitrotoluene	<0.19		0.19	0.059	mg/Kg	☼	06/22/15 09:27	06/23/15 23:26	1
Acenaphthene	0.027	J	0.037	0.0067	mg/Kg	☼	06/22/15 09:27	06/23/15 23:26	1
Dibenzofuran	<0.19		0.19	0.044	mg/Kg	☼	06/22/15 09:27	06/23/15 23:26	1
4-Nitrophenol	<0.75		0.75	0.36	mg/Kg	☼	06/22/15 09:27	06/23/15 23:26	1
Fluorene	0.033	J	0.037	0.0053	mg/Kg	☼	06/22/15 09:27	06/23/15 23:26	1
4-Nitroaniline	<0.37		0.37	0.16	mg/Kg	☼	06/22/15 09:27	06/23/15 23:26	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.049	mg/Kg	☼	06/22/15 09:27	06/23/15 23:26	1
Hexachlorobenzene	<0.075		0.075	0.0087	mg/Kg	☼	06/22/15 09:27	06/23/15 23:26	1
Diethyl phthalate	<0.19		0.19	0.063	mg/Kg	☼	06/22/15 09:27	06/23/15 23:26	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.044	mg/Kg	☼	06/22/15 09:27	06/23/15 23:26	1
Pentachlorophenol	<0.75		0.75	0.60	mg/Kg	☼	06/22/15 09:27	06/23/15 23:26	1
N-Nitrosodiphenylamine	<0.19		0.19	0.044	mg/Kg	☼	06/22/15 09:27	06/23/15 23:26	1
4,6-Dinitro-2-methylphenol	<0.37	*	0.37	0.30	mg/Kg	☼	06/22/15 09:27	06/23/15 23:26	1
Phenanthrene	0.17		0.037	0.0052	mg/Kg	☼	06/22/15 09:27	06/23/15 23:26	1
Anthracene	0.054		0.037	0.0062	mg/Kg	☼	06/22/15 09:27	06/23/15 23:26	1
Carbazole	<0.19		0.19	0.097	mg/Kg	☼	06/22/15 09:27	06/23/15 23:26	1
Di-n-butyl phthalate	<0.19		0.19	0.057	mg/Kg	☼	06/22/15 09:27	06/23/15 23:26	1
Fluoranthene	0.23		0.037	0.0069	mg/Kg	☼	06/22/15 09:27	06/23/15 23:26	1
Pyrene	0.18		0.037	0.0074	mg/Kg	☼	06/22/15 09:27	06/23/15 23:26	1
Butyl benzyl phthalate	<0.19		0.19	0.071	mg/Kg	☼	06/22/15 09:27	06/23/15 23:26	1
Benzo[a]anthracene	0.095		0.037	0.0050	mg/Kg	☼	06/22/15 09:27	06/23/15 23:26	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97262-1

Client Sample ID: 1860-64-B02 (4-6)

Lab Sample ID: 500-97262-3

Date Collected: 06/11/15 10:40

Matrix: Solid

Date Received: 06/11/15 16:10

Percent Solids: 86.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.10		0.037	0.010	mg/Kg	☼	06/22/15 09:27	06/23/15 23:26	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.052	mg/Kg	☼	06/22/15 09:27	06/23/15 23:26	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.068	mg/Kg	☼	06/22/15 09:27	06/23/15 23:26	1
Di-n-octyl phthalate	<0.19		0.19	0.061	mg/Kg	☼	06/22/15 09:27	06/23/15 23:26	1
Benzo[b]fluoranthene	0.095		0.037	0.0081	mg/Kg	☼	06/22/15 09:27	06/23/15 23:26	1
Benzo[k]fluoranthene	0.049		0.037	0.011	mg/Kg	☼	06/22/15 09:27	06/23/15 23:26	1
Benzo[a]pyrene	0.071		0.037	0.0072	mg/Kg	☼	06/22/15 09:27	06/23/15 23:26	1
Indeno[1,2,3-cd]pyrene	0.036	J *	0.037	0.0097	mg/Kg	☼	06/22/15 09:27	06/23/15 23:26	1
Dibenz(a,h)anthracene	0.012	J *	0.037	0.0072	mg/Kg	☼	06/22/15 09:27	06/23/15 23:26	1
Benzo[g,h,i]perylene	0.046		0.037	0.012	mg/Kg	☼	06/22/15 09:27	06/23/15 23:26	1
3 & 4 Methylphenol	<0.19		0.19	0.062	mg/Kg	☼	06/22/15 09:27	06/23/15 23:26	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	55		25 - 110	06/22/15 09:27	06/23/15 23:26	1
Phenol-d5	60		31 - 110	06/22/15 09:27	06/23/15 23:26	1
Nitrobenzene-d5	52		25 - 115	06/22/15 09:27	06/23/15 23:26	1
2-Fluorobiphenyl	59		25 - 119	06/22/15 09:27	06/23/15 23:26	1
2,4,6-Tribromophenol	62		35 - 137	06/22/15 09:27	06/23/15 23:26	1
Terphenyl-d14	80		36 - 134	06/22/15 09:27	06/23/15 23:26	1

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin	<0.019		0.019	0.0076	mg/Kg	☼	06/18/15 07:01	06/18/15 18:40	10
alpha-BHC	<0.019		0.019	0.0047	mg/Kg	☼	06/18/15 07:01	06/18/15 18:40	10
alpha-Chlordane	<0.019		0.019	0.0093	mg/Kg	☼	06/18/15 07:01	06/18/15 18:40	10
beta-BHC	<0.019		0.019	0.0057	mg/Kg	☼	06/18/15 07:01	06/18/15 18:40	10
4,4'-DDD	<0.019		0.019	0.0037	mg/Kg	☼	06/18/15 07:01	06/18/15 18:40	10
4,4'-DDE	<0.019		0.019	0.0031	mg/Kg	☼	06/18/15 07:01	06/18/15 18:40	10
4,4'-DDT	<0.019		0.019	0.0097	mg/Kg	☼	06/18/15 07:01	06/18/15 18:40	10
delta-BHC	<0.019		0.019	0.0058	mg/Kg	☼	06/18/15 07:01	06/18/15 18:40	10
Dieldrin	<0.019		0.019	0.0025	mg/Kg	☼	06/18/15 07:01	06/18/15 18:40	10
Endosulfan I	<0.019		0.019	0.0081	mg/Kg	☼	06/18/15 07:01	06/18/15 18:40	10
Endosulfan II	0.020		0.019	0.0030	mg/Kg	☼	06/18/15 07:01	06/18/15 18:40	10
Endosulfan sulfate	<0.019		0.019	0.0034	mg/Kg	☼	06/18/15 07:01	06/18/15 18:40	10
Endrin	<0.019		0.019	0.0025	mg/Kg	☼	06/18/15 07:01	06/18/15 18:40	10
Endrin aldehyde	<0.019		0.019	0.0031	mg/Kg	☼	06/18/15 07:01	06/18/15 18:40	10
Endrin ketone	<0.019		0.019	0.0042	mg/Kg	☼	06/18/15 07:01	06/18/15 18:40	10
gamma-BHC (Lindane)	<0.019		0.019	0.0040	mg/Kg	☼	06/18/15 07:01	06/18/15 18:40	10
gamma-Chlordane	<0.019		0.019	0.0048	mg/Kg	☼	06/18/15 07:01	06/18/15 18:40	10
Heptachlor	<0.019		0.019	0.0077	mg/Kg	☼	06/18/15 07:01	06/18/15 18:40	10
Heptachlor epoxide	<0.019		0.019	0.0065	mg/Kg	☼	06/18/15 07:01	06/18/15 18:40	10
Methoxychlor	<0.092		0.092	0.0036	mg/Kg	☼	06/18/15 07:01	06/18/15 18:40	10
Toxaphene	<0.18		0.18	0.078	mg/Kg	☼	06/18/15 07:01	06/18/15 18:40	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	88		56 - 128	06/18/15 07:01	06/18/15 18:40	10
Tetrachloro-m-xylene	77		45 - 112	06/18/15 07:01	06/18/15 18:40	10

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97262-1

Client Sample ID: 1860-64-B02 (4-6)

Lab Sample ID: 500-97262-3

Date Collected: 06/11/15 10:40

Matrix: Solid

Date Received: 06/11/15 16:10

Percent Solids: 86.9

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dicamba	<0.37		0.37	0.077	mg/Kg	☼	06/16/15 19:45	06/22/15 14:16	10
Dichlorprop	<0.37		0.37	0.10	mg/Kg	☼	06/16/15 19:45	06/22/15 14:16	10
2,4-D	<0.37		0.37	0.11	mg/Kg	☼	06/16/15 19:45	06/22/15 14:16	10
Silvex (2,4,5-TP)	<0.37		0.37	0.095	mg/Kg	☼	06/16/15 19:45	06/22/15 14:16	10
2,4,5-T	<0.37		0.37	0.090	mg/Kg	☼	06/16/15 19:45	06/22/15 14:16	10
2,4-DB	<0.37		0.37	0.11	mg/Kg	☼	06/16/15 19:45	06/22/15 14:16	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCAA	98		32 - 122	06/16/15 19:45	06/22/15 14:16	10

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.1		1.1	0.23	mg/Kg	☼	06/16/15 17:41	06/17/15 19:52	1
Arsenic	9.0		0.54	0.25	mg/Kg	☼	06/16/15 17:41	06/17/15 19:52	1
Barium	44		0.54	0.099	mg/Kg	☼	06/16/15 17:41	06/17/15 19:52	1
Beryllium	0.68		0.22	0.047	mg/Kg	☼	06/16/15 17:41	06/17/15 19:52	1
Boron	9.8		2.7	0.38	mg/Kg	☼	06/16/15 17:41	06/17/15 19:52	1
Cadmium	0.061 J		0.11	0.031	mg/Kg	☼	06/16/15 17:41	06/17/15 19:52	1
Calcium	54000		54	17	mg/Kg	☼	06/16/15 17:41	06/18/15 21:35	5
Chromium	16		0.54	0.093	mg/Kg	☼	06/16/15 17:41	06/17/15 19:52	1
Cobalt	14		0.27	0.061	mg/Kg	☼	06/16/15 17:41	06/17/15 19:52	1
Copper	26		0.54	0.12	mg/Kg	☼	06/16/15 17:41	06/17/15 19:52	1
Iron	19000		11	4.2	mg/Kg	☼	06/16/15 17:41	06/17/15 19:52	1
Lead	17		0.27	0.14	mg/Kg	☼	06/16/15 17:41	06/17/15 19:52	1
Magnesium	22000 B		5.4	2.2	mg/Kg	☼	06/16/15 17:41	06/17/15 19:52	1
Manganese	310		0.54	0.11	mg/Kg	☼	06/16/15 17:41	06/17/15 19:52	1
Nickel	35		0.54	0.15	mg/Kg	☼	06/16/15 17:41	06/17/15 19:52	1
Potassium	2300		27	4.4	mg/Kg	☼	06/16/15 17:41	06/17/15 19:52	1
Selenium	0.28 J		0.54	0.27	mg/Kg	☼	06/16/15 17:41	06/17/15 19:52	1
Silver	<0.27		0.27	0.063	mg/Kg	☼	06/16/15 17:41	06/17/15 19:52	1
Sodium	470		54	7.2	mg/Kg	☼	06/16/15 17:41	06/17/15 19:52	1
Thallium	<0.54		0.54	0.27	mg/Kg	☼	06/16/15 17:41	06/17/15 19:52	1
Vanadium	18		0.27	0.079	mg/Kg	☼	06/16/15 17:41	06/17/15 19:52	1
Zinc	60 B		1.1	0.34	mg/Kg	☼	06/16/15 17:41	06/18/15 20:44	1

Method: 7471B - Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.027		0.018	0.0065	mg/Kg	☼	06/12/15 14:00	06/15/15 13:53	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97262-1

Client Sample ID: 1860-64-B02 (12-14)

Lab Sample ID: 500-97262-4

Date Collected: 06/11/15 10:45

Matrix: Solid

Date Received: 06/11/15 16:10

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	-	06/14/15 14:10	06/15/15 21:29	1
Beryllium	<0.0040		0.0040	0.0040	mg/L	-	06/14/15 14:10	06/15/15 21:29	1
Boron	0.52		0.50	0.050	mg/L	-	06/14/15 14:10	06/15/15 21:29	1
Cadmium	<0.0050		0.0050	0.0020	mg/L	-	06/14/15 14:10	06/15/15 21:29	1
Chromium	<0.025		0.025	0.010	mg/L	-	06/14/15 14:10	06/15/15 21:29	1
Cobalt	0.021	J	0.025	0.010	mg/L	-	06/14/15 14:10	06/15/15 21:29	1
Iron	<0.20		0.20	0.20	mg/L	-	06/14/15 14:10	06/15/15 21:29	1
Lead	<0.0075		0.0075	0.0075	mg/L	-	06/14/15 14:10	06/16/15 16:48	1
Manganese	1.7		0.025	0.010	mg/L	-	06/14/15 14:10	06/15/15 21:29	1
Nickel	0.053		0.025	0.010	mg/L	-	06/14/15 14:10	06/15/15 21:29	1
Selenium	<0.050		0.050	0.020	mg/L	-	06/14/15 14:10	06/15/15 21:29	1
Silver	<0.025		0.025	0.010	mg/L	-	06/14/15 14:10	06/15/15 21:29	1
Zinc	0.027	J ^	0.10	0.020	mg/L	-	06/14/15 14:10	06/15/15 21:29	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.034		0.025	0.010	mg/L	-	06/21/15 14:00	06/22/15 13:04	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	-	06/14/15 14:10	06/17/15 13:32	1
Thallium	<0.0020		0.0020	0.0020	mg/L	-	06/14/15 14:10	06/16/15 20:56	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	-	06/15/15 11:30	06/16/15 10:43	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.97		0.200	0.200	SU	-		06/12/15 13:26	1

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97262-1

Client Sample ID: 1860-64-B02 (12-14)

Lab Sample ID: 500-97262-4

Date Collected: 06/11/15 10:45

Matrix: Solid

Date Received: 06/11/15 16:10

Percent Solids: 89.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.0043	*	0.0043	0.0033	mg/Kg	☼	06/11/15 17:25	06/16/15 17:46	1
Benzene	<0.0043		0.0043	0.00094	mg/Kg	☼	06/11/15 17:25	06/16/15 17:46	1
Bromodichloromethane	<0.0043		0.0043	0.00072	mg/Kg	☼	06/11/15 17:25	06/16/15 17:46	1
Bromoform	<0.0043		0.0043	0.00087	mg/Kg	☼	06/11/15 17:25	06/16/15 17:46	1
Bromomethane	<0.0043		0.0043	0.0016	mg/Kg	☼	06/11/15 17:25	06/16/15 17:46	1
2-Butanone (MEK)	<0.0043		0.0043	0.0015	mg/Kg	☼	06/11/15 17:25	06/16/15 17:46	1
Carbon disulfide	<0.0043		0.0043	0.0016	mg/Kg	☼	06/11/15 17:25	06/16/15 17:46	1
Carbon tetrachloride	<0.0043		0.0043	0.00091	mg/Kg	☼	06/11/15 17:25	06/16/15 17:46	1
Chlorobenzene	<0.0043		0.0043	0.0010	mg/Kg	☼	06/11/15 17:25	06/16/15 17:46	1
Chloroethane	<0.0043		0.0043	0.0018	mg/Kg	☼	06/11/15 17:25	06/16/15 17:46	1
Chloroform	<0.0043		0.0043	0.00083	mg/Kg	☼	06/11/15 17:25	06/16/15 17:46	1
Chloromethane	<0.0043		0.0043	0.0010	mg/Kg	☼	06/11/15 17:25	06/16/15 17:46	1
cis-1,2-Dichloroethene	<0.0043		0.0043	0.00087	mg/Kg	☼	06/11/15 17:25	06/16/15 17:46	1
cis-1,3-Dichloropropene	<0.0043		0.0043	0.00097	mg/Kg	☼	06/11/15 17:25	06/16/15 17:46	1
Dibromochloromethane	<0.0043		0.0043	0.00049	mg/Kg	☼	06/11/15 17:25	06/16/15 17:46	1
1,1-Dichloroethane	<0.0043		0.0043	0.00088	mg/Kg	☼	06/11/15 17:25	06/16/15 17:46	1
1,2-Dichloroethane	<0.0043		0.0043	0.00063	mg/Kg	☼	06/11/15 17:25	06/16/15 17:46	1
1,1-Dichloroethene	<0.0043		0.0043	0.0015	mg/Kg	☼	06/11/15 17:25	06/16/15 17:46	1
1,2-Dichloropropane	<0.0043		0.0043	0.0011	mg/Kg	☼	06/11/15 17:25	06/16/15 17:46	1
1,3-Dichloropropane, Total	<0.0043		0.0043	0.0012	mg/Kg	☼	06/11/15 17:25	06/16/15 17:46	1
Ethylbenzene	<0.0043		0.0043	0.0011	mg/Kg	☼	06/11/15 17:25	06/16/15 17:46	1
2-Hexanone	<0.0043		0.0043	0.0013	mg/Kg	☼	06/11/15 17:25	06/16/15 17:46	1
Methylene Chloride	<0.0043		0.0043	0.0032	mg/Kg	☼	06/11/15 17:25	06/16/15 17:46	1
4-Methyl-2-pentanone (MIBK)	<0.0043		0.0043	0.00088	mg/Kg	☼	06/11/15 17:25	06/16/15 17:46	1
Methyl tert-butyl ether	<0.0043		0.0043	0.0010	mg/Kg	☼	06/11/15 17:25	06/16/15 17:46	1
Styrene	<0.0043		0.0043	0.0010	mg/Kg	☼	06/11/15 17:25	06/16/15 17:46	1
1,1,2,2-Tetrachloroethane	<0.0043		0.0043	0.00068	mg/Kg	☼	06/11/15 17:25	06/16/15 17:46	1
Tetrachloroethene	<0.0043		0.0043	0.00088	mg/Kg	☼	06/11/15 17:25	06/16/15 17:46	1
Toluene	<0.0043		0.0043	0.0015	mg/Kg	☼	06/11/15 17:25	06/16/15 17:46	1
trans-1,2-Dichloroethene	<0.0043		0.0043	0.0011	mg/Kg	☼	06/11/15 17:25	06/16/15 17:46	1
trans-1,3-Dichloropropene	<0.0043		0.0043	0.0012	mg/Kg	☼	06/11/15 17:25	06/16/15 17:46	1
1,1,1-Trichloroethane	<0.0043		0.0043	0.00099	mg/Kg	☼	06/11/15 17:25	06/16/15 17:46	1
1,1,2-Trichloroethane	<0.0043		0.0043	0.00082	mg/Kg	☼	06/11/15 17:25	06/16/15 17:46	1
Trichloroethene	<0.0043		0.0043	0.0011	mg/Kg	☼	06/11/15 17:25	06/16/15 17:46	1
Vinyl acetate	<0.0043		0.0043	0.0011	mg/Kg	☼	06/11/15 17:25	06/16/15 17:46	1
Vinyl chloride	<0.0043		0.0043	0.0010	mg/Kg	☼	06/11/15 17:25	06/16/15 17:46	1
Xylenes, Total	<0.0085		0.0085	0.0016	mg/Kg	☼	06/11/15 17:25	06/16/15 17:46	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	86		70 - 122	06/11/15 17:25	06/16/15 17:46	1
Dibromofluoromethane	101		75 - 120	06/11/15 17:25	06/16/15 17:46	1
1,2-Dichloroethane-d4 (Surr)	96		70 - 134	06/11/15 17:25	06/16/15 17:46	1
Toluene-d8 (Surr)	99		75 - 122	06/11/15 17:25	06/16/15 17:46	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	☼	06/22/15 09:27	06/23/15 23:47	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.055	mg/Kg	☼	06/22/15 09:27	06/23/15 23:47	1
1,3-Dichlorobenzene	<0.19	F1	0.19	0.041	mg/Kg	☼	06/22/15 09:27	06/23/15 23:47	1
1,4-Dichlorobenzene	<0.19	F1	0.19	0.047	mg/Kg	☼	06/22/15 09:27	06/23/15 23:47	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97262-1

Client Sample ID: 1860-64-B02 (12-14)

Lab Sample ID: 500-97262-4

Date Collected: 06/11/15 10:45

Matrix: Solid

Date Received: 06/11/15 16:10

Percent Solids: 89.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.19	F1	0.19	0.044	mg/Kg	☼	06/22/15 09:27	06/23/15 23:47	1
2-Methylphenol	<0.19		0.19	0.059	mg/Kg	☼	06/22/15 09:27	06/23/15 23:47	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.043	mg/Kg	☼	06/22/15 09:27	06/23/15 23:47	1
N-Nitrosodi-n-propylamine	<0.19		0.19	0.045	mg/Kg	☼	06/22/15 09:27	06/23/15 23:47	1
Hexachloroethane	<0.19	F1 F2	0.19	0.056	mg/Kg	☼	06/22/15 09:27	06/23/15 23:47	1
2-Chlorophenol	<0.19		0.19	0.063	mg/Kg	☼	06/22/15 09:27	06/23/15 23:47	1
Nitrobenzene	<0.037		0.037	0.0092	mg/Kg	☼	06/22/15 09:27	06/23/15 23:47	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.038	mg/Kg	☼	06/22/15 09:27	06/23/15 23:47	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.040	mg/Kg	☼	06/22/15 09:27	06/23/15 23:47	1
Isophorone	<0.19		0.19	0.041	mg/Kg	☼	06/22/15 09:27	06/23/15 23:47	1
2,4-Dimethylphenol	<0.37		0.37	0.14	mg/Kg	☼	06/22/15 09:27	06/23/15 23:47	1
Hexachlorobutadiene	<0.19		0.19	0.058	mg/Kg	☼	06/22/15 09:27	06/23/15 23:47	1
Naphthalene	<0.037		0.037	0.0057	mg/Kg	☼	06/22/15 09:27	06/23/15 23:47	1
2,4-Dichlorophenol	<0.37		0.37	0.087	mg/Kg	☼	06/22/15 09:27	06/23/15 23:47	1
4-Chloroaniline	<0.74		0.74	0.17	mg/Kg	☼	06/22/15 09:27	06/23/15 23:47	1
2,4,6-Trichlorophenol	<0.37		0.37	0.13	mg/Kg	☼	06/22/15 09:27	06/23/15 23:47	1
2,4,5-Trichlorophenol	<0.37		0.37	0.084	mg/Kg	☼	06/22/15 09:27	06/23/15 23:47	1
Hexachlorocyclopentadiene	<0.74	F1	0.74	0.21	mg/Kg	☼	06/22/15 09:27	06/23/15 23:47	1
2-Methylnaphthalene	<0.037		0.037	0.0068	mg/Kg	☼	06/22/15 09:27	06/23/15 23:47	1
2-Nitroaniline	<0.19		0.19	0.050	mg/Kg	☼	06/22/15 09:27	06/23/15 23:47	1
2-Chloronaphthalene	<0.19		0.19	0.041	mg/Kg	☼	06/22/15 09:27	06/23/15 23:47	1
4-Chloro-3-methylphenol	<0.37		0.37	0.13	mg/Kg	☼	06/22/15 09:27	06/23/15 23:47	1
2,6-Dinitrotoluene	<0.19		0.19	0.072	mg/Kg	☼	06/22/15 09:27	06/23/15 23:47	1
2-Nitrophenol	<0.37		0.37	0.087	mg/Kg	☼	06/22/15 09:27	06/23/15 23:47	1
3-Nitroaniline	<0.37		0.37	0.11	mg/Kg	☼	06/22/15 09:27	06/23/15 23:47	1
Dimethyl phthalate	<0.19		0.19	0.048	mg/Kg	☼	06/22/15 09:27	06/23/15 23:47	1
2,4-Dinitrophenol	<0.74	F1	0.74	0.65	mg/Kg	☼	06/22/15 09:27	06/23/15 23:47	1
Acenaphthylene	<0.037		0.037	0.0049	mg/Kg	☼	06/22/15 09:27	06/23/15 23:47	1
2,4-Dinitrotoluene	<0.19		0.19	0.059	mg/Kg	☼	06/22/15 09:27	06/23/15 23:47	1
Acenaphthene	<0.037		0.037	0.0066	mg/Kg	☼	06/22/15 09:27	06/23/15 23:47	1
Dibenzofuran	<0.19		0.19	0.043	mg/Kg	☼	06/22/15 09:27	06/23/15 23:47	1
4-Nitrophenol	<0.74		0.74	0.35	mg/Kg	☼	06/22/15 09:27	06/23/15 23:47	1
Fluorene	<0.037		0.037	0.0052	mg/Kg	☼	06/22/15 09:27	06/23/15 23:47	1
4-Nitroaniline	<0.37		0.37	0.15	mg/Kg	☼	06/22/15 09:27	06/23/15 23:47	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.049	mg/Kg	☼	06/22/15 09:27	06/23/15 23:47	1
Hexachlorobenzene	<0.074		0.074	0.0085	mg/Kg	☼	06/22/15 09:27	06/23/15 23:47	1
Diethyl phthalate	<0.19		0.19	0.062	mg/Kg	☼	06/22/15 09:27	06/23/15 23:47	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.043	mg/Kg	☼	06/22/15 09:27	06/23/15 23:47	1
Pentachlorophenol	<0.74		0.74	0.59	mg/Kg	☼	06/22/15 09:27	06/23/15 23:47	1
N-Nitrosodiphenylamine	<0.19		0.19	0.043	mg/Kg	☼	06/22/15 09:27	06/23/15 23:47	1
4,6-Dinitro-2-methylphenol	<0.37	F2 *	0.37	0.30	mg/Kg	☼	06/22/15 09:27	06/23/15 23:47	1
Phenanthrene	0.011	J	0.037	0.0051	mg/Kg	☼	06/22/15 09:27	06/23/15 23:47	1
Anthracene	<0.037		0.037	0.0062	mg/Kg	☼	06/22/15 09:27	06/23/15 23:47	1
Carbazole	<0.19		0.19	0.095	mg/Kg	☼	06/22/15 09:27	06/23/15 23:47	1
Di-n-butyl phthalate	<0.19		0.19	0.056	mg/Kg	☼	06/22/15 09:27	06/23/15 23:47	1
Fluoranthene	<0.037		0.037	0.0068	mg/Kg	☼	06/22/15 09:27	06/23/15 23:47	1
Pyrene	<0.037		0.037	0.0073	mg/Kg	☼	06/22/15 09:27	06/23/15 23:47	1
Butyl benzyl phthalate	<0.19		0.19	0.070	mg/Kg	☼	06/22/15 09:27	06/23/15 23:47	1
Benzo[a]anthracene	<0.037		0.037	0.0050	mg/Kg	☼	06/22/15 09:27	06/23/15 23:47	1

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97262-1

Client Sample ID: 1860-64-B02 (12-14)

Lab Sample ID: 500-97262-4

Date Collected: 06/11/15 10:45

Matrix: Solid

Date Received: 06/11/15 16:10

Percent Solids: 89.9

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	☼	06/22/15 09:27	06/23/15 23:47	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.052	mg/Kg	☼	06/22/15 09:27	06/23/15 23:47	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.067	mg/Kg	☼	06/22/15 09:27	06/23/15 23:47	1
Di-n-octyl phthalate	<0.19		0.19	0.060	mg/Kg	☼	06/22/15 09:27	06/23/15 23:47	1
Benzo[b]fluoranthene	<0.037		0.037	0.0080	mg/Kg	☼	06/22/15 09:27	06/23/15 23:47	1
Benzo[k]fluoranthene	<0.037		0.037	0.011	mg/Kg	☼	06/22/15 09:27	06/23/15 23:47	1
Benzo[a]pyrene	<0.037		0.037	0.0071	mg/Kg	☼	06/22/15 09:27	06/23/15 23:47	1
Indeno[1,2,3-cd]pyrene	<0.037	*	0.037	0.0095	mg/Kg	☼	06/22/15 09:27	06/23/15 23:47	1
Dibenz(a,h)anthracene	<0.037	*	0.037	0.0071	mg/Kg	☼	06/22/15 09:27	06/23/15 23:47	1
Benzo[g,h,i]perylene	0.016	J	0.037	0.012	mg/Kg	☼	06/22/15 09:27	06/23/15 23:47	1
3 & 4 Methylphenol	<0.19		0.19	0.061	mg/Kg	☼	06/22/15 09:27	06/23/15 23:47	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	71		25 - 110	06/22/15 09:27	06/23/15 23:47	1
Phenol-d5	64		31 - 110	06/22/15 09:27	06/23/15 23:47	1
Nitrobenzene-d5	60		25 - 115	06/22/15 09:27	06/23/15 23:47	1
2-Fluorobiphenyl	51		25 - 119	06/22/15 09:27	06/23/15 23:47	1
2,4,6-Tribromophenol	44		35 - 137	06/22/15 09:27	06/23/15 23:47	1
Terphenyl-d14	75		36 - 134	06/22/15 09:27	06/23/15 23:47	1

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin	<0.018		0.018	0.0072	mg/Kg	☼	06/18/15 07:01	06/18/15 19:19	10
alpha-BHC	<0.018		0.018	0.0044	mg/Kg	☼	06/18/15 07:01	06/18/15 19:19	10
alpha-Chlordane	<0.018		0.018	0.0088	mg/Kg	☼	06/18/15 07:01	06/18/15 19:19	10
beta-BHC	<0.018		0.018	0.0054	mg/Kg	☼	06/18/15 07:01	06/18/15 19:19	10
4,4'-DDD	<0.018		0.018	0.0035	mg/Kg	☼	06/18/15 07:01	06/18/15 19:19	10
4,4'-DDE	<0.018		0.018	0.0029	mg/Kg	☼	06/18/15 07:01	06/18/15 19:19	10
4,4'-DDT	<0.018		0.018	0.0092	mg/Kg	☼	06/18/15 07:01	06/18/15 19:19	10
delta-BHC	<0.018		0.018	0.0055	mg/Kg	☼	06/18/15 07:01	06/18/15 19:19	10
Dieldrin	<0.018		0.018	0.0024	mg/Kg	☼	06/18/15 07:01	06/18/15 19:19	10
Endosulfan I	<0.018		0.018	0.0076	mg/Kg	☼	06/18/15 07:01	06/18/15 19:19	10
Endosulfan II	<0.018		0.018	0.0028	mg/Kg	☼	06/18/15 07:01	06/18/15 19:19	10
Endosulfan sulfate	<0.018		0.018	0.0032	mg/Kg	☼	06/18/15 07:01	06/18/15 19:19	10
Endrin	<0.018		0.018	0.0024	mg/Kg	☼	06/18/15 07:01	06/18/15 19:19	10
Endrin aldehyde	<0.018		0.018	0.0029	mg/Kg	☼	06/18/15 07:01	06/18/15 19:19	10
Endrin ketone	<0.018		0.018	0.0039	mg/Kg	☼	06/18/15 07:01	06/18/15 19:19	10
gamma-BHC (Lindane)	<0.018		0.018	0.0038	mg/Kg	☼	06/18/15 07:01	06/18/15 19:19	10
gamma-Chlordane	<0.018		0.018	0.0046	mg/Kg	☼	06/18/15 07:01	06/18/15 19:19	10
Heptachlor	<0.018		0.018	0.0073	mg/Kg	☼	06/18/15 07:01	06/18/15 19:19	10
Heptachlor epoxide	<0.018		0.018	0.0062	mg/Kg	☼	06/18/15 07:01	06/18/15 19:19	10
Methoxychlor	<0.087		0.087	0.0034	mg/Kg	☼	06/18/15 07:01	06/18/15 19:19	10
Toxaphene	<0.17		0.17	0.074	mg/Kg	☼	06/18/15 07:01	06/18/15 19:19	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	90		56 - 128	06/18/15 07:01	06/18/15 19:19	10
Tetrachloro-m-xylene	77		45 - 112	06/18/15 07:01	06/18/15 19:19	10

TestAmerica Chicago

Client Sample Results

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97262-1

Client Sample ID: 1860-64-B02 (12-14)

Lab Sample ID: 500-97262-4

Date Collected: 06/11/15 10:45

Matrix: Solid

Date Received: 06/11/15 16:10

Percent Solids: 89.9

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dicamba	<0.36		0.36	0.076	mg/Kg	☼	06/16/15 19:45	06/22/15 14:39	10
Dichlorprop	<0.36		0.36	0.099	mg/Kg	☼	06/16/15 19:45	06/22/15 14:39	10
2,4-D	<0.36		0.36	0.10	mg/Kg	☼	06/16/15 19:45	06/22/15 14:39	10
Silvex (2,4,5-TP)	<0.36		0.36	0.094	mg/Kg	☼	06/16/15 19:45	06/22/15 14:39	10
2,4,5-T	<0.36		0.36	0.089	mg/Kg	☼	06/16/15 19:45	06/22/15 14:39	10
2,4-DB	<0.36		0.36	0.11	mg/Kg	☼	06/16/15 19:45	06/22/15 14:39	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCAA	120		32 - 122	06/16/15 19:45	06/22/15 14:39	10

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.1		1.1	0.22	mg/Kg	☼	06/16/15 17:41	06/17/15 19:57	1
Arsenic	8.0		0.53	0.25	mg/Kg	☼	06/16/15 17:41	06/17/15 19:57	1
Barium	23		0.53	0.098	mg/Kg	☼	06/16/15 17:41	06/17/15 19:57	1
Beryllium	0.41		0.21	0.046	mg/Kg	☼	06/16/15 17:41	06/17/15 19:57	1
Boron	7.4		2.7	0.37	mg/Kg	☼	06/16/15 17:41	06/17/15 19:57	1
Cadmium	0.097	J	0.11	0.031	mg/Kg	☼	06/16/15 17:41	06/17/15 19:57	1
Calcium	76000		53	17	mg/Kg	☼	06/16/15 17:41	06/18/15 21:39	5
Chromium	10		0.53	0.092	mg/Kg	☼	06/16/15 17:41	06/17/15 19:57	1
Cobalt	11		0.27	0.060	mg/Kg	☼	06/16/15 17:41	06/17/15 19:57	1
Copper	22		0.53	0.12	mg/Kg	☼	06/16/15 17:41	06/17/15 19:57	1
Iron	15000		11	4.1	mg/Kg	☼	06/16/15 17:41	06/17/15 19:57	1
Lead	13		0.27	0.13	mg/Kg	☼	06/16/15 17:41	06/17/15 19:57	1
Magnesium	35000	B	5.3	2.2	mg/Kg	☼	06/16/15 17:41	06/17/15 19:57	1
Manganese	380		0.53	0.11	mg/Kg	☼	06/16/15 17:41	06/17/15 19:57	1
Nickel	25		0.53	0.14	mg/Kg	☼	06/16/15 17:41	06/17/15 19:57	1
Potassium	1600		27	4.4	mg/Kg	☼	06/16/15 17:41	06/17/15 19:57	1
Selenium	0.43	J	0.53	0.26	mg/Kg	☼	06/16/15 17:41	06/17/15 19:57	1
Silver	<0.27		0.27	0.062	mg/Kg	☼	06/16/15 17:41	06/17/15 19:57	1
Sodium	150		53	7.0	mg/Kg	☼	06/16/15 17:41	06/17/15 19:57	1
Thallium	0.45	J	0.53	0.26	mg/Kg	☼	06/16/15 17:41	06/17/15 19:57	1
Vanadium	13		0.27	0.078	mg/Kg	☼	06/16/15 17:41	06/17/15 19:57	1
Zinc	64	B	1.1	0.34	mg/Kg	☼	06/16/15 17:41	06/18/15 20:49	1

Method: 7471B - Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.021		0.017	0.0058	mg/Kg	☼	06/12/15 14:00	06/15/15 13:55	1

TestAmerica Chicago

Definitions/Glossary

Client: Ecology and Environment, Inc.
Project/Site: IDOT - IL 171 - WO 031

TestAmerica Job ID: 500-97262-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	RPD of the LCS and LCSD exceeds the control limits

GC/MS Semi VOA

Qualifier	Qualifier Description
X	Surrogate is outside control limits
*	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.
F1	MS and/or MSD Recovery is outside acceptance limits.
F2	MS/MSD RPD exceeds 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.
^	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.

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, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
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
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)

TestAmerica

THE LEADER IN ENVIRONMENT

2417 Bond Street, University Park, IL
Phone: 708.534.5200 Fax: 708.4



500-97262 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 #: 500-97262

Chain of Custody Number: _____

Page _____ of _____

Temperature °C of Cooler: 2.8

Client		Client Project #		Preservative		Parameter		Matrix		Comments	
EE		1009008-0071-01								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		Comments	
LL171		50011098									
Project Location/State		Lab Project #		Sampling		Matrix		Matrix		Comments	
Cook County, IL		50011098		Date Time							
Sampler		Lab PM		Date		Time		Matrix		Comments	
S. Cooper		D. Wright		Date		Time		Matrix		Comments	
1	MS/MSD	Sample ID	1860-64-B01 (2-4)	6-11-15	0945	2	S	VOL			
2			1860-64-B01 (8-10)	6-11-15	0950	2	S	SVOL			
3			1860-64-B02 (4-6)	6-11-15	1040	2	S	Total TAC			
4			1860-64-B02 (12-14)	6-11-15	1045	2	S	metals			
								TAC (S/P)			
								TAC (W/L)			
								pH/°C Sol. Lr			
								Pest/Herb			
6-11-15											

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	Company	Date	Time	Received By	Company	Date	Time
	EE	6-11-15	1512		TA	6/11/15	1512
Relinquished By	Company	Date	Time	Received By	Company	Date	Time
	TA	6/11/15	1610		TA-CHE	6/11/15	1610
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: 500-97262-1

Login Number: 97262

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	2.8
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.	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	

