



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 351-US Rte 6 at Pulaski/Crawford & Kedzie Office Phone Number, if available: _____

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

US Route 6 (Westbound) IDOT STA 32+10 to 33+30 (ISGS Site 2696V-52)

City: Oak Forest/Markham State: IL Zip Code: 60428

County: Cook Township: Bremen

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

Latitude: 41.60367 Longitude: -87.71682
(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: 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 Phone: 847-705-4122

Zip Code: 60196 Phone: 847-705-4122

Contact: Paul Nickles

Contact: Paul Nickles

Email, if available: paul.nickles@illinois.gov

Email, if available: paul.nickles@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

Project Name: FAP 351-US Rte 6 at Pulaski/Crawford & Kedzie

Latitude: 41.60367 Longitude: -87.71682

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):

Soil from boring B03 was sampled adjacent to ISGS Site No 2696V-52.
See Exhibits 3, 3A, and Table 65 of the Preliminary Site Investigation Report prepared by Terracon.

- 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]:

TestAmerica Lab Report No J137077-1
Also see Preliminary Site Investigation Report prepared by Terracon. CCDD/USFO facility in MSA County.

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

I, Matt Weiss (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: Terracon Consultants, Inc

Street Address: 135 Ambassador Drive

City: Naperville State: IL Zip Code: 60540

Phone: 630-717-4263

Matt Weiss

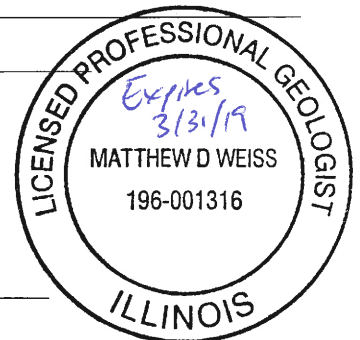
Printed Name:

[Signature]

Licensed Professional Engineer or
Licensed Professional Geologist Signature:

7/24/18

Date:



Detected Constituents to MACs-PTB 174-009;Work Order:037A
Preliminary Site Investigation
FAP 351-US Rte 6 at S. Pulaski/Crawford + Kedzie (PESA #2696V-52)
Oak Forest/Markham, Cook County, IL
Terracon Project No. 11177029M
Page 1 of 2

Analyte	Units	Background		Maximum Allowed Concentration	Sample Identification	2696V-52-B03 (0-6)	2696V-52-B03 (6-11)
				CCDD	Sample Depth (feet)	(0-6)	(6-11)
		Chicago	MSAs	mg/kg pH 6.25-9.0	Date Collected	11/09/2017	11/09/2017
Volatile Organic Analytical Parameters							
Acetone	mg/kg	---	---	25		0.023	0.021
Semivolatile Organic Analytical Parameters							
Anthracene	mg/kg	0.25	0.4	12000		0.0067	<0.039
Benzo(a)anthracene	mg/kg	1.1	1.8	0.9		0.027	<0.039
Benzo(a)pyrene	mg/kg	1.3	2.1	0.09		0.065	0.032
Benzo(b)fluoranthene	mg/kg	1.5	2.1	0.9		0.074	0.035
Benzo(g,h,i)perylene	mg/kg	0.68	1.7	2300		0.06	0.037
Benzo(k)fluoranthene	mg/kg	0.99	1.7	9		0.018	<0.039
Chrysene	mg/kg	1.2	2.7	88		0.037	<0.039
Dibenzo(a,h)anthracene	mg/kg	0.2	0.42	0.09		0.042	<0.039
Fluoranthene	mg/kg	2.7	4.1	3100		0.053	<0.039
Indeno(1,2,3-c,d)pyrene	mg/kg	0.86	1.6	0.9		0.054	<0.039
Phenanthrene	mg/kg	1.3	2.5	210		0.023	<0.039
Pyrene	mg/kg	1.9	3.0	2300		0.042	<0.039
Inorganic Analytical Parameters							
Arsenic	mg/kg	---	13	11.3		7.2	7.5
Barium	mg/kg	---	110	1500		38	52
Cadmium	mg/kg	---	0.6	5.2		0.19	0.14
Chromium, total	mg/kg	---	16.2	21		15	13
Lead	mg/kg	---	36	107		23	10
Mercury	mg/kg	---	0.06	0.1		0.019	0.0096
Selenium	mg/kg	---	0.48	1.3		0.37	0.65
Silver	mg/kg	---	0.55	4.4		<0.29	<0.28
Antimony	mg/kg	---	4.0	5		0.26	0.37
Beryllium	mg/kg	---	0.59	22		0.64	0.55
Calcium	mg/kg	---	9,300	---		29000	57000
Cobalt	mg/kg	---	8.9	20		14	8.7
Copper	mg/kg	---	19.6	2900		22	20
Cyanide	mg/kg	---	0.51	---		<0.45	<0.56
Iron	mg/kg	---	15,900	15000		16000	15000
Magnesium	mg/kg	---	4,820	325000		14000	20000
Manganese	mg/kg	---	636	630		310	330
Nickel	mg/kg	---	18	100		28	22
Potassium	mg/kg	---	1,268	---		1900	1500
Sodium	mg/kg	---	130	---		690	450
Thallium	mg/kg	---	0.32	2.6		<0.57	<0.56
Vanadium	mg/kg	---	25.2	550		19	18
Zinc	mg/kg	---	95	5100		66	50
pH			6.25	9		8.3	8

Detected Constituents to MACs-PTB 174-009;Work Order:037A
Preliminary Site Investigation
FAP 351-US Rte 6 at S. Pulaski/Crawford + Kedzie (PESA #2696V-52)
Oak Forest/Markham, Cook County, IL
Terracon Project No. 11177029M
Page 2 of 2

Analyte	Units	Background		Maximum Allowed Concentration	Sample Identification	2696V-52-B03 (0-6)	2696V-52-B03 (6-11)
				CCDD	Sample Depth (feet)	(0-6)	(6-11)
		Chicago	MSAs	mg/kg pH 6.25-9.0	Date Collected	11/09/2017	11/09/2017
Inorganic Analytical Parameters (SPLP)							
Antimony,SPLP	mg/L	---	---	---		--	--
Arsenic,SPLP	mg/L	---	---	---		--	--
Barium,SPLP	mg/L	---	---	---		--	--
Beryllium,SPLP	mg/L	---	---	---		--	--
Cadmium,SPLP	mg/L	---	---	---		--	--
Calcium,SPLP	mg/L	---	---	---		--	--
Chromium,SPLP	mg/L	---	---	---		--	--
Cobalt,SPLP	mg/L	---	---	---		--	--
Copper,SPLP	mg/L	---	---	---		--	--
Iron,SPLP	mg/L	---	---	---		--	--
Lead,SPLP	mg/L	---	---	---		--	--
Magnesium,SPLP	mg/L	---	---	---		--	--
Manganese,SPLP	mg/L	---	---	---		0.84	0.042
Mercury,SPLP	mg/L	---	---	---		--	--
Nickel,SPLP	mg/L	---	---	---		--	--
Potassium,SPLP	mg/L	---	---	---		--	--
Selenium,SPLP	mg/L	---	---	---		--	--
Silver,SPLP	mg/L	---	---	---		--	--
Sodium,SPLP	mg/L	---	---	---		--	--
Thallium,SPLP	mg/L	---	---	---		--	--
Vanadium,SPLP	mg/L	---	---	---		--	--
Zinc,SPLP	mg/L	---	---	---		--	--
Cyanide,SPLP	mg/L	---	---	---		--	--
Inorganic Analytical Parameters (TCLP)							
Arsenic,TCLP	mg/L	---	---	---		<0.050	<0.050
Barium,TCLP	mg/L	---	---	---		0.35	0.44
Cadmium,TCLP	mg/L	---	---	---		<0.0050	<0.0050
Chromium,TCLP	mg/L	---	---	---		<0.025	<0.025
Lead,TCLP	mg/L	---	---	---		<0.0075	<0.0075
Mercury,TCLP	mg/L	---	---	---		<0.00020	<0.00020
Selenium,TCLP	mg/L	---	---	---		<0.050	<0.050
Silver,TCLP	mg/L	---	---	---		<0.025	<0.025
Antimony,TCLP	mg/L	---	---	---		<0.0060	<0.0060
Beryllium,TCLP	mg/L	---	---	---		<0.0040	<0.0040
Calcium,TCLP	mg/L	---	---	---		440	770
Cobalt,TCLP	mg/L	---	---	---		<0.025	<0.025
Copper,TCLP	mg/L	---	---	---		<0.025	<0.025
Cyanide,TCLP	mg/L	---	---	---		----	----
Iron,TCLP	mg/L	---	---	---		0.27	<0.40
Magnesium,TCLP	mg/L	---	---	---		68	30
Manganese,TCLP	mg/L	---	---	---		0.4	4.9
Nickel,TCLP	mg/L	---	---	---		<0.025	0.01
Potassium,TCLP	mg/L	---	---	---		1.9	1.6
Sodium,TCLP	mg/L	---	---	---		----	----
Thallium,TCLP	mg/L	---	---	---		<0.0020	<0.0020
Vanadium,TCLP	mg/L	---	---	---		<0.025	<0.025
Zinc,TCLP	mg/L	---	---	---		0.023	0.021

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: 500-137077-1

Client Project/Site: IDOT - Oak Forest/Markham - WO37

For:

Terracon Consulting Eng & Scientists

135 Ambassador Drive

Naperville, Illinois 60540

Attn: Mr. Matthew Weiss

Jodie Bracken

Authorized for release by:

11/22/2017 11:34:56 AM

Jodie Bracken, Project Management Assistant II

jodie.bracken@testamericainc.com

Designee for

Richard Wright, Senior Project Manager

(708)534-5200

richard.wright@testamericainc.com

LINKS

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www.testamericainc.com

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

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

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

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Case Narrative

Client: Terracon Consulting Eng & Scientists
Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137077-1

Job ID: 500-137077-1

Laboratory: TestAmerica Chicago

Narrative

Job Narrative 500-137077-1

Receipt

The samples were received on 11/10/2017 8:00 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 6 coolers at receipt time were 1.9° C, 2.0° C, 2.9° C, 3.2° C, 3.7° C and 4.0° C.

GC/MS VOA

Method(s) 8260B: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for batch 410018 recovered outside control limits for the following analytes: Benzene and 2-Butanone.

Method(s) 8260B: The following analyte(s) recovered outside control limits for the LCSD associated with batch 410517: Chloroethane. This is not indicative of a systematic control problem because these were random marginal exceedances. Qualified results have been reported.

Method(s) 8260B: The following analytes recovered outside control limits for the LCS associated with batch 410201: Carbon Tetrachloride and Chloromethane. This is not indicative of a systematic control problem because these were random marginal exceedances. The laboratory control sample (LCS) had all compounds within control limits. 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

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

Metals

Method(s) 6010B: The following samples was diluted due to the abundance of target and non-target analytes: 2696V-52-B01(0-6) (500-137077-1), 2696V-52-B01(6-11) (500-137077-2), 2696V-52-B02(0-6) (500-137077-3), 2696V-52-B02(6-11) (500-137077-4), 2696V-52-B03(6-11) (500-137077-6) and (500-137077-E-11-A ^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: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137077-1

Client Sample ID: 2696V-52-B01(0-6)

Lab Sample ID: 500-137077-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Anthracene	0.012	J	0.037	0.0062	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.17		0.037	0.0050	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.22		0.037	0.0072	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.27		0.037	0.0081	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.14		0.037	0.012	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.10		0.037	0.011	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.22		0.037	0.010	mg/Kg	1	☼	8270D	Total/NA
Dibenz(a,h)anthracene	0.085		0.037	0.0072	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.23		0.037	0.0069	mg/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.14		0.037	0.0097	mg/Kg	1	☼	8270D	Total/NA
Phenanthrene	0.075		0.037	0.0052	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.16		0.037	0.0074	mg/Kg	1	☼	8270D	Total/NA
Antimony	0.27	J	1.1	0.21	mg/Kg	1	☼	6010B	Total/NA
Arsenic	7.3		0.54	0.19	mg/Kg	1	☼	6010B	Total/NA
Barium	44		0.54	0.062	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.59		0.22	0.051	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.14	B	0.11	0.019	mg/Kg	1	☼	6010B	Total/NA
Chromium	13		0.54	0.27	mg/Kg	1	☼	6010B	Total/NA
Cobalt	8.2		0.27	0.071	mg/Kg	1	☼	6010B	Total/NA
Copper	22	B	2.7	0.76	mg/Kg	5	☼	6010B	Total/NA
Iron	16000		11	5.6	mg/Kg	1	☼	6010B	Total/NA
Lead	16		0.27	0.13	mg/Kg	1	☼	6010B	Total/NA
Magnesium	20000		5.4	2.7	mg/Kg	1	☼	6010B	Total/NA
Calcium	53000		54	9.2	mg/Kg	5	☼	6010B	Total/NA
Manganese	300		0.54	0.078	mg/Kg	1	☼	6010B	Total/NA
Nickel	22		0.54	0.16	mg/Kg	1	☼	6010B	Total/NA
Vanadium	17		0.27	0.064	mg/Kg	1	☼	6010B	Total/NA
Zinc	54		1.1	0.48	mg/Kg	1	☼	6010B	Total/NA
Potassium	1400		27	9.6	mg/Kg	1	☼	6010B	Total/NA
Sodium	500		54	8.0	mg/Kg	1	☼	6010B	Total/NA
Barium	0.36	J	0.50	0.050	mg/L	1		6010B	TCLP
Calcium	540		5.0	0.50	mg/L	1		6010B	TCLP
Magnesium	34		2.5	0.50	mg/L	1		6010B	TCLP
Manganese	0.18		0.025	0.010	mg/L	1		6010B	TCLP
Potassium	1.3	J	2.5	0.50	mg/L	1		6010B	TCLP
Manganese	0.59		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.020		0.018	0.0060	mg/Kg	1	☼	7471B	Total/NA
pH	9.1		0.20	0.20	SU	1		9045D	Total/NA

Client Sample ID: 2696V-52-B01(6-11)

Lab Sample ID: 500-137077-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acenaphthene	0.045		0.036	0.0065	mg/Kg	1	☼	8270D	Total/NA
Anthracene	0.059		0.036	0.0060	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.047		0.036	0.0048	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.066		0.036	0.0070	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.069		0.036	0.0078	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.051		0.036	0.012	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.022	J	0.036	0.011	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.047		0.036	0.0098	mg/Kg	1	☼	8270D	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137077-1

Client Sample ID: 2696V-52-B01(6-11) (Continued)

Lab Sample ID: 500-137077-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Dibenz(a,h)anthracene	0.039		0.036	0.0070	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.17		0.036	0.0067	mg/Kg	1	☼	8270D	Total/NA
Fluorene	0.036		0.036	0.0051	mg/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.045		0.036	0.0093	mg/Kg	1	☼	8270D	Total/NA
2-Methylnaphthalene	0.011	J	0.073	0.0066	mg/Kg	1	☼	8270D	Total/NA
Naphthalene	0.027	J	0.036	0.0055	mg/Kg	1	☼	8270D	Total/NA
Phenanthrene	0.17		0.036	0.0050	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.13		0.036	0.0072	mg/Kg	1	☼	8270D	Total/NA
Antimony	0.45	J	1.0	0.20	mg/Kg	1	☼	6010B	Total/NA
Arsenic	7.2		0.52	0.18	mg/Kg	1	☼	6010B	Total/NA
Barium	30		0.52	0.059	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.50		0.21	0.049	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.13	B	0.10	0.019	mg/Kg	1	☼	6010B	Total/NA
Chromium	11		0.52	0.26	mg/Kg	1	☼	6010B	Total/NA
Cobalt	7.7		0.26	0.068	mg/Kg	1	☼	6010B	Total/NA
Copper	18	B	2.6	0.73	mg/Kg	5	☼	6010B	Total/NA
Iron	14000		10	5.4	mg/Kg	1	☼	6010B	Total/NA
Lead	10		0.26	0.12	mg/Kg	1	☼	6010B	Total/NA
Magnesium	22000		5.2	2.6	mg/Kg	1	☼	6010B	Total/NA
Calcium	75000		52	8.8	mg/Kg	5	☼	6010B	Total/NA
Manganese	330		0.52	0.075	mg/Kg	1	☼	6010B	Total/NA
Nickel	20		0.52	0.15	mg/Kg	1	☼	6010B	Total/NA
Vanadium	15		0.26	0.061	mg/Kg	1	☼	6010B	Total/NA
Zinc	51		1.0	0.46	mg/Kg	1	☼	6010B	Total/NA
Potassium	1500		26	9.2	mg/Kg	1	☼	6010B	Total/NA
Sodium	370		52	7.7	mg/Kg	1	☼	6010B	Total/NA
Barium	0.37	J	0.50	0.050	mg/L	1		6010B	TCLP
Calcium	600		5.0	0.50	mg/L	1		6010B	TCLP
Magnesium	38		2.5	0.50	mg/L	1		6010B	TCLP
Manganese	0.58		0.025	0.010	mg/L	1		6010B	TCLP
Potassium	1.5	J	2.5	0.50	mg/L	1		6010B	TCLP
Manganese	0.080		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.015	J	0.017	0.0057	mg/Kg	1	☼	7471B	Total/NA
pH	8.3		0.20	0.20	SU	1		9045D	Total/NA

Client Sample ID: 2696V-52-B02(0-6)

Lab Sample ID: 500-137077-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Anthracene	0.023	J	0.037	0.0062	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.12		0.037	0.0050	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.19		0.037	0.0072	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.25		0.037	0.0080	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.14		0.037	0.012	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.094		0.037	0.011	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.15		0.037	0.010	mg/Kg	1	☼	8270D	Total/NA
Dibenz(a,h)anthracene	0.061		0.037	0.0071	mg/Kg	1	☼	8270D	Total/NA
Di-n-octyl phthalate	0.15	J	0.19	0.060	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.33		0.037	0.0069	mg/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.14		0.037	0.0096	mg/Kg	1	☼	8270D	Total/NA
Phenanthrene	0.11		0.037	0.0052	mg/Kg	1	☼	8270D	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Terracon Consulting Eng & Scientists
Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137077-1

Client Sample ID: 2696V-52-B02(0-6) (Continued)

Lab Sample ID: 500-137077-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Pyrene	0.20		0.037	0.0073	mg/Kg	1	☼	8270D	Total/NA
Antimony	0.42	J	1.1	0.22	mg/Kg	1	☼	6010B	Total/NA
Arsenic	8.5		0.55	0.19	mg/Kg	1	☼	6010B	Total/NA
Barium	52		0.55	0.063	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.65		0.22	0.052	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.19	B	0.11	0.020	mg/Kg	1	☼	6010B	Total/NA
Chromium	15		0.55	0.27	mg/Kg	1	☼	6010B	Total/NA
Cobalt	9.0		0.28	0.073	mg/Kg	1	☼	6010B	Total/NA
Copper	26	B	2.8	0.78	mg/Kg	5	☼	6010B	Total/NA
Iron	17000		11	5.8	mg/Kg	1	☼	6010B	Total/NA
Lead	42		0.28	0.13	mg/Kg	1	☼	6010B	Total/NA
Magnesium	19000		5.5	2.8	mg/Kg	1	☼	6010B	Total/NA
Calcium	48000		55	9.4	mg/Kg	5	☼	6010B	Total/NA
Manganese	300		0.55	0.080	mg/Kg	1	☼	6010B	Total/NA
Nickel	24		0.55	0.16	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.38	J	0.55	0.33	mg/Kg	1	☼	6010B	Total/NA
Vanadium	18		0.28	0.065	mg/Kg	1	☼	6010B	Total/NA
Zinc	68		1.1	0.49	mg/Kg	1	☼	6010B	Total/NA
Potassium	1500		28	9.8	mg/Kg	1	☼	6010B	Total/NA
Sodium	400		55	8.2	mg/Kg	1	☼	6010B	Total/NA
Barium	0.36	J	0.50	0.050	mg/L	1		6010B	TCLP
Calcium	490		5.0	0.50	mg/L	1		6010B	TCLP
Magnesium	37		2.5	0.50	mg/L	1		6010B	TCLP
Manganese	0.065		0.025	0.010	mg/L	1		6010B	TCLP
Potassium	1.2	J	2.5	0.50	mg/L	1		6010B	TCLP
Zinc	0.022	J	0.50	0.020	mg/L	1		6010B	TCLP
Mercury	0.022		0.018	0.0061	mg/Kg	1	☼	7471B	Total/NA
pH	9.1		0.20	0.20	SU	1		9045D	Total/NA

Client Sample ID: 2696V-52-B02(6-11)

Lab Sample ID: 500-137077-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[g,h,i]perylene	0.038		0.038	0.012	mg/Kg	1	☼	8270D	Total/NA
Phenanthrene	0.011	J	0.038	0.0053	mg/Kg	1	☼	8270D	Total/NA
Antimony	0.26	J	1.2	0.22	mg/Kg	1	☼	6010B	Total/NA
Arsenic	8.5		0.58	0.20	mg/Kg	1	☼	6010B	Total/NA
Barium	28		0.58	0.066	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.47		0.23	0.054	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.12	B	0.12	0.021	mg/Kg	1	☼	6010B	Total/NA
Chromium	9.1		0.58	0.29	mg/Kg	1	☼	6010B	Total/NA
Cobalt	5.9		0.29	0.075	mg/Kg	1	☼	6010B	Total/NA
Copper	16	B	2.9	0.81	mg/Kg	5	☼	6010B	Total/NA
Iron	12000		12	6.0	mg/Kg	1	☼	6010B	Total/NA
Lead	8.1		0.29	0.13	mg/Kg	1	☼	6010B	Total/NA
Magnesium	42000		5.8	2.9	mg/Kg	1	☼	6010B	Total/NA
Calcium	97000		58	9.8	mg/Kg	5	☼	6010B	Total/NA
Manganese	200		0.58	0.084	mg/Kg	1	☼	6010B	Total/NA
Nickel	17		0.58	0.17	mg/Kg	1	☼	6010B	Total/NA
Vanadium	13		0.29	0.068	mg/Kg	1	☼	6010B	Total/NA
Zinc	43		1.2	0.51	mg/Kg	1	☼	6010B	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Terracon Consulting Eng & Scientists
Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137077-1

Client Sample ID: 2696V-52-B02(6-11) (Continued)

Lab Sample ID: 500-137077-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Potassium	1200		29	10	mg/Kg	1		☼	6010B	Total/NA
Sodium	640		58	8.5	mg/Kg	1		☼	6010B	Total/NA
Barium	0.37	J	0.50	0.050	mg/L	1			6010B	TCLP
Calcium	510		5.0	0.50	mg/L	1			6010B	TCLP
Copper	0.011	J	0.025	0.010	mg/L	1			6010B	TCLP
Magnesium	46		2.5	0.50	mg/L	1			6010B	TCLP
Manganese	1.1		0.025	0.010	mg/L	1			6010B	TCLP
Potassium	1.2	J	2.5	0.50	mg/L	1			6010B	TCLP
Zinc	0.035	J	0.50	0.020	mg/L	1			6010B	TCLP
Manganese	0.21		0.025	0.010	mg/L	1			6010B	SPLP East
pH	8.8		0.20	0.20	SU	1			9045D	Total/NA

Client Sample ID: 2696V-52-B03(0-6)

Lab Sample ID: 500-137077-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Acetone	0.023		0.016	0.0071	mg/Kg	1		☼	8260B	Total/NA
Anthracene	0.0067	J	0.038	0.0064	mg/Kg	1		☼	8270D	Total/NA
Benzo[a]anthracene	0.027	J	0.038	0.0052	mg/Kg	1		☼	8270D	Total/NA
Benzo[a]pyrene	0.065		0.038	0.0074	mg/Kg	1		☼	8270D	Total/NA
Benzo[b]fluoranthene	0.074		0.038	0.0083	mg/Kg	1		☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.060		0.038	0.012	mg/Kg	1		☼	8270D	Total/NA
Benzo[k]fluoranthene	0.018	J	0.038	0.011	mg/Kg	1		☼	8270D	Total/NA
Chrysene	0.037	J	0.038	0.010	mg/Kg	1		☼	8270D	Total/NA
Dibenz(a,h)anthracene	0.042		0.038	0.0074	mg/Kg	1		☼	8270D	Total/NA
Fluoranthene	0.053		0.038	0.0071	mg/Kg	1		☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.054		0.038	0.0099	mg/Kg	1		☼	8270D	Total/NA
Phenanthrene	0.023	J	0.038	0.0053	mg/Kg	1		☼	8270D	Total/NA
Pyrene	0.042		0.038	0.0076	mg/Kg	1		☼	8270D	Total/NA
Antimony	0.26	J	1.1	0.22	mg/Kg	1		☼	6010B	Total/NA
Arsenic	7.2		0.57	0.20	mg/Kg	1		☼	6010B	Total/NA
Barium	38		0.57	0.065	mg/Kg	1		☼	6010B	Total/NA
Beryllium	0.64		0.23	0.054	mg/Kg	1		☼	6010B	Total/NA
Cadmium	0.19	B	0.11	0.021	mg/Kg	1		☼	6010B	Total/NA
Chromium	15		0.57	0.28	mg/Kg	1		☼	6010B	Total/NA
Cobalt	14		0.29	0.075	mg/Kg	1		☼	6010B	Total/NA
Copper	22	B	0.57	0.16	mg/Kg	1		☼	6010B	Total/NA
Iron	16000		11	6.0	mg/Kg	1		☼	6010B	Total/NA
Lead	23		0.29	0.13	mg/Kg	1		☼	6010B	Total/NA
Magnesium	14000		5.7	2.8	mg/Kg	1		☼	6010B	Total/NA
Calcium	29000		11	1.9	mg/Kg	1		☼	6010B	Total/NA
Manganese	310		0.57	0.083	mg/Kg	1		☼	6010B	Total/NA
Nickel	28		0.57	0.17	mg/Kg	1		☼	6010B	Total/NA
Selenium	0.37	J	0.57	0.34	mg/Kg	1		☼	6010B	Total/NA
Vanadium	19		0.29	0.068	mg/Kg	1		☼	6010B	Total/NA
Zinc	66		1.1	0.50	mg/Kg	1		☼	6010B	Total/NA
Potassium	1900		29	10	mg/Kg	1		☼	6010B	Total/NA
Sodium	690		57	8.5	mg/Kg	1		☼	6010B	Total/NA
Barium	0.35	J	0.50	0.050	mg/L	1			6010B	TCLP
Calcium	440		5.0	0.50	mg/L	1			6010B	TCLP
Iron	0.27	J	0.40	0.20	mg/L	1			6010B	TCLP

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Terracon Consulting Eng & Scientists
Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137077-1

Client Sample ID: 2696V-52-B03(0-6) (Continued)

Lab Sample ID: 500-137077-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Magnesium	68		2.5	0.50	mg/L	1		6010B	TCLP
Manganese	0.40		0.025	0.010	mg/L	1		6010B	TCLP
Potassium	1.9	J	2.5	0.50	mg/L	1		6010B	TCLP
Zinc	0.023	J	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.84		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.019		0.017	0.0058	mg/Kg	1	☼	7471B	Total/NA
pH	8.3		0.20	0.20	SU	1		9045D	Total/NA

Client Sample ID: 2696V-52-B03(6-11)

Lab Sample ID: 500-137077-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	0.021		0.017	0.0073	mg/Kg	1	☼	8260B	Total/NA
Benzo[a]pyrene	0.032	J	0.039	0.0076	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.035	J	0.039	0.0084	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.037	J	0.039	0.013	mg/Kg	1	☼	8270D	Total/NA
Antimony	0.37	J	1.1	0.22	mg/Kg	1	☼	6010B	Total/NA
Arsenic	7.5		0.56	0.19	mg/Kg	1	☼	6010B	Total/NA
Barium	52		0.56	0.064	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.55		0.23	0.053	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.14	B	0.11	0.020	mg/Kg	1	☼	6010B	Total/NA
Chromium	13		0.56	0.28	mg/Kg	1	☼	6010B	Total/NA
Cobalt	8.7		0.28	0.074	mg/Kg	1	☼	6010B	Total/NA
Copper	20	B	2.8	0.79	mg/Kg	5	☼	6010B	Total/NA
Iron	15000		11	5.9	mg/Kg	1	☼	6010B	Total/NA
Lead	10		0.28	0.13	mg/Kg	1	☼	6010B	Total/NA
Magnesium	20000		5.6	2.8	mg/Kg	1	☼	6010B	Total/NA
Calcium	57000		56	9.6	mg/Kg	5	☼	6010B	Total/NA
Manganese	330		0.56	0.082	mg/Kg	1	☼	6010B	Total/NA
Nickel	22		0.56	0.16	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.65		0.56	0.33	mg/Kg	1	☼	6010B	Total/NA
Vanadium	18		0.28	0.067	mg/Kg	1	☼	6010B	Total/NA
Zinc	50		1.1	0.50	mg/Kg	1	☼	6010B	Total/NA
Potassium	1500		28	10	mg/Kg	1	☼	6010B	Total/NA
Sodium	450		56	8.3	mg/Kg	1	☼	6010B	Total/NA
Barium	0.44	J	0.50	0.050	mg/L	1		6010B	TCLP
Calcium	770		50	5.0	mg/L	10		6010B	TCLP
Magnesium	30		2.5	0.50	mg/L	1		6010B	TCLP
Manganese	4.9		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.010	J	0.025	0.010	mg/L	1		6010B	TCLP
Potassium	1.6	J	2.5	0.50	mg/L	1		6010B	TCLP
Zinc	0.021	J	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.042		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.0096	J	0.019	0.0063	mg/Kg	1	☼	7471B	Total/NA
pH	8.0		0.20	0.20	SU	1		9045D	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Sample Summary

Client: Terracon Consulting Eng & Scientists
Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137077-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-137077-1	2696V-52-B01(0-6)	Solid	11/09/17 15:30	11/10/17 08:00
500-137077-2	2696V-52-B01(6-11)	Solid	11/09/17 15:35	11/10/17 08:00
500-137077-3	2696V-52-B02(0-6)	Solid	11/09/17 15:10	11/10/17 08:00
500-137077-4	2696V-52-B02(6-11)	Solid	11/09/17 15:15	11/10/17 08:00
500-137077-5	2696V-52-B03(0-6)	Solid	11/09/17 14:40	11/10/17 08:00
500-137077-6	2696V-52-B03(6-11)	Solid	11/09/17 14:50	11/10/17 08:00

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Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137077-1

Client Sample ID: 2696V-52-B01(0-6)

Lab Sample ID: 500-137077-1

Date Collected: 11/09/17 15:30

Matrix: Solid

Date Received: 11/10/17 08:00

Percent Solids: 88.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.015		0.015	0.0066	mg/Kg	☼	11/10/17 18:28	11/15/17 19:25	1
Benzene	<0.0015	*	0.0015	0.00039	mg/Kg	☼	11/10/17 18:28	11/15/17 19:25	1
Bromodichloromethane	<0.0015		0.0015	0.00031	mg/Kg	☼	11/10/17 18:28	11/15/17 19:25	1
Bromoform	<0.0015		0.0015	0.00044	mg/Kg	☼	11/10/17 18:28	11/15/17 19:25	1
Bromomethane	<0.0038		0.0038	0.0014	mg/Kg	☼	11/10/17 18:28	11/15/17 19:25	1
2-Butanone (MEK)	<0.0038	*	0.0038	0.0017	mg/Kg	☼	11/10/17 18:28	11/15/17 19:25	1
Carbon disulfide	<0.0038		0.0038	0.00079	mg/Kg	☼	11/10/17 18:28	11/15/17 19:25	1
Carbon tetrachloride	<0.0015		0.0015	0.00044	mg/Kg	☼	11/10/17 18:28	11/15/17 19:25	1
Chlorobenzene	<0.0015		0.0015	0.00056	mg/Kg	☼	11/10/17 18:28	11/15/17 19:25	1
Chloroethane	<0.0038		0.0038	0.0011	mg/Kg	☼	11/10/17 18:28	11/15/17 19:25	1
Chloroform	<0.0015		0.0015	0.00053	mg/Kg	☼	11/10/17 18:28	11/15/17 19:25	1
Chloromethane	<0.0038		0.0038	0.0015	mg/Kg	☼	11/10/17 18:28	11/15/17 19:25	1
cis-1,2-Dichloroethene	<0.0015		0.0015	0.00042	mg/Kg	☼	11/10/17 18:28	11/15/17 19:25	1
cis-1,3-Dichloropropene	<0.0015		0.0015	0.00046	mg/Kg	☼	11/10/17 18:28	11/15/17 19:25	1
Dibromochloromethane	<0.0015		0.0015	0.00050	mg/Kg	☼	11/10/17 18:28	11/15/17 19:25	1
1,1-Dichloroethane	<0.0015		0.0015	0.00052	mg/Kg	☼	11/10/17 18:28	11/15/17 19:25	1
1,2-Dichloroethane	<0.0038		0.0038	0.0012	mg/Kg	☼	11/10/17 18:28	11/15/17 19:25	1
1,1-Dichloroethene	<0.0015		0.0015	0.00052	mg/Kg	☼	11/10/17 18:28	11/15/17 19:25	1
1,2-Dichloropropane	<0.0015		0.0015	0.00039	mg/Kg	☼	11/10/17 18:28	11/15/17 19:25	1
1,3-Dichloropropane, Total	<0.0015		0.0015	0.00053	mg/Kg	☼	11/10/17 18:28	11/15/17 19:25	1
Ethylbenzene	<0.0015		0.0015	0.00072	mg/Kg	☼	11/10/17 18:28	11/15/17 19:25	1
2-Hexanone	<0.0038		0.0038	0.0012	mg/Kg	☼	11/10/17 18:28	11/15/17 19:25	1
Methylene Chloride	<0.0038		0.0038	0.0015	mg/Kg	☼	11/10/17 18:28	11/15/17 19:25	1
4-Methyl-2-pentanone (MIBK)	<0.0038		0.0038	0.0011	mg/Kg	☼	11/10/17 18:28	11/15/17 19:25	1
Methyl tert-butyl ether	<0.0015		0.0015	0.00044	mg/Kg	☼	11/10/17 18:28	11/15/17 19:25	1
Styrene	<0.0015		0.0015	0.00046	mg/Kg	☼	11/10/17 18:28	11/15/17 19:25	1
1,1,2,2-Tetrachloroethane	<0.0015		0.0015	0.00048	mg/Kg	☼	11/10/17 18:28	11/15/17 19:25	1
Tetrachloroethene	<0.0015		0.0015	0.00052	mg/Kg	☼	11/10/17 18:28	11/15/17 19:25	1
Toluene	<0.0015		0.0015	0.00038	mg/Kg	☼	11/10/17 18:28	11/15/17 19:25	1
trans-1,2-Dichloroethene	<0.0015		0.0015	0.00067	mg/Kg	☼	11/10/17 18:28	11/15/17 19:25	1
trans-1,3-Dichloropropene	<0.0015		0.0015	0.00053	mg/Kg	☼	11/10/17 18:28	11/15/17 19:25	1
1,1,1-Trichloroethane	<0.0015		0.0015	0.00051	mg/Kg	☼	11/10/17 18:28	11/15/17 19:25	1
1,1,2-Trichloroethane	<0.0015		0.0015	0.00065	mg/Kg	☼	11/10/17 18:28	11/15/17 19:25	1
Trichloroethene	<0.0015		0.0015	0.00051	mg/Kg	☼	11/10/17 18:28	11/15/17 19:25	1
Vinyl acetate	<0.0038		0.0038	0.0013	mg/Kg	☼	11/10/17 18:28	11/15/17 19:25	1
Vinyl chloride	<0.0015		0.0015	0.00067	mg/Kg	☼	11/10/17 18:28	11/15/17 19:25	1
Xylenes, Total	<0.0030		0.0030	0.00048	mg/Kg	☼	11/10/17 18:28	11/15/17 19:25	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	117		75 - 131	11/10/17 18:28	11/15/17 19:25	1
Dibromofluoromethane	105		75 - 126	11/10/17 18:28	11/15/17 19:25	1
1,2-Dichloroethane-d4 (Surr)	102		70 - 134	11/10/17 18:28	11/15/17 19:25	1
Toluene-d8 (Surr)	95		75 - 124	11/10/17 18:28	11/15/17 19:25	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.037		0.037	0.0067	mg/Kg	☼	11/16/17 08:33	11/17/17 15:46	1
Acenaphthylene	<0.037		0.037	0.0049	mg/Kg	☼	11/16/17 08:33	11/17/17 15:46	1
Anthracene	0.012	J	0.037	0.0062	mg/Kg	☼	11/16/17 08:33	11/17/17 15:46	1
Benzo[a]anthracene	0.17		0.037	0.0050	mg/Kg	☼	11/16/17 08:33	11/17/17 15:46	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137077-1

Client Sample ID: 2696V-52-B01(0-6)

Lab Sample ID: 500-137077-1

Date Collected: 11/09/17 15:30

Matrix: Solid

Date Received: 11/10/17 08:00

Percent Solids: 88.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	0.22		0.037	0.0072	mg/Kg	☼	11/16/17 08:33	11/17/17 15:46	1
Benzo[b]fluoranthene	0.27		0.037	0.0081	mg/Kg	☼	11/16/17 08:33	11/17/17 15:46	1
Benzo[g,h,i]perylene	0.14		0.037	0.012	mg/Kg	☼	11/16/17 08:33	11/17/17 15:46	1
Benzo[k]fluoranthene	0.10		0.037	0.011	mg/Kg	☼	11/16/17 08:33	11/17/17 15:46	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.038	mg/Kg	☼	11/16/17 08:33	11/17/17 15:46	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.056	mg/Kg	☼	11/16/17 08:33	11/17/17 15:46	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.068	mg/Kg	☼	11/16/17 08:33	11/17/17 15:46	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.049	mg/Kg	☼	11/16/17 08:33	11/17/17 15:46	1
Butyl benzyl phthalate	<0.19		0.19	0.071	mg/Kg	☼	11/16/17 08:33	11/17/17 15:46	1
Carbazole	<0.19		0.19	0.093	mg/Kg	☼	11/16/17 08:33	11/17/17 15:46	1
4-Chloroaniline	<0.75		0.75	0.18	mg/Kg	☼	11/16/17 08:33	11/17/17 15:46	1
4-Chloro-3-methylphenol	<0.37		0.37	0.13	mg/Kg	☼	11/16/17 08:33	11/17/17 15:46	1
2-Chloronaphthalene	<0.19		0.19	0.041	mg/Kg	☼	11/16/17 08:33	11/17/17 15:46	1
2-Chlorophenol	<0.19		0.19	0.064	mg/Kg	☼	11/16/17 08:33	11/17/17 15:46	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.044	mg/Kg	☼	11/16/17 08:33	11/17/17 15:46	1
Chrysene	0.22		0.037	0.010	mg/Kg	☼	11/16/17 08:33	11/17/17 15:46	1
Dibenz(a,h)anthracene	0.085		0.037	0.0072	mg/Kg	☼	11/16/17 08:33	11/17/17 15:46	1
Dibenzofuran	<0.19		0.19	0.044	mg/Kg	☼	11/16/17 08:33	11/17/17 15:46	1
1,2-Dichlorobenzene	<0.19		0.19	0.045	mg/Kg	☼	11/16/17 08:33	11/17/17 15:46	1
1,3-Dichlorobenzene	<0.19		0.19	0.042	mg/Kg	☼	11/16/17 08:33	11/17/17 15:46	1
1,4-Dichlorobenzene	<0.19		0.19	0.048	mg/Kg	☼	11/16/17 08:33	11/17/17 15:46	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.052	mg/Kg	☼	11/16/17 08:33	11/17/17 15:46	1
2,4-Dichlorophenol	<0.37		0.37	0.089	mg/Kg	☼	11/16/17 08:33	11/17/17 15:46	1
Diethyl phthalate	<0.19		0.19	0.063	mg/Kg	☼	11/16/17 08:33	11/17/17 15:46	1
2,4-Dimethylphenol	<0.37		0.37	0.14	mg/Kg	☼	11/16/17 08:33	11/17/17 15:46	1
Dimethyl phthalate	<0.19		0.19	0.049	mg/Kg	☼	11/16/17 08:33	11/17/17 15:46	1
Di-n-butyl phthalate	<0.19		0.19	0.057	mg/Kg	☼	11/16/17 08:33	11/17/17 15:46	1
4,6-Dinitro-2-methylphenol	<0.75		0.75	0.30	mg/Kg	☼	11/16/17 08:33	11/17/17 15:46	1
2,4-Dinitrophenol	<0.75		0.75	0.66	mg/Kg	☼	11/16/17 08:33	11/17/17 15:46	1
2,4-Dinitrotoluene	<0.19		0.19	0.059	mg/Kg	☼	11/16/17 08:33	11/17/17 15:46	1
2,6-Dinitrotoluene	<0.19		0.19	0.073	mg/Kg	☼	11/16/17 08:33	11/17/17 15:46	1
Di-n-octyl phthalate	<0.19		0.19	0.061	mg/Kg	☼	11/16/17 08:33	11/17/17 15:46	1
Fluoranthene	0.23		0.037	0.0069	mg/Kg	☼	11/16/17 08:33	11/17/17 15:46	1
Fluorene	<0.037		0.037	0.0053	mg/Kg	☼	11/16/17 08:33	11/17/17 15:46	1
Hexachlorobenzene	<0.075		0.075	0.0087	mg/Kg	☼	11/16/17 08:33	11/17/17 15:46	1
Hexachlorobutadiene	<0.19		0.19	0.059	mg/Kg	☼	11/16/17 08:33	11/17/17 15:46	1
Hexachlorocyclopentadiene	<0.75		0.75	0.21	mg/Kg	☼	11/16/17 08:33	11/17/17 15:46	1
Hexachloroethane	<0.19		0.19	0.057	mg/Kg	☼	11/16/17 08:33	11/17/17 15:46	1
Indeno[1,2,3-cd]pyrene	0.14		0.037	0.0097	mg/Kg	☼	11/16/17 08:33	11/17/17 15:46	1
Isophorone	<0.19		0.19	0.042	mg/Kg	☼	11/16/17 08:33	11/17/17 15:46	1
2-Methylnaphthalene	<0.075		0.075	0.0069	mg/Kg	☼	11/16/17 08:33	11/17/17 15:46	1
2-Methylphenol	<0.19		0.19	0.060	mg/Kg	☼	11/16/17 08:33	11/17/17 15:46	1
3 & 4 Methylphenol	<0.19		0.19	0.062	mg/Kg	☼	11/16/17 08:33	11/17/17 15:46	1
Naphthalene	<0.037		0.037	0.0057	mg/Kg	☼	11/16/17 08:33	11/17/17 15:46	1
2-Nitroaniline	<0.19		0.19	0.050	mg/Kg	☼	11/16/17 08:33	11/17/17 15:46	1
3-Nitroaniline	<0.37		0.37	0.12	mg/Kg	☼	11/16/17 08:33	11/17/17 15:46	1
4-Nitroaniline	<0.37		0.37	0.16	mg/Kg	☼	11/16/17 08:33	11/17/17 15:46	1
Nitrobenzene	<0.037		0.037	0.0093	mg/Kg	☼	11/16/17 08:33	11/17/17 15:46	1
2-Nitrophenol	<0.37		0.37	0.088	mg/Kg	☼	11/16/17 08:33	11/17/17 15:46	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137077-1

Client Sample ID: 2696V-52-B01(0-6)

Lab Sample ID: 500-137077-1

Date Collected: 11/09/17 15:30

Matrix: Solid

Date Received: 11/10/17 08:00

Percent Solids: 88.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Nitrophenol	<0.75		0.75	0.36	mg/Kg	☼	11/16/17 08:33	11/17/17 15:46	1
N-Nitrosodi-n-propylamine	<0.075		0.075	0.046	mg/Kg	☼	11/16/17 08:33	11/17/17 15:46	1
N-Nitrosodiphenylamine	<0.19		0.19	0.044	mg/Kg	☼	11/16/17 08:33	11/17/17 15:46	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.043	mg/Kg	☼	11/16/17 08:33	11/17/17 15:46	1
Pentachlorophenol	<0.75		0.75	0.60	mg/Kg	☼	11/16/17 08:33	11/17/17 15:46	1
Phenanthrene	0.075		0.037	0.0052	mg/Kg	☼	11/16/17 08:33	11/17/17 15:46	1
Phenol	<0.19		0.19	0.083	mg/Kg	☼	11/16/17 08:33	11/17/17 15:46	1
Pyrene	0.16		0.037	0.0074	mg/Kg	☼	11/16/17 08:33	11/17/17 15:46	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.040	mg/Kg	☼	11/16/17 08:33	11/17/17 15:46	1
2,4,5-Trichlorophenol	<0.37		0.37	0.085	mg/Kg	☼	11/16/17 08:33	11/17/17 15:46	1
2,4,6-Trichlorophenol	<0.37		0.37	0.13	mg/Kg	☼	11/16/17 08:33	11/17/17 15:46	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	96		44 - 121				11/16/17 08:33	11/17/17 15:46	1
2-Fluorophenol	110		46 - 133				11/16/17 08:33	11/17/17 15:46	1
Nitrobenzene-d5	93		41 - 120				11/16/17 08:33	11/17/17 15:46	1
Phenol-d5	107		46 - 125				11/16/17 08:33	11/17/17 15:46	1
Terphenyl-d14	85		35 - 160				11/16/17 08:33	11/17/17 15:46	1
2,4,6-Tribromophenol	79		25 - 139				11/16/17 08:33	11/17/17 15:46	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.27	J	1.1	0.21	mg/Kg	☼	11/11/17 13:28	11/13/17 20:40	1
Arsenic	7.3		0.54	0.19	mg/Kg	☼	11/11/17 13:28	11/13/17 20:40	1
Barium	44		0.54	0.062	mg/Kg	☼	11/11/17 13:28	11/13/17 20:40	1
Beryllium	0.59		0.22	0.051	mg/Kg	☼	11/11/17 13:28	11/13/17 20:40	1
Cadmium	0.14	B	0.11	0.019	mg/Kg	☼	11/11/17 13:28	11/13/17 20:40	1
Chromium	13		0.54	0.27	mg/Kg	☼	11/11/17 13:28	11/13/17 20:40	1
Cobalt	8.2		0.27	0.071	mg/Kg	☼	11/11/17 13:28	11/13/17 20:40	1
Copper	22	B	2.7	0.76	mg/Kg	☼	11/11/17 13:28	11/14/17 18:27	5
Iron	16000		11	5.6	mg/Kg	☼	11/11/17 13:28	11/13/17 20:40	1
Lead	16		0.27	0.13	mg/Kg	☼	11/11/17 13:28	11/13/17 20:40	1
Magnesium	20000		5.4	2.7	mg/Kg	☼	11/11/17 13:28	11/13/17 20:40	1
Calcium	53000		54	9.2	mg/Kg	☼	11/11/17 13:28	11/14/17 18:27	5
Manganese	300		0.54	0.078	mg/Kg	☼	11/11/17 13:28	11/13/17 20:40	1
Nickel	22		0.54	0.16	mg/Kg	☼	11/11/17 13:28	11/13/17 20:40	1
Selenium	<0.54		0.54	0.32	mg/Kg	☼	11/11/17 13:28	11/13/17 20:40	1
Silver	<0.27		0.27	0.070	mg/Kg	☼	11/11/17 13:28	11/13/17 20:40	1
Thallium	<0.54		0.54	0.27	mg/Kg	☼	11/11/17 13:28	11/13/17 20:40	1
Vanadium	17		0.27	0.064	mg/Kg	☼	11/11/17 13:28	11/13/17 20:40	1
Zinc	54		1.1	0.48	mg/Kg	☼	11/11/17 13:28	11/13/17 20:40	1
Potassium	1400		27	9.6	mg/Kg	☼	11/11/17 13:28	11/13/17 20:40	1
Sodium	500		54	8.0	mg/Kg	☼	11/11/17 13:28	11/13/17 20:40	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.050		0.050	0.010	mg/L		11/15/17 08:42	11/15/17 15:58	1
Barium	0.36	J	0.50	0.050	mg/L		11/15/17 08:42	11/15/17 15:58	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		11/15/17 08:42	11/15/17 15:58	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		11/15/17 08:42	11/15/17 15:58	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137077-1

Client Sample ID: 2696V-52-B01(0-6)

Lab Sample ID: 500-137077-1

Date Collected: 11/09/17 15:30

Matrix: Solid

Date Received: 11/10/17 08:00

Percent Solids: 88.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	540		5.0	0.50	mg/L		11/15/17 08:42	11/15/17 15:58	1
Chromium	<0.025		0.025	0.010	mg/L		11/15/17 08:42	11/15/17 15:58	1
Cobalt	<0.025		0.025	0.010	mg/L		11/15/17 08:42	11/15/17 15:58	1
Copper	<0.025		0.025	0.010	mg/L		11/15/17 08:42	11/15/17 15:58	1
Iron	<0.40		0.40	0.20	mg/L		11/15/17 08:42	11/15/17 15:58	1
Lead	<0.0075		0.0075	0.0075	mg/L		11/15/17 08:42	11/15/17 15:58	1
Magnesium	34		2.5	0.50	mg/L		11/15/17 08:42	11/15/17 15:58	1
Manganese	0.18		0.025	0.010	mg/L		11/15/17 08:42	11/15/17 15:58	1
Nickel	<0.025		0.025	0.010	mg/L		11/15/17 08:42	11/15/17 15:58	1
Potassium	1.3 J		2.5	0.50	mg/L		11/15/17 08:42	11/15/17 15:58	1
Selenium	<0.050		0.050	0.020	mg/L		11/15/17 08:42	11/15/17 15:58	1
Silver	<0.025		0.025	0.010	mg/L		11/15/17 08:42	11/15/17 15:58	1
Vanadium	<0.025		0.025	0.010	mg/L		11/15/17 08:42	11/15/17 15:58	1
Zinc	<0.50		0.50	0.020	mg/L		11/15/17 08:42	11/15/17 15:58	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.59		0.025	0.010	mg/L		11/15/17 08:17	11/17/17 03:34	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		11/15/17 08:42	11/16/17 16:45	1
Thallium	<0.0020		0.0020	0.0020	mg/L		11/15/17 08:42	11/16/17 16:45	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		11/17/17 08:10	11/17/17 11:53	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.020		0.018	0.0060	mg/Kg	☼	11/17/17 10:45	11/18/17 12:52	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.50		0.50	0.17	mg/Kg	☼	11/18/17 11:30	11/18/17 14:31	1
pH	9.1		0.20	0.20	SU			11/18/17 11:50	1

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137077-1

Client Sample ID: 2696V-52-B01(6-11)

Lab Sample ID: 500-137077-2

Date Collected: 11/09/17 15:35

Matrix: Solid

Date Received: 11/10/17 08:00

Percent Solids: 90.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.015		0.015	0.0067	mg/Kg	☼	11/10/17 18:28	11/15/17 19:49	1
Benzene	<0.0015	*	0.0015	0.00039	mg/Kg	☼	11/10/17 18:28	11/15/17 19:49	1
Bromodichloromethane	<0.0015		0.0015	0.00031	mg/Kg	☼	11/10/17 18:28	11/15/17 19:49	1
Bromoform	<0.0015		0.0015	0.00045	mg/Kg	☼	11/10/17 18:28	11/15/17 19:49	1
Bromomethane	<0.0038		0.0038	0.0015	mg/Kg	☼	11/10/17 18:28	11/15/17 19:49	1
2-Butanone (MEK)	<0.0038	*	0.0038	0.0017	mg/Kg	☼	11/10/17 18:28	11/15/17 19:49	1
Carbon disulfide	<0.0038		0.0038	0.00080	mg/Kg	☼	11/10/17 18:28	11/15/17 19:49	1
Carbon tetrachloride	<0.0015		0.0015	0.00045	mg/Kg	☼	11/10/17 18:28	11/15/17 19:49	1
Chlorobenzene	<0.0015		0.0015	0.00057	mg/Kg	☼	11/10/17 18:28	11/15/17 19:49	1
Chloroethane	<0.0038		0.0038	0.0011	mg/Kg	☼	11/10/17 18:28	11/15/17 19:49	1
Chloroform	<0.0015		0.0015	0.00053	mg/Kg	☼	11/10/17 18:28	11/15/17 19:49	1
Chloromethane	<0.0038		0.0038	0.0015	mg/Kg	☼	11/10/17 18:28	11/15/17 19:49	1
cis-1,2-Dichloroethene	<0.0015		0.0015	0.00043	mg/Kg	☼	11/10/17 18:28	11/15/17 19:49	1
cis-1,3-Dichloropropene	<0.0015		0.0015	0.00046	mg/Kg	☼	11/10/17 18:28	11/15/17 19:49	1
Dibromochloromethane	<0.0015		0.0015	0.00050	mg/Kg	☼	11/10/17 18:28	11/15/17 19:49	1
1,1-Dichloroethane	<0.0015		0.0015	0.00053	mg/Kg	☼	11/10/17 18:28	11/15/17 19:49	1
1,2-Dichloroethane	<0.0038		0.0038	0.0012	mg/Kg	☼	11/10/17 18:28	11/15/17 19:49	1
1,1-Dichloroethene	<0.0015		0.0015	0.00053	mg/Kg	☼	11/10/17 18:28	11/15/17 19:49	1
1,2-Dichloropropane	<0.0015		0.0015	0.00040	mg/Kg	☼	11/10/17 18:28	11/15/17 19:49	1
1,3-Dichloropropane, Total	<0.0015		0.0015	0.00054	mg/Kg	☼	11/10/17 18:28	11/15/17 19:49	1
Ethylbenzene	<0.0015		0.0015	0.00074	mg/Kg	☼	11/10/17 18:28	11/15/17 19:49	1
2-Hexanone	<0.0038		0.0038	0.0012	mg/Kg	☼	11/10/17 18:28	11/15/17 19:49	1
Methylene Chloride	<0.0038		0.0038	0.0015	mg/Kg	☼	11/10/17 18:28	11/15/17 19:49	1
4-Methyl-2-pentanone (MIBK)	<0.0038		0.0038	0.0011	mg/Kg	☼	11/10/17 18:28	11/15/17 19:49	1
Methyl tert-butyl ether	<0.0015		0.0015	0.00045	mg/Kg	☼	11/10/17 18:28	11/15/17 19:49	1
Styrene	<0.0015		0.0015	0.00047	mg/Kg	☼	11/10/17 18:28	11/15/17 19:49	1
1,1,2,2-Tetrachloroethane	<0.0015		0.0015	0.00049	mg/Kg	☼	11/10/17 18:28	11/15/17 19:49	1
Tetrachloroethene	<0.0015		0.0015	0.00052	mg/Kg	☼	11/10/17 18:28	11/15/17 19:49	1
Toluene	<0.0015		0.0015	0.00039	mg/Kg	☼	11/10/17 18:28	11/15/17 19:49	1
trans-1,2-Dichloroethene	<0.0015		0.0015	0.00068	mg/Kg	☼	11/10/17 18:28	11/15/17 19:49	1
trans-1,3-Dichloropropene	<0.0015		0.0015	0.00054	mg/Kg	☼	11/10/17 18:28	11/15/17 19:49	1
1,1,1-Trichloroethane	<0.0015		0.0015	0.00052	mg/Kg	☼	11/10/17 18:28	11/15/17 19:49	1
1,1,2-Trichloroethane	<0.0015		0.0015	0.00066	mg/Kg	☼	11/10/17 18:28	11/15/17 19:49	1
Trichloroethene	<0.0015		0.0015	0.00052	mg/Kg	☼	11/10/17 18:28	11/15/17 19:49	1
Vinyl acetate	<0.0038		0.0038	0.0013	mg/Kg	☼	11/10/17 18:28	11/15/17 19:49	1
Vinyl chloride	<0.0015		0.0015	0.00068	mg/Kg	☼	11/10/17 18:28	11/15/17 19:49	1
Xylenes, Total	<0.0031		0.0031	0.00049	mg/Kg	☼	11/10/17 18:28	11/15/17 19:49	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	91		75 - 131	11/10/17 18:28	11/15/17 19:49	1
Dibromofluoromethane	80		75 - 126	11/10/17 18:28	11/15/17 19:49	1
1,2-Dichloroethane-d4 (Surr)	105		70 - 134	11/10/17 18:28	11/15/17 19:49	1
Toluene-d8 (Surr)	96		75 - 124	11/10/17 18:28	11/15/17 19:49	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.045		0.036	0.0065	mg/Kg	☼	11/16/17 08:33	11/17/17 16:14	1
Acenaphthylene	<0.036		0.036	0.0047	mg/Kg	☼	11/16/17 08:33	11/17/17 16:14	1
Anthracene	0.059		0.036	0.0060	mg/Kg	☼	11/16/17 08:33	11/17/17 16:14	1
Benzo[a]anthracene	0.047		0.036	0.0048	mg/Kg	☼	11/16/17 08:33	11/17/17 16:14	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137077-1

Client Sample ID: 2696V-52-B01(6-11)

Lab Sample ID: 500-137077-2

Date Collected: 11/09/17 15:35

Matrix: Solid

Date Received: 11/10/17 08:00

Percent Solids: 90.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	0.066		0.036	0.0070	mg/Kg	☼	11/16/17 08:33	11/17/17 16:14	1
Benzo[b]fluoranthene	0.069		0.036	0.0078	mg/Kg	☼	11/16/17 08:33	11/17/17 16:14	1
Benzo[g,h,i]perylene	0.051		0.036	0.012	mg/Kg	☼	11/16/17 08:33	11/17/17 16:14	1
Benzo[k]fluoranthene	0.022	J	0.036	0.011	mg/Kg	☼	11/16/17 08:33	11/17/17 16:14	1
Bis(2-chloroethoxy)methane	<0.18		0.18	0.037	mg/Kg	☼	11/16/17 08:33	11/17/17 16:14	1
Bis(2-chloroethyl)ether	<0.18		0.18	0.054	mg/Kg	☼	11/16/17 08:33	11/17/17 16:14	1
Bis(2-ethylhexyl) phthalate	<0.18		0.18	0.066	mg/Kg	☼	11/16/17 08:33	11/17/17 16:14	1
4-Bromophenyl phenyl ether	<0.18		0.18	0.047	mg/Kg	☼	11/16/17 08:33	11/17/17 16:14	1
Butyl benzyl phthalate	<0.18		0.18	0.069	mg/Kg	☼	11/16/17 08:33	11/17/17 16:14	1
Carbazole	<0.18		0.18	0.090	mg/Kg	☼	11/16/17 08:33	11/17/17 16:14	1
4-Chloroaniline	<0.73		0.73	0.17	mg/Kg	☼	11/16/17 08:33	11/17/17 16:14	1
4-Chloro-3-methylphenol	<0.36		0.36	0.12	mg/Kg	☼	11/16/17 08:33	11/17/17 16:14	1
2-Chloronaphthalene	<0.18		0.18	0.040	mg/Kg	☼	11/16/17 08:33	11/17/17 16:14	1
2-Chlorophenol	<0.18		0.18	0.061	mg/Kg	☼	11/16/17 08:33	11/17/17 16:14	1
4-Chlorophenyl phenyl ether	<0.18		0.18	0.042	mg/Kg	☼	11/16/17 08:33	11/17/17 16:14	1
Chrysene	0.047		0.036	0.0098	mg/Kg	☼	11/16/17 08:33	11/17/17 16:14	1
Dibenz(a,h)anthracene	0.039		0.036	0.0070	mg/Kg	☼	11/16/17 08:33	11/17/17 16:14	1
Dibenzofuran	<0.18		0.18	0.042	mg/Kg	☼	11/16/17 08:33	11/17/17 16:14	1
1,2-Dichlorobenzene	<0.18		0.18	0.043	mg/Kg	☼	11/16/17 08:33	11/17/17 16:14	1
1,3-Dichlorobenzene	<0.18		0.18	0.041	mg/Kg	☼	11/16/17 08:33	11/17/17 16:14	1
1,4-Dichlorobenzene	<0.18		0.18	0.046	mg/Kg	☼	11/16/17 08:33	11/17/17 16:14	1
3,3'-Dichlorobenzidine	<0.18		0.18	0.050	mg/Kg	☼	11/16/17 08:33	11/17/17 16:14	1
2,4-Dichlorophenol	<0.36		0.36	0.086	mg/Kg	☼	11/16/17 08:33	11/17/17 16:14	1
Diethyl phthalate	<0.18		0.18	0.061	mg/Kg	☼	11/16/17 08:33	11/17/17 16:14	1
2,4-Dimethylphenol	<0.36		0.36	0.14	mg/Kg	☼	11/16/17 08:33	11/17/17 16:14	1
Dimethyl phthalate	<0.18		0.18	0.047	mg/Kg	☼	11/16/17 08:33	11/17/17 16:14	1
Di-n-butyl phthalate	<0.18		0.18	0.055	mg/Kg	☼	11/16/17 08:33	11/17/17 16:14	1
4,6-Dinitro-2-methylphenol	<0.73		0.73	0.29	mg/Kg	☼	11/16/17 08:33	11/17/17 16:14	1
2,4-Dinitrophenol	<0.73		0.73	0.63	mg/Kg	☼	11/16/17 08:33	11/17/17 16:14	1
2,4-Dinitrotoluene	<0.18		0.18	0.057	mg/Kg	☼	11/16/17 08:33	11/17/17 16:14	1
2,6-Dinitrotoluene	<0.18		0.18	0.071	mg/Kg	☼	11/16/17 08:33	11/17/17 16:14	1
Di-n-octyl phthalate	<0.18		0.18	0.059	mg/Kg	☼	11/16/17 08:33	11/17/17 16:14	1
Fluoranthene	0.17		0.036	0.0067	mg/Kg	☼	11/16/17 08:33	11/17/17 16:14	1
Fluorene	0.036		0.036	0.0051	mg/Kg	☼	11/16/17 08:33	11/17/17 16:14	1
Hexachlorobenzene	<0.073		0.073	0.0083	mg/Kg	☼	11/16/17 08:33	11/17/17 16:14	1
Hexachlorobutadiene	<0.18		0.18	0.057	mg/Kg	☼	11/16/17 08:33	11/17/17 16:14	1
Hexachlorocyclopentadiene	<0.73		0.73	0.21	mg/Kg	☼	11/16/17 08:33	11/17/17 16:14	1
Hexachloroethane	<0.18		0.18	0.055	mg/Kg	☼	11/16/17 08:33	11/17/17 16:14	1
Indeno[1,2,3-cd]pyrene	0.045		0.036	0.0093	mg/Kg	☼	11/16/17 08:33	11/17/17 16:14	1
Isophorone	<0.18		0.18	0.040	mg/Kg	☼	11/16/17 08:33	11/17/17 16:14	1
2-Methylnaphthalene	0.011	J	0.073	0.0066	mg/Kg	☼	11/16/17 08:33	11/17/17 16:14	1
2-Methylphenol	<0.18		0.18	0.058	mg/Kg	☼	11/16/17 08:33	11/17/17 16:14	1
3 & 4 Methylphenol	<0.18		0.18	0.060	mg/Kg	☼	11/16/17 08:33	11/17/17 16:14	1
Naphthalene	0.027	J	0.036	0.0055	mg/Kg	☼	11/16/17 08:33	11/17/17 16:14	1
2-Nitroaniline	<0.18		0.18	0.048	mg/Kg	☼	11/16/17 08:33	11/17/17 16:14	1
3-Nitroaniline	<0.36		0.36	0.11	mg/Kg	☼	11/16/17 08:33	11/17/17 16:14	1
4-Nitroaniline	<0.36		0.36	0.15	mg/Kg	☼	11/16/17 08:33	11/17/17 16:14	1
Nitrobenzene	<0.036		0.036	0.0090	mg/Kg	☼	11/16/17 08:33	11/17/17 16:14	1
2-Nitrophenol	<0.36		0.36	0.085	mg/Kg	☼	11/16/17 08:33	11/17/17 16:14	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137077-1

Client Sample ID: 2696V-52-B01(6-11)

Lab Sample ID: 500-137077-2

Date Collected: 11/09/17 15:35

Matrix: Solid

Date Received: 11/10/17 08:00

Percent Solids: 90.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Nitrophenol	<0.73		0.73	0.34	mg/Kg	☼	11/16/17 08:33	11/17/17 16:14	1
N-Nitrosodi-n-propylamine	<0.073		0.073	0.044	mg/Kg	☼	11/16/17 08:33	11/17/17 16:14	1
N-Nitrosodiphenylamine	<0.18		0.18	0.043	mg/Kg	☼	11/16/17 08:33	11/17/17 16:14	1
2,2'-oxybis[1-chloropropane]	<0.18		0.18	0.042	mg/Kg	☼	11/16/17 08:33	11/17/17 16:14	1
Pentachlorophenol	<0.73		0.73	0.58	mg/Kg	☼	11/16/17 08:33	11/17/17 16:14	1
Phenanthrene	0.17		0.036	0.0050	mg/Kg	☼	11/16/17 08:33	11/17/17 16:14	1
Phenol	<0.18		0.18	0.080	mg/Kg	☼	11/16/17 08:33	11/17/17 16:14	1
Pyrene	0.13		0.036	0.0072	mg/Kg	☼	11/16/17 08:33	11/17/17 16:14	1
1,2,4-Trichlorobenzene	<0.18		0.18	0.039	mg/Kg	☼	11/16/17 08:33	11/17/17 16:14	1
2,4,5-Trichlorophenol	<0.36		0.36	0.082	mg/Kg	☼	11/16/17 08:33	11/17/17 16:14	1
2,4,6-Trichlorophenol	<0.36		0.36	0.12	mg/Kg	☼	11/16/17 08:33	11/17/17 16:14	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	90		44 - 121	11/16/17 08:33	11/17/17 16:14	1
2-Fluorophenol	102		46 - 133	11/16/17 08:33	11/17/17 16:14	1
Nitrobenzene-d5	87		41 - 120	11/16/17 08:33	11/17/17 16:14	1
Phenol-d5	97		46 - 125	11/16/17 08:33	11/17/17 16:14	1
Terphenyl-d14	79		35 - 160	11/16/17 08:33	11/17/17 16:14	1
2,4,6-Tribromophenol	69		25 - 139	11/16/17 08:33	11/17/17 16:14	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.45	J	1.0	0.20	mg/Kg	☼	11/11/17 13:28	11/13/17 20:44	1
Arsenic	7.2		0.52	0.18	mg/Kg	☼	11/11/17 13:28	11/13/17 20:44	1
Barium	30		0.52	0.059	mg/Kg	☼	11/11/17 13:28	11/13/17 20:44	1
Beryllium	0.50		0.21	0.049	mg/Kg	☼	11/11/17 13:28	11/13/17 20:44	1
Cadmium	0.13	B	0.10	0.019	mg/Kg	☼	11/11/17 13:28	11/13/17 20:44	1
Chromium	11		0.52	0.26	mg/Kg	☼	11/11/17 13:28	11/13/17 20:44	1
Cobalt	7.7		0.26	0.068	mg/Kg	☼	11/11/17 13:28	11/13/17 20:44	1
Copper	18	B	2.6	0.73	mg/Kg	☼	11/11/17 13:28	11/14/17 18:31	5
Iron	14000		10	5.4	mg/Kg	☼	11/11/17 13:28	11/13/17 20:44	1
Lead	10		0.26	0.12	mg/Kg	☼	11/11/17 13:28	11/13/17 20:44	1
Magnesium	22000		5.2	2.6	mg/Kg	☼	11/11/17 13:28	11/13/17 20:44	1
Calcium	75000		52	8.8	mg/Kg	☼	11/11/17 13:28	11/14/17 18:31	5
Manganese	330		0.52	0.075	mg/Kg	☼	11/11/17 13:28	11/13/17 20:44	1
Nickel	20		0.52	0.15	mg/Kg	☼	11/11/17 13:28	11/13/17 20:44	1
Selenium	<0.52		0.52	0.31	mg/Kg	☼	11/11/17 13:28	11/13/17 20:44	1
Silver	<0.26		0.26	0.067	mg/Kg	☼	11/11/17 13:28	11/13/17 20:44	1
Thallium	<0.52		0.52	0.26	mg/Kg	☼	11/11/17 13:28	11/13/17 20:44	1
Vanadium	15		0.26	0.061	mg/Kg	☼	11/11/17 13:28	11/13/17 20:44	1
Zinc	51		1.0	0.46	mg/Kg	☼	11/11/17 13:28	11/13/17 20:44	1
Potassium	1500		26	9.2	mg/Kg	☼	11/11/17 13:28	11/13/17 20:44	1
Sodium	370		52	7.7	mg/Kg	☼	11/11/17 13:28	11/13/17 20:44	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.050		0.050	0.010	mg/L		11/15/17 08:42	11/15/17 16:02	1
Barium	0.37	J	0.50	0.050	mg/L		11/15/17 08:42	11/15/17 16:02	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		11/15/17 08:42	11/15/17 16:02	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		11/15/17 08:42	11/15/17 16:02	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137077-1

Client Sample ID: 2696V-52-B01(6-11)

Lab Sample ID: 500-137077-2

Date Collected: 11/09/17 15:35

Matrix: Solid

Date Received: 11/10/17 08:00

Percent Solids: 90.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	600		5.0	0.50	mg/L		11/15/17 08:42	11/15/17 16:02	1
Chromium	<0.025		0.025	0.010	mg/L		11/15/17 08:42	11/15/17 16:02	1
Cobalt	<0.025		0.025	0.010	mg/L		11/15/17 08:42	11/15/17 16:02	1
Copper	<0.025		0.025	0.010	mg/L		11/15/17 08:42	11/15/17 16:02	1
Iron	<0.40		0.40	0.20	mg/L		11/15/17 08:42	11/15/17 16:02	1
Lead	<0.0075		0.0075	0.0075	mg/L		11/15/17 08:42	11/15/17 16:02	1
Magnesium	38		2.5	0.50	mg/L		11/15/17 08:42	11/15/17 16:02	1
Manganese	0.58		0.025	0.010	mg/L		11/15/17 08:42	11/15/17 16:02	1
Nickel	<0.025		0.025	0.010	mg/L		11/15/17 08:42	11/15/17 16:02	1
Potassium	1.5 J		2.5	0.50	mg/L		11/15/17 08:42	11/15/17 16:02	1
Selenium	<0.050		0.050	0.020	mg/L		11/15/17 08:42	11/15/17 16:02	1
Silver	<0.025		0.025	0.010	mg/L		11/15/17 08:42	11/15/17 16:02	1
Vanadium	<0.025		0.025	0.010	mg/L		11/15/17 08:42	11/15/17 16:02	1
Zinc	<0.50		0.50	0.020	mg/L		11/15/17 08:42	11/15/17 16:02	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.080		0.025	0.010	mg/L		11/15/17 08:17	11/17/17 03:38	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		11/15/17 08:42	11/16/17 16:49	1
Thallium	<0.0020		0.0020	0.0020	mg/L		11/15/17 08:42	11/16/17 16:49	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		11/17/17 08:10	11/17/17 11:54	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.015 J		0.017	0.0057	mg/Kg	☼	11/17/17 10:45	11/18/17 12:55	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.49		0.49	0.17	mg/Kg	☼	11/18/17 11:30	11/18/17 14:33	1
pH	8.3		0.20	0.20	SU			11/18/17 11:52	1

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137077-1

Client Sample ID: 2696V-52-B02(0-6)

Lab Sample ID: 500-137077-3

Date Collected: 11/09/17 15:10

Matrix: Solid

Date Received: 11/10/17 08:00

Percent Solids: 86.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.015		0.015	0.0065	mg/Kg	☼	11/10/17 18:28	11/15/17 20:15	1
Benzene	<0.0015	*	0.0015	0.00038	mg/Kg	☼	11/10/17 18:28	11/15/17 20:15	1
Bromodichloromethane	<0.0015		0.0015	0.00030	mg/Kg	☼	11/10/17 18:28	11/15/17 20:15	1
Bromoform	<0.0015		0.0015	0.00044	mg/Kg	☼	11/10/17 18:28	11/15/17 20:15	1
Bromomethane	<0.0037		0.0037	0.0014	mg/Kg	☼	11/10/17 18:28	11/15/17 20:15	1
2-Butanone (MEK)	<0.0037	*	0.0037	0.0017	mg/Kg	☼	11/10/17 18:28	11/15/17 20:15	1
Carbon disulfide	<0.0037		0.0037	0.00078	mg/Kg	☼	11/10/17 18:28	11/15/17 20:15	1
Carbon tetrachloride	<0.0015		0.0015	0.00043	mg/Kg	☼	11/10/17 18:28	11/15/17 20:15	1
Chlorobenzene	<0.0015		0.0015	0.00055	mg/Kg	☼	11/10/17 18:28	11/15/17 20:15	1
Chloroethane	<0.0037		0.0037	0.0011	mg/Kg	☼	11/10/17 18:28	11/15/17 20:15	1
Chloroform	<0.0015		0.0015	0.00052	mg/Kg	☼	11/10/17 18:28	11/15/17 20:15	1
Chloromethane	<0.0037		0.0037	0.0015	mg/Kg	☼	11/10/17 18:28	11/15/17 20:15	1
cis-1,2-Dichloroethene	<0.0015		0.0015	0.00042	mg/Kg	☼	11/10/17 18:28	11/15/17 20:15	1
cis-1,3-Dichloropropene	<0.0015		0.0015	0.00045	mg/Kg	☼	11/10/17 18:28	11/15/17 20:15	1
Dibromochloromethane	<0.0015		0.0015	0.00049	mg/Kg	☼	11/10/17 18:28	11/15/17 20:15	1
1,1-Dichloroethane	<0.0015		0.0015	0.00051	mg/Kg	☼	11/10/17 18:28	11/15/17 20:15	1
1,2-Dichloroethane	<0.0037		0.0037	0.0012	mg/Kg	☼	11/10/17 18:28	11/15/17 20:15	1
1,1-Dichloroethene	<0.0015		0.0015	0.00052	mg/Kg	☼	11/10/17 18:28	11/15/17 20:15	1
1,2-Dichloropropane	<0.0015		0.0015	0.00039	mg/Kg	☼	11/10/17 18:28	11/15/17 20:15	1
1,3-Dichloropropane, Total	<0.0015		0.0015	0.00053	mg/Kg	☼	11/10/17 18:28	11/15/17 20:15	1
Ethylbenzene	<0.0015		0.0015	0.00072	mg/Kg	☼	11/10/17 18:28	11/15/17 20:15	1
2-Hexanone	<0.0037		0.0037	0.0012	mg/Kg	☼	11/10/17 18:28	11/15/17 20:15	1
Methylene Chloride	<0.0037		0.0037	0.0015	mg/Kg	☼	11/10/17 18:28	11/15/17 20:15	1
4-Methyl-2-pentanone (MIBK)	<0.0037		0.0037	0.0011	mg/Kg	☼	11/10/17 18:28	11/15/17 20:15	1
Methyl tert-butyl ether	<0.0015		0.0015	0.00044	mg/Kg	☼	11/10/17 18:28	11/15/17 20:15	1
Styrene	<0.0015		0.0015	0.00045	mg/Kg	☼	11/10/17 18:28	11/15/17 20:15	1
1,1,2,2-Tetrachloroethane	<0.0015		0.0015	0.00048	mg/Kg	☼	11/10/17 18:28	11/15/17 20:15	1
Tetrachloroethene	<0.0015		0.0015	0.00051	mg/Kg	☼	11/10/17 18:28	11/15/17 20:15	1
Toluene	<0.0015		0.0015	0.00038	mg/Kg	☼	11/10/17 18:28	11/15/17 20:15	1
trans-1,2-Dichloroethene	<0.0015		0.0015	0.00066	mg/Kg	☼	11/10/17 18:28	11/15/17 20:15	1
trans-1,3-Dichloropropene	<0.0015		0.0015	0.00053	mg/Kg	☼	11/10/17 18:28	11/15/17 20:15	1
1,1,1-Trichloroethane	<0.0015		0.0015	0.00050	mg/Kg	☼	11/10/17 18:28	11/15/17 20:15	1
1,1,2-Trichloroethane	<0.0015		0.0015	0.00064	mg/Kg	☼	11/10/17 18:28	11/15/17 20:15	1
Trichloroethene	<0.0015		0.0015	0.00051	mg/Kg	☼	11/10/17 18:28	11/15/17 20:15	1
Vinyl acetate	<0.0037		0.0037	0.0013	mg/Kg	☼	11/10/17 18:28	11/15/17 20:15	1
Vinyl chloride	<0.0015		0.0015	0.00066	mg/Kg	☼	11/10/17 18:28	11/15/17 20:15	1
Xylenes, Total	<0.0030		0.0030	0.00048	mg/Kg	☼	11/10/17 18:28	11/15/17 20:15	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	93		75 - 131	11/10/17 18:28	11/15/17 20:15	1
Dibromofluoromethane	114		75 - 126	11/10/17 18:28	11/15/17 20:15	1
1,2-Dichloroethane-d4 (Surr)	124		70 - 134	11/10/17 18:28	11/15/17 20:15	1
Toluene-d8 (Surr)	95		75 - 124	11/10/17 18:28	11/15/17 20:15	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.037		0.037	0.0066	mg/Kg	☼	11/16/17 08:33	11/17/17 18:59	1
Acenaphthylene	<0.037		0.037	0.0049	mg/Kg	☼	11/16/17 08:33	11/17/17 18:59	1
Anthracene	0.023	J	0.037	0.0062	mg/Kg	☼	11/16/17 08:33	11/17/17 18:59	1
Benzo[a]anthracene	0.12		0.037	0.0050	mg/Kg	☼	11/16/17 08:33	11/17/17 18:59	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137077-1

Client Sample ID: 2696V-52-B02(0-6)

Lab Sample ID: 500-137077-3

Date Collected: 11/09/17 15:10

Matrix: Solid

Date Received: 11/10/17 08:00

Percent Solids: 86.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	0.19		0.037	0.0072	mg/Kg	☼	11/16/17 08:33	11/17/17 18:59	1
Benzo[b]fluoranthene	0.25		0.037	0.0080	mg/Kg	☼	11/16/17 08:33	11/17/17 18:59	1
Benzo[g,h,i]perylene	0.14		0.037	0.012	mg/Kg	☼	11/16/17 08:33	11/17/17 18:59	1
Benzo[k]fluoranthene	0.094		0.037	0.011	mg/Kg	☼	11/16/17 08:33	11/17/17 18:59	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.038	mg/Kg	☼	11/16/17 08:33	11/17/17 18:59	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.055	mg/Kg	☼	11/16/17 08:33	11/17/17 18:59	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.068	mg/Kg	☼	11/16/17 08:33	11/17/17 18:59	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.049	mg/Kg	☼	11/16/17 08:33	11/17/17 18:59	1
Butyl benzyl phthalate	<0.19		0.19	0.070	mg/Kg	☼	11/16/17 08:33	11/17/17 18:59	1
Carbazole	<0.19		0.19	0.092	mg/Kg	☼	11/16/17 08:33	11/17/17 18:59	1
4-Chloroaniline	<0.75		0.75	0.17	mg/Kg	☼	11/16/17 08:33	11/17/17 18:59	1
4-Chloro-3-methylphenol	<0.37		0.37	0.13	mg/Kg	☼	11/16/17 08:33	11/17/17 18:59	1
2-Chloronaphthalene	<0.19		0.19	0.041	mg/Kg	☼	11/16/17 08:33	11/17/17 18:59	1
2-Chlorophenol	<0.19		0.19	0.063	mg/Kg	☼	11/16/17 08:33	11/17/17 18:59	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.043	mg/Kg	☼	11/16/17 08:33	11/17/17 18:59	1
Chrysene	0.15		0.037	0.010	mg/Kg	☼	11/16/17 08:33	11/17/17 18:59	1
Dibenz(a,h)anthracene	0.061		0.037	0.0071	mg/Kg	☼	11/16/17 08:33	11/17/17 18:59	1
Dibenzofuran	<0.19		0.19	0.043	mg/Kg	☼	11/16/17 08:33	11/17/17 18:59	1
1,2-Dichlorobenzene	<0.19		0.19	0.044	mg/Kg	☼	11/16/17 08:33	11/17/17 18:59	1
1,3-Dichlorobenzene	<0.19		0.19	0.042	mg/Kg	☼	11/16/17 08:33	11/17/17 18:59	1
1,4-Dichlorobenzene	<0.19		0.19	0.047	mg/Kg	☼	11/16/17 08:33	11/17/17 18:59	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.052	mg/Kg	☼	11/16/17 08:33	11/17/17 18:59	1
2,4-Dichlorophenol	<0.37		0.37	0.088	mg/Kg	☼	11/16/17 08:33	11/17/17 18:59	1
Diethyl phthalate	<0.19		0.19	0.063	mg/Kg	☼	11/16/17 08:33	11/17/17 18:59	1
2,4-Dimethylphenol	<0.37		0.37	0.14	mg/Kg	☼	11/16/17 08:33	11/17/17 18:59	1
Dimethyl phthalate	<0.19		0.19	0.048	mg/Kg	☼	11/16/17 08:33	11/17/17 18:59	1
Di-n-butyl phthalate	<0.19		0.19	0.056	mg/Kg	☼	11/16/17 08:33	11/17/17 18:59	1
4,6-Dinitro-2-methylphenol	<0.75		0.75	0.30	mg/Kg	☼	11/16/17 08:33	11/17/17 18:59	1
2,4-Dinitrophenol	<0.75		0.75	0.65	mg/Kg	☼	11/16/17 08:33	11/17/17 18:59	1
2,4-Dinitrotoluene	<0.19		0.19	0.059	mg/Kg	☼	11/16/17 08:33	11/17/17 18:59	1
2,6-Dinitrotoluene	<0.19		0.19	0.073	mg/Kg	☼	11/16/17 08:33	11/17/17 18:59	1
Di-n-octyl phthalate	0.15 J		0.19	0.060	mg/Kg	☼	11/16/17 08:33	11/17/17 18:59	1
Fluoranthene	0.33		0.037	0.0069	mg/Kg	☼	11/16/17 08:33	11/17/17 18:59	1
Fluorene	<0.037		0.037	0.0052	mg/Kg	☼	11/16/17 08:33	11/17/17 18:59	1
Hexachlorobenzene	<0.075		0.075	0.0086	mg/Kg	☼	11/16/17 08:33	11/17/17 18:59	1
Hexachlorobutadiene	<0.19		0.19	0.058	mg/Kg	☼	11/16/17 08:33	11/17/17 18:59	1
Hexachlorocyclopentadiene	<0.75		0.75	0.21	mg/Kg	☼	11/16/17 08:33	11/17/17 18:59	1
Hexachloroethane	<0.19		0.19	0.056	mg/Kg	☼	11/16/17 08:33	11/17/17 18:59	1
Indeno[1,2,3-cd]pyrene	0.14		0.037	0.0096	mg/Kg	☼	11/16/17 08:33	11/17/17 18:59	1
Isophorone	<0.19		0.19	0.042	mg/Kg	☼	11/16/17 08:33	11/17/17 18:59	1
2-Methylnaphthalene	<0.075		0.075	0.0068	mg/Kg	☼	11/16/17 08:33	11/17/17 18:59	1
2-Methylphenol	<0.19		0.19	0.059	mg/Kg	☼	11/16/17 08:33	11/17/17 18:59	1
3 & 4 Methylphenol	<0.19		0.19	0.062	mg/Kg	☼	11/16/17 08:33	11/17/17 18:59	1
Naphthalene	<0.037		0.037	0.0057	mg/Kg	☼	11/16/17 08:33	11/17/17 18:59	1
2-Nitroaniline	<0.19		0.19	0.050	mg/Kg	☼	11/16/17 08:33	11/17/17 18:59	1
3-Nitroaniline	<0.37		0.37	0.11	mg/Kg	☼	11/16/17 08:33	11/17/17 18:59	1
4-Nitroaniline	<0.37		0.37	0.15	mg/Kg	☼	11/16/17 08:33	11/17/17 18:59	1
Nitrobenzene	<0.037		0.037	0.0092	mg/Kg	☼	11/16/17 08:33	11/17/17 18:59	1
2-Nitrophenol	<0.37		0.37	0.087	mg/Kg	☼	11/16/17 08:33	11/17/17 18:59	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137077-1

Client Sample ID: 2696V-52-B02(0-6)

Lab Sample ID: 500-137077-3

Date Collected: 11/09/17 15:10

Matrix: Solid

Date Received: 11/10/17 08:00

Percent Solids: 86.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Nitrophenol	<0.75		0.75	0.35	mg/Kg	☼	11/16/17 08:33	11/17/17 18:59	1
N-Nitrosodi-n-propylamine	<0.075		0.075	0.045	mg/Kg	☼	11/16/17 08:33	11/17/17 18:59	1
N-Nitrosodiphenylamine	<0.19		0.19	0.044	mg/Kg	☼	11/16/17 08:33	11/17/17 18:59	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.043	mg/Kg	☼	11/16/17 08:33	11/17/17 18:59	1
Pentachlorophenol	<0.75		0.75	0.59	mg/Kg	☼	11/16/17 08:33	11/17/17 18:59	1
Phenanthrene	0.11		0.037	0.0052	mg/Kg	☼	11/16/17 08:33	11/17/17 18:59	1
Phenol	<0.19		0.19	0.082	mg/Kg	☼	11/16/17 08:33	11/17/17 18:59	1
Pyrene	0.20		0.037	0.0073	mg/Kg	☼	11/16/17 08:33	11/17/17 18:59	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.040	mg/Kg	☼	11/16/17 08:33	11/17/17 18:59	1
2,4,5-Trichlorophenol	<0.37		0.37	0.084	mg/Kg	☼	11/16/17 08:33	11/17/17 18:59	1
2,4,6-Trichlorophenol	<0.37		0.37	0.13	mg/Kg	☼	11/16/17 08:33	11/17/17 18:59	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	93		44 - 121	11/16/17 08:33	11/17/17 18:59	1
2-Fluorophenol	103		46 - 133	11/16/17 08:33	11/17/17 18:59	1
Nitrobenzene-d5	89		41 - 120	11/16/17 08:33	11/17/17 18:59	1
Phenol-d5	99		46 - 125	11/16/17 08:33	11/17/17 18:59	1
Terphenyl-d14	80		35 - 160	11/16/17 08:33	11/17/17 18:59	1
2,4,6-Tribromophenol	72		25 - 139	11/16/17 08:33	11/17/17 18:59	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.42	J	1.1	0.22	mg/Kg	☼	11/11/17 13:28	11/13/17 20:48	1
Arsenic	8.5		0.55	0.19	mg/Kg	☼	11/11/17 13:28	11/13/17 20:48	1
Barium	52		0.55	0.063	mg/Kg	☼	11/11/17 13:28	11/13/17 20:48	1
Beryllium	0.65		0.22	0.052	mg/Kg	☼	11/11/17 13:28	11/13/17 20:48	1
Cadmium	0.19	B	0.11	0.020	mg/Kg	☼	11/11/17 13:28	11/13/17 20:48	1
Chromium	15		0.55	0.27	mg/Kg	☼	11/11/17 13:28	11/13/17 20:48	1
Cobalt	9.0		0.28	0.073	mg/Kg	☼	11/11/17 13:28	11/13/17 20:48	1
Copper	26	B	2.8	0.78	mg/Kg	☼	11/11/17 13:28	11/14/17 18:35	5
Iron	17000		11	5.8	mg/Kg	☼	11/11/17 13:28	11/13/17 20:48	1
Lead	42		0.28	0.13	mg/Kg	☼	11/11/17 13:28	11/13/17 20:48	1
Magnesium	19000		5.5	2.8	mg/Kg	☼	11/11/17 13:28	11/13/17 20:48	1
Calcium	48000		55	9.4	mg/Kg	☼	11/11/17 13:28	11/14/17 18:35	5
Manganese	300		0.55	0.080	mg/Kg	☼	11/11/17 13:28	11/13/17 20:48	1
Nickel	24		0.55	0.16	mg/Kg	☼	11/11/17 13:28	11/13/17 20:48	1
Selenium	0.38	J	0.55	0.33	mg/Kg	☼	11/11/17 13:28	11/13/17 20:48	1
Silver	<0.28		0.28	0.072	mg/Kg	☼	11/11/17 13:28	11/13/17 20:48	1
Thallium	<0.55		0.55	0.28	mg/Kg	☼	11/11/17 13:28	11/13/17 20:48	1
Vanadium	18		0.28	0.065	mg/Kg	☼	11/11/17 13:28	11/13/17 20:48	1
Zinc	68		1.1	0.49	mg/Kg	☼	11/11/17 13:28	11/13/17 20:48	1
Potassium	1500		28	9.8	mg/Kg	☼	11/11/17 13:28	11/13/17 20:48	1
Sodium	400		55	8.2	mg/Kg	☼	11/11/17 13:28	11/13/17 20:48	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.050		0.050	0.010	mg/L		11/15/17 08:42	11/15/17 16:07	1
Barium	0.36	J	0.50	0.050	mg/L		11/15/17 08:42	11/15/17 16:07	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		11/15/17 08:42	11/15/17 16:07	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		11/15/17 08:42	11/15/17 16:07	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137077-1

Client Sample ID: 2696V-52-B02(0-6)

Lab Sample ID: 500-137077-3

Date Collected: 11/09/17 15:10

Matrix: Solid

Date Received: 11/10/17 08:00

Percent Solids: 86.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	490		5.0	0.50	mg/L		11/15/17 08:42	11/15/17 16:07	1
Chromium	<0.025		0.025	0.010	mg/L		11/15/17 08:42	11/15/17 16:07	1
Cobalt	<0.025		0.025	0.010	mg/L		11/15/17 08:42	11/15/17 16:07	1
Copper	<0.025		0.025	0.010	mg/L		11/15/17 08:42	11/15/17 16:07	1
Iron	<0.40		0.40	0.20	mg/L		11/15/17 08:42	11/15/17 16:07	1
Lead	<0.0075		0.0075	0.0075	mg/L		11/15/17 08:42	11/15/17 16:07	1
Magnesium	37		2.5	0.50	mg/L		11/15/17 08:42	11/15/17 16:07	1
Manganese	0.065		0.025	0.010	mg/L		11/15/17 08:42	11/15/17 16:07	1
Nickel	<0.025		0.025	0.010	mg/L		11/15/17 08:42	11/15/17 16:07	1
Potassium	1.2 J		2.5	0.50	mg/L		11/15/17 08:42	11/15/17 16:07	1
Selenium	<0.050		0.050	0.020	mg/L		11/15/17 08:42	11/15/17 16:07	1
Silver	<0.025		0.025	0.010	mg/L		11/15/17 08:42	11/15/17 16:07	1
Vanadium	<0.025		0.025	0.010	mg/L		11/15/17 08:42	11/15/17 16:07	1
Zinc	0.022 J		0.50	0.020	mg/L		11/15/17 08:42	11/15/17 16:07	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		11/15/17 08:42	11/16/17 16:53	1
Thallium	<0.0020		0.0020	0.0020	mg/L		11/15/17 08:42	11/16/17 16:53	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		11/17/17 08:10	11/17/17 11:59	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.022		0.018	0.0061	mg/Kg	☼	11/17/17 10:45	11/18/17 12:57	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.56		0.56	0.19	mg/Kg	☼	11/18/17 11:30	11/18/17 14:33	1
pH	9.1		0.20	0.20	SU			11/18/17 11:54	1

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137077-1

Client Sample ID: 2696V-52-B02(6-11)

Lab Sample ID: 500-137077-4

Date Collected: 11/09/17 15:15

Matrix: Solid

Date Received: 11/10/17 08:00

Percent Solids: 85.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.016		0.016	0.0071	mg/Kg	☼	11/10/17 18:28	11/15/17 20:40	1
Benzene	<0.0016	*	0.0016	0.00042	mg/Kg	☼	11/10/17 18:28	11/15/17 20:40	1
Bromodichloromethane	<0.0016		0.0016	0.00033	mg/Kg	☼	11/10/17 18:28	11/15/17 20:40	1
Bromoform	<0.0016		0.0016	0.00048	mg/Kg	☼	11/10/17 18:28	11/15/17 20:40	1
Bromomethane	<0.0041		0.0041	0.0015	mg/Kg	☼	11/10/17 18:28	11/15/17 20:40	1
2-Butanone (MEK)	<0.0041	*	0.0041	0.0018	mg/Kg	☼	11/10/17 18:28	11/15/17 20:40	1
Carbon disulfide	<0.0041		0.0041	0.00085	mg/Kg	☼	11/10/17 18:28	11/15/17 20:40	1
Carbon tetrachloride	<0.0016		0.0016	0.00047	mg/Kg	☼	11/10/17 18:28	11/15/17 20:40	1
Chlorobenzene	<0.0016		0.0016	0.00060	mg/Kg	☼	11/10/17 18:28	11/15/17 20:40	1
Chloroethane	<0.0041		0.0041	0.0012	mg/Kg	☼	11/10/17 18:28	11/15/17 20:40	1
Chloroform	<0.0016		0.0016	0.00057	mg/Kg	☼	11/10/17 18:28	11/15/17 20:40	1
Chloromethane	<0.0041		0.0041	0.0016	mg/Kg	☼	11/10/17 18:28	11/15/17 20:40	1
cis-1,2-Dichloroethene	<0.0016		0.0016	0.00046	mg/Kg	☼	11/10/17 18:28	11/15/17 20:40	1
cis-1,3-Dichloropropene	<0.0016		0.0016	0.00049	mg/Kg	☼	11/10/17 18:28	11/15/17 20:40	1
Dibromochloromethane	<0.0016		0.0016	0.00053	mg/Kg	☼	11/10/17 18:28	11/15/17 20:40	1
1,1-Dichloroethane	<0.0016		0.0016	0.00056	mg/Kg	☼	11/10/17 18:28	11/15/17 20:40	1
1,2-Dichloroethane	<0.0041		0.0041	0.0013	mg/Kg	☼	11/10/17 18:28	11/15/17 20:40	1
1,1-Dichloroethene	<0.0016		0.0016	0.00056	mg/Kg	☼	11/10/17 18:28	11/15/17 20:40	1
1,2-Dichloropropane	<0.0016		0.0016	0.00042	mg/Kg	☼	11/10/17 18:28	11/15/17 20:40	1
1,3-Dichloropropane, Total	<0.0016		0.0016	0.00057	mg/Kg	☼	11/10/17 18:28	11/15/17 20:40	1
Ethylbenzene	<0.0016		0.0016	0.00078	mg/Kg	☼	11/10/17 18:28	11/15/17 20:40	1
2-Hexanone	<0.0041		0.0041	0.0013	mg/Kg	☼	11/10/17 18:28	11/15/17 20:40	1
Methylene Chloride	<0.0041		0.0041	0.0016	mg/Kg	☼	11/10/17 18:28	11/15/17 20:40	1
4-Methyl-2-pentanone (MIBK)	<0.0041		0.0041	0.0012	mg/Kg	☼	11/10/17 18:28	11/15/17 20:40	1
Methyl tert-butyl ether	<0.0016		0.0016	0.00048	mg/Kg	☼	11/10/17 18:28	11/15/17 20:40	1
Styrene	<0.0016		0.0016	0.00049	mg/Kg	☼	11/10/17 18:28	11/15/17 20:40	1
1,1,2,2-Tetrachloroethane	<0.0016		0.0016	0.00052	mg/Kg	☼	11/10/17 18:28	11/15/17 20:40	1
Tetrachloroethene	<0.0016		0.0016	0.00056	mg/Kg	☼	11/10/17 18:28	11/15/17 20:40	1
Toluene	<0.0016		0.0016	0.00041	mg/Kg	☼	11/10/17 18:28	11/15/17 20:40	1
trans-1,2-Dichloroethene	<0.0016		0.0016	0.00072	mg/Kg	☼	11/10/17 18:28	11/15/17 20:40	1
trans-1,3-Dichloropropene	<0.0016		0.0016	0.00057	mg/Kg	☼	11/10/17 18:28	11/15/17 20:40	1
1,1,1-Trichloroethane	<0.0016		0.0016	0.00055	mg/Kg	☼	11/10/17 18:28	11/15/17 20:40	1
1,1,2-Trichloroethane	<0.0016		0.0016	0.00070	mg/Kg	☼	11/10/17 18:28	11/15/17 20:40	1
Trichloroethene	<0.0016		0.0016	0.00055	mg/Kg	☼	11/10/17 18:28	11/15/17 20:40	1
Vinyl acetate	<0.0041		0.0041	0.0014	mg/Kg	☼	11/10/17 18:28	11/15/17 20:40	1
Vinyl chloride	<0.0016		0.0016	0.00072	mg/Kg	☼	11/10/17 18:28	11/15/17 20:40	1
Xylenes, Total	<0.0033		0.0033	0.00052	mg/Kg	☼	11/10/17 18:28	11/15/17 20:40	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	92		75 - 131	11/10/17 18:28	11/15/17 20:40	1
Dibromofluoromethane	108		75 - 126	11/10/17 18:28	11/15/17 20:40	1
1,2-Dichloroethane-d4 (Surr)	117		70 - 134	11/10/17 18:28	11/15/17 20:40	1
Toluene-d8 (Surr)	95		75 - 124	11/10/17 18:28	11/15/17 20:40	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.038		0.038	0.0069	mg/Kg	☼	11/16/17 08:33	11/17/17 16:41	1
Acenaphthylene	<0.038		0.038	0.0051	mg/Kg	☼	11/16/17 08:33	11/17/17 16:41	1
Anthracene	<0.038		0.038	0.0064	mg/Kg	☼	11/16/17 08:33	11/17/17 16:41	1
Benzo[a]anthracene	<0.038		0.038	0.0052	mg/Kg	☼	11/16/17 08:33	11/17/17 16:41	1

TestAmerica Chicago

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TestAmerica Job ID: 500-137077-1

Client Sample ID: 2696V-52-B02(6-11)

Lab Sample ID: 500-137077-4

Date Collected: 11/09/17 15:15

Matrix: Solid

Date Received: 11/10/17 08:00

Percent Solids: 85.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	<0.038		0.038	0.0074	mg/Kg	☼	11/16/17 08:33	11/17/17 16:41	1
Benzo[b]fluoranthene	<0.038		0.038	0.0083	mg/Kg	☼	11/16/17 08:33	11/17/17 16:41	1
Benzo[g,h,i]perylene	0.038		0.038	0.012	mg/Kg	☼	11/16/17 08:33	11/17/17 16:41	1
Benzo[k]fluoranthene	<0.038		0.038	0.011	mg/Kg	☼	11/16/17 08:33	11/17/17 16:41	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.039	mg/Kg	☼	11/16/17 08:33	11/17/17 16:41	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.057	mg/Kg	☼	11/16/17 08:33	11/17/17 16:41	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.070	mg/Kg	☼	11/16/17 08:33	11/17/17 16:41	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.051	mg/Kg	☼	11/16/17 08:33	11/17/17 16:41	1
Butyl benzyl phthalate	<0.19		0.19	0.073	mg/Kg	☼	11/16/17 08:33	11/17/17 16:41	1
Carbazole	<0.19		0.19	0.096	mg/Kg	☼	11/16/17 08:33	11/17/17 16:41	1
4-Chloroaniline	<0.77		0.77	0.18	mg/Kg	☼	11/16/17 08:33	11/17/17 16:41	1
4-Chloro-3-methylphenol	<0.38		0.38	0.13	mg/Kg	☼	11/16/17 08:33	11/17/17 16:41	1
2-Chloronaphthalene	<0.19		0.19	0.042	mg/Kg	☼	11/16/17 08:33	11/17/17 16:41	1
2-Chlorophenol	<0.19		0.19	0.065	mg/Kg	☼	11/16/17 08:33	11/17/17 16:41	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.045	mg/Kg	☼	11/16/17 08:33	11/17/17 16:41	1
Chrysene	<0.038		0.038	0.010	mg/Kg	☼	11/16/17 08:33	11/17/17 16:41	1
Dibenz(a,h)anthracene	<0.038		0.038	0.0074	mg/Kg	☼	11/16/17 08:33	11/17/17 16:41	1
Dibenzofuran	<0.19		0.19	0.045	mg/Kg	☼	11/16/17 08:33	11/17/17 16:41	1
1,2-Dichlorobenzene	<0.19		0.19	0.046	mg/Kg	☼	11/16/17 08:33	11/17/17 16:41	1
1,3-Dichlorobenzene	<0.19		0.19	0.043	mg/Kg	☼	11/16/17 08:33	11/17/17 16:41	1
1,4-Dichlorobenzene	<0.19		0.19	0.049	mg/Kg	☼	11/16/17 08:33	11/17/17 16:41	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.054	mg/Kg	☼	11/16/17 08:33	11/17/17 16:41	1
2,4-Dichlorophenol	<0.38		0.38	0.091	mg/Kg	☼	11/16/17 08:33	11/17/17 16:41	1
Diethyl phthalate	<0.19		0.19	0.065	mg/Kg	☼	11/16/17 08:33	11/17/17 16:41	1
2,4-Dimethylphenol	<0.38		0.38	0.15	mg/Kg	☼	11/16/17 08:33	11/17/17 16:41	1
Dimethyl phthalate	<0.19		0.19	0.050	mg/Kg	☼	11/16/17 08:33	11/17/17 16:41	1
Di-n-butyl phthalate	<0.19		0.19	0.058	mg/Kg	☼	11/16/17 08:33	11/17/17 16:41	1
4,6-Dinitro-2-methylphenol	<0.77		0.77	0.31	mg/Kg	☼	11/16/17 08:33	11/17/17 16:41	1
2,4-Dinitrophenol	<0.77		0.77	0.68	mg/Kg	☼	11/16/17 08:33	11/17/17 16:41	1
2,4-Dinitrotoluene	<0.19		0.19	0.061	mg/Kg	☼	11/16/17 08:33	11/17/17 16:41	1
2,6-Dinitrotoluene	<0.19		0.19	0.075	mg/Kg	☼	11/16/17 08:33	11/17/17 16:41	1
Di-n-octyl phthalate	<0.19		0.19	0.063	mg/Kg	☼	11/16/17 08:33	11/17/17 16:41	1
Fluoranthene	<0.038		0.038	0.0071	mg/Kg	☼	11/16/17 08:33	11/17/17 16:41	1
Fluorene	<0.038		0.038	0.0054	mg/Kg	☼	11/16/17 08:33	11/17/17 16:41	1
Hexachlorobenzene	<0.077		0.077	0.0089	mg/Kg	☼	11/16/17 08:33	11/17/17 16:41	1
Hexachlorobutadiene	<0.19		0.19	0.060	mg/Kg	☼	11/16/17 08:33	11/17/17 16:41	1
Hexachlorocyclopentadiene	<0.77		0.77	0.22	mg/Kg	☼	11/16/17 08:33	11/17/17 16:41	1
Hexachloroethane	<0.19		0.19	0.058	mg/Kg	☼	11/16/17 08:33	11/17/17 16:41	1
Indeno[1,2,3-cd]pyrene	<0.038		0.038	0.0099	mg/Kg	☼	11/16/17 08:33	11/17/17 16:41	1
Isophorone	<0.19		0.19	0.043	mg/Kg	☼	11/16/17 08:33	11/17/17 16:41	1
2-Methylnaphthalene	<0.077		0.077	0.0071	mg/Kg	☼	11/16/17 08:33	11/17/17 16:41	1
2-Methylphenol	<0.19		0.19	0.062	mg/Kg	☼	11/16/17 08:33	11/17/17 16:41	1
3 & 4 Methylphenol	<0.19		0.19	0.064	mg/Kg	☼	11/16/17 08:33	11/17/17 16:41	1
Naphthalene	<0.038		0.038	0.0059	mg/Kg	☼	11/16/17 08:33	11/17/17 16:41	1
2-Nitroaniline	<0.19		0.19	0.052	mg/Kg	☼	11/16/17 08:33	11/17/17 16:41	1
3-Nitroaniline	<0.38		0.38	0.12	mg/Kg	☼	11/16/17 08:33	11/17/17 16:41	1
4-Nitroaniline	<0.38		0.38	0.16	mg/Kg	☼	11/16/17 08:33	11/17/17 16:41	1
Nitrobenzene	<0.038		0.038	0.0096	mg/Kg	☼	11/16/17 08:33	11/17/17 16:41	1
2-Nitrophenol	<0.38		0.38	0.091	mg/Kg	☼	11/16/17 08:33	11/17/17 16:41	1

TestAmerica Chicago

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TestAmerica Job ID: 500-137077-1

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Lab Sample ID: 500-137077-4

Date Collected: 11/09/17 15:15

Matrix: Solid

Date Received: 11/10/17 08:00

Percent Solids: 85.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Nitrophenol	<0.77		0.77	0.36	mg/Kg	☼	11/16/17 08:33	11/17/17 16:41	1
N-Nitrosodi-n-propylamine	<0.077		0.077	0.047	mg/Kg	☼	11/16/17 08:33	11/17/17 16:41	1
N-Nitrosodiphenylamine	<0.19		0.19	0.045	mg/Kg	☼	11/16/17 08:33	11/17/17 16:41	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.044	mg/Kg	☼	11/16/17 08:33	11/17/17 16:41	1
Pentachlorophenol	<0.77		0.77	0.62	mg/Kg	☼	11/16/17 08:33	11/17/17 16:41	1
Phenanthrene	0.011	J	0.038	0.0053	mg/Kg	☼	11/16/17 08:33	11/17/17 16:41	1
Phenol	<0.19		0.19	0.085	mg/Kg	☼	11/16/17 08:33	11/17/17 16:41	1
Pyrene	<0.038		0.038	0.0076	mg/Kg	☼	11/16/17 08:33	11/17/17 16:41	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.041	mg/Kg	☼	11/16/17 08:33	11/17/17 16:41	1
2,4,5-Trichlorophenol	<0.38		0.38	0.088	mg/Kg	☼	11/16/17 08:33	11/17/17 16:41	1
2,4,6-Trichlorophenol	<0.38		0.38	0.13	mg/Kg	☼	11/16/17 08:33	11/17/17 16:41	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	90		44 - 121	11/16/17 08:33	11/17/17 16:41	1
2-Fluorophenol	100		46 - 133	11/16/17 08:33	11/17/17 16:41	1
Nitrobenzene-d5	86		41 - 120	11/16/17 08:33	11/17/17 16:41	1
Phenol-d5	93		46 - 125	11/16/17 08:33	11/17/17 16:41	1
Terphenyl-d14	79		35 - 160	11/16/17 08:33	11/17/17 16:41	1
2,4,6-Tribromophenol	71		25 - 139	11/16/17 08:33	11/17/17 16:41	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.26	J	1.2	0.22	mg/Kg	☼	11/11/17 13:28	11/13/17 20:52	1
Arsenic	8.5		0.58	0.20	mg/Kg	☼	11/11/17 13:28	11/13/17 20:52	1
Barium	28		0.58	0.066	mg/Kg	☼	11/11/17 13:28	11/13/17 20:52	1
Beryllium	0.47		0.23	0.054	mg/Kg	☼	11/11/17 13:28	11/13/17 20:52	1
Cadmium	0.12	B	0.12	0.021	mg/Kg	☼	11/11/17 13:28	11/13/17 20:52	1
Chromium	9.1		0.58	0.29	mg/Kg	☼	11/11/17 13:28	11/13/17 20:52	1
Cobalt	5.9		0.29	0.075	mg/Kg	☼	11/11/17 13:28	11/13/17 20:52	1
Copper	16	B	2.9	0.81	mg/Kg	☼	11/11/17 13:28	11/14/17 18:39	5
Iron	12000		12	6.0	mg/Kg	☼	11/11/17 13:28	11/13/17 20:52	1
Lead	8.1		0.29	0.13	mg/Kg	☼	11/11/17 13:28	11/13/17 20:52	1
Magnesium	42000		5.8	2.9	mg/Kg	☼	11/11/17 13:28	11/13/17 20:52	1
Calcium	97000		58	9.8	mg/Kg	☼	11/11/17 13:28	11/14/17 18:39	5
Manganese	200		0.58	0.084	mg/Kg	☼	11/11/17 13:28	11/13/17 20:52	1
Nickel	17		0.58	0.17	mg/Kg	☼	11/11/17 13:28	11/13/17 20:52	1
Selenium	<0.58		0.58	0.34	mg/Kg	☼	11/11/17 13:28	11/13/17 20:52	1
Silver	<0.29		0.29	0.074	mg/Kg	☼	11/11/17 13:28	11/13/17 20:52	1
Thallium	<0.58		0.58	0.29	mg/Kg	☼	11/11/17 13:28	11/13/17 20:52	1
Vanadium	13		0.29	0.068	mg/Kg	☼	11/11/17 13:28	11/13/17 20:52	1
Zinc	43		1.2	0.51	mg/Kg	☼	11/11/17 13:28	11/13/17 20:52	1
Potassium	1200		29	10	mg/Kg	☼	11/11/17 13:28	11/13/17 20:52	1
Sodium	640		58	8.5	mg/Kg	☼	11/11/17 13:28	11/13/17 20:52	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.050		0.050	0.010	mg/L		11/15/17 08:42	11/15/17 16:11	1
Barium	0.37	J	0.50	0.050	mg/L		11/15/17 08:42	11/15/17 16:11	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		11/15/17 08:42	11/15/17 16:11	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		11/15/17 08:42	11/15/17 16:11	1

TestAmerica Chicago

Client Sample Results

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TestAmerica Job ID: 500-137077-1

Client Sample ID: 2696V-52-B02(6-11)

Lab Sample ID: 500-137077-4

Date Collected: 11/09/17 15:15

Matrix: Solid

Date Received: 11/10/17 08:00

Percent Solids: 85.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	510		5.0	0.50	mg/L		11/15/17 08:42	11/15/17 16:11	1
Chromium	<0.025		0.025	0.010	mg/L		11/15/17 08:42	11/15/17 16:11	1
Cobalt	<0.025		0.025	0.010	mg/L		11/15/17 08:42	11/15/17 16:11	1
Copper	0.011	J	0.025	0.010	mg/L		11/15/17 08:42	11/15/17 16:11	1
Iron	<0.40		0.40	0.20	mg/L		11/15/17 08:42	11/15/17 16:11	1
Lead	<0.0075		0.0075	0.0075	mg/L		11/15/17 08:42	11/15/17 16:11	1
Magnesium	46		2.5	0.50	mg/L		11/15/17 08:42	11/15/17 16:11	1
Manganese	1.1		0.025	0.010	mg/L		11/15/17 08:42	11/15/17 16:11	1
Nickel	<0.025		0.025	0.010	mg/L		11/15/17 08:42	11/15/17 16:11	1
Potassium	1.2	J	2.5	0.50	mg/L		11/15/17 08:42	11/15/17 16:11	1
Selenium	<0.050		0.050	0.020	mg/L		11/15/17 08:42	11/15/17 16:11	1
Silver	<0.025		0.025	0.010	mg/L		11/15/17 08:42	11/15/17 16:11	1
Vanadium	<0.025		0.025	0.010	mg/L		11/15/17 08:42	11/15/17 16:11	1
Zinc	0.035	J	0.50	0.020	mg/L		11/15/17 08:42	11/15/17 16:11	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.21		0.025	0.010	mg/L		11/15/17 08:17	11/17/17 03:46	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		11/15/17 08:42	11/16/17 16:57	1
Thallium	<0.0020		0.0020	0.0020	mg/L		11/15/17 08:42	11/16/17 16:57	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		11/17/17 08:10	11/17/17 12:01	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.019		0.019	0.0064	mg/Kg	☼	11/17/17 10:45	11/18/17 12:59	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.57		0.57	0.20	mg/Kg	☼	11/19/17 10:30	11/19/17 14:42	1
pH	8.8		0.20	0.20	SU			11/18/17 11:56	1

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137077-1

Client Sample ID: 2696V-52-B03(0-6)

Lab Sample ID: 500-137077-5

Date Collected: 11/09/17 14:40

Matrix: Solid

Date Received: 11/10/17 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	0.023		0.016	0.0071	mg/Kg	☼	11/09/17 14:40	11/18/17 00:37	1
Benzene	<0.0016		0.0016	0.00041	mg/Kg	☼	11/09/17 14:40	11/18/17 00:37	1
Bromodichloromethane	<0.0016		0.0016	0.00033	mg/Kg	☼	11/09/17 14:40	11/18/17 00:37	1
Bromoform	<0.0016		0.0016	0.00048	mg/Kg	☼	11/09/17 14:40	11/18/17 00:37	1
Bromomethane	<0.0041		0.0041	0.0015	mg/Kg	☼	11/09/17 14:40	11/18/17 00:37	1
2-Butanone (MEK)	<0.0041		0.0041	0.0018	mg/Kg	☼	11/09/17 14:40	11/18/17 00:37	1
Carbon disulfide	<0.0041		0.0041	0.00085	mg/Kg	☼	11/09/17 14:40	11/18/17 00:37	1
Carbon tetrachloride	<0.0016		0.0016	0.00047	mg/Kg	☼	11/09/17 14:40	11/18/17 00:37	1
Chlorobenzene	<0.0016		0.0016	0.00060	mg/Kg	☼	11/09/17 14:40	11/18/17 00:37	1
Chloroethane	<0.0041	*	0.0041	0.0012	mg/Kg	☼	11/09/17 14:40	11/18/17 00:37	1
Chloroform	<0.0016		0.0016	0.00056	mg/Kg	☼	11/09/17 14:40	11/18/17 00:37	1
Chloromethane	<0.0041		0.0041	0.0016	mg/Kg	☼	11/09/17 14:40	11/18/17 00:37	1
cis-1,2-Dichloroethene	<0.0016		0.0016	0.00045	mg/Kg	☼	11/09/17 14:40	11/18/17 00:37	1
cis-1,3-Dichloropropene	<0.0016		0.0016	0.00049	mg/Kg	☼	11/09/17 14:40	11/18/17 00:37	1
Dibromochloromethane	<0.0016		0.0016	0.00053	mg/Kg	☼	11/09/17 14:40	11/18/17 00:37	1
1,1-Dichloroethane	<0.0016		0.0016	0.00056	mg/Kg	☼	11/09/17 14:40	11/18/17 00:37	1
1,2-Dichloroethane	<0.0041		0.0041	0.0013	mg/Kg	☼	11/09/17 14:40	11/18/17 00:37	1
1,1-Dichloroethene	<0.0016		0.0016	0.00056	mg/Kg	☼	11/09/17 14:40	11/18/17 00:37	1
1,2-Dichloropropane	<0.0016		0.0016	0.00042	mg/Kg	☼	11/09/17 14:40	11/18/17 00:37	1
1,3-Dichloropropane, Total	<0.0016		0.0016	0.00057	mg/Kg	☼	11/09/17 14:40	11/18/17 00:37	1
Ethylbenzene	<0.0016		0.0016	0.00078	mg/Kg	☼	11/09/17 14:40	11/18/17 00:37	1
2-Hexanone	<0.0041		0.0041	0.0013	mg/Kg	☼	11/09/17 14:40	11/18/17 00:37	1
Methylene Chloride	<0.0041		0.0041	0.0016	mg/Kg	☼	11/09/17 14:40	11/18/17 00:37	1
4-Methyl-2-pentanone (MIBK)	<0.0041		0.0041	0.0012	mg/Kg	☼	11/09/17 14:40	11/18/17 00:37	1
Methyl tert-butyl ether	<0.0016		0.0016	0.00048	mg/Kg	☼	11/09/17 14:40	11/18/17 00:37	1
Styrene	<0.0016		0.0016	0.00049	mg/Kg	☼	11/09/17 14:40	11/18/17 00:37	1
1,1,2,2-Tetrachloroethane	<0.0016		0.0016	0.00052	mg/Kg	☼	11/09/17 14:40	11/18/17 00:37	1
Tetrachloroethene	<0.0016		0.0016	0.00055	mg/Kg	☼	11/09/17 14:40	11/18/17 00:37	1
Toluene	<0.0016		0.0016	0.00041	mg/Kg	☼	11/09/17 14:40	11/18/17 00:37	1
trans-1,2-Dichloroethene	<0.0016		0.0016	0.00072	mg/Kg	☼	11/09/17 14:40	11/18/17 00:37	1
trans-1,3-Dichloropropene	<0.0016		0.0016	0.00057	mg/Kg	☼	11/09/17 14:40	11/18/17 00:37	1
1,1,1-Trichloroethane	<0.0016		0.0016	0.00055	mg/Kg	☼	11/09/17 14:40	11/18/17 00:37	1
1,1,2-Trichloroethane	<0.0016		0.0016	0.00070	mg/Kg	☼	11/09/17 14:40	11/18/17 00:37	1
Trichloroethene	<0.0016		0.0016	0.00055	mg/Kg	☼	11/09/17 14:40	11/18/17 00:37	1
Vinyl acetate	<0.0041		0.0041	0.0014	mg/Kg	☼	11/09/17 14:40	11/18/17 00:37	1
Vinyl chloride	<0.0016		0.0016	0.00072	mg/Kg	☼	11/09/17 14:40	11/18/17 00:37	1
Xylenes, Total	<0.0033		0.0033	0.00052	mg/Kg	☼	11/09/17 14:40	11/18/17 00:37	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	89		75 - 131	11/09/17 14:40	11/18/17 00:37	1
Dibromofluoromethane	103		75 - 126	11/09/17 14:40	11/18/17 00:37	1
1,2-Dichloroethane-d4 (Surr)	103		70 - 134	11/09/17 14:40	11/18/17 00:37	1
Toluene-d8 (Surr)	96		75 - 124	11/09/17 14:40	11/18/17 00:37	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.038		0.038	0.0069	mg/Kg	☼	11/16/17 08:33	11/17/17 17:09	1
Acenaphthylene	<0.038		0.038	0.0051	mg/Kg	☼	11/16/17 08:33	11/17/17 17:09	1
Anthracene	0.0067	J	0.038	0.0064	mg/Kg	☼	11/16/17 08:33	11/17/17 17:09	1
Benzo[a]anthracene	0.027	J	0.038	0.0052	mg/Kg	☼	11/16/17 08:33	11/17/17 17:09	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137077-1

Client Sample ID: 2696V-52-B03(0-6)

Lab Sample ID: 500-137077-5

Date Collected: 11/09/17 14:40

Matrix: Solid

Date Received: 11/10/17 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
Benzo[a]pyrene	0.065		0.038	0.0074	mg/Kg	☼	11/16/17 08:33	11/17/17 17:09	1
Benzo[b]fluoranthene	0.074		0.038	0.0083	mg/Kg	☼	11/16/17 08:33	11/17/17 17:09	1
Benzo[g,h,i]perylene	0.060		0.038	0.012	mg/Kg	☼	11/16/17 08:33	11/17/17 17:09	1
Benzo[k]fluoranthene	0.018	J	0.038	0.011	mg/Kg	☼	11/16/17 08:33	11/17/17 17:09	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.039	mg/Kg	☼	11/16/17 08:33	11/17/17 17:09	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.057	mg/Kg	☼	11/16/17 08:33	11/17/17 17:09	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.070	mg/Kg	☼	11/16/17 08:33	11/17/17 17:09	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.051	mg/Kg	☼	11/16/17 08:33	11/17/17 17:09	1
Butyl benzyl phthalate	<0.19		0.19	0.073	mg/Kg	☼	11/16/17 08:33	11/17/17 17:09	1
Carbazole	<0.19		0.19	0.096	mg/Kg	☼	11/16/17 08:33	11/17/17 17:09	1
4-Chloroaniline	<0.77		0.77	0.18	mg/Kg	☼	11/16/17 08:33	11/17/17 17:09	1
4-Chloro-3-methylphenol	<0.38		0.38	0.13	mg/Kg	☼	11/16/17 08:33	11/17/17 17:09	1
2-Chloronaphthalene	<0.19		0.19	0.042	mg/Kg	☼	11/16/17 08:33	11/17/17 17:09	1
2-Chlorophenol	<0.19		0.19	0.065	mg/Kg	☼	11/16/17 08:33	11/17/17 17:09	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.045	mg/Kg	☼	11/16/17 08:33	11/17/17 17:09	1
Chrysene	0.037	J	0.038	0.010	mg/Kg	☼	11/16/17 08:33	11/17/17 17:09	1
Dibenz(a,h)anthracene	0.042		0.038	0.0074	mg/Kg	☼	11/16/17 08:33	11/17/17 17:09	1
Dibenzofuran	<0.19		0.19	0.045	mg/Kg	☼	11/16/17 08:33	11/17/17 17:09	1
1,2-Dichlorobenzene	<0.19		0.19	0.046	mg/Kg	☼	11/16/17 08:33	11/17/17 17:09	1
1,3-Dichlorobenzene	<0.19		0.19	0.043	mg/Kg	☼	11/16/17 08:33	11/17/17 17:09	1
1,4-Dichlorobenzene	<0.19		0.19	0.049	mg/Kg	☼	11/16/17 08:33	11/17/17 17:09	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.054	mg/Kg	☼	11/16/17 08:33	11/17/17 17:09	1
2,4-Dichlorophenol	<0.38		0.38	0.091	mg/Kg	☼	11/16/17 08:33	11/17/17 17:09	1
Diethyl phthalate	<0.19		0.19	0.065	mg/Kg	☼	11/16/17 08:33	11/17/17 17:09	1
2,4-Dimethylphenol	<0.38		0.38	0.15	mg/Kg	☼	11/16/17 08:33	11/17/17 17:09	1
Dimethyl phthalate	<0.19		0.19	0.050	mg/Kg	☼	11/16/17 08:33	11/17/17 17:09	1
Di-n-butyl phthalate	<0.19		0.19	0.058	mg/Kg	☼	11/16/17 08:33	11/17/17 17:09	1
4,6-Dinitro-2-methylphenol	<0.77		0.77	0.31	mg/Kg	☼	11/16/17 08:33	11/17/17 17:09	1
2,4-Dinitrophenol	<0.77		0.77	0.67	mg/Kg	☼	11/16/17 08:33	11/17/17 17:09	1
2,4-Dinitrotoluene	<0.19		0.19	0.061	mg/Kg	☼	11/16/17 08:33	11/17/17 17:09	1
2,6-Dinitrotoluene	<0.19		0.19	0.075	mg/Kg	☼	11/16/17 08:33	11/17/17 17:09	1
Di-n-octyl phthalate	<0.19		0.19	0.062	mg/Kg	☼	11/16/17 08:33	11/17/17 17:09	1
Fluoranthene	0.053		0.038	0.0071	mg/Kg	☼	11/16/17 08:33	11/17/17 17:09	1
Fluorene	<0.038		0.038	0.0054	mg/Kg	☼	11/16/17 08:33	11/17/17 17:09	1
Hexachlorobenzene	<0.077		0.077	0.0089	mg/Kg	☼	11/16/17 08:33	11/17/17 17:09	1
Hexachlorobutadiene	<0.19		0.19	0.060	mg/Kg	☼	11/16/17 08:33	11/17/17 17:09	1
Hexachlorocyclopentadiene	<0.77		0.77	0.22	mg/Kg	☼	11/16/17 08:33	11/17/17 17:09	1
Hexachloroethane	<0.19		0.19	0.058	mg/Kg	☼	11/16/17 08:33	11/17/17 17:09	1
Indeno[1,2,3-cd]pyrene	0.054		0.038	0.0099	mg/Kg	☼	11/16/17 08:33	11/17/17 17:09	1
Isophorone	<0.19		0.19	0.043	mg/Kg	☼	11/16/17 08:33	11/17/17 17:09	1
2-Methylnaphthalene	<0.077		0.077	0.0070	mg/Kg	☼	11/16/17 08:33	11/17/17 17:09	1
2-Methylphenol	<0.19		0.19	0.061	mg/Kg	☼	11/16/17 08:33	11/17/17 17:09	1
3 & 4 Methylphenol	<0.19		0.19	0.064	mg/Kg	☼	11/16/17 08:33	11/17/17 17:09	1
Naphthalene	<0.038		0.038	0.0059	mg/Kg	☼	11/16/17 08:33	11/17/17 17:09	1
2-Nitroaniline	<0.19		0.19	0.052	mg/Kg	☼	11/16/17 08:33	11/17/17 17:09	1
3-Nitroaniline	<0.38		0.38	0.12	mg/Kg	☼	11/16/17 08:33	11/17/17 17:09	1
4-Nitroaniline	<0.38		0.38	0.16	mg/Kg	☼	11/16/17 08:33	11/17/17 17:09	1
Nitrobenzene	<0.038		0.038	0.0096	mg/Kg	☼	11/16/17 08:33	11/17/17 17:09	1
2-Nitrophenol	<0.38		0.38	0.091	mg/Kg	☼	11/16/17 08:33	11/17/17 17:09	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137077-1

Client Sample ID: 2696V-52-B03(0-6)

Lab Sample ID: 500-137077-5

Date Collected: 11/09/17 14:40

Matrix: Solid

Date Received: 11/10/17 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
4-Nitrophenol	<0.77		0.77	0.36	mg/Kg	☼	11/16/17 08:33	11/17/17 17:09	1
N-Nitrosodi-n-propylamine	<0.077		0.077	0.047	mg/Kg	☼	11/16/17 08:33	11/17/17 17:09	1
N-Nitrosodiphenylamine	<0.19		0.19	0.045	mg/Kg	☼	11/16/17 08:33	11/17/17 17:09	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.044	mg/Kg	☼	11/16/17 08:33	11/17/17 17:09	1
Pentachlorophenol	<0.77		0.77	0.61	mg/Kg	☼	11/16/17 08:33	11/17/17 17:09	1
Phenanthrene	0.023	J	0.038	0.0053	mg/Kg	☼	11/16/17 08:33	11/17/17 17:09	1
Phenol	<0.19		0.19	0.085	mg/Kg	☼	11/16/17 08:33	11/17/17 17:09	1
Pyrene	0.042		0.038	0.0076	mg/Kg	☼	11/16/17 08:33	11/17/17 17:09	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.041	mg/Kg	☼	11/16/17 08:33	11/17/17 17:09	1
2,4,5-Trichlorophenol	<0.38		0.38	0.087	mg/Kg	☼	11/16/17 08:33	11/17/17 17:09	1
2,4,6-Trichlorophenol	<0.38		0.38	0.13	mg/Kg	☼	11/16/17 08:33	11/17/17 17:09	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	94		44 - 121	11/16/17 08:33	11/17/17 17:09	1
2-Fluorophenol	105		46 - 133	11/16/17 08:33	11/17/17 17:09	1
Nitrobenzene-d5	92		41 - 120	11/16/17 08:33	11/17/17 17:09	1
Phenol-d5	103		46 - 125	11/16/17 08:33	11/17/17 17:09	1
Terphenyl-d14	82		35 - 160	11/16/17 08:33	11/17/17 17:09	1
2,4,6-Tribromophenol	79		25 - 139	11/16/17 08:33	11/17/17 17:09	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.26	J	1.1	0.22	mg/Kg	☼	11/11/17 13:28	11/13/17 20:56	1
Arsenic	7.2		0.57	0.20	mg/Kg	☼	11/11/17 13:28	11/13/17 20:56	1
Barium	38		0.57	0.065	mg/Kg	☼	11/11/17 13:28	11/13/17 20:56	1
Beryllium	0.64		0.23	0.054	mg/Kg	☼	11/11/17 13:28	11/13/17 20:56	1
Cadmium	0.19	B	0.11	0.021	mg/Kg	☼	11/11/17 13:28	11/13/17 20:56	1
Chromium	15		0.57	0.28	mg/Kg	☼	11/11/17 13:28	11/13/17 20:56	1
Cobalt	14		0.29	0.075	mg/Kg	☼	11/11/17 13:28	11/13/17 20:56	1
Copper	22	B	0.57	0.16	mg/Kg	☼	11/11/17 13:28	11/14/17 18:43	1
Iron	16000		11	6.0	mg/Kg	☼	11/11/17 13:28	11/13/17 20:56	1
Lead	23		0.29	0.13	mg/Kg	☼	11/11/17 13:28	11/13/17 20:56	1
Magnesium	14000		5.7	2.8	mg/Kg	☼	11/11/17 13:28	11/13/17 20:56	1
Calcium	29000		11	1.9	mg/Kg	☼	11/11/17 13:28	11/13/17 20:56	1
Manganese	310		0.57	0.083	mg/Kg	☼	11/11/17 13:28	11/13/17 20:56	1
Nickel	28		0.57	0.17	mg/Kg	☼	11/11/17 13:28	11/13/17 20:56	1
Selenium	0.37	J	0.57	0.34	mg/Kg	☼	11/11/17 13:28	11/13/17 20:56	1
Silver	<0.29		0.29	0.074	mg/Kg	☼	11/11/17 13:28	11/13/17 20:56	1
Thallium	<0.57		0.57	0.29	mg/Kg	☼	11/11/17 13:28	11/13/17 20:56	1
Vanadium	19		0.29	0.068	mg/Kg	☼	11/11/17 13:28	11/13/17 20:56	1
Zinc	66		1.1	0.50	mg/Kg	☼	11/11/17 13:28	11/13/17 20:56	1
Potassium	1900		29	10	mg/Kg	☼	11/11/17 13:28	11/13/17 20:56	1
Sodium	690		57	8.5	mg/Kg	☼	11/11/17 13:28	11/13/17 20:56	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.050		0.050	0.010	mg/L		11/15/17 08:42	11/15/17 16:15	1
Barium	0.35	J	0.50	0.050	mg/L		11/15/17 08:42	11/15/17 16:15	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		11/15/17 08:42	11/15/17 16:15	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		11/15/17 08:42	11/15/17 16:15	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137077-1

Client Sample ID: 2696V-52-B03(0-6)

Lab Sample ID: 500-137077-5

Date Collected: 11/09/17 14:40

Matrix: Solid

Date Received: 11/10/17 08:00

Percent Solids: 86.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	440		5.0	0.50	mg/L		11/15/17 08:42	11/15/17 16:15	1
Chromium	<0.025		0.025	0.010	mg/L		11/15/17 08:42	11/15/17 16:15	1
Cobalt	<0.025		0.025	0.010	mg/L		11/15/17 08:42	11/15/17 16:15	1
Copper	<0.025		0.025	0.010	mg/L		11/15/17 08:42	11/15/17 16:15	1
Iron	0.27	J	0.40	0.20	mg/L		11/15/17 08:42	11/15/17 16:15	1
Lead	<0.0075		0.0075	0.0075	mg/L		11/15/17 08:42	11/15/17 16:15	1
Magnesium	68		2.5	0.50	mg/L		11/15/17 08:42	11/15/17 16:15	1
Manganese	0.40		0.025	0.010	mg/L		11/15/17 08:42	11/15/17 16:15	1
Nickel	<0.025		0.025	0.010	mg/L		11/15/17 08:42	11/15/17 16:15	1
Potassium	1.9	J	2.5	0.50	mg/L		11/15/17 08:42	11/15/17 16:15	1
Selenium	<0.050		0.050	0.020	mg/L		11/15/17 08:42	11/15/17 16:15	1
Silver	<0.025		0.025	0.010	mg/L		11/15/17 08:42	11/15/17 16:15	1
Vanadium	<0.025		0.025	0.010	mg/L		11/15/17 08:42	11/15/17 16:15	1
Zinc	0.023	J	0.50	0.020	mg/L		11/15/17 08:42	11/15/17 16:15	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.84		0.025	0.010	mg/L		11/15/17 08:17	11/17/17 03:50	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		11/15/17 08:42	11/16/17 17:00	1
Thallium	<0.0020		0.0020	0.0020	mg/L		11/15/17 08:42	11/16/17 17:00	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		11/17/17 08:10	11/17/17 12:02	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.019		0.017	0.0058	mg/Kg	☼	11/17/17 10:45	11/18/17 13:06	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.45		0.45	0.15	mg/Kg	☼	11/19/17 10:30	11/19/17 14:43	1
pH	8.3		0.20	0.20	SU			11/18/17 11:58	1

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137077-1

Client Sample ID: 2696V-52-B03(6-11)

Lab Sample ID: 500-137077-6

Date Collected: 11/09/17 14:50

Matrix: Solid

Date Received: 11/10/17 08:00

Percent Solids: 83.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	0.021		0.017	0.0073	mg/Kg	☼	11/10/17 18:28	11/16/17 13:27	1
Benzene	<0.0017		0.0017	0.00043	mg/Kg	☼	11/10/17 18:28	11/16/17 13:27	1
Bromodichloromethane	<0.0017		0.0017	0.00034	mg/Kg	☼	11/10/17 18:28	11/16/17 13:27	1
Bromoform	<0.0017		0.0017	0.00049	mg/Kg	☼	11/10/17 18:28	11/16/17 13:27	1
Bromomethane	<0.0042		0.0042	0.0016	mg/Kg	☼	11/10/17 18:28	11/16/17 13:27	1
2-Butanone (MEK)	<0.0042		0.0042	0.0019	mg/Kg	☼	11/10/17 18:28	11/16/17 13:27	1
Carbon disulfide	<0.0042		0.0042	0.00088	mg/Kg	☼	11/10/17 18:28	11/16/17 13:27	1
Carbon tetrachloride	<0.0017 *		0.0017	0.00049	mg/Kg	☼	11/10/17 18:28	11/16/17 13:27	1
Chlorobenzene	<0.0017		0.0017	0.00062	mg/Kg	☼	11/10/17 18:28	11/16/17 13:27	1
Chloroethane	<0.0042		0.0042	0.0012	mg/Kg	☼	11/10/17 18:28	11/16/17 13:27	1
Chloroform	<0.0017		0.0017	0.00058	mg/Kg	☼	11/10/17 18:28	11/16/17 13:27	1
Chloromethane	<0.0042 *		0.0042	0.0017	mg/Kg	☼	11/10/17 18:28	11/16/17 13:27	1
cis-1,2-Dichloroethene	<0.0017		0.0017	0.00047	mg/Kg	☼	11/10/17 18:28	11/16/17 13:27	1
cis-1,3-Dichloropropene	<0.0017		0.0017	0.00051	mg/Kg	☼	11/10/17 18:28	11/16/17 13:27	1
Dibromochloromethane	<0.0017		0.0017	0.00055	mg/Kg	☼	11/10/17 18:28	11/16/17 13:27	1
1,1-Dichloroethane	<0.0017		0.0017	0.00058	mg/Kg	☼	11/10/17 18:28	11/16/17 13:27	1
1,2-Dichloroethane	<0.0042		0.0042	0.0013	mg/Kg	☼	11/10/17 18:28	11/16/17 13:27	1
1,1-Dichloroethene	<0.0017		0.0017	0.00058	mg/Kg	☼	11/10/17 18:28	11/16/17 13:27	1
1,2-Dichloropropane	<0.0017		0.0017	0.00044	mg/Kg	☼	11/10/17 18:28	11/16/17 13:27	1
1,3-Dichloropropane, Total	<0.0017		0.0017	0.00059	mg/Kg	☼	11/10/17 18:28	11/16/17 13:27	1
Ethylbenzene	<0.0017		0.0017	0.00081	mg/Kg	☼	11/10/17 18:28	11/16/17 13:27	1
2-Hexanone	<0.0042		0.0042	0.0013	mg/Kg	☼	11/10/17 18:28	11/16/17 13:27	1
Methylene Chloride	<0.0042		0.0042	0.0017	mg/Kg	☼	11/10/17 18:28	11/16/17 13:27	1
4-Methyl-2-pentanone (MIBK)	<0.0042		0.0042	0.0012	mg/Kg	☼	11/10/17 18:28	11/16/17 13:27	1
Methyl tert-butyl ether	<0.0017		0.0017	0.00049	mg/Kg	☼	11/10/17 18:28	11/16/17 13:27	1
Styrene	<0.0017		0.0017	0.00051	mg/Kg	☼	11/10/17 18:28	11/16/17 13:27	1
1,1,2,2-Tetrachloroethane	<0.0017		0.0017	0.00054	mg/Kg	☼	11/10/17 18:28	11/16/17 13:27	1
Tetrachloroethene	<0.0017		0.0017	0.00057	mg/Kg	☼	11/10/17 18:28	11/16/17 13:27	1
Toluene	<0.0017		0.0017	0.00043	mg/Kg	☼	11/10/17 18:28	11/16/17 13:27	1
trans-1,2-Dichloroethene	<0.0017		0.0017	0.00075	mg/Kg	☼	11/10/17 18:28	11/16/17 13:27	1
trans-1,3-Dichloropropene	<0.0017		0.0017	0.00059	mg/Kg	☼	11/10/17 18:28	11/16/17 13:27	1
1,1,1-Trichloroethane	<0.0017		0.0017	0.00057	mg/Kg	☼	11/10/17 18:28	11/16/17 13:27	1
1,1,2-Trichloroethane	<0.0017		0.0017	0.00072	mg/Kg	☼	11/10/17 18:28	11/16/17 13:27	1
Trichloroethene	<0.0017		0.0017	0.00057	mg/Kg	☼	11/10/17 18:28	11/16/17 13:27	1
Vinyl acetate	<0.0042		0.0042	0.0015	mg/Kg	☼	11/10/17 18:28	11/16/17 13:27	1
Vinyl chloride	<0.0017		0.0017	0.00075	mg/Kg	☼	11/10/17 18:28	11/16/17 13:27	1
Xylenes, Total	<0.0034		0.0034	0.00054	mg/Kg	☼	11/10/17 18:28	11/16/17 13:27	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	92		75 - 131	11/10/17 18:28	11/16/17 13:27	1
Dibromofluoromethane	112		75 - 126	11/10/17 18:28	11/16/17 13:27	1
1,2-Dichloroethane-d4 (Surr)	119		70 - 134	11/10/17 18:28	11/16/17 13:27	1
Toluene-d8 (Surr)	95		75 - 124	11/10/17 18:28	11/16/17 13:27	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.039		0.039	0.0070	mg/Kg	☼	11/16/17 08:33	11/17/17 13:57	1
Acenaphthylene	<0.039		0.039	0.0051	mg/Kg	☼	11/16/17 08:33	11/17/17 13:57	1
Anthracene	<0.039		0.039	0.0065	mg/Kg	☼	11/16/17 08:33	11/17/17 13:57	1
Benzo[a]anthracene	<0.039		0.039	0.0053	mg/Kg	☼	11/16/17 08:33	11/17/17 13:57	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137077-1

Client Sample ID: 2696V-52-B03(6-11)

Lab Sample ID: 500-137077-6

Date Collected: 11/09/17 14:50

Matrix: Solid

Date Received: 11/10/17 08:00

Percent Solids: 83.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	0.032	J	0.039	0.0076	mg/Kg	☼	11/16/17 08:33	11/17/17 13:57	1
Benzo[b]fluoranthene	0.035	J	0.039	0.0084	mg/Kg	☼	11/16/17 08:33	11/17/17 13:57	1
Benzo[g,h,i]perylene	0.037	J	0.039	0.013	mg/Kg	☼	11/16/17 08:33	11/17/17 13:57	1
Benzo[k]fluoranthene	<0.039		0.039	0.012	mg/Kg	☼	11/16/17 08:33	11/17/17 13:57	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.040	mg/Kg	☼	11/16/17 08:33	11/17/17 13:57	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.059	mg/Kg	☼	11/16/17 08:33	11/17/17 13:57	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.071	mg/Kg	☼	11/16/17 08:33	11/17/17 13:57	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.051	mg/Kg	☼	11/16/17 08:33	11/17/17 13:57	1
Butyl benzyl phthalate	<0.20		0.20	0.074	mg/Kg	☼	11/16/17 08:33	11/17/17 13:57	1
Carbazole	<0.20		0.20	0.098	mg/Kg	☼	11/16/17 08:33	11/17/17 13:57	1
4-Chloroaniline	<0.79		0.79	0.18	mg/Kg	☼	11/16/17 08:33	11/17/17 13:57	1
4-Chloro-3-methylphenol	<0.39		0.39	0.13	mg/Kg	☼	11/16/17 08:33	11/17/17 13:57	1
2-Chloronaphthalene	<0.20		0.20	0.043	mg/Kg	☼	11/16/17 08:33	11/17/17 13:57	1
2-Chlorophenol	<0.20		0.20	0.067	mg/Kg	☼	11/16/17 08:33	11/17/17 13:57	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.046	mg/Kg	☼	11/16/17 08:33	11/17/17 13:57	1
Chrysene	<0.039		0.039	0.011	mg/Kg	☼	11/16/17 08:33	11/17/17 13:57	1
Dibenz(a,h)anthracene	<0.039		0.039	0.0075	mg/Kg	☼	11/16/17 08:33	11/17/17 13:57	1
Dibenzofuran	<0.20		0.20	0.046	mg/Kg	☼	11/16/17 08:33	11/17/17 13:57	1
1,2-Dichlorobenzene	<0.20		0.20	0.047	mg/Kg	☼	11/16/17 08:33	11/17/17 13:57	1
1,3-Dichlorobenzene	<0.20		0.20	0.044	mg/Kg	☼	11/16/17 08:33	11/17/17 13:57	1
1,4-Dichlorobenzene	<0.20		0.20	0.050	mg/Kg	☼	11/16/17 08:33	11/17/17 13:57	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.055	mg/Kg	☼	11/16/17 08:33	11/17/17 13:57	1
2,4-Dichlorophenol	<0.39		0.39	0.093	mg/Kg	☼	11/16/17 08:33	11/17/17 13:57	1
Diethyl phthalate	<0.20		0.20	0.066	mg/Kg	☼	11/16/17 08:33	11/17/17 13:57	1
2,4-Dimethylphenol	<0.39		0.39	0.15	mg/Kg	☼	11/16/17 08:33	11/17/17 13:57	1
Dimethyl phthalate	<0.20		0.20	0.051	mg/Kg	☼	11/16/17 08:33	11/17/17 13:57	1
Di-n-butyl phthalate	<0.20		0.20	0.059	mg/Kg	☼	11/16/17 08:33	11/17/17 13:57	1
4,6-Dinitro-2-methylphenol	<0.79		0.79	0.31	mg/Kg	☼	11/16/17 08:33	11/17/17 13:57	1
2,4-Dinitrophenol	<0.79		0.79	0.69	mg/Kg	☼	11/16/17 08:33	11/17/17 13:57	1
2,4-Dinitrotoluene	<0.20		0.20	0.062	mg/Kg	☼	11/16/17 08:33	11/17/17 13:57	1
2,6-Dinitrotoluene	<0.20		0.20	0.077	mg/Kg	☼	11/16/17 08:33	11/17/17 13:57	1
Di-n-octyl phthalate	<0.20		0.20	0.064	mg/Kg	☼	11/16/17 08:33	11/17/17 13:57	1
Fluoranthene	<0.039		0.039	0.0072	mg/Kg	☼	11/16/17 08:33	11/17/17 13:57	1
Fluorene	<0.039		0.039	0.0055	mg/Kg	☼	11/16/17 08:33	11/17/17 13:57	1
Hexachlorobenzene	<0.079		0.079	0.0091	mg/Kg	☼	11/16/17 08:33	11/17/17 13:57	1
Hexachlorobutadiene	<0.20		0.20	0.061	mg/Kg	☼	11/16/17 08:33	11/17/17 13:57	1
Hexachlorocyclopentadiene	<0.79		0.79	0.22	mg/Kg	☼	11/16/17 08:33	11/17/17 13:57	1
Hexachloroethane	<0.20		0.20	0.059	mg/Kg	☼	11/16/17 08:33	11/17/17 13:57	1
Indeno[1,2,3-cd]pyrene	<0.039		0.039	0.010	mg/Kg	☼	11/16/17 08:33	11/17/17 13:57	1
Isophorone	<0.20		0.20	0.044	mg/Kg	☼	11/16/17 08:33	11/17/17 13:57	1
2-Methylnaphthalene	<0.079		0.079	0.0072	mg/Kg	☼	11/16/17 08:33	11/17/17 13:57	1
2-Methylphenol	<0.20		0.20	0.063	mg/Kg	☼	11/16/17 08:33	11/17/17 13:57	1
3 & 4 Methylphenol	<0.20		0.20	0.065	mg/Kg	☼	11/16/17 08:33	11/17/17 13:57	1
Naphthalene	<0.039		0.039	0.0060	mg/Kg	☼	11/16/17 08:33	11/17/17 13:57	1
2-Nitroaniline	<0.20		0.20	0.053	mg/Kg	☼	11/16/17 08:33	11/17/17 13:57	1
3-Nitroaniline	<0.39		0.39	0.12	mg/Kg	☼	11/16/17 08:33	11/17/17 13:57	1
4-Nitroaniline	<0.39		0.39	0.16	mg/Kg	☼	11/16/17 08:33	11/17/17 13:57	1
Nitrobenzene	<0.039		0.039	0.0097	mg/Kg	☼	11/16/17 08:33	11/17/17 13:57	1
2-Nitrophenol	<0.39		0.39	0.092	mg/Kg	☼	11/16/17 08:33	11/17/17 13:57	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137077-1

Client Sample ID: 2696V-52-B03(6-11)

Lab Sample ID: 500-137077-6

Date Collected: 11/09/17 14:50

Matrix: Solid

Date Received: 11/10/17 08:00

Percent Solids: 83.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Nitrophenol	<0.79		0.79	0.37	mg/Kg	☼	11/16/17 08:33	11/17/17 13:57	1
N-Nitrosodi-n-propylamine	<0.079		0.079	0.048	mg/Kg	☼	11/16/17 08:33	11/17/17 13:57	1
N-Nitrosodiphenylamine	<0.20		0.20	0.046	mg/Kg	☼	11/16/17 08:33	11/17/17 13:57	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.045	mg/Kg	☼	11/16/17 08:33	11/17/17 13:57	1
Pentachlorophenol	<0.79		0.79	0.63	mg/Kg	☼	11/16/17 08:33	11/17/17 13:57	1
Phenanthrene	<0.039		0.039	0.0054	mg/Kg	☼	11/16/17 08:33	11/17/17 13:57	1
Phenol	<0.20		0.20	0.087	mg/Kg	☼	11/16/17 08:33	11/17/17 13:57	1
Pyrene	<0.039		0.039	0.0078	mg/Kg	☼	11/16/17 08:33	11/17/17 13:57	1
1,2,4-Trichlorobenzene	<0.20		0.20	0.042	mg/Kg	☼	11/16/17 08:33	11/17/17 13:57	1
2,4,5-Trichlorophenol	<0.39		0.39	0.089	mg/Kg	☼	11/16/17 08:33	11/17/17 13:57	1
2,4,6-Trichlorophenol	<0.39		0.39	0.13	mg/Kg	☼	11/16/17 08:33	11/17/17 13:57	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	73		44 - 121	11/16/17 08:33	11/17/17 13:57	1
2-Fluorophenol	89		46 - 133	11/16/17 08:33	11/17/17 13:57	1
Nitrobenzene-d5	74		41 - 120	11/16/17 08:33	11/17/17 13:57	1
Phenol-d5	83		46 - 125	11/16/17 08:33	11/17/17 13:57	1
Terphenyl-d14	68		35 - 160	11/16/17 08:33	11/17/17 13:57	1
2,4,6-Tribromophenol	61		25 - 139	11/16/17 08:33	11/17/17 13:57	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.37	J	1.1	0.22	mg/Kg	☼	11/11/17 13:28	11/13/17 21:00	1
Arsenic	7.5		0.56	0.19	mg/Kg	☼	11/11/17 13:28	11/13/17 21:00	1
Barium	52		0.56	0.064	mg/Kg	☼	11/11/17 13:28	11/13/17 21:00	1
Beryllium	0.55		0.23	0.053	mg/Kg	☼	11/11/17 13:28	11/13/17 21:00	1
Cadmium	0.14	B	0.11	0.020	mg/Kg	☼	11/11/17 13:28	11/13/17 21:00	1
Chromium	13		0.56	0.28	mg/Kg	☼	11/11/17 13:28	11/13/17 21:00	1
Cobalt	8.7		0.28	0.074	mg/Kg	☼	11/11/17 13:28	11/13/17 21:00	1
Copper	20	B	2.8	0.79	mg/Kg	☼	11/11/17 13:28	11/14/17 18:47	5
Iron	15000		11	5.9	mg/Kg	☼	11/11/17 13:28	11/13/17 21:00	1
Lead	10		0.28	0.13	mg/Kg	☼	11/11/17 13:28	11/13/17 21:00	1
Magnesium	20000		5.6	2.8	mg/Kg	☼	11/11/17 13:28	11/13/17 21:00	1
Calcium	57000		56	9.6	mg/Kg	☼	11/11/17 13:28	11/14/17 18:47	5
Manganese	330		0.56	0.082	mg/Kg	☼	11/11/17 13:28	11/13/17 21:00	1
Nickel	22		0.56	0.16	mg/Kg	☼	11/11/17 13:28	11/13/17 21:00	1
Selenium	0.65		0.56	0.33	mg/Kg	☼	11/11/17 13:28	11/13/17 21:00	1
Silver	<0.28		0.28	0.073	mg/Kg	☼	11/11/17 13:28	11/13/17 21:00	1
Thallium	<0.56		0.56	0.28	mg/Kg	☼	11/11/17 13:28	11/13/17 21:00	1
Vanadium	18		0.28	0.067	mg/Kg	☼	11/11/17 13:28	11/13/17 21:00	1
Zinc	50		1.1	0.50	mg/Kg	☼	11/11/17 13:28	11/13/17 21:00	1
Potassium	1500		28	10	mg/Kg	☼	11/11/17 13:28	11/13/17 21:00	1
Sodium	450		56	8.3	mg/Kg	☼	11/11/17 13:28	11/13/17 21:00	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.050		0.050	0.010	mg/L		11/15/17 08:42	11/15/17 16:19	1
Barium	0.44	J	0.50	0.050	mg/L		11/15/17 08:42	11/15/17 16:19	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		11/15/17 08:42	11/15/17 16:19	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		11/15/17 08:42	11/15/17 16:19	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137077-1

Client Sample ID: 2696V-52-B03(6-11)

Lab Sample ID: 500-137077-6

Date Collected: 11/09/17 14:50

Matrix: Solid

Date Received: 11/10/17 08:00

Percent Solids: 83.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	770		50	5.0	mg/L		11/15/17 08:42	11/16/17 13:34	10
Chromium	<0.025		0.025	0.010	mg/L		11/15/17 08:42	11/15/17 16:19	1
Cobalt	<0.025		0.025	0.010	mg/L		11/15/17 08:42	11/15/17 16:19	1
Copper	<0.025		0.025	0.010	mg/L		11/15/17 08:42	11/15/17 16:19	1
Iron	<0.40		0.40	0.20	mg/L		11/15/17 08:42	11/15/17 16:19	1
Lead	<0.0075		0.0075	0.0075	mg/L		11/15/17 08:42	11/15/17 16:19	1
Magnesium	30		2.5	0.50	mg/L		11/15/17 08:42	11/15/17 16:19	1
Manganese	4.9		0.025	0.010	mg/L		11/15/17 08:42	11/15/17 16:19	1
Nickel	0.010	J	0.025	0.010	mg/L		11/15/17 08:42	11/15/17 16:19	1
Potassium	1.6	J	2.5	0.50	mg/L		11/15/17 08:42	11/15/17 16:19	1
Selenium	<0.050		0.050	0.020	mg/L		11/15/17 08:42	11/15/17 16:19	1
Silver	<0.025		0.025	0.010	mg/L		11/15/17 08:42	11/15/17 16:19	1
Vanadium	<0.025		0.025	0.010	mg/L		11/15/17 08:42	11/15/17 16:19	1
Zinc	0.021	J	0.50	0.020	mg/L		11/15/17 08:42	11/15/17 16:19	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.042		0.025	0.010	mg/L		11/15/17 08:17	11/17/17 04:02	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		11/15/17 08:42	11/16/17 17:04	1
Thallium	<0.0020		0.0020	0.0020	mg/L		11/15/17 08:42	11/16/17 17:04	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		11/17/17 08:10	11/17/17 12:04	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0096	J	0.019	0.0063	mg/Kg	☼	11/17/17 10:45	11/18/17 13:08	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.56		0.56	0.19	mg/Kg	☼	11/19/17 10:30	11/19/17 14:43	1
pH	8.0		0.20	0.20	SU			11/18/17 12:01	1

Definitions/Glossary

Client: Terracon Consulting Eng & Scientists
Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137077-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	RPD of the LCS and LCSD exceeds the control limits
*	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.

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
B	Compound was found in the blank and sample.

Glossary

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

Accreditation/Certification Summary

Client: Terracon Consulting Eng & Scientists
Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137077-1

Laboratory: TestAmerica Chicago

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

Authority	Program	EPA Region	Identification Number	Expiration Date
Illinois	NELAP	5	100201	04-30-18

The following analytes are included in this report, but accreditation/certification is not offered by the governing authority:

Analysis Method	Prep Method	Matrix	Analyte
6020A	3010A	Solid	Antimony
6020A	3010A	Solid	Thallium
8260B	5035	Solid	1,3-Dichloropropene, Total
9045D		Solid	pH
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

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

Report To (optional)
Contact: TERRACON
Company: MATT WEISS
Address: NAPERVILLE
Phone:
Fax:
E-Mail: matt.weiss@terracon.com

Bill To (optional)
Contact:
Company:
Address:
Phone:
Fax:
PO/Reference# 500-137077 COC

Chain of Custody Record

Lab Job #: 500-137077
Chain of Custody Number:
Page 14.0 of (2.0)(1.9)
Temperature °C of Cooler: (3.7)(2.9)(3.2)



Client: <u>TERRACON</u>		Client Project # <u>1177029M</u>		Preservative		Parameter		Matrix		Comments		
Project Name <u>WORK ORDER #37</u>		Project Location/State <u>MAREHAM IL</u>		Lab Project #		Sample: <u>ZYAN J PETERSON</u>		Lab PM		Preservative Key		
Lab ID	MS/MSD	Sample ID	Sampling		# of Containers	Matrix	NOCS	SVOLs	TOTAL TAL 23 <u>Every</u>	PH	TCLP TAL 23 <u>Every</u>	SPLP TAL 23 <u>Every</u>
			Date	Time								
1		2696V-52-801(0-6)	11/9	1530	5	S	X	X	X	X	X	X
2		2696V-52-801(6-11)		1535	1							
3		2696V-52-802(0-6)		1510	1							
4		2696V-52-802(6-11)		1515	1							
5		2696V-52-803(0-6)		1440	1							
6		2696V-52-803(6-11)		1458	1							

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>TERRACON</u> Date: <u>11/9/17</u> Time: <u>1630</u>	Received By: <u>P. Neal</u> Company: <u>TA</u> Date: <u>11/9/17</u> Time: <u>1630</u>
Relinquished By: <u>P. Neal</u> Company: <u>TA</u> Date: <u>11/9/17</u> Time: <u>1700</u>	Received By: <u>[Signature]</u> Company: <u>TA</u> Date: <u>11/10/17</u> Time: <u>0800</u>

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

Hold SPLP, pending Approval
No AL in TAL Analysis

Lab Comments:

Login Sample Receipt Checklist

Client: Terracon Consulting Eng & Scientists

Job Number: 500-137077-1

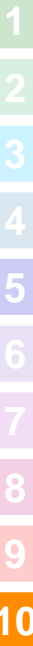
Login Number: 137077

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	(3.7)(2.9)(3.2)(4.0)(2.0)(1.9)c
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	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 351-US Rte 6 at Pulaski/Crawford & Kedzie Office Phone Number, if available: _____

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

US Route 6 (Westbound) IDOT STA 24+80 to 28+00 (ISGS Site 2696V-53)

City: Oak Forest/Markham State: IL Zip Code: 60428

County: Cook Township: Bremen

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

Latitude: 41.60367 Longitude: -87.71682
(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: 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 Phone: 847-705-4122

Zip Code: 60196 Phone: 847-705-4122

Contact: Paul Nickles

Contact: Paul Nickles

Email, if available: paul.nickles@illinois.gov

Email, if available: paul.nickles@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 351-US Rte 6 at Pulaski/Crawford & Kedzie

Latitude: 41.60367 Longitude: -87.71682

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)];

Soil from borings B01 and B02 were sampled adjacent to ISGS Site No 2696V-53. See Exhibits 2, 2A, 4, and Table 67 of the Preliminary Site Investigation Report prepared by Terracon.

- 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]:

TestAmerica Lab Report No J137163-3
Also see Preliminary Site Investigation Report prepared by Terracon. CCDD/USFO facility in MSA County.

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

I, Matt Weiss (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: Terracon Consultants, Inc

Street Address: 135 Ambassador Drive

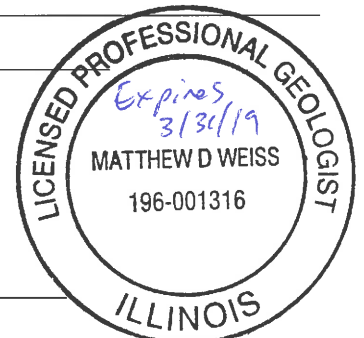
City: Naperville State: IL Zip Code: 60540

Phone: 630-717-4263

Matt Weiss
Printed Name:

[Signature]
Licensed Professional Engineer or
Licensed Professional Geologist Signature:

7/24/18
Date:



Detected Constituents to MACs-PTB 174-009;Work Order:037A
Preliminary Site Investigation
FAP 351-US Rte 6 at S. Pulaski/Crawford + Kedzie (PESA #2696V-53)
Oak Forest/Markham, Cook County, IL
Terracon Project No. 11177029M
Page 1 of 2

Analyte	Units	Background		Maximum Allowed Concentration	Sample Identification	2696V-53-B01 (0-6)	2696V-53-B02 (0-6)
				CCDD	Sample Depth (feet)	(0-6)	(0-6)
		Chicago	MSAs	mg/kg pH 6.25-9.0	Date Collected	11/10/2017	11/10/2017
Semivolatile Organic Analytical Parameters							
Chrysene	mg/kg	1.2	2.7	88		0.019	<0.036
Fluoranthene	mg/kg	2.7	4.1	3100		0.0075	<0.036
Phenanthrene	mg/kg	1.3	2.5	210		0.019	<0.036
Pyrene	mg/kg	1.9	3.0	2300		0.019	<0.036
2-Methylnaphthalene	mg/kg	---	0.14	---		0.012	<0.072
Inorganic Analytical Parameters							
Arsenic	mg/kg	---	13	11.3		6.2	9.2
Barium	mg/kg	---	110	1500		14	56
Cadmium	mg/kg	---	0.6	5.2		0.16	0.62
Chromium, total	mg/kg	---	16.2	21		6.7	8.5
Lead	mg/kg	---	36	107		12	15
Mercury	mg/kg	---	0.06	0.1		0.024	0.019
Selenium	mg/kg	---	0.48	1.3		0.53	0.52
Silver	mg/kg	---	0.55	4.4		<0.26	<0.25
Antimony	mg/kg	---	4.0	5		<1.0	<1.0
Beryllium	mg/kg	---	0.59	22		0.36	0.3
Calcium	mg/kg	---	9,300	---		130000	13000
Cobalt	mg/kg	---	8.9	20		7.4	6.3
Copper	mg/kg	---	19.6	2900		20	16
Cyanide	mg/kg	---	0.51	---		<0.51	<0.50
Iron	mg/kg	---	15,900	15000		16000	18000
Magnesium	mg/kg	---	4,820	325000		48000	8300
Manganese	mg/kg	---	636	630		470	410
Nickel	mg/kg	---	18	100		19	16
Potassium	mg/kg	---	1,268	---		1100	920
Sodium	mg/kg	---	130	---		270	620
Thallium	mg/kg	---	0.32	2.6		<0.52	<0.50
Vanadium	mg/kg	---	25.2	550		10	14
Zinc	mg/kg	---	95	5100		43	540
pH			6.25	9		7.7	8.4

Detected Constituents to MACs-PTB 174-009;Work Order:037A
Preliminary Site Investigation
FAP 351-US Rte 6 at S. Pulaski/Crawford + Kedzie (PESA #2696V-53)
Oak Forest/Markham, Cook County, IL
Terracon Project No. 11177029M
Page 2 of 2

Analyte	Units	Background		Maximum Allowed Concentration	Sample Identification	2696V-53-B01 (0-6)	2696V-53-B02 (0-6)
				CCDD	Sample Depth (feet)	(0-6)	(0-6)
		Chicago	MSAs	mg/kg pH 6.25-9.0	Date Collected	11/10/2017	11/10/2017
Inorganic Analytical Parameters (SPLP)							
Antimony,SPLP	mg/L	---	---	---		--	--
Arsenic,SPLP	mg/L	---	---	---		--	--
Barium,SPLP	mg/L	---	---	---		--	--
Beryllium,SPLP	mg/L	---	---	---		--	--
Cadmium,SPLP	mg/L	---	---	---		--	0.0031
Calcium,SPLP	mg/L	---	---	---		--	--
Chromium,SPLP	mg/L	---	---	---		--	--
Cobalt,SPLP	mg/L	---	---	---		--	--
Copper,SPLP	mg/L	---	---	---		--	--
Iron,SPLP	mg/L	---	---	---		--	--
Lead,SPLP	mg/L	---	---	---		--	--
Magnesium,SPLP	mg/L	---	---	---		--	--
Manganese,SPLP	mg/L	---	---	---		<0.025	0.41
Mercury,SPLP	mg/L	---	---	---		--	--
Nickel,SPLP	mg/L	---	---	---		--	--
Potassium,SPLP	mg/L	---	---	---		--	--
Selenium,SPLP	mg/L	---	---	---		--	--
Silver,SPLP	mg/L	---	---	---		--	--
Sodium,SPLP	mg/L	---	---	---		--	--
Thallium,SPLP	mg/L	---	---	---		--	--
Vanadium,SPLP	mg/L	---	---	---		--	--
Zinc,SPLP	mg/L	---	---	---		--	2.7
Cyanide,SPLP	mg/L	---	---	---		--	--
Inorganic Analytical Parameters (TCLP)							
Arsenic,TCLP	mg/L	---	---	---		<0.050	<0.050
Barium,TCLP	mg/L	---	---	---		0.18	0.13
Cadmium,TCLP	mg/L	---	---	---		<0.0050	0.017
Chromium,TCLP	mg/L	---	---	---		<0.025	<0.025
Lead,TCLP	mg/L	---	---	---		<0.0075	<0.0075
Mercury,TCLP	mg/L	---	---	---		<0.00020	<0.00020
Selenium,TCLP	mg/L	---	---	---		<0.050	<0.050
Silver,TCLP	mg/L	---	---	---		<0.025	<0.025
Antimony,TCLP	mg/L	---	---	---		<0.0060	<0.0060
Beryllium,TCLP	mg/L	---	---	---		<0.0040	<0.0040
Calcium,TCLP	mg/L	---	---	---		430	250
Cobalt,TCLP	mg/L	---	---	---		0.038	<0.025
Copper,TCLP	mg/L	---	---	---		<0.040	0.036
Cyanide,TCLP	mg/L	---	---	---		----	----
Iron,TCLP	mg/L	---	---	---		<0.40	<0.40
Magnesium,TCLP	mg/L	---	---	---		190	120
Manganese,TCLP	mg/L	---	---	---		3.3	1.2
Nickel,TCLP	mg/L	---	---	---		0.043	0.013
Potassium,TCLP	mg/L	---	---	---		2.4	0.98
Sodium,TCLP	mg/L	---	---	---		----	----
Thallium,TCLP	mg/L	---	---	---		<0.0020	<0.0020
Vanadium,TCLP	mg/L	---	---	---		<0.025	<0.025
Zinc,TCLP	mg/L	---	---	---		0.028	5.8

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ANALYTICAL REPORT

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

TestAmerica Job ID: 500-137163-3
Client Project/Site: IDOT - Oak Forest/Markham - WO37

For:
Terracon Consulting Eng & Scientists
135 Ambassador Drive
Naperville, Illinois 60540

Attn: Mr. Matthew Weiss

Jodie Bracken

Authorized for release by:
11/22/2017 6:42:21 PM
Jodie Bracken, Project Management Assistant II
jodie.bracken@testamericainc.com

Designee for
Richard Wright, Senior Project Manager
(708)534-5200
richard.wright@testamericainc.com

LINKS

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

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

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Case Narrative

Client: Terracon Consulting Eng & Scientists
Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137163-3

Job ID: 500-137163-3

Laboratory: TestAmerica Chicago

Narrative

**Job Narrative
500-137163-3**

Receipt

The samples were received on 11/10/2017 3:20 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 3.4° C and 5.0° C.

GC/MS VOA

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

GC/MS Semi VOA

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

Metals

Method(s) 6010B: The method blank for preparation batch 500-409937 and analytical batch 500-410092 contained Calcium and Magnesium above the reporting limit (RL). Associated samples 2696V-53-B01 (0-6) (500-137163-5) and 2696V-53-B02 (0-6) (500-137163-6) were not re-extracted and/or re-analyzed because results were greater than 10X the value found in the method blank.

Method(s) 6010B: The continuing calibration verification (CCV) associated with batch 500-410598 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: 2696V-53-B01 (0-6) (500-137163-5).

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: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137163-3

Client Sample ID: 2696V-53-B01 (0-6)

Lab Sample ID: 500-137163-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chrysene	0.019	J	0.034	0.0093	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.0075	J	0.034	0.0063	mg/Kg	1	☼	8270D	Total/NA
2-Methylnaphthalene	0.012	J	0.069	0.0063	mg/Kg	1	☼	8270D	Total/NA
Phenanthrene	0.019	J	0.034	0.0048	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.019	J	0.034	0.0068	mg/Kg	1	☼	8270D	Total/NA
Arsenic	6.2		0.52	0.18	mg/Kg	1	☼	6010B	Total/NA
Barium	14		0.52	0.060	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.36		0.21	0.049	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.16	B	0.10	0.019	mg/Kg	1	☼	6010B	Total/NA
Chromium	6.7		0.52	0.26	mg/Kg	1	☼	6010B	Total/NA
Cobalt	7.4		0.26	0.069	mg/Kg	1	☼	6010B	Total/NA
Copper	20		0.52	0.15	mg/Kg	1	☼	6010B	Total/NA
Iron	16000	B	10	5.4	mg/Kg	1	☼	6010B	Total/NA
Lead	12		0.26	0.12	mg/Kg	1	☼	6010B	Total/NA
Magnesium	48000	B	5.2	2.6	mg/Kg	1	☼	6010B	Total/NA
Calcium	130000	B	100	18	mg/Kg	10	☼	6010B	Total/NA
Manganese	470	B	0.52	0.076	mg/Kg	1	☼	6010B	Total/NA
Nickel	19		0.52	0.15	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.53		0.52	0.31	mg/Kg	1	☼	6010B	Total/NA
Vanadium	10		0.26	0.062	mg/Kg	1	☼	6010B	Total/NA
Zinc	43		1.0	0.46	mg/Kg	1	☼	6010B	Total/NA
Potassium	1100		26	9.3	mg/Kg	1	☼	6010B	Total/NA
Sodium	270		52	7.7	mg/Kg	1	☼	6010B	Total/NA
Barium	0.18	J	0.50	0.050	mg/L	1		6010B	TCLP
Calcium	430		5.0	0.50	mg/L	1		6010B	TCLP
Cobalt	0.038		0.025	0.010	mg/L	1		6010B	TCLP
Magnesium	190		2.5	0.50	mg/L	1		6010B	TCLP
Manganese	3.3		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.043		0.025	0.010	mg/L	1		6010B	TCLP
Potassium	2.4	J	2.5	0.50	mg/L	1		6010B	TCLP
Zinc	0.028	J B ^	0.50	0.020	mg/L	1		6010B	TCLP
Mercury	0.024		0.017	0.0057	mg/Kg	1	☼	7471B	Total/NA
pH	7.7		0.20	0.20	SU	1		9045D	Total/NA

Client Sample ID: 2696V-53-B02 (0-6)

Lab Sample ID: 500-137163-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	9.2		0.50	0.17	mg/Kg	1	☼	6010B	Total/NA
Barium	56		0.50	0.058	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.30		0.20	0.047	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.62	B	0.10	0.018	mg/Kg	1	☼	6010B	Total/NA
Chromium	8.5		0.50	0.25	mg/Kg	1	☼	6010B	Total/NA
Cobalt	6.3		0.25	0.066	mg/Kg	1	☼	6010B	Total/NA
Copper	16		0.50	0.14	mg/Kg	1	☼	6010B	Total/NA
Iron	18000	B	10	5.2	mg/Kg	1	☼	6010B	Total/NA
Lead	15		0.25	0.12	mg/Kg	1	☼	6010B	Total/NA
Magnesium	8300	B	5.0	2.5	mg/Kg	1	☼	6010B	Total/NA
Calcium	13000	B	10	1.7	mg/Kg	1	☼	6010B	Total/NA
Manganese	410	B	0.50	0.073	mg/Kg	1	☼	6010B	Total/NA
Nickel	16		0.50	0.15	mg/Kg	1	☼	6010B	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137163-3

Client Sample ID: 2696V-53-B02 (0-6) (Continued)

Lab Sample ID: 500-137163-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Selenium	0.52		0.50	0.30	mg/Kg	1	☼	6010B	Total/NA
Vanadium	14		0.25	0.060	mg/Kg	1	☼	6010B	Total/NA
Zinc	540		1.0	0.44	mg/Kg	1	☼	6010B	Total/NA
Potassium	920		25	8.9	mg/Kg	1	☼	6010B	Total/NA
Sodium	620		50	7.5	mg/Kg	1	☼	6010B	Total/NA
Barium	0.13	J	0.50	0.050	mg/L	1		6010B	TCLP
Cadmium	0.017		0.0050	0.0020	mg/L	1		6010B	TCLP
Calcium	250		5.0	0.50	mg/L	1		6010B	TCLP
Copper	0.036	J B	0.040	0.010	mg/L	1		6010B	TCLP
Magnesium	120		2.5	0.50	mg/L	1		6010B	TCLP
Manganese	1.2		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.013	J	0.025	0.010	mg/L	1		6010B	TCLP
Potassium	0.98	J	2.5	0.50	mg/L	1		6010B	TCLP
Zinc	5.8		0.50	0.020	mg/L	1		6010B	TCLP
Cadmium	0.0031	J	0.0050	0.0020	mg/L	1		6010B	SPLP East
Manganese	0.41		0.025	0.010	mg/L	1		6010B	SPLP East
Zinc	2.7		0.10	0.020	mg/L	1		6010B	SPLP East
Mercury	0.019		0.016	0.0054	mg/Kg	1	☼	7471B	Total/NA
pH	8.4		0.20	0.20	SU	1		9045D	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Sample Summary

Client: Terracon Consulting Eng & Scientists
Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137163-3

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-137163-5	2696V-53-B01 (0-6)	Solid	11/10/17 08:45	11/10/17 15:20
500-137163-6	2696V-53-B02 (0-6)	Solid	11/10/17 08:30	11/10/17 15:20

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Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137163-3

Client Sample ID: 2696V-53-B01 (0-6)

Lab Sample ID: 500-137163-5

Date Collected: 11/10/17 08:45

Matrix: Solid

Date Received: 11/10/17 15:20

Percent Solids: 92.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.019		0.019	0.0084	mg/Kg	☼	11/11/17 14:00	11/16/17 16:55	1
Benzene	<0.0019		0.0019	0.00049	mg/Kg	☼	11/11/17 14:00	11/16/17 16:55	1
Bromodichloromethane	<0.0019		0.0019	0.00039	mg/Kg	☼	11/11/17 14:00	11/16/17 16:55	1
Bromoform	<0.0019		0.0019	0.00056	mg/Kg	☼	11/11/17 14:00	11/16/17 16:55	1
Bromomethane	<0.0048		0.0048	0.0018	mg/Kg	☼	11/11/17 14:00	11/16/17 16:55	1
2-Butanone (MEK)	<0.0048		0.0048	0.0021	mg/Kg	☼	11/11/17 14:00	11/16/17 16:55	1
Carbon disulfide	<0.0048		0.0048	0.0010	mg/Kg	☼	11/11/17 14:00	11/16/17 16:55	1
Carbon tetrachloride	<0.0019		0.0019	0.00056	mg/Kg	☼	11/11/17 14:00	11/16/17 16:55	1
Chlorobenzene	<0.0019		0.0019	0.00071	mg/Kg	☼	11/11/17 14:00	11/16/17 16:55	1
Chloroethane	<0.0048		0.0048	0.0014	mg/Kg	☼	11/11/17 14:00	11/16/17 16:55	1
Chloroform	<0.0019		0.0019	0.00067	mg/Kg	☼	11/11/17 14:00	11/16/17 16:55	1
Chloromethane	<0.0048		0.0048	0.0019	mg/Kg	☼	11/11/17 14:00	11/16/17 16:55	1
cis-1,2-Dichloroethene	<0.0019		0.0019	0.00054	mg/Kg	☼	11/11/17 14:00	11/16/17 16:55	1
cis-1,3-Dichloropropene	<0.0019		0.0019	0.00058	mg/Kg	☼	11/11/17 14:00	11/16/17 16:55	1
Dibromochloromethane	<0.0019		0.0019	0.00063	mg/Kg	☼	11/11/17 14:00	11/16/17 16:55	1
1,1-Dichloroethane	<0.0019		0.0019	0.00066	mg/Kg	☼	11/11/17 14:00	11/16/17 16:55	1
1,2-Dichloroethane	<0.0048		0.0048	0.0015	mg/Kg	☼	11/11/17 14:00	11/16/17 16:55	1
1,1-Dichloroethene	<0.0019		0.0019	0.00066	mg/Kg	☼	11/11/17 14:00	11/16/17 16:55	1
1,2-Dichloropropane	<0.0019		0.0019	0.00050	mg/Kg	☼	11/11/17 14:00	11/16/17 16:55	1
1,3-Dichloropropane, Total	<0.0019		0.0019	0.00068	mg/Kg	☼	11/11/17 14:00	11/16/17 16:55	1
Ethylbenzene	<0.0019		0.0019	0.00092	mg/Kg	☼	11/11/17 14:00	11/16/17 16:55	1
2-Hexanone	<0.0048		0.0048	0.0015	mg/Kg	☼	11/11/17 14:00	11/16/17 16:55	1
Methylene Chloride	<0.0048		0.0048	0.0019	mg/Kg	☼	11/11/17 14:00	11/16/17 16:55	1
4-Methyl-2-pentanone (MIBK)	<0.0048		0.0048	0.0014	mg/Kg	☼	11/11/17 14:00	11/16/17 16:55	1
Methyl tert-butyl ether	<0.0019		0.0019	0.00057	mg/Kg	☼	11/11/17 14:00	11/16/17 16:55	1
Styrene	<0.0019		0.0019	0.00058	mg/Kg	☼	11/11/17 14:00	11/16/17 16:55	1
1,1,2,2-Tetrachloroethane	<0.0019		0.0019	0.00062	mg/Kg	☼	11/11/17 14:00	11/16/17 16:55	1
Tetrachloroethene	<0.0019		0.0019	0.00066	mg/Kg	☼	11/11/17 14:00	11/16/17 16:55	1
Toluene	<0.0019		0.0019	0.00049	mg/Kg	☼	11/11/17 14:00	11/16/17 16:55	1
trans-1,2-Dichloroethene	<0.0019		0.0019	0.00086	mg/Kg	☼	11/11/17 14:00	11/16/17 16:55	1
trans-1,3-Dichloropropene	<0.0019		0.0019	0.00068	mg/Kg	☼	11/11/17 14:00	11/16/17 16:55	1
1,1,1-Trichloroethane	<0.0019		0.0019	0.00065	mg/Kg	☼	11/11/17 14:00	11/16/17 16:55	1
1,1,2-Trichloroethane	<0.0019		0.0019	0.00083	mg/Kg	☼	11/11/17 14:00	11/16/17 16:55	1
Trichloroethene	<0.0019		0.0019	0.00065	mg/Kg	☼	11/11/17 14:00	11/16/17 16:55	1
Vinyl acetate	<0.0048		0.0048	0.0017	mg/Kg	☼	11/11/17 14:00	11/16/17 16:55	1
Vinyl chloride	<0.0019		0.0019	0.00085	mg/Kg	☼	11/11/17 14:00	11/16/17 16:55	1
Xylenes, Total	<0.0039		0.0039	0.00062	mg/Kg	☼	11/11/17 14:00	11/16/17 16:55	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	88		75 - 131	11/11/17 14:00	11/16/17 16:55	1
Dibromofluoromethane	100		75 - 126	11/11/17 14:00	11/16/17 16:55	1
1,2-Dichloroethane-d4 (Surr)	97		70 - 134	11/11/17 14:00	11/16/17 16:55	1
Toluene-d8 (Surr)	98		75 - 124	11/11/17 14:00	11/16/17 16:55	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.034		0.034	0.0061	mg/Kg	☼	11/17/17 07:31	11/20/17 19:28	1
Acenaphthylene	<0.034		0.034	0.0045	mg/Kg	☼	11/17/17 07:31	11/20/17 19:28	1
Anthracene	<0.034		0.034	0.0057	mg/Kg	☼	11/17/17 07:31	11/20/17 19:28	1
Benzo[a]anthracene	<0.034		0.034	0.0046	mg/Kg	☼	11/17/17 07:31	11/20/17 19:28	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137163-3

Client Sample ID: 2696V-53-B01 (0-6)

Lab Sample ID: 500-137163-5

Date Collected: 11/10/17 08:45

Matrix: Solid

Date Received: 11/10/17 15:20

Percent Solids: 92.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	<0.034		0.034	0.0066	mg/Kg	☼	11/17/17 07:31	11/20/17 19:28	1
Benzo[b]fluoranthene	<0.034		0.034	0.0074	mg/Kg	☼	11/17/17 07:31	11/20/17 19:28	1
Benzo[g,h,i]perylene	<0.034		0.034	0.011	mg/Kg	☼	11/17/17 07:31	11/20/17 19:28	1
Benzo[k]fluoranthene	<0.034		0.034	0.010	mg/Kg	☼	11/17/17 07:31	11/20/17 19:28	1
Bis(2-chloroethoxy)methane	<0.17		0.17	0.035	mg/Kg	☼	11/17/17 07:31	11/20/17 19:28	1
Bis(2-chloroethyl)ether	<0.17		0.17	0.051	mg/Kg	☼	11/17/17 07:31	11/20/17 19:28	1
Bis(2-ethylhexyl) phthalate	<0.17		0.17	0.062	mg/Kg	☼	11/17/17 07:31	11/20/17 19:28	1
4-Bromophenyl phenyl ether	<0.17		0.17	0.045	mg/Kg	☼	11/17/17 07:31	11/20/17 19:28	1
Butyl benzyl phthalate	<0.17		0.17	0.065	mg/Kg	☼	11/17/17 07:31	11/20/17 19:28	1
Carbazole	<0.17		0.17	0.085	mg/Kg	☼	11/17/17 07:31	11/20/17 19:28	1
4-Chloroaniline	<0.69		0.69	0.16	mg/Kg	☼	11/17/17 07:31	11/20/17 19:28	1
4-Chloro-3-methylphenol	<0.34		0.34	0.12	mg/Kg	☼	11/17/17 07:31	11/20/17 19:28	1
2-Chloronaphthalene	<0.17		0.17	0.038	mg/Kg	☼	11/17/17 07:31	11/20/17 19:28	1
2-Chlorophenol	<0.17		0.17	0.058	mg/Kg	☼	11/17/17 07:31	11/20/17 19:28	1
4-Chlorophenyl phenyl ether	<0.17		0.17	0.040	mg/Kg	☼	11/17/17 07:31	11/20/17 19:28	1
Chrysene	0.019	J	0.034	0.0093	mg/Kg	☼	11/17/17 07:31	11/20/17 19:28	1
Dibenz(a,h)anthracene	<0.034		0.034	0.0066	mg/Kg	☼	11/17/17 07:31	11/20/17 19:28	1
Dibenzofuran	<0.17		0.17	0.040	mg/Kg	☼	11/17/17 07:31	11/20/17 19:28	1
1,2-Dichlorobenzene	<0.17		0.17	0.041	mg/Kg	☼	11/17/17 07:31	11/20/17 19:28	1
1,3-Dichlorobenzene	<0.17		0.17	0.038	mg/Kg	☼	11/17/17 07:31	11/20/17 19:28	1
1,4-Dichlorobenzene	<0.17		0.17	0.044	mg/Kg	☼	11/17/17 07:31	11/20/17 19:28	1
3,3'-Dichlorobenzidine	<0.17		0.17	0.048	mg/Kg	☼	11/17/17 07:31	11/20/17 19:28	1
2,4-Dichlorophenol	<0.34		0.34	0.081	mg/Kg	☼	11/17/17 07:31	11/20/17 19:28	1
Diethyl phthalate	<0.17		0.17	0.058	mg/Kg	☼	11/17/17 07:31	11/20/17 19:28	1
2,4-Dimethylphenol	<0.34		0.34	0.13	mg/Kg	☼	11/17/17 07:31	11/20/17 19:28	1
Dimethyl phthalate	<0.17		0.17	0.045	mg/Kg	☼	11/17/17 07:31	11/20/17 19:28	1
Di-n-butyl phthalate	<0.17		0.17	0.052	mg/Kg	☼	11/17/17 07:31	11/20/17 19:28	1
4,6-Dinitro-2-methylphenol	<0.69		0.69	0.27	mg/Kg	☼	11/17/17 07:31	11/20/17 19:28	1
2,4-Dinitrophenol	<0.69		0.69	0.60	mg/Kg	☼	11/17/17 07:31	11/20/17 19:28	1
2,4-Dinitrotoluene	<0.17		0.17	0.054	mg/Kg	☼	11/17/17 07:31	11/20/17 19:28	1
2,6-Dinitrotoluene	<0.17		0.17	0.067	mg/Kg	☼	11/17/17 07:31	11/20/17 19:28	1
Di-n-octyl phthalate	<0.17		0.17	0.056	mg/Kg	☼	11/17/17 07:31	11/20/17 19:28	1
Fluoranthene	0.0075	J	0.034	0.0063	mg/Kg	☼	11/17/17 07:31	11/20/17 19:28	1
Fluorene	<0.034		0.034	0.0048	mg/Kg	☼	11/17/17 07:31	11/20/17 19:28	1
Hexachlorobenzene	<0.069		0.069	0.0079	mg/Kg	☼	11/17/17 07:31	11/20/17 19:28	1
Hexachlorobutadiene	<0.17		0.17	0.054	mg/Kg	☼	11/17/17 07:31	11/20/17 19:28	1
Hexachlorocyclopentadiene	<0.69		0.69	0.20	mg/Kg	☼	11/17/17 07:31	11/20/17 19:28	1
Hexachloroethane	<0.17		0.17	0.052	mg/Kg	☼	11/17/17 07:31	11/20/17 19:28	1
Indeno[1,2,3-cd]pyrene	<0.034		0.034	0.0089	mg/Kg	☼	11/17/17 07:31	11/20/17 19:28	1
Isophorone	<0.17		0.17	0.038	mg/Kg	☼	11/17/17 07:31	11/20/17 19:28	1
2-Methylnaphthalene	0.012	J	0.069	0.0063	mg/Kg	☼	11/17/17 07:31	11/20/17 19:28	1
2-Methylphenol	<0.17		0.17	0.055	mg/Kg	☼	11/17/17 07:31	11/20/17 19:28	1
3 & 4 Methylphenol	<0.17		0.17	0.057	mg/Kg	☼	11/17/17 07:31	11/20/17 19:28	1
Naphthalene	<0.034		0.034	0.0053	mg/Kg	☼	11/17/17 07:31	11/20/17 19:28	1
2-Nitroaniline	<0.17		0.17	0.046	mg/Kg	☼	11/17/17 07:31	11/20/17 19:28	1
3-Nitroaniline	<0.34		0.34	0.11	mg/Kg	☼	11/17/17 07:31	11/20/17 19:28	1
4-Nitroaniline	<0.34		0.34	0.14	mg/Kg	☼	11/17/17 07:31	11/20/17 19:28	1
Nitrobenzene	<0.034		0.034	0.0085	mg/Kg	☼	11/17/17 07:31	11/20/17 19:28	1
2-Nitrophenol	<0.34		0.34	0.081	mg/Kg	☼	11/17/17 07:31	11/20/17 19:28	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137163-3

Client Sample ID: 2696V-53-B01 (0-6)

Lab Sample ID: 500-137163-5

Date Collected: 11/10/17 08:45

Matrix: Solid

Date Received: 11/10/17 15:20

Percent Solids: 92.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Nitrophenol	<0.69		0.69	0.33	mg/Kg	☼	11/17/17 07:31	11/20/17 19:28	1
N-Nitrosodi-n-propylamine	<0.069		0.069	0.042	mg/Kg	☼	11/17/17 07:31	11/20/17 19:28	1
N-Nitrosodiphenylamine	<0.17		0.17	0.040	mg/Kg	☼	11/17/17 07:31	11/20/17 19:28	1
2,2'-oxybis[1-chloropropane]	<0.17		0.17	0.040	mg/Kg	☼	11/17/17 07:31	11/20/17 19:28	1
Pentachlorophenol	<0.69		0.69	0.55	mg/Kg	☼	11/17/17 07:31	11/20/17 19:28	1
Phenanthrene	0.019	J	0.034	0.0048	mg/Kg	☼	11/17/17 07:31	11/20/17 19:28	1
Phenol	<0.17		0.17	0.076	mg/Kg	☼	11/17/17 07:31	11/20/17 19:28	1
Pyrene	0.019	J	0.034	0.0068	mg/Kg	☼	11/17/17 07:31	11/20/17 19:28	1
1,2,4-Trichlorobenzene	<0.17		0.17	0.037	mg/Kg	☼	11/17/17 07:31	11/20/17 19:28	1
2,4,5-Trichlorophenol	<0.34		0.34	0.078	mg/Kg	☼	11/17/17 07:31	11/20/17 19:28	1
2,4,6-Trichlorophenol	<0.34		0.34	0.12	mg/Kg	☼	11/17/17 07:31	11/20/17 19:28	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	102		44 - 121	11/17/17 07:31	11/20/17 19:28	1
2-Fluorophenol	102		46 - 133	11/17/17 07:31	11/20/17 19:28	1
Nitrobenzene-d5	102		41 - 120	11/17/17 07:31	11/20/17 19:28	1
Phenol-d5	105		46 - 125	11/17/17 07:31	11/20/17 19:28	1
Terphenyl-d14	107		35 - 160	11/17/17 07:31	11/20/17 19:28	1
2,4,6-Tribromophenol	83		25 - 139	11/17/17 07:31	11/20/17 19:28	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.0		1.0	0.20	mg/Kg	☼	11/14/17 16:15	11/15/17 13:09	1
Arsenic	6.2		0.52	0.18	mg/Kg	☼	11/14/17 16:15	11/15/17 13:09	1
Barium	14		0.52	0.060	mg/Kg	☼	11/14/17 16:15	11/15/17 13:09	1
Beryllium	0.36		0.21	0.049	mg/Kg	☼	11/14/17 16:15	11/15/17 13:09	1
Cadmium	0.16	B	0.10	0.019	mg/Kg	☼	11/14/17 16:15	11/15/17 13:09	1
Chromium	6.7		0.52	0.26	mg/Kg	☼	11/14/17 16:15	11/15/17 13:09	1
Cobalt	7.4		0.26	0.069	mg/Kg	☼	11/14/17 16:15	11/15/17 13:09	1
Copper	20		0.52	0.15	mg/Kg	☼	11/14/17 16:15	11/15/17 13:09	1
Iron	16000	B	10	5.4	mg/Kg	☼	11/14/17 16:15	11/15/17 13:09	1
Lead	12		0.26	0.12	mg/Kg	☼	11/14/17 16:15	11/15/17 13:09	1
Magnesium	48000	B	5.2	2.6	mg/Kg	☼	11/14/17 16:15	11/15/17 13:09	1
Calcium	130000	B	100	18	mg/Kg	☼	11/14/17 16:15	11/15/17 20:25	10
Manganese	470	B	0.52	0.076	mg/Kg	☼	11/14/17 16:15	11/15/17 13:09	1
Nickel	19		0.52	0.15	mg/Kg	☼	11/14/17 16:15	11/15/17 13:09	1
Selenium	0.53		0.52	0.31	mg/Kg	☼	11/14/17 16:15	11/15/17 13:09	1
Silver	<0.26		0.26	0.068	mg/Kg	☼	11/14/17 16:15	11/15/17 13:09	1
Thallium	<0.52		0.52	0.26	mg/Kg	☼	11/14/17 16:15	11/15/17 13:09	1
Vanadium	10		0.26	0.062	mg/Kg	☼	11/14/17 16:15	11/15/17 13:09	1
Zinc	43		1.0	0.46	mg/Kg	☼	11/14/17 16:15	11/15/17 13:09	1
Potassium	1100		26	9.3	mg/Kg	☼	11/14/17 16:15	11/15/17 13:09	1
Sodium	270		52	7.7	mg/Kg	☼	11/14/17 16:15	11/15/17 13:09	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.050		0.050	0.010	mg/L		11/17/17 09:02	11/17/17 16:55	1
Barium	0.18	J	0.50	0.050	mg/L		11/17/17 09:02	11/17/17 16:55	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		11/17/17 09:02	11/17/17 16:55	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		11/17/17 09:02	11/17/17 16:55	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137163-3

Client Sample ID: 2696V-53-B01 (0-6)

Lab Sample ID: 500-137163-5

Date Collected: 11/10/17 08:45

Matrix: Solid

Date Received: 11/10/17 15:20

Percent Solids: 92.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	430		5.0	0.50	mg/L		11/17/17 09:02	11/17/17 16:55	1
Chromium	<0.025		0.025	0.010	mg/L		11/17/17 09:02	11/17/17 16:55	1
Cobalt	0.038		0.025	0.010	mg/L		11/17/17 09:02	11/17/17 16:55	1
Copper	<0.040		0.040	0.010	mg/L		11/17/17 09:02	11/17/17 16:55	1
Iron	<0.40		0.40	0.20	mg/L		11/17/17 09:02	11/17/17 16:55	1
Lead	<0.0075		0.0075	0.0075	mg/L		11/17/17 09:02	11/17/17 16:55	1
Magnesium	190		2.5	0.50	mg/L		11/17/17 09:02	11/17/17 16:55	1
Manganese	3.3		0.025	0.010	mg/L		11/17/17 09:02	11/17/17 16:55	1
Nickel	0.043		0.025	0.010	mg/L		11/17/17 09:02	11/17/17 16:55	1
Potassium	2.4 J		2.5	0.50	mg/L		11/17/17 09:02	11/17/17 16:55	1
Selenium	<0.050		0.050	0.020	mg/L		11/17/17 09:02	11/17/17 16:55	1
Silver	<0.025		0.025	0.010	mg/L		11/17/17 09:02	11/17/17 16:55	1
Vanadium	<0.025		0.025	0.010	mg/L		11/17/17 09:02	11/17/17 16:55	1
Zinc	0.028 J B ^		0.50	0.020	mg/L		11/17/17 09:02	11/17/17 16:55	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		11/20/17 07:21	11/20/17 20:18	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		11/17/17 09:02	11/18/17 04:06	1
Thallium	<0.0020		0.0020	0.0020	mg/L		11/17/17 09:02	11/18/17 04:06	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		11/18/17 14:00	11/20/17 09:16	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.024		0.017	0.0057	mg/Kg	☼	11/20/17 07:30	11/20/17 14:41	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.51		0.51	0.18	mg/Kg	☼	11/21/17 13:15	11/21/17 16:33	1
pH	7.7		0.20	0.20	SU			11/20/17 10:37	1

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137163-3

Client Sample ID: 2696V-53-B02 (0-6)

Lab Sample ID: 500-137163-6

Date Collected: 11/10/17 08:30

Matrix: Solid

Date Received: 11/10/17 15:20

Percent Solids: 91.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.020		0.020	0.0088	mg/Kg	☼	11/11/17 14:00	11/16/17 17:20	1
Benzene	<0.0020		0.0020	0.00051	mg/Kg	☼	11/11/17 14:00	11/16/17 17:20	1
Bromodichloromethane	<0.0020		0.0020	0.00041	mg/Kg	☼	11/11/17 14:00	11/16/17 17:20	1
Bromoform	<0.0020		0.0020	0.00059	mg/Kg	☼	11/11/17 14:00	11/16/17 17:20	1
Bromomethane	<0.0050		0.0050	0.0019	mg/Kg	☼	11/11/17 14:00	11/16/17 17:20	1
2-Butanone (MEK)	<0.0050		0.0050	0.0022	mg/Kg	☼	11/11/17 14:00	11/16/17 17:20	1
Carbon disulfide	<0.0050		0.0050	0.0010	mg/Kg	☼	11/11/17 14:00	11/16/17 17:20	1
Carbon tetrachloride	<0.0020		0.0020	0.00058	mg/Kg	☼	11/11/17 14:00	11/16/17 17:20	1
Chlorobenzene	<0.0020		0.0020	0.00074	mg/Kg	☼	11/11/17 14:00	11/16/17 17:20	1
Chloroethane	<0.0050		0.0050	0.0015	mg/Kg	☼	11/11/17 14:00	11/16/17 17:20	1
Chloroform	<0.0020		0.0020	0.00070	mg/Kg	☼	11/11/17 14:00	11/16/17 17:20	1
Chloromethane	<0.0050		0.0050	0.0020	mg/Kg	☼	11/11/17 14:00	11/16/17 17:20	1
cis-1,2-Dichloroethene	<0.0020		0.0020	0.00056	mg/Kg	☼	11/11/17 14:00	11/16/17 17:20	1
cis-1,3-Dichloropropene	<0.0020		0.0020	0.00061	mg/Kg	☼	11/11/17 14:00	11/16/17 17:20	1
Dibromochloromethane	<0.0020		0.0020	0.00066	mg/Kg	☼	11/11/17 14:00	11/16/17 17:20	1
1,1-Dichloroethane	<0.0020		0.0020	0.00069	mg/Kg	☼	11/11/17 14:00	11/16/17 17:20	1
1,2-Dichloroethane	<0.0050		0.0050	0.0016	mg/Kg	☼	11/11/17 14:00	11/16/17 17:20	1
1,1-Dichloroethene	<0.0020		0.0020	0.00069	mg/Kg	☼	11/11/17 14:00	11/16/17 17:20	1
1,2-Dichloropropane	<0.0020		0.0020	0.00052	mg/Kg	☼	11/11/17 14:00	11/16/17 17:20	1
1,3-Dichloropropane, Total	<0.0020		0.0020	0.00071	mg/Kg	☼	11/11/17 14:00	11/16/17 17:20	1
Ethylbenzene	<0.0020		0.0020	0.00097	mg/Kg	☼	11/11/17 14:00	11/16/17 17:20	1
2-Hexanone	<0.0050		0.0050	0.0016	mg/Kg	☼	11/11/17 14:00	11/16/17 17:20	1
Methylene Chloride	<0.0050		0.0050	0.0020	mg/Kg	☼	11/11/17 14:00	11/16/17 17:20	1
4-Methyl-2-pentanone (MIBK)	<0.0050		0.0050	0.0015	mg/Kg	☼	11/11/17 14:00	11/16/17 17:20	1
Methyl tert-butyl ether	<0.0020		0.0020	0.00059	mg/Kg	☼	11/11/17 14:00	11/16/17 17:20	1
Styrene	<0.0020		0.0020	0.00061	mg/Kg	☼	11/11/17 14:00	11/16/17 17:20	1
1,1,2,2-Tetrachloroethane	<0.0020		0.0020	0.00064	mg/Kg	☼	11/11/17 14:00	11/16/17 17:20	1
Tetrachloroethene	<0.0020		0.0020	0.00069	mg/Kg	☼	11/11/17 14:00	11/16/17 17:20	1
Toluene	<0.0020		0.0020	0.00051	mg/Kg	☼	11/11/17 14:00	11/16/17 17:20	1
trans-1,2-Dichloroethene	<0.0020		0.0020	0.00089	mg/Kg	☼	11/11/17 14:00	11/16/17 17:20	1
trans-1,3-Dichloropropene	<0.0020		0.0020	0.00071	mg/Kg	☼	11/11/17 14:00	11/16/17 17:20	1
1,1,1-Trichloroethane	<0.0020		0.0020	0.00068	mg/Kg	☼	11/11/17 14:00	11/16/17 17:20	1
1,1,2-Trichloroethane	<0.0020		0.0020	0.00087	mg/Kg	☼	11/11/17 14:00	11/16/17 17:20	1
Trichloroethene	<0.0020		0.0020	0.00068	mg/Kg	☼	11/11/17 14:00	11/16/17 17:20	1
Vinyl acetate	<0.0050		0.0050	0.0018	mg/Kg	☼	11/11/17 14:00	11/16/17 17:20	1
Vinyl chloride	<0.0020		0.0020	0.00089	mg/Kg	☼	11/11/17 14:00	11/16/17 17:20	1
Xylenes, Total	<0.0040		0.0040	0.00065	mg/Kg	☼	11/11/17 14:00	11/16/17 17:20	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	90		75 - 131	11/11/17 14:00	11/16/17 17:20	1
Dibromofluoromethane	98		75 - 126	11/11/17 14:00	11/16/17 17:20	1
1,2-Dichloroethane-d4 (Surr)	97		70 - 134	11/11/17 14:00	11/16/17 17:20	1
Toluene-d8 (Surr)	96		75 - 124	11/11/17 14:00	11/16/17 17:20	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.036		0.036	0.0064	mg/Kg	☼	11/17/17 07:31	11/20/17 15:48	1
Acenaphthylene	<0.036		0.036	0.0047	mg/Kg	☼	11/17/17 07:31	11/20/17 15:48	1
Anthracene	<0.036		0.036	0.0060	mg/Kg	☼	11/17/17 07:31	11/20/17 15:48	1
Benzo[a]anthracene	<0.036		0.036	0.0048	mg/Kg	☼	11/17/17 07:31	11/20/17 15:48	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137163-3

Client Sample ID: 2696V-53-B02 (0-6)

Lab Sample ID: 500-137163-6

Date Collected: 11/10/17 08:30

Matrix: Solid

Date Received: 11/10/17 15:20

Percent Solids: 91.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	<0.036		0.036	0.0069	mg/Kg	☼	11/17/17 07:31	11/20/17 15:48	1
Benzo[b]fluoranthene	<0.036		0.036	0.0077	mg/Kg	☼	11/17/17 07:31	11/20/17 15:48	1
Benzo[g,h,i]perylene	<0.036		0.036	0.012	mg/Kg	☼	11/17/17 07:31	11/20/17 15:48	1
Benzo[k]fluoranthene	<0.036		0.036	0.011	mg/Kg	☼	11/17/17 07:31	11/20/17 15:48	1
Bis(2-chloroethoxy)methane	<0.18		0.18	0.037	mg/Kg	☼	11/17/17 07:31	11/20/17 15:48	1
Bis(2-chloroethyl)ether	<0.18		0.18	0.054	mg/Kg	☼	11/17/17 07:31	11/20/17 15:48	1
Bis(2-ethylhexyl) phthalate	<0.18		0.18	0.065	mg/Kg	☼	11/17/17 07:31	11/20/17 15:48	1
4-Bromophenyl phenyl ether	<0.18		0.18	0.047	mg/Kg	☼	11/17/17 07:31	11/20/17 15:48	1
Butyl benzyl phthalate	<0.18		0.18	0.068	mg/Kg	☼	11/17/17 07:31	11/20/17 15:48	1
Carbazole	<0.18		0.18	0.089	mg/Kg	☼	11/17/17 07:31	11/20/17 15:48	1
4-Chloroaniline	<0.72		0.72	0.17	mg/Kg	☼	11/17/17 07:31	11/20/17 15:48	1
4-Chloro-3-methylphenol	<0.36		0.36	0.12	mg/Kg	☼	11/17/17 07:31	11/20/17 15:48	1
2-Chloronaphthalene	<0.18		0.18	0.040	mg/Kg	☼	11/17/17 07:31	11/20/17 15:48	1
2-Chlorophenol	<0.18		0.18	0.061	mg/Kg	☼	11/17/17 07:31	11/20/17 15:48	1
4-Chlorophenyl phenyl ether	<0.18		0.18	0.042	mg/Kg	☼	11/17/17 07:31	11/20/17 15:48	1
Chrysene	<0.036		0.036	0.0098	mg/Kg	☼	11/17/17 07:31	11/20/17 15:48	1
Dibenz(a,h)anthracene	<0.036		0.036	0.0069	mg/Kg	☼	11/17/17 07:31	11/20/17 15:48	1
Dibenzofuran	<0.18		0.18	0.042	mg/Kg	☼	11/17/17 07:31	11/20/17 15:48	1
1,2-Dichlorobenzene	<0.18		0.18	0.043	mg/Kg	☼	11/17/17 07:31	11/20/17 15:48	1
1,3-Dichlorobenzene	<0.18		0.18	0.040	mg/Kg	☼	11/17/17 07:31	11/20/17 15:48	1
1,4-Dichlorobenzene	<0.18		0.18	0.046	mg/Kg	☼	11/17/17 07:31	11/20/17 15:48	1
3,3'-Dichlorobenzidine	<0.18		0.18	0.050	mg/Kg	☼	11/17/17 07:31	11/20/17 15:48	1
2,4-Dichlorophenol	<0.36		0.36	0.085	mg/Kg	☼	11/17/17 07:31	11/20/17 15:48	1
Diethyl phthalate	<0.18		0.18	0.061	mg/Kg	☼	11/17/17 07:31	11/20/17 15:48	1
2,4-Dimethylphenol	<0.36		0.36	0.14	mg/Kg	☼	11/17/17 07:31	11/20/17 15:48	1
Dimethyl phthalate	<0.18		0.18	0.047	mg/Kg	☼	11/17/17 07:31	11/20/17 15:48	1
Di-n-butyl phthalate	<0.18		0.18	0.055	mg/Kg	☼	11/17/17 07:31	11/20/17 15:48	1
4,6-Dinitro-2-methylphenol	<0.72		0.72	0.29	mg/Kg	☼	11/17/17 07:31	11/20/17 15:48	1
2,4-Dinitrophenol	<0.72		0.72	0.63	mg/Kg	☼	11/17/17 07:31	11/20/17 15:48	1
2,4-Dinitrotoluene	<0.18		0.18	0.057	mg/Kg	☼	11/17/17 07:31	11/20/17 15:48	1
2,6-Dinitrotoluene	<0.18		0.18	0.070	mg/Kg	☼	11/17/17 07:31	11/20/17 15:48	1
Di-n-octyl phthalate	<0.18		0.18	0.058	mg/Kg	☼	11/17/17 07:31	11/20/17 15:48	1
Fluoranthene	<0.036		0.036	0.0066	mg/Kg	☼	11/17/17 07:31	11/20/17 15:48	1
Fluorene	<0.036		0.036	0.0050	mg/Kg	☼	11/17/17 07:31	11/20/17 15:48	1
Hexachlorobenzene	<0.072		0.072	0.0083	mg/Kg	☼	11/17/17 07:31	11/20/17 15:48	1
Hexachlorobutadiene	<0.18		0.18	0.056	mg/Kg	☼	11/17/17 07:31	11/20/17 15:48	1
Hexachlorocyclopentadiene	<0.72		0.72	0.21	mg/Kg	☼	11/17/17 07:31	11/20/17 15:48	1
Hexachloroethane	<0.18		0.18	0.054	mg/Kg	☼	11/17/17 07:31	11/20/17 15:48	1
Indeno[1,2,3-cd]pyrene	<0.036		0.036	0.0093	mg/Kg	☼	11/17/17 07:31	11/20/17 15:48	1
Isophorone	<0.18		0.18	0.040	mg/Kg	☼	11/17/17 07:31	11/20/17 15:48	1
2-Methylnaphthalene	<0.072		0.072	0.0066	mg/Kg	☼	11/17/17 07:31	11/20/17 15:48	1
2-Methylphenol	<0.18		0.18	0.057	mg/Kg	☼	11/17/17 07:31	11/20/17 15:48	1
3 & 4 Methylphenol	<0.18		0.18	0.060	mg/Kg	☼	11/17/17 07:31	11/20/17 15:48	1
Naphthalene	<0.036		0.036	0.0055	mg/Kg	☼	11/17/17 07:31	11/20/17 15:48	1
2-Nitroaniline	<0.18		0.18	0.048	mg/Kg	☼	11/17/17 07:31	11/20/17 15:48	1
3-Nitroaniline	<0.36		0.36	0.11	mg/Kg	☼	11/17/17 07:31	11/20/17 15:48	1
4-Nitroaniline	<0.36		0.36	0.15	mg/Kg	☼	11/17/17 07:31	11/20/17 15:48	1
Nitrobenzene	<0.036		0.036	0.0089	mg/Kg	☼	11/17/17 07:31	11/20/17 15:48	1
2-Nitrophenol	<0.36		0.36	0.085	mg/Kg	☼	11/17/17 07:31	11/20/17 15:48	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137163-3

Client Sample ID: 2696V-53-B02 (0-6)

Lab Sample ID: 500-137163-6

Date Collected: 11/10/17 08:30

Matrix: Solid

Date Received: 11/10/17 15:20

Percent Solids: 91.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Nitrophenol	<0.72		0.72	0.34	mg/Kg	☼	11/17/17 07:31	11/20/17 15:48	1
N-Nitrosodi-n-propylamine	<0.072		0.072	0.044	mg/Kg	☼	11/17/17 07:31	11/20/17 15:48	1
N-Nitrosodiphenylamine	<0.18		0.18	0.042	mg/Kg	☼	11/17/17 07:31	11/20/17 15:48	1
2,2'-oxybis[1-chloropropane]	<0.18		0.18	0.042	mg/Kg	☼	11/17/17 07:31	11/20/17 15:48	1
Pentachlorophenol	<0.72		0.72	0.57	mg/Kg	☼	11/17/17 07:31	11/20/17 15:48	1
Phenanthrene	<0.036		0.036	0.0050	mg/Kg	☼	11/17/17 07:31	11/20/17 15:48	1
Phenol	<0.18		0.18	0.080	mg/Kg	☼	11/17/17 07:31	11/20/17 15:48	1
Pyrene	<0.036		0.036	0.0071	mg/Kg	☼	11/17/17 07:31	11/20/17 15:48	1
1,2,4-Trichlorobenzene	<0.18		0.18	0.039	mg/Kg	☼	11/17/17 07:31	11/20/17 15:48	1
2,4,5-Trichlorophenol	<0.36		0.36	0.082	mg/Kg	☼	11/17/17 07:31	11/20/17 15:48	1
2,4,6-Trichlorophenol	<0.36		0.36	0.12	mg/Kg	☼	11/17/17 07:31	11/20/17 15:48	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	97		44 - 121	11/17/17 07:31	11/20/17 15:48	1
2-Fluorophenol	100		46 - 133	11/17/17 07:31	11/20/17 15:48	1
Nitrobenzene-d5	97		41 - 120	11/17/17 07:31	11/20/17 15:48	1
Phenol-d5	104		46 - 125	11/17/17 07:31	11/20/17 15:48	1
Terphenyl-d14	105		35 - 160	11/17/17 07:31	11/20/17 15:48	1
2,4,6-Tribromophenol	63		25 - 139	11/17/17 07:31	11/20/17 15:48	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.0		1.0	0.20	mg/Kg	☼	11/14/17 16:15	11/15/17 13:13	1
Arsenic	9.2		0.50	0.17	mg/Kg	☼	11/14/17 16:15	11/15/17 13:13	1
Barium	56		0.50	0.058	mg/Kg	☼	11/14/17 16:15	11/15/17 13:13	1
Beryllium	0.30		0.20	0.047	mg/Kg	☼	11/14/17 16:15	11/15/17 13:13	1
Cadmium	0.62	B	0.10	0.018	mg/Kg	☼	11/14/17 16:15	11/15/17 13:13	1
Chromium	8.5		0.50	0.25	mg/Kg	☼	11/14/17 16:15	11/15/17 13:13	1
Cobalt	6.3		0.25	0.066	mg/Kg	☼	11/14/17 16:15	11/15/17 13:13	1
Copper	16		0.50	0.14	mg/Kg	☼	11/14/17 16:15	11/15/17 13:13	1
Iron	18000	B	10	5.2	mg/Kg	☼	11/14/17 16:15	11/15/17 13:13	1
Lead	15		0.25	0.12	mg/Kg	☼	11/14/17 16:15	11/15/17 13:13	1
Magnesium	8300	B	5.0	2.5	mg/Kg	☼	11/14/17 16:15	11/15/17 13:13	1
Calcium	13000	B	10	1.7	mg/Kg	☼	11/14/17 16:15	11/15/17 13:13	1
Manganese	410	B	0.50	0.073	mg/Kg	☼	11/14/17 16:15	11/15/17 13:13	1
Nickel	16		0.50	0.15	mg/Kg	☼	11/14/17 16:15	11/15/17 13:13	1
Selenium	0.52		0.50	0.30	mg/Kg	☼	11/14/17 16:15	11/15/17 13:13	1
Silver	<0.25		0.25	0.065	mg/Kg	☼	11/14/17 16:15	11/15/17 13:13	1
Thallium	<0.50		0.50	0.25	mg/Kg	☼	11/14/17 16:15	11/15/17 13:13	1
Vanadium	14		0.25	0.060	mg/Kg	☼	11/14/17 16:15	11/15/17 13:13	1
Zinc	540		1.0	0.44	mg/Kg	☼	11/14/17 16:15	11/15/17 13:13	1
Potassium	920		25	8.9	mg/Kg	☼	11/14/17 16:15	11/15/17 13:13	1
Sodium	620		50	7.5	mg/Kg	☼	11/14/17 16:15	11/15/17 13:13	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.050		0.050	0.010	mg/L		11/17/17 09:02	11/17/17 16:59	1
Barium	0.13	J	0.50	0.050	mg/L		11/17/17 09:02	11/17/17 16:59	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		11/17/17 09:02	11/17/17 16:59	1
Cadmium	0.017		0.0050	0.0020	mg/L		11/17/17 09:02	11/17/17 16:59	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137163-3

Client Sample ID: 2696V-53-B02 (0-6)

Lab Sample ID: 500-137163-6

Date Collected: 11/10/17 08:30

Matrix: Solid

Date Received: 11/10/17 15:20

Percent Solids: 91.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	250		5.0	0.50	mg/L		11/17/17 09:02	11/17/17 16:59	1
Chromium	<0.025		0.025	0.010	mg/L		11/17/17 09:02	11/17/17 16:59	1
Cobalt	<0.025		0.025	0.010	mg/L		11/17/17 09:02	11/17/17 16:59	1
Copper	0.036	J B	0.040	0.010	mg/L		11/17/17 09:02	11/17/17 16:59	1
Iron	<0.40		0.40	0.20	mg/L		11/17/17 09:02	11/17/17 16:59	1
Lead	<0.0075		0.0075	0.0075	mg/L		11/17/17 09:02	11/17/17 16:59	1
Magnesium	120		2.5	0.50	mg/L		11/17/17 09:02	11/17/17 16:59	1
Manganese	1.2		0.025	0.010	mg/L		11/17/17 09:02	11/17/17 16:59	1
Nickel	0.013	J	0.025	0.010	mg/L		11/17/17 09:02	11/17/17 16:59	1
Potassium	0.98	J	2.5	0.50	mg/L		11/17/17 09:02	11/17/17 16:59	1
Selenium	<0.050		0.050	0.020	mg/L		11/17/17 09:02	11/17/17 16:59	1
Silver	<0.025		0.025	0.010	mg/L		11/17/17 09:02	11/17/17 16:59	1
Vanadium	<0.025		0.025	0.010	mg/L		11/17/17 09:02	11/17/17 16:59	1
Zinc	5.8		0.50	0.020	mg/L		11/17/17 09:02	11/18/17 23:36	1

Method: 6010B - SPLP Metals - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	0.0031	J	0.0050	0.0020	mg/L		11/20/17 07:21	11/20/17 20:22	1
Manganese	0.41		0.025	0.010	mg/L		11/20/17 07:21	11/20/17 20:22	1
Zinc	2.7		0.10	0.020	mg/L		11/20/17 07:21	11/20/17 20:22	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		11/17/17 09:02	11/18/17 04:10	1
Thallium	<0.0020		0.0020	0.0020	mg/L		11/17/17 09:02	11/18/17 04:10	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		11/18/17 14:00	11/20/17 09:18	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.019		0.016	0.0054	mg/Kg	☼	11/20/17 07:30	11/20/17 14:43	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.50		0.50	0.17	mg/Kg	☼	11/21/17 13:15	11/21/17 16:33	1
pH	8.4		0.20	0.20	SU			11/20/17 10:39	1

Definitions/Glossary

Client: Terracon Consulting Eng & Scientists
Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137163-3

Qualifiers

GC/MS Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

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

Glossary

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

Accreditation/Certification Summary

Client: Terracon Consulting Eng & Scientists
Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137163-3

Laboratory: TestAmerica Chicago

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

Authority	Program	EPA Region	Identification Number	Expiration Date
Illinois	NELAP	5	100201	04-30-18

The following analytes are included in this report, but accreditation/certification is not offered by the governing authority:

Analysis Method	Prep Method	Matrix	Analyte
6020A	3010A	Solid	Antimony
6020A	3010A	Solid	Thallium
8260B	5035	Solid	1,3-Dichloropropene, Total
9045D		Solid	pH
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

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

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

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

Chain of Custody Record

Lab Job #: 500-137163
 Chain of Custody Number: _____
 Page 1 of 1
 Temperature °C of Cooler: 5.0, 3.4

Client		Client Project #		Preservative		Parameter		Comments	
<u>TERRACON</u>		<u>11177029M</u>						Preservative Key 1. HCL, Cool to 4° 2. H2SO4, Cool to 4° 3. HNO3, Cool to 4° 4. NaOH, Cool to 4° 5. NaOH/Zn, Cool to 4° 6. NaHSO4 7. Cool to 4° 8. None 9. Other	
Project Name		Project Location/State		Lab Project #		Lab PM			
<u>WORK ORDER # 037</u>		<u>MARKHAM, IL</u>				<u>DICK WALSH</u>			
Sampler		Sampling		# of Containers		Matrix			
<u>CRAIG VARLAND</u>		Date Time							
Lab ID	MS/MSD	Sample ID	Date	Time	# of Containers	Matrix	Parameter	Parameter	Comments
<u>5</u>		<u>2696V-53-801-(0-6)</u>	<u>11-10-17</u>	<u>0845</u>	<u>5</u>	<u>S</u>	<u>VOCS</u>	<u>SNOGS</u>	
<u>6</u>		<u>2696V-53-802-(0-6)</u>	<u>11-10-17</u>	<u>0830</u>	<u>5</u>	<u>S</u>	<u>VOCS</u>	<u>SNOGS</u>	
		<u>2696V-53-801</u> <u>(AV)</u>							

Turnaround Time Required (Business Days)

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

Sample Disposal

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

Relinquished By: <u>[Signature]</u> Company: <u>TERRACON</u> Date: <u>11-10-17</u> Time: <u>1950</u>	Received By: <u>[Signature]</u> Company: <u>TA</u> Date: <u>11/10/17</u> Time: <u>1950</u>
Relinquished By: <u>[Signature]</u> Company: <u>TA</u> Date: <u>11/10/17</u> Time: <u>1520</u>	Received By: <u>[Signature]</u> Company: <u>TERRACON</u> Date: <u>11/10/17</u> Time: <u>1520</u>

Lab Courier: TA
 Shipped: _____
 Hand Delivered: _____

Matrix Key

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

Client Comments

NO ALUMINUM

Lab Comments:

Login Sample Receipt Checklist

Client: Terracon Consulting Eng & Scientists

Job Number: 500-137163-3

Login Number: 137163

List Source: TestAmerica Chicago

List Number: 1

Creator: Sanchez, Ariel 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	3.4, 5.0
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	





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 351-US Rte 6 at Pulaski/Crawford & Kedzie Office Phone Number, if available: _____

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

Pulaski Road (Northbound) IDOT STA 69+70 to 71+30 (ISGS Site 2696V-57)

City: Oak Forest/Markham State: IL Zip Code: 60428

County: Cook Township: Bremen

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

Latitude: 41.60367 Longitude: -87.71682
(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: 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 Phone: 847-705-4122

Zip Code: 60196 Phone: 847-705-4122

Contact: Paul Nickles

Contact: Paul Nickles

Email, if available: paul.nickles@illinois.gov

Email, if available: paul.nickles@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

Project Name: FAP 351-US Rte 6 at Pulaski/Crawford & Kedzie

Latitude: 41.60367 Longitude: -87.71682

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)]:

Soil from boring B01 was sampled adjacent to ISGS Site No 2696V-57.
See Exhibits 5, 5A, and Table 71 of the Preliminary Site Investigation Report prepared by Terracon.

- 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]:

TestAmerica Lab Report No J137163-5
Also see Preliminary Site Investigation Report prepared by Terracon. CCDD/USFO facility in MSA County.

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

I, Matt Weiss (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: Terracon Consultants, Inc

Street Address: 135 Ambassador Drive

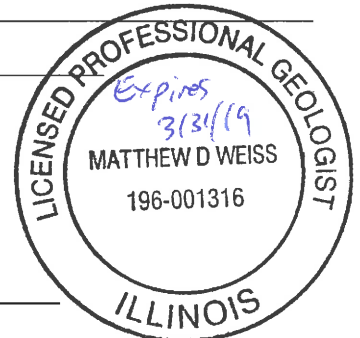
City: Naperville State: IL Zip Code: 60540

Phone: 630-717-4263

Matt Weiss
Printed Name:

[Signature]
Licensed Professional Engineer or
Licensed Professional Geologist Signature:

7/24/18
Date:



Detected Constituents to MACs-PTB 174-009;Work Order:037A
Preliminary Site Investigation
FAP 351-US Rte 6 at S. Pulaski/Crawford + Kedzie (PESA #2696V-57)
Oak Forest/Markham, Cook County, IL
Terracon Project No. 11177029M
Page 1 of 2

Analyte	Units	Background		Maximum Allowed Concentration	Sample Identification	2696V-57-B01 (0-1)	2696V-57-B01 (0-1) Dup
				CCDD	Sample Depth (feet)	(0-1)	(0-1)
		Chicago	MSAs	mg/kg pH 6.25-9.0	Date Collected	11/10/2017	11/10/2017
Semivolatile Organic Analytical Parameters							
Acenaphthene	mg/kg	0.09	0.13	570		0.018	0.044
Acenaphthylene	mg/kg	0.03	0.07	85		0.01	0.012
Anthracene	mg/kg	0.25	0.4	12000		0.072	0.13
Benzo(a)anthracene	mg/kg	1.1	1.8	0.9		0.51	0.7
Benzo(a)pyrene	mg/kg	1.3	2.1	0.09		0.68	0.84
Benzo(b)fluoranthene	mg/kg	1.5	2.1	0.9		1.2	1.4
Benzo(g,h,i)perylene	mg/kg	0.68	1.7	2300		0.35	0.56
Benzo(k)fluoranthene	mg/kg	0.99	1.7	9		0.33	0.38
Chrysene	mg/kg	1.2	2.7	88		0.65	0.86
Dibenzo(a,h)anthracene	mg/kg	0.2	0.42	0.09		0.086	0.13
Fluoranthene	mg/kg	2.7	4.1	3100		1.2	1.9
Fluorene	mg/kg	0.1	0.18	560		0.017	0.046
Indeno(1,2,3-c,d)pyrene	mg/kg	0.86	1.6	0.9		0.33	0.52
Naphthalene	mg/kg	0.04	0.2	1.8		0.0083	0.0096
Phenanthrene	mg/kg	1.3	2.5	210		0.44	0.94
Pyrene	mg/kg	1.9	3.0	2300		1.2	1.7
Carbazole	mg/kg	---	---	0.6		<0.20	0.11
2-Methylnaphthalene	mg/kg	---	0.14	---		0.0077	0.0074
Inorganic Analytical Parameters							
Arsenic	mg/kg	---	13	11.3		7	5.5
Barium	mg/kg	---	110	1500		99	84
Cadmium	mg/kg	---	0.6	5.2		0.52	0.4
Chromium, total	mg/kg	---	16.2	21		20	21
Lead	mg/kg	---	36	107		44	46
Mercury	mg/kg	---	0.06	0.1		0.033	0.034
Selenium	mg/kg	---	0.48	1.3		0.76	0.95
Silver	mg/kg	---	0.55	4.4		<0.28	<0.28
Antimony	mg/kg	---	4.0	5		<1.1	<1.1
Beryllium	mg/kg	---	0.59	22		1.1	0.93
Calcium	mg/kg	---	9,300	---		25000	57000
Cobalt	mg/kg	---	8.9	20		11	8.3
Copper	mg/kg	---	19.6	2900		27	28
Cyanide	mg/kg	---	0.51	---		0.35	<0.61
Iron	mg/kg	---	15,900	15000		17000	15000
Magnesium	mg/kg	---	4,820	325000		12000	18000
Manganese	mg/kg	---	636	630		610	520
Nickel	mg/kg	---	18	100		23	20
Potassium	mg/kg	---	1,268	---		2200	2100
Sodium	mg/kg	---	130	---		570	550
Thallium	mg/kg	---	0.32	2.6		<0.56	<0.56
Vanadium	mg/kg	---	25.2	550		21	19
Zinc	mg/kg	---	95	5100		110	120
pH			6.25	9		8.7	8.7

Detected Constituents to MACs-PTB 174-009;Work Order:037A
Preliminary Site Investigation
FAP 351-US Rte 6 at S. Pulaski/Crawford + Kedzie (PESA #2696V-57)
Oak Forest/Markham, Cook County, IL
Terracon Project No. 11177029M
Page 2 of 2

Analyte	Units	Background		Maximum Allowed Concentration	Sample Identification	2696V-57-B01 (0-1)	2696V-57-B01 (0-1) Dup
				CCDD	Sample Depth (feet)	(0-1)	(0-1)
		Chicago	MSAs	mg/kg pH 6.25-9.0	Date Collected	11/10/2017	11/10/2017
Inorganic Analytical Parameters (SPLP)							
Antimony,SPLP	mg/L	---	---	---		--	--
Arsenic,SPLP	mg/L	---	---	---		--	--
Barium,SPLP	mg/L	---	---	---		--	--
Beryllium,SPLP	mg/L	---	---	---		--	--
Cadmium,SPLP	mg/L	---	---	---		--	--
Calcium,SPLP	mg/L	---	---	---		--	--
Chromium,SPLP	mg/L	---	---	---		--	--
Cobalt,SPLP	mg/L	---	---	---		--	--
Copper,SPLP	mg/L	---	---	---		--	--
Iron,SPLP	mg/L	---	---	---		--	--
Lead,SPLP	mg/L	---	---	---		--	--
Magnesium,SPLP	mg/L	---	---	---		--	--
Manganese,SPLP	mg/L	---	---	---		0.34	0.4
Mercury,SPLP	mg/L	---	---	---		--	--
Nickel,SPLP	mg/L	---	---	---		--	--
Potassium,SPLP	mg/L	---	---	---		--	--
Selenium,SPLP	mg/L	---	---	---		--	--
Silver,SPLP	mg/L	---	---	---		--	--
Sodium,SPLP	mg/L	---	---	---		--	--
Thallium,SPLP	mg/L	---	---	---		--	--
Vanadium,SPLP	mg/L	---	---	---		--	--
Zinc,SPLP	mg/L	---	---	---		--	--
Cyanide,SPLP	mg/L	---	---	---		--	--
Inorganic Analytical Parameters (TCLP)							
Arsenic,TCLP	mg/L	---	---	---		<0.050	<0.050
Barium,TCLP	mg/L	---	---	---		0.46	0.46
Cadmium,TCLP	mg/L	---	---	---		0.0023	0.0023
Chromium,TCLP	mg/L	---	---	---		<0.025	<0.025
Lead,TCLP	mg/L	---	---	---		<0.0075	<0.0075
Mercury,TCLP	mg/L	---	---	---		<0.00020	<0.00020
Selenium,TCLP	mg/L	---	---	---		<0.050	<0.050
Silver,TCLP	mg/L	---	---	---		<0.025	<0.025
Antimony,TCLP	mg/L	---	---	---		<0.0060	<0.0060
Beryllium,TCLP	mg/L	---	---	---		<0.0040	<0.0040
Calcium,TCLP	mg/L	---	---	---		410	390
Cobalt,TCLP	mg/L	---	---	---		<0.025	<0.025
Copper,TCLP	mg/L	---	---	---		0.049	0.025
Cyanide,TCLP	mg/L	---	---	---		----	----
Iron,TCLP	mg/L	---	---	---		<0.40	<0.40
Magnesium,TCLP	mg/L	---	---	---		110	110
Manganese,TCLP	mg/L	---	---	---		1.3	1.2
Nickel,TCLP	mg/L	---	---	---		<0.025	<0.025
Potassium,TCLP	mg/L	---	---	---		18	18
Sodium,TCLP	mg/L	---	---	---		----	----
Thallium,TCLP	mg/L	---	---	---		<0.0020	<0.0020
Vanadium,TCLP	mg/L	---	---	---		<0.025	<0.025
Zinc,TCLP	mg/L	---	---	---		0.071	0.06

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: 500-137163-5
Client Project/Site: IDOT - Oak Forest/Markham - WO37

For:
Terracon Consulting Eng & Scientists
135 Ambassador Drive
Naperville, Illinois 60540

Attn: Mr. Matthew Weiss

Jodie Bracken

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

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

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

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Case Narrative

Client: Terracon Consulting Eng & Scientists
Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137163-5

Job ID: 500-137163-5

Laboratory: TestAmerica Chicago

Narrative

Job Narrative 500-137163-5

Receipt

The samples were received on 11/10/2017 3:20 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 3.4° C and 5.0° C.

GC/MS VOA

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

GC/MS Semi VOA

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

Metals

Method(s) 6010B: The method blank for preparation batch 500-409937 and analytical batch 500-410092 contained Calcium and Magnesium above the reporting limit (RL). Associated samples 2696V-57-B01 (0-1) (500-137163-8) and 2696V-57-B01 (0-1) Dup (500-137163-9) were not re-extracted and/or re-analyzed because results were greater than 10X the value found in the method blank.

Method(s) 6010B: The continuing calibration verification (CCV) associated with batch 500-410598 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 was impacted: 2696V-57-B01 (0-1) (500-137163-8).

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: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137163-5

Client Sample ID: 2696V-57-B01 (0-1)

Lab Sample ID: 500-137163-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Acenaphthene	0.018	J	0.039	0.0071	mg/Kg	1	☼	☼	8270D	Total/NA
Acenaphthylene	0.010	J	0.039	0.0052	mg/Kg	1	☼	☼	8270D	Total/NA
Anthracene	0.072		0.039	0.0066	mg/Kg	1	☼	☼	8270D	Total/NA
Benzo[a]anthracene	0.51		0.039	0.0053	mg/Kg	1	☼	☼	8270D	Total/NA
Benzo[a]pyrene	0.68		0.039	0.0077	mg/Kg	1	☼	☼	8270D	Total/NA
Benzo[b]fluoranthene	1.2		0.039	0.0086	mg/Kg	1	☼	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.35		0.039	0.013	mg/Kg	1	☼	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.33		0.039	0.012	mg/Kg	1	☼	☼	8270D	Total/NA
Chrysene	0.65		0.039	0.011	mg/Kg	1	☼	☼	8270D	Total/NA
Dibenz(a,h)anthracene	0.086		0.039	0.0077	mg/Kg	1	☼	☼	8270D	Total/NA
Fluoranthene	1.2		0.039	0.0074	mg/Kg	1	☼	☼	8270D	Total/NA
Fluorene	0.017	J	0.039	0.0056	mg/Kg	1	☼	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.33		0.039	0.010	mg/Kg	1	☼	☼	8270D	Total/NA
2-Methylnaphthalene	0.0077	J	0.080	0.0073	mg/Kg	1	☼	☼	8270D	Total/NA
Naphthalene	0.0083	J	0.039	0.0061	mg/Kg	1	☼	☼	8270D	Total/NA
Phenanthrene	0.44		0.039	0.0055	mg/Kg	1	☼	☼	8270D	Total/NA
Pyrene	1.2		0.039	0.0079	mg/Kg	1	☼	☼	8270D	Total/NA
Arsenic	7.0		0.56	0.19	mg/Kg	1	☼	☼	6010B	Total/NA
Barium	99		0.56	0.064	mg/Kg	1	☼	☼	6010B	Total/NA
Beryllium	1.1		0.22	0.052	mg/Kg	1	☼	☼	6010B	Total/NA
Cadmium	0.52	B	0.11	0.020	mg/Kg	1	☼	☼	6010B	Total/NA
Chromium	20		0.56	0.28	mg/Kg	1	☼	☼	6010B	Total/NA
Cobalt	11		0.28	0.073	mg/Kg	1	☼	☼	6010B	Total/NA
Copper	27		0.56	0.16	mg/Kg	1	☼	☼	6010B	Total/NA
Iron	17000	B	11	5.8	mg/Kg	1	☼	☼	6010B	Total/NA
Lead	44		0.28	0.13	mg/Kg	1	☼	☼	6010B	Total/NA
Magnesium	12000	B	5.6	2.8	mg/Kg	1	☼	☼	6010B	Total/NA
Calcium	25000	B	11	1.9	mg/Kg	1	☼	☼	6010B	Total/NA
Manganese	610	B	0.56	0.081	mg/Kg	1	☼	☼	6010B	Total/NA
Nickel	23		0.56	0.16	mg/Kg	1	☼	☼	6010B	Total/NA
Selenium	0.76		0.56	0.33	mg/Kg	1	☼	☼	6010B	Total/NA
Vanadium	21		0.28	0.066	mg/Kg	1	☼	☼	6010B	Total/NA
Zinc	110		1.1	0.49	mg/Kg	1	☼	☼	6010B	Total/NA
Potassium	2200		28	9.9	mg/Kg	1	☼	☼	6010B	Total/NA
Sodium	570		56	8.3	mg/Kg	1	☼	☼	6010B	Total/NA
Barium	0.46	J	0.50	0.050	mg/L	1			6010B	TCLP
Cadmium	0.0023	J	0.0050	0.0020	mg/L	1			6010B	TCLP
Calcium	410		5.0	0.50	mg/L	1			6010B	TCLP
Copper	0.049	B	0.040	0.010	mg/L	1			6010B	TCLP
Magnesium	110		2.5	0.50	mg/L	1			6010B	TCLP
Manganese	1.3		0.025	0.010	mg/L	1			6010B	TCLP
Potassium	18		2.5	0.50	mg/L	1			6010B	TCLP
Zinc	0.071	J ^ B	0.50	0.020	mg/L	1			6010B	TCLP
Manganese	0.34		0.025	0.010	mg/L	1			6010B	SPLP East
Mercury	0.033		0.020	0.0066	mg/Kg	1	☼	☼	7471B	Total/NA
Cyanide, Total	0.35	J	0.58	0.20	mg/Kg	1	☼	☼	9014	Total/NA
pH	8.7		0.20	0.20	SU	1			9045D	Total/NA

Client Sample ID: 2696V-57-B01 (0-1) Dup

Lab Sample ID: 500-137163-9

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137163-5

Client Sample ID: 2696V-57-B01 (0-1) Dup (Continued)

Lab Sample ID: 500-137163-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acenaphthene	0.044		0.040	0.0072	mg/Kg	1	☼	8270D	Total/NA
Acenaphthylene	0.012	J	0.040	0.0053	mg/Kg	1	☼	8270D	Total/NA
Anthracene	0.13		0.040	0.0067	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.70		0.040	0.0054	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.84		0.040	0.0077	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	1.4		0.040	0.0086	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.56		0.040	0.013	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.38		0.040	0.012	mg/Kg	1	☼	8270D	Total/NA
Carbazole	0.11	J	0.20	0.10	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.86		0.040	0.011	mg/Kg	1	☼	8270D	Total/NA
Dibenz(a,h)anthracene	0.13		0.040	0.0077	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	1.9		0.040	0.0074	mg/Kg	1	☼	8270D	Total/NA
Fluorene	0.046		0.040	0.0056	mg/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.52		0.040	0.010	mg/Kg	1	☼	8270D	Total/NA
2-Methylnaphthalene	0.0074	J	0.080	0.0073	mg/Kg	1	☼	8270D	Total/NA
Naphthalene	0.0096	J	0.040	0.0061	mg/Kg	1	☼	8270D	Total/NA
Phenanthrene	0.94		0.040	0.0056	mg/Kg	1	☼	8270D	Total/NA
Pyrene	1.7		0.040	0.0079	mg/Kg	1	☼	8270D	Total/NA
Arsenic	5.5		0.56	0.19	mg/Kg	1	☼	6010B	Total/NA
Barium	84		0.56	0.064	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.93		0.22	0.052	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.40	B	0.11	0.020	mg/Kg	1	☼	6010B	Total/NA
Chromium	21		0.56	0.28	mg/Kg	1	☼	6010B	Total/NA
Cobalt	8.3		0.28	0.074	mg/Kg	1	☼	6010B	Total/NA
Copper	28		0.56	0.16	mg/Kg	1	☼	6010B	Total/NA
Iron	15000	B	11	5.8	mg/Kg	1	☼	6010B	Total/NA
Lead	46		0.28	0.13	mg/Kg	1	☼	6010B	Total/NA
Magnesium	18000	B	5.6	2.8	mg/Kg	1	☼	6010B	Total/NA
Calcium	57000	B	110	19	mg/Kg	10	☼	6010B	Total/NA
Manganese	520	B	0.56	0.081	mg/Kg	1	☼	6010B	Total/NA
Nickel	20		0.56	0.16	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.95		0.56	0.33	mg/Kg	1	☼	6010B	Total/NA
Vanadium	19		0.28	0.066	mg/Kg	1	☼	6010B	Total/NA
Zinc	120		1.1	0.49	mg/Kg	1	☼	6010B	Total/NA
Potassium	2100		28	9.9	mg/Kg	1	☼	6010B	Total/NA
Sodium	550		56	8.3	mg/Kg	1	☼	6010B	Total/NA
Barium	0.46	J	0.50	0.050	mg/L	1		6010B	TCLP
Cadmium	0.0023	J	0.0050	0.0020	mg/L	1		6010B	TCLP
Calcium	390		5.0	0.50	mg/L	1		6010B	TCLP
Copper	0.025	J B	0.040	0.010	mg/L	1		6010B	TCLP
Magnesium	110		2.5	0.50	mg/L	1		6010B	TCLP
Manganese	1.2		0.025	0.010	mg/L	1		6010B	TCLP
Potassium	18		2.5	0.50	mg/L	1		6010B	TCLP
Zinc	0.060	J ^ B	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.40		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.034		0.020	0.0068	mg/Kg	1	☼	7471B	Total/NA
pH	8.7		0.20	0.20	SU	1		9045D	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Sample Summary

Client: Terracon Consulting Eng & Scientists
Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137163-5

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-137163-8	2696V-57-B01 (0-1)	Solid	11/10/17 10:05	11/10/17 15:20
500-137163-9	2696V-57-B01 (0-1) Dup	Solid	11/10/17 10:10	11/10/17 15:20

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Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137163-5

Client Sample ID: 2696V-57-B01 (0-1)

Lab Sample ID: 500-137163-8

Date Collected: 11/10/17 10:05

Matrix: Solid

Date Received: 11/10/17 15:20

Percent Solids: 82.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.019		0.019	0.0083	mg/Kg	☼	11/11/17 14:00	11/16/17 18:10	1
Benzene	<0.0019		0.0019	0.00049	mg/Kg	☼	11/11/17 14:00	11/16/17 18:10	1
Bromodichloromethane	<0.0019		0.0019	0.00039	mg/Kg	☼	11/11/17 14:00	11/16/17 18:10	1
Bromoform	<0.0019		0.0019	0.00056	mg/Kg	☼	11/11/17 14:00	11/16/17 18:10	1
Bromomethane	<0.0048		0.0048	0.0018	mg/Kg	☼	11/11/17 14:00	11/16/17 18:10	1
2-Butanone (MEK)	<0.0048		0.0048	0.0021	mg/Kg	☼	11/11/17 14:00	11/16/17 18:10	1
Carbon disulfide	<0.0048		0.0048	0.0010	mg/Kg	☼	11/11/17 14:00	11/16/17 18:10	1
Carbon tetrachloride	<0.0019		0.0019	0.00056	mg/Kg	☼	11/11/17 14:00	11/16/17 18:10	1
Chlorobenzene	<0.0019		0.0019	0.00071	mg/Kg	☼	11/11/17 14:00	11/16/17 18:10	1
Chloroethane	<0.0048		0.0048	0.0014	mg/Kg	☼	11/11/17 14:00	11/16/17 18:10	1
Chloroform	<0.0019		0.0019	0.00067	mg/Kg	☼	11/11/17 14:00	11/16/17 18:10	1
Chloromethane	<0.0048		0.0048	0.0019	mg/Kg	☼	11/11/17 14:00	11/16/17 18:10	1
cis-1,2-Dichloroethene	<0.0019		0.0019	0.00054	mg/Kg	☼	11/11/17 14:00	11/16/17 18:10	1
cis-1,3-Dichloropropene	<0.0019		0.0019	0.00058	mg/Kg	☼	11/11/17 14:00	11/16/17 18:10	1
Dibromochloromethane	<0.0019		0.0019	0.00063	mg/Kg	☼	11/11/17 14:00	11/16/17 18:10	1
1,1-Dichloroethane	<0.0019		0.0019	0.00066	mg/Kg	☼	11/11/17 14:00	11/16/17 18:10	1
1,2-Dichloroethane	<0.0048		0.0048	0.0015	mg/Kg	☼	11/11/17 14:00	11/16/17 18:10	1
1,1-Dichloroethene	<0.0019		0.0019	0.00066	mg/Kg	☼	11/11/17 14:00	11/16/17 18:10	1
1,2-Dichloropropane	<0.0019		0.0019	0.00050	mg/Kg	☼	11/11/17 14:00	11/16/17 18:10	1
1,3-Dichloropropane, Total	<0.0019		0.0019	0.00067	mg/Kg	☼	11/11/17 14:00	11/16/17 18:10	1
Ethylbenzene	<0.0019		0.0019	0.00092	mg/Kg	☼	11/11/17 14:00	11/16/17 18:10	1
2-Hexanone	<0.0048		0.0048	0.0015	mg/Kg	☼	11/11/17 14:00	11/16/17 18:10	1
Methylene Chloride	<0.0048		0.0048	0.0019	mg/Kg	☼	11/11/17 14:00	11/16/17 18:10	1
4-Methyl-2-pentanone (MIBK)	<0.0048		0.0048	0.0014	mg/Kg	☼	11/11/17 14:00	11/16/17 18:10	1
Methyl tert-butyl ether	<0.0019		0.0019	0.00056	mg/Kg	☼	11/11/17 14:00	11/16/17 18:10	1
Styrene	<0.0019		0.0019	0.00058	mg/Kg	☼	11/11/17 14:00	11/16/17 18:10	1
1,1,2,2-Tetrachloroethane	<0.0019		0.0019	0.00061	mg/Kg	☼	11/11/17 14:00	11/16/17 18:10	1
Tetrachloroethene	<0.0019		0.0019	0.00065	mg/Kg	☼	11/11/17 14:00	11/16/17 18:10	1
Toluene	<0.0019		0.0019	0.00048	mg/Kg	☼	11/11/17 14:00	11/16/17 18:10	1
trans-1,2-Dichloroethene	<0.0019		0.0019	0.00085	mg/Kg	☼	11/11/17 14:00	11/16/17 18:10	1
trans-1,3-Dichloropropene	<0.0019		0.0019	0.00067	mg/Kg	☼	11/11/17 14:00	11/16/17 18:10	1
1,1,1-Trichloroethane	<0.0019		0.0019	0.00064	mg/Kg	☼	11/11/17 14:00	11/16/17 18:10	1
1,1,2-Trichloroethane	<0.0019		0.0019	0.00082	mg/Kg	☼	11/11/17 14:00	11/16/17 18:10	1
Trichloroethene	<0.0019		0.0019	0.00065	mg/Kg	☼	11/11/17 14:00	11/16/17 18:10	1
Vinyl acetate	<0.0048		0.0048	0.0017	mg/Kg	☼	11/11/17 14:00	11/16/17 18:10	1
Vinyl chloride	<0.0019		0.0019	0.00085	mg/Kg	☼	11/11/17 14:00	11/16/17 18:10	1
Xylenes, Total	<0.0038		0.0038	0.00061	mg/Kg	☼	11/11/17 14:00	11/16/17 18:10	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	91		75 - 131	11/11/17 14:00	11/16/17 18:10	1
Dibromofluoromethane	100		75 - 126	11/11/17 14:00	11/16/17 18:10	1
1,2-Dichloroethane-d4 (Surr)	92		70 - 134	11/11/17 14:00	11/16/17 18:10	1
Toluene-d8 (Surr)	98		75 - 124	11/11/17 14:00	11/16/17 18:10	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.018	J	0.039	0.0071	mg/Kg	☼	11/17/17 07:31	11/20/17 20:41	1
Acenaphthylene	0.010	J	0.039	0.0052	mg/Kg	☼	11/17/17 07:31	11/20/17 20:41	1
Anthracene	0.072		0.039	0.0066	mg/Kg	☼	11/17/17 07:31	11/20/17 20:41	1
Benzo[a]anthracene	0.51		0.039	0.0053	mg/Kg	☼	11/17/17 07:31	11/20/17 20:41	1

TestAmerica Chicago

Client Sample Results

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TestAmerica Job ID: 500-137163-5

Client Sample ID: 2696V-57-B01 (0-1)

Lab Sample ID: 500-137163-8

Date Collected: 11/10/17 10:05

Matrix: Solid

Date Received: 11/10/17 15:20

Percent Solids: 82.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	0.68		0.039	0.0077	mg/Kg	☼	11/17/17 07:31	11/20/17 20:41	1
Benzo[b]fluoranthene	1.2		0.039	0.0086	mg/Kg	☼	11/17/17 07:31	11/20/17 20:41	1
Benzo[g,h,i]perylene	0.35		0.039	0.013	mg/Kg	☼	11/17/17 07:31	11/20/17 20:41	1
Benzo[k]fluoranthene	0.33		0.039	0.012	mg/Kg	☼	11/17/17 07:31	11/20/17 20:41	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.040	mg/Kg	☼	11/17/17 07:31	11/20/17 20:41	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.059	mg/Kg	☼	11/17/17 07:31	11/20/17 20:41	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.072	mg/Kg	☼	11/17/17 07:31	11/20/17 20:41	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.052	mg/Kg	☼	11/17/17 07:31	11/20/17 20:41	1
Butyl benzyl phthalate	<0.20		0.20	0.075	mg/Kg	☼	11/17/17 07:31	11/20/17 20:41	1
Carbazole	<0.20		0.20	0.099	mg/Kg	☼	11/17/17 07:31	11/20/17 20:41	1
4-Chloroaniline	<0.80		0.80	0.19	mg/Kg	☼	11/17/17 07:31	11/20/17 20:41	1
4-Chloro-3-methylphenol	<0.39		0.39	0.13	mg/Kg	☼	11/17/17 07:31	11/20/17 20:41	1
2-Chloronaphthalene	<0.20		0.20	0.044	mg/Kg	☼	11/17/17 07:31	11/20/17 20:41	1
2-Chlorophenol	<0.20		0.20	0.068	mg/Kg	☼	11/17/17 07:31	11/20/17 20:41	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.046	mg/Kg	☼	11/17/17 07:31	11/20/17 20:41	1
Chrysene	0.65		0.039	0.011	mg/Kg	☼	11/17/17 07:31	11/20/17 20:41	1
Dibenz(a,h)anthracene	0.086		0.039	0.0077	mg/Kg	☼	11/17/17 07:31	11/20/17 20:41	1
Dibenzofuran	<0.20		0.20	0.046	mg/Kg	☼	11/17/17 07:31	11/20/17 20:41	1
1,2-Dichlorobenzene	<0.20		0.20	0.047	mg/Kg	☼	11/17/17 07:31	11/20/17 20:41	1
1,3-Dichlorobenzene	<0.20		0.20	0.045	mg/Kg	☼	11/17/17 07:31	11/20/17 20:41	1
1,4-Dichlorobenzene	<0.20		0.20	0.051	mg/Kg	☼	11/17/17 07:31	11/20/17 20:41	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.056	mg/Kg	☼	11/17/17 07:31	11/20/17 20:41	1
2,4-Dichlorophenol	<0.39		0.39	0.094	mg/Kg	☼	11/17/17 07:31	11/20/17 20:41	1
Diethyl phthalate	<0.20		0.20	0.067	mg/Kg	☼	11/17/17 07:31	11/20/17 20:41	1
2,4-Dimethylphenol	<0.39		0.39	0.15	mg/Kg	☼	11/17/17 07:31	11/20/17 20:41	1
Dimethyl phthalate	<0.20		0.20	0.052	mg/Kg	☼	11/17/17 07:31	11/20/17 20:41	1
Di-n-butyl phthalate	<0.20		0.20	0.060	mg/Kg	☼	11/17/17 07:31	11/20/17 20:41	1
4,6-Dinitro-2-methylphenol	<0.80		0.80	0.32	mg/Kg	☼	11/17/17 07:31	11/20/17 20:41	1
2,4-Dinitrophenol	<0.80		0.80	0.70	mg/Kg	☼	11/17/17 07:31	11/20/17 20:41	1
2,4-Dinitrotoluene	<0.20		0.20	0.063	mg/Kg	☼	11/17/17 07:31	11/20/17 20:41	1
2,6-Dinitrotoluene	<0.20		0.20	0.078	mg/Kg	☼	11/17/17 07:31	11/20/17 20:41	1
Di-n-octyl phthalate	<0.20		0.20	0.065	mg/Kg	☼	11/17/17 07:31	11/20/17 20:41	1
Fluoranthene	1.2		0.039	0.0074	mg/Kg	☼	11/17/17 07:31	11/20/17 20:41	1
Fluorene	0.017 J		0.039	0.0056	mg/Kg	☼	11/17/17 07:31	11/20/17 20:41	1
Hexachlorobenzene	<0.080		0.080	0.0092	mg/Kg	☼	11/17/17 07:31	11/20/17 20:41	1
Hexachlorobutadiene	<0.20		0.20	0.062	mg/Kg	☼	11/17/17 07:31	11/20/17 20:41	1
Hexachlorocyclopentadiene	<0.80		0.80	0.23	mg/Kg	☼	11/17/17 07:31	11/20/17 20:41	1
Hexachloroethane	<0.20		0.20	0.060	mg/Kg	☼	11/17/17 07:31	11/20/17 20:41	1
Indeno[1,2,3-cd]pyrene	0.33		0.039	0.010	mg/Kg	☼	11/17/17 07:31	11/20/17 20:41	1
Isophorone	<0.20		0.20	0.045	mg/Kg	☼	11/17/17 07:31	11/20/17 20:41	1
2-Methylnaphthalene	0.0077 J		0.080	0.0073	mg/Kg	☼	11/17/17 07:31	11/20/17 20:41	1
2-Methylphenol	<0.20		0.20	0.064	mg/Kg	☼	11/17/17 07:31	11/20/17 20:41	1
3 & 4 Methylphenol	<0.20		0.20	0.066	mg/Kg	☼	11/17/17 07:31	11/20/17 20:41	1
Naphthalene	0.0083 J		0.039	0.0061	mg/Kg	☼	11/17/17 07:31	11/20/17 20:41	1
2-Nitroaniline	<0.20		0.20	0.053	mg/Kg	☼	11/17/17 07:31	11/20/17 20:41	1
3-Nitroaniline	<0.39		0.39	0.12	mg/Kg	☼	11/17/17 07:31	11/20/17 20:41	1
4-Nitroaniline	<0.39		0.39	0.17	mg/Kg	☼	11/17/17 07:31	11/20/17 20:41	1
Nitrobenzene	<0.039		0.039	0.0099	mg/Kg	☼	11/17/17 07:31	11/20/17 20:41	1
2-Nitrophenol	<0.39		0.39	0.094	mg/Kg	☼	11/17/17 07:31	11/20/17 20:41	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
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TestAmerica Job ID: 500-137163-5

Client Sample ID: 2696V-57-B01 (0-1)

Lab Sample ID: 500-137163-8

Date Collected: 11/10/17 10:05

Matrix: Solid

Date Received: 11/10/17 15:20

Percent Solids: 82.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Nitrophenol	<0.80		0.80	0.38	mg/Kg	☼	11/17/17 07:31	11/20/17 20:41	1
N-Nitrosodi-n-propylamine	<0.080		0.080	0.048	mg/Kg	☼	11/17/17 07:31	11/20/17 20:41	1
N-Nitrosodiphenylamine	<0.20		0.20	0.047	mg/Kg	☼	11/17/17 07:31	11/20/17 20:41	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.046	mg/Kg	☼	11/17/17 07:31	11/20/17 20:41	1
Pentachlorophenol	<0.80		0.80	0.64	mg/Kg	☼	11/17/17 07:31	11/20/17 20:41	1
Phenanthrene	0.44		0.039	0.0055	mg/Kg	☼	11/17/17 07:31	11/20/17 20:41	1
Phenol	<0.20		0.20	0.088	mg/Kg	☼	11/17/17 07:31	11/20/17 20:41	1
Pyrene	1.2		0.039	0.0079	mg/Kg	☼	11/17/17 07:31	11/20/17 20:41	1
1,2,4-Trichlorobenzene	<0.20		0.20	0.043	mg/Kg	☼	11/17/17 07:31	11/20/17 20:41	1
2,4,5-Trichlorophenol	<0.39		0.39	0.090	mg/Kg	☼	11/17/17 07:31	11/20/17 20:41	1
2,4,6-Trichlorophenol	<0.39		0.39	0.14	mg/Kg	☼	11/17/17 07:31	11/20/17 20:41	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	100		44 - 121				11/17/17 07:31	11/20/17 20:41	1
2-Fluorophenol	99		46 - 133				11/17/17 07:31	11/20/17 20:41	1
Nitrobenzene-d5	100		41 - 120				11/17/17 07:31	11/20/17 20:41	1
Phenol-d5	105		46 - 125				11/17/17 07:31	11/20/17 20:41	1
Terphenyl-d14	109		35 - 160				11/17/17 07:31	11/20/17 20:41	1
2,4,6-Tribromophenol	77		25 - 139				11/17/17 07:31	11/20/17 20:41	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	☼	11/14/17 16:15	11/15/17 13:21	1
Arsenic	7.0		0.56	0.19	mg/Kg	☼	11/14/17 16:15	11/15/17 13:21	1
Barium	99		0.56	0.064	mg/Kg	☼	11/14/17 16:15	11/15/17 13:21	1
Beryllium	1.1		0.22	0.052	mg/Kg	☼	11/14/17 16:15	11/15/17 13:21	1
Cadmium	0.52	B	0.11	0.020	mg/Kg	☼	11/14/17 16:15	11/15/17 13:21	1
Chromium	20		0.56	0.28	mg/Kg	☼	11/14/17 16:15	11/15/17 13:21	1
Cobalt	11		0.28	0.073	mg/Kg	☼	11/14/17 16:15	11/15/17 13:21	1
Copper	27		0.56	0.16	mg/Kg	☼	11/14/17 16:15	11/15/17 13:21	1
Iron	17000	B	11	5.8	mg/Kg	☼	11/14/17 16:15	11/15/17 13:21	1
Lead	44		0.28	0.13	mg/Kg	☼	11/14/17 16:15	11/15/17 13:21	1
Magnesium	12000	B	5.6	2.8	mg/Kg	☼	11/14/17 16:15	11/15/17 13:21	1
Calcium	25000	B	11	1.9	mg/Kg	☼	11/14/17 16:15	11/15/17 13:21	1
Manganese	610	B	0.56	0.081	mg/Kg	☼	11/14/17 16:15	11/15/17 13:21	1
Nickel	23		0.56	0.16	mg/Kg	☼	11/14/17 16:15	11/15/17 13:21	1
Selenium	0.76		0.56	0.33	mg/Kg	☼	11/14/17 16:15	11/15/17 13:21	1
Silver	<0.28		0.28	0.072	mg/Kg	☼	11/14/17 16:15	11/15/17 13:21	1
Thallium	<0.56		0.56	0.28	mg/Kg	☼	11/14/17 16:15	11/15/17 13:21	1
Vanadium	21		0.28	0.066	mg/Kg	☼	11/14/17 16:15	11/15/17 13:21	1
Zinc	110		1.1	0.49	mg/Kg	☼	11/14/17 16:15	11/15/17 13:21	1
Potassium	2200		28	9.9	mg/Kg	☼	11/14/17 16:15	11/15/17 13:21	1
Sodium	570		56	8.3	mg/Kg	☼	11/14/17 16:15	11/15/17 13:21	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.050		0.050	0.010	mg/L		11/17/17 09:02	11/17/17 17:08	1
Barium	0.46	J	0.50	0.050	mg/L		11/17/17 09:02	11/17/17 17:08	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		11/17/17 09:02	11/17/17 17:08	1
Cadmium	0.0023	J	0.0050	0.0020	mg/L		11/17/17 09:02	11/17/17 17:08	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137163-5

Client Sample ID: 2696V-57-B01 (0-1)

Lab Sample ID: 500-137163-8

Date Collected: 11/10/17 10:05

Matrix: Solid

Date Received: 11/10/17 15:20

Percent Solids: 82.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	410		5.0	0.50	mg/L		11/17/17 09:02	11/17/17 17:08	1
Chromium	<0.025		0.025	0.010	mg/L		11/17/17 09:02	11/17/17 17:08	1
Cobalt	<0.025		0.025	0.010	mg/L		11/17/17 09:02	11/17/17 17:08	1
Copper	0.049	B	0.040	0.010	mg/L		11/17/17 09:02	11/17/17 17:08	1
Iron	<0.40		0.40	0.20	mg/L		11/17/17 09:02	11/17/17 17:08	1
Lead	<0.0075		0.0075	0.0075	mg/L		11/17/17 09:02	11/17/17 17:08	1
Magnesium	110		2.5	0.50	mg/L		11/17/17 09:02	11/17/17 17:08	1
Manganese	1.3		0.025	0.010	mg/L		11/17/17 09:02	11/17/17 17:08	1
Nickel	<0.025		0.025	0.010	mg/L		11/17/17 09:02	11/17/17 17:08	1
Potassium	18		2.5	0.50	mg/L		11/17/17 09:02	11/17/17 17:08	1
Selenium	<0.050		0.050	0.020	mg/L		11/17/17 09:02	11/17/17 17:08	1
Silver	<0.025		0.025	0.010	mg/L		11/17/17 09:02	11/17/17 17:08	1
Vanadium	<0.025		0.025	0.010	mg/L		11/17/17 09:02	11/17/17 17:08	1
Zinc	0.071	J ^ B	0.50	0.020	mg/L		11/17/17 09:02	11/17/17 17:08	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.34		0.025	0.010	mg/L		11/20/17 07:21	11/20/17 20:39	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		11/17/17 09:02	11/18/17 04:18	1
Thallium	<0.0020		0.0020	0.0020	mg/L		11/17/17 09:02	11/18/17 04:18	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		11/18/17 14:00	11/20/17 09:21	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.033		0.020	0.0066	mg/Kg	☼	11/20/17 07:30	11/20/17 14:52	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.35	J	0.58	0.20	mg/Kg	☼	11/21/17 13:15	11/21/17 16:34	1
pH	8.7		0.20	0.20	SU			11/20/17 10:44	1

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137163-5

Client Sample ID: 2696V-57-B01 (0-1) Dup

Lab Sample ID: 500-137163-9

Date Collected: 11/10/17 10:10

Matrix: Solid

Date Received: 11/10/17 15:20

Percent Solids: 81.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.020		0.020	0.0085	mg/Kg	☼	11/11/17 14:00	11/16/17 18:36	1
Benzene	<0.0020		0.0020	0.00050	mg/Kg	☼	11/11/17 14:00	11/16/17 18:36	1
Bromodichloromethane	<0.0020		0.0020	0.00040	mg/Kg	☼	11/11/17 14:00	11/16/17 18:36	1
Bromoform	<0.0020		0.0020	0.00057	mg/Kg	☼	11/11/17 14:00	11/16/17 18:36	1
Bromomethane	<0.0049		0.0049	0.0019	mg/Kg	☼	11/11/17 14:00	11/16/17 18:36	1
2-Butanone (MEK)	<0.0049		0.0049	0.0022	mg/Kg	☼	11/11/17 14:00	11/16/17 18:36	1
Carbon disulfide	<0.0049		0.0049	0.0010	mg/Kg	☼	11/11/17 14:00	11/16/17 18:36	1
Carbon tetrachloride	<0.0020		0.0020	0.00057	mg/Kg	☼	11/11/17 14:00	11/16/17 18:36	1
Chlorobenzene	<0.0020		0.0020	0.00072	mg/Kg	☼	11/11/17 14:00	11/16/17 18:36	1
Chloroethane	<0.0049		0.0049	0.0014	mg/Kg	☼	11/11/17 14:00	11/16/17 18:36	1
Chloroform	<0.0020		0.0020	0.00068	mg/Kg	☼	11/11/17 14:00	11/16/17 18:36	1
Chloromethane	<0.0049		0.0049	0.0020	mg/Kg	☼	11/11/17 14:00	11/16/17 18:36	1
cis-1,2-Dichloroethene	<0.0020		0.0020	0.00055	mg/Kg	☼	11/11/17 14:00	11/16/17 18:36	1
cis-1,3-Dichloropropene	<0.0020		0.0020	0.00059	mg/Kg	☼	11/11/17 14:00	11/16/17 18:36	1
Dibromochloromethane	<0.0020		0.0020	0.00064	mg/Kg	☼	11/11/17 14:00	11/16/17 18:36	1
1,1-Dichloroethane	<0.0020		0.0020	0.00067	mg/Kg	☼	11/11/17 14:00	11/16/17 18:36	1
1,2-Dichloroethane	<0.0049		0.0049	0.0015	mg/Kg	☼	11/11/17 14:00	11/16/17 18:36	1
1,1-Dichloroethene	<0.0020		0.0020	0.00067	mg/Kg	☼	11/11/17 14:00	11/16/17 18:36	1
1,2-Dichloropropane	<0.0020		0.0020	0.00051	mg/Kg	☼	11/11/17 14:00	11/16/17 18:36	1
1,3-Dichloropropane, Total	<0.0020		0.0020	0.00069	mg/Kg	☼	11/11/17 14:00	11/16/17 18:36	1
Ethylbenzene	<0.0020		0.0020	0.00094	mg/Kg	☼	11/11/17 14:00	11/16/17 18:36	1
2-Hexanone	<0.0049		0.0049	0.0015	mg/Kg	☼	11/11/17 14:00	11/16/17 18:36	1
Methylene Chloride	<0.0049		0.0049	0.0019	mg/Kg	☼	11/11/17 14:00	11/16/17 18:36	1
4-Methyl-2-pentanone (MIBK)	<0.0049		0.0049	0.0014	mg/Kg	☼	11/11/17 14:00	11/16/17 18:36	1
Methyl tert-butyl ether	<0.0020		0.0020	0.00058	mg/Kg	☼	11/11/17 14:00	11/16/17 18:36	1
Styrene	<0.0020		0.0020	0.00059	mg/Kg	☼	11/11/17 14:00	11/16/17 18:36	1
1,1,2,2-Tetrachloroethane	<0.0020		0.0020	0.00063	mg/Kg	☼	11/11/17 14:00	11/16/17 18:36	1
Tetrachloroethene	<0.0020		0.0020	0.00067	mg/Kg	☼	11/11/17 14:00	11/16/17 18:36	1
Toluene	<0.0020		0.0020	0.00049	mg/Kg	☼	11/11/17 14:00	11/16/17 18:36	1
trans-1,2-Dichloroethene	<0.0020		0.0020	0.00087	mg/Kg	☼	11/11/17 14:00	11/16/17 18:36	1
trans-1,3-Dichloropropene	<0.0020		0.0020	0.00069	mg/Kg	☼	11/11/17 14:00	11/16/17 18:36	1
1,1,1-Trichloroethane	<0.0020		0.0020	0.00066	mg/Kg	☼	11/11/17 14:00	11/16/17 18:36	1
1,1,2-Trichloroethane	<0.0020		0.0020	0.00084	mg/Kg	☼	11/11/17 14:00	11/16/17 18:36	1
Trichloroethene	<0.0020		0.0020	0.00066	mg/Kg	☼	11/11/17 14:00	11/16/17 18:36	1
Vinyl acetate	<0.0049		0.0049	0.0017	mg/Kg	☼	11/11/17 14:00	11/16/17 18:36	1
Vinyl chloride	<0.0020		0.0020	0.00087	mg/Kg	☼	11/11/17 14:00	11/16/17 18:36	1
Xylenes, Total	<0.0039		0.0039	0.00063	mg/Kg	☼	11/11/17 14:00	11/16/17 18:36	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	89		75 - 131	11/11/17 14:00	11/16/17 18:36	1
Dibromofluoromethane	99		75 - 126	11/11/17 14:00	11/16/17 18:36	1
1,2-Dichloroethane-d4 (Surr)	96		70 - 134	11/11/17 14:00	11/16/17 18:36	1
Toluene-d8 (Surr)	95		75 - 124	11/11/17 14:00	11/16/17 18:36	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.044		0.040	0.0072	mg/Kg	☼	11/17/17 07:31	11/20/17 16:13	1
Acenaphthylene	0.012	J	0.040	0.0053	mg/Kg	☼	11/17/17 07:31	11/20/17 16:13	1
Anthracene	0.13		0.040	0.0067	mg/Kg	☼	11/17/17 07:31	11/20/17 16:13	1
Benzo[a]anthracene	0.70		0.040	0.0054	mg/Kg	☼	11/17/17 07:31	11/20/17 16:13	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137163-5

Client Sample ID: 2696V-57-B01 (0-1) Dup

Lab Sample ID: 500-137163-9

Date Collected: 11/10/17 10:10

Matrix: Solid

Date Received: 11/10/17 15:20

Percent Solids: 81.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	0.84		0.040	0.0077	mg/Kg	☼	11/17/17 07:31	11/20/17 16:13	1
Benzo[b]fluoranthene	1.4		0.040	0.0086	mg/Kg	☼	11/17/17 07:31	11/20/17 16:13	1
Benzo[g,h,i]perylene	0.56		0.040	0.013	mg/Kg	☼	11/17/17 07:31	11/20/17 16:13	1
Benzo[k]fluoranthene	0.38		0.040	0.012	mg/Kg	☼	11/17/17 07:31	11/20/17 16:13	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.041	mg/Kg	☼	11/17/17 07:31	11/20/17 16:13	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.060	mg/Kg	☼	11/17/17 07:31	11/20/17 16:13	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.073	mg/Kg	☼	11/17/17 07:31	11/20/17 16:13	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.053	mg/Kg	☼	11/17/17 07:31	11/20/17 16:13	1
Butyl benzyl phthalate	<0.20		0.20	0.076	mg/Kg	☼	11/17/17 07:31	11/20/17 16:13	1
Carbazole	0.11	J	0.20	0.10	mg/Kg	☼	11/17/17 07:31	11/20/17 16:13	1
4-Chloroaniline	<0.80		0.80	0.19	mg/Kg	☼	11/17/17 07:31	11/20/17 16:13	1
4-Chloro-3-methylphenol	<0.40		0.40	0.14	mg/Kg	☼	11/17/17 07:31	11/20/17 16:13	1
2-Chloronaphthalene	<0.20		0.20	0.044	mg/Kg	☼	11/17/17 07:31	11/20/17 16:13	1
2-Chlorophenol	<0.20		0.20	0.068	mg/Kg	☼	11/17/17 07:31	11/20/17 16:13	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.047	mg/Kg	☼	11/17/17 07:31	11/20/17 16:13	1
Chrysene	0.86		0.040	0.011	mg/Kg	☼	11/17/17 07:31	11/20/17 16:13	1
Dibenz(a,h)anthracene	0.13		0.040	0.0077	mg/Kg	☼	11/17/17 07:31	11/20/17 16:13	1
Dibenzofuran	<0.20		0.20	0.047	mg/Kg	☼	11/17/17 07:31	11/20/17 16:13	1
1,2-Dichlorobenzene	<0.20		0.20	0.048	mg/Kg	☼	11/17/17 07:31	11/20/17 16:13	1
1,3-Dichlorobenzene	<0.20		0.20	0.045	mg/Kg	☼	11/17/17 07:31	11/20/17 16:13	1
1,4-Dichlorobenzene	<0.20		0.20	0.051	mg/Kg	☼	11/17/17 07:31	11/20/17 16:13	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.056	mg/Kg	☼	11/17/17 07:31	11/20/17 16:13	1
2,4-Dichlorophenol	<0.40		0.40	0.095	mg/Kg	☼	11/17/17 07:31	11/20/17 16:13	1
Diethyl phthalate	<0.20		0.20	0.068	mg/Kg	☼	11/17/17 07:31	11/20/17 16:13	1
2,4-Dimethylphenol	<0.40		0.40	0.15	mg/Kg	☼	11/17/17 07:31	11/20/17 16:13	1
Dimethyl phthalate	<0.20		0.20	0.052	mg/Kg	☼	11/17/17 07:31	11/20/17 16:13	1
Di-n-butyl phthalate	<0.20		0.20	0.061	mg/Kg	☼	11/17/17 07:31	11/20/17 16:13	1
4,6-Dinitro-2-methylphenol	<0.80		0.80	0.32	mg/Kg	☼	11/17/17 07:31	11/20/17 16:13	1
2,4-Dinitrophenol	<0.80		0.80	0.70	mg/Kg	☼	11/17/17 07:31	11/20/17 16:13	1
2,4-Dinitrotoluene	<0.20		0.20	0.063	mg/Kg	☼	11/17/17 07:31	11/20/17 16:13	1
2,6-Dinitrotoluene	<0.20		0.20	0.078	mg/Kg	☼	11/17/17 07:31	11/20/17 16:13	1
Di-n-octyl phthalate	<0.20		0.20	0.065	mg/Kg	☼	11/17/17 07:31	11/20/17 16:13	1
Fluoranthene	1.9		0.040	0.0074	mg/Kg	☼	11/17/17 07:31	11/20/17 16:13	1
Fluorene	0.046		0.040	0.0056	mg/Kg	☼	11/17/17 07:31	11/20/17 16:13	1
Hexachlorobenzene	<0.080		0.080	0.0092	mg/Kg	☼	11/17/17 07:31	11/20/17 16:13	1
Hexachlorobutadiene	<0.20		0.20	0.063	mg/Kg	☼	11/17/17 07:31	11/20/17 16:13	1
Hexachlorocyclopentadiene	<0.80		0.80	0.23	mg/Kg	☼	11/17/17 07:31	11/20/17 16:13	1
Hexachloroethane	<0.20		0.20	0.061	mg/Kg	☼	11/17/17 07:31	11/20/17 16:13	1
Indeno[1,2,3-cd]pyrene	0.52		0.040	0.010	mg/Kg	☼	11/17/17 07:31	11/20/17 16:13	1
Isophorone	<0.20		0.20	0.045	mg/Kg	☼	11/17/17 07:31	11/20/17 16:13	1
2-Methylnaphthalene	0.0074	J	0.080	0.0073	mg/Kg	☼	11/17/17 07:31	11/20/17 16:13	1
2-Methylphenol	<0.20		0.20	0.064	mg/Kg	☼	11/17/17 07:31	11/20/17 16:13	1
3 & 4 Methylphenol	<0.20		0.20	0.067	mg/Kg	☼	11/17/17 07:31	11/20/17 16:13	1
Naphthalene	0.0096	J	0.040	0.0061	mg/Kg	☼	11/17/17 07:31	11/20/17 16:13	1
2-Nitroaniline	<0.20		0.20	0.054	mg/Kg	☼	11/17/17 07:31	11/20/17 16:13	1
3-Nitroaniline	<0.40		0.40	0.12	mg/Kg	☼	11/17/17 07:31	11/20/17 16:13	1
4-Nitroaniline	<0.40		0.40	0.17	mg/Kg	☼	11/17/17 07:31	11/20/17 16:13	1
Nitrobenzene	<0.040		0.040	0.010	mg/Kg	☼	11/17/17 07:31	11/20/17 16:13	1
2-Nitrophenol	<0.40		0.40	0.094	mg/Kg	☼	11/17/17 07:31	11/20/17 16:13	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137163-5

Client Sample ID: 2696V-57-B01 (0-1) Dup

Lab Sample ID: 500-137163-9

Date Collected: 11/10/17 10:10

Matrix: Solid

Date Received: 11/10/17 15:20

Percent Solids: 81.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Nitrophenol	<0.80		0.80	0.38	mg/Kg	☼	11/17/17 07:31	11/20/17 16:13	1
N-Nitrosodi-n-propylamine	<0.080		0.080	0.049	mg/Kg	☼	11/17/17 07:31	11/20/17 16:13	1
N-Nitrosodiphenylamine	<0.20		0.20	0.047	mg/Kg	☼	11/17/17 07:31	11/20/17 16:13	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.046	mg/Kg	☼	11/17/17 07:31	11/20/17 16:13	1
Pentachlorophenol	<0.80		0.80	0.64	mg/Kg	☼	11/17/17 07:31	11/20/17 16:13	1
Phenanthrene	0.94		0.040	0.0056	mg/Kg	☼	11/17/17 07:31	11/20/17 16:13	1
Phenol	<0.20		0.20	0.089	mg/Kg	☼	11/17/17 07:31	11/20/17 16:13	1
Pyrene	1.7		0.040	0.0079	mg/Kg	☼	11/17/17 07:31	11/20/17 16:13	1
1,2,4-Trichlorobenzene	<0.20		0.20	0.043	mg/Kg	☼	11/17/17 07:31	11/20/17 16:13	1
2,4,5-Trichlorophenol	<0.40		0.40	0.091	mg/Kg	☼	11/17/17 07:31	11/20/17 16:13	1
2,4,6-Trichlorophenol	<0.40		0.40	0.14	mg/Kg	☼	11/17/17 07:31	11/20/17 16:13	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	102		44 - 121	11/17/17 07:31	11/20/17 16:13	1
2-Fluorophenol	97		46 - 133	11/17/17 07:31	11/20/17 16:13	1
Nitrobenzene-d5	120		41 - 120	11/17/17 07:31	11/20/17 16:13	1
Phenol-d5	112		46 - 125	11/17/17 07:31	11/20/17 16:13	1
Terphenyl-d14	106		35 - 160	11/17/17 07:31	11/20/17 16:13	1
2,4,6-Tribromophenol	68		25 - 139	11/17/17 07:31	11/20/17 16:13	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	☼	11/14/17 16:15	11/15/17 13:25	1
Arsenic	5.5		0.56	0.19	mg/Kg	☼	11/14/17 16:15	11/15/17 13:25	1
Barium	84		0.56	0.064	mg/Kg	☼	11/14/17 16:15	11/15/17 13:25	1
Beryllium	0.93		0.22	0.052	mg/Kg	☼	11/14/17 16:15	11/15/17 13:25	1
Cadmium	0.40	B	0.11	0.020	mg/Kg	☼	11/14/17 16:15	11/15/17 13:25	1
Chromium	21		0.56	0.28	mg/Kg	☼	11/14/17 16:15	11/15/17 13:25	1
Cobalt	8.3		0.28	0.074	mg/Kg	☼	11/14/17 16:15	11/15/17 13:25	1
Copper	28		0.56	0.16	mg/Kg	☼	11/14/17 16:15	11/15/17 13:25	1
Iron	15000	B	11	5.8	mg/Kg	☼	11/14/17 16:15	11/15/17 13:25	1
Lead	46		0.28	0.13	mg/Kg	☼	11/14/17 16:15	11/15/17 13:25	1
Magnesium	18000	B	5.6	2.8	mg/Kg	☼	11/14/17 16:15	11/15/17 13:25	1
Calcium	57000	B	110	19	mg/Kg	☼	11/14/17 16:15	11/15/17 20:33	10
Manganese	520	B	0.56	0.081	mg/Kg	☼	11/14/17 16:15	11/15/17 13:25	1
Nickel	20		0.56	0.16	mg/Kg	☼	11/14/17 16:15	11/15/17 13:25	1
Selenium	0.95		0.56	0.33	mg/Kg	☼	11/14/17 16:15	11/15/17 13:25	1
Silver	<0.28		0.28	0.072	mg/Kg	☼	11/14/17 16:15	11/15/17 13:25	1
Thallium	<0.56		0.56	0.28	mg/Kg	☼	11/14/17 16:15	11/15/17 13:25	1
Vanadium	19		0.28	0.066	mg/Kg	☼	11/14/17 16:15	11/15/17 13:25	1
Zinc	120		1.1	0.49	mg/Kg	☼	11/14/17 16:15	11/15/17 13:25	1
Potassium	2100		28	9.9	mg/Kg	☼	11/14/17 16:15	11/15/17 13:25	1
Sodium	550		56	8.3	mg/Kg	☼	11/14/17 16:15	11/15/17 13:25	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.050		0.050	0.010	mg/L		11/17/17 09:02	11/17/17 17:12	1
Barium	0.46	J	0.50	0.050	mg/L		11/17/17 09:02	11/17/17 17:12	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		11/17/17 09:02	11/17/17 17:12	1
Cadmium	0.0023	J	0.0050	0.0020	mg/L		11/17/17 09:02	11/17/17 17:12	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137163-5

Client Sample ID: 2696V-57-B01 (0-1) Dup

Lab Sample ID: 500-137163-9

Date Collected: 11/10/17 10:10

Matrix: Solid

Date Received: 11/10/17 15:20

Percent Solids: 81.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	390		5.0	0.50	mg/L		11/17/17 09:02	11/17/17 17:12	1
Chromium	<0.025		0.025	0.010	mg/L		11/17/17 09:02	11/17/17 17:12	1
Cobalt	<0.025		0.025	0.010	mg/L		11/17/17 09:02	11/17/17 17:12	1
Copper	0.025	J B	0.040	0.010	mg/L		11/17/17 09:02	11/17/17 17:12	1
Iron	<0.40		0.40	0.20	mg/L		11/17/17 09:02	11/17/17 17:12	1
Lead	<0.0075		0.0075	0.0075	mg/L		11/17/17 09:02	11/17/17 17:12	1
Magnesium	110		2.5	0.50	mg/L		11/17/17 09:02	11/17/17 17:12	1
Manganese	1.2		0.025	0.010	mg/L		11/17/17 09:02	11/17/17 17:12	1
Nickel	<0.025		0.025	0.010	mg/L		11/17/17 09:02	11/17/17 17:12	1
Potassium	18		2.5	0.50	mg/L		11/17/17 09:02	11/17/17 17:12	1
Selenium	<0.050		0.050	0.020	mg/L		11/17/17 09:02	11/17/17 17:12	1
Silver	<0.025		0.025	0.010	mg/L		11/17/17 09:02	11/17/17 17:12	1
Vanadium	<0.025		0.025	0.010	mg/L		11/17/17 09:02	11/17/17 17:12	1
Zinc	0.060	J ^ B	0.50	0.020	mg/L		11/17/17 09:02	11/17/17 17:12	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.40		0.025	0.010	mg/L		11/20/17 07:21	11/20/17 20:43	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		11/17/17 09:02	11/18/17 04:22	1
Thallium	<0.0020		0.0020	0.0020	mg/L		11/17/17 09:02	11/18/17 04:22	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		11/18/17 14:00	11/20/17 09:22	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.034		0.020	0.0068	mg/Kg	☼	11/20/17 07:30	11/20/17 14:55	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.61		0.61	0.21	mg/Kg	☼	11/21/17 13:15	11/21/17 16:35	1
pH	8.7		0.20	0.20	SU			11/20/17 10:47	1

Definitions/Glossary

Client: Terracon Consulting Eng & Scientists
Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137163-5

Qualifiers

GC/MS Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

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

General Chemistry

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.

Glossary

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

Accreditation/Certification Summary

Client: Terracon Consulting Eng & Scientists
Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137163-5

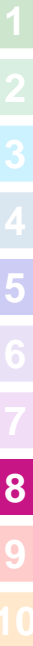
Laboratory: TestAmerica Chicago

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

Authority	Program	EPA Region	Identification Number	Expiration Date
Illinois	NELAP	5	100201	04-30-18

The following analytes are included in this report, but accreditation/certification is not offered by the governing authority:

Analysis Method	Prep Method	Matrix	Analyte
6020A	3010A	Solid	Antimony
6020A	3010A	Solid	Thallium
8260B	5035	Solid	1,3-Dichloropropene, Total
9045D		Solid	pH
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids



TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

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

Report To (optional)
Contact: Matt Weiss
Company: Terracon
Address: 135 Ambassador Dr
Address: Naperville IL
Phone: _____
Fax: _____
E-Mail: matt.weiss@terracon.com

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

Chain of Custody Record

Lab Job #: 500-137143
Chain of Custody Number: _____
Page _____ of _____
Temperature °C of Cooler: 3.4, 5.0

Client		Client Project #		Preservative		Parameter		Containers		Matrix		Preservative Key
Terracon		11177029M										
Project Name		Lab Project #		Date		Time		Containers		Matrix		Comments
WD 37				11-10		1003		6		S		
Project Location/State		Lab PM		Date		Time		Containers		Matrix		Comments
		Matt Weiss		11-10		1010		6		S		
Lab ID	MS/MSD	Sample ID	Date	Time	Containers	Matrix						
8		2696V-57-801 (0-1)	11-10	1003	6	S	✓	✓	✓	✓		
9		2696V-57-801 (0-1) DUP	11-10	1010	6	S	✓	✓	✓	✓		

- 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>Matt Weiss</u>	Company <u>Terracon</u>	Date <u>11-10</u>	Time <u>1430</u>	Received By <u>P. Neal</u>	Company <u>TA</u>	Date <u>11/10/17</u>	Time <u>1430</u>
Relinquished By <u>P. Neal</u>	Company <u>TA</u>	Date <u>11/10/17</u>	Time <u>1520</u>	Received By <u>Wendy Jones</u>	Company <u>TA/EME</u>	Date <u>11/10/17</u>	Time <u>1520</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

* No aluminum

Lab Comments:

Login Sample Receipt Checklist

Client: Terracon Consulting Eng & Scientists

Job Number: 500-137163-5

Login Number: 137163

List Source: TestAmerica Chicago

List Number: 1

Creator: Sanchez, Ariel 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	3.4, 5.0
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



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 351-US Rte 6 at Pulaski/Crawford & Kedzie Office Phone Number, if available: _____

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

Pulaski Road (Northbound) IDOT STA 68+60 to 69+70 (ISGS Site 2696V-58)

City: Oak Forest/Markham State: IL Zip Code: 60428

County: Cook Township: Bremen

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

Latitude: 41.60367 Longitude: -87.71682
(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: 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 Phone: 847-705-4122

Zip Code: 60196 Phone: 847-705-4122

Contact: Paul Nickles

Contact: Paul Nickles

Email, if available: paul.nickles@illinois.gov

Email, if available: paul.nickles@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 351-US Rte 6 at Pulaski/Crawford & Kedzie

Latitude: 41.60367 Longitude: -87.71682

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)]:

Soil from boring B01 was sampled adjacent to ISGS Site No 2696V-58.
See Exhibits 5, 5A, and Table 73 of the Preliminary Site Investigation Report prepared by Terracon.

- 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]:

TestAmerica Lab Report No J137163-6
Also see Preliminary Site Investigation Report prepared by Terracon. CCDD/USFO facility in MSA County.

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

I, Matt Weiss (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.

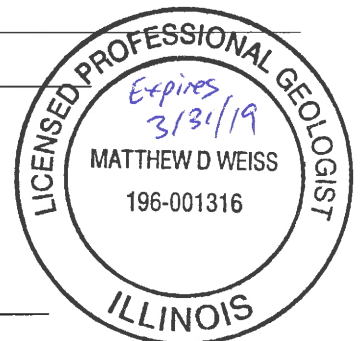
Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))

Company Name: Terracon Consultants, Inc
 Street Address: 135 Ambassador Drive
 City: Naperville State: IL Zip Code: 60540
 Phone: 630-717-4263

Matt Weiss
 Printed Name:

[Signature]
 Licensed Professional Engineer or
 Licensed Professional Geologist Signature:

7/24/18
 Date:



Detected Constituents to MACs-PTB 174-009;Work Order:037A
Preliminary Site Investigation
FAP 351-US Rte 6 at S. Pulaski/Crawford + Kedzie (PESA #2696V-58)
Oak Forest/Markham, Cook County, IL
Terracon Project No. 11177029M
Page 1 of 2

Analyte	Units	Background		Maximum Allowed Concentration	Sample Identification	2696V-58-B01 (0-5)
				CCDD	Sample Depth (feet)	(0-5)
		Chicago	MSAs	mg/kg pH 6.25-9.0	Date Collected	11/10/2017
Semivolatile Organic Analytical Parameters						
Benzo(a)anthracene	mg/kg	1.1	1.8	0.9		0.024
Benzo(a)pyrene	mg/kg	1.3	2.1	0.09		0.032
Benzo(b)fluoranthene	mg/kg	1.5	2.1	0.9		0.049
Benzo(g,h,i)perylene	mg/kg	0.68	1.7	2300		0.03
Benzo(k)fluoranthene	mg/kg	0.99	1.7	9		0.011
Chrysene	mg/kg	1.2	2.7	88		0.036
Fluoranthene	mg/kg	2.7	4.1	3100		0.048
Phenanthrene	mg/kg	1.3	2.5	210		0.031
Pyrene	mg/kg	1.9	3.0	2300		0.052
2-Methylnaphthalene	mg/kg	---	0.14	---		0.016
Inorganic Analytical Parameters						
Arsenic	mg/kg	---	13	11.3		4.1
Barium	mg/kg	---	110	1500		25
Cadmium	mg/kg	---	0.6	5.2		0.11
Chromium, total	mg/kg	---	16.2	21		8.8
Lead	mg/kg	---	36	107		20
Mercury	mg/kg	---	0.06	0.1		0.012
Selenium	mg/kg	---	0.48	1.3		<0.51
Silver	mg/kg	---	0.55	4.4		<0.26
Antimony	mg/kg	---	4.0	5		<1.0
Beryllium	mg/kg	---	0.59	22		0.35
Calcium	mg/kg	---	9,300	---		75000
Cobalt	mg/kg	---	8.9	20		5.5
Copper	mg/kg	---	19.6	2900		19
Cyanide	mg/kg	---	0.51	---		<0.50
Iron	mg/kg	---	15,900	15000		10000
Magnesium	mg/kg	---	4,820	325000		26000
Manganese	mg/kg	---	636	630		200
Nickel	mg/kg	---	18	100		15
Potassium	mg/kg	---	1,268	---		1200
Sodium	mg/kg	---	130	---		210
Thallium	mg/kg	---	0.32	2.6		<0.51
Vanadium	mg/kg	---	25.2	550		12
Zinc	mg/kg	---	95	5100		40
pH			6.25	9		8.6

Analyte	Units	Background		Maximum Allowed Concentration	Sample Identification	2696V-58-B01 (0-5)
				CCDD	Sample Depth (feet)	(0-5)
		Chicago	MSAs	mg/kg pH 6.25-9.0	Date Collected	11/10/2017
Inorganic Analytical Parameters (SPLP)						
Antimony,SPLP	mg/L	---	---	---		--
Arsenic,SPLP	mg/L	---	---	---		--
Barium,SPLP	mg/L	---	---	---		--
Beryllium,SPLP	mg/L	---	---	---		--
Cadmium,SPLP	mg/L	---	---	---		--
Calcium,SPLP	mg/L	---	---	---		--
Chromium,SPLP	mg/L	---	---	---		--
Cobalt,SPLP	mg/L	---	---	---		--
Copper,SPLP	mg/L	---	---	---		--
Iron,SPLP	mg/L	---	---	---		--
Lead,SPLP	mg/L	---	---	---		--
Magnesium,SPLP	mg/L	---	---	---		--
Manganese,SPLP	mg/L	---	---	---		0.23
Mercury,SPLP	mg/L	---	---	---		--
Nickel,SPLP	mg/L	---	---	---		--
Potassium,SPLP	mg/L	---	---	---		--
Selenium,SPLP	mg/L	---	---	---		--
Silver,SPLP	mg/L	---	---	---		--
Sodium,SPLP	mg/L	---	---	---		--
Thallium,SPLP	mg/L	---	---	---		--
Vanadium,SPLP	mg/L	---	---	---		--
Zinc,SPLP	mg/L	---	---	---		--
Cyanide,SPLP	mg/L	---	---	---		--
Inorganic Analytical Parameters (TCLP)						
Arsenic,TCLP	mg/L	---	---	---		<0.050
Barium,TCLP	mg/L	---	---	---		0.34
Cadmium,TCLP	mg/L	---	---	---		<0.0050
Chromium,TCLP	mg/L	---	---	---		<0.025
Lead,TCLP	mg/L	---	---	---		<0.0075
Mercury,TCLP	mg/L	---	---	---		<0.00020
Selenium,TCLP	mg/L	---	---	---		<0.050
Silver,TCLP	mg/L	---	---	---		<0.025
Antimony,TCLP	mg/L	---	---	---		<0.0060
Beryllium,TCLP	mg/L	---	---	---		<0.0040
Calcium,TCLP	mg/L	---	---	---		590
Cobalt,TCLP	mg/L	---	---	---		<0.025
Copper,TCLP	mg/L	---	---	---		0.046
Cyanide,TCLP	mg/L	---	---	---		----
Iron,TCLP	mg/L	---	---	---		<0.40
Magnesium,TCLP	mg/L	---	---	---		48
Manganese,TCLP	mg/L	---	---	---		1.6
Nickel,TCLP	mg/L	---	---	---		0.015
Potassium,TCLP	mg/L	---	---	---		2.1
Sodium,TCLP	mg/L	---	---	---		----
Thallium,TCLP	mg/L	---	---	---		<0.0020
Vanadium,TCLP	mg/L	---	---	---		<0.025
Zinc,TCLP	mg/L	---	---	---		0.034

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: 500-137163-6
Client Project/Site: IDOT - Oak Forest/Markham - WO37

For:
Terracon Consulting Eng & Scientists
135 Ambassador Drive
Naperville, Illinois 60540

Attn: Mr. Matthew Weiss

Jodie Bracken

Authorized for release by:
11/22/2017 6:44:33 PM
Jodie Bracken, Project Management Assistant II
jodie.bracken@testamericainc.com

Designee for
Richard Wright, Senior Project Manager
(708)534-5200
richard.wright@testamericainc.com

LINKS

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results through
TotalAccess

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www.testamericainc.com

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

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

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

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Table of Contents

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Case Narrative

Client: Terracon Consulting Eng & Scientists
Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137163-6

Job ID: 500-137163-6

Laboratory: TestAmerica Chicago

Narrative

**Job Narrative
500-137163-6**

Receipt

The samples were received on 11/10/2017 3:20 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 3.4° C and 5.0° C.

GC/MS VOA

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

GC/MS Semi VOA

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

Metals

Method(s) 6010B: The method blank for preparation batch 500-409937 and analytical batch 500-410092 contained Calcium and Magnesium above the reporting limit (RL). Associated sample 2696V-58-B01 (0-5) (500-137163-10) was not re-extracted and/or re-analyzed because results were greater than 10X the value found in the method blank.

Method(s) 6010B: The continuing calibration verification (CCV) associated with batch 500-410598 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: 2696V-58-B01 (0-5) (500-137163-10).

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: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137163-6

Client Sample ID: 2696V-58-B01 (0-5)

Lab Sample ID: 500-137163-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Benzo[a]anthracene	0.024	J	0.035	0.0048	mg/Kg	1	☼	8270D	Total/NA	
Benzo[a]pyrene	0.032	J	0.035	0.0069	mg/Kg	1	☼	8270D	Total/NA	
Benzo[b]fluoranthene	0.049		0.035	0.0076	mg/Kg	1	☼	8270D	Total/NA	
Benzo[g,h,i]perylene	0.030	J	0.035	0.011	mg/Kg	1	☼	8270D	Total/NA	
Benzo[k]fluoranthene	0.011	J	0.035	0.010	mg/Kg	1	☼	8270D	Total/NA	
Chrysene	0.036		0.035	0.0097	mg/Kg	1	☼	8270D	Total/NA	
Fluoranthene	0.048		0.035	0.0066	mg/Kg	1	☼	8270D	Total/NA	
2-Methylnaphthalene	0.016	J	0.071	0.0065	mg/Kg	1	☼	8270D	Total/NA	
Phenanthrene	0.031	J	0.035	0.0049	mg/Kg	1	☼	8270D	Total/NA	
Pyrene	0.052		0.035	0.0070	mg/Kg	1	☼	8270D	Total/NA	
Arsenic	4.1		0.51	0.18	mg/Kg	1	☼	6010B	Total/NA	
Barium	25		0.51	0.059	mg/Kg	1	☼	6010B	Total/NA	
Beryllium	0.35		0.21	0.048	mg/Kg	1	☼	6010B	Total/NA	
Cadmium	0.11	B	0.10	0.019	mg/Kg	1	☼	6010B	Total/NA	
Chromium	8.8		0.51	0.25	mg/Kg	1	☼	6010B	Total/NA	
Cobalt	5.5		0.26	0.067	mg/Kg	1	☼	6010B	Total/NA	
Copper	19		0.51	0.14	mg/Kg	1	☼	6010B	Total/NA	
Iron	10000	B	10	5.4	mg/Kg	1	☼	6010B	Total/NA	
Lead	20		0.26	0.12	mg/Kg	1	☼	6010B	Total/NA	
Magnesium	26000	B	5.1	2.6	mg/Kg	1	☼	6010B	Total/NA	
Calcium	75000	B	100	17	mg/Kg	10	☼	6010B	Total/NA	
Manganese	200	B	0.51	0.075	mg/Kg	1	☼	6010B	Total/NA	
Nickel	15		0.51	0.15	mg/Kg	1	☼	6010B	Total/NA	
Vanadium	12		0.26	0.061	mg/Kg	1	☼	6010B	Total/NA	
Zinc	40		1.0	0.45	mg/Kg	1	☼	6010B	Total/NA	
Potassium	1200		26	9.1	mg/Kg	1	☼	6010B	Total/NA	
Sodium	210		51	7.6	mg/Kg	1	☼	6010B	Total/NA	
Barium	0.34	J	0.50	0.050	mg/L	1		6010B	TCLP	
Calcium	590		5.0	0.50	mg/L	1		6010B	TCLP	
Copper	0.046	B	0.040	0.010	mg/L	1		6010B	TCLP	
Magnesium	48		2.5	0.50	mg/L	1		6010B	TCLP	
Manganese	1.6		0.025	0.010	mg/L	1		6010B	TCLP	
Nickel	0.015	J	0.025	0.010	mg/L	1		6010B	TCLP	
Potassium	2.1	J	2.5	0.50	mg/L	1		6010B	TCLP	
Zinc	0.034	J B ^	0.50	0.020	mg/L	1		6010B	TCLP	
Manganese	0.23		0.025	0.010	mg/L	1		6010B	SPLP East	
Mercury	0.012	J	0.018	0.0058	mg/Kg	1	☼	7471B	Total/NA	
pH	8.6		0.20	0.20	SU	1		9045D	Total/NA	

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Sample Summary

Client: Terracon Consulting Eng & Scientists
Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137163-6

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-137163-10	2696V-58-B01 (0-5)	Solid	11/10/17 10:45	11/10/17 15:20

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137163-6

Client Sample ID: 2696V-58-B01 (0-5)

Lab Sample ID: 500-137163-10

Date Collected: 11/10/17 10:45

Matrix: Solid

Date Received: 11/10/17 15:20

Percent Solids: 88.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.018		0.018	0.0076	mg/Kg	☼	11/11/17 14:00	11/16/17 19:01	1
Benzene	<0.0018		0.0018	0.00045	mg/Kg	☼	11/11/17 14:00	11/16/17 19:01	1
Bromodichloromethane	<0.0018		0.0018	0.00036	mg/Kg	☼	11/11/17 14:00	11/16/17 19:01	1
Bromoform	<0.0018		0.0018	0.00051	mg/Kg	☼	11/11/17 14:00	11/16/17 19:01	1
Bromomethane	<0.0044		0.0044	0.0017	mg/Kg	☼	11/11/17 14:00	11/16/17 19:01	1
2-Butanone (MEK)	<0.0044		0.0044	0.0019	mg/Kg	☼	11/11/17 14:00	11/16/17 19:01	1
Carbon disulfide	<0.0044		0.0044	0.00091	mg/Kg	☼	11/11/17 14:00	11/16/17 19:01	1
Carbon tetrachloride	<0.0018		0.0018	0.00051	mg/Kg	☼	11/11/17 14:00	11/16/17 19:01	1
Chlorobenzene	<0.0018		0.0018	0.00065	mg/Kg	☼	11/11/17 14:00	11/16/17 19:01	1
Chloroethane	<0.0044		0.0044	0.0013	mg/Kg	☼	11/11/17 14:00	11/16/17 19:01	1
Chloroform	<0.0018		0.0018	0.00061	mg/Kg	☼	11/11/17 14:00	11/16/17 19:01	1
Chloromethane	<0.0044		0.0044	0.0018	mg/Kg	☼	11/11/17 14:00	11/16/17 19:01	1
cis-1,2-Dichloroethene	<0.0018		0.0018	0.00049	mg/Kg	☼	11/11/17 14:00	11/16/17 19:01	1
cis-1,3-Dichloropropene	<0.0018		0.0018	0.00053	mg/Kg	☼	11/11/17 14:00	11/16/17 19:01	1
Dibromochloromethane	<0.0018		0.0018	0.00057	mg/Kg	☼	11/11/17 14:00	11/16/17 19:01	1
1,1-Dichloroethane	<0.0018		0.0018	0.00060	mg/Kg	☼	11/11/17 14:00	11/16/17 19:01	1
1,2-Dichloroethane	<0.0044		0.0044	0.0014	mg/Kg	☼	11/11/17 14:00	11/16/17 19:01	1
1,1-Dichloroethene	<0.0018		0.0018	0.00060	mg/Kg	☼	11/11/17 14:00	11/16/17 19:01	1
1,2-Dichloropropane	<0.0018		0.0018	0.00045	mg/Kg	☼	11/11/17 14:00	11/16/17 19:01	1
1,3-Dichloropropane, Total	<0.0018		0.0018	0.00061	mg/Kg	☼	11/11/17 14:00	11/16/17 19:01	1
Ethylbenzene	<0.0018		0.0018	0.00084	mg/Kg	☼	11/11/17 14:00	11/16/17 19:01	1
2-Hexanone	<0.0044		0.0044	0.0014	mg/Kg	☼	11/11/17 14:00	11/16/17 19:01	1
Methylene Chloride	<0.0044		0.0044	0.0017	mg/Kg	☼	11/11/17 14:00	11/16/17 19:01	1
4-Methyl-2-pentanone (MIBK)	<0.0044		0.0044	0.0013	mg/Kg	☼	11/11/17 14:00	11/16/17 19:01	1
Methyl tert-butyl ether	<0.0018		0.0018	0.00051	mg/Kg	☼	11/11/17 14:00	11/16/17 19:01	1
Styrene	<0.0018		0.0018	0.00053	mg/Kg	☼	11/11/17 14:00	11/16/17 19:01	1
1,1,2,2-Tetrachloroethane	<0.0018		0.0018	0.00056	mg/Kg	☼	11/11/17 14:00	11/16/17 19:01	1
Tetrachloroethene	<0.0018		0.0018	0.00060	mg/Kg	☼	11/11/17 14:00	11/16/17 19:01	1
Toluene	<0.0018		0.0018	0.00044	mg/Kg	☼	11/11/17 14:00	11/16/17 19:01	1
trans-1,2-Dichloroethene	<0.0018		0.0018	0.00078	mg/Kg	☼	11/11/17 14:00	11/16/17 19:01	1
trans-1,3-Dichloropropene	<0.0018		0.0018	0.00061	mg/Kg	☼	11/11/17 14:00	11/16/17 19:01	1
1,1,1-Trichloroethane	<0.0018		0.0018	0.00059	mg/Kg	☼	11/11/17 14:00	11/16/17 19:01	1
1,1,2-Trichloroethane	<0.0018		0.0018	0.00075	mg/Kg	☼	11/11/17 14:00	11/16/17 19:01	1
Trichloroethene	<0.0018		0.0018	0.00059	mg/Kg	☼	11/11/17 14:00	11/16/17 19:01	1
Vinyl acetate	<0.0044		0.0044	0.0015	mg/Kg	☼	11/11/17 14:00	11/16/17 19:01	1
Vinyl chloride	<0.0018		0.0018	0.00078	mg/Kg	☼	11/11/17 14:00	11/16/17 19:01	1
Xylenes, Total	<0.0035		0.0035	0.00056	mg/Kg	☼	11/11/17 14:00	11/16/17 19:01	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	86		75 - 131	11/11/17 14:00	11/16/17 19:01	1
Dibromofluoromethane	98		75 - 126	11/11/17 14:00	11/16/17 19:01	1
1,2-Dichloroethane-d4 (Surr)	94		70 - 134	11/11/17 14:00	11/16/17 19:01	1
Toluene-d8 (Surr)	99		75 - 124	11/11/17 14:00	11/16/17 19:01	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.035		0.035	0.0064	mg/Kg	☼	11/17/17 07:31	11/20/17 16:37	1
Acenaphthylene	<0.035		0.035	0.0047	mg/Kg	☼	11/17/17 07:31	11/20/17 16:37	1
Anthracene	<0.035		0.035	0.0059	mg/Kg	☼	11/17/17 07:31	11/20/17 16:37	1
Benzo[a]anthracene	0.024	J	0.035	0.0048	mg/Kg	☼	11/17/17 07:31	11/20/17 16:37	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137163-6

Client Sample ID: 2696V-58-B01 (0-5)

Lab Sample ID: 500-137163-10

Date Collected: 11/10/17 10:45

Matrix: Solid

Date Received: 11/10/17 15:20

Percent Solids: 88.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	0.032	J	0.035	0.0069	mg/Kg	☼	11/17/17 07:31	11/20/17 16:37	1
Benzo[b]fluoranthene	0.049		0.035	0.0076	mg/Kg	☼	11/17/17 07:31	11/20/17 16:37	1
Benzo[g,h,i]perylene	0.030	J	0.035	0.011	mg/Kg	☼	11/17/17 07:31	11/20/17 16:37	1
Benzo[k]fluoranthene	0.011	J	0.035	0.010	mg/Kg	☼	11/17/17 07:31	11/20/17 16:37	1
Bis(2-chloroethoxy)methane	<0.18		0.18	0.036	mg/Kg	☼	11/17/17 07:31	11/20/17 16:37	1
Bis(2-chloroethyl)ether	<0.18		0.18	0.053	mg/Kg	☼	11/17/17 07:31	11/20/17 16:37	1
Bis(2-ethylhexyl) phthalate	<0.18		0.18	0.065	mg/Kg	☼	11/17/17 07:31	11/20/17 16:37	1
4-Bromophenyl phenyl ether	<0.18		0.18	0.047	mg/Kg	☼	11/17/17 07:31	11/20/17 16:37	1
Butyl benzyl phthalate	<0.18		0.18	0.067	mg/Kg	☼	11/17/17 07:31	11/20/17 16:37	1
Carbazole	<0.18		0.18	0.088	mg/Kg	☼	11/17/17 07:31	11/20/17 16:37	1
4-Chloroaniline	<0.71		0.71	0.17	mg/Kg	☼	11/17/17 07:31	11/20/17 16:37	1
4-Chloro-3-methylphenol	<0.35		0.35	0.12	mg/Kg	☼	11/17/17 07:31	11/20/17 16:37	1
2-Chloronaphthalene	<0.18		0.18	0.039	mg/Kg	☼	11/17/17 07:31	11/20/17 16:37	1
2-Chlorophenol	<0.18		0.18	0.060	mg/Kg	☼	11/17/17 07:31	11/20/17 16:37	1
4-Chlorophenyl phenyl ether	<0.18		0.18	0.041	mg/Kg	☼	11/17/17 07:31	11/20/17 16:37	1
Chrysene	0.036		0.035	0.0097	mg/Kg	☼	11/17/17 07:31	11/20/17 16:37	1
Dibenz(a,h)anthracene	<0.035		0.035	0.0068	mg/Kg	☼	11/17/17 07:31	11/20/17 16:37	1
Dibenzofuran	<0.18		0.18	0.041	mg/Kg	☼	11/17/17 07:31	11/20/17 16:37	1
1,2-Dichlorobenzene	<0.18		0.18	0.042	mg/Kg	☼	11/17/17 07:31	11/20/17 16:37	1
1,3-Dichlorobenzene	<0.18		0.18	0.040	mg/Kg	☼	11/17/17 07:31	11/20/17 16:37	1
1,4-Dichlorobenzene	<0.18		0.18	0.045	mg/Kg	☼	11/17/17 07:31	11/20/17 16:37	1
3,3'-Dichlorobenzidine	<0.18		0.18	0.050	mg/Kg	☼	11/17/17 07:31	11/20/17 16:37	1
2,4-Dichlorophenol	<0.35		0.35	0.084	mg/Kg	☼	11/17/17 07:31	11/20/17 16:37	1
Diethyl phthalate	<0.18		0.18	0.060	mg/Kg	☼	11/17/17 07:31	11/20/17 16:37	1
2,4-Dimethylphenol	<0.35		0.35	0.13	mg/Kg	☼	11/17/17 07:31	11/20/17 16:37	1
Dimethyl phthalate	<0.18		0.18	0.046	mg/Kg	☼	11/17/17 07:31	11/20/17 16:37	1
Di-n-butyl phthalate	<0.18		0.18	0.054	mg/Kg	☼	11/17/17 07:31	11/20/17 16:37	1
4,6-Dinitro-2-methylphenol	<0.71		0.71	0.28	mg/Kg	☼	11/17/17 07:31	11/20/17 16:37	1
2,4-Dinitrophenol	<0.71		0.71	0.62	mg/Kg	☼	11/17/17 07:31	11/20/17 16:37	1
2,4-Dinitrotoluene	<0.18		0.18	0.056	mg/Kg	☼	11/17/17 07:31	11/20/17 16:37	1
2,6-Dinitrotoluene	<0.18		0.18	0.070	mg/Kg	☼	11/17/17 07:31	11/20/17 16:37	1
Di-n-octyl phthalate	<0.18		0.18	0.058	mg/Kg	☼	11/17/17 07:31	11/20/17 16:37	1
Fluoranthene	0.048		0.035	0.0066	mg/Kg	☼	11/17/17 07:31	11/20/17 16:37	1
Fluorene	<0.035		0.035	0.0050	mg/Kg	☼	11/17/17 07:31	11/20/17 16:37	1
Hexachlorobenzene	<0.071		0.071	0.0082	mg/Kg	☼	11/17/17 07:31	11/20/17 16:37	1
Hexachlorobutadiene	<0.18		0.18	0.056	mg/Kg	☼	11/17/17 07:31	11/20/17 16:37	1
Hexachlorocyclopentadiene	<0.71		0.71	0.20	mg/Kg	☼	11/17/17 07:31	11/20/17 16:37	1
Hexachloroethane	<0.18		0.18	0.054	mg/Kg	☼	11/17/17 07:31	11/20/17 16:37	1
Indeno[1,2,3-cd]pyrene	<0.035		0.035	0.0092	mg/Kg	☼	11/17/17 07:31	11/20/17 16:37	1
Isophorone	<0.18		0.18	0.040	mg/Kg	☼	11/17/17 07:31	11/20/17 16:37	1
2-Methylnaphthalene	0.016	J	0.071	0.0065	mg/Kg	☼	11/17/17 07:31	11/20/17 16:37	1
2-Methylphenol	<0.18		0.18	0.057	mg/Kg	☼	11/17/17 07:31	11/20/17 16:37	1
3 & 4 Methylphenol	<0.18		0.18	0.059	mg/Kg	☼	11/17/17 07:31	11/20/17 16:37	1
Naphthalene	<0.035		0.035	0.0054	mg/Kg	☼	11/17/17 07:31	11/20/17 16:37	1
2-Nitroaniline	<0.18		0.18	0.048	mg/Kg	☼	11/17/17 07:31	11/20/17 16:37	1
3-Nitroaniline	<0.35		0.35	0.11	mg/Kg	☼	11/17/17 07:31	11/20/17 16:37	1
4-Nitroaniline	<0.35		0.35	0.15	mg/Kg	☼	11/17/17 07:31	11/20/17 16:37	1
Nitrobenzene	<0.035		0.035	0.0088	mg/Kg	☼	11/17/17 07:31	11/20/17 16:37	1
2-Nitrophenol	<0.35		0.35	0.084	mg/Kg	☼	11/17/17 07:31	11/20/17 16:37	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137163-6

Client Sample ID: 2696V-58-B01 (0-5)

Lab Sample ID: 500-137163-10

Date Collected: 11/10/17 10:45

Matrix: Solid

Date Received: 11/10/17 15:20

Percent Solids: 88.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Nitrophenol	<0.71		0.71	0.34	mg/Kg	☼	11/17/17 07:31	11/20/17 16:37	1
N-Nitrosodi-n-propylamine	<0.071		0.071	0.043	mg/Kg	☼	11/17/17 07:31	11/20/17 16:37	1
N-Nitrosodiphenylamine	<0.18		0.18	0.042	mg/Kg	☼	11/17/17 07:31	11/20/17 16:37	1
2,2'-oxybis[1-chloropropane]	<0.18		0.18	0.041	mg/Kg	☼	11/17/17 07:31	11/20/17 16:37	1
Pentachlorophenol	<0.71		0.71	0.57	mg/Kg	☼	11/17/17 07:31	11/20/17 16:37	1
Phenanthrene	0.031	J	0.035	0.0049	mg/Kg	☼	11/17/17 07:31	11/20/17 16:37	1
Phenol	<0.18		0.18	0.079	mg/Kg	☼	11/17/17 07:31	11/20/17 16:37	1
Pyrene	0.052		0.035	0.0070	mg/Kg	☼	11/17/17 07:31	11/20/17 16:37	1
1,2,4-Trichlorobenzene	<0.18		0.18	0.038	mg/Kg	☼	11/17/17 07:31	11/20/17 16:37	1
2,4,5-Trichlorophenol	<0.35		0.35	0.081	mg/Kg	☼	11/17/17 07:31	11/20/17 16:37	1
2,4,6-Trichlorophenol	<0.35		0.35	0.12	mg/Kg	☼	11/17/17 07:31	11/20/17 16:37	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	96		44 - 121	11/17/17 07:31	11/20/17 16:37	1
2-Fluorophenol	98		46 - 133	11/17/17 07:31	11/20/17 16:37	1
Nitrobenzene-d5	94		41 - 120	11/17/17 07:31	11/20/17 16:37	1
Phenol-d5	100		46 - 125	11/17/17 07:31	11/20/17 16:37	1
Terphenyl-d14	102		35 - 160	11/17/17 07:31	11/20/17 16:37	1
2,4,6-Tribromophenol	59		25 - 139	11/17/17 07:31	11/20/17 16:37	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.0		1.0	0.20	mg/Kg	☼	11/14/17 16:15	11/15/17 13:29	1
Arsenic	4.1		0.51	0.18	mg/Kg	☼	11/14/17 16:15	11/15/17 13:29	1
Barium	25		0.51	0.059	mg/Kg	☼	11/14/17 16:15	11/15/17 13:29	1
Beryllium	0.35		0.21	0.048	mg/Kg	☼	11/14/17 16:15	11/15/17 13:29	1
Cadmium	0.11	B	0.10	0.019	mg/Kg	☼	11/14/17 16:15	11/15/17 13:29	1
Chromium	8.8		0.51	0.25	mg/Kg	☼	11/14/17 16:15	11/15/17 13:29	1
Cobalt	5.5		0.26	0.067	mg/Kg	☼	11/14/17 16:15	11/15/17 13:29	1
Copper	19		0.51	0.14	mg/Kg	☼	11/14/17 16:15	11/15/17 13:29	1
Iron	10000	B	10	5.4	mg/Kg	☼	11/14/17 16:15	11/15/17 13:29	1
Lead	20		0.26	0.12	mg/Kg	☼	11/14/17 16:15	11/15/17 13:29	1
Magnesium	26000	B	5.1	2.6	mg/Kg	☼	11/14/17 16:15	11/15/17 13:29	1
Calcium	75000	B	100	17	mg/Kg	☼	11/14/17 16:15	11/15/17 20:37	10
Manganese	200	B	0.51	0.075	mg/Kg	☼	11/14/17 16:15	11/15/17 13:29	1
Nickel	15		0.51	0.15	mg/Kg	☼	11/14/17 16:15	11/15/17 13:29	1
Selenium	<0.51		0.51	0.30	mg/Kg	☼	11/14/17 16:15	11/15/17 13:29	1
Silver	<0.26		0.26	0.066	mg/Kg	☼	11/14/17 16:15	11/15/17 13:29	1
Thallium	<0.51		0.51	0.26	mg/Kg	☼	11/14/17 16:15	11/15/17 13:29	1
Vanadium	12		0.26	0.061	mg/Kg	☼	11/14/17 16:15	11/15/17 13:29	1
Zinc	40		1.0	0.45	mg/Kg	☼	11/14/17 16:15	11/15/17 13:29	1
Potassium	1200		26	9.1	mg/Kg	☼	11/14/17 16:15	11/15/17 13:29	1
Sodium	210		51	7.6	mg/Kg	☼	11/14/17 16:15	11/15/17 13:29	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.050		0.050	0.010	mg/L		11/17/17 09:02	11/17/17 17:16	1
Barium	0.34	J	0.50	0.050	mg/L		11/17/17 09:02	11/17/17 17:16	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		11/17/17 09:02	11/17/17 17:16	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		11/17/17 09:02	11/17/17 17:16	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137163-6

Client Sample ID: 2696V-58-B01 (0-5)

Lab Sample ID: 500-137163-10

Date Collected: 11/10/17 10:45

Matrix: Solid

Date Received: 11/10/17 15:20

Percent Solids: 88.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	590		5.0	0.50	mg/L		11/17/17 09:02	11/17/17 17:16	1
Chromium	<0.025		0.025	0.010	mg/L		11/17/17 09:02	11/17/17 17:16	1
Cobalt	<0.025		0.025	0.010	mg/L		11/17/17 09:02	11/17/17 17:16	1
Copper	0.046	B	0.040	0.010	mg/L		11/17/17 09:02	11/17/17 17:16	1
Iron	<0.40		0.40	0.20	mg/L		11/17/17 09:02	11/17/17 17:16	1
Lead	<0.0075		0.0075	0.0075	mg/L		11/17/17 09:02	11/17/17 17:16	1
Magnesium	48		2.5	0.50	mg/L		11/17/17 09:02	11/17/17 17:16	1
Manganese	1.6		0.025	0.010	mg/L		11/17/17 09:02	11/17/17 17:16	1
Nickel	0.015	J	0.025	0.010	mg/L		11/17/17 09:02	11/17/17 17:16	1
Potassium	2.1	J	2.5	0.50	mg/L		11/17/17 09:02	11/17/17 17:16	1
Selenium	<0.050		0.050	0.020	mg/L		11/17/17 09:02	11/17/17 17:16	1
Silver	<0.025		0.025	0.010	mg/L		11/17/17 09:02	11/17/17 17:16	1
Vanadium	<0.025		0.025	0.010	mg/L		11/17/17 09:02	11/17/17 17:16	1
Zinc	0.034	J B ^	0.50	0.020	mg/L		11/17/17 09:02	11/17/17 17:16	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		11/20/17 07:21	11/20/17 20:47	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		11/17/17 09:02	11/18/17 04:25	1
Thallium	<0.0020		0.0020	0.0020	mg/L		11/17/17 09:02	11/18/17 04:25	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		11/18/17 14:00	11/20/17 09:24	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.012	J	0.018	0.0058	mg/Kg	☼	11/20/17 07:30	11/20/17 14:57	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.50		0.50	0.17	mg/Kg	☼	11/21/17 13:15	11/21/17 16:35	1
pH	8.6		0.20	0.20	SU			11/20/17 10:49	1

Definitions/Glossary

Client: Terracon Consulting Eng & Scientists
Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137163-6

Qualifiers

GC/MS Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

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

Glossary

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

Accreditation/Certification Summary

Client: Terracon Consulting Eng & Scientists
Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137163-6

Laboratory: TestAmerica Chicago

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

Authority	Program	EPA Region	Identification Number	Expiration Date
Illinois	NELAP	5	100201	04-30-18

The following analytes are included in this report, but accreditation/certification is not offered by the governing authority:

Analysis Method	Prep Method	Matrix	Analyte
6020A	3010A	Solid	Antimony
6020A	3010A	Solid	Thallium
8260B	5035	Solid	1,3-Dichloropropene, Total
9045D		Solid	pH
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids



TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

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

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

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

Chain of Custody Record

Lab Job #: 500-137163
 Chain of Custody Number: _____
 Page 1 of 1
 Temperature °C of Cooler: 34.50

Client		Client Project #		Preservative		Parameter		Matrix		Comments	
<u>TERRACON</u>		<u>11177029M</u>								Preservative Key 1. HCL, Cool to 4° 2. H2SO4, Cool to 4° 3. HNO3, Cool to 4° 4. NaOH, Cool to 4° 5. NaOH/Zn, Cool to 4° 6. NaHSO4 7. Cool to 4° 8. None 9. Other	
Project Name		Lab Project #		Sampling		# of Containers		Matrix		Comments	
<u>WORK ORDER #037</u>				Date Time							
Project Location/State		Lab Project #		Date		Time		# of Containers		Matrix	
<u>MARXNAM, IL</u>				11-10-17		1045		5		S	
Sampler		Lab PM		Date		Time		# of Containers		Matrix	
<u>CRAIG VARLAND</u>		<u>DICK WRIGHT</u>									
Lab ID	MS/MSD	Sample ID		Date		Time		# of Containers		Matrix	
<u>10</u>		<u>2696V-58-801-(0-5)</u>		<u>11-10-17</u>		<u>1045</u>		<u>5</u>		<u>S</u>	

Turnaround Time Required (Business Days)
 ___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days ___ 10 Days ___ 15 Days ___ Other
 Requested Date 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>TERRACON</u> Date: <u>11-10-17</u> Time: <u>1450</u>	Received By: <u>[Signature]</u> Company: <u>TA</u> Date: <u>11/10/17</u> Time: <u>1450</u>	Lab Courier: <u>TA</u>
Relinquished By: <u>[Signature]</u> Company: <u>TA</u> Date: <u>11/10/17</u> Time: <u>1520</u>	Received By: <u>[Signature]</u> Company: <u>TERRACON</u> Date: <u>11/10/17</u> Time: <u>1520</u>	Shipped: _____
Relinquished By: _____ Company: _____ Date: _____ Time: _____	Received By: _____ Company: _____ Date: _____ Time: _____	Hand Delivered: _____

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

Client Comments
NO ALUMINUM

Lab Comments:

Login Sample Receipt Checklist

Client: Terracon Consulting Eng & Scientists

Job Number: 500-137163-6

Login Number: 137163

List Source: TestAmerica Chicago

List Number: 1

Creator: Sanchez, Ariel 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	3.4, 5.0
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	





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 351-US Rte 6 at Pulaski/Crawford & Kedzie Office Phone Number, if available: _____

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

Pulaski Road (Northbound) IDOT STA 66+50 to 68+60 (ISGS Site 2696V-59)

City: Oak Forest/Markham State: IL Zip Code: 60428

County: Cook Township: Bremen

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

Latitude: 41.60367 Longitude: -87.71682
(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: 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 Phone: 847-705-4122

Zip Code: 60196 Phone: 847-705-4122

Contact: Paul Nickles

Contact: Paul Nickles

Email, if available: paul.nickles@illinois.gov

Email, if available: paul.nickles@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 351-US Rte 6 at Pulaski/Crawford & Kedzie

Latitude: 41.60367 Longitude: -87.71682

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)]:

Soil from borings B01, B02, and B03 were sampled adjacent to ISGS Site No 2696V-59. See Exhibits 4, 4A, 5, 5A, and Table 75 of the Preliminary Site Investigation Report prepared by Terracon.

- 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]:

TestAmerica Lab Report No J137163-7
Also see Preliminary Site Investigation Report prepared by Terracon. CCDD/USFO facility in MSA County.

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

I, Matt Weiss (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: Terracon Consultants, Inc

Street Address: 135 Ambassador Drive

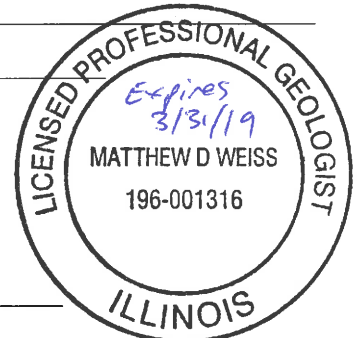
City: Naperville State: IL Zip Code: 60540

Phone: 630-717-4263

Matt Weiss
Printed Name:

[Signature]
Licensed Professional Engineer or
Licensed Professional Geologist Signature:

7/24/18
Date:



Detected Constituents to MACs-PTB 174-009;Work Order:037A
Preliminary Site Investigation
FAP 351-US Rte 6 at S. Pulaski/Crawford + Kedzie (PESA #2696V-59)
Oak Forest/Markham, Cook County, IL
Terracon Project No. 11177029M
Page 1 of 4

Analyte	Units	Background		Maximum Allowed Concentration	Sample Identification	2696V-59-B01 (0-5)	2696V-59-B02 (0-5)
				CCDD	Sample Depth (feet)	(0-5)	(0-5)
		Chicago	MSAs	mg/kg pH 6.25-9.0	Date Collected	11/10/2017	11/10/2017
Semivolatile Organic Analytical Parameters							
Benzo(a)anthracene	mg/kg	1.1	1.8	0.9		0.013	<0.039
Benzo(a)pyrene	mg/kg	1.3	2.1	0.09		0.021	<0.039
Benzo(b)fluoranthene	mg/kg	1.5	2.1	0.9		0.03	<0.039
Benzo(g,h,i)perylene	mg/kg	0.68	1.7	2300		0.016	0.017
Chrysene	mg/kg	1.2	2.7	88		0.022	0.014
Fluoranthene	mg/kg	2.7	4.1	3100		0.039	<0.039
Phenanthrene	mg/kg	1.3	2.5	210		0.027	0.011
Pyrene	mg/kg	1.9	3.0	2300		0.037	0.015
2-Methylnaphthalene	mg/kg	---	0.14	---		<0.077	<0.079
Inorganic Analytical Parameters							
Arsenic	mg/kg	---	13	11.3		7.2	5.3
Barium	mg/kg	---	110	1500		39	51
Cadmium	mg/kg	---	0.6	5.2		0.28	0.09
Chromium, total	mg/kg	---	16.2	21		11	12
Lead	mg/kg	---	36	107		20	9.6
Mercury	mg/kg	---	0.06	0.1		0.023	0.02
Selenium	mg/kg	---	0.48	1.3		0.55	0.5
Silver	mg/kg	---	0.55	4.4		<0.29	<0.28
Antimony	mg/kg	---	4.0	5		<1.2	<1.1
Beryllium	mg/kg	---	0.59	22		0.46	0.47
Calcium	mg/kg	---	9,300	---		60000	88000
Cobalt	mg/kg	---	8.9	20		10	9.7
Copper	mg/kg	---	19.6	2900		17	18
Cyanide	mg/kg	---	0.51	---		<0.56	<0.56
Iron	mg/kg	---	15,900	15000		16000	15000
Magnesium	mg/kg	---	4,820	325000		18000	25000
Manganese	mg/kg	---	636	630		400	310
Nickel	mg/kg	---	18	100		24	25
Potassium	mg/kg	---	1,268	---		1400	1900
Sodium	mg/kg	---	130	---		510	260
Thallium	mg/kg	---	0.32	2.6		<0.58	<0.55
Vanadium	mg/kg	---	25.2	550		16	15
Zinc	mg/kg	---	95	5100		53	50
pH			6.25	9		8.7	7.8

Detected Constituents to MACs-PTB 174-009;Work Order:037A
Preliminary Site Investigation
FAP 351-US Rte 6 at S. Pulaski/Crawford + Kedzie (PESA #2696V-59)
Oak Forest/Markham, Cook County, IL
Terracon Project No. 11177029M
Page 2 of 4

Analyte	Units	Background		Maximum Allowed Concentration	Sample Identification	2696V-59-B01 (0-5)	2696V-59-B02 (0-5)
				CCDD	Sample Depth (feet)	(0-5)	(0-5)
		Chicago	MSAs	mg/kg pH 6.25-9.0	Date Collected	11/10/2017	11/10/2017
Inorganic Analytical Parameters (SPLP)							
Antimony,SPLP	mg/L	---	---	---		--	--
Arsenic,SPLP	mg/L	---	---	---		--	--
Barium,SPLP	mg/L	---	---	---		--	--
Beryllium,SPLP	mg/L	---	---	---		--	--
Cadmium,SPLP	mg/L	---	---	---		--	--
Calcium,SPLP	mg/L	---	---	---		--	--
Chromium,SPLP	mg/L	---	---	---		--	--
Cobalt,SPLP	mg/L	---	---	---		--	--
Copper,SPLP	mg/L	---	---	---		--	--
Iron,SPLP	mg/L	---	---	---		--	--
Lead,SPLP	mg/L	---	---	---		--	--
Magnesium,SPLP	mg/L	---	---	---		--	--
Manganese,SPLP	mg/L	---	---	---		1.5	0.027
Mercury,SPLP	mg/L	---	---	---		--	--
Nickel,SPLP	mg/L	---	---	---		--	--
Potassium,SPLP	mg/L	---	---	---		--	--
Selenium,SPLP	mg/L	---	---	---		--	--
Silver,SPLP	mg/L	---	---	---		--	--
Sodium,SPLP	mg/L	---	---	---		--	--
Thallium,SPLP	mg/L	---	---	---		--	--
Vanadium,SPLP	mg/L	---	---	---		--	--
Zinc,SPLP	mg/L	---	---	---		--	--
Cyanide,SPLP	mg/L	---	---	---		--	--
Inorganic Analytical Parameters (TCLP)							
Arsenic,TCLP	mg/L	---	---	---		<0.050	<0.050
Barium,TCLP	mg/L	---	---	---		0.56	0.33
Cadmium,TCLP	mg/L	---	---	---		0.0023	<0.0050
Chromium,TCLP	mg/L	---	---	---		<0.025	<0.025
Lead,TCLP	mg/L	---	---	---		<0.0075	<0.0075
Mercury,TCLP	mg/L	---	---	---		<0.00020	<0.00020
Selenium,TCLP	mg/L	---	---	---		<0.050	<0.050
Silver,TCLP	mg/L	---	---	---		<0.025	<0.025
Antimony,TCLP	mg/L	---	---	---		<0.0060	<0.0060
Beryllium,TCLP	mg/L	---	---	---		<0.0040	<0.0040
Calcium,TCLP	mg/L	---	---	---		570	810
Cobalt,TCLP	mg/L	---	---	---		0.022	0.015
Copper,TCLP	mg/L	---	---	---		<0.040	0.016
Cyanide,TCLP	mg/L	---	---	---		----	----
Iron,TCLP	mg/L	---	---	---		0.3	<0.40
Magnesium,TCLP	mg/L	---	---	---		30	25
Manganese,TCLP	mg/L	---	---	---		9.3	2.6
Nickel,TCLP	mg/L	---	---	---		0.031	0.036
Potassium,TCLP	mg/L	---	---	---		4.9	4.1
Sodium,TCLP	mg/L	---	---	---		----	----
Thallium,TCLP	mg/L	---	---	---		<0.0020	<0.0020
Vanadium,TCLP	mg/L	---	---	---		<0.025	<0.025
Zinc,TCLP	mg/L	---	---	---		0.039	<0.50

Detected Constituents to MACs-PTB 174-009;Work Order:037A
Preliminary Site Investigation
FAP 351-US Rte 6 at S. Pulaski/Crawford + Kedzie (PESA #2696V-59)
Oak Forest/Markham, Cook County, IL
Terracon Project No. 11177029M
Page 3 of 4

Analyte	Units	Background		Maximum Allowed Concentration	Sample Identification	2696V-59-B03 (0-5)
				CCDD	Sample Depth (feet)	(0-5)
		Chicago	MSAs	mg/kg pH 6.25-9.0	Date Collected	11/10/2017
Semivolatile Organic Analytical Parameters						
Benzo(a)anthracene	mg/kg	1.1	1.8	0.9		0.012
Benzo(a)pyrene	mg/kg	1.3	2.1	0.09		0.014
Benzo(b)fluoranthene	mg/kg	1.5	2.1	0.9		0.021
Benzo(g,h,i)perylene	mg/kg	0.68	1.7	2300		<0.040
Chrysene	mg/kg	1.2	2.7	88		0.022
Fluoranthene	mg/kg	2.7	4.1	3100		0.02
Phenanthrene	mg/kg	1.3	2.5	210		0.02
Pyrene	mg/kg	1.9	3.0	2300		0.024
2-Methylnaphthalene	mg/kg	---	0.14	---		0.0078
Inorganic Analytical Parameters						
Arsenic	mg/kg	---	13	11.3		6.6
Barium	mg/kg	---	110	1500		44
Cadmium	mg/kg	---	0.6	5.2		0.2
Chromium, total	mg/kg	---	16.2	21		13
Lead	mg/kg	---	36	107		29
Mercury	mg/kg	---	0.06	0.1		0.028
Selenium	mg/kg	---	0.48	1.3		0.85
Silver	mg/kg	---	0.55	4.4		<0.29
Antimony	mg/kg	---	4.0	5		<1.2
Beryllium	mg/kg	---	0.59	22		0.54
Calcium	mg/kg	---	9,300	---		62000
Cobalt	mg/kg	---	8.9	20		9.6
Copper	mg/kg	---	19.6	2900		21
Cyanide	mg/kg	---	0.51	---		<0.61
Iron	mg/kg	---	15,900	15000		15000
Magnesium	mg/kg	---	4,820	325000		22000
Manganese	mg/kg	---	636	630		360
Nickel	mg/kg	---	18	100		23
Potassium	mg/kg	---	1,268	---		1700
Sodium	mg/kg	---	130	---		990
Thallium	mg/kg	---	0.32	2.6		<0.58
Vanadium	mg/kg	---	25.2	550		17
Zinc	mg/kg	---	95	5100		59
pH			6.25	9		7.6

Analyte	Units	Background		Maximum Allowed Concentration	Sample Identification	2696V-59-B03 (0-5)
				CCDD	Sample Depth (feet)	(0-5)
		Chicago	MSAs	mg/kg pH 6.25-9.0	Date Collected	11/10/2017
Inorganic Analytical Parameters (SPLP)						
Antimony,SPLP	mg/L	---	---	---		--
Arsenic,SPLP	mg/L	---	---	---		--
Barium,SPLP	mg/L	---	---	---		--
Beryllium,SPLP	mg/L	---	---	---		--
Cadmium,SPLP	mg/L	---	---	---		--
Calcium,SPLP	mg/L	---	---	---		--
Chromium,SPLP	mg/L	---	---	---		--
Cobalt,SPLP	mg/L	---	---	---		--
Copper,SPLP	mg/L	---	---	---		--
Iron,SPLP	mg/L	---	---	---		--
Lead,SPLP	mg/L	---	---	---		--
Magnesium,SPLP	mg/L	---	---	---		--
Manganese,SPLP	mg/L	---	---	---		0.04
Mercury,SPLP	mg/L	---	---	---		--
Nickel,SPLP	mg/L	---	---	---		--
Potassium,SPLP	mg/L	---	---	---		--
Selenium,SPLP	mg/L	---	---	---		--
Silver,SPLP	mg/L	---	---	---		--
Sodium,SPLP	mg/L	---	---	---		--
Thallium,SPLP	mg/L	---	---	---		--
Vanadium,SPLP	mg/L	---	---	---		--
Zinc,SPLP	mg/L	---	---	---		--
Cyanide,SPLP	mg/L	---	---	---		--
Inorganic Analytical Parameters (TCLP)						
Arsenic,TCLP	mg/L	---	---	---		<0.050
Barium,TCLP	mg/L	---	---	---		0.43
Cadmium,TCLP	mg/L	---	---	---		0.002
Chromium,TCLP	mg/L	---	---	---		<0.025
Lead,TCLP	mg/L	---	---	---		<0.0075
Mercury,TCLP	mg/L	---	---	---		<0.00020
Selenium,TCLP	mg/L	---	---	---		<0.050
Silver,TCLP	mg/L	---	---	---		<0.025
Antimony,TCLP	mg/L	---	---	---		<0.0060
Beryllium,TCLP	mg/L	---	---	---		<0.0040
Calcium,TCLP	mg/L	---	---	---		520
Cobalt,TCLP	mg/L	---	---	---		0.038
Copper,TCLP	mg/L	---	---	---		<0.040
Cyanide,TCLP	mg/L	---	---	---		----
Iron,TCLP	mg/L	---	---	---		<0.40
Magnesium,TCLP	mg/L	---	---	---		44
Manganese,TCLP	mg/L	---	---	---		8.1
Nickel,TCLP	mg/L	---	---	---		0.034
Potassium,TCLP	mg/L	---	---	---		3.4
Sodium,TCLP	mg/L	---	---	---		----
Thallium,TCLP	mg/L	---	---	---		<0.0020
Vanadium,TCLP	mg/L	---	---	---		<0.025
Zinc,TCLP	mg/L	---	---	---		0.037

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: 500-137163-7

Client Project/Site: IDOT - Oak Forest/Markham - WO37

For:

Terracon Consulting Eng & Scientists
135 Ambassador Drive
Naperville, Illinois 60540

Attn: Mr. Matthew Weiss

Jodie Bracken

Authorized for release by:
11/22/2017 6:45:21 PM

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LINKS

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

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

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

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Case Narrative

Client: Terracon Consulting Eng & Scientists
Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137163-7

Job ID: 500-137163-7

Laboratory: TestAmerica Chicago

Narrative

Job Narrative 500-137163-7

Receipt

The samples were received on 11/10/2017 3:20 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 3.4° C and 5.0° C.

GC/MS VOA

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

GC/MS Semi VOA

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

Metals

Method(s) 6010B: The method blank for preparation batch 500-409937 and analytical batch 500-410092 contained Calcium and Magnesium above the reporting limit (RL). Associated samples 2696V-59-B01 (0-5) (500-137163-11), 2696V-59-B02 (0-5) (500-137163-12) and 2696V-59-B03 (0-5) (500-137163-13) were not re-extracted and/or re-analyzed because results were greater than 10X the value found in the method blank.

Method(s) 6010B: The continuing calibration verification (CCV) associated with batch 500-410598 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: 2696V-59-B01 (0-5) (500-137163-11), 2696V-59-B02 (0-5) (500-137163-12) and 2696V-59-B03 (0-5) (500-137163-13).

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: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137163-7

Client Sample ID: 2696V-59-B01 (0-5)

Lab Sample ID: 500-137163-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]anthracene	0.013	J	0.038	0.0052	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.021	J	0.038	0.0074	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.030	J	0.038	0.0083	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.016	J	0.038	0.012	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.022	J	0.038	0.010	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.039		0.038	0.0071	mg/Kg	1	☼	8270D	Total/NA
Phenanthrene	0.027	J	0.038	0.0054	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.037	J	0.038	0.0076	mg/Kg	1	☼	8270D	Total/NA
Arsenic	7.2		0.58	0.20	mg/Kg	1	☼	6010B	Total/NA
Barium	39		0.58	0.066	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.46		0.23	0.054	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.28	B	0.12	0.021	mg/Kg	1	☼	6010B	Total/NA
Chromium	11		0.58	0.29	mg/Kg	1	☼	6010B	Total/NA
Cobalt	10		0.29	0.076	mg/Kg	1	☼	6010B	Total/NA
Copper	17		0.58	0.16	mg/Kg	1	☼	6010B	Total/NA
Iron	16000	B	12	6.0	mg/Kg	1	☼	6010B	Total/NA
Lead	20		0.29	0.13	mg/Kg	1	☼	6010B	Total/NA
Magnesium	18000	B	5.8	2.9	mg/Kg	1	☼	6010B	Total/NA
Calcium	60000	B	120	20	mg/Kg	10	☼	6010B	Total/NA
Manganese	400	B	0.58	0.084	mg/Kg	1	☼	6010B	Total/NA
Nickel	24		0.58	0.17	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.55	J	0.58	0.34	mg/Kg	1	☼	6010B	Total/NA
Vanadium	16		0.29	0.068	mg/Kg	1	☼	6010B	Total/NA
Zinc	53		1.2	0.51	mg/Kg	1	☼	6010B	Total/NA
Potassium	1400		29	10	mg/Kg	1	☼	6010B	Total/NA
Sodium	510		58	8.6	mg/Kg	1	☼	6010B	Total/NA
Barium	0.56		0.50	0.050	mg/L	1		6010B	TCLP
Cadmium	0.0023	J	0.0050	0.0020	mg/L	1		6010B	TCLP
Calcium	570		5.0	0.50	mg/L	1		6010B	TCLP
Cobalt	0.022	J	0.025	0.010	mg/L	1		6010B	TCLP
Iron	0.30	J	0.40	0.20	mg/L	1		6010B	TCLP
Magnesium	30		2.5	0.50	mg/L	1		6010B	TCLP
Manganese	9.3		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.031		0.025	0.010	mg/L	1		6010B	TCLP
Potassium	4.9		2.5	0.50	mg/L	1		6010B	TCLP
Zinc	0.039	J ^ B	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	1.5		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.023		0.019	0.0062	mg/Kg	1	☼	7471B	Total/NA
pH	8.7		0.20	0.20	SU	1		9045D	Total/NA

Client Sample ID: 2696V-59-B02 (0-5)

Lab Sample ID: 500-137163-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[g,h,i]perylene	0.017	J	0.039	0.013	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.014	J	0.039	0.011	mg/Kg	1	☼	8270D	Total/NA
Phenanthrene	0.011	J	0.039	0.0055	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.015	J	0.039	0.0078	mg/Kg	1	☼	8270D	Total/NA
Arsenic	5.3		0.55	0.19	mg/Kg	1	☼	6010B	Total/NA
Barium	51		0.55	0.063	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.47		0.22	0.052	mg/Kg	1	☼	6010B	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137163-7

Client Sample ID: 2696V-59-B02 (0-5) (Continued)

Lab Sample ID: 500-137163-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cadmium	0.090	J B	0.11	0.020	mg/Kg	1	☼	6010B	Total/NA
Chromium	12		0.55	0.27	mg/Kg	1	☼	6010B	Total/NA
Cobalt	9.7		0.28	0.072	mg/Kg	1	☼	6010B	Total/NA
Copper	18		0.55	0.15	mg/Kg	1	☼	6010B	Total/NA
Iron	15000	B	11	5.8	mg/Kg	1	☼	6010B	Total/NA
Lead	9.6		0.28	0.13	mg/Kg	1	☼	6010B	Total/NA
Magnesium	25000	B	5.5	2.7	mg/Kg	1	☼	6010B	Total/NA
Calcium	88000	B	110	19	mg/Kg	10	☼	6010B	Total/NA
Manganese	310	B	0.55	0.080	mg/Kg	1	☼	6010B	Total/NA
Nickel	25		0.55	0.16	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.50	J	0.55	0.33	mg/Kg	1	☼	6010B	Total/NA
Vanadium	15		0.28	0.065	mg/Kg	1	☼	6010B	Total/NA
Zinc	50		1.1	0.49	mg/Kg	1	☼	6010B	Total/NA
Potassium	1900		28	9.8	mg/Kg	1	☼	6010B	Total/NA
Sodium	260		55	8.2	mg/Kg	1	☼	6010B	Total/NA
Barium	0.33	J	0.50	0.050	mg/L	1		6010B	TCLP
Calcium	810		50	5.0	mg/L	10		6010B	TCLP
Cobalt	0.015	J	0.025	0.010	mg/L	1		6010B	TCLP
Copper	0.016	J B	0.040	0.010	mg/L	1		6010B	TCLP
Magnesium	25		2.5	0.50	mg/L	1		6010B	TCLP
Manganese	2.6		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.036		0.025	0.010	mg/L	1		6010B	TCLP
Potassium	4.1		2.5	0.50	mg/L	1		6010B	TCLP
Manganese	0.027		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.020		0.020	0.0065	mg/Kg	1	☼	7471B	Total/NA
pH	7.8		0.20	0.20	SU	1		9045D	Total/NA

Client Sample ID: 2696V-59-B03 (0-5)

Lab Sample ID: 500-137163-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]anthracene	0.012	J	0.040	0.0054	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.014	J	0.040	0.0078	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.021	J	0.040	0.0087	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.022	J	0.040	0.011	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.020	J	0.040	0.0075	mg/Kg	1	☼	8270D	Total/NA
2-Methylnaphthalene	0.0078	J	0.081	0.0074	mg/Kg	1	☼	8270D	Total/NA
Phenanthrene	0.020	J	0.040	0.0056	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.024	J	0.040	0.0080	mg/Kg	1	☼	8270D	Total/NA
Arsenic	6.6		0.58	0.20	mg/Kg	1	☼	6010B	Total/NA
Barium	44		0.58	0.066	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.54		0.23	0.054	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.20	B	0.12	0.021	mg/Kg	1	☼	6010B	Total/NA
Chromium	13		0.58	0.29	mg/Kg	1	☼	6010B	Total/NA
Cobalt	9.6		0.29	0.076	mg/Kg	1	☼	6010B	Total/NA
Copper	21		0.58	0.16	mg/Kg	1	☼	6010B	Total/NA
Iron	15000	B	12	6.0	mg/Kg	1	☼	6010B	Total/NA
Lead	29		0.29	0.13	mg/Kg	1	☼	6010B	Total/NA
Magnesium	22000	B	5.8	2.9	mg/Kg	1	☼	6010B	Total/NA
Calcium	62000	B	120	20	mg/Kg	10	☼	6010B	Total/NA
Manganese	360	B	0.58	0.084	mg/Kg	1	☼	6010B	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137163-7

Client Sample ID: 2696V-59-B03 (0-5) (Continued)

Lab Sample ID: 500-137163-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Nickel	23		0.58	0.17	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.85		0.58	0.34	mg/Kg	1	☼	6010B	Total/NA
Vanadium	17		0.29	0.068	mg/Kg	1	☼	6010B	Total/NA
Zinc	59		1.2	0.51	mg/Kg	1	☼	6010B	Total/NA
Potassium	1700		29	10	mg/Kg	1	☼	6010B	Total/NA
Sodium	990		58	8.6	mg/Kg	1	☼	6010B	Total/NA
Barium	0.43	J	0.50	0.050	mg/L	1		6010B	TCLP
Cadmium	0.0020	J	0.0050	0.0020	mg/L	1		6010B	TCLP
Calcium	520		5.0	0.50	mg/L	1		6010B	TCLP
Cobalt	0.038		0.025	0.010	mg/L	1		6010B	TCLP
Magnesium	44		2.5	0.50	mg/L	1		6010B	TCLP
Manganese	8.1		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.034		0.025	0.010	mg/L	1		6010B	TCLP
Potassium	3.4		2.5	0.50	mg/L	1		6010B	TCLP
Zinc	0.037	J B ^	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.040		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.028		0.019	0.0065	mg/Kg	1	☼	7471B	Total/NA
pH	7.6		0.20	0.20	SU	1		9045D	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Sample Summary

Client: Terracon Consulting Eng & Scientists
Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137163-7

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-137163-11	2696V-59-B01 (0-5)	Solid	11/10/17 09:50	11/10/17 15:20
500-137163-12	2696V-59-B02 (0-5)	Solid	11/10/17 10:10	11/10/17 15:20
500-137163-13	2696V-59-B03 (0-5)	Solid	11/10/17 10:25	11/10/17 15:20

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Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137163-7

Client Sample ID: 2696V-59-B01 (0-5)

Lab Sample ID: 500-137163-11

Date Collected: 11/10/17 09:50

Matrix: Solid

Date Received: 11/10/17 15:20

Percent Solids: 84.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.016		0.016	0.0069	mg/Kg	☼	11/11/17 14:00	11/16/17 19:26	1
Benzene	<0.0016		0.0016	0.00040	mg/Kg	☼	11/11/17 14:00	11/16/17 19:26	1
Bromodichloromethane	<0.0016		0.0016	0.00032	mg/Kg	☼	11/11/17 14:00	11/16/17 19:26	1
Bromoform	<0.0016		0.0016	0.00046	mg/Kg	☼	11/11/17 14:00	11/16/17 19:26	1
Bromomethane	<0.0040		0.0040	0.0015	mg/Kg	☼	11/11/17 14:00	11/16/17 19:26	1
2-Butanone (MEK)	<0.0040		0.0040	0.0018	mg/Kg	☼	11/11/17 14:00	11/16/17 19:26	1
Carbon disulfide	<0.0040		0.0040	0.00083	mg/Kg	☼	11/11/17 14:00	11/16/17 19:26	1
Carbon tetrachloride	<0.0016		0.0016	0.00046	mg/Kg	☼	11/11/17 14:00	11/16/17 19:26	1
Chlorobenzene	<0.0016		0.0016	0.00059	mg/Kg	☼	11/11/17 14:00	11/16/17 19:26	1
Chloroethane	<0.0040		0.0040	0.0012	mg/Kg	☼	11/11/17 14:00	11/16/17 19:26	1
Chloroform	<0.0016		0.0016	0.00055	mg/Kg	☼	11/11/17 14:00	11/16/17 19:26	1
Chloromethane	<0.0040		0.0040	0.0016	mg/Kg	☼	11/11/17 14:00	11/16/17 19:26	1
cis-1,2-Dichloroethene	<0.0016		0.0016	0.00044	mg/Kg	☼	11/11/17 14:00	11/16/17 19:26	1
cis-1,3-Dichloropropene	<0.0016		0.0016	0.00048	mg/Kg	☼	11/11/17 14:00	11/16/17 19:26	1
Dibromochloromethane	<0.0016		0.0016	0.00052	mg/Kg	☼	11/11/17 14:00	11/16/17 19:26	1
1,1-Dichloroethane	<0.0016		0.0016	0.00054	mg/Kg	☼	11/11/17 14:00	11/16/17 19:26	1
1,2-Dichloroethane	<0.0040		0.0040	0.0012	mg/Kg	☼	11/11/17 14:00	11/16/17 19:26	1
1,1-Dichloroethene	<0.0016		0.0016	0.00055	mg/Kg	☼	11/11/17 14:00	11/16/17 19:26	1
1,2-Dichloropropane	<0.0016		0.0016	0.00041	mg/Kg	☼	11/11/17 14:00	11/16/17 19:26	1
1,3-Dichloropropane, Total	<0.0016		0.0016	0.00056	mg/Kg	☼	11/11/17 14:00	11/16/17 19:26	1
Ethylbenzene	<0.0016		0.0016	0.00076	mg/Kg	☼	11/11/17 14:00	11/16/17 19:26	1
2-Hexanone	<0.0040		0.0040	0.0012	mg/Kg	☼	11/11/17 14:00	11/16/17 19:26	1
Methylene Chloride	<0.0040		0.0040	0.0016	mg/Kg	☼	11/11/17 14:00	11/16/17 19:26	1
4-Methyl-2-pentanone (MIBK)	<0.0040		0.0040	0.0012	mg/Kg	☼	11/11/17 14:00	11/16/17 19:26	1
Methyl tert-butyl ether	<0.0016		0.0016	0.00047	mg/Kg	☼	11/11/17 14:00	11/16/17 19:26	1
Styrene	<0.0016		0.0016	0.00048	mg/Kg	☼	11/11/17 14:00	11/16/17 19:26	1
1,1,2,2-Tetrachloroethane	<0.0016		0.0016	0.00051	mg/Kg	☼	11/11/17 14:00	11/16/17 19:26	1
Tetrachloroethene	<0.0016		0.0016	0.00054	mg/Kg	☼	11/11/17 14:00	11/16/17 19:26	1
Toluene	<0.0016		0.0016	0.00040	mg/Kg	☼	11/11/17 14:00	11/16/17 19:26	1
trans-1,2-Dichloroethene	<0.0016		0.0016	0.00070	mg/Kg	☼	11/11/17 14:00	11/16/17 19:26	1
trans-1,3-Dichloropropene	<0.0016		0.0016	0.00056	mg/Kg	☼	11/11/17 14:00	11/16/17 19:26	1
1,1,1-Trichloroethane	<0.0016		0.0016	0.00053	mg/Kg	☼	11/11/17 14:00	11/16/17 19:26	1
1,1,2-Trichloroethane	<0.0016		0.0016	0.00068	mg/Kg	☼	11/11/17 14:00	11/16/17 19:26	1
Trichloroethene	<0.0016		0.0016	0.00054	mg/Kg	☼	11/11/17 14:00	11/16/17 19:26	1
Vinyl acetate	<0.0040		0.0040	0.0014	mg/Kg	☼	11/11/17 14:00	11/16/17 19:26	1
Vinyl chloride	<0.0016		0.0016	0.00070	mg/Kg	☼	11/11/17 14:00	11/16/17 19:26	1
Xylenes, Total	<0.0032		0.0032	0.00051	mg/Kg	☼	11/11/17 14:00	11/16/17 19:26	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	89		75 - 131	11/11/17 14:00	11/16/17 19:26	1
Dibromofluoromethane	97		75 - 126	11/11/17 14:00	11/16/17 19:26	1
1,2-Dichloroethane-d4 (Surr)	91		70 - 134	11/11/17 14:00	11/16/17 19:26	1
Toluene-d8 (Surr)	97		75 - 124	11/11/17 14:00	11/16/17 19:26	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.038		0.038	0.0069	mg/Kg	☼	11/17/17 07:31	11/20/17 17:01	1
Acenaphthylene	<0.038		0.038	0.0051	mg/Kg	☼	11/17/17 07:31	11/20/17 17:01	1
Anthracene	<0.038		0.038	0.0064	mg/Kg	☼	11/17/17 07:31	11/20/17 17:01	1
Benzo[a]anthracene	0.013	J	0.038	0.0052	mg/Kg	☼	11/17/17 07:31	11/20/17 17:01	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137163-7

Client Sample ID: 2696V-59-B01 (0-5)

Lab Sample ID: 500-137163-11

Date Collected: 11/10/17 09:50

Matrix: Solid

Date Received: 11/10/17 15:20

Percent Solids: 84.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	0.021	J	0.038	0.0074	mg/Kg	☼	11/17/17 07:31	11/20/17 17:01	1
Benzo[b]fluoranthene	0.030	J	0.038	0.0083	mg/Kg	☼	11/17/17 07:31	11/20/17 17:01	1
Benzo[g,h,i]perylene	0.016	J	0.038	0.012	mg/Kg	☼	11/17/17 07:31	11/20/17 17:01	1
Benzo[k]fluoranthene	<0.038		0.038	0.011	mg/Kg	☼	11/17/17 07:31	11/20/17 17:01	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.039	mg/Kg	☼	11/17/17 07:31	11/20/17 17:01	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.058	mg/Kg	☼	11/17/17 07:31	11/20/17 17:01	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.070	mg/Kg	☼	11/17/17 07:31	11/20/17 17:01	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.051	mg/Kg	☼	11/17/17 07:31	11/20/17 17:01	1
Butyl benzyl phthalate	<0.19		0.19	0.073	mg/Kg	☼	11/17/17 07:31	11/20/17 17:01	1
Carbazole	<0.19		0.19	0.096	mg/Kg	☼	11/17/17 07:31	11/20/17 17:01	1
4-Chloroaniline	<0.77		0.77	0.18	mg/Kg	☼	11/17/17 07:31	11/20/17 17:01	1
4-Chloro-3-methylphenol	<0.38		0.38	0.13	mg/Kg	☼	11/17/17 07:31	11/20/17 17:01	1
2-Chloronaphthalene	<0.19		0.19	0.042	mg/Kg	☼	11/17/17 07:31	11/20/17 17:01	1
2-Chlorophenol	<0.19		0.19	0.066	mg/Kg	☼	11/17/17 07:31	11/20/17 17:01	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.045	mg/Kg	☼	11/17/17 07:31	11/20/17 17:01	1
Chrysene	0.022	J	0.038	0.010	mg/Kg	☼	11/17/17 07:31	11/20/17 17:01	1
Dibenz(a,h)anthracene	<0.038		0.038	0.0074	mg/Kg	☼	11/17/17 07:31	11/20/17 17:01	1
Dibenzofuran	<0.19		0.19	0.045	mg/Kg	☼	11/17/17 07:31	11/20/17 17:01	1
1,2-Dichlorobenzene	<0.19		0.19	0.046	mg/Kg	☼	11/17/17 07:31	11/20/17 17:01	1
1,3-Dichlorobenzene	<0.19		0.19	0.043	mg/Kg	☼	11/17/17 07:31	11/20/17 17:01	1
1,4-Dichlorobenzene	<0.19		0.19	0.049	mg/Kg	☼	11/17/17 07:31	11/20/17 17:01	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.054	mg/Kg	☼	11/17/17 07:31	11/20/17 17:01	1
2,4-Dichlorophenol	<0.38		0.38	0.091	mg/Kg	☼	11/17/17 07:31	11/20/17 17:01	1
Diethyl phthalate	<0.19		0.19	0.065	mg/Kg	☼	11/17/17 07:31	11/20/17 17:01	1
2,4-Dimethylphenol	<0.38		0.38	0.15	mg/Kg	☼	11/17/17 07:31	11/20/17 17:01	1
Dimethyl phthalate	<0.19		0.19	0.050	mg/Kg	☼	11/17/17 07:31	11/20/17 17:01	1
Di-n-butyl phthalate	<0.19		0.19	0.059	mg/Kg	☼	11/17/17 07:31	11/20/17 17:01	1
4,6-Dinitro-2-methylphenol	<0.77		0.77	0.31	mg/Kg	☼	11/17/17 07:31	11/20/17 17:01	1
2,4-Dinitrophenol	<0.77		0.77	0.68	mg/Kg	☼	11/17/17 07:31	11/20/17 17:01	1
2,4-Dinitrotoluene	<0.19		0.19	0.061	mg/Kg	☼	11/17/17 07:31	11/20/17 17:01	1
2,6-Dinitrotoluene	<0.19		0.19	0.075	mg/Kg	☼	11/17/17 07:31	11/20/17 17:01	1
Di-n-octyl phthalate	<0.19		0.19	0.063	mg/Kg	☼	11/17/17 07:31	11/20/17 17:01	1
Fluoranthene	0.039		0.038	0.0071	mg/Kg	☼	11/17/17 07:31	11/20/17 17:01	1
Fluorene	<0.038		0.038	0.0054	mg/Kg	☼	11/17/17 07:31	11/20/17 17:01	1
Hexachlorobenzene	<0.077		0.077	0.0089	mg/Kg	☼	11/17/17 07:31	11/20/17 17:01	1
Hexachlorobutadiene	<0.19		0.19	0.060	mg/Kg	☼	11/17/17 07:31	11/20/17 17:01	1
Hexachlorocyclopentadiene	<0.77		0.77	0.22	mg/Kg	☼	11/17/17 07:31	11/20/17 17:01	1
Hexachloroethane	<0.19		0.19	0.058	mg/Kg	☼	11/17/17 07:31	11/20/17 17:01	1
Indeno[1,2,3-cd]pyrene	<0.038		0.038	0.010	mg/Kg	☼	11/17/17 07:31	11/20/17 17:01	1
Isophorone	<0.19		0.19	0.043	mg/Kg	☼	11/17/17 07:31	11/20/17 17:01	1
2-Methylnaphthalene	<0.077		0.077	0.0071	mg/Kg	☼	11/17/17 07:31	11/20/17 17:01	1
2-Methylphenol	<0.19		0.19	0.062	mg/Kg	☼	11/17/17 07:31	11/20/17 17:01	1
3 & 4 Methylphenol	<0.19		0.19	0.064	mg/Kg	☼	11/17/17 07:31	11/20/17 17:01	1
Naphthalene	<0.038		0.038	0.0059	mg/Kg	☼	11/17/17 07:31	11/20/17 17:01	1
2-Nitroaniline	<0.19		0.19	0.052	mg/Kg	☼	11/17/17 07:31	11/20/17 17:01	1
3-Nitroaniline	<0.38		0.38	0.12	mg/Kg	☼	11/17/17 07:31	11/20/17 17:01	1
4-Nitroaniline	<0.38		0.38	0.16	mg/Kg	☼	11/17/17 07:31	11/20/17 17:01	1
Nitrobenzene	<0.038		0.038	0.0096	mg/Kg	☼	11/17/17 07:31	11/20/17 17:01	1
2-Nitrophenol	<0.38		0.38	0.091	mg/Kg	☼	11/17/17 07:31	11/20/17 17:01	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137163-7

Client Sample ID: 2696V-59-B01 (0-5)

Lab Sample ID: 500-137163-11

Date Collected: 11/10/17 09:50

Matrix: Solid

Date Received: 11/10/17 15:20

Percent Solids: 84.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Nitrophenol	<0.77		0.77	0.37	mg/Kg	☼	11/17/17 07:31	11/20/17 17:01	1
N-Nitrosodi-n-propylamine	<0.077		0.077	0.047	mg/Kg	☼	11/17/17 07:31	11/20/17 17:01	1
N-Nitrosodiphenylamine	<0.19		0.19	0.045	mg/Kg	☼	11/17/17 07:31	11/20/17 17:01	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.045	mg/Kg	☼	11/17/17 07:31	11/20/17 17:01	1
Pentachlorophenol	<0.77		0.77	0.62	mg/Kg	☼	11/17/17 07:31	11/20/17 17:01	1
Phenanthrene	0.027	J	0.038	0.0054	mg/Kg	☼	11/17/17 07:31	11/20/17 17:01	1
Phenol	<0.19		0.19	0.085	mg/Kg	☼	11/17/17 07:31	11/20/17 17:01	1
Pyrene	0.037	J	0.038	0.0076	mg/Kg	☼	11/17/17 07:31	11/20/17 17:01	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.041	mg/Kg	☼	11/17/17 07:31	11/20/17 17:01	1
2,4,5-Trichlorophenol	<0.38		0.38	0.088	mg/Kg	☼	11/17/17 07:31	11/20/17 17:01	1
2,4,6-Trichlorophenol	<0.38		0.38	0.13	mg/Kg	☼	11/17/17 07:31	11/20/17 17:01	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	101		44 - 121	11/17/17 07:31	11/20/17 17:01	1
2-Fluorophenol	106		46 - 133	11/17/17 07:31	11/20/17 17:01	1
Nitrobenzene-d5	103		41 - 120	11/17/17 07:31	11/20/17 17:01	1
Phenol-d5	108		46 - 125	11/17/17 07:31	11/20/17 17:01	1
Terphenyl-d14	107		35 - 160	11/17/17 07:31	11/20/17 17:01	1
2,4,6-Tribromophenol	73		25 - 139	11/17/17 07:31	11/20/17 17:01	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.2		1.2	0.23	mg/Kg	☼	11/14/17 16:15	11/15/17 13:46	1
Arsenic	7.2		0.58	0.20	mg/Kg	☼	11/14/17 16:15	11/15/17 13:46	1
Barium	39		0.58	0.066	mg/Kg	☼	11/14/17 16:15	11/15/17 13:46	1
Beryllium	0.46		0.23	0.054	mg/Kg	☼	11/14/17 16:15	11/15/17 13:46	1
Cadmium	0.28	B	0.12	0.021	mg/Kg	☼	11/14/17 16:15	11/15/17 13:46	1
Chromium	11		0.58	0.29	mg/Kg	☼	11/14/17 16:15	11/15/17 13:46	1
Cobalt	10		0.29	0.076	mg/Kg	☼	11/14/17 16:15	11/15/17 13:46	1
Copper	17		0.58	0.16	mg/Kg	☼	11/14/17 16:15	11/15/17 13:46	1
Iron	16000	B	12	6.0	mg/Kg	☼	11/14/17 16:15	11/15/17 13:46	1
Lead	20		0.29	0.13	mg/Kg	☼	11/14/17 16:15	11/15/17 13:46	1
Magnesium	18000	B	5.8	2.9	mg/Kg	☼	11/14/17 16:15	11/15/17 13:46	1
Calcium	60000	B	120	20	mg/Kg	☼	11/14/17 16:15	11/15/17 20:49	10
Manganese	400	B	0.58	0.084	mg/Kg	☼	11/14/17 16:15	11/15/17 13:46	1
Nickel	24		0.58	0.17	mg/Kg	☼	11/14/17 16:15	11/15/17 13:46	1
Selenium	0.55	J	0.58	0.34	mg/Kg	☼	11/14/17 16:15	11/15/17 13:46	1
Silver	<0.29		0.29	0.075	mg/Kg	☼	11/14/17 16:15	11/15/17 13:46	1
Thallium	<0.58		0.58	0.29	mg/Kg	☼	11/14/17 16:15	11/15/17 13:46	1
Vanadium	16		0.29	0.068	mg/Kg	☼	11/14/17 16:15	11/15/17 13:46	1
Zinc	53		1.2	0.51	mg/Kg	☼	11/14/17 16:15	11/15/17 13:46	1
Potassium	1400		29	10	mg/Kg	☼	11/14/17 16:15	11/15/17 13:46	1
Sodium	510		58	8.6	mg/Kg	☼	11/14/17 16:15	11/15/17 13:46	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.050		0.050	0.010	mg/L		11/17/17 09:02	11/17/17 17:20	1
Barium	0.56		0.50	0.050	mg/L		11/17/17 09:02	11/17/17 17:20	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		11/17/17 09:02	11/17/17 17:20	1
Cadmium	0.0023	J	0.0050	0.0020	mg/L		11/17/17 09:02	11/17/17 17:20	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137163-7

Client Sample ID: 2696V-59-B01 (0-5)

Lab Sample ID: 500-137163-11

Date Collected: 11/10/17 09:50

Matrix: Solid

Date Received: 11/10/17 15:20

Percent Solids: 84.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	570		5.0	0.50	mg/L		11/17/17 09:02	11/17/17 17:20	1
Chromium	<0.025		0.025	0.010	mg/L		11/17/17 09:02	11/17/17 17:20	1
Cobalt	0.022	J	0.025	0.010	mg/L		11/17/17 09:02	11/17/17 17:20	1
Copper	<0.040		0.040	0.010	mg/L		11/17/17 09:02	11/17/17 17:20	1
Iron	0.30	J	0.40	0.20	mg/L		11/17/17 09:02	11/17/17 17:20	1
Lead	<0.0075		0.0075	0.0075	mg/L		11/17/17 09:02	11/17/17 17:20	1
Magnesium	30		2.5	0.50	mg/L		11/17/17 09:02	11/17/17 17:20	1
Manganese	9.3		0.025	0.010	mg/L		11/17/17 09:02	11/17/17 17:20	1
Nickel	0.031		0.025	0.010	mg/L		11/17/17 09:02	11/17/17 17:20	1
Potassium	4.9		2.5	0.50	mg/L		11/17/17 09:02	11/17/17 17:20	1
Selenium	<0.050		0.050	0.020	mg/L		11/17/17 09:02	11/17/17 17:20	1
Silver	<0.025		0.025	0.010	mg/L		11/17/17 09:02	11/17/17 17:20	1
Vanadium	<0.025		0.025	0.010	mg/L		11/17/17 09:02	11/17/17 17:20	1
Zinc	0.039	J ^ B	0.50	0.020	mg/L		11/17/17 09:02	11/17/17 17:20	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	1.5		0.025	0.010	mg/L		11/20/17 07:21	11/20/17 20:51	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		11/17/17 09:02	11/18/17 04:29	1
Thallium	<0.0020		0.0020	0.0020	mg/L		11/17/17 09:02	11/18/17 04:29	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		11/18/17 14:00	11/20/17 09:26	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.023		0.019	0.0062	mg/Kg	☼	11/20/17 07:30	11/20/17 14:59	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.56		0.56	0.19	mg/Kg	☼	11/21/17 13:15	11/21/17 16:35	1
pH	8.7		0.20	0.20	SU			11/20/17 10:52	1

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137163-7

Client Sample ID: 2696V-59-B02 (0-5)

Lab Sample ID: 500-137163-12

Date Collected: 11/10/17 10:10

Matrix: Solid

Date Received: 11/10/17 15:20

Percent Solids: 84.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.017		0.017	0.0072	mg/Kg	☼	11/11/17 14:00	11/16/17 19:52	1
Benzene	<0.0017		0.0017	0.00042	mg/Kg	☼	11/11/17 14:00	11/16/17 19:52	1
Bromodichloromethane	<0.0017		0.0017	0.00034	mg/Kg	☼	11/11/17 14:00	11/16/17 19:52	1
Bromoform	<0.0017		0.0017	0.00049	mg/Kg	☼	11/11/17 14:00	11/16/17 19:52	1
Bromomethane	<0.0042		0.0042	0.0016	mg/Kg	☼	11/11/17 14:00	11/16/17 19:52	1
2-Butanone (MEK)	<0.0042		0.0042	0.0018	mg/Kg	☼	11/11/17 14:00	11/16/17 19:52	1
Carbon disulfide	<0.0042		0.0042	0.00086	mg/Kg	☼	11/11/17 14:00	11/16/17 19:52	1
Carbon tetrachloride	<0.0017		0.0017	0.00048	mg/Kg	☼	11/11/17 14:00	11/16/17 19:52	1
Chlorobenzene	<0.0017		0.0017	0.00061	mg/Kg	☼	11/11/17 14:00	11/16/17 19:52	1
Chloroethane	<0.0042		0.0042	0.0012	mg/Kg	☼	11/11/17 14:00	11/16/17 19:52	1
Chloroform	<0.0017		0.0017	0.00058	mg/Kg	☼	11/11/17 14:00	11/16/17 19:52	1
Chloromethane	<0.0042		0.0042	0.0017	mg/Kg	☼	11/11/17 14:00	11/16/17 19:52	1
cis-1,2-Dichloroethene	<0.0017		0.0017	0.00046	mg/Kg	☼	11/11/17 14:00	11/16/17 19:52	1
cis-1,3-Dichloropropene	<0.0017		0.0017	0.00050	mg/Kg	☼	11/11/17 14:00	11/16/17 19:52	1
Dibromochloromethane	<0.0017		0.0017	0.00054	mg/Kg	☼	11/11/17 14:00	11/16/17 19:52	1
1,1-Dichloroethane	<0.0017		0.0017	0.00057	mg/Kg	☼	11/11/17 14:00	11/16/17 19:52	1
1,2-Dichloroethane	<0.0042		0.0042	0.0013	mg/Kg	☼	11/11/17 14:00	11/16/17 19:52	1
1,1-Dichloroethene	<0.0017		0.0017	0.00057	mg/Kg	☼	11/11/17 14:00	11/16/17 19:52	1
1,2-Dichloropropane	<0.0017		0.0017	0.00043	mg/Kg	☼	11/11/17 14:00	11/16/17 19:52	1
1,3-Dichloropropane, Total	<0.0017		0.0017	0.00058	mg/Kg	☼	11/11/17 14:00	11/16/17 19:52	1
Ethylbenzene	<0.0017		0.0017	0.00080	mg/Kg	☼	11/11/17 14:00	11/16/17 19:52	1
2-Hexanone	<0.0042		0.0042	0.0013	mg/Kg	☼	11/11/17 14:00	11/16/17 19:52	1
Methylene Chloride	<0.0042		0.0042	0.0016	mg/Kg	☼	11/11/17 14:00	11/16/17 19:52	1
4-Methyl-2-pentanone (MIBK)	<0.0042		0.0042	0.0012	mg/Kg	☼	11/11/17 14:00	11/16/17 19:52	1
Methyl tert-butyl ether	<0.0017		0.0017	0.00049	mg/Kg	☼	11/11/17 14:00	11/16/17 19:52	1
Styrene	<0.0017		0.0017	0.00050	mg/Kg	☼	11/11/17 14:00	11/16/17 19:52	1
1,1,2,2-Tetrachloroethane	<0.0017		0.0017	0.00053	mg/Kg	☼	11/11/17 14:00	11/16/17 19:52	1
Tetrachloroethene	<0.0017		0.0017	0.00057	mg/Kg	☼	11/11/17 14:00	11/16/17 19:52	1
Toluene	<0.0017		0.0017	0.00042	mg/Kg	☼	11/11/17 14:00	11/16/17 19:52	1
trans-1,2-Dichloroethene	<0.0017		0.0017	0.00074	mg/Kg	☼	11/11/17 14:00	11/16/17 19:52	1
trans-1,3-Dichloropropene	<0.0017		0.0017	0.00058	mg/Kg	☼	11/11/17 14:00	11/16/17 19:52	1
1,1,1-Trichloroethane	<0.0017		0.0017	0.00056	mg/Kg	☼	11/11/17 14:00	11/16/17 19:52	1
1,1,2-Trichloroethane	<0.0017		0.0017	0.00071	mg/Kg	☼	11/11/17 14:00	11/16/17 19:52	1
Trichloroethene	<0.0017		0.0017	0.00056	mg/Kg	☼	11/11/17 14:00	11/16/17 19:52	1
Vinyl acetate	<0.0042		0.0042	0.0014	mg/Kg	☼	11/11/17 14:00	11/16/17 19:52	1
Vinyl chloride	<0.0017		0.0017	0.00074	mg/Kg	☼	11/11/17 14:00	11/16/17 19:52	1
Xylenes, Total	<0.0033		0.0033	0.00053	mg/Kg	☼	11/11/17 14:00	11/16/17 19:52	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	87		75 - 131	11/11/17 14:00	11/16/17 19:52	1
Dibromofluoromethane	97		75 - 126	11/11/17 14:00	11/16/17 19:52	1
1,2-Dichloroethane-d4 (Surr)	90		70 - 134	11/11/17 14:00	11/16/17 19:52	1
Toluene-d8 (Surr)	97		75 - 124	11/11/17 14:00	11/16/17 19:52	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.039		0.039	0.0070	mg/Kg	☼	11/17/17 07:31	11/20/17 17:26	1
Acenaphthylene	<0.039		0.039	0.0052	mg/Kg	☼	11/17/17 07:31	11/20/17 17:26	1
Anthracene	<0.039		0.039	0.0065	mg/Kg	☼	11/17/17 07:31	11/20/17 17:26	1
Benzo[a]anthracene	<0.039		0.039	0.0053	mg/Kg	☼	11/17/17 07:31	11/20/17 17:26	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137163-7

Client Sample ID: 2696V-59-B02 (0-5)

Lab Sample ID: 500-137163-12

Date Collected: 11/10/17 10:10

Matrix: Solid

Date Received: 11/10/17 15:20

Percent Solids: 84.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	<0.039		0.039	0.0076	mg/Kg	☼	11/17/17 07:31	11/20/17 17:26	1
Benzo[b]fluoranthene	<0.039		0.039	0.0084	mg/Kg	☼	11/17/17 07:31	11/20/17 17:26	1
Benzo[g,h,i]perylene	0.017	J	0.039	0.013	mg/Kg	☼	11/17/17 07:31	11/20/17 17:26	1
Benzo[k]fluoranthene	<0.039		0.039	0.012	mg/Kg	☼	11/17/17 07:31	11/20/17 17:26	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.040	mg/Kg	☼	11/17/17 07:31	11/20/17 17:26	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.059	mg/Kg	☼	11/17/17 07:31	11/20/17 17:26	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.071	mg/Kg	☼	11/17/17 07:31	11/20/17 17:26	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.052	mg/Kg	☼	11/17/17 07:31	11/20/17 17:26	1
Butyl benzyl phthalate	<0.20		0.20	0.074	mg/Kg	☼	11/17/17 07:31	11/20/17 17:26	1
Carbazole	<0.20		0.20	0.098	mg/Kg	☼	11/17/17 07:31	11/20/17 17:26	1
4-Chloroaniline	<0.79		0.79	0.18	mg/Kg	☼	11/17/17 07:31	11/20/17 17:26	1
4-Chloro-3-methylphenol	<0.39		0.39	0.13	mg/Kg	☼	11/17/17 07:31	11/20/17 17:26	1
2-Chloronaphthalene	<0.20		0.20	0.043	mg/Kg	☼	11/17/17 07:31	11/20/17 17:26	1
2-Chlorophenol	<0.20		0.20	0.067	mg/Kg	☼	11/17/17 07:31	11/20/17 17:26	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.046	mg/Kg	☼	11/17/17 07:31	11/20/17 17:26	1
Chrysene	0.014	J	0.039	0.011	mg/Kg	☼	11/17/17 07:31	11/20/17 17:26	1
Dibenz(a,h)anthracene	<0.039		0.039	0.0076	mg/Kg	☼	11/17/17 07:31	11/20/17 17:26	1
Dibenzofuran	<0.20		0.20	0.046	mg/Kg	☼	11/17/17 07:31	11/20/17 17:26	1
1,2-Dichlorobenzene	<0.20		0.20	0.047	mg/Kg	☼	11/17/17 07:31	11/20/17 17:26	1
1,3-Dichlorobenzene	<0.20		0.20	0.044	mg/Kg	☼	11/17/17 07:31	11/20/17 17:26	1
1,4-Dichlorobenzene	<0.20		0.20	0.050	mg/Kg	☼	11/17/17 07:31	11/20/17 17:26	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.055	mg/Kg	☼	11/17/17 07:31	11/20/17 17:26	1
2,4-Dichlorophenol	<0.39		0.39	0.093	mg/Kg	☼	11/17/17 07:31	11/20/17 17:26	1
Diethyl phthalate	<0.20		0.20	0.066	mg/Kg	☼	11/17/17 07:31	11/20/17 17:26	1
2,4-Dimethylphenol	<0.39		0.39	0.15	mg/Kg	☼	11/17/17 07:31	11/20/17 17:26	1
Dimethyl phthalate	<0.20		0.20	0.051	mg/Kg	☼	11/17/17 07:31	11/20/17 17:26	1
Di-n-butyl phthalate	<0.20		0.20	0.060	mg/Kg	☼	11/17/17 07:31	11/20/17 17:26	1
4,6-Dinitro-2-methylphenol	<0.79		0.79	0.31	mg/Kg	☼	11/17/17 07:31	11/20/17 17:26	1
2,4-Dinitrophenol	<0.79		0.79	0.69	mg/Kg	☼	11/17/17 07:31	11/20/17 17:26	1
2,4-Dinitrotoluene	<0.20		0.20	0.062	mg/Kg	☼	11/17/17 07:31	11/20/17 17:26	1
2,6-Dinitrotoluene	<0.20		0.20	0.077	mg/Kg	☼	11/17/17 07:31	11/20/17 17:26	1
Di-n-octyl phthalate	<0.20		0.20	0.064	mg/Kg	☼	11/17/17 07:31	11/20/17 17:26	1
Fluoranthene	<0.039		0.039	0.0073	mg/Kg	☼	11/17/17 07:31	11/20/17 17:26	1
Fluorene	<0.039		0.039	0.0055	mg/Kg	☼	11/17/17 07:31	11/20/17 17:26	1
Hexachlorobenzene	<0.079		0.079	0.0091	mg/Kg	☼	11/17/17 07:31	11/20/17 17:26	1
Hexachlorobutadiene	<0.20		0.20	0.061	mg/Kg	☼	11/17/17 07:31	11/20/17 17:26	1
Hexachlorocyclopentadiene	<0.79		0.79	0.22	mg/Kg	☼	11/17/17 07:31	11/20/17 17:26	1
Hexachloroethane	<0.20		0.20	0.059	mg/Kg	☼	11/17/17 07:31	11/20/17 17:26	1
Indeno[1,2,3-cd]pyrene	<0.039		0.039	0.010	mg/Kg	☼	11/17/17 07:31	11/20/17 17:26	1
Isophorone	<0.20		0.20	0.044	mg/Kg	☼	11/17/17 07:31	11/20/17 17:26	1
2-Methylnaphthalene	<0.079		0.079	0.0072	mg/Kg	☼	11/17/17 07:31	11/20/17 17:26	1
2-Methylphenol	<0.20		0.20	0.063	mg/Kg	☼	11/17/17 07:31	11/20/17 17:26	1
3 & 4 Methylphenol	<0.20		0.20	0.065	mg/Kg	☼	11/17/17 07:31	11/20/17 17:26	1
Naphthalene	<0.039		0.039	0.0060	mg/Kg	☼	11/17/17 07:31	11/20/17 17:26	1
2-Nitroaniline	<0.20		0.20	0.053	mg/Kg	☼	11/17/17 07:31	11/20/17 17:26	1
3-Nitroaniline	<0.39		0.39	0.12	mg/Kg	☼	11/17/17 07:31	11/20/17 17:26	1
4-Nitroaniline	<0.39		0.39	0.16	mg/Kg	☼	11/17/17 07:31	11/20/17 17:26	1
Nitrobenzene	<0.039		0.039	0.0098	mg/Kg	☼	11/17/17 07:31	11/20/17 17:26	1
2-Nitrophenol	<0.39		0.39	0.092	mg/Kg	☼	11/17/17 07:31	11/20/17 17:26	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137163-7

Client Sample ID: 2696V-59-B02 (0-5)

Lab Sample ID: 500-137163-12

Date Collected: 11/10/17 10:10

Matrix: Solid

Date Received: 11/10/17 15:20

Percent Solids: 84.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Nitrophenol	<0.79		0.79	0.37	mg/Kg	☼	11/17/17 07:31	11/20/17 17:26	1
N-Nitrosodi-n-propylamine	<0.079		0.079	0.048	mg/Kg	☼	11/17/17 07:31	11/20/17 17:26	1
N-Nitrosodiphenylamine	<0.20		0.20	0.046	mg/Kg	☼	11/17/17 07:31	11/20/17 17:26	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.045	mg/Kg	☼	11/17/17 07:31	11/20/17 17:26	1
Pentachlorophenol	<0.79		0.79	0.63	mg/Kg	☼	11/17/17 07:31	11/20/17 17:26	1
Phenanthrene	0.011	J	0.039	0.0055	mg/Kg	☼	11/17/17 07:31	11/20/17 17:26	1
Phenol	<0.20		0.20	0.087	mg/Kg	☼	11/17/17 07:31	11/20/17 17:26	1
Pyrene	0.015	J	0.039	0.0078	mg/Kg	☼	11/17/17 07:31	11/20/17 17:26	1
1,2,4-Trichlorobenzene	<0.20		0.20	0.042	mg/Kg	☼	11/17/17 07:31	11/20/17 17:26	1
2,4,5-Trichlorophenol	<0.39		0.39	0.089	mg/Kg	☼	11/17/17 07:31	11/20/17 17:26	1
2,4,6-Trichlorophenol	<0.39		0.39	0.13	mg/Kg	☼	11/17/17 07:31	11/20/17 17:26	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	90		44 - 121	11/17/17 07:31	11/20/17 17:26	1
2-Fluorophenol	96		46 - 133	11/17/17 07:31	11/20/17 17:26	1
Nitrobenzene-d5	92		41 - 120	11/17/17 07:31	11/20/17 17:26	1
Phenol-d5	98		46 - 125	11/17/17 07:31	11/20/17 17:26	1
Terphenyl-d14	99		35 - 160	11/17/17 07:31	11/20/17 17:26	1
2,4,6-Tribromophenol	67		25 - 139	11/17/17 07:31	11/20/17 17:26	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.1		1.1	0.22	mg/Kg	☼	11/14/17 16:15	11/15/17 13:51	1
Arsenic	5.3		0.55	0.19	mg/Kg	☼	11/14/17 16:15	11/15/17 13:51	1
Barium	51		0.55	0.063	mg/Kg	☼	11/14/17 16:15	11/15/17 13:51	1
Beryllium	0.47		0.22	0.052	mg/Kg	☼	11/14/17 16:15	11/15/17 13:51	1
Cadmium	0.090	J B	0.11	0.020	mg/Kg	☼	11/14/17 16:15	11/15/17 13:51	1
Chromium	12		0.55	0.27	mg/Kg	☼	11/14/17 16:15	11/15/17 13:51	1
Cobalt	9.7		0.28	0.072	mg/Kg	☼	11/14/17 16:15	11/15/17 13:51	1
Copper	18		0.55	0.15	mg/Kg	☼	11/14/17 16:15	11/15/17 13:51	1
Iron	15000	B	11	5.8	mg/Kg	☼	11/14/17 16:15	11/15/17 13:51	1
Lead	9.6		0.28	0.13	mg/Kg	☼	11/14/17 16:15	11/15/17 13:51	1
Magnesium	25000	B	5.5	2.7	mg/Kg	☼	11/14/17 16:15	11/15/17 13:51	1
Calcium	88000	B	110	19	mg/Kg	☼	11/14/17 16:15	11/15/17 20:53	10
Manganese	310	B	0.55	0.080	mg/Kg	☼	11/14/17 16:15	11/15/17 13:51	1
Nickel	25		0.55	0.16	mg/Kg	☼	11/14/17 16:15	11/15/17 13:51	1
Selenium	0.50	J	0.55	0.33	mg/Kg	☼	11/14/17 16:15	11/15/17 13:51	1
Silver	<0.28		0.28	0.071	mg/Kg	☼	11/14/17 16:15	11/15/17 13:51	1
Thallium	<0.55		0.55	0.28	mg/Kg	☼	11/14/17 16:15	11/15/17 13:51	1
Vanadium	15		0.28	0.065	mg/Kg	☼	11/14/17 16:15	11/15/17 13:51	1
Zinc	50		1.1	0.49	mg/Kg	☼	11/14/17 16:15	11/15/17 13:51	1
Potassium	1900		28	9.8	mg/Kg	☼	11/14/17 16:15	11/15/17 13:51	1
Sodium	260		55	8.2	mg/Kg	☼	11/14/17 16:15	11/15/17 13:51	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.050		0.050	0.010	mg/L		11/17/17 09:02	11/17/17 17:25	1
Barium	0.33	J	0.50	0.050	mg/L		11/17/17 09:02	11/17/17 17:25	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		11/17/17 09:02	11/17/17 17:25	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		11/17/17 09:02	11/17/17 17:25	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137163-7

Client Sample ID: 2696V-59-B02 (0-5)

Lab Sample ID: 500-137163-12

Date Collected: 11/10/17 10:10

Matrix: Solid

Date Received: 11/10/17 15:20

Percent Solids: 84.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	810		50	5.0	mg/L		11/17/17 09:02	11/19/17 00:00	10
Chromium	<0.025		0.025	0.010	mg/L		11/17/17 09:02	11/17/17 17:25	1
Cobalt	0.015	J	0.025	0.010	mg/L		11/17/17 09:02	11/17/17 17:25	1
Copper	0.016	J B	0.040	0.010	mg/L		11/17/17 09:02	11/17/17 17:25	1
Iron	<0.40		0.40	0.20	mg/L		11/17/17 09:02	11/17/17 17:25	1
Lead	<0.0075		0.0075	0.0075	mg/L		11/17/17 09:02	11/17/17 17:25	1
Magnesium	25		2.5	0.50	mg/L		11/17/17 09:02	11/17/17 17:25	1
Manganese	2.6		0.025	0.010	mg/L		11/17/17 09:02	11/17/17 17:25	1
Nickel	0.036		0.025	0.010	mg/L		11/17/17 09:02	11/17/17 17:25	1
Potassium	4.1		2.5	0.50	mg/L		11/17/17 09:02	11/17/17 17:25	1
Selenium	<0.050		0.050	0.020	mg/L		11/17/17 09:02	11/17/17 17:25	1
Silver	<0.025		0.025	0.010	mg/L		11/17/17 09:02	11/17/17 17:25	1
Vanadium	<0.025		0.025	0.010	mg/L		11/17/17 09:02	11/17/17 17:25	1
Zinc	<0.50	^	0.50	0.020	mg/L		11/17/17 09:02	11/17/17 17:25	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		11/20/17 07:21	11/20/17 20:55	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		11/17/17 09:02	11/18/17 04:33	1
Thallium	<0.0020		0.0020	0.0020	mg/L		11/17/17 09:02	11/18/17 04:33	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		11/18/17 14:00	11/20/17 09:27	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.020		0.020	0.0065	mg/Kg	☼	11/20/17 07:30	11/20/17 15:01	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.56		0.56	0.19	mg/Kg	☼	11/21/17 13:15	11/21/17 16:35	1
pH	7.8		0.20	0.20	SU			11/20/17 10:55	1

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137163-7

Client Sample ID: 2696V-59-B03 (0-5)

Lab Sample ID: 500-137163-13

Date Collected: 11/10/17 10:25

Matrix: Solid

Date Received: 11/10/17 15:20

Percent Solids: 80.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.020		0.020	0.0087	mg/Kg	☼	11/11/17 14:00	11/16/17 20:18	1
Benzene	<0.0020		0.0020	0.00051	mg/Kg	☼	11/11/17 14:00	11/16/17 20:18	1
Bromodichloromethane	<0.0020		0.0020	0.00041	mg/Kg	☼	11/11/17 14:00	11/16/17 20:18	1
Bromoform	<0.0020		0.0020	0.00059	mg/Kg	☼	11/11/17 14:00	11/16/17 20:18	1
Bromomethane	<0.0050		0.0050	0.0019	mg/Kg	☼	11/11/17 14:00	11/16/17 20:18	1
2-Butanone (MEK)	<0.0050		0.0050	0.0022	mg/Kg	☼	11/11/17 14:00	11/16/17 20:18	1
Carbon disulfide	<0.0050		0.0050	0.0010	mg/Kg	☼	11/11/17 14:00	11/16/17 20:18	1
Carbon tetrachloride	<0.0020		0.0020	0.00058	mg/Kg	☼	11/11/17 14:00	11/16/17 20:18	1
Chlorobenzene	<0.0020		0.0020	0.00074	mg/Kg	☼	11/11/17 14:00	11/16/17 20:18	1
Chloroethane	<0.0050		0.0050	0.0015	mg/Kg	☼	11/11/17 14:00	11/16/17 20:18	1
Chloroform	<0.0020		0.0020	0.00070	mg/Kg	☼	11/11/17 14:00	11/16/17 20:18	1
Chloromethane	<0.0050		0.0050	0.0020	mg/Kg	☼	11/11/17 14:00	11/16/17 20:18	1
cis-1,2-Dichloroethene	<0.0020		0.0020	0.00056	mg/Kg	☼	11/11/17 14:00	11/16/17 20:18	1
cis-1,3-Dichloropropene	<0.0020		0.0020	0.00061	mg/Kg	☼	11/11/17 14:00	11/16/17 20:18	1
Dibromochloromethane	<0.0020		0.0020	0.00066	mg/Kg	☼	11/11/17 14:00	11/16/17 20:18	1
1,1-Dichloroethane	<0.0020		0.0020	0.00069	mg/Kg	☼	11/11/17 14:00	11/16/17 20:18	1
1,2-Dichloroethane	<0.0050		0.0050	0.0016	mg/Kg	☼	11/11/17 14:00	11/16/17 20:18	1
1,1-Dichloroethene	<0.0020		0.0020	0.00069	mg/Kg	☼	11/11/17 14:00	11/16/17 20:18	1
1,2-Dichloropropane	<0.0020		0.0020	0.00052	mg/Kg	☼	11/11/17 14:00	11/16/17 20:18	1
1,3-Dichloropropane, Total	<0.0020		0.0020	0.00070	mg/Kg	☼	11/11/17 14:00	11/16/17 20:18	1
Ethylbenzene	<0.0020		0.0020	0.00096	mg/Kg	☼	11/11/17 14:00	11/16/17 20:18	1
2-Hexanone	<0.0050		0.0050	0.0016	mg/Kg	☼	11/11/17 14:00	11/16/17 20:18	1
Methylene Chloride	<0.0050		0.0050	0.0020	mg/Kg	☼	11/11/17 14:00	11/16/17 20:18	1
4-Methyl-2-pentanone (MIBK)	<0.0050		0.0050	0.0015	mg/Kg	☼	11/11/17 14:00	11/16/17 20:18	1
Methyl tert-butyl ether	<0.0020		0.0020	0.00059	mg/Kg	☼	11/11/17 14:00	11/16/17 20:18	1
Styrene	<0.0020		0.0020	0.00061	mg/Kg	☼	11/11/17 14:00	11/16/17 20:18	1
1,1,2,2-Tetrachloroethane	<0.0020		0.0020	0.00064	mg/Kg	☼	11/11/17 14:00	11/16/17 20:18	1
Tetrachloroethene	<0.0020		0.0020	0.00068	mg/Kg	☼	11/11/17 14:00	11/16/17 20:18	1
Toluene	<0.0020		0.0020	0.00051	mg/Kg	☼	11/11/17 14:00	11/16/17 20:18	1
trans-1,2-Dichloroethene	<0.0020		0.0020	0.00089	mg/Kg	☼	11/11/17 14:00	11/16/17 20:18	1
trans-1,3-Dichloropropene	<0.0020		0.0020	0.00070	mg/Kg	☼	11/11/17 14:00	11/16/17 20:18	1
1,1,1-Trichloroethane	<0.0020		0.0020	0.00067	mg/Kg	☼	11/11/17 14:00	11/16/17 20:18	1
1,1,2-Trichloroethane	<0.0020		0.0020	0.00086	mg/Kg	☼	11/11/17 14:00	11/16/17 20:18	1
Trichloroethene	<0.0020		0.0020	0.00068	mg/Kg	☼	11/11/17 14:00	11/16/17 20:18	1
Vinyl acetate	<0.0050		0.0050	0.0017	mg/Kg	☼	11/11/17 14:00	11/16/17 20:18	1
Vinyl chloride	<0.0020		0.0020	0.00089	mg/Kg	☼	11/11/17 14:00	11/16/17 20:18	1
Xylenes, Total	<0.0040		0.0040	0.00064	mg/Kg	☼	11/11/17 14:00	11/16/17 20:18	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	87		75 - 131	11/11/17 14:00	11/16/17 20:18	1
Dibromofluoromethane	98		75 - 126	11/11/17 14:00	11/16/17 20:18	1
1,2-Dichloroethane-d4 (Surr)	90		70 - 134	11/11/17 14:00	11/16/17 20:18	1
Toluene-d8 (Surr)	98		75 - 124	11/11/17 14:00	11/16/17 20:18	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.040		0.040	0.0072	mg/Kg	☼	11/17/17 07:31	11/20/17 17:50	1
Acenaphthylene	<0.040		0.040	0.0053	mg/Kg	☼	11/17/17 07:31	11/20/17 17:50	1
Anthracene	<0.040		0.040	0.0067	mg/Kg	☼	11/17/17 07:31	11/20/17 17:50	1
Benzo[a]anthracene	0.012	J	0.040	0.0054	mg/Kg	☼	11/17/17 07:31	11/20/17 17:50	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137163-7

Client Sample ID: 2696V-59-B03 (0-5)

Lab Sample ID: 500-137163-13

Date Collected: 11/10/17 10:25

Matrix: Solid

Date Received: 11/10/17 15:20

Percent Solids: 80.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	0.014	J	0.040	0.0078	mg/Kg	☼	11/17/17 07:31	11/20/17 17:50	1
Benzo[b]fluoranthene	0.021	J	0.040	0.0087	mg/Kg	☼	11/17/17 07:31	11/20/17 17:50	1
Benzo[g,h,i]perylene	<0.040		0.040	0.013	mg/Kg	☼	11/17/17 07:31	11/20/17 17:50	1
Benzo[k]fluoranthene	<0.040		0.040	0.012	mg/Kg	☼	11/17/17 07:31	11/20/17 17:50	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.041	mg/Kg	☼	11/17/17 07:31	11/20/17 17:50	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.060	mg/Kg	☼	11/17/17 07:31	11/20/17 17:50	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.073	mg/Kg	☼	11/17/17 07:31	11/20/17 17:50	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.053	mg/Kg	☼	11/17/17 07:31	11/20/17 17:50	1
Butyl benzyl phthalate	<0.20		0.20	0.076	mg/Kg	☼	11/17/17 07:31	11/20/17 17:50	1
Carbazole	<0.20		0.20	0.10	mg/Kg	☼	11/17/17 07:31	11/20/17 17:50	1
4-Chloroaniline	<0.81		0.81	0.19	mg/Kg	☼	11/17/17 07:31	11/20/17 17:50	1
4-Chloro-3-methylphenol	<0.40		0.40	0.14	mg/Kg	☼	11/17/17 07:31	11/20/17 17:50	1
2-Chloronaphthalene	<0.20		0.20	0.044	mg/Kg	☼	11/17/17 07:31	11/20/17 17:50	1
2-Chlorophenol	<0.20		0.20	0.069	mg/Kg	☼	11/17/17 07:31	11/20/17 17:50	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.047	mg/Kg	☼	11/17/17 07:31	11/20/17 17:50	1
Chrysene	0.022	J	0.040	0.011	mg/Kg	☼	11/17/17 07:31	11/20/17 17:50	1
Dibenz(a,h)anthracene	<0.040		0.040	0.0078	mg/Kg	☼	11/17/17 07:31	11/20/17 17:50	1
Dibenzofuran	<0.20		0.20	0.047	mg/Kg	☼	11/17/17 07:31	11/20/17 17:50	1
1,2-Dichlorobenzene	<0.20		0.20	0.048	mg/Kg	☼	11/17/17 07:31	11/20/17 17:50	1
1,3-Dichlorobenzene	<0.20		0.20	0.045	mg/Kg	☼	11/17/17 07:31	11/20/17 17:50	1
1,4-Dichlorobenzene	<0.20		0.20	0.052	mg/Kg	☼	11/17/17 07:31	11/20/17 17:50	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.056	mg/Kg	☼	11/17/17 07:31	11/20/17 17:50	1
2,4-Dichlorophenol	<0.40		0.40	0.095	mg/Kg	☼	11/17/17 07:31	11/20/17 17:50	1
Diethyl phthalate	<0.20		0.20	0.068	mg/Kg	☼	11/17/17 07:31	11/20/17 17:50	1
2,4-Dimethylphenol	<0.40		0.40	0.15	mg/Kg	☼	11/17/17 07:31	11/20/17 17:50	1
Dimethyl phthalate	<0.20		0.20	0.053	mg/Kg	☼	11/17/17 07:31	11/20/17 17:50	1
Di-n-butyl phthalate	<0.20		0.20	0.061	mg/Kg	☼	11/17/17 07:31	11/20/17 17:50	1
4,6-Dinitro-2-methylphenol	<0.81		0.81	0.32	mg/Kg	☼	11/17/17 07:31	11/20/17 17:50	1
2,4-Dinitrophenol	<0.81		0.81	0.71	mg/Kg	☼	11/17/17 07:31	11/20/17 17:50	1
2,4-Dinitrotoluene	<0.20		0.20	0.064	mg/Kg	☼	11/17/17 07:31	11/20/17 17:50	1
2,6-Dinitrotoluene	<0.20		0.20	0.079	mg/Kg	☼	11/17/17 07:31	11/20/17 17:50	1
Di-n-octyl phthalate	<0.20		0.20	0.066	mg/Kg	☼	11/17/17 07:31	11/20/17 17:50	1
Fluoranthene	0.020	J	0.040	0.0075	mg/Kg	☼	11/17/17 07:31	11/20/17 17:50	1
Fluorene	<0.040		0.040	0.0057	mg/Kg	☼	11/17/17 07:31	11/20/17 17:50	1
Hexachlorobenzene	<0.081		0.081	0.0093	mg/Kg	☼	11/17/17 07:31	11/20/17 17:50	1
Hexachlorobutadiene	<0.20		0.20	0.063	mg/Kg	☼	11/17/17 07:31	11/20/17 17:50	1
Hexachlorocyclopentadiene	<0.81		0.81	0.23	mg/Kg	☼	11/17/17 07:31	11/20/17 17:50	1
Hexachloroethane	<0.20		0.20	0.061	mg/Kg	☼	11/17/17 07:31	11/20/17 17:50	1
Indeno[1,2,3-cd]pyrene	<0.040		0.040	0.010	mg/Kg	☼	11/17/17 07:31	11/20/17 17:50	1
Isophorone	<0.20		0.20	0.045	mg/Kg	☼	11/17/17 07:31	11/20/17 17:50	1
2-Methylnaphthalene	0.0078	J	0.081	0.0074	mg/Kg	☼	11/17/17 07:31	11/20/17 17:50	1
2-Methylphenol	<0.20		0.20	0.064	mg/Kg	☼	11/17/17 07:31	11/20/17 17:50	1
3 & 4 Methylphenol	<0.20		0.20	0.067	mg/Kg	☼	11/17/17 07:31	11/20/17 17:50	1
Naphthalene	<0.040		0.040	0.0062	mg/Kg	☼	11/17/17 07:31	11/20/17 17:50	1
2-Nitroaniline	<0.20		0.20	0.054	mg/Kg	☼	11/17/17 07:31	11/20/17 17:50	1
3-Nitroaniline	<0.40		0.40	0.12	mg/Kg	☼	11/17/17 07:31	11/20/17 17:50	1
4-Nitroaniline	<0.40		0.40	0.17	mg/Kg	☼	11/17/17 07:31	11/20/17 17:50	1
Nitrobenzene	<0.040		0.040	0.010	mg/Kg	☼	11/17/17 07:31	11/20/17 17:50	1
2-Nitrophenol	<0.40		0.40	0.095	mg/Kg	☼	11/17/17 07:31	11/20/17 17:50	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137163-7

Client Sample ID: 2696V-59-B03 (0-5)

Lab Sample ID: 500-137163-13

Date Collected: 11/10/17 10:25

Matrix: Solid

Date Received: 11/10/17 15:20

Percent Solids: 80.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Nitrophenol	<0.81		0.81	0.38	mg/Kg	☼	11/17/17 07:31	11/20/17 17:50	1
N-Nitrosodi-n-propylamine	<0.081		0.081	0.049	mg/Kg	☼	11/17/17 07:31	11/20/17 17:50	1
N-Nitrosodiphenylamine	<0.20		0.20	0.047	mg/Kg	☼	11/17/17 07:31	11/20/17 17:50	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.047	mg/Kg	☼	11/17/17 07:31	11/20/17 17:50	1
Pentachlorophenol	<0.81		0.81	0.64	mg/Kg	☼	11/17/17 07:31	11/20/17 17:50	1
Phenanthrene	0.020	J	0.040	0.0056	mg/Kg	☼	11/17/17 07:31	11/20/17 17:50	1
Phenol	<0.20		0.20	0.089	mg/Kg	☼	11/17/17 07:31	11/20/17 17:50	1
Pyrene	0.024	J	0.040	0.0080	mg/Kg	☼	11/17/17 07:31	11/20/17 17:50	1
1,2,4-Trichlorobenzene	<0.20		0.20	0.043	mg/Kg	☼	11/17/17 07:31	11/20/17 17:50	1
2,4,5-Trichlorophenol	<0.40		0.40	0.092	mg/Kg	☼	11/17/17 07:31	11/20/17 17:50	1
2,4,6-Trichlorophenol	<0.40		0.40	0.14	mg/Kg	☼	11/17/17 07:31	11/20/17 17:50	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	97		44 - 121	11/17/17 07:31	11/20/17 17:50	1
2-Fluorophenol	105		46 - 133	11/17/17 07:31	11/20/17 17:50	1
Nitrobenzene-d5	101		41 - 120	11/17/17 07:31	11/20/17 17:50	1
Phenol-d5	107		46 - 125	11/17/17 07:31	11/20/17 17:50	1
Terphenyl-d14	108		35 - 160	11/17/17 07:31	11/20/17 17:50	1
2,4,6-Tribromophenol	72		25 - 139	11/17/17 07:31	11/20/17 17:50	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.2		1.2	0.22	mg/Kg	☼	11/14/17 16:15	11/15/17 13:55	1
Arsenic	6.6		0.58	0.20	mg/Kg	☼	11/14/17 16:15	11/15/17 13:55	1
Barium	44		0.58	0.066	mg/Kg	☼	11/14/17 16:15	11/15/17 13:55	1
Beryllium	0.54		0.23	0.054	mg/Kg	☼	11/14/17 16:15	11/15/17 13:55	1
Cadmium	0.20	B	0.12	0.021	mg/Kg	☼	11/14/17 16:15	11/15/17 13:55	1
Chromium	13		0.58	0.29	mg/Kg	☼	11/14/17 16:15	11/15/17 13:55	1
Cobalt	9.6		0.29	0.076	mg/Kg	☼	11/14/17 16:15	11/15/17 13:55	1
Copper	21		0.58	0.16	mg/Kg	☼	11/14/17 16:15	11/15/17 13:55	1
Iron	15000	B	12	6.0	mg/Kg	☼	11/14/17 16:15	11/15/17 13:55	1
Lead	29		0.29	0.13	mg/Kg	☼	11/14/17 16:15	11/15/17 13:55	1
Magnesium	22000	B	5.8	2.9	mg/Kg	☼	11/14/17 16:15	11/15/17 13:55	1
Calcium	62000	B	120	20	mg/Kg	☼	11/14/17 16:15	11/15/17 20:57	10
Manganese	360	B	0.58	0.084	mg/Kg	☼	11/14/17 16:15	11/15/17 13:55	1
Nickel	23		0.58	0.17	mg/Kg	☼	11/14/17 16:15	11/15/17 13:55	1
Selenium	0.85		0.58	0.34	mg/Kg	☼	11/14/17 16:15	11/15/17 13:55	1
Silver	<0.29		0.29	0.075	mg/Kg	☼	11/14/17 16:15	11/15/17 13:55	1
Thallium	<0.58		0.58	0.29	mg/Kg	☼	11/14/17 16:15	11/15/17 13:55	1
Vanadium	17		0.29	0.068	mg/Kg	☼	11/14/17 16:15	11/15/17 13:55	1
Zinc	59		1.2	0.51	mg/Kg	☼	11/14/17 16:15	11/15/17 13:55	1
Potassium	1700		29	10	mg/Kg	☼	11/14/17 16:15	11/15/17 13:55	1
Sodium	990		58	8.6	mg/Kg	☼	11/14/17 16:15	11/15/17 13:55	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.050		0.050	0.010	mg/L		11/17/17 09:02	11/17/17 17:38	1
Barium	0.43	J	0.50	0.050	mg/L		11/17/17 09:02	11/17/17 17:38	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		11/17/17 09:02	11/17/17 17:38	1
Cadmium	0.0020	J	0.0050	0.0020	mg/L		11/17/17 09:02	11/17/17 17:38	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137163-7

Client Sample ID: 2696V-59-B03 (0-5)

Lab Sample ID: 500-137163-13

Date Collected: 11/10/17 10:25

Matrix: Solid

Date Received: 11/10/17 15:20

Percent Solids: 80.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	520		5.0	0.50	mg/L		11/17/17 09:02	11/17/17 17:38	1
Chromium	<0.025		0.025	0.010	mg/L		11/17/17 09:02	11/17/17 17:38	1
Cobalt	0.038		0.025	0.010	mg/L		11/17/17 09:02	11/17/17 17:38	1
Copper	<0.040		0.040	0.010	mg/L		11/17/17 09:02	11/17/17 17:38	1
Iron	<0.40		0.40	0.20	mg/L		11/17/17 09:02	11/17/17 17:38	1
Lead	<0.0075		0.0075	0.0075	mg/L		11/17/17 09:02	11/17/17 17:38	1
Magnesium	44		2.5	0.50	mg/L		11/17/17 09:02	11/17/17 17:38	1
Manganese	8.1		0.025	0.010	mg/L		11/17/17 09:02	11/17/17 17:38	1
Nickel	0.034		0.025	0.010	mg/L		11/17/17 09:02	11/17/17 17:38	1
Potassium	3.4		2.5	0.50	mg/L		11/17/17 09:02	11/17/17 17:38	1
Selenium	<0.050		0.050	0.020	mg/L		11/17/17 09:02	11/17/17 17:38	1
Silver	<0.025		0.025	0.010	mg/L		11/17/17 09:02	11/17/17 17:38	1
Vanadium	<0.025		0.025	0.010	mg/L		11/17/17 09:02	11/17/17 17:38	1
Zinc	0.037	J B ^	0.50	0.020	mg/L		11/17/17 09:02	11/17/17 17:38	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.040		0.025	0.010	mg/L		11/20/17 07:21	11/20/17 20:59	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		11/17/17 09:02	11/18/17 04:37	1
Thallium	<0.0020		0.0020	0.0020	mg/L		11/17/17 09:02	11/18/17 04:37	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		11/18/17 14:00	11/20/17 09:29	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.028		0.019	0.0065	mg/Kg	☼	11/20/17 07:30	11/20/17 15:04	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.61		0.61	0.21	mg/Kg	☼	11/21/17 13:15	11/21/17 16:36	1
pH	7.6		0.20	0.20	SU			11/20/17 10:57	1

Definitions/Glossary

Client: Terracon Consulting Eng & Scientists
Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137163-7

Qualifiers

GC/MS Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

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

Glossary

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

Accreditation/Certification Summary

Client: Terracon Consulting Eng & Scientists
Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137163-7

Laboratory: TestAmerica Chicago

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

Authority	Program	EPA Region	Identification Number	Expiration Date
Illinois	NELAP	5	100201	04-30-18

The following analytes are included in this report, but accreditation/certification is not offered by the governing authority:

Analysis Method	Prep Method	Matrix	Analyte
6020A	3010A	Solid	Antimony
6020A	3010A	Solid	Thallium
8260B	5035	Solid	1,3-Dichloropropene, Total
9045D		Solid	pH
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids

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

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

Chain of Custody Record

Lab Job #: 500-137163
 Chain of Custody Number: _____
 Page 1 of 1
 Temperature °C of Cooler: 34.50

Client		Client Project #		Preservative		Parameter		Matrix		Preservative Key 1. HCL, Cool to 4° 2. H2SO4, Cool to 4° 3. HNO3, Cool to 4° 4. NaOH, Cool to 4° 5. NaOH/Zn, Cool to 4° 6. NaHSO4 7. Cool to 4° 8. None 9. Other
Project Name		Lab Project #		# of Containers		Matrix		Comments		
Project Location/State		Lab PM								
<u>TERRACON</u>										
<u>WORK ORDER # 037</u>										
<u>MACK HAN, ILL</u>		<u>DICK WRIGHT</u>								
<u>CRAIG VARLAND</u>										
Lab ID	MS/MSD	Sample ID	Date	Time	# of Containers	Matrix	Matrix	Matrix	Matrix	Comments
<u>11</u>		<u>2696V-59-B01-(0-5)</u>	<u>11-10-17</u>	<u>0950</u>	<u>5</u>	<u>S</u>	<u>VOCS</u>	<u>SVDGS</u>	<u>23 TAL METALS</u>	
<u>12</u>		<u>2696V-59-B02-(0-5)</u>	<u>11-10-17</u>	<u>1010</u>	<u>5</u>	<u>S</u>	<u>VOCS</u>	<u>SVDGS</u>	<u>23 TAL METALS</u>	
<u>13</u>		<u>2696V-59-B03-(0-5)</u>	<u>11-10-17</u>	<u>1025</u>	<u>5</u>	<u>S</u>	<u>VOCS</u>	<u>SVDGS</u>	<u>23 TAL METALS</u>	

Turnaround Time Required (Business Days)

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

Sample Disposal

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

Relinquished By: <u>[Signature]</u> Company: <u>TERRACON</u> Date: <u>11-10-17</u> Time: <u>1450</u>	Received By: <u>[Signature]</u> Company: <u>TA</u> Date: <u>11/10/17</u> Time: <u>1450</u>
Relinquished By: <u>[Signature]</u> Company: <u>TA</u> Date: <u>11/10/17</u> Time: <u>1520</u>	Received By: <u>[Signature]</u> Company: <u>TERRACON</u> Date: <u>11/10/17</u> Time: <u>1520</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

NO ALUMINUM

Lab Comments:

Login Sample Receipt Checklist

Client: Terracon Consulting Eng & Scientists

Job Number: 500-137163-7

Login Number: 137163

List Source: TestAmerica Chicago

List Number: 1

Creator: Sanchez, Ariel 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	3.4, 5.0
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	





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 351-US Rte 6 at Pulaski/Crawford & Kedzie Office Phone Number, if available: _____

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

Pulaski Road (Northbound) 63+00 to 66+50 and US Route 6 (Westbound) 23+00 to 24+70 (ISGS Site 2696V-60)

City: Oak Forest/Markham State: IL Zip Code: 60428

County: Cook Township: Bremen

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

Latitude: 41.60367 Longitude: -87.71682

(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: 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 Phone: 847-705-4122

Zip Code: 60196 Phone: 847-705-4122

Contact: Paul Nickles

Contact: Paul Nickles

Email, if available: paul.nickles@illinois.gov

Email, if available: paul.nickles@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 351-US Rte 6 at Pulaski/Crawford & Kedzie

Latitude: 41.60367 Longitude: -87.71682

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)]:

Soil from borings B01, B03, and B04 were sampled adjacent to ISGS Site No 2696V-60. See Exhibits 2, 2A, 4, and Table 77 of the Preliminary Site Investigation Report prepared by Terracon.

- 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]:

TestAmerica Lab Report No J137163-8 and J137077-2
Also see Preliminary Site Investigation Report prepared by Terracon. CCDD/USFO facility in MSA County.

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

I, Matt Weiss (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: Terracon Consultants, Inc

Street Address: 135 Ambassador Drive

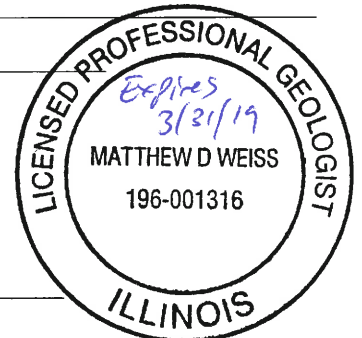
City: Naperville State: IL Zip Code: 60540

Phone: 630-717-4263

Matt Weiss
Printed Name:

[Signature]
Licensed Professional Engineer or
Licensed Professional Geologist Signature:

7/24/18
Date:



Detected Constituents to MACs-PTB 174-009;Work Order:037A
Preliminary Site Investigation
FAP 351-US Rte 6 at S. Pulaski/Crawford + Kedzie (PESA #2696V-60)
Oak Forest/Markham, Cook County, IL
Terracon Project No. 11177029M
Page 1 of 4

Analyte	Units	Background		Maximum Allowed Concentration	Sample Identification	2696V-60-B01 (0-5)	2696V-60-B03 (0-5)
				CCDD	Sample Depth (feet)	(0-5)	(0-5)
		Chicago	MSAs	mg/kg pH 6.25-9.0	Date Collected	11/09/2017	11/10/2017
Volatile Organic Analytical Parameters							
Acetone	mg/kg	---	---	25		<0.016	<0.016
Semivolatile Organic Analytical Parameters							
Acenaphthene	mg/kg	0.09	0.13	570		0.028	<0.037
Acenaphthylene	mg/kg	0.03	0.07	85		0.012	<0.037
Anthracene	mg/kg	0.25	0.4	12000		0.083	<0.037
Benzo(a)anthracene	mg/kg	1.1	1.8	0.9		0.33	0.016
Benzo(a)pyrene	mg/kg	1.3	2.1	0.09		0.48	0.016
Benzo(b)fluoranthene	mg/kg	1.5	2.1	0.9		0.66	0.029
Benzo(g,h,i)perylene	mg/kg	0.68	1.7	2300		0.36	<0.037
Benzo(k)fluoranthene	mg/kg	0.99	1.7	9		0.22	<0.037
Chrysene	mg/kg	1.2	2.7	88		0.39	0.022
Dibenzo(a,h)anthracene	mg/kg	0.2	0.42	0.09		0.1	<0.037
Fluoranthene	mg/kg	2.7	4.1	3100		0.85	0.03
Fluorene	mg/kg	0.1	0.18	560		0.037	<0.037
Indeno(1,2,3-c,d)pyrene	mg/kg	0.86	1.6	0.9		0.31	<0.037
Naphthalene	mg/kg	0.04	0.2	1.8		0.037	<0.037
Phenanthrene	mg/kg	1.3	2.5	210		0.37	0.015
Pyrene	mg/kg	1.9	3.0	2300		0.53	0.03
2-Methylnaphthalene	mg/kg	---	0.14	---		0.012	<0.074
Inorganic Analytical Parameters							
Arsenic	mg/kg	---	13	11.3		3.1	7.3
Barium	mg/kg	---	110	1500		43	40
Cadmium	mg/kg	---	0.6	5.2		0.3	0.36
Chromium, total	mg/kg	---	16.2	21		9.3	12
Lead	mg/kg	---	36	107		42	35
Mercury	mg/kg	---	0.06	0.89*		0.019	0.21
Selenium	mg/kg	---	0.48	1.3		0.32	0.41
Silver	mg/kg	---	0.55	4.4		<0.27	<0.28
Antimony	mg/kg	---	4.0	5		0.42	<1.1
Beryllium	mg/kg	---	0.59	22		0.82	0.53
Calcium	mg/kg	---	9,300	---		150000	64000
Cobalt	mg/kg	---	8.9	20		3.3	8.6
Copper	mg/kg	---	19.6	2900		12	21
Cyanide	mg/kg	---	0.51	---		<0.54	0.44
Iron	mg/kg	---	15,900	15000		6900	16000
Magnesium	mg/kg	---	4,820	325000		75000	20000
Manganese	mg/kg	---	636	630		410	270
Nickel	mg/kg	---	18	100		9.2	23
Potassium	mg/kg	---	1,268	---		710	1600
Sodium	mg/kg	---	130	---		230	430
Thallium	mg/kg	---	0.32	2.6		<0.54	<0.56
Vanadium	mg/kg	---	25.2	550		8.7	15
Zinc	mg/kg	---	95	5100		59	73
pH			6.25	9		8.5	8.7

Detected Constituents to MACs-PTB 174-009;Work Order:037A
Preliminary Site Investigation
FAP 351-US Rte 6 at S. Pulaski/Crawford + Kedzie (PESA #2696V-60)
Oak Forest/Markham, Cook County, IL
Terracon Project No. 11177029M
Page 2 of 4

Analyte	Units	Background		Maximum Allowed Concentration	Sample Identification	2696V-60-B01 (0-5)	2696V-60-B03 (0-5)
				CCDD	Sample Depth (feet)	(0-5)	(0-5)
		Chicago	MSAs	mg/kg pH 6.25-9.0	Date Collected	11/09/2017	11/10/2017
Inorganic Analytical Parameters (SPLP)							
Antimony,SPLP	mg/L	---	---	---		--	--
Arsenic,SPLP	mg/L	---	---	---		--	--
Barium,SPLP	mg/L	---	---	---		--	--
Beryllium,SPLP	mg/L	---	---	---		--	--
Cadmium,SPLP	mg/L	---	---	---		--	--
Calcium,SPLP	mg/L	---	---	---		--	--
Chromium,SPLP	mg/L	---	---	---		--	--
Cobalt,SPLP	mg/L	---	---	---		--	--
Copper,SPLP	mg/L	---	---	---		--	--
Iron,SPLP	mg/L	---	---	---		--	--
Lead,SPLP	mg/L	---	---	---		--	--
Magnesium,SPLP	mg/L	---	---	---		--	--
Manganese,SPLP	mg/L	---	---	---		0.22	0.44
Mercury,SPLP	mg/L	---	---	---		--	--
Nickel,SPLP	mg/L	---	---	---		--	--
Potassium,SPLP	mg/L	---	---	---		--	--
Selenium,SPLP	mg/L	---	---	---		--	--
Silver,SPLP	mg/L	---	---	---		--	--
Sodium,SPLP	mg/L	---	---	---		--	--
Thallium,SPLP	mg/L	---	---	---		--	--
Vanadium,SPLP	mg/L	---	---	---		--	--
Zinc,SPLP	mg/L	---	---	---		--	--
Cyanide,SPLP	mg/L	---	---	---		--	--
Inorganic Analytical Parameters (TCLP)							
Arsenic,TCLP	mg/L	---	---	---		<0.050	<0.050
Barium,TCLP	mg/L	---	---	---		0.31	0.35
Cadmium,TCLP	mg/L	---	---	---		<0.0050	<0.0050
Chromium,TCLP	mg/L	---	---	---		<0.025	<0.025
Lead,TCLP	mg/L	---	---	---		<0.0075	<0.0075
Mercury,TCLP	mg/L	---	---	---		<0.00020	<0.00020
Selenium,TCLP	mg/L	---	---	---		<0.050	<0.050
Silver,TCLP	mg/L	---	---	---		<0.025	<0.025
Antimony,TCLP	mg/L	---	---	---		<0.0060	<0.0060
Beryllium,TCLP	mg/L	---	---	---		<0.0040	<0.0040
Calcium,TCLP	mg/L	---	---	---		450	510
Cobalt,TCLP	mg/L	---	---	---		<0.025	<0.025
Copper,TCLP	mg/L	---	---	---		<0.025	0.03
Cyanide,TCLP	mg/L	---	---	---		----	----
Iron,TCLP	mg/L	---	---	---		<0.40	<0.40
Magnesium,TCLP	mg/L	---	---	---		67	110
Manganese,TCLP	mg/L	---	---	---		0.21	1.1
Nickel,TCLP	mg/L	---	---	---		<0.025	<0.025
Potassium,TCLP	mg/L	---	---	---		1.4	2.3
Sodium,TCLP	mg/L	---	---	---		----	----
Thallium,TCLP	mg/L	---	---	---		<0.0020	<0.0020
Vanadium,TCLP	mg/L	---	---	---		<0.025	<0.025
Zinc,TCLP	mg/L	---	---	---		0.025	0.036

*Elemental mercury was determined not to be a contaminant of concern

Detected Constituents to MACs-PTB 174-009;Work Order:037A
Preliminary Site Investigation
FAP 351-US Rte 6 at S. Pulaski/Crawford + Kedzie (PESA #2696V-60)
Oak Forest/Markham, Cook County, IL
Terracon Project No. 11177029M
Page 3 of 4

Analyte	Units	Background		Maximum Allowed Concentration	Sample Identification	2696V-60-B03 (0-5) Dup	2696V-60-B04 (0-5)
				CCDD	Sample Depth (feet)	(0-5)	(0-5)
		Chicago	MSAs	mg/kg pH 6.25-9.0	Date Collected	11/10/2017	11/10/2017
Volatile Organic Analytical Parameters							
Acetone	mg/kg	---	---	25		0.024	0.015
Semivolatile Organic Analytical Parameters							
Acenaphthene	mg/kg	0.09	0.13	570		<0.037	<0.036
Acenaphthylene	mg/kg	0.03	0.07	85		<0.037	<0.036
Anthracene	mg/kg	0.25	0.4	12000		<0.037	<0.036
Benzo(a)anthracene	mg/kg	1.1	1.8	0.9		0.0081	0.0085
Benzo(a)pyrene	mg/kg	1.3	2.1	0.09		0.012	<0.036
Benzo(b)fluoranthene	mg/kg	1.5	2.1	0.9		0.016	0.012
Benzo(g,h,i)perylene	mg/kg	0.68	1.7	2300		<0.037	<0.036
Benzo(k)fluoranthene	mg/kg	0.99	1.7	9		<0.037	<0.036
Chrysene	mg/kg	1.2	2.7	88		0.012	0.016
Dibenzo(a,h)anthracene	mg/kg	0.2	0.42	0.09		<0.037	<0.036
Fluoranthene	mg/kg	2.7	4.1	3100		0.016	0.012
Fluorene	mg/kg	0.1	0.18	560		<0.037	<0.036
Indeno(1,2,3-c,d)pyrene	mg/kg	0.86	1.6	0.9		<0.037	<0.036
Naphthalene	mg/kg	0.04	0.2	1.8		<0.037	<0.036
Phenanthrene	mg/kg	1.3	2.5	210		0.013	0.009
Pyrene	mg/kg	1.9	3.0	2300		0.017	0.021
2-Methylnaphthalene	mg/kg	---	0.14	---		<0.076	<0.073
Inorganic Analytical Parameters							
Arsenic	mg/kg	---	13	11.3		7.8	9.8
Barium	mg/kg	---	110	1500		61	33
Cadmium	mg/kg	---	0.6	5.2		0.25	0.48
Chromium, total	mg/kg	---	16.2	21		12	8.7
Lead	mg/kg	---	36	107		25	22
Mercury	mg/kg	---	0.06	0.89*		0.039	0.021
Selenium	mg/kg	---	0.48	1.3		0.92	0.73
Silver	mg/kg	---	0.55	4.4		<0.29	<0.26
Antimony	mg/kg	---	4.0	5		<1.2	<1.1
Beryllium	mg/kg	---	0.59	22		0.49	0.4
Calcium	mg/kg	---	9,300	---		30000	22000
Cobalt	mg/kg	---	8.9	20		10	11
Copper	mg/kg	---	19.6	2900		23	20
Cyanide	mg/kg	---	0.51	---		<0.50	<0.58
Iron	mg/kg	---	15,900	15000		17000	17000
Magnesium	mg/kg	---	4,820	325000		16000	12000
Manganese	mg/kg	---	636	630		310	290
Nickel	mg/kg	---	18	100		24	24
Potassium	mg/kg	---	1,268	---		1500	920
Sodium	mg/kg	---	130	---		410	600
Thallium	mg/kg	---	0.32	2.6		0.3	<0.53
Vanadium	mg/kg	---	25.2	550		15	15
Zinc	mg/kg	---	95	5100		67	51
pH			6.25	9		8.2	8.1

Detected Constituents to MACs-PTB 174-009;Work Order:037A
Preliminary Site Investigation
FAP 351-US Rte 6 at S. Pulaski/Crawford + Kedzie (PESA #2696V-60)
Oak Forest/Markham, Cook County, IL
Terracon Project No. 11177029M
Page 4 of 4

Analyte	Units	Background		Maximum Allowed Concentration	Sample Identification	2696V-60-B03 (0-5) Dup	2696V-60-B04 (0-5)
				CCDD	Sample Depth (feet)	(0-5)	(0-5)
		Chicago	MSAs	mg/kg pH 6.25-9.0	Date Collected	11/10/2017	11/10/2017
Inorganic Analytical Parameters (SPLP)							
Antimony,SPLP	mg/L	---	---	---		--	--
Arsenic,SPLP	mg/L	---	---	---		--	--
Barium,SPLP	mg/L	---	---	---		--	--
Beryllium,SPLP	mg/L	---	---	---		--	--
Cadmium,SPLP	mg/L	---	---	---		--	--
Calcium,SPLP	mg/L	---	---	---		--	--
Chromium,SPLP	mg/L	---	---	---		--	--
Cobalt,SPLP	mg/L	---	---	---		--	--
Copper,SPLP	mg/L	---	---	---		--	--
Iron,SPLP	mg/L	---	---	---		--	--
Lead,SPLP	mg/L	---	---	---		0.11	--
Magnesium,SPLP	mg/L	---	---	---		--	--
Manganese,SPLP	mg/L	---	---	---		0.5	0.057
Mercury,SPLP	mg/L	---	---	---		--	--
Nickel,SPLP	mg/L	---	---	---		--	--
Potassium,SPLP	mg/L	---	---	---		--	--
Selenium,SPLP	mg/L	---	---	---		--	--
Silver,SPLP	mg/L	---	---	---		--	--
Sodium,SPLP	mg/L	---	---	---		--	--
Thallium,SPLP	mg/L	---	---	---		--	--
Vanadium,SPLP	mg/L	---	---	---		--	--
Zinc,SPLP	mg/L	---	---	---		--	--
Cyanide,SPLP	mg/L	---	---	---		--	--
Inorganic Analytical Parameters (TCLP)							
Arsenic,TCLP	mg/L	---	---	---		<0.050	<0.050
Barium,TCLP	mg/L	---	---	---		0.87	0.5
Cadmium,TCLP	mg/L	---	---	---		0.0022	0.0029
Chromium,TCLP	mg/L	---	---	---		<0.025	<0.025
Lead,TCLP	mg/L	---	---	---		0.0089	<0.0075
Mercury,TCLP	mg/L	---	---	---		<0.00020	<0.00020
Selenium,TCLP	mg/L	---	---	---		<0.050	<0.050
Silver,TCLP	mg/L	---	---	---		<0.025	<0.025
Antimony,TCLP	mg/L	---	---	---		<0.0060	<0.0060
Beryllium,TCLP	mg/L	---	---	---		<0.0040	<0.0040
Calcium,TCLP	mg/L	---	---	---		440	310
Cobalt,TCLP	mg/L	---	---	---		0.024	0.037
Copper,TCLP	mg/L	---	---	---		0.021	0.039
Cyanide,TCLP	mg/L	---	---	---		----	----
Iron,TCLP	mg/L	---	---	---		<0.40	0.83
Magnesium,TCLP	mg/L	---	---	---		99	97
Manganese,TCLP	mg/L	---	---	---		6.9	7.8
Nickel,TCLP	mg/L	---	---	---		0.021	0.033
Potassium,TCLP	mg/L	---	---	---		2.9	0.94
Sodium,TCLP	mg/L	---	---	---		----	----
Thallium,TCLP	mg/L	---	---	---		<0.0020	<0.0020
Vanadium,TCLP	mg/L	---	---	---		<0.025	<0.025
Zinc,TCLP	mg/L	---	---	---		0.079	0.071

*Elemental mercury was determined not to be a contaminant of concern

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: 500-137077-2

Client Project/Site: IDOT - Oak Forest/Markham - WO37

For:

Terracon Consulting Eng & Scientists

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

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

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Case Narrative

Client: Terracon Consulting Eng & Scientists
Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137077-2

Job ID: 500-137077-2

Laboratory: TestAmerica Chicago

Narrative

Job Narrative 500-137077-2

Receipt

The samples were received on 11/10/2017 8:00 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 6 coolers at receipt time were 1.9° C, 2.0° C, 2.9° C, 3.2° C, 3.7° C and 4.0° C.

GC/MS VOA

Method(s) 8260B: The following analytes recovered outside control limits for the LCS associated with batch 410201: Carbon Tetrachloride and Chromomethane. This is not indicative of a systematic control problem because these were random marginal exceedances. The laboratory control sample (LCS) had all compounds within control limits. Qualified results have been reported.

Method(s) 8260B: The following sample was diluted to bring the concentration of the target analyte Benzene within the calibration range: 2696V-60-B02(10-15) (500-137077-10). Elevated reporting limits (RLs) are provided.

Method(s) 8260B: The following sample was diluted due to the abundance of non-target analytes: 2696V-60-B02(5-10) (500-137077-9). Analysis of the sample could not be performed un-diluted due to the concentration of these non-target analytes exceeding the instruments saturation levels. The sample was run using the methanol extract at a dilution of 50x (the lowest dilution allowed for method 5035). 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) 8270D: The following sample contained one base surrogate outside acceptance limits: 2696V-60-G01 (500-137077-12). The laboratory's SOP allows one acid and one base surrogate to be outside acceptance limits; therefore, re-extraction was not performed. These results have been reported and qualified.

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

Metals

Method(s) 6010B: The following samples was diluted due to the abundance of target and non-target analytes: 2696V-60-B01(0-5) (500-137077-7), 2696V-60-B02(5-10) (500-137077-9), 2696V-60-B02(10-15) (500-137077-10) and 2696V-60-B02(15-21) (500-137077-11). Elevated reporting limits (RLs) are provided.

Method(s) 6020A: Due to sample matrix effect on the internal standard (ISTD), a dilution was required for the following sample: 2696V-60-G01 (500-137077-12).

Method(s) 6020A: The method blank for preparation batch 500-409517 and analytical batch 500-410434 contained Calcium above the reporting limit (RL). Associated sample(s) were not re-extracted and/or re-analyzed because results were greater than 10X the value found in the method blank.

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

General Chemistry

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

Organic Prep

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

Detection Summary

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137077-2

Client Sample ID: 2696V-60-B01(0-5)

Lab Sample ID: 500-137077-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acenaphthene	0.028	J	0.038	0.0068	mg/Kg	1	☼	8270D	Total/NA
Acenaphthylene	0.012	J	0.038	0.0050	mg/Kg	1	☼	8270D	Total/NA
Anthracene	0.083		0.038	0.0063	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.33		0.038	0.0051	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.48		0.038	0.0073	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.66		0.038	0.0082	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.36		0.038	0.012	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.22		0.038	0.011	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.39		0.038	0.010	mg/Kg	1	☼	8270D	Total/NA
Dibenz(a,h)anthracene	0.10		0.038	0.0073	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.85		0.038	0.0070	mg/Kg	1	☼	8270D	Total/NA
Fluorene	0.037	J	0.038	0.0053	mg/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.31		0.038	0.0098	mg/Kg	1	☼	8270D	Total/NA
2-Methylnaphthalene	0.012	J	0.076	0.0070	mg/Kg	1	☼	8270D	Total/NA
Naphthalene	0.037	J	0.038	0.0058	mg/Kg	1	☼	8270D	Total/NA
Phenanthrene	0.37		0.038	0.0053	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.53		0.038	0.0075	mg/Kg	1	☼	8270D	Total/NA
Antimony	0.42	J	1.1	0.21	mg/Kg	1	☼	6010B	Total/NA
Arsenic	3.1		0.54	0.18	mg/Kg	1	☼	6010B	Total/NA
Barium	43		0.54	0.061	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.82		0.21	0.050	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.30	B	0.11	0.019	mg/Kg	1	☼	6010B	Total/NA
Chromium	9.3		0.54	0.27	mg/Kg	1	☼	6010B	Total/NA
Cobalt	3.3		0.27	0.070	mg/Kg	1	☼	6010B	Total/NA
Copper	12	B	2.7	0.75	mg/Kg	5	☼	6010B	Total/NA
Iron	6900		11	5.6	mg/Kg	1	☼	6010B	Total/NA
Lead	42		0.27	0.12	mg/Kg	1	☼	6010B	Total/NA
Magnesium	75000		27	13	mg/Kg	5	☼	6010B	Total/NA
Calcium	150000		54	9.1	mg/Kg	5	☼	6010B	Total/NA
Manganese	410		0.54	0.078	mg/Kg	1	☼	6010B	Total/NA
Nickel	9.2		0.54	0.16	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.32	J	0.54	0.31	mg/Kg	1	☼	6010B	Total/NA
Vanadium	8.7		0.27	0.063	mg/Kg	1	☼	6010B	Total/NA
Zinc	59		1.1	0.47	mg/Kg	1	☼	6010B	Total/NA
Potassium	710		27	9.5	mg/Kg	1	☼	6010B	Total/NA
Sodium	230		54	7.9	mg/Kg	1	☼	6010B	Total/NA
Barium	0.31	J	0.50	0.050	mg/L	1		6010B	TCLP
Calcium	450		5.0	0.50	mg/L	1		6010B	TCLP
Magnesium	67		2.5	0.50	mg/L	1		6010B	TCLP
Manganese	0.21		0.025	0.010	mg/L	1		6010B	TCLP
Potassium	1.4	J	2.5	0.50	mg/L	1		6010B	TCLP
Zinc	0.025	J	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.22		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.019		0.018	0.0059	mg/Kg	1	☼	7471B	Total/NA
pH	8.5		0.20	0.20	SU	1		9045D	Total/NA

Client Sample ID: 2696V-60-B02(0-5)

Lab Sample ID: 500-137077-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]anthracene	0.038	J	0.039	0.0053	mg/Kg	1	☼	8270D	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137077-2

Client Sample ID: 2696V-60-B02(0-5) (Continued)

Lab Sample ID: 500-137077-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]pyrene	0.082		0.039	0.0076	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.10		0.039	0.0085	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.079		0.039	0.013	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.026	J	0.039	0.012	mg/Kg	1	☼	8270D	Total/NA
Butyl benzyl phthalate	0.23		0.20	0.075	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.049		0.039	0.011	mg/Kg	1	☼	8270D	Total/NA
Dibenz(a,h)anthracene	0.046		0.039	0.0076	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.084		0.039	0.0073	mg/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.072		0.039	0.010	mg/Kg	1	☼	8270D	Total/NA
Phenanthrene	0.027	J	0.039	0.0055	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.055		0.039	0.0079	mg/Kg	1	☼	8270D	Total/NA
Antimony	0.27	J	1.2	0.23	mg/Kg	1	☼	6010B	Total/NA
Arsenic	6.1		0.60	0.20	mg/Kg	1	☼	6010B	Total/NA
Barium	23		0.60	0.068	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.59		0.24	0.056	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.077	J B	0.12	0.022	mg/Kg	1	☼	6010B	Total/NA
Chromium	15		0.60	0.30	mg/Kg	1	☼	6010B	Total/NA
Cobalt	6.6		0.30	0.078	mg/Kg	1	☼	6010B	Total/NA
Copper	21	B	0.60	0.17	mg/Kg	1	☼	6010B	Total/NA
Iron	16000		12	6.2	mg/Kg	1	☼	6010B	Total/NA
Lead	21		0.30	0.14	mg/Kg	1	☼	6010B	Total/NA
Magnesium	16000		6.0	3.0	mg/Kg	1	☼	6010B	Total/NA
Calcium	26000		12	2.0	mg/Kg	1	☼	6010B	Total/NA
Manganese	200		0.60	0.087	mg/Kg	1	☼	6010B	Total/NA
Nickel	22		0.60	0.17	mg/Kg	1	☼	6010B	Total/NA
Thallium	0.51	J	0.60	0.30	mg/Kg	1	☼	6010B	Total/NA
Vanadium	15		0.30	0.071	mg/Kg	1	☼	6010B	Total/NA
Zinc	62		1.2	0.52	mg/Kg	1	☼	6010B	Total/NA
Potassium	1900		30	11	mg/Kg	1	☼	6010B	Total/NA
Sodium	99		60	8.8	mg/Kg	1	☼	6010B	Total/NA
Barium	0.25	J	0.50	0.050	mg/L	1		6010B	TCLP
Calcium	370		5.0	0.50	mg/L	1		6010B	TCLP
Copper	0.012	J	0.025	0.010	mg/L	1		6010B	TCLP
Magnesium	110		2.5	0.50	mg/L	1		6010B	TCLP
Manganese	0.21		0.025	0.010	mg/L	1		6010B	TCLP
Potassium	2.5		2.5	0.50	mg/L	1		6010B	TCLP
Zinc	0.031	J	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.13		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.033		0.019	0.0063	mg/Kg	1	☼	7471B	Total/NA
pH	8.4		0.20	0.20	SU	1		9045D	Total/NA

Client Sample ID: 2696V-60-B02(5-10)

Lab Sample ID: 500-137077-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.016		0.012	0.0073	mg/Kg	50	☼	8260B	Total/NA
Ethylbenzene	0.18		0.012	0.0091	mg/Kg	50	☼	8260B	Total/NA
Benzo[a]pyrene	0.035	J	0.039	0.0076	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.039		0.039	0.0085	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.051		0.039	0.013	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.016	J	0.039	0.011	mg/Kg	1	☼	8270D	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137077-2

Client Sample ID: 2696V-60-B02(5-10) (Continued)

Lab Sample ID: 500-137077-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Methylnaphthalene	1.8		0.079	0.0072	mg/Kg	1	☼	8270D	Total/NA
Naphthalene	1.6		0.039	0.0060	mg/Kg	1	☼	8270D	Total/NA
Phenanthrene	0.011	J	0.039	0.0055	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.014	J	0.039	0.0078	mg/Kg	1	☼	8270D	Total/NA
Antimony	0.59	J	1.2	0.23	mg/Kg	1	☼	6010B	Total/NA
Arsenic	5.9		0.59	0.20	mg/Kg	1	☼	6010B	Total/NA
Barium	28		0.59	0.068	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.43		0.24	0.056	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.11	J B	0.12	0.021	mg/Kg	1	☼	6010B	Total/NA
Chromium	9.9		0.59	0.29	mg/Kg	1	☼	6010B	Total/NA
Cobalt	7.2		0.30	0.078	mg/Kg	1	☼	6010B	Total/NA
Copper	21	B	3.0	0.83	mg/Kg	5	☼	6010B	Total/NA
Iron	14000		12	6.2	mg/Kg	1	☼	6010B	Total/NA
Lead	11		0.30	0.14	mg/Kg	1	☼	6010B	Total/NA
Magnesium	32000		5.9	3.0	mg/Kg	1	☼	6010B	Total/NA
Calcium	87000		59	10	mg/Kg	5	☼	6010B	Total/NA
Manganese	360		0.59	0.086	mg/Kg	1	☼	6010B	Total/NA
Nickel	19		0.59	0.17	mg/Kg	1	☼	6010B	Total/NA
Vanadium	14		0.30	0.070	mg/Kg	1	☼	6010B	Total/NA
Zinc	45		1.2	0.52	mg/Kg	1	☼	6010B	Total/NA
Potassium	1300		30	11	mg/Kg	1	☼	6010B	Total/NA
Sodium	170		59	8.8	mg/Kg	1	☼	6010B	Total/NA
Barium	0.54		0.50	0.050	mg/L	1		6010B	TCLP
Calcium	580		5.0	0.50	mg/L	1		6010B	TCLP
Copper	0.066		0.025	0.010	mg/L	1		6010B	TCLP
Magnesium	19		2.5	0.50	mg/L	1		6010B	TCLP
Manganese	2.6		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.016	J	0.025	0.010	mg/L	1		6010B	TCLP
Potassium	2.7		2.5	0.50	mg/L	1		6010B	TCLP
Zinc	0.061	J	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.015	J	0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.013	J	0.019	0.0064	mg/Kg	1	☼	7471B	Total/NA
pH	8.2		0.20	0.20	SU	1		9045D	Total/NA

Client Sample ID: 2696V-60-B02(10-15)

Lab Sample ID: 500-137077-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	6.5		0.014	0.0079	mg/Kg	50	☼	8260B	Total/NA
Methyl tert-butyl ether	0.14		0.054	0.021	mg/Kg	50	☼	8260B	Total/NA
Benzo[a]anthracene	0.0057	J	0.039	0.0053	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.036	J	0.039	0.0076	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.015	J	0.039	0.011	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.0081	J	0.039	0.0072	mg/Kg	1	☼	8270D	Total/NA
Phenanthrene	0.011	J	0.039	0.0054	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.013	J	0.039	0.0078	mg/Kg	1	☼	8270D	Total/NA
Antimony	0.71	J	1.2	0.23	mg/Kg	1	☼	6010B	Total/NA
Arsenic	5.2		0.58	0.20	mg/Kg	1	☼	6010B	Total/NA
Barium	47		0.58	0.066	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.54		0.23	0.054	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.12	B	0.12	0.021	mg/Kg	1	☼	6010B	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137077-2

Client Sample ID: 2696V-60-B02(10-15) (Continued)

Lab Sample ID: 500-137077-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chromium	13		0.58	0.29	mg/Kg	1	☼	6010B	Total/NA
Cobalt	9.3		0.29	0.076	mg/Kg	1	☼	6010B	Total/NA
Copper	22	B	2.9	0.81	mg/Kg	5	☼	6010B	Total/NA
Iron	15000		12	6.1	mg/Kg	1	☼	6010B	Total/NA
Lead	9.9		0.29	0.13	mg/Kg	1	☼	6010B	Total/NA
Magnesium	26000		5.8	2.9	mg/Kg	1	☼	6010B	Total/NA
Calcium	86000		58	9.9	mg/Kg	5	☼	6010B	Total/NA
Manganese	340		0.58	0.084	mg/Kg	1	☼	6010B	Total/NA
Nickel	23		0.58	0.17	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.42	J	0.58	0.34	mg/Kg	1	☼	6010B	Total/NA
Vanadium	17		0.29	0.069	mg/Kg	1	☼	6010B	Total/NA
Zinc	44		1.2	0.51	mg/Kg	1	☼	6010B	Total/NA
Potassium	1800		29	10	mg/Kg	1	☼	6010B	Total/NA
Sodium	230		58	8.6	mg/Kg	1	☼	6010B	Total/NA
Barium	0.73		0.50	0.050	mg/L	1		6010B	TCLP
Calcium	1400		50	5.0	mg/L	10		6010B	TCLP
Cobalt	0.023	J	0.025	0.010	mg/L	1		6010B	TCLP
Copper	0.060		0.025	0.010	mg/L	1		6010B	TCLP
Iron	3.2		0.40	0.20	mg/L	1		6010B	TCLP
Magnesium	160		2.5	0.50	mg/L	1		6010B	TCLP
Manganese	4.5		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.031		0.025	0.010	mg/L	1		6010B	TCLP
Potassium	3.2		2.5	0.50	mg/L	1		6010B	TCLP
Zinc	0.054	J	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.031		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.015	J	0.019	0.0065	mg/Kg	1	☼	7471B	Total/NA
pH	8.4		0.20	0.20	SU	1		9045D	Total/NA

Client Sample ID: 2696V-60-B02(15-21)

Lab Sample ID: 500-137077-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methyl tert-butyl ether	0.0046		0.0018	0.00052	mg/Kg	1	☼	8260B	Total/NA
Benzo[a]anthracene	0.0065	J	0.039	0.0052	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.038	J	0.039	0.0075	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.039		0.039	0.0084	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.052		0.039	0.013	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.019	J	0.039	0.011	mg/Kg	1	☼	8270D	Total/NA
Dibenz(a,h)anthracene	0.037	J	0.039	0.0075	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.0094	J	0.039	0.0072	mg/Kg	1	☼	8270D	Total/NA
Phenanthrene	0.018	J	0.039	0.0054	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.017	J	0.039	0.0077	mg/Kg	1	☼	8270D	Total/NA
Antimony	0.30	J F1	1.2	0.23	mg/Kg	1	☼	6010B	Total/NA
Arsenic	6.1		0.59	0.20	mg/Kg	1	☼	6010B	Total/NA
Barium	31		0.59	0.067	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.42		0.23	0.055	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.14	B	0.12	0.021	mg/Kg	1	☼	6010B	Total/NA
Chromium	9.8		0.59	0.29	mg/Kg	1	☼	6010B	Total/NA
Cobalt	7.2		0.29	0.077	mg/Kg	1	☼	6010B	Total/NA
Copper	18	B	2.9	0.82	mg/Kg	5	☼	6010B	Total/NA
Iron	13000		12	6.1	mg/Kg	1	☼	6010B	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137077-2

Client Sample ID: 2696V-60-B02(15-21) (Continued)

Lab Sample ID: 500-137077-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	8.6		0.29	0.14	mg/Kg	1	☼	6010B	Total/NA
Magnesium	32000		5.9	2.9	mg/Kg	1	☼	6010B	Total/NA
Calcium	91000		59	9.9	mg/Kg	5	☼	6010B	Total/NA
Manganese	340		0.59	0.085	mg/Kg	1	☼	6010B	Total/NA
Nickel	18		0.59	0.17	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.40	J F1	0.59	0.34	mg/Kg	1	☼	6010B	Total/NA
Vanadium	13		0.29	0.069	mg/Kg	1	☼	6010B	Total/NA
Zinc	55	F1	1.2	0.51	mg/Kg	1	☼	6010B	Total/NA
Potassium	1200	F1	29	10	mg/Kg	1	☼	6010B	Total/NA
Sodium	210		59	8.7	mg/Kg	1	☼	6010B	Total/NA
Barium	0.51		0.50	0.050	mg/L	1		6010B	TCLP
Calcium	1400		50	5.0	mg/L	10		6010B	TCLP
Cobalt	0.022	J	0.025	0.010	mg/L	1		6010B	TCLP
Copper	0.042		0.025	0.010	mg/L	1		6010B	TCLP
Iron	1.9		0.40	0.20	mg/L	1		6010B	TCLP
Magnesium	180		2.5	0.50	mg/L	1		6010B	TCLP
Manganese	4.0		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.034		0.025	0.010	mg/L	1		6010B	TCLP
Potassium	3.3		2.5	0.50	mg/L	1		6010B	TCLP
Zinc	0.039	J	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.012	J	0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.0077	J	0.019	0.0062	mg/Kg	1	☼	7471B	Total/NA
pH	8.1		0.20	0.20	SU	1		9045D	Total/NA

Client Sample ID: 2696V-60-G01

Lab Sample ID: 500-137077-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	0.046		0.0050	0.0017	mg/L	1		8260B	Total/NA
Ethylbenzene	0.012		0.00050	0.00018	mg/L	1		8260B	Total/NA
Toluene	0.0032		0.00050	0.00015	mg/L	1		8260B	Total/NA
Xylenes, Total	0.0029		0.0010	0.00022	mg/L	1		8260B	Total/NA
Benzene - DL	0.20		0.0050	0.0015	mg/L	10		8260B	Total/NA
Benzo[a]anthracene	0.00011	J	0.00017	0.000060	mg/L	1		8270D	Total/NA
Chrysene	0.00025		0.00021	0.000072	mg/L	1		8270D	Total/NA
2-Methylnaphthalene	0.00075	J	0.0021	0.000069	mg/L	1		8270D	Total/NA
Naphthalene	0.0021		0.0011	0.00033	mg/L	1		8270D	Total/NA
Phenanthrene	0.00043	J	0.0011	0.00032	mg/L	1		8270D	Total/NA
Phenol	0.0012	J	0.0053	0.00071	mg/L	1		8270D	Total/NA
Arsenic	0.038		0.0010	0.00023	mg/L	1		6020A	Total
Barium	2.2		0.013	0.0037	mg/L	5		6020A	Total
Beryllium	0.0062	J	0.010	0.0053	mg/L	10		6020A	Total
Cadmium	0.0097		0.00050	0.00017	mg/L	1		6020A	Total
Calcium	3400	B	4.0	0.89	mg/L	20		6020A	Total
Chromium	0.21		0.050	0.011	mg/L	10		6020A	Total
Cobalt	0.21		0.010	0.0040	mg/L	10		6020A	Total

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137077-2

Client Sample ID: 2696V-60-G01 (Continued)

Lab Sample ID: 500-137077-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Copper	0.78	B	0.0020	0.00050	mg/L	1		6020A	Total Recoverable
Iron	200	B	1.0	0.47	mg/L	10		6020A	Total Recoverable
Lead	0.39		0.0025	0.00093	mg/L	5		6020A	Total Recoverable
Magnesium	1100	B	2.0	0.49	mg/L	10		6020A	Total Recoverable
Manganese	13	B	0.025	0.0079	mg/L	10		6020A	Total Recoverable
Nickel	0.47		0.020	0.0063	mg/L	10		6020A	Total Recoverable
Potassium	24		5.0	1.1	mg/L	10		6020A	Total Recoverable
Selenium	0.010		0.0025	0.00098	mg/L	1		6020A	Total Recoverable
Silver	0.0017		0.00050	0.00012	mg/L	1		6020A	Total Recoverable
Sodium	85		2.0	0.77	mg/L	10		6020A	Total Recoverable
Thallium	0.010		0.010	0.0029	mg/L	5		6020A	Total Recoverable
Zinc	1.3		0.020	0.0069	mg/L	1		6020A	Total Recoverable
Mercury	0.00025		0.00020	0.000098	mg/L	1		7470A	Total/NA

Client Sample ID: Trip Blank

Lab Sample ID: 500-137077-13

No Detections.

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Sample Summary

Client: Terracon Consulting Eng & Scientists
Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137077-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-137077-7	2696V-60-B01(0-5)	Solid	11/09/17 14:00	11/10/17 08:00
500-137077-8	2696V-60-B02(0-5)	Solid	11/09/17 14:15	11/10/17 08:00
500-137077-9	2696V-60-B02(5-10)	Solid	11/09/17 14:25	11/10/17 08:00
500-137077-10	2696V-60-B02(10-15)	Solid	11/09/17 14:30	11/10/17 08:00
500-137077-11	2696V-60-B02(15-21)	Solid	11/09/17 14:35	11/10/17 08:00
500-137077-12	2696V-60-G01	Water	11/09/17 15:20	11/10/17 08:00
500-137077-13	Trip Blank	Water	11/09/17 00:00	11/10/17 08:00



Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137077-2

Client Sample ID: 2696V-60-B01(0-5)

Lab Sample ID: 500-137077-7

Date Collected: 11/09/17 14:00

Matrix: Solid

Date Received: 11/10/17 08:00

Percent Solids: 87.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.016		0.016	0.0070	mg/Kg	☼	11/10/17 18:28	11/16/17 13:53	1
Benzene	<0.0016		0.0016	0.00041	mg/Kg	☼	11/10/17 18:28	11/16/17 13:53	1
Bromodichloromethane	<0.0016		0.0016	0.00033	mg/Kg	☼	11/10/17 18:28	11/16/17 13:53	1
Bromoform	<0.0016		0.0016	0.00047	mg/Kg	☼	11/10/17 18:28	11/16/17 13:53	1
Bromomethane	<0.0040		0.0040	0.0015	mg/Kg	☼	11/10/17 18:28	11/16/17 13:53	1
2-Butanone (MEK)	<0.0040		0.0040	0.0018	mg/Kg	☼	11/10/17 18:28	11/16/17 13:53	1
Carbon disulfide	<0.0040		0.0040	0.00083	mg/Kg	☼	11/10/17 18:28	11/16/17 13:53	1
Carbon tetrachloride	<0.0016 *		0.0016	0.00046	mg/Kg	☼	11/10/17 18:28	11/16/17 13:53	1
Chlorobenzene	<0.0016		0.0016	0.00059	mg/Kg	☼	11/10/17 18:28	11/16/17 13:53	1
Chloroethane	<0.0040		0.0040	0.0012	mg/Kg	☼	11/10/17 18:28	11/16/17 13:53	1
Chloroform	<0.0016		0.0016	0.00056	mg/Kg	☼	11/10/17 18:28	11/16/17 13:53	1
Chloromethane	<0.0040 *		0.0040	0.0016	mg/Kg	☼	11/10/17 18:28	11/16/17 13:53	1
cis-1,2-Dichloroethene	<0.0016		0.0016	0.00045	mg/Kg	☼	11/10/17 18:28	11/16/17 13:53	1
cis-1,3-Dichloropropene	<0.0016		0.0016	0.00048	mg/Kg	☼	11/10/17 18:28	11/16/17 13:53	1
Dibromochloromethane	<0.0016		0.0016	0.00052	mg/Kg	☼	11/10/17 18:28	11/16/17 13:53	1
1,1-Dichloroethane	<0.0016		0.0016	0.00055	mg/Kg	☼	11/10/17 18:28	11/16/17 13:53	1
1,2-Dichloroethane	<0.0040		0.0040	0.0012	mg/Kg	☼	11/10/17 18:28	11/16/17 13:53	1
1,1-Dichloroethene	<0.0016		0.0016	0.00055	mg/Kg	☼	11/10/17 18:28	11/16/17 13:53	1
1,2-Dichloropropane	<0.0016		0.0016	0.00041	mg/Kg	☼	11/10/17 18:28	11/16/17 13:53	1
1,3-Dichloropropene, Total	<0.0016		0.0016	0.00056	mg/Kg	☼	11/10/17 18:28	11/16/17 13:53	1
Ethylbenzene	<0.0016		0.0016	0.00077	mg/Kg	☼	11/10/17 18:28	11/16/17 13:53	1
2-Hexanone	<0.0040		0.0040	0.0012	mg/Kg	☼	11/10/17 18:28	11/16/17 13:53	1
Methylene Chloride	<0.0040		0.0040	0.0016	mg/Kg	☼	11/10/17 18:28	11/16/17 13:53	1
4-Methyl-2-pentanone (MIBK)	<0.0040		0.0040	0.0012	mg/Kg	☼	11/10/17 18:28	11/16/17 13:53	1
Methyl tert-butyl ether	<0.0016		0.0016	0.00047	mg/Kg	☼	11/10/17 18:28	11/16/17 13:53	1
Styrene	<0.0016		0.0016	0.00048	mg/Kg	☼	11/10/17 18:28	11/16/17 13:53	1
1,1,2,2-Tetrachloroethane	<0.0016		0.0016	0.00051	mg/Kg	☼	11/10/17 18:28	11/16/17 13:53	1
Tetrachloroethene	<0.0016		0.0016	0.00054	mg/Kg	☼	11/10/17 18:28	11/16/17 13:53	1
Toluene	<0.0016		0.0016	0.00040	mg/Kg	☼	11/10/17 18:28	11/16/17 13:53	1
trans-1,2-Dichloroethene	<0.0016		0.0016	0.00071	mg/Kg	☼	11/10/17 18:28	11/16/17 13:53	1
trans-1,3-Dichloropropene	<0.0016		0.0016	0.00056	mg/Kg	☼	11/10/17 18:28	11/16/17 13:53	1
1,1,1-Trichloroethane	<0.0016		0.0016	0.00054	mg/Kg	☼	11/10/17 18:28	11/16/17 13:53	1
1,1,2-Trichloroethane	<0.0016		0.0016	0.00069	mg/Kg	☼	11/10/17 18:28	11/16/17 13:53	1
Trichloroethene	<0.0016		0.0016	0.00054	mg/Kg	☼	11/10/17 18:28	11/16/17 13:53	1
Vinyl acetate	<0.0040		0.0040	0.0014	mg/Kg	☼	11/10/17 18:28	11/16/17 13:53	1
Vinyl chloride	<0.0016		0.0016	0.00071	mg/Kg	☼	11/10/17 18:28	11/16/17 13:53	1
Xylenes, Total	<0.0032		0.0032	0.00051	mg/Kg	☼	11/10/17 18:28	11/16/17 13:53	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	88		75 - 131	11/10/17 18:28	11/16/17 13:53	1
Dibromofluoromethane	107		75 - 126	11/10/17 18:28	11/16/17 13:53	1
1,2-Dichloroethane-d4 (Surr)	118		70 - 134	11/10/17 18:28	11/16/17 13:53	1
Toluene-d8 (Surr)	94		75 - 124	11/10/17 18:28	11/16/17 13:53	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.028	J	0.038	0.0068	mg/Kg	☼	11/16/17 08:33	11/17/17 19:26	1
Acenaphthylene	0.012	J	0.038	0.0050	mg/Kg	☼	11/16/17 08:33	11/17/17 19:26	1
Anthracene	0.083		0.038	0.0063	mg/Kg	☼	11/16/17 08:33	11/17/17 19:26	1
Benzo[a]anthracene	0.33		0.038	0.0051	mg/Kg	☼	11/16/17 08:33	11/17/17 19:26	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137077-2

Client Sample ID: 2696V-60-B01(0-5)

Lab Sample ID: 500-137077-7

Date Collected: 11/09/17 14:00

Matrix: Solid

Date Received: 11/10/17 08:00

Percent Solids: 87.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	0.48		0.038	0.0073	mg/Kg	☼	11/16/17 08:33	11/17/17 19:26	1
Benzo[b]fluoranthene	0.66		0.038	0.0082	mg/Kg	☼	11/16/17 08:33	11/17/17 19:26	1
Benzo[g,h,i]perylene	0.36		0.038	0.012	mg/Kg	☼	11/16/17 08:33	11/17/17 19:26	1
Benzo[k]fluoranthene	0.22		0.038	0.011	mg/Kg	☼	11/16/17 08:33	11/17/17 19:26	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.039	mg/Kg	☼	11/16/17 08:33	11/17/17 19:26	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.057	mg/Kg	☼	11/16/17 08:33	11/17/17 19:26	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.069	mg/Kg	☼	11/16/17 08:33	11/17/17 19:26	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.050	mg/Kg	☼	11/16/17 08:33	11/17/17 19:26	1
Butyl benzyl phthalate	<0.19		0.19	0.072	mg/Kg	☼	11/16/17 08:33	11/17/17 19:26	1
Carbazole	<0.19		0.19	0.095	mg/Kg	☼	11/16/17 08:33	11/17/17 19:26	1
4-Chloroaniline	<0.76		0.76	0.18	mg/Kg	☼	11/16/17 08:33	11/17/17 19:26	1
4-Chloro-3-methylphenol	<0.38		0.38	0.13	mg/Kg	☼	11/16/17 08:33	11/17/17 19:26	1
2-Chloronaphthalene	<0.19		0.19	0.042	mg/Kg	☼	11/16/17 08:33	11/17/17 19:26	1
2-Chlorophenol	<0.19		0.19	0.065	mg/Kg	☼	11/16/17 08:33	11/17/17 19:26	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.044	mg/Kg	☼	11/16/17 08:33	11/17/17 19:26	1
Chrysene	0.39		0.038	0.010	mg/Kg	☼	11/16/17 08:33	11/17/17 19:26	1
Dibenz(a,h)anthracene	0.10		0.038	0.0073	mg/Kg	☼	11/16/17 08:33	11/17/17 19:26	1
Dibenzofuran	<0.19		0.19	0.044	mg/Kg	☼	11/16/17 08:33	11/17/17 19:26	1
1,2-Dichlorobenzene	<0.19		0.19	0.045	mg/Kg	☼	11/16/17 08:33	11/17/17 19:26	1
1,3-Dichlorobenzene	<0.19		0.19	0.043	mg/Kg	☼	11/16/17 08:33	11/17/17 19:26	1
1,4-Dichlorobenzene	<0.19		0.19	0.049	mg/Kg	☼	11/16/17 08:33	11/17/17 19:26	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.053	mg/Kg	☼	11/16/17 08:33	11/17/17 19:26	1
2,4-Dichlorophenol	<0.38		0.38	0.090	mg/Kg	☼	11/16/17 08:33	11/17/17 19:26	1
Diethyl phthalate	<0.19		0.19	0.064	mg/Kg	☼	11/16/17 08:33	11/17/17 19:26	1
2,4-Dimethylphenol	<0.38		0.38	0.14	mg/Kg	☼	11/16/17 08:33	11/17/17 19:26	1
Dimethyl phthalate	<0.19		0.19	0.050	mg/Kg	☼	11/16/17 08:33	11/17/17 19:26	1
Di-n-butyl phthalate	<0.19		0.19	0.058	mg/Kg	☼	11/16/17 08:33	11/17/17 19:26	1
4,6-Dinitro-2-methylphenol	<0.76		0.76	0.30	mg/Kg	☼	11/16/17 08:33	11/17/17 19:26	1
2,4-Dinitrophenol	<0.76		0.76	0.67	mg/Kg	☼	11/16/17 08:33	11/17/17 19:26	1
2,4-Dinitrotoluene	<0.19		0.19	0.060	mg/Kg	☼	11/16/17 08:33	11/17/17 19:26	1
2,6-Dinitrotoluene	<0.19		0.19	0.075	mg/Kg	☼	11/16/17 08:33	11/17/17 19:26	1
Di-n-octyl phthalate	<0.19		0.19	0.062	mg/Kg	☼	11/16/17 08:33	11/17/17 19:26	1
Fluoranthene	0.85		0.038	0.0070	mg/Kg	☼	11/16/17 08:33	11/17/17 19:26	1
Fluorene	0.037 J		0.038	0.0053	mg/Kg	☼	11/16/17 08:33	11/17/17 19:26	1
Hexachlorobenzene	<0.076		0.076	0.0088	mg/Kg	☼	11/16/17 08:33	11/17/17 19:26	1
Hexachlorobutadiene	<0.19		0.19	0.060	mg/Kg	☼	11/16/17 08:33	11/17/17 19:26	1
Hexachlorocyclopentadiene	<0.76		0.76	0.22	mg/Kg	☼	11/16/17 08:33	11/17/17 19:26	1
Hexachloroethane	<0.19		0.19	0.058	mg/Kg	☼	11/16/17 08:33	11/17/17 19:26	1
Indeno[1,2,3-cd]pyrene	0.31		0.038	0.0098	mg/Kg	☼	11/16/17 08:33	11/17/17 19:26	1
Isophorone	<0.19		0.19	0.043	mg/Kg	☼	11/16/17 08:33	11/17/17 19:26	1
2-Methylnaphthalene	0.012 J		0.076	0.0070	mg/Kg	☼	11/16/17 08:33	11/17/17 19:26	1
2-Methylphenol	<0.19		0.19	0.061	mg/Kg	☼	11/16/17 08:33	11/17/17 19:26	1
3 & 4 Methylphenol	<0.19		0.19	0.063	mg/Kg	☼	11/16/17 08:33	11/17/17 19:26	1
Naphthalene	0.037 J		0.038	0.0058	mg/Kg	☼	11/16/17 08:33	11/17/17 19:26	1
2-Nitroaniline	<0.19		0.19	0.051	mg/Kg	☼	11/16/17 08:33	11/17/17 19:26	1
3-Nitroaniline	<0.38		0.38	0.12	mg/Kg	☼	11/16/17 08:33	11/17/17 19:26	1
4-Nitroaniline	<0.38		0.38	0.16	mg/Kg	☼	11/16/17 08:33	11/17/17 19:26	1
Nitrobenzene	<0.038		0.038	0.0095	mg/Kg	☼	11/16/17 08:33	11/17/17 19:26	1
2-Nitrophenol	<0.38		0.38	0.090	mg/Kg	☼	11/16/17 08:33	11/17/17 19:26	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137077-2

Client Sample ID: 2696V-60-B01(0-5)

Lab Sample ID: 500-137077-7

Date Collected: 11/09/17 14:00

Matrix: Solid

Date Received: 11/10/17 08:00

Percent Solids: 87.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Nitrophenol	<0.76		0.76	0.36	mg/Kg	☼	11/16/17 08:33	11/17/17 19:26	1
N-Nitrosodi-n-propylamine	<0.076		0.076	0.046	mg/Kg	☼	11/16/17 08:33	11/17/17 19:26	1
N-Nitrosodiphenylamine	<0.19		0.19	0.045	mg/Kg	☼	11/16/17 08:33	11/17/17 19:26	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.044	mg/Kg	☼	11/16/17 08:33	11/17/17 19:26	1
Pentachlorophenol	<0.76		0.76	0.61	mg/Kg	☼	11/16/17 08:33	11/17/17 19:26	1
Phenanthrene	0.37		0.038	0.0053	mg/Kg	☼	11/16/17 08:33	11/17/17 19:26	1
Phenol	<0.19		0.19	0.084	mg/Kg	☼	11/16/17 08:33	11/17/17 19:26	1
Pyrene	0.53		0.038	0.0075	mg/Kg	☼	11/16/17 08:33	11/17/17 19:26	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.041	mg/Kg	☼	11/16/17 08:33	11/17/17 19:26	1
2,4,5-Trichlorophenol	<0.38		0.38	0.087	mg/Kg	☼	11/16/17 08:33	11/17/17 19:26	1
2,4,6-Trichlorophenol	<0.38		0.38	0.13	mg/Kg	☼	11/16/17 08:33	11/17/17 19:26	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	89		44 - 121	11/16/17 08:33	11/17/17 19:26	1
2-Fluorophenol	99		46 - 133	11/16/17 08:33	11/17/17 19:26	1
Nitrobenzene-d5	86		41 - 120	11/16/17 08:33	11/17/17 19:26	1
Phenol-d5	90		46 - 125	11/16/17 08:33	11/17/17 19:26	1
Terphenyl-d14	78		35 - 160	11/16/17 08:33	11/17/17 19:26	1
2,4,6-Tribromophenol	67		25 - 139	11/16/17 08:33	11/17/17 19:26	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.42	J	1.1	0.21	mg/Kg	☼	11/11/17 13:28	11/13/17 21:04	1
Arsenic	3.1		0.54	0.18	mg/Kg	☼	11/11/17 13:28	11/13/17 21:04	1
Barium	43		0.54	0.061	mg/Kg	☼	11/11/17 13:28	11/13/17 21:04	1
Beryllium	0.82		0.21	0.050	mg/Kg	☼	11/11/17 13:28	11/13/17 21:04	1
Cadmium	0.30	B	0.11	0.019	mg/Kg	☼	11/11/17 13:28	11/13/17 21:04	1
Chromium	9.3		0.54	0.27	mg/Kg	☼	11/11/17 13:28	11/13/17 21:04	1
Cobalt	3.3		0.27	0.070	mg/Kg	☼	11/11/17 13:28	11/13/17 21:04	1
Copper	12	B	2.7	0.75	mg/Kg	☼	11/11/17 13:28	11/14/17 18:59	5
Iron	6900		11	5.6	mg/Kg	☼	11/11/17 13:28	11/13/17 21:04	1
Lead	42		0.27	0.12	mg/Kg	☼	11/11/17 13:28	11/13/17 21:04	1
Magnesium	75000		27	13	mg/Kg	☼	11/11/17 13:28	11/14/17 18:59	5
Calcium	150000		54	9.1	mg/Kg	☼	11/11/17 13:28	11/14/17 18:59	5
Manganese	410		0.54	0.078	mg/Kg	☼	11/11/17 13:28	11/13/17 21:04	1
Nickel	9.2		0.54	0.16	mg/Kg	☼	11/11/17 13:28	11/13/17 21:04	1
Selenium	0.32	J	0.54	0.31	mg/Kg	☼	11/11/17 13:28	11/13/17 21:04	1
Silver	<0.27		0.27	0.069	mg/Kg	☼	11/11/17 13:28	11/13/17 21:04	1
Thallium	<0.54		0.54	0.27	mg/Kg	☼	11/11/17 13:28	11/13/17 21:04	1
Vanadium	8.7		0.27	0.063	mg/Kg	☼	11/11/17 13:28	11/13/17 21:04	1
Zinc	59		1.1	0.47	mg/Kg	☼	11/11/17 13:28	11/13/17 21:04	1
Potassium	710		27	9.5	mg/Kg	☼	11/11/17 13:28	11/13/17 21:04	1
Sodium	230		54	7.9	mg/Kg	☼	11/11/17 13:28	11/13/17 21:04	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.050		0.050	0.010	mg/L		11/15/17 08:42	11/15/17 16:23	1
Barium	0.31	J	0.50	0.050	mg/L		11/15/17 08:42	11/15/17 16:23	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		11/15/17 08:42	11/15/17 16:23	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		11/15/17 08:42	11/15/17 16:23	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137077-2

Client Sample ID: 2696V-60-B01(0-5)

Lab Sample ID: 500-137077-7

Date Collected: 11/09/17 14:00

Matrix: Solid

Date Received: 11/10/17 08:00

Percent Solids: 87.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	450		5.0	0.50	mg/L		11/15/17 08:42	11/15/17 16:23	1
Chromium	<0.025		0.025	0.010	mg/L		11/15/17 08:42	11/15/17 16:23	1
Cobalt	<0.025		0.025	0.010	mg/L		11/15/17 08:42	11/15/17 16:23	1
Copper	<0.025		0.025	0.010	mg/L		11/15/17 08:42	11/15/17 16:23	1
Iron	<0.40		0.40	0.20	mg/L		11/15/17 08:42	11/15/17 16:23	1
Lead	<0.0075		0.0075	0.0075	mg/L		11/15/17 08:42	11/15/17 16:23	1
Magnesium	67		2.5	0.50	mg/L		11/15/17 08:42	11/15/17 16:23	1
Manganese	0.21		0.025	0.010	mg/L		11/15/17 08:42	11/15/17 16:23	1
Nickel	<0.025		0.025	0.010	mg/L		11/15/17 08:42	11/15/17 16:23	1
Potassium	1.4 J		2.5	0.50	mg/L		11/15/17 08:42	11/15/17 16:23	1
Selenium	<0.050		0.050	0.020	mg/L		11/15/17 08:42	11/15/17 16:23	1
Silver	<0.025		0.025	0.010	mg/L		11/15/17 08:42	11/15/17 16:23	1
Vanadium	<0.025		0.025	0.010	mg/L		11/15/17 08:42	11/15/17 16:23	1
Zinc	0.025 J		0.50	0.020	mg/L		11/15/17 08:42	11/15/17 16:23	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.22		0.025	0.010	mg/L		11/15/17 08:17	11/17/17 04:06	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		11/15/17 08:42	11/16/17 17:15	1
Thallium	<0.0020		0.0020	0.0020	mg/L		11/15/17 08:42	11/16/17 17:15	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		11/17/17 08:10	11/17/17 12:05	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.019		0.018	0.0059	mg/Kg	☼	11/17/17 10:45	11/18/17 13:10	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.54		0.54	0.19	mg/Kg	☼	11/19/17 10:30	11/19/17 14:43	1
pH	8.5		0.20	0.20	SU			11/18/17 12:03	1

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137077-2

Client Sample ID: 2696V-60-B02(0-5)

Lab Sample ID: 500-137077-8

Date Collected: 11/09/17 14:15

Matrix: Solid

Date Received: 11/10/17 08:00

Percent Solids: 82.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.017		0.017	0.0075	mg/Kg	☼	11/10/17 18:28	11/16/17 14:17	1
Benzene	<0.0017		0.0017	0.00044	mg/Kg	☼	11/10/17 18:28	11/16/17 14:17	1
Bromodichloromethane	<0.0017		0.0017	0.00035	mg/Kg	☼	11/10/17 18:28	11/16/17 14:17	1
Bromoform	<0.0017		0.0017	0.00050	mg/Kg	☼	11/10/17 18:28	11/16/17 14:17	1
Bromomethane	<0.0043		0.0043	0.0016	mg/Kg	☼	11/10/17 18:28	11/16/17 14:17	1
2-Butanone (MEK)	<0.0043		0.0043	0.0019	mg/Kg	☼	11/10/17 18:28	11/16/17 14:17	1
Carbon disulfide	<0.0043		0.0043	0.00089	mg/Kg	☼	11/10/17 18:28	11/16/17 14:17	1
Carbon tetrachloride	<0.0017 *		0.0017	0.00050	mg/Kg	☼	11/10/17 18:28	11/16/17 14:17	1
Chlorobenzene	<0.0017		0.0017	0.00063	mg/Kg	☼	11/10/17 18:28	11/16/17 14:17	1
Chloroethane	<0.0043		0.0043	0.0013	mg/Kg	☼	11/10/17 18:28	11/16/17 14:17	1
Chloroform	<0.0017		0.0017	0.00059	mg/Kg	☼	11/10/17 18:28	11/16/17 14:17	1
Chloromethane	<0.0043 *		0.0043	0.0017	mg/Kg	☼	11/10/17 18:28	11/16/17 14:17	1
cis-1,2-Dichloroethene	<0.0017		0.0017	0.00048	mg/Kg	☼	11/10/17 18:28	11/16/17 14:17	1
cis-1,3-Dichloropropene	<0.0017		0.0017	0.00052	mg/Kg	☼	11/10/17 18:28	11/16/17 14:17	1
Dibromochloromethane	<0.0017		0.0017	0.00056	mg/Kg	☼	11/10/17 18:28	11/16/17 14:17	1
1,1-Dichloroethane	<0.0017		0.0017	0.00059	mg/Kg	☼	11/10/17 18:28	11/16/17 14:17	1
1,2-Dichloroethane	<0.0043		0.0043	0.0013	mg/Kg	☼	11/10/17 18:28	11/16/17 14:17	1
1,1-Dichloroethene	<0.0017		0.0017	0.00059	mg/Kg	☼	11/10/17 18:28	11/16/17 14:17	1
1,2-Dichloropropane	<0.0017		0.0017	0.00044	mg/Kg	☼	11/10/17 18:28	11/16/17 14:17	1
1,3-Dichloropropane, Total	<0.0017		0.0017	0.00060	mg/Kg	☼	11/10/17 18:28	11/16/17 14:17	1
Ethylbenzene	<0.0017		0.0017	0.00082	mg/Kg	☼	11/10/17 18:28	11/16/17 14:17	1
2-Hexanone	<0.0043		0.0043	0.0013	mg/Kg	☼	11/10/17 18:28	11/16/17 14:17	1
Methylene Chloride	<0.0043		0.0043	0.0017	mg/Kg	☼	11/10/17 18:28	11/16/17 14:17	1
4-Methyl-2-pentanone (MIBK)	<0.0043		0.0043	0.0013	mg/Kg	☼	11/10/17 18:28	11/16/17 14:17	1
Methyl tert-butyl ether	<0.0017		0.0017	0.00050	mg/Kg	☼	11/10/17 18:28	11/16/17 14:17	1
Styrene	<0.0017		0.0017	0.00052	mg/Kg	☼	11/10/17 18:28	11/16/17 14:17	1
1,1,2,2-Tetrachloroethane	<0.0017		0.0017	0.00055	mg/Kg	☼	11/10/17 18:28	11/16/17 14:17	1
Tetrachloroethene	<0.0017		0.0017	0.00058	mg/Kg	☼	11/10/17 18:28	11/16/17 14:17	1
Toluene	<0.0017		0.0017	0.00043	mg/Kg	☼	11/10/17 18:28	11/16/17 14:17	1
trans-1,2-Dichloroethene	<0.0017		0.0017	0.00076	mg/Kg	☼	11/10/17 18:28	11/16/17 14:17	1
trans-1,3-Dichloropropene	<0.0017		0.0017	0.00060	mg/Kg	☼	11/10/17 18:28	11/16/17 14:17	1
1,1,1-Trichloroethane	<0.0017		0.0017	0.00057	mg/Kg	☼	11/10/17 18:28	11/16/17 14:17	1
1,1,2-Trichloroethane	<0.0017		0.0017	0.00073	mg/Kg	☼	11/10/17 18:28	11/16/17 14:17	1
Trichloroethene	<0.0017		0.0017	0.00058	mg/Kg	☼	11/10/17 18:28	11/16/17 14:17	1
Vinyl acetate	<0.0043		0.0043	0.0015	mg/Kg	☼	11/10/17 18:28	11/16/17 14:17	1
Vinyl chloride	<0.0017		0.0017	0.00076	mg/Kg	☼	11/10/17 18:28	11/16/17 14:17	1
Xylenes, Total	<0.0034		0.0034	0.00055	mg/Kg	☼	11/10/17 18:28	11/16/17 14:17	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	95		75 - 131	11/10/17 18:28	11/16/17 14:17	1
Dibromofluoromethane	108		75 - 126	11/10/17 18:28	11/16/17 14:17	1
1,2-Dichloroethane-d4 (Surr)	126		70 - 134	11/10/17 18:28	11/16/17 14:17	1
Toluene-d8 (Surr)	97		75 - 124	11/10/17 18:28	11/16/17 14:17	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.039		0.039	0.0071	mg/Kg	☼	11/16/17 08:33	11/17/17 14:24	1
Acenaphthylene	<0.039		0.039	0.0052	mg/Kg	☼	11/16/17 08:33	11/17/17 14:24	1
Anthracene	<0.039		0.039	0.0066	mg/Kg	☼	11/16/17 08:33	11/17/17 14:24	1
Benzo[a]anthracene	0.038	J	0.039	0.0053	mg/Kg	☼	11/16/17 08:33	11/17/17 14:24	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137077-2

Client Sample ID: 2696V-60-B02(0-5)

Lab Sample ID: 500-137077-8

Date Collected: 11/09/17 14:15

Matrix: Solid

Date Received: 11/10/17 08:00

Percent Solids: 82.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	0.082		0.039	0.0076	mg/Kg	☼	11/16/17 08:33	11/17/17 14:24	1
Benzo[b]fluoranthene	0.10		0.039	0.0085	mg/Kg	☼	11/16/17 08:33	11/17/17 14:24	1
Benzo[g,h,i]perylene	0.079		0.039	0.013	mg/Kg	☼	11/16/17 08:33	11/17/17 14:24	1
Benzo[k]fluoranthene	0.026	J	0.039	0.012	mg/Kg	☼	11/16/17 08:33	11/17/17 14:24	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.040	mg/Kg	☼	11/16/17 08:33	11/17/17 14:24	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.059	mg/Kg	☼	11/16/17 08:33	11/17/17 14:24	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.072	mg/Kg	☼	11/16/17 08:33	11/17/17 14:24	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.052	mg/Kg	☼	11/16/17 08:33	11/17/17 14:24	1
Butyl benzyl phthalate	0.23		0.20	0.075	mg/Kg	☼	11/16/17 08:33	11/17/17 14:24	1
Carbazole	<0.20		0.20	0.099	mg/Kg	☼	11/16/17 08:33	11/17/17 14:24	1
4-Chloroaniline	<0.80		0.80	0.19	mg/Kg	☼	11/16/17 08:33	11/17/17 14:24	1
4-Chloro-3-methylphenol	<0.39		0.39	0.13	mg/Kg	☼	11/16/17 08:33	11/17/17 14:24	1
2-Chloronaphthalene	<0.20		0.20	0.044	mg/Kg	☼	11/16/17 08:33	11/17/17 14:24	1
2-Chlorophenol	<0.20		0.20	0.067	mg/Kg	☼	11/16/17 08:33	11/17/17 14:24	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.046	mg/Kg	☼	11/16/17 08:33	11/17/17 14:24	1
Chrysene	0.049		0.039	0.011	mg/Kg	☼	11/16/17 08:33	11/17/17 14:24	1
Dibenz(a,h)anthracene	0.046		0.039	0.0076	mg/Kg	☼	11/16/17 08:33	11/17/17 14:24	1
Dibenzofuran	<0.20		0.20	0.046	mg/Kg	☼	11/16/17 08:33	11/17/17 14:24	1
1,2-Dichlorobenzene	<0.20		0.20	0.047	mg/Kg	☼	11/16/17 08:33	11/17/17 14:24	1
1,3-Dichlorobenzene	<0.20		0.20	0.044	mg/Kg	☼	11/16/17 08:33	11/17/17 14:24	1
1,4-Dichlorobenzene	<0.20		0.20	0.051	mg/Kg	☼	11/16/17 08:33	11/17/17 14:24	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.055	mg/Kg	☼	11/16/17 08:33	11/17/17 14:24	1
2,4-Dichlorophenol	<0.39		0.39	0.094	mg/Kg	☼	11/16/17 08:33	11/17/17 14:24	1
Diethyl phthalate	<0.20		0.20	0.067	mg/Kg	☼	11/16/17 08:33	11/17/17 14:24	1
2,4-Dimethylphenol	<0.39		0.39	0.15	mg/Kg	☼	11/16/17 08:33	11/17/17 14:24	1
Dimethyl phthalate	<0.20		0.20	0.052	mg/Kg	☼	11/16/17 08:33	11/17/17 14:24	1
Di-n-butyl phthalate	<0.20		0.20	0.060	mg/Kg	☼	11/16/17 08:33	11/17/17 14:24	1
4,6-Dinitro-2-methylphenol	<0.80		0.80	0.32	mg/Kg	☼	11/16/17 08:33	11/17/17 14:24	1
2,4-Dinitrophenol	<0.80		0.80	0.70	mg/Kg	☼	11/16/17 08:33	11/17/17 14:24	1
2,4-Dinitrotoluene	<0.20		0.20	0.063	mg/Kg	☼	11/16/17 08:33	11/17/17 14:24	1
2,6-Dinitrotoluene	<0.20		0.20	0.078	mg/Kg	☼	11/16/17 08:33	11/17/17 14:24	1
Di-n-octyl phthalate	<0.20		0.20	0.064	mg/Kg	☼	11/16/17 08:33	11/17/17 14:24	1
Fluoranthene	0.084		0.039	0.0073	mg/Kg	☼	11/16/17 08:33	11/17/17 14:24	1
Fluorene	<0.039		0.039	0.0056	mg/Kg	☼	11/16/17 08:33	11/17/17 14:24	1
Hexachlorobenzene	<0.080		0.080	0.0092	mg/Kg	☼	11/16/17 08:33	11/17/17 14:24	1
Hexachlorobutadiene	<0.20		0.20	0.062	mg/Kg	☼	11/16/17 08:33	11/17/17 14:24	1
Hexachlorocyclopentadiene	<0.80		0.80	0.23	mg/Kg	☼	11/16/17 08:33	11/17/17 14:24	1
Hexachloroethane	<0.20		0.20	0.060	mg/Kg	☼	11/16/17 08:33	11/17/17 14:24	1
Indeno[1,2,3-cd]pyrene	0.072		0.039	0.010	mg/Kg	☼	11/16/17 08:33	11/17/17 14:24	1
Isophorone	<0.20		0.20	0.044	mg/Kg	☼	11/16/17 08:33	11/17/17 14:24	1
2-Methylnaphthalene	<0.080		0.080	0.0073	mg/Kg	☼	11/16/17 08:33	11/17/17 14:24	1
2-Methylphenol	<0.20		0.20	0.063	mg/Kg	☼	11/16/17 08:33	11/17/17 14:24	1
3 & 4 Methylphenol	<0.20		0.20	0.066	mg/Kg	☼	11/16/17 08:33	11/17/17 14:24	1
Naphthalene	<0.039		0.039	0.0061	mg/Kg	☼	11/16/17 08:33	11/17/17 14:24	1
2-Nitroaniline	<0.20		0.20	0.053	mg/Kg	☼	11/16/17 08:33	11/17/17 14:24	1
3-Nitroaniline	<0.39		0.39	0.12	mg/Kg	☼	11/16/17 08:33	11/17/17 14:24	1
4-Nitroaniline	<0.39		0.39	0.17	mg/Kg	☼	11/16/17 08:33	11/17/17 14:24	1
Nitrobenzene	<0.039		0.039	0.0099	mg/Kg	☼	11/16/17 08:33	11/17/17 14:24	1
2-Nitrophenol	<0.39		0.39	0.093	mg/Kg	☼	11/16/17 08:33	11/17/17 14:24	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137077-2

Client Sample ID: 2696V-60-B02(0-5)

Lab Sample ID: 500-137077-8

Date Collected: 11/09/17 14:15

Matrix: Solid

Date Received: 11/10/17 08:00

Percent Solids: 82.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Nitrophenol	<0.80		0.80	0.38	mg/Kg	☼	11/16/17 08:33	11/17/17 14:24	1
N-Nitrosodi-n-propylamine	<0.080		0.080	0.048	mg/Kg	☼	11/16/17 08:33	11/17/17 14:24	1
N-Nitrosodiphenylamine	<0.20		0.20	0.047	mg/Kg	☼	11/16/17 08:33	11/17/17 14:24	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.046	mg/Kg	☼	11/16/17 08:33	11/17/17 14:24	1
Pentachlorophenol	<0.80		0.80	0.63	mg/Kg	☼	11/16/17 08:33	11/17/17 14:24	1
Phenanthrene	0.027	J	0.039	0.0055	mg/Kg	☼	11/16/17 08:33	11/17/17 14:24	1
Phenol	<0.20		0.20	0.088	mg/Kg	☼	11/16/17 08:33	11/17/17 14:24	1
Pyrene	0.055		0.039	0.0079	mg/Kg	☼	11/16/17 08:33	11/17/17 14:24	1
1,2,4-Trichlorobenzene	<0.20		0.20	0.043	mg/Kg	☼	11/16/17 08:33	11/17/17 14:24	1
2,4,5-Trichlorophenol	<0.39		0.39	0.090	mg/Kg	☼	11/16/17 08:33	11/17/17 14:24	1
2,4,6-Trichlorophenol	<0.39		0.39	0.14	mg/Kg	☼	11/16/17 08:33	11/17/17 14:24	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	92		44 - 121	11/16/17 08:33	11/17/17 14:24	1
2-Fluorophenol	104		46 - 133	11/16/17 08:33	11/17/17 14:24	1
Nitrobenzene-d5	93		41 - 120	11/16/17 08:33	11/17/17 14:24	1
Phenol-d5	103		46 - 125	11/16/17 08:33	11/17/17 14:24	1
Terphenyl-d14	80		35 - 160	11/16/17 08:33	11/17/17 14:24	1
2,4,6-Tribromophenol	72		25 - 139	11/16/17 08:33	11/17/17 14:24	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.27	J	1.2	0.23	mg/Kg	☼	11/11/17 13:28	11/13/17 21:08	1
Arsenic	6.1		0.60	0.20	mg/Kg	☼	11/11/17 13:28	11/13/17 21:08	1
Barium	23		0.60	0.068	mg/Kg	☼	11/11/17 13:28	11/13/17 21:08	1
Beryllium	0.59		0.24	0.056	mg/Kg	☼	11/11/17 13:28	11/13/17 21:08	1
Cadmium	0.077	J B	0.12	0.022	mg/Kg	☼	11/11/17 13:28	11/13/17 21:08	1
Chromium	15		0.60	0.30	mg/Kg	☼	11/11/17 13:28	11/13/17 21:08	1
Cobalt	6.6		0.30	0.078	mg/Kg	☼	11/11/17 13:28	11/13/17 21:08	1
Copper	21	B	0.60	0.17	mg/Kg	☼	11/11/17 13:28	11/14/17 19:04	1
Iron	16000		12	6.2	mg/Kg	☼	11/11/17 13:28	11/13/17 21:08	1
Lead	21		0.30	0.14	mg/Kg	☼	11/11/17 13:28	11/13/17 21:08	1
Magnesium	16000		6.0	3.0	mg/Kg	☼	11/11/17 13:28	11/13/17 21:08	1
Calcium	26000		12	2.0	mg/Kg	☼	11/11/17 13:28	11/13/17 21:08	1
Manganese	200		0.60	0.087	mg/Kg	☼	11/11/17 13:28	11/13/17 21:08	1
Nickel	22		0.60	0.17	mg/Kg	☼	11/11/17 13:28	11/13/17 21:08	1
Selenium	<0.60		0.60	0.35	mg/Kg	☼	11/11/17 13:28	11/13/17 21:08	1
Silver	<0.30		0.30	0.077	mg/Kg	☼	11/11/17 13:28	11/13/17 21:08	1
Thallium	0.51	J	0.60	0.30	mg/Kg	☼	11/11/17 13:28	11/13/17 21:08	1
Vanadium	15		0.30	0.071	mg/Kg	☼	11/11/17 13:28	11/13/17 21:08	1
Zinc	62		1.2	0.52	mg/Kg	☼	11/11/17 13:28	11/13/17 21:08	1
Potassium	1900		30	11	mg/Kg	☼	11/11/17 13:28	11/13/17 21:08	1
Sodium	99		60	8.8	mg/Kg	☼	11/11/17 13:28	11/13/17 21:08	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.050		0.050	0.010	mg/L		11/15/17 08:42	11/15/17 16:36	1
Barium	0.25	J	0.50	0.050	mg/L		11/15/17 08:42	11/15/17 16:36	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		11/15/17 08:42	11/15/17 16:36	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		11/15/17 08:42	11/15/17 16:36	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137077-2

Client Sample ID: 2696V-60-B02(0-5)

Lab Sample ID: 500-137077-8

Date Collected: 11/09/17 14:15

Matrix: Solid

Date Received: 11/10/17 08:00

Percent Solids: 82.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	370		5.0	0.50	mg/L		11/15/17 08:42	11/15/17 16:36	1
Chromium	<0.025		0.025	0.010	mg/L		11/15/17 08:42	11/15/17 16:36	1
Cobalt	<0.025		0.025	0.010	mg/L		11/15/17 08:42	11/15/17 16:36	1
Copper	0.012	J	0.025	0.010	mg/L		11/15/17 08:42	11/15/17 16:36	1
Iron	<0.40		0.40	0.20	mg/L		11/15/17 08:42	11/15/17 16:36	1
Lead	<0.0075		0.0075	0.0075	mg/L		11/15/17 08:42	11/15/17 16:36	1
Magnesium	110		2.5	0.50	mg/L		11/15/17 08:42	11/15/17 16:36	1
Manganese	0.21		0.025	0.010	mg/L		11/15/17 08:42	11/15/17 16:36	1
Nickel	<0.025		0.025	0.010	mg/L		11/15/17 08:42	11/15/17 16:36	1
Potassium	2.5		2.5	0.50	mg/L		11/15/17 08:42	11/15/17 16:36	1
Selenium	<0.050		0.050	0.020	mg/L		11/15/17 08:42	11/15/17 16:36	1
Silver	<0.025		0.025	0.010	mg/L		11/15/17 08:42	11/15/17 16:36	1
Vanadium	<0.025		0.025	0.010	mg/L		11/15/17 08:42	11/15/17 16:36	1
Zinc	0.031	J	0.50	0.020	mg/L		11/15/17 08:42	11/15/17 16:36	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		11/15/17 08:17	11/17/17 04:10	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		11/15/17 08:42	11/16/17 17:19	1
Thallium	<0.0020		0.0020	0.0020	mg/L		11/15/17 08:42	11/16/17 17:19	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		11/17/17 08:10	11/17/17 12:07	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.033		0.019	0.0063	mg/Kg	☼	11/17/17 10:45	11/18/17 13:13	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.49		0.49	0.17	mg/Kg	☼	11/19/17 13:10	11/19/17 16:05	1
pH	8.4		0.20	0.20	SU			11/18/17 12:05	1

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137077-2

Client Sample ID: 2696V-60-B02(5-10)

Lab Sample ID: 500-137077-9

Date Collected: 11/09/17 14:25

Matrix: Solid

Date Received: 11/10/17 08:00

Percent Solids: 83.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.25		0.25	0.086	mg/Kg	☼	11/09/17 14:25	11/18/17 00:14	50
Benzene	0.016		0.012	0.0073	mg/Kg	☼	11/09/17 14:25	11/18/17 00:14	50
Bromodichloromethane	<0.050		0.050	0.019	mg/Kg	☼	11/09/17 14:25	11/18/17 00:14	50
Bromoform	<0.050		0.050	0.024	mg/Kg	☼	11/09/17 14:25	11/18/17 00:14	50
Bromomethane	<0.10		0.10	0.040	mg/Kg	☼	11/09/17 14:25	11/18/17 00:14	50
2-Butanone (MEK)	<0.25		0.25	0.11	mg/Kg	☼	11/09/17 14:25	11/18/17 00:14	50
Carbon disulfide	<0.10		0.10	0.040	mg/Kg	☼	11/09/17 14:25	11/18/17 00:14	50
Carbon tetrachloride	<0.050		0.050	0.019	mg/Kg	☼	11/09/17 14:25	11/18/17 00:14	50
Chlorobenzene	<0.050		0.050	0.019	mg/Kg	☼	11/09/17 14:25	11/18/17 00:14	50
Chloroethane	<0.050		0.050	0.025	mg/Kg	☼	11/09/17 14:25	11/18/17 00:14	50
Chloroform	<0.10		0.10	0.018	mg/Kg	☼	11/09/17 14:25	11/18/17 00:14	50
Chloromethane	<0.050		0.050	0.016	mg/Kg	☼	11/09/17 14:25	11/18/17 00:14	50
cis-1,2-Dichloroethene	<0.050		0.050	0.020	mg/Kg	☼	11/09/17 14:25	11/18/17 00:14	50
cis-1,3-Dichloropropene	<0.050		0.050	0.021	mg/Kg	☼	11/09/17 14:25	11/18/17 00:14	50
Dibromochloromethane	<0.050		0.050	0.024	mg/Kg	☼	11/09/17 14:25	11/18/17 00:14	50
1,1-Dichloroethane	<0.050		0.050	0.020	mg/Kg	☼	11/09/17 14:25	11/18/17 00:14	50
1,2-Dichloroethane	<0.050		0.050	0.020	mg/Kg	☼	11/09/17 14:25	11/18/17 00:14	50
1,1-Dichloroethene	<0.050		0.050	0.019	mg/Kg	☼	11/09/17 14:25	11/18/17 00:14	50
1,2-Dichloropropane	<0.050		0.050	0.021	mg/Kg	☼	11/09/17 14:25	11/18/17 00:14	50
1,3-Dichloropropene, Total	<0.050		0.050	0.021	mg/Kg	☼	11/09/17 14:25	11/18/17 00:14	50
Ethylbenzene	0.18		0.012	0.0091	mg/Kg	☼	11/09/17 14:25	11/18/17 00:14	50
2-Hexanone	<0.25		0.25	0.078	mg/Kg	☼	11/09/17 14:25	11/18/17 00:14	50
Methylene Chloride	<0.25		0.25	0.081	mg/Kg	☼	11/09/17 14:25	11/18/17 00:14	50
4-Methyl-2-pentanone (MIBK)	<0.25		0.25	0.11	mg/Kg	☼	11/09/17 14:25	11/18/17 00:14	50
Methyl tert-butyl ether	<0.050		0.050	0.020	mg/Kg	☼	11/09/17 14:25	11/18/17 00:14	50
Styrene	<0.050		0.050	0.019	mg/Kg	☼	11/09/17 14:25	11/18/17 00:14	50
1,1,2,2-Tetrachloroethane	<0.050		0.050	0.020	mg/Kg	☼	11/09/17 14:25	11/18/17 00:14	50
Tetrachloroethene	<0.050		0.050	0.018	mg/Kg	☼	11/09/17 14:25	11/18/17 00:14	50
Toluene	<0.012		0.012	0.0073	mg/Kg	☼	11/09/17 14:25	11/18/17 00:14	50
trans-1,2-Dichloroethene	<0.050		0.050	0.017	mg/Kg	☼	11/09/17 14:25	11/18/17 00:14	50
trans-1,3-Dichloropropene	<0.050		0.050	0.018	mg/Kg	☼	11/09/17 14:25	11/18/17 00:14	50
1,1,1-Trichloroethane	<0.050		0.050	0.019	mg/Kg	☼	11/09/17 14:25	11/18/17 00:14	50
1,1,2-Trichloroethane	<0.050		0.050	0.018	mg/Kg	☼	11/09/17 14:25	11/18/17 00:14	50
Trichloroethene	<0.025		0.025	0.0082	mg/Kg	☼	11/09/17 14:25	11/18/17 00:14	50
Vinyl acetate	<0.10		0.10	0.045	mg/Kg	☼	11/09/17 14:25	11/18/17 00:14	50
Vinyl chloride	<0.025		0.025	0.013	mg/Kg	☼	11/09/17 14:25	11/18/17 00:14	50
Xylenes, Total	<0.025		0.025	0.011	mg/Kg	☼	11/09/17 14:25	11/18/17 00:14	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	85		72 - 124	11/09/17 14:25	11/18/17 00:14	50
Dibromofluoromethane	88		75 - 120	11/09/17 14:25	11/18/17 00:14	50
1,2-Dichloroethane-d4 (Surr)	91		75 - 126	11/09/17 14:25	11/18/17 00:14	50
Toluene-d8 (Surr)	102		75 - 120	11/09/17 14:25	11/18/17 00:14	50

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.039		0.039	0.0070	mg/Kg	☼	11/16/17 08:33	11/17/17 17:36	1
Acenaphthylene	<0.039		0.039	0.0052	mg/Kg	☼	11/16/17 08:33	11/17/17 17:36	1
Anthracene	<0.039		0.039	0.0065	mg/Kg	☼	11/16/17 08:33	11/17/17 17:36	1
Benzo[a]anthracene	<0.039		0.039	0.0053	mg/Kg	☼	11/16/17 08:33	11/17/17 17:36	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137077-2

Client Sample ID: 2696V-60-B02(5-10)

Lab Sample ID: 500-137077-9

Date Collected: 11/09/17 14:25

Matrix: Solid

Date Received: 11/10/17 08:00

Percent Solids: 83.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	0.035	J	0.039	0.0076	mg/Kg	☼	11/16/17 08:33	11/17/17 17:36	1
Benzo[b]fluoranthene	0.039		0.039	0.0085	mg/Kg	☼	11/16/17 08:33	11/17/17 17:36	1
Benzo[g,h,i]perylene	0.051		0.039	0.013	mg/Kg	☼	11/16/17 08:33	11/17/17 17:36	1
Benzo[k]fluoranthene	<0.039		0.039	0.012	mg/Kg	☼	11/16/17 08:33	11/17/17 17:36	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.040	mg/Kg	☼	11/16/17 08:33	11/17/17 17:36	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.059	mg/Kg	☼	11/16/17 08:33	11/17/17 17:36	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.072	mg/Kg	☼	11/16/17 08:33	11/17/17 17:36	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.052	mg/Kg	☼	11/16/17 08:33	11/17/17 17:36	1
Butyl benzyl phthalate	<0.20		0.20	0.075	mg/Kg	☼	11/16/17 08:33	11/17/17 17:36	1
Carbazole	<0.20		0.20	0.098	mg/Kg	☼	11/16/17 08:33	11/17/17 17:36	1
4-Chloroaniline	<0.79		0.79	0.18	mg/Kg	☼	11/16/17 08:33	11/17/17 17:36	1
4-Chloro-3-methylphenol	<0.39		0.39	0.13	mg/Kg	☼	11/16/17 08:33	11/17/17 17:36	1
2-Chloronaphthalene	<0.20		0.20	0.043	mg/Kg	☼	11/16/17 08:33	11/17/17 17:36	1
2-Chlorophenol	<0.20		0.20	0.067	mg/Kg	☼	11/16/17 08:33	11/17/17 17:36	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.046	mg/Kg	☼	11/16/17 08:33	11/17/17 17:36	1
Chrysene	0.016	J	0.039	0.011	mg/Kg	☼	11/16/17 08:33	11/17/17 17:36	1
Dibenz(a,h)anthracene	<0.039		0.039	0.0076	mg/Kg	☼	11/16/17 08:33	11/17/17 17:36	1
Dibenzofuran	<0.20		0.20	0.046	mg/Kg	☼	11/16/17 08:33	11/17/17 17:36	1
1,2-Dichlorobenzene	<0.20		0.20	0.047	mg/Kg	☼	11/16/17 08:33	11/17/17 17:36	1
1,3-Dichlorobenzene	<0.20		0.20	0.044	mg/Kg	☼	11/16/17 08:33	11/17/17 17:36	1
1,4-Dichlorobenzene	<0.20		0.20	0.050	mg/Kg	☼	11/16/17 08:33	11/17/17 17:36	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.055	mg/Kg	☼	11/16/17 08:33	11/17/17 17:36	1
2,4-Dichlorophenol	<0.39		0.39	0.093	mg/Kg	☼	11/16/17 08:33	11/17/17 17:36	1
Diethyl phthalate	<0.20		0.20	0.066	mg/Kg	☼	11/16/17 08:33	11/17/17 17:36	1
2,4-Dimethylphenol	<0.39		0.39	0.15	mg/Kg	☼	11/16/17 08:33	11/17/17 17:36	1
Dimethyl phthalate	<0.20		0.20	0.051	mg/Kg	☼	11/16/17 08:33	11/17/17 17:36	1
Di-n-butyl phthalate	<0.20		0.20	0.060	mg/Kg	☼	11/16/17 08:33	11/17/17 17:36	1
4,6-Dinitro-2-methylphenol	<0.79		0.79	0.31	mg/Kg	☼	11/16/17 08:33	11/17/17 17:36	1
2,4-Dinitrophenol	<0.79		0.79	0.69	mg/Kg	☼	11/16/17 08:33	11/17/17 17:36	1
2,4-Dinitrotoluene	<0.20		0.20	0.062	mg/Kg	☼	11/16/17 08:33	11/17/17 17:36	1
2,6-Dinitrotoluene	<0.20		0.20	0.077	mg/Kg	☼	11/16/17 08:33	11/17/17 17:36	1
Di-n-octyl phthalate	<0.20		0.20	0.064	mg/Kg	☼	11/16/17 08:33	11/17/17 17:36	1
Fluoranthene	<0.039		0.039	0.0073	mg/Kg	☼	11/16/17 08:33	11/17/17 17:36	1
Fluorene	<0.039		0.039	0.0055	mg/Kg	☼	11/16/17 08:33	11/17/17 17:36	1
Hexachlorobenzene	<0.079		0.079	0.0091	mg/Kg	☼	11/16/17 08:33	11/17/17 17:36	1
Hexachlorobutadiene	<0.20		0.20	0.062	mg/Kg	☼	11/16/17 08:33	11/17/17 17:36	1
Hexachlorocyclopentadiene	<0.79		0.79	0.23	mg/Kg	☼	11/16/17 08:33	11/17/17 17:36	1
Hexachloroethane	<0.20		0.20	0.060	mg/Kg	☼	11/16/17 08:33	11/17/17 17:36	1
Indeno[1,2,3-cd]pyrene	<0.039		0.039	0.010	mg/Kg	☼	11/16/17 08:33	11/17/17 17:36	1
Isophorone	<0.20		0.20	0.044	mg/Kg	☼	11/16/17 08:33	11/17/17 17:36	1
2-Methylnaphthalene	1.8		0.079	0.0072	mg/Kg	☼	11/16/17 08:33	11/17/17 17:36	1
2-Methylphenol	<0.20		0.20	0.063	mg/Kg	☼	11/16/17 08:33	11/17/17 17:36	1
3 & 4 Methylphenol	<0.20		0.20	0.065	mg/Kg	☼	11/16/17 08:33	11/17/17 17:36	1
Naphthalene	1.6		0.039	0.0060	mg/Kg	☼	11/16/17 08:33	11/17/17 17:36	1
2-Nitroaniline	<0.20		0.20	0.053	mg/Kg	☼	11/16/17 08:33	11/17/17 17:36	1
3-Nitroaniline	<0.39		0.39	0.12	mg/Kg	☼	11/16/17 08:33	11/17/17 17:36	1
4-Nitroaniline	<0.39		0.39	0.16	mg/Kg	☼	11/16/17 08:33	11/17/17 17:36	1
Nitrobenzene	<0.039		0.039	0.0098	mg/Kg	☼	11/16/17 08:33	11/17/17 17:36	1
2-Nitrophenol	<0.39		0.39	0.093	mg/Kg	☼	11/16/17 08:33	11/17/17 17:36	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137077-2

Client Sample ID: 2696V-60-B02(5-10)

Lab Sample ID: 500-137077-9

Date Collected: 11/09/17 14:25

Matrix: Solid

Date Received: 11/10/17 08:00

Percent Solids: 83.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Nitrophenol	<0.79		0.79	0.37	mg/Kg	☼	11/16/17 08:33	11/17/17 17:36	1
N-Nitrosodi-n-propylamine	<0.079		0.079	0.048	mg/Kg	☼	11/16/17 08:33	11/17/17 17:36	1
N-Nitrosodiphenylamine	<0.20		0.20	0.046	mg/Kg	☼	11/16/17 08:33	11/17/17 17:36	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.045	mg/Kg	☼	11/16/17 08:33	11/17/17 17:36	1
Pentachlorophenol	<0.79		0.79	0.63	mg/Kg	☼	11/16/17 08:33	11/17/17 17:36	1
Phenanthrene	0.011	J	0.039	0.0055	mg/Kg	☼	11/16/17 08:33	11/17/17 17:36	1
Phenol	<0.20		0.20	0.087	mg/Kg	☼	11/16/17 08:33	11/17/17 17:36	1
Pyrene	0.014	J	0.039	0.0078	mg/Kg	☼	11/16/17 08:33	11/17/17 17:36	1
1,2,4-Trichlorobenzene	<0.20		0.20	0.042	mg/Kg	☼	11/16/17 08:33	11/17/17 17:36	1
2,4,5-Trichlorophenol	<0.39		0.39	0.089	mg/Kg	☼	11/16/17 08:33	11/17/17 17:36	1
2,4,6-Trichlorophenol	<0.39		0.39	0.13	mg/Kg	☼	11/16/17 08:33	11/17/17 17:36	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	89		44 - 121	11/16/17 08:33	11/17/17 17:36	1
2-Fluorophenol	103		46 - 133	11/16/17 08:33	11/17/17 17:36	1
Nitrobenzene-d5	89		41 - 120	11/16/17 08:33	11/17/17 17:36	1
Phenol-d5	100		46 - 125	11/16/17 08:33	11/17/17 17:36	1
Terphenyl-d14	78		35 - 160	11/16/17 08:33	11/17/17 17:36	1
2,4,6-Tribromophenol	72		25 - 139	11/16/17 08:33	11/17/17 17:36	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.59	J	1.2	0.23	mg/Kg	☼	11/11/17 13:28	11/13/17 21:12	1
Arsenic	5.9		0.59	0.20	mg/Kg	☼	11/11/17 13:28	11/13/17 21:12	1
Barium	28		0.59	0.068	mg/Kg	☼	11/11/17 13:28	11/13/17 21:12	1
Beryllium	0.43		0.24	0.056	mg/Kg	☼	11/11/17 13:28	11/13/17 21:12	1
Cadmium	0.11	J B	0.12	0.021	mg/Kg	☼	11/11/17 13:28	11/13/17 21:12	1
Chromium	9.9		0.59	0.29	mg/Kg	☼	11/11/17 13:28	11/13/17 21:12	1
Cobalt	7.2		0.30	0.078	mg/Kg	☼	11/11/17 13:28	11/13/17 21:12	1
Copper	21	B	3.0	0.83	mg/Kg	☼	11/11/17 13:28	11/14/17 19:08	5
Iron	14000		12	6.2	mg/Kg	☼	11/11/17 13:28	11/13/17 21:12	1
Lead	11		0.30	0.14	mg/Kg	☼	11/11/17 13:28	11/13/17 21:12	1
Magnesium	32000		5.9	3.0	mg/Kg	☼	11/11/17 13:28	11/13/17 21:12	1
Calcium	87000		59	10	mg/Kg	☼	11/11/17 13:28	11/14/17 19:08	5
Manganese	360		0.59	0.086	mg/Kg	☼	11/11/17 13:28	11/13/17 21:12	1
Nickel	19		0.59	0.17	mg/Kg	☼	11/11/17 13:28	11/13/17 21:12	1
Selenium	<0.59		0.59	0.35	mg/Kg	☼	11/11/17 13:28	11/13/17 21:12	1
Silver	<0.30		0.30	0.077	mg/Kg	☼	11/11/17 13:28	11/13/17 21:12	1
Thallium	<0.59		0.59	0.30	mg/Kg	☼	11/11/17 13:28	11/13/17 21:12	1
Vanadium	14		0.30	0.070	mg/Kg	☼	11/11/17 13:28	11/13/17 21:12	1
Zinc	45		1.2	0.52	mg/Kg	☼	11/11/17 13:28	11/13/17 21:12	1
Potassium	1300		30	11	mg/Kg	☼	11/11/17 13:28	11/13/17 21:12	1
Sodium	170		59	8.8	mg/Kg	☼	11/11/17 13:28	11/13/17 21:12	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.050		0.050	0.010	mg/L		11/15/17 08:42	11/15/17 16:40	1
Barium	0.54		0.50	0.050	mg/L		11/15/17 08:42	11/15/17 16:40	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		11/15/17 08:42	11/15/17 16:40	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		11/15/17 08:42	11/15/17 16:40	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137077-2

Client Sample ID: 2696V-60-B02(5-10)

Lab Sample ID: 500-137077-9

Date Collected: 11/09/17 14:25

Matrix: Solid

Date Received: 11/10/17 08:00

Percent Solids: 83.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	580		5.0	0.50	mg/L		11/15/17 08:42	11/15/17 16:40	1
Chromium	<0.025		0.025	0.010	mg/L		11/15/17 08:42	11/15/17 16:40	1
Cobalt	<0.025		0.025	0.010	mg/L		11/15/17 08:42	11/15/17 16:40	1
Copper	0.066		0.025	0.010	mg/L		11/15/17 08:42	11/15/17 16:40	1
Iron	<0.40		0.40	0.20	mg/L		11/15/17 08:42	11/15/17 16:40	1
Lead	<0.0075		0.0075	0.0075	mg/L		11/15/17 08:42	11/15/17 16:40	1
Magnesium	19		2.5	0.50	mg/L		11/15/17 08:42	11/15/17 16:40	1
Manganese	2.6		0.025	0.010	mg/L		11/15/17 08:42	11/15/17 16:40	1
Nickel	0.016	J	0.025	0.010	mg/L		11/15/17 08:42	11/15/17 16:40	1
Potassium	2.7		2.5	0.50	mg/L		11/15/17 08:42	11/15/17 16:40	1
Selenium	<0.050		0.050	0.020	mg/L		11/15/17 08:42	11/15/17 16:40	1
Silver	<0.025		0.025	0.010	mg/L		11/15/17 08:42	11/15/17 16:40	1
Vanadium	<0.025		0.025	0.010	mg/L		11/15/17 08:42	11/15/17 16:40	1
Zinc	0.061	J	0.50	0.020	mg/L		11/15/17 08:42	11/15/17 16:40	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.015	J	0.025	0.010	mg/L		11/15/17 08:17	11/17/17 04:14	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		11/15/17 08:42	11/16/17 17:23	1
Thallium	<0.0020		0.0020	0.0020	mg/L		11/15/17 08:42	11/16/17 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		11/17/17 08:10	11/17/17 12:08	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.013	J	0.019	0.0064	mg/Kg	☼	11/17/17 10:45	11/18/17 13:15	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.56		0.56	0.19	mg/Kg	☼	11/19/17 13:10	11/19/17 16:06	1
pH	8.2		0.20	0.20	SU			11/18/17 12:07	1

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137077-2

Client Sample ID: 2696V-60-B02(10-15)

Lab Sample ID: 500-137077-10

Date Collected: 11/09/17 14:30

Matrix: Solid

Date Received: 11/10/17 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	<0.27		0.27	0.093	mg/Kg	☼	11/09/17 14:30	11/18/17 00:42	50
Benzene	6.5		0.014	0.0079	mg/Kg	☼	11/09/17 14:30	11/18/17 00:42	50
Bromodichloromethane	<0.054		0.054	0.020	mg/Kg	☼	11/09/17 14:30	11/18/17 00:42	50
Bromoform	<0.054		0.054	0.026	mg/Kg	☼	11/09/17 14:30	11/18/17 00:42	50
Bromomethane	<0.11		0.11	0.043	mg/Kg	☼	11/09/17 14:30	11/18/17 00:42	50
2-Butanone (MEK)	<0.27		0.27	0.11	mg/Kg	☼	11/09/17 14:30	11/18/17 00:42	50
Carbon disulfide	<0.11		0.11	0.043	mg/Kg	☼	11/09/17 14:30	11/18/17 00:42	50
Carbon tetrachloride	<0.054		0.054	0.021	mg/Kg	☼	11/09/17 14:30	11/18/17 00:42	50
Chlorobenzene	<0.054		0.054	0.021	mg/Kg	☼	11/09/17 14:30	11/18/17 00:42	50
Chloroethane	<0.054		0.054	0.027	mg/Kg	☼	11/09/17 14:30	11/18/17 00:42	50
Chloroform	<0.11		0.11	0.020	mg/Kg	☼	11/09/17 14:30	11/18/17 00:42	50
Chloromethane	<0.054		0.054	0.017	mg/Kg	☼	11/09/17 14:30	11/18/17 00:42	50
cis-1,2-Dichloroethene	<0.054		0.054	0.022	mg/Kg	☼	11/09/17 14:30	11/18/17 00:42	50
cis-1,3-Dichloropropene	<0.054		0.054	0.022	mg/Kg	☼	11/09/17 14:30	11/18/17 00:42	50
Dibromochloromethane	<0.054		0.054	0.026	mg/Kg	☼	11/09/17 14:30	11/18/17 00:42	50
1,1-Dichloroethane	<0.054		0.054	0.022	mg/Kg	☼	11/09/17 14:30	11/18/17 00:42	50
1,2-Dichloroethane	<0.054		0.054	0.021	mg/Kg	☼	11/09/17 14:30	11/18/17 00:42	50
1,1-Dichloroethene	<0.054		0.054	0.021	mg/Kg	☼	11/09/17 14:30	11/18/17 00:42	50
1,2-Dichloropropane	<0.054		0.054	0.023	mg/Kg	☼	11/09/17 14:30	11/18/17 00:42	50
1,3-Dichloropropane, Total	<0.054		0.054	0.022	mg/Kg	☼	11/09/17 14:30	11/18/17 00:42	50
Ethylbenzene	<0.014		0.014	0.0099	mg/Kg	☼	11/09/17 14:30	11/18/17 00:42	50
2-Hexanone	<0.27		0.27	0.084	mg/Kg	☼	11/09/17 14:30	11/18/17 00:42	50
Methylene Chloride	<0.27		0.27	0.088	mg/Kg	☼	11/09/17 14:30	11/18/17 00:42	50
4-Methyl-2-pentanone (MIBK)	<0.27		0.27	0.12	mg/Kg	☼	11/09/17 14:30	11/18/17 00:42	50
Methyl tert-butyl ether	0.14		0.054	0.021	mg/Kg	☼	11/09/17 14:30	11/18/17 00:42	50
Styrene	<0.054		0.054	0.021	mg/Kg	☼	11/09/17 14:30	11/18/17 00:42	50
1,1,2,2-Tetrachloroethane	<0.054		0.054	0.021	mg/Kg	☼	11/09/17 14:30	11/18/17 00:42	50
Tetrachloroethene	<0.054		0.054	0.020	mg/Kg	☼	11/09/17 14:30	11/18/17 00:42	50
Toluene	<0.014		0.014	0.0079	mg/Kg	☼	11/09/17 14:30	11/18/17 00:42	50
trans-1,2-Dichloroethene	<0.054		0.054	0.019	mg/Kg	☼	11/09/17 14:30	11/18/17 00:42	50
trans-1,3-Dichloropropene	<0.054		0.054	0.020	mg/Kg	☼	11/09/17 14:30	11/18/17 00:42	50
1,1,1-Trichloroethane	<0.054		0.054	0.021	mg/Kg	☼	11/09/17 14:30	11/18/17 00:42	50
1,1,2-Trichloroethane	<0.054		0.054	0.019	mg/Kg	☼	11/09/17 14:30	11/18/17 00:42	50
Trichloroethene	<0.027		0.027	0.0089	mg/Kg	☼	11/09/17 14:30	11/18/17 00:42	50
Vinyl acetate	<0.11		0.11	0.049	mg/Kg	☼	11/09/17 14:30	11/18/17 00:42	50
Vinyl chloride	<0.027		0.027	0.014	mg/Kg	☼	11/09/17 14:30	11/18/17 00:42	50
Xylenes, Total	<0.027		0.027	0.012	mg/Kg	☼	11/09/17 14:30	11/18/17 00:42	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	84		72 - 124	11/09/17 14:30	11/18/17 00:42	50
Dibromofluoromethane	87		75 - 120	11/09/17 14:30	11/18/17 00:42	50
1,2-Dichloroethane-d4 (Surr)	92		75 - 126	11/09/17 14:30	11/18/17 00:42	50
Toluene-d8 (Surr)	101		75 - 120	11/09/17 14:30	11/18/17 00:42	50

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.039		0.039	0.0070	mg/Kg	☼	11/16/17 08:33	11/17/17 18:04	1
Acenaphthylene	<0.039		0.039	0.0051	mg/Kg	☼	11/16/17 08:33	11/17/17 18:04	1
Anthracene	<0.039		0.039	0.0065	mg/Kg	☼	11/16/17 08:33	11/17/17 18:04	1
Benzo[a]anthracene	0.0057	J	0.039	0.0053	mg/Kg	☼	11/16/17 08:33	11/17/17 18:04	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137077-2

Client Sample ID: 2696V-60-B02(10-15)

Lab Sample ID: 500-137077-10

Date Collected: 11/09/17 14:30

Matrix: Solid

Date Received: 11/10/17 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
Benzo[a]pyrene	0.036	J	0.039	0.0076	mg/Kg	☼	11/16/17 08:33	11/17/17 18:04	1
Benzo[b]fluoranthene	<0.039		0.039	0.0084	mg/Kg	☼	11/16/17 08:33	11/17/17 18:04	1
Benzo[g,h,i]perylene	<0.039		0.039	0.013	mg/Kg	☼	11/16/17 08:33	11/17/17 18:04	1
Benzo[k]fluoranthene	<0.039		0.039	0.012	mg/Kg	☼	11/16/17 08:33	11/17/17 18:04	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.040	mg/Kg	☼	11/16/17 08:33	11/17/17 18:04	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.059	mg/Kg	☼	11/16/17 08:33	11/17/17 18:04	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.071	mg/Kg	☼	11/16/17 08:33	11/17/17 18:04	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.051	mg/Kg	☼	11/16/17 08:33	11/17/17 18:04	1
Butyl benzyl phthalate	<0.20		0.20	0.074	mg/Kg	☼	11/16/17 08:33	11/17/17 18:04	1
Carbazole	<0.20		0.20	0.098	mg/Kg	☼	11/16/17 08:33	11/17/17 18:04	1
4-Chloroaniline	<0.79		0.79	0.18	mg/Kg	☼	11/16/17 08:33	11/17/17 18:04	1
4-Chloro-3-methylphenol	<0.39		0.39	0.13	mg/Kg	☼	11/16/17 08:33	11/17/17 18:04	1
2-Chloronaphthalene	<0.20		0.20	0.043	mg/Kg	☼	11/16/17 08:33	11/17/17 18:04	1
2-Chlorophenol	<0.20		0.20	0.067	mg/Kg	☼	11/16/17 08:33	11/17/17 18:04	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.046	mg/Kg	☼	11/16/17 08:33	11/17/17 18:04	1
Chrysene	0.015	J	0.039	0.011	mg/Kg	☼	11/16/17 08:33	11/17/17 18:04	1
Dibenz(a,h)anthracene	<0.039		0.039	0.0075	mg/Kg	☼	11/16/17 08:33	11/17/17 18:04	1
Dibenzofuran	<0.20		0.20	0.046	mg/Kg	☼	11/16/17 08:33	11/17/17 18:04	1
1,2-Dichlorobenzene	<0.20		0.20	0.047	mg/Kg	☼	11/16/17 08:33	11/17/17 18:04	1
1,3-Dichlorobenzene	<0.20		0.20	0.044	mg/Kg	☼	11/16/17 08:33	11/17/17 18:04	1
1,4-Dichlorobenzene	<0.20		0.20	0.050	mg/Kg	☼	11/16/17 08:33	11/17/17 18:04	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.055	mg/Kg	☼	11/16/17 08:33	11/17/17 18:04	1
2,4-Dichlorophenol	<0.39		0.39	0.093	mg/Kg	☼	11/16/17 08:33	11/17/17 18:04	1
Diethyl phthalate	<0.20		0.20	0.066	mg/Kg	☼	11/16/17 08:33	11/17/17 18:04	1
2,4-Dimethylphenol	<0.39		0.39	0.15	mg/Kg	☼	11/16/17 08:33	11/17/17 18:04	1
Dimethyl phthalate	<0.20		0.20	0.051	mg/Kg	☼	11/16/17 08:33	11/17/17 18:04	1
Di-n-butyl phthalate	<0.20		0.20	0.059	mg/Kg	☼	11/16/17 08:33	11/17/17 18:04	1
4,6-Dinitro-2-methylphenol	<0.79		0.79	0.31	mg/Kg	☼	11/16/17 08:33	11/17/17 18:04	1
2,4-Dinitrophenol	<0.79		0.79	0.69	mg/Kg	☼	11/16/17 08:33	11/17/17 18:04	1
2,4-Dinitrotoluene	<0.20		0.20	0.062	mg/Kg	☼	11/16/17 08:33	11/17/17 18:04	1
2,6-Dinitrotoluene	<0.20		0.20	0.077	mg/Kg	☼	11/16/17 08:33	11/17/17 18:04	1
Di-n-octyl phthalate	<0.20		0.20	0.064	mg/Kg	☼	11/16/17 08:33	11/17/17 18:04	1
Fluoranthene	0.0081	J	0.039	0.0072	mg/Kg	☼	11/16/17 08:33	11/17/17 18:04	1
Fluorene	<0.039		0.039	0.0055	mg/Kg	☼	11/16/17 08:33	11/17/17 18:04	1
Hexachlorobenzene	<0.079		0.079	0.0091	mg/Kg	☼	11/16/17 08:33	11/17/17 18:04	1
Hexachlorobutadiene	<0.20		0.20	0.061	mg/Kg	☼	11/16/17 08:33	11/17/17 18:04	1
Hexachlorocyclopentadiene	<0.79		0.79	0.22	mg/Kg	☼	11/16/17 08:33	11/17/17 18:04	1
Hexachloroethane	<0.20		0.20	0.059	mg/Kg	☼	11/16/17 08:33	11/17/17 18:04	1
Indeno[1,2,3-cd]pyrene	<0.039		0.039	0.010	mg/Kg	☼	11/16/17 08:33	11/17/17 18:04	1
Isophorone	<0.20		0.20	0.044	mg/Kg	☼	11/16/17 08:33	11/17/17 18:04	1
2-Methylnaphthalene	<0.079		0.079	0.0072	mg/Kg	☼	11/16/17 08:33	11/17/17 18:04	1
2-Methylphenol	<0.20		0.20	0.063	mg/Kg	☼	11/16/17 08:33	11/17/17 18:04	1
3 & 4 Methylphenol	<0.20		0.20	0.065	mg/Kg	☼	11/16/17 08:33	11/17/17 18:04	1
Naphthalene	<0.039		0.039	0.0060	mg/Kg	☼	11/16/17 08:33	11/17/17 18:04	1
2-Nitroaniline	<0.20		0.20	0.053	mg/Kg	☼	11/16/17 08:33	11/17/17 18:04	1
3-Nitroaniline	<0.39		0.39	0.12	mg/Kg	☼	11/16/17 08:33	11/17/17 18:04	1
4-Nitroaniline	<0.39		0.39	0.16	mg/Kg	☼	11/16/17 08:33	11/17/17 18:04	1
Nitrobenzene	<0.039		0.039	0.0097	mg/Kg	☼	11/16/17 08:33	11/17/17 18:04	1
2-Nitrophenol	<0.39		0.39	0.092	mg/Kg	☼	11/16/17 08:33	11/17/17 18:04	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137077-2

Client Sample ID: 2696V-60-B02(10-15)

Lab Sample ID: 500-137077-10

Date Collected: 11/09/17 14:30

Matrix: Solid

Date Received: 11/10/17 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
4-Nitrophenol	<0.79		0.79	0.37	mg/Kg	☼	11/16/17 08:33	11/17/17 18:04	1
N-Nitrosodi-n-propylamine	<0.079		0.079	0.048	mg/Kg	☼	11/16/17 08:33	11/17/17 18:04	1
N-Nitrosodiphenylamine	<0.20		0.20	0.046	mg/Kg	☼	11/16/17 08:33	11/17/17 18:04	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.045	mg/Kg	☼	11/16/17 08:33	11/17/17 18:04	1
Pentachlorophenol	<0.79		0.79	0.63	mg/Kg	☼	11/16/17 08:33	11/17/17 18:04	1
Phenanthrene	0.011	J	0.039	0.0054	mg/Kg	☼	11/16/17 08:33	11/17/17 18:04	1
Phenol	<0.20		0.20	0.087	mg/Kg	☼	11/16/17 08:33	11/17/17 18:04	1
Pyrene	0.013	J	0.039	0.0078	mg/Kg	☼	11/16/17 08:33	11/17/17 18:04	1
1,2,4-Trichlorobenzene	<0.20		0.20	0.042	mg/Kg	☼	11/16/17 08:33	11/17/17 18:04	1
2,4,5-Trichlorophenol	<0.39		0.39	0.089	mg/Kg	☼	11/16/17 08:33	11/17/17 18:04	1
2,4,6-Trichlorophenol	<0.39		0.39	0.13	mg/Kg	☼	11/16/17 08:33	11/17/17 18:04	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	77		44 - 121	11/16/17 08:33	11/17/17 18:04	1
2-Fluorophenol	92		46 - 133	11/16/17 08:33	11/17/17 18:04	1
Nitrobenzene-d5	74		41 - 120	11/16/17 08:33	11/17/17 18:04	1
Phenol-d5	87		46 - 125	11/16/17 08:33	11/17/17 18:04	1
Terphenyl-d14	65		35 - 160	11/16/17 08:33	11/17/17 18:04	1
2,4,6-Tribromophenol	56		25 - 139	11/16/17 08:33	11/17/17 18:04	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.71	J	1.2	0.23	mg/Kg	☼	11/11/17 13:28	11/13/17 21:24	1
Arsenic	5.2		0.58	0.20	mg/Kg	☼	11/11/17 13:28	11/13/17 21:24	1
Barium	47		0.58	0.066	mg/Kg	☼	11/11/17 13:28	11/13/17 21:24	1
Beryllium	0.54		0.23	0.054	mg/Kg	☼	11/11/17 13:28	11/13/17 21:24	1
Cadmium	0.12	B	0.12	0.021	mg/Kg	☼	11/11/17 13:28	11/13/17 21:24	1
Chromium	13		0.58	0.29	mg/Kg	☼	11/11/17 13:28	11/13/17 21:24	1
Cobalt	9.3		0.29	0.076	mg/Kg	☼	11/11/17 13:28	11/13/17 21:24	1
Copper	22	B	2.9	0.81	mg/Kg	☼	11/11/17 13:28	11/14/17 19:12	5
Iron	15000		12	6.1	mg/Kg	☼	11/11/17 13:28	11/13/17 21:24	1
Lead	9.9		0.29	0.13	mg/Kg	☼	11/11/17 13:28	11/13/17 21:24	1
Magnesium	26000		5.8	2.9	mg/Kg	☼	11/11/17 13:28	11/13/17 21:24	1
Calcium	86000		58	9.9	mg/Kg	☼	11/11/17 13:28	11/14/17 19:12	5
Manganese	340		0.58	0.084	mg/Kg	☼	11/11/17 13:28	11/13/17 21:24	1
Nickel	23		0.58	0.17	mg/Kg	☼	11/11/17 13:28	11/13/17 21:24	1
Selenium	0.42	J	0.58	0.34	mg/Kg	☼	11/11/17 13:28	11/13/17 21:24	1
Silver	<0.29		0.29	0.075	mg/Kg	☼	11/11/17 13:28	11/13/17 21:24	1
Thallium	<0.58		0.58	0.29	mg/Kg	☼	11/11/17 13:28	11/13/17 21:24	1
Vanadium	17		0.29	0.069	mg/Kg	☼	11/11/17 13:28	11/13/17 21:24	1
Zinc	44		1.2	0.51	mg/Kg	☼	11/11/17 13:28	11/13/17 21:24	1
Potassium	1800		29	10	mg/Kg	☼	11/11/17 13:28	11/13/17 21:24	1
Sodium	230		58	8.6	mg/Kg	☼	11/11/17 13:28	11/13/17 21:24	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.050		0.050	0.010	mg/L		11/15/17 08:42	11/15/17 17:11	1
Barium	0.73		0.50	0.050	mg/L		11/15/17 08:42	11/15/17 17:11	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		11/15/17 08:42	11/15/17 17:11	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		11/15/17 08:42	11/15/17 17:11	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137077-2

Client Sample ID: 2696V-60-B02(10-15)

Lab Sample ID: 500-137077-10

Date Collected: 11/09/17 14:30

Matrix: Solid

Date Received: 11/10/17 08:00

Percent Solids: 82.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	1400		50	5.0	mg/L		11/15/17 08:42	11/16/17 13:38	10
Chromium	<0.025		0.025	0.010	mg/L		11/15/17 08:42	11/15/17 17:11	1
Cobalt	0.023	J	0.025	0.010	mg/L		11/15/17 08:42	11/15/17 17:11	1
Copper	0.060		0.025	0.010	mg/L		11/15/17 08:42	11/15/17 17:11	1
Iron	3.2		0.40	0.20	mg/L		11/15/17 08:42	11/15/17 17:11	1
Lead	<0.0075		0.0075	0.0075	mg/L		11/15/17 08:42	11/15/17 17:11	1
Magnesium	160		2.5	0.50	mg/L		11/15/17 08:42	11/15/17 17:11	1
Manganese	4.5		0.025	0.010	mg/L		11/15/17 08:42	11/15/17 17:11	1
Nickel	0.031		0.025	0.010	mg/L		11/15/17 08:42	11/15/17 17:11	1
Potassium	3.2		2.5	0.50	mg/L		11/15/17 08:42	11/15/17 17:11	1
Selenium	<0.050		0.050	0.020	mg/L		11/15/17 08:42	11/15/17 17:11	1
Silver	<0.025		0.025	0.010	mg/L		11/15/17 08:42	11/15/17 17:11	1
Vanadium	<0.025		0.025	0.010	mg/L		11/15/17 08:42	11/15/17 17:11	1
Zinc	0.054	J	0.50	0.020	mg/L		11/15/17 08:42	11/15/17 17:11	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.031		0.025	0.010	mg/L		11/15/17 08:17	11/17/17 04:18	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		11/15/17 08:42	11/16/17 17:31	1
Thallium	<0.0020		0.0020	0.0020	mg/L		11/15/17 08:42	11/16/17 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		11/17/17 08:10	11/17/17 12:12	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.015	J	0.019	0.0065	mg/Kg	☼	11/17/17 10:45	11/18/17 13:17	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.60		0.60	0.21	mg/Kg	☼	11/19/17 13:10	11/19/17 16:07	1
pH	8.4		0.20	0.20	SU			11/18/17 12:09	1

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137077-2

Client Sample ID: 2696V-60-B02(15-21)

Lab Sample ID: 500-137077-11

Date Collected: 11/09/17 14:35

Matrix: Solid

Date Received: 11/10/17 08:00

Percent Solids: 84.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.018		0.018	0.0077	mg/Kg	☼	11/10/17 18:28	11/16/17 14:43	1
Benzene	<0.0018		0.0018	0.00045	mg/Kg	☼	11/10/17 18:28	11/16/17 14:43	1
Bromodichloromethane	<0.0018		0.0018	0.00036	mg/Kg	☼	11/10/17 18:28	11/16/17 14:43	1
Bromoform	<0.0018		0.0018	0.00051	mg/Kg	☼	11/10/17 18:28	11/16/17 14:43	1
Bromomethane	<0.0044		0.0044	0.0017	mg/Kg	☼	11/10/17 18:28	11/16/17 14:43	1
2-Butanone (MEK)	<0.0044		0.0044	0.0020	mg/Kg	☼	11/10/17 18:28	11/16/17 14:43	1
Carbon disulfide	<0.0044		0.0044	0.00092	mg/Kg	☼	11/10/17 18:28	11/16/17 14:43	1
Carbon tetrachloride	<0.0018 *		0.0018	0.00051	mg/Kg	☼	11/10/17 18:28	11/16/17 14:43	1
Chlorobenzene	<0.0018		0.0018	0.00065	mg/Kg	☼	11/10/17 18:28	11/16/17 14:43	1
Chloroethane	<0.0044		0.0044	0.0013	mg/Kg	☼	11/10/17 18:28	11/16/17 14:43	1
Chloroform	<0.0018		0.0018	0.00061	mg/Kg	☼	11/10/17 18:28	11/16/17 14:43	1
Chloromethane	<0.0044 *		0.0044	0.0018	mg/Kg	☼	11/10/17 18:28	11/16/17 14:43	1
cis-1,2-Dichloroethene	<0.0018		0.0018	0.00049	mg/Kg	☼	11/10/17 18:28	11/16/17 14:43	1
cis-1,3-Dichloropropene	<0.0018		0.0018	0.00053	mg/Kg	☼	11/10/17 18:28	11/16/17 14:43	1
Dibromochloromethane	<0.0018		0.0018	0.00058	mg/Kg	☼	11/10/17 18:28	11/16/17 14:43	1
1,1-Dichloroethane	<0.0018		0.0018	0.00060	mg/Kg	☼	11/10/17 18:28	11/16/17 14:43	1
1,2-Dichloroethane	<0.0044		0.0044	0.0014	mg/Kg	☼	11/10/17 18:28	11/16/17 14:43	1
1,1-Dichloroethene	<0.0018		0.0018	0.00061	mg/Kg	☼	11/10/17 18:28	11/16/17 14:43	1
1,2-Dichloropropane	<0.0018		0.0018	0.00045	mg/Kg	☼	11/10/17 18:28	11/16/17 14:43	1
1,3-Dichloropropene, Total	<0.0018		0.0018	0.00062	mg/Kg	☼	11/10/17 18:28	11/16/17 14:43	1
Ethylbenzene	<0.0018		0.0018	0.00084	mg/Kg	☼	11/10/17 18:28	11/16/17 14:43	1
2-Hexanone	<0.0044		0.0044	0.0014	mg/Kg	☼	11/10/17 18:28	11/16/17 14:43	1
Methylene Chloride	<0.0044		0.0044	0.0017	mg/Kg	☼	11/10/17 18:28	11/16/17 14:43	1
4-Methyl-2-pentanone (MIBK)	<0.0044		0.0044	0.0013	mg/Kg	☼	11/10/17 18:28	11/16/17 14:43	1
Methyl tert-butyl ether	0.0046		0.0018	0.00052	mg/Kg	☼	11/10/17 18:28	11/16/17 14:43	1
Styrene	<0.0018		0.0018	0.00053	mg/Kg	☼	11/10/17 18:28	11/16/17 14:43	1
1,1,2,2-Tetrachloroethane	<0.0018		0.0018	0.00056	mg/Kg	☼	11/10/17 18:28	11/16/17 14:43	1
Tetrachloroethene	<0.0018		0.0018	0.00060	mg/Kg	☼	11/10/17 18:28	11/16/17 14:43	1
Toluene	<0.0018		0.0018	0.00044	mg/Kg	☼	11/10/17 18:28	11/16/17 14:43	1
trans-1,2-Dichloroethene	<0.0018		0.0018	0.00078	mg/Kg	☼	11/10/17 18:28	11/16/17 14:43	1
trans-1,3-Dichloropropene	<0.0018		0.0018	0.00062	mg/Kg	☼	11/10/17 18:28	11/16/17 14:43	1
1,1,1-Trichloroethane	<0.0018		0.0018	0.00059	mg/Kg	☼	11/10/17 18:28	11/16/17 14:43	1
1,1,2-Trichloroethane	<0.0018		0.0018	0.00075	mg/Kg	☼	11/10/17 18:28	11/16/17 14:43	1
Trichloroethene	<0.0018		0.0018	0.00059	mg/Kg	☼	11/10/17 18:28	11/16/17 14:43	1
Vinyl acetate	<0.0044		0.0044	0.0015	mg/Kg	☼	11/10/17 18:28	11/16/17 14:43	1
Vinyl chloride	<0.0018		0.0018	0.00078	mg/Kg	☼	11/10/17 18:28	11/16/17 14:43	1
Xylenes, Total	<0.0035		0.0035	0.00056	mg/Kg	☼	11/10/17 18:28	11/16/17 14:43	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		75 - 131	11/10/17 18:28	11/16/17 14:43	1
Dibromofluoromethane	107		75 - 126	11/10/17 18:28	11/16/17 14:43	1
1,2-Dichloroethane-d4 (Surr)	118		70 - 134	11/10/17 18:28	11/16/17 14:43	1
Toluene-d8 (Surr)	98		75 - 124	11/10/17 18:28	11/16/17 14:43	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.039		0.039	0.0070	mg/Kg	☼	11/16/17 08:33	11/17/17 18:31	1
Acenaphthylene	<0.039		0.039	0.0051	mg/Kg	☼	11/16/17 08:33	11/17/17 18:31	1
Anthracene	<0.039		0.039	0.0065	mg/Kg	☼	11/16/17 08:33	11/17/17 18:31	1
Benzo[a]anthracene	0.0065	J	0.039	0.0052	mg/Kg	☼	11/16/17 08:33	11/17/17 18:31	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137077-2

Client Sample ID: 2696V-60-B02(15-21)

Lab Sample ID: 500-137077-11

Date Collected: 11/09/17 14:35

Matrix: Solid

Date Received: 11/10/17 08:00

Percent Solids: 84.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	0.038	J	0.039	0.0075	mg/Kg	☼	11/16/17 08:33	11/17/17 18:31	1
Benzo[b]fluoranthene	0.039		0.039	0.0084	mg/Kg	☼	11/16/17 08:33	11/17/17 18:31	1
Benzo[g,h,i]perylene	0.052		0.039	0.013	mg/Kg	☼	11/16/17 08:33	11/17/17 18:31	1
Benzo[k]fluoranthene	<0.039		0.039	0.011	mg/Kg	☼	11/16/17 08:33	11/17/17 18:31	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.040	mg/Kg	☼	11/16/17 08:33	11/17/17 18:31	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.058	mg/Kg	☼	11/16/17 08:33	11/17/17 18:31	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.071	mg/Kg	☼	11/16/17 08:33	11/17/17 18:31	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.051	mg/Kg	☼	11/16/17 08:33	11/17/17 18:31	1
Butyl benzyl phthalate	<0.20		0.20	0.074	mg/Kg	☼	11/16/17 08:33	11/17/17 18:31	1
Carbazole	<0.20		0.20	0.097	mg/Kg	☼	11/16/17 08:33	11/17/17 18:31	1
4-Chloroaniline	<0.79		0.79	0.18	mg/Kg	☼	11/16/17 08:33	11/17/17 18:31	1
4-Chloro-3-methylphenol	<0.39		0.39	0.13	mg/Kg	☼	11/16/17 08:33	11/17/17 18:31	1
2-Chloronaphthalene	<0.20		0.20	0.043	mg/Kg	☼	11/16/17 08:33	11/17/17 18:31	1
2-Chlorophenol	<0.20		0.20	0.067	mg/Kg	☼	11/16/17 08:33	11/17/17 18:31	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.046	mg/Kg	☼	11/16/17 08:33	11/17/17 18:31	1
Chrysene	0.019	J	0.039	0.011	mg/Kg	☼	11/16/17 08:33	11/17/17 18:31	1
Dibenz(a,h)anthracene	0.037	J	0.039	0.0075	mg/Kg	☼	11/16/17 08:33	11/17/17 18:31	1
Dibenzofuran	<0.20		0.20	0.046	mg/Kg	☼	11/16/17 08:33	11/17/17 18:31	1
1,2-Dichlorobenzene	<0.20		0.20	0.047	mg/Kg	☼	11/16/17 08:33	11/17/17 18:31	1
1,3-Dichlorobenzene	<0.20		0.20	0.044	mg/Kg	☼	11/16/17 08:33	11/17/17 18:31	1
1,4-Dichlorobenzene	<0.20		0.20	0.050	mg/Kg	☼	11/16/17 08:33	11/17/17 18:31	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.055	mg/Kg	☼	11/16/17 08:33	11/17/17 18:31	1
2,4-Dichlorophenol	<0.39		0.39	0.093	mg/Kg	☼	11/16/17 08:33	11/17/17 18:31	1
Diethyl phthalate	<0.20		0.20	0.066	mg/Kg	☼	11/16/17 08:33	11/17/17 18:31	1
2,4-Dimethylphenol	<0.39		0.39	0.15	mg/Kg	☼	11/16/17 08:33	11/17/17 18:31	1
Dimethyl phthalate	<0.20		0.20	0.051	mg/Kg	☼	11/16/17 08:33	11/17/17 18:31	1
Di-n-butyl phthalate	<0.20		0.20	0.059	mg/Kg	☼	11/16/17 08:33	11/17/17 18:31	1
4,6-Dinitro-2-methylphenol	<0.79		0.79	0.31	mg/Kg	☼	11/16/17 08:33	11/17/17 18:31	1
2,4-Dinitrophenol	<0.79		0.79	0.69	mg/Kg	☼	11/16/17 08:33	11/17/17 18:31	1
2,4-Dinitrotoluene	<0.20		0.20	0.062	mg/Kg	☼	11/16/17 08:33	11/17/17 18:31	1
2,6-Dinitrotoluene	<0.20		0.20	0.077	mg/Kg	☼	11/16/17 08:33	11/17/17 18:31	1
Di-n-octyl phthalate	<0.20		0.20	0.064	mg/Kg	☼	11/16/17 08:33	11/17/17 18:31	1
Fluoranthene	0.0094	J	0.039	0.0072	mg/Kg	☼	11/16/17 08:33	11/17/17 18:31	1
Fluorene	<0.039		0.039	0.0055	mg/Kg	☼	11/16/17 08:33	11/17/17 18:31	1
Hexachlorobenzene	<0.079		0.079	0.0090	mg/Kg	☼	11/16/17 08:33	11/17/17 18:31	1
Hexachlorobutadiene	<0.20		0.20	0.061	mg/Kg	☼	11/16/17 08:33	11/17/17 18:31	1
Hexachlorocyclopentadiene	<0.79		0.79	0.22	mg/Kg	☼	11/16/17 08:33	11/17/17 18:31	1
Hexachloroethane	<0.20		0.20	0.059	mg/Kg	☼	11/16/17 08:33	11/17/17 18:31	1
Indeno[1,2,3-cd]pyrene	<0.039		0.039	0.010	mg/Kg	☼	11/16/17 08:33	11/17/17 18:31	1
Isophorone	<0.20		0.20	0.044	mg/Kg	☼	11/16/17 08:33	11/17/17 18:31	1
2-Methylnaphthalene	<0.079		0.079	0.0072	mg/Kg	☼	11/16/17 08:33	11/17/17 18:31	1
2-Methylphenol	<0.20		0.20	0.063	mg/Kg	☼	11/16/17 08:33	11/17/17 18:31	1
3 & 4 Methylphenol	<0.20		0.20	0.065	mg/Kg	☼	11/16/17 08:33	11/17/17 18:31	1
Naphthalene	<0.039		0.039	0.0060	mg/Kg	☼	11/16/17 08:33	11/17/17 18:31	1
2-Nitroaniline	<0.20		0.20	0.052	mg/Kg	☼	11/16/17 08:33	11/17/17 18:31	1
3-Nitroaniline	<0.39		0.39	0.12	mg/Kg	☼	11/16/17 08:33	11/17/17 18:31	1
4-Nitroaniline	<0.39		0.39	0.16	mg/Kg	☼	11/16/17 08:33	11/17/17 18:31	1
Nitrobenzene	<0.039		0.039	0.0097	mg/Kg	☼	11/16/17 08:33	11/17/17 18:31	1
2-Nitrophenol	<0.39		0.39	0.092	mg/Kg	☼	11/16/17 08:33	11/17/17 18:31	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137077-2

Client Sample ID: 2696V-60-B02(15-21)

Lab Sample ID: 500-137077-11

Date Collected: 11/09/17 14:35

Matrix: Solid

Date Received: 11/10/17 08:00

Percent Solids: 84.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Nitrophenol	<0.79		0.79	0.37	mg/Kg	☼	11/16/17 08:33	11/17/17 18:31	1
N-Nitrosodi-n-propylamine	<0.079		0.079	0.048	mg/Kg	☼	11/16/17 08:33	11/17/17 18:31	1
N-Nitrosodiphenylamine	<0.20		0.20	0.046	mg/Kg	☼	11/16/17 08:33	11/17/17 18:31	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.045	mg/Kg	☼	11/16/17 08:33	11/17/17 18:31	1
Pentachlorophenol	<0.79		0.79	0.63	mg/Kg	☼	11/16/17 08:33	11/17/17 18:31	1
Phenanthrene	0.018	J	0.039	0.0054	mg/Kg	☼	11/16/17 08:33	11/17/17 18:31	1
Phenol	<0.20		0.20	0.087	mg/Kg	☼	11/16/17 08:33	11/17/17 18:31	1
Pyrene	0.017	J	0.039	0.0077	mg/Kg	☼	11/16/17 08:33	11/17/17 18:31	1
1,2,4-Trichlorobenzene	<0.20		0.20	0.042	mg/Kg	☼	11/16/17 08:33	11/17/17 18:31	1
2,4,5-Trichlorophenol	<0.39		0.39	0.089	mg/Kg	☼	11/16/17 08:33	11/17/17 18:31	1
2,4,6-Trichlorophenol	<0.39		0.39	0.13	mg/Kg	☼	11/16/17 08:33	11/17/17 18:31	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	83		44 - 121	11/16/17 08:33	11/17/17 18:31	1
2-Fluorophenol	98		46 - 133	11/16/17 08:33	11/17/17 18:31	1
Nitrobenzene-d5	81		41 - 120	11/16/17 08:33	11/17/17 18:31	1
Phenol-d5	87		46 - 125	11/16/17 08:33	11/17/17 18:31	1
Terphenyl-d14	73		35 - 160	11/16/17 08:33	11/17/17 18:31	1
2,4,6-Tribromophenol	67		25 - 139	11/16/17 08:33	11/17/17 18:31	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.30	J F1	1.2	0.23	mg/Kg	☼	11/11/17 13:28	11/13/17 21:28	1
Arsenic	6.1		0.59	0.20	mg/Kg	☼	11/11/17 13:28	11/13/17 21:28	1
Barium	31		0.59	0.067	mg/Kg	☼	11/11/17 13:28	11/13/17 21:28	1
Beryllium	0.42		0.23	0.055	mg/Kg	☼	11/11/17 13:28	11/13/17 21:28	1
Cadmium	0.14	B	0.12	0.021	mg/Kg	☼	11/11/17 13:28	11/13/17 21:28	1
Chromium	9.8		0.59	0.29	mg/Kg	☼	11/11/17 13:28	11/13/17 21:28	1
Cobalt	7.2		0.29	0.077	mg/Kg	☼	11/11/17 13:28	11/13/17 21:28	1
Copper	18	B	2.9	0.82	mg/Kg	☼	11/11/17 13:28	11/14/17 19:16	5
Iron	13000		12	6.1	mg/Kg	☼	11/11/17 13:28	11/13/17 21:28	1
Lead	8.6		0.29	0.14	mg/Kg	☼	11/11/17 13:28	11/13/17 21:28	1
Magnesium	32000		5.9	2.9	mg/Kg	☼	11/11/17 13:28	11/13/17 21:28	1
Calcium	91000		59	9.9	mg/Kg	☼	11/11/17 13:28	11/14/17 19:16	5
Manganese	340		0.59	0.085	mg/Kg	☼	11/11/17 13:28	11/13/17 21:28	1
Nickel	18		0.59	0.17	mg/Kg	☼	11/11/17 13:28	11/13/17 21:28	1
Selenium	0.40	J F1	0.59	0.34	mg/Kg	☼	11/11/17 13:28	11/13/17 21:28	1
Silver	<0.29		0.29	0.076	mg/Kg	☼	11/11/17 13:28	11/13/17 21:28	1
Thallium	<0.59		0.59	0.29	mg/Kg	☼	11/11/17 13:28	11/13/17 21:28	1
Vanadium	13		0.29	0.069	mg/Kg	☼	11/11/17 13:28	11/13/17 21:28	1
Zinc	55	F1	1.2	0.51	mg/Kg	☼	11/11/17 13:28	11/13/17 21:28	1
Potassium	1200	F1	29	10	mg/Kg	☼	11/11/17 13:28	11/13/17 21:28	1
Sodium	210		59	8.7	mg/Kg	☼	11/11/17 13:28	11/13/17 21:28	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.050		0.050	0.010	mg/L		11/15/17 08:42	11/15/17 17:15	1
Barium	0.51		0.50	0.050	mg/L		11/15/17 08:42	11/15/17 17:15	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		11/15/17 08:42	11/15/17 17:15	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		11/15/17 08:42	11/15/17 17:15	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137077-2

Client Sample ID: 2696V-60-B02(15-21)

Lab Sample ID: 500-137077-11

Date Collected: 11/09/17 14:35

Matrix: Solid

Date Received: 11/10/17 08:00

Percent Solids: 84.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	1400		50	5.0	mg/L		11/15/17 08:42	11/16/17 13:42	10
Chromium	<0.025		0.025	0.010	mg/L		11/15/17 08:42	11/15/17 17:15	1
Cobalt	0.022	J	0.025	0.010	mg/L		11/15/17 08:42	11/15/17 17:15	1
Copper	0.042		0.025	0.010	mg/L		11/15/17 08:42	11/15/17 17:15	1
Iron	1.9		0.40	0.20	mg/L		11/15/17 08:42	11/15/17 17:15	1
Lead	<0.0075		0.0075	0.0075	mg/L		11/15/17 08:42	11/15/17 17:15	1
Magnesium	180		2.5	0.50	mg/L		11/15/17 08:42	11/15/17 17:15	1
Manganese	4.0		0.025	0.010	mg/L		11/15/17 08:42	11/15/17 17:15	1
Nickel	0.034		0.025	0.010	mg/L		11/15/17 08:42	11/15/17 17:15	1
Potassium	3.3		2.5	0.50	mg/L		11/15/17 08:42	11/15/17 17:15	1
Selenium	<0.050		0.050	0.020	mg/L		11/15/17 08:42	11/15/17 17:15	1
Silver	<0.025		0.025	0.010	mg/L		11/15/17 08:42	11/15/17 17:15	1
Vanadium	<0.025		0.025	0.010	mg/L		11/15/17 08:42	11/15/17 17:15	1
Zinc	0.039	J	0.50	0.020	mg/L		11/15/17 08:42	11/15/17 17:15	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.012	J	0.025	0.010	mg/L		11/15/17 08:17	11/17/17 04:22	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		11/15/17 08:42	11/16/17 17:34	1
Thallium	<0.0020		0.0020	0.0020	mg/L		11/15/17 08:42	11/16/17 17:34	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		11/17/17 08:10	11/17/17 12:13	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0077	J	0.019	0.0062	mg/Kg	☼	11/17/17 10:45	11/18/17 13:26	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.55		0.55	0.19	mg/Kg	☼	11/19/17 13:10	11/19/17 16:07	1
pH	8.1		0.20	0.20	SU			11/18/17 12:11	1

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137077-2

Client Sample ID: 2696V-60-G01

Lab Sample ID: 500-137077-12

Date Collected: 11/09/17 15:20

Matrix: Water

Date Received: 11/10/17 08:00

Method: 8260B - VOC

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	0.046		0.0050	0.0017	mg/L			11/16/17 17:44	1
Bromodichloromethane	<0.0010		0.0010	0.00037	mg/L			11/16/17 17:44	1
Bromoform	<0.0010		0.0010	0.00048	mg/L			11/16/17 17:44	1
Bromomethane	<0.0020		0.0020	0.00080	mg/L			11/16/17 17:44	1
Carbon disulfide	<0.0020		0.0020	0.00045	mg/L			11/16/17 17:44	1
Carbon tetrachloride	<0.0010		0.0010	0.00038	mg/L			11/16/17 17:44	1
Chlorobenzene	<0.0010		0.0010	0.00039	mg/L			11/16/17 17:44	1
Chloroethane	<0.0010		0.0010	0.00051	mg/L			11/16/17 17:44	1
Chloroform	<0.0020		0.0020	0.00037	mg/L			11/16/17 17:44	1
Chloromethane	<0.0010		0.0010	0.00032	mg/L			11/16/17 17:44	1
cis-1,2-Dichloroethene	<0.0010		0.0010	0.00041	mg/L			11/16/17 17:44	1
cis-1,3-Dichloropropene	<0.0010		0.0010	0.00042	mg/L			11/16/17 17:44	1
Dibromochloromethane	<0.0010		0.0010	0.00049	mg/L			11/16/17 17:44	1
1,1-Dichloroethane	<0.0010		0.0010	0.00041	mg/L			11/16/17 17:44	1
1,2-Dichloroethane	<0.0010		0.0010	0.00039	mg/L			11/16/17 17:44	1
1,1-Dichloroethene	<0.0010		0.0010	0.00039	mg/L			11/16/17 17:44	1
1,2-Dichloropropane	<0.0010		0.0010	0.00043	mg/L			11/16/17 17:44	1
1,3-Dichloropropene, Total	<0.0010		0.0010	0.00042	mg/L			11/16/17 17:44	1
Ethylbenzene	0.012		0.00050	0.00018	mg/L			11/16/17 17:44	1
2-Hexanone	<0.0050		0.0050	0.0016	mg/L			11/16/17 17:44	1
Methylene Chloride	<0.0050		0.0050	0.0016	mg/L			11/16/17 17:44	1
Methyl Ethyl Ketone	<0.0050		0.0050	0.0021	mg/L			11/16/17 17:44	1
methyl isobutyl ketone	<0.0050		0.0050	0.0022	mg/L			11/16/17 17:44	1
Methyl tert-butyl ether	<0.0010		0.0010	0.00039	mg/L			11/16/17 17:44	1
Styrene	<0.0010		0.0010	0.00039	mg/L			11/16/17 17:44	1
1,1,2,2-Tetrachloroethane	<0.0010		0.0010	0.00040	mg/L			11/16/17 17:44	1
Tetrachloroethene	<0.0010		0.0010	0.00037	mg/L			11/16/17 17:44	1
Toluene	0.0032		0.00050	0.00015	mg/L			11/16/17 17:44	1
trans-1,2-Dichloroethene	<0.0010		0.0010	0.00035	mg/L			11/16/17 17:44	1
trans-1,3-Dichloropropene	<0.0010		0.0010	0.00036	mg/L			11/16/17 17:44	1
1,1,1-Trichloroethane	<0.0010		0.0010	0.00038	mg/L			11/16/17 17:44	1
1,1,2-Trichloroethane	<0.0010		0.0010	0.00035	mg/L			11/16/17 17:44	1
Trichloroethene	<0.00050		0.00050	0.00016	mg/L			11/16/17 17:44	1
Vinyl acetate	<0.0020		0.0020	0.00091	mg/L			11/16/17 17:44	1
Vinyl chloride	<0.00050		0.00050	0.00020	mg/L			11/16/17 17:44	1
Xylenes, Total	0.0029		0.0010	0.00022	mg/L			11/16/17 17:44	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	87		72 - 124		11/16/17 17:44	1
Dibromofluoromethane	87		75 - 120		11/16/17 17:44	1
1,2-Dichloroethane-d4 (Surr)	86		75 - 126		11/16/17 17:44	1
Toluene-d8 (Surr)	101		75 - 120		11/16/17 17:44	1

Method: 8260B - VOC - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.20		0.0050	0.0015	mg/L			11/16/17 18:10	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	88		72 - 124		11/16/17 18:10	10
Dibromofluoromethane	86		75 - 120		11/16/17 18:10	10

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137077-2

Client Sample ID: 2696V-60-G01

Lab Sample ID: 500-137077-12

Date Collected: 11/09/17 15:20

Matrix: Water

Date Received: 11/10/17 08:00

Method: 8260B - VOC - DL (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	85		75 - 126		11/16/17 18:10	10
Toluene-d8 (Surr)	100		75 - 120		11/16/17 18:10	10

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.0011		0.0011	0.00033	mg/L		11/13/17 07:25	11/16/17 16:56	1
Acenaphthylene	<0.0011		0.0011	0.00028	mg/L		11/13/17 07:25	11/16/17 16:56	1
Anthracene	<0.0011		0.0011	0.00035	mg/L		11/13/17 07:25	11/16/17 16:56	1
Benzo[a]anthracene	0.00011	J	0.00017	0.000060	mg/L		11/13/17 07:25	11/16/17 16:56	1
Benzo[a]pyrene	<0.00021		0.00021	0.00010	mg/L		11/13/17 07:25	11/16/17 16:56	1
Benzo[b]fluoranthene	<0.00021		0.00021	0.000085	mg/L		11/13/17 07:25	11/16/17 16:56	1
Benzo[g,h,i]perylene	<0.0011		0.0011	0.00039	mg/L		11/13/17 07:25	11/16/17 16:56	1
Benzo[k]fluoranthene	<0.00021		0.00021	0.000067	mg/L		11/13/17 07:25	11/16/17 16:56	1
Bis(2-chloroethoxy)methane	<0.0021		0.0021	0.00030	mg/L		11/13/17 07:25	11/16/17 16:56	1
Bis(2-chloroethyl)ether	<0.0021		0.0021	0.00031	mg/L		11/13/17 07:25	11/16/17 16:56	1
Bis(2-ethylhexyl) phthalate	<0.011		0.011	0.0018	mg/L		11/13/17 07:25	11/16/17 16:56	1
4-Bromophenyl phenyl ether	<0.0053		0.0053	0.00057	mg/L		11/13/17 07:25	11/16/17 16:56	1
Butyl benzyl phthalate	<0.0021		0.0021	0.00051	mg/L		11/13/17 07:25	11/16/17 16:56	1
Carbazole	<0.0053		0.0053	0.00037	mg/L		11/13/17 07:25	11/16/17 16:56	1
4-Chloroaniline	<0.011		0.011	0.0021	mg/L		11/13/17 07:25	11/16/17 16:56	1
4-Chloro-3-methylphenol	<0.011		0.011	0.0024	mg/L		11/13/17 07:25	11/16/17 16:56	1
2-Chloronaphthalene	<0.0021		0.0021	0.00025	mg/L		11/13/17 07:25	11/16/17 16:56	1
2-Chlorophenol	<0.0053		0.0053	0.00059	mg/L		11/13/17 07:25	11/16/17 16:56	1
4-Chlorophenyl phenyl ether	<0.0053		0.0053	0.00067	mg/L		11/13/17 07:25	11/16/17 16:56	1
Chrysene	0.00025		0.00021	0.000072	mg/L		11/13/17 07:25	11/16/17 16:56	1
Dibenz(a,h)anthracene	<0.00032		0.00032	0.000053	mg/L		11/13/17 07:25	11/16/17 16:56	1
Dibenzofuran	<0.0021		0.0021	0.00028	mg/L		11/13/17 07:25	11/16/17 16:56	1
1,2-Dichlorobenzene	<0.0021		0.0021	0.00026	mg/L		11/13/17 07:25	11/16/17 16:56	1
1,3-Dichlorobenzene	<0.0021		0.0021	0.00022	mg/L		11/13/17 07:25	11/16/17 16:56	1
1,4-Dichlorobenzene	<0.0021		0.0021	0.00022	mg/L		11/13/17 07:25	11/16/17 16:56	1
3,3'-Dichlorobenzidine	<0.0053		0.0053	0.0018	mg/L		11/13/17 07:25	11/16/17 16:56	1
2,4-Dichlorophenol	<0.011		0.011	0.0027	mg/L		11/13/17 07:25	11/16/17 16:56	1
Diethyl phthalate	<0.0053		0.0053	0.00038	mg/L		11/13/17 07:25	11/16/17 16:56	1
2,4-Dimethylphenol	<0.011		0.011	0.0019	mg/L		11/13/17 07:25	11/16/17 16:56	1
Dimethyl phthalate	<0.0053		0.0053	0.00033	mg/L		11/13/17 07:25	11/16/17 16:56	1
Di-n-butyl phthalate	<0.0053		0.0053	0.00077	mg/L		11/13/17 07:25	11/16/17 16:56	1
4,6-Dinitro-2-methylphenol	<0.021		0.021	0.0062	mg/L		11/13/17 07:25	11/16/17 16:56	1
2,4-Dinitrophenol	<0.021		0.021	0.0090	mg/L		11/13/17 07:25	11/16/17 16:56	1
2,4-Dinitrotoluene	<0.0011		0.0011	0.00026	mg/L		11/13/17 07:25	11/16/17 16:56	1
2,6-Dinitrotoluene	<0.0011		0.0011	0.000078	mg/L		11/13/17 07:25	11/16/17 16:56	1
Di-n-octyl phthalate	<0.011		0.011	0.0011	mg/L		11/13/17 07:25	11/16/17 16:56	1
Fluoranthene	<0.0011		0.0011	0.00048	mg/L		11/13/17 07:25	11/16/17 16:56	1
Fluorene	<0.0011		0.0011	0.00026	mg/L		11/13/17 07:25	11/16/17 16:56	1
Hexachlorobenzene	<0.00053		0.00053	0.000084	mg/L		11/13/17 07:25	11/16/17 16:56	1
Hexachlorobutadiene	<0.0053		0.0053	0.00054	mg/L		11/13/17 07:25	11/16/17 16:56	1
Hexachlorocyclopentadiene	<0.021		0.021	0.0067	mg/L		11/13/17 07:25	11/16/17 16:56	1
Hexachloroethane	<0.0053		0.0053	0.00063	mg/L		11/13/17 07:25	11/16/17 16:56	1
Indeno[1,2,3-cd]pyrene	<0.00021		0.00021	0.000079	mg/L		11/13/17 07:25	11/16/17 16:56	1
Isophorone	<0.0021		0.0021	0.00039	mg/L		11/13/17 07:25	11/16/17 16:56	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137077-2

Client Sample ID: 2696V-60-G01

Lab Sample ID: 500-137077-12

Date Collected: 11/09/17 15:20

Matrix: Water

Date Received: 11/10/17 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	0.00075	J	0.0021	0.000069	mg/L		11/13/17 07:25	11/16/17 16:56	1
2-Methylphenol	<0.0021		0.0021	0.00032	mg/L		11/13/17 07:25	11/16/17 16:56	1
3 & 4 Methylphenol	<0.0021		0.0021	0.00047	mg/L		11/13/17 07:25	11/16/17 16:56	1
Naphthalene	0.0021		0.0011	0.00033	mg/L		11/13/17 07:25	11/16/17 16:56	1
2-Nitroaniline	<0.0053		0.0053	0.0014	mg/L		11/13/17 07:25	11/16/17 16:56	1
3-Nitroaniline	<0.011		0.011	0.0019	mg/L		11/13/17 07:25	11/16/17 16:56	1
4-Nitroaniline	<0.011		0.011	0.0018	mg/L		11/13/17 07:25	11/16/17 16:56	1
Nitrobenzene	<0.0011		0.0011	0.00047	mg/L		11/13/17 07:25	11/16/17 16:56	1
2-Nitrophenol	<0.011		0.011	0.0026	mg/L		11/13/17 07:25	11/16/17 16:56	1
4-Nitrophenol	<0.021		0.021	0.0078	mg/L		11/13/17 07:25	11/16/17 16:56	1
N-Nitrosodi-n-propylamine	<0.00053		0.00053	0.00016	mg/L		11/13/17 07:25	11/16/17 16:56	1
N-Nitrosodiphenylamine	<0.0021		0.0021	0.00039	mg/L		11/13/17 07:25	11/16/17 16:56	1
2,2'-oxybis[1-chloropropane]	<0.0021		0.0021	0.00040	mg/L		11/13/17 07:25	11/16/17 16:56	1
Pentachlorophenol	<0.021		0.021	0.0041	mg/L		11/13/17 07:25	11/16/17 16:56	1
Phenanthrene	0.00043	J	0.0011	0.00032	mg/L		11/13/17 07:25	11/16/17 16:56	1
Phenol	0.0012	J	0.0053	0.00071	mg/L		11/13/17 07:25	11/16/17 16:56	1
Pyrene	<0.0011		0.0011	0.00045	mg/L		11/13/17 07:25	11/16/17 16:56	1
1,2,4-Trichlorobenzene	<0.0021		0.0021	0.00025	mg/L		11/13/17 07:25	11/16/17 16:56	1
2,4,5-Trichlorophenol	<0.011		0.011	0.0027	mg/L		11/13/17 07:25	11/16/17 16:56	1
2,4,6-Trichlorophenol	<0.0053		0.0053	0.00075	mg/L		11/13/17 07:25	11/16/17 16:56	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	66		34 - 110	11/13/17 07:25	11/16/17 16:56	1
2-Fluorophenol	63		27 - 110	11/13/17 07:25	11/16/17 16:56	1
Nitrobenzene-d5	85		36 - 120	11/13/17 07:25	11/16/17 16:56	1
Phenol-d5	55		20 - 100	11/13/17 07:25	11/16/17 16:56	1
Terphenyl-d14	39	X	40 - 145	11/13/17 07:25	11/16/17 16:56	1
2,4,6-Tribromophenol	56		40 - 145	11/13/17 07:25	11/16/17 16:56	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030	0.0013	mg/L		11/11/17 13:03	11/13/17 11:48	1
Arsenic	0.038		0.0010	0.00023	mg/L		11/11/17 13:03	11/13/17 11:48	1
Barium	2.2		0.013	0.0037	mg/L		11/11/17 13:03	11/15/17 18:53	5
Beryllium	0.0062	J	0.010	0.0053	mg/L		11/11/17 13:03	11/15/17 18:57	10
Cadmium	0.0097		0.00050	0.00017	mg/L		11/11/17 13:03	11/13/17 11:48	1
Calcium	3400	B	4.0	0.89	mg/L		11/11/17 13:03	11/16/17 19:09	20
Chromium	0.21		0.050	0.011	mg/L		11/11/17 13:03	11/15/17 18:57	10
Cobalt	0.21		0.010	0.0040	mg/L		11/11/17 13:03	11/15/17 18:57	10
Copper	0.78	B	0.0020	0.00050	mg/L		11/11/17 13:03	11/13/17 11:48	1
Iron	200	B	1.0	0.47	mg/L		11/11/17 13:03	11/15/17 18:57	10
Lead	0.39		0.0025	0.00093	mg/L		11/11/17 13:03	11/15/17 18:53	5
Magnesium	1100	B	2.0	0.49	mg/L		11/11/17 13:03	11/15/17 18:57	10
Manganese	13	B	0.025	0.0079	mg/L		11/11/17 13:03	11/15/17 18:57	10
Nickel	0.47		0.020	0.0063	mg/L		11/11/17 13:03	11/15/17 18:57	10
Potassium	24		5.0	1.1	mg/L		11/11/17 13:03	11/15/17 18:57	10
Selenium	0.010		0.0025	0.00098	mg/L		11/11/17 13:03	11/13/17 11:48	1
Silver	0.0017		0.00050	0.00012	mg/L		11/11/17 13:03	11/13/17 11:48	1
Sodium	85		2.0	0.77	mg/L		11/11/17 13:03	11/15/17 18:57	10
Thallium	0.010		0.010	0.0029	mg/L		11/11/17 13:03	11/15/17 18:53	5

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137077-2

Client Sample ID: 2696V-60-G01

Lab Sample ID: 500-137077-12

Date Collected: 11/09/17 15:20

Matrix: Water

Date Received: 11/10/17 08:00

Method: 6020A - Metals (ICP/MS) - Total Recoverable (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vanadium	<0.050		0.050	0.022	mg/L		11/11/17 13:03	11/15/17 18:57	10
Zinc	1.3		0.020	0.0069	mg/L		11/11/17 13:03	11/13/17 11:48	1

Method: 7470A - Mercury

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00025		0.00020	0.000098	mg/L		11/13/17 16:00	11/14/17 12:21	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.010		0.010	0.0035	mg/L		11/19/17 13:10	11/19/17 16:00	1



Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137077-2

Client Sample ID: Trip Blank

Lab Sample ID: 500-137077-13

Date Collected: 11/09/17 00:00

Matrix: Water

Date Received: 11/10/17 08:00

Method: 8260B - VOC

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.0050		0.0050	0.0017	mg/L			11/16/17 14:38	1
Benzene	<0.00050		0.00050	0.00015	mg/L			11/16/17 14:38	1
Bromodichloromethane	<0.0010		0.0010	0.00037	mg/L			11/16/17 14:38	1
Bromoform	<0.0010		0.0010	0.00048	mg/L			11/16/17 14:38	1
Bromomethane	<0.0020		0.0020	0.00080	mg/L			11/16/17 14:38	1
Carbon disulfide	<0.0020		0.0020	0.00045	mg/L			11/16/17 14:38	1
Carbon tetrachloride	<0.0010		0.0010	0.00038	mg/L			11/16/17 14:38	1
Chlorobenzene	<0.0010		0.0010	0.00039	mg/L			11/16/17 14:38	1
Chloroethane	<0.0010		0.0010	0.00051	mg/L			11/16/17 14:38	1
Chloroform	<0.0020		0.0020	0.00037	mg/L			11/16/17 14:38	1
Chloromethane	<0.0010		0.0010	0.00032	mg/L			11/16/17 14:38	1
cis-1,2-Dichloroethene	<0.0010		0.0010	0.00041	mg/L			11/16/17 14:38	1
cis-1,3-Dichloropropene	<0.0010		0.0010	0.00042	mg/L			11/16/17 14:38	1
Dibromochloromethane	<0.0010		0.0010	0.00049	mg/L			11/16/17 14:38	1
1,1-Dichloroethane	<0.0010		0.0010	0.00041	mg/L			11/16/17 14:38	1
1,2-Dichloroethane	<0.0010		0.0010	0.00039	mg/L			11/16/17 14:38	1
1,1-Dichloroethene	<0.0010		0.0010	0.00039	mg/L			11/16/17 14:38	1
1,2-Dichloropropane	<0.0010		0.0010	0.00043	mg/L			11/16/17 14:38	1
1,3-Dichloropropene, Total	<0.0010		0.0010	0.00042	mg/L			11/16/17 14:38	1
Ethylbenzene	<0.00050		0.00050	0.00018	mg/L			11/16/17 14:38	1
2-Hexanone	<0.0050		0.0050	0.0016	mg/L			11/16/17 14:38	1
Methylene Chloride	<0.0050		0.0050	0.0016	mg/L			11/16/17 14:38	1
Methyl Ethyl Ketone	<0.0050		0.0050	0.0021	mg/L			11/16/17 14:38	1
methyl isobutyl ketone	<0.0050		0.0050	0.0022	mg/L			11/16/17 14:38	1
Methyl tert-butyl ether	<0.0010		0.0010	0.00039	mg/L			11/16/17 14:38	1
Styrene	<0.0010		0.0010	0.00039	mg/L			11/16/17 14:38	1
1,1,2,2-Tetrachloroethane	<0.0010		0.0010	0.00040	mg/L			11/16/17 14:38	1
Tetrachloroethene	<0.0010		0.0010	0.00037	mg/L			11/16/17 14:38	1
Toluene	<0.00050		0.00050	0.00015	mg/L			11/16/17 14:38	1
trans-1,2-Dichloroethene	<0.0010		0.0010	0.00035	mg/L			11/16/17 14:38	1
trans-1,3-Dichloropropene	<0.0010		0.0010	0.00036	mg/L			11/16/17 14:38	1
1,1,1-Trichloroethane	<0.0010		0.0010	0.00038	mg/L			11/16/17 14:38	1
1,1,2-Trichloroethane	<0.0010		0.0010	0.00035	mg/L			11/16/17 14:38	1
Trichloroethene	<0.00050		0.00050	0.00016	mg/L			11/16/17 14:38	1
Vinyl acetate	<0.0020		0.0020	0.00091	mg/L			11/16/17 14:38	1
Vinyl chloride	<0.00050		0.00050	0.00020	mg/L			11/16/17 14:38	1
Xylenes, Total	<0.0010		0.0010	0.00022	mg/L			11/16/17 14:38	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	85		72 - 124		11/16/17 14:38	1
Dibromofluoromethane	88		75 - 120		11/16/17 14:38	1
1,2-Dichloroethane-d4 (Surr)	88		75 - 126		11/16/17 14:38	1
Toluene-d8 (Surr)	101		75 - 120		11/16/17 14:38	1

Definitions/Glossary

Client: Terracon Consulting Eng & Scientists
Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137077-2

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.
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.
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.
F1	MS and/or MSD Recovery is outside acceptance limits.
F3	Duplicate RPD exceeds the control limit
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.

Glossary

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

Accreditation/Certification Summary

Client: Terracon Consulting Eng & Scientists
Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137077-2

Laboratory: TestAmerica Chicago

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

Authority	Program	EPA Region	Identification Number	Expiration Date
Illinois	NELAP	5	100201	04-30-18

The following analytes are included in this report, but accreditation/certification is not offered by the governing authority:

Analysis Method	Prep Method	Matrix	Analyte
6020A	3010A	Solid	Antimony
6020A	3010A	Solid	Thallium
8260B		Water	1,3-Dichloropropene, Total
8260B	5035	Solid	1,3-Dichloropropene, Total
9045D		Solid	pH
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

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

Report To: Matt Weiss (optional)
 Contact: _____
 Company: TERRACON
 Address: 135 Ambassador Drive
Naperville, IL
 Address: _____
 Phone: _____
 Fax: _____
 E-Mail: _____

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

Chain of Custody Record

Lab Job #: 500-137077
 Chain of Custody Number: _____
 Page _____ of _____
 Temperature °C of Cooler: _____

Client		Client Project #		Preservative		Parameter										Preservative Key	
<u>VDOT-W037</u>		<u>11177029 M</u>														1. HCL, Cool to 4° 2. H2SO4, Cool to 4° 3. HNO3, Cool to 4° 4. NaOH, Cool to 4° 5. NaOH/Zn, Cool to 4° 6. NaHSO4 7. Cool to 4° 8. None 9. Other	
Project Name		Lab Project #		Sampling		Matrix										Comments	
<u>FAP 351</u>		<u>Pesa Site 60</u>		Date Time <td colspan="2"># of Containers</td> <td colspan="2"></td> <td colspan="2"></td> <td colspan="2"></td> <td colspan="2"></td> <td colspan="2"></td>		# of Containers											
Lab ID	MS/MSD	Sample ID															
7		<u>2696V-60-B01 (0-5)</u>	<u>11/9/17</u>	<u>1400</u>	<u>5</u>	<u>S</u>	<u>S</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>				
8		<u>2696V-60-B02 (0-5)</u>	<u>11/9/17</u>	<u>1415</u>	<u>5</u>	<u>S</u>	<u>S</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>				
9		<u>2696V-60-B02 (5-10)</u>	<u>11/9/17</u>	<u>1425</u>	<u>5</u>	<u>S</u>	<u>S</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>				
10		<u>2696V-60-B02 (10-15)</u>	<u>11/9/17</u>	<u>1430</u>	<u>5</u>	<u>S</u>	<u>S</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>				
11		<u>2696V-60-B02 (15-21)</u>	<u>11/9/17</u>	<u>1435</u>	<u>5</u>	<u>S</u>	<u>S</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>				

Turnaround Time Required (Business Days)

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

Sample Disposal

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

Relinquished By: <u>[Signature]</u> Company: <u>TERRACON</u> Date: <u>11/9/17</u> Time: <u>1630</u>	Received By: <u>P. Ned</u> Company: <u>TA</u> Date: <u>11/9/17</u> Time: <u>1630</u>
Relinquished By: <u>P. Ned</u> Company: <u>TA</u> Date: <u>11/9/17</u> Time: <u>1700</u>	Received By: _____ Company: _____ Date: _____ Time: _____
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

No Aluminum

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) Watt Weiss
 Contact: TERRACON
 Company: 135 Ambassador Dr
 Address: Naperville, IL
 Address:
 Phone:
 Fax:
 E-Mail:

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

Chain of Custody Record

Lab Job #: 500-137077
 Chain of Custody Number: _____
 Page _____ of _____
 Temperature °C of Cooler: _____

Client		Client Project #		Preservative		Parameter												Preservative Key	
<u>IDOT-W037</u>		<u>11177029M</u>																1. HCL, Cool to 4° 2. H2SO4, Cool to 4° 3. HNO3, Cool to 4° 4. NaOH, Cool to 4° 5. NaOH/Zn, Cool to 4° 6. NaHSO4 7. Cool to 4° 8. None 9. Other	
Project Name		Project Location/State		Lab Project #		Sampler		Lab PM											
<u>FAP 351</u>		<u>Oak Forest/Markham, IL</u>		<u>Resa Site 60</u>															
Lab ID	MS/MSD	Sample ID	Sampling		# of Containers	Matrix	VOCs	SVOCs	TOTAL 23	Inorganics	PH	TCUR 23	Inorganics	SPIT 23	Inorganics	Comments			
			Date	Time															
<u>12</u>		<u>2696V-60-901</u>	<u>11/9/17</u>	<u>1520</u>	<u>7 W</u>		X	X	X										
<u>13</u>		<u>Trip blank</u>			<u>2 W</u>		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>TERRACON</u> Date: <u>11/9/17</u> Time: <u>1630</u>	Received By: <u>P. Neal</u> Company: <u>TA</u> Date: <u>11/9/17</u> Time: <u>1630</u>
Relinquished By: <u>P. Neal</u> Company: <u>TA</u> Date: <u>11/9/17</u> Time: <u>1700</u>	Received By: _____ Company: _____ Date: _____ Time: _____
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:

No Aluminum

Lab Comments:

Login Sample Receipt Checklist

Client: Terracon Consulting Eng & Scientists

Job Number: 500-137077-2

Login Number: 137077

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	(3.7)(2.9)(3.2)(4.0)(2.0)(1.9)c
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	True	



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ANALYTICAL REPORT

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

TestAmerica Job ID: 500-137163-8
Client Project/Site: IDOT - Oak Forest/Markham - WO37

For:
Terracon Consulting Eng & Scientists
135 Ambassador Drive
Naperville, Illinois 60540

Attn: Mr. Matthew Weiss

Jodie Bracken

Authorized for release by:
11/22/2017 6:46:18 PM
Jodie Bracken, Project Management Assistant II
jodie.bracken@testamericainc.com

Designee for
Richard Wright, Senior Project Manager
(708)534-5200
richard.wright@testamericainc.com

LINKS

Review your project
results through
TotalAccess

Have a Question?



Visit us at:
www.testamericainc.com

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

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

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

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Case Narrative

Client: Terracon Consulting Eng & Scientists
Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137163-8

Job ID: 500-137163-8

Laboratory: TestAmerica Chicago

Narrative

**Job Narrative
500-137163-8**

Receipt

The samples were received on 11/10/2017 3:20 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 3.4° C and 5.0° C.

GC/MS VOA

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

GC/MS Semi VOA

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

Metals

Method(s) 6010B: The method blank for preparation batch 500-409937 and analytical batch 500-410092 contained Calcium and Magnesium above the reporting limit (RL). Associated samples 2696V-60-B03 (0-5) (500-137163-14), 2696V-60-B04 (0-5) (500-137163-15) and 2696V-60-B03 (0-5) Dup (500-137163-16) were not re-extracted and/or re-analyzed because results were greater than 10X the value found in the method blank.

Method(s) 6010B: The continuing calibration verification (CCV) associated with batch 500-410598 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: 2696V-60-B03 (0-5) (500-137163-14), 2696V-60-B04 (0-5) (500-137163-15) and 2696V-60-B03 (0-5) Dup (500-137163-16).

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: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137163-8

Client Sample ID: 2696V-60-B03 (0-5)

Lab Sample ID: 500-137163-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]anthracene	0.016	J	0.037	0.0049	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.016	J	0.037	0.0071	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.029	J	0.037	0.0079	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.022	J	0.037	0.010	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.030	J	0.037	0.0068	mg/Kg	1	☼	8270D	Total/NA
Phenanthrene	0.015	J	0.037	0.0051	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.030	J	0.037	0.0073	mg/Kg	1	☼	8270D	Total/NA
Arsenic	7.3		0.56	0.19	mg/Kg	1	☼	6010B	Total/NA
Barium	40		0.56	0.064	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.53		0.22	0.052	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.36	B	0.11	0.020	mg/Kg	1	☼	6010B	Total/NA
Chromium	12		0.56	0.28	mg/Kg	1	☼	6010B	Total/NA
Cobalt	8.6		0.28	0.074	mg/Kg	1	☼	6010B	Total/NA
Copper	21		0.56	0.16	mg/Kg	1	☼	6010B	Total/NA
Iron	16000	B	11	5.8	mg/Kg	1	☼	6010B	Total/NA
Lead	35		0.28	0.13	mg/Kg	1	☼	6010B	Total/NA
Magnesium	20000	B	5.6	2.8	mg/Kg	1	☼	6010B	Total/NA
Calcium	64000	B	110	19	mg/Kg	10	☼	6010B	Total/NA
Manganese	270	B	0.56	0.081	mg/Kg	1	☼	6010B	Total/NA
Nickel	23		0.56	0.16	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.41	J	0.56	0.33	mg/Kg	1	☼	6010B	Total/NA
Vanadium	15		0.28	0.066	mg/Kg	1	☼	6010B	Total/NA
Zinc	73		1.1	0.49	mg/Kg	1	☼	6010B	Total/NA
Potassium	1600		28	9.9	mg/Kg	1	☼	6010B	Total/NA
Sodium	430		56	8.3	mg/Kg	1	☼	6010B	Total/NA
Barium	0.35	J	0.50	0.050	mg/L	1		6010B	TCLP
Calcium	510		5.0	0.50	mg/L	1		6010B	TCLP
Copper	0.030	J B	0.040	0.010	mg/L	1		6010B	TCLP
Magnesium	110		2.5	0.50	mg/L	1		6010B	TCLP
Manganese	1.1		0.025	0.010	mg/L	1		6010B	TCLP
Potassium	2.3	J	2.5	0.50	mg/L	1		6010B	TCLP
Zinc	0.036	J B ^	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.44		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.21		0.018	0.0059	mg/Kg	1	☼	7471B	Total/NA
Cyanide, Total	0.44	J	0.56	0.19	mg/Kg	1	☼	9014	Total/NA
pH	8.7		0.20	0.20	SU	1		9045D	Total/NA

Client Sample ID: 2696V-60-B04 (0-5)

Lab Sample ID: 500-137163-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	0.015		0.015	0.0065	mg/Kg	1	☼	8260B	Total/NA
Benzo[a]anthracene	0.0085	J	0.036	0.0049	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.012	J	0.036	0.0079	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.016	J	0.036	0.0099	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.012	J	0.036	0.0067	mg/Kg	1	☼	8270D	Total/NA
Phenanthrene	0.0090	J	0.036	0.0051	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.021	J	0.036	0.0072	mg/Kg	1	☼	8270D	Total/NA
Arsenic	9.8		0.53	0.18	mg/Kg	1	☼	6010B	Total/NA
Barium	33		0.53	0.060	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.40		0.21	0.049	mg/Kg	1	☼	6010B	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137163-8

Client Sample ID: 2696V-60-B04 (0-5) (Continued)

Lab Sample ID: 500-137163-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cadmium	0.48	B	0.11	0.019	mg/Kg	1	☼	6010B	Total/NA
Chromium	8.7		0.53	0.26	mg/Kg	1	☼	6010B	Total/NA
Cobalt	11		0.26	0.069	mg/Kg	1	☼	6010B	Total/NA
Copper	20		0.53	0.15	mg/Kg	1	☼	6010B	Total/NA
Iron	17000	B	11	5.5	mg/Kg	1	☼	6010B	Total/NA
Lead	22		0.26	0.12	mg/Kg	1	☼	6010B	Total/NA
Magnesium	12000	B	5.3	2.6	mg/Kg	1	☼	6010B	Total/NA
Calcium	22000	B	11	1.8	mg/Kg	1	☼	6010B	Total/NA
Manganese	290	B	0.53	0.077	mg/Kg	1	☼	6010B	Total/NA
Nickel	24		0.53	0.15	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.73		0.53	0.31	mg/Kg	1	☼	6010B	Total/NA
Vanadium	15		0.26	0.062	mg/Kg	1	☼	6010B	Total/NA
Zinc	51		1.1	0.46	mg/Kg	1	☼	6010B	Total/NA
Potassium	920		26	9.4	mg/Kg	1	☼	6010B	Total/NA
Sodium	600		53	7.8	mg/Kg	1	☼	6010B	Total/NA
Barium	0.50		0.50	0.050	mg/L	1		6010B	TCLP
Cadmium	0.0029	J	0.0050	0.0020	mg/L	1		6010B	TCLP
Calcium	310		5.0	0.50	mg/L	1		6010B	TCLP
Cobalt	0.037		0.025	0.010	mg/L	1		6010B	TCLP
Copper	0.039	J B	0.040	0.010	mg/L	1		6010B	TCLP
Iron	0.83		0.40	0.20	mg/L	1		6010B	TCLP
Magnesium	97		2.5	0.50	mg/L	1		6010B	TCLP
Manganese	7.8		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.033		0.025	0.010	mg/L	1		6010B	TCLP
Potassium	0.94	J	2.5	0.50	mg/L	1		6010B	TCLP
Zinc	0.071	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	0.021		0.018	0.0059	mg/Kg	1	☼	7471B	Total/NA
pH	8.1		0.20	0.20	SU	1		9045D	Total/NA

Client Sample ID: 2696V-60-B03 (0-5) Dup

Lab Sample ID: 500-137163-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	0.024		0.017	0.0072	mg/Kg	1	☼	8260B	Total/NA
Benzo[a]anthracene	0.0081	J	0.037	0.0051	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.012	J	0.037	0.0073	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.016	J	0.037	0.0081	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.012	J	0.037	0.010	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.016	J	0.037	0.0070	mg/Kg	1	☼	8270D	Total/NA
Phenanthrene	0.013	J	0.037	0.0053	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.017	J	0.037	0.0075	mg/Kg	1	☼	8270D	Total/NA
Arsenic	7.8		0.58	0.20	mg/Kg	1	☼	6010B	Total/NA
Barium	61		0.58	0.066	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.49		0.23	0.054	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.25	B	0.12	0.021	mg/Kg	1	☼	6010B	Total/NA
Chromium	12		0.58	0.29	mg/Kg	1	☼	6010B	Total/NA
Cobalt	10		0.29	0.076	mg/Kg	1	☼	6010B	Total/NA
Copper	23		0.58	0.16	mg/Kg	1	☼	6010B	Total/NA
Iron	17000	B	12	6.0	mg/Kg	1	☼	6010B	Total/NA
Lead	25		0.29	0.13	mg/Kg	1	☼	6010B	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137163-8

Client Sample ID: 2696V-60-B03 (0-5) Dup (Continued)

Lab Sample ID: 500-137163-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Magnesium	16000	B	5.8	2.9	mg/Kg	1	☼	6010B	Total/NA
Calcium	30000	B	12	2.0	mg/Kg	1	☼	6010B	Total/NA
Manganese	310	B	0.58	0.084	mg/Kg	1	☼	6010B	Total/NA
Nickel	24		0.58	0.17	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.92		0.58	0.34	mg/Kg	1	☼	6010B	Total/NA
Thallium	0.30	J	0.58	0.29	mg/Kg	1	☼	6010B	Total/NA
Vanadium	15		0.29	0.068	mg/Kg	1	☼	6010B	Total/NA
Zinc	67		1.2	0.51	mg/Kg	1	☼	6010B	Total/NA
Potassium	1500		29	10	mg/Kg	1	☼	6010B	Total/NA
Sodium	410		58	8.5	mg/Kg	1	☼	6010B	Total/NA
Barium	0.87		0.50	0.050	mg/L	1		6010B	TCLP
Cadmium	0.0022	J	0.0050	0.0020	mg/L	1		6010B	TCLP
Calcium	440		5.0	0.50	mg/L	1		6010B	TCLP
Cobalt	0.024	J	0.025	0.010	mg/L	1		6010B	TCLP
Copper	0.021	J B	0.040	0.010	mg/L	1		6010B	TCLP
Lead	0.0089		0.0075	0.0075	mg/L	1		6010B	TCLP
Magnesium	99		2.5	0.50	mg/L	1		6010B	TCLP
Manganese	6.9		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.021	J	0.025	0.010	mg/L	1		6010B	TCLP
Potassium	2.9		2.5	0.50	mg/L	1		6010B	TCLP
Zinc	0.079	J B ^	0.50	0.020	mg/L	1		6010B	TCLP
Lead	0.11		0.0075	0.0075	mg/L	1		6010B	SPLP East
Manganese	0.50		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.039		0.018	0.0058	mg/Kg	1	☼	7471B	Total/NA
pH	8.2		0.20	0.20	SU	1		9045D	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Sample Summary

Client: Terracon Consulting Eng & Scientists
Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137163-8

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-137163-14	2696V-60-B03 (0-5)	Solid	11/10/17 09:15	11/10/17 15:20
500-137163-15	2696V-60-B04 (0-5)	Solid	11/10/17 09:30	11/10/17 15:20
500-137163-16	2696V-60-B03 (0-5) Dup	Solid	11/10/17 09:15	11/10/17 15:20

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Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137163-8

Client Sample ID: 2696V-60-B03 (0-5)

Lab Sample ID: 500-137163-14

Date Collected: 11/10/17 09:15

Matrix: Solid

Date Received: 11/10/17 15:20

Percent Solids: 85.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.016		0.016	0.0068	mg/Kg	☼	11/11/17 14:00	11/16/17 20:43	1
Benzene	<0.0016		0.0016	0.00040	mg/Kg	☼	11/11/17 14:00	11/16/17 20:43	1
Bromodichloromethane	<0.0016		0.0016	0.00032	mg/Kg	☼	11/11/17 14:00	11/16/17 20:43	1
Bromoform	<0.0016		0.0016	0.00045	mg/Kg	☼	11/11/17 14:00	11/16/17 20:43	1
Bromomethane	<0.0039		0.0039	0.0015	mg/Kg	☼	11/11/17 14:00	11/16/17 20:43	1
2-Butanone (MEK)	<0.0039		0.0039	0.0017	mg/Kg	☼	11/11/17 14:00	11/16/17 20:43	1
Carbon disulfide	<0.0039		0.0039	0.00081	mg/Kg	☼	11/11/17 14:00	11/16/17 20:43	1
Carbon tetrachloride	<0.0016		0.0016	0.00045	mg/Kg	☼	11/11/17 14:00	11/16/17 20:43	1
Chlorobenzene	<0.0016		0.0016	0.00057	mg/Kg	☼	11/11/17 14:00	11/16/17 20:43	1
Chloroethane	<0.0039		0.0039	0.0012	mg/Kg	☼	11/11/17 14:00	11/16/17 20:43	1
Chloroform	<0.0016		0.0016	0.00054	mg/Kg	☼	11/11/17 14:00	11/16/17 20:43	1
Chloromethane	<0.0039		0.0039	0.0016	mg/Kg	☼	11/11/17 14:00	11/16/17 20:43	1
cis-1,2-Dichloroethene	<0.0016		0.0016	0.00044	mg/Kg	☼	11/11/17 14:00	11/16/17 20:43	1
cis-1,3-Dichloropropene	<0.0016		0.0016	0.00047	mg/Kg	☼	11/11/17 14:00	11/16/17 20:43	1
Dibromochloromethane	<0.0016		0.0016	0.00051	mg/Kg	☼	11/11/17 14:00	11/16/17 20:43	1
1,1-Dichloroethane	<0.0016		0.0016	0.00053	mg/Kg	☼	11/11/17 14:00	11/16/17 20:43	1
1,2-Dichloroethane	<0.0039		0.0039	0.0012	mg/Kg	☼	11/11/17 14:00	11/16/17 20:43	1
1,1-Dichloroethene	<0.0016		0.0016	0.00054	mg/Kg	☼	11/11/17 14:00	11/16/17 20:43	1
1,2-Dichloropropane	<0.0016		0.0016	0.00040	mg/Kg	☼	11/11/17 14:00	11/16/17 20:43	1
1,3-Dichloropropane, Total	<0.0016		0.0016	0.00055	mg/Kg	☼	11/11/17 14:00	11/16/17 20:43	1
Ethylbenzene	<0.0016		0.0016	0.00075	mg/Kg	☼	11/11/17 14:00	11/16/17 20:43	1
2-Hexanone	<0.0039		0.0039	0.0012	mg/Kg	☼	11/11/17 14:00	11/16/17 20:43	1
Methylene Chloride	<0.0039		0.0039	0.0015	mg/Kg	☼	11/11/17 14:00	11/16/17 20:43	1
4-Methyl-2-pentanone (MIBK)	<0.0039		0.0039	0.0012	mg/Kg	☼	11/11/17 14:00	11/16/17 20:43	1
Methyl tert-butyl ether	<0.0016		0.0016	0.00046	mg/Kg	☼	11/11/17 14:00	11/16/17 20:43	1
Styrene	<0.0016		0.0016	0.00047	mg/Kg	☼	11/11/17 14:00	11/16/17 20:43	1
1,1,2,2-Tetrachloroethane	<0.0016		0.0016	0.00050	mg/Kg	☼	11/11/17 14:00	11/16/17 20:43	1
Tetrachloroethene	<0.0016		0.0016	0.00053	mg/Kg	☼	11/11/17 14:00	11/16/17 20:43	1
Toluene	<0.0016		0.0016	0.00039	mg/Kg	☼	11/11/17 14:00	11/16/17 20:43	1
trans-1,2-Dichloroethene	<0.0016		0.0016	0.00069	mg/Kg	☼	11/11/17 14:00	11/16/17 20:43	1
trans-1,3-Dichloropropene	<0.0016		0.0016	0.00055	mg/Kg	☼	11/11/17 14:00	11/16/17 20:43	1
1,1,1-Trichloroethane	<0.0016		0.0016	0.00052	mg/Kg	☼	11/11/17 14:00	11/16/17 20:43	1
1,1,2-Trichloroethane	<0.0016		0.0016	0.00067	mg/Kg	☼	11/11/17 14:00	11/16/17 20:43	1
Trichloroethene	<0.0016		0.0016	0.00053	mg/Kg	☼	11/11/17 14:00	11/16/17 20:43	1
Vinyl acetate	<0.0039		0.0039	0.0014	mg/Kg	☼	11/11/17 14:00	11/16/17 20:43	1
Vinyl chloride	<0.0016		0.0016	0.00069	mg/Kg	☼	11/11/17 14:00	11/16/17 20:43	1
Xylenes, Total	<0.0031		0.0031	0.00050	mg/Kg	☼	11/11/17 14:00	11/16/17 20:43	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	92		75 - 131	11/11/17 14:00	11/16/17 20:43	1
Dibromofluoromethane	99		75 - 126	11/11/17 14:00	11/16/17 20:43	1
1,2-Dichloroethane-d4 (Surr)	95		70 - 134	11/11/17 14:00	11/16/17 20:43	1
Toluene-d8 (Surr)	98		75 - 124	11/11/17 14:00	11/16/17 20:43	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.037		0.037	0.0066	mg/Kg	☼	11/17/17 07:31	11/20/17 18:15	1
Acenaphthylene	<0.037		0.037	0.0048	mg/Kg	☼	11/17/17 07:31	11/20/17 18:15	1
Anthracene	<0.037		0.037	0.0061	mg/Kg	☼	11/17/17 07:31	11/20/17 18:15	1
Benzo[a]anthracene	0.016	J	0.037	0.0049	mg/Kg	☼	11/17/17 07:31	11/20/17 18:15	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137163-8

Client Sample ID: 2696V-60-B03 (0-5)

Lab Sample ID: 500-137163-14

Date Collected: 11/10/17 09:15

Matrix: Solid

Date Received: 11/10/17 15:20

Percent Solids: 85.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	0.016	J	0.037	0.0071	mg/Kg	☼	11/17/17 07:31	11/20/17 18:15	1
Benzo[b]fluoranthene	0.029	J	0.037	0.0079	mg/Kg	☼	11/17/17 07:31	11/20/17 18:15	1
Benzo[g,h,i]perylene	<0.037		0.037	0.012	mg/Kg	☼	11/17/17 07:31	11/20/17 18:15	1
Benzo[k]fluoranthene	<0.037		0.037	0.011	mg/Kg	☼	11/17/17 07:31	11/20/17 18:15	1
Bis(2-chloroethoxy)methane	<0.18		0.18	0.038	mg/Kg	☼	11/17/17 07:31	11/20/17 18:15	1
Bis(2-chloroethyl)ether	<0.18		0.18	0.055	mg/Kg	☼	11/17/17 07:31	11/20/17 18:15	1
Bis(2-ethylhexyl) phthalate	<0.18		0.18	0.067	mg/Kg	☼	11/17/17 07:31	11/20/17 18:15	1
4-Bromophenyl phenyl ether	<0.18		0.18	0.048	mg/Kg	☼	11/17/17 07:31	11/20/17 18:15	1
Butyl benzyl phthalate	<0.18		0.18	0.070	mg/Kg	☼	11/17/17 07:31	11/20/17 18:15	1
Carbazole	<0.18		0.18	0.092	mg/Kg	☼	11/17/17 07:31	11/20/17 18:15	1
4-Chloroaniline	<0.74		0.74	0.17	mg/Kg	☼	11/17/17 07:31	11/20/17 18:15	1
4-Chloro-3-methylphenol	<0.37		0.37	0.13	mg/Kg	☼	11/17/17 07:31	11/20/17 18:15	1
2-Chloronaphthalene	<0.18		0.18	0.041	mg/Kg	☼	11/17/17 07:31	11/20/17 18:15	1
2-Chlorophenol	<0.18		0.18	0.063	mg/Kg	☼	11/17/17 07:31	11/20/17 18:15	1
4-Chlorophenyl phenyl ether	<0.18		0.18	0.043	mg/Kg	☼	11/17/17 07:31	11/20/17 18:15	1
Chrysene	0.022	J	0.037	0.010	mg/Kg	☼	11/17/17 07:31	11/20/17 18:15	1
Dibenz(a,h)anthracene	<0.037		0.037	0.0071	mg/Kg	☼	11/17/17 07:31	11/20/17 18:15	1
Dibenzofuran	<0.18		0.18	0.043	mg/Kg	☼	11/17/17 07:31	11/20/17 18:15	1
1,2-Dichlorobenzene	<0.18		0.18	0.044	mg/Kg	☼	11/17/17 07:31	11/20/17 18:15	1
1,3-Dichlorobenzene	<0.18		0.18	0.041	mg/Kg	☼	11/17/17 07:31	11/20/17 18:15	1
1,4-Dichlorobenzene	<0.18		0.18	0.047	mg/Kg	☼	11/17/17 07:31	11/20/17 18:15	1
3,3'-Dichlorobenzidine	<0.18		0.18	0.051	mg/Kg	☼	11/17/17 07:31	11/20/17 18:15	1
2,4-Dichlorophenol	<0.37		0.37	0.087	mg/Kg	☼	11/17/17 07:31	11/20/17 18:15	1
Diethyl phthalate	<0.18		0.18	0.062	mg/Kg	☼	11/17/17 07:31	11/20/17 18:15	1
2,4-Dimethylphenol	<0.37		0.37	0.14	mg/Kg	☼	11/17/17 07:31	11/20/17 18:15	1
Dimethyl phthalate	<0.18		0.18	0.048	mg/Kg	☼	11/17/17 07:31	11/20/17 18:15	1
Di-n-butyl phthalate	<0.18		0.18	0.056	mg/Kg	☼	11/17/17 07:31	11/20/17 18:15	1
4,6-Dinitro-2-methylphenol	<0.74		0.74	0.30	mg/Kg	☼	11/17/17 07:31	11/20/17 18:15	1
2,4-Dinitrophenol	<0.74		0.74	0.65	mg/Kg	☼	11/17/17 07:31	11/20/17 18:15	1
2,4-Dinitrotoluene	<0.18		0.18	0.058	mg/Kg	☼	11/17/17 07:31	11/20/17 18:15	1
2,6-Dinitrotoluene	<0.18		0.18	0.072	mg/Kg	☼	11/17/17 07:31	11/20/17 18:15	1
Di-n-octyl phthalate	<0.18		0.18	0.060	mg/Kg	☼	11/17/17 07:31	11/20/17 18:15	1
Fluoranthene	0.030	J	0.037	0.0068	mg/Kg	☼	11/17/17 07:31	11/20/17 18:15	1
Fluorene	<0.037		0.037	0.0052	mg/Kg	☼	11/17/17 07:31	11/20/17 18:15	1
Hexachlorobenzene	<0.074		0.074	0.0085	mg/Kg	☼	11/17/17 07:31	11/20/17 18:15	1
Hexachlorobutadiene	<0.18		0.18	0.058	mg/Kg	☼	11/17/17 07:31	11/20/17 18:15	1
Hexachlorocyclopentadiene	<0.74		0.74	0.21	mg/Kg	☼	11/17/17 07:31	11/20/17 18:15	1
Hexachloroethane	<0.18		0.18	0.056	mg/Kg	☼	11/17/17 07:31	11/20/17 18:15	1
Indeno[1,2,3-cd]pyrene	<0.037		0.037	0.0095	mg/Kg	☼	11/17/17 07:31	11/20/17 18:15	1
Isophorone	<0.18		0.18	0.041	mg/Kg	☼	11/17/17 07:31	11/20/17 18:15	1
2-Methylnaphthalene	<0.074		0.074	0.0068	mg/Kg	☼	11/17/17 07:31	11/20/17 18:15	1
2-Methylphenol	<0.18		0.18	0.059	mg/Kg	☼	11/17/17 07:31	11/20/17 18:15	1
3 & 4 Methylphenol	<0.18		0.18	0.061	mg/Kg	☼	11/17/17 07:31	11/20/17 18:15	1
Naphthalene	<0.037		0.037	0.0057	mg/Kg	☼	11/17/17 07:31	11/20/17 18:15	1
2-Nitroaniline	<0.18		0.18	0.049	mg/Kg	☼	11/17/17 07:31	11/20/17 18:15	1
3-Nitroaniline	<0.37		0.37	0.11	mg/Kg	☼	11/17/17 07:31	11/20/17 18:15	1
4-Nitroaniline	<0.37		0.37	0.15	mg/Kg	☼	11/17/17 07:31	11/20/17 18:15	1
Nitrobenzene	<0.037		0.037	0.0092	mg/Kg	☼	11/17/17 07:31	11/20/17 18:15	1
2-Nitrophenol	<0.37		0.37	0.087	mg/Kg	☼	11/17/17 07:31	11/20/17 18:15	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137163-8

Client Sample ID: 2696V-60-B03 (0-5)

Lab Sample ID: 500-137163-14

Date Collected: 11/10/17 09:15

Matrix: Solid

Date Received: 11/10/17 15:20

Percent Solids: 85.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Nitrophenol	<0.74		0.74	0.35	mg/Kg	☼	11/17/17 07:31	11/20/17 18:15	1
N-Nitrosodi-n-propylamine	<0.074		0.074	0.045	mg/Kg	☼	11/17/17 07:31	11/20/17 18:15	1
N-Nitrosodiphenylamine	<0.18		0.18	0.043	mg/Kg	☼	11/17/17 07:31	11/20/17 18:15	1
2,2'-oxybis[1-chloropropane]	<0.18		0.18	0.043	mg/Kg	☼	11/17/17 07:31	11/20/17 18:15	1
Pentachlorophenol	<0.74		0.74	0.59	mg/Kg	☼	11/17/17 07:31	11/20/17 18:15	1
Phenanthrene	0.015	J	0.037	0.0051	mg/Kg	☼	11/17/17 07:31	11/20/17 18:15	1
Phenol	<0.18		0.18	0.082	mg/Kg	☼	11/17/17 07:31	11/20/17 18:15	1
Pyrene	0.030	J	0.037	0.0073	mg/Kg	☼	11/17/17 07:31	11/20/17 18:15	1
1,2,4-Trichlorobenzene	<0.18		0.18	0.040	mg/Kg	☼	11/17/17 07:31	11/20/17 18:15	1
2,4,5-Trichlorophenol	<0.37		0.37	0.084	mg/Kg	☼	11/17/17 07:31	11/20/17 18:15	1
2,4,6-Trichlorophenol	<0.37		0.37	0.13	mg/Kg	☼	11/17/17 07:31	11/20/17 18:15	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	98		44 - 121	11/17/17 07:31	11/20/17 18:15	1
2-Fluorophenol	101		46 - 133	11/17/17 07:31	11/20/17 18:15	1
Nitrobenzene-d5	98		41 - 120	11/17/17 07:31	11/20/17 18:15	1
Phenol-d5	103		46 - 125	11/17/17 07:31	11/20/17 18:15	1
Terphenyl-d14	106		35 - 160	11/17/17 07:31	11/20/17 18:15	1
2,4,6-Tribromophenol	39		25 - 139	11/17/17 07:31	11/20/17 18:15	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.1		1.1	0.22	mg/Kg	☼	11/14/17 16:15	11/15/17 13:59	1
Arsenic	7.3		0.56	0.19	mg/Kg	☼	11/14/17 16:15	11/15/17 13:59	1
Barium	40		0.56	0.064	mg/Kg	☼	11/14/17 16:15	11/15/17 13:59	1
Beryllium	0.53		0.22	0.052	mg/Kg	☼	11/14/17 16:15	11/15/17 13:59	1
Cadmium	0.36	B	0.11	0.020	mg/Kg	☼	11/14/17 16:15	11/15/17 13:59	1
Chromium	12		0.56	0.28	mg/Kg	☼	11/14/17 16:15	11/15/17 13:59	1
Cobalt	8.6		0.28	0.074	mg/Kg	☼	11/14/17 16:15	11/15/17 13:59	1
Copper	21		0.56	0.16	mg/Kg	☼	11/14/17 16:15	11/15/17 13:59	1
Iron	16000	B	11	5.8	mg/Kg	☼	11/14/17 16:15	11/15/17 13:59	1
Lead	35		0.28	0.13	mg/Kg	☼	11/14/17 16:15	11/15/17 13:59	1
Magnesium	20000	B	5.6	2.8	mg/Kg	☼	11/14/17 16:15	11/15/17 13:59	1
Calcium	64000	B	110	19	mg/Kg	☼	11/14/17 16:15	11/15/17 21:01	10
Manganese	270	B	0.56	0.081	mg/Kg	☼	11/14/17 16:15	11/15/17 13:59	1
Nickel	23		0.56	0.16	mg/Kg	☼	11/14/17 16:15	11/15/17 13:59	1
Selenium	0.41	J	0.56	0.33	mg/Kg	☼	11/14/17 16:15	11/15/17 13:59	1
Silver	<0.28		0.28	0.072	mg/Kg	☼	11/14/17 16:15	11/15/17 13:59	1
Thallium	<0.56		0.56	0.28	mg/Kg	☼	11/14/17 16:15	11/15/17 13:59	1
Vanadium	15		0.28	0.066	mg/Kg	☼	11/14/17 16:15	11/15/17 13:59	1
Zinc	73		1.1	0.49	mg/Kg	☼	11/14/17 16:15	11/15/17 13:59	1
Potassium	1600		28	9.9	mg/Kg	☼	11/14/17 16:15	11/15/17 13:59	1
Sodium	430		56	8.3	mg/Kg	☼	11/14/17 16:15	11/15/17 13:59	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.050		0.050	0.010	mg/L		11/17/17 09:02	11/17/17 17:43	1
Barium	0.35	J	0.50	0.050	mg/L		11/17/17 09:02	11/17/17 17:43	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		11/17/17 09:02	11/17/17 17:43	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		11/17/17 09:02	11/17/17 17:43	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137163-8

Client Sample ID: 2696V-60-B03 (0-5)

Lab Sample ID: 500-137163-14

Date Collected: 11/10/17 09:15

Matrix: Solid

Date Received: 11/10/17 15:20

Percent Solids: 85.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	510		5.0	0.50	mg/L		11/17/17 09:02	11/17/17 17:43	1
Chromium	<0.025		0.025	0.010	mg/L		11/17/17 09:02	11/17/17 17:43	1
Cobalt	<0.025		0.025	0.010	mg/L		11/17/17 09:02	11/17/17 17:43	1
Copper	0.030	J B	0.040	0.010	mg/L		11/17/17 09:02	11/17/17 17:43	1
Iron	<0.40		0.40	0.20	mg/L		11/17/17 09:02	11/17/17 17:43	1
Lead	<0.0075		0.0075	0.0075	mg/L		11/17/17 09:02	11/17/17 17:43	1
Magnesium	110		2.5	0.50	mg/L		11/17/17 09:02	11/17/17 17:43	1
Manganese	1.1		0.025	0.010	mg/L		11/17/17 09:02	11/17/17 17:43	1
Nickel	<0.025		0.025	0.010	mg/L		11/17/17 09:02	11/17/17 17:43	1
Potassium	2.3	J	2.5	0.50	mg/L		11/17/17 09:02	11/17/17 17:43	1
Selenium	<0.050		0.050	0.020	mg/L		11/17/17 09:02	11/17/17 17:43	1
Silver	<0.025		0.025	0.010	mg/L		11/17/17 09:02	11/17/17 17:43	1
Vanadium	<0.025		0.025	0.010	mg/L		11/17/17 09:02	11/17/17 17:43	1
Zinc	0.036	J B ^	0.50	0.020	mg/L		11/17/17 09:02	11/17/17 17:43	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.44		0.025	0.010	mg/L		11/20/17 07:21	11/20/17 21:03	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		11/17/17 09:02	11/18/17 04:41	1
Thallium	<0.0020		0.0020	0.0020	mg/L		11/17/17 09:02	11/18/17 04:41	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		11/18/17 14:00	11/20/17 09:30	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.21		0.018	0.0059	mg/Kg	☼	11/20/17 07:30	11/20/17 15:06	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.44	J	0.56	0.19	mg/Kg	☼	11/21/17 13:15	11/21/17 16:36	1
pH	8.7		0.20	0.20	SU			11/20/17 11:00	1

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137163-8

Client Sample ID: 2696V-60-B04 (0-5)

Lab Sample ID: 500-137163-15

Date Collected: 11/10/17 09:30

Matrix: Solid

Date Received: 11/10/17 15:20

Percent Solids: 85.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	0.015		0.015	0.0065	mg/Kg	☼	11/11/17 14:00	11/16/17 23:56	1
Benzene	<0.0015		0.0015	0.00038	mg/Kg	☼	11/11/17 14:00	11/16/17 23:56	1
Bromodichloromethane	<0.0015		0.0015	0.00030	mg/Kg	☼	11/11/17 14:00	11/16/17 23:56	1
Bromoform	<0.0015		0.0015	0.00043	mg/Kg	☼	11/11/17 14:00	11/16/17 23:56	1
Bromomethane	<0.0037		0.0037	0.0014	mg/Kg	☼	11/11/17 14:00	11/16/17 23:56	1
2-Butanone (MEK)	<0.0037		0.0037	0.0016	mg/Kg	☼	11/11/17 14:00	11/16/17 23:56	1
Carbon disulfide	<0.0037		0.0037	0.00077	mg/Kg	☼	11/11/17 14:00	11/16/17 23:56	1
Carbon tetrachloride	<0.0015		0.0015	0.00043	mg/Kg	☼	11/11/17 14:00	11/16/17 23:56	1
Chlorobenzene	<0.0015		0.0015	0.00055	mg/Kg	☼	11/11/17 14:00	11/16/17 23:56	1
Chloroethane	<0.0037		0.0037	0.0011	mg/Kg	☼	11/11/17 14:00	11/16/17 23:56	1
Chloroform	<0.0015		0.0015	0.00052	mg/Kg	☼	11/11/17 14:00	11/16/17 23:56	1
Chloromethane	<0.0037		0.0037	0.0015	mg/Kg	☼	11/11/17 14:00	11/16/17 23:56	1
cis-1,2-Dichloroethene	<0.0015		0.0015	0.00042	mg/Kg	☼	11/11/17 14:00	11/16/17 23:56	1
cis-1,3-Dichloropropene	<0.0015		0.0015	0.00045	mg/Kg	☼	11/11/17 14:00	11/16/17 23:56	1
Dibromochloromethane	<0.0015		0.0015	0.00049	mg/Kg	☼	11/11/17 14:00	11/16/17 23:56	1
1,1-Dichloroethane	<0.0015		0.0015	0.00051	mg/Kg	☼	11/11/17 14:00	11/16/17 23:56	1
1,2-Dichloroethane	<0.0037		0.0037	0.0012	mg/Kg	☼	11/11/17 14:00	11/16/17 23:56	1
1,1-Dichloroethene	<0.0015		0.0015	0.00051	mg/Kg	☼	11/11/17 14:00	11/16/17 23:56	1
1,2-Dichloropropane	<0.0015		0.0015	0.00038	mg/Kg	☼	11/11/17 14:00	11/16/17 23:56	1
1,3-Dichloropropane, Total	<0.0015		0.0015	0.00052	mg/Kg	☼	11/11/17 14:00	11/16/17 23:56	1
Ethylbenzene	<0.0015		0.0015	0.00071	mg/Kg	☼	11/11/17 14:00	11/16/17 23:56	1
2-Hexanone	<0.0037		0.0037	0.0012	mg/Kg	☼	11/11/17 14:00	11/16/17 23:56	1
Methylene Chloride	<0.0037		0.0037	0.0015	mg/Kg	☼	11/11/17 14:00	11/16/17 23:56	1
4-Methyl-2-pentanone (MIBK)	<0.0037		0.0037	0.0011	mg/Kg	☼	11/11/17 14:00	11/16/17 23:56	1
Methyl tert-butyl ether	<0.0015		0.0015	0.00044	mg/Kg	☼	11/11/17 14:00	11/16/17 23:56	1
Styrene	<0.0015		0.0015	0.00045	mg/Kg	☼	11/11/17 14:00	11/16/17 23:56	1
1,1,2,2-Tetrachloroethane	<0.0015		0.0015	0.00047	mg/Kg	☼	11/11/17 14:00	11/16/17 23:56	1
Tetrachloroethene	<0.0015		0.0015	0.00051	mg/Kg	☼	11/11/17 14:00	11/16/17 23:56	1
Toluene	<0.0015		0.0015	0.00038	mg/Kg	☼	11/11/17 14:00	11/16/17 23:56	1
trans-1,2-Dichloroethene	<0.0015		0.0015	0.00066	mg/Kg	☼	11/11/17 14:00	11/16/17 23:56	1
trans-1,3-Dichloropropene	<0.0015		0.0015	0.00052	mg/Kg	☼	11/11/17 14:00	11/16/17 23:56	1
1,1,1-Trichloroethane	<0.0015		0.0015	0.00050	mg/Kg	☼	11/11/17 14:00	11/16/17 23:56	1
1,1,2-Trichloroethane	<0.0015		0.0015	0.00064	mg/Kg	☼	11/11/17 14:00	11/16/17 23:56	1
Trichloroethene	<0.0015		0.0015	0.00050	mg/Kg	☼	11/11/17 14:00	11/16/17 23:56	1
Vinyl acetate	<0.0037		0.0037	0.0013	mg/Kg	☼	11/11/17 14:00	11/16/17 23:56	1
Vinyl chloride	<0.0015		0.0015	0.00066	mg/Kg	☼	11/11/17 14:00	11/16/17 23:56	1
Xylenes, Total	<0.0030		0.0030	0.00048	mg/Kg	☼	11/11/17 14:00	11/16/17 23:56	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	83		75 - 131	11/11/17 14:00	11/16/17 23:56	1
Dibromofluoromethane	99		75 - 126	11/11/17 14:00	11/16/17 23:56	1
1,2-Dichloroethane-d4 (Surr)	95		70 - 134	11/11/17 14:00	11/16/17 23:56	1
Toluene-d8 (Surr)	102		75 - 124	11/11/17 14:00	11/16/17 23:56	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.036		0.036	0.0065	mg/Kg	☼	11/17/17 07:31	11/20/17 18:39	1
Acenaphthylene	<0.036		0.036	0.0048	mg/Kg	☼	11/17/17 07:31	11/20/17 18:39	1
Anthracene	<0.036		0.036	0.0061	mg/Kg	☼	11/17/17 07:31	11/20/17 18:39	1
Benzo[a]anthracene	0.0085	J	0.036	0.0049	mg/Kg	☼	11/17/17 07:31	11/20/17 18:39	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137163-8

Client Sample ID: 2696V-60-B04 (0-5)

Lab Sample ID: 500-137163-15

Date Collected: 11/10/17 09:30

Matrix: Solid

Date Received: 11/10/17 15:20

Percent Solids: 85.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	<0.036		0.036	0.0070	mg/Kg	☼	11/17/17 07:31	11/20/17 18:39	1
Benzo[b]fluoranthene	0.012	J	0.036	0.0079	mg/Kg	☼	11/17/17 07:31	11/20/17 18:39	1
Benzo[g,h,i]perylene	<0.036		0.036	0.012	mg/Kg	☼	11/17/17 07:31	11/20/17 18:39	1
Benzo[k]fluoranthene	<0.036		0.036	0.011	mg/Kg	☼	11/17/17 07:31	11/20/17 18:39	1
Bis(2-chloroethoxy)methane	<0.18		0.18	0.037	mg/Kg	☼	11/17/17 07:31	11/20/17 18:39	1
Bis(2-chloroethyl)ether	<0.18		0.18	0.055	mg/Kg	☼	11/17/17 07:31	11/20/17 18:39	1
Bis(2-ethylhexyl) phthalate	<0.18		0.18	0.066	mg/Kg	☼	11/17/17 07:31	11/20/17 18:39	1
4-Bromophenyl phenyl ether	<0.18		0.18	0.048	mg/Kg	☼	11/17/17 07:31	11/20/17 18:39	1
Butyl benzyl phthalate	<0.18		0.18	0.069	mg/Kg	☼	11/17/17 07:31	11/20/17 18:39	1
Carbazole	<0.18		0.18	0.091	mg/Kg	☼	11/17/17 07:31	11/20/17 18:39	1
4-Chloroaniline	<0.73		0.73	0.17	mg/Kg	☼	11/17/17 07:31	11/20/17 18:39	1
4-Chloro-3-methylphenol	<0.36		0.36	0.12	mg/Kg	☼	11/17/17 07:31	11/20/17 18:39	1
2-Chloronaphthalene	<0.18		0.18	0.040	mg/Kg	☼	11/17/17 07:31	11/20/17 18:39	1
2-Chlorophenol	<0.18		0.18	0.062	mg/Kg	☼	11/17/17 07:31	11/20/17 18:39	1
4-Chlorophenyl phenyl ether	<0.18		0.18	0.043	mg/Kg	☼	11/17/17 07:31	11/20/17 18:39	1
Chrysene	0.016	J	0.036	0.0099	mg/Kg	☼	11/17/17 07:31	11/20/17 18:39	1
Dibenz(a,h)anthracene	<0.036		0.036	0.0070	mg/Kg	☼	11/17/17 07:31	11/20/17 18:39	1
Dibenzofuran	<0.18		0.18	0.043	mg/Kg	☼	11/17/17 07:31	11/20/17 18:39	1
1,2-Dichlorobenzene	<0.18		0.18	0.043	mg/Kg	☼	11/17/17 07:31	11/20/17 18:39	1
1,3-Dichlorobenzene	<0.18		0.18	0.041	mg/Kg	☼	11/17/17 07:31	11/20/17 18:39	1
1,4-Dichlorobenzene	<0.18		0.18	0.047	mg/Kg	☼	11/17/17 07:31	11/20/17 18:39	1
3,3'-Dichlorobenzidine	<0.18		0.18	0.051	mg/Kg	☼	11/17/17 07:31	11/20/17 18:39	1
2,4-Dichlorophenol	<0.36		0.36	0.086	mg/Kg	☼	11/17/17 07:31	11/20/17 18:39	1
Diethyl phthalate	<0.18		0.18	0.062	mg/Kg	☼	11/17/17 07:31	11/20/17 18:39	1
2,4-Dimethylphenol	<0.36		0.36	0.14	mg/Kg	☼	11/17/17 07:31	11/20/17 18:39	1
Dimethyl phthalate	<0.18		0.18	0.048	mg/Kg	☼	11/17/17 07:31	11/20/17 18:39	1
Di-n-butyl phthalate	<0.18		0.18	0.055	mg/Kg	☼	11/17/17 07:31	11/20/17 18:39	1
4,6-Dinitro-2-methylphenol	<0.73		0.73	0.29	mg/Kg	☼	11/17/17 07:31	11/20/17 18:39	1
2,4-Dinitrophenol	<0.73		0.73	0.64	mg/Kg	☼	11/17/17 07:31	11/20/17 18:39	1
2,4-Dinitrotoluene	<0.18		0.18	0.058	mg/Kg	☼	11/17/17 07:31	11/20/17 18:39	1
2,6-Dinitrotoluene	<0.18		0.18	0.072	mg/Kg	☼	11/17/17 07:31	11/20/17 18:39	1
Di-n-octyl phthalate	<0.18		0.18	0.059	mg/Kg	☼	11/17/17 07:31	11/20/17 18:39	1
Fluoranthene	0.012	J	0.036	0.0067	mg/Kg	☼	11/17/17 07:31	11/20/17 18:39	1
Fluorene	<0.036		0.036	0.0051	mg/Kg	☼	11/17/17 07:31	11/20/17 18:39	1
Hexachlorobenzene	<0.073		0.073	0.0084	mg/Kg	☼	11/17/17 07:31	11/20/17 18:39	1
Hexachlorobutadiene	<0.18		0.18	0.057	mg/Kg	☼	11/17/17 07:31	11/20/17 18:39	1
Hexachlorocyclopentadiene	<0.73		0.73	0.21	mg/Kg	☼	11/17/17 07:31	11/20/17 18:39	1
Hexachloroethane	<0.18		0.18	0.055	mg/Kg	☼	11/17/17 07:31	11/20/17 18:39	1
Indeno[1,2,3-cd]pyrene	<0.036		0.036	0.0094	mg/Kg	☼	11/17/17 07:31	11/20/17 18:39	1
Isophorone	<0.18		0.18	0.041	mg/Kg	☼	11/17/17 07:31	11/20/17 18:39	1
2-Methylnaphthalene	<0.073		0.073	0.0067	mg/Kg	☼	11/17/17 07:31	11/20/17 18:39	1
2-Methylphenol	<0.18		0.18	0.058	mg/Kg	☼	11/17/17 07:31	11/20/17 18:39	1
3 & 4 Methylphenol	<0.18		0.18	0.061	mg/Kg	☼	11/17/17 07:31	11/20/17 18:39	1
Naphthalene	<0.036		0.036	0.0056	mg/Kg	☼	11/17/17 07:31	11/20/17 18:39	1
2-Nitroaniline	<0.18		0.18	0.049	mg/Kg	☼	11/17/17 07:31	11/20/17 18:39	1
3-Nitroaniline	<0.36		0.36	0.11	mg/Kg	☼	11/17/17 07:31	11/20/17 18:39	1
4-Nitroaniline	<0.36		0.36	0.15	mg/Kg	☼	11/17/17 07:31	11/20/17 18:39	1
Nitrobenzene	<0.036		0.036	0.0091	mg/Kg	☼	11/17/17 07:31	11/20/17 18:39	1
2-Nitrophenol	<0.36		0.36	0.086	mg/Kg	☼	11/17/17 07:31	11/20/17 18:39	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137163-8

Client Sample ID: 2696V-60-B04 (0-5)

Lab Sample ID: 500-137163-15

Date Collected: 11/10/17 09:30

Matrix: Solid

Date Received: 11/10/17 15:20

Percent Solids: 85.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Nitrophenol	<0.73		0.73	0.35	mg/Kg	☼	11/17/17 07:31	11/20/17 18:39	1
N-Nitrosodi-n-propylamine	<0.073		0.073	0.044	mg/Kg	☼	11/17/17 07:31	11/20/17 18:39	1
N-Nitrosodiphenylamine	<0.18		0.18	0.043	mg/Kg	☼	11/17/17 07:31	11/20/17 18:39	1
2,2'-oxybis[1-chloropropane]	<0.18		0.18	0.042	mg/Kg	☼	11/17/17 07:31	11/20/17 18:39	1
Pentachlorophenol	<0.73		0.73	0.58	mg/Kg	☼	11/17/17 07:31	11/20/17 18:39	1
Phenanthrene	0.0090	J	0.036	0.0051	mg/Kg	☼	11/17/17 07:31	11/20/17 18:39	1
Phenol	<0.18		0.18	0.081	mg/Kg	☼	11/17/17 07:31	11/20/17 18:39	1
Pyrene	0.021	J	0.036	0.0072	mg/Kg	☼	11/17/17 07:31	11/20/17 18:39	1
1,2,4-Trichlorobenzene	<0.18		0.18	0.039	mg/Kg	☼	11/17/17 07:31	11/20/17 18:39	1
2,4,5-Trichlorophenol	<0.36		0.36	0.083	mg/Kg	☼	11/17/17 07:31	11/20/17 18:39	1
2,4,6-Trichlorophenol	<0.36		0.36	0.12	mg/Kg	☼	11/17/17 07:31	11/20/17 18:39	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	99		44 - 121	11/17/17 07:31	11/20/17 18:39	1
2-Fluorophenol	103		46 - 133	11/17/17 07:31	11/20/17 18:39	1
Nitrobenzene-d5	100		41 - 120	11/17/17 07:31	11/20/17 18:39	1
Phenol-d5	106		46 - 125	11/17/17 07:31	11/20/17 18:39	1
Terphenyl-d14	107		35 - 160	11/17/17 07:31	11/20/17 18:39	1
2,4,6-Tribromophenol	75		25 - 139	11/17/17 07:31	11/20/17 18:39	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.1		1.1	0.21	mg/Kg	☼	11/14/17 16:15	11/15/17 14:03	1
Arsenic	9.8		0.53	0.18	mg/Kg	☼	11/14/17 16:15	11/15/17 14:03	1
Barium	33		0.53	0.060	mg/Kg	☼	11/14/17 16:15	11/15/17 14:03	1
Beryllium	0.40		0.21	0.049	mg/Kg	☼	11/14/17 16:15	11/15/17 14:03	1
Cadmium	0.48	B	0.11	0.019	mg/Kg	☼	11/14/17 16:15	11/15/17 14:03	1
Chromium	8.7		0.53	0.26	mg/Kg	☼	11/14/17 16:15	11/15/17 14:03	1
Cobalt	11		0.26	0.069	mg/Kg	☼	11/14/17 16:15	11/15/17 14:03	1
Copper	20		0.53	0.15	mg/Kg	☼	11/14/17 16:15	11/15/17 14:03	1
Iron	17000	B	11	5.5	mg/Kg	☼	11/14/17 16:15	11/15/17 14:03	1
Lead	22		0.26	0.12	mg/Kg	☼	11/14/17 16:15	11/15/17 14:03	1
Magnesium	12000	B	5.3	2.6	mg/Kg	☼	11/14/17 16:15	11/15/17 14:03	1
Calcium	22000	B	11	1.8	mg/Kg	☼	11/14/17 16:15	11/15/17 14:03	1
Manganese	290	B	0.53	0.077	mg/Kg	☼	11/14/17 16:15	11/15/17 14:03	1
Nickel	24		0.53	0.15	mg/Kg	☼	11/14/17 16:15	11/15/17 14:03	1
Selenium	0.73		0.53	0.31	mg/Kg	☼	11/14/17 16:15	11/15/17 14:03	1
Silver	<0.26		0.26	0.068	mg/Kg	☼	11/14/17 16:15	11/15/17 14:03	1
Thallium	<0.53		0.53	0.26	mg/Kg	☼	11/14/17 16:15	11/15/17 14:03	1
Vanadium	15		0.26	0.062	mg/Kg	☼	11/14/17 16:15	11/15/17 14:03	1
Zinc	51		1.1	0.46	mg/Kg	☼	11/14/17 16:15	11/15/17 14:03	1
Potassium	920		26	9.4	mg/Kg	☼	11/14/17 16:15	11/15/17 14:03	1
Sodium	600		53	7.8	mg/Kg	☼	11/14/17 16:15	11/15/17 14:03	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.050		0.050	0.010	mg/L		11/17/17 09:02	11/17/17 17:47	1
Barium	0.50		0.50	0.050	mg/L		11/17/17 09:02	11/17/17 17:47	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		11/17/17 09:02	11/17/17 17:47	1
Cadmium	0.0029	J	0.0050	0.0020	mg/L		11/17/17 09:02	11/17/17 17:47	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137163-8

Client Sample ID: 2696V-60-B04 (0-5)

Lab Sample ID: 500-137163-15

Date Collected: 11/10/17 09:30

Matrix: Solid

Date Received: 11/10/17 15:20

Percent Solids: 85.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	310		5.0	0.50	mg/L		11/17/17 09:02	11/17/17 17:47	1
Chromium	<0.025		0.025	0.010	mg/L		11/17/17 09:02	11/17/17 17:47	1
Cobalt	0.037		0.025	0.010	mg/L		11/17/17 09:02	11/17/17 17:47	1
Copper	0.039	J B	0.040	0.010	mg/L		11/17/17 09:02	11/17/17 17:47	1
Iron	0.83		0.40	0.20	mg/L		11/17/17 09:02	11/17/17 17:47	1
Lead	<0.0075		0.0075	0.0075	mg/L		11/17/17 09:02	11/17/17 17:47	1
Magnesium	97		2.5	0.50	mg/L		11/17/17 09:02	11/17/17 17:47	1
Manganese	7.8		0.025	0.010	mg/L		11/17/17 09:02	11/17/17 17:47	1
Nickel	0.033		0.025	0.010	mg/L		11/17/17 09:02	11/17/17 17:47	1
Potassium	0.94	J	2.5	0.50	mg/L		11/17/17 09:02	11/17/17 17:47	1
Selenium	<0.050		0.050	0.020	mg/L		11/17/17 09:02	11/17/17 17:47	1
Silver	<0.025		0.025	0.010	mg/L		11/17/17 09:02	11/17/17 17:47	1
Vanadium	<0.025		0.025	0.010	mg/L		11/17/17 09:02	11/17/17 17:47	1
Zinc	0.071	J B ^	0.50	0.020	mg/L		11/17/17 09:02	11/17/17 17:47	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		11/20/17 07:21	11/20/17 21:07	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		11/17/17 09:02	11/18/17 04:52	1
Thallium	<0.0020		0.0020	0.0020	mg/L		11/17/17 09:02	11/18/17 04:52	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		11/18/17 14:00	11/20/17 09:35	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.021		0.018	0.0059	mg/Kg	☼	11/20/17 07:30	11/20/17 15:08	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.58		0.58	0.20	mg/Kg	☼	11/21/17 13:15	11/21/17 16:36	1
pH	8.1		0.20	0.20	SU			11/20/17 11:02	1

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137163-8

Client Sample ID: 2696V-60-B03 (0-5) Dup

Lab Sample ID: 500-137163-16

Date Collected: 11/10/17 09:15

Matrix: Solid

Date Received: 11/10/17 15:20

Percent Solids: 83.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	0.024		0.017	0.0072	mg/Kg	☼	11/11/17 14:00	11/17/17 00:22	1
Benzene	<0.0017		0.0017	0.00042	mg/Kg	☼	11/11/17 14:00	11/17/17 00:22	1
Bromodichloromethane	<0.0017		0.0017	0.00034	mg/Kg	☼	11/11/17 14:00	11/17/17 00:22	1
Bromoform	<0.0017		0.0017	0.00049	mg/Kg	☼	11/11/17 14:00	11/17/17 00:22	1
Bromomethane	<0.0042		0.0042	0.0016	mg/Kg	☼	11/11/17 14:00	11/17/17 00:22	1
2-Butanone (MEK)	<0.0042		0.0042	0.0018	mg/Kg	☼	11/11/17 14:00	11/17/17 00:22	1
Carbon disulfide	<0.0042		0.0042	0.00086	mg/Kg	☼	11/11/17 14:00	11/17/17 00:22	1
Carbon tetrachloride	<0.0017		0.0017	0.00048	mg/Kg	☼	11/11/17 14:00	11/17/17 00:22	1
Chlorobenzene	<0.0017		0.0017	0.00061	mg/Kg	☼	11/11/17 14:00	11/17/17 00:22	1
Chloroethane	<0.0042		0.0042	0.0012	mg/Kg	☼	11/11/17 14:00	11/17/17 00:22	1
Chloroform	<0.0017		0.0017	0.00058	mg/Kg	☼	11/11/17 14:00	11/17/17 00:22	1
Chloromethane	<0.0042		0.0042	0.0017	mg/Kg	☼	11/11/17 14:00	11/17/17 00:22	1
cis-1,2-Dichloroethene	<0.0017		0.0017	0.00046	mg/Kg	☼	11/11/17 14:00	11/17/17 00:22	1
cis-1,3-Dichloropropene	<0.0017		0.0017	0.00050	mg/Kg	☼	11/11/17 14:00	11/17/17 00:22	1
Dibromochloromethane	<0.0017		0.0017	0.00054	mg/Kg	☼	11/11/17 14:00	11/17/17 00:22	1
1,1-Dichloroethane	<0.0017		0.0017	0.00057	mg/Kg	☼	11/11/17 14:00	11/17/17 00:22	1
1,2-Dichloroethane	<0.0042		0.0042	0.0013	mg/Kg	☼	11/11/17 14:00	11/17/17 00:22	1
1,1-Dichloroethene	<0.0017		0.0017	0.00057	mg/Kg	☼	11/11/17 14:00	11/17/17 00:22	1
1,2-Dichloropropane	<0.0017		0.0017	0.00043	mg/Kg	☼	11/11/17 14:00	11/17/17 00:22	1
1,3-Dichloropropane, Total	<0.0017		0.0017	0.00058	mg/Kg	☼	11/11/17 14:00	11/17/17 00:22	1
Ethylbenzene	<0.0017		0.0017	0.00079	mg/Kg	☼	11/11/17 14:00	11/17/17 00:22	1
2-Hexanone	<0.0042		0.0042	0.0013	mg/Kg	☼	11/11/17 14:00	11/17/17 00:22	1
Methylene Chloride	<0.0042		0.0042	0.0016	mg/Kg	☼	11/11/17 14:00	11/17/17 00:22	1
4-Methyl-2-pentanone (MIBK)	<0.0042		0.0042	0.0012	mg/Kg	☼	11/11/17 14:00	11/17/17 00:22	1
Methyl tert-butyl ether	<0.0017		0.0017	0.00049	mg/Kg	☼	11/11/17 14:00	11/17/17 00:22	1
Styrene	<0.0017		0.0017	0.00050	mg/Kg	☼	11/11/17 14:00	11/17/17 00:22	1
1,1,2,2-Tetrachloroethane	<0.0017		0.0017	0.00053	mg/Kg	☼	11/11/17 14:00	11/17/17 00:22	1
Tetrachloroethene	<0.0017		0.0017	0.00057	mg/Kg	☼	11/11/17 14:00	11/17/17 00:22	1
Toluene	<0.0017		0.0017	0.00042	mg/Kg	☼	11/11/17 14:00	11/17/17 00:22	1
trans-1,2-Dichloroethene	<0.0017		0.0017	0.00074	mg/Kg	☼	11/11/17 14:00	11/17/17 00:22	1
trans-1,3-Dichloropropene	<0.0017		0.0017	0.00058	mg/Kg	☼	11/11/17 14:00	11/17/17 00:22	1
1,1,1-Trichloroethane	<0.0017		0.0017	0.00056	mg/Kg	☼	11/11/17 14:00	11/17/17 00:22	1
1,1,2-Trichloroethane	<0.0017		0.0017	0.00071	mg/Kg	☼	11/11/17 14:00	11/17/17 00:22	1
Trichloroethene	<0.0017		0.0017	0.00056	mg/Kg	☼	11/11/17 14:00	11/17/17 00:22	1
Vinyl acetate	<0.0042		0.0042	0.0014	mg/Kg	☼	11/11/17 14:00	11/17/17 00:22	1
Vinyl chloride	<0.0017		0.0017	0.00074	mg/Kg	☼	11/11/17 14:00	11/17/17 00:22	1
Xylenes, Total	<0.0033		0.0033	0.00053	mg/Kg	☼	11/11/17 14:00	11/17/17 00:22	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	89		75 - 131	11/11/17 14:00	11/17/17 00:22	1
Dibromofluoromethane	98		75 - 126	11/11/17 14:00	11/17/17 00:22	1
1,2-Dichloroethane-d4 (Surr)	93		70 - 134	11/11/17 14:00	11/17/17 00:22	1
Toluene-d8 (Surr)	97		75 - 124	11/11/17 14:00	11/17/17 00:22	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.037		0.037	0.0068	mg/Kg	☼	11/17/17 07:31	11/20/17 19:04	1
Acenaphthylene	<0.037		0.037	0.0050	mg/Kg	☼	11/17/17 07:31	11/20/17 19:04	1
Anthracene	<0.037		0.037	0.0063	mg/Kg	☼	11/17/17 07:31	11/20/17 19:04	1
Benzo[a]anthracene	0.0081	J	0.037	0.0051	mg/Kg	☼	11/17/17 07:31	11/20/17 19:04	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137163-8

Client Sample ID: 2696V-60-B03 (0-5) Dup

Lab Sample ID: 500-137163-16

Date Collected: 11/10/17 09:15

Matrix: Solid

Date Received: 11/10/17 15:20

Percent Solids: 83.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	0.012	J	0.037	0.0073	mg/Kg	☼	11/17/17 07:31	11/20/17 19:04	1
Benzo[b]fluoranthene	0.016	J	0.037	0.0081	mg/Kg	☼	11/17/17 07:31	11/20/17 19:04	1
Benzo[g,h,i]perylene	<0.037		0.037	0.012	mg/Kg	☼	11/17/17 07:31	11/20/17 19:04	1
Benzo[k]fluoranthene	<0.037		0.037	0.011	mg/Kg	☼	11/17/17 07:31	11/20/17 19:04	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.038	mg/Kg	☼	11/17/17 07:31	11/20/17 19:04	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.056	mg/Kg	☼	11/17/17 07:31	11/20/17 19:04	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.069	mg/Kg	☼	11/17/17 07:31	11/20/17 19:04	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.050	mg/Kg	☼	11/17/17 07:31	11/20/17 19:04	1
Butyl benzyl phthalate	<0.19		0.19	0.072	mg/Kg	☼	11/17/17 07:31	11/20/17 19:04	1
Carbazole	<0.19		0.19	0.094	mg/Kg	☼	11/17/17 07:31	11/20/17 19:04	1
4-Chloroaniline	<0.76		0.76	0.18	mg/Kg	☼	11/17/17 07:31	11/20/17 19:04	1
4-Chloro-3-methylphenol	<0.37		0.37	0.13	mg/Kg	☼	11/17/17 07:31	11/20/17 19:04	1
2-Chloronaphthalene	<0.19		0.19	0.042	mg/Kg	☼	11/17/17 07:31	11/20/17 19:04	1
2-Chlorophenol	<0.19		0.19	0.064	mg/Kg	☼	11/17/17 07:31	11/20/17 19:04	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.044	mg/Kg	☼	11/17/17 07:31	11/20/17 19:04	1
Chrysene	0.012	J	0.037	0.010	mg/Kg	☼	11/17/17 07:31	11/20/17 19:04	1
Dibenz(a,h)anthracene	<0.037		0.037	0.0073	mg/Kg	☼	11/17/17 07:31	11/20/17 19:04	1
Dibenzofuran	<0.19		0.19	0.044	mg/Kg	☼	11/17/17 07:31	11/20/17 19:04	1
1,2-Dichlorobenzene	<0.19		0.19	0.045	mg/Kg	☼	11/17/17 07:31	11/20/17 19:04	1
1,3-Dichlorobenzene	<0.19		0.19	0.042	mg/Kg	☼	11/17/17 07:31	11/20/17 19:04	1
1,4-Dichlorobenzene	<0.19		0.19	0.048	mg/Kg	☼	11/17/17 07:31	11/20/17 19:04	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.053	mg/Kg	☼	11/17/17 07:31	11/20/17 19:04	1
2,4-Dichlorophenol	<0.37		0.37	0.089	mg/Kg	☼	11/17/17 07:31	11/20/17 19:04	1
Diethyl phthalate	<0.19		0.19	0.064	mg/Kg	☼	11/17/17 07:31	11/20/17 19:04	1
2,4-Dimethylphenol	<0.37		0.37	0.14	mg/Kg	☼	11/17/17 07:31	11/20/17 19:04	1
Dimethyl phthalate	<0.19		0.19	0.049	mg/Kg	☼	11/17/17 07:31	11/20/17 19:04	1
Di-n-butyl phthalate	<0.19		0.19	0.057	mg/Kg	☼	11/17/17 07:31	11/20/17 19:04	1
4,6-Dinitro-2-methylphenol	<0.76		0.76	0.30	mg/Kg	☼	11/17/17 07:31	11/20/17 19:04	1
2,4-Dinitrophenol	<0.76		0.76	0.66	mg/Kg	☼	11/17/17 07:31	11/20/17 19:04	1
2,4-Dinitrotoluene	<0.19		0.19	0.060	mg/Kg	☼	11/17/17 07:31	11/20/17 19:04	1
2,6-Dinitrotoluene	<0.19		0.19	0.074	mg/Kg	☼	11/17/17 07:31	11/20/17 19:04	1
Di-n-octyl phthalate	<0.19		0.19	0.061	mg/Kg	☼	11/17/17 07:31	11/20/17 19:04	1
Fluoranthene	0.016	J	0.037	0.0070	mg/Kg	☼	11/17/17 07:31	11/20/17 19:04	1
Fluorene	<0.037		0.037	0.0053	mg/Kg	☼	11/17/17 07:31	11/20/17 19:04	1
Hexachlorobenzene	<0.076		0.076	0.0087	mg/Kg	☼	11/17/17 07:31	11/20/17 19:04	1
Hexachlorobutadiene	<0.19		0.19	0.059	mg/Kg	☼	11/17/17 07:31	11/20/17 19:04	1
Hexachlorocyclopentadiene	<0.76		0.76	0.22	mg/Kg	☼	11/17/17 07:31	11/20/17 19:04	1
Hexachloroethane	<0.19		0.19	0.057	mg/Kg	☼	11/17/17 07:31	11/20/17 19:04	1
Indeno[1,2,3-cd]pyrene	<0.037		0.037	0.0098	mg/Kg	☼	11/17/17 07:31	11/20/17 19:04	1
Isophorone	<0.19		0.19	0.042	mg/Kg	☼	11/17/17 07:31	11/20/17 19:04	1
2-Methylnaphthalene	<0.076		0.076	0.0069	mg/Kg	☼	11/17/17 07:31	11/20/17 19:04	1
2-Methylphenol	<0.19		0.19	0.060	mg/Kg	☼	11/17/17 07:31	11/20/17 19:04	1
3 & 4 Methylphenol	<0.19		0.19	0.063	mg/Kg	☼	11/17/17 07:31	11/20/17 19:04	1
Naphthalene	<0.037		0.037	0.0058	mg/Kg	☼	11/17/17 07:31	11/20/17 19:04	1
2-Nitroaniline	<0.19		0.19	0.051	mg/Kg	☼	11/17/17 07:31	11/20/17 19:04	1
3-Nitroaniline	<0.37		0.37	0.12	mg/Kg	☼	11/17/17 07:31	11/20/17 19:04	1
4-Nitroaniline	<0.37		0.37	0.16	mg/Kg	☼	11/17/17 07:31	11/20/17 19:04	1
Nitrobenzene	<0.037		0.037	0.0094	mg/Kg	☼	11/17/17 07:31	11/20/17 19:04	1
2-Nitrophenol	<0.37		0.37	0.089	mg/Kg	☼	11/17/17 07:31	11/20/17 19:04	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137163-8

Client Sample ID: 2696V-60-B03 (0-5) Dup

Lab Sample ID: 500-137163-16

Date Collected: 11/10/17 09:15

Matrix: Solid

Date Received: 11/10/17 15:20

Percent Solids: 83.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Nitrophenol	<0.76		0.76	0.36	mg/Kg	☼	11/17/17 07:31	11/20/17 19:04	1
N-Nitrosodi-n-propylamine	<0.076		0.076	0.046	mg/Kg	☼	11/17/17 07:31	11/20/17 19:04	1
N-Nitrosodiphenylamine	<0.19		0.19	0.044	mg/Kg	☼	11/17/17 07:31	11/20/17 19:04	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.044	mg/Kg	☼	11/17/17 07:31	11/20/17 19:04	1
Pentachlorophenol	<0.76		0.76	0.60	mg/Kg	☼	11/17/17 07:31	11/20/17 19:04	1
Phenanthrene	0.013	J	0.037	0.0053	mg/Kg	☼	11/17/17 07:31	11/20/17 19:04	1
Phenol	<0.19		0.19	0.084	mg/Kg	☼	11/17/17 07:31	11/20/17 19:04	1
Pyrene	0.017	J	0.037	0.0075	mg/Kg	☼	11/17/17 07:31	11/20/17 19:04	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.041	mg/Kg	☼	11/17/17 07:31	11/20/17 19:04	1
2,4,5-Trichlorophenol	<0.37		0.37	0.086	mg/Kg	☼	11/17/17 07:31	11/20/17 19:04	1
2,4,6-Trichlorophenol	<0.37		0.37	0.13	mg/Kg	☼	11/17/17 07:31	11/20/17 19:04	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	110		44 - 121	11/17/17 07:31	11/20/17 19:04	1
2-Fluorophenol	115		46 - 133	11/17/17 07:31	11/20/17 19:04	1
Nitrobenzene-d5	114		41 - 120	11/17/17 07:31	11/20/17 19:04	1
Phenol-d5	117		46 - 125	11/17/17 07:31	11/20/17 19:04	1
Terphenyl-d14	119		35 - 160	11/17/17 07:31	11/20/17 19:04	1
2,4,6-Tribromophenol	66		25 - 139	11/17/17 07:31	11/20/17 19:04	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.2		1.2	0.22	mg/Kg	☼	11/14/17 16:15	11/15/17 14:07	1
Arsenic	7.8		0.58	0.20	mg/Kg	☼	11/14/17 16:15	11/15/17 14:07	1
Barium	61		0.58	0.066	mg/Kg	☼	11/14/17 16:15	11/15/17 14:07	1
Beryllium	0.49		0.23	0.054	mg/Kg	☼	11/14/17 16:15	11/15/17 14:07	1
Cadmium	0.25	B	0.12	0.021	mg/Kg	☼	11/14/17 16:15	11/15/17 14:07	1
Chromium	12		0.58	0.29	mg/Kg	☼	11/14/17 16:15	11/15/17 14:07	1
Cobalt	10		0.29	0.076	mg/Kg	☼	11/14/17 16:15	11/15/17 14:07	1
Copper	23		0.58	0.16	mg/Kg	☼	11/14/17 16:15	11/15/17 14:07	1
Iron	17000	B	12	6.0	mg/Kg	☼	11/14/17 16:15	11/15/17 14:07	1
Lead	25		0.29	0.13	mg/Kg	☼	11/14/17 16:15	11/15/17 14:07	1
Magnesium	16000	B	5.8	2.9	mg/Kg	☼	11/14/17 16:15	11/15/17 14:07	1
Calcium	30000	B	12	2.0	mg/Kg	☼	11/14/17 16:15	11/15/17 14:07	1
Manganese	310	B	0.58	0.084	mg/Kg	☼	11/14/17 16:15	11/15/17 14:07	1
Nickel	24		0.58	0.17	mg/Kg	☼	11/14/17 16:15	11/15/17 14:07	1
Selenium	0.92		0.58	0.34	mg/Kg	☼	11/14/17 16:15	11/15/17 14:07	1
Silver	<0.29		0.29	0.075	mg/Kg	☼	11/14/17 16:15	11/15/17 14:07	1
Thallium	0.30	J	0.58	0.29	mg/Kg	☼	11/14/17 16:15	11/15/17 14:07	1
Vanadium	15		0.29	0.068	mg/Kg	☼	11/14/17 16:15	11/15/17 14:07	1
Zinc	67		1.2	0.51	mg/Kg	☼	11/14/17 16:15	11/15/17 14:07	1
Potassium	1500		29	10	mg/Kg	☼	11/14/17 16:15	11/15/17 14:07	1
Sodium	410		58	8.5	mg/Kg	☼	11/14/17 16:15	11/15/17 14:07	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.050		0.050	0.010	mg/L		11/17/17 09:02	11/17/17 17:51	1
Barium	0.87		0.50	0.050	mg/L		11/17/17 09:02	11/17/17 17:51	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		11/17/17 09:02	11/17/17 17:51	1
Cadmium	0.0022	J	0.0050	0.0020	mg/L		11/17/17 09:02	11/17/17 17:51	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137163-8

Client Sample ID: 2696V-60-B03 (0-5) Dup

Lab Sample ID: 500-137163-16

Date Collected: 11/10/17 09:15

Matrix: Solid

Date Received: 11/10/17 15:20

Percent Solids: 83.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	440		5.0	0.50	mg/L		11/17/17 09:02	11/17/17 17:51	1
Chromium	<0.025		0.025	0.010	mg/L		11/17/17 09:02	11/17/17 17:51	1
Cobalt	0.024	J	0.025	0.010	mg/L		11/17/17 09:02	11/17/17 17:51	1
Copper	0.021	J B	0.040	0.010	mg/L		11/17/17 09:02	11/17/17 17:51	1
Iron	<0.40		0.40	0.20	mg/L		11/17/17 09:02	11/17/17 17:51	1
Lead	0.0089		0.0075	0.0075	mg/L		11/17/17 09:02	11/17/17 17:51	1
Magnesium	99		2.5	0.50	mg/L		11/17/17 09:02	11/17/17 17:51	1
Manganese	6.9		0.025	0.010	mg/L		11/17/17 09:02	11/17/17 17:51	1
Nickel	0.021	J	0.025	0.010	mg/L		11/17/17 09:02	11/17/17 17:51	1
Potassium	2.9		2.5	0.50	mg/L		11/17/17 09:02	11/17/17 17:51	1
Selenium	<0.050		0.050	0.020	mg/L		11/17/17 09:02	11/17/17 17:51	1
Silver	<0.025		0.025	0.010	mg/L		11/17/17 09:02	11/17/17 17:51	1
Vanadium	<0.025		0.025	0.010	mg/L		11/17/17 09:02	11/17/17 17:51	1
Zinc	0.079	J B ^	0.50	0.020	mg/L		11/17/17 09:02	11/17/17 17:51	1

Method: 6010B - SPLP Metals - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.11		0.0075	0.0075	mg/L		11/20/17 07:21	11/20/17 21:11	1
Manganese	0.50		0.025	0.010	mg/L		11/20/17 07:21	11/20/17 21:11	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		11/17/17 09:02	11/18/17 04:56	1
Thallium	<0.0020		0.0020	0.0020	mg/L		11/17/17 09:02	11/18/17 04:56	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		11/18/17 14:00	11/20/17 09:37	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.039		0.018	0.0058	mg/Kg	☼	11/20/17 07:30	11/20/17 15:10	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.50		0.50	0.17	mg/Kg	☼	11/21/17 13:15	11/21/17 16:37	1
pH	8.2		0.20	0.20	SU			11/20/17 11:05	1

Definitions/Glossary

Client: Terracon Consulting Eng & Scientists
Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137163-8

Qualifiers

GC/MS Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

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

General Chemistry

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.

Glossary

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

Accreditation/Certification Summary

Client: Terracon Consulting Eng & Scientists
Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137163-8

Laboratory: TestAmerica Chicago

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

Authority	Program	EPA Region	Identification Number	Expiration Date
Illinois	NELAP	5	100201	04-30-18

The following analytes are included in this report, but accreditation/certification is not offered by the governing authority:

Analysis Method	Prep Method	Matrix	Analyte
6020A	3010A	Solid	Antimony
6020A	3010A	Solid	Thallium
8260B	5035	Solid	1,3-Dichloropropene, Total
9045D		Solid	pH
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

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

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

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

Chain of Custody Record

Lab Job #: 500-137163
Chain of Custody Number: _____
Page 1 of 1
Temperature °C of Cooler: 34.5.0

Client		Client Project #		Preservative		Parameter		Matrix		Preservative Key 1. HCL, Cool to 4° 2. H2SO4, Cool to 4° 3. HNO3, Cool to 4° 4. NaOH, Cool to 4° 5. NaOH/Zn, Cool to 4° 6. NaHSO4 7. Cool to 4° 8. None 9. Other		
<u>TERRACON</u>		<u>1177029M</u>										
Project Name <u>WORK ORDER # 037</u>		Lab Project #										
Project Location/State <u>MARHAM, IL</u>		Lab PM <u>DICK WRIGAT</u>										
Lab ID	MS/MSD	Sample ID	Sampling		# of Containers	Matrix	NOCS	SUDCS	23 METALS	PH	TCLP 23 METALS	Comments
			Date	Time								
14		2696V-60-B03-(0-5)	11-10-17	0915	5	S	X	X	X	X		
15		2696V-60-B04-(0-5)	11-10-17	0930	5	S	X	X	X	X		
16		2696V-60-B03-DUP-(0-5)	11-10-17	0915	5	S	X	X	X	X		

Turnaround Time Required (Business Days)

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

Requested Due Date _____

Sample Disposal

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

Relinquished By <u>[Signature]</u>	Company <u>TERRACON</u>	Date <u>11-10-17</u>	Time <u>1450</u>	Received By <u>[Signature]</u>	Company <u>TA</u>	Date <u>11/10/17</u>	Time <u>1450</u>
Relinquished By <u>[Signature]</u>	Company <u>TA</u>	Date <u>11/10/17</u>	Time <u>1520</u>	Received By <u>[Signature]</u>	Company <u>TA</u>	Date <u>11/10/17</u>	Time <u>1520</u>

Lab Courier: TA
Shipped: _____
Hand Delivered: _____

Matrix Key

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

Client Comments

NO ALUMINUM

Lab Comments:

Login Sample Receipt Checklist

Client: Terracon Consulting Eng & Scientists

Job Number: 500-137163-8

Login Number: 137163

List Source: TestAmerica Chicago

List Number: 1

Creator: Sanchez, Ariel 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	3.4, 5.0
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	





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 351-US Rte 6 at Pulaski/Crawford & Kedzie Office Phone Number, if available: _____

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

Pulaski Rd (Southbound) 68+00 to 70+30, 72+40 to 76+08 and US Route 6 (Westbound) 13+37 to 16+40(ISGS Site 2696V-61)

City: Oak Forest/Markham State: IL Zip Code: 60428

County: Cook Township: Bremen

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

Latitude: 41.60367 Longitude: -87.71682
(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: 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 Phone: 847-705-4122

Zip Code: 60196 Phone: 847-705-4122

Contact: Paul Nickles

Contact: Paul Nickles

Email, if available: paul.nickles@illinois.gov

Email, if available: paul.nickles@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 351-US Rte 6 at Pulaski/Crawford & Kedzie

Latitude: 41.60367 Longitude: -87.71682

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):

Soil from borings B01, B02, B09, B11, and B12 were sampled adjacent to ISGS Site No 2696V-61. See Exhibits 2, 5, 5A, and Table 80 of the Preliminary Site Investigation Report prepared by Terracon.

- 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]:

TestAmerica Lab Report No J137078-1
Also see Preliminary Site Investigation Report prepared by Terracon. CCDD/USFO facility in MSA County.

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

I, Matt Weiss (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.

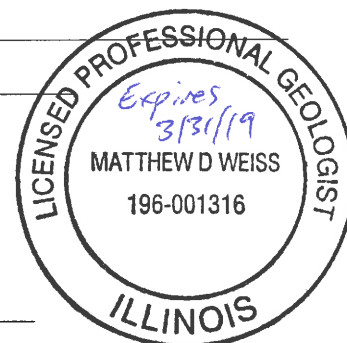
Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))

Company Name: Terracon Consultants, Inc
 Street Address: 135 Ambassador Drive
 City: Naperville State: IL Zip Code: 60540
 Phone: 630-717-4263

Matt Weiss
 Printed Name:

[Signature]
 Licensed Professional Engineer or
 Licensed Professional Geologist Signature:

7/24/18
 Date:



Detected Constituents to MACs-PTB 174-009;Work Order:037A
Preliminary Site Investigation
FAP 351-US Rte 6 at S. Pulaski/Crawford + Kedzie (PESA #2696V-61)
Oak Forest/Markham, Cook County, IL
Terracon Project No. 11177029M
Page 1 of 6

Analyte	Units	Background		Maximum Allowed Concentration	Sample Identification	2696V-61-B01 (0-5)	2696V-61-B02 (0-5)
				CCDD	Sample Depth (feet)	(0-5)	(0-5)
		Chicago	MSAs	mg/kg pH 6.25-9.0	Date Collected	11/09/2017	11/09/2017
Volatile Organic Analytical Parameters							
Acetone	mg/kg	---	---	25		0.057	<0.015
2-Butanone	mg/kg	---	---	17		0.0037	<0.0036
Semivolatile Organic Analytical Parameters							
Acenaphthene	mg/kg	0.09	0.13	570		<0.039	<0.037
Anthracene	mg/kg	0.25	0.4	12000		<0.039	<0.037
Benzo(a)anthracene	mg/kg	1.1	1.8	0.9		<0.039	0.005
Benzo(a)pyrene	mg/kg	1.3	2.1	0.09		0.01	<0.037
Benzo(b)fluoranthene	mg/kg	1.5	2.1	0.9		0.021	0.014
Benzo(g,h,i)perylene	mg/kg	0.68	1.7	2300		0.025	0.015
Benzo(k)fluoranthene	mg/kg	0.99	1.7	9		<0.039	<0.037
Chrysene	mg/kg	1.2	2.7	88		0.017	0.012
Dibenzo(a,h)anthracene	mg/kg	0.2	0.42	0.09		<0.039	<0.037
Fluoranthene	mg/kg	2.7	4.1	3100		0.014	0.011
Fluorene	mg/kg	0.1	0.18	560		<0.039	<0.037
Indeno(1,2,3-c,d)pyrene	mg/kg	0.86	1.6	0.9		<0.039	<0.037
Phenanthrene	mg/kg	1.3	2.5	210		0.018	0.007
Pyrene	mg/kg	1.9	3.0	2300		0.015	0.012
Inorganic Analytical Parameters							
Arsenic	mg/kg	---	13	11.3		6.8	7.2
Barium	mg/kg	---	110	1500		49	34
Cadmium	mg/kg	---	0.6	5.2		0.24	0.32
Chromium, total	mg/kg	---	16.2	21		15	15
Lead	mg/kg	---	36	107		25	57
Mercury	mg/kg	---	0.06	0.89*		0.032	0.03
Selenium	mg/kg	---	0.48	1.3		<0.55	<0.57
Silver	mg/kg	---	0.55	4.4		<0.28	<0.28
Antimony	mg/kg	---	4.0	5		0.28	0.4
Beryllium	mg/kg	---	0.59	22		0.7	0.67
Calcium	mg/kg	---	9,300	---		21000	65000
Cobalt	mg/kg	---	8.9	20		13	11
Copper	mg/kg	---	19.6	2900		25	31
Cyanide	mg/kg	---	0.51	---		<0.49	<0.55
Iron	mg/kg	---	15,900	15000		16000	17000
Magnesium	mg/kg	---	4,820	325000		12000	27000
Manganese	mg/kg	---	636	630		320	270
Nickel	mg/kg	---	18	100		32	30
Potassium	mg/kg	---	1,268	---		1700	2000
Sodium	mg/kg	---	130	---		880	530
Thallium	mg/kg	---	0.32	2.6		0.51	<0.57
Vanadium	mg/kg	---	25.2	550		18	16
Zinc	mg/kg	---	95	5100		81	75
pH			6.25	9		8.9	9

Detected Constituents to MACs-PTB 174-009;Work Order:037A
Preliminary Site Investigation
FAP 351-US Rte 6 at S. Pulaski/Crawford + Kedzie (PESA #2696V-61)
Oak Forest/Markham, Cook County, IL
Terracon Project No. 11177029M
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Analyte	Units	Background		Maximum Allowed Concentration	Sample Identification	2696V-61-B01 (0-5)	2696V-61-B02 (0-5)
				CCDD	Sample Depth (feet)	(0-5)	(0-5)
		Chicago	MSAs	mg/kg pH 6.25-9.0	Date Collected	11/09/2017	11/09/2017
Inorganic Analytical Parameters (SPLP)							
Antimony,SPLP	mg/L	---	---	---		--	--
Arsenic,SPLP	mg/L	---	---	---		--	--
Barium,SPLP	mg/L	---	---	---		--	--
Beryllium,SPLP	mg/L	---	---	---		--	--
Cadmium,SPLP	mg/L	---	---	---		--	--
Calcium,SPLP	mg/L	---	---	---		--	--
Chromium,SPLP	mg/L	---	---	---		--	--
Cobalt,SPLP	mg/L	---	---	---		--	--
Copper,SPLP	mg/L	---	---	---		--	--
Iron,SPLP	mg/L	---	---	---		--	--
Lead,SPLP	mg/L	---	---	---		--	0.25
Magnesium,SPLP	mg/L	---	---	---		--	--
Manganese,SPLP	mg/L	---	---	---		0.87	0.55
Mercury,SPLP	mg/L	---	---	---		--	--
Nickel,SPLP	mg/L	---	---	---		--	--
Potassium,SPLP	mg/L	---	---	---		--	--
Selenium,SPLP	mg/L	---	---	---		--	--
Silver,SPLP	mg/L	---	---	---		--	--
Sodium,SPLP	mg/L	---	---	---		--	--
Thallium,SPLP	mg/L	---	---	---		--	--
Vanadium,SPLP	mg/L	---	---	---		--	--
Zinc,SPLP	mg/L	---	---	---		--	--
Cyanide,SPLP	mg/L	---	---	---		--	--
Inorganic Analytical Parameters (TCLP)							
Arsenic,TCLP	mg/L	---	---	---		<0.050	<0.050
Barium,TCLP	mg/L	---	---	---		0.46	0.37
Cadmium,TCLP	mg/L	---	---	---		0.0027	0.0045
Chromium,TCLP	mg/L	---	---	---		<0.025	<0.025
Lead,TCLP	mg/L	---	---	---		<0.0075	0.037
Mercury,TCLP	mg/L	---	---	---		<0.00020	<0.00020
Selenium,TCLP	mg/L	---	---	---		<0.050	<0.050
Silver,TCLP	mg/L	---	---	---		<0.025	<0.025
Antimony,TCLP	mg/L	---	---	---		<0.0060	<0.0060
Beryllium,TCLP	mg/L	---	---	---		<0.0040	<0.0040
Calcium,TCLP	mg/L	---	---	---		360	450
Cobalt,TCLP	mg/L	---	---	---		0.019	0.01
Copper,TCLP	mg/L	---	---	---		0.012	<0.025
Cyanide,TCLP	mg/L	---	---	---		----	----
Iron,TCLP	mg/L	---	---	---		<0.40	<0.40
Magnesium,TCLP	mg/L	---	---	---		56	78
Manganese,TCLP	mg/L	---	---	---		5	2.6
Nickel,TCLP	mg/L	---	---	---		0.017	0.014
Potassium,TCLP	mg/L	---	---	---		1.6	1.7
Sodium,TCLP	mg/L	---	---	---		----	----
Thallium,TCLP	mg/L	---	---	---		<0.0020	<0.0020
Vanadium,TCLP	mg/L	---	---	---		<0.025	<0.025
Zinc,TCLP	mg/L	---	---	---		0.044	<0.50

*Elemental mercury was determined not to be a contaminant of concern

Detected Constituents to MACs-PTB 174-009;Work Order:037A
Preliminary Site Investigation
FAP 351-US Rte 6 at S. Pulaski/Crawford + Kedzie (PESA #2696V-61)
Oak Forest/Markham, Cook County, IL
Terracon Project No. 11177029M
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Analyte	Units	Background		Maximum Allowed Concentration	Sample Identification	2696V-61-B09 (0-5)	2696V-61-B11 (0-5)
				CCDD	Sample Depth (feet)	(0-5)	(0-5)
		Chicago	MSAs	mg/kg pH 6.25-9.0	Date Collected	11/09/2017	11/09/2017
Volatile Organic Analytical Parameters							
Acetone	mg/kg	---	---	25		0.024	0.031
2-Butanone	mg/kg	---	---	17		<0.0046	<0.0045
Semivolatile Organic Analytical Parameters							
Acenaphthene	mg/kg	0.09	0.13	570		0.0096	<0.041
Anthracene	mg/kg	0.25	0.4	12000		0.03	<0.041
Benzo(a)anthracene	mg/kg	1.1	1.8	0.9		0.1	0.011
Benzo(a)pyrene	mg/kg	1.3	2.1	0.09		0.11	0.016
Benzo(b)fluoranthene	mg/kg	1.5	2.1	0.9		0.2	0.03
Benzo(g,h,i)perylene	mg/kg	0.68	1.7	2300		0.041	<0.041
Benzo(k)fluoranthene	mg/kg	0.99	1.7	9		0.059	<0.041
Chrysene	mg/kg	1.2	2.7	88		0.13	0.019
Dibenzo(a,h)anthracene	mg/kg	0.2	0.42	0.09		0.013	<0.041
Fluoranthene	mg/kg	2.7	4.1	3100		0.24	0.031
Fluorene	mg/kg	0.1	0.18	560		0.0083	<0.041
Indeno(1,2,3-c,d)pyrene	mg/kg	0.86	1.6	0.9		0.047	<0.041
Phenanthrene	mg/kg	1.3	2.5	210		0.11	0.016
Pyrene	mg/kg	1.9	3.0	2300		0.16	0.023
Inorganic Analytical Parameters							
Arsenic	mg/kg	---	13	11.3		9.7	5.9
Barium	mg/kg	---	110	1500		90	43
Cadmium	mg/kg	---	0.6	5.2		0.21	0.29
Chromium, total	mg/kg	---	16.2	21		14	11
Lead	mg/kg	---	36	107		20	35
Mercury	mg/kg	---	0.06	0.89*		0.036	0.036
Selenium	mg/kg	---	0.48	1.3		0.71	0.41
Silver	mg/kg	---	0.55	4.4		<0.29	<0.32
Antimony	mg/kg	---	4.0	5		0.36	0.5
Beryllium	mg/kg	---	0.59	22		1.7	0.56
Calcium	mg/kg	---	9,300	---		30000	23000
Cobalt	mg/kg	---	8.9	20		12	8.5
Copper	mg/kg	---	19.6	2900		20	30
Cyanide	mg/kg	---	0.51	---		<0.49	<0.58
Iron	mg/kg	---	15,900	15000		19000	13000
Magnesium	mg/kg	---	4,820	325000		14000	13000
Manganese	mg/kg	---	636	630		550	170
Nickel	mg/kg	---	18	100		29	22
Potassium	mg/kg	---	1,268	---		1700	810
Sodium	mg/kg	---	130	---		820	520
Thallium	mg/kg	---	0.32	2.6		<0.57	<0.64
Vanadium	mg/kg	---	25.2	550		20	16
Zinc	mg/kg	---	95	5100		65	74
pH			6.25	9		8.7	8.8

Detected Constituents to MACs-PTB 174-009;Work Order:037A
Preliminary Site Investigation
FAP 351-US Rte 6 at S. Pulaski/Crawford + Kedzie (PESA #2696V-61)
Oak Forest/Markham, Cook County, IL
Terracon Project No. 11177029M
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Analyte	Units	Background		Maximum Allowed Concentration	Sample Identification	2696V-61-B09 (0-5)	2696V-61-B11 (0-5)
				CCDD	Sample Depth (feet)	(0-5)	(0-5)
		Chicago	MSAs	mg/kg pH 6.25-9.0	Date Collected	11/09/2017	11/09/2017
Inorganic Analytical Parameters (SPLP)							
Antimony,SPLP	mg/L	---	---	---		--	--
Arsenic,SPLP	mg/L	---	---	---		--	--
Barium,SPLP	mg/L	---	---	---		--	--
Beryllium,SPLP	mg/L	---	---	---		--	--
Cadmium,SPLP	mg/L	---	---	---		--	--
Calcium,SPLP	mg/L	---	---	---		--	--
Chromium,SPLP	mg/L	---	---	---		--	--
Cobalt,SPLP	mg/L	---	---	---		--	--
Copper,SPLP	mg/L	---	---	---		--	--
Iron,SPLP	mg/L	---	---	---		--	--
Lead,SPLP	mg/L	---	---	---		--	--
Magnesium,SPLP	mg/L	---	---	---		--	--
Manganese,SPLP	mg/L	---	---	---		1.2	0.49
Mercury,SPLP	mg/L	---	---	---		--	--
Nickel,SPLP	mg/L	---	---	---		--	--
Potassium,SPLP	mg/L	---	---	---		--	--
Selenium,SPLP	mg/L	---	---	---		--	--
Silver,SPLP	mg/L	---	---	---		--	--
Sodium,SPLP	mg/L	---	---	---		--	--
Thallium,SPLP	mg/L	---	---	---		--	--
Vanadium,SPLP	mg/L	---	---	---		--	--
Zinc,SPLP	mg/L	---	---	---		--	--
Cyanide,SPLP	mg/L	---	---	---		--	--
Inorganic Analytical Parameters (TCLP)							
Arsenic,TCLP	mg/L	---	---	---		<0.050	0.011
Barium,TCLP	mg/L	---	---	---		0.39	0.28
Cadmium,TCLP	mg/L	---	---	---		0.0023	<0.0050
Chromium,TCLP	mg/L	---	---	---		<0.025	<0.025
Lead,TCLP	mg/L	---	---	---		<0.0075	<0.0075
Mercury,TCLP	mg/L	---	---	---		<0.00020	<0.00020
Selenium,TCLP	mg/L	---	---	---		<0.050	<0.050
Silver,TCLP	mg/L	---	---	---		<0.025	<0.025
Antimony,TCLP	mg/L	---	---	---		<0.0060	<0.0060
Beryllium,TCLP	mg/L	---	---	---		<0.0040	<0.0040
Calcium,TCLP	mg/L	---	---	---		320	210
Cobalt,TCLP	mg/L	---	---	---		0.022	0.013
Copper,TCLP	mg/L	---	---	---		0.019	0.028
Cyanide,TCLP	mg/L	---	---	---		----	----
Iron,TCLP	mg/L	---	---	---		<0.40	<0.40
Magnesium,TCLP	mg/L	---	---	---		110	87
Manganese,TCLP	mg/L	---	---	---		9.8	1.9
Nickel,TCLP	mg/L	---	---	---		0.027	0.018
Potassium,TCLP	mg/L	---	---	---		4.5	0.63
Sodium,TCLP	mg/L	---	---	---		----	----
Thallium,TCLP	mg/L	---	---	---		<0.0020	<0.0020
Vanadium,TCLP	mg/L	---	---	---		<0.025	<0.025
Zinc,TCLP	mg/L	---	---	---		<0.50	0.072

*Elemental mercury was determined not to be a contaminant of concern

Detected Constituents to MACs-PTB 174-009;Work Order:037A
Preliminary Site Investigation
FAP 351-US Rte 6 at S. Pulaski/Crawford + Kedzie (PESA #2696V-61)
Oak Forest/Markham, Cook County, IL
Terracon Project No. 11177029M
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Analyte	Units	Background		Maximum Allowed Concentration	Sample Identification	2696V-61-B12 (0-5)
				CCDD	Sample Depth (feet)	(0-5)
		Chicago	MSAs	mg/kg pH 6.25-9.0	Date Collected	11/09/2017
Volatile Organic Analytical Parameters						
Acetone	mg/kg	---	---	25		<0.019
2-Butanone	mg/kg	---	---	17		<0.0048
Semivolatile Organic Analytical Parameters						
Acenaphthene	mg/kg	0.09	0.13	570		0.0088
Anthracene	mg/kg	0.25	0.4	12000		0.016
Benzo(a)anthracene	mg/kg	1.1	1.8	0.9		0.072
Benzo(a)pyrene	mg/kg	1.3	2.1	0.09		0.094
Benzo(b)fluoranthene	mg/kg	1.5	2.1	0.9		0.15
Benzo(g,h,i)perylene	mg/kg	0.68	1.7	2300		0.041
Benzo(k)fluoranthene	mg/kg	0.99	1.7	9		0.073
Chrysene	mg/kg	1.2	2.7	88		0.097
Dibenzo(a,h)anthracene	mg/kg	0.2	0.42	0.09		<0.041
Fluoranthene	mg/kg	2.7	4.1	3100		0.21
Fluorene	mg/kg	0.1	0.18	560		0.0069
Indeno(1,2,3-c,d)pyrene	mg/kg	0.86	1.6	0.9		0.042
Phenanthrene	mg/kg	1.3	2.5	210		0.1
Pyrene	mg/kg	1.9	3.0	2300		0.14
Inorganic Analytical Parameters						
Arsenic	mg/kg	---	13	11.3		7
Barium	mg/kg	---	110	1500		110
Cadmium	mg/kg	---	0.6	5.2		0.57
Chromium, total	mg/kg	---	16.2	21		16
Lead	mg/kg	---	36	107		60
Mercury	mg/kg	---	0.06	0.89*		0.72
Selenium	mg/kg	---	0.48	1.3		0.76
Silver	mg/kg	---	0.55	4.4		1.9
Antimony	mg/kg	---	4.0	5		0.44
Beryllium	mg/kg	---	0.59	22		0.72
Calcium	mg/kg	---	9,300	---		12000
Cobalt	mg/kg	---	8.9	20		8.3
Copper	mg/kg	---	19.6	2900		43
Cyanide	mg/kg	---	0.51	---		<0.61
Iron	mg/kg	---	15,900	15000		15000
Magnesium	mg/kg	---	4,820	325000		7400
Manganese	mg/kg	---	636	630		190
Nickel	mg/kg	---	18	100		23
Potassium	mg/kg	---	1,268	---		1100
Sodium	mg/kg	---	130	---		260
Thallium	mg/kg	---	0.32	2.6		<0.60
Vanadium	mg/kg	---	25.2	550		21
Zinc	mg/kg	---	95	5100		140
pH			6.25	9		8

Detected Constituents to MACs-PTB 174-009;Work Order:037A
Preliminary Site Investigation
FAP 351-US Rte 6 at S. Pulaski/Crawford + Kedzie (PESA #2696V-61)
Oak Forest/Markham, Cook County, IL
Terracon Project No. 11177029M
Page 6 of 6

Analyte	Units	Background		Maximum Allowed Concentration	Sample Identification	2696V-61-B12 (0-5)
				CCDD	Sample Depth (feet)	(0-5)
		Chicago	MSAs	mg/kg pH 6.25-9.0	Date Collected	11/09/2017
Inorganic Analytical Parameters (SPLP)						
Antimony,SPLP	mg/L	---	---	---		--
Arsenic,SPLP	mg/L	---	---	---		--
Barium,SPLP	mg/L	---	---	---		--
Beryllium,SPLP	mg/L	---	---	---		--
Cadmium,SPLP	mg/L	---	---	---		--
Calcium,SPLP	mg/L	---	---	---		--
Chromium,SPLP	mg/L	---	---	---		--
Cobalt,SPLP	mg/L	---	---	---		--
Copper,SPLP	mg/L	---	---	---		--
Iron,SPLP	mg/L	---	---	---		--
Lead,SPLP	mg/L	---	---	---		--
Magnesium,SPLP	mg/L	---	---	---		--
Manganese,SPLP	mg/L	---	---	---		0.31
Mercury,SPLP	mg/L	---	---	---		--
Nickel,SPLP	mg/L	---	---	---		--
Potassium,SPLP	mg/L	---	---	---		--
Selenium,SPLP	mg/L	---	---	---		--
Silver,SPLP	mg/L	---	---	---		--
Sodium,SPLP	mg/L	---	---	---		--
Thallium,SPLP	mg/L	---	---	---		--
Vanadium,SPLP	mg/L	---	---	---		--
Zinc,SPLP	mg/L	---	---	---		--
Cyanide,SPLP	mg/L	---	---	---		--
Inorganic Analytical Parameters (TCLP)						
Arsenic,TCLP	mg/L	---	---	---		<0.050
Barium,TCLP	mg/L	---	---	---		0.32
Cadmium,TCLP	mg/L	---	---	---		0.0033
Chromium,TCLP	mg/L	---	---	---		<0.025
Lead,TCLP	mg/L	---	---	---		<0.0075
Mercury,TCLP	mg/L	---	---	---		<0.00020
Selenium,TCLP	mg/L	---	---	---		<0.050
Silver,TCLP	mg/L	---	---	---		<0.025
Antimony,TCLP	mg/L	---	---	---		<0.0060
Beryllium,TCLP	mg/L	---	---	---		<0.0040
Calcium,TCLP	mg/L	---	---	---		190
Cobalt,TCLP	mg/L	---	---	---		<0.025
Copper,TCLP	mg/L	---	---	---		<0.025
Cyanide,TCLP	mg/L	---	---	---		----
Iron,TCLP	mg/L	---	---	---		<0.40
Magnesium,TCLP	mg/L	---	---	---		83
Manganese,TCLP	mg/L	---	---	---		0.6
Nickel,TCLP	mg/L	---	---	---		<0.025
Potassium,TCLP	mg/L	---	---	---		<2.5
Sodium,TCLP	mg/L	---	---	---		----
Thallium,TCLP	mg/L	---	---	---		<0.0020
Vanadium,TCLP	mg/L	---	---	---		<0.025
Zinc,TCLP	mg/L	---	---	---		0.069

*Elemental mercury was determined not to be a contaminant of concern

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: 500-137078-1

Client Project/Site: IDOT - Oak Forest/Markham - WO37

For:

Terracon Consulting Eng & Scientists

135 Ambassador Drive

Naperville, Illinois 60540

Attn: Mr. Matthew Weiss

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Authorized for release by:

11/21/2017 12:21:16 PM

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LINKS

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

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

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

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Case Narrative

Client: Terracon Consulting Eng & Scientists
Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137078-1

Job ID: 500-137078-1

Laboratory: TestAmerica Chicago

Narrative

Job Narrative 500-137078-1

Receipt

The samples were received on 11/9/2017 5:00 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 6 coolers at receipt time were 1.9° C, 2.0° C, 2.9° C, 3.2° C, 3.7° C and 4.0° C.

GC/MS VOA

Method(s) 8260B: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for batch 410018 recovered outside control limits for the following analytes: Benzene and 2-Butanone.

Method(s) 8260B: The following analytes recovered outside control limits for the LCS associated with batch 410201: Carbon Tetrachloride and Choromethane. This is not indicative of a systematic control problem because these were random marginal exceedances. The laboratory control sample (LCS) had all compounds within control limits. Qualified results have been reported.

Method(s) 8260B: One surrogate recovery for the following samples was outside the upper control limit: 2696V-61-B06 (5-10) (500-137078-7) and 2696V-61-B12 (0-5) (500-137078-16). This sample did not contain any target analytes; therefore, re-analysis was not performed.

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

GC/MS Semi VOA

Method(s) 8270D: 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 utilizing this list of analytes. The LCS associated with batch 409180 had 2 analytes outside control limits: 3,3'-Dichlorobenzidine and Isophorone. These results have been reported and qualified. (LCS 500-410180/2-A)

Method(s) 8270D: The following matrix spike/matrix spike duplicate (MS/MSD) recovered at 0% for one or more analytes. Data has been qualified and reported. (500-137078-E-16-L MS) and (500-137078-E-16-M MS)

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 samples was diluted due to the abundance of target and non-target analytes: 2696V-61-B02 (0-5) (500-137078-2), 2696V-61-B05 (0-5) (500-137078-5), 2696V-61-B06 (5-10) (500-137078-7), 2696V-61-B06 (10-15) (500-137078-8), 2696V-61-B06 (15-21) (500-137078-9), 2696V-61-B06 (15-21) Dup (500-137078-10), 2696V-61-B08 (0-5) (500-137078-12) and 2696V-61-B10 (0-5) (500-137078-14). Elevated reporting limits (RLs) are provided.

Method(s) 6020A: Due to sample matrix effect on the internal standard (ISTD), a dilution was required for the following sample: 2692V-61-G01 (500-137078-17).

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: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137078-1

Client Sample ID: 2696V-61-B01 (0-5)

Lab Sample ID: 500-137078-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	0.057		0.016	0.0071	mg/Kg	1	☼	8260B	Total/NA
2-Butanone (MEK)	0.0037	J	0.0041	0.0018	mg/Kg	1	☼	8260B	Total/NA
Benzo[a]pyrene	0.010	J	0.039	0.0075	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.021	J	0.039	0.0084	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.025	J	0.039	0.012	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.017	J	0.039	0.011	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.014	J	0.039	0.0072	mg/Kg	1	☼	8270D	Total/NA
Phenanthrene	0.018	J	0.039	0.0054	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.015	J	0.039	0.0077	mg/Kg	1	☼	8270D	Total/NA
Antimony	0.28	J F1	1.1	0.21	mg/Kg	1	☼	6010B	Total/NA
Arsenic	6.8	F1	0.55	0.19	mg/Kg	1	☼	6010B	Total/NA
Barium	49		0.55	0.063	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.70		0.22	0.051	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.24	B	0.11	0.020	mg/Kg	1	☼	6010B	Total/NA
Chromium	15		0.55	0.27	mg/Kg	1	☼	6010B	Total/NA
Cobalt	13		0.28	0.072	mg/Kg	1	☼	6010B	Total/NA
Copper	25	F1	0.55	0.15	mg/Kg	1	☼	6010B	Total/NA
Iron	16000		11	5.7	mg/Kg	1	☼	6010B	Total/NA
Lead	25		0.28	0.13	mg/Kg	1	☼	6010B	Total/NA
Magnesium	12000	B	5.5	2.7	mg/Kg	1	☼	6010B	Total/NA
Calcium	21000	B	11	1.9	mg/Kg	1	☼	6010B	Total/NA
Manganese	320		0.55	0.080	mg/Kg	1	☼	6010B	Total/NA
Nickel	32		0.55	0.16	mg/Kg	1	☼	6010B	Total/NA
Thallium	0.51	J	0.55	0.27	mg/Kg	1	☼	6010B	Total/NA
Vanadium	18		0.28	0.065	mg/Kg	1	☼	6010B	Total/NA
Zinc	81	F1	1.1	0.48	mg/Kg	1	☼	6010B	Total/NA
Potassium	1700	F1	28	9.7	mg/Kg	1	☼	6010B	Total/NA
Sodium	880		55	8.1	mg/Kg	1	☼	6010B	Total/NA
Barium	0.46	J	0.50	0.050	mg/L	1		6010B	TCLP
Cadmium	0.0027	J	0.0050	0.0020	mg/L	1		6010B	TCLP
Calcium	360		5.0	0.50	mg/L	1		6010B	TCLP
Cobalt	0.019	J	0.025	0.010	mg/L	1		6010B	TCLP
Copper	0.012	J	0.025	0.010	mg/L	1		6010B	TCLP
Magnesium	56		2.5	0.50	mg/L	1		6010B	TCLP
Manganese	5.0		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.017	J	0.025	0.010	mg/L	1		6010B	TCLP
Potassium	1.6	J	2.5	0.50	mg/L	1		6010B	TCLP
Zinc	0.044	J	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.87		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.032	B	0.019	0.0062	mg/Kg	1	☼	7471B	Total/NA
pH	8.9		0.20	0.20	SU	1		9045D	Total/NA

Client Sample ID: 2696V-61-B02 (0-5)

Lab Sample ID: 500-137078-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]anthracene	0.0050	J	0.037	0.0049	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.014	J	0.037	0.0079	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.015	J	0.037	0.012	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.012	J	0.037	0.010	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.011	J	0.037	0.0068	mg/Kg	1	☼	8270D	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137078-1

Client Sample ID: 2696V-61-B02 (0-5) (Continued)

Lab Sample ID: 500-137078-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Phenanthrene	0.0070	J	0.037	0.0051	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.012	J	0.037	0.0073	mg/Kg	1	☼	8270D	Total/NA
Antimony	0.40	J	1.1	0.22	mg/Kg	1	☼	6010B	Total/NA
Arsenic	7.2		0.57	0.19	mg/Kg	1	☼	6010B	Total/NA
Barium	34		0.57	0.065	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.67		0.23	0.053	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.32	B	0.11	0.020	mg/Kg	1	☼	6010B	Total/NA
Chromium	15		0.57	0.28	mg/Kg	1	☼	6010B	Total/NA
Cobalt	11		0.28	0.074	mg/Kg	1	☼	6010B	Total/NA
Copper	31		2.8	0.80	mg/Kg	5	☼	6010B	Total/NA
Iron	17000		11	5.9	mg/Kg	1	☼	6010B	Total/NA
Lead	57		0.28	0.13	mg/Kg	1	☼	6010B	Total/NA
Magnesium	27000	B	5.7	2.8	mg/Kg	1	☼	6010B	Total/NA
Calcium	65000	B	57	9.6	mg/Kg	5	☼	6010B	Total/NA
Manganese	270		0.57	0.082	mg/Kg	1	☼	6010B	Total/NA
Nickel	30		0.57	0.17	mg/Kg	1	☼	6010B	Total/NA
Vanadium	16		0.28	0.067	mg/Kg	1	☼	6010B	Total/NA
Zinc	75		1.1	0.50	mg/Kg	1	☼	6010B	Total/NA
Potassium	2000		28	10	mg/Kg	1	☼	6010B	Total/NA
Sodium	530		57	8.4	mg/Kg	1	☼	6010B	Total/NA
Barium	0.37	J	0.50	0.050	mg/L	1		6010B	TCLP
Cadmium	0.0045	J	0.0050	0.0020	mg/L	1		6010B	TCLP
Calcium	450		5.0	0.50	mg/L	1		6010B	TCLP
Cobalt	0.010	J	0.025	0.010	mg/L	1		6010B	TCLP
Lead	0.037		0.0075	0.0075	mg/L	1		6010B	TCLP
Magnesium	78		2.5	0.50	mg/L	1		6010B	TCLP
Manganese	2.6		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.014	J	0.025	0.010	mg/L	1		6010B	TCLP
Potassium	1.7	J	2.5	0.50	mg/L	1		6010B	TCLP
Lead	0.25		0.0075	0.0075	mg/L	1		6010B	SPLP East
Manganese	0.55		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.030	B	0.018	0.0060	mg/Kg	1	☼	7471B	Total/NA
pH	9.0		0.20	0.20	SU	1		9045D	Total/NA

Client Sample ID: 2696V-61-B03 (0-5)

Lab Sample ID: 500-137078-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Antimony	0.44	J	1.2	0.24	mg/Kg	1	☼	6010B	Total/NA
Arsenic	9.0		0.62	0.21	mg/Kg	1	☼	6010B	Total/NA
Barium	60		0.62	0.071	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.87		0.25	0.058	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.11	J B	0.12	0.022	mg/Kg	1	☼	6010B	Total/NA
Chromium	21		0.62	0.31	mg/Kg	1	☼	6010B	Total/NA
Cobalt	17		0.31	0.081	mg/Kg	1	☼	6010B	Total/NA
Copper	25		0.62	0.17	mg/Kg	1	☼	6010B	Total/NA
Iron	22000		12	6.4	mg/Kg	1	☼	6010B	Total/NA
Lead	17		0.31	0.14	mg/Kg	1	☼	6010B	Total/NA
Magnesium	15000	B	6.2	3.1	mg/Kg	1	☼	6010B	Total/NA
Calcium	29000	B	12	2.1	mg/Kg	1	☼	6010B	Total/NA
Manganese	390		0.62	0.090	mg/Kg	1	☼	6010B	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137078-1

Client Sample ID: 2696V-61-B03 (0-5) (Continued)

Lab Sample ID: 500-137078-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Nickel	37		0.62	0.18	mg/Kg	1	☼	6010B	Total/NA
Vanadium	24		0.31	0.073	mg/Kg	1	☼	6010B	Total/NA
Zinc	68		1.2	0.54	mg/Kg	1	☼	6010B	Total/NA
Potassium	2600		31	11	mg/Kg	1	☼	6010B	Total/NA
Sodium	1300		62	9.2	mg/Kg	1	☼	6010B	Total/NA
Barium	0.35	J	0.50	0.050	mg/L	1		6010B	TCLP
Cadmium	0.0022	J	0.0050	0.0020	mg/L	1		6010B	TCLP
Calcium	400		5.0	0.50	mg/L	1		6010B	TCLP
Cobalt	0.017	J	0.025	0.010	mg/L	1		6010B	TCLP
Magnesium	64		2.5	0.50	mg/L	1		6010B	TCLP
Manganese	5.3		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.015	J	0.025	0.010	mg/L	1		6010B	TCLP
Potassium	1.3	J	2.5	0.50	mg/L	1		6010B	TCLP
Zinc	0.023	J	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	1.7		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.025	B	0.020	0.0068	mg/Kg	1	☼	7471B	Total/NA
pH	9.2		0.20	0.20	SU	1		9045D	Total/NA

Client Sample ID: 2696V-61-B04 (0-5)

Lab Sample ID: 500-137078-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	0.019		0.016	0.0069	mg/Kg	1	☼	8260B	Total/NA
Benzo[a]anthracene	0.0090	J	0.037	0.0050	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.011	J	0.037	0.0071	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.018	J	0.037	0.0079	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.013	J	0.037	0.010	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.023	J	0.037	0.0068	mg/Kg	1	☼	8270D	Total/NA
Phenanthrene	0.011	J	0.037	0.0051	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.020	J	0.037	0.0073	mg/Kg	1	☼	8270D	Total/NA
Antimony	0.41	J	1.1	0.21	mg/Kg	1	☼	6010B	Total/NA
Arsenic	10		0.54	0.19	mg/Kg	1	☼	6010B	Total/NA
Barium	39		0.54	0.062	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.66		0.22	0.051	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.13	B	0.11	0.020	mg/Kg	1	☼	6010B	Total/NA
Chromium	14		0.54	0.27	mg/Kg	1	☼	6010B	Total/NA
Cobalt	13		0.27	0.071	mg/Kg	1	☼	6010B	Total/NA
Copper	28		0.54	0.15	mg/Kg	1	☼	6010B	Total/NA
Iron	20000		11	5.7	mg/Kg	1	☼	6010B	Total/NA
Lead	33		0.27	0.13	mg/Kg	1	☼	6010B	Total/NA
Magnesium	5800	B	5.4	2.7	mg/Kg	1	☼	6010B	Total/NA
Calcium	8700	B	11	1.8	mg/Kg	1	☼	6010B	Total/NA
Manganese	210		0.54	0.079	mg/Kg	1	☼	6010B	Total/NA
Nickel	28		0.54	0.16	mg/Kg	1	☼	6010B	Total/NA
Vanadium	22		0.27	0.064	mg/Kg	1	☼	6010B	Total/NA
Zinc	78		1.1	0.48	mg/Kg	1	☼	6010B	Total/NA
Potassium	1500		27	9.6	mg/Kg	1	☼	6010B	Total/NA
Sodium	950		54	8.1	mg/Kg	1	☼	6010B	Total/NA
Barium	0.42	J	0.50	0.050	mg/L	1		6010B	TCLP
Cadmium	0.0027	J	0.0050	0.0020	mg/L	1		6010B	TCLP
Calcium	360		5.0	0.50	mg/L	1		6010B	TCLP

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137078-1

Client Sample ID: 2696V-61-B04 (0-5) (Continued)

Lab Sample ID: 500-137078-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cobalt	0.017	J	0.025	0.010	mg/L	1		6010B	TCLP
Copper	0.011	J	0.025	0.010	mg/L	1		6010B	TCLP
Iron	0.24	J	0.40	0.20	mg/L	1		6010B	TCLP
Lead	0.0092		0.0075	0.0075	mg/L	1		6010B	TCLP
Magnesium	66		2.5	0.50	mg/L	1		6010B	TCLP
Manganese	4.1		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.017	J	0.025	0.010	mg/L	1		6010B	TCLP
Potassium	1.4	J	2.5	0.50	mg/L	1		6010B	TCLP
Lead	0.18		0.0075	0.0075	mg/L	1		6010B	SPLP East
Manganese	1.2		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.024	B	0.017	0.0057	mg/Kg	1	☼	7471B	Total/NA
pH	9.2		0.20	0.20	SU	1		9045D	Total/NA

Client Sample ID: 2696V-61-B05 (0-5)

Lab Sample ID: 500-137078-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	0.020		0.016	0.0070	mg/Kg	1	☼	8260B	Total/NA
Anthracene	0.016	J	0.038	0.0064	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.033	J	0.038	0.0051	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.042		0.038	0.0074	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.067		0.038	0.0082	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.029	J	0.038	0.012	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.025	J	0.038	0.011	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.045		0.038	0.010	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.084		0.038	0.0071	mg/Kg	1	☼	8270D	Total/NA
Fluorene	0.011	J	0.038	0.0054	mg/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.021	J	0.038	0.0099	mg/Kg	1	☼	8270D	Total/NA
2-Methylnaphthalene	0.010	J	0.077	0.0070	mg/Kg	1	☼	8270D	Total/NA
Phenanthrene	0.059		0.038	0.0053	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.067		0.038	0.0076	mg/Kg	1	☼	8270D	Total/NA
Antimony	0.53	J	1.1	0.22	mg/Kg	1	☼	6010B	Total/NA
Arsenic	9.6		0.57	0.19	mg/Kg	1	☼	6010B	Total/NA
Barium	21		0.57	0.065	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.48		0.23	0.053	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.27	B	0.11	0.020	mg/Kg	1	☼	6010B	Total/NA
Chromium	9.4		0.57	0.28	mg/Kg	1	☼	6010B	Total/NA
Cobalt	8.9		0.28	0.074	mg/Kg	1	☼	6010B	Total/NA
Copper	29		2.8	0.79	mg/Kg	5	☼	6010B	Total/NA
Iron	15000		11	5.9	mg/Kg	1	☼	6010B	Total/NA
Lead	130		0.28	0.13	mg/Kg	1	☼	6010B	Total/NA
Magnesium	20000	B	5.7	2.8	mg/Kg	1	☼	6010B	Total/NA
Calcium	51000	B	57	9.6	mg/Kg	5	☼	6010B	Total/NA
Manganese	220		0.57	0.082	mg/Kg	1	☼	6010B	Total/NA
Nickel	22		0.57	0.16	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.41	J B	0.57	0.33	mg/Kg	1	☼	6010B	Total/NA
Vanadium	16		0.28	0.067	mg/Kg	1	☼	6010B	Total/NA
Zinc	68		1.1	0.50	mg/Kg	1	☼	6010B	Total/NA
Potassium	900		28	10	mg/Kg	1	☼	6010B	Total/NA
Sodium	910		57	8.4	mg/Kg	1	☼	6010B	Total/NA
Barium	0.44	J	0.50	0.050	mg/L	1		6010B	TCLP

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137078-1

Client Sample ID: 2696V-61-B05 (0-5) (Continued)

Lab Sample ID: 500-137078-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Cadmium	0.0038	J	0.0050	0.0020	mg/L	1			6010B	TCLP
Calcium	400		5.0	0.50	mg/L	1			6010B	TCLP
Cobalt	0.014	J	0.025	0.010	mg/L	1			6010B	TCLP
Lead	0.055		0.0075	0.0075	mg/L	1			6010B	TCLP
Magnesium	56		2.5	0.50	mg/L	1			6010B	TCLP
Manganese	4.4		0.025	0.010	mg/L	1			6010B	TCLP
Nickel	0.017	J	0.025	0.010	mg/L	1			6010B	TCLP
Potassium	1.7	J	2.5	0.50	mg/L	1			6010B	TCLP
Zinc	0.045	J	0.50	0.020	mg/L	1			6010B	TCLP
Lead	0.42		0.0075	0.0075	mg/L	1			6010B	SPLP East
Manganese	1.1		0.025	0.010	mg/L	1			6010B	SPLP East
Mercury	0.028	B	0.017	0.0058	mg/Kg	1		☼	7471B	Total/NA
pH	9.0		0.20	0.20	SU	1			9045D	Total/NA

Client Sample ID: 2696V-61-B06 (0-5)

Lab Sample ID: 500-137078-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Acetone	0.018		0.016	0.0070	mg/Kg	1		☼	8260B	Total/NA
Antimony	0.46	J	1.1	0.22	mg/Kg	1		☼	6010B	Total/NA
Arsenic	15		0.57	0.20	mg/Kg	1		☼	6010B	Total/NA
Barium	50		0.57	0.065	mg/Kg	1		☼	6010B	Total/NA
Beryllium	0.73		0.23	0.054	mg/Kg	1		☼	6010B	Total/NA
Cadmium	0.17	B	0.11	0.021	mg/Kg	1		☼	6010B	Total/NA
Chromium	19		0.57	0.28	mg/Kg	1		☼	6010B	Total/NA
Cobalt	18		0.29	0.075	mg/Kg	1		☼	6010B	Total/NA
Copper	30		0.57	0.16	mg/Kg	1		☼	6010B	Total/NA
Iron	29000		11	6.0	mg/Kg	1		☼	6010B	Total/NA
Lead	18		0.29	0.13	mg/Kg	1		☼	6010B	Total/NA
Magnesium	4800	B	5.7	2.8	mg/Kg	1		☼	6010B	Total/NA
Calcium	3500	B	11	1.9	mg/Kg	1		☼	6010B	Total/NA
Manganese	520		0.57	0.083	mg/Kg	1		☼	6010B	Total/NA
Nickel	44		0.57	0.17	mg/Kg	1		☼	6010B	Total/NA
Vanadium	22		0.29	0.068	mg/Kg	1		☼	6010B	Total/NA
Zinc	83		1.1	0.50	mg/Kg	1		☼	6010B	Total/NA
Potassium	1700		29	10	mg/Kg	1		☼	6010B	Total/NA
Sodium	1300		57	8.5	mg/Kg	1		☼	6010B	Total/NA
Barium	0.26	J	0.50	0.050	mg/L	1			6010B	TCLP
Cadmium	0.0033	J	0.0050	0.0020	mg/L	1			6010B	TCLP
Calcium	140		5.0	0.50	mg/L	1			6010B	TCLP
Cobalt	0.029		0.025	0.010	mg/L	1			6010B	TCLP
Copper	0.057		0.025	0.010	mg/L	1			6010B	TCLP
Magnesium	64		2.5	0.50	mg/L	1			6010B	TCLP
Manganese	6.9		0.025	0.010	mg/L	1			6010B	TCLP
Nickel	0.046		0.025	0.010	mg/L	1			6010B	TCLP
Potassium	0.93	J	2.5	0.50	mg/L	1			6010B	TCLP
Zinc	0.026	J	0.50	0.020	mg/L	1			6010B	TCLP
Manganese	1.6		0.025	0.010	mg/L	1			6010B	SPLP East
Mercury	0.031	B	0.018	0.0061	mg/Kg	1		☼	7471B	Total/NA
pH	8.9		0.20	0.20	SU	1			9045D	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137078-1

Client Sample ID: 2696V-61-B06 (5-10)

Lab Sample ID: 500-137078-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[b]fluoranthene	0.0090	J	0.040	0.0087	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.021	J	0.040	0.013	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.015	J	0.040	0.011	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.0082	J	0.040	0.0075	mg/Kg	1	☼	8270D	Total/NA
Phenanthrene	0.011	J	0.040	0.0056	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.013	J	0.040	0.0080	mg/Kg	1	☼	8270D	Total/NA
Antimony	0.31	J	1.2	0.24	mg/Kg	1	☼	6010B	Total/NA
Arsenic	4.9		0.61	0.21	mg/Kg	1	☼	6010B	Total/NA
Barium	31		0.61	0.069	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.52		0.24	0.057	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.093	J B	0.12	0.022	mg/Kg	1	☼	6010B	Total/NA
Chromium	12		0.61	0.30	mg/Kg	1	☼	6010B	Total/NA
Cobalt	7.4		0.30	0.079	mg/Kg	1	☼	6010B	Total/NA
Copper	19		3.0	0.85	mg/Kg	5	☼	6010B	Total/NA
Iron	13000		12	6.3	mg/Kg	1	☼	6010B	Total/NA
Lead	8.5		0.30	0.14	mg/Kg	1	☼	6010B	Total/NA
Magnesium	31000	B	6.1	3.0	mg/Kg	1	☼	6010B	Total/NA
Calcium	99000	B	61	10	mg/Kg	5	☼	6010B	Total/NA
Manganese	340		0.61	0.088	mg/Kg	1	☼	6010B	Total/NA
Nickel	19		0.61	0.18	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.45	J B	0.61	0.36	mg/Kg	1	☼	6010B	Total/NA
Vanadium	16		0.30	0.072	mg/Kg	1	☼	6010B	Total/NA
Zinc	39		1.2	0.53	mg/Kg	1	☼	6010B	Total/NA
Potassium	1500		30	11	mg/Kg	1	☼	6010B	Total/NA
Sodium	660		61	9.0	mg/Kg	1	☼	6010B	Total/NA
Barium	0.79		0.50	0.050	mg/L	1		6010B	TCLP
Cadmium	0.0042	J	0.0050	0.0020	mg/L	1		6010B	TCLP
Calcium	1500		50	5.0	mg/L	10		6010B	TCLP
Cobalt	0.056		0.025	0.010	mg/L	1		6010B	TCLP
Copper	0.037		0.025	0.010	mg/L	1		6010B	TCLP
Iron	1.4		0.40	0.20	mg/L	1		6010B	TCLP
Lead	0.010		0.0075	0.0075	mg/L	1		6010B	TCLP
Magnesium	200		2.5	0.50	mg/L	1		6010B	TCLP
Manganese	8.5		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.062		0.025	0.010	mg/L	1		6010B	TCLP
Potassium	2.3	J	2.5	0.50	mg/L	1		6010B	TCLP
Zinc	0.072	J	0.50	0.020	mg/L	1		6010B	TCLP
Lead	0.047		0.0075	0.0075	mg/L	1		6010B	SPLP East
Manganese	0.68		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.028	B	0.020	0.0068	mg/Kg	1	☼	7471B	Total/NA
pH	9.1		0.20	0.20	SU	1		9045D	Total/NA

Client Sample ID: 2696V-61-B06 (10-15)

Lab Sample ID: 500-137078-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]pyrene	0.0093	J	0.039	0.0076	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.018	J	0.039	0.0085	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.029	J	0.039	0.013	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.020	J	0.039	0.011	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.013	J	0.039	0.0073	mg/Kg	1	☼	8270D	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137078-1

Client Sample ID: 2696V-61-B06 (10-15) (Continued)

Lab Sample ID: 500-137078-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Methylnaphthalene	0.0081	J	0.079	0.0072	mg/Kg	1	☼	8270D	Total/NA
Phenanthrene	0.022	J	0.039	0.0055	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.021	J	0.039	0.0078	mg/Kg	1	☼	8270D	Total/NA
Antimony	0.55	J	1.2	0.23	mg/Kg	1	☼	6010B	Total/NA
Arsenic	6.1		0.58	0.20	mg/Kg	1	☼	6010B	Total/NA
Barium	62		0.58	0.066	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.69		0.23	0.054	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.095	J B	0.12	0.021	mg/Kg	1	☼	6010B	Total/NA
Chromium	17		0.58	0.29	mg/Kg	1	☼	6010B	Total/NA
Cobalt	12		0.29	0.076	mg/Kg	1	☼	6010B	Total/NA
Copper	24		2.9	0.82	mg/Kg	5	☼	6010B	Total/NA
Iron	18000		12	6.1	mg/Kg	1	☼	6010B	Total/NA
Lead	11		0.29	0.13	mg/Kg	1	☼	6010B	Total/NA
Magnesium	25000	B	5.8	2.9	mg/Kg	1	☼	6010B	Total/NA
Calcium	88000	B	58	9.9	mg/Kg	5	☼	6010B	Total/NA
Manganese	360		0.58	0.085	mg/Kg	1	☼	6010B	Total/NA
Nickel	30		0.58	0.17	mg/Kg	1	☼	6010B	Total/NA
Vanadium	20		0.29	0.069	mg/Kg	1	☼	6010B	Total/NA
Zinc	52		1.2	0.51	mg/Kg	1	☼	6010B	Total/NA
Potassium	2500		29	10	mg/Kg	1	☼	6010B	Total/NA
Sodium	410		58	8.6	mg/Kg	1	☼	6010B	Total/NA
Barium	1.1		0.50	0.050	mg/L	1		6010B	TCLP
Calcium	760		50	5.0	mg/L	10		6010B	TCLP
Copper	0.025		0.025	0.010	mg/L	1		6010B	TCLP
Magnesium	25		2.5	0.50	mg/L	1		6010B	TCLP
Manganese	2.1		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.020	J	0.025	0.010	mg/L	1		6010B	TCLP
Potassium	5.0		2.5	0.50	mg/L	1		6010B	TCLP
Manganese	0.022	J	0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.024	B F1	0.018	0.0060	mg/Kg	1	☼	7471B	Total/NA
pH	8.4		0.20	0.20	SU	1		9045D	Total/NA

Client Sample ID: 2696V-61-B06 (15-21)

Lab Sample ID: 500-137078-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[g,h,i]perylene	0.018	J	0.041	0.013	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.028	J	0.041	0.011	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.0098	J	0.041	0.0076	mg/Kg	1	☼	8270D	Total/NA
2-Methylnaphthalene	0.014	J	0.083	0.0075	mg/Kg	1	☼	8270D	Total/NA
Phenanthrene	0.035	J	0.041	0.0057	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.015	J	0.041	0.0081	mg/Kg	1	☼	8270D	Total/NA
Antimony	0.42	J	1.3	0.24	mg/Kg	1	☼	6010B	Total/NA
Arsenic	10		0.63	0.21	mg/Kg	1	☼	6010B	Total/NA
Barium	14		0.63	0.072	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.45		0.25	0.059	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.19	B	0.13	0.023	mg/Kg	1	☼	6010B	Total/NA
Chromium	8.4		0.63	0.31	mg/Kg	1	☼	6010B	Total/NA
Cobalt	9.5		0.31	0.082	mg/Kg	1	☼	6010B	Total/NA
Copper	28		3.1	0.88	mg/Kg	5	☼	6010B	Total/NA
Iron	15000		13	6.5	mg/Kg	1	☼	6010B	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137078-1

Client Sample ID: 2696V-61-B06 (15-21) (Continued)

Lab Sample ID: 500-137078-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	13		0.31	0.15	mg/Kg	1	☼	6010B	Total/NA
Magnesium	39000	B	6.3	3.1	mg/Kg	1	☼	6010B	Total/NA
Calcium	99000	B	63	11	mg/Kg	5	☼	6010B	Total/NA
Manganese	400		0.63	0.091	mg/Kg	1	☼	6010B	Total/NA
Nickel	23		0.63	0.18	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.81	B	0.63	0.37	mg/Kg	1	☼	6010B	Total/NA
Thallium	0.41	J	0.63	0.31	mg/Kg	1	☼	6010B	Total/NA
Vanadium	12		0.31	0.074	mg/Kg	1	☼	6010B	Total/NA
Zinc	49		1.3	0.55	mg/Kg	1	☼	6010B	Total/NA
Potassium	1400		31	11	mg/Kg	1	☼	6010B	Total/NA
Sodium	180		63	9.3	mg/Kg	1	☼	6010B	Total/NA
Barium	0.70		0.50	0.050	mg/L	1		6010B	TCLP
Calcium	730		50	5.0	mg/L	10		6010B	TCLP
Cobalt	0.012	J	0.025	0.010	mg/L	1		6010B	TCLP
Iron	0.20	J	0.40	0.20	mg/L	1		6010B	TCLP
Magnesium	23		2.5	0.50	mg/L	1		6010B	TCLP
Manganese	2.0		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.031		0.025	0.010	mg/L	1		6010B	TCLP
Potassium	4.6		2.5	0.50	mg/L	1		6010B	TCLP
Manganese	0.029		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.015	J B	0.018	0.0061	mg/Kg	1	☼	7471B	Total/NA
pH	8.5		0.20	0.20	SU	1		9045D	Total/NA

Client Sample ID: 2696V-61-B06 (15-21) Dup

Lab Sample ID: 500-137078-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[g,h,i]perylene	0.013	J	0.037	0.012	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.017	J	0.037	0.010	mg/Kg	1	☼	8270D	Total/NA
2-Methylnaphthalene	0.011	J	0.076	0.0069	mg/Kg	1	☼	8270D	Total/NA
Phenanthrene	0.025	J	0.037	0.0053	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.012	J	0.037	0.0075	mg/Kg	1	☼	8270D	Total/NA
Antimony	0.46	J	1.2	0.23	mg/Kg	1	☼	6010B	Total/NA
Arsenic	7.4		0.58	0.20	mg/Kg	1	☼	6010B	Total/NA
Barium	26		0.58	0.066	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.46		0.23	0.054	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.10	J B	0.12	0.021	mg/Kg	1	☼	6010B	Total/NA
Chromium	9.8		0.58	0.29	mg/Kg	1	☼	6010B	Total/NA
Cobalt	8.5		0.29	0.076	mg/Kg	1	☼	6010B	Total/NA
Copper	24		2.9	0.81	mg/Kg	5	☼	6010B	Total/NA
Iron	14000		12	6.0	mg/Kg	1	☼	6010B	Total/NA
Lead	16		0.29	0.13	mg/Kg	1	☼	6010B	Total/NA
Magnesium	33000	B	5.8	2.9	mg/Kg	1	☼	6010B	Total/NA
Calcium	93000	B	58	9.8	mg/Kg	5	☼	6010B	Total/NA
Manganese	380		0.58	0.084	mg/Kg	1	☼	6010B	Total/NA
Nickel	21		0.58	0.17	mg/Kg	1	☼	6010B	Total/NA
Vanadium	13		0.29	0.068	mg/Kg	1	☼	6010B	Total/NA
Zinc	40		1.2	0.51	mg/Kg	1	☼	6010B	Total/NA
Potassium	1500		29	10	mg/Kg	1	☼	6010B	Total/NA
Sodium	170		58	8.6	mg/Kg	1	☼	6010B	Total/NA
Barium	0.62		0.50	0.050	mg/L	1		6010B	TCLP

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137078-1

Client Sample ID: 2696V-61-B06 (15-21) Dup (Continued)

Lab Sample ID: 500-137078-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	750		50	5.0	mg/L	10		6010B	TCLP
Magnesium	21		2.5	0.50	mg/L	1		6010B	TCLP
Manganese	1.9		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.026		0.025	0.010	mg/L	1		6010B	TCLP
Potassium	4.3		2.5	0.50	mg/L	1		6010B	TCLP
Manganese	0.016	J	0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.014	J B	0.018	0.0061	mg/Kg	1	☼	7471B	Total/NA
pH	8.5		0.20	0.20	SU	1		9045D	Total/NA

Client Sample ID: 2696V-61-B07 (0-5)

Lab Sample ID: 500-137078-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	4.5		0.56	0.19	mg/Kg	1	☼	6010B	Total/NA
Barium	28		0.56	0.064	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.39		0.23	0.053	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.19	B	0.11	0.020	mg/Kg	1	☼	6010B	Total/NA
Chromium	8.0		0.56	0.28	mg/Kg	1	☼	6010B	Total/NA
Cobalt	4.8		0.28	0.074	mg/Kg	1	☼	6010B	Total/NA
Copper	19		0.56	0.16	mg/Kg	1	☼	6010B	Total/NA
Iron	9000		11	5.9	mg/Kg	1	☼	6010B	Total/NA
Lead	12		0.28	0.13	mg/Kg	1	☼	6010B	Total/NA
Magnesium	7000	B	5.6	2.8	mg/Kg	1	☼	6010B	Total/NA
Calcium	16000	B	11	1.9	mg/Kg	1	☼	6010B	Total/NA
Manganese	81		0.56	0.082	mg/Kg	1	☼	6010B	Total/NA
Nickel	14		0.56	0.16	mg/Kg	1	☼	6010B	Total/NA
Vanadium	14		0.28	0.066	mg/Kg	1	☼	6010B	Total/NA
Zinc	49		1.1	0.49	mg/Kg	1	☼	6010B	Total/NA
Potassium	570		28	10	mg/Kg	1	☼	6010B	Total/NA
Sodium	680		56	8.3	mg/Kg	1	☼	6010B	Total/NA
Barium	0.33	J	0.50	0.050	mg/L	1		6010B	TCLP
Cadmium	0.0035	J	0.0050	0.0020	mg/L	1		6010B	TCLP
Calcium	400		5.0	0.50	mg/L	1		6010B	TCLP
Copper	0.012	J	0.025	0.010	mg/L	1		6010B	TCLP
Magnesium	100		2.5	0.50	mg/L	1		6010B	TCLP
Manganese	0.94		0.025	0.010	mg/L	1		6010B	TCLP
Potassium	0.83	J	2.5	0.50	mg/L	1		6010B	TCLP
Manganese	0.17		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.015	J B	0.019	0.0062	mg/Kg	1	☼	7471B	Total/NA
pH	8.6		0.20	0.20	SU	1		9045D	Total/NA

Client Sample ID: 2696V-61-B08 (0-5)

Lab Sample ID: 500-137078-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Anthracene	0.016	J	0.040	0.0067	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.059		0.040	0.0054	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.078		0.040	0.0078	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.10		0.040	0.0087	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.045		0.040	0.013	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.057		0.040	0.012	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.077		0.040	0.011	mg/Kg	1	☼	8270D	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137078-1

Client Sample ID: 2696V-61-B08 (0-5) (Continued)

Lab Sample ID: 500-137078-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Fluoranthene	0.18		0.040	0.0075	mg/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.033	J	0.040	0.010	mg/Kg	1	☼	8270D	Total/NA
Phenanthrene	0.090		0.040	0.0056	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.12		0.040	0.0080	mg/Kg	1	☼	8270D	Total/NA
Antimony	0.54	J	1.2	0.24	mg/Kg	1	☼	6010B	Total/NA
Arsenic	5.9		0.61	0.21	mg/Kg	1	☼	6010B	Total/NA
Barium	140		0.61	0.069	mg/Kg	1	☼	6010B	Total/NA
Beryllium	2.3		0.24	0.057	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.24	B	0.12	0.022	mg/Kg	1	☼	6010B	Total/NA
Chromium	15		0.61	0.30	mg/Kg	1	☼	6010B	Total/NA
Cobalt	8.6		0.30	0.080	mg/Kg	1	☼	6010B	Total/NA
Copper	28		3.0	0.85	mg/Kg	5	☼	6010B	Total/NA
Iron	14000		12	6.3	mg/Kg	1	☼	6010B	Total/NA
Lead	42		0.30	0.14	mg/Kg	1	☼	6010B	Total/NA
Magnesium	21000	B	6.1	3.0	mg/Kg	1	☼	6010B	Total/NA
Calcium	96000	B	61	10	mg/Kg	5	☼	6010B	Total/NA
Manganese	990		0.61	0.088	mg/Kg	1	☼	6010B	Total/NA
Nickel	19		0.61	0.18	mg/Kg	1	☼	6010B	Total/NA
Selenium	1.4	B	0.61	0.36	mg/Kg	1	☼	6010B	Total/NA
Vanadium	16		0.30	0.072	mg/Kg	1	☼	6010B	Total/NA
Zinc	77		1.2	0.54	mg/Kg	1	☼	6010B	Total/NA
Potassium	2000		30	11	mg/Kg	1	☼	6010B	Total/NA
Sodium	1200		61	9.0	mg/Kg	1	☼	6010B	Total/NA
Barium	0.41	J	0.50	0.050	mg/L	1		6010B	TCLP
Calcium	530		5.0	0.50	mg/L	1		6010B	TCLP
Copper	0.047		0.025	0.010	mg/L	1		6010B	TCLP
Magnesium	67		2.5	0.50	mg/L	1		6010B	TCLP
Manganese	0.17		0.025	0.010	mg/L	1		6010B	TCLP
Potassium	4.5		2.5	0.50	mg/L	1		6010B	TCLP
Zinc	0.025	J	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.66		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.033	B	0.019	0.0062	mg/Kg	1	☼	7471B	Total/NA
Cyanide, Total	0.18	J	0.52	0.18	mg/Kg	1	☼	9014	Total/NA
pH	8.7		0.20	0.20	SU	1		9045D	Total/NA

Client Sample ID: 2696V-61-B09 (0-5)

Lab Sample ID: 500-137078-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	0.024		0.019	0.0081	mg/Kg	1	☼	8260B	Total/NA
Acenaphthene	0.0096	J	0.040	0.0073	mg/Kg	1	☼	8270D	Total/NA
Anthracene	0.030	J	0.040	0.0068	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.10		0.040	0.0054	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.11		0.040	0.0078	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.20		0.040	0.0087	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.041		0.040	0.013	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.059		0.040	0.012	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.13		0.040	0.011	mg/Kg	1	☼	8270D	Total/NA
Dibenz(a,h)anthracene	0.013	J	0.040	0.0078	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.24		0.040	0.0075	mg/Kg	1	☼	8270D	Total/NA
Fluorene	0.0083	J	0.040	0.0057	mg/Kg	1	☼	8270D	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137078-1

Client Sample ID: 2696V-61-B09 (0-5) (Continued)

Lab Sample ID: 500-137078-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Indeno[1,2,3-cd]pyrene	0.047		0.040	0.010	mg/Kg	1	☼	8270D	Total/NA
Phenanthrene	0.11		0.040	0.0056	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.16		0.040	0.0080	mg/Kg	1	☼	8270D	Total/NA
Antimony	0.36	J	1.1	0.22	mg/Kg	1	☼	6010B	Total/NA
Arsenic	9.7		0.57	0.19	mg/Kg	1	☼	6010B	Total/NA
Barium	90		0.57	0.065	mg/Kg	1	☼	6010B	Total/NA
Beryllium	1.7		0.23	0.053	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.21	B	0.11	0.021	mg/Kg	1	☼	6010B	Total/NA
Chromium	14		0.57	0.28	mg/Kg	1	☼	6010B	Total/NA
Cobalt	12		0.29	0.075	mg/Kg	1	☼	6010B	Total/NA
Copper	20		0.57	0.16	mg/Kg	1	☼	6010B	Total/NA
Iron	19000		11	5.9	mg/Kg	1	☼	6010B	Total/NA
Lead	20		0.29	0.13	mg/Kg	1	☼	6010B	Total/NA
Magnesium	14000	B	5.7	2.8	mg/Kg	1	☼	6010B	Total/NA
Calcium	30000	B	11	1.9	mg/Kg	1	☼	6010B	Total/NA
Manganese	550		0.57	0.083	mg/Kg	1	☼	6010B	Total/NA
Nickel	29		0.57	0.17	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.71	B	0.57	0.34	mg/Kg	1	☼	6010B	Total/NA
Vanadium	20		0.29	0.067	mg/Kg	1	☼	6010B	Total/NA
Zinc	65		1.1	0.50	mg/Kg	1	☼	6010B	Total/NA
Potassium	1700		29	10	mg/Kg	1	☼	6010B	Total/NA
Sodium	820		57	8.4	mg/Kg	1	☼	6010B	Total/NA
Barium	0.39	J	0.50	0.050	mg/L	1		6010B	TCLP
Cadmium	0.0023	J	0.0050	0.0020	mg/L	1		6010B	TCLP
Calcium	320		5.0	0.50	mg/L	1		6010B	TCLP
Cobalt	0.022	J	0.025	0.010	mg/L	1		6010B	TCLP
Copper	0.019	J	0.025	0.010	mg/L	1		6010B	TCLP
Magnesium	110		2.5	0.50	mg/L	1		6010B	TCLP
Manganese	9.8		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.027		0.025	0.010	mg/L	1		6010B	TCLP
Potassium	4.5		2.5	0.50	mg/L	1		6010B	TCLP
Manganese	1.2		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.036	B	0.019	0.0062	mg/Kg	1	☼	7471B	Total/NA
pH	8.7		0.20	0.20	SU	1		9045D	Total/NA

Client Sample ID: 2696V-61-B10 (0-5)

Lab Sample ID: 500-137078-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	0.053		0.016	0.0071	mg/Kg	1	☼	8260B	Total/NA
Benzo[a]anthracene	0.021	J	0.038	0.0051	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.028	J	0.038	0.0074	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.043		0.038	0.0082	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.017	J	0.038	0.012	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.025	J	0.038	0.011	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.029	J	0.038	0.010	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.057		0.038	0.0071	mg/Kg	1	☼	8270D	Total/NA
Phenanthrene	0.020	J	0.038	0.0053	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.041		0.038	0.0076	mg/Kg	1	☼	8270D	Total/NA
Antimony	0.53	J	1.1	0.22	mg/Kg	1	☼	6010B	Total/NA
Arsenic	5.6		0.57	0.19	mg/Kg	1	☼	6010B	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137078-1

Client Sample ID: 2696V-61-B10 (0-5) (Continued)

Lab Sample ID: 500-137078-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Barium	77		0.57	0.065	mg/Kg	1		☼	6010B	Total/NA
Beryllium	0.78		0.23	0.053	mg/Kg	1		☼	6010B	Total/NA
Cadmium	0.24	B	0.11	0.020	mg/Kg	1		☼	6010B	Total/NA
Chromium	14		0.57	0.28	mg/Kg	1		☼	6010B	Total/NA
Cobalt	7.4		0.28	0.074	mg/Kg	1		☼	6010B	Total/NA
Copper	24		2.8	0.79	mg/Kg	5		☼	6010B	Total/NA
Iron	12000		11	5.9	mg/Kg	1		☼	6010B	Total/NA
Lead	34		0.28	0.13	mg/Kg	1		☼	6010B	Total/NA
Magnesium	24000	B	5.7	2.8	mg/Kg	1		☼	6010B	Total/NA
Calcium	71000	B	57	9.6	mg/Kg	5		☼	6010B	Total/NA
Manganese	330		0.57	0.082	mg/Kg	1		☼	6010B	Total/NA
Nickel	18		0.57	0.17	mg/Kg	1		☼	6010B	Total/NA
Selenium	0.41	J B	0.57	0.33	mg/Kg	1		☼	6010B	Total/NA
Vanadium	18		0.28	0.067	mg/Kg	1		☼	6010B	Total/NA
Zinc	69		1.1	0.50	mg/Kg	1		☼	6010B	Total/NA
Potassium	1300		28	10	mg/Kg	1		☼	6010B	Total/NA
Sodium	770		57	8.4	mg/Kg	1		☼	6010B	Total/NA
Barium	0.46	J	0.50	0.050	mg/L	1			6010B	TCLP
Calcium	720		50	5.0	mg/L	10			6010B	TCLP
Copper	0.11		0.025	0.010	mg/L	1			6010B	TCLP
Magnesium	30		2.5	0.50	mg/L	1			6010B	TCLP
Manganese	2.2		0.025	0.010	mg/L	1			6010B	TCLP
Potassium	4.8		2.5	0.50	mg/L	1			6010B	TCLP
Zinc	0.029	J	0.50	0.020	mg/L	1			6010B	TCLP
Manganese	0.99		0.025	0.010	mg/L	1			6010B	SPLP East
Mercury	0.037	B	0.017	0.0057	mg/Kg	1		☼	7471B	Total/NA
pH	9.2		0.20	0.20	SU	1			9045D	Total/NA

Client Sample ID: 2696V-61-B11 (0-5)

Lab Sample ID: 500-137078-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Acetone	0.031		0.018	0.0078	mg/Kg	1		☼	8260B	Total/NA
Benzo[a]anthracene	0.011	J	0.041	0.0055	mg/Kg	1		☼	8270D	Total/NA
Benzo[a]pyrene	0.016	J	0.041	0.0080	mg/Kg	1		☼	8270D	Total/NA
Benzo[b]fluoranthene	0.030	J	0.041	0.0089	mg/Kg	1		☼	8270D	Total/NA
Chrysene	0.019	J	0.041	0.011	mg/Kg	1		☼	8270D	Total/NA
Fluoranthene	0.031	J	0.041	0.0076	mg/Kg	1		☼	8270D	Total/NA
Phenanthrene	0.016	J	0.041	0.0057	mg/Kg	1		☼	8270D	Total/NA
Pyrene	0.023	J	0.041	0.0082	mg/Kg	1		☼	8270D	Total/NA
Antimony	0.50	J	1.3	0.25	mg/Kg	1		☼	6010B	Total/NA
Arsenic	5.9		0.64	0.22	mg/Kg	1		☼	6010B	Total/NA
Barium	43		0.64	0.073	mg/Kg	1		☼	6010B	Total/NA
Beryllium	0.56		0.26	0.060	mg/Kg	1		☼	6010B	Total/NA
Cadmium	0.29	B	0.13	0.023	mg/Kg	1		☼	6010B	Total/NA
Chromium	11		0.64	0.32	mg/Kg	1		☼	6010B	Total/NA
Cobalt	8.5		0.32	0.084	mg/Kg	1		☼	6010B	Total/NA
Copper	30		0.64	0.18	mg/Kg	1		☼	6010B	Total/NA
Iron	13000		13	6.7	mg/Kg	1		☼	6010B	Total/NA
Lead	35		0.32	0.15	mg/Kg	1		☼	6010B	Total/NA
Magnesium	13000	B	6.4	3.2	mg/Kg	1		☼	6010B	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137078-1

Client Sample ID: 2696V-61-B11 (0-5) (Continued)

Lab Sample ID: 500-137078-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	23000	B	13	2.2	mg/Kg	1	☼	6010B	Total/NA
Manganese	170		0.64	0.093	mg/Kg	1	☼	6010B	Total/NA
Nickel	22		0.64	0.19	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.41	J B	0.64	0.38	mg/Kg	1	☼	6010B	Total/NA
Vanadium	16		0.32	0.076	mg/Kg	1	☼	6010B	Total/NA
Zinc	74		1.3	0.56	mg/Kg	1	☼	6010B	Total/NA
Potassium	810		32	11	mg/Kg	1	☼	6010B	Total/NA
Sodium	520		64	9.5	mg/Kg	1	☼	6010B	Total/NA
Arsenic	0.011	J	0.050	0.010	mg/L	1		6010B	TCLP
Barium	0.28	J	0.50	0.050	mg/L	1		6010B	TCLP
Calcium	210		5.0	0.50	mg/L	1		6010B	TCLP
Cobalt	0.013	J	0.025	0.010	mg/L	1		6010B	TCLP
Copper	0.028		0.025	0.010	mg/L	1		6010B	TCLP
Magnesium	87		2.5	0.50	mg/L	1		6010B	TCLP
Manganese	1.9		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.018	J	0.025	0.010	mg/L	1		6010B	TCLP
Potassium	0.63	J	2.5	0.50	mg/L	1		6010B	TCLP
Zinc	0.072	J	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.49		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.036	B	0.019	0.0064	mg/Kg	1	☼	7471B	Total/NA
pH	8.8		0.20	0.20	SU	1		9045D	Total/NA

Client Sample ID: 2696V-61-B12 (0-5)

Lab Sample ID: 500-137078-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acenaphthene	0.0088	J	0.041	0.0074	mg/Kg	1	☼	8270D	Total/NA
Anthracene	0.016	J	0.041	0.0069	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.072		0.041	0.0055	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.094		0.041	0.0079	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.15		0.041	0.0089	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.041	F1	0.041	0.013	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.073	F1 F2	0.041	0.012	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.097		0.041	0.011	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.21		0.041	0.0076	mg/Kg	1	☼	8270D	Total/NA
Fluorene	0.0069	J	0.041	0.0058	mg/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.042		0.041	0.011	mg/Kg	1	☼	8270D	Total/NA
Phenanthrene	0.10		0.041	0.0057	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.14		0.041	0.0082	mg/Kg	1	☼	8270D	Total/NA
Antimony	0.44	J	1.2	0.23	mg/Kg	1	☼	6010B	Total/NA
Arsenic	7.0		0.60	0.21	mg/Kg	1	☼	6010B	Total/NA
Barium	110		0.60	0.068	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.72		0.24	0.056	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.57	B	0.12	0.022	mg/Kg	1	☼	6010B	Total/NA
Chromium	16		0.60	0.30	mg/Kg	1	☼	6010B	Total/NA
Cobalt	8.3		0.30	0.079	mg/Kg	1	☼	6010B	Total/NA
Copper	43		0.60	0.17	mg/Kg	1	☼	6010B	Total/NA
Iron	15000		12	6.2	mg/Kg	1	☼	6010B	Total/NA
Lead	60		0.30	0.14	mg/Kg	1	☼	6010B	Total/NA
Magnesium	7400	B	6.0	3.0	mg/Kg	1	☼	6010B	Total/NA
Calcium	12000	B	12	2.0	mg/Kg	1	☼	6010B	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Terracon Consulting Eng & Scientists
Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137078-1

Client Sample ID: 2696V-61-B12 (0-5) (Continued)

Lab Sample ID: 500-137078-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Manganese	190		0.60	0.087	mg/Kg	1	☼	6010B	Total/NA
Nickel	23		0.60	0.17	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.76	B	0.60	0.35	mg/Kg	1	☼	6010B	Total/NA
Silver	1.9		0.30	0.077	mg/Kg	1	☼	6010B	Total/NA
Vanadium	21		0.30	0.071	mg/Kg	1	☼	6010B	Total/NA
Zinc	140		1.2	0.53	mg/Kg	1	☼	6010B	Total/NA
Potassium	1100		30	11	mg/Kg	1	☼	6010B	Total/NA
Sodium	260		60	8.9	mg/Kg	1	☼	6010B	Total/NA
Barium	0.32	J	0.50	0.050	mg/L	1		6010B	TCLP
Cadmium	0.0033	J	0.0050	0.0020	mg/L	1		6010B	TCLP
Calcium	190		5.0	0.50	mg/L	1		6010B	TCLP
Magnesium	83		2.5	0.50	mg/L	1		6010B	TCLP
Manganese	0.60		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.069	J	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.31		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.72	B	0.10	0.033	mg/Kg	5	☼	7471B	Total/NA
pH	8.0		0.20	0.20	SU	1		9045D	Total/NA

Client Sample ID: 2692V-61-G01

Lab Sample ID: 500-137078-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.18		0.0010	0.00023	mg/L	1		6020A	Total Recoverable
Barium	1.5		0.013	0.0037	mg/L	5		6020A	Total Recoverable
Beryllium	0.0080	J	0.010	0.0053	mg/L	10		6020A	Total Recoverable
Cadmium	0.0082		0.00050	0.00017	mg/L	1		6020A	Total Recoverable
Calcium	3400	B	4.0	0.89	mg/L	20		6020A	Total Recoverable
Chromium	0.22		0.050	0.011	mg/L	10		6020A	Total Recoverable
Cobalt	0.18		0.010	0.0040	mg/L	10		6020A	Total Recoverable
Copper	0.57	B	0.0020	0.00050	mg/L	1		6020A	Total Recoverable
Iron	340	B	1.0	0.47	mg/L	10		6020A	Total Recoverable
Lead	0.39		0.0025	0.00093	mg/L	5		6020A	Total Recoverable
Magnesium	1100	B	2.0	0.49	mg/L	10		6020A	Total Recoverable
Manganese	13	B	0.025	0.0079	mg/L	10		6020A	Total Recoverable
Nickel	0.41		0.020	0.0063	mg/L	10		6020A	Total Recoverable
Potassium	20		5.0	1.1	mg/L	10		6020A	Total Recoverable
Selenium	0.013		0.0025	0.00098	mg/L	1		6020A	Total Recoverable
Silver	0.0013		0.00050	0.00012	mg/L	1		6020A	Total Recoverable
Sodium	190		2.0	0.77	mg/L	10		6020A	Total Recoverable

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Terracon Consulting Eng & Scientists
Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137078-1

Client Sample ID: 2692V-61-G01 (Continued)

Lab Sample ID: 500-137078-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Thallium	0.0090	J	0.010	0.0029	mg/L	5		6020A	Total Recoverable
Vanadium	0.17		0.050	0.022	mg/L	10		6020A	Total Recoverable
Zinc	1.4		0.020	0.0069	mg/L	1		6020A	Total Recoverable
Mercury	0.00031		0.00020	0.000098	mg/L	1		7470A	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Sample Summary

Client: Terracon Consulting Eng & Scientists
Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137078-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-137078-1	2696V-61-B01 (0-5)	Solid	11/09/17 13:35	11/09/17 17:00
500-137078-2	2696V-61-B02 (0-5)	Solid	11/09/17 13:25	11/09/17 17:00
500-137078-3	2696V-61-B03 (0-5)	Solid	11/09/17 13:10	11/09/17 17:00
500-137078-4	2696V-61-B04 (0-5)	Solid	11/09/17 12:55	11/09/17 17:00
500-137078-5	2696V-61-B05 (0-5)	Solid	11/09/17 12:45	11/09/17 17:00
500-137078-6	2696V-61-B06 (0-5)	Solid	11/09/17 10:30	11/09/17 17:00
500-137078-7	2696V-61-B06 (5-10)	Solid	11/09/17 10:35	11/09/17 17:00
500-137078-8	2696V-61-B06 (10-15)	Solid	11/09/17 10:40	11/09/17 17:00
500-137078-9	2696V-61-B06 (15-21)	Solid	11/09/17 10:45	11/09/17 17:00
500-137078-10	2696V-61-B06 (15-21) Dup	Solid	11/09/17 10:45	11/09/17 17:00
500-137078-11	2696V-61-B07 (0-5)	Solid	11/09/17 10:05	11/09/17 17:00
500-137078-12	2696V-61-B08 (0-5)	Solid	11/09/17 09:45	11/09/17 17:00
500-137078-13	2696V-61-B09 (0-5)	Solid	11/09/17 09:20	11/09/17 17:00
500-137078-14	2696V-61-B10 (0-5)	Solid	11/09/17 09:00	11/09/17 17:00
500-137078-15	2696V-61-B11 (0-5)	Solid	11/09/17 08:40	11/09/17 17:00
500-137078-16	2696V-61-B12 (0-5)	Solid	11/09/17 08:30	11/09/17 17:00
500-137078-17	2692V-61-G01	Water	11/09/17 11:25	11/09/17 17:00

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137078-1

Client Sample ID: 2696V-61-B01 (0-5)

Lab Sample ID: 500-137078-1

Date Collected: 11/09/17 13:35

Matrix: Solid

Date Received: 11/09/17 17:00

Percent Solids: 83.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	0.057		0.016	0.0071	mg/Kg	☼	11/10/17 18:28	11/15/17 02:13	1
Benzene	<0.0016		0.0016	0.00041	mg/Kg	☼	11/10/17 18:28	11/15/17 02:13	1
Bromodichloromethane	<0.0016		0.0016	0.00033	mg/Kg	☼	11/10/17 18:28	11/15/17 02:13	1
Bromoform	<0.0016		0.0016	0.00047	mg/Kg	☼	11/10/17 18:28	11/15/17 02:13	1
Bromomethane	<0.0041		0.0041	0.0015	mg/Kg	☼	11/10/17 18:28	11/15/17 02:13	1
2-Butanone (MEK)	0.0037	J	0.0041	0.0018	mg/Kg	☼	11/10/17 18:28	11/15/17 02:13	1
Carbon disulfide	<0.0041		0.0041	0.00084	mg/Kg	☼	11/10/17 18:28	11/15/17 02:13	1
Carbon tetrachloride	<0.0016		0.0016	0.00047	mg/Kg	☼	11/10/17 18:28	11/15/17 02:13	1
Chlorobenzene	<0.0016		0.0016	0.00060	mg/Kg	☼	11/10/17 18:28	11/15/17 02:13	1
Chloroethane	<0.0041		0.0041	0.0012	mg/Kg	☼	11/10/17 18:28	11/15/17 02:13	1
Chloroform	<0.0016		0.0016	0.00056	mg/Kg	☼	11/10/17 18:28	11/15/17 02:13	1
Chloromethane	<0.0041		0.0041	0.0016	mg/Kg	☼	11/10/17 18:28	11/15/17 02:13	1
cis-1,2-Dichloroethene	<0.0016		0.0016	0.00045	mg/Kg	☼	11/10/17 18:28	11/15/17 02:13	1
cis-1,3-Dichloropropene	<0.0016		0.0016	0.00049	mg/Kg	☼	11/10/17 18:28	11/15/17 02:13	1
Dibromochloromethane	<0.0016		0.0016	0.00053	mg/Kg	☼	11/10/17 18:28	11/15/17 02:13	1
1,1-Dichloroethane	<0.0016		0.0016	0.00056	mg/Kg	☼	11/10/17 18:28	11/15/17 02:13	1
1,2-Dichloroethane	<0.0041		0.0041	0.0013	mg/Kg	☼	11/10/17 18:28	11/15/17 02:13	1
1,1-Dichloroethene	<0.0016		0.0016	0.00056	mg/Kg	☼	11/10/17 18:28	11/15/17 02:13	1
1,2-Dichloropropane	<0.0016		0.0016	0.00042	mg/Kg	☼	11/10/17 18:28	11/15/17 02:13	1
1,3-Dichloropropene, Total	<0.0016		0.0016	0.00057	mg/Kg	☼	11/10/17 18:28	11/15/17 02:13	1
Ethylbenzene	<0.0016		0.0016	0.00078	mg/Kg	☼	11/10/17 18:28	11/15/17 02:13	1
2-Hexanone	<0.0041		0.0041	0.0013	mg/Kg	☼	11/10/17 18:28	11/15/17 02:13	1
Methylene Chloride	<0.0041		0.0041	0.0016	mg/Kg	☼	11/10/17 18:28	11/15/17 02:13	1
4-Methyl-2-pentanone (MIBK)	<0.0041		0.0041	0.0012	mg/Kg	☼	11/10/17 18:28	11/15/17 02:13	1
Methyl tert-butyl ether	<0.0016		0.0016	0.00048	mg/Kg	☼	11/10/17 18:28	11/15/17 02:13	1
Styrene	<0.0016		0.0016	0.00049	mg/Kg	☼	11/10/17 18:28	11/15/17 02:13	1
1,1,2,2-Tetrachloroethane	<0.0016		0.0016	0.00052	mg/Kg	☼	11/10/17 18:28	11/15/17 02:13	1
Tetrachloroethene	<0.0016		0.0016	0.00055	mg/Kg	☼	11/10/17 18:28	11/15/17 02:13	1
Toluene	<0.0016		0.0016	0.00041	mg/Kg	☼	11/10/17 18:28	11/15/17 02:13	1
trans-1,2-Dichloroethene	<0.0016		0.0016	0.00072	mg/Kg	☼	11/10/17 18:28	11/15/17 02:13	1
trans-1,3-Dichloropropene	<0.0016		0.0016	0.00057	mg/Kg	☼	11/10/17 18:28	11/15/17 02:13	1
1,1,1-Trichloroethane	<0.0016		0.0016	0.00054	mg/Kg	☼	11/10/17 18:28	11/15/17 02:13	1
1,1,2-Trichloroethane	<0.0016		0.0016	0.00070	mg/Kg	☼	11/10/17 18:28	11/15/17 02:13	1
Trichloroethene	<0.0016		0.0016	0.00055	mg/Kg	☼	11/10/17 18:28	11/15/17 02:13	1
Vinyl acetate	<0.0041		0.0041	0.0014	mg/Kg	☼	11/10/17 18:28	11/15/17 02:13	1
Vinyl chloride	<0.0016		0.0016	0.00072	mg/Kg	☼	11/10/17 18:28	11/15/17 02:13	1
Xylenes, Total	<0.0032		0.0032	0.00052	mg/Kg	☼	11/10/17 18:28	11/15/17 02:13	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	92		75 - 131	11/10/17 18:28	11/15/17 02:13	1
Dibromofluoromethane	102		75 - 126	11/10/17 18:28	11/15/17 02:13	1
1,2-Dichloroethane-d4 (Surr)	100		70 - 134	11/10/17 18:28	11/15/17 02:13	1
Toluene-d8 (Surr)	96		75 - 124	11/10/17 18:28	11/15/17 02:13	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.039		0.039	0.0070	mg/Kg	☼	11/16/17 07:12	11/16/17 20:53	1
Acenaphthylene	<0.039		0.039	0.0051	mg/Kg	☼	11/16/17 07:12	11/16/17 20:53	1
Anthracene	<0.039		0.039	0.0065	mg/Kg	☼	11/16/17 07:12	11/16/17 20:53	1
Benzo[a]anthracene	<0.039		0.039	0.0052	mg/Kg	☼	11/16/17 07:12	11/16/17 20:53	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137078-1

Client Sample ID: 2696V-61-B01 (0-5)

Lab Sample ID: 500-137078-1

Date Collected: 11/09/17 13:35

Matrix: Solid

Date Received: 11/09/17 17:00

Percent Solids: 83.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	0.010	J	0.039	0.0075	mg/Kg	☼	11/16/17 07:12	11/16/17 20:53	1
Benzo[b]fluoranthene	0.021	J	0.039	0.0084	mg/Kg	☼	11/16/17 07:12	11/16/17 20:53	1
Benzo[g,h,i]perylene	0.025	J	0.039	0.012	mg/Kg	☼	11/16/17 07:12	11/16/17 20:53	1
Benzo[k]fluoranthene	<0.039		0.039	0.011	mg/Kg	☼	11/16/17 07:12	11/16/17 20:53	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.040	mg/Kg	☼	11/16/17 07:12	11/16/17 20:53	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.058	mg/Kg	☼	11/16/17 07:12	11/16/17 20:53	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.071	mg/Kg	☼	11/16/17 07:12	11/16/17 20:53	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.051	mg/Kg	☼	11/16/17 07:12	11/16/17 20:53	1
Butyl benzyl phthalate	<0.19		0.19	0.074	mg/Kg	☼	11/16/17 07:12	11/16/17 20:53	1
Carbazole	<0.19		0.19	0.097	mg/Kg	☼	11/16/17 07:12	11/16/17 20:53	1
4-Chloroaniline	<0.78		0.78	0.18	mg/Kg	☼	11/16/17 07:12	11/16/17 20:53	1
4-Chloro-3-methylphenol	<0.39		0.39	0.13	mg/Kg	☼	11/16/17 07:12	11/16/17 20:53	1
2-Chloronaphthalene	<0.19		0.19	0.043	mg/Kg	☼	11/16/17 07:12	11/16/17 20:53	1
2-Chlorophenol	<0.19		0.19	0.066	mg/Kg	☼	11/16/17 07:12	11/16/17 20:53	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.045	mg/Kg	☼	11/16/17 07:12	11/16/17 20:53	1
Chrysene	0.017	J	0.039	0.011	mg/Kg	☼	11/16/17 07:12	11/16/17 20:53	1
Dibenz(a,h)anthracene	<0.039		0.039	0.0075	mg/Kg	☼	11/16/17 07:12	11/16/17 20:53	1
Dibenzofuran	<0.19		0.19	0.045	mg/Kg	☼	11/16/17 07:12	11/16/17 20:53	1
1,2-Dichlorobenzene	<0.19		0.19	0.046	mg/Kg	☼	11/16/17 07:12	11/16/17 20:53	1
1,3-Dichlorobenzene	<0.19		0.19	0.044	mg/Kg	☼	11/16/17 07:12	11/16/17 20:53	1
1,4-Dichlorobenzene	<0.19		0.19	0.050	mg/Kg	☼	11/16/17 07:12	11/16/17 20:53	1
3,3'-Dichlorobenzidine	<0.19	*	0.19	0.054	mg/Kg	☼	11/16/17 07:12	11/16/17 20:53	1
2,4-Dichlorophenol	<0.39		0.39	0.092	mg/Kg	☼	11/16/17 07:12	11/16/17 20:53	1
Diethyl phthalate	<0.19		0.19	0.066	mg/Kg	☼	11/16/17 07:12	11/16/17 20:53	1
2,4-Dimethylphenol	<0.39		0.39	0.15	mg/Kg	☼	11/16/17 07:12	11/16/17 20:53	1
Dimethyl phthalate	<0.19		0.19	0.051	mg/Kg	☼	11/16/17 07:12	11/16/17 20:53	1
Di-n-butyl phthalate	<0.19		0.19	0.059	mg/Kg	☼	11/16/17 07:12	11/16/17 20:53	1
4,6-Dinitro-2-methylphenol	<0.78		0.78	0.31	mg/Kg	☼	11/16/17 07:12	11/16/17 20:53	1
2,4-Dinitrophenol	<0.78		0.78	0.68	mg/Kg	☼	11/16/17 07:12	11/16/17 20:53	1
2,4-Dinitrotoluene	<0.19		0.19	0.062	mg/Kg	☼	11/16/17 07:12	11/16/17 20:53	1
2,6-Dinitrotoluene	<0.19		0.19	0.076	mg/Kg	☼	11/16/17 07:12	11/16/17 20:53	1
Di-n-octyl phthalate	<0.19		0.19	0.063	mg/Kg	☼	11/16/17 07:12	11/16/17 20:53	1
Fluoranthene	0.014	J	0.039	0.0072	mg/Kg	☼	11/16/17 07:12	11/16/17 20:53	1
Fluorene	<0.039		0.039	0.0054	mg/Kg	☼	11/16/17 07:12	11/16/17 20:53	1
Hexachlorobenzene	<0.078		0.078	0.0090	mg/Kg	☼	11/16/17 07:12	11/16/17 20:53	1
Hexachlorobutadiene	<0.19		0.19	0.061	mg/Kg	☼	11/16/17 07:12	11/16/17 20:53	1
Hexachlorocyclopentadiene	<0.78		0.78	0.22	mg/Kg	☼	11/16/17 07:12	11/16/17 20:53	1
Hexachloroethane	<0.19		0.19	0.059	mg/Kg	☼	11/16/17 07:12	11/16/17 20:53	1
Indeno[1,2,3-cd]pyrene	<0.039		0.039	0.010	mg/Kg	☼	11/16/17 07:12	11/16/17 20:53	1
Isophorone	<0.19	*	0.19	0.044	mg/Kg	☼	11/16/17 07:12	11/16/17 20:53	1
2-Methylnaphthalene	<0.078		0.078	0.0071	mg/Kg	☼	11/16/17 07:12	11/16/17 20:53	1
2-Methylphenol	<0.19		0.19	0.062	mg/Kg	☼	11/16/17 07:12	11/16/17 20:53	1
3 & 4 Methylphenol	<0.19		0.19	0.065	mg/Kg	☼	11/16/17 07:12	11/16/17 20:53	1
Naphthalene	<0.039		0.039	0.0060	mg/Kg	☼	11/16/17 07:12	11/16/17 20:53	1
2-Nitroaniline	<0.19		0.19	0.052	mg/Kg	☼	11/16/17 07:12	11/16/17 20:53	1
3-Nitroaniline	<0.39		0.39	0.12	mg/Kg	☼	11/16/17 07:12	11/16/17 20:53	1
4-Nitroaniline	<0.39		0.39	0.16	mg/Kg	☼	11/16/17 07:12	11/16/17 20:53	1
Nitrobenzene	<0.039		0.039	0.0097	mg/Kg	☼	11/16/17 07:12	11/16/17 20:53	1
2-Nitrophenol	<0.39		0.39	0.092	mg/Kg	☼	11/16/17 07:12	11/16/17 20:53	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137078-1

Client Sample ID: 2696V-61-B01 (0-5)

Lab Sample ID: 500-137078-1

Date Collected: 11/09/17 13:35

Matrix: Solid

Date Received: 11/09/17 17:00

Percent Solids: 83.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Nitrophenol	<0.78		0.78	0.37	mg/Kg	☼	11/16/17 07:12	11/16/17 20:53	1
N-Nitrosodi-n-propylamine	<0.078		0.078	0.047	mg/Kg	☼	11/16/17 07:12	11/16/17 20:53	1
N-Nitrosodiphenylamine	<0.19		0.19	0.046	mg/Kg	☼	11/16/17 07:12	11/16/17 20:53	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.045	mg/Kg	☼	11/16/17 07:12	11/16/17 20:53	1
Pentachlorophenol	<0.78		0.78	0.62	mg/Kg	☼	11/16/17 07:12	11/16/17 20:53	1
Phenanthrene	0.018	J	0.039	0.0054	mg/Kg	☼	11/16/17 07:12	11/16/17 20:53	1
Phenol	<0.19		0.19	0.086	mg/Kg	☼	11/16/17 07:12	11/16/17 20:53	1
Pyrene	0.015	J	0.039	0.0077	mg/Kg	☼	11/16/17 07:12	11/16/17 20:53	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.042	mg/Kg	☼	11/16/17 07:12	11/16/17 20:53	1
2,4,5-Trichlorophenol	<0.39		0.39	0.088	mg/Kg	☼	11/16/17 07:12	11/16/17 20:53	1
2,4,6-Trichlorophenol	<0.39		0.39	0.13	mg/Kg	☼	11/16/17 07:12	11/16/17 20:53	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>2-Fluorobiphenyl</i>	95		44 - 121				11/16/17 07:12	11/16/17 20:53	1
<i>2-Fluorophenol</i>	104		46 - 133				11/16/17 07:12	11/16/17 20:53	1
<i>Nitrobenzene-d5</i>	93		41 - 120				11/16/17 07:12	11/16/17 20:53	1
<i>Phenol-d5</i>	101		46 - 125				11/16/17 07:12	11/16/17 20:53	1
<i>Terphenyl-d14</i>	80		35 - 160				11/16/17 07:12	11/16/17 20:53	1
<i>2,4,6-Tribromophenol</i>	74		25 - 139				11/16/17 07:12	11/16/17 20:53	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.28	J F1	1.1	0.21	mg/Kg	☼	11/11/17 13:26	11/13/17 18:47	1
Arsenic	6.8	F1	0.55	0.19	mg/Kg	☼	11/11/17 13:26	11/13/17 18:47	1
Barium	49		0.55	0.063	mg/Kg	☼	11/11/17 13:26	11/13/17 18:47	1
Beryllium	0.70		0.22	0.051	mg/Kg	☼	11/11/17 13:26	11/13/17 18:47	1
Cadmium	0.24	B	0.11	0.020	mg/Kg	☼	11/11/17 13:26	11/13/17 18:47	1
Chromium	15		0.55	0.27	mg/Kg	☼	11/11/17 13:26	11/13/17 18:47	1
Cobalt	13		0.28	0.072	mg/Kg	☼	11/11/17 13:26	11/13/17 18:47	1
Copper	25	F1	0.55	0.15	mg/Kg	☼	11/11/17 13:26	11/14/17 16:40	1
Iron	16000		11	5.7	mg/Kg	☼	11/11/17 13:26	11/13/17 18:47	1
Lead	25		0.28	0.13	mg/Kg	☼	11/11/17 13:26	11/13/17 18:47	1
Magnesium	12000	B	5.5	2.7	mg/Kg	☼	11/11/17 13:26	11/13/17 18:47	1
Calcium	21000	B	11	1.9	mg/Kg	☼	11/11/17 13:26	11/13/17 18:47	1
Manganese	320		0.55	0.080	mg/Kg	☼	11/11/17 13:26	11/13/17 18:47	1
Nickel	32		0.55	0.16	mg/Kg	☼	11/11/17 13:26	11/13/17 18:47	1
Selenium	<0.55	F1	0.55	0.32	mg/Kg	☼	11/11/17 13:26	11/13/17 18:47	1
Silver	<0.28		0.28	0.071	mg/Kg	☼	11/11/17 13:26	11/13/17 18:47	1
Thallium	0.51	J	0.55	0.27	mg/Kg	☼	11/11/17 13:26	11/13/17 18:47	1
Vanadium	18		0.28	0.065	mg/Kg	☼	11/11/17 13:26	11/13/17 18:47	1
Zinc	81	F1	1.1	0.48	mg/Kg	☼	11/11/17 13:26	11/13/17 18:47	1
Potassium	1700	F1	28	9.7	mg/Kg	☼	11/11/17 13:26	11/13/17 18:47	1
Sodium	880		55	8.1	mg/Kg	☼	11/11/17 13:26	11/13/17 18:47	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.050		0.050	0.010	mg/L		11/15/17 09:19	11/15/17 16:14	1
Barium	0.46	J	0.50	0.050	mg/L		11/15/17 09:19	11/15/17 16:14	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		11/15/17 09:19	11/15/17 16:14	1
Cadmium	0.0027	J	0.0050	0.0020	mg/L		11/15/17 09:19	11/15/17 16:14	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137078-1

Client Sample ID: 2696V-61-B01 (0-5)

Lab Sample ID: 500-137078-1

Date Collected: 11/09/17 13:35

Matrix: Solid

Date Received: 11/09/17 17:00

Percent Solids: 83.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	360		5.0	0.50	mg/L		11/15/17 09:19	11/15/17 16:14	1
Chromium	<0.025		0.025	0.010	mg/L		11/15/17 09:19	11/15/17 16:14	1
Cobalt	0.019	J	0.025	0.010	mg/L		11/15/17 09:19	11/15/17 16:14	1
Copper	0.012	J	0.025	0.010	mg/L		11/15/17 09:19	11/15/17 16:14	1
Iron	<0.40		0.40	0.20	mg/L		11/15/17 09:19	11/15/17 16:14	1
Lead	<0.0075		0.0075	0.0075	mg/L		11/15/17 09:19	11/15/17 16:14	1
Magnesium	56		2.5	0.50	mg/L		11/15/17 09:19	11/15/17 16:14	1
Manganese	5.0		0.025	0.010	mg/L		11/15/17 09:19	11/15/17 16:14	1
Nickel	0.017	J	0.025	0.010	mg/L		11/15/17 09:19	11/15/17 16:14	1
Potassium	1.6	J	2.5	0.50	mg/L		11/15/17 09:19	11/15/17 16:14	1
Selenium	<0.050		0.050	0.020	mg/L		11/15/17 09:19	11/15/17 16:14	1
Silver	<0.025		0.025	0.010	mg/L		11/15/17 09:19	11/15/17 16:14	1
Vanadium	<0.025		0.025	0.010	mg/L		11/15/17 09:19	11/15/17 16:14	1
Zinc	0.044	J	0.50	0.020	mg/L		11/15/17 09:19	11/15/17 16:14	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.87		0.025	0.010	mg/L		11/15/17 08:20	11/17/17 00:05	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		11/15/17 09:19	11/16/17 15:03	1
Thallium	<0.0020		0.0020	0.0020	mg/L		11/15/17 09:19	11/16/17 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		11/17/17 08:10	11/17/17 12:23	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.032	B	0.019	0.0062	mg/Kg	☼	11/13/17 13:20	11/17/17 09:25	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.49		0.49	0.17	mg/Kg	☼	11/19/17 10:30	11/19/17 14:34	1
pH	8.9		0.20	0.20	SU			11/18/17 11:03	1

Client Sample Results

Client: Terracon Consulting Eng & Scientists
Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137078-1

Client Sample ID: 2696V-61-B02 (0-5)

Lab Sample ID: 500-137078-2

Date Collected: 11/09/17 13:25

Matrix: Solid

Date Received: 11/09/17 17:00

Percent Solids: 86.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.015		0.015	0.0064	mg/Kg	☼	11/10/17 18:28	11/15/17 02:39	1
Benzene	<0.0015		0.0015	0.00037	mg/Kg	☼	11/10/17 18:28	11/15/17 02:39	1
Bromodichloromethane	<0.0015		0.0015	0.00030	mg/Kg	☼	11/10/17 18:28	11/15/17 02:39	1
Bromoform	<0.0015		0.0015	0.00043	mg/Kg	☼	11/10/17 18:28	11/15/17 02:39	1
Bromomethane	<0.0036		0.0036	0.0014	mg/Kg	☼	11/10/17 18:28	11/15/17 02:39	1
2-Butanone (MEK)	<0.0036		0.0036	0.0016	mg/Kg	☼	11/10/17 18:28	11/15/17 02:39	1
Carbon disulfide	<0.0036		0.0036	0.00076	mg/Kg	☼	11/10/17 18:28	11/15/17 02:39	1
Carbon tetrachloride	<0.0015		0.0015	0.00042	mg/Kg	☼	11/10/17 18:28	11/15/17 02:39	1
Chlorobenzene	<0.0015		0.0015	0.00054	mg/Kg	☼	11/10/17 18:28	11/15/17 02:39	1
Chloroethane	<0.0036		0.0036	0.0011	mg/Kg	☼	11/10/17 18:28	11/15/17 02:39	1
Chloroform	<0.0015		0.0015	0.00051	mg/Kg	☼	11/10/17 18:28	11/15/17 02:39	1
Chloromethane	<0.0036		0.0036	0.0015	mg/Kg	☼	11/10/17 18:28	11/15/17 02:39	1
cis-1,2-Dichloroethene	<0.0015		0.0015	0.00041	mg/Kg	☼	11/10/17 18:28	11/15/17 02:39	1
cis-1,3-Dichloropropene	<0.0015		0.0015	0.00044	mg/Kg	☼	11/10/17 18:28	11/15/17 02:39	1
Dibromochloromethane	<0.0015		0.0015	0.00048	mg/Kg	☼	11/10/17 18:28	11/15/17 02:39	1
1,1-Dichloroethane	<0.0015		0.0015	0.00050	mg/Kg	☼	11/10/17 18:28	11/15/17 02:39	1
1,2-Dichloroethane	<0.0036		0.0036	0.0011	mg/Kg	☼	11/10/17 18:28	11/15/17 02:39	1
1,1-Dichloroethene	<0.0015		0.0015	0.00050	mg/Kg	☼	11/10/17 18:28	11/15/17 02:39	1
1,2-Dichloropropane	<0.0015		0.0015	0.00038	mg/Kg	☼	11/10/17 18:28	11/15/17 02:39	1
1,3-Dichloropropene, Total	<0.0015		0.0015	0.00051	mg/Kg	☼	11/10/17 18:28	11/15/17 02:39	1
Ethylbenzene	<0.0015		0.0015	0.00070	mg/Kg	☼	11/10/17 18:28	11/15/17 02:39	1
2-Hexanone	<0.0036		0.0036	0.0011	mg/Kg	☼	11/10/17 18:28	11/15/17 02:39	1
Methylene Chloride	<0.0036		0.0036	0.0014	mg/Kg	☼	11/10/17 18:28	11/15/17 02:39	1
4-Methyl-2-pentanone (MIBK)	<0.0036		0.0036	0.0011	mg/Kg	☼	11/10/17 18:28	11/15/17 02:39	1
Methyl tert-butyl ether	<0.0015		0.0015	0.00043	mg/Kg	☼	11/10/17 18:28	11/15/17 02:39	1
Styrene	<0.0015		0.0015	0.00044	mg/Kg	☼	11/10/17 18:28	11/15/17 02:39	1
1,1,2,2-Tetrachloroethane	<0.0015		0.0015	0.00047	mg/Kg	☼	11/10/17 18:28	11/15/17 02:39	1
Tetrachloroethene	<0.0015		0.0015	0.00050	mg/Kg	☼	11/10/17 18:28	11/15/17 02:39	1
Toluene	<0.0015		0.0015	0.00037	mg/Kg	☼	11/10/17 18:28	11/15/17 02:39	1
trans-1,2-Dichloroethene	<0.0015		0.0015	0.00065	mg/Kg	☼	11/10/17 18:28	11/15/17 02:39	1
trans-1,3-Dichloropropene	<0.0015		0.0015	0.00051	mg/Kg	☼	11/10/17 18:28	11/15/17 02:39	1
1,1,1-Trichloroethane	<0.0015		0.0015	0.00049	mg/Kg	☼	11/10/17 18:28	11/15/17 02:39	1
1,1,2-Trichloroethane	<0.0015		0.0015	0.00063	mg/Kg	☼	11/10/17 18:28	11/15/17 02:39	1
Trichloroethene	<0.0015		0.0015	0.00049	mg/Kg	☼	11/10/17 18:28	11/15/17 02:39	1
Vinyl acetate	<0.0036		0.0036	0.0013	mg/Kg	☼	11/10/17 18:28	11/15/17 02:39	1
Vinyl chloride	<0.0015		0.0015	0.00065	mg/Kg	☼	11/10/17 18:28	11/15/17 02:39	1
Xylenes, Total	<0.0029		0.0029	0.00047	mg/Kg	☼	11/10/17 18:28	11/15/17 02:39	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	92		75 - 131	11/10/17 18:28	11/15/17 02:39	1
Dibromofluoromethane	105		75 - 126	11/10/17 18:28	11/15/17 02:39	1
1,2-Dichloroethane-d4 (Surr)	108		70 - 134	11/10/17 18:28	11/15/17 02:39	1
Toluene-d8 (Surr)	95		75 - 124	11/10/17 18:28	11/15/17 02:39	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.037		0.037	0.0066	mg/Kg	☼	11/16/17 07:12	11/16/17 21:20	1
Acenaphthylene	<0.037		0.037	0.0049	mg/Kg	☼	11/16/17 07:12	11/16/17 21:20	1
Anthracene	<0.037		0.037	0.0061	mg/Kg	☼	11/16/17 07:12	11/16/17 21:20	1
Benzo[a]anthracene	0.0050	J	0.037	0.0049	mg/Kg	☼	11/16/17 07:12	11/16/17 21:20	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
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TestAmerica Job ID: 500-137078-1

Client Sample ID: 2696V-61-B02 (0-5)

Lab Sample ID: 500-137078-2

Date Collected: 11/09/17 13:25

Matrix: Solid

Date Received: 11/09/17 17:00

Percent Solids: 86.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	<0.037		0.037	0.0071	mg/Kg	☼	11/16/17 07:12	11/16/17 21:20	1
Benzo[b]fluoranthene	0.014	J	0.037	0.0079	mg/Kg	☼	11/16/17 07:12	11/16/17 21:20	1
Benzo[g,h,i]perylene	0.015	J	0.037	0.012	mg/Kg	☼	11/16/17 07:12	11/16/17 21:20	1
Benzo[k]fluoranthene	<0.037		0.037	0.011	mg/Kg	☼	11/16/17 07:12	11/16/17 21:20	1
Bis(2-chloroethoxy)methane	<0.18		0.18	0.038	mg/Kg	☼	11/16/17 07:12	11/16/17 21:20	1
Bis(2-chloroethyl)ether	<0.18		0.18	0.055	mg/Kg	☼	11/16/17 07:12	11/16/17 21:20	1
Bis(2-ethylhexyl) phthalate	<0.18		0.18	0.067	mg/Kg	☼	11/16/17 07:12	11/16/17 21:20	1
4-Bromophenyl phenyl ether	<0.18		0.18	0.049	mg/Kg	☼	11/16/17 07:12	11/16/17 21:20	1
Butyl benzyl phthalate	<0.18		0.18	0.070	mg/Kg	☼	11/16/17 07:12	11/16/17 21:20	1
Carbazole	<0.18		0.18	0.092	mg/Kg	☼	11/16/17 07:12	11/16/17 21:20	1
4-Chloroaniline	<0.74		0.74	0.17	mg/Kg	☼	11/16/17 07:12	11/16/17 21:20	1
4-Chloro-3-methylphenol	<0.37		0.37	0.13	mg/Kg	☼	11/16/17 07:12	11/16/17 21:20	1
2-Chloronaphthalene	<0.18		0.18	0.041	mg/Kg	☼	11/16/17 07:12	11/16/17 21:20	1
2-Chlorophenol	<0.18		0.18	0.063	mg/Kg	☼	11/16/17 07:12	11/16/17 21:20	1
4-Chlorophenyl phenyl ether	<0.18		0.18	0.043	mg/Kg	☼	11/16/17 07:12	11/16/17 21:20	1
Chrysene	0.012	J	0.037	0.010	mg/Kg	☼	11/16/17 07:12	11/16/17 21:20	1
Dibenz(a,h)anthracene	<0.037		0.037	0.0071	mg/Kg	☼	11/16/17 07:12	11/16/17 21:20	1
Dibenzofuran	<0.18		0.18	0.043	mg/Kg	☼	11/16/17 07:12	11/16/17 21:20	1
1,2-Dichlorobenzene	<0.18		0.18	0.044	mg/Kg	☼	11/16/17 07:12	11/16/17 21:20	1
1,3-Dichlorobenzene	<0.18		0.18	0.041	mg/Kg	☼	11/16/17 07:12	11/16/17 21:20	1
1,4-Dichlorobenzene	<0.18		0.18	0.047	mg/Kg	☼	11/16/17 07:12	11/16/17 21:20	1
3,3'-Dichlorobenzidine	<0.18 *		0.18	0.051	mg/Kg	☼	11/16/17 07:12	11/16/17 21:20	1
2,4-Dichlorophenol	<0.37		0.37	0.087	mg/Kg	☼	11/16/17 07:12	11/16/17 21:20	1
Diethyl phthalate	<0.18		0.18	0.062	mg/Kg	☼	11/16/17 07:12	11/16/17 21:20	1
2,4-Dimethylphenol	<0.37		0.37	0.14	mg/Kg	☼	11/16/17 07:12	11/16/17 21:20	1
Dimethyl phthalate	<0.18		0.18	0.048	mg/Kg	☼	11/16/17 07:12	11/16/17 21:20	1
Di-n-butyl phthalate	<0.18		0.18	0.056	mg/Kg	☼	11/16/17 07:12	11/16/17 21:20	1
4,6-Dinitro-2-methylphenol	<0.74		0.74	0.30	mg/Kg	☼	11/16/17 07:12	11/16/17 21:20	1
2,4-Dinitrophenol	<0.74		0.74	0.65	mg/Kg	☼	11/16/17 07:12	11/16/17 21:20	1
2,4-Dinitrotoluene	<0.18		0.18	0.058	mg/Kg	☼	11/16/17 07:12	11/16/17 21:20	1
2,6-Dinitrotoluene	<0.18		0.18	0.072	mg/Kg	☼	11/16/17 07:12	11/16/17 21:20	1
Di-n-octyl phthalate	<0.18		0.18	0.060	mg/Kg	☼	11/16/17 07:12	11/16/17 21:20	1
Fluoranthene	0.011	J	0.037	0.0068	mg/Kg	☼	11/16/17 07:12	11/16/17 21:20	1
Fluorene	<0.037		0.037	0.0052	mg/Kg	☼	11/16/17 07:12	11/16/17 21:20	1
Hexachlorobenzene	<0.074		0.074	0.0085	mg/Kg	☼	11/16/17 07:12	11/16/17 21:20	1
Hexachlorobutadiene	<0.18		0.18	0.058	mg/Kg	☼	11/16/17 07:12	11/16/17 21:20	1
Hexachlorocyclopentadiene	<0.74		0.74	0.21	mg/Kg	☼	11/16/17 07:12	11/16/17 21:20	1
Hexachloroethane	<0.18		0.18	0.056	mg/Kg	☼	11/16/17 07:12	11/16/17 21:20	1
Indeno[1,2,3-cd]pyrene	<0.037		0.037	0.0095	mg/Kg	☼	11/16/17 07:12	11/16/17 21:20	1
Isophorone	<0.18 *		0.18	0.041	mg/Kg	☼	11/16/17 07:12	11/16/17 21:20	1
2-Methylnaphthalene	<0.074		0.074	0.0068	mg/Kg	☼	11/16/17 07:12	11/16/17 21:20	1
2-Methylphenol	<0.18		0.18	0.059	mg/Kg	☼	11/16/17 07:12	11/16/17 21:20	1
3 & 4 Methylphenol	<0.18		0.18	0.061	mg/Kg	☼	11/16/17 07:12	11/16/17 21:20	1
Naphthalene	<0.037		0.037	0.0057	mg/Kg	☼	11/16/17 07:12	11/16/17 21:20	1
2-Nitroaniline	<0.18		0.18	0.049	mg/Kg	☼	11/16/17 07:12	11/16/17 21:20	1
3-Nitroaniline	<0.37		0.37	0.11	mg/Kg	☼	11/16/17 07:12	11/16/17 21:20	1
4-Nitroaniline	<0.37		0.37	0.15	mg/Kg	☼	11/16/17 07:12	11/16/17 21:20	1
Nitrobenzene	<0.037		0.037	0.0092	mg/Kg	☼	11/16/17 07:12	11/16/17 21:20	1
2-Nitrophenol	<0.37		0.37	0.087	mg/Kg	☼	11/16/17 07:12	11/16/17 21:20	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137078-1

Client Sample ID: 2696V-61-B02 (0-5)

Lab Sample ID: 500-137078-2

Date Collected: 11/09/17 13:25

Matrix: Solid

Date Received: 11/09/17 17:00

Percent Solids: 86.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Nitrophenol	<0.74		0.74	0.35	mg/Kg	☼	11/16/17 07:12	11/16/17 21:20	1
N-Nitrosodi-n-propylamine	<0.074		0.074	0.045	mg/Kg	☼	11/16/17 07:12	11/16/17 21:20	1
N-Nitrosodiphenylamine	<0.18		0.18	0.043	mg/Kg	☼	11/16/17 07:12	11/16/17 21:20	1
2,2'-oxybis[1-chloropropane]	<0.18		0.18	0.043	mg/Kg	☼	11/16/17 07:12	11/16/17 21:20	1
Pentachlorophenol	<0.74		0.74	0.59	mg/Kg	☼	11/16/17 07:12	11/16/17 21:20	1
Phenanthrene	0.0070	J	0.037	0.0051	mg/Kg	☼	11/16/17 07:12	11/16/17 21:20	1
Phenol	<0.18		0.18	0.082	mg/Kg	☼	11/16/17 07:12	11/16/17 21:20	1
Pyrene	0.012	J	0.037	0.0073	mg/Kg	☼	11/16/17 07:12	11/16/17 21:20	1
1,2,4-Trichlorobenzene	<0.18		0.18	0.040	mg/Kg	☼	11/16/17 07:12	11/16/17 21:20	1
2,4,5-Trichlorophenol	<0.37		0.37	0.084	mg/Kg	☼	11/16/17 07:12	11/16/17 21:20	1
2,4,6-Trichlorophenol	<0.37		0.37	0.13	mg/Kg	☼	11/16/17 07:12	11/16/17 21:20	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	86		44 - 121				11/16/17 07:12	11/16/17 21:20	1
2-Fluorophenol	90		46 - 133				11/16/17 07:12	11/16/17 21:20	1
Nitrobenzene-d5	81		41 - 120				11/16/17 07:12	11/16/17 21:20	1
Phenol-d5	86		46 - 125				11/16/17 07:12	11/16/17 21:20	1
Terphenyl-d14	72		35 - 160				11/16/17 07:12	11/16/17 21:20	1
2,4,6-Tribromophenol	48		25 - 139				11/16/17 07:12	11/16/17 21:20	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.40	J	1.1	0.22	mg/Kg	☼	11/11/17 13:26	11/13/17 19:14	1
Arsenic	7.2		0.57	0.19	mg/Kg	☼	11/11/17 13:26	11/13/17 19:14	1
Barium	34		0.57	0.065	mg/Kg	☼	11/11/17 13:26	11/13/17 19:14	1
Beryllium	0.67		0.23	0.053	mg/Kg	☼	11/11/17 13:26	11/13/17 19:14	1
Cadmium	0.32	B	0.11	0.020	mg/Kg	☼	11/11/17 13:26	11/13/17 19:14	1
Chromium	15		0.57	0.28	mg/Kg	☼	11/11/17 13:26	11/13/17 19:14	1
Cobalt	11		0.28	0.074	mg/Kg	☼	11/11/17 13:26	11/13/17 19:14	1
Copper	31		2.8	0.80	mg/Kg	☼	11/11/17 13:26	11/14/17 17:00	5
Iron	17000		11	5.9	mg/Kg	☼	11/11/17 13:26	11/13/17 19:14	1
Lead	57		0.28	0.13	mg/Kg	☼	11/11/17 13:26	11/13/17 19:14	1
Magnesium	27000	B	5.7	2.8	mg/Kg	☼	11/11/17 13:26	11/13/17 19:14	1
Calcium	65000	B	57	9.6	mg/Kg	☼	11/11/17 13:26	11/14/17 17:00	5
Manganese	270		0.57	0.082	mg/Kg	☼	11/11/17 13:26	11/13/17 19:14	1
Nickel	30		0.57	0.17	mg/Kg	☼	11/11/17 13:26	11/13/17 19:14	1
Selenium	<0.57		0.57	0.33	mg/Kg	☼	11/11/17 13:26	11/13/17 19:14	1
Silver	<0.28		0.28	0.073	mg/Kg	☼	11/11/17 13:26	11/13/17 19:14	1
Thallium	<0.57		0.57	0.28	mg/Kg	☼	11/11/17 13:26	11/13/17 19:14	1
Vanadium	16		0.28	0.067	mg/Kg	☼	11/11/17 13:26	11/13/17 19:14	1
Zinc	75		1.1	0.50	mg/Kg	☼	11/11/17 13:26	11/13/17 19:14	1
Potassium	2000		28	10	mg/Kg	☼	11/11/17 13:26	11/13/17 19:14	1
Sodium	530		57	8.4	mg/Kg	☼	11/11/17 13:26	11/13/17 19:14	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.050		0.050	0.010	mg/L		11/15/17 09:19	11/15/17 16:18	1
Barium	0.37	J	0.50	0.050	mg/L		11/15/17 09:19	11/15/17 16:18	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		11/15/17 09:19	11/15/17 16:18	1
Cadmium	0.0045	J	0.0050	0.0020	mg/L		11/15/17 09:19	11/15/17 16:18	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137078-1

Client Sample ID: 2696V-61-B02 (0-5)

Lab Sample ID: 500-137078-2

Date Collected: 11/09/17 13:25

Matrix: Solid

Date Received: 11/09/17 17:00

Percent Solids: 86.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	450		5.0	0.50	mg/L		11/15/17 09:19	11/15/17 16:18	1
Chromium	<0.025		0.025	0.010	mg/L		11/15/17 09:19	11/15/17 16:18	1
Cobalt	0.010	J	0.025	0.010	mg/L		11/15/17 09:19	11/15/17 16:18	1
Copper	<0.025		0.025	0.010	mg/L		11/15/17 09:19	11/15/17 16:18	1
Iron	<0.40		0.40	0.20	mg/L		11/15/17 09:19	11/15/17 16:18	1
Lead	0.037		0.0075	0.0075	mg/L		11/15/17 09:19	11/15/17 16:18	1
Magnesium	78		2.5	0.50	mg/L		11/15/17 09:19	11/15/17 16:18	1
Manganese	2.6		0.025	0.010	mg/L		11/15/17 09:19	11/15/17 16:18	1
Nickel	0.014	J	0.025	0.010	mg/L		11/15/17 09:19	11/15/17 16:18	1
Potassium	1.7	J	2.5	0.50	mg/L		11/15/17 09:19	11/15/17 16:18	1
Selenium	<0.050		0.050	0.020	mg/L		11/15/17 09:19	11/15/17 16:18	1
Silver	<0.025		0.025	0.010	mg/L		11/15/17 09:19	11/15/17 16:18	1
Vanadium	<0.025		0.025	0.010	mg/L		11/15/17 09:19	11/15/17 16:18	1
Zinc	<0.50		0.50	0.020	mg/L		11/15/17 09:19	11/15/17 16:18	1

Method: 6010B - SPLP Metals - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.25		0.0075	0.0075	mg/L		11/15/17 08:20	11/17/17 00:09	1
Manganese	0.55		0.025	0.010	mg/L		11/15/17 08:20	11/17/17 00:09	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		11/15/17 09:19	11/16/17 15:07	1
Thallium	<0.0020		0.0020	0.0020	mg/L		11/15/17 09:19	11/16/17 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		11/17/17 08:10	11/17/17 12:24	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.030	B	0.018	0.0060	mg/Kg	☼	11/13/17 13:20	11/17/17 09:27	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.55		0.55	0.19	mg/Kg	☼	11/19/17 10:30	11/19/17 14:35	1
pH	9.0		0.20	0.20	SU			11/18/17 11:05	1

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137078-1

Client Sample ID: 2696V-61-B03 (0-5)

Lab Sample ID: 500-137078-3

Date Collected: 11/09/17 13:10

Matrix: Solid

Date Received: 11/09/17 17:00

Percent Solids: 80.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.017		0.017	0.0072	mg/Kg	☼	11/10/17 18:28	11/15/17 13:31	1
Benzene	<0.0017	*	0.0017	0.00042	mg/Kg	☼	11/10/17 18:28	11/15/17 13:31	1
Bromodichloromethane	<0.0017		0.0017	0.00034	mg/Kg	☼	11/10/17 18:28	11/15/17 13:31	1
Bromoform	<0.0017		0.0017	0.00049	mg/Kg	☼	11/10/17 18:28	11/15/17 13:31	1
Bromomethane	<0.0042		0.0042	0.0016	mg/Kg	☼	11/10/17 18:28	11/15/17 13:31	1
2-Butanone (MEK)	<0.0042	*	0.0042	0.0018	mg/Kg	☼	11/10/17 18:28	11/15/17 13:31	1
Carbon disulfide	<0.0042		0.0042	0.00086	mg/Kg	☼	11/10/17 18:28	11/15/17 13:31	1
Carbon tetrachloride	<0.0017		0.0017	0.00048	mg/Kg	☼	11/10/17 18:28	11/15/17 13:31	1
Chlorobenzene	<0.0017		0.0017	0.00061	mg/Kg	☼	11/10/17 18:28	11/15/17 13:31	1
Chloroethane	<0.0042		0.0042	0.0012	mg/Kg	☼	11/10/17 18:28	11/15/17 13:31	1
Chloroform	<0.0017		0.0017	0.00058	mg/Kg	☼	11/10/17 18:28	11/15/17 13:31	1
Chloromethane	<0.0042		0.0042	0.0017	mg/Kg	☼	11/10/17 18:28	11/15/17 13:31	1
cis-1,2-Dichloroethene	<0.0017		0.0017	0.00046	mg/Kg	☼	11/10/17 18:28	11/15/17 13:31	1
cis-1,3-Dichloropropene	<0.0017		0.0017	0.00050	mg/Kg	☼	11/10/17 18:28	11/15/17 13:31	1
Dibromochloromethane	<0.0017		0.0017	0.00054	mg/Kg	☼	11/10/17 18:28	11/15/17 13:31	1
1,1-Dichloroethane	<0.0017		0.0017	0.00057	mg/Kg	☼	11/10/17 18:28	11/15/17 13:31	1
1,2-Dichloroethane	<0.0042		0.0042	0.0013	mg/Kg	☼	11/10/17 18:28	11/15/17 13:31	1
1,1-Dichloroethene	<0.0017		0.0017	0.00057	mg/Kg	☼	11/10/17 18:28	11/15/17 13:31	1
1,2-Dichloropropane	<0.0017		0.0017	0.00043	mg/Kg	☼	11/10/17 18:28	11/15/17 13:31	1
1,3-Dichloropropene, Total	<0.0017		0.0017	0.00058	mg/Kg	☼	11/10/17 18:28	11/15/17 13:31	1
Ethylbenzene	<0.0017		0.0017	0.00079	mg/Kg	☼	11/10/17 18:28	11/15/17 13:31	1
2-Hexanone	<0.0042		0.0042	0.0013	mg/Kg	☼	11/10/17 18:28	11/15/17 13:31	1
Methylene Chloride	<0.0042		0.0042	0.0016	mg/Kg	☼	11/10/17 18:28	11/15/17 13:31	1
4-Methyl-2-pentanone (MIBK)	<0.0042		0.0042	0.0012	mg/Kg	☼	11/10/17 18:28	11/15/17 13:31	1
Methyl tert-butyl ether	<0.0017		0.0017	0.00049	mg/Kg	☼	11/10/17 18:28	11/15/17 13:31	1
Styrene	<0.0017		0.0017	0.00050	mg/Kg	☼	11/10/17 18:28	11/15/17 13:31	1
1,1,2,2-Tetrachloroethane	<0.0017		0.0017	0.00053	mg/Kg	☼	11/10/17 18:28	11/15/17 13:31	1
Tetrachloroethene	<0.0017		0.0017	0.00057	mg/Kg	☼	11/10/17 18:28	11/15/17 13:31	1
Toluene	<0.0017		0.0017	0.00042	mg/Kg	☼	11/10/17 18:28	11/15/17 13:31	1
trans-1,2-Dichloroethene	<0.0017		0.0017	0.00074	mg/Kg	☼	11/10/17 18:28	11/15/17 13:31	1
trans-1,3-Dichloropropene	<0.0017		0.0017	0.00058	mg/Kg	☼	11/10/17 18:28	11/15/17 13:31	1
1,1,1-Trichloroethane	<0.0017		0.0017	0.00056	mg/Kg	☼	11/10/17 18:28	11/15/17 13:31	1
1,1,2-Trichloroethane	<0.0017		0.0017	0.00071	mg/Kg	☼	11/10/17 18:28	11/15/17 13:31	1
Trichloroethene	<0.0017		0.0017	0.00056	mg/Kg	☼	11/10/17 18:28	11/15/17 13:31	1
Vinyl acetate	<0.0042		0.0042	0.0014	mg/Kg	☼	11/10/17 18:28	11/15/17 13:31	1
Vinyl chloride	<0.0017		0.0017	0.00074	mg/Kg	☼	11/10/17 18:28	11/15/17 13:31	1
Xylenes, Total	<0.0033		0.0033	0.00053	mg/Kg	☼	11/10/17 18:28	11/15/17 13:31	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	92		75 - 131	11/10/17 18:28	11/15/17 13:31	1
Dibromofluoromethane	109		75 - 126	11/10/17 18:28	11/15/17 13:31	1
1,2-Dichloroethane-d4 (Surr)	118		70 - 134	11/10/17 18:28	11/15/17 13:31	1
Toluene-d8 (Surr)	94		75 - 124	11/10/17 18:28	11/15/17 13:31	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.040		0.040	0.0072	mg/Kg	☼	11/16/17 07:12	11/16/17 21:47	1
Acenaphthylene	<0.040		0.040	0.0052	mg/Kg	☼	11/16/17 07:12	11/16/17 21:47	1
Anthracene	<0.040		0.040	0.0067	mg/Kg	☼	11/16/17 07:12	11/16/17 21:47	1
Benzo[a]anthracene	<0.040		0.040	0.0054	mg/Kg	☼	11/16/17 07:12	11/16/17 21:47	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137078-1

Client Sample ID: 2696V-61-B03 (0-5)

Lab Sample ID: 500-137078-3

Date Collected: 11/09/17 13:10

Matrix: Solid

Date Received: 11/09/17 17:00

Percent Solids: 80.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	<0.040		0.040	0.0077	mg/Kg	☼	11/16/17 07:12	11/16/17 21:47	1
Benzo[b]fluoranthene	<0.040		0.040	0.0086	mg/Kg	☼	11/16/17 07:12	11/16/17 21:47	1
Benzo[g,h,i]perylene	<0.040		0.040	0.013	mg/Kg	☼	11/16/17 07:12	11/16/17 21:47	1
Benzo[k]fluoranthene	<0.040		0.040	0.012	mg/Kg	☼	11/16/17 07:12	11/16/17 21:47	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.041	mg/Kg	☼	11/16/17 07:12	11/16/17 21:47	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.060	mg/Kg	☼	11/16/17 07:12	11/16/17 21:47	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.073	mg/Kg	☼	11/16/17 07:12	11/16/17 21:47	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.052	mg/Kg	☼	11/16/17 07:12	11/16/17 21:47	1
Butyl benzyl phthalate	<0.20		0.20	0.076	mg/Kg	☼	11/16/17 07:12	11/16/17 21:47	1
Carbazole	<0.20		0.20	0.099	mg/Kg	☼	11/16/17 07:12	11/16/17 21:47	1
4-Chloroaniline	<0.80		0.80	0.19	mg/Kg	☼	11/16/17 07:12	11/16/17 21:47	1
4-Chloro-3-methylphenol	<0.40		0.40	0.14	mg/Kg	☼	11/16/17 07:12	11/16/17 21:47	1
2-Chloronaphthalene	<0.20		0.20	0.044	mg/Kg	☼	11/16/17 07:12	11/16/17 21:47	1
2-Chlorophenol	<0.20		0.20	0.068	mg/Kg	☼	11/16/17 07:12	11/16/17 21:47	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.046	mg/Kg	☼	11/16/17 07:12	11/16/17 21:47	1
Chrysene	<0.040		0.040	0.011	mg/Kg	☼	11/16/17 07:12	11/16/17 21:47	1
Dibenz(a,h)anthracene	<0.040		0.040	0.0077	mg/Kg	☼	11/16/17 07:12	11/16/17 21:47	1
Dibenzofuran	<0.20		0.20	0.047	mg/Kg	☼	11/16/17 07:12	11/16/17 21:47	1
1,2-Dichlorobenzene	<0.20		0.20	0.048	mg/Kg	☼	11/16/17 07:12	11/16/17 21:47	1
1,3-Dichlorobenzene	<0.20		0.20	0.045	mg/Kg	☼	11/16/17 07:12	11/16/17 21:47	1
1,4-Dichlorobenzene	<0.20		0.20	0.051	mg/Kg	☼	11/16/17 07:12	11/16/17 21:47	1
3,3'-Dichlorobenzidine	<0.20 *		0.20	0.056	mg/Kg	☼	11/16/17 07:12	11/16/17 21:47	1
2,4-Dichlorophenol	<0.40		0.40	0.095	mg/Kg	☼	11/16/17 07:12	11/16/17 21:47	1
Diethyl phthalate	<0.20		0.20	0.067	mg/Kg	☼	11/16/17 07:12	11/16/17 21:47	1
2,4-Dimethylphenol	<0.40		0.40	0.15	mg/Kg	☼	11/16/17 07:12	11/16/17 21:47	1
Dimethyl phthalate	<0.20		0.20	0.052	mg/Kg	☼	11/16/17 07:12	11/16/17 21:47	1
Di-n-butyl phthalate	<0.20		0.20	0.061	mg/Kg	☼	11/16/17 07:12	11/16/17 21:47	1
4,6-Dinitro-2-methylphenol	<0.80		0.80	0.32	mg/Kg	☼	11/16/17 07:12	11/16/17 21:47	1
2,4-Dinitrophenol	<0.80		0.80	0.70	mg/Kg	☼	11/16/17 07:12	11/16/17 21:47	1
2,4-Dinitrotoluene	<0.20		0.20	0.063	mg/Kg	☼	11/16/17 07:12	11/16/17 21:47	1
2,6-Dinitrotoluene	<0.20		0.20	0.078	mg/Kg	☼	11/16/17 07:12	11/16/17 21:47	1
Di-n-octyl phthalate	<0.20		0.20	0.065	mg/Kg	☼	11/16/17 07:12	11/16/17 21:47	1
Fluoranthene	<0.040		0.040	0.0074	mg/Kg	☼	11/16/17 07:12	11/16/17 21:47	1
Fluorene	<0.040		0.040	0.0056	mg/Kg	☼	11/16/17 07:12	11/16/17 21:47	1
Hexachlorobenzene	<0.080		0.080	0.0092	mg/Kg	☼	11/16/17 07:12	11/16/17 21:47	1
Hexachlorobutadiene	<0.20		0.20	0.063	mg/Kg	☼	11/16/17 07:12	11/16/17 21:47	1
Hexachlorocyclopentadiene	<0.80		0.80	0.23	mg/Kg	☼	11/16/17 07:12	11/16/17 21:47	1
Hexachloroethane	<0.20		0.20	0.061	mg/Kg	☼	11/16/17 07:12	11/16/17 21:47	1
Indeno[1,2,3-cd]pyrene	<0.040		0.040	0.010	mg/Kg	☼	11/16/17 07:12	11/16/17 21:47	1
Isophorone	<0.20 *		0.20	0.045	mg/Kg	☼	11/16/17 07:12	11/16/17 21:47	1
2-Methylnaphthalene	<0.080		0.080	0.0073	mg/Kg	☼	11/16/17 07:12	11/16/17 21:47	1
2-Methylphenol	<0.20		0.20	0.064	mg/Kg	☼	11/16/17 07:12	11/16/17 21:47	1
3 & 4 Methylphenol	<0.20		0.20	0.066	mg/Kg	☼	11/16/17 07:12	11/16/17 21:47	1
Naphthalene	<0.040		0.040	0.0061	mg/Kg	☼	11/16/17 07:12	11/16/17 21:47	1
2-Nitroaniline	<0.20		0.20	0.054	mg/Kg	☼	11/16/17 07:12	11/16/17 21:47	1
3-Nitroaniline	<0.40		0.40	0.12	mg/Kg	☼	11/16/17 07:12	11/16/17 21:47	1
4-Nitroaniline	<0.40		0.40	0.17	mg/Kg	☼	11/16/17 07:12	11/16/17 21:47	1
Nitrobenzene	<0.040		0.040	0.0099	mg/Kg	☼	11/16/17 07:12	11/16/17 21:47	1
2-Nitrophenol	<0.40		0.40	0.094	mg/Kg	☼	11/16/17 07:12	11/16/17 21:47	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137078-1

Client Sample ID: 2696V-61-B03 (0-5)

Lab Sample ID: 500-137078-3

Date Collected: 11/09/17 13:10

Matrix: Solid

Date Received: 11/09/17 17:00

Percent Solids: 80.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Nitrophenol	<0.80		0.80	0.38	mg/Kg	☼	11/16/17 07:12	11/16/17 21:47	1
N-Nitrosodi-n-propylamine	<0.080		0.080	0.049	mg/Kg	☼	11/16/17 07:12	11/16/17 21:47	1
N-Nitrosodiphenylamine	<0.20		0.20	0.047	mg/Kg	☼	11/16/17 07:12	11/16/17 21:47	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.046	mg/Kg	☼	11/16/17 07:12	11/16/17 21:47	1
Pentachlorophenol	<0.80		0.80	0.64	mg/Kg	☼	11/16/17 07:12	11/16/17 21:47	1
Phenanthrene	<0.040		0.040	0.0055	mg/Kg	☼	11/16/17 07:12	11/16/17 21:47	1
Phenol	<0.20		0.20	0.088	mg/Kg	☼	11/16/17 07:12	11/16/17 21:47	1
Pyrene	<0.040		0.040	0.0079	mg/Kg	☼	11/16/17 07:12	11/16/17 21:47	1
1,2,4-Trichlorobenzene	<0.20		0.20	0.043	mg/Kg	☼	11/16/17 07:12	11/16/17 21:47	1
2,4,5-Trichlorophenol	<0.40		0.40	0.091	mg/Kg	☼	11/16/17 07:12	11/16/17 21:47	1
2,4,6-Trichlorophenol	<0.40		0.40	0.14	mg/Kg	☼	11/16/17 07:12	11/16/17 21:47	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	81		44 - 121	11/16/17 07:12	11/16/17 21:47	1
2-Fluorophenol	90		46 - 133	11/16/17 07:12	11/16/17 21:47	1
Nitrobenzene-d5	78		41 - 120	11/16/17 07:12	11/16/17 21:47	1
Phenol-d5	85		46 - 125	11/16/17 07:12	11/16/17 21:47	1
Terphenyl-d14	72		35 - 160	11/16/17 07:12	11/16/17 21:47	1
2,4,6-Tribromophenol	60		25 - 139	11/16/17 07:12	11/16/17 21:47	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.44	J	1.2	0.24	mg/Kg	☼	11/11/17 13:26	11/13/17 19:18	1
Arsenic	9.0		0.62	0.21	mg/Kg	☼	11/11/17 13:26	11/13/17 19:18	1
Barium	60		0.62	0.071	mg/Kg	☼	11/11/17 13:26	11/13/17 19:18	1
Beryllium	0.87		0.25	0.058	mg/Kg	☼	11/11/17 13:26	11/13/17 19:18	1
Cadmium	0.11	J B	0.12	0.022	mg/Kg	☼	11/11/17 13:26	11/13/17 19:18	1
Chromium	21		0.62	0.31	mg/Kg	☼	11/11/17 13:26	11/13/17 19:18	1
Cobalt	17		0.31	0.081	mg/Kg	☼	11/11/17 13:26	11/13/17 19:18	1
Copper	25		0.62	0.17	mg/Kg	☼	11/11/17 13:26	11/14/17 17:04	1
Iron	22000		12	6.4	mg/Kg	☼	11/11/17 13:26	11/13/17 19:18	1
Lead	17		0.31	0.14	mg/Kg	☼	11/11/17 13:26	11/13/17 19:18	1
Magnesium	15000	B	6.2	3.1	mg/Kg	☼	11/11/17 13:26	11/13/17 19:18	1
Calcium	29000	B	12	2.1	mg/Kg	☼	11/11/17 13:26	11/13/17 19:18	1
Manganese	390		0.62	0.090	mg/Kg	☼	11/11/17 13:26	11/13/17 19:18	1
Nickel	37		0.62	0.18	mg/Kg	☼	11/11/17 13:26	11/13/17 19:18	1
Selenium	<0.62		0.62	0.36	mg/Kg	☼	11/11/17 13:26	11/13/17 19:18	1
Silver	<0.31		0.31	0.080	mg/Kg	☼	11/11/17 13:26	11/13/17 19:18	1
Thallium	<0.62		0.62	0.31	mg/Kg	☼	11/11/17 13:26	11/13/17 19:18	1
Vanadium	24		0.31	0.073	mg/Kg	☼	11/11/17 13:26	11/13/17 19:18	1
Zinc	68		1.2	0.54	mg/Kg	☼	11/11/17 13:26	11/13/17 19:18	1
Potassium	2600		31	11	mg/Kg	☼	11/11/17 13:26	11/13/17 19:18	1
Sodium	1300		62	9.2	mg/Kg	☼	11/11/17 13:26	11/13/17 19:18	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.050		0.050	0.010	mg/L		11/15/17 09:19	11/15/17 16:22	1
Barium	0.35	J	0.50	0.050	mg/L		11/15/17 09:19	11/15/17 16:22	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		11/15/17 09:19	11/15/17 16:22	1
Cadmium	0.0022	J	0.0050	0.0020	mg/L		11/15/17 09:19	11/15/17 16:22	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137078-1

Client Sample ID: 2696V-61-B03 (0-5)

Lab Sample ID: 500-137078-3

Date Collected: 11/09/17 13:10

Matrix: Solid

Date Received: 11/09/17 17:00

Percent Solids: 80.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	400		5.0	0.50	mg/L		11/15/17 09:19	11/15/17 16:22	1
Chromium	<0.025		0.025	0.010	mg/L		11/15/17 09:19	11/15/17 16:22	1
Cobalt	0.017	J	0.025	0.010	mg/L		11/15/17 09:19	11/15/17 16:22	1
Copper	<0.025		0.025	0.010	mg/L		11/15/17 09:19	11/15/17 16:22	1
Iron	<0.40		0.40	0.20	mg/L		11/15/17 09:19	11/15/17 16:22	1
Lead	<0.0075		0.0075	0.0075	mg/L		11/15/17 09:19	11/15/17 16:22	1
Magnesium	64		2.5	0.50	mg/L		11/15/17 09:19	11/15/17 16:22	1
Manganese	5.3		0.025	0.010	mg/L		11/15/17 09:19	11/15/17 16:22	1
Nickel	0.015	J	0.025	0.010	mg/L		11/15/17 09:19	11/15/17 16:22	1
Potassium	1.3	J	2.5	0.50	mg/L		11/15/17 09:19	11/15/17 16:22	1
Selenium	<0.050		0.050	0.020	mg/L		11/15/17 09:19	11/15/17 16:22	1
Silver	<0.025		0.025	0.010	mg/L		11/15/17 09:19	11/15/17 16:22	1
Vanadium	<0.025		0.025	0.010	mg/L		11/15/17 09:19	11/15/17 16:22	1
Zinc	0.023	J	0.50	0.020	mg/L		11/15/17 09:19	11/15/17 16:22	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	1.7		0.025	0.010	mg/L		11/15/17 08:20	11/17/17 00:13	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		11/15/17 09:19	11/16/17 15:10	1
Thallium	<0.0020		0.0020	0.0020	mg/L		11/15/17 09:19	11/16/17 15:10	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		11/17/17 08:10	11/17/17 12:26	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.025	B	0.020	0.0068	mg/Kg	☼	11/13/17 13:20	11/17/17 09:30	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.61		0.61	0.21	mg/Kg	☼	11/19/17 10:30	11/19/17 14:36	1
pH	9.2		0.20	0.20	SU			11/18/17 11:07	1

Client Sample Results

Client: Terracon Consulting Eng & Scientists
Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137078-1

Client Sample ID: 2696V-61-B04 (0-5)

Lab Sample ID: 500-137078-4

Date Collected: 11/09/17 12:55

Matrix: Solid

Date Received: 11/09/17 17:00

Percent Solids: 87.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	0.019		0.016	0.0069	mg/Kg	☼	11/10/17 18:28	11/15/17 13:57	1
Benzene	<0.0016	*	0.0016	0.00041	mg/Kg	☼	11/10/17 18:28	11/15/17 13:57	1
Bromodichloromethane	<0.0016		0.0016	0.00032	mg/Kg	☼	11/10/17 18:28	11/15/17 13:57	1
Bromoform	<0.0016		0.0016	0.00047	mg/Kg	☼	11/10/17 18:28	11/15/17 13:57	1
Bromomethane	<0.0040		0.0040	0.0015	mg/Kg	☼	11/10/17 18:28	11/15/17 13:57	1
2-Butanone (MEK)	<0.0040	*	0.0040	0.0018	mg/Kg	☼	11/10/17 18:28	11/15/17 13:57	1
Carbon disulfide	<0.0040		0.0040	0.00083	mg/Kg	☼	11/10/17 18:28	11/15/17 13:57	1
Carbon tetrachloride	<0.0016		0.0016	0.00046	mg/Kg	☼	11/10/17 18:28	11/15/17 13:57	1
Chlorobenzene	<0.0016		0.0016	0.00059	mg/Kg	☼	11/10/17 18:28	11/15/17 13:57	1
Chloroethane	<0.0040		0.0040	0.0012	mg/Kg	☼	11/10/17 18:28	11/15/17 13:57	1
Chloroform	<0.0016		0.0016	0.00055	mg/Kg	☼	11/10/17 18:28	11/15/17 13:57	1
Chloromethane	<0.0040		0.0040	0.0016	mg/Kg	☼	11/10/17 18:28	11/15/17 13:57	1
cis-1,2-Dichloroethene	<0.0016		0.0016	0.00045	mg/Kg	☼	11/10/17 18:28	11/15/17 13:57	1
cis-1,3-Dichloropropene	<0.0016		0.0016	0.00048	mg/Kg	☼	11/10/17 18:28	11/15/17 13:57	1
Dibromochloromethane	<0.0016		0.0016	0.00052	mg/Kg	☼	11/10/17 18:28	11/15/17 13:57	1
1,1-Dichloroethane	<0.0016		0.0016	0.00055	mg/Kg	☼	11/10/17 18:28	11/15/17 13:57	1
1,2-Dichloroethane	<0.0040		0.0040	0.0012	mg/Kg	☼	11/10/17 18:28	11/15/17 13:57	1
1,1-Dichloroethene	<0.0016		0.0016	0.00055	mg/Kg	☼	11/10/17 18:28	11/15/17 13:57	1
1,2-Dichloropropane	<0.0016		0.0016	0.00041	mg/Kg	☼	11/10/17 18:28	11/15/17 13:57	1
1,3-Dichloropropane, Total	<0.0016		0.0016	0.00056	mg/Kg	☼	11/10/17 18:28	11/15/17 13:57	1
Ethylbenzene	<0.0016		0.0016	0.00076	mg/Kg	☼	11/10/17 18:28	11/15/17 13:57	1
2-Hexanone	<0.0040		0.0040	0.0012	mg/Kg	☼	11/10/17 18:28	11/15/17 13:57	1
Methylene Chloride	<0.0040		0.0040	0.0016	mg/Kg	☼	11/10/17 18:28	11/15/17 13:57	1
4-Methyl-2-pentanone (MIBK)	<0.0040		0.0040	0.0012	mg/Kg	☼	11/10/17 18:28	11/15/17 13:57	1
Methyl tert-butyl ether	<0.0016		0.0016	0.00047	mg/Kg	☼	11/10/17 18:28	11/15/17 13:57	1
Styrene	<0.0016		0.0016	0.00048	mg/Kg	☼	11/10/17 18:28	11/15/17 13:57	1
1,1,2,2-Tetrachloroethane	<0.0016		0.0016	0.00051	mg/Kg	☼	11/10/17 18:28	11/15/17 13:57	1
Tetrachloroethene	<0.0016		0.0016	0.00054	mg/Kg	☼	11/10/17 18:28	11/15/17 13:57	1
Toluene	<0.0016		0.0016	0.00040	mg/Kg	☼	11/10/17 18:28	11/15/17 13:57	1
trans-1,2-Dichloroethene	<0.0016		0.0016	0.00071	mg/Kg	☼	11/10/17 18:28	11/15/17 13:57	1
trans-1,3-Dichloropropene	<0.0016		0.0016	0.00056	mg/Kg	☼	11/10/17 18:28	11/15/17 13:57	1
1,1,1-Trichloroethane	<0.0016		0.0016	0.00053	mg/Kg	☼	11/10/17 18:28	11/15/17 13:57	1
1,1,2-Trichloroethane	<0.0016		0.0016	0.00068	mg/Kg	☼	11/10/17 18:28	11/15/17 13:57	1
Trichloroethene	<0.0016		0.0016	0.00054	mg/Kg	☼	11/10/17 18:28	11/15/17 13:57	1
Vinyl acetate	<0.0040		0.0040	0.0014	mg/Kg	☼	11/10/17 18:28	11/15/17 13:57	1
Vinyl chloride	<0.0016		0.0016	0.00071	mg/Kg	☼	11/10/17 18:28	11/15/17 13:57	1
Xylenes, Total	<0.0032		0.0032	0.00051	mg/Kg	☼	11/10/17 18:28	11/15/17 13:57	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	92		75 - 131	11/10/17 18:28	11/15/17 13:57	1
Dibromofluoromethane	104		75 - 126	11/10/17 18:28	11/15/17 13:57	1
1,2-Dichloroethane-d4 (Surr)	110		70 - 134	11/10/17 18:28	11/15/17 13:57	1
Toluene-d8 (Surr)	87		75 - 124	11/10/17 18:28	11/15/17 13:57	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.037		0.037	0.0066	mg/Kg	☼	11/16/17 07:12	11/16/17 22:14	1
Acenaphthylene	<0.037		0.037	0.0049	mg/Kg	☼	11/16/17 07:12	11/16/17 22:14	1
Anthracene	<0.037		0.037	0.0062	mg/Kg	☼	11/16/17 07:12	11/16/17 22:14	1
Benzo[a]anthracene	0.0090	J	0.037	0.0050	mg/Kg	☼	11/16/17 07:12	11/16/17 22:14	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137078-1

Client Sample ID: 2696V-61-B04 (0-5)

Lab Sample ID: 500-137078-4

Date Collected: 11/09/17 12:55

Matrix: Solid

Date Received: 11/09/17 17:00

Percent Solids: 87.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	0.011	J	0.037	0.0071	mg/Kg	☼	11/16/17 07:12	11/16/17 22:14	1
Benzo[b]fluoranthene	0.018	J	0.037	0.0079	mg/Kg	☼	11/16/17 07:12	11/16/17 22:14	1
Benzo[g,h,i]perylene	<0.037		0.037	0.012	mg/Kg	☼	11/16/17 07:12	11/16/17 22:14	1
Benzo[k]fluoranthene	<0.037		0.037	0.011	mg/Kg	☼	11/16/17 07:12	11/16/17 22:14	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.038	mg/Kg	☼	11/16/17 07:12	11/16/17 22:14	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.055	mg/Kg	☼	11/16/17 07:12	11/16/17 22:14	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.067	mg/Kg	☼	11/16/17 07:12	11/16/17 22:14	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.049	mg/Kg	☼	11/16/17 07:12	11/16/17 22:14	1
Butyl benzyl phthalate	<0.19		0.19	0.070	mg/Kg	☼	11/16/17 07:12	11/16/17 22:14	1
Carbazole	<0.19		0.19	0.092	mg/Kg	☼	11/16/17 07:12	11/16/17 22:14	1
4-Chloroaniline	<0.74		0.74	0.17	mg/Kg	☼	11/16/17 07:12	11/16/17 22:14	1
4-Chloro-3-methylphenol	<0.37		0.37	0.13	mg/Kg	☼	11/16/17 07:12	11/16/17 22:14	1
2-Chloronaphthalene	<0.19		0.19	0.041	mg/Kg	☼	11/16/17 07:12	11/16/17 22:14	1
2-Chlorophenol	<0.19		0.19	0.063	mg/Kg	☼	11/16/17 07:12	11/16/17 22:14	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.043	mg/Kg	☼	11/16/17 07:12	11/16/17 22:14	1
Chrysene	0.013	J	0.037	0.010	mg/Kg	☼	11/16/17 07:12	11/16/17 22:14	1
Dibenz(a,h)anthracene	<0.037		0.037	0.0071	mg/Kg	☼	11/16/17 07:12	11/16/17 22:14	1
Dibenzofuran	<0.19		0.19	0.043	mg/Kg	☼	11/16/17 07:12	11/16/17 22:14	1
1,2-Dichlorobenzene	<0.19		0.19	0.044	mg/Kg	☼	11/16/17 07:12	11/16/17 22:14	1
1,3-Dichlorobenzene	<0.19		0.19	0.041	mg/Kg	☼	11/16/17 07:12	11/16/17 22:14	1
1,4-Dichlorobenzene	<0.19		0.19	0.047	mg/Kg	☼	11/16/17 07:12	11/16/17 22:14	1
3,3'-Dichlorobenzidine	<0.19 *		0.19	0.052	mg/Kg	☼	11/16/17 07:12	11/16/17 22:14	1
2,4-Dichlorophenol	<0.37		0.37	0.087	mg/Kg	☼	11/16/17 07:12	11/16/17 22:14	1
Diethyl phthalate	<0.19		0.19	0.062	mg/Kg	☼	11/16/17 07:12	11/16/17 22:14	1
2,4-Dimethylphenol	<0.37		0.37	0.14	mg/Kg	☼	11/16/17 07:12	11/16/17 22:14	1
Dimethyl phthalate	<0.19		0.19	0.048	mg/Kg	☼	11/16/17 07:12	11/16/17 22:14	1
Di-n-butyl phthalate	<0.19		0.19	0.056	mg/Kg	☼	11/16/17 07:12	11/16/17 22:14	1
4,6-Dinitro-2-methylphenol	<0.74		0.74	0.30	mg/Kg	☼	11/16/17 07:12	11/16/17 22:14	1
2,4-Dinitrophenol	<0.74		0.74	0.65	mg/Kg	☼	11/16/17 07:12	11/16/17 22:14	1
2,4-Dinitrotoluene	<0.19		0.19	0.059	mg/Kg	☼	11/16/17 07:12	11/16/17 22:14	1
2,6-Dinitrotoluene	<0.19		0.19	0.072	mg/Kg	☼	11/16/17 07:12	11/16/17 22:14	1
Di-n-octyl phthalate	<0.19		0.19	0.060	mg/Kg	☼	11/16/17 07:12	11/16/17 22:14	1
Fluoranthene	0.023	J	0.037	0.0068	mg/Kg	☼	11/16/17 07:12	11/16/17 22:14	1
Fluorene	<0.037		0.037	0.0052	mg/Kg	☼	11/16/17 07:12	11/16/17 22:14	1
Hexachlorobenzene	<0.074		0.074	0.0085	mg/Kg	☼	11/16/17 07:12	11/16/17 22:14	1
Hexachlorobutadiene	<0.19		0.19	0.058	mg/Kg	☼	11/16/17 07:12	11/16/17 22:14	1
Hexachlorocyclopentadiene	<0.74		0.74	0.21	mg/Kg	☼	11/16/17 07:12	11/16/17 22:14	1
Hexachloroethane	<0.19		0.19	0.056	mg/Kg	☼	11/16/17 07:12	11/16/17 22:14	1
Indeno[1,2,3-cd]pyrene	<0.037		0.037	0.0095	mg/Kg	☼	11/16/17 07:12	11/16/17 22:14	1
Isophorone	<0.19 *		0.19	0.041	mg/Kg	☼	11/16/17 07:12	11/16/17 22:14	1
2-Methylnaphthalene	<0.074		0.074	0.0068	mg/Kg	☼	11/16/17 07:12	11/16/17 22:14	1
2-Methylphenol	<0.19		0.19	0.059	mg/Kg	☼	11/16/17 07:12	11/16/17 22:14	1
3 & 4 Methylphenol	<0.19		0.19	0.061	mg/Kg	☼	11/16/17 07:12	11/16/17 22:14	1
Naphthalene	<0.037		0.037	0.0057	mg/Kg	☼	11/16/17 07:12	11/16/17 22:14	1
2-Nitroaniline	<0.19		0.19	0.050	mg/Kg	☼	11/16/17 07:12	11/16/17 22:14	1
3-Nitroaniline	<0.37		0.37	0.11	mg/Kg	☼	11/16/17 07:12	11/16/17 22:14	1
4-Nitroaniline	<0.37		0.37	0.15	mg/Kg	☼	11/16/17 07:12	11/16/17 22:14	1
Nitrobenzene	<0.037		0.037	0.0092	mg/Kg	☼	11/16/17 07:12	11/16/17 22:14	1
2-Nitrophenol	<0.37		0.37	0.087	mg/Kg	☼	11/16/17 07:12	11/16/17 22:14	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137078-1

Client Sample ID: 2696V-61-B04 (0-5)

Lab Sample ID: 500-137078-4

Date Collected: 11/09/17 12:55

Matrix: Solid

Date Received: 11/09/17 17:00

Percent Solids: 87.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Nitrophenol	<0.74		0.74	0.35	mg/Kg	☼	11/16/17 07:12	11/16/17 22:14	1
N-Nitrosodi-n-propylamine	<0.074		0.074	0.045	mg/Kg	☼	11/16/17 07:12	11/16/17 22:14	1
N-Nitrosodiphenylamine	<0.19		0.19	0.043	mg/Kg	☼	11/16/17 07:12	11/16/17 22:14	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.043	mg/Kg	☼	11/16/17 07:12	11/16/17 22:14	1
Pentachlorophenol	<0.74		0.74	0.59	mg/Kg	☼	11/16/17 07:12	11/16/17 22:14	1
Phenanthrene	0.011	J	0.037	0.0051	mg/Kg	☼	11/16/17 07:12	11/16/17 22:14	1
Phenol	<0.19		0.19	0.082	mg/Kg	☼	11/16/17 07:12	11/16/17 22:14	1
Pyrene	0.020	J	0.037	0.0073	mg/Kg	☼	11/16/17 07:12	11/16/17 22:14	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.040	mg/Kg	☼	11/16/17 07:12	11/16/17 22:14	1
2,4,5-Trichlorophenol	<0.37		0.37	0.084	mg/Kg	☼	11/16/17 07:12	11/16/17 22:14	1
2,4,6-Trichlorophenol	<0.37		0.37	0.13	mg/Kg	☼	11/16/17 07:12	11/16/17 22:14	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	90		44 - 121				11/16/17 07:12	11/16/17 22:14	1
2-Fluorophenol	97		46 - 133				11/16/17 07:12	11/16/17 22:14	1
Nitrobenzene-d5	86		41 - 120				11/16/17 07:12	11/16/17 22:14	1
Phenol-d5	94		46 - 125				11/16/17 07:12	11/16/17 22:14	1
Terphenyl-d14	78		35 - 160				11/16/17 07:12	11/16/17 22:14	1
2,4,6-Tribromophenol	67		25 - 139				11/16/17 07:12	11/16/17 22:14	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.41	J	1.1	0.21	mg/Kg	☼	11/11/17 13:26	11/13/17 19:22	1
Arsenic	10		0.54	0.19	mg/Kg	☼	11/11/17 13:26	11/13/17 19:22	1
Barium	39		0.54	0.062	mg/Kg	☼	11/11/17 13:26	11/13/17 19:22	1
Beryllium	0.66		0.22	0.051	mg/Kg	☼	11/11/17 13:26	11/13/17 19:22	1
Cadmium	0.13	B	0.11	0.020	mg/Kg	☼	11/11/17 13:26	11/13/17 19:22	1
Chromium	14		0.54	0.27	mg/Kg	☼	11/11/17 13:26	11/13/17 19:22	1
Cobalt	13		0.27	0.071	mg/Kg	☼	11/11/17 13:26	11/13/17 19:22	1
Copper	28		0.54	0.15	mg/Kg	☼	11/11/17 13:26	11/14/17 17:09	1
Iron	20000		11	5.7	mg/Kg	☼	11/11/17 13:26	11/13/17 19:22	1
Lead	33		0.27	0.13	mg/Kg	☼	11/11/17 13:26	11/13/17 19:22	1
Magnesium	5800	B	5.4	2.7	mg/Kg	☼	11/11/17 13:26	11/13/17 19:22	1
Calcium	8700	B	11	1.8	mg/Kg	☼	11/11/17 13:26	11/13/17 19:22	1
Manganese	210		0.54	0.079	mg/Kg	☼	11/11/17 13:26	11/13/17 19:22	1
Nickel	28		0.54	0.16	mg/Kg	☼	11/11/17 13:26	11/13/17 19:22	1
Selenium	<0.54		0.54	0.32	mg/Kg	☼	11/11/17 13:26	11/13/17 19:22	1
Silver	<0.27		0.27	0.070	mg/Kg	☼	11/11/17 13:26	11/13/17 19:22	1
Thallium	<0.54		0.54	0.27	mg/Kg	☼	11/11/17 13:26	11/13/17 19:22	1
Vanadium	22		0.27	0.064	mg/Kg	☼	11/11/17 13:26	11/13/17 19:22	1
Zinc	78		1.1	0.48	mg/Kg	☼	11/11/17 13:26	11/13/17 19:22	1
Potassium	1500		27	9.6	mg/Kg	☼	11/11/17 13:26	11/13/17 19:22	1
Sodium	950		54	8.1	mg/Kg	☼	11/11/17 13:26	11/13/17 19:22	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.050		0.050	0.010	mg/L		11/15/17 09:19	11/15/17 16:26	1
Barium	0.42	J	0.50	0.050	mg/L		11/15/17 09:19	11/15/17 16:26	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		11/15/17 09:19	11/15/17 16:26	1
Cadmium	0.0027	J	0.0050	0.0020	mg/L		11/15/17 09:19	11/15/17 16:26	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137078-1

Client Sample ID: 2696V-61-B04 (0-5)

Lab Sample ID: 500-137078-4

Date Collected: 11/09/17 12:55

Matrix: Solid

Date Received: 11/09/17 17:00

Percent Solids: 87.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	360		5.0	0.50	mg/L		11/15/17 09:19	11/15/17 16:26	1
Chromium	<0.025		0.025	0.010	mg/L		11/15/17 09:19	11/15/17 16:26	1
Cobalt	0.017	J	0.025	0.010	mg/L		11/15/17 09:19	11/15/17 16:26	1
Copper	0.011	J	0.025	0.010	mg/L		11/15/17 09:19	11/15/17 16:26	1
Iron	0.24	J	0.40	0.20	mg/L		11/15/17 09:19	11/15/17 16:26	1
Lead	0.0092		0.0075	0.0075	mg/L		11/15/17 09:19	11/15/17 16:26	1
Magnesium	66		2.5	0.50	mg/L		11/15/17 09:19	11/15/17 16:26	1
Manganese	4.1		0.025	0.010	mg/L		11/15/17 09:19	11/15/17 16:26	1
Nickel	0.017	J	0.025	0.010	mg/L		11/15/17 09:19	11/15/17 16:26	1
Potassium	1.4	J	2.5	0.50	mg/L		11/15/17 09:19	11/15/17 16:26	1
Selenium	<0.050		0.050	0.020	mg/L		11/15/17 09:19	11/15/17 16:26	1
Silver	<0.025		0.025	0.010	mg/L		11/15/17 09:19	11/15/17 16:26	1
Vanadium	<0.025		0.025	0.010	mg/L		11/15/17 09:19	11/15/17 16:26	1
Zinc	<0.50		0.50	0.020	mg/L		11/15/17 09:19	11/15/17 16:26	1

Method: 6010B - SPLP Metals - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.18		0.0075	0.0075	mg/L		11/15/17 08:20	11/17/17 00:17	1
Manganese	1.2		0.025	0.010	mg/L		11/15/17 08:20	11/17/17 00:17	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		11/15/17 09:19	11/16/17 15:14	1
Thallium	<0.0020		0.0020	0.0020	mg/L		11/15/17 09:19	11/16/17 15:14	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		11/17/17 08:10	11/17/17 12:27	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.024	B	0.017	0.0057	mg/Kg	☼	11/13/17 13:20	11/17/17 09:32	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.55		0.55	0.19	mg/Kg	☼	11/19/17 10:30	11/19/17 14:36	1
pH	9.2		0.20	0.20	SU			11/18/17 11:09	1

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137078-1

Client Sample ID: 2696V-61-B05 (0-5)

Lab Sample ID: 500-137078-5

Date Collected: 11/09/17 12:45

Matrix: Solid

Date Received: 11/09/17 17:00

Percent Solids: 85.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	0.020		0.016	0.0070	mg/Kg	☼	11/10/17 18:28	11/15/17 14:22	1
Benzene	<0.0016	*	0.0016	0.00041	mg/Kg	☼	11/10/17 18:28	11/15/17 14:22	1
Bromodichloromethane	<0.0016		0.0016	0.00033	mg/Kg	☼	11/10/17 18:28	11/15/17 14:22	1
Bromoform	<0.0016		0.0016	0.00047	mg/Kg	☼	11/10/17 18:28	11/15/17 14:22	1
Bromomethane	<0.0040		0.0040	0.0015	mg/Kg	☼	11/10/17 18:28	11/15/17 14:22	1
2-Butanone (MEK)	<0.0040	*	0.0040	0.0018	mg/Kg	☼	11/10/17 18:28	11/15/17 14:22	1
Carbon disulfide	<0.0040		0.0040	0.00083	mg/Kg	☼	11/10/17 18:28	11/15/17 14:22	1
Carbon tetrachloride	<0.0016		0.0016	0.00046	mg/Kg	☼	11/10/17 18:28	11/15/17 14:22	1
Chlorobenzene	<0.0016		0.0016	0.00059	mg/Kg	☼	11/10/17 18:28	11/15/17 14:22	1
Chloroethane	<0.0040		0.0040	0.0012	mg/Kg	☼	11/10/17 18:28	11/15/17 14:22	1
Chloroform	<0.0016		0.0016	0.00055	mg/Kg	☼	11/10/17 18:28	11/15/17 14:22	1
Chloromethane	<0.0040		0.0040	0.0016	mg/Kg	☼	11/10/17 18:28	11/15/17 14:22	1
cis-1,2-Dichloroethene	<0.0016		0.0016	0.00045	mg/Kg	☼	11/10/17 18:28	11/15/17 14:22	1
cis-1,3-Dichloropropene	<0.0016		0.0016	0.00048	mg/Kg	☼	11/10/17 18:28	11/15/17 14:22	1
Dibromochloromethane	<0.0016		0.0016	0.00052	mg/Kg	☼	11/10/17 18:28	11/15/17 14:22	1
1,1-Dichloroethane	<0.0016		0.0016	0.00055	mg/Kg	☼	11/10/17 18:28	11/15/17 14:22	1
1,2-Dichloroethane	<0.0040		0.0040	0.0012	mg/Kg	☼	11/10/17 18:28	11/15/17 14:22	1
1,1-Dichloroethene	<0.0016		0.0016	0.00055	mg/Kg	☼	11/10/17 18:28	11/15/17 14:22	1
1,2-Dichloropropane	<0.0016		0.0016	0.00041	mg/Kg	☼	11/10/17 18:28	11/15/17 14:22	1
1,3-Dichloropropene, Total	<0.0016		0.0016	0.00056	mg/Kg	☼	11/10/17 18:28	11/15/17 14:22	1
Ethylbenzene	<0.0016		0.0016	0.00076	mg/Kg	☼	11/10/17 18:28	11/15/17 14:22	1
2-Hexanone	<0.0040		0.0040	0.0012	mg/Kg	☼	11/10/17 18:28	11/15/17 14:22	1
Methylene Chloride	<0.0040		0.0040	0.0016	mg/Kg	☼	11/10/17 18:28	11/15/17 14:22	1
4-Methyl-2-pentanone (MIBK)	<0.0040		0.0040	0.0012	mg/Kg	☼	11/10/17 18:28	11/15/17 14:22	1
Methyl tert-butyl ether	<0.0016		0.0016	0.00047	mg/Kg	☼	11/10/17 18:28	11/15/17 14:22	1
Styrene	<0.0016		0.0016	0.00048	mg/Kg	☼	11/10/17 18:28	11/15/17 14:22	1
1,1,2,2-Tetrachloroethane	<0.0016		0.0016	0.00051	mg/Kg	☼	11/10/17 18:28	11/15/17 14:22	1
Tetrachloroethene	<0.0016		0.0016	0.00054	mg/Kg	☼	11/10/17 18:28	11/15/17 14:22	1
Toluene	<0.0016		0.0016	0.00040	mg/Kg	☼	11/10/17 18:28	11/15/17 14:22	1
trans-1,2-Dichloroethene	<0.0016		0.0016	0.00071	mg/Kg	☼	11/10/17 18:28	11/15/17 14:22	1
trans-1,3-Dichloropropene	<0.0016		0.0016	0.00056	mg/Kg	☼	11/10/17 18:28	11/15/17 14:22	1
1,1,1-Trichloroethane	<0.0016		0.0016	0.00054	mg/Kg	☼	11/10/17 18:28	11/15/17 14:22	1
1,1,2-Trichloroethane	<0.0016		0.0016	0.00069	mg/Kg	☼	11/10/17 18:28	11/15/17 14:22	1
Trichloroethene	<0.0016		0.0016	0.00054	mg/Kg	☼	11/10/17 18:28	11/15/17 14:22	1
Vinyl acetate	<0.0040		0.0040	0.0014	mg/Kg	☼	11/10/17 18:28	11/15/17 14:22	1
Vinyl chloride	<0.0016		0.0016	0.00071	mg/Kg	☼	11/10/17 18:28	11/15/17 14:22	1
Xylenes, Total	<0.0032		0.0032	0.00051	mg/Kg	☼	11/10/17 18:28	11/15/17 14:22	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	92		75 - 131	11/10/17 18:28	11/15/17 14:22	1
Dibromofluoromethane	105		75 - 126	11/10/17 18:28	11/15/17 14:22	1
1,2-Dichloroethane-d4 (Surr)	105		70 - 134	11/10/17 18:28	11/15/17 14:22	1
Toluene-d8 (Surr)	96		75 - 124	11/10/17 18:28	11/15/17 14:22	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.038		0.038	0.0069	mg/Kg	☼	11/16/17 07:12	11/16/17 22:40	1
Acenaphthylene	<0.038		0.038	0.0050	mg/Kg	☼	11/16/17 07:12	11/16/17 22:40	1
Anthracene	0.016	J	0.038	0.0064	mg/Kg	☼	11/16/17 07:12	11/16/17 22:40	1
Benzo[a]anthracene	0.033	J	0.038	0.0051	mg/Kg	☼	11/16/17 07:12	11/16/17 22:40	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137078-1

Client Sample ID: 2696V-61-B05 (0-5)

Lab Sample ID: 500-137078-5

Date Collected: 11/09/17 12:45

Matrix: Solid

Date Received: 11/09/17 17:00

Percent Solids: 85.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	0.042		0.038	0.0074	mg/Kg	☼	11/16/17 07:12	11/16/17 22:40	1
Benzo[b]fluoranthene	0.067		0.038	0.0082	mg/Kg	☼	11/16/17 07:12	11/16/17 22:40	1
Benzo[g,h,i]perylene	0.029	J	0.038	0.012	mg/Kg	☼	11/16/17 07:12	11/16/17 22:40	1
Benzo[k]fluoranthene	0.025	J	0.038	0.011	mg/Kg	☼	11/16/17 07:12	11/16/17 22:40	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.039	mg/Kg	☼	11/16/17 07:12	11/16/17 22:40	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.057	mg/Kg	☼	11/16/17 07:12	11/16/17 22:40	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.070	mg/Kg	☼	11/16/17 07:12	11/16/17 22:40	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.050	mg/Kg	☼	11/16/17 07:12	11/16/17 22:40	1
Butyl benzyl phthalate	<0.19		0.19	0.073	mg/Kg	☼	11/16/17 07:12	11/16/17 22:40	1
Carbazole	<0.19		0.19	0.095	mg/Kg	☼	11/16/17 07:12	11/16/17 22:40	1
4-Chloroaniline	<0.77		0.77	0.18	mg/Kg	☼	11/16/17 07:12	11/16/17 22:40	1
4-Chloro-3-methylphenol	<0.38		0.38	0.13	mg/Kg	☼	11/16/17 07:12	11/16/17 22:40	1
2-Chloronaphthalene	<0.19		0.19	0.042	mg/Kg	☼	11/16/17 07:12	11/16/17 22:40	1
2-Chlorophenol	<0.19		0.19	0.065	mg/Kg	☼	11/16/17 07:12	11/16/17 22:40	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.045	mg/Kg	☼	11/16/17 07:12	11/16/17 22:40	1
Chrysene	0.045		0.038	0.010	mg/Kg	☼	11/16/17 07:12	11/16/17 22:40	1
Dibenz(a,h)anthracene	<0.038		0.038	0.0074	mg/Kg	☼	11/16/17 07:12	11/16/17 22:40	1
Dibenzofuran	<0.19		0.19	0.045	mg/Kg	☼	11/16/17 07:12	11/16/17 22:40	1
1,2-Dichlorobenzene	<0.19		0.19	0.046	mg/Kg	☼	11/16/17 07:12	11/16/17 22:40	1
1,3-Dichlorobenzene	<0.19		0.19	0.043	mg/Kg	☼	11/16/17 07:12	11/16/17 22:40	1
1,4-Dichlorobenzene	<0.19		0.19	0.049	mg/Kg	☼	11/16/17 07:12	11/16/17 22:40	1
3,3'-Dichlorobenzidine	<0.19	*	0.19	0.054	mg/Kg	☼	11/16/17 07:12	11/16/17 22:40	1
2,4-Dichlorophenol	<0.38		0.38	0.091	mg/Kg	☼	11/16/17 07:12	11/16/17 22:40	1
Diethyl phthalate	<0.19		0.19	0.065	mg/Kg	☼	11/16/17 07:12	11/16/17 22:40	1
2,4-Dimethylphenol	<0.38		0.38	0.14	mg/Kg	☼	11/16/17 07:12	11/16/17 22:40	1
Dimethyl phthalate	<0.19		0.19	0.050	mg/Kg	☼	11/16/17 07:12	11/16/17 22:40	1
Di-n-butyl phthalate	<0.19		0.19	0.058	mg/Kg	☼	11/16/17 07:12	11/16/17 22:40	1
4,6-Dinitro-2-methylphenol	<0.77		0.77	0.31	mg/Kg	☼	11/16/17 07:12	11/16/17 22:40	1
2,4-Dinitrophenol	<0.77		0.77	0.67	mg/Kg	☼	11/16/17 07:12	11/16/17 22:40	1
2,4-Dinitrotoluene	<0.19		0.19	0.061	mg/Kg	☼	11/16/17 07:12	11/16/17 22:40	1
2,6-Dinitrotoluene	<0.19		0.19	0.075	mg/Kg	☼	11/16/17 07:12	11/16/17 22:40	1
Di-n-octyl phthalate	<0.19		0.19	0.062	mg/Kg	☼	11/16/17 07:12	11/16/17 22:40	1
Fluoranthene	0.084		0.038	0.0071	mg/Kg	☼	11/16/17 07:12	11/16/17 22:40	1
Fluorene	0.011	J	0.038	0.0054	mg/Kg	☼	11/16/17 07:12	11/16/17 22:40	1
Hexachlorobenzene	<0.077		0.077	0.0089	mg/Kg	☼	11/16/17 07:12	11/16/17 22:40	1
Hexachlorobutadiene	<0.19		0.19	0.060	mg/Kg	☼	11/16/17 07:12	11/16/17 22:40	1
Hexachlorocyclopentadiene	<0.77		0.77	0.22	mg/Kg	☼	11/16/17 07:12	11/16/17 22:40	1
Hexachloroethane	<0.19		0.19	0.058	mg/Kg	☼	11/16/17 07:12	11/16/17 22:40	1
Indeno[1,2,3-cd]pyrene	0.021	J	0.038	0.0099	mg/Kg	☼	11/16/17 07:12	11/16/17 22:40	1
Isophorone	<0.19	*	0.19	0.043	mg/Kg	☼	11/16/17 07:12	11/16/17 22:40	1
2-Methylnaphthalene	0.010	J	0.077	0.0070	mg/Kg	☼	11/16/17 07:12	11/16/17 22:40	1
2-Methylphenol	<0.19		0.19	0.061	mg/Kg	☼	11/16/17 07:12	11/16/17 22:40	1
3 & 4 Methylphenol	<0.19		0.19	0.064	mg/Kg	☼	11/16/17 07:12	11/16/17 22:40	1
Naphthalene	<0.038		0.038	0.0059	mg/Kg	☼	11/16/17 07:12	11/16/17 22:40	1
2-Nitroaniline	<0.19		0.19	0.051	mg/Kg	☼	11/16/17 07:12	11/16/17 22:40	1
3-Nitroaniline	<0.38		0.38	0.12	mg/Kg	☼	11/16/17 07:12	11/16/17 22:40	1
4-Nitroaniline	<0.38		0.38	0.16	mg/Kg	☼	11/16/17 07:12	11/16/17 22:40	1
Nitrobenzene	<0.038		0.038	0.0095	mg/Kg	☼	11/16/17 07:12	11/16/17 22:40	1
2-Nitrophenol	<0.38		0.38	0.090	mg/Kg	☼	11/16/17 07:12	11/16/17 22:40	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137078-1

Client Sample ID: 2696V-61-B05 (0-5)

Lab Sample ID: 500-137078-5

Date Collected: 11/09/17 12:45

Matrix: Solid

Date Received: 11/09/17 17:00

Percent Solids: 85.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Nitrophenol	<0.77		0.77	0.36	mg/Kg	☼	11/16/17 07:12	11/16/17 22:40	1
N-Nitrosodi-n-propylamine	<0.077		0.077	0.047	mg/Kg	☼	11/16/17 07:12	11/16/17 22:40	1
N-Nitrosodiphenylamine	<0.19		0.19	0.045	mg/Kg	☼	11/16/17 07:12	11/16/17 22:40	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.044	mg/Kg	☼	11/16/17 07:12	11/16/17 22:40	1
Pentachlorophenol	<0.77		0.77	0.61	mg/Kg	☼	11/16/17 07:12	11/16/17 22:40	1
Phenanthrene	0.059		0.038	0.0053	mg/Kg	☼	11/16/17 07:12	11/16/17 22:40	1
Phenol	<0.19		0.19	0.085	mg/Kg	☼	11/16/17 07:12	11/16/17 22:40	1
Pyrene	0.067		0.038	0.0076	mg/Kg	☼	11/16/17 07:12	11/16/17 22:40	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.041	mg/Kg	☼	11/16/17 07:12	11/16/17 22:40	1
2,4,5-Trichlorophenol	<0.38		0.38	0.087	mg/Kg	☼	11/16/17 07:12	11/16/17 22:40	1
2,4,6-Trichlorophenol	<0.38		0.38	0.13	mg/Kg	☼	11/16/17 07:12	11/16/17 22:40	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	84		44 - 121	11/16/17 07:12	11/16/17 22:40	1
2-Fluorophenol	91		46 - 133	11/16/17 07:12	11/16/17 22:40	1
Nitrobenzene-d5	79		41 - 120	11/16/17 07:12	11/16/17 22:40	1
Phenol-d5	88		46 - 125	11/16/17 07:12	11/16/17 22:40	1
Terphenyl-d14	77		35 - 160	11/16/17 07:12	11/16/17 22:40	1
2,4,6-Tribromophenol	57		25 - 139	11/16/17 07:12	11/16/17 22:40	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.53	J	1.1	0.22	mg/Kg	☼	11/11/17 13:26	11/13/17 19:26	1
Arsenic	9.6		0.57	0.19	mg/Kg	☼	11/11/17 13:26	11/13/17 19:26	1
Barium	21		0.57	0.065	mg/Kg	☼	11/11/17 13:26	11/13/17 19:26	1
Beryllium	0.48		0.23	0.053	mg/Kg	☼	11/11/17 13:26	11/13/17 19:26	1
Cadmium	0.27	B	0.11	0.020	mg/Kg	☼	11/11/17 13:26	11/13/17 19:26	1
Chromium	9.4		0.57	0.28	mg/Kg	☼	11/11/17 13:26	11/13/17 19:26	1
Cobalt	8.9		0.28	0.074	mg/Kg	☼	11/11/17 13:26	11/13/17 19:26	1
Copper	29		2.8	0.79	mg/Kg	☼	11/11/17 13:26	11/14/17 17:21	5
Iron	15000		11	5.9	mg/Kg	☼	11/11/17 13:26	11/13/17 19:26	1
Lead	130		0.28	0.13	mg/Kg	☼	11/11/17 13:26	11/13/17 19:26	1
Magnesium	20000	B	5.7	2.8	mg/Kg	☼	11/11/17 13:26	11/13/17 19:26	1
Calcium	51000	B	57	9.6	mg/Kg	☼	11/11/17 13:26	11/14/17 17:21	5
Manganese	220		0.57	0.082	mg/Kg	☼	11/11/17 13:26	11/13/17 19:26	1
Nickel	22		0.57	0.16	mg/Kg	☼	11/11/17 13:26	11/13/17 19:26	1
Selenium	0.41	J B	0.57	0.33	mg/Kg	☼	11/11/17 13:26	11/13/17 19:26	1
Silver	<0.28		0.28	0.073	mg/Kg	☼	11/11/17 13:26	11/13/17 19:26	1
Thallium	<0.57		0.57	0.28	mg/Kg	☼	11/11/17 13:26	11/13/17 19:26	1
Vanadium	16		0.28	0.067	mg/Kg	☼	11/11/17 13:26	11/13/17 19:26	1
Zinc	68		1.1	0.50	mg/Kg	☼	11/11/17 13:26	11/13/17 19:26	1
Potassium	900		28	10	mg/Kg	☼	11/11/17 13:26	11/13/17 19:26	1
Sodium	910		57	8.4	mg/Kg	☼	11/11/17 13:26	11/13/17 19:26	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.050		0.050	0.010	mg/L		11/15/17 09:19	11/15/17 16:43	1
Barium	0.44	J	0.50	0.050	mg/L		11/15/17 09:19	11/15/17 16:43	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		11/15/17 09:19	11/15/17 16:43	1
Cadmium	0.0038	J	0.0050	0.0020	mg/L		11/15/17 09:19	11/15/17 16:43	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137078-1

Client Sample ID: 2696V-61-B05 (0-5)

Lab Sample ID: 500-137078-5

Date Collected: 11/09/17 12:45

Matrix: Solid

Date Received: 11/09/17 17:00

Percent Solids: 85.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	400		5.0	0.50	mg/L		11/15/17 09:19	11/15/17 16:43	1
Chromium	<0.025		0.025	0.010	mg/L		11/15/17 09:19	11/15/17 16:43	1
Cobalt	0.014	J	0.025	0.010	mg/L		11/15/17 09:19	11/15/17 16:43	1
Copper	<0.025		0.025	0.010	mg/L		11/15/17 09:19	11/15/17 16:43	1
Iron	<0.40		0.40	0.20	mg/L		11/15/17 09:19	11/15/17 16:43	1
Lead	0.055		0.0075	0.0075	mg/L		11/15/17 09:19	11/15/17 16:43	1
Magnesium	56		2.5	0.50	mg/L		11/15/17 09:19	11/15/17 16:43	1
Manganese	4.4		0.025	0.010	mg/L		11/15/17 09:19	11/15/17 16:43	1
Nickel	0.017	J	0.025	0.010	mg/L		11/15/17 09:19	11/15/17 16:43	1
Potassium	1.7	J	2.5	0.50	mg/L		11/15/17 09:19	11/15/17 16:43	1
Selenium	<0.050		0.050	0.020	mg/L		11/15/17 09:19	11/15/17 16:43	1
Silver	<0.025		0.025	0.010	mg/L		11/15/17 09:19	11/15/17 16:43	1
Vanadium	<0.025		0.025	0.010	mg/L		11/15/17 09:19	11/15/17 16:43	1
Zinc	0.045	J	0.50	0.020	mg/L		11/15/17 09:19	11/15/17 16:43	1

Method: 6010B - SPLP Metals - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.42		0.0075	0.0075	mg/L		11/15/17 08:20	11/17/17 00:21	1
Manganese	1.1		0.025	0.010	mg/L		11/15/17 08:20	11/17/17 00:21	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		11/15/17 09:19	11/16/17 15:18	1
Thallium	<0.0020		0.0020	0.0020	mg/L		11/15/17 09:19	11/16/17 15:18	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		11/17/17 08:10	11/17/17 12:29	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.028	B	0.017	0.0058	mg/Kg	☼	11/13/17 13:20	11/17/17 09:34	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.52		0.52	0.18	mg/Kg	☼	11/19/17 10:30	11/19/17 14:36	1
pH	9.0		0.20	0.20	SU			11/18/17 11:12	1

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137078-1

Client Sample ID: 2696V-61-B06 (0-5)

Lab Sample ID: 500-137078-6

Date Collected: 11/09/17 10:30

Matrix: Solid

Date Received: 11/09/17 17:00

Percent Solids: 83.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	0.018		0.016	0.0070	mg/Kg	☼	11/10/17 18:28	11/15/17 14:47	1
Benzene	<0.0016	*	0.0016	0.00041	mg/Kg	☼	11/10/17 18:28	11/15/17 14:47	1
Bromodichloromethane	<0.0016		0.0016	0.00033	mg/Kg	☼	11/10/17 18:28	11/15/17 14:47	1
Bromoform	<0.0016		0.0016	0.00047	mg/Kg	☼	11/10/17 18:28	11/15/17 14:47	1
Bromomethane	<0.0040		0.0040	0.0015	mg/Kg	☼	11/10/17 18:28	11/15/17 14:47	1
2-Butanone (MEK)	<0.0040	*	0.0040	0.0018	mg/Kg	☼	11/10/17 18:28	11/15/17 14:47	1
Carbon disulfide	<0.0040		0.0040	0.00084	mg/Kg	☼	11/10/17 18:28	11/15/17 14:47	1
Carbon tetrachloride	<0.0016		0.0016	0.00047	mg/Kg	☼	11/10/17 18:28	11/15/17 14:47	1
Chlorobenzene	<0.0016		0.0016	0.00059	mg/Kg	☼	11/10/17 18:28	11/15/17 14:47	1
Chloroethane	<0.0040		0.0040	0.0012	mg/Kg	☼	11/10/17 18:28	11/15/17 14:47	1
Chloroform	<0.0016		0.0016	0.00056	mg/Kg	☼	11/10/17 18:28	11/15/17 14:47	1
Chloromethane	<0.0040		0.0040	0.0016	mg/Kg	☼	11/10/17 18:28	11/15/17 14:47	1
cis-1,2-Dichloroethene	<0.0016		0.0016	0.00045	mg/Kg	☼	11/10/17 18:28	11/15/17 14:47	1
cis-1,3-Dichloropropene	<0.0016		0.0016	0.00048	mg/Kg	☼	11/10/17 18:28	11/15/17 14:47	1
Dibromochloromethane	<0.0016		0.0016	0.00053	mg/Kg	☼	11/10/17 18:28	11/15/17 14:47	1
1,1-Dichloroethane	<0.0016		0.0016	0.00055	mg/Kg	☼	11/10/17 18:28	11/15/17 14:47	1
1,2-Dichloroethane	<0.0040		0.0040	0.0013	mg/Kg	☼	11/10/17 18:28	11/15/17 14:47	1
1,1-Dichloroethene	<0.0016		0.0016	0.00055	mg/Kg	☼	11/10/17 18:28	11/15/17 14:47	1
1,2-Dichloropropane	<0.0016		0.0016	0.00042	mg/Kg	☼	11/10/17 18:28	11/15/17 14:47	1
1,3-Dichloropropene, Total	<0.0016		0.0016	0.00056	mg/Kg	☼	11/10/17 18:28	11/15/17 14:47	1
Ethylbenzene	<0.0016		0.0016	0.00077	mg/Kg	☼	11/10/17 18:28	11/15/17 14:47	1
2-Hexanone	<0.0040		0.0040	0.0013	mg/Kg	☼	11/10/17 18:28	11/15/17 14:47	1
Methylene Chloride	<0.0040		0.0040	0.0016	mg/Kg	☼	11/10/17 18:28	11/15/17 14:47	1
4-Methyl-2-pentanone (MIBK)	<0.0040		0.0040	0.0012	mg/Kg	☼	11/10/17 18:28	11/15/17 14:47	1
Methyl tert-butyl ether	<0.0016		0.0016	0.00047	mg/Kg	☼	11/10/17 18:28	11/15/17 14:47	1
Styrene	<0.0016		0.0016	0.00049	mg/Kg	☼	11/10/17 18:28	11/15/17 14:47	1
1,1,2,2-Tetrachloroethane	<0.0016		0.0016	0.00051	mg/Kg	☼	11/10/17 18:28	11/15/17 14:47	1
Tetrachloroethene	<0.0016		0.0016	0.00055	mg/Kg	☼	11/10/17 18:28	11/15/17 14:47	1
Toluene	<0.0016		0.0016	0.00041	mg/Kg	☼	11/10/17 18:28	11/15/17 14:47	1
trans-1,2-Dichloroethene	<0.0016		0.0016	0.00071	mg/Kg	☼	11/10/17 18:28	11/15/17 14:47	1
trans-1,3-Dichloropropene	<0.0016		0.0016	0.00056	mg/Kg	☼	11/10/17 18:28	11/15/17 14:47	1
1,1,1-Trichloroethane	<0.0016		0.0016	0.00054	mg/Kg	☼	11/10/17 18:28	11/15/17 14:47	1
1,1,2-Trichloroethane	<0.0016		0.0016	0.00069	mg/Kg	☼	11/10/17 18:28	11/15/17 14:47	1
Trichloroethene	<0.0016		0.0016	0.00054	mg/Kg	☼	11/10/17 18:28	11/15/17 14:47	1
Vinyl acetate	<0.0040		0.0040	0.0014	mg/Kg	☼	11/10/17 18:28	11/15/17 14:47	1
Vinyl chloride	<0.0016		0.0016	0.00071	mg/Kg	☼	11/10/17 18:28	11/15/17 14:47	1
Xylenes, Total	<0.0032		0.0032	0.00051	mg/Kg	☼	11/10/17 18:28	11/15/17 14:47	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	96		75 - 131	11/10/17 18:28	11/15/17 14:47	1
Dibromofluoromethane	106		75 - 126	11/10/17 18:28	11/15/17 14:47	1
1,2-Dichloroethane-d4 (Surr)	104		70 - 134	11/10/17 18:28	11/15/17 14:47	1
Toluene-d8 (Surr)	96		75 - 124	11/10/17 18:28	11/15/17 14:47	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.039		0.039	0.0071	mg/Kg	☼	11/16/17 07:12	11/16/17 23:07	1
Acenaphthylene	<0.039		0.039	0.0052	mg/Kg	☼	11/16/17 07:12	11/16/17 23:07	1
Anthracene	<0.039		0.039	0.0066	mg/Kg	☼	11/16/17 07:12	11/16/17 23:07	1
Benzo[a]anthracene	<0.039		0.039	0.0053	mg/Kg	☼	11/16/17 07:12	11/16/17 23:07	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137078-1

Client Sample ID: 2696V-61-B06 (0-5)

Lab Sample ID: 500-137078-6

Date Collected: 11/09/17 10:30

Matrix: Solid

Date Received: 11/09/17 17:00

Percent Solids: 83.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	<0.039		0.039	0.0076	mg/Kg	☼	11/16/17 07:12	11/16/17 23:07	1
Benzo[b]fluoranthene	<0.039		0.039	0.0085	mg/Kg	☼	11/16/17 07:12	11/16/17 23:07	1
Benzo[g,h,i]perylene	<0.039		0.039	0.013	mg/Kg	☼	11/16/17 07:12	11/16/17 23:07	1
Benzo[k]fluoranthene	<0.039		0.039	0.012	mg/Kg	☼	11/16/17 07:12	11/16/17 23:07	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.040	mg/Kg	☼	11/16/17 07:12	11/16/17 23:07	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.059	mg/Kg	☼	11/16/17 07:12	11/16/17 23:07	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.072	mg/Kg	☼	11/16/17 07:12	11/16/17 23:07	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.052	mg/Kg	☼	11/16/17 07:12	11/16/17 23:07	1
Butyl benzyl phthalate	<0.20		0.20	0.075	mg/Kg	☼	11/16/17 07:12	11/16/17 23:07	1
Carbazole	<0.20		0.20	0.099	mg/Kg	☼	11/16/17 07:12	11/16/17 23:07	1
4-Chloroaniline	<0.80		0.80	0.19	mg/Kg	☼	11/16/17 07:12	11/16/17 23:07	1
4-Chloro-3-methylphenol	<0.39		0.39	0.13	mg/Kg	☼	11/16/17 07:12	11/16/17 23:07	1
2-Chloronaphthalene	<0.20		0.20	0.044	mg/Kg	☼	11/16/17 07:12	11/16/17 23:07	1
2-Chlorophenol	<0.20		0.20	0.067	mg/Kg	☼	11/16/17 07:12	11/16/17 23:07	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.046	mg/Kg	☼	11/16/17 07:12	11/16/17 23:07	1
Chrysene	<0.039		0.039	0.011	mg/Kg	☼	11/16/17 07:12	11/16/17 23:07	1
Dibenz(a,h)anthracene	<0.039		0.039	0.0076	mg/Kg	☼	11/16/17 07:12	11/16/17 23:07	1
Dibenzofuran	<0.20		0.20	0.046	mg/Kg	☼	11/16/17 07:12	11/16/17 23:07	1
1,2-Dichlorobenzene	<0.20		0.20	0.047	mg/Kg	☼	11/16/17 07:12	11/16/17 23:07	1
1,3-Dichlorobenzene	<0.20		0.20	0.044	mg/Kg	☼	11/16/17 07:12	11/16/17 23:07	1
1,4-Dichlorobenzene	<0.20		0.20	0.051	mg/Kg	☼	11/16/17 07:12	11/16/17 23:07	1
3,3'-Dichlorobenzidine	<0.20 *		0.20	0.055	mg/Kg	☼	11/16/17 07:12	11/16/17 23:07	1
2,4-Dichlorophenol	<0.39		0.39	0.094	mg/Kg	☼	11/16/17 07:12	11/16/17 23:07	1
Diethyl phthalate	<0.20		0.20	0.067	mg/Kg	☼	11/16/17 07:12	11/16/17 23:07	1
2,4-Dimethylphenol	<0.39		0.39	0.15	mg/Kg	☼	11/16/17 07:12	11/16/17 23:07	1
Dimethyl phthalate	<0.20		0.20	0.052	mg/Kg	☼	11/16/17 07:12	11/16/17 23:07	1
Di-n-butyl phthalate	<0.20		0.20	0.060	mg/Kg	☼	11/16/17 07:12	11/16/17 23:07	1
4,6-Dinitro-2-methylphenol	<0.80		0.80	0.32	mg/Kg	☼	11/16/17 07:12	11/16/17 23:07	1
2,4-Dinitrophenol	<0.80		0.80	0.70	mg/Kg	☼	11/16/17 07:12	11/16/17 23:07	1
2,4-Dinitrotoluene	<0.20		0.20	0.063	mg/Kg	☼	11/16/17 07:12	11/16/17 23:07	1
2,6-Dinitrotoluene	<0.20		0.20	0.078	mg/Kg	☼	11/16/17 07:12	11/16/17 23:07	1
Di-n-octyl phthalate	<0.20		0.20	0.064	mg/Kg	☼	11/16/17 07:12	11/16/17 23:07	1
Fluoranthene	<0.039		0.039	0.0073	mg/Kg	☼	11/16/17 07:12	11/16/17 23:07	1
Fluorene	<0.039		0.039	0.0056	mg/Kg	☼	11/16/17 07:12	11/16/17 23:07	1
Hexachlorobenzene	<0.080		0.080	0.0092	mg/Kg	☼	11/16/17 07:12	11/16/17 23:07	1
Hexachlorobutadiene	<0.20		0.20	0.062	mg/Kg	☼	11/16/17 07:12	11/16/17 23:07	1
Hexachlorocyclopentadiene	<0.80		0.80	0.23	mg/Kg	☼	11/16/17 07:12	11/16/17 23:07	1
Hexachloroethane	<0.20		0.20	0.060	mg/Kg	☼	11/16/17 07:12	11/16/17 23:07	1
Indeno[1,2,3-cd]pyrene	<0.039		0.039	0.010	mg/Kg	☼	11/16/17 07:12	11/16/17 23:07	1
Isophorone	<0.20 *		0.20	0.044	mg/Kg	☼	11/16/17 07:12	11/16/17 23:07	1
2-Methylnaphthalene	<0.080		0.080	0.0073	mg/Kg	☼	11/16/17 07:12	11/16/17 23:07	1
2-Methylphenol	<0.20		0.20	0.063	mg/Kg	☼	11/16/17 07:12	11/16/17 23:07	1
3 & 4 Methylphenol	<0.20		0.20	0.066	mg/Kg	☼	11/16/17 07:12	11/16/17 23:07	1
Naphthalene	<0.039		0.039	0.0061	mg/Kg	☼	11/16/17 07:12	11/16/17 23:07	1
2-Nitroaniline	<0.20		0.20	0.053	mg/Kg	☼	11/16/17 07:12	11/16/17 23:07	1
3-Nitroaniline	<0.39		0.39	0.12	mg/Kg	☼	11/16/17 07:12	11/16/17 23:07	1
4-Nitroaniline	<0.39		0.39	0.17	mg/Kg	☼	11/16/17 07:12	11/16/17 23:07	1
Nitrobenzene	<0.039		0.039	0.0099	mg/Kg	☼	11/16/17 07:12	11/16/17 23:07	1
2-Nitrophenol	<0.39		0.39	0.093	mg/Kg	☼	11/16/17 07:12	11/16/17 23:07	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137078-1

Client Sample ID: 2696V-61-B06 (0-5)

Lab Sample ID: 500-137078-6

Date Collected: 11/09/17 10:30

Matrix: Solid

Date Received: 11/09/17 17:00

Percent Solids: 83.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Nitrophenol	<0.80		0.80	0.38	mg/Kg	☼	11/16/17 07:12	11/16/17 23:07	1
N-Nitrosodi-n-propylamine	<0.080		0.080	0.048	mg/Kg	☼	11/16/17 07:12	11/16/17 23:07	1
N-Nitrosodiphenylamine	<0.20		0.20	0.047	mg/Kg	☼	11/16/17 07:12	11/16/17 23:07	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.046	mg/Kg	☼	11/16/17 07:12	11/16/17 23:07	1
Pentachlorophenol	<0.80		0.80	0.63	mg/Kg	☼	11/16/17 07:12	11/16/17 23:07	1
Phenanthrene	<0.039		0.039	0.0055	mg/Kg	☼	11/16/17 07:12	11/16/17 23:07	1
Phenol	<0.20		0.20	0.088	mg/Kg	☼	11/16/17 07:12	11/16/17 23:07	1
Pyrene	<0.039		0.039	0.0079	mg/Kg	☼	11/16/17 07:12	11/16/17 23:07	1
1,2,4-Trichlorobenzene	<0.20		0.20	0.043	mg/Kg	☼	11/16/17 07:12	11/16/17 23:07	1
2,4,5-Trichlorophenol	<0.39		0.39	0.090	mg/Kg	☼	11/16/17 07:12	11/16/17 23:07	1
2,4,6-Trichlorophenol	<0.39		0.39	0.14	mg/Kg	☼	11/16/17 07:12	11/16/17 23:07	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	73		44 - 121	11/16/17 07:12	11/16/17 23:07	1
2-Fluorophenol	80		46 - 133	11/16/17 07:12	11/16/17 23:07	1
Nitrobenzene-d5	68		41 - 120	11/16/17 07:12	11/16/17 23:07	1
Phenol-d5	76		46 - 125	11/16/17 07:12	11/16/17 23:07	1
Terphenyl-d14	63		35 - 160	11/16/17 07:12	11/16/17 23:07	1
2,4,6-Tribromophenol	51		25 - 139	11/16/17 07:12	11/16/17 23:07	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.46	J	1.1	0.22	mg/Kg	☼	11/11/17 13:26	11/13/17 19:30	1
Arsenic	15		0.57	0.20	mg/Kg	☼	11/11/17 13:26	11/13/17 19:30	1
Barium	50		0.57	0.065	mg/Kg	☼	11/11/17 13:26	11/13/17 19:30	1
Beryllium	0.73		0.23	0.054	mg/Kg	☼	11/11/17 13:26	11/13/17 19:30	1
Cadmium	0.17	B	0.11	0.021	mg/Kg	☼	11/11/17 13:26	11/13/17 19:30	1
Chromium	19		0.57	0.28	mg/Kg	☼	11/11/17 13:26	11/13/17 19:30	1
Cobalt	18		0.29	0.075	mg/Kg	☼	11/11/17 13:26	11/13/17 19:30	1
Copper	30		0.57	0.16	mg/Kg	☼	11/11/17 13:26	11/14/17 17:25	1
Iron	29000		11	6.0	mg/Kg	☼	11/11/17 13:26	11/13/17 19:30	1
Lead	18		0.29	0.13	mg/Kg	☼	11/11/17 13:26	11/13/17 19:30	1
Magnesium	4800	B	5.7	2.8	mg/Kg	☼	11/11/17 13:26	11/13/17 19:30	1
Calcium	3500	B	11	1.9	mg/Kg	☼	11/11/17 13:26	11/13/17 19:30	1
Manganese	520		0.57	0.083	mg/Kg	☼	11/11/17 13:26	11/13/17 19:30	1
Nickel	44		0.57	0.17	mg/Kg	☼	11/11/17 13:26	11/13/17 19:30	1
Selenium	<0.57		0.57	0.34	mg/Kg	☼	11/11/17 13:26	11/13/17 19:30	1
Silver	<0.29		0.29	0.074	mg/Kg	☼	11/11/17 13:26	11/13/17 19:30	1
Thallium	<0.57		0.57	0.29	mg/Kg	☼	11/11/17 13:26	11/13/17 19:30	1
Vanadium	22		0.29	0.068	mg/Kg	☼	11/11/17 13:26	11/13/17 19:30	1
Zinc	83		1.1	0.50	mg/Kg	☼	11/11/17 13:26	11/13/17 19:30	1
Potassium	1700		29	10	mg/Kg	☼	11/11/17 13:26	11/13/17 19:30	1
Sodium	1300		57	8.5	mg/Kg	☼	11/11/17 13:26	11/13/17 19:30	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.050		0.050	0.010	mg/L		11/15/17 09:19	11/15/17 16:47	1
Barium	0.26	J	0.50	0.050	mg/L		11/15/17 09:19	11/15/17 16:47	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		11/15/17 09:19	11/15/17 16:47	1
Cadmium	0.0033	J	0.0050	0.0020	mg/L		11/15/17 09:19	11/15/17 16:47	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137078-1

Client Sample ID: 2696V-61-B06 (0-5)

Lab Sample ID: 500-137078-6

Date Collected: 11/09/17 10:30

Matrix: Solid

Date Received: 11/09/17 17:00

Percent Solids: 83.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	140		5.0	0.50	mg/L		11/15/17 09:19	11/15/17 16:47	1
Chromium	<0.025		0.025	0.010	mg/L		11/15/17 09:19	11/15/17 16:47	1
Cobalt	0.029		0.025	0.010	mg/L		11/15/17 09:19	11/15/17 16:47	1
Copper	0.057		0.025	0.010	mg/L		11/15/17 09:19	11/15/17 16:47	1
Iron	<0.40		0.40	0.20	mg/L		11/15/17 09:19	11/15/17 16:47	1
Lead	<0.0075		0.0075	0.0075	mg/L		11/15/17 09:19	11/15/17 16:47	1
Magnesium	64		2.5	0.50	mg/L		11/15/17 09:19	11/15/17 16:47	1
Manganese	6.9		0.025	0.010	mg/L		11/15/17 09:19	11/15/17 16:47	1
Nickel	0.046		0.025	0.010	mg/L		11/15/17 09:19	11/15/17 16:47	1
Potassium	0.93	J	2.5	0.50	mg/L		11/15/17 09:19	11/15/17 16:47	1
Selenium	<0.050		0.050	0.020	mg/L		11/15/17 09:19	11/15/17 16:47	1
Silver	<0.025		0.025	0.010	mg/L		11/15/17 09:19	11/15/17 16:47	1
Vanadium	<0.025		0.025	0.010	mg/L		11/15/17 09:19	11/15/17 16:47	1
Zinc	0.026	J	0.50	0.020	mg/L		11/15/17 09:19	11/15/17 16:47	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	1.6		0.025	0.010	mg/L		11/15/17 08:20	11/17/17 00:25	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		11/15/17 09:19	11/16/17 15:22	1
Thallium	<0.0020		0.0020	0.0020	mg/L		11/15/17 09:19	11/16/17 15:22	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		11/17/17 08:10	11/17/17 12:31	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.031	B	0.018	0.0061	mg/Kg	☼	11/13/17 13:20	11/17/17 09:36	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.55		0.55	0.19	mg/Kg	☼	11/19/17 10:30	11/19/17 14:37	1
pH	8.9		0.20	0.20	SU			11/18/17 11:14	1

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137078-1

Client Sample ID: 2696V-61-B06 (5-10)

Lab Sample ID: 500-137078-7

Date Collected: 11/09/17 10:35

Matrix: Solid

Date Received: 11/09/17 17:00

Percent Solids: 81.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.018		0.018	0.0076	mg/Kg	☼	11/10/17 18:28	11/15/17 15:13	1
Benzene	<0.0018	*	0.0018	0.00045	mg/Kg	☼	11/10/17 18:28	11/15/17 15:13	1
Bromodichloromethane	<0.0018		0.0018	0.00036	mg/Kg	☼	11/10/17 18:28	11/15/17 15:13	1
Bromoform	<0.0018		0.0018	0.00051	mg/Kg	☼	11/10/17 18:28	11/15/17 15:13	1
Bromomethane	<0.0044		0.0044	0.0017	mg/Kg	☼	11/10/17 18:28	11/15/17 15:13	1
2-Butanone (MEK)	<0.0044	*	0.0044	0.0019	mg/Kg	☼	11/10/17 18:28	11/15/17 15:13	1
Carbon disulfide	<0.0044		0.0044	0.00091	mg/Kg	☼	11/10/17 18:28	11/15/17 15:13	1
Carbon tetrachloride	<0.0018		0.0018	0.00051	mg/Kg	☼	11/10/17 18:28	11/15/17 15:13	1
Chlorobenzene	<0.0018		0.0018	0.00065	mg/Kg	☼	11/10/17 18:28	11/15/17 15:13	1
Chloroethane	<0.0044		0.0044	0.0013	mg/Kg	☼	11/10/17 18:28	11/15/17 15:13	1
Chloroform	<0.0018		0.0018	0.00061	mg/Kg	☼	11/10/17 18:28	11/15/17 15:13	1
Chloromethane	<0.0044		0.0044	0.0018	mg/Kg	☼	11/10/17 18:28	11/15/17 15:13	1
cis-1,2-Dichloroethene	<0.0018		0.0018	0.00049	mg/Kg	☼	11/10/17 18:28	11/15/17 15:13	1
cis-1,3-Dichloropropene	<0.0018		0.0018	0.00053	mg/Kg	☼	11/10/17 18:28	11/15/17 15:13	1
Dibromochloromethane	<0.0018		0.0018	0.00057	mg/Kg	☼	11/10/17 18:28	11/15/17 15:13	1
1,1-Dichloroethane	<0.0018		0.0018	0.00060	mg/Kg	☼	11/10/17 18:28	11/15/17 15:13	1
1,2-Dichloroethane	<0.0044		0.0044	0.0014	mg/Kg	☼	11/10/17 18:28	11/15/17 15:13	1
1,1-Dichloroethene	<0.0018		0.0018	0.00060	mg/Kg	☼	11/10/17 18:28	11/15/17 15:13	1
1,2-Dichloropropane	<0.0018		0.0018	0.00045	mg/Kg	☼	11/10/17 18:28	11/15/17 15:13	1
1,3-Dichloropropene, Total	<0.0018		0.0018	0.00062	mg/Kg	☼	11/10/17 18:28	11/15/17 15:13	1
Ethylbenzene	<0.0018		0.0018	0.00084	mg/Kg	☼	11/10/17 18:28	11/15/17 15:13	1
2-Hexanone	<0.0044		0.0044	0.0014	mg/Kg	☼	11/10/17 18:28	11/15/17 15:13	1
Methylene Chloride	<0.0044		0.0044	0.0017	mg/Kg	☼	11/10/17 18:28	11/15/17 15:13	1
4-Methyl-2-pentanone (MIBK)	<0.0044		0.0044	0.0013	mg/Kg	☼	11/10/17 18:28	11/15/17 15:13	1
Methyl tert-butyl ether	<0.0018		0.0018	0.00052	mg/Kg	☼	11/10/17 18:28	11/15/17 15:13	1
Styrene	<0.0018		0.0018	0.00053	mg/Kg	☼	11/10/17 18:28	11/15/17 15:13	1
1,1,2,2-Tetrachloroethane	<0.0018		0.0018	0.00056	mg/Kg	☼	11/10/17 18:28	11/15/17 15:13	1
Tetrachloroethene	<0.0018		0.0018	0.00060	mg/Kg	☼	11/10/17 18:28	11/15/17 15:13	1
Toluene	<0.0018		0.0018	0.00044	mg/Kg	☼	11/10/17 18:28	11/15/17 15:13	1
trans-1,2-Dichloroethene	<0.0018		0.0018	0.00078	mg/Kg	☼	11/10/17 18:28	11/15/17 15:13	1
trans-1,3-Dichloropropene	<0.0018		0.0018	0.00062	mg/Kg	☼	11/10/17 18:28	11/15/17 15:13	1
1,1,1-Trichloroethane	<0.0018		0.0018	0.00059	mg/Kg	☼	11/10/17 18:28	11/15/17 15:13	1
1,1,2-Trichloroethane	<0.0018		0.0018	0.00075	mg/Kg	☼	11/10/17 18:28	11/15/17 15:13	1
Trichloroethene	<0.0018		0.0018	0.00059	mg/Kg	☼	11/10/17 18:28	11/15/17 15:13	1
Vinyl acetate	<0.0044		0.0044	0.0015	mg/Kg	☼	11/10/17 18:28	11/15/17 15:13	1
Vinyl chloride	<0.0018		0.0018	0.00078	mg/Kg	☼	11/10/17 18:28	11/15/17 15:13	1
Xylenes, Total	<0.0035		0.0035	0.00056	mg/Kg	☼	11/10/17 18:28	11/15/17 15:13	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		75 - 131	11/10/17 18:28	11/15/17 15:13	1
Dibromofluoromethane	138	X	75 - 126	11/10/17 18:28	11/15/17 15:13	1
1,2-Dichloroethane-d4 (Surr)	129		70 - 134	11/10/17 18:28	11/15/17 15:13	1
Toluene-d8 (Surr)	97		75 - 124	11/10/17 18:28	11/15/17 15:13	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.040		0.040	0.0072	mg/Kg	☼	11/16/17 07:12	11/16/17 23:34	1
Acenaphthylene	<0.040		0.040	0.0053	mg/Kg	☼	11/16/17 07:12	11/16/17 23:34	1
Anthracene	<0.040		0.040	0.0067	mg/Kg	☼	11/16/17 07:12	11/16/17 23:34	1
Benzo[a]anthracene	<0.040		0.040	0.0054	mg/Kg	☼	11/16/17 07:12	11/16/17 23:34	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137078-1

Client Sample ID: 2696V-61-B06 (5-10)

Lab Sample ID: 500-137078-7

Date Collected: 11/09/17 10:35

Matrix: Solid

Date Received: 11/09/17 17:00

Percent Solids: 81.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	<0.040		0.040	0.0078	mg/Kg	☼	11/16/17 07:12	11/16/17 23:34	1
Benzo[b]fluoranthene	0.0090	J	0.040	0.0087	mg/Kg	☼	11/16/17 07:12	11/16/17 23:34	1
Benzo[g,h,i]perylene	0.021	J	0.040	0.013	mg/Kg	☼	11/16/17 07:12	11/16/17 23:34	1
Benzo[k]fluoranthene	<0.040		0.040	0.012	mg/Kg	☼	11/16/17 07:12	11/16/17 23:34	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.041	mg/Kg	☼	11/16/17 07:12	11/16/17 23:34	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.060	mg/Kg	☼	11/16/17 07:12	11/16/17 23:34	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.073	mg/Kg	☼	11/16/17 07:12	11/16/17 23:34	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.053	mg/Kg	☼	11/16/17 07:12	11/16/17 23:34	1
Butyl benzyl phthalate	<0.20		0.20	0.077	mg/Kg	☼	11/16/17 07:12	11/16/17 23:34	1
Carbazole	<0.20		0.20	0.10	mg/Kg	☼	11/16/17 07:12	11/16/17 23:34	1
4-Chloroaniline	<0.81		0.81	0.19	mg/Kg	☼	11/16/17 07:12	11/16/17 23:34	1
4-Chloro-3-methylphenol	<0.40		0.40	0.14	mg/Kg	☼	11/16/17 07:12	11/16/17 23:34	1
2-Chloronaphthalene	<0.20		0.20	0.044	mg/Kg	☼	11/16/17 07:12	11/16/17 23:34	1
2-Chlorophenol	<0.20		0.20	0.069	mg/Kg	☼	11/16/17 07:12	11/16/17 23:34	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.047	mg/Kg	☼	11/16/17 07:12	11/16/17 23:34	1
Chrysene	0.015	J	0.040	0.011	mg/Kg	☼	11/16/17 07:12	11/16/17 23:34	1
Dibenz(a,h)anthracene	<0.040		0.040	0.0078	mg/Kg	☼	11/16/17 07:12	11/16/17 23:34	1
Dibenzofuran	<0.20		0.20	0.047	mg/Kg	☼	11/16/17 07:12	11/16/17 23:34	1
1,2-Dichlorobenzene	<0.20		0.20	0.048	mg/Kg	☼	11/16/17 07:12	11/16/17 23:34	1
1,3-Dichlorobenzene	<0.20		0.20	0.045	mg/Kg	☼	11/16/17 07:12	11/16/17 23:34	1
1,4-Dichlorobenzene	<0.20		0.20	0.052	mg/Kg	☼	11/16/17 07:12	11/16/17 23:34	1
3,3'-Dichlorobenzidine	<0.20 *		0.20	0.056	mg/Kg	☼	11/16/17 07:12	11/16/17 23:34	1
2,4-Dichlorophenol	<0.40		0.40	0.096	mg/Kg	☼	11/16/17 07:12	11/16/17 23:34	1
Diethyl phthalate	<0.20		0.20	0.068	mg/Kg	☼	11/16/17 07:12	11/16/17 23:34	1
2,4-Dimethylphenol	<0.40		0.40	0.15	mg/Kg	☼	11/16/17 07:12	11/16/17 23:34	1
Dimethyl phthalate	<0.20		0.20	0.053	mg/Kg	☼	11/16/17 07:12	11/16/17 23:34	1
Di-n-butyl phthalate	<0.20		0.20	0.061	mg/Kg	☼	11/16/17 07:12	11/16/17 23:34	1
4,6-Dinitro-2-methylphenol	<0.81		0.81	0.32	mg/Kg	☼	11/16/17 07:12	11/16/17 23:34	1
2,4-Dinitrophenol	<0.81		0.81	0.71	mg/Kg	☼	11/16/17 07:12	11/16/17 23:34	1
2,4-Dinitrotoluene	<0.20		0.20	0.064	mg/Kg	☼	11/16/17 07:12	11/16/17 23:34	1
2,6-Dinitrotoluene	<0.20		0.20	0.079	mg/Kg	☼	11/16/17 07:12	11/16/17 23:34	1
Di-n-octyl phthalate	<0.20		0.20	0.066	mg/Kg	☼	11/16/17 07:12	11/16/17 23:34	1
Fluoranthene	0.0082	J	0.040	0.0075	mg/Kg	☼	11/16/17 07:12	11/16/17 23:34	1
Fluorene	<0.040		0.040	0.0057	mg/Kg	☼	11/16/17 07:12	11/16/17 23:34	1
Hexachlorobenzene	<0.081		0.081	0.0093	mg/Kg	☼	11/16/17 07:12	11/16/17 23:34	1
Hexachlorobutadiene	<0.20		0.20	0.063	mg/Kg	☼	11/16/17 07:12	11/16/17 23:34	1
Hexachlorocyclopentadiene	<0.81		0.81	0.23	mg/Kg	☼	11/16/17 07:12	11/16/17 23:34	1
Hexachloroethane	<0.20		0.20	0.061	mg/Kg	☼	11/16/17 07:12	11/16/17 23:34	1
Indeno[1,2,3-cd]pyrene	<0.040		0.040	0.010	mg/Kg	☼	11/16/17 07:12	11/16/17 23:34	1
Isophorone	<0.20 *		0.20	0.045	mg/Kg	☼	11/16/17 07:12	11/16/17 23:34	1
2-Methylnaphthalene	<0.081		0.081	0.0074	mg/Kg	☼	11/16/17 07:12	11/16/17 23:34	1
2-Methylphenol	<0.20		0.20	0.065	mg/Kg	☼	11/16/17 07:12	11/16/17 23:34	1
3 & 4 Methylphenol	<0.20		0.20	0.067	mg/Kg	☼	11/16/17 07:12	11/16/17 23:34	1
Naphthalene	<0.040		0.040	0.0062	mg/Kg	☼	11/16/17 07:12	11/16/17 23:34	1
2-Nitroaniline	<0.20		0.20	0.054	mg/Kg	☼	11/16/17 07:12	11/16/17 23:34	1
3-Nitroaniline	<0.40		0.40	0.12	mg/Kg	☼	11/16/17 07:12	11/16/17 23:34	1
4-Nitroaniline	<0.40		0.40	0.17	mg/Kg	☼	11/16/17 07:12	11/16/17 23:34	1
Nitrobenzene	<0.040		0.040	0.010	mg/Kg	☼	11/16/17 07:12	11/16/17 23:34	1
2-Nitrophenol	<0.40		0.40	0.095	mg/Kg	☼	11/16/17 07:12	11/16/17 23:34	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137078-1

Client Sample ID: 2696V-61-B06 (5-10)

Lab Sample ID: 500-137078-7

Date Collected: 11/09/17 10:35

Matrix: Solid

Date Received: 11/09/17 17:00

Percent Solids: 81.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Nitrophenol	<0.81		0.81	0.38	mg/Kg	☼	11/16/17 07:12	11/16/17 23:34	1
N-Nitrosodi-n-propylamine	<0.081		0.081	0.049	mg/Kg	☼	11/16/17 07:12	11/16/17 23:34	1
N-Nitrosodiphenylamine	<0.20		0.20	0.047	mg/Kg	☼	11/16/17 07:12	11/16/17 23:34	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.047	mg/Kg	☼	11/16/17 07:12	11/16/17 23:34	1
Pentachlorophenol	<0.81		0.81	0.65	mg/Kg	☼	11/16/17 07:12	11/16/17 23:34	1
Phenanthrene	0.011	J	0.040	0.0056	mg/Kg	☼	11/16/17 07:12	11/16/17 23:34	1
Phenol	<0.20		0.20	0.089	mg/Kg	☼	11/16/17 07:12	11/16/17 23:34	1
Pyrene	0.013	J	0.040	0.0080	mg/Kg	☼	11/16/17 07:12	11/16/17 23:34	1
1,2,4-Trichlorobenzene	<0.20		0.20	0.043	mg/Kg	☼	11/16/17 07:12	11/16/17 23:34	1
2,4,5-Trichlorophenol	<0.40		0.40	0.092	mg/Kg	☼	11/16/17 07:12	11/16/17 23:34	1
2,4,6-Trichlorophenol	<0.40		0.40	0.14	mg/Kg	☼	11/16/17 07:12	11/16/17 23:34	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	86		44 - 121				11/16/17 07:12	11/16/17 23:34	1
2-Fluorophenol	91		46 - 133				11/16/17 07:12	11/16/17 23:34	1
Nitrobenzene-d5	79		41 - 120				11/16/17 07:12	11/16/17 23:34	1
Phenol-d5	86		46 - 125				11/16/17 07:12	11/16/17 23:34	1
Terphenyl-d14	72		35 - 160				11/16/17 07:12	11/16/17 23:34	1
2,4,6-Tribromophenol	57		25 - 139				11/16/17 07:12	11/16/17 23:34	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.31	J	1.2	0.24	mg/Kg	☼	11/11/17 13:26	11/13/17 19:34	1
Arsenic	4.9		0.61	0.21	mg/Kg	☼	11/11/17 13:26	11/13/17 19:34	1
Barium	31		0.61	0.069	mg/Kg	☼	11/11/17 13:26	11/13/17 19:34	1
Beryllium	0.52		0.24	0.057	mg/Kg	☼	11/11/17 13:26	11/13/17 19:34	1
Cadmium	0.093	J B	0.12	0.022	mg/Kg	☼	11/11/17 13:26	11/13/17 19:34	1
Chromium	12		0.61	0.30	mg/Kg	☼	11/11/17 13:26	11/13/17 19:34	1
Cobalt	7.4		0.30	0.079	mg/Kg	☼	11/11/17 13:26	11/13/17 19:34	1
Copper	19		3.0	0.85	mg/Kg	☼	11/11/17 13:26	11/14/17 17:29	5
Iron	13000		12	6.3	mg/Kg	☼	11/11/17 13:26	11/13/17 19:34	1
Lead	8.5		0.30	0.14	mg/Kg	☼	11/11/17 13:26	11/13/17 19:34	1
Magnesium	31000	B	6.1	3.0	mg/Kg	☼	11/11/17 13:26	11/13/17 19:34	1
Calcium	99000	B	61	10	mg/Kg	☼	11/11/17 13:26	11/14/17 17:29	5
Manganese	340		0.61	0.088	mg/Kg	☼	11/11/17 13:26	11/13/17 19:34	1
Nickel	19		0.61	0.18	mg/Kg	☼	11/11/17 13:26	11/13/17 19:34	1
Selenium	0.45	J B	0.61	0.36	mg/Kg	☼	11/11/17 13:26	11/13/17 19:34	1
Silver	<0.30		0.30	0.078	mg/Kg	☼	11/11/17 13:26	11/13/17 19:34	1
Thallium	<0.61		0.61	0.30	mg/Kg	☼	11/11/17 13:26	11/13/17 19:34	1
Vanadium	16		0.30	0.072	mg/Kg	☼	11/11/17 13:26	11/13/17 19:34	1
Zinc	39		1.2	0.53	mg/Kg	☼	11/11/17 13:26	11/13/17 19:34	1
Potassium	1500		30	11	mg/Kg	☼	11/11/17 13:26	11/13/17 19:34	1
Sodium	660		61	9.0	mg/Kg	☼	11/11/17 13:26	11/13/17 19:34	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.050		0.050	0.010	mg/L		11/15/17 09:19	11/15/17 17:54	1
Barium	0.79		0.50	0.050	mg/L		11/15/17 09:19	11/15/17 17:54	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		11/15/17 09:19	11/15/17 17:54	1
Cadmium	0.0042	J	0.0050	0.0020	mg/L		11/15/17 09:19	11/15/17 17:54	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137078-1

Client Sample ID: 2696V-61-B06 (5-10)

Lab Sample ID: 500-137078-7

Date Collected: 11/09/17 10:35

Matrix: Solid

Date Received: 11/09/17 17:00

Percent Solids: 81.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	1500		50	5.0	mg/L		11/15/17 09:19	11/16/17 13:22	10
Chromium	<0.025		0.025	0.010	mg/L		11/15/17 09:19	11/15/17 17:54	1
Cobalt	0.056		0.025	0.010	mg/L		11/15/17 09:19	11/15/17 17:54	1
Copper	0.037		0.025	0.010	mg/L		11/15/17 09:19	11/15/17 17:54	1
Iron	1.4		0.40	0.20	mg/L		11/15/17 09:19	11/15/17 17:54	1
Lead	0.010		0.0075	0.0075	mg/L		11/15/17 09:19	11/15/17 17:54	1
Magnesium	200		2.5	0.50	mg/L		11/15/17 09:19	11/15/17 17:54	1
Manganese	8.5		0.025	0.010	mg/L		11/15/17 09:19	11/15/17 17:54	1
Nickel	0.062		0.025	0.010	mg/L		11/15/17 09:19	11/15/17 17:54	1
Potassium	2.3	J	2.5	0.50	mg/L		11/15/17 09:19	11/15/17 17:54	1
Selenium	<0.050		0.050	0.020	mg/L		11/15/17 09:19	11/15/17 17:54	1
Silver	<0.025		0.025	0.010	mg/L		11/15/17 09:19	11/15/17 17:54	1
Vanadium	<0.025		0.025	0.010	mg/L		11/15/17 09:19	11/15/17 17:54	1
Zinc	0.072	J	0.50	0.020	mg/L		11/15/17 09:19	11/15/17 17:54	1

Method: 6010B - SPLP Metals - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.047		0.0075	0.0075	mg/L		11/15/17 08:20	11/17/17 00:28	1
Manganese	0.68		0.025	0.010	mg/L		11/15/17 08:20	11/17/17 00:28	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		11/15/17 09:19	11/16/17 16:34	1
Thallium	<0.0020		0.0020	0.0020	mg/L		11/15/17 09:19	11/16/17 16:34	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		11/17/17 08:10	11/17/17 13:02	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.028	B	0.020	0.0068	mg/Kg	☼	11/13/17 13:20	11/17/17 09:39	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.53		0.53	0.18	mg/Kg	☼	11/19/17 10:30	11/19/17 14:38	1
pH	9.1		0.20	0.20	SU			11/18/17 11:16	1

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137078-1

Client Sample ID: 2696V-61-B06 (10-15)

Lab Sample ID: 500-137078-8

Date Collected: 11/09/17 10:40

Matrix: Solid

Date Received: 11/09/17 17:00

Percent Solids: 80.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.018		0.018	0.0077	mg/Kg	☼	11/10/17 18:28	11/15/17 15:38	1
Benzene	<0.0018	*	0.0018	0.00045	mg/Kg	☼	11/10/17 18:28	11/15/17 15:38	1
Bromodichloromethane	<0.0018		0.0018	0.00036	mg/Kg	☼	11/10/17 18:28	11/15/17 15:38	1
Bromoform	<0.0018		0.0018	0.00051	mg/Kg	☼	11/10/17 18:28	11/15/17 15:38	1
Bromomethane	<0.0044		0.0044	0.0017	mg/Kg	☼	11/10/17 18:28	11/15/17 15:38	1
2-Butanone (MEK)	<0.0044	*	0.0044	0.0020	mg/Kg	☼	11/10/17 18:28	11/15/17 15:38	1
Carbon disulfide	<0.0044		0.0044	0.00091	mg/Kg	☼	11/10/17 18:28	11/15/17 15:38	1
Carbon tetrachloride	<0.0018		0.0018	0.00051	mg/Kg	☼	11/10/17 18:28	11/15/17 15:38	1
Chlorobenzene	<0.0018		0.0018	0.00065	mg/Kg	☼	11/10/17 18:28	11/15/17 15:38	1
Chloroethane	<0.0044		0.0044	0.0013	mg/Kg	☼	11/10/17 18:28	11/15/17 15:38	1
Chloroform	<0.0018		0.0018	0.00061	mg/Kg	☼	11/10/17 18:28	11/15/17 15:38	1
Chloromethane	<0.0044		0.0044	0.0018	mg/Kg	☼	11/10/17 18:28	11/15/17 15:38	1
cis-1,2-Dichloroethene	<0.0018		0.0018	0.00049	mg/Kg	☼	11/10/17 18:28	11/15/17 15:38	1
cis-1,3-Dichloropropene	<0.0018		0.0018	0.00053	mg/Kg	☼	11/10/17 18:28	11/15/17 15:38	1
Dibromochloromethane	<0.0018		0.0018	0.00058	mg/Kg	☼	11/10/17 18:28	11/15/17 15:38	1
1,1-Dichloroethane	<0.0018		0.0018	0.00060	mg/Kg	☼	11/10/17 18:28	11/15/17 15:38	1
1,2-Dichloroethane	<0.0044		0.0044	0.0014	mg/Kg	☼	11/10/17 18:28	11/15/17 15:38	1
1,1-Dichloroethene	<0.0018		0.0018	0.00061	mg/Kg	☼	11/10/17 18:28	11/15/17 15:38	1
1,2-Dichloropropane	<0.0018		0.0018	0.00045	mg/Kg	☼	11/10/17 18:28	11/15/17 15:38	1
1,3-Dichloropropane, Total	<0.0018		0.0018	0.00062	mg/Kg	☼	11/10/17 18:28	11/15/17 15:38	1
Ethylbenzene	<0.0018		0.0018	0.00084	mg/Kg	☼	11/10/17 18:28	11/15/17 15:38	1
2-Hexanone	<0.0044		0.0044	0.0014	mg/Kg	☼	11/10/17 18:28	11/15/17 15:38	1
Methylene Chloride	<0.0044		0.0044	0.0017	mg/Kg	☼	11/10/17 18:28	11/15/17 15:38	1
4-Methyl-2-pentanone (MIBK)	<0.0044		0.0044	0.0013	mg/Kg	☼	11/10/17 18:28	11/15/17 15:38	1
Methyl tert-butyl ether	<0.0018		0.0018	0.00052	mg/Kg	☼	11/10/17 18:28	11/15/17 15:38	1
Styrene	<0.0018		0.0018	0.00053	mg/Kg	☼	11/10/17 18:28	11/15/17 15:38	1
1,1,2,2-Tetrachloroethane	<0.0018		0.0018	0.00056	mg/Kg	☼	11/10/17 18:28	11/15/17 15:38	1
Tetrachloroethene	<0.0018		0.0018	0.00060	mg/Kg	☼	11/10/17 18:28	11/15/17 15:38	1
Toluene	<0.0018		0.0018	0.00044	mg/Kg	☼	11/10/17 18:28	11/15/17 15:38	1
trans-1,2-Dichloroethene	<0.0018		0.0018	0.00078	mg/Kg	☼	11/10/17 18:28	11/15/17 15:38	1
trans-1,3-Dichloropropene	<0.0018		0.0018	0.00062	mg/Kg	☼	11/10/17 18:28	11/15/17 15:38	1
1,1,1-Trichloroethane	<0.0018		0.0018	0.00059	mg/Kg	☼	11/10/17 18:28	11/15/17 15:38	1
1,1,2-Trichloroethane	<0.0018		0.0018	0.00075	mg/Kg	☼	11/10/17 18:28	11/15/17 15:38	1
Trichloroethene	<0.0018		0.0018	0.00059	mg/Kg	☼	11/10/17 18:28	11/15/17 15:38	1
Vinyl acetate	<0.0044		0.0044	0.0015	mg/Kg	☼	11/10/17 18:28	11/15/17 15:38	1
Vinyl chloride	<0.0018		0.0018	0.00078	mg/Kg	☼	11/10/17 18:28	11/15/17 15:38	1
Xylenes, Total	<0.0035		0.0035	0.00056	mg/Kg	☼	11/10/17 18:28	11/15/17 15:38	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	91		75 - 131	11/10/17 18:28	11/15/17 15:38	1
Dibromofluoromethane	106		75 - 126	11/10/17 18:28	11/15/17 15:38	1
1,2-Dichloroethane-d4 (Surr)	117		70 - 134	11/10/17 18:28	11/15/17 15:38	1
Toluene-d8 (Surr)	98		75 - 124	11/10/17 18:28	11/15/17 15:38	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.039		0.039	0.0070	mg/Kg	☼	11/16/17 07:12	11/17/17 00:00	1
Acenaphthylene	<0.039		0.039	0.0052	mg/Kg	☼	11/16/17 07:12	11/17/17 00:00	1
Anthracene	<0.039		0.039	0.0066	mg/Kg	☼	11/16/17 07:12	11/17/17 00:00	1
Benzo[a]anthracene	<0.039		0.039	0.0053	mg/Kg	☼	11/16/17 07:12	11/17/17 00:00	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137078-1

Client Sample ID: 2696V-61-B06 (10-15)

Lab Sample ID: 500-137078-8

Date Collected: 11/09/17 10:40

Matrix: Solid

Date Received: 11/09/17 17:00

Percent Solids: 80.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	0.0093	J	0.039	0.0076	mg/Kg	☼	11/16/17 07:12	11/17/17 00:00	1
Benzo[b]fluoranthene	0.018	J	0.039	0.0085	mg/Kg	☼	11/16/17 07:12	11/17/17 00:00	1
Benzo[g,h,i]perylene	0.029	J	0.039	0.013	mg/Kg	☼	11/16/17 07:12	11/17/17 00:00	1
Benzo[k]fluoranthene	<0.039		0.039	0.012	mg/Kg	☼	11/16/17 07:12	11/17/17 00:00	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.040	mg/Kg	☼	11/16/17 07:12	11/17/17 00:00	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.059	mg/Kg	☼	11/16/17 07:12	11/17/17 00:00	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.072	mg/Kg	☼	11/16/17 07:12	11/17/17 00:00	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.052	mg/Kg	☼	11/16/17 07:12	11/17/17 00:00	1
Butyl benzyl phthalate	<0.20		0.20	0.075	mg/Kg	☼	11/16/17 07:12	11/17/17 00:00	1
Carbazole	<0.20		0.20	0.098	mg/Kg	☼	11/16/17 07:12	11/17/17 00:00	1
4-Chloroaniline	<0.79		0.79	0.18	mg/Kg	☼	11/16/17 07:12	11/17/17 00:00	1
4-Chloro-3-methylphenol	<0.39		0.39	0.13	mg/Kg	☼	11/16/17 07:12	11/17/17 00:00	1
2-Chloronaphthalene	<0.20		0.20	0.043	mg/Kg	☼	11/16/17 07:12	11/17/17 00:00	1
2-Chlorophenol	<0.20		0.20	0.067	mg/Kg	☼	11/16/17 07:12	11/17/17 00:00	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.046	mg/Kg	☼	11/16/17 07:12	11/17/17 00:00	1
Chrysene	0.020	J	0.039	0.011	mg/Kg	☼	11/16/17 07:12	11/17/17 00:00	1
Dibenz(a,h)anthracene	<0.039		0.039	0.0076	mg/Kg	☼	11/16/17 07:12	11/17/17 00:00	1
Dibenzofuran	<0.20		0.20	0.046	mg/Kg	☼	11/16/17 07:12	11/17/17 00:00	1
1,2-Dichlorobenzene	<0.20		0.20	0.047	mg/Kg	☼	11/16/17 07:12	11/17/17 00:00	1
1,3-Dichlorobenzene	<0.20		0.20	0.044	mg/Kg	☼	11/16/17 07:12	11/17/17 00:00	1
1,4-Dichlorobenzene	<0.20		0.20	0.050	mg/Kg	☼	11/16/17 07:12	11/17/17 00:00	1
3,3'-Dichlorobenzidine	<0.20 *		0.20	0.055	mg/Kg	☼	11/16/17 07:12	11/17/17 00:00	1
2,4-Dichlorophenol	<0.39		0.39	0.093	mg/Kg	☼	11/16/17 07:12	11/17/17 00:00	1
Diethyl phthalate	<0.20		0.20	0.066	mg/Kg	☼	11/16/17 07:12	11/17/17 00:00	1
2,4-Dimethylphenol	<0.39		0.39	0.15	mg/Kg	☼	11/16/17 07:12	11/17/17 00:00	1
Dimethyl phthalate	<0.20		0.20	0.051	mg/Kg	☼	11/16/17 07:12	11/17/17 00:00	1
Di-n-butyl phthalate	<0.20		0.20	0.060	mg/Kg	☼	11/16/17 07:12	11/17/17 00:00	1
4,6-Dinitro-2-methylphenol	<0.79		0.79	0.32	mg/Kg	☼	11/16/17 07:12	11/17/17 00:00	1
2,4-Dinitrophenol	<0.79		0.79	0.69	mg/Kg	☼	11/16/17 07:12	11/17/17 00:00	1
2,4-Dinitrotoluene	<0.20		0.20	0.062	mg/Kg	☼	11/16/17 07:12	11/17/17 00:00	1
2,6-Dinitrotoluene	<0.20		0.20	0.077	mg/Kg	☼	11/16/17 07:12	11/17/17 00:00	1
Di-n-octyl phthalate	<0.20		0.20	0.064	mg/Kg	☼	11/16/17 07:12	11/17/17 00:00	1
Fluoranthene	0.013	J	0.039	0.0073	mg/Kg	☼	11/16/17 07:12	11/17/17 00:00	1
Fluorene	<0.039		0.039	0.0055	mg/Kg	☼	11/16/17 07:12	11/17/17 00:00	1
Hexachlorobenzene	<0.079		0.079	0.0091	mg/Kg	☼	11/16/17 07:12	11/17/17 00:00	1
Hexachlorobutadiene	<0.20		0.20	0.062	mg/Kg	☼	11/16/17 07:12	11/17/17 00:00	1
Hexachlorocyclopentadiene	<0.79		0.79	0.23	mg/Kg	☼	11/16/17 07:12	11/17/17 00:00	1
Hexachloroethane	<0.20		0.20	0.060	mg/Kg	☼	11/16/17 07:12	11/17/17 00:00	1
Indeno[1,2,3-cd]pyrene	<0.039		0.039	0.010	mg/Kg	☼	11/16/17 07:12	11/17/17 00:00	1
Isophorone	<0.20 *		0.20	0.044	mg/Kg	☼	11/16/17 07:12	11/17/17 00:00	1
2-Methylnaphthalene	0.0081	J	0.079	0.0072	mg/Kg	☼	11/16/17 07:12	11/17/17 00:00	1
2-Methylphenol	<0.20		0.20	0.063	mg/Kg	☼	11/16/17 07:12	11/17/17 00:00	1
3 & 4 Methylphenol	<0.20		0.20	0.065	mg/Kg	☼	11/16/17 07:12	11/17/17 00:00	1
Naphthalene	<0.039		0.039	0.0060	mg/Kg	☼	11/16/17 07:12	11/17/17 00:00	1
2-Nitroaniline	<0.20		0.20	0.053	mg/Kg	☼	11/16/17 07:12	11/17/17 00:00	1
3-Nitroaniline	<0.39		0.39	0.12	mg/Kg	☼	11/16/17 07:12	11/17/17 00:00	1
4-Nitroaniline	<0.39		0.39	0.16	mg/Kg	☼	11/16/17 07:12	11/17/17 00:00	1
Nitrobenzene	<0.039		0.039	0.0098	mg/Kg	☼	11/16/17 07:12	11/17/17 00:00	1
2-Nitrophenol	<0.39		0.39	0.093	mg/Kg	☼	11/16/17 07:12	11/17/17 00:00	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137078-1

Client Sample ID: 2696V-61-B06 (10-15)

Lab Sample ID: 500-137078-8

Date Collected: 11/09/17 10:40

Matrix: Solid

Date Received: 11/09/17 17:00

Percent Solids: 80.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Nitrophenol	<0.79		0.79	0.37	mg/Kg	☼	11/16/17 07:12	11/17/17 00:00	1
N-Nitrosodi-n-propylamine	<0.079		0.079	0.048	mg/Kg	☼	11/16/17 07:12	11/17/17 00:00	1
N-Nitrosodiphenylamine	<0.20		0.20	0.046	mg/Kg	☼	11/16/17 07:12	11/17/17 00:00	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.045	mg/Kg	☼	11/16/17 07:12	11/17/17 00:00	1
Pentachlorophenol	<0.79		0.79	0.63	mg/Kg	☼	11/16/17 07:12	11/17/17 00:00	1
Phenanthrene	0.022	J	0.039	0.0055	mg/Kg	☼	11/16/17 07:12	11/17/17 00:00	1
Phenol	<0.20		0.20	0.087	mg/Kg	☼	11/16/17 07:12	11/17/17 00:00	1
Pyrene	0.021	J	0.039	0.0078	mg/Kg	☼	11/16/17 07:12	11/17/17 00:00	1
1,2,4-Trichlorobenzene	<0.20		0.20	0.042	mg/Kg	☼	11/16/17 07:12	11/17/17 00:00	1
2,4,5-Trichlorophenol	<0.39		0.39	0.089	mg/Kg	☼	11/16/17 07:12	11/17/17 00:00	1
2,4,6-Trichlorophenol	<0.39		0.39	0.13	mg/Kg	☼	11/16/17 07:12	11/17/17 00:00	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	81		44 - 121	11/16/17 07:12	11/17/17 00:00	1
2-Fluorophenol	88		46 - 133	11/16/17 07:12	11/17/17 00:00	1
Nitrobenzene-d5	74		41 - 120	11/16/17 07:12	11/17/17 00:00	1
Phenol-d5	79		46 - 125	11/16/17 07:12	11/17/17 00:00	1
Terphenyl-d14	73		35 - 160	11/16/17 07:12	11/17/17 00:00	1
2,4,6-Tribromophenol	53		25 - 139	11/16/17 07:12	11/17/17 00:00	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.55	J	1.2	0.23	mg/Kg	☼	11/11/17 13:26	11/13/17 19:46	1
Arsenic	6.1		0.58	0.20	mg/Kg	☼	11/11/17 13:26	11/13/17 19:46	1
Barium	62		0.58	0.066	mg/Kg	☼	11/11/17 13:26	11/13/17 19:46	1
Beryllium	0.69		0.23	0.054	mg/Kg	☼	11/11/17 13:26	11/13/17 19:46	1
Cadmium	0.095	J B	0.12	0.021	mg/Kg	☼	11/11/17 13:26	11/13/17 19:46	1
Chromium	17		0.58	0.29	mg/Kg	☼	11/11/17 13:26	11/13/17 19:46	1
Cobalt	12		0.29	0.076	mg/Kg	☼	11/11/17 13:26	11/13/17 19:46	1
Copper	24		2.9	0.82	mg/Kg	☼	11/11/17 13:26	11/14/17 17:33	5
Iron	18000		12	6.1	mg/Kg	☼	11/11/17 13:26	11/13/17 19:46	1
Lead	11		0.29	0.13	mg/Kg	☼	11/11/17 13:26	11/13/17 19:46	1
Magnesium	25000	B	5.8	2.9	mg/Kg	☼	11/11/17 13:26	11/13/17 19:46	1
Calcium	88000	B	58	9.9	mg/Kg	☼	11/11/17 13:26	11/14/17 17:33	5
Manganese	360		0.58	0.085	mg/Kg	☼	11/11/17 13:26	11/13/17 19:46	1
Nickel	30		0.58	0.17	mg/Kg	☼	11/11/17 13:26	11/13/17 19:46	1
Selenium	<0.58		0.58	0.34	mg/Kg	☼	11/11/17 13:26	11/13/17 19:46	1
Silver	<0.29		0.29	0.075	mg/Kg	☼	11/11/17 13:26	11/13/17 19:46	1
Thallium	<0.58		0.58	0.29	mg/Kg	☼	11/11/17 13:26	11/13/17 19:46	1
Vanadium	20		0.29	0.069	mg/Kg	☼	11/11/17 13:26	11/13/17 19:46	1
Zinc	52		1.2	0.51	mg/Kg	☼	11/11/17 13:26	11/13/17 19:46	1
Potassium	2500		29	10	mg/Kg	☼	11/11/17 13:26	11/13/17 19:46	1
Sodium	410		58	8.6	mg/Kg	☼	11/11/17 13:26	11/13/17 19:46	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.050		0.050	0.010	mg/L		11/15/17 09:19	11/15/17 16:51	1
Barium	1.1		0.50	0.050	mg/L		11/15/17 09:19	11/15/17 16:51	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		11/15/17 09:19	11/15/17 16:51	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		11/15/17 09:19	11/15/17 16:51	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137078-1

Client Sample ID: 2696V-61-B06 (10-15)

Lab Sample ID: 500-137078-8

Date Collected: 11/09/17 10:40

Matrix: Solid

Date Received: 11/09/17 17:00

Percent Solids: 80.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	760		50	5.0	mg/L		11/15/17 09:19	11/16/17 13:06	10
Chromium	<0.025		0.025	0.010	mg/L		11/15/17 09:19	11/15/17 16:51	1
Cobalt	<0.025		0.025	0.010	mg/L		11/15/17 09:19	11/15/17 16:51	1
Copper	0.025		0.025	0.010	mg/L		11/15/17 09:19	11/15/17 16:51	1
Iron	<0.40		0.40	0.20	mg/L		11/15/17 09:19	11/15/17 16:51	1
Lead	<0.0075		0.0075	0.0075	mg/L		11/15/17 09:19	11/15/17 16:51	1
Magnesium	25		2.5	0.50	mg/L		11/15/17 09:19	11/15/17 16:51	1
Manganese	2.1		0.025	0.010	mg/L		11/15/17 09:19	11/15/17 16:51	1
Nickel	0.020	J	0.025	0.010	mg/L		11/15/17 09:19	11/15/17 16:51	1
Potassium	5.0		2.5	0.50	mg/L		11/15/17 09:19	11/15/17 16:51	1
Selenium	<0.050		0.050	0.020	mg/L		11/15/17 09:19	11/15/17 16:51	1
Silver	<0.025		0.025	0.010	mg/L		11/15/17 09:19	11/15/17 16:51	1
Vanadium	<0.025		0.025	0.010	mg/L		11/15/17 09:19	11/15/17 16:51	1
Zinc	<0.50		0.50	0.020	mg/L		11/15/17 09:19	11/15/17 16:51	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		11/15/17 08:20	11/17/17 00:32	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		11/15/17 09:19	11/16/17 15:26	1
Thallium	<0.0020		0.0020	0.0020	mg/L		11/15/17 09:19	11/16/17 15:26	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		11/17/17 08:10	11/17/17 12:32	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.024	B F1	0.018	0.0060	mg/Kg	☼	11/13/17 13:20	11/17/17 09:49	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.61		0.61	0.21	mg/Kg	☼	11/19/17 10:30	11/19/17 14:38	1
pH	8.4		0.20	0.20	SU			11/18/17 11:18	1

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137078-1

Client Sample ID: 2696V-61-B06 (15-21)

Lab Sample ID: 500-137078-9

Date Collected: 11/09/17 10:45

Matrix: Solid

Date Received: 11/09/17 17:00

Percent Solids: 78.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.017		0.017	0.0074	mg/Kg	☼	11/10/17 18:28	11/15/17 16:04	1
Benzene	<0.0017	*	0.0017	0.00044	mg/Kg	☼	11/10/17 18:28	11/15/17 16:04	1
Bromodichloromethane	<0.0017		0.0017	0.00035	mg/Kg	☼	11/10/17 18:28	11/15/17 16:04	1
Bromoform	<0.0017		0.0017	0.00050	mg/Kg	☼	11/10/17 18:28	11/15/17 16:04	1
Bromomethane	<0.0043		0.0043	0.0016	mg/Kg	☼	11/10/17 18:28	11/15/17 16:04	1
2-Butanone (MEK)	<0.0043	*	0.0043	0.0019	mg/Kg	☼	11/10/17 18:28	11/15/17 16:04	1
Carbon disulfide	<0.0043		0.0043	0.00089	mg/Kg	☼	11/10/17 18:28	11/15/17 16:04	1
Carbon tetrachloride	<0.0017		0.0017	0.00050	mg/Kg	☼	11/10/17 18:28	11/15/17 16:04	1
Chlorobenzene	<0.0017		0.0017	0.00063	mg/Kg	☼	11/10/17 18:28	11/15/17 16:04	1
Chloroethane	<0.0043		0.0043	0.0013	mg/Kg	☼	11/10/17 18:28	11/15/17 16:04	1
Chloroform	<0.0017		0.0017	0.00059	mg/Kg	☼	11/10/17 18:28	11/15/17 16:04	1
Chloromethane	<0.0043		0.0043	0.0017	mg/Kg	☼	11/10/17 18:28	11/15/17 16:04	1
cis-1,2-Dichloroethene	<0.0017		0.0017	0.00048	mg/Kg	☼	11/10/17 18:28	11/15/17 16:04	1
cis-1,3-Dichloropropene	<0.0017		0.0017	0.00052	mg/Kg	☼	11/10/17 18:28	11/15/17 16:04	1
Dibromochloromethane	<0.0017		0.0017	0.00056	mg/Kg	☼	11/10/17 18:28	11/15/17 16:04	1
1,1-Dichloroethane	<0.0017		0.0017	0.00059	mg/Kg	☼	11/10/17 18:28	11/15/17 16:04	1
1,2-Dichloroethane	<0.0043		0.0043	0.0013	mg/Kg	☼	11/10/17 18:28	11/15/17 16:04	1
1,1-Dichloroethene	<0.0017		0.0017	0.00059	mg/Kg	☼	11/10/17 18:28	11/15/17 16:04	1
1,2-Dichloropropane	<0.0017		0.0017	0.00044	mg/Kg	☼	11/10/17 18:28	11/15/17 16:04	1
1,3-Dichloropropane, Total	<0.0017		0.0017	0.00060	mg/Kg	☼	11/10/17 18:28	11/15/17 16:04	1
Ethylbenzene	<0.0017		0.0017	0.00082	mg/Kg	☼	11/10/17 18:28	11/15/17 16:04	1
2-Hexanone	<0.0043		0.0043	0.0013	mg/Kg	☼	11/10/17 18:28	11/15/17 16:04	1
Methylene Chloride	<0.0043		0.0043	0.0017	mg/Kg	☼	11/10/17 18:28	11/15/17 16:04	1
4-Methyl-2-pentanone (MIBK)	<0.0043		0.0043	0.0013	mg/Kg	☼	11/10/17 18:28	11/15/17 16:04	1
Methyl tert-butyl ether	<0.0017		0.0017	0.00050	mg/Kg	☼	11/10/17 18:28	11/15/17 16:04	1
Styrene	<0.0017		0.0017	0.00052	mg/Kg	☼	11/10/17 18:28	11/15/17 16:04	1
1,1,2,2-Tetrachloroethane	<0.0017		0.0017	0.00055	mg/Kg	☼	11/10/17 18:28	11/15/17 16:04	1
Tetrachloroethene	<0.0017		0.0017	0.00058	mg/Kg	☼	11/10/17 18:28	11/15/17 16:04	1
Toluene	<0.0017		0.0017	0.00043	mg/Kg	☼	11/10/17 18:28	11/15/17 16:04	1
trans-1,2-Dichloroethene	<0.0017		0.0017	0.00076	mg/Kg	☼	11/10/17 18:28	11/15/17 16:04	1
trans-1,3-Dichloropropene	<0.0017		0.0017	0.00060	mg/Kg	☼	11/10/17 18:28	11/15/17 16:04	1
1,1,1-Trichloroethane	<0.0017		0.0017	0.00057	mg/Kg	☼	11/10/17 18:28	11/15/17 16:04	1
1,1,2-Trichloroethane	<0.0017		0.0017	0.00073	mg/Kg	☼	11/10/17 18:28	11/15/17 16:04	1
Trichloroethene	<0.0017		0.0017	0.00058	mg/Kg	☼	11/10/17 18:28	11/15/17 16:04	1
Vinyl acetate	<0.0043		0.0043	0.0015	mg/Kg	☼	11/10/17 18:28	11/15/17 16:04	1
Vinyl chloride	<0.0017		0.0017	0.00076	mg/Kg	☼	11/10/17 18:28	11/15/17 16:04	1
Xylenes, Total	<0.0034		0.0034	0.00055	mg/Kg	☼	11/10/17 18:28	11/15/17 16:04	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	92		75 - 131	11/10/17 18:28	11/15/17 16:04	1
Dibromofluoromethane	109		75 - 126	11/10/17 18:28	11/15/17 16:04	1
1,2-Dichloroethane-d4 (Surr)	109		70 - 134	11/10/17 18:28	11/15/17 16:04	1
Toluene-d8 (Surr)	97		75 - 124	11/10/17 18:28	11/15/17 16:04	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.041		0.041	0.0074	mg/Kg	☼	11/16/17 07:12	11/17/17 00:27	1
Acenaphthylene	<0.041		0.041	0.0054	mg/Kg	☼	11/16/17 07:12	11/17/17 00:27	1
Anthracene	<0.041		0.041	0.0068	mg/Kg	☼	11/16/17 07:12	11/17/17 00:27	1
Benzo[a]anthracene	<0.041		0.041	0.0055	mg/Kg	☼	11/16/17 07:12	11/17/17 00:27	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137078-1

Client Sample ID: 2696V-61-B06 (15-21)

Lab Sample ID: 500-137078-9

Date Collected: 11/09/17 10:45

Matrix: Solid

Date Received: 11/09/17 17:00

Percent Solids: 78.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	<0.041		0.041	0.0079	mg/Kg	☼	11/16/17 07:12	11/17/17 00:27	1
Benzo[b]fluoranthene	<0.041		0.041	0.0088	mg/Kg	☼	11/16/17 07:12	11/17/17 00:27	1
Benzo[g,h,i]perylene	0.018	J	0.041	0.013	mg/Kg	☼	11/16/17 07:12	11/17/17 00:27	1
Benzo[k]fluoranthene	<0.041		0.041	0.012	mg/Kg	☼	11/16/17 07:12	11/17/17 00:27	1
Bis(2-chloroethoxy)methane	<0.21		0.21	0.042	mg/Kg	☼	11/16/17 07:12	11/17/17 00:27	1
Bis(2-chloroethyl)ether	<0.21		0.21	0.061	mg/Kg	☼	11/16/17 07:12	11/17/17 00:27	1
Bis(2-ethylhexyl) phthalate	<0.21		0.21	0.075	mg/Kg	☼	11/16/17 07:12	11/17/17 00:27	1
4-Bromophenyl phenyl ether	<0.21		0.21	0.054	mg/Kg	☼	11/16/17 07:12	11/17/17 00:27	1
Butyl benzyl phthalate	<0.21		0.21	0.078	mg/Kg	☼	11/16/17 07:12	11/17/17 00:27	1
Carbazole	<0.21		0.21	0.10	mg/Kg	☼	11/16/17 07:12	11/17/17 00:27	1
4-Chloroaniline	<0.83		0.83	0.19	mg/Kg	☼	11/16/17 07:12	11/17/17 00:27	1
4-Chloro-3-methylphenol	<0.41		0.41	0.14	mg/Kg	☼	11/16/17 07:12	11/17/17 00:27	1
2-Chloronaphthalene	<0.21		0.21	0.045	mg/Kg	☼	11/16/17 07:12	11/17/17 00:27	1
2-Chlorophenol	<0.21		0.21	0.070	mg/Kg	☼	11/16/17 07:12	11/17/17 00:27	1
4-Chlorophenyl phenyl ether	<0.21		0.21	0.048	mg/Kg	☼	11/16/17 07:12	11/17/17 00:27	1
Chrysene	0.028	J	0.041	0.011	mg/Kg	☼	11/16/17 07:12	11/17/17 00:27	1
Dibenz(a,h)anthracene	<0.041		0.041	0.0079	mg/Kg	☼	11/16/17 07:12	11/17/17 00:27	1
Dibenzofuran	<0.21		0.21	0.048	mg/Kg	☼	11/16/17 07:12	11/17/17 00:27	1
1,2-Dichlorobenzene	<0.21		0.21	0.049	mg/Kg	☼	11/16/17 07:12	11/17/17 00:27	1
1,3-Dichlorobenzene	<0.21		0.21	0.046	mg/Kg	☼	11/16/17 07:12	11/17/17 00:27	1
1,4-Dichlorobenzene	<0.21		0.21	0.052	mg/Kg	☼	11/16/17 07:12	11/17/17 00:27	1
3,3'-Dichlorobenzidine	<0.21	*	0.21	0.057	mg/Kg	☼	11/16/17 07:12	11/17/17 00:27	1
2,4-Dichlorophenol	<0.41		0.41	0.097	mg/Kg	☼	11/16/17 07:12	11/17/17 00:27	1
Diethyl phthalate	<0.21		0.21	0.069	mg/Kg	☼	11/16/17 07:12	11/17/17 00:27	1
2,4-Dimethylphenol	<0.41		0.41	0.16	mg/Kg	☼	11/16/17 07:12	11/17/17 00:27	1
Dimethyl phthalate	<0.21		0.21	0.053	mg/Kg	☼	11/16/17 07:12	11/17/17 00:27	1
Di-n-butyl phthalate	<0.21		0.21	0.062	mg/Kg	☼	11/16/17 07:12	11/17/17 00:27	1
4,6-Dinitro-2-methylphenol	<0.83		0.83	0.33	mg/Kg	☼	11/16/17 07:12	11/17/17 00:27	1
2,4-Dinitrophenol	<0.83		0.83	0.72	mg/Kg	☼	11/16/17 07:12	11/17/17 00:27	1
2,4-Dinitrotoluene	<0.21		0.21	0.065	mg/Kg	☼	11/16/17 07:12	11/17/17 00:27	1
2,6-Dinitrotoluene	<0.21		0.21	0.080	mg/Kg	☼	11/16/17 07:12	11/17/17 00:27	1
Di-n-octyl phthalate	<0.21		0.21	0.067	mg/Kg	☼	11/16/17 07:12	11/17/17 00:27	1
Fluoranthene	0.0098	J	0.041	0.0076	mg/Kg	☼	11/16/17 07:12	11/17/17 00:27	1
Fluorene	<0.041		0.041	0.0058	mg/Kg	☼	11/16/17 07:12	11/17/17 00:27	1
Hexachlorobenzene	<0.083		0.083	0.0095	mg/Kg	☼	11/16/17 07:12	11/17/17 00:27	1
Hexachlorobutadiene	<0.21		0.21	0.064	mg/Kg	☼	11/16/17 07:12	11/17/17 00:27	1
Hexachlorocyclopentadiene	<0.83		0.83	0.24	mg/Kg	☼	11/16/17 07:12	11/17/17 00:27	1
Hexachloroethane	<0.21		0.21	0.062	mg/Kg	☼	11/16/17 07:12	11/17/17 00:27	1
Indeno[1,2,3-cd]pyrene	<0.041		0.041	0.011	mg/Kg	☼	11/16/17 07:12	11/17/17 00:27	1
Isophorone	<0.21	*	0.21	0.046	mg/Kg	☼	11/16/17 07:12	11/17/17 00:27	1
2-Methylnaphthalene	0.014	J	0.083	0.0075	mg/Kg	☼	11/16/17 07:12	11/17/17 00:27	1
2-Methylphenol	<0.21		0.21	0.066	mg/Kg	☼	11/16/17 07:12	11/17/17 00:27	1
3 & 4 Methylphenol	<0.21		0.21	0.068	mg/Kg	☼	11/16/17 07:12	11/17/17 00:27	1
Naphthalene	<0.041		0.041	0.0063	mg/Kg	☼	11/16/17 07:12	11/17/17 00:27	1
2-Nitroaniline	<0.21		0.21	0.055	mg/Kg	☼	11/16/17 07:12	11/17/17 00:27	1
3-Nitroaniline	<0.41		0.41	0.13	mg/Kg	☼	11/16/17 07:12	11/17/17 00:27	1
4-Nitroaniline	<0.41		0.41	0.17	mg/Kg	☼	11/16/17 07:12	11/17/17 00:27	1
Nitrobenzene	<0.041		0.041	0.010	mg/Kg	☼	11/16/17 07:12	11/17/17 00:27	1
2-Nitrophenol	<0.41		0.41	0.097	mg/Kg	☼	11/16/17 07:12	11/17/17 00:27	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137078-1

Client Sample ID: 2696V-61-B06 (15-21)

Lab Sample ID: 500-137078-9

Date Collected: 11/09/17 10:45

Matrix: Solid

Date Received: 11/09/17 17:00

Percent Solids: 78.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Nitrophenol	<0.83		0.83	0.39	mg/Kg	☼	11/16/17 07:12	11/17/17 00:27	1
N-Nitrosodi-n-propylamine	<0.083		0.083	0.050	mg/Kg	☼	11/16/17 07:12	11/17/17 00:27	1
N-Nitrosodiphenylamine	<0.21		0.21	0.048	mg/Kg	☼	11/16/17 07:12	11/17/17 00:27	1
2,2'-oxybis[1-chloropropane]	<0.21		0.21	0.047	mg/Kg	☼	11/16/17 07:12	11/17/17 00:27	1
Pentachlorophenol	<0.83		0.83	0.66	mg/Kg	☼	11/16/17 07:12	11/17/17 00:27	1
Phenanthrene	0.035	J	0.041	0.0057	mg/Kg	☼	11/16/17 07:12	11/17/17 00:27	1
Phenol	<0.21		0.21	0.091	mg/Kg	☼	11/16/17 07:12	11/17/17 00:27	1
Pyrene	0.015	J	0.041	0.0081	mg/Kg	☼	11/16/17 07:12	11/17/17 00:27	1
1,2,4-Trichlorobenzene	<0.21		0.21	0.044	mg/Kg	☼	11/16/17 07:12	11/17/17 00:27	1
2,4,5-Trichlorophenol	<0.41		0.41	0.093	mg/Kg	☼	11/16/17 07:12	11/17/17 00:27	1
2,4,6-Trichlorophenol	<0.41		0.41	0.14	mg/Kg	☼	11/16/17 07:12	11/17/17 00:27	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	94		44 - 121	11/16/17 07:12	11/17/17 00:27	1
2-Fluorophenol	80		46 - 133	11/16/17 07:12	11/17/17 00:27	1
Nitrobenzene-d5	79		41 - 120	11/16/17 07:12	11/17/17 00:27	1
Phenol-d5	74		46 - 125	11/16/17 07:12	11/17/17 00:27	1
Terphenyl-d14	79		35 - 160	11/16/17 07:12	11/17/17 00:27	1
2,4,6-Tribromophenol	65		25 - 139	11/16/17 07:12	11/17/17 00:27	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.42	J	1.3	0.24	mg/Kg	☼	11/11/17 13:26	11/13/17 19:50	1
Arsenic	10		0.63	0.21	mg/Kg	☼	11/11/17 13:26	11/13/17 19:50	1
Barium	14		0.63	0.072	mg/Kg	☼	11/11/17 13:26	11/13/17 19:50	1
Beryllium	0.45		0.25	0.059	mg/Kg	☼	11/11/17 13:26	11/13/17 19:50	1
Cadmium	0.19	B	0.13	0.023	mg/Kg	☼	11/11/17 13:26	11/13/17 19:50	1
Chromium	8.4		0.63	0.31	mg/Kg	☼	11/11/17 13:26	11/13/17 19:50	1
Cobalt	9.5		0.31	0.082	mg/Kg	☼	11/11/17 13:26	11/13/17 19:50	1
Copper	28		3.1	0.88	mg/Kg	☼	11/11/17 13:26	11/14/17 17:37	5
Iron	15000		13	6.5	mg/Kg	☼	11/11/17 13:26	11/13/17 19:50	1
Lead	13		0.31	0.15	mg/Kg	☼	11/11/17 13:26	11/13/17 19:50	1
Magnesium	39000	B	6.3	3.1	mg/Kg	☼	11/11/17 13:26	11/13/17 19:50	1
Calcium	99000	B	63	11	mg/Kg	☼	11/11/17 13:26	11/14/17 17:37	5
Manganese	400		0.63	0.091	mg/Kg	☼	11/11/17 13:26	11/13/17 19:50	1
Nickel	23		0.63	0.18	mg/Kg	☼	11/11/17 13:26	11/13/17 19:50	1
Selenium	0.81	B	0.63	0.37	mg/Kg	☼	11/11/17 13:26	11/13/17 19:50	1
Silver	<0.31		0.31	0.081	mg/Kg	☼	11/11/17 13:26	11/13/17 19:50	1
Thallium	0.41	J	0.63	0.31	mg/Kg	☼	11/11/17 13:26	11/13/17 19:50	1
Vanadium	12		0.31	0.074	mg/Kg	☼	11/11/17 13:26	11/13/17 19:50	1
Zinc	49		1.3	0.55	mg/Kg	☼	11/11/17 13:26	11/13/17 19:50	1
Potassium	1400		31	11	mg/Kg	☼	11/11/17 13:26	11/13/17 19:50	1
Sodium	180		63	9.3	mg/Kg	☼	11/11/17 13:26	11/13/17 19:50	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.050		0.050	0.010	mg/L		11/15/17 09:19	11/15/17 16:55	1
Barium	0.70		0.50	0.050	mg/L		11/15/17 09:19	11/15/17 16:55	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		11/15/17 09:19	11/15/17 16:55	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		11/15/17 09:19	11/15/17 16:55	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137078-1

Client Sample ID: 2696V-61-B06 (15-21)

Lab Sample ID: 500-137078-9

Date Collected: 11/09/17 10:45

Matrix: Solid

Date Received: 11/09/17 17:00

Percent Solids: 78.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	730		50	5.0	mg/L		11/15/17 09:19	11/16/17 13:10	10
Chromium	<0.025		0.025	0.010	mg/L		11/15/17 09:19	11/15/17 16:55	1
Cobalt	0.012	J	0.025	0.010	mg/L		11/15/17 09:19	11/15/17 16:55	1
Copper	<0.025		0.025	0.010	mg/L		11/15/17 09:19	11/15/17 16:55	1
Iron	0.20	J	0.40	0.20	mg/L		11/15/17 09:19	11/15/17 16:55	1
Lead	<0.0075		0.0075	0.0075	mg/L		11/15/17 09:19	11/15/17 16:55	1
Magnesium	23		2.5	0.50	mg/L		11/15/17 09:19	11/15/17 16:55	1
Manganese	2.0		0.025	0.010	mg/L		11/15/17 09:19	11/15/17 16:55	1
Nickel	0.031		0.025	0.010	mg/L		11/15/17 09:19	11/15/17 16:55	1
Potassium	4.6		2.5	0.50	mg/L		11/15/17 09:19	11/15/17 16:55	1
Selenium	<0.050		0.050	0.020	mg/L		11/15/17 09:19	11/15/17 16:55	1
Silver	<0.025		0.025	0.010	mg/L		11/15/17 09:19	11/15/17 16:55	1
Vanadium	<0.025		0.025	0.010	mg/L		11/15/17 09:19	11/15/17 16:55	1
Zinc	<0.50		0.50	0.020	mg/L		11/15/17 09:19	11/15/17 16:55	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		11/15/17 08:20	11/17/17 00:45	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		11/15/17 09:19	11/16/17 15:29	1
Thallium	<0.0020		0.0020	0.0020	mg/L		11/15/17 09:19	11/16/17 15:29	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		11/17/17 08:10	11/17/17 12:37	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.015	J B	0.018	0.0061	mg/Kg	☼	11/13/17 13:20	11/17/17 09:58	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.59		0.59	0.20	mg/Kg	☼	11/19/17 10:30	11/19/17 14:39	1
pH	8.5		0.20	0.20	SU			11/18/17 11:20	1

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137078-1

Client Sample ID: 2696V-61-B06 (15-21) Dup

Lab Sample ID: 500-137078-10

Date Collected: 11/09/17 10:45

Matrix: Solid

Date Received: 11/09/17 17:00

Percent Solids: 85.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.016		0.016	0.0071	mg/Kg	☼	11/10/17 18:28	11/15/17 16:28	1
Benzene	<0.0016	*	0.0016	0.00042	mg/Kg	☼	11/10/17 18:28	11/15/17 16:28	1
Bromodichloromethane	<0.0016		0.0016	0.00033	mg/Kg	☼	11/10/17 18:28	11/15/17 16:28	1
Bromoform	<0.0016		0.0016	0.00048	mg/Kg	☼	11/10/17 18:28	11/15/17 16:28	1
Bromomethane	<0.0041		0.0041	0.0015	mg/Kg	☼	11/10/17 18:28	11/15/17 16:28	1
2-Butanone (MEK)	<0.0041	*	0.0041	0.0018	mg/Kg	☼	11/10/17 18:28	11/15/17 16:28	1
Carbon disulfide	<0.0041		0.0041	0.00085	mg/Kg	☼	11/10/17 18:28	11/15/17 16:28	1
Carbon tetrachloride	<0.0016		0.0016	0.00048	mg/Kg	☼	11/10/17 18:28	11/15/17 16:28	1
Chlorobenzene	<0.0016		0.0016	0.00061	mg/Kg	☼	11/10/17 18:28	11/15/17 16:28	1
Chloroethane	<0.0041		0.0041	0.0012	mg/Kg	☼	11/10/17 18:28	11/15/17 16:28	1
Chloroform	<0.0016		0.0016	0.00057	mg/Kg	☼	11/10/17 18:28	11/15/17 16:28	1
Chloromethane	<0.0041		0.0041	0.0016	mg/Kg	☼	11/10/17 18:28	11/15/17 16:28	1
cis-1,2-Dichloroethene	<0.0016		0.0016	0.00046	mg/Kg	☼	11/10/17 18:28	11/15/17 16:28	1
cis-1,3-Dichloropropene	<0.0016		0.0016	0.00049	mg/Kg	☼	11/10/17 18:28	11/15/17 16:28	1
Dibromochloromethane	<0.0016		0.0016	0.00054	mg/Kg	☼	11/10/17 18:28	11/15/17 16:28	1
1,1-Dichloroethane	<0.0016		0.0016	0.00056	mg/Kg	☼	11/10/17 18:28	11/15/17 16:28	1
1,2-Dichloroethane	<0.0041		0.0041	0.0013	mg/Kg	☼	11/10/17 18:28	11/15/17 16:28	1
1,1-Dichloroethene	<0.0016		0.0016	0.00056	mg/Kg	☼	11/10/17 18:28	11/15/17 16:28	1
1,2-Dichloropropane	<0.0016		0.0016	0.00042	mg/Kg	☼	11/10/17 18:28	11/15/17 16:28	1
1,3-Dichloropropene, Total	<0.0016		0.0016	0.00058	mg/Kg	☼	11/10/17 18:28	11/15/17 16:28	1
Ethylbenzene	<0.0016		0.0016	0.00078	mg/Kg	☼	11/10/17 18:28	11/15/17 16:28	1
2-Hexanone	<0.0041		0.0041	0.0013	mg/Kg	☼	11/10/17 18:28	11/15/17 16:28	1
Methylene Chloride	<0.0041		0.0041	0.0016	mg/Kg	☼	11/10/17 18:28	11/15/17 16:28	1
4-Methyl-2-pentanone (MIBK)	<0.0041		0.0041	0.0012	mg/Kg	☼	11/10/17 18:28	11/15/17 16:28	1
Methyl tert-butyl ether	<0.0016		0.0016	0.00048	mg/Kg	☼	11/10/17 18:28	11/15/17 16:28	1
Styrene	<0.0016		0.0016	0.00050	mg/Kg	☼	11/10/17 18:28	11/15/17 16:28	1
1,1,2,2-Tetrachloroethane	<0.0016		0.0016	0.00052	mg/Kg	☼	11/10/17 18:28	11/15/17 16:28	1
Tetrachloroethene	<0.0016		0.0016	0.00056	mg/Kg	☼	11/10/17 18:28	11/15/17 16:28	1
Toluene	<0.0016		0.0016	0.00041	mg/Kg	☼	11/10/17 18:28	11/15/17 16:28	1
trans-1,2-Dichloroethene	<0.0016		0.0016	0.00073	mg/Kg	☼	11/10/17 18:28	11/15/17 16:28	1
trans-1,3-Dichloropropene	<0.0016		0.0016	0.00058	mg/Kg	☼	11/10/17 18:28	11/15/17 16:28	1
1,1,1-Trichloroethane	<0.0016		0.0016	0.00055	mg/Kg	☼	11/10/17 18:28	11/15/17 16:28	1
1,1,2-Trichloroethane	<0.0016		0.0016	0.00070	mg/Kg	☼	11/10/17 18:28	11/15/17 16:28	1
Trichloroethene	<0.0016		0.0016	0.00055	mg/Kg	☼	11/10/17 18:28	11/15/17 16:28	1
Vinyl acetate	<0.0041		0.0041	0.0014	mg/Kg	☼	11/10/17 18:28	11/15/17 16:28	1
Vinyl chloride	<0.0016		0.0016	0.00073	mg/Kg	☼	11/10/17 18:28	11/15/17 16:28	1
Xylenes, Total	<0.0033		0.0033	0.00052	mg/Kg	☼	11/10/17 18:28	11/15/17 16:28	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	89		75 - 131	11/10/17 18:28	11/15/17 16:28	1
Dibromofluoromethane	107		75 - 126	11/10/17 18:28	11/15/17 16:28	1
1,2-Dichloroethane-d4 (Surr)	116		70 - 134	11/10/17 18:28	11/15/17 16:28	1
Toluene-d8 (Surr)	97		75 - 124	11/10/17 18:28	11/15/17 16:28	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.037		0.037	0.0068	mg/Kg	☼	11/16/17 07:12	11/17/17 00:54	1
Acenaphthylene	<0.037		0.037	0.0050	mg/Kg	☼	11/16/17 07:12	11/17/17 00:54	1
Anthracene	<0.037		0.037	0.0063	mg/Kg	☼	11/16/17 07:12	11/17/17 00:54	1
Benzo[a]anthracene	<0.037		0.037	0.0051	mg/Kg	☼	11/16/17 07:12	11/17/17 00:54	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137078-1

Client Sample ID: 2696V-61-B06 (15-21) Dup

Lab Sample ID: 500-137078-10

Date Collected: 11/09/17 10:45

Matrix: Solid

Date Received: 11/09/17 17:00

Percent Solids: 85.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	<0.037		0.037	0.0073	mg/Kg	☼	11/16/17 07:12	11/17/17 00:54	1
Benzo[b]fluoranthene	<0.037		0.037	0.0081	mg/Kg	☼	11/16/17 07:12	11/17/17 00:54	1
Benzo[g,h,i]perylene	0.013	J	0.037	0.012	mg/Kg	☼	11/16/17 07:12	11/17/17 00:54	1
Benzo[k]fluoranthene	<0.037		0.037	0.011	mg/Kg	☼	11/16/17 07:12	11/17/17 00:54	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.038	mg/Kg	☼	11/16/17 07:12	11/17/17 00:54	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.057	mg/Kg	☼	11/16/17 07:12	11/17/17 00:54	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.069	mg/Kg	☼	11/16/17 07:12	11/17/17 00:54	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.050	mg/Kg	☼	11/16/17 07:12	11/17/17 00:54	1
Butyl benzyl phthalate	<0.19		0.19	0.072	mg/Kg	☼	11/16/17 07:12	11/17/17 00:54	1
Carbazole	<0.19		0.19	0.094	mg/Kg	☼	11/16/17 07:12	11/17/17 00:54	1
4-Chloroaniline	<0.76		0.76	0.18	mg/Kg	☼	11/16/17 07:12	11/17/17 00:54	1
4-Chloro-3-methylphenol	<0.37		0.37	0.13	mg/Kg	☼	11/16/17 07:12	11/17/17 00:54	1
2-Chloronaphthalene	<0.19		0.19	0.042	mg/Kg	☼	11/16/17 07:12	11/17/17 00:54	1
2-Chlorophenol	<0.19		0.19	0.064	mg/Kg	☼	11/16/17 07:12	11/17/17 00:54	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.044	mg/Kg	☼	11/16/17 07:12	11/17/17 00:54	1
Chrysene	0.017	J	0.037	0.010	mg/Kg	☼	11/16/17 07:12	11/17/17 00:54	1
Dibenz(a,h)anthracene	<0.037		0.037	0.0073	mg/Kg	☼	11/16/17 07:12	11/17/17 00:54	1
Dibenzofuran	<0.19		0.19	0.044	mg/Kg	☼	11/16/17 07:12	11/17/17 00:54	1
1,2-Dichlorobenzene	<0.19		0.19	0.045	mg/Kg	☼	11/16/17 07:12	11/17/17 00:54	1
1,3-Dichlorobenzene	<0.19		0.19	0.042	mg/Kg	☼	11/16/17 07:12	11/17/17 00:54	1
1,4-Dichlorobenzene	<0.19		0.19	0.048	mg/Kg	☼	11/16/17 07:12	11/17/17 00:54	1
3,3'-Dichlorobenzidine	<0.19 *		0.19	0.053	mg/Kg	☼	11/16/17 07:12	11/17/17 00:54	1
2,4-Dichlorophenol	<0.37		0.37	0.090	mg/Kg	☼	11/16/17 07:12	11/17/17 00:54	1
Diethyl phthalate	<0.19		0.19	0.064	mg/Kg	☼	11/16/17 07:12	11/17/17 00:54	1
2,4-Dimethylphenol	<0.37		0.37	0.14	mg/Kg	☼	11/16/17 07:12	11/17/17 00:54	1
Dimethyl phthalate	<0.19		0.19	0.049	mg/Kg	☼	11/16/17 07:12	11/17/17 00:54	1
Di-n-butyl phthalate	<0.19		0.19	0.057	mg/Kg	☼	11/16/17 07:12	11/17/17 00:54	1
4,6-Dinitro-2-methylphenol	<0.76		0.76	0.30	mg/Kg	☼	11/16/17 07:12	11/17/17 00:54	1
2,4-Dinitrophenol	<0.76		0.76	0.66	mg/Kg	☼	11/16/17 07:12	11/17/17 00:54	1
2,4-Dinitrotoluene	<0.19		0.19	0.060	mg/Kg	☼	11/16/17 07:12	11/17/17 00:54	1
2,6-Dinitrotoluene	<0.19		0.19	0.074	mg/Kg	☼	11/16/17 07:12	11/17/17 00:54	1
Di-n-octyl phthalate	<0.19		0.19	0.062	mg/Kg	☼	11/16/17 07:12	11/17/17 00:54	1
Fluoranthene	<0.037		0.037	0.0070	mg/Kg	☼	11/16/17 07:12	11/17/17 00:54	1
Fluorene	<0.037		0.037	0.0053	mg/Kg	☼	11/16/17 07:12	11/17/17 00:54	1
Hexachlorobenzene	<0.076		0.076	0.0087	mg/Kg	☼	11/16/17 07:12	11/17/17 00:54	1
Hexachlorobutadiene	<0.19		0.19	0.059	mg/Kg	☼	11/16/17 07:12	11/17/17 00:54	1
Hexachlorocyclopentadiene	<0.76		0.76	0.22	mg/Kg	☼	11/16/17 07:12	11/17/17 00:54	1
Hexachloroethane	<0.19		0.19	0.057	mg/Kg	☼	11/16/17 07:12	11/17/17 00:54	1
Indeno[1,2,3-cd]pyrene	<0.037		0.037	0.0098	mg/Kg	☼	11/16/17 07:12	11/17/17 00:54	1
Isophorone	<0.19 *		0.19	0.042	mg/Kg	☼	11/16/17 07:12	11/17/17 00:54	1
2-Methylnaphthalene	0.011	J	0.076	0.0069	mg/Kg	☼	11/16/17 07:12	11/17/17 00:54	1
2-Methylphenol	<0.19		0.19	0.060	mg/Kg	☼	11/16/17 07:12	11/17/17 00:54	1
3 & 4 Methylphenol	<0.19		0.19	0.063	mg/Kg	☼	11/16/17 07:12	11/17/17 00:54	1
Naphthalene	<0.037		0.037	0.0058	mg/Kg	☼	11/16/17 07:12	11/17/17 00:54	1
2-Nitroaniline	<0.19		0.19	0.051	mg/Kg	☼	11/16/17 07:12	11/17/17 00:54	1
3-Nitroaniline	<0.37		0.37	0.12	mg/Kg	☼	11/16/17 07:12	11/17/17 00:54	1
4-Nitroaniline	<0.37		0.37	0.16	mg/Kg	☼	11/16/17 07:12	11/17/17 00:54	1
Nitrobenzene	<0.037		0.037	0.0094	mg/Kg	☼	11/16/17 07:12	11/17/17 00:54	1
2-Nitrophenol	<0.37		0.37	0.089	mg/Kg	☼	11/16/17 07:12	11/17/17 00:54	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137078-1

Client Sample ID: 2696V-61-B06 (15-21) Dup

Lab Sample ID: 500-137078-10

Date Collected: 11/09/17 10:45

Matrix: Solid

Date Received: 11/09/17 17:00

Percent Solids: 85.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Nitrophenol	<0.76		0.76	0.36	mg/Kg	☼	11/16/17 07:12	11/17/17 00:54	1
N-Nitrosodi-n-propylamine	<0.076		0.076	0.046	mg/Kg	☼	11/16/17 07:12	11/17/17 00:54	1
N-Nitrosodiphenylamine	<0.19		0.19	0.044	mg/Kg	☼	11/16/17 07:12	11/17/17 00:54	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.044	mg/Kg	☼	11/16/17 07:12	11/17/17 00:54	1
Pentachlorophenol	<0.76		0.76	0.60	mg/Kg	☼	11/16/17 07:12	11/17/17 00:54	1
Phenanthrene	0.025	J	0.037	0.0053	mg/Kg	☼	11/16/17 07:12	11/17/17 00:54	1
Phenol	<0.19		0.19	0.084	mg/Kg	☼	11/16/17 07:12	11/17/17 00:54	1
Pyrene	0.012	J	0.037	0.0075	mg/Kg	☼	11/16/17 07:12	11/17/17 00:54	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.041	mg/Kg	☼	11/16/17 07:12	11/17/17 00:54	1
2,4,5-Trichlorophenol	<0.37		0.37	0.086	mg/Kg	☼	11/16/17 07:12	11/17/17 00:54	1
2,4,6-Trichlorophenol	<0.37		0.37	0.13	mg/Kg	☼	11/16/17 07:12	11/17/17 00:54	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	96		44 - 121				11/16/17 07:12	11/17/17 00:54	1
2-Fluorophenol	100		46 - 133				11/16/17 07:12	11/17/17 00:54	1
Nitrobenzene-d5	86		41 - 120				11/16/17 07:12	11/17/17 00:54	1
Phenol-d5	98		46 - 125				11/16/17 07:12	11/17/17 00:54	1
Terphenyl-d14	85		35 - 160				11/16/17 07:12	11/17/17 00:54	1
2,4,6-Tribromophenol	70		25 - 139				11/16/17 07:12	11/17/17 00:54	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.46	J	1.2	0.23	mg/Kg	☼	11/11/17 13:26	11/13/17 19:54	1
Arsenic	7.4		0.58	0.20	mg/Kg	☼	11/11/17 13:26	11/13/17 19:54	1
Barium	26		0.58	0.066	mg/Kg	☼	11/11/17 13:26	11/13/17 19:54	1
Beryllium	0.46		0.23	0.054	mg/Kg	☼	11/11/17 13:26	11/13/17 19:54	1
Cadmium	0.10	J B	0.12	0.021	mg/Kg	☼	11/11/17 13:26	11/13/17 19:54	1
Chromium	9.8		0.58	0.29	mg/Kg	☼	11/11/17 13:26	11/13/17 19:54	1
Cobalt	8.5		0.29	0.076	mg/Kg	☼	11/11/17 13:26	11/13/17 19:54	1
Copper	24		2.9	0.81	mg/Kg	☼	11/11/17 13:26	11/14/17 17:41	5
Iron	14000		12	6.0	mg/Kg	☼	11/11/17 13:26	11/13/17 19:54	1
Lead	16		0.29	0.13	mg/Kg	☼	11/11/17 13:26	11/13/17 19:54	1
Magnesium	33000	B	5.8	2.9	mg/Kg	☼	11/11/17 13:26	11/13/17 19:54	1
Calcium	93000	B	58	9.8	mg/Kg	☼	11/11/17 13:26	11/14/17 17:41	5
Manganese	380		0.58	0.084	mg/Kg	☼	11/11/17 13:26	11/13/17 19:54	1
Nickel	21		0.58	0.17	mg/Kg	☼	11/11/17 13:26	11/13/17 19:54	1
Selenium	<0.58		0.58	0.34	mg/Kg	☼	11/11/17 13:26	11/13/17 19:54	1
Silver	<0.29		0.29	0.075	mg/Kg	☼	11/11/17 13:26	11/13/17 19:54	1
Thallium	<0.58		0.58	0.29	mg/Kg	☼	11/11/17 13:26	11/13/17 19:54	1
Vanadium	13		0.29	0.068	mg/Kg	☼	11/11/17 13:26	11/13/17 19:54	1
Zinc	40		1.2	0.51	mg/Kg	☼	11/11/17 13:26	11/13/17 19:54	1
Potassium	1500		29	10	mg/Kg	☼	11/11/17 13:26	11/13/17 19:54	1
Sodium	170		58	8.6	mg/Kg	☼	11/11/17 13:26	11/13/17 19:54	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.050		0.050	0.010	mg/L		11/15/17 09:19	11/15/17 16:59	1
Barium	0.62		0.50	0.050	mg/L		11/15/17 09:19	11/15/17 16:59	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		11/15/17 09:19	11/15/17 16:59	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		11/15/17 09:19	11/15/17 16:59	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137078-1

Client Sample ID: 2696V-61-B06 (15-21) Dup

Lab Sample ID: 500-137078-10

Date Collected: 11/09/17 10:45

Matrix: Solid

Date Received: 11/09/17 17:00

Percent Solids: 85.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	750		50	5.0	mg/L		11/15/17 09:19	11/16/17 13:14	10
Chromium	<0.025		0.025	0.010	mg/L		11/15/17 09:19	11/15/17 16:59	1
Cobalt	<0.025		0.025	0.010	mg/L		11/15/17 09:19	11/15/17 16:59	1
Copper	<0.025		0.025	0.010	mg/L		11/15/17 09:19	11/15/17 16:59	1
Iron	<0.40		0.40	0.20	mg/L		11/15/17 09:19	11/15/17 16:59	1
Lead	<0.0075		0.0075	0.0075	mg/L		11/15/17 09:19	11/15/17 16:59	1
Magnesium	21		2.5	0.50	mg/L		11/15/17 09:19	11/15/17 16:59	1
Manganese	1.9		0.025	0.010	mg/L		11/15/17 09:19	11/15/17 16:59	1
Nickel	0.026		0.025	0.010	mg/L		11/15/17 09:19	11/15/17 16:59	1
Potassium	4.3		2.5	0.50	mg/L		11/15/17 09:19	11/15/17 16:59	1
Selenium	<0.050		0.050	0.020	mg/L		11/15/17 09:19	11/15/17 16:59	1
Silver	<0.025		0.025	0.010	mg/L		11/15/17 09:19	11/15/17 16:59	1
Vanadium	<0.025		0.025	0.010	mg/L		11/15/17 09:19	11/15/17 16:59	1
Zinc	<0.50		0.50	0.020	mg/L		11/15/17 09:19	11/15/17 16:59	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.016	J	0.025	0.010	mg/L		11/15/17 08:20	11/17/17 00:49	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		11/15/17 09:19	11/16/17 15:41	1
Thallium	<0.0020		0.0020	0.0020	mg/L		11/15/17 09:19	11/16/17 15:41	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		11/17/17 08:10	11/17/17 12:38	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.014	J B	0.018	0.0061	mg/Kg	☼	11/13/17 13:20	11/17/17 10:00	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.55		0.55	0.19	mg/Kg	☼	11/19/17 10:30	11/19/17 14:39	1
pH	8.5		0.20	0.20	SU			11/18/17 11:22	1

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137078-1

Client Sample ID: 2696V-61-B07 (0-5)

Lab Sample ID: 500-137078-11

Date Collected: 11/09/17 10:05

Matrix: Solid

Date Received: 11/09/17 17:00

Percent Solids: 87.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.016		0.016	0.0068	mg/Kg	☼	11/10/17 18:28	11/15/17 16:54	1
Benzene	<0.0016	*	0.0016	0.00040	mg/Kg	☼	11/10/17 18:28	11/15/17 16:54	1
Bromodichloromethane	<0.0016		0.0016	0.00032	mg/Kg	☼	11/10/17 18:28	11/15/17 16:54	1
Bromoform	<0.0016		0.0016	0.00045	mg/Kg	☼	11/10/17 18:28	11/15/17 16:54	1
Bromomethane	<0.0039		0.0039	0.0015	mg/Kg	☼	11/10/17 18:28	11/15/17 16:54	1
2-Butanone (MEK)	<0.0039	*	0.0039	0.0017	mg/Kg	☼	11/10/17 18:28	11/15/17 16:54	1
Carbon disulfide	<0.0039		0.0039	0.00081	mg/Kg	☼	11/10/17 18:28	11/15/17 16:54	1
Carbon tetrachloride	<0.0016		0.0016	0.00045	mg/Kg	☼	11/10/17 18:28	11/15/17 16:54	1
Chlorobenzene	<0.0016		0.0016	0.00057	mg/Kg	☼	11/10/17 18:28	11/15/17 16:54	1
Chloroethane	<0.0039		0.0039	0.0012	mg/Kg	☼	11/10/17 18:28	11/15/17 16:54	1
Chloroform	<0.0016		0.0016	0.00054	mg/Kg	☼	11/10/17 18:28	11/15/17 16:54	1
Chloromethane	<0.0039		0.0039	0.0016	mg/Kg	☼	11/10/17 18:28	11/15/17 16:54	1
cis-1,2-Dichloroethene	<0.0016		0.0016	0.00044	mg/Kg	☼	11/10/17 18:28	11/15/17 16:54	1
cis-1,3-Dichloropropene	<0.0016		0.0016	0.00047	mg/Kg	☼	11/10/17 18:28	11/15/17 16:54	1
Dibromochloromethane	<0.0016		0.0016	0.00051	mg/Kg	☼	11/10/17 18:28	11/15/17 16:54	1
1,1-Dichloroethane	<0.0016		0.0016	0.00053	mg/Kg	☼	11/10/17 18:28	11/15/17 16:54	1
1,2-Dichloroethane	<0.0039		0.0039	0.0012	mg/Kg	☼	11/10/17 18:28	11/15/17 16:54	1
1,1-Dichloroethene	<0.0016		0.0016	0.00054	mg/Kg	☼	11/10/17 18:28	11/15/17 16:54	1
1,2-Dichloropropane	<0.0016		0.0016	0.00040	mg/Kg	☼	11/10/17 18:28	11/15/17 16:54	1
1,3-Dichloropropene, Total	<0.0016		0.0016	0.00055	mg/Kg	☼	11/10/17 18:28	11/15/17 16:54	1
Ethylbenzene	<0.0016		0.0016	0.00075	mg/Kg	☼	11/10/17 18:28	11/15/17 16:54	1
2-Hexanone	<0.0039		0.0039	0.0012	mg/Kg	☼	11/10/17 18:28	11/15/17 16:54	1
Methylene Chloride	<0.0039		0.0039	0.0015	mg/Kg	☼	11/10/17 18:28	11/15/17 16:54	1
4-Methyl-2-pentanone (MIBK)	<0.0039		0.0039	0.0012	mg/Kg	☼	11/10/17 18:28	11/15/17 16:54	1
Methyl tert-butyl ether	<0.0016		0.0016	0.00046	mg/Kg	☼	11/10/17 18:28	11/15/17 16:54	1
Styrene	<0.0016		0.0016	0.00047	mg/Kg	☼	11/10/17 18:28	11/15/17 16:54	1
1,1,2,2-Tetrachloroethane	<0.0016		0.0016	0.00050	mg/Kg	☼	11/10/17 18:28	11/15/17 16:54	1
Tetrachloroethene	<0.0016		0.0016	0.00053	mg/Kg	☼	11/10/17 18:28	11/15/17 16:54	1
Toluene	<0.0016		0.0016	0.00039	mg/Kg	☼	11/10/17 18:28	11/15/17 16:54	1
trans-1,2-Dichloroethene	<0.0016		0.0016	0.00069	mg/Kg	☼	11/10/17 18:28	11/15/17 16:54	1
trans-1,3-Dichloropropene	<0.0016		0.0016	0.00055	mg/Kg	☼	11/10/17 18:28	11/15/17 16:54	1
1,1,1-Trichloroethane	<0.0016		0.0016	0.00052	mg/Kg	☼	11/10/17 18:28	11/15/17 16:54	1
1,1,2-Trichloroethane	<0.0016		0.0016	0.00067	mg/Kg	☼	11/10/17 18:28	11/15/17 16:54	1
Trichloroethene	<0.0016		0.0016	0.00053	mg/Kg	☼	11/10/17 18:28	11/15/17 16:54	1
Vinyl acetate	<0.0039		0.0039	0.0014	mg/Kg	☼	11/10/17 18:28	11/15/17 16:54	1
Vinyl chloride	<0.0016		0.0016	0.00069	mg/Kg	☼	11/10/17 18:28	11/15/17 16:54	1
Xylenes, Total	<0.0031		0.0031	0.00050	mg/Kg	☼	11/10/17 18:28	11/15/17 16:54	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	93		75 - 131	11/10/17 18:28	11/15/17 16:54	1
Dibromofluoromethane	118		75 - 126	11/10/17 18:28	11/15/17 16:54	1
1,2-Dichloroethane-d4 (Surr)	120		70 - 134	11/10/17 18:28	11/15/17 16:54	1
Toluene-d8 (Surr)	83		75 - 124	11/10/17 18:28	11/15/17 16:54	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.037		0.037	0.0066	mg/Kg	☼	11/16/17 07:12	11/17/17 01:21	1
Acenaphthylene	<0.037		0.037	0.0049	mg/Kg	☼	11/16/17 07:12	11/17/17 01:21	1
Anthracene	<0.037		0.037	0.0062	mg/Kg	☼	11/16/17 07:12	11/17/17 01:21	1
Benzo[a]anthracene	<0.037		0.037	0.0050	mg/Kg	☼	11/16/17 07:12	11/17/17 01:21	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137078-1

Client Sample ID: 2696V-61-B07 (0-5)

Lab Sample ID: 500-137078-11

Date Collected: 11/09/17 10:05

Matrix: Solid

Date Received: 11/09/17 17:00

Percent Solids: 87.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	<0.037		0.037	0.0072	mg/Kg	☼	11/16/17 07:12	11/17/17 01:21	1
Benzo[b]fluoranthene	<0.037		0.037	0.0080	mg/Kg	☼	11/16/17 07:12	11/17/17 01:21	1
Benzo[g,h,i]perylene	<0.037		0.037	0.012	mg/Kg	☼	11/16/17 07:12	11/17/17 01:21	1
Benzo[k]fluoranthene	<0.037		0.037	0.011	mg/Kg	☼	11/16/17 07:12	11/17/17 01:21	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.038	mg/Kg	☼	11/16/17 07:12	11/17/17 01:21	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.055	mg/Kg	☼	11/16/17 07:12	11/17/17 01:21	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.067	mg/Kg	☼	11/16/17 07:12	11/17/17 01:21	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.049	mg/Kg	☼	11/16/17 07:12	11/17/17 01:21	1
Butyl benzyl phthalate	<0.19		0.19	0.070	mg/Kg	☼	11/16/17 07:12	11/17/17 01:21	1
Carbazole	<0.19		0.19	0.092	mg/Kg	☼	11/16/17 07:12	11/17/17 01:21	1
4-Chloroaniline	<0.75		0.75	0.17	mg/Kg	☼	11/16/17 07:12	11/17/17 01:21	1
4-Chloro-3-methylphenol	<0.37		0.37	0.13	mg/Kg	☼	11/16/17 07:12	11/17/17 01:21	1
2-Chloronaphthalene	<0.19		0.19	0.041	mg/Kg	☼	11/16/17 07:12	11/17/17 01:21	1
2-Chlorophenol	<0.19		0.19	0.063	mg/Kg	☼	11/16/17 07:12	11/17/17 01:21	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.043	mg/Kg	☼	11/16/17 07:12	11/17/17 01:21	1
Chrysene	<0.037		0.037	0.010	mg/Kg	☼	11/16/17 07:12	11/17/17 01:21	1
Dibenz(a,h)anthracene	<0.037		0.037	0.0071	mg/Kg	☼	11/16/17 07:12	11/17/17 01:21	1
Dibenzofuran	<0.19		0.19	0.043	mg/Kg	☼	11/16/17 07:12	11/17/17 01:21	1
1,2-Dichlorobenzene	<0.19		0.19	0.044	mg/Kg	☼	11/16/17 07:12	11/17/17 01:21	1
1,3-Dichlorobenzene	<0.19		0.19	0.042	mg/Kg	☼	11/16/17 07:12	11/17/17 01:21	1
1,4-Dichlorobenzene	<0.19		0.19	0.047	mg/Kg	☼	11/16/17 07:12	11/17/17 01:21	1
3,3'-Dichlorobenzidine	<0.19 *		0.19	0.052	mg/Kg	☼	11/16/17 07:12	11/17/17 01:21	1
2,4-Dichlorophenol	<0.37		0.37	0.088	mg/Kg	☼	11/16/17 07:12	11/17/17 01:21	1
Diethyl phthalate	<0.19		0.19	0.063	mg/Kg	☼	11/16/17 07:12	11/17/17 01:21	1
2,4-Dimethylphenol	<0.37		0.37	0.14	mg/Kg	☼	11/16/17 07:12	11/17/17 01:21	1
Dimethyl phthalate	<0.19		0.19	0.048	mg/Kg	☼	11/16/17 07:12	11/17/17 01:21	1
Di-n-butyl phthalate	<0.19		0.19	0.056	mg/Kg	☼	11/16/17 07:12	11/17/17 01:21	1
4,6-Dinitro-2-methylphenol	<0.75		0.75	0.30	mg/Kg	☼	11/16/17 07:12	11/17/17 01:21	1
2,4-Dinitrophenol	<0.75		0.75	0.65	mg/Kg	☼	11/16/17 07:12	11/17/17 01:21	1
2,4-Dinitrotoluene	<0.19		0.19	0.059	mg/Kg	☼	11/16/17 07:12	11/17/17 01:21	1
2,6-Dinitrotoluene	<0.19		0.19	0.073	mg/Kg	☼	11/16/17 07:12	11/17/17 01:21	1
Di-n-octyl phthalate	<0.19		0.19	0.060	mg/Kg	☼	11/16/17 07:12	11/17/17 01:21	1
Fluoranthene	<0.037		0.037	0.0068	mg/Kg	☼	11/16/17 07:12	11/17/17 01:21	1
Fluorene	<0.037		0.037	0.0052	mg/Kg	☼	11/16/17 07:12	11/17/17 01:21	1
Hexachlorobenzene	<0.075		0.075	0.0086	mg/Kg	☼	11/16/17 07:12	11/17/17 01:21	1
Hexachlorobutadiene	<0.19		0.19	0.058	mg/Kg	☼	11/16/17 07:12	11/17/17 01:21	1
Hexachlorocyclopentadiene	<0.75		0.75	0.21	mg/Kg	☼	11/16/17 07:12	11/17/17 01:21	1
Hexachloroethane	<0.19		0.19	0.056	mg/Kg	☼	11/16/17 07:12	11/17/17 01:21	1
Indeno[1,2,3-cd]pyrene	<0.037		0.037	0.0096	mg/Kg	☼	11/16/17 07:12	11/17/17 01:21	1
Isophorone	<0.19 *		0.19	0.041	mg/Kg	☼	11/16/17 07:12	11/17/17 01:21	1
2-Methylnaphthalene	<0.075		0.075	0.0068	mg/Kg	☼	11/16/17 07:12	11/17/17 01:21	1
2-Methylphenol	<0.19		0.19	0.059	mg/Kg	☼	11/16/17 07:12	11/17/17 01:21	1
3 & 4 Methylphenol	<0.19		0.19	0.062	mg/Kg	☼	11/16/17 07:12	11/17/17 01:21	1
Naphthalene	<0.037		0.037	0.0057	mg/Kg	☼	11/16/17 07:12	11/17/17 01:21	1
2-Nitroaniline	<0.19		0.19	0.050	mg/Kg	☼	11/16/17 07:12	11/17/17 01:21	1
3-Nitroaniline	<0.37		0.37	0.11	mg/Kg	☼	11/16/17 07:12	11/17/17 01:21	1
4-Nitroaniline	<0.37		0.37	0.15	mg/Kg	☼	11/16/17 07:12	11/17/17 01:21	1
Nitrobenzene	<0.037		0.037	0.0092	mg/Kg	☼	11/16/17 07:12	11/17/17 01:21	1
2-Nitrophenol	<0.37		0.37	0.087	mg/Kg	☼	11/16/17 07:12	11/17/17 01:21	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137078-1

Client Sample ID: 2696V-61-B07 (0-5)

Lab Sample ID: 500-137078-11

Date Collected: 11/09/17 10:05

Matrix: Solid

Date Received: 11/09/17 17:00

Percent Solids: 87.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Nitrophenol	<0.75		0.75	0.35	mg/Kg	☼	11/16/17 07:12	11/17/17 01:21	1
N-Nitrosodi-n-propylamine	<0.075		0.075	0.045	mg/Kg	☼	11/16/17 07:12	11/17/17 01:21	1
N-Nitrosodiphenylamine	<0.19		0.19	0.044	mg/Kg	☼	11/16/17 07:12	11/17/17 01:21	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.043	mg/Kg	☼	11/16/17 07:12	11/17/17 01:21	1
Pentachlorophenol	<0.75		0.75	0.59	mg/Kg	☼	11/16/17 07:12	11/17/17 01:21	1
Phenanthrene	<0.037		0.037	0.0051	mg/Kg	☼	11/16/17 07:12	11/17/17 01:21	1
Phenol	<0.19		0.19	0.082	mg/Kg	☼	11/16/17 07:12	11/17/17 01:21	1
Pyrene	<0.037		0.037	0.0073	mg/Kg	☼	11/16/17 07:12	11/17/17 01:21	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.040	mg/Kg	☼	11/16/17 07:12	11/17/17 01:21	1
2,4,5-Trichlorophenol	<0.37		0.37	0.084	mg/Kg	☼	11/16/17 07:12	11/17/17 01:21	1
2,4,6-Trichlorophenol	<0.37		0.37	0.13	mg/Kg	☼	11/16/17 07:12	11/17/17 01:21	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	89		44 - 121	11/16/17 07:12	11/17/17 01:21	1
2-Fluorophenol	92		46 - 133	11/16/17 07:12	11/17/17 01:21	1
Nitrobenzene-d5	81		41 - 120	11/16/17 07:12	11/17/17 01:21	1
Phenol-d5	87		46 - 125	11/16/17 07:12	11/17/17 01:21	1
Terphenyl-d14	73		35 - 160	11/16/17 07:12	11/17/17 01:21	1
2,4,6-Tribromophenol	54		25 - 139	11/16/17 07:12	11/17/17 01:21	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	☼	11/11/17 13:26	11/13/17 19:58	1
Arsenic	4.5		0.56	0.19	mg/Kg	☼	11/11/17 13:26	11/13/17 19:58	1
Barium	28		0.56	0.064	mg/Kg	☼	11/11/17 13:26	11/13/17 19:58	1
Beryllium	0.39		0.23	0.053	mg/Kg	☼	11/11/17 13:26	11/13/17 19:58	1
Cadmium	0.19	B	0.11	0.020	mg/Kg	☼	11/11/17 13:26	11/13/17 19:58	1
Chromium	8.0		0.56	0.28	mg/Kg	☼	11/11/17 13:26	11/13/17 19:58	1
Cobalt	4.8		0.28	0.074	mg/Kg	☼	11/11/17 13:26	11/13/17 19:58	1
Copper	19		0.56	0.16	mg/Kg	☼	11/11/17 13:26	11/14/17 17:46	1
Iron	9000		11	5.9	mg/Kg	☼	11/11/17 13:26	11/13/17 19:58	1
Lead	12		0.28	0.13	mg/Kg	☼	11/11/17 13:26	11/13/17 19:58	1
Magnesium	7000	B	5.6	2.8	mg/Kg	☼	11/11/17 13:26	11/13/17 19:58	1
Calcium	16000	B	11	1.9	mg/Kg	☼	11/11/17 13:26	11/13/17 19:58	1
Manganese	81		0.56	0.082	mg/Kg	☼	11/11/17 13:26	11/13/17 19:58	1
Nickel	14		0.56	0.16	mg/Kg	☼	11/11/17 13:26	11/13/17 19:58	1
Selenium	<0.56		0.56	0.33	mg/Kg	☼	11/11/17 13:26	11/13/17 19:58	1
Silver	<0.28		0.28	0.073	mg/Kg	☼	11/11/17 13:26	11/13/17 19:58	1
Thallium	<0.56		0.56	0.28	mg/Kg	☼	11/11/17 13:26	11/13/17 19:58	1
Vanadium	14		0.28	0.066	mg/Kg	☼	11/11/17 13:26	11/13/17 19:58	1
Zinc	49		1.1	0.49	mg/Kg	☼	11/11/17 13:26	11/13/17 19:58	1
Potassium	570		28	10	mg/Kg	☼	11/11/17 13:26	11/13/17 19:58	1
Sodium	680		56	8.3	mg/Kg	☼	11/11/17 13:26	11/13/17 19:58	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.050		0.050	0.010	mg/L		11/15/17 09:19	11/15/17 17:03	1
Barium	0.33	J	0.50	0.050	mg/L		11/15/17 09:19	11/15/17 17:03	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		11/15/17 09:19	11/15/17 17:03	1
Cadmium	0.0035	J	0.0050	0.0020	mg/L		11/15/17 09:19	11/15/17 17:03	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137078-1

Client Sample ID: 2696V-61-B07 (0-5)

Lab Sample ID: 500-137078-11

Date Collected: 11/09/17 10:05

Matrix: Solid

Date Received: 11/09/17 17:00

Percent Solids: 87.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	400		5.0	0.50	mg/L		11/15/17 09:19	11/15/17 17:03	1
Chromium	<0.025		0.025	0.010	mg/L		11/15/17 09:19	11/15/17 17:03	1
Cobalt	<0.025		0.025	0.010	mg/L		11/15/17 09:19	11/15/17 17:03	1
Copper	0.012	J	0.025	0.010	mg/L		11/15/17 09:19	11/15/17 17:03	1
Iron	<0.40		0.40	0.20	mg/L		11/15/17 09:19	11/15/17 17:03	1
Lead	<0.0075		0.0075	0.0075	mg/L		11/15/17 09:19	11/15/17 17:03	1
Magnesium	100		2.5	0.50	mg/L		11/15/17 09:19	11/15/17 17:03	1
Manganese	0.94		0.025	0.010	mg/L		11/15/17 09:19	11/15/17 17:03	1
Nickel	<0.025		0.025	0.010	mg/L		11/15/17 09:19	11/15/17 17:03	1
Potassium	0.83	J	2.5	0.50	mg/L		11/15/17 09:19	11/15/17 17:03	1
Selenium	<0.050		0.050	0.020	mg/L		11/15/17 09:19	11/15/17 17:03	1
Silver	<0.025		0.025	0.010	mg/L		11/15/17 09:19	11/15/17 17:03	1
Vanadium	<0.025		0.025	0.010	mg/L		11/15/17 09:19	11/15/17 17:03	1
Zinc	<0.50		0.50	0.020	mg/L		11/15/17 09:19	11/15/17 17:03	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		11/15/17 08:20	11/17/17 00:53	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		11/15/17 09:19	11/16/17 15:45	1
Thallium	<0.0020		0.0020	0.0020	mg/L		11/15/17 09:19	11/16/17 15:45	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		11/17/17 08:10	11/17/17 12:40	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.015	J B	0.019	0.0062	mg/Kg	☼	11/13/17 13:20	11/17/17 10:02	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.53		0.53	0.18	mg/Kg	☼	11/19/17 10:30	11/19/17 14:39	1
pH	8.6		0.20	0.20	SU			11/18/17 11:24	1

Client Sample Results

Client: Terracon Consulting Eng & Scientists
Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137078-1

Client Sample ID: 2696V-61-B08 (0-5)

Lab Sample ID: 500-137078-12

Date Collected: 11/09/17 09:45

Matrix: Solid

Date Received: 11/09/17 17:00

Percent Solids: 79.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.018		0.018	0.0077	mg/Kg	☼	11/10/17 18:28	11/16/17 11:45	1
Benzene	<0.0018		0.0018	0.00045	mg/Kg	☼	11/10/17 18:28	11/16/17 11:45	1
Bromodichloromethane	<0.0018		0.0018	0.00036	mg/Kg	☼	11/10/17 18:28	11/16/17 11:45	1
Bromoform	<0.0018		0.0018	0.00052	mg/Kg	☼	11/10/17 18:28	11/16/17 11:45	1
Bromomethane	<0.0044		0.0044	0.0017	mg/Kg	☼	11/10/17 18:28	11/16/17 11:45	1
2-Butanone (MEK)	<0.0044		0.0044	0.0020	mg/Kg	☼	11/10/17 18:28	11/16/17 11:45	1
Carbon disulfide	<0.0044		0.0044	0.00092	mg/Kg	☼	11/10/17 18:28	11/16/17 11:45	1
Carbon tetrachloride	<0.0018 *		0.0018	0.00052	mg/Kg	☼	11/10/17 18:28	11/16/17 11:45	1
Chlorobenzene	<0.0018		0.0018	0.00066	mg/Kg	☼	11/10/17 18:28	11/16/17 11:45	1
Chloroethane	<0.0044		0.0044	0.0013	mg/Kg	☼	11/10/17 18:28	11/16/17 11:45	1
Chloroform	<0.0018		0.0018	0.00062	mg/Kg	☼	11/10/17 18:28	11/16/17 11:45	1
Chloromethane	<0.0044 *		0.0044	0.0018	mg/Kg	☼	11/10/17 18:28	11/16/17 11:45	1
cis-1,2-Dichloroethene	<0.0018		0.0018	0.00050	mg/Kg	☼	11/10/17 18:28	11/16/17 11:45	1
cis-1,3-Dichloropropene	<0.0018		0.0018	0.00054	mg/Kg	☼	11/10/17 18:28	11/16/17 11:45	1
Dibromochloromethane	<0.0018		0.0018	0.00058	mg/Kg	☼	11/10/17 18:28	11/16/17 11:45	1
1,1-Dichloroethane	<0.0018		0.0018	0.00061	mg/Kg	☼	11/10/17 18:28	11/16/17 11:45	1
1,2-Dichloroethane	<0.0044		0.0044	0.0014	mg/Kg	☼	11/10/17 18:28	11/16/17 11:45	1
1,1-Dichloroethene	<0.0018		0.0018	0.00061	mg/Kg	☼	11/10/17 18:28	11/16/17 11:45	1
1,2-Dichloropropane	<0.0018		0.0018	0.00046	mg/Kg	☼	11/10/17 18:28	11/16/17 11:45	1
1,3-Dichloropropene, Total	<0.0018		0.0018	0.00062	mg/Kg	☼	11/10/17 18:28	11/16/17 11:45	1
Ethylbenzene	<0.0018		0.0018	0.00085	mg/Kg	☼	11/10/17 18:28	11/16/17 11:45	1
2-Hexanone	<0.0044		0.0044	0.0014	mg/Kg	☼	11/10/17 18:28	11/16/17 11:45	1
Methylene Chloride	<0.0044		0.0044	0.0017	mg/Kg	☼	11/10/17 18:28	11/16/17 11:45	1
4-Methyl-2-pentanone (MIBK)	<0.0044		0.0044	0.0013	mg/Kg	☼	11/10/17 18:28	11/16/17 11:45	1
Methyl tert-butyl ether	<0.0018		0.0018	0.00052	mg/Kg	☼	11/10/17 18:28	11/16/17 11:45	1
Styrene	<0.0018		0.0018	0.00054	mg/Kg	☼	11/10/17 18:28	11/16/17 11:45	1
1,1,2,2-Tetrachloroethane	<0.0018		0.0018	0.00057	mg/Kg	☼	11/10/17 18:28	11/16/17 11:45	1
Tetrachloroethene	<0.0018		0.0018	0.00060	mg/Kg	☼	11/10/17 18:28	11/16/17 11:45	1
Toluene	<0.0018		0.0018	0.00045	mg/Kg	☼	11/10/17 18:28	11/16/17 11:45	1
trans-1,2-Dichloroethene	<0.0018		0.0018	0.00079	mg/Kg	☼	11/10/17 18:28	11/16/17 11:45	1
trans-1,3-Dichloropropene	<0.0018		0.0018	0.00062	mg/Kg	☼	11/10/17 18:28	11/16/17 11:45	1
1,1,1-Trichloroethane	<0.0018		0.0018	0.00060	mg/Kg	☼	11/10/17 18:28	11/16/17 11:45	1
1,1,2-Trichloroethane	<0.0018		0.0018	0.00076	mg/Kg	☼	11/10/17 18:28	11/16/17 11:45	1
Trichloroethene	<0.0018		0.0018	0.00060	mg/Kg	☼	11/10/17 18:28	11/16/17 11:45	1
Vinyl acetate	<0.0044		0.0044	0.0015	mg/Kg	☼	11/10/17 18:28	11/16/17 11:45	1
Vinyl chloride	<0.0018		0.0018	0.00079	mg/Kg	☼	11/10/17 18:28	11/16/17 11:45	1
Xylenes, Total	<0.0036		0.0036	0.00057	mg/Kg	☼	11/10/17 18:28	11/16/17 11:45	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	96		75 - 131	11/10/17 18:28	11/16/17 11:45	1
Dibromofluoromethane	97		75 - 126	11/10/17 18:28	11/16/17 11:45	1
1,2-Dichloroethane-d4 (Surr)	104		70 - 134	11/10/17 18:28	11/16/17 11:45	1
Toluene-d8 (Surr)	99		75 - 124	11/10/17 18:28	11/16/17 11:45	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.040		0.040	0.0073	mg/Kg	☼	11/16/17 07:12	11/17/17 01:47	1
Acenaphthylene	<0.040		0.040	0.0053	mg/Kg	☼	11/16/17 07:12	11/17/17 01:47	1
Anthracene	0.016	J	0.040	0.0067	mg/Kg	☼	11/16/17 07:12	11/17/17 01:47	1
Benzo[a]anthracene	0.059		0.040	0.0054	mg/Kg	☼	11/16/17 07:12	11/17/17 01:47	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137078-1

Client Sample ID: 2696V-61-B08 (0-5)

Lab Sample ID: 500-137078-12

Date Collected: 11/09/17 09:45

Matrix: Solid

Date Received: 11/09/17 17:00

Percent Solids: 79.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	0.078		0.040	0.0078	mg/Kg	☼	11/16/17 07:12	11/17/17 01:47	1
Benzo[b]fluoranthene	0.10		0.040	0.0087	mg/Kg	☼	11/16/17 07:12	11/17/17 01:47	1
Benzo[g,h,i]perylene	0.045		0.040	0.013	mg/Kg	☼	11/16/17 07:12	11/17/17 01:47	1
Benzo[k]fluoranthene	0.057		0.040	0.012	mg/Kg	☼	11/16/17 07:12	11/17/17 01:47	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.041	mg/Kg	☼	11/16/17 07:12	11/17/17 01:47	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.061	mg/Kg	☼	11/16/17 07:12	11/17/17 01:47	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.074	mg/Kg	☼	11/16/17 07:12	11/17/17 01:47	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.053	mg/Kg	☼	11/16/17 07:12	11/17/17 01:47	1
Butyl benzyl phthalate	<0.20		0.20	0.077	mg/Kg	☼	11/16/17 07:12	11/17/17 01:47	1
Carbazole	<0.20		0.20	0.10	mg/Kg	☼	11/16/17 07:12	11/17/17 01:47	1
4-Chloroaniline	<0.81		0.81	0.19	mg/Kg	☼	11/16/17 07:12	11/17/17 01:47	1
4-Chloro-3-methylphenol	<0.40		0.40	0.14	mg/Kg	☼	11/16/17 07:12	11/17/17 01:47	1
2-Chloronaphthalene	<0.20		0.20	0.045	mg/Kg	☼	11/16/17 07:12	11/17/17 01:47	1
2-Chlorophenol	<0.20		0.20	0.069	mg/Kg	☼	11/16/17 07:12	11/17/17 01:47	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.047	mg/Kg	☼	11/16/17 07:12	11/17/17 01:47	1
Chrysene	0.077		0.040	0.011	mg/Kg	☼	11/16/17 07:12	11/17/17 01:47	1
Dibenz(a,h)anthracene	<0.040		0.040	0.0078	mg/Kg	☼	11/16/17 07:12	11/17/17 01:47	1
Dibenzofuran	<0.20		0.20	0.047	mg/Kg	☼	11/16/17 07:12	11/17/17 01:47	1
1,2-Dichlorobenzene	<0.20		0.20	0.048	mg/Kg	☼	11/16/17 07:12	11/17/17 01:47	1
1,3-Dichlorobenzene	<0.20		0.20	0.045	mg/Kg	☼	11/16/17 07:12	11/17/17 01:47	1
1,4-Dichlorobenzene	<0.20		0.20	0.052	mg/Kg	☼	11/16/17 07:12	11/17/17 01:47	1
3,3'-Dichlorobenzidine	<0.20 *		0.20	0.057	mg/Kg	☼	11/16/17 07:12	11/17/17 01:47	1
2,4-Dichlorophenol	<0.40		0.40	0.096	mg/Kg	☼	11/16/17 07:12	11/17/17 01:47	1
Diethyl phthalate	<0.20		0.20	0.068	mg/Kg	☼	11/16/17 07:12	11/17/17 01:47	1
2,4-Dimethylphenol	<0.40		0.40	0.15	mg/Kg	☼	11/16/17 07:12	11/17/17 01:47	1
Dimethyl phthalate	<0.20		0.20	0.053	mg/Kg	☼	11/16/17 07:12	11/17/17 01:47	1
Di-n-butyl phthalate	<0.20		0.20	0.062	mg/Kg	☼	11/16/17 07:12	11/17/17 01:47	1
4,6-Dinitro-2-methylphenol	<0.81		0.81	0.32	mg/Kg	☼	11/16/17 07:12	11/17/17 01:47	1
2,4-Dinitrophenol	<0.81		0.81	0.71	mg/Kg	☼	11/16/17 07:12	11/17/17 01:47	1
2,4-Dinitrotoluene	<0.20		0.20	0.064	mg/Kg	☼	11/16/17 07:12	11/17/17 01:47	1
2,6-Dinitrotoluene	<0.20		0.20	0.079	mg/Kg	☼	11/16/17 07:12	11/17/17 01:47	1
Di-n-octyl phthalate	<0.20		0.20	0.066	mg/Kg	☼	11/16/17 07:12	11/17/17 01:47	1
Fluoranthene	0.18		0.040	0.0075	mg/Kg	☼	11/16/17 07:12	11/17/17 01:47	1
Fluorene	<0.040		0.040	0.0057	mg/Kg	☼	11/16/17 07:12	11/17/17 01:47	1
Hexachlorobenzene	<0.081		0.081	0.0094	mg/Kg	☼	11/16/17 07:12	11/17/17 01:47	1
Hexachlorobutadiene	<0.20		0.20	0.063	mg/Kg	☼	11/16/17 07:12	11/17/17 01:47	1
Hexachlorocyclopentadiene	<0.81		0.81	0.23	mg/Kg	☼	11/16/17 07:12	11/17/17 01:47	1
Hexachloroethane	<0.20		0.20	0.061	mg/Kg	☼	11/16/17 07:12	11/17/17 01:47	1
Indeno[1,2,3-cd]pyrene	0.033 J		0.040	0.010	mg/Kg	☼	11/16/17 07:12	11/17/17 01:47	1
Isophorone	<0.20 *		0.20	0.045	mg/Kg	☼	11/16/17 07:12	11/17/17 01:47	1
2-Methylnaphthalene	<0.081		0.081	0.0074	mg/Kg	☼	11/16/17 07:12	11/17/17 01:47	1
2-Methylphenol	<0.20		0.20	0.065	mg/Kg	☼	11/16/17 07:12	11/17/17 01:47	1
3 & 4 Methylphenol	<0.20		0.20	0.067	mg/Kg	☼	11/16/17 07:12	11/17/17 01:47	1
Naphthalene	<0.040		0.040	0.0062	mg/Kg	☼	11/16/17 07:12	11/17/17 01:47	1
2-Nitroaniline	<0.20		0.20	0.054	mg/Kg	☼	11/16/17 07:12	11/17/17 01:47	1
3-Nitroaniline	<0.40		0.40	0.13	mg/Kg	☼	11/16/17 07:12	11/17/17 01:47	1
4-Nitroaniline	<0.40		0.40	0.17	mg/Kg	☼	11/16/17 07:12	11/17/17 01:47	1
Nitrobenzene	<0.040		0.040	0.010	mg/Kg	☼	11/16/17 07:12	11/17/17 01:47	1
2-Nitrophenol	<0.40		0.40	0.095	mg/Kg	☼	11/16/17 07:12	11/17/17 01:47	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137078-1

Client Sample ID: 2696V-61-B08 (0-5)

Lab Sample ID: 500-137078-12

Date Collected: 11/09/17 09:45

Matrix: Solid

Date Received: 11/09/17 17:00

Percent Solids: 79.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Nitrophenol	<0.81		0.81	0.38	mg/Kg	☼	11/16/17 07:12	11/17/17 01:47	1
N-Nitrosodi-n-propylamine	<0.081		0.081	0.049	mg/Kg	☼	11/16/17 07:12	11/17/17 01:47	1
N-Nitrosodiphenylamine	<0.20		0.20	0.048	mg/Kg	☼	11/16/17 07:12	11/17/17 01:47	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.047	mg/Kg	☼	11/16/17 07:12	11/17/17 01:47	1
Pentachlorophenol	<0.81		0.81	0.65	mg/Kg	☼	11/16/17 07:12	11/17/17 01:47	1
Phenanthrene	0.090		0.040	0.0056	mg/Kg	☼	11/16/17 07:12	11/17/17 01:47	1
Phenol	<0.20		0.20	0.090	mg/Kg	☼	11/16/17 07:12	11/17/17 01:47	1
Pyrene	0.12		0.040	0.0080	mg/Kg	☼	11/16/17 07:12	11/17/17 01:47	1
1,2,4-Trichlorobenzene	<0.20		0.20	0.044	mg/Kg	☼	11/16/17 07:12	11/17/17 01:47	1
2,4,5-Trichlorophenol	<0.40		0.40	0.092	mg/Kg	☼	11/16/17 07:12	11/17/17 01:47	1
2,4,6-Trichlorophenol	<0.40		0.40	0.14	mg/Kg	☼	11/16/17 07:12	11/17/17 01:47	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	85		44 - 121				11/16/17 07:12	11/17/17 01:47	1
2-Fluorophenol	86		46 - 133				11/16/17 07:12	11/17/17 01:47	1
Nitrobenzene-d5	79		41 - 120				11/16/17 07:12	11/17/17 01:47	1
Phenol-d5	82		46 - 125				11/16/17 07:12	11/17/17 01:47	1
Terphenyl-d14	75		35 - 160				11/16/17 07:12	11/17/17 01:47	1
2,4,6-Tribromophenol	64		25 - 139				11/16/17 07:12	11/17/17 01:47	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.54	J	1.2	0.24	mg/Kg	☼	11/11/17 13:26	11/13/17 20:02	1
Arsenic	5.9		0.61	0.21	mg/Kg	☼	11/11/17 13:26	11/13/17 20:02	1
Barium	140		0.61	0.069	mg/Kg	☼	11/11/17 13:26	11/13/17 20:02	1
Beryllium	2.3		0.24	0.057	mg/Kg	☼	11/11/17 13:26	11/13/17 20:02	1
Cadmium	0.24	B	0.12	0.022	mg/Kg	☼	11/11/17 13:26	11/13/17 20:02	1
Chromium	15		0.61	0.30	mg/Kg	☼	11/11/17 13:26	11/13/17 20:02	1
Cobalt	8.6		0.30	0.080	mg/Kg	☼	11/11/17 13:26	11/13/17 20:02	1
Copper	28		3.0	0.85	mg/Kg	☼	11/11/17 13:26	11/14/17 17:50	5
Iron	14000		12	6.3	mg/Kg	☼	11/11/17 13:26	11/13/17 20:02	1
Lead	42		0.30	0.14	mg/Kg	☼	11/11/17 13:26	11/13/17 20:02	1
Magnesium	21000	B	6.1	3.0	mg/Kg	☼	11/11/17 13:26	11/13/17 20:02	1
Calcium	96000	B	61	10	mg/Kg	☼	11/11/17 13:26	11/14/17 17:50	5
Manganese	990		0.61	0.088	mg/Kg	☼	11/11/17 13:26	11/13/17 20:02	1
Nickel	19		0.61	0.18	mg/Kg	☼	11/11/17 13:26	11/13/17 20:02	1
Selenium	1.4	B	0.61	0.36	mg/Kg	☼	11/11/17 13:26	11/13/17 20:02	1
Silver	<0.30		0.30	0.079	mg/Kg	☼	11/11/17 13:26	11/13/17 20:02	1
Thallium	<0.61		0.61	0.30	mg/Kg	☼	11/11/17 13:26	11/13/17 20:02	1
Vanadium	16		0.30	0.072	mg/Kg	☼	11/11/17 13:26	11/13/17 20:02	1
Zinc	77		1.2	0.54	mg/Kg	☼	11/11/17 13:26	11/13/17 20:02	1
Potassium	2000		30	11	mg/Kg	☼	11/11/17 13:26	11/13/17 20:02	1
Sodium	1200		61	9.0	mg/Kg	☼	11/11/17 13:26	11/13/17 20:02	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.050		0.050	0.010	mg/L		11/15/17 09:19	11/15/17 17:07	1
Barium	0.41	J	0.50	0.050	mg/L		11/15/17 09:19	11/15/17 17:07	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		11/15/17 09:19	11/15/17 17:07	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		11/15/17 09:19	11/15/17 17:07	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137078-1

Client Sample ID: 2696V-61-B08 (0-5)

Lab Sample ID: 500-137078-12

Date Collected: 11/09/17 09:45

Matrix: Solid

Date Received: 11/09/17 17:00

Percent Solids: 79.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	530		5.0	0.50	mg/L		11/15/17 09:19	11/15/17 17:07	1
Chromium	<0.025		0.025	0.010	mg/L		11/15/17 09:19	11/15/17 17:07	1
Cobalt	<0.025		0.025	0.010	mg/L		11/15/17 09:19	11/15/17 17:07	1
Copper	0.047		0.025	0.010	mg/L		11/15/17 09:19	11/15/17 17:07	1
Iron	<0.40		0.40	0.20	mg/L		11/15/17 09:19	11/15/17 17:07	1
Lead	<0.0075		0.0075	0.0075	mg/L		11/15/17 09:19	11/15/17 17:07	1
Magnesium	67		2.5	0.50	mg/L		11/15/17 09:19	11/15/17 17:07	1
Manganese	0.17		0.025	0.010	mg/L		11/15/17 09:19	11/15/17 17:07	1
Nickel	<0.025		0.025	0.010	mg/L		11/15/17 09:19	11/15/17 17:07	1
Potassium	4.5		2.5	0.50	mg/L		11/15/17 09:19	11/15/17 17:07	1
Selenium	<0.050		0.050	0.020	mg/L		11/15/17 09:19	11/15/17 17:07	1
Silver	<0.025		0.025	0.010	mg/L		11/15/17 09:19	11/15/17 17:07	1
Vanadium	<0.025		0.025	0.010	mg/L		11/15/17 09:19	11/15/17 17:07	1
Zinc	0.025 J		0.50	0.020	mg/L		11/15/17 09:19	11/15/17 17:07	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.66		0.025	0.010	mg/L		11/15/17 08:20	11/17/17 00:57	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		11/15/17 09:19	11/16/17 15:48	1
Thallium	<0.0020		0.0020	0.0020	mg/L		11/15/17 09:19	11/16/17 15:48	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		11/17/17 08:10	11/17/17 12:41	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.033 B		0.019	0.0062	mg/Kg	☼	11/13/17 13:20	11/17/17 10:05	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.18 J		0.52	0.18	mg/Kg	☼	11/19/17 10:30	11/19/17 14:40	1
pH	8.7		0.20	0.20	SU			11/18/17 11:26	1

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137078-1

Client Sample ID: 2696V-61-B09 (0-5)

Lab Sample ID: 500-137078-13

Date Collected: 11/09/17 09:20

Matrix: Solid

Date Received: 11/09/17 17:00

Percent Solids: 81.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	0.024		0.019	0.0081	mg/Kg	☼	11/10/17 18:28	11/15/17 17:44	1
Benzene	<0.0019	*	0.0019	0.00047	mg/Kg	☼	11/10/17 18:28	11/15/17 17:44	1
Bromodichloromethane	<0.0019		0.0019	0.00038	mg/Kg	☼	11/10/17 18:28	11/15/17 17:44	1
Bromoform	<0.0019		0.0019	0.00054	mg/Kg	☼	11/10/17 18:28	11/15/17 17:44	1
Bromomethane	<0.0046		0.0046	0.0018	mg/Kg	☼	11/10/17 18:28	11/15/17 17:44	1
2-Butanone (MEK)	<0.0046	*	0.0046	0.0021	mg/Kg	☼	11/10/17 18:28	11/15/17 17:44	1
Carbon disulfide	<0.0046		0.0046	0.00096	mg/Kg	☼	11/10/17 18:28	11/15/17 17:44	1
Carbon tetrachloride	<0.0019		0.0019	0.00054	mg/Kg	☼	11/10/17 18:28	11/15/17 17:44	1
Chlorobenzene	<0.0019		0.0019	0.00068	mg/Kg	☼	11/10/17 18:28	11/15/17 17:44	1
Chloroethane	<0.0046		0.0046	0.0014	mg/Kg	☼	11/10/17 18:28	11/15/17 17:44	1
Chloroform	<0.0019		0.0019	0.00064	mg/Kg	☼	11/10/17 18:28	11/15/17 17:44	1
Chloromethane	<0.0046		0.0046	0.0019	mg/Kg	☼	11/10/17 18:28	11/15/17 17:44	1
cis-1,2-Dichloroethene	<0.0019		0.0019	0.00052	mg/Kg	☼	11/10/17 18:28	11/15/17 17:44	1
cis-1,3-Dichloropropene	<0.0019		0.0019	0.00056	mg/Kg	☼	11/10/17 18:28	11/15/17 17:44	1
Dibromochloromethane	<0.0019		0.0019	0.00061	mg/Kg	☼	11/10/17 18:28	11/15/17 17:44	1
1,1-Dichloroethane	<0.0019		0.0019	0.00064	mg/Kg	☼	11/10/17 18:28	11/15/17 17:44	1
1,2-Dichloroethane	<0.0046		0.0046	0.0014	mg/Kg	☼	11/10/17 18:28	11/15/17 17:44	1
1,1-Dichloroethene	<0.0019		0.0019	0.00064	mg/Kg	☼	11/10/17 18:28	11/15/17 17:44	1
1,2-Dichloropropane	<0.0019		0.0019	0.00048	mg/Kg	☼	11/10/17 18:28	11/15/17 17:44	1
1,3-Dichloropropane, Total	<0.0019		0.0019	0.00065	mg/Kg	☼	11/10/17 18:28	11/15/17 17:44	1
Ethylbenzene	<0.0019		0.0019	0.00089	mg/Kg	☼	11/10/17 18:28	11/15/17 17:44	1
2-Hexanone	<0.0046		0.0046	0.0014	mg/Kg	☼	11/10/17 18:28	11/15/17 17:44	1
Methylene Chloride	<0.0046		0.0046	0.0018	mg/Kg	☼	11/10/17 18:28	11/15/17 17:44	1
4-Methyl-2-pentanone (MIBK)	<0.0046		0.0046	0.0014	mg/Kg	☼	11/10/17 18:28	11/15/17 17:44	1
Methyl tert-butyl ether	<0.0019		0.0019	0.00054	mg/Kg	☼	11/10/17 18:28	11/15/17 17:44	1
Styrene	<0.0019		0.0019	0.00056	mg/Kg	☼	11/10/17 18:28	11/15/17 17:44	1
1,1,2,2-Tetrachloroethane	<0.0019		0.0019	0.00059	mg/Kg	☼	11/10/17 18:28	11/15/17 17:44	1
Tetrachloroethene	<0.0019		0.0019	0.00063	mg/Kg	☼	11/10/17 18:28	11/15/17 17:44	1
Toluene	<0.0019		0.0019	0.00047	mg/Kg	☼	11/10/17 18:28	11/15/17 17:44	1
trans-1,2-Dichloroethene	<0.0019		0.0019	0.00082	mg/Kg	☼	11/10/17 18:28	11/15/17 17:44	1
trans-1,3-Dichloropropene	<0.0019		0.0019	0.00065	mg/Kg	☼	11/10/17 18:28	11/15/17 17:44	1
1,1,1-Trichloroethane	<0.0019		0.0019	0.00062	mg/Kg	☼	11/10/17 18:28	11/15/17 17:44	1
1,1,2-Trichloroethane	<0.0019		0.0019	0.00080	mg/Kg	☼	11/10/17 18:28	11/15/17 17:44	1
Trichloroethene	<0.0019		0.0019	0.00063	mg/Kg	☼	11/10/17 18:28	11/15/17 17:44	1
Vinyl acetate	<0.0046		0.0046	0.0016	mg/Kg	☼	11/10/17 18:28	11/15/17 17:44	1
Vinyl chloride	<0.0019		0.0019	0.00082	mg/Kg	☼	11/10/17 18:28	11/15/17 17:44	1
Xylenes, Total	<0.0037		0.0037	0.00059	mg/Kg	☼	11/10/17 18:28	11/15/17 17:44	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	91		75 - 131	11/10/17 18:28	11/15/17 17:44	1
Dibromofluoromethane	103		75 - 126	11/10/17 18:28	11/15/17 17:44	1
1,2-Dichloroethane-d4 (Surr)	103		70 - 134	11/10/17 18:28	11/15/17 17:44	1
Toluene-d8 (Surr)	94		75 - 124	11/10/17 18:28	11/15/17 17:44	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.0096	J	0.040	0.0073	mg/Kg	☼	11/16/17 07:12	11/17/17 02:14	1
Acenaphthylene	<0.040		0.040	0.0053	mg/Kg	☼	11/16/17 07:12	11/17/17 02:14	1
Anthracene	0.030	J	0.040	0.0068	mg/Kg	☼	11/16/17 07:12	11/17/17 02:14	1
Benzo[a]anthracene	0.10		0.040	0.0054	mg/Kg	☼	11/16/17 07:12	11/17/17 02:14	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137078-1

Client Sample ID: 2696V-61-B09 (0-5)

Lab Sample ID: 500-137078-13

Date Collected: 11/09/17 09:20

Matrix: Solid

Date Received: 11/09/17 17:00

Percent Solids: 81.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	0.11		0.040	0.0078	mg/Kg	☼	11/16/17 07:12	11/17/17 02:14	1
Benzo[b]fluoranthene	0.20		0.040	0.0087	mg/Kg	☼	11/16/17 07:12	11/17/17 02:14	1
Benzo[g,h,i]perylene	0.041		0.040	0.013	mg/Kg	☼	11/16/17 07:12	11/17/17 02:14	1
Benzo[k]fluoranthene	0.059		0.040	0.012	mg/Kg	☼	11/16/17 07:12	11/17/17 02:14	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.041	mg/Kg	☼	11/16/17 07:12	11/17/17 02:14	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.061	mg/Kg	☼	11/16/17 07:12	11/17/17 02:14	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.074	mg/Kg	☼	11/16/17 07:12	11/17/17 02:14	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.053	mg/Kg	☼	11/16/17 07:12	11/17/17 02:14	1
Butyl benzyl phthalate	<0.20		0.20	0.077	mg/Kg	☼	11/16/17 07:12	11/17/17 02:14	1
Carbazole	<0.20		0.20	0.10	mg/Kg	☼	11/16/17 07:12	11/17/17 02:14	1
4-Chloroaniline	<0.82		0.82	0.19	mg/Kg	☼	11/16/17 07:12	11/17/17 02:14	1
4-Chloro-3-methylphenol	<0.40		0.40	0.14	mg/Kg	☼	11/16/17 07:12	11/17/17 02:14	1
2-Chloronaphthalene	<0.20		0.20	0.045	mg/Kg	☼	11/16/17 07:12	11/17/17 02:14	1
2-Chlorophenol	<0.20		0.20	0.069	mg/Kg	☼	11/16/17 07:12	11/17/17 02:14	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.047	mg/Kg	☼	11/16/17 07:12	11/17/17 02:14	1
Chrysene	0.13		0.040	0.011	mg/Kg	☼	11/16/17 07:12	11/17/17 02:14	1
Dibenz(a,h)anthracene	0.013 J		0.040	0.0078	mg/Kg	☼	11/16/17 07:12	11/17/17 02:14	1
Dibenzofuran	<0.20		0.20	0.047	mg/Kg	☼	11/16/17 07:12	11/17/17 02:14	1
1,2-Dichlorobenzene	<0.20		0.20	0.048	mg/Kg	☼	11/16/17 07:12	11/17/17 02:14	1
1,3-Dichlorobenzene	<0.20		0.20	0.046	mg/Kg	☼	11/16/17 07:12	11/17/17 02:14	1
1,4-Dichlorobenzene	<0.20		0.20	0.052	mg/Kg	☼	11/16/17 07:12	11/17/17 02:14	1
3,3'-Dichlorobenzidine	<0.20 *		0.20	0.057	mg/Kg	☼	11/16/17 07:12	11/17/17 02:14	1
2,4-Dichlorophenol	<0.40		0.40	0.096	mg/Kg	☼	11/16/17 07:12	11/17/17 02:14	1
Diethyl phthalate	<0.20		0.20	0.069	mg/Kg	☼	11/16/17 07:12	11/17/17 02:14	1
2,4-Dimethylphenol	<0.40		0.40	0.15	mg/Kg	☼	11/16/17 07:12	11/17/17 02:14	1
Dimethyl phthalate	<0.20		0.20	0.053	mg/Kg	☼	11/16/17 07:12	11/17/17 02:14	1
Di-n-butyl phthalate	<0.20		0.20	0.062	mg/Kg	☼	11/16/17 07:12	11/17/17 02:14	1
4,6-Dinitro-2-methylphenol	<0.82		0.82	0.33	mg/Kg	☼	11/16/17 07:12	11/17/17 02:14	1
2,4-Dinitrophenol	<0.82		0.82	0.71	mg/Kg	☼	11/16/17 07:12	11/17/17 02:14	1
2,4-Dinitrotoluene	<0.20		0.20	0.064	mg/Kg	☼	11/16/17 07:12	11/17/17 02:14	1
2,6-Dinitrotoluene	<0.20		0.20	0.080	mg/Kg	☼	11/16/17 07:12	11/17/17 02:14	1
Di-n-octyl phthalate	<0.20		0.20	0.066	mg/Kg	☼	11/16/17 07:12	11/17/17 02:14	1
Fluoranthene	0.24		0.040	0.0075	mg/Kg	☼	11/16/17 07:12	11/17/17 02:14	1
Fluorene	0.0083 J		0.040	0.0057	mg/Kg	☼	11/16/17 07:12	11/17/17 02:14	1
Hexachlorobenzene	<0.082		0.082	0.0094	mg/Kg	☼	11/16/17 07:12	11/17/17 02:14	1
Hexachlorobutadiene	<0.20		0.20	0.064	mg/Kg	☼	11/16/17 07:12	11/17/17 02:14	1
Hexachlorocyclopentadiene	<0.82		0.82	0.23	mg/Kg	☼	11/16/17 07:12	11/17/17 02:14	1
Hexachloroethane	<0.20		0.20	0.062	mg/Kg	☼	11/16/17 07:12	11/17/17 02:14	1
Indeno[1,2,3-cd]pyrene	0.047		0.040	0.010	mg/Kg	☼	11/16/17 07:12	11/17/17 02:14	1
Isophorone	<0.20 *		0.20	0.045	mg/Kg	☼	11/16/17 07:12	11/17/17 02:14	1
2-Methylnaphthalene	<0.082		0.082	0.0074	mg/Kg	☼	11/16/17 07:12	11/17/17 02:14	1
2-Methylphenol	<0.20		0.20	0.065	mg/Kg	☼	11/16/17 07:12	11/17/17 02:14	1
3 & 4 Methylphenol	<0.20		0.20	0.068	mg/Kg	☼	11/16/17 07:12	11/17/17 02:14	1
Naphthalene	<0.040		0.040	0.0062	mg/Kg	☼	11/16/17 07:12	11/17/17 02:14	1
2-Nitroaniline	<0.20		0.20	0.054	mg/Kg	☼	11/16/17 07:12	11/17/17 02:14	1
3-Nitroaniline	<0.40		0.40	0.13	mg/Kg	☼	11/16/17 07:12	11/17/17 02:14	1
4-Nitroaniline	<0.40		0.40	0.17	mg/Kg	☼	11/16/17 07:12	11/17/17 02:14	1
Nitrobenzene	<0.040		0.040	0.010	mg/Kg	☼	11/16/17 07:12	11/17/17 02:14	1
2-Nitrophenol	<0.40		0.40	0.096	mg/Kg	☼	11/16/17 07:12	11/17/17 02:14	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137078-1

Client Sample ID: 2696V-61-B09 (0-5)

Lab Sample ID: 500-137078-13

Date Collected: 11/09/17 09:20

Matrix: Solid

Date Received: 11/09/17 17:00

Percent Solids: 81.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Nitrophenol	<0.82		0.82	0.39	mg/Kg	☼	11/16/17 07:12	11/17/17 02:14	1
N-Nitrosodi-n-propylamine	<0.082		0.082	0.049	mg/Kg	☼	11/16/17 07:12	11/17/17 02:14	1
N-Nitrosodiphenylamine	<0.20		0.20	0.048	mg/Kg	☼	11/16/17 07:12	11/17/17 02:14	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.047	mg/Kg	☼	11/16/17 07:12	11/17/17 02:14	1
Pentachlorophenol	<0.82		0.82	0.65	mg/Kg	☼	11/16/17 07:12	11/17/17 02:14	1
Phenanthrene	0.11		0.040	0.0056	mg/Kg	☼	11/16/17 07:12	11/17/17 02:14	1
Phenol	<0.20		0.20	0.090	mg/Kg	☼	11/16/17 07:12	11/17/17 02:14	1
Pyrene	0.16		0.040	0.0080	mg/Kg	☼	11/16/17 07:12	11/17/17 02:14	1
1,2,4-Trichlorobenzene	<0.20		0.20	0.044	mg/Kg	☼	11/16/17 07:12	11/17/17 02:14	1
2,4,5-Trichlorophenol	<0.40		0.40	0.092	mg/Kg	☼	11/16/17 07:12	11/17/17 02:14	1
2,4,6-Trichlorophenol	<0.40		0.40	0.14	mg/Kg	☼	11/16/17 07:12	11/17/17 02:14	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	87		44 - 121	11/16/17 07:12	11/17/17 02:14	1
2-Fluorophenol	93		46 - 133	11/16/17 07:12	11/17/17 02:14	1
Nitrobenzene-d5	80		41 - 120	11/16/17 07:12	11/17/17 02:14	1
Phenol-d5	89		46 - 125	11/16/17 07:12	11/17/17 02:14	1
Terphenyl-d14	77		35 - 160	11/16/17 07:12	11/17/17 02:14	1
2,4,6-Tribromophenol	69		25 - 139	11/16/17 07:12	11/17/17 02:14	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.36	J	1.1	0.22	mg/Kg	☼	11/11/17 13:26	11/13/17 20:06	1
Arsenic	9.7		0.57	0.19	mg/Kg	☼	11/11/17 13:26	11/13/17 20:06	1
Barium	90		0.57	0.065	mg/Kg	☼	11/11/17 13:26	11/13/17 20:06	1
Beryllium	1.7		0.23	0.053	mg/Kg	☼	11/11/17 13:26	11/13/17 20:06	1
Cadmium	0.21	B	0.11	0.021	mg/Kg	☼	11/11/17 13:26	11/13/17 20:06	1
Chromium	14		0.57	0.28	mg/Kg	☼	11/11/17 13:26	11/13/17 20:06	1
Cobalt	12		0.29	0.075	mg/Kg	☼	11/11/17 13:26	11/13/17 20:06	1
Copper	20		0.57	0.16	mg/Kg	☼	11/11/17 13:26	11/15/17 15:44	1
Iron	19000		11	5.9	mg/Kg	☼	11/11/17 13:26	11/13/17 20:06	1
Lead	20		0.29	0.13	mg/Kg	☼	11/11/17 13:26	11/13/17 20:06	1
Magnesium	14000	B	5.7	2.8	mg/Kg	☼	11/11/17 13:26	11/13/17 20:06	1
Calcium	30000	B	11	1.9	mg/Kg	☼	11/11/17 13:26	11/13/17 20:06	1
Manganese	550		0.57	0.083	mg/Kg	☼	11/11/17 13:26	11/13/17 20:06	1
Nickel	29		0.57	0.17	mg/Kg	☼	11/11/17 13:26	11/13/17 20:06	1
Selenium	0.71	B	0.57	0.34	mg/Kg	☼	11/11/17 13:26	11/13/17 20:06	1
Silver	<0.29		0.29	0.074	mg/Kg	☼	11/11/17 13:26	11/13/17 20:06	1
Thallium	<0.57		0.57	0.28	mg/Kg	☼	11/11/17 13:26	11/13/17 20:06	1
Vanadium	20		0.29	0.067	mg/Kg	☼	11/11/17 13:26	11/13/17 20:06	1
Zinc	65		1.1	0.50	mg/Kg	☼	11/11/17 13:26	11/13/17 20:06	1
Potassium	1700		29	10	mg/Kg	☼	11/11/17 13:26	11/13/17 20:06	1
Sodium	820		57	8.4	mg/Kg	☼	11/11/17 13:26	11/13/17 20:06	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.050		0.050	0.010	mg/L		11/15/17 09:19	11/15/17 17:11	1
Barium	0.39	J	0.50	0.050	mg/L		11/15/17 09:19	11/15/17 17:11	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		11/15/17 09:19	11/15/17 17:11	1
Cadmium	0.0023	J	0.0050	0.0020	mg/L		11/15/17 09:19	11/15/17 17:11	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137078-1

Client Sample ID: 2696V-61-B09 (0-5)

Lab Sample ID: 500-137078-13

Date Collected: 11/09/17 09:20

Matrix: Solid

Date Received: 11/09/17 17:00

Percent Solids: 81.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	320		5.0	0.50	mg/L		11/15/17 09:19	11/15/17 17:11	1
Chromium	<0.025		0.025	0.010	mg/L		11/15/17 09:19	11/15/17 17:11	1
Cobalt	0.022	J	0.025	0.010	mg/L		11/15/17 09:19	11/15/17 17:11	1
Copper	0.019	J	0.025	0.010	mg/L		11/15/17 09:19	11/15/17 17:11	1
Iron	<0.40		0.40	0.20	mg/L		11/15/17 09:19	11/15/17 17:11	1
Lead	<0.0075		0.0075	0.0075	mg/L		11/15/17 09:19	11/15/17 17:11	1
Magnesium	110		2.5	0.50	mg/L		11/15/17 09:19	11/15/17 17:11	1
Manganese	9.8		0.025	0.010	mg/L		11/15/17 09:19	11/15/17 17:11	1
Nickel	0.027		0.025	0.010	mg/L		11/15/17 09:19	11/15/17 17:11	1
Potassium	4.5		2.5	0.50	mg/L		11/15/17 09:19	11/15/17 17:11	1
Selenium	<0.050		0.050	0.020	mg/L		11/15/17 09:19	11/15/17 17:11	1
Silver	<0.025		0.025	0.010	mg/L		11/15/17 09:19	11/15/17 17:11	1
Vanadium	<0.025		0.025	0.010	mg/L		11/15/17 09:19	11/15/17 17:11	1
Zinc	<0.50		0.50	0.020	mg/L		11/15/17 09:19	11/15/17 17:11	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		11/15/17 08:20	11/17/17 01:01	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		11/15/17 09:19	11/16/17 15:52	1
Thallium	<0.0020		0.0020	0.0020	mg/L		11/15/17 09:19	11/16/17 15:52	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		11/17/17 08:10	11/17/17 12:43	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.036	B	0.019	0.0062	mg/Kg	☼	11/13/17 13:20	11/17/17 10:07	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.49		0.49	0.17	mg/Kg	☼	11/19/17 10:30	11/19/17 14:40	1
pH	8.7		0.20	0.20	SU			11/18/17 11:29	1

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137078-1

Client Sample ID: 2696V-61-B10 (0-5)

Lab Sample ID: 500-137078-14

Date Collected: 11/09/17 09:00

Matrix: Solid

Date Received: 11/09/17 17:00

Percent Solids: 85.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	0.053		0.016	0.0071	mg/Kg	☼	11/10/17 18:28	11/15/17 18:09	1
Benzene	<0.0016	*	0.0016	0.00042	mg/Kg	☼	11/10/17 18:28	11/15/17 18:09	1
Bromodichloromethane	<0.0016		0.0016	0.00033	mg/Kg	☼	11/10/17 18:28	11/15/17 18:09	1
Bromoform	<0.0016		0.0016	0.00048	mg/Kg	☼	11/10/17 18:28	11/15/17 18:09	1
Bromomethane	<0.0041		0.0041	0.0015	mg/Kg	☼	11/10/17 18:28	11/15/17 18:09	1
2-Butanone (MEK)	<0.0041	*	0.0041	0.0018	mg/Kg	☼	11/10/17 18:28	11/15/17 18:09	1
Carbon disulfide	<0.0041		0.0041	0.00085	mg/Kg	☼	11/10/17 18:28	11/15/17 18:09	1
Carbon tetrachloride	<0.0016		0.0016	0.00047	mg/Kg	☼	11/10/17 18:28	11/15/17 18:09	1
Chlorobenzene	<0.0016		0.0016	0.00060	mg/Kg	☼	11/10/17 18:28	11/15/17 18:09	1
Chloroethane	<0.0041		0.0041	0.0012	mg/Kg	☼	11/10/17 18:28	11/15/17 18:09	1
Chloroform	<0.0016		0.0016	0.00057	mg/Kg	☼	11/10/17 18:28	11/15/17 18:09	1
Chloromethane	<0.0041		0.0041	0.0016	mg/Kg	☼	11/10/17 18:28	11/15/17 18:09	1
cis-1,2-Dichloroethene	<0.0016		0.0016	0.00046	mg/Kg	☼	11/10/17 18:28	11/15/17 18:09	1
cis-1,3-Dichloropropene	<0.0016		0.0016	0.00049	mg/Kg	☼	11/10/17 18:28	11/15/17 18:09	1
Dibromochloromethane	<0.0016		0.0016	0.00053	mg/Kg	☼	11/10/17 18:28	11/15/17 18:09	1
1,1-Dichloroethane	<0.0016		0.0016	0.00056	mg/Kg	☼	11/10/17 18:28	11/15/17 18:09	1
1,2-Dichloroethane	<0.0041		0.0041	0.0013	mg/Kg	☼	11/10/17 18:28	11/15/17 18:09	1
1,1-Dichloroethene	<0.0016		0.0016	0.00056	mg/Kg	☼	11/10/17 18:28	11/15/17 18:09	1
1,2-Dichloropropane	<0.0016		0.0016	0.00042	mg/Kg	☼	11/10/17 18:28	11/15/17 18:09	1
1,3-Dichloropropene, Total	<0.0016		0.0016	0.00057	mg/Kg	☼	11/10/17 18:28	11/15/17 18:09	1
Ethylbenzene	<0.0016		0.0016	0.00078	mg/Kg	☼	11/10/17 18:28	11/15/17 18:09	1
2-Hexanone	<0.0041		0.0041	0.0013	mg/Kg	☼	11/10/17 18:28	11/15/17 18:09	1
Methylene Chloride	<0.0041		0.0041	0.0016	mg/Kg	☼	11/10/17 18:28	11/15/17 18:09	1
4-Methyl-2-pentanone (MIBK)	<0.0041		0.0041	0.0012	mg/Kg	☼	11/10/17 18:28	11/15/17 18:09	1
Methyl tert-butyl ether	<0.0016		0.0016	0.00048	mg/Kg	☼	11/10/17 18:28	11/15/17 18:09	1
Styrene	<0.0016		0.0016	0.00049	mg/Kg	☼	11/10/17 18:28	11/15/17 18:09	1
1,1,2,2-Tetrachloroethane	<0.0016		0.0016	0.00052	mg/Kg	☼	11/10/17 18:28	11/15/17 18:09	1
Tetrachloroethene	<0.0016		0.0016	0.00055	mg/Kg	☼	11/10/17 18:28	11/15/17 18:09	1
Toluene	<0.0016		0.0016	0.00041	mg/Kg	☼	11/10/17 18:28	11/15/17 18:09	1
trans-1,2-Dichloroethene	<0.0016		0.0016	0.00072	mg/Kg	☼	11/10/17 18:28	11/15/17 18:09	1
trans-1,3-Dichloropropene	<0.0016		0.0016	0.00057	mg/Kg	☼	11/10/17 18:28	11/15/17 18:09	1
1,1,1-Trichloroethane	<0.0016		0.0016	0.00055	mg/Kg	☼	11/10/17 18:28	11/15/17 18:09	1
1,1,2-Trichloroethane	<0.0016		0.0016	0.00070	mg/Kg	☼	11/10/17 18:28	11/15/17 18:09	1
Trichloroethene	<0.0016		0.0016	0.00055	mg/Kg	☼	11/10/17 18:28	11/15/17 18:09	1
Vinyl acetate	<0.0041		0.0041	0.0014	mg/Kg	☼	11/10/17 18:28	11/15/17 18:09	1
Vinyl chloride	<0.0016		0.0016	0.00072	mg/Kg	☼	11/10/17 18:28	11/15/17 18:09	1
Xylenes, Total	<0.0033		0.0033	0.00052	mg/Kg	☼	11/10/17 18:28	11/15/17 18:09	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	91		75 - 131	11/10/17 18:28	11/15/17 18:09	1
Dibromofluoromethane	80		75 - 126	11/10/17 18:28	11/15/17 18:09	1
1,2-Dichloroethane-d4 (Surr)	92		70 - 134	11/10/17 18:28	11/15/17 18:09	1
Toluene-d8 (Surr)	96		75 - 124	11/10/17 18:28	11/15/17 18:09	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.038		0.038	0.0069	mg/Kg	☼	11/16/17 07:12	11/17/17 02:41	1
Acenaphthylene	<0.038		0.038	0.0050	mg/Kg	☼	11/16/17 07:12	11/17/17 02:41	1
Anthracene	<0.038		0.038	0.0064	mg/Kg	☼	11/16/17 07:12	11/17/17 02:41	1
Benzo[a]anthracene	0.021	J	0.038	0.0051	mg/Kg	☼	11/16/17 07:12	11/17/17 02:41	1

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Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137078-1

Client Sample ID: 2696V-61-B10 (0-5)

Lab Sample ID: 500-137078-14

Date Collected: 11/09/17 09:00

Matrix: Solid

Date Received: 11/09/17 17:00

Percent Solids: 85.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	0.028	J	0.038	0.0074	mg/Kg	☼	11/16/17 07:12	11/17/17 02:41	1
Benzo[b]fluoranthene	0.043		0.038	0.0082	mg/Kg	☼	11/16/17 07:12	11/17/17 02:41	1
Benzo[g,h,i]perylene	0.017	J	0.038	0.012	mg/Kg	☼	11/16/17 07:12	11/17/17 02:41	1
Benzo[k]fluoranthene	0.025	J	0.038	0.011	mg/Kg	☼	11/16/17 07:12	11/17/17 02:41	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.039	mg/Kg	☼	11/16/17 07:12	11/17/17 02:41	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.057	mg/Kg	☼	11/16/17 07:12	11/17/17 02:41	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.070	mg/Kg	☼	11/16/17 07:12	11/17/17 02:41	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.050	mg/Kg	☼	11/16/17 07:12	11/17/17 02:41	1
Butyl benzyl phthalate	<0.19		0.19	0.073	mg/Kg	☼	11/16/17 07:12	11/17/17 02:41	1
Carbazole	<0.19		0.19	0.095	mg/Kg	☼	11/16/17 07:12	11/17/17 02:41	1
4-Chloroaniline	<0.77		0.77	0.18	mg/Kg	☼	11/16/17 07:12	11/17/17 02:41	1
4-Chloro-3-methylphenol	<0.38		0.38	0.13	mg/Kg	☼	11/16/17 07:12	11/17/17 02:41	1
2-Chloronaphthalene	<0.19		0.19	0.042	mg/Kg	☼	11/16/17 07:12	11/17/17 02:41	1
2-Chlorophenol	<0.19		0.19	0.065	mg/Kg	☼	11/16/17 07:12	11/17/17 02:41	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.045	mg/Kg	☼	11/16/17 07:12	11/17/17 02:41	1
Chrysene	0.029	J	0.038	0.010	mg/Kg	☼	11/16/17 07:12	11/17/17 02:41	1
Dibenz(a,h)anthracene	<0.038		0.038	0.0074	mg/Kg	☼	11/16/17 07:12	11/17/17 02:41	1
Dibenzofuran	<0.19		0.19	0.045	mg/Kg	☼	11/16/17 07:12	11/17/17 02:41	1
1,2-Dichlorobenzene	<0.19		0.19	0.046	mg/Kg	☼	11/16/17 07:12	11/17/17 02:41	1
1,3-Dichlorobenzene	<0.19		0.19	0.043	mg/Kg	☼	11/16/17 07:12	11/17/17 02:41	1
1,4-Dichlorobenzene	<0.19		0.19	0.049	mg/Kg	☼	11/16/17 07:12	11/17/17 02:41	1
3,3'-Dichlorobenzidine	<0.19	*	0.19	0.053	mg/Kg	☼	11/16/17 07:12	11/17/17 02:41	1
2,4-Dichlorophenol	<0.38		0.38	0.091	mg/Kg	☼	11/16/17 07:12	11/17/17 02:41	1
Diethyl phthalate	<0.19		0.19	0.065	mg/Kg	☼	11/16/17 07:12	11/17/17 02:41	1
2,4-Dimethylphenol	<0.38		0.38	0.14	mg/Kg	☼	11/16/17 07:12	11/17/17 02:41	1
Dimethyl phthalate	<0.19		0.19	0.050	mg/Kg	☼	11/16/17 07:12	11/17/17 02:41	1
Di-n-butyl phthalate	<0.19		0.19	0.058	mg/Kg	☼	11/16/17 07:12	11/17/17 02:41	1
4,6-Dinitro-2-methylphenol	<0.77		0.77	0.31	mg/Kg	☼	11/16/17 07:12	11/17/17 02:41	1
2,4-Dinitrophenol	<0.77		0.77	0.67	mg/Kg	☼	11/16/17 07:12	11/17/17 02:41	1
2,4-Dinitrotoluene	<0.19		0.19	0.061	mg/Kg	☼	11/16/17 07:12	11/17/17 02:41	1
2,6-Dinitrotoluene	<0.19		0.19	0.075	mg/Kg	☼	11/16/17 07:12	11/17/17 02:41	1
Di-n-octyl phthalate	<0.19		0.19	0.062	mg/Kg	☼	11/16/17 07:12	11/17/17 02:41	1
Fluoranthene	0.057		0.038	0.0071	mg/Kg	☼	11/16/17 07:12	11/17/17 02:41	1
Fluorene	<0.038		0.038	0.0054	mg/Kg	☼	11/16/17 07:12	11/17/17 02:41	1
Hexachlorobenzene	<0.077		0.077	0.0088	mg/Kg	☼	11/16/17 07:12	11/17/17 02:41	1
Hexachlorobutadiene	<0.19		0.19	0.060	mg/Kg	☼	11/16/17 07:12	11/17/17 02:41	1
Hexachlorocyclopentadiene	<0.77		0.77	0.22	mg/Kg	☼	11/16/17 07:12	11/17/17 02:41	1
Hexachloroethane	<0.19		0.19	0.058	mg/Kg	☼	11/16/17 07:12	11/17/17 02:41	1
Indeno[1,2,3-cd]pyrene	<0.038		0.038	0.0099	mg/Kg	☼	11/16/17 07:12	11/17/17 02:41	1
Isophorone	<0.19	*	0.19	0.043	mg/Kg	☼	11/16/17 07:12	11/17/17 02:41	1
2-Methylnaphthalene	<0.077		0.077	0.0070	mg/Kg	☼	11/16/17 07:12	11/17/17 02:41	1
2-Methylphenol	<0.19		0.19	0.061	mg/Kg	☼	11/16/17 07:12	11/17/17 02:41	1
3 & 4 Methylphenol	<0.19		0.19	0.064	mg/Kg	☼	11/16/17 07:12	11/17/17 02:41	1
Naphthalene	<0.038		0.038	0.0059	mg/Kg	☼	11/16/17 07:12	11/17/17 02:41	1
2-Nitroaniline	<0.19		0.19	0.051	mg/Kg	☼	11/16/17 07:12	11/17/17 02:41	1
3-Nitroaniline	<0.38		0.38	0.12	mg/Kg	☼	11/16/17 07:12	11/17/17 02:41	1
4-Nitroaniline	<0.38		0.38	0.16	mg/Kg	☼	11/16/17 07:12	11/17/17 02:41	1
Nitrobenzene	<0.038		0.038	0.0095	mg/Kg	☼	11/16/17 07:12	11/17/17 02:41	1
2-Nitrophenol	<0.38		0.38	0.090	mg/Kg	☼	11/16/17 07:12	11/17/17 02:41	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137078-1

Client Sample ID: 2696V-61-B10 (0-5)

Lab Sample ID: 500-137078-14

Date Collected: 11/09/17 09:00

Matrix: Solid

Date Received: 11/09/17 17:00

Percent Solids: 85.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Nitrophenol	<0.77		0.77	0.36	mg/Kg	☼	11/16/17 07:12	11/17/17 02:41	1
N-Nitrosodi-n-propylamine	<0.077		0.077	0.047	mg/Kg	☼	11/16/17 07:12	11/17/17 02:41	1
N-Nitrosodiphenylamine	<0.19		0.19	0.045	mg/Kg	☼	11/16/17 07:12	11/17/17 02:41	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.044	mg/Kg	☼	11/16/17 07:12	11/17/17 02:41	1
Pentachlorophenol	<0.77		0.77	0.61	mg/Kg	☼	11/16/17 07:12	11/17/17 02:41	1
Phenanthrene	0.020	J	0.038	0.0053	mg/Kg	☼	11/16/17 07:12	11/17/17 02:41	1
Phenol	<0.19		0.19	0.085	mg/Kg	☼	11/16/17 07:12	11/17/17 02:41	1
Pyrene	0.041		0.038	0.0076	mg/Kg	☼	11/16/17 07:12	11/17/17 02:41	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.041	mg/Kg	☼	11/16/17 07:12	11/17/17 02:41	1
2,4,5-Trichlorophenol	<0.38		0.38	0.087	mg/Kg	☼	11/16/17 07:12	11/17/17 02:41	1
2,4,6-Trichlorophenol	<0.38		0.38	0.13	mg/Kg	☼	11/16/17 07:12	11/17/17 02:41	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	87		44 - 121	11/16/17 07:12	11/17/17 02:41	1
2-Fluorophenol	88		46 - 133	11/16/17 07:12	11/17/17 02:41	1
Nitrobenzene-d5	78		41 - 120	11/16/17 07:12	11/17/17 02:41	1
Phenol-d5	85		46 - 125	11/16/17 07:12	11/17/17 02:41	1
Terphenyl-d14	76		35 - 160	11/16/17 07:12	11/17/17 02:41	1
2,4,6-Tribromophenol	60		25 - 139	11/16/17 07:12	11/17/17 02:41	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.53	J	1.1	0.22	mg/Kg	☼	11/11/17 13:26	11/13/17 20:10	1
Arsenic	5.6		0.57	0.19	mg/Kg	☼	11/11/17 13:26	11/13/17 20:10	1
Barium	77		0.57	0.065	mg/Kg	☼	11/11/17 13:26	11/13/17 20:10	1
Beryllium	0.78		0.23	0.053	mg/Kg	☼	11/11/17 13:26	11/13/17 20:10	1
Cadmium	0.24	B	0.11	0.020	mg/Kg	☼	11/11/17 13:26	11/13/17 20:10	1
Chromium	14		0.57	0.28	mg/Kg	☼	11/11/17 13:26	11/13/17 20:10	1
Cobalt	7.4		0.28	0.074	mg/Kg	☼	11/11/17 13:26	11/13/17 20:10	1
Copper	24		2.8	0.79	mg/Kg	☼	11/11/17 13:26	11/14/17 17:58	5
Iron	12000		11	5.9	mg/Kg	☼	11/11/17 13:26	11/13/17 20:10	1
Lead	34		0.28	0.13	mg/Kg	☼	11/11/17 13:26	11/13/17 20:10	1
Magnesium	24000	B	5.7	2.8	mg/Kg	☼	11/11/17 13:26	11/13/17 20:10	1
Calcium	71000	B	57	9.6	mg/Kg	☼	11/11/17 13:26	11/14/17 17:58	5
Manganese	330		0.57	0.082	mg/Kg	☼	11/11/17 13:26	11/13/17 20:10	1
Nickel	18		0.57	0.17	mg/Kg	☼	11/11/17 13:26	11/13/17 20:10	1
Selenium	0.41	J B	0.57	0.33	mg/Kg	☼	11/11/17 13:26	11/13/17 20:10	1
Silver	<0.28		0.28	0.073	mg/Kg	☼	11/11/17 13:26	11/13/17 20:10	1
Thallium	<0.57		0.57	0.28	mg/Kg	☼	11/11/17 13:26	11/13/17 20:10	1
Vanadium	18		0.28	0.067	mg/Kg	☼	11/11/17 13:26	11/13/17 20:10	1
Zinc	69		1.1	0.50	mg/Kg	☼	11/11/17 13:26	11/13/17 20:10	1
Potassium	1300		28	10	mg/Kg	☼	11/11/17 13:26	11/13/17 20:10	1
Sodium	770		57	8.4	mg/Kg	☼	11/11/17 13:26	11/13/17 20:10	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.050		0.050	0.010	mg/L		11/15/17 09:19	11/15/17 17:15	1
Barium	0.46	J	0.50	0.050	mg/L		11/15/17 09:19	11/15/17 17:15	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		11/15/17 09:19	11/15/17 17:15	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		11/15/17 09:19	11/15/17 17:15	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
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TestAmerica Job ID: 500-137078-1

Client Sample ID: 2696V-61-B10 (0-5)

Lab Sample ID: 500-137078-14

Date Collected: 11/09/17 09:00

Matrix: Solid

Date Received: 11/09/17 17:00

Percent Solids: 85.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	720		50	5.0	mg/L		11/15/17 09:19	11/16/17 13:18	10
Chromium	<0.025		0.025	0.010	mg/L		11/15/17 09:19	11/15/17 17:15	1
Cobalt	<0.025		0.025	0.010	mg/L		11/15/17 09:19	11/15/17 17:15	1
Copper	0.11		0.025	0.010	mg/L		11/15/17 09:19	11/15/17 17:15	1
Iron	<0.40		0.40	0.20	mg/L		11/15/17 09:19	11/15/17 17:15	1
Lead	<0.0075		0.0075	0.0075	mg/L		11/15/17 09:19	11/15/17 17:15	1
Magnesium	30		2.5	0.50	mg/L		11/15/17 09:19	11/15/17 17:15	1
Manganese	2.2		0.025	0.010	mg/L		11/15/17 09:19	11/15/17 17:15	1
Nickel	<0.025		0.025	0.010	mg/L		11/15/17 09:19	11/15/17 17:15	1
Potassium	4.8		2.5	0.50	mg/L		11/15/17 09:19	11/15/17 17:15	1
Selenium	<0.050		0.050	0.020	mg/L		11/15/17 09:19	11/15/17 17:15	1
Silver	<0.025		0.025	0.010	mg/L		11/15/17 09:19	11/15/17 17:15	1
Vanadium	<0.025		0.025	0.010	mg/L		11/15/17 09:19	11/15/17 17:15	1
Zinc	0.029	J	0.50	0.020	mg/L		11/15/17 09:19	11/15/17 17:15	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.99		0.025	0.010	mg/L		11/15/17 08:20	11/17/17 01:05	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		11/15/17 09:19	11/16/17 15:56	1
Thallium	<0.0020		0.0020	0.0020	mg/L		11/15/17 09:19	11/16/17 15:56	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		11/17/17 08:10	11/17/17 12:45	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.037	B	0.017	0.0057	mg/Kg	☼	11/13/17 13:20	11/17/17 10:09	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.56		0.56	0.19	mg/Kg	☼	11/19/17 10:30	11/19/17 14:40	1
pH	9.2		0.20	0.20	SU			11/18/17 11:31	1

Client Sample Results

Client: Terracon Consulting Eng & Scientists
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TestAmerica Job ID: 500-137078-1

Client Sample ID: 2696V-61-B11 (0-5)

Lab Sample ID: 500-137078-15

Date Collected: 11/09/17 08:40

Matrix: Solid

Date Received: 11/09/17 17:00

Percent Solids: 76.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	0.031		0.018	0.0078	mg/Kg	☼	11/10/17 18:28	11/15/17 18:35	1
Benzene	<0.0018	*	0.0018	0.00046	mg/Kg	☼	11/10/17 18:28	11/15/17 18:35	1
Bromodichloromethane	<0.0018		0.0018	0.00037	mg/Kg	☼	11/10/17 18:28	11/15/17 18:35	1
Bromoform	<0.0018		0.0018	0.00052	mg/Kg	☼	11/10/17 18:28	11/15/17 18:35	1
Bromomethane	<0.0045		0.0045	0.0017	mg/Kg	☼	11/10/17 18:28	11/15/17 18:35	1
2-Butanone (MEK)	<0.0045	*	0.0045	0.0020	mg/Kg	☼	11/10/17 18:28	11/15/17 18:35	1
Carbon disulfide	<0.0045		0.0045	0.00093	mg/Kg	☼	11/10/17 18:28	11/15/17 18:35	1
Carbon tetrachloride	<0.0018		0.0018	0.00052	mg/Kg	☼	11/10/17 18:28	11/15/17 18:35	1
Chlorobenzene	<0.0018		0.0018	0.00066	mg/Kg	☼	11/10/17 18:28	11/15/17 18:35	1
Chloroethane	<0.0045		0.0045	0.0013	mg/Kg	☼	11/10/17 18:28	11/15/17 18:35	1
Chloroform	<0.0018		0.0018	0.00062	mg/Kg	☼	11/10/17 18:28	11/15/17 18:35	1
Chloromethane	<0.0045		0.0045	0.0018	mg/Kg	☼	11/10/17 18:28	11/15/17 18:35	1
cis-1,2-Dichloroethene	<0.0018		0.0018	0.00050	mg/Kg	☼	11/10/17 18:28	11/15/17 18:35	1
cis-1,3-Dichloropropene	<0.0018		0.0018	0.00054	mg/Kg	☼	11/10/17 18:28	11/15/17 18:35	1
Dibromochloromethane	<0.0018		0.0018	0.00059	mg/Kg	☼	11/10/17 18:28	11/15/17 18:35	1
1,1-Dichloroethane	<0.0018		0.0018	0.00061	mg/Kg	☼	11/10/17 18:28	11/15/17 18:35	1
1,2-Dichloroethane	<0.0045		0.0045	0.0014	mg/Kg	☼	11/10/17 18:28	11/15/17 18:35	1
1,1-Dichloroethene	<0.0018		0.0018	0.00062	mg/Kg	☼	11/10/17 18:28	11/15/17 18:35	1
1,2-Dichloropropane	<0.0018		0.0018	0.00046	mg/Kg	☼	11/10/17 18:28	11/15/17 18:35	1
1,3-Dichloropropane, Total	<0.0018		0.0018	0.00063	mg/Kg	☼	11/10/17 18:28	11/15/17 18:35	1
Ethylbenzene	<0.0018		0.0018	0.00086	mg/Kg	☼	11/10/17 18:28	11/15/17 18:35	1
2-Hexanone	<0.0045		0.0045	0.0014	mg/Kg	☼	11/10/17 18:28	11/15/17 18:35	1
Methylene Chloride	<0.0045		0.0045	0.0018	mg/Kg	☼	11/10/17 18:28	11/15/17 18:35	1
4-Methyl-2-pentanone (MIBK)	<0.0045		0.0045	0.0013	mg/Kg	☼	11/10/17 18:28	11/15/17 18:35	1
Methyl tert-butyl ether	<0.0018		0.0018	0.00053	mg/Kg	☼	11/10/17 18:28	11/15/17 18:35	1
Styrene	<0.0018		0.0018	0.00054	mg/Kg	☼	11/10/17 18:28	11/15/17 18:35	1
1,1,2,2-Tetrachloroethane	<0.0018		0.0018	0.00057	mg/Kg	☼	11/10/17 18:28	11/15/17 18:35	1
Tetrachloroethene	<0.0018		0.0018	0.00061	mg/Kg	☼	11/10/17 18:28	11/15/17 18:35	1
Toluene	<0.0018		0.0018	0.00045	mg/Kg	☼	11/10/17 18:28	11/15/17 18:35	1
trans-1,2-Dichloroethene	<0.0018		0.0018	0.00079	mg/Kg	☼	11/10/17 18:28	11/15/17 18:35	1
trans-1,3-Dichloropropene	<0.0018		0.0018	0.00063	mg/Kg	☼	11/10/17 18:28	11/15/17 18:35	1
1,1,1-Trichloroethane	<0.0018		0.0018	0.00060	mg/Kg	☼	11/10/17 18:28	11/15/17 18:35	1
1,1,2-Trichloroethane	<0.0018		0.0018	0.00077	mg/Kg	☼	11/10/17 18:28	11/15/17 18:35	1
Trichloroethene	<0.0018		0.0018	0.00061	mg/Kg	☼	11/10/17 18:28	11/15/17 18:35	1
Vinyl acetate	<0.0045		0.0045	0.0016	mg/Kg	☼	11/10/17 18:28	11/15/17 18:35	1
Vinyl chloride	<0.0018		0.0018	0.00079	mg/Kg	☼	11/10/17 18:28	11/15/17 18:35	1
Xylenes, Total	<0.0036		0.0036	0.00057	mg/Kg	☼	11/10/17 18:28	11/15/17 18:35	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	89		75 - 131	11/10/17 18:28	11/15/17 18:35	1
Dibromofluoromethane	88		75 - 126	11/10/17 18:28	11/15/17 18:35	1
1,2-Dichloroethane-d4 (Surr)	95		70 - 134	11/10/17 18:28	11/15/17 18:35	1
Toluene-d8 (Surr)	95		75 - 124	11/10/17 18:28	11/15/17 18:35	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.041		0.041	0.0074	mg/Kg	☼	11/16/17 07:12	11/17/17 03:07	1
Acenaphthylene	<0.041		0.041	0.0054	mg/Kg	☼	11/16/17 07:12	11/17/17 03:07	1
Anthracene	<0.041		0.041	0.0069	mg/Kg	☼	11/16/17 07:12	11/17/17 03:07	1
Benzo[a]anthracene	0.011	J	0.041	0.0055	mg/Kg	☼	11/16/17 07:12	11/17/17 03:07	1

TestAmerica Chicago

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Lab Sample ID: 500-137078-15

Date Collected: 11/09/17 08:40

Matrix: Solid

Date Received: 11/09/17 17:00

Percent Solids: 76.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	0.016	J	0.041	0.0080	mg/Kg	☼	11/16/17 07:12	11/17/17 03:07	1
Benzo[b]fluoranthene	0.030	J	0.041	0.0089	mg/Kg	☼	11/16/17 07:12	11/17/17 03:07	1
Benzo[g,h,i]perylene	<0.041		0.041	0.013	mg/Kg	☼	11/16/17 07:12	11/17/17 03:07	1
Benzo[k]fluoranthene	<0.041		0.041	0.012	mg/Kg	☼	11/16/17 07:12	11/17/17 03:07	1
Bis(2-chloroethoxy)methane	<0.21		0.21	0.042	mg/Kg	☼	11/16/17 07:12	11/17/17 03:07	1
Bis(2-chloroethyl)ether	<0.21		0.21	0.062	mg/Kg	☼	11/16/17 07:12	11/17/17 03:07	1
Bis(2-ethylhexyl) phthalate	<0.21		0.21	0.075	mg/Kg	☼	11/16/17 07:12	11/17/17 03:07	1
4-Bromophenyl phenyl ether	<0.21		0.21	0.054	mg/Kg	☼	11/16/17 07:12	11/17/17 03:07	1
Butyl benzyl phthalate	<0.21		0.21	0.078	mg/Kg	☼	11/16/17 07:12	11/17/17 03:07	1
Carbazole	<0.21		0.21	0.10	mg/Kg	☼	11/16/17 07:12	11/17/17 03:07	1
4-Chloroaniline	<0.83		0.83	0.19	mg/Kg	☼	11/16/17 07:12	11/17/17 03:07	1
4-Chloro-3-methylphenol	<0.41		0.41	0.14	mg/Kg	☼	11/16/17 07:12	11/17/17 03:07	1
2-Chloronaphthalene	<0.21		0.21	0.045	mg/Kg	☼	11/16/17 07:12	11/17/17 03:07	1
2-Chlorophenol	<0.21		0.21	0.070	mg/Kg	☼	11/16/17 07:12	11/17/17 03:07	1
4-Chlorophenyl phenyl ether	<0.21		0.21	0.048	mg/Kg	☼	11/16/17 07:12	11/17/17 03:07	1
Chrysene	0.019	J	0.041	0.011	mg/Kg	☼	11/16/17 07:12	11/17/17 03:07	1
Dibenz(a,h)anthracene	<0.041		0.041	0.0079	mg/Kg	☼	11/16/17 07:12	11/17/17 03:07	1
Dibenzofuran	<0.21		0.21	0.048	mg/Kg	☼	11/16/17 07:12	11/17/17 03:07	1
1,2-Dichlorobenzene	<0.21		0.21	0.049	mg/Kg	☼	11/16/17 07:12	11/17/17 03:07	1
1,3-Dichlorobenzene	<0.21		0.21	0.046	mg/Kg	☼	11/16/17 07:12	11/17/17 03:07	1
1,4-Dichlorobenzene	<0.21		0.21	0.053	mg/Kg	☼	11/16/17 07:12	11/17/17 03:07	1
3,3'-Dichlorobenzidine	<0.21 *		0.21	0.057	mg/Kg	☼	11/16/17 07:12	11/17/17 03:07	1
2,4-Dichlorophenol	<0.41		0.41	0.098	mg/Kg	☼	11/16/17 07:12	11/17/17 03:07	1
Diethyl phthalate	<0.21		0.21	0.070	mg/Kg	☼	11/16/17 07:12	11/17/17 03:07	1
2,4-Dimethylphenol	<0.41		0.41	0.16	mg/Kg	☼	11/16/17 07:12	11/17/17 03:07	1
Dimethyl phthalate	<0.21		0.21	0.054	mg/Kg	☼	11/16/17 07:12	11/17/17 03:07	1
Di-n-butyl phthalate	<0.21		0.21	0.063	mg/Kg	☼	11/16/17 07:12	11/17/17 03:07	1
4,6-Dinitro-2-methylphenol	<0.83		0.83	0.33	mg/Kg	☼	11/16/17 07:12	11/17/17 03:07	1
2,4-Dinitrophenol	<0.83		0.83	0.72	mg/Kg	☼	11/16/17 07:12	11/17/17 03:07	1
2,4-Dinitrotoluene	<0.21		0.21	0.065	mg/Kg	☼	11/16/17 07:12	11/17/17 03:07	1
2,6-Dinitrotoluene	<0.21		0.21	0.081	mg/Kg	☼	11/16/17 07:12	11/17/17 03:07	1
Di-n-octyl phthalate	<0.21		0.21	0.067	mg/Kg	☼	11/16/17 07:12	11/17/17 03:07	1
Fluoranthene	0.031	J	0.041	0.0076	mg/Kg	☼	11/16/17 07:12	11/17/17 03:07	1
Fluorene	<0.041		0.041	0.0058	mg/Kg	☼	11/16/17 07:12	11/17/17 03:07	1
Hexachlorobenzene	<0.083		0.083	0.0095	mg/Kg	☼	11/16/17 07:12	11/17/17 03:07	1
Hexachlorobutadiene	<0.21		0.21	0.065	mg/Kg	☼	11/16/17 07:12	11/17/17 03:07	1
Hexachlorocyclopentadiene	<0.83		0.83	0.24	mg/Kg	☼	11/16/17 07:12	11/17/17 03:07	1
Hexachloroethane	<0.21		0.21	0.062	mg/Kg	☼	11/16/17 07:12	11/17/17 03:07	1
Indeno[1,2,3-cd]pyrene	<0.041		0.041	0.011	mg/Kg	☼	11/16/17 07:12	11/17/17 03:07	1
Isophorone	<0.21 *		0.21	0.046	mg/Kg	☼	11/16/17 07:12	11/17/17 03:07	1
2-Methylnaphthalene	<0.083		0.083	0.0076	mg/Kg	☼	11/16/17 07:12	11/17/17 03:07	1
2-Methylphenol	<0.21		0.21	0.066	mg/Kg	☼	11/16/17 07:12	11/17/17 03:07	1
3 & 4 Methylphenol	<0.21		0.21	0.069	mg/Kg	☼	11/16/17 07:12	11/17/17 03:07	1
Naphthalene	<0.041		0.041	0.0063	mg/Kg	☼	11/16/17 07:12	11/17/17 03:07	1
2-Nitroaniline	<0.21		0.21	0.055	mg/Kg	☼	11/16/17 07:12	11/17/17 03:07	1
3-Nitroaniline	<0.41		0.41	0.13	mg/Kg	☼	11/16/17 07:12	11/17/17 03:07	1
4-Nitroaniline	<0.41		0.41	0.17	mg/Kg	☼	11/16/17 07:12	11/17/17 03:07	1
Nitrobenzene	<0.041		0.041	0.010	mg/Kg	☼	11/16/17 07:12	11/17/17 03:07	1
2-Nitrophenol	<0.41		0.41	0.097	mg/Kg	☼	11/16/17 07:12	11/17/17 03:07	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137078-1

Client Sample ID: 2696V-61-B11 (0-5)

Lab Sample ID: 500-137078-15

Date Collected: 11/09/17 08:40

Matrix: Solid

Date Received: 11/09/17 17:00

Percent Solids: 76.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Nitrophenol	<0.83		0.83	0.39	mg/Kg	☼	11/16/17 07:12	11/17/17 03:07	1
N-Nitrosodi-n-propylamine	<0.083		0.083	0.050	mg/Kg	☼	11/16/17 07:12	11/17/17 03:07	1
N-Nitrosodiphenylamine	<0.21		0.21	0.048	mg/Kg	☼	11/16/17 07:12	11/17/17 03:07	1
2,2'-oxybis[1-chloropropane]	<0.21		0.21	0.048	mg/Kg	☼	11/16/17 07:12	11/17/17 03:07	1
Pentachlorophenol	<0.83		0.83	0.66	mg/Kg	☼	11/16/17 07:12	11/17/17 03:07	1
Phenanthrene	0.016	J	0.041	0.0057	mg/Kg	☼	11/16/17 07:12	11/17/17 03:07	1
Phenol	<0.21		0.21	0.091	mg/Kg	☼	11/16/17 07:12	11/17/17 03:07	1
Pyrene	0.023	J	0.041	0.0082	mg/Kg	☼	11/16/17 07:12	11/17/17 03:07	1
1,2,4-Trichlorobenzene	<0.21		0.21	0.044	mg/Kg	☼	11/16/17 07:12	11/17/17 03:07	1
2,4,5-Trichlorophenol	<0.41		0.41	0.094	mg/Kg	☼	11/16/17 07:12	11/17/17 03:07	1
2,4,6-Trichlorophenol	<0.41		0.41	0.14	mg/Kg	☼	11/16/17 07:12	11/17/17 03:07	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	77		44 - 121				11/16/17 07:12	11/17/17 03:07	1
2-Fluorophenol	78		46 - 133				11/16/17 07:12	11/17/17 03:07	1
Nitrobenzene-d5	69		41 - 120				11/16/17 07:12	11/17/17 03:07	1
Phenol-d5	80		46 - 125				11/16/17 07:12	11/17/17 03:07	1
Terphenyl-d14	71		35 - 160				11/16/17 07:12	11/17/17 03:07	1
2,4,6-Tribromophenol	62		25 - 139				11/16/17 07:12	11/17/17 03:07	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.50	J	1.3	0.25	mg/Kg	☼	11/11/17 13:26	11/13/17 20:14	1
Arsenic	5.9		0.64	0.22	mg/Kg	☼	11/11/17 13:26	11/13/17 20:14	1
Barium	43		0.64	0.073	mg/Kg	☼	11/11/17 13:26	11/13/17 20:14	1
Beryllium	0.56		0.26	0.060	mg/Kg	☼	11/11/17 13:26	11/13/17 20:14	1
Cadmium	0.29	B	0.13	0.023	mg/Kg	☼	11/11/17 13:26	11/13/17 20:14	1
Chromium	11		0.64	0.32	mg/Kg	☼	11/11/17 13:26	11/13/17 20:14	1
Cobalt	8.5		0.32	0.084	mg/Kg	☼	11/11/17 13:26	11/13/17 20:14	1
Copper	30		0.64	0.18	mg/Kg	☼	11/11/17 13:26	11/14/17 18:10	1
Iron	13000		13	6.7	mg/Kg	☼	11/11/17 13:26	11/13/17 20:14	1
Lead	35		0.32	0.15	mg/Kg	☼	11/11/17 13:26	11/13/17 20:14	1
Magnesium	13000	B	6.4	3.2	mg/Kg	☼	11/11/17 13:26	11/13/17 20:14	1
Calcium	23000	B	13	2.2	mg/Kg	☼	11/11/17 13:26	11/13/17 20:14	1
Manganese	170		0.64	0.093	mg/Kg	☼	11/11/17 13:26	11/13/17 20:14	1
Nickel	22		0.64	0.19	mg/Kg	☼	11/11/17 13:26	11/13/17 20:14	1
Selenium	0.41	J B	0.64	0.38	mg/Kg	☼	11/11/17 13:26	11/13/17 20:14	1
Silver	<0.32		0.32	0.083	mg/Kg	☼	11/11/17 13:26	11/13/17 20:14	1
Thallium	<0.64		0.64	0.32	mg/Kg	☼	11/11/17 13:26	11/13/17 20:14	1
Vanadium	16		0.32	0.076	mg/Kg	☼	11/11/17 13:26	11/13/17 20:14	1
Zinc	74		1.3	0.56	mg/Kg	☼	11/11/17 13:26	11/13/17 20:14	1
Potassium	810		32	11	mg/Kg	☼	11/11/17 13:26	11/13/17 20:14	1
Sodium	520		64	9.5	mg/Kg	☼	11/11/17 13:26	11/13/17 20:14	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.011	J	0.050	0.010	mg/L		11/15/17 09:19	11/15/17 17:19	1
Barium	0.28	J	0.50	0.050	mg/L		11/15/17 09:19	11/15/17 17:19	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		11/15/17 09:19	11/15/17 17:19	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		11/15/17 09:19	11/15/17 17:19	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137078-1

Client Sample ID: 2696V-61-B11 (0-5)

Lab Sample ID: 500-137078-15

Date Collected: 11/09/17 08:40

Matrix: Solid

Date Received: 11/09/17 17:00

Percent Solids: 76.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	210		5.0	0.50	mg/L		11/15/17 09:19	11/15/17 17:19	1
Chromium	<0.025		0.025	0.010	mg/L		11/15/17 09:19	11/15/17 17:19	1
Cobalt	0.013	J	0.025	0.010	mg/L		11/15/17 09:19	11/15/17 17:19	1
Copper	0.028		0.025	0.010	mg/L		11/15/17 09:19	11/15/17 17:19	1
Iron	<0.40		0.40	0.20	mg/L		11/15/17 09:19	11/15/17 17:19	1
Lead	<0.0075		0.0075	0.0075	mg/L		11/15/17 09:19	11/15/17 17:19	1
Magnesium	87		2.5	0.50	mg/L		11/15/17 09:19	11/15/17 17:19	1
Manganese	1.9		0.025	0.010	mg/L		11/15/17 09:19	11/15/17 17:19	1
Nickel	0.018	J	0.025	0.010	mg/L		11/15/17 09:19	11/15/17 17:19	1
Potassium	0.63	J	2.5	0.50	mg/L		11/15/17 09:19	11/15/17 17:19	1
Selenium	<0.050		0.050	0.020	mg/L		11/15/17 09:19	11/15/17 17:19	1
Silver	<0.025		0.025	0.010	mg/L		11/15/17 09:19	11/15/17 17:19	1
Vanadium	<0.025		0.025	0.010	mg/L		11/15/17 09:19	11/15/17 17:19	1
Zinc	0.072	J	0.50	0.020	mg/L		11/15/17 09:19	11/15/17 17:19	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.49		0.025	0.010	mg/L		11/15/17 08:20	11/17/17 01:09	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		11/15/17 09:19	11/16/17 16:00	1
Thallium	<0.0020		0.0020	0.0020	mg/L		11/15/17 09:19	11/16/17 16:00	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		11/17/17 08:10	11/17/17 12:46	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.036	B	0.019	0.0064	mg/Kg	☼	11/13/17 13:20	11/17/17 10:19	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.58		0.58	0.20	mg/Kg	☼	11/19/17 10:30	11/19/17 14:41	1
pH	8.8		0.20	0.20	SU			11/18/17 11:33	1

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137078-1

Client Sample ID: 2696V-61-B12 (0-5)

Lab Sample ID: 500-137078-16

Date Collected: 11/09/17 08:30

Matrix: Solid

Date Received: 11/09/17 17:00

Percent Solids: 79.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.019		0.019	0.0084	mg/Kg	☼	11/10/17 18:28	11/16/17 12:12	1
Benzene	<0.0019		0.0019	0.00049	mg/Kg	☼	11/10/17 18:28	11/16/17 12:12	1
Bromodichloromethane	<0.0019		0.0019	0.00039	mg/Kg	☼	11/10/17 18:28	11/16/17 12:12	1
Bromoform	<0.0019		0.0019	0.00057	mg/Kg	☼	11/10/17 18:28	11/16/17 12:12	1
Bromomethane	<0.0048		0.0048	0.0018	mg/Kg	☼	11/10/17 18:28	11/16/17 12:12	1
2-Butanone (MEK)	<0.0048		0.0048	0.0022	mg/Kg	☼	11/10/17 18:28	11/16/17 12:12	1
Carbon disulfide	<0.0048		0.0048	0.0010	mg/Kg	☼	11/10/17 18:28	11/16/17 12:12	1
Carbon tetrachloride	<0.0019 *		0.0019	0.00056	mg/Kg	☼	11/10/17 18:28	11/16/17 12:12	1
Chlorobenzene	<0.0019		0.0019	0.00072	mg/Kg	☼	11/10/17 18:28	11/16/17 12:12	1
Chloroethane	<0.0048		0.0048	0.0014	mg/Kg	☼	11/10/17 18:28	11/16/17 12:12	1
Chloroform	<0.0019		0.0019	0.00067	mg/Kg	☼	11/10/17 18:28	11/16/17 12:12	1
Chloromethane	<0.0048 *		0.0048	0.0019	mg/Kg	☼	11/10/17 18:28	11/16/17 12:12	1
cis-1,2-Dichloroethene	<0.0019		0.0019	0.00054	mg/Kg	☼	11/10/17 18:28	11/16/17 12:12	1
cis-1,3-Dichloropropene	<0.0019		0.0019	0.00058	mg/Kg	☼	11/10/17 18:28	11/16/17 12:12	1
Dibromochloromethane	<0.0019		0.0019	0.00063	mg/Kg	☼	11/10/17 18:28	11/16/17 12:12	1
1,1-Dichloroethane	<0.0019		0.0019	0.00066	mg/Kg	☼	11/10/17 18:28	11/16/17 12:12	1
1,2-Dichloroethane	<0.0048		0.0048	0.0015	mg/Kg	☼	11/10/17 18:28	11/16/17 12:12	1
1,1-Dichloroethene	<0.0019		0.0019	0.00067	mg/Kg	☼	11/10/17 18:28	11/16/17 12:12	1
1,2-Dichloropropane	<0.0019		0.0019	0.00050	mg/Kg	☼	11/10/17 18:28	11/16/17 12:12	1
1,3-Dichloropropane, Total	<0.0019		0.0019	0.00068	mg/Kg	☼	11/10/17 18:28	11/16/17 12:12	1
Ethylbenzene	<0.0019		0.0019	0.00093	mg/Kg	☼	11/10/17 18:28	11/16/17 12:12	1
2-Hexanone	<0.0048		0.0048	0.0015	mg/Kg	☼	11/10/17 18:28	11/16/17 12:12	1
Methylene Chloride	<0.0048		0.0048	0.0019	mg/Kg	☼	11/10/17 18:28	11/16/17 12:12	1
4-Methyl-2-pentanone (MIBK)	<0.0048		0.0048	0.0014	mg/Kg	☼	11/10/17 18:28	11/16/17 12:12	1
Methyl tert-butyl ether	<0.0019		0.0019	0.00057	mg/Kg	☼	11/10/17 18:28	11/16/17 12:12	1
Styrene	<0.0019		0.0019	0.00059	mg/Kg	☼	11/10/17 18:28	11/16/17 12:12	1
1,1,2,2-Tetrachloroethane	<0.0019		0.0019	0.00062	mg/Kg	☼	11/10/17 18:28	11/16/17 12:12	1
Tetrachloroethene	<0.0019		0.0019	0.00066	mg/Kg	☼	11/10/17 18:28	11/16/17 12:12	1
Toluene	<0.0019		0.0019	0.00049	mg/Kg	☼	11/10/17 18:28	11/16/17 12:12	1
trans-1,2-Dichloroethene	<0.0019		0.0019	0.00086	mg/Kg	☼	11/10/17 18:28	11/16/17 12:12	1
trans-1,3-Dichloropropene	<0.0019		0.0019	0.00068	mg/Kg	☼	11/10/17 18:28	11/16/17 12:12	1
1,1,1-Trichloroethane	<0.0019		0.0019	0.00065	mg/Kg	☼	11/10/17 18:28	11/16/17 12:12	1
1,1,2-Trichloroethane	<0.0019		0.0019	0.00083	mg/Kg	☼	11/10/17 18:28	11/16/17 12:12	1
Trichloroethene	<0.0019		0.0019	0.00066	mg/Kg	☼	11/10/17 18:28	11/16/17 12:12	1
Vinyl acetate	<0.0048		0.0048	0.0017	mg/Kg	☼	11/10/17 18:28	11/16/17 12:12	1
Vinyl chloride	<0.0019		0.0019	0.00086	mg/Kg	☼	11/10/17 18:28	11/16/17 12:12	1
Xylenes, Total	<0.0039		0.0039	0.00062	mg/Kg	☼	11/10/17 18:28	11/16/17 12:12	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	91		75 - 131	11/10/17 18:28	11/16/17 12:12	1
Dibromofluoromethane	104		75 - 126	11/10/17 18:28	11/16/17 12:12	1
1,2-Dichloroethane-d4 (Surr)	99		70 - 134	11/10/17 18:28	11/16/17 12:12	1
Toluene-d8 (Surr)	125	X	75 - 124	11/10/17 18:28	11/16/17 12:12	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.0088	J	0.041	0.0074	mg/Kg	☼	11/16/17 07:12	11/17/17 03:34	1
Acenaphthylene	<0.041		0.041	0.0054	mg/Kg	☼	11/16/17 07:12	11/17/17 03:34	1
Anthracene	0.016	J	0.041	0.0069	mg/Kg	☼	11/16/17 07:12	11/17/17 03:34	1
Benzo[a]anthracene	0.072		0.041	0.0055	mg/Kg	☼	11/16/17 07:12	11/17/17 03:34	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137078-1

Client Sample ID: 2696V-61-B12 (0-5)

Lab Sample ID: 500-137078-16

Date Collected: 11/09/17 08:30

Matrix: Solid

Date Received: 11/09/17 17:00

Percent Solids: 79.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	0.094		0.041	0.0079	mg/Kg	☼	11/16/17 07:12	11/17/17 03:34	1
Benzo[b]fluoranthene	0.15		0.041	0.0089	mg/Kg	☼	11/16/17 07:12	11/17/17 03:34	1
Benzo[g,h,i]perylene	0.041	F1	0.041	0.013	mg/Kg	☼	11/16/17 07:12	11/17/17 03:34	1
Benzo[k]fluoranthene	0.073	F1 F2	0.041	0.012	mg/Kg	☼	11/16/17 07:12	11/17/17 03:34	1
Bis(2-chloroethoxy)methane	<0.21		0.21	0.042	mg/Kg	☼	11/16/17 07:12	11/17/17 03:34	1
Bis(2-chloroethyl)ether	<0.21		0.21	0.062	mg/Kg	☼	11/16/17 07:12	11/17/17 03:34	1
Bis(2-ethylhexyl) phthalate	<0.21		0.21	0.075	mg/Kg	☼	11/16/17 07:12	11/17/17 03:34	1
4-Bromophenyl phenyl ether	<0.21		0.21	0.054	mg/Kg	☼	11/16/17 07:12	11/17/17 03:34	1
Butyl benzyl phthalate	<0.21		0.21	0.078	mg/Kg	☼	11/16/17 07:12	11/17/17 03:34	1
Carbazole	<0.21		0.21	0.10	mg/Kg	☼	11/16/17 07:12	11/17/17 03:34	1
4-Chloroaniline	<0.83		0.83	0.19	mg/Kg	☼	11/16/17 07:12	11/17/17 03:34	1
4-Chloro-3-methylphenol	<0.41		0.41	0.14	mg/Kg	☼	11/16/17 07:12	11/17/17 03:34	1
2-Chloronaphthalene	<0.21		0.21	0.045	mg/Kg	☼	11/16/17 07:12	11/17/17 03:34	1
2-Chlorophenol	<0.21		0.21	0.070	mg/Kg	☼	11/16/17 07:12	11/17/17 03:34	1
4-Chlorophenyl phenyl ether	<0.21		0.21	0.048	mg/Kg	☼	11/16/17 07:12	11/17/17 03:34	1
Chrysene	0.097		0.041	0.011	mg/Kg	☼	11/16/17 07:12	11/17/17 03:34	1
Dibenz(a,h)anthracene	<0.041		0.041	0.0079	mg/Kg	☼	11/16/17 07:12	11/17/17 03:34	1
Dibenzofuran	<0.21		0.21	0.048	mg/Kg	☼	11/16/17 07:12	11/17/17 03:34	1
1,2-Dichlorobenzene	<0.21		0.21	0.049	mg/Kg	☼	11/16/17 07:12	11/17/17 03:34	1
1,3-Dichlorobenzene	<0.21		0.21	0.046	mg/Kg	☼	11/16/17 07:12	11/17/17 03:34	1
1,4-Dichlorobenzene	<0.21		0.21	0.053	mg/Kg	☼	11/16/17 07:12	11/17/17 03:34	1
3,3'-Dichlorobenzidine	<0.21	*	0.21	0.057	mg/Kg	☼	11/16/17 07:12	11/17/17 03:34	1
2,4-Dichlorophenol	<0.41		0.41	0.097	mg/Kg	☼	11/16/17 07:12	11/17/17 03:34	1
Diethyl phthalate	<0.21		0.21	0.070	mg/Kg	☼	11/16/17 07:12	11/17/17 03:34	1
2,4-Dimethylphenol	<0.41		0.41	0.16	mg/Kg	☼	11/16/17 07:12	11/17/17 03:34	1
Dimethyl phthalate	<0.21		0.21	0.054	mg/Kg	☼	11/16/17 07:12	11/17/17 03:34	1
Di-n-butyl phthalate	<0.21		0.21	0.062	mg/Kg	☼	11/16/17 07:12	11/17/17 03:34	1
4,6-Dinitro-2-methylphenol	<0.83	F1	0.83	0.33	mg/Kg	☼	11/16/17 07:12	11/17/17 03:34	1
2,4-Dinitrophenol	<0.83	F1	0.83	0.72	mg/Kg	☼	11/16/17 07:12	11/17/17 03:34	1
2,4-Dinitrotoluene	<0.21		0.21	0.065	mg/Kg	☼	11/16/17 07:12	11/17/17 03:34	1
2,6-Dinitrotoluene	<0.21		0.21	0.081	mg/Kg	☼	11/16/17 07:12	11/17/17 03:34	1
Di-n-octyl phthalate	<0.21		0.21	0.067	mg/Kg	☼	11/16/17 07:12	11/17/17 03:34	1
Fluoranthene	0.21		0.041	0.0076	mg/Kg	☼	11/16/17 07:12	11/17/17 03:34	1
Fluorene	0.0069	J	0.041	0.0058	mg/Kg	☼	11/16/17 07:12	11/17/17 03:34	1
Hexachlorobenzene	<0.083		0.083	0.0095	mg/Kg	☼	11/16/17 07:12	11/17/17 03:34	1
Hexachlorobutadiene	<0.21		0.21	0.064	mg/Kg	☼	11/16/17 07:12	11/17/17 03:34	1
Hexachlorocyclopentadiene	<0.83		0.83	0.24	mg/Kg	☼	11/16/17 07:12	11/17/17 03:34	1
Hexachloroethane	<0.21	F1	0.21	0.062	mg/Kg	☼	11/16/17 07:12	11/17/17 03:34	1
Indeno[1,2,3-cd]pyrene	0.042		0.041	0.011	mg/Kg	☼	11/16/17 07:12	11/17/17 03:34	1
Isophorone	<0.21	*	0.21	0.046	mg/Kg	☼	11/16/17 07:12	11/17/17 03:34	1
2-Methylnaphthalene	<0.083		0.083	0.0075	mg/Kg	☼	11/16/17 07:12	11/17/17 03:34	1
2-Methylphenol	<0.21		0.21	0.066	mg/Kg	☼	11/16/17 07:12	11/17/17 03:34	1
3 & 4 Methylphenol	<0.21		0.21	0.068	mg/Kg	☼	11/16/17 07:12	11/17/17 03:34	1
Naphthalene	<0.041		0.041	0.0063	mg/Kg	☼	11/16/17 07:12	11/17/17 03:34	1
2-Nitroaniline	<0.21		0.21	0.055	mg/Kg	☼	11/16/17 07:12	11/17/17 03:34	1
3-Nitroaniline	<0.41		0.41	0.13	mg/Kg	☼	11/16/17 07:12	11/17/17 03:34	1
4-Nitroaniline	<0.41		0.41	0.17	mg/Kg	☼	11/16/17 07:12	11/17/17 03:34	1
Nitrobenzene	<0.041		0.041	0.010	mg/Kg	☼	11/16/17 07:12	11/17/17 03:34	1
2-Nitrophenol	<0.41		0.41	0.097	mg/Kg	☼	11/16/17 07:12	11/17/17 03:34	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137078-1

Client Sample ID: 2696V-61-B12 (0-5)

Lab Sample ID: 500-137078-16

Date Collected: 11/09/17 08:30

Matrix: Solid

Date Received: 11/09/17 17:00

Percent Solids: 79.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Nitrophenol	<0.83		0.83	0.39	mg/Kg	☼	11/16/17 07:12	11/17/17 03:34	1
N-Nitrosodi-n-propylamine	<0.083		0.083	0.050	mg/Kg	☼	11/16/17 07:12	11/17/17 03:34	1
N-Nitrosodiphenylamine	<0.21		0.21	0.048	mg/Kg	☼	11/16/17 07:12	11/17/17 03:34	1
2,2'-oxybis[1-chloropropane]	<0.21		0.21	0.048	mg/Kg	☼	11/16/17 07:12	11/17/17 03:34	1
Pentachlorophenol	<0.83		0.83	0.66	mg/Kg	☼	11/16/17 07:12	11/17/17 03:34	1
Phenanthrene	0.10		0.041	0.0057	mg/Kg	☼	11/16/17 07:12	11/17/17 03:34	1
Phenol	<0.21		0.21	0.091	mg/Kg	☼	11/16/17 07:12	11/17/17 03:34	1
Pyrene	0.14		0.041	0.0082	mg/Kg	☼	11/16/17 07:12	11/17/17 03:34	1
1,2,4-Trichlorobenzene	<0.21		0.21	0.044	mg/Kg	☼	11/16/17 07:12	11/17/17 03:34	1
2,4,5-Trichlorophenol	<0.41		0.41	0.094	mg/Kg	☼	11/16/17 07:12	11/17/17 03:34	1
2,4,6-Trichlorophenol	<0.41		0.41	0.14	mg/Kg	☼	11/16/17 07:12	11/17/17 03:34	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	80		44 - 121				11/16/17 07:12	11/17/17 03:34	1
2-Fluorophenol	87		46 - 133				11/16/17 07:12	11/17/17 03:34	1
Nitrobenzene-d5	73		41 - 120				11/16/17 07:12	11/17/17 03:34	1
Phenol-d5	81		46 - 125				11/16/17 07:12	11/17/17 03:34	1
Terphenyl-d14	75		35 - 160				11/16/17 07:12	11/17/17 03:34	1
2,4,6-Tribromophenol	61		25 - 139				11/16/17 07:12	11/17/17 03:34	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.44	J	1.2	0.23	mg/Kg	☼	11/11/17 13:26	11/13/17 20:18	1
Arsenic	7.0		0.60	0.21	mg/Kg	☼	11/11/17 13:26	11/13/17 20:18	1
Barium	110		0.60	0.068	mg/Kg	☼	11/11/17 13:26	11/13/17 20:18	1
Beryllium	0.72		0.24	0.056	mg/Kg	☼	11/11/17 13:26	11/13/17 20:18	1
Cadmium	0.57	B	0.12	0.022	mg/Kg	☼	11/11/17 13:26	11/13/17 20:18	1
Chromium	16		0.60	0.30	mg/Kg	☼	11/11/17 13:26	11/13/17 20:18	1
Cobalt	8.3		0.30	0.079	mg/Kg	☼	11/11/17 13:26	11/13/17 20:18	1
Copper	43		0.60	0.17	mg/Kg	☼	11/11/17 13:26	11/14/17 18:14	1
Iron	15000		12	6.2	mg/Kg	☼	11/11/17 13:26	11/13/17 20:18	1
Lead	60		0.30	0.14	mg/Kg	☼	11/11/17 13:26	11/13/17 20:18	1
Magnesium	7400	B	6.0	3.0	mg/Kg	☼	11/11/17 13:26	11/13/17 20:18	1
Calcium	12000	B	12	2.0	mg/Kg	☼	11/11/17 13:26	11/13/17 20:18	1
Manganese	190		0.60	0.087	mg/Kg	☼	11/11/17 13:26	11/13/17 20:18	1
Nickel	23		0.60	0.17	mg/Kg	☼	11/11/17 13:26	11/13/17 20:18	1
Selenium	0.76	B	0.60	0.35	mg/Kg	☼	11/11/17 13:26	11/13/17 20:18	1
Silver	1.9		0.30	0.077	mg/Kg	☼	11/11/17 13:26	11/13/17 20:18	1
Thallium	<0.60		0.60	0.30	mg/Kg	☼	11/11/17 13:26	11/13/17 20:18	1
Vanadium	21		0.30	0.071	mg/Kg	☼	11/11/17 13:26	11/13/17 20:18	1
Zinc	140		1.2	0.53	mg/Kg	☼	11/11/17 13:26	11/13/17 20:18	1
Potassium	1100		30	11	mg/Kg	☼	11/11/17 13:26	11/13/17 20:18	1
Sodium	260		60	8.9	mg/Kg	☼	11/11/17 13:26	11/13/17 20:18	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.050		0.050	0.010	mg/L		11/15/17 09:19	11/15/17 17:31	1
Barium	0.32	J	0.50	0.050	mg/L		11/15/17 09:19	11/15/17 17:31	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		11/15/17 09:19	11/15/17 17:31	1
Cadmium	0.0033	J	0.0050	0.0020	mg/L		11/15/17 09:19	11/15/17 17:31	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137078-1

Client Sample ID: 2696V-61-B12 (0-5)

Lab Sample ID: 500-137078-16

Date Collected: 11/09/17 08:30

Matrix: Solid

Date Received: 11/09/17 17:00

Percent Solids: 79.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	190		5.0	0.50	mg/L		11/15/17 09:19	11/15/17 17:31	1
Chromium	<0.025		0.025	0.010	mg/L		11/15/17 09:19	11/15/17 17:31	1
Cobalt	<0.025		0.025	0.010	mg/L		11/15/17 09:19	11/15/17 17:31	1
Copper	<0.025		0.025	0.010	mg/L		11/15/17 09:19	11/15/17 17:31	1
Iron	<0.40		0.40	0.20	mg/L		11/15/17 09:19	11/15/17 17:31	1
Lead	<0.0075		0.0075	0.0075	mg/L		11/15/17 09:19	11/15/17 17:31	1
Magnesium	83		2.5	0.50	mg/L		11/15/17 09:19	11/15/17 17:31	1
Manganese	0.60		0.025	0.010	mg/L		11/15/17 09:19	11/15/17 17:31	1
Nickel	<0.025		0.025	0.010	mg/L		11/15/17 09:19	11/15/17 17:31	1
Potassium	<2.5		2.5	0.50	mg/L		11/15/17 09:19	11/15/17 17:31	1
Selenium	<0.050		0.050	0.020	mg/L		11/15/17 09:19	11/15/17 17:31	1
Silver	<0.025		0.025	0.010	mg/L		11/15/17 09:19	11/15/17 17:31	1
Vanadium	<0.025		0.025	0.010	mg/L		11/15/17 09:19	11/15/17 17:31	1
Zinc	0.069	J	0.50	0.020	mg/L		11/15/17 09:19	11/15/17 17:31	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.31		0.025	0.010	mg/L		11/15/17 08:20	11/17/17 01:13	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		11/15/17 09:19	11/16/17 16:03	1
Thallium	<0.0020		0.0020	0.0020	mg/L		11/15/17 09:19	11/16/17 16:03	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		11/17/17 08:10	11/17/17 12:48	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.72	B	0.10	0.033	mg/Kg	☼	11/13/17 13:20	11/17/17 10:21	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.61		0.61	0.21	mg/Kg	☼	11/19/17 10:30	11/19/17 14:41	1
pH	8.0		0.20	0.20	SU			11/18/17 11:37	1

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137078-1

Client Sample ID: 2692V-61-G01

Lab Sample ID: 500-137078-17

Date Collected: 11/09/17 11:25

Matrix: Water

Date Received: 11/09/17 17:00

Method: 8260B - VOC

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.0050		0.0050	0.0017	mg/L			11/16/17 18:35	1
Benzene	<0.00050		0.00050	0.00015	mg/L			11/16/17 18:35	1
Bromodichloromethane	<0.0010		0.0010	0.00037	mg/L			11/16/17 18:35	1
Bromoform	<0.0010		0.0010	0.00048	mg/L			11/16/17 18:35	1
Bromomethane	<0.0020		0.0020	0.00080	mg/L			11/16/17 18:35	1
Carbon disulfide	<0.0020		0.0020	0.00045	mg/L			11/16/17 18:35	1
Carbon tetrachloride	<0.0010		0.0010	0.00038	mg/L			11/16/17 18:35	1
Chlorobenzene	<0.0010		0.0010	0.00039	mg/L			11/16/17 18:35	1
Chloroethane	<0.0010		0.0010	0.00051	mg/L			11/16/17 18:35	1
Chloroform	<0.0020		0.0020	0.00037	mg/L			11/16/17 18:35	1
Chloromethane	<0.0010		0.0010	0.00032	mg/L			11/16/17 18:35	1
cis-1,2-Dichloroethene	<0.0010		0.0010	0.00041	mg/L			11/16/17 18:35	1
cis-1,3-Dichloropropene	<0.0010		0.0010	0.00042	mg/L			11/16/17 18:35	1
Dibromochloromethane	<0.0010		0.0010	0.00049	mg/L			11/16/17 18:35	1
1,1-Dichloroethane	<0.0010		0.0010	0.00041	mg/L			11/16/17 18:35	1
1,2-Dichloroethane	<0.0010		0.0010	0.00039	mg/L			11/16/17 18:35	1
1,1-Dichloroethene	<0.0010		0.0010	0.00039	mg/L			11/16/17 18:35	1
1,2-Dichloropropane	<0.0010		0.0010	0.00043	mg/L			11/16/17 18:35	1
1,3-Dichloropropene, Total	<0.0010		0.0010	0.00042	mg/L			11/16/17 18:35	1
Ethylbenzene	<0.00050		0.00050	0.00018	mg/L			11/16/17 18:35	1
2-Hexanone	<0.0050		0.0050	0.0016	mg/L			11/16/17 18:35	1
Methylene Chloride	<0.0050		0.0050	0.0016	mg/L			11/16/17 18:35	1
Methyl Ethyl Ketone	<0.0050		0.0050	0.0021	mg/L			11/16/17 18:35	1
methyl isobutyl ketone	<0.0050		0.0050	0.0022	mg/L			11/16/17 18:35	1
Methyl tert-butyl ether	<0.0010		0.0010	0.00039	mg/L			11/16/17 18:35	1
Styrene	<0.0010		0.0010	0.00039	mg/L			11/16/17 18:35	1
1,1,2,2-Tetrachloroethane	<0.0010		0.0010	0.00040	mg/L			11/16/17 18:35	1
Tetrachloroethene	<0.0010		0.0010	0.00037	mg/L			11/16/17 18:35	1
Toluene	<0.00050		0.00050	0.00015	mg/L			11/16/17 18:35	1
trans-1,2-Dichloroethene	<0.0010		0.0010	0.00035	mg/L			11/16/17 18:35	1
trans-1,3-Dichloropropene	<0.0010		0.0010	0.00036	mg/L			11/16/17 18:35	1
1,1,1-Trichloroethane	<0.0010		0.0010	0.00038	mg/L			11/16/17 18:35	1
1,1,2-Trichloroethane	<0.0010		0.0010	0.00035	mg/L			11/16/17 18:35	1
Trichloroethene	<0.00050		0.00050	0.00016	mg/L			11/16/17 18:35	1
Vinyl acetate	<0.0020		0.0020	0.00091	mg/L			11/16/17 18:35	1
Vinyl chloride	<0.00050		0.00050	0.00020	mg/L			11/16/17 18:35	1
Xylenes, Total	<0.0010		0.0010	0.00022	mg/L			11/16/17 18:35	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	87		72 - 124		11/16/17 18:35	1
Dibromofluoromethane	88		75 - 120		11/16/17 18:35	1
1,2-Dichloroethane-d4 (Surr)	85		75 - 126		11/16/17 18:35	1
Toluene-d8 (Surr)	101		75 - 120		11/16/17 18:35	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.0011		0.0011	0.00034	mg/L		11/13/17 07:25	11/13/17 18:28	1
Acenaphthylene	<0.0011		0.0011	0.00029	mg/L		11/13/17 07:25	11/13/17 18:28	1
Anthracene	<0.0011		0.0011	0.00036	mg/L		11/13/17 07:25	11/13/17 18:28	1
Benzo[a]anthracene	<0.00018		0.00018	0.000062	mg/L		11/13/17 07:25	11/13/17 18:28	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137078-1

Client Sample ID: 2692V-61-G01

Lab Sample ID: 500-137078-17

Date Collected: 11/09/17 11:25

Matrix: Water

Date Received: 11/09/17 17:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	<0.00022		0.00022	0.00011	mg/L		11/13/17 07:25	11/13/17 18:28	1
Benzo[b]fluoranthene	<0.00022		0.00022	0.000088	mg/L		11/13/17 07:25	11/13/17 18:28	1
Benzo[g,h,i]perylene	<0.0011		0.0011	0.00041	mg/L		11/13/17 07:25	11/13/17 18:28	1
Benzo[k]fluoranthene	<0.00022		0.00022	0.000070	mg/L		11/13/17 07:25	11/13/17 18:28	1
Bis(2-chloroethoxy)methane	<0.0022		0.0022	0.00031	mg/L		11/13/17 07:25	11/13/17 18:28	1
Bis(2-chloroethyl)ether	<0.0022		0.0022	0.00032	mg/L		11/13/17 07:25	11/13/17 18:28	1
Bis(2-ethylhexyl) phthalate	<0.011		0.011	0.0019	mg/L		11/13/17 07:25	11/13/17 18:28	1
4-Bromophenyl phenyl ether	<0.0055		0.0055	0.00059	mg/L		11/13/17 07:25	11/13/17 18:28	1
Butyl benzyl phthalate	<0.0022		0.0022	0.00052	mg/L		11/13/17 07:25	11/13/17 18:28	1
Carbazole	<0.0055		0.0055	0.00039	mg/L		11/13/17 07:25	11/13/17 18:28	1
4-Chloroaniline	<0.011		0.011	0.0022	mg/L		11/13/17 07:25	11/13/17 18:28	1
4-Chloro-3-methylphenol	<0.011		0.011	0.0025	mg/L		11/13/17 07:25	11/13/17 18:28	1
2-Chloronaphthalene	<0.0022		0.0022	0.00026	mg/L		11/13/17 07:25	11/13/17 18:28	1
2-Chlorophenol	<0.0055		0.0055	0.00061	mg/L		11/13/17 07:25	11/13/17 18:28	1
4-Chlorophenyl phenyl ether	<0.0055		0.0055	0.00069	mg/L		11/13/17 07:25	11/13/17 18:28	1
Chrysene	<0.00022		0.00022	0.000074	mg/L		11/13/17 07:25	11/13/17 18:28	1
Dibenz(a,h)anthracene	<0.00033		0.00033	0.000055	mg/L		11/13/17 07:25	11/13/17 18:28	1
Dibenzofuran	<0.0022		0.0022	0.00029	mg/L		11/13/17 07:25	11/13/17 18:28	1
1,2-Dichlorobenzene	<0.0022		0.0022	0.00027	mg/L		11/13/17 07:25	11/13/17 18:28	1
1,3-Dichlorobenzene	<0.0022		0.0022	0.00023	mg/L		11/13/17 07:25	11/13/17 18:28	1
1,4-Dichlorobenzene	<0.0022		0.0022	0.00023	mg/L		11/13/17 07:25	11/13/17 18:28	1
3,3'-Dichlorobenzidine	<0.0055		0.0055	0.0019	mg/L		11/13/17 07:25	11/13/17 18:28	1
2,4-Dichlorophenol	<0.011		0.011	0.0028	mg/L		11/13/17 07:25	11/13/17 18:28	1
Diethyl phthalate	<0.0055		0.0055	0.00039	mg/L		11/13/17 07:25	11/13/17 18:28	1
2,4-Dimethylphenol	<0.011		0.011	0.0020	mg/L		11/13/17 07:25	11/13/17 18:28	1
Dimethyl phthalate	<0.0055		0.0055	0.00034	mg/L		11/13/17 07:25	11/13/17 18:28	1
Di-n-butyl phthalate	<0.0055		0.0055	0.00080	mg/L		11/13/17 07:25	11/13/17 18:28	1
4,6-Dinitro-2-methylphenol	<0.022		0.022	0.0064	mg/L		11/13/17 07:25	11/13/17 18:28	1
2,4-Dinitrophenol	<0.022		0.022	0.0094	mg/L		11/13/17 07:25	11/13/17 18:28	1
2,4-Dinitrotoluene	<0.0011		0.0011	0.00027	mg/L		11/13/17 07:25	11/13/17 18:28	1
2,6-Dinitrotoluene	<0.0011		0.0011	0.000080	mg/L		11/13/17 07:25	11/13/17 18:28	1
Di-n-octyl phthalate	<0.011		0.011	0.0011	mg/L		11/13/17 07:25	11/13/17 18:28	1
Fluoranthene	<0.0011		0.0011	0.00049	mg/L		11/13/17 07:25	11/13/17 18:28	1
Fluorene	<0.0011		0.0011	0.00027	mg/L		11/13/17 07:25	11/13/17 18:28	1
Hexachlorobenzene	<0.00055		0.00055	0.000087	mg/L		11/13/17 07:25	11/13/17 18:28	1
Hexachlorobutadiene	<0.0055		0.0055	0.00056	mg/L		11/13/17 07:25	11/13/17 18:28	1
Hexachlorocyclopentadiene	<0.022		0.022	0.0070	mg/L		11/13/17 07:25	11/13/17 18:28	1
Hexachloroethane	<0.0055		0.0055	0.00065	mg/L		11/13/17 07:25	11/13/17 18:28	1
Indeno[1,2,3-cd]pyrene	<0.00022		0.00022	0.000082	mg/L		11/13/17 07:25	11/13/17 18:28	1
Isophorone	<0.0022		0.0022	0.00041	mg/L		11/13/17 07:25	11/13/17 18:28	1
2-Methylnaphthalene	<0.0022		0.0022	0.000071	mg/L		11/13/17 07:25	11/13/17 18:28	1
2-Methylphenol	<0.0022		0.0022	0.00033	mg/L		11/13/17 07:25	11/13/17 18:28	1
3 & 4 Methylphenol	<0.0022		0.0022	0.00049	mg/L		11/13/17 07:25	11/13/17 18:28	1
Naphthalene	<0.0011		0.0011	0.00034	mg/L		11/13/17 07:25	11/13/17 18:28	1
2-Nitroaniline	<0.0055		0.0055	0.0014	mg/L		11/13/17 07:25	11/13/17 18:28	1
3-Nitroaniline	<0.011		0.011	0.0019	mg/L		11/13/17 07:25	11/13/17 18:28	1
4-Nitroaniline	<0.011		0.011	0.0018	mg/L		11/13/17 07:25	11/13/17 18:28	1
Nitrobenzene	<0.0011		0.0011	0.00049	mg/L		11/13/17 07:25	11/13/17 18:28	1
2-Nitrophenol	<0.011		0.011	0.0027	mg/L		11/13/17 07:25	11/13/17 18:28	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137078-1

Client Sample ID: 2692V-61-G01

Lab Sample ID: 500-137078-17

Date Collected: 11/09/17 11:25

Matrix: Water

Date Received: 11/09/17 17:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Nitrophenol	<0.022		0.022	0.0081	mg/L		11/13/17 07:25	11/13/17 18:28	1
N-Nitrosodi-n-propylamine	<0.00055		0.00055	0.00017	mg/L		11/13/17 07:25	11/13/17 18:28	1
N-Nitrosodiphenylamine	<0.0022		0.0022	0.00040	mg/L		11/13/17 07:25	11/13/17 18:28	1
2,2'-oxybis[1-chloropropane]	<0.0022		0.0022	0.00041	mg/L		11/13/17 07:25	11/13/17 18:28	1
Pentachlorophenol	<0.022		0.022	0.0043	mg/L		11/13/17 07:25	11/13/17 18:28	1
Phenanthrene	<0.0011		0.0011	0.00033	mg/L		11/13/17 07:25	11/13/17 18:28	1
Phenol	<0.0055		0.0055	0.00073	mg/L		11/13/17 07:25	11/13/17 18:28	1
Pyrene	<0.0011		0.0011	0.00046	mg/L		11/13/17 07:25	11/13/17 18:28	1
1,2,4-Trichlorobenzene	<0.0022		0.0022	0.00026	mg/L		11/13/17 07:25	11/13/17 18:28	1
2,4,5-Trichlorophenol	<0.011		0.011	0.0028	mg/L		11/13/17 07:25	11/13/17 18:28	1
2,4,6-Trichlorophenol	<0.0055		0.0055	0.00078	mg/L		11/13/17 07:25	11/13/17 18:28	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	64		34 - 110				11/13/17 07:25	11/13/17 18:28	1
2-Fluorophenol	75		27 - 110				11/13/17 07:25	11/13/17 18:28	1
Nitrobenzene-d5	73		36 - 120				11/13/17 07:25	11/13/17 18:28	1
Phenol-d5	53		20 - 100				11/13/17 07:25	11/13/17 18:28	1
Terphenyl-d14	78		40 - 145				11/13/17 07:25	11/13/17 18:28	1
2,4,6-Tribromophenol	79		40 - 145				11/13/17 07:25	11/13/17 18:28	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030	0.0013	mg/L		11/11/17 13:03	11/13/17 11:44	1
Arsenic	0.18		0.0010	0.00023	mg/L		11/11/17 13:03	11/13/17 11:44	1
Barium	1.5		0.013	0.0037	mg/L		11/11/17 13:03	11/15/17 18:46	5
Beryllium	0.0080	J	0.010	0.0053	mg/L		11/11/17 13:03	11/15/17 18:49	10
Cadmium	0.0082		0.00050	0.00017	mg/L		11/11/17 13:03	11/13/17 11:44	1
Calcium	3400	B	4.0	0.89	mg/L		11/11/17 13:03	11/16/17 19:05	20
Chromium	0.22		0.050	0.011	mg/L		11/11/17 13:03	11/15/17 18:49	10
Cobalt	0.18		0.010	0.0040	mg/L		11/11/17 13:03	11/15/17 18:49	10
Copper	0.57	B	0.0020	0.00050	mg/L		11/11/17 13:03	11/13/17 11:44	1
Iron	340	B	1.0	0.47	mg/L		11/11/17 13:03	11/15/17 18:49	10
Lead	0.39		0.0025	0.00093	mg/L		11/11/17 13:03	11/15/17 18:46	5
Magnesium	1100	B	2.0	0.49	mg/L		11/11/17 13:03	11/15/17 18:49	10
Manganese	13	B	0.025	0.0079	mg/L		11/11/17 13:03	11/15/17 18:49	10
Nickel	0.41		0.020	0.0063	mg/L		11/11/17 13:03	11/15/17 18:49	10
Potassium	20		5.0	1.1	mg/L		11/11/17 13:03	11/15/17 18:49	10
Selenium	0.013		0.0025	0.00098	mg/L		11/11/17 13:03	11/13/17 11:44	1
Silver	0.0013		0.00050	0.00012	mg/L		11/11/17 13:03	11/13/17 11:44	1
Sodium	190		2.0	0.77	mg/L		11/11/17 13:03	11/15/17 18:49	10
Thallium	0.0090	J	0.010	0.0029	mg/L		11/11/17 13:03	11/15/17 18:46	5
Vanadium	0.17		0.050	0.022	mg/L		11/11/17 13:03	11/15/17 18:49	10
Zinc	1.4		0.020	0.0069	mg/L		11/11/17 13:03	11/13/17 11:44	1

Method: 7470A - Mercury

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00031		0.00020	0.000098	mg/L		11/13/17 16:00	11/14/17 12:19	1

Client Sample Results

Client: Terracon Consulting Eng & Scientists
Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137078-1

Client Sample ID: 2692V-61-G01

Lab Sample ID: 500-137078-17

Date Collected: 11/09/17 11:25

Matrix: Water

Date Received: 11/09/17 17:00

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.010		0.010	0.0035	mg/L		11/19/17 13:10	11/19/17 15:59	1

Definitions/Glossary

Client: Terracon Consulting Eng & Scientists
Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137078-1

Qualifiers

GC/MS VOA

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

GC/MS Semi VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
F1	MS and/or MSD Recovery is outside acceptance limits.
F2	MS/MSD RPD exceeds control limits

Metals

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

General Chemistry

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.

Glossary

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

Definitions/Glossary

Client: Terracon Consulting Eng & Scientists
Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137078-1

Glossary (Continued)

Abbreviation **These commonly used abbreviations may or may not be present in this report.**

TEF Toxicity Equivalent Factor (Dioxin)

TEQ Toxicity Equivalent Quotient (Dioxin)

1

2

3

4

5

6

7

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9

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11

12

13

14

QC Association Summary

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137078-1

GC/MS VOA

Prep Batch: 409585

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-137078-1	2696V-61-B01 (0-5)	Total/NA	Solid	5035	
500-137078-2	2696V-61-B02 (0-5)	Total/NA	Solid	5035	
500-137078-3	2696V-61-B03 (0-5)	Total/NA	Solid	5035	
500-137078-4	2696V-61-B04 (0-5)	Total/NA	Solid	5035	
500-137078-5	2696V-61-B05 (0-5)	Total/NA	Solid	5035	
500-137078-6	2696V-61-B06 (0-5)	Total/NA	Solid	5035	
500-137078-7	2696V-61-B06 (5-10)	Total/NA	Solid	5035	
500-137078-8	2696V-61-B06 (10-15)	Total/NA	Solid	5035	
500-137078-9	2696V-61-B06 (15-21)	Total/NA	Solid	5035	
500-137078-10	2696V-61-B06 (15-21) Dup	Total/NA	Solid	5035	
500-137078-11	2696V-61-B07 (0-5)	Total/NA	Solid	5035	
500-137078-12	2696V-61-B08 (0-5)	Total/NA	Solid	5035	
500-137078-13	2696V-61-B09 (0-5)	Total/NA	Solid	5035	
500-137078-14	2696V-61-B10 (0-5)	Total/NA	Solid	5035	
500-137078-15	2696V-61-B11 (0-5)	Total/NA	Solid	5035	
500-137078-16	2696V-61-B12 (0-5)	Total/NA	Solid	5035	

Analysis Batch: 409897

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-137078-1	2696V-61-B01 (0-5)	Total/NA	Solid	8260B	409585
500-137078-2	2696V-61-B02 (0-5)	Total/NA	Solid	8260B	409585
MB 500-409897/5	Method Blank	Total/NA	Solid	8260B	
LCS 500-409897/3	Lab Control Sample	Total/NA	Solid	8260B	
LCSD 500-409897/4	Lab Control Sample Dup	Total/NA	Solid	8260B	

Analysis Batch: 410018

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-137078-3	2696V-61-B03 (0-5)	Total/NA	Solid	8260B	409585
500-137078-4	2696V-61-B04 (0-5)	Total/NA	Solid	8260B	409585
500-137078-5	2696V-61-B05 (0-5)	Total/NA	Solid	8260B	409585
500-137078-6	2696V-61-B06 (0-5)	Total/NA	Solid	8260B	409585
500-137078-7	2696V-61-B06 (5-10)	Total/NA	Solid	8260B	409585
500-137078-8	2696V-61-B06 (10-15)	Total/NA	Solid	8260B	409585
500-137078-9	2696V-61-B06 (15-21)	Total/NA	Solid	8260B	409585
500-137078-10	2696V-61-B06 (15-21) Dup	Total/NA	Solid	8260B	409585
500-137078-11	2696V-61-B07 (0-5)	Total/NA	Solid	8260B	409585
500-137078-13	2696V-61-B09 (0-5)	Total/NA	Solid	8260B	409585
500-137078-14	2696V-61-B10 (0-5)	Total/NA	Solid	8260B	409585
500-137078-15	2696V-61-B11 (0-5)	Total/NA	Solid	8260B	409585
MB 500-410018/6	Method Blank	Total/NA	Solid	8260B	
LCS 500-410018/5	Lab Control Sample	Total/NA	Solid	8260B	
LCSD 500-410018/24	Lab Control Sample Dup	Total/NA	Solid	8260B	

Analysis Batch: 410201

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-137078-12	2696V-61-B08 (0-5)	Total/NA	Solid	8260B	409585
500-137078-16	2696V-61-B12 (0-5)	Total/NA	Solid	8260B	409585
MB 500-410201/6	Method Blank	Total/NA	Solid	8260B	
LCS 500-410201/4	Lab Control Sample	Total/NA	Solid	8260B	
LCSD 500-410201/5	Lab Control Sample Dup	Total/NA	Solid	8260B	

TestAmerica Chicago

QC Association Summary

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137078-1

GC/MS VOA (Continued)

Analysis Batch: 410248

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-137078-17	2692V-61-G01	Total/NA	Water	8260B	
MB 500-410248/6	Method Blank	Total/NA	Water	8260B	
LCS 500-410248/4	Lab Control Sample	Total/NA	Water	8260B	

GC/MS Semi VOA

Prep Batch: 409625

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-137078-17	2692V-61-G01	Total/NA	Water	3510C	
MB 500-409625/1-A	Method Blank	Total/NA	Water	3510C	
LCS 500-409625/2-A	Lab Control Sample	Total/NA	Water	3510C	

Analysis Batch: 409714

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-137078-17	2692V-61-G01	Total/NA	Water	8270D	409625
MB 500-409625/1-A	Method Blank	Total/NA	Water	8270D	409625
LCS 500-409625/2-A	Lab Control Sample	Total/NA	Water	8270D	409625

Prep Batch: 410180

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-137078-1	2696V-61-B01 (0-5)	Total/NA	Solid	3541	
500-137078-2	2696V-61-B02 (0-5)	Total/NA	Solid	3541	
500-137078-3	2696V-61-B03 (0-5)	Total/NA	Solid	3541	
500-137078-4	2696V-61-B04 (0-5)	Total/NA	Solid	3541	
500-137078-5	2696V-61-B05 (0-5)	Total/NA	Solid	3541	
500-137078-6	2696V-61-B06 (0-5)	Total/NA	Solid	3541	
500-137078-7	2696V-61-B06 (5-10)	Total/NA	Solid	3541	
500-137078-8	2696V-61-B06 (10-15)	Total/NA	Solid	3541	
500-137078-9	2696V-61-B06 (15-21)	Total/NA	Solid	3541	
500-137078-10	2696V-61-B06 (15-21) Dup	Total/NA	Solid	3541	
500-137078-11	2696V-61-B07 (0-5)	Total/NA	Solid	3541	
500-137078-12	2696V-61-B08 (0-5)	Total/NA	Solid	3541	
500-137078-13	2696V-61-B09 (0-5)	Total/NA	Solid	3541	
500-137078-14	2696V-61-B10 (0-5)	Total/NA	Solid	3541	
500-137078-15	2696V-61-B11 (0-5)	Total/NA	Solid	3541	
500-137078-16	2696V-61-B12 (0-5)	Total/NA	Solid	3541	
MB 500-410180/1-A	Method Blank	Total/NA	Solid	3541	
LCS 500-410180/2-A	Lab Control Sample	Total/NA	Solid	3541	
500-137078-16 MS	2696V-61-B12 (0-5)	Total/NA	Solid	3541	
500-137078-16 MSD	2696V-61-B12 (0-5)	Total/NA	Solid	3541	

Analysis Batch: 410358

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-137078-1	2696V-61-B01 (0-5)	Total/NA	Solid	8270D	410180
500-137078-2	2696V-61-B02 (0-5)	Total/NA	Solid	8270D	410180
500-137078-3	2696V-61-B03 (0-5)	Total/NA	Solid	8270D	410180
500-137078-4	2696V-61-B04 (0-5)	Total/NA	Solid	8270D	410180
500-137078-5	2696V-61-B05 (0-5)	Total/NA	Solid	8270D	410180
500-137078-6	2696V-61-B06 (0-5)	Total/NA	Solid	8270D	410180
500-137078-7	2696V-61-B06 (5-10)	Total/NA	Solid	8270D	410180

TestAmerica Chicago

QC Association Summary

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137078-1

GC/MS Semi VOA (Continued)

Analysis Batch: 410358 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-137078-8	2696V-61-B06 (10-15)	Total/NA	Solid	8270D	410180
500-137078-9	2696V-61-B06 (15-21)	Total/NA	Solid	8270D	410180
500-137078-10	2696V-61-B06 (15-21) Dup	Total/NA	Solid	8270D	410180
500-137078-11	2696V-61-B07 (0-5)	Total/NA	Solid	8270D	410180
500-137078-12	2696V-61-B08 (0-5)	Total/NA	Solid	8270D	410180
500-137078-13	2696V-61-B09 (0-5)	Total/NA	Solid	8270D	410180
500-137078-14	2696V-61-B10 (0-5)	Total/NA	Solid	8270D	410180
500-137078-15	2696V-61-B11 (0-5)	Total/NA	Solid	8270D	410180
500-137078-16	2696V-61-B12 (0-5)	Total/NA	Solid	8270D	410180
MB 500-410180/1-A	Method Blank	Total/NA	Solid	8270D	410180
LCS 500-410180/2-A	Lab Control Sample	Total/NA	Solid	8270D	410180
500-137078-16 MS	2696V-61-B12 (0-5)	Total/NA	Solid	8270D	410180
500-137078-16 MSD	2696V-61-B12 (0-5)	Total/NA	Solid	8270D	410180

Metals

Prep Batch: 409517

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-137078-17	2692V-61-G01	Total Recoverable	Water	3005A	
MB 500-409517/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 500-409517/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Prep Batch: 409521

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-137078-1	2696V-61-B01 (0-5)	Total/NA	Solid	3050B	
500-137078-2	2696V-61-B02 (0-5)	Total/NA	Solid	3050B	
500-137078-3	2696V-61-B03 (0-5)	Total/NA	Solid	3050B	
500-137078-4	2696V-61-B04 (0-5)	Total/NA	Solid	3050B	
500-137078-5	2696V-61-B05 (0-5)	Total/NA	Solid	3050B	
500-137078-6	2696V-61-B06 (0-5)	Total/NA	Solid	3050B	
500-137078-7	2696V-61-B06 (5-10)	Total/NA	Solid	3050B	
500-137078-8	2696V-61-B06 (10-15)	Total/NA	Solid	3050B	
500-137078-9	2696V-61-B06 (15-21)	Total/NA	Solid	3050B	
500-137078-10	2696V-61-B06 (15-21) Dup	Total/NA	Solid	3050B	
500-137078-11	2696V-61-B07 (0-5)	Total/NA	Solid	3050B	
500-137078-12	2696V-61-B08 (0-5)	Total/NA	Solid	3050B	
500-137078-13	2696V-61-B09 (0-5)	Total/NA	Solid	3050B	
500-137078-14	2696V-61-B10 (0-5)	Total/NA	Solid	3050B	
500-137078-15	2696V-61-B11 (0-5)	Total/NA	Solid	3050B	
500-137078-16	2696V-61-B12 (0-5)	Total/NA	Solid	3050B	
MB 500-409521/1-A	Method Blank	Total/NA	Solid	3050B	
LCS 500-409521/2-A	Lab Control Sample	Total/NA	Solid	3050B	
500-137078-1 MS	2696V-61-B01 (0-5)	Total/NA	Solid	3050B	
500-137078-1 MSD	2696V-61-B01 (0-5)	Total/NA	Solid	3050B	
500-137078-1 DU	2696V-61-B01 (0-5)	Total/NA	Solid	3050B	

Prep Batch: 409695

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-137078-1	2696V-61-B01 (0-5)	Total/NA	Solid	7471B	
500-137078-2	2696V-61-B02 (0-5)	Total/NA	Solid	7471B	

TestAmerica Chicago

QC Association Summary

Client: Terracon Consulting Eng & Scientists
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TestAmerica Job ID: 500-137078-1

Metals (Continued)

Prep Batch: 409695 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-137078-3	2696V-61-B03 (0-5)	Total/NA	Solid	7471B	
500-137078-4	2696V-61-B04 (0-5)	Total/NA	Solid	7471B	
500-137078-5	2696V-61-B05 (0-5)	Total/NA	Solid	7471B	
500-137078-6	2696V-61-B06 (0-5)	Total/NA	Solid	7471B	
500-137078-7	2696V-61-B06 (5-10)	Total/NA	Solid	7471B	
500-137078-8	2696V-61-B06 (10-15)	Total/NA	Solid	7471B	
500-137078-9	2696V-61-B06 (15-21)	Total/NA	Solid	7471B	
500-137078-10	2696V-61-B06 (15-21) Dup	Total/NA	Solid	7471B	
500-137078-11	2696V-61-B07 (0-5)	Total/NA	Solid	7471B	
500-137078-12	2696V-61-B08 (0-5)	Total/NA	Solid	7471B	
500-137078-13	2696V-61-B09 (0-5)	Total/NA	Solid	7471B	
500-137078-14	2696V-61-B10 (0-5)	Total/NA	Solid	7471B	
500-137078-15	2696V-61-B11 (0-5)	Total/NA	Solid	7471B	
500-137078-16	2696V-61-B12 (0-5)	Total/NA	Solid	7471B	
MB 500-409695/12-A	Method Blank	Total/NA	Solid	7471B	
LCS 500-409695/13-A	Lab Control Sample	Total/NA	Solid	7471B	
500-137078-8 MS	2696V-61-B06 (10-15)	Total/NA	Solid	7471B	
500-137078-8 MSD	2696V-61-B06 (10-15)	Total/NA	Solid	7471B	
500-137078-8 DU	2696V-61-B06 (10-15)	Total/NA	Solid	7471B	

Prep Batch: 409772

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-137078-17	2692V-61-G01	Total/NA	Water	7470A	
MB 500-409772/12-A	Method Blank	Total/NA	Water	7470A	
LCS 500-409772/13-A	Lab Control Sample	Total/NA	Water	7470A	

Analysis Batch: 409795

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-137078-1	2696V-61-B01 (0-5)	Total/NA	Solid	6010B	409521
500-137078-2	2696V-61-B02 (0-5)	Total/NA	Solid	6010B	409521
500-137078-3	2696V-61-B03 (0-5)	Total/NA	Solid	6010B	409521
500-137078-4	2696V-61-B04 (0-5)	Total/NA	Solid	6010B	409521
500-137078-5	2696V-61-B05 (0-5)	Total/NA	Solid	6010B	409521
500-137078-6	2696V-61-B06 (0-5)	Total/NA	Solid	6010B	409521
500-137078-7	2696V-61-B06 (5-10)	Total/NA	Solid	6010B	409521
500-137078-8	2696V-61-B06 (10-15)	Total/NA	Solid	6010B	409521
500-137078-9	2696V-61-B06 (15-21)	Total/NA	Solid	6010B	409521
500-137078-10	2696V-61-B06 (15-21) Dup	Total/NA	Solid	6010B	409521
500-137078-11	2696V-61-B07 (0-5)	Total/NA	Solid	6010B	409521
500-137078-12	2696V-61-B08 (0-5)	Total/NA	Solid	6010B	409521
500-137078-13	2696V-61-B09 (0-5)	Total/NA	Solid	6010B	409521
500-137078-14	2696V-61-B10 (0-5)	Total/NA	Solid	6010B	409521
500-137078-15	2696V-61-B11 (0-5)	Total/NA	Solid	6010B	409521
500-137078-16	2696V-61-B12 (0-5)	Total/NA	Solid	6010B	409521
MB 500-409521/1-A	Method Blank	Total/NA	Solid	6010B	409521
LCS 500-409521/2-A	Lab Control Sample	Total/NA	Solid	6010B	409521
500-137078-1 MS	2696V-61-B01 (0-5)	Total/NA	Solid	6010B	409521
500-137078-1 MSD	2696V-61-B01 (0-5)	Total/NA	Solid	6010B	409521
500-137078-1 DU	2696V-61-B01 (0-5)	Total/NA	Solid	6010B	409521

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QC Association Summary

Client: Terracon Consulting Eng & Scientists
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TestAmerica Job ID: 500-137078-1

Metals (Continued)

Analysis Batch: 409856

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-137078-17	2692V-61-G01	Total Recoverable	Water	6020A	409517
MB 500-409517/1-A	Method Blank	Total Recoverable	Water	6020A	409517
LCS 500-409517/2-A	Lab Control Sample	Total Recoverable	Water	6020A	409517

Leach Batch: 409902

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-137078-1	2696V-61-B01 (0-5)	TCLP	Solid	1311	
500-137078-2	2696V-61-B02 (0-5)	TCLP	Solid	1311	
500-137078-3	2696V-61-B03 (0-5)	TCLP	Solid	1311	
500-137078-4	2696V-61-B04 (0-5)	TCLP	Solid	1311	
500-137078-5	2696V-61-B05 (0-5)	TCLP	Solid	1311	
500-137078-6	2696V-61-B06 (0-5)	TCLP	Solid	1311	
500-137078-8	2696V-61-B06 (10-15)	TCLP	Solid	1311	
500-137078-9	2696V-61-B06 (15-21)	TCLP	Solid	1311	
500-137078-10	2696V-61-B06 (15-21) Dup	TCLP	Solid	1311	
500-137078-11	2696V-61-B07 (0-5)	TCLP	Solid	1311	
500-137078-12	2696V-61-B08 (0-5)	TCLP	Solid	1311	
500-137078-13	2696V-61-B09 (0-5)	TCLP	Solid	1311	
500-137078-14	2696V-61-B10 (0-5)	TCLP	Solid	1311	
500-137078-15	2696V-61-B11 (0-5)	TCLP	Solid	1311	
500-137078-16	2696V-61-B12 (0-5)	TCLP	Solid	1311	
LB 500-409902/1-B	Method Blank	TCLP	Solid	1311	
LB 500-409902/1-D	Method Blank	TCLP	Solid	1311	
500-137078-16 MS	2696V-61-B12 (0-5)	TCLP	Solid	1311	
500-137078-16 DU	2696V-61-B12 (0-5)	TCLP	Solid	1311	

Leach Batch: 409904

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-137078-7	2696V-61-B06 (5-10)	TCLP	Solid	1311	
LB2 500-409904/1-B	Method Blank	TCLP	Solid	1311	
LB2 500-409904/1-C	Method Blank	TCLP	Solid	1311	

Leach Batch: 409911

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-137078-1	2696V-61-B01 (0-5)	SPLP East	Solid	1312	
500-137078-2	2696V-61-B02 (0-5)	SPLP East	Solid	1312	
500-137078-3	2696V-61-B03 (0-5)	SPLP East	Solid	1312	
500-137078-4	2696V-61-B04 (0-5)	SPLP East	Solid	1312	
500-137078-5	2696V-61-B05 (0-5)	SPLP East	Solid	1312	
500-137078-6	2696V-61-B06 (0-5)	SPLP East	Solid	1312	
500-137078-7	2696V-61-B06 (5-10)	SPLP East	Solid	1312	
500-137078-8	2696V-61-B06 (10-15)	SPLP East	Solid	1312	
500-137078-9	2696V-61-B06 (15-21)	SPLP East	Solid	1312	
500-137078-10	2696V-61-B06 (15-21) Dup	SPLP East	Solid	1312	
500-137078-11	2696V-61-B07 (0-5)	SPLP East	Solid	1312	
500-137078-12	2696V-61-B08 (0-5)	SPLP East	Solid	1312	
500-137078-13	2696V-61-B09 (0-5)	SPLP East	Solid	1312	
500-137078-14	2696V-61-B10 (0-5)	SPLP East	Solid	1312	
500-137078-15	2696V-61-B11 (0-5)	SPLP East	Solid	1312	
500-137078-16	2696V-61-B12 (0-5)	SPLP East	Solid	1312	
LB 500-409911/1-C	Method Blank	SPLP East	Solid	1312	

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Metals (Continued)

Leach Batch: 409911 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-137078-16 MS	2696V-61-B12 (0-5)	SPLP East	Solid	1312	
500-137078-16 DU	2696V-61-B12 (0-5)	SPLP East	Solid	1312	

Analysis Batch: 409951

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-137078-17	2692V-61-G01	Total/NA	Water	7470A	409772
MB 500-409772/12-A	Method Blank	Total/NA	Water	7470A	409772
LCS 500-409772/13-A	Lab Control Sample	Total/NA	Water	7470A	409772

Analysis Batch: 410007

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-137078-1	2696V-61-B01 (0-5)	Total/NA	Solid	6010B	409521
500-137078-2	2696V-61-B02 (0-5)	Total/NA	Solid	6010B	409521
500-137078-3	2696V-61-B03 (0-5)	Total/NA	Solid	6010B	409521
500-137078-4	2696V-61-B04 (0-5)	Total/NA	Solid	6010B	409521
500-137078-5	2696V-61-B05 (0-5)	Total/NA	Solid	6010B	409521
500-137078-6	2696V-61-B06 (0-5)	Total/NA	Solid	6010B	409521
500-137078-7	2696V-61-B06 (5-10)	Total/NA	Solid	6010B	409521
500-137078-8	2696V-61-B06 (10-15)	Total/NA	Solid	6010B	409521
500-137078-9	2696V-61-B06 (15-21)	Total/NA	Solid	6010B	409521
500-137078-10	2696V-61-B06 (15-21) Dup	Total/NA	Solid	6010B	409521
500-137078-11	2696V-61-B07 (0-5)	Total/NA	Solid	6010B	409521
500-137078-12	2696V-61-B08 (0-5)	Total/NA	Solid	6010B	409521
500-137078-14	2696V-61-B10 (0-5)	Total/NA	Solid	6010B	409521
500-137078-15	2696V-61-B11 (0-5)	Total/NA	Solid	6010B	409521
500-137078-16	2696V-61-B12 (0-5)	Total/NA	Solid	6010B	409521
MB 500-409521/1-A	Method Blank	Total/NA	Solid	6010B	409521
LCS 500-409521/2-A	Lab Control Sample	Total/NA	Solid	6010B	409521
500-137078-1 MS	2696V-61-B01 (0-5)	Total/NA	Solid	6010B	409521
500-137078-1 MSD	2696V-61-B01 (0-5)	Total/NA	Solid	6010B	409521
500-137078-1 DU	2696V-61-B01 (0-5)	Total/NA	Solid	6010B	409521

Prep Batch: 410040

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-137078-1	2696V-61-B01 (0-5)	TCLP	Solid	3010A	409902
500-137078-2	2696V-61-B02 (0-5)	TCLP	Solid	3010A	409902
500-137078-3	2696V-61-B03 (0-5)	TCLP	Solid	3010A	409902
500-137078-4	2696V-61-B04 (0-5)	TCLP	Solid	3010A	409902
500-137078-5	2696V-61-B05 (0-5)	TCLP	Solid	3010A	409902
500-137078-6	2696V-61-B06 (0-5)	TCLP	Solid	3010A	409902
500-137078-7	2696V-61-B06 (5-10)	TCLP	Solid	3010A	409904
500-137078-8	2696V-61-B06 (10-15)	TCLP	Solid	3010A	409902
500-137078-9	2696V-61-B06 (15-21)	TCLP	Solid	3010A	409902
500-137078-10	2696V-61-B06 (15-21) Dup	TCLP	Solid	3010A	409902
500-137078-11	2696V-61-B07 (0-5)	TCLP	Solid	3010A	409902
500-137078-12	2696V-61-B08 (0-5)	TCLP	Solid	3010A	409902
500-137078-13	2696V-61-B09 (0-5)	TCLP	Solid	3010A	409902
500-137078-14	2696V-61-B10 (0-5)	TCLP	Solid	3010A	409902
500-137078-15	2696V-61-B11 (0-5)	TCLP	Solid	3010A	409902
500-137078-16	2696V-61-B12 (0-5)	TCLP	Solid	3010A	409902
LB 500-409902/1-B	Method Blank	TCLP	Solid	3010A	409902

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QC Association Summary

Client: Terracon Consulting Eng & Scientists
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TestAmerica Job ID: 500-137078-1

Metals (Continued)

Prep Batch: 410040 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LB2 500-409904/1-B	Method Blank	TCLP	Solid	3010A	409904
LCS 500-410040/2-A	Lab Control Sample	Total/NA	Solid	3010A	
500-137078-16 MS	2696V-61-B12 (0-5)	TCLP	Solid	3010A	409902
500-137078-16 DU	2696V-61-B12 (0-5)	TCLP	Solid	3010A	409902

Analysis Batch: 410196

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-137078-1	2696V-61-B01 (0-5)	TCLP	Solid	6010B	410040
500-137078-2	2696V-61-B02 (0-5)	TCLP	Solid	6010B	410040
500-137078-3	2696V-61-B03 (0-5)	TCLP	Solid	6010B	410040
500-137078-4	2696V-61-B04 (0-5)	TCLP	Solid	6010B	410040
500-137078-5	2696V-61-B05 (0-5)	TCLP	Solid	6010B	410040
500-137078-6	2696V-61-B06 (0-5)	TCLP	Solid	6010B	410040
500-137078-7	2696V-61-B06 (5-10)	TCLP	Solid	6010B	410040
500-137078-8	2696V-61-B06 (10-15)	TCLP	Solid	6010B	410040
500-137078-9	2696V-61-B06 (15-21)	TCLP	Solid	6010B	410040
500-137078-10	2696V-61-B06 (15-21) Dup	TCLP	Solid	6010B	410040
500-137078-11	2696V-61-B07 (0-5)	TCLP	Solid	6010B	410040
500-137078-12	2696V-61-B08 (0-5)	TCLP	Solid	6010B	410040
500-137078-13	2696V-61-B09 (0-5)	TCLP	Solid	6010B	410040
500-137078-14	2696V-61-B10 (0-5)	TCLP	Solid	6010B	410040
500-137078-15	2696V-61-B11 (0-5)	TCLP	Solid	6010B	410040
500-137078-16	2696V-61-B12 (0-5)	TCLP	Solid	6010B	410040
LB 500-409902/1-B	Method Blank	TCLP	Solid	6010B	410040
LB2 500-409904/1-B	Method Blank	TCLP	Solid	6010B	410040
LCS 500-410040/2-A	Lab Control Sample	Total/NA	Solid	6010B	410040
500-137078-16 MS	2696V-61-B12 (0-5)	TCLP	Solid	6010B	410040
500-137078-16 DU	2696V-61-B12 (0-5)	TCLP	Solid	6010B	410040

Analysis Batch: 410198

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-137078-13	2696V-61-B09 (0-5)	Total/NA	Solid	6010B	409521

Prep Batch: 410211

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-137078-1	2696V-61-B01 (0-5)	SPLP East	Solid	3010A	409911
500-137078-2	2696V-61-B02 (0-5)	SPLP East	Solid	3010A	409911
500-137078-3	2696V-61-B03 (0-5)	SPLP East	Solid	3010A	409911
500-137078-4	2696V-61-B04 (0-5)	SPLP East	Solid	3010A	409911
500-137078-5	2696V-61-B05 (0-5)	SPLP East	Solid	3010A	409911
500-137078-6	2696V-61-B06 (0-5)	SPLP East	Solid	3010A	409911
500-137078-7	2696V-61-B06 (5-10)	SPLP East	Solid	3010A	409911
500-137078-8	2696V-61-B06 (10-15)	SPLP East	Solid	3010A	409911
500-137078-9	2696V-61-B06 (15-21)	SPLP East	Solid	3010A	409911
500-137078-10	2696V-61-B06 (15-21) Dup	SPLP East	Solid	3010A	409911
500-137078-11	2696V-61-B07 (0-5)	SPLP East	Solid	3010A	409911
500-137078-12	2696V-61-B08 (0-5)	SPLP East	Solid	3010A	409911
500-137078-13	2696V-61-B09 (0-5)	SPLP East	Solid	3010A	409911
500-137078-14	2696V-61-B10 (0-5)	SPLP East	Solid	3010A	409911
500-137078-15	2696V-61-B11 (0-5)	SPLP East	Solid	3010A	409911
500-137078-16	2696V-61-B12 (0-5)	SPLP East	Solid	3010A	409911

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QC Association Summary

Client: Terracon Consulting Eng & Scientists
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TestAmerica Job ID: 500-137078-1

Metals (Continued)

Prep Batch: 410211 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LB 500-409911/1-C	Method Blank	SPLP East	Solid	3010A	409911
LCS 500-410211/2-A	Lab Control Sample	Total/NA	Solid	3010A	
500-137078-16 MS	2696V-61-B12 (0-5)	SPLP East	Solid	3010A	409911
500-137078-16 DU	2696V-61-B12 (0-5)	SPLP East	Solid	3010A	409911

Analysis Batch: 410229

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-137078-17	2692V-61-G01	Total Recoverable	Water	6020A	409517
500-137078-17	2692V-61-G01	Total Recoverable	Water	6020A	409517
MB 500-409517/1-A	Method Blank	Total Recoverable	Water	6020A	409517
LCS 500-409517/2-A	Lab Control Sample	Total Recoverable	Water	6020A	409517

Analysis Batch: 410328

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-137078-7	2696V-61-B06 (5-10)	TCLP	Solid	6010B	410040
500-137078-8	2696V-61-B06 (10-15)	TCLP	Solid	6010B	410040
500-137078-9	2696V-61-B06 (15-21)	TCLP	Solid	6010B	410040
500-137078-10	2696V-61-B06 (15-21) Dup	TCLP	Solid	6010B	410040
500-137078-14	2696V-61-B10 (0-5)	TCLP	Solid	6010B	410040

Analysis Batch: 410395

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-137078-1	2696V-61-B01 (0-5)	SPLP East	Solid	6010B	410211
500-137078-2	2696V-61-B02 (0-5)	SPLP East	Solid	6010B	410211
500-137078-3	2696V-61-B03 (0-5)	SPLP East	Solid	6010B	410211
500-137078-4	2696V-61-B04 (0-5)	SPLP East	Solid	6010B	410211
500-137078-5	2696V-61-B05 (0-5)	SPLP East	Solid	6010B	410211
500-137078-6	2696V-61-B06 (0-5)	SPLP East	Solid	6010B	410211
500-137078-7	2696V-61-B06 (5-10)	SPLP East	Solid	6010B	410211
500-137078-8	2696V-61-B06 (10-15)	SPLP East	Solid	6010B	410211
500-137078-9	2696V-61-B06 (15-21)	SPLP East	Solid	6010B	410211
500-137078-10	2696V-61-B06 (15-21) Dup	SPLP East	Solid	6010B	410211
500-137078-11	2696V-61-B07 (0-5)	SPLP East	Solid	6010B	410211
500-137078-12	2696V-61-B08 (0-5)	SPLP East	Solid	6010B	410211
500-137078-13	2696V-61-B09 (0-5)	SPLP East	Solid	6010B	410211
500-137078-14	2696V-61-B10 (0-5)	SPLP East	Solid	6010B	410211
500-137078-15	2696V-61-B11 (0-5)	SPLP East	Solid	6010B	410211
500-137078-16	2696V-61-B12 (0-5)	SPLP East	Solid	6010B	410211
LB 500-409911/1-C	Method Blank	SPLP East	Solid	6010B	410211
LCS 500-410211/2-A	Lab Control Sample	Total/NA	Solid	6010B	410211
500-137078-16 MS	2696V-61-B12 (0-5)	SPLP East	Solid	6010B	410211
500-137078-16 DU	2696V-61-B12 (0-5)	SPLP East	Solid	6010B	410211

Prep Batch: 410419

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-137078-1	2696V-61-B01 (0-5)	TCLP	Solid	7470A	409902
500-137078-2	2696V-61-B02 (0-5)	TCLP	Solid	7470A	409902
500-137078-3	2696V-61-B03 (0-5)	TCLP	Solid	7470A	409902
500-137078-4	2696V-61-B04 (0-5)	TCLP	Solid	7470A	409902
500-137078-5	2696V-61-B05 (0-5)	TCLP	Solid	7470A	409902
500-137078-6	2696V-61-B06 (0-5)	TCLP	Solid	7470A	409902

TestAmerica Chicago

QC Association Summary

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137078-1

Metals (Continued)

Prep Batch: 410419 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-137078-7	2696V-61-B06 (5-10)	TCLP	Solid	7470A	409904
500-137078-8	2696V-61-B06 (10-15)	TCLP	Solid	7470A	409902
500-137078-9	2696V-61-B06 (15-21)	TCLP	Solid	7470A	409902
500-137078-10	2696V-61-B06 (15-21) Dup	TCLP	Solid	7470A	409902
500-137078-11	2696V-61-B07 (0-5)	TCLP	Solid	7470A	409902
500-137078-12	2696V-61-B08 (0-5)	TCLP	Solid	7470A	409902
500-137078-13	2696V-61-B09 (0-5)	TCLP	Solid	7470A	409902
500-137078-14	2696V-61-B10 (0-5)	TCLP	Solid	7470A	409902
500-137078-15	2696V-61-B11 (0-5)	TCLP	Solid	7470A	409902
500-137078-16	2696V-61-B12 (0-5)	TCLP	Solid	7470A	409902
LB 500-409902/1-D	Method Blank	TCLP	Solid	7470A	409902
LB2 500-409904/1-C	Method Blank	TCLP	Solid	7470A	409904
MB 500-410419/12-A	Method Blank	Total/NA	Solid	7470A	
LCS 500-410419/13-A	Lab Control Sample	Total/NA	Solid	7470A	
500-137078-16 MS	2696V-61-B12 (0-5)	TCLP	Solid	7470A	409902
500-137078-16 DU	2696V-61-B12 (0-5)	TCLP	Solid	7470A	409902

Analysis Batch: 410434

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-137078-1	2696V-61-B01 (0-5)	TCLP	Solid	6020A	410040
500-137078-2	2696V-61-B02 (0-5)	TCLP	Solid	6020A	410040
500-137078-3	2696V-61-B03 (0-5)	TCLP	Solid	6020A	410040
500-137078-4	2696V-61-B04 (0-5)	TCLP	Solid	6020A	410040
500-137078-5	2696V-61-B05 (0-5)	TCLP	Solid	6020A	410040
500-137078-6	2696V-61-B06 (0-5)	TCLP	Solid	6020A	410040
500-137078-7	2696V-61-B06 (5-10)	TCLP	Solid	6020A	410040
500-137078-8	2696V-61-B06 (10-15)	TCLP	Solid	6020A	410040
500-137078-9	2696V-61-B06 (15-21)	TCLP	Solid	6020A	410040
500-137078-10	2696V-61-B06 (15-21) Dup	TCLP	Solid	6020A	410040
500-137078-11	2696V-61-B07 (0-5)	TCLP	Solid	6020A	410040
500-137078-12	2696V-61-B08 (0-5)	TCLP	Solid	6020A	410040
500-137078-13	2696V-61-B09 (0-5)	TCLP	Solid	6020A	410040
500-137078-14	2696V-61-B10 (0-5)	TCLP	Solid	6020A	410040
500-137078-15	2696V-61-B11 (0-5)	TCLP	Solid	6020A	410040
500-137078-16	2696V-61-B12 (0-5)	TCLP	Solid	6020A	410040
500-137078-17	2692V-61-G01	Total Recoverable	Water	6020A	409517
LB 500-409902/1-B	Method Blank	TCLP	Solid	6020A	410040
LB2 500-409904/1-B	Method Blank	TCLP	Solid	6020A	410040
MB 500-409517/1-A	Method Blank	Total Recoverable	Water	6020A	409517
LCS 500-409517/2-A	Lab Control Sample	Total Recoverable	Water	6020A	409517
LCS 500-410040/2-A	Lab Control Sample	Total/NA	Solid	6020A	410040
500-137078-16 MS	2696V-61-B12 (0-5)	TCLP	Solid	6020A	410040
500-137078-16 DU	2696V-61-B12 (0-5)	TCLP	Solid	6020A	410040

Analysis Batch: 410454

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-137078-1	2696V-61-B01 (0-5)	Total/NA	Solid	7471B	409695
500-137078-2	2696V-61-B02 (0-5)	Total/NA	Solid	7471B	409695
500-137078-3	2696V-61-B03 (0-5)	Total/NA	Solid	7471B	409695
500-137078-4	2696V-61-B04 (0-5)	Total/NA	Solid	7471B	409695
500-137078-5	2696V-61-B05 (0-5)	Total/NA	Solid	7471B	409695

TestAmerica Chicago

QC Association Summary

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137078-1

Metals (Continued)

Analysis Batch: 410454 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-137078-6	2696V-61-B06 (0-5)	Total/NA	Solid	7471B	409695
500-137078-7	2696V-61-B06 (5-10)	Total/NA	Solid	7471B	409695
500-137078-8	2696V-61-B06 (10-15)	Total/NA	Solid	7471B	409695
500-137078-9	2696V-61-B06 (15-21)	Total/NA	Solid	7471B	409695
500-137078-10	2696V-61-B06 (15-21) Dup	Total/NA	Solid	7471B	409695
500-137078-11	2696V-61-B07 (0-5)	Total/NA	Solid	7471B	409695
500-137078-12	2696V-61-B08 (0-5)	Total/NA	Solid	7471B	409695
500-137078-13	2696V-61-B09 (0-5)	Total/NA	Solid	7471B	409695
500-137078-14	2696V-61-B10 (0-5)	Total/NA	Solid	7471B	409695
500-137078-15	2696V-61-B11 (0-5)	Total/NA	Solid	7471B	409695
500-137078-16	2696V-61-B12 (0-5)	Total/NA	Solid	7471B	409695
MB 500-409695/12-A	Method Blank	Total/NA	Solid	7471B	409695
LCS 500-409695/13-A	Lab Control Sample	Total/NA	Solid	7471B	409695
500-137078-8 MS	2696V-61-B06 (10-15)	Total/NA	Solid	7471B	409695
500-137078-8 MSD	2696V-61-B06 (10-15)	Total/NA	Solid	7471B	409695
500-137078-8 DU	2696V-61-B06 (10-15)	Total/NA	Solid	7471B	409695

Analysis Batch: 410492

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-137078-1	2696V-61-B01 (0-5)	TCLP	Solid	7470A	410419
500-137078-2	2696V-61-B02 (0-5)	TCLP	Solid	7470A	410419
500-137078-3	2696V-61-B03 (0-5)	TCLP	Solid	7470A	410419
500-137078-4	2696V-61-B04 (0-5)	TCLP	Solid	7470A	410419
500-137078-5	2696V-61-B05 (0-5)	TCLP	Solid	7470A	410419
500-137078-6	2696V-61-B06 (0-5)	TCLP	Solid	7470A	410419
500-137078-7	2696V-61-B06 (5-10)	TCLP	Solid	7470A	410419
500-137078-8	2696V-61-B06 (10-15)	TCLP	Solid	7470A	410419
500-137078-9	2696V-61-B06 (15-21)	TCLP	Solid	7470A	410419
500-137078-10	2696V-61-B06 (15-21) Dup	TCLP	Solid	7470A	410419
500-137078-11	2696V-61-B07 (0-5)	TCLP	Solid	7470A	410419
500-137078-12	2696V-61-B08 (0-5)	TCLP	Solid	7470A	410419
500-137078-13	2696V-61-B09 (0-5)	TCLP	Solid	7470A	410419
500-137078-14	2696V-61-B10 (0-5)	TCLP	Solid	7470A	410419
500-137078-15	2696V-61-B11 (0-5)	TCLP	Solid	7470A	410419
500-137078-16	2696V-61-B12 (0-5)	TCLP	Solid	7470A	410419
LB 500-409902/1-D	Method Blank	TCLP	Solid	7470A	410419
LB2 500-409904/1-C	Method Blank	TCLP	Solid	7470A	410419
MB 500-410419/12-A	Method Blank	Total/NA	Solid	7470A	410419
LCS 500-410419/13-A	Lab Control Sample	Total/NA	Solid	7470A	410419
500-137078-16 MS	2696V-61-B12 (0-5)	TCLP	Solid	7470A	410419
500-137078-16 DU	2696V-61-B12 (0-5)	TCLP	Solid	7470A	410419

General Chemistry

Analysis Batch: 409413

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-137078-1	2696V-61-B01 (0-5)	Total/NA	Solid	Moisture	
500-137078-2	2696V-61-B02 (0-5)	Total/NA	Solid	Moisture	
500-137078-3	2696V-61-B03 (0-5)	Total/NA	Solid	Moisture	
500-137078-4	2696V-61-B04 (0-5)	Total/NA	Solid	Moisture	

TestAmerica Chicago

QC Association Summary

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137078-1

General Chemistry (Continued)

Analysis Batch: 409413 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-137078-5	2696V-61-B05 (0-5)	Total/NA	Solid	Moisture	
500-137078-6	2696V-61-B06 (0-5)	Total/NA	Solid	Moisture	
500-137078-7	2696V-61-B06 (5-10)	Total/NA	Solid	Moisture	
500-137078-8	2696V-61-B06 (10-15)	Total/NA	Solid	Moisture	
500-137078-9	2696V-61-B06 (15-21)	Total/NA	Solid	Moisture	
500-137078-10	2696V-61-B06 (15-21) Dup	Total/NA	Solid	Moisture	
500-137078-11	2696V-61-B07 (0-5)	Total/NA	Solid	Moisture	
500-137078-12	2696V-61-B08 (0-5)	Total/NA	Solid	Moisture	
500-137078-13	2696V-61-B09 (0-5)	Total/NA	Solid	Moisture	
500-137078-14	2696V-61-B10 (0-5)	Total/NA	Solid	Moisture	
500-137078-15	2696V-61-B11 (0-5)	Total/NA	Solid	Moisture	
500-137078-16	2696V-61-B12 (0-5)	Total/NA	Solid	Moisture	

Prep Batch: 410608

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-137078-1	2696V-61-B01 (0-5)	Total/NA	Solid	9010B	
500-137078-2	2696V-61-B02 (0-5)	Total/NA	Solid	9010B	
500-137078-3	2696V-61-B03 (0-5)	Total/NA	Solid	9010B	
500-137078-4	2696V-61-B04 (0-5)	Total/NA	Solid	9010B	
500-137078-5	2696V-61-B05 (0-5)	Total/NA	Solid	9010B	
500-137078-6	2696V-61-B06 (0-5)	Total/NA	Solid	9010B	
500-137078-7	2696V-61-B06 (5-10)	Total/NA	Solid	9010B	
500-137078-8	2696V-61-B06 (10-15)	Total/NA	Solid	9010B	
500-137078-9	2696V-61-B06 (15-21)	Total/NA	Solid	9010B	
500-137078-10	2696V-61-B06 (15-21) Dup	Total/NA	Solid	9010B	
500-137078-11	2696V-61-B07 (0-5)	Total/NA	Solid	9010B	
500-137078-12	2696V-61-B08 (0-5)	Total/NA	Solid	9010B	
500-137078-13	2696V-61-B09 (0-5)	Total/NA	Solid	9010B	
500-137078-14	2696V-61-B10 (0-5)	Total/NA	Solid	9010B	
500-137078-15	2696V-61-B11 (0-5)	Total/NA	Solid	9010B	
500-137078-16	2696V-61-B12 (0-5)	Total/NA	Solid	9010B	
MB 500-410608/1-A	Method Blank	Total/NA	Solid	9010B	
LCS 500-410608/2-A	Lab Control Sample	Total/NA	Solid	9010B	
500-137078-1 MS	2696V-61-B01 (0-5)	Total/NA	Solid	9010B	
500-137078-1 MSD	2696V-61-B01 (0-5)	Total/NA	Solid	9010B	

Prep Batch: 410609

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-137078-17	2692V-61-G01	Total/NA	Water	9010B	
MB 500-410609/1-A	Method Blank	Total/NA	Water	9010B	
LCS 500-410609/2-A	Lab Control Sample	Total/NA	Water	9010B	

Analysis Batch: 410622

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-137078-1	2696V-61-B01 (0-5)	Total/NA	Solid	9045D	
500-137078-2	2696V-61-B02 (0-5)	Total/NA	Solid	9045D	
500-137078-3	2696V-61-B03 (0-5)	Total/NA	Solid	9045D	
500-137078-4	2696V-61-B04 (0-5)	Total/NA	Solid	9045D	
500-137078-5	2696V-61-B05 (0-5)	Total/NA	Solid	9045D	
500-137078-6	2696V-61-B06 (0-5)	Total/NA	Solid	9045D	
500-137078-7	2696V-61-B06 (5-10)	Total/NA	Solid	9045D	

TestAmerica Chicago

QC Association Summary

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137078-1

General Chemistry (Continued)

Analysis Batch: 410622 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-137078-8	2696V-61-B06 (10-15)	Total/NA	Solid	9045D	
500-137078-9	2696V-61-B06 (15-21)	Total/NA	Solid	9045D	
500-137078-10	2696V-61-B06 (15-21) Dup	Total/NA	Solid	9045D	
500-137078-11	2696V-61-B07 (0-5)	Total/NA	Solid	9045D	
500-137078-12	2696V-61-B08 (0-5)	Total/NA	Solid	9045D	
500-137078-13	2696V-61-B09 (0-5)	Total/NA	Solid	9045D	
500-137078-14	2696V-61-B10 (0-5)	Total/NA	Solid	9045D	
500-137078-15	2696V-61-B11 (0-5)	Total/NA	Solid	9045D	
500-137078-16	2696V-61-B12 (0-5)	Total/NA	Solid	9045D	
500-137078-15 DU	2696V-61-B11 (0-5)	Total/NA	Solid	9045D	

Analysis Batch: 410740

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-137078-1	2696V-61-B01 (0-5)	Total/NA	Solid	9014	410608
500-137078-2	2696V-61-B02 (0-5)	Total/NA	Solid	9014	410608
500-137078-3	2696V-61-B03 (0-5)	Total/NA	Solid	9014	410608
500-137078-4	2696V-61-B04 (0-5)	Total/NA	Solid	9014	410608
500-137078-5	2696V-61-B05 (0-5)	Total/NA	Solid	9014	410608
500-137078-6	2696V-61-B06 (0-5)	Total/NA	Solid	9014	410608
500-137078-7	2696V-61-B06 (5-10)	Total/NA	Solid	9014	410608
500-137078-8	2696V-61-B06 (10-15)	Total/NA	Solid	9014	410608
500-137078-9	2696V-61-B06 (15-21)	Total/NA	Solid	9014	410608
500-137078-10	2696V-61-B06 (15-21) Dup	Total/NA	Solid	9014	410608
500-137078-11	2696V-61-B07 (0-5)	Total/NA	Solid	9014	410608
500-137078-12	2696V-61-B08 (0-5)	Total/NA	Solid	9014	410608
500-137078-13	2696V-61-B09 (0-5)	Total/NA	Solid	9014	410608
500-137078-14	2696V-61-B10 (0-5)	Total/NA	Solid	9014	410608
500-137078-15	2696V-61-B11 (0-5)	Total/NA	Solid	9014	410608
500-137078-16	2696V-61-B12 (0-5)	Total/NA	Solid	9014	410608
MB 500-410608/1-A	Method Blank	Total/NA	Solid	9014	410608
LCS 500-410608/2-A	Lab Control Sample	Total/NA	Solid	9014	410608
500-137078-1 MS	2696V-61-B01 (0-5)	Total/NA	Solid	9014	410608
500-137078-1 MSD	2696V-61-B01 (0-5)	Total/NA	Solid	9014	410608

Analysis Batch: 410745

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-137078-17	2692V-61-G01	Total/NA	Water	9014	410609
MB 500-410609/1-A	Method Blank	Total/NA	Water	9014	410609
LCS 500-410609/2-A	Lab Control Sample	Total/NA	Water	9014	410609

Surrogate Summary

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137078-1

Method: 8260B - VOC

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	BFB (72-124)	DBFM (75-120)	12DCE (75-126)	TOL (75-120)
500-137078-17	2692V-61-G01	87	88	85	101
LCS 500-410248/4	Lab Control Sample	83	88	87	102
MB 500-410248/6	Method Blank	86	88	89	102

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

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	BFB (75-131)	DBFM (75-126)	12DCE (70-134)	TOL (75-124)
500-137078-1	2696V-61-B01 (0-5)	92	102	100	96
500-137078-2	2696V-61-B02 (0-5)	92	105	108	95
500-137078-3	2696V-61-B03 (0-5)	92	109	118	94
500-137078-4	2696V-61-B04 (0-5)	92	104	110	87
500-137078-5	2696V-61-B05 (0-5)	92	105	105	96
500-137078-6	2696V-61-B06 (0-5)	96	106	104	96
500-137078-7	2696V-61-B06 (5-10)	98	138 X	129	97
500-137078-8	2696V-61-B06 (10-15)	91	106	117	98
500-137078-9	2696V-61-B06 (15-21)	92	109	109	97
500-137078-10	2696V-61-B06 (15-21) Dup	89	107	116	97
500-137078-11	2696V-61-B07 (0-5)	93	118	120	83
500-137078-12	2696V-61-B08 (0-5)	96	97	104	99
500-137078-13	2696V-61-B09 (0-5)	91	103	103	94
500-137078-14	2696V-61-B10 (0-5)	91	80	92	96
500-137078-15	2696V-61-B11 (0-5)	89	88	95	95
500-137078-16	2696V-61-B12 (0-5)	91	104	99	125 X
LCS 500-409897/3	Lab Control Sample	86	96	91	105
LCS 500-410018/5	Lab Control Sample	91	92	86	97
LCS 500-410201/4	Lab Control Sample	87	104	110	98
LCSD 500-409897/4	Lab Control Sample Dup	80	100	91	97
LCSD 500-410018/24	Lab Control Sample Dup	89	100	95	97
LCSD 500-410201/5	Lab Control Sample Dup	88	101	102	92
MB 500-409897/5	Method Blank	90	99	96	92
MB 500-410018/6	Method Blank	88	101	95	95
MB 500-410201/6	Method Blank	89	101	93	95

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)
 DBFM = Dibromofluoromethane
 12DCE = 1,2-Dichloroethane-d4 (Surr)
 TOL = Toluene-d8 (Surr)

TestAmerica Chicago

Surrogate Summary

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137078-1

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

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		FBP (44-121)	2FP (46-133)	NBZ (41-120)	PHL (46-125)	TPH (35-160)	TBP (25-139)
500-137078-1	2696V-61-B01 (0-5)	95	104	93	101	80	74
500-137078-2	2696V-61-B02 (0-5)	86	90	81	86	72	48
500-137078-3	2696V-61-B03 (0-5)	81	90	78	85	72	60
500-137078-4	2696V-61-B04 (0-5)	90	97	86	94	78	67
500-137078-5	2696V-61-B05 (0-5)	84	91	79	88	77	57
500-137078-6	2696V-61-B06 (0-5)	73	80	68	76	63	51
500-137078-7	2696V-61-B06 (5-10)	86	91	79	86	72	57
500-137078-8	2696V-61-B06 (10-15)	81	88	74	79	73	53
500-137078-9	2696V-61-B06 (15-21)	94	80	79	74	79	65
500-137078-10	2696V-61-B06 (15-21) Dup	96	100	86	98	85	70
500-137078-11	2696V-61-B07 (0-5)	89	92	81	87	73	54
500-137078-12	2696V-61-B08 (0-5)	85	86	79	82	75	64
500-137078-13	2696V-61-B09 (0-5)	87	93	80	89	77	69
500-137078-14	2696V-61-B10 (0-5)	87	88	78	85	76	60
500-137078-15	2696V-61-B11 (0-5)	77	78	69	80	71	62
500-137078-16	2696V-61-B12 (0-5)	80	87	73	81	75	61
500-137078-16 MS	2696V-61-B12 (0-5)	85	88	79	87	76	73
500-137078-16 MSD	2696V-61-B12 (0-5)	88	91	82	84	76	70
LCS 500-410180/2-A	Lab Control Sample	86	92	85	85	73	62
MB 500-410180/1-A	Method Blank	86	90	83	87	78	48

Surrogate Legend

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

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

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		FBP (34-110)	2FP (27-110)	NBZ (36-120)	PHL (20-100)	TPH (40-145)	TBP (40-145)
500-137078-17	2692V-61-G01	64	75	73	53	78	79
LCS 500-409625/2-A	Lab Control Sample	84	86	92	61	96	100
MB 500-409625/1-A	Method Blank	77	74	85	47	91	84

Surrogate Legend

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

TestAmerica Chicago

QC Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137078-1

Method: 8260B - VOC

Lab Sample ID: MB 500-410248/6

Matrix: Water

Analysis Batch: 410248

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	0.0017	mg/L			11/16/17 13:17	1
Benzene	<0.00050		0.00050	0.00015	mg/L			11/16/17 13:17	1
Bromodichloromethane	<0.0010		0.0010	0.00037	mg/L			11/16/17 13:17	1
Bromoform	<0.0010		0.0010	0.00048	mg/L			11/16/17 13:17	1
Bromomethane	<0.0020		0.0020	0.00080	mg/L			11/16/17 13:17	1
Carbon disulfide	<0.0020		0.0020	0.00045	mg/L			11/16/17 13:17	1
Carbon tetrachloride	<0.0010		0.0010	0.00038	mg/L			11/16/17 13:17	1
Chlorobenzene	<0.0010		0.0010	0.00039	mg/L			11/16/17 13:17	1
Chloroethane	<0.0010		0.0010	0.00051	mg/L			11/16/17 13:17	1
Chloroform	<0.0020		0.0020	0.00037	mg/L			11/16/17 13:17	1
Chloromethane	<0.0010		0.0010	0.00032	mg/L			11/16/17 13:17	1
cis-1,2-Dichloroethene	<0.0010		0.0010	0.00041	mg/L			11/16/17 13:17	1
cis-1,3-Dichloropropene	<0.0010		0.0010	0.00042	mg/L			11/16/17 13:17	1
Dibromochloromethane	<0.0010		0.0010	0.00049	mg/L			11/16/17 13:17	1
1,1-Dichloroethane	<0.0010		0.0010	0.00041	mg/L			11/16/17 13:17	1
1,2-Dichloroethane	<0.0010		0.0010	0.00039	mg/L			11/16/17 13:17	1
1,1-Dichloroethene	<0.0010		0.0010	0.00039	mg/L			11/16/17 13:17	1
1,2-Dichloropropane	<0.0010		0.0010	0.00043	mg/L			11/16/17 13:17	1
1,3-Dichloropropene, Total	<0.0010		0.0010	0.00042	mg/L			11/16/17 13:17	1
Ethylbenzene	<0.00050		0.00050	0.00018	mg/L			11/16/17 13:17	1
2-Hexanone	<0.0050		0.0050	0.0016	mg/L			11/16/17 13:17	1
Methyl Ethyl Ketone	<0.0050		0.0050	0.0021	mg/L			11/16/17 13:17	1
Methylene Chloride	<0.0050		0.0050	0.0016	mg/L			11/16/17 13:17	1
methyl isobutyl ketone	<0.0050		0.0050	0.0022	mg/L			11/16/17 13:17	1
Methyl tert-butyl ether	<0.0010		0.0010	0.00039	mg/L			11/16/17 13:17	1
Styrene	<0.0010		0.0010	0.00039	mg/L			11/16/17 13:17	1
1,1,2,2-Tetrachloroethane	<0.0010		0.0010	0.00040	mg/L			11/16/17 13:17	1
Tetrachloroethene	<0.0010		0.0010	0.00037	mg/L			11/16/17 13:17	1
Toluene	<0.00050		0.00050	0.00015	mg/L			11/16/17 13:17	1
trans-1,2-Dichloroethene	<0.0010		0.0010	0.00035	mg/L			11/16/17 13:17	1
trans-1,3-Dichloropropene	<0.0010		0.0010	0.00036	mg/L			11/16/17 13:17	1
1,1,1-Trichloroethane	<0.0010		0.0010	0.00038	mg/L			11/16/17 13:17	1
1,1,2-Trichloroethane	<0.0010		0.0010	0.00035	mg/L			11/16/17 13:17	1
Trichloroethene	<0.00050		0.00050	0.00016	mg/L			11/16/17 13:17	1
Vinyl acetate	<0.0020		0.0020	0.00091	mg/L			11/16/17 13:17	1
Vinyl chloride	<0.00050		0.00050	0.00020	mg/L			11/16/17 13:17	1
Xylenes, Total	<0.0010		0.0010	0.00022	mg/L			11/16/17 13:17	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	86		72 - 124		11/16/17 13:17	1
Dibromofluoromethane	88		75 - 120		11/16/17 13:17	1
1,2-Dichloroethane-d4 (Surr)	89		75 - 126		11/16/17 13:17	1
Toluene-d8 (Surr)	102		75 - 120		11/16/17 13:17	1

TestAmerica Chicago

QC Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137078-1

Method: 8260B - VOC (Continued)

Lab Sample ID: LCS 500-410248/4

Matrix: Water

Analysis Batch: 410248

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	0.0543		mg/L		109	40 - 143
Benzene	0.0500	0.0476		mg/L		95	70 - 120
Bromodichloromethane	0.0500	0.0436		mg/L		87	69 - 120
Bromoform	0.0500	0.0438		mg/L		88	56 - 132
Bromomethane	0.0500	0.0466		mg/L		93	40 - 130
Carbon disulfide	0.0500	0.0521		mg/L		104	66 - 120
Carbon tetrachloride	0.0500	0.0431		mg/L		86	65 - 122
Chlorobenzene	0.0500	0.0472		mg/L		94	70 - 120
Chloroethane	0.0500	0.0492		mg/L		98	45 - 127
Chloroform	0.0500	0.0463		mg/L		93	70 - 120
Chloromethane	0.0500	0.0424		mg/L		85	54 - 147
cis-1,2-Dichloroethene	0.0500	0.0464		mg/L		93	70 - 125
cis-1,3-Dichloropropene	0.0500	0.0466		mg/L		93	64 - 127
Dibromochloromethane	0.0500	0.0428		mg/L		86	68 - 125
1,1-Dichloroethane	0.0500	0.0499		mg/L		100	70 - 125
1,2-Dichloroethane	0.0500	0.0437		mg/L		87	68 - 127
1,1-Dichloroethene	0.0500	0.0503		mg/L		101	67 - 122
1,2-Dichloropropane	0.0500	0.0497		mg/L		99	67 - 130
Ethylbenzene	0.0500	0.0497		mg/L		99	70 - 120
2-Hexanone	0.0500	0.0414		mg/L		83	56 - 135
Methyl Ethyl Ketone	0.0500	0.0424		mg/L		85	53 - 141
Methylene Chloride	0.0500	0.0502		mg/L		100	69 - 125
methyl isobutyl ketone	0.0500	0.0406		mg/L		81	56 - 133
Methyl tert-butyl ether	0.0500	0.0442		mg/L		88	70 - 120
Styrene	0.0500	0.0492		mg/L		98	70 - 120
1,1,2,2-Tetrachloroethane	0.0500	0.0438		mg/L		88	67 - 127
Tetrachloroethene	0.0500	0.0548		mg/L		110	70 - 128
Toluene	0.0500	0.0492		mg/L		98	70 - 125
trans-1,2-Dichloroethene	0.0500	0.0491		mg/L		98	70 - 125
trans-1,3-Dichloropropene	0.0500	0.0447		mg/L		89	62 - 128
1,1,1-Trichloroethane	0.0500	0.0462		mg/L		92	70 - 125
1,1,2-Trichloroethane	0.0500	0.0493		mg/L		99	70 - 122
Trichloroethene	0.0500	0.0498		mg/L		100	70 - 125
Vinyl acetate	0.0500	0.0431		mg/L		86	43 - 133
Vinyl chloride	0.0500	0.0520		mg/L		104	64 - 126
Xylenes, Total	0.100	0.0956		mg/L		96	70 - 125

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	83		72 - 124
Dibromofluoromethane	88		75 - 120
1,2-Dichloroethane-d4 (Surr)	87		75 - 126
Toluene-d8 (Surr)	102		75 - 120

QC Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137078-1

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

Lab Sample ID: MB 500-409897/5

Matrix: Solid

Analysis Batch: 409897

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.020		0.020	0.0087	mg/Kg			11/14/17 17:00	1
Benzene	<0.0020		0.0020	0.00051	mg/Kg			11/14/17 17:00	1
Bromodichloromethane	<0.0020		0.0020	0.00041	mg/Kg			11/14/17 17:00	1
Bromoform	<0.0020		0.0020	0.00058	mg/Kg			11/14/17 17:00	1
Bromomethane	<0.0050		0.0050	0.0019	mg/Kg			11/14/17 17:00	1
Carbon disulfide	<0.0050		0.0050	0.0010	mg/Kg			11/14/17 17:00	1
Carbon tetrachloride	<0.0020		0.0020	0.00058	mg/Kg			11/14/17 17:00	1
Chlorobenzene	<0.0020		0.0020	0.00074	mg/Kg			11/14/17 17:00	1
Chloroethane	<0.0050		0.0050	0.0015	mg/Kg			11/14/17 17:00	1
Chloroform	<0.0020		0.0020	0.00069	mg/Kg			11/14/17 17:00	1
Chloromethane	<0.0050		0.0050	0.0020	mg/Kg			11/14/17 17:00	1
cis-1,2-Dichloroethene	<0.0020		0.0020	0.00056	mg/Kg			11/14/17 17:00	1
cis-1,3-Dichloropropene	<0.0020		0.0020	0.00060	mg/Kg			11/14/17 17:00	1
Dibromochloromethane	<0.0020		0.0020	0.00065	mg/Kg			11/14/17 17:00	1
1,1-Dichloroethane	<0.0020		0.0020	0.00069	mg/Kg			11/14/17 17:00	1
1,2-Dichloroethane	<0.0050		0.0050	0.0016	mg/Kg			11/14/17 17:00	1
1,1-Dichloroethene	<0.0020		0.0020	0.00069	mg/Kg			11/14/17 17:00	1
1,2-Dichloropropane	<0.0020		0.0020	0.00052	mg/Kg			11/14/17 17:00	1
1,3-Dichloropropene, Total	<0.0020		0.0020	0.00070	mg/Kg			11/14/17 17:00	1
Ethylbenzene	<0.0020		0.0020	0.00096	mg/Kg			11/14/17 17:00	1
2-Hexanone	<0.0050		0.0050	0.0016	mg/Kg			11/14/17 17:00	1
2-Butanone (MEK)	<0.0050		0.0050	0.0022	mg/Kg			11/14/17 17:00	1
Methylene Chloride	<0.0050		0.0050	0.0020	mg/Kg			11/14/17 17:00	1
4-Methyl-2-pentanone (MIBK)	<0.0050		0.0050	0.0015	mg/Kg			11/14/17 17:00	1
Methyl tert-butyl ether	<0.0020		0.0020	0.00059	mg/Kg			11/14/17 17:00	1
Styrene	<0.0020		0.0020	0.00060	mg/Kg			11/14/17 17:00	1
1,1,2,2-Tetrachloroethane	<0.0020		0.0020	0.00064	mg/Kg			11/14/17 17:00	1
Tetrachloroethene	<0.0020		0.0020	0.00068	mg/Kg			11/14/17 17:00	1
Toluene	<0.0020		0.0020	0.00051	mg/Kg			11/14/17 17:00	1
trans-1,2-Dichloroethene	<0.0020		0.0020	0.00089	mg/Kg			11/14/17 17:00	1
trans-1,3-Dichloropropene	<0.0020		0.0020	0.00070	mg/Kg			11/14/17 17:00	1
1,1,1-Trichloroethane	<0.0020		0.0020	0.00067	mg/Kg			11/14/17 17:00	1
1,1,2-Trichloroethane	<0.0020		0.0020	0.00086	mg/Kg			11/14/17 17:00	1
Trichloroethene	<0.0020		0.0020	0.00068	mg/Kg			11/14/17 17:00	1
Vinyl acetate	<0.0050		0.0050	0.0017	mg/Kg			11/14/17 17:00	1
Vinyl chloride	<0.0020		0.0020	0.00089	mg/Kg			11/14/17 17:00	1
Xylenes, Total	<0.0040		0.0040	0.00064	mg/Kg			11/14/17 17:00	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	90		75 - 131		11/14/17 17:00	1
Dibromofluoromethane	99		75 - 126		11/14/17 17:00	1
1,2-Dichloroethane-d4 (Surr)	96		70 - 134		11/14/17 17:00	1
Toluene-d8 (Surr)	92		75 - 124		11/14/17 17:00	1

TestAmerica Chicago

QC Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137078-1

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

Lab Sample ID: LCS 500-409897/3

Matrix: Solid

Analysis Batch: 409897

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	0.0697		mg/Kg		139	40 - 150
Benzene	0.0500	0.0473		mg/Kg		95	70 - 125
Bromodichloromethane	0.0500	0.0465		mg/Kg		93	67 - 129
Bromoform	0.0500	0.0384		mg/Kg		77	68 - 136
Bromomethane	0.0500	0.0572		mg/Kg		114	70 - 130
Carbon disulfide	0.0500	0.0494		mg/Kg		99	70 - 129
Carbon tetrachloride	0.0500	0.0493		mg/Kg		99	75 - 125
Chlorobenzene	0.0500	0.0466		mg/Kg		93	50 - 150
Chloroethane	0.0500	0.0497		mg/Kg		99	75 - 125
Chloroform	0.0500	0.0477		mg/Kg		95	57 - 135
Chloromethane	0.0500	0.0493		mg/Kg		99	70 - 125
cis-1,2-Dichloroethene	0.0500	0.0474		mg/Kg		95	70 - 125
cis-1,3-Dichloropropene	0.0500	0.0494		mg/Kg		99	70 - 125
Dibromochloromethane	0.0500	0.0432		mg/Kg		86	69 - 125
1,1-Dichloroethane	0.0500	0.0443		mg/Kg		89	70 - 125
1,2-Dichloroethane	0.0500	0.0486		mg/Kg		97	70 - 130
1,1-Dichloroethene	0.0500	0.0494		mg/Kg		99	70 - 120
1,2-Dichloropropane	0.0500	0.0467		mg/Kg		93	70 - 125
Ethylbenzene	0.0500	0.0350		mg/Kg		70	61 - 136
2-Hexanone	0.0500	0.0470		mg/Kg		94	48 - 146
2-Butanone (MEK)	0.0500	0.0576		mg/Kg		115	47 - 138
Methylene Chloride	0.0500	0.0438		mg/Kg		88	70 - 126
4-Methyl-2-pentanone (MIBK)	0.0500	0.0578		mg/Kg		116	50 - 148
Methyl tert-butyl ether	0.0500	0.0436		mg/Kg		87	50 - 140
Styrene	0.0500	0.0358		mg/Kg		72	70 - 125
1,1,1,2-Tetrachloroethane	0.0500	0.0425		mg/Kg		85	70 - 122
Tetrachloroethene	0.0500	0.0437		mg/Kg		87	70 - 124
Toluene	0.0500	0.0491		mg/Kg		98	70 - 125
trans-1,2-Dichloroethene	0.0500	0.0426		mg/Kg		85	70 - 125
trans-1,3-Dichloropropene	0.0500	0.0476		mg/Kg		95	70 - 125
1,1,1-Trichloroethane	0.0500	0.0486		mg/Kg		97	70 - 128
1,1,2-Trichloroethane	0.0500	0.0426		mg/Kg		85	70 - 125
Trichloroethene	0.0500	0.0469		mg/Kg		94	70 - 125
Vinyl acetate	0.0500	0.0356		mg/Kg		71	40 - 153
Vinyl chloride	0.0500	0.0501		mg/Kg		100	70 - 125
Xylenes, Total	0.100	0.0711		mg/Kg		71	53 - 147

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	86		75 - 131
Dibromofluoromethane	96		75 - 126
1,2-Dichloroethane-d4 (Surr)	91		70 - 134
Toluene-d8 (Surr)	105		75 - 124

QC Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137078-1

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

Lab Sample ID: LCSD 500-409897/4

Matrix: Solid

Analysis Batch: 409897

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	0.0593		mg/Kg		119	40 - 150	16	30
Benzene	0.0500	0.0446		mg/Kg		89	70 - 125	6	30
Bromodichloromethane	0.0500	0.0439		mg/Kg		88	67 - 129	6	30
Bromoform	0.0500	0.0440		mg/Kg		88	68 - 136	13	30
Bromomethane	0.0500	0.0626		mg/Kg		125	70 - 130	9	30
Carbon disulfide	0.0500	0.0468		mg/Kg		94	70 - 129	5	30
Carbon tetrachloride	0.0500	0.0465		mg/Kg		93	75 - 125	6	30
Chlorobenzene	0.0500	0.0433		mg/Kg		87	50 - 150	7	30
Chloroethane	0.0500	0.0520		mg/Kg		104	75 - 125	5	30
Chloroform	0.0500	0.0458		mg/Kg		92	57 - 135	4	30
Chloromethane	0.0500	0.0501		mg/Kg		100	70 - 125	2	30
cis-1,2-Dichloroethene	0.0500	0.0472		mg/Kg		94	70 - 125	1	30
cis-1,3-Dichloropropene	0.0500	0.0428		mg/Kg		86	70 - 125	14	30
Dibromochloromethane	0.0500	0.0459		mg/Kg		92	69 - 125	6	30
1,1-Dichloroethane	0.0500	0.0470		mg/Kg		94	70 - 125	6	30
1,2-Dichloroethane	0.0500	0.0462		mg/Kg		92	70 - 130	5	30
1,1-Dichloroethene	0.0500	0.0459		mg/Kg		92	70 - 120	7	30
1,2-Dichloropropane	0.0500	0.0452		mg/Kg		90	70 - 125	3	30
Ethylbenzene	0.0500	0.0426		mg/Kg		85	61 - 136	20	30
2-Hexanone	0.0500	0.0454		mg/Kg		91	48 - 146	4	30
2-Butanone (MEK)	0.0500	0.0486		mg/Kg		97	47 - 138	17	30
Methylene Chloride	0.0500	0.0455		mg/Kg		91	70 - 126	4	30
4-Methyl-2-pentanone (MIBK)	0.0500	0.0483		mg/Kg		97	50 - 148	18	30
Methyl tert-butyl ether	0.0500	0.0480		mg/Kg		96	50 - 140	10	30
Styrene	0.0500	0.0415		mg/Kg		83	70 - 125	15	30
1,1,1,2-Tetrachloroethane	0.0500	0.0393		mg/Kg		79	70 - 122	8	30
Tetrachloroethene	0.0500	0.0434		mg/Kg		87	70 - 124	1	30
Toluene	0.0500	0.0427		mg/Kg		85	70 - 125	14	30
trans-1,2-Dichloroethene	0.0500	0.0470		mg/Kg		94	70 - 125	10	30
trans-1,3-Dichloropropene	0.0500	0.0425		mg/Kg		85	70 - 125	11	30
1,1,1-Trichloroethane	0.0500	0.0464		mg/Kg		93	70 - 128	5	30
1,1,2-Trichloroethane	0.0500	0.0439		mg/Kg		88	70 - 125	3	30
Trichloroethene	0.0500	0.0440		mg/Kg		88	70 - 125	6	30
Vinyl acetate	0.0500	0.0368		mg/Kg		74	40 - 153	3	30
Vinyl chloride	0.0500	0.0503		mg/Kg		101	70 - 125	0	30
Xylenes, Total	0.100	0.0858		mg/Kg		86	53 - 147	19	30

Surrogate	LCSD %Recovery	LCSD Qualifier	LCSD Limits
4-Bromofluorobenzene (Surr)	80		75 - 131
Dibromofluoromethane	100		75 - 126
1,2-Dichloroethane-d4 (Surr)	91		70 - 134
Toluene-d8 (Surr)	97		75 - 124

QC Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137078-1

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

Lab Sample ID: MB 500-410018/6

Matrix: Solid

Analysis Batch: 410018

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.020		0.020	0.0087	mg/Kg			11/15/17 11:30	1
Benzene	<0.0020		0.0020	0.00051	mg/Kg			11/15/17 11:30	1
Bromodichloromethane	<0.0020		0.0020	0.00041	mg/Kg			11/15/17 11:30	1
Bromoform	<0.0020		0.0020	0.00058	mg/Kg			11/15/17 11:30	1
Bromomethane	<0.0050		0.0050	0.0019	mg/Kg			11/15/17 11:30	1
Carbon disulfide	<0.0050		0.0050	0.0010	mg/Kg			11/15/17 11:30	1
Carbon tetrachloride	<0.0020		0.0020	0.00058	mg/Kg			11/15/17 11:30	1
Chlorobenzene	<0.0020		0.0020	0.00074	mg/Kg			11/15/17 11:30	1
Chloroethane	<0.0050		0.0050	0.0015	mg/Kg			11/15/17 11:30	1
Chloroform	<0.0020		0.0020	0.00069	mg/Kg			11/15/17 11:30	1
Chloromethane	<0.0050		0.0050	0.0020	mg/Kg			11/15/17 11:30	1
cis-1,2-Dichloroethene	<0.0020		0.0020	0.00056	mg/Kg			11/15/17 11:30	1
cis-1,3-Dichloropropene	<0.0020		0.0020	0.00060	mg/Kg			11/15/17 11:30	1
Dibromochloromethane	<0.0020		0.0020	0.00065	mg/Kg			11/15/17 11:30	1
1,1-Dichloroethane	<0.0020		0.0020	0.00069	mg/Kg			11/15/17 11:30	1
1,2-Dichloroethane	<0.0050		0.0050	0.0016	mg/Kg			11/15/17 11:30	1
1,1-Dichloroethene	<0.0020		0.0020	0.00069	mg/Kg			11/15/17 11:30	1
1,2-Dichloropropane	<0.0020		0.0020	0.00052	mg/Kg			11/15/17 11:30	1
1,3-Dichloropropane, Total	<0.0020		0.0020	0.00070	mg/Kg			11/15/17 11:30	1
Ethylbenzene	<0.0020		0.0020	0.00096	mg/Kg			11/15/17 11:30	1
2-Hexanone	<0.0050		0.0050	0.0016	mg/Kg			11/15/17 11:30	1
2-Butanone (MEK)	<0.0050		0.0050	0.0022	mg/Kg			11/15/17 11:30	1
Methylene Chloride	<0.0050		0.0050	0.0020	mg/Kg			11/15/17 11:30	1
4-Methyl-2-pentanone (MIBK)	<0.0050		0.0050	0.0015	mg/Kg			11/15/17 11:30	1
Methyl tert-butyl ether	<0.0020		0.0020	0.00059	mg/Kg			11/15/17 11:30	1
Styrene	<0.0020		0.0020	0.00060	mg/Kg			11/15/17 11:30	1
1,1,2,2-Tetrachloroethane	<0.0020		0.0020	0.00064	mg/Kg			11/15/17 11:30	1
Tetrachloroethene	<0.0020		0.0020	0.00068	mg/Kg			11/15/17 11:30	1
Toluene	<0.0020		0.0020	0.00051	mg/Kg			11/15/17 11:30	1
trans-1,2-Dichloroethene	<0.0020		0.0020	0.00089	mg/Kg			11/15/17 11:30	1
trans-1,3-Dichloropropene	<0.0020		0.0020	0.00070	mg/Kg			11/15/17 11:30	1
1,1,1-Trichloroethane	<0.0020		0.0020	0.00067	mg/Kg			11/15/17 11:30	1
1,1,2-Trichloroethane	<0.0020		0.0020	0.00086	mg/Kg			11/15/17 11:30	1
Trichloroethene	<0.0020		0.0020	0.00068	mg/Kg			11/15/17 11:30	1
Vinyl acetate	<0.0050		0.0050	0.0017	mg/Kg			11/15/17 11:30	1
Vinyl chloride	<0.0020		0.0020	0.00089	mg/Kg			11/15/17 11:30	1
Xylenes, Total	<0.0040		0.0040	0.00064	mg/Kg			11/15/17 11:30	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	88		75 - 131		11/15/17 11:30	1
Dibromofluoromethane	101		75 - 126		11/15/17 11:30	1
1,2-Dichloroethane-d4 (Surr)	95		70 - 134		11/15/17 11:30	1
Toluene-d8 (Surr)	95		75 - 124		11/15/17 11:30	1

TestAmerica Chicago

QC Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137078-1

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

Lab Sample ID: LCS 500-410018/5

Matrix: Solid

Analysis Batch: 410018

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	0.0622		mg/Kg		124	40 - 150
Benzene	0.0500	0.0353		mg/Kg		71	70 - 125
Bromodichloromethane	0.0500	0.0471		mg/Kg		94	67 - 129
Bromoform	0.0500	0.0450		mg/Kg		90	68 - 136
Bromomethane	0.0500	0.0631		mg/Kg		126	70 - 130
Carbon disulfide	0.0500	0.0516		mg/Kg		103	70 - 129
Carbon tetrachloride	0.0500	0.0431		mg/Kg		86	75 - 125
Chlorobenzene	0.0500	0.0431		mg/Kg		86	50 - 150
Chloroethane	0.0500	0.0575		mg/Kg		115	75 - 125
Chloroform	0.0500	0.0452		mg/Kg		90	57 - 135
Chloromethane	0.0500	0.0589		mg/Kg		118	70 - 125
cis-1,2-Dichloroethene	0.0500	0.0495		mg/Kg		99	70 - 125
cis-1,3-Dichloropropene	0.0500	0.0418		mg/Kg		84	70 - 125
Dibromochloromethane	0.0500	0.0441		mg/Kg		88	69 - 125
1,1-Dichloroethane	0.0500	0.0507		mg/Kg		101	70 - 125
1,2-Dichloroethane	0.0500	0.0416		mg/Kg		83	70 - 130
1,1-Dichloroethene	0.0500	0.0522		mg/Kg		104	70 - 120
1,2-Dichloropropane	0.0500	0.0483		mg/Kg		97	70 - 125
Ethylbenzene	0.0500	0.0421		mg/Kg		84	61 - 136
2-Hexanone	0.0500	0.0446		mg/Kg		89	48 - 146
2-Butanone (MEK)	0.0500	0.0539		mg/Kg		108	47 - 138
Methylene Chloride	0.0500	0.0484		mg/Kg		97	70 - 126
4-Methyl-2-pentanone (MIBK)	0.0500	0.0438		mg/Kg		88	50 - 148
Methyl tert-butyl ether	0.0500	0.0523		mg/Kg		105	50 - 140
Styrene	0.0500	0.0434		mg/Kg		87	70 - 125
1,1,1,2-Tetrachloroethane	0.0500	0.0454		mg/Kg		91	70 - 122
Tetrachloroethene	0.0500	0.0418		mg/Kg		84	70 - 124
Toluene	0.0500	0.0423		mg/Kg		85	70 - 125
trans-1,2-Dichloroethene	0.0500	0.0510		mg/Kg		102	70 - 125
trans-1,3-Dichloropropene	0.0500	0.0416		mg/Kg		83	70 - 125
1,1,1-Trichloroethane	0.0500	0.0454		mg/Kg		91	70 - 128
1,1,2-Trichloroethane	0.0500	0.0435		mg/Kg		87	70 - 125
Trichloroethene	0.0500	0.0482		mg/Kg		96	70 - 125
Vinyl acetate	0.0500	0.0635		mg/Kg		127	40 - 153
Vinyl chloride	0.0500	0.0612		mg/Kg		122	70 - 125
Xylenes, Total	0.100	0.0852		mg/Kg		85	53 - 147

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	91		75 - 131
Dibromofluoromethane	92		75 - 126
1,2-Dichloroethane-d4 (Surr)	86		70 - 134
Toluene-d8 (Surr)	97		75 - 124

QC Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137078-1

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

Lab Sample ID: LCSD 500-410018/24

Matrix: Solid

Analysis Batch: 410018

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	0.0611		mg/Kg		122	40 - 150	2	30
Benzene	0.0500	0.0491	*	mg/Kg		98	70 - 125	33	30
Bromodichloromethane	0.0500	0.0474		mg/Kg		95	67 - 129	0	30
Bromoform	0.0500	0.0462		mg/Kg		92	68 - 136	3	30
Bromomethane	0.0500	0.0472		mg/Kg		94	70 - 130	29	30
Carbon disulfide	0.0500	0.0506		mg/Kg		101	70 - 129	2	30
Carbon tetrachloride	0.0500	0.0516		mg/Kg		103	75 - 125	18	30
Chlorobenzene	0.0500	0.0478		mg/Kg		96	50 - 150	10	30
Chloroethane	0.0500	0.0458		mg/Kg		92	75 - 125	23	30
Chloroform	0.0500	0.0487		mg/Kg		97	57 - 135	7	30
Chloromethane	0.0500	0.0476		mg/Kg		95	70 - 125	21	30
cis-1,2-Dichloroethene	0.0500	0.0373		mg/Kg		75	70 - 125	28	30
cis-1,3-Dichloropropene	0.0500	0.0471		mg/Kg		94	70 - 125	12	30
Dibromochloromethane	0.0500	0.0486		mg/Kg		97	69 - 125	10	30
1,1-Dichloroethane	0.0500	0.0502		mg/Kg		100	70 - 125	1	30
1,2-Dichloroethane	0.0500	0.0495		mg/Kg		99	70 - 130	17	30
1,1-Dichloroethene	0.0500	0.0520		mg/Kg		104	70 - 120	0	30
1,2-Dichloropropane	0.0500	0.0485		mg/Kg		97	70 - 125	0	30
Ethylbenzene	0.0500	0.0475		mg/Kg		95	61 - 136	12	30
2-Hexanone	0.0500	0.0406		mg/Kg		81	48 - 146	10	30
2-Butanone (MEK)	0.0500	0.0318	*	mg/Kg		64	47 - 138	51	30
Methylene Chloride	0.0500	0.0476		mg/Kg		95	70 - 126	2	30
4-Methyl-2-pentanone (MIBK)	0.0500	0.0409		mg/Kg		82	50 - 148	7	30
Methyl tert-butyl ether	0.0500	0.0500		mg/Kg		100	50 - 140	4	30
Styrene	0.0500	0.0477		mg/Kg		95	70 - 125	9	30
1,1,1,2-Tetrachloroethane	0.0500	0.0461		mg/Kg		92	70 - 122	2	30
Tetrachloroethene	0.0500	0.0477		mg/Kg		95	70 - 124	13	30
Toluene	0.0500	0.0467		mg/Kg		93	70 - 125	10	30
trans-1,2-Dichloroethene	0.0500	0.0500		mg/Kg		100	70 - 125	2	30
trans-1,3-Dichloropropene	0.0500	0.0462		mg/Kg		92	70 - 125	10	30
1,1,1-Trichloroethane	0.0500	0.0490		mg/Kg		98	70 - 128	7	30
1,1,2-Trichloroethane	0.0500	0.0479		mg/Kg		96	70 - 125	9	30
Trichloroethene	0.0500	0.0496		mg/Kg		99	70 - 125	3	30
Vinyl acetate	0.0500	0.0563		mg/Kg		113	40 - 153	12	30
Vinyl chloride	0.0500	0.0484		mg/Kg		97	70 - 125	23	30
Xylenes, Total	0.100	0.0955		mg/Kg		96	53 - 147	11	30

Surrogate	LCSD %Recovery	LCSD Qualifier	LCSD Limits
4-Bromofluorobenzene (Surr)	89		75 - 131
Dibromofluoromethane	100		75 - 126
1,2-Dichloroethane-d4 (Surr)	95		70 - 134
Toluene-d8 (Surr)	97		75 - 124

QC Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137078-1

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

Lab Sample ID: MB 500-410201/6

Matrix: Solid

Analysis Batch: 410201

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.020		0.020	0.0087	mg/Kg			11/16/17 11:18	1
Benzene	<0.0020		0.0020	0.00051	mg/Kg			11/16/17 11:18	1
Bromodichloromethane	<0.0020		0.0020	0.00041	mg/Kg			11/16/17 11:18	1
Bromoform	<0.0020		0.0020	0.00058	mg/Kg			11/16/17 11:18	1
Bromomethane	<0.0050		0.0050	0.0019	mg/Kg			11/16/17 11:18	1
Carbon disulfide	<0.0050		0.0050	0.0010	mg/Kg			11/16/17 11:18	1
Carbon tetrachloride	<0.0020		0.0020	0.00058	mg/Kg			11/16/17 11:18	1
Chlorobenzene	<0.0020		0.0020	0.00074	mg/Kg			11/16/17 11:18	1
Chloroethane	<0.0050		0.0050	0.0015	mg/Kg			11/16/17 11:18	1
Chloroform	<0.0020		0.0020	0.00069	mg/Kg			11/16/17 11:18	1
Chloromethane	<0.0050		0.0050	0.0020	mg/Kg			11/16/17 11:18	1
cis-1,2-Dichloroethene	<0.0020		0.0020	0.00056	mg/Kg			11/16/17 11:18	1
cis-1,3-Dichloropropene	<0.0020		0.0020	0.00060	mg/Kg			11/16/17 11:18	1
Dibromochloromethane	<0.0020		0.0020	0.00065	mg/Kg			11/16/17 11:18	1
1,1-Dichloroethane	<0.0020		0.0020	0.00069	mg/Kg			11/16/17 11:18	1
1,2-Dichloroethane	<0.0050		0.0050	0.0016	mg/Kg			11/16/17 11:18	1
1,1-Dichloroethene	<0.0020		0.0020	0.00069	mg/Kg			11/16/17 11:18	1
1,2-Dichloropropane	<0.0020		0.0020	0.00052	mg/Kg			11/16/17 11:18	1
1,3-Dichloropropene, Total	<0.0020		0.0020	0.00070	mg/Kg			11/16/17 11:18	1
Ethylbenzene	<0.0020		0.0020	0.00096	mg/Kg			11/16/17 11:18	1
2-Hexanone	<0.0050		0.0050	0.0016	mg/Kg			11/16/17 11:18	1
2-Butanone (MEK)	<0.0050		0.0050	0.0022	mg/Kg			11/16/17 11:18	1
Methylene Chloride	<0.0050		0.0050	0.0020	mg/Kg			11/16/17 11:18	1
4-Methyl-2-pentanone (MIBK)	<0.0050		0.0050	0.0015	mg/Kg			11/16/17 11:18	1
Methyl tert-butyl ether	<0.0020		0.0020	0.00059	mg/Kg			11/16/17 11:18	1
Styrene	<0.0020		0.0020	0.00060	mg/Kg			11/16/17 11:18	1
1,1,2,2-Tetrachloroethane	<0.0020		0.0020	0.00064	mg/Kg			11/16/17 11:18	1
Tetrachloroethene	<0.0020		0.0020	0.00068	mg/Kg			11/16/17 11:18	1
Toluene	<0.0020		0.0020	0.00051	mg/Kg			11/16/17 11:18	1
trans-1,2-Dichloroethene	<0.0020		0.0020	0.00089	mg/Kg			11/16/17 11:18	1
trans-1,3-Dichloropropene	<0.0020		0.0020	0.00070	mg/Kg			11/16/17 11:18	1
1,1,1-Trichloroethane	<0.0020		0.0020	0.00067	mg/Kg			11/16/17 11:18	1
1,1,2-Trichloroethane	<0.0020		0.0020	0.00086	mg/Kg			11/16/17 11:18	1
Trichloroethene	<0.0020		0.0020	0.00068	mg/Kg			11/16/17 11:18	1
Vinyl acetate	<0.0050		0.0050	0.0017	mg/Kg			11/16/17 11:18	1
Vinyl chloride	<0.0020		0.0020	0.00089	mg/Kg			11/16/17 11:18	1
Xylenes, Total	<0.0040		0.0040	0.00064	mg/Kg			11/16/17 11:18	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	89		75 - 131		11/16/17 11:18	1
Dibromofluoromethane	101		75 - 126		11/16/17 11:18	1
1,2-Dichloroethane-d4 (Surr)	93		70 - 134		11/16/17 11:18	1
Toluene-d8 (Surr)	95		75 - 124		11/16/17 11:18	1

TestAmerica Chicago

QC Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137078-1

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

Lab Sample ID: LCS 500-410201/4

Matrix: Solid

Analysis Batch: 410201

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	0.0642		mg/Kg		128	40 - 150
Benzene	0.0500	0.0487		mg/Kg		97	70 - 125
Bromodichloromethane	0.0500	0.0537		mg/Kg		107	67 - 129
Bromoform	0.0500	0.0557		mg/Kg		111	68 - 136
Bromomethane	0.0500	0.0538		mg/Kg		108	70 - 130
Carbon disulfide	0.0500	0.0505		mg/Kg		101	70 - 129
Carbon tetrachloride	0.0500	0.0622		mg/Kg		124	75 - 125
Chlorobenzene	0.0500	0.0492		mg/Kg		98	50 - 150
Chloroethane	0.0500	0.0448		mg/Kg		90	75 - 125
Chloroform	0.0500	0.0558		mg/Kg		112	57 - 135
Chloromethane	0.0500	0.0391		mg/Kg		78	70 - 125
cis-1,2-Dichloroethene	0.0500	0.0501		mg/Kg		100	70 - 125
cis-1,3-Dichloropropene	0.0500	0.0486		mg/Kg		97	70 - 125
Dibromochloromethane	0.0500	0.0551		mg/Kg		110	69 - 125
1,1-Dichloroethane	0.0500	0.0513		mg/Kg		103	70 - 125
1,2-Dichloroethane	0.0500	0.0612		mg/Kg		122	70 - 130
1,1-Dichloroethene	0.0500	0.0533		mg/Kg		107	70 - 120
1,2-Dichloropropane	0.0500	0.0474		mg/Kg		95	70 - 125
Ethylbenzene	0.0500	0.0499		mg/Kg		100	61 - 136
2-Hexanone	0.0500	0.0434		mg/Kg		87	48 - 146
2-Butanone (MEK)	0.0500	0.0490		mg/Kg		98	47 - 138
Methylene Chloride	0.0500	0.0497		mg/Kg		99	70 - 126
4-Methyl-2-pentanone (MIBK)	0.0500	0.0405		mg/Kg		81	50 - 148
Methyl tert-butyl ether	0.0500	0.0559		mg/Kg		112	50 - 140
Styrene	0.0500	0.0497		mg/Kg		99	70 - 125
1,1,1,2-Tetrachloroethane	0.0500	0.0442		mg/Kg		88	70 - 122
Tetrachloroethene	0.0500	0.0516		mg/Kg		103	70 - 124
Toluene	0.0500	0.0473		mg/Kg		95	70 - 125
trans-1,2-Dichloroethene	0.0500	0.0522		mg/Kg		104	70 - 125
trans-1,3-Dichloropropene	0.0500	0.0499		mg/Kg		100	70 - 125
1,1,1-Trichloroethane	0.0500	0.0591		mg/Kg		118	70 - 128
1,1,2-Trichloroethane	0.0500	0.0481		mg/Kg		96	70 - 125
Trichloroethene	0.0500	0.0515		mg/Kg		103	70 - 125
Vinyl acetate	0.0500	0.0516		mg/Kg		103	40 - 153
Vinyl chloride	0.0500	0.0419		mg/Kg		84	70 - 125
Xylenes, Total	0.100	0.101		mg/Kg		101	53 - 147

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	87		75 - 131
Dibromofluoromethane	104		75 - 126
1,2-Dichloroethane-d4 (Surr)	110		70 - 134
Toluene-d8 (Surr)	98		75 - 124

QC Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137078-1

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

Lab Sample ID: LCSD 500-410201/5

Matrix: Solid

Analysis Batch: 410201

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	0.0738		mg/Kg		148	40 - 150	14	30
Benzene	0.0500	0.0547		mg/Kg		109	70 - 125	11	30
Bromodichloromethane	0.0500	0.0592		mg/Kg		118	67 - 129	10	30
Bromoform	0.0500	0.0568		mg/Kg		114	68 - 136	2	30
Bromomethane	0.0500	0.0421		mg/Kg		84	70 - 130	25	30
Carbon disulfide	0.0500	0.0546		mg/Kg		109	70 - 129	8	30
Carbon tetrachloride	0.0500	0.0634	*	mg/Kg		127	75 - 125	2	30
Chlorobenzene	0.0500	0.0535		mg/Kg		107	50 - 150	8	30
Chloroethane	0.0500	0.0426		mg/Kg		85	75 - 125	5	30
Chloroform	0.0500	0.0589		mg/Kg		118	57 - 135	5	30
Chloromethane	0.0500	0.0345	*	mg/Kg		69	70 - 125	13	30
cis-1,2-Dichloroethene	0.0500	0.0555		mg/Kg		111	70 - 125	10	30
cis-1,3-Dichloropropene	0.0500	0.0525		mg/Kg		105	70 - 125	8	30
Dibromochloromethane	0.0500	0.0599		mg/Kg		120	69 - 125	8	30
1,1-Dichloroethane	0.0500	0.0572		mg/Kg		114	70 - 125	11	30
1,2-Dichloroethane	0.0500	0.0648		mg/Kg		130	70 - 130	6	30
1,1-Dichloroethene	0.0500	0.0560		mg/Kg		112	70 - 120	5	30
1,2-Dichloropropane	0.0500	0.0562		mg/Kg		112	70 - 125	17	30
Ethylbenzene	0.0500	0.0540		mg/Kg		108	61 - 136	8	30
2-Hexanone	0.0500	0.0439		mg/Kg		88	48 - 146	1	30
2-Butanone (MEK)	0.0500	0.0500		mg/Kg		100	47 - 138	2	30
Methylene Chloride	0.0500	0.0549		mg/Kg		110	70 - 126	10	30
4-Methyl-2-pentanone (MIBK)	0.0500	0.0402		mg/Kg		80	50 - 148	1	30
Methyl tert-butyl ether	0.0500	0.0603		mg/Kg		121	50 - 140	8	30
Styrene	0.0500	0.0560		mg/Kg		112	70 - 125	12	30
1,1,1,2-Tetrachloroethane	0.0500	0.0517		mg/Kg		103	70 - 122	16	30
Tetrachloroethene	0.0500	0.0536		mg/Kg		107	70 - 124	4	30
Toluene	0.0500	0.0497		mg/Kg		99	70 - 125	5	30
trans-1,2-Dichloroethene	0.0500	0.0571		mg/Kg		114	70 - 125	9	30
trans-1,3-Dichloropropene	0.0500	0.0534		mg/Kg		107	70 - 125	7	30
1,1,1-Trichloroethane	0.0500	0.0621		mg/Kg		124	70 - 128	5	30
1,1,2-Trichloroethane	0.0500	0.0535		mg/Kg		107	70 - 125	11	30
Trichloroethene	0.0500	0.0573		mg/Kg		115	70 - 125	11	30
Vinyl acetate	0.0500	0.0520		mg/Kg		104	40 - 153	1	30
Vinyl chloride	0.0500	0.0372		mg/Kg		74	70 - 125	12	30
Xylenes, Total	0.100	0.109		mg/Kg		109	53 - 147	7	30

Surrogate	LCSD %Recovery	LCSD Qualifier	LCSD Limits
4-Bromofluorobenzene (Surr)	88		75 - 131
Dibromofluoromethane	101		75 - 126
1,2-Dichloroethane-d4 (Surr)	102		70 - 134
Toluene-d8 (Surr)	92		75 - 124

QC Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137078-1

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

Lab Sample ID: MB 500-409625/1-A

Matrix: Water

Analysis Batch: 409714

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 409625

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.00080		0.00080	0.00025	mg/L		11/13/17 07:25	11/13/17 17:59	1
Acenaphthylene	<0.00080		0.00080	0.00021	mg/L		11/13/17 07:25	11/13/17 17:59	1
Anthracene	<0.00080		0.00080	0.00027	mg/L		11/13/17 07:25	11/13/17 17:59	1
Benzo[a]anthracene	<0.00013		0.00013	0.000045	mg/L		11/13/17 07:25	11/13/17 17:59	1
Benzo[a]pyrene	<0.00016		0.00016	0.000079	mg/L		11/13/17 07:25	11/13/17 17:59	1
Benzo[b]fluoranthene	<0.00016		0.00016	0.000065	mg/L		11/13/17 07:25	11/13/17 17:59	1
Benzo[g,h,i]perylene	<0.00080		0.00080	0.00030	mg/L		11/13/17 07:25	11/13/17 17:59	1
Benzo[k]fluoranthene	<0.00016		0.00016	0.000051	mg/L		11/13/17 07:25	11/13/17 17:59	1
Bis(2-chloroethoxy)methane	<0.0016		0.0016	0.00023	mg/L		11/13/17 07:25	11/13/17 17:59	1
Bis(2-chloroethyl)ether	<0.0016		0.0016	0.00023	mg/L		11/13/17 07:25	11/13/17 17:59	1
Bis(2-ethylhexyl) phthalate	<0.0080		0.0080	0.0014	mg/L		11/13/17 07:25	11/13/17 17:59	1
4-Bromophenyl phenyl ether	<0.0040		0.0040	0.00043	mg/L		11/13/17 07:25	11/13/17 17:59	1
Butyl benzyl phthalate	<0.0016		0.0016	0.00038	mg/L		11/13/17 07:25	11/13/17 17:59	1
Carbazole	<0.0040		0.0040	0.00028	mg/L		11/13/17 07:25	11/13/17 17:59	1
4-Chloroaniline	<0.0080		0.0080	0.0016	mg/L		11/13/17 07:25	11/13/17 17:59	1
4-Chloro-3-methylphenol	<0.0080		0.0080	0.0018	mg/L		11/13/17 07:25	11/13/17 17:59	1
2-Chloronaphthalene	<0.0016		0.0016	0.00019	mg/L		11/13/17 07:25	11/13/17 17:59	1
2-Chlorophenol	<0.0040		0.0040	0.00045	mg/L		11/13/17 07:25	11/13/17 17:59	1
4-Chlorophenyl phenyl ether	<0.0040		0.0040	0.00051	mg/L		11/13/17 07:25	11/13/17 17:59	1
Chrysene	<0.00016		0.00016	0.000055	mg/L		11/13/17 07:25	11/13/17 17:59	1
Dibenz(a,h)anthracene	<0.00024		0.00024	0.000041	mg/L		11/13/17 07:25	11/13/17 17:59	1
Dibenzofuran	<0.0016		0.0016	0.00021	mg/L		11/13/17 07:25	11/13/17 17:59	1
1,2-Dichlorobenzene	<0.0016		0.0016	0.00020	mg/L		11/13/17 07:25	11/13/17 17:59	1
1,3-Dichlorobenzene	<0.0016		0.0016	0.00017	mg/L		11/13/17 07:25	11/13/17 17:59	1
1,4-Dichlorobenzene	<0.0016		0.0016	0.00017	mg/L		11/13/17 07:25	11/13/17 17:59	1
3,3'-Dichlorobenzidine	<0.0040		0.0040	0.0014	mg/L		11/13/17 07:25	11/13/17 17:59	1
2,4-Dichlorophenol	<0.0080		0.0080	0.0021	mg/L		11/13/17 07:25	11/13/17 17:59	1
Diethyl phthalate	<0.0040		0.0040	0.00029	mg/L		11/13/17 07:25	11/13/17 17:59	1
2,4-Dimethylphenol	<0.0080		0.0080	0.0014	mg/L		11/13/17 07:25	11/13/17 17:59	1
Dimethyl phthalate	<0.0040		0.0040	0.00025	mg/L		11/13/17 07:25	11/13/17 17:59	1
Di-n-butyl phthalate	<0.0040		0.0040	0.00058	mg/L		11/13/17 07:25	11/13/17 17:59	1
4,6-Dinitro-2-methylphenol	<0.016		0.016	0.0047	mg/L		11/13/17 07:25	11/13/17 17:59	1
2,4-Dinitrophenol	<0.016		0.016	0.0069	mg/L		11/13/17 07:25	11/13/17 17:59	1
2,4-Dinitrotoluene	<0.00080		0.00080	0.00020	mg/L		11/13/17 07:25	11/13/17 17:59	1
2,6-Dinitrotoluene	<0.00080		0.00080	0.000059	mg/L		11/13/17 07:25	11/13/17 17:59	1
Di-n-octyl phthalate	<0.0080		0.0080	0.00084	mg/L		11/13/17 07:25	11/13/17 17:59	1
Fluoranthene	<0.00080		0.00080	0.00036	mg/L		11/13/17 07:25	11/13/17 17:59	1
Fluorene	<0.00080		0.00080	0.00020	mg/L		11/13/17 07:25	11/13/17 17:59	1
Hexachlorobenzene	<0.00040		0.00040	0.000064	mg/L		11/13/17 07:25	11/13/17 17:59	1
Hexachlorobutadiene	<0.0040		0.0040	0.00041	mg/L		11/13/17 07:25	11/13/17 17:59	1
Hexachlorocyclopentadiene	<0.016		0.016	0.0051	mg/L		11/13/17 07:25	11/13/17 17:59	1
Hexachloroethane	<0.0040		0.0040	0.00048	mg/L		11/13/17 07:25	11/13/17 17:59	1
Indeno[1,2,3-cd]pyrene	<0.00016		0.00016	0.000060	mg/L		11/13/17 07:25	11/13/17 17:59	1
Isophorone	<0.0016		0.0016	0.00030	mg/L		11/13/17 07:25	11/13/17 17:59	1
2-Methylnaphthalene	<0.0016		0.0016	0.000052	mg/L		11/13/17 07:25	11/13/17 17:59	1
2-Methylphenol	<0.0016		0.0016	0.00024	mg/L		11/13/17 07:25	11/13/17 17:59	1
3 & 4 Methylphenol	<0.0016		0.0016	0.00036	mg/L		11/13/17 07:25	11/13/17 17:59	1
Naphthalene	<0.00080		0.00080	0.00025	mg/L		11/13/17 07:25	11/13/17 17:59	1

TestAmerica Chicago

QC Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137078-1

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

Lab Sample ID: MB 500-409625/1-A
Matrix: Water
Analysis Batch: 409714

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 409625

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Nitroaniline	<0.0040		0.0040	0.0010	mg/L		11/13/17 07:25	11/13/17 17:59	1
3-Nitroaniline	<0.0080		0.0080	0.0014	mg/L		11/13/17 07:25	11/13/17 17:59	1
4-Nitroaniline	<0.0080		0.0080	0.0013	mg/L		11/13/17 07:25	11/13/17 17:59	1
Nitrobenzene	<0.00080		0.00080	0.00036	mg/L		11/13/17 07:25	11/13/17 17:59	1
2-Nitrophenol	<0.0080		0.0080	0.0020	mg/L		11/13/17 07:25	11/13/17 17:59	1
4-Nitrophenol	<0.016		0.016	0.0059	mg/L		11/13/17 07:25	11/13/17 17:59	1
N-Nitrosodi-n-propylamine	<0.00040		0.00040	0.00012	mg/L		11/13/17 07:25	11/13/17 17:59	1
N-Nitrosodiphenylamine	<0.0016		0.0016	0.00030	mg/L		11/13/17 07:25	11/13/17 17:59	1
2,2'-oxybis[1-chloropropane]	<0.0016		0.0016	0.00030	mg/L		11/13/17 07:25	11/13/17 17:59	1
Pentachlorophenol	<0.016		0.016	0.0032	mg/L		11/13/17 07:25	11/13/17 17:59	1
Phenanthrene	<0.00080		0.00080	0.00024	mg/L		11/13/17 07:25	11/13/17 17:59	1
Phenol	<0.0040		0.0040	0.00054	mg/L		11/13/17 07:25	11/13/17 17:59	1
Pyrene	<0.00080		0.00080	0.00034	mg/L		11/13/17 07:25	11/13/17 17:59	1
1,2,4-Trichlorobenzene	<0.0016		0.0016	0.00019	mg/L		11/13/17 07:25	11/13/17 17:59	1
2,4,5-Trichlorophenol	<0.0080		0.0080	0.0021	mg/L		11/13/17 07:25	11/13/17 17:59	1
2,4,6-Trichlorophenol	<0.0040		0.0040	0.00057	mg/L		11/13/17 07:25	11/13/17 17:59	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	77		34 - 110	11/13/17 07:25	11/13/17 17:59	1
2-Fluorophenol	74		27 - 110	11/13/17 07:25	11/13/17 17:59	1
Nitrobenzene-d5	85		36 - 120	11/13/17 07:25	11/13/17 17:59	1
Phenol-d5	47		20 - 100	11/13/17 07:25	11/13/17 17:59	1
Terphenyl-d14	91		40 - 145	11/13/17 07:25	11/13/17 17:59	1
2,4,6-Tribromophenol	84		40 - 145	11/13/17 07:25	11/13/17 17:59	1

Lab Sample ID: LCS 500-409625/2-A
Matrix: Water
Analysis Batch: 409714

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 409625

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Acenaphthene	0.0320	0.0264		mg/L		82	46 - 110
Acenaphthylene	0.0320	0.0247		mg/L		77	47 - 110
Anthracene	0.0320	0.0301		mg/L		94	67 - 110
Benzo[a]anthracene	0.0320	0.0277		mg/L		87	70 - 120
Benzo[a]pyrene	0.0320	0.0296		mg/L		92	70 - 120
Benzo[b]fluoranthene	0.0320	0.0311		mg/L		97	69 - 123
Benzo[g,h,i]perylene	0.0320	0.0301		mg/L		94	70 - 120
Benzo[k]fluoranthene	0.0320	0.0292		mg/L		91	70 - 120
Bis(2-chloroethoxy)methane	0.0320	0.0305		mg/L		95	60 - 110
Bis(2-chloroethyl)ether	0.0320	0.0281		mg/L		88	49 - 110
Bis(2-ethylhexyl) phthalate	0.0320	0.0341		mg/L		107	69 - 120
4-Bromophenyl phenyl ether	0.0320	0.0239		mg/L		75	58 - 120
Butyl benzyl phthalate	0.0320	0.0336		mg/L		105	68 - 120
Carbazole	0.0320	0.0315		mg/L		98	61 - 145
4-Chloroaniline	0.0320	0.0273		mg/L		85	35 - 128
4-Chloro-3-methylphenol	0.0320	0.0297		mg/L		93	64 - 120
2-Chloronaphthalene	0.0320	0.0226		mg/L		71	39 - 110
2-Chlorophenol	0.0320	0.0274		mg/L		86	59 - 110

TestAmerica Chicago

QC Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137078-1

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

Lab Sample ID: LCS 500-409625/2-A

Matrix: Water

Analysis Batch: 409714

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 409625

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
4-Chlorophenyl phenyl ether	0.0320	0.0246		mg/L		77	47 - 112
Chrysene	0.0320	0.0299		mg/L		93	68 - 120
Dibenz(a,h)anthracene	0.0320	0.0303		mg/L		95	70 - 127
Dibenzofuran	0.0320	0.0259		mg/L		81	51 - 110
1,2-Dichlorobenzene	0.0320	0.0178		mg/L		55	26 - 110
1,3-Dichlorobenzene	0.0320	0.0170		mg/L		53	22 - 110
1,4-Dichlorobenzene	0.0320	0.0169		mg/L		53	23 - 110
3,3'-Dichlorobenzidine	0.0320	0.0297		mg/L		93	60 - 132
2,4-Dichlorophenol	0.0320	0.0269		mg/L		84	62 - 110
Diethyl phthalate	0.0320	0.0324		mg/L		101	62 - 120
2,4-Dimethylphenol	0.0320	0.0272		mg/L		85	51 - 110
Dimethyl phthalate	0.0320	0.0309		mg/L		97	63 - 120
Di-n-butyl phthalate	0.0320	0.0333		mg/L		104	70 - 120
4,6-Dinitro-2-methylphenol	0.0640	0.0632		mg/L		99	50 - 117
2,4-Dinitrophenol	0.0640	0.0609		mg/L		95	37 - 130
2,4-Dinitrotoluene	0.0320	0.0334		mg/L		104	63 - 122
2,6-Dinitrotoluene	0.0320	0.0324		mg/L		101	63 - 119
Di-n-octyl phthalate	0.0320	0.0374		mg/L		117	70 - 122
Fluoranthene	0.0320	0.0310		mg/L		97	68 - 120
Fluorene	0.0320	0.0281		mg/L		88	53 - 120
Hexachlorobenzene	0.0320	0.0256		mg/L		80	61 - 120
Hexachlorobutadiene	0.0320	0.0145		mg/L		45	20 - 100
Hexachlorocyclopentadiene	0.0320	0.0115	J	mg/L		36	10 - 100
Hexachloroethane	0.0320	0.0161		mg/L		50	20 - 100
Indeno[1,2,3-cd]pyrene	0.0320	0.0311		mg/L		97	65 - 133
Isophorone	0.0320	0.0286		mg/L		89	57 - 110
2-Methylnaphthalene	0.0320	0.0203		mg/L		63	34 - 110
2-Methylphenol	0.0320	0.0276		mg/L		86	53 - 110
3 & 4 Methylphenol	0.0320	0.0264		mg/L		83	53 - 110
Naphthalene	0.0320	0.0213		mg/L		67	36 - 110
2-Nitroaniline	0.0320	0.0351		mg/L		110	59 - 122
3-Nitroaniline	0.0320	0.0305		mg/L		95	47 - 123
4-Nitroaniline	0.0320	0.0368		mg/L		115	52 - 147
Nitrobenzene	0.0320	0.0290		mg/L		90	53 - 110
2-Nitrophenol	0.0320	0.0281		mg/L		88	58 - 110
4-Nitrophenol	0.0640	0.0413		mg/L		64	20 - 110
N-Nitrosodi-n-propylamine	0.0320	0.0267		mg/L		84	58 - 110
N-Nitrosodiphenylamine	0.0320	0.0297		mg/L		93	66 - 110
2,2'-oxybis[1-chloropropane]	0.0320	0.0258		mg/L		81	38 - 110
Pentachlorophenol	0.0640	0.0401		mg/L		63	23 - 129
Phenanthrene	0.0320	0.0291		mg/L		91	65 - 120
Phenol	0.0320	0.0180		mg/L		56	33 - 100
Pyrene	0.0320	0.0289		mg/L		90	70 - 110
1,2,4-Trichlorobenzene	0.0320	0.0175		mg/L		55	26 - 110
2,4,5-Trichlorophenol	0.0320	0.0285		mg/L		89	63 - 120
2,4,6-Trichlorophenol	0.0320	0.0279		mg/L		87	62 - 110

TestAmerica Chicago

QC Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137078-1

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

Lab Sample ID: LCS 500-409625/2-A
Matrix: Water
Analysis Batch: 409714

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 409625

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorobiphenyl	84		34 - 110
2-Fluorophenol	86		27 - 110
Nitrobenzene-d5	92		36 - 120
Phenol-d5	61		20 - 100
Terphenyl-d14	96		40 - 145
2,4,6-Tribromophenol	100		40 - 145

Lab Sample ID: MB 500-410180/1-A
Matrix: Solid
Analysis Batch: 410358

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 410180

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.033		0.033	0.0060	mg/Kg		11/16/17 07:12	11/16/17 20:27	1
Acenaphthylene	<0.033		0.033	0.0044	mg/Kg		11/16/17 07:12	11/16/17 20:27	1
Anthracene	<0.033		0.033	0.0056	mg/Kg		11/16/17 07:12	11/16/17 20:27	1
Benzo[a]anthracene	<0.033		0.033	0.0045	mg/Kg		11/16/17 07:12	11/16/17 20:27	1
Benzo[a]pyrene	<0.033		0.033	0.0064	mg/Kg		11/16/17 07:12	11/16/17 20:27	1
Benzo[b]fluoranthene	<0.033		0.033	0.0072	mg/Kg		11/16/17 07:12	11/16/17 20:27	1
Benzo[g,h,i]perylene	<0.033		0.033	0.011	mg/Kg		11/16/17 07:12	11/16/17 20:27	1
Benzo[k]fluoranthene	<0.033		0.033	0.0098	mg/Kg		11/16/17 07:12	11/16/17 20:27	1
Bis(2-chloroethoxy)methane	<0.17		0.17	0.034	mg/Kg		11/16/17 07:12	11/16/17 20:27	1
Bis(2-chloroethyl)ether	<0.17		0.17	0.050	mg/Kg		11/16/17 07:12	11/16/17 20:27	1
Bis(2-ethylhexyl) phthalate	<0.17		0.17	0.061	mg/Kg		11/16/17 07:12	11/16/17 20:27	1
4-Bromophenyl phenyl ether	<0.17		0.17	0.044	mg/Kg		11/16/17 07:12	11/16/17 20:27	1
Butyl benzyl phthalate	<0.17		0.17	0.063	mg/Kg		11/16/17 07:12	11/16/17 20:27	1
Carbazole	<0.17		0.17	0.083	mg/Kg		11/16/17 07:12	11/16/17 20:27	1
4-Chloroaniline	<0.67		0.67	0.16	mg/Kg		11/16/17 07:12	11/16/17 20:27	1
4-Chloro-3-methylphenol	<0.33		0.33	0.11	mg/Kg		11/16/17 07:12	11/16/17 20:27	1
2-Chloronaphthalene	<0.17		0.17	0.037	mg/Kg		11/16/17 07:12	11/16/17 20:27	1
2-Chlorophenol	<0.17		0.17	0.057	mg/Kg		11/16/17 07:12	11/16/17 20:27	1
4-Chlorophenyl phenyl ether	<0.17		0.17	0.039	mg/Kg		11/16/17 07:12	11/16/17 20:27	1
Chrysene	<0.033		0.033	0.0091	mg/Kg		11/16/17 07:12	11/16/17 20:27	1
Dibenz(a,h)anthracene	<0.033		0.033	0.0064	mg/Kg		11/16/17 07:12	11/16/17 20:27	1
Dibenzofuran	<0.17		0.17	0.039	mg/Kg		11/16/17 07:12	11/16/17 20:27	1
1,2-Dichlorobenzene	<0.17		0.17	0.040	mg/Kg		11/16/17 07:12	11/16/17 20:27	1
1,3-Dichlorobenzene	<0.17		0.17	0.037	mg/Kg		11/16/17 07:12	11/16/17 20:27	1
1,4-Dichlorobenzene	<0.17		0.17	0.043	mg/Kg		11/16/17 07:12	11/16/17 20:27	1
3,3'-Dichlorobenzidine	<0.17		0.17	0.047	mg/Kg		11/16/17 07:12	11/16/17 20:27	1
2,4-Dichlorophenol	<0.33		0.33	0.079	mg/Kg		11/16/17 07:12	11/16/17 20:27	1
Diethyl phthalate	<0.17		0.17	0.056	mg/Kg		11/16/17 07:12	11/16/17 20:27	1
2,4-Dimethylphenol	<0.33		0.33	0.13	mg/Kg		11/16/17 07:12	11/16/17 20:27	1
Dimethyl phthalate	<0.17		0.17	0.043	mg/Kg		11/16/17 07:12	11/16/17 20:27	1
Di-n-butyl phthalate	<0.17		0.17	0.051	mg/Kg		11/16/17 07:12	11/16/17 20:27	1
4,6-Dinitro-2-methylphenol	<0.67		0.67	0.27	mg/Kg		11/16/17 07:12	11/16/17 20:27	1
2,4-Dinitrophenol	<0.67		0.67	0.59	mg/Kg		11/16/17 07:12	11/16/17 20:27	1
2,4-Dinitrotoluene	<0.17		0.17	0.053	mg/Kg		11/16/17 07:12	11/16/17 20:27	1
2,6-Dinitrotoluene	<0.17		0.17	0.065	mg/Kg		11/16/17 07:12	11/16/17 20:27	1
Di-n-octyl phthalate	<0.17		0.17	0.054	mg/Kg		11/16/17 07:12	11/16/17 20:27	1

TestAmerica Chicago

QC Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137078-1

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

Lab Sample ID: MB 500-410180/1-A
Matrix: Solid
Analysis Batch: 410358

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 410180

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Fluoranthene	<0.033		0.033	0.0062	mg/Kg		11/16/17 07:12	11/16/17 20:27	1
Fluorene	<0.033		0.033	0.0047	mg/Kg		11/16/17 07:12	11/16/17 20:27	1
Hexachlorobenzene	<0.067		0.067	0.0077	mg/Kg		11/16/17 07:12	11/16/17 20:27	1
Hexachlorobutadiene	<0.17		0.17	0.052	mg/Kg		11/16/17 07:12	11/16/17 20:27	1
Hexachlorocyclopentadiene	<0.67		0.67	0.19	mg/Kg		11/16/17 07:12	11/16/17 20:27	1
Hexachloroethane	<0.17		0.17	0.051	mg/Kg		11/16/17 07:12	11/16/17 20:27	1
Indeno[1,2,3-cd]pyrene	<0.033		0.033	0.0086	mg/Kg		11/16/17 07:12	11/16/17 20:27	1
Isophorone	<0.17		0.17	0.037	mg/Kg		11/16/17 07:12	11/16/17 20:27	1
2-Methylnaphthalene	<0.067		0.067	0.0061	mg/Kg		11/16/17 07:12	11/16/17 20:27	1
2-Methylphenol	<0.17		0.17	0.053	mg/Kg		11/16/17 07:12	11/16/17 20:27	1
3 & 4 Methylphenol	<0.17		0.17	0.055	mg/Kg		11/16/17 07:12	11/16/17 20:27	1
Naphthalene	<0.033		0.033	0.0051	mg/Kg		11/16/17 07:12	11/16/17 20:27	1
2-Nitroaniline	<0.17		0.17	0.045	mg/Kg		11/16/17 07:12	11/16/17 20:27	1
3-Nitroaniline	<0.33		0.33	0.10	mg/Kg		11/16/17 07:12	11/16/17 20:27	1
4-Nitroaniline	<0.33		0.33	0.14	mg/Kg		11/16/17 07:12	11/16/17 20:27	1
Nitrobenzene	<0.033		0.033	0.0083	mg/Kg		11/16/17 07:12	11/16/17 20:27	1
2-Nitrophenol	<0.33		0.33	0.079	mg/Kg		11/16/17 07:12	11/16/17 20:27	1
4-Nitrophenol	<0.67		0.67	0.32	mg/Kg		11/16/17 07:12	11/16/17 20:27	1
N-Nitrosodi-n-propylamine	<0.067		0.067	0.041	mg/Kg		11/16/17 07:12	11/16/17 20:27	1
N-Nitrosodiphenylamine	<0.17		0.17	0.039	mg/Kg		11/16/17 07:12	11/16/17 20:27	1
2,2'-oxybis[1-chloropropane]	<0.17		0.17	0.039	mg/Kg		11/16/17 07:12	11/16/17 20:27	1
Pentachlorophenol	<0.67		0.67	0.53	mg/Kg		11/16/17 07:12	11/16/17 20:27	1
Phenanthrene	<0.033		0.033	0.0046	mg/Kg		11/16/17 07:12	11/16/17 20:27	1
Phenol	<0.17		0.17	0.074	mg/Kg		11/16/17 07:12	11/16/17 20:27	1
Pyrene	<0.033		0.033	0.0066	mg/Kg		11/16/17 07:12	11/16/17 20:27	1
1,2,4-Trichlorobenzene	<0.17		0.17	0.036	mg/Kg		11/16/17 07:12	11/16/17 20:27	1
2,4,5-Trichlorophenol	<0.33		0.33	0.076	mg/Kg		11/16/17 07:12	11/16/17 20:27	1
2,4,6-Trichlorophenol	<0.33		0.33	0.11	mg/Kg		11/16/17 07:12	11/16/17 20:27	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
2-Fluorobiphenyl	86		44 - 121	11/16/17 07:12	11/16/17 20:27	1
2-Fluorophenol	90		46 - 133	11/16/17 07:12	11/16/17 20:27	1
Nitrobenzene-d5	83		41 - 120	11/16/17 07:12	11/16/17 20:27	1
Phenol-d5	87		46 - 125	11/16/17 07:12	11/16/17 20:27	1
Terphenyl-d14	78		35 - 160	11/16/17 07:12	11/16/17 20:27	1
2,4,6-Tribromophenol	48		25 - 139	11/16/17 07:12	11/16/17 20:27	1

Lab Sample ID: LCS 500-410180/2-A
Matrix: Solid
Analysis Batch: 410358

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 410180

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec.	Limits
		Result	Qualifier					
Acenaphthene	1.33	1.14		mg/Kg		85	58 - 110	
Acenaphthylene	1.33	1.10		mg/Kg		83	60 - 110	
Anthracene	1.33	1.14		mg/Kg		85	63 - 110	
Benzo[a]anthracene	1.33	0.982		mg/Kg		74	63 - 110	
Benzo[a]pyrene	1.33	1.21		mg/Kg		91	61 - 120	
Benzo[b]fluoranthene	1.33	1.13		mg/Kg		85	62 - 120	

TestAmerica Chicago

QC Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137078-1

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

Lab Sample ID: LCS 500-410180/2-A

Matrix: Solid

Analysis Batch: 410358

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 410180

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzo[g,h,i]perylene	1.33	1.22		mg/Kg		91	64 - 120
Benzo[k]fluoranthene	1.33	1.22		mg/Kg		92	65 - 120
Bis(2-chloroethoxy)methane	1.33	1.12		mg/Kg		84	60 - 112
Bis(2-chloroethyl)ether	1.33	1.10		mg/Kg		82	55 - 111
Bis(2-ethylhexyl) phthalate	1.33	1.07		mg/Kg		80	63 - 118
4-Bromophenyl phenyl ether	1.33	1.01		mg/Kg		76	63 - 110
Butyl benzyl phthalate	1.33	1.03		mg/Kg		77	61 - 116
Carbazole	1.33	1.18		mg/Kg		89	59 - 158
4-Chloroaniline	1.33	1.10		mg/Kg		83	30 - 150
4-Chloro-3-methylphenol	1.33	1.01		mg/Kg		76	61 - 114
2-Chloronaphthalene	1.33	1.13		mg/Kg		85	64 - 110
2-Chlorophenol	1.33	1.09		mg/Kg		82	64 - 110
4-Chlorophenyl phenyl ether	1.33	1.11		mg/Kg		84	63 - 110
Chrysene	1.33	0.997		mg/Kg		75	63 - 120
Dibenz(a,h)anthracene	1.33	1.28		mg/Kg		96	64 - 119
Dibenzofuran	1.33	1.13		mg/Kg		84	64 - 110
1,2-Dichlorobenzene	1.33	1.08		mg/Kg		81	62 - 110
1,3-Dichlorobenzene	1.33	1.08		mg/Kg		81	60 - 110
1,4-Dichlorobenzene	1.33	1.07		mg/Kg		80	61 - 110
3,3'-Dichlorobenzidine	1.33	0.572	*	mg/Kg		43	49 - 112
2,4-Dichlorophenol	1.33	1.10		mg/Kg		83	58 - 120
Diethyl phthalate	1.33	1.11		mg/Kg		84	58 - 120
2,4-Dimethylphenol	1.33	1.08		mg/Kg		81	60 - 110
Dimethyl phthalate	1.33	1.09		mg/Kg		82	64 - 110
Di-n-butyl phthalate	1.33	1.12		mg/Kg		84	65 - 120
4,6-Dinitro-2-methylphenol	2.67	1.82		mg/Kg		68	10 - 110
2,4-Dinitrophenol	2.67	2.16		mg/Kg		81	10 - 100
2,4-Dinitrotoluene	1.33	1.12		mg/Kg		84	62 - 117
2,6-Dinitrotoluene	1.33	1.19		mg/Kg		89	67 - 120
Di-n-octyl phthalate	1.33	1.12		mg/Kg		84	63 - 119
Fluoranthene	1.33	1.12		mg/Kg		84	62 - 120
Fluorene	1.33	1.14		mg/Kg		86	62 - 120
Hexachlorobenzene	1.33	0.941		mg/Kg		71	55 - 117
Hexachlorobutadiene	1.33	0.991		mg/Kg		74	56 - 120
Hexachlorocyclopentadiene	1.33	0.425	J	mg/Kg		32	10 - 106
Hexachloroethane	1.33	1.00		mg/Kg		75	61 - 110
Indeno[1,2,3-cd]pyrene	1.33	1.26		mg/Kg		94	57 - 127
Isophorone	1.33	0.679	*	mg/Kg		51	55 - 110
2-Methylnaphthalene	1.33	1.09		mg/Kg		82	62 - 110
2-Methylphenol	1.33	1.02		mg/Kg		77	60 - 120
3 & 4 Methylphenol	1.33	0.984		mg/Kg		74	57 - 120
Naphthalene	1.33	1.08		mg/Kg		81	63 - 110
2-Nitroaniline	1.33	1.17		mg/Kg		87	57 - 124
3-Nitroaniline	1.33	1.11		mg/Kg		83	40 - 122
4-Nitroaniline	1.33	1.45		mg/Kg		109	60 - 160
Nitrobenzene	1.33	1.13		mg/Kg		85	60 - 116
2-Nitrophenol	1.33	1.06		mg/Kg		80	60 - 120
4-Nitrophenol	2.67	1.70		mg/Kg		64	30 - 122

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QC Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137078-1

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

Lab Sample ID: LCS 500-410180/2-A
Matrix: Solid
Analysis Batch: 410358

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 410180

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
N-Nitrosodi-n-propylamine	1.33	0.983		mg/Kg		74	56 - 118
N-Nitrosodiphenylamine	1.33	1.12		mg/Kg		84	65 - 112
2,2'-oxybis[1-chloropropane]	1.33	0.923		mg/Kg		69	40 - 124
Pentachlorophenol	2.67	1.52		mg/Kg		57	13 - 112
Phenanthrene	1.33	1.11		mg/Kg		83	62 - 120
Phenol	1.33	1.19		mg/Kg		89	56 - 122
Pyrene	1.33	1.03		mg/Kg		77	63 - 120
1,2,4-Trichlorobenzene	1.33	1.09		mg/Kg		82	62 - 110
2,4,5-Trichlorophenol	1.33	1.11		mg/Kg		83	50 - 120
2,4,6-Trichlorophenol	1.33	1.07		mg/Kg		80	57 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorobiphenyl	86		44 - 121
2-Fluorophenol	92		46 - 133
Nitrobenzene-d5	85		41 - 120
Phenol-d5	85		46 - 125
Terphenyl-d14	73		35 - 160
2,4,6-Tribromophenol	62		25 - 139

Lab Sample ID: 500-137078-16 MS
Matrix: Solid
Analysis Batch: 410358

Client Sample ID: 2696V-61-B12 (0-5)
Prep Type: Total/NA
Prep Batch: 410180

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Acenaphthene	0.0088	J	1.64	1.44		mg/Kg	☼	87	58 - 110
Acenaphthylene	<0.041		1.64	1.39		mg/Kg	☼	85	60 - 110
Anthracene	0.016	J	1.64	1.49		mg/Kg	☼	90	63 - 110
Benzo[a]anthracene	0.072		1.64	1.26		mg/Kg	☼	72	63 - 110
Benzo[a]pyrene	0.094		1.64	1.58		mg/Kg	☼	91	61 - 120
Benzo[b]fluoranthene	0.15		1.64	1.76		mg/Kg	☼	98	62 - 120
Benzo[g,h,i]perylene	0.041	F1	1.64	0.790	F1	mg/Kg	☼	46	64 - 120
Benzo[k]fluoranthene	0.073	F1 F2	1.64	1.59		mg/Kg	☼	92	65 - 120
Bis(2-chloroethoxy)methane	<0.21		1.64	1.41		mg/Kg	☼	86	60 - 112
Bis(2-chloroethyl)ether	<0.21		1.64	1.25		mg/Kg	☼	76	55 - 111
Bis(2-ethylhexyl) phthalate	<0.21		1.64	1.33		mg/Kg	☼	81	63 - 118
4-Bromophenyl phenyl ether	<0.21		1.64	1.23		mg/Kg	☼	75	63 - 110
Butyl benzyl phthalate	<0.21		1.64	1.29		mg/Kg	☼	79	61 - 116
Carbazole	<0.21		1.64	1.62		mg/Kg	☼	99	59 - 158
4-Chloroaniline	<0.83		1.64	1.33		mg/Kg	☼	81	30 - 150
4-Chloro-3-methylphenol	<0.41		1.64	1.16		mg/Kg	☼	71	61 - 114
2-Chloronaphthalene	<0.21		1.64	1.45		mg/Kg	☼	89	64 - 110
2-Chlorophenol	<0.21		1.64	1.35		mg/Kg	☼	82	64 - 110
4-Chlorophenyl phenyl ether	<0.21		1.64	1.45		mg/Kg	☼	88	63 - 110
Chrysene	0.097		1.64	1.33		mg/Kg	☼	75	63 - 120
Dibenz(a,h)anthracene	<0.041		1.64	1.06		mg/Kg	☼	65	64 - 119
Dibenzofuran	<0.21		1.64	1.44		mg/Kg	☼	88	64 - 110
1,2-Dichlorobenzene	<0.21		1.64	1.20		mg/Kg	☼	74	62 - 110
1,3-Dichlorobenzene	<0.21		1.64	1.18		mg/Kg	☼	72	60 - 110

TestAmerica Chicago

QC Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137078-1

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

Lab Sample ID: 500-137078-16 MS

Matrix: Solid

Analysis Batch: 410358

Client Sample ID: 2696V-61-B12 (0-5)

Prep Type: Total/NA

Prep Batch: 410180

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	Limits
	Result	Qualifier	Added	Result	Qualifier				
1,4-Dichlorobenzene	<0.21		1.64	1.19		mg/Kg	☼	73	61 - 110
3,3'-Dichlorobenzidine	<0.21	*	1.64	1.02		mg/Kg	☼	62	49 - 112
2,4-Dichlorophenol	<0.41		1.64	1.37		mg/Kg	☼	84	58 - 120
Diethyl phthalate	<0.21		1.64	1.45		mg/Kg	☼	89	58 - 120
2,4-Dimethylphenol	<0.41		1.64	1.37		mg/Kg	☼	84	60 - 110
Dimethyl phthalate	<0.21		1.64	1.39		mg/Kg	☼	85	64 - 110
Di-n-butyl phthalate	<0.21		1.64	1.48		mg/Kg	☼	91	65 - 120
4,6-Dinitro-2-methylphenol	<0.83	F1	3.28	<0.82	F1	mg/Kg	☼	0	10 - 110
2,4-Dinitrophenol	<0.83	F1	3.28	<0.82	F1	mg/Kg	☼	0	10 - 100
2,4-Dinitrotoluene	<0.21		1.64	1.42		mg/Kg	☼	87	62 - 117
2,6-Dinitrotoluene	<0.21		1.64	1.46		mg/Kg	☼	89	67 - 120
Di-n-octyl phthalate	<0.21		1.64	1.59		mg/Kg	☼	97	63 - 119
Fluoranthene	0.21		1.64	1.63		mg/Kg	☼	87	62 - 120
Fluorene	0.0069	J	1.64	1.47		mg/Kg	☼	89	62 - 120
Hexachlorobenzene	<0.083		1.64	1.18		mg/Kg	☼	72	55 - 117
Hexachlorobutadiene	<0.21		1.64	1.14		mg/Kg	☼	70	56 - 120
Hexachlorocyclopentadiene	<0.83		1.64	0.258	J	mg/Kg	☼	16	10 - 106
Hexachloroethane	<0.21	F1	1.64	0.969	F1	mg/Kg	☼	59	61 - 110
Indeno[1,2,3-cd]pyrene	0.042		1.64	0.985		mg/Kg	☼	58	57 - 127
Isophorone	<0.21	*	1.64	1.29		mg/Kg	☼	79	55 - 110
2-Methylnaphthalene	<0.083		1.64	1.37		mg/Kg	☼	84	62 - 110
2-Methylphenol	<0.21		1.64	1.36		mg/Kg	☼	83	60 - 120
3 & 4 Methylphenol	<0.21		1.64	1.33		mg/Kg	☼	81	57 - 120
Naphthalene	<0.041		1.64	1.34		mg/Kg	☼	82	63 - 110
2-Nitroaniline	<0.21		1.64	1.42		mg/Kg	☼	87	57 - 124
3-Nitroaniline	<0.41		1.64	1.97		mg/Kg	☼	120	40 - 122
4-Nitroaniline	<0.41		1.64	2.15		mg/Kg	☼	131	60 - 160
Nitrobenzene	<0.041		1.64	1.41		mg/Kg	☼	86	60 - 116
2-Nitrophenol	<0.41		1.64	1.31		mg/Kg	☼	80	60 - 120
4-Nitrophenol	<0.83		3.28	2.86		mg/Kg	☼	87	30 - 122
N-Nitrosodi-n-propylamine	<0.083		1.64	1.26		mg/Kg	☼	77	56 - 118
N-Nitrosodiphenylamine	<0.21		1.64	1.39		mg/Kg	☼	85	65 - 112
2,2'-oxybis[1-chloropropane]	<0.21		1.64	1.02		mg/Kg	☼	62	40 - 124
Pentachlorophenol	<0.83		3.28	0.995		mg/Kg	☼	30	13 - 112
Phenanthrene	0.10		1.64	1.43		mg/Kg	☼	81	62 - 120
Phenol	<0.21		1.64	1.35		mg/Kg	☼	82	56 - 122
Pyrene	0.14		1.64	1.35		mg/Kg	☼	74	63 - 120
1,2,4-Trichlorobenzene	<0.21		1.64	1.28		mg/Kg	☼	78	62 - 110
2,4,5-Trichlorophenol	<0.41		1.64	1.36		mg/Kg	☼	83	50 - 120
2,4,6-Trichlorophenol	<0.41		1.64	1.44		mg/Kg	☼	88	57 - 120

Surrogate	MS MS		Limits
	%Recovery	Qualifier	
2-Fluorobiphenyl	85		44 - 121
2-Fluorophenol	88		46 - 133
Nitrobenzene-d5	79		41 - 120
Phenol-d5	87		46 - 125
Terphenyl-d14	76		35 - 160
2,4,6-Tribromophenol	73		25 - 139

TestAmerica Chicago

QC Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137078-1

Lab Sample ID: 500-137078-16 MSD
Matrix: Solid
Analysis Batch: 410358

Client Sample ID: 2696V-61-B12 (0-5)
Prep Type: Total/NA
Prep Batch: 410180

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier				Limits		
Acenaphthene	0.0088	J	1.67	1.51		mg/Kg	☼	90	58 - 110	5	30
Acenaphthylene	<0.041		1.67	1.44		mg/Kg	☼	86	60 - 110	4	30
Anthracene	0.016	J	1.67	1.58		mg/Kg	☼	93	63 - 110	6	30
Benzo[a]anthracene	0.072		1.67	1.37		mg/Kg	☼	78	63 - 110	9	30
Benzo[a]pyrene	0.094		1.67	1.71		mg/Kg	☼	97	61 - 120	8	30
Benzo[b]fluoranthene	0.15		1.67	1.90		mg/Kg	☼	105	62 - 120	8	30
Benzo[g,h,i]perylene	0.041	F1	1.67	0.882	F1	mg/Kg	☼	50	64 - 120	11	30
Benzo[k]fluoranthene	0.073	F1 F2	1.67	2.16	F1 F2	mg/Kg	☼	125	65 - 120	31	30
Bis(2-chloroethoxy)methane	<0.21		1.67	1.45		mg/Kg	☼	86	60 - 112	3	30
Bis(2-chloroethyl)ether	<0.21		1.67	1.27		mg/Kg	☼	76	55 - 111	1	30
Bis(2-ethylhexyl) phthalate	<0.21		1.67	1.39		mg/Kg	☼	83	63 - 118	5	30
4-Bromophenyl phenyl ether	<0.21		1.67	1.29		mg/Kg	☼	77	63 - 110	5	30
Butyl benzyl phthalate	<0.21		1.67	1.36		mg/Kg	☼	81	61 - 116	5	30
Carbazole	<0.21		1.67	1.70		mg/Kg	☼	101	59 - 158	5	30
4-Chloroaniline	<0.83		1.67	1.40		mg/Kg	☼	84	30 - 150	5	30
4-Chloro-3-methylphenol	<0.41		1.67	1.27		mg/Kg	☼	76	61 - 114	9	30
2-Chloronaphthalene	<0.21		1.67	1.46		mg/Kg	☼	87	64 - 110	1	30
2-Chlorophenol	<0.21		1.67	1.38		mg/Kg	☼	83	64 - 110	3	30
4-Chlorophenyl phenyl ether	<0.21		1.67	1.51		mg/Kg	☼	90	63 - 110	4	30
Chrysene	0.097		1.67	1.40		mg/Kg	☼	77	63 - 120	5	30
Dibenz(a,h)anthracene	<0.041		1.67	1.16		mg/Kg	☼	69	64 - 119	9	30
Dibenzofuran	<0.21		1.67	1.51		mg/Kg	☼	90	64 - 110	5	30
1,2-Dichlorobenzene	<0.21		1.67	1.24		mg/Kg	☼	74	62 - 110	3	30
1,3-Dichlorobenzene	<0.21		1.67	1.15		mg/Kg	☼	69	60 - 110	2	30
1,4-Dichlorobenzene	<0.21		1.67	1.18		mg/Kg	☼	71	61 - 110	1	30
3,3'-Dichlorobenzidine	<0.21	*	1.67	1.03		mg/Kg	☼	61	49 - 112	1	30
2,4-Dichlorophenol	<0.41		1.67	1.35		mg/Kg	☼	81	58 - 120	1	30
Diethyl phthalate	<0.21		1.67	1.57		mg/Kg	☼	94	58 - 120	8	30
2,4-Dimethylphenol	<0.41		1.67	1.40		mg/Kg	☼	83	60 - 110	2	30
Dimethyl phthalate	<0.21		1.67	1.49		mg/Kg	☼	89	64 - 110	7	30
Di-n-butyl phthalate	<0.21		1.67	1.57		mg/Kg	☼	94	65 - 120	6	30
4,6-Dinitro-2-methylphenol	<0.83	F1	3.35	<0.84	F1	mg/Kg	☼	0	10 - 110	NC	30
2,4-Dinitrophenol	<0.83	F1	3.35	<0.84	F1	mg/Kg	☼	0	10 - 100	NC	30
2,4-Dinitrotoluene	<0.21		1.67	1.44		mg/Kg	☼	86	62 - 117	2	30
2,6-Dinitrotoluene	<0.21		1.67	1.55		mg/Kg	☼	92	67 - 120	6	30
Di-n-octyl phthalate	<0.21		1.67	1.70		mg/Kg	☼	101	63 - 119	6	30
Fluoranthene	0.21		1.67	1.75		mg/Kg	☼	92	62 - 120	7	30
Fluorene	0.0069	J	1.67	1.54		mg/Kg	☼	92	62 - 120	5	30
Hexachlorobenzene	<0.083		1.67	1.23		mg/Kg	☼	73	55 - 117	4	30
Hexachlorobutadiene	<0.21		1.67	1.20		mg/Kg	☼	72	56 - 120	5	30
Hexachlorocyclopentadiene	<0.83		1.67	0.276	J	mg/Kg	☼	16	10 - 106	7	30
Hexachloroethane	<0.21	F1	1.67	0.966	F1	mg/Kg	☼	58	61 - 110	0	30
Indeno[1,2,3-cd]pyrene	0.042		1.67	1.08		mg/Kg	☼	62	57 - 127	10	30
Isophorone	<0.21	*	1.67	1.33		mg/Kg	☼	79	55 - 110	3	30
2-Methylnaphthalene	<0.083		1.67	1.38		mg/Kg	☼	82	62 - 110	1	30
2-Methylphenol	<0.21		1.67	1.41		mg/Kg	☼	84	60 - 120	3	30
3 & 4 Methylphenol	<0.21		1.67	1.37		mg/Kg	☼	82	57 - 120	3	30
Naphthalene	<0.041		1.67	1.35		mg/Kg	☼	81	63 - 110	1	30
2-Nitroaniline	<0.21		1.67	1.47		mg/Kg	☼	88	57 - 124	4	30
3-Nitroaniline	<0.41		1.67	2.05		mg/Kg	☼	122	40 - 122	4	30

TestAmerica Chicago

QC Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137078-1

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

Lab Sample ID: 500-137078-16 MSD

Matrix: Solid

Analysis Batch: 410358

Client Sample ID: 2696V-61-B12 (0-5)

Prep Type: Total/NA

Prep Batch: 410180

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier						
4-Nitroaniline	<0.41		1.67	2.30		mg/Kg	☼	137	60 - 160	7	30
Nitrobenzene	<0.041		1.67	1.43		mg/Kg	☼	86	60 - 116	1	30
2-Nitrophenol	<0.41		1.67	1.30		mg/Kg	☼	77	60 - 120	1	30
4-Nitrophenol	<0.83		3.35	3.08		mg/Kg	☼	92	30 - 122	8	30
N-Nitrosodi-n-propylamine	<0.083		1.67	1.30		mg/Kg	☼	78	56 - 118	3	30
N-Nitrosodiphenylamine	<0.21		1.67	1.47		mg/Kg	☼	88	65 - 112	6	30
2,2'-oxybis[1-chloropropane]	<0.21		1.67	1.02		mg/Kg	☼	61	40 - 124	1	30
Pentachlorophenol	<0.83		3.35	0.898		mg/Kg	☼	27	13 - 112	10	30
Phenanthrene	0.10		1.67	1.52		mg/Kg	☼	85	62 - 120	6	30
Phenol	<0.21		1.67	1.41		mg/Kg	☼	84	56 - 122	4	30
Pyrene	0.14		1.67	1.42		mg/Kg	☼	76	63 - 120	5	30
1,2,4-Trichlorobenzene	<0.21		1.67	1.31		mg/Kg	☼	78	62 - 110	2	30
2,4,5-Trichlorophenol	<0.41		1.67	1.46		mg/Kg	☼	87	50 - 120	7	30
2,4,6-Trichlorophenol	<0.41		1.67	1.48		mg/Kg	☼	89	57 - 120	3	30

Surrogate	MSD %Recovery	MSD Qualifier	Limits
2-Fluorobiphenyl	88		44 - 121
2-Fluorophenol	91		46 - 133
Nitrobenzene-d5	82		41 - 120
Phenol-d5	84		46 - 125
Terphenyl-d14	76		35 - 160
2,4,6-Tribromophenol	70		25 - 139

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 500-409521/1-A

Matrix: Solid

Analysis Batch: 409795

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 409521

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Antimony	<2.0		2.0	0.39	mg/Kg		11/11/17 13:26	11/13/17 18:39	1
Arsenic	<1.0		1.0	0.34	mg/Kg		11/11/17 13:26	11/13/17 18:39	1
Barium	<1.0		1.0	0.11	mg/Kg		11/11/17 13:26	11/13/17 18:39	1
Beryllium	<0.40		0.40	0.093	mg/Kg		11/11/17 13:26	11/13/17 18:39	1
Cadmium	0.0931	J	0.20	0.036	mg/Kg		11/11/17 13:26	11/13/17 18:39	1
Chromium	<1.0		1.0	0.50	mg/Kg		11/11/17 13:26	11/13/17 18:39	1
Cobalt	<0.50		0.50	0.13	mg/Kg		11/11/17 13:26	11/13/17 18:39	1
Iron	<20		20	10	mg/Kg		11/11/17 13:26	11/13/17 18:39	1
Lead	<0.50		0.50	0.23	mg/Kg		11/11/17 13:26	11/13/17 18:39	1
Magnesium	5.59	J	10	5.0	mg/Kg		11/11/17 13:26	11/13/17 18:39	1
Calcium	5.77	J	20	3.4	mg/Kg		11/11/17 13:26	11/13/17 18:39	1
Manganese	<1.0		1.0	0.15	mg/Kg		11/11/17 13:26	11/13/17 18:39	1
Nickel	<1.0		1.0	0.29	mg/Kg		11/11/17 13:26	11/13/17 18:39	1
Selenium	0.714	J	1.0	0.59	mg/Kg		11/11/17 13:26	11/13/17 18:39	1
Silver	<0.50		0.50	0.13	mg/Kg		11/11/17 13:26	11/13/17 18:39	1
Thallium	<1.0		1.0	0.50	mg/Kg		11/11/17 13:26	11/13/17 18:39	1
Vanadium	<0.50		0.50	0.12	mg/Kg		11/11/17 13:26	11/13/17 18:39	1
Zinc	<2.0		2.0	0.88	mg/Kg		11/11/17 13:26	11/13/17 18:39	1

TestAmerica Chicago

QC Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137078-1

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

Lab Sample ID: MB 500-409521/1-A
Matrix: Solid
Analysis Batch: 409795

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 409521

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Potassium	<50		50	18	mg/Kg		11/11/17 13:26	11/13/17 18:39	1
Sodium	<100		100	15	mg/Kg		11/11/17 13:26	11/13/17 18:39	1

Lab Sample ID: MB 500-409521/1-A
Matrix: Solid
Analysis Batch: 410007

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 409521

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Copper	<1.0		1.0	0.28	mg/Kg		11/11/17 13:26	11/14/17 16:32	1

Lab Sample ID: LCS 500-409521/2-A
Matrix: Solid
Analysis Batch: 409795

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 409521

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Antimony	50.0	44.0		mg/Kg		88	80 - 120
Arsenic	10.0	9.63		mg/Kg		96	80 - 120
Barium	200	194		mg/Kg		97	80 - 120
Beryllium	5.00	4.86		mg/Kg		97	80 - 120
Cadmium	5.00	4.87		mg/Kg		97	80 - 120
Chromium	20.0	19.7		mg/Kg		99	80 - 120
Cobalt	50.0	49.9		mg/Kg		100	80 - 120
Iron	100	99.0		mg/Kg		99	80 - 120
Lead	10.0	9.34		mg/Kg		93	80 - 120
Magnesium	1000	892		mg/Kg		89	80 - 120
Calcium	1000	952		mg/Kg		95	80 - 120
Manganese	50.0	49.3		mg/Kg		99	80 - 120
Nickel	50.0	49.4		mg/Kg		99	80 - 120
Selenium	10.0	8.87		mg/Kg		89	80 - 120
Silver	5.00	4.65		mg/Kg		93	80 - 120
Thallium	10.0	9.12		mg/Kg		91	80 - 120
Vanadium	50.0	49.0		mg/Kg		98	80 - 120
Zinc	50.0	49.2		mg/Kg		98	80 - 120
Potassium	1000	914		mg/Kg		91	80 - 120
Sodium	1000	939		mg/Kg		94	80 - 120

Lab Sample ID: LCS 500-409521/2-A
Matrix: Solid
Analysis Batch: 410007

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 409521

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Copper	25.0	22.9		mg/Kg		92	80 - 120

Lab Sample ID: 500-137078-1 MS
Matrix: Solid
Analysis Batch: 409795

Client Sample ID: 2696V-61-B01 (0-5)
Prep Type: Total/NA
Prep Batch: 409521

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Antimony	0.28	J F1	29.0	5.57	F1	mg/Kg	☼	18	75 - 125

TestAmerica Chicago

QC Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137078-1

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

Lab Sample ID: 500-137078-1 MS

Matrix: Solid

Analysis Batch: 409795

Client Sample ID: 2696V-61-B01 (0-5)

Prep Type: Total/NA

Prep Batch: 409521

Analyte	Sample	Sample	Spike	MS		Unit	D	%Rec	%Rec.	Limits
	Result	Qualifier		Result	Qualifier					
Arsenic	6.8	F1	5.80	13.9		mg/Kg	☼	123	75 - 125	
Barium	49		116	155		mg/Kg	☼	91	75 - 125	
Beryllium	0.70		2.90	3.36		mg/Kg	☼	92	75 - 125	
Cadmium	0.24	B	2.90	2.73		mg/Kg	☼	86	75 - 125	
Chromium	15		11.6	28.7		mg/Kg	☼	118	75 - 125	
Cobalt	13		29.0	42.6		mg/Kg	☼	102	75 - 125	
Iron	16000		58.0	19500	4	mg/Kg	☼	5592	75 - 125	
Lead	25		5.80	28.6	4	mg/Kg	☼	59	75 - 125	
Magnesium	12000	B	580	14700	4	mg/Kg	☼	504	75 - 125	
Calcium	21000	B	580	26200	4	mg/Kg	☼	961	75 - 125	
Manganese	320		29.0	325	4	mg/Kg	☼	32	75 - 125	
Nickel	32		29.0	60.1		mg/Kg	☼	96	75 - 125	
Selenium	<0.55	F1	5.80	4.33		mg/Kg	☼	75	75 - 125	
Silver	<0.28		2.90	2.26		mg/Kg	☼	78	75 - 125	
Thallium	0.51	J	5.80	5.25		mg/Kg	☼	82	75 - 125	
Vanadium	18		29.0	50.3		mg/Kg	☼	112	75 - 125	
Zinc	81	F1	29.0	112		mg/Kg	☼	108	75 - 125	
Potassium	1700	F1	580	3770	F1	mg/Kg	☼	357	75 - 125	
Sodium	880		580	1410		mg/Kg	☼	92	75 - 125	

Lab Sample ID: 500-137078-1 MS

Matrix: Solid

Analysis Batch: 410007

Client Sample ID: 2696V-61-B01 (0-5)

Prep Type: Total/NA

Prep Batch: 409521

Analyte	Sample	Sample	Spike	MS		Unit	D	%Rec	%Rec.	Limits
	Result	Qualifier		Result	Qualifier					
Copper	25	F1	14.5	37.9		mg/Kg	☼	92	75 - 125	

Lab Sample ID: 500-137078-1 MSD

Matrix: Solid

Analysis Batch: 409795

Client Sample ID: 2696V-61-B01 (0-5)

Prep Type: Total/NA

Prep Batch: 409521

Analyte	Sample	Sample	Spike	MSD		Unit	D	%Rec	%Rec.	Limits	RPD	
	Result	Qualifier		Result	Qualifier						RPD	Limit
Antimony	0.28	J F1	27.2	5.21	F1	mg/Kg	☼	18	75 - 125	7	20	
Arsenic	6.8	F1	5.44	14.9	F1	mg/Kg	☼	149	75 - 125	7	20	
Barium	49		109	149		mg/Kg	☼	91	75 - 125	5	20	
Beryllium	0.70		2.72	3.17		mg/Kg	☼	91	75 - 125	6	20	
Cadmium	0.24	B	2.72	2.48		mg/Kg	☼	82	75 - 125	10	20	
Chromium	15		10.9	27.9		mg/Kg	☼	118	75 - 125	3	20	
Cobalt	13		27.2	40.0		mg/Kg	☼	99	75 - 125	6	20	
Iron	16000		54.4	21200	4	mg/Kg	☼	9250	75 - 125	9	20	
Lead	25		5.44	24.5	4	mg/Kg	☼	-12	75 - 125	15	20	
Magnesium	12000	B	544	12900	4	mg/Kg	☼	207	75 - 125	13	20	
Calcium	21000	B	544	24200	4	mg/Kg	☼	652	75 - 125	8	20	
Manganese	320		27.2	359	4	mg/Kg	☼	159	75 - 125	10	20	
Nickel	32		27.2	56.2		mg/Kg	☼	88	75 - 125	7	20	
Selenium	<0.55	F1	5.44	3.76	F1	mg/Kg	☼	69	75 - 125	14	20	
Silver	<0.28		2.72	2.05		mg/Kg	☼	75	75 - 125	10	20	
Thallium	0.51	J	5.44	5.02		mg/Kg	☼	83	75 - 125	5	20	
Vanadium	18		27.2	48.0		mg/Kg	☼	110	75 - 125	5	20	

TestAmerica Chicago

QC Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137078-1

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

Lab Sample ID: 500-137078-1 MSD
Matrix: Solid
Analysis Batch: 409795

Client Sample ID: 2696V-61-B01 (0-5)
Prep Type: Total/NA
Prep Batch: 409521

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	Limits	RPD	Limit
	Result	Qualifier		Result	Qualifier							
Zinc	81	F1	27.2	100	F1	mg/Kg	☼	72	75 - 125	11	20	
Potassium	1700	F1	544	3380	F1	mg/Kg	☼	309	75 - 125	11	20	
Sodium	880		544	1360		mg/Kg	☼	89	75 - 125	4	20	

Lab Sample ID: 500-137078-1 MSD
Matrix: Solid
Analysis Batch: 410007

Client Sample ID: 2696V-61-B01 (0-5)
Prep Type: Total/NA
Prep Batch: 409521

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	Limits	RPD	Limit
	Result	Qualifier		Result	Qualifier							
Copper	25	F1	13.6	34.3	F1	mg/Kg	☼	72	75 - 125	10	20	

Lab Sample ID: 500-137078-1 DU
Matrix: Solid
Analysis Batch: 409795

Client Sample ID: 2696V-61-B01 (0-5)
Prep Type: Total/NA
Prep Batch: 409521

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	Limit
	Result	Qualifier		Result				
Antimony	0.28	J F1	<1.1		mg/Kg	☼	NC	20
Arsenic	6.8	F1	7.69		mg/Kg	☼	12	20
Barium	49		53.9		mg/Kg	☼	9	20
Beryllium	0.70		0.742		mg/Kg	☼	5	20
Cadmium	0.24	B	0.363	F3	mg/Kg	☼	42	20
Chromium	15		15.8		mg/Kg	☼	5	20
Cobalt	13		12.5		mg/Kg	☼	4	20
Iron	16000		17200		mg/Kg	☼	6	20
Lead	25		22.3		mg/Kg	☼	12	20
Magnesium	12000	B	10600		mg/Kg	☼	10	20
Calcium	21000	B	18600		mg/Kg	☼	11	20
Manganese	320		412	F3	mg/Kg	☼	26	20
Nickel	32		34.8		mg/Kg	☼	7	20
Selenium	<0.55	F1	0.409	J	mg/Kg	☼	NC	20
Silver	<0.28		<0.28		mg/Kg	☼	NC	20
Thallium	0.51	J	0.402	J F5	mg/Kg	☼	24	20
Vanadium	18		20.5		mg/Kg	☼	13	20
Zinc	81	F1	71.1		mg/Kg	☼	12	20
Potassium	1700	F1	1830		mg/Kg	☼	7	20
Sodium	880		874		mg/Kg	☼	0.4	20

Lab Sample ID: 500-137078-1 DU
Matrix: Solid
Analysis Batch: 410007

Client Sample ID: 2696V-61-B01 (0-5)
Prep Type: Total/NA
Prep Batch: 409521

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	Limit
	Result	Qualifier		Result				
Copper	25	F1	23.9		mg/Kg	☼	2	20

QC Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137078-1

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

Lab Sample ID: LCS 500-410040/2-A
Matrix: Solid
Analysis Batch: 410196

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 410040

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Arsenic	0.100	0.0930		mg/L		93	80 - 120
Barium	0.500	0.499	J	mg/L		100	80 - 120
Beryllium	0.0500	0.0490		mg/L		98	80 - 120
Cadmium	0.0500	0.0483		mg/L		97	80 - 120
Chromium	0.200	0.204		mg/L		102	80 - 120
Cobalt	0.500	0.491		mg/L		98	80 - 120
Copper	0.250	0.251		mg/L		100	80 - 120
Iron	1.00	1.10		mg/L		110	80 - 120
Lead	0.100	0.0920		mg/L		92	80 - 120
Magnesium	10.0	9.73		mg/L		97	80 - 120
Calcium	10.0	10.3		mg/L		103	80 - 120
Manganese	0.500	0.494		mg/L		99	80 - 120
Nickel	0.500	0.488		mg/L		98	80 - 120
Selenium	0.100	0.0802		mg/L		80	80 - 120
Silver	0.0500	0.0487		mg/L		97	80 - 120
Vanadium	0.500	0.507		mg/L		101	80 - 120
Zinc	0.500	0.474	J	mg/L		95	80 - 120
Potassium	10.0	9.97		mg/L		100	80 - 120

Lab Sample ID: LCS 500-410211/2-A
Matrix: Solid
Analysis Batch: 410395

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 410211

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Lead	0.100	0.101		mg/L		101	80 - 120
Manganese	0.500	0.494		mg/L		99	80 - 120

Lab Sample ID: LB 500-409902/1-B
Matrix: Solid
Analysis Batch: 410196

Client Sample ID: Method Blank
Prep Type: TCLP
Prep Batch: 410040

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.050		0.050	0.010	mg/L		11/15/17 09:19	11/15/17 15:54	1
Barium	<0.50		0.50	0.050	mg/L		11/15/17 09:19	11/15/17 15:54	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		11/15/17 09:19	11/15/17 15:54	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		11/15/17 09:19	11/15/17 15:54	1
Chromium	<0.025		0.025	0.010	mg/L		11/15/17 09:19	11/15/17 15:54	1
Cobalt	<0.025		0.025	0.010	mg/L		11/15/17 09:19	11/15/17 15:54	1
Copper	<0.025		0.025	0.010	mg/L		11/15/17 09:19	11/15/17 15:54	1
Iron	<0.40		0.40	0.20	mg/L		11/15/17 09:19	11/15/17 15:54	1
Lead	<0.0075		0.0075	0.0075	mg/L		11/15/17 09:19	11/15/17 15:54	1
Magnesium	<2.5		2.5	0.50	mg/L		11/15/17 09:19	11/15/17 15:54	1
Calcium	<5.0		5.0	0.50	mg/L		11/15/17 09:19	11/15/17 15:54	1
Manganese	<0.025		0.025	0.010	mg/L		11/15/17 09:19	11/15/17 15:54	1
Nickel	<0.025		0.025	0.010	mg/L		11/15/17 09:19	11/15/17 15:54	1
Selenium	<0.050		0.050	0.020	mg/L		11/15/17 09:19	11/15/17 15:54	1
Silver	<0.025		0.025	0.010	mg/L		11/15/17 09:19	11/15/17 15:54	1
Vanadium	<0.025		0.025	0.010	mg/L		11/15/17 09:19	11/15/17 15:54	1

TestAmerica Chicago

QC Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137078-1

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

Lab Sample ID: LB 500-409902/1-B
Matrix: Solid
Analysis Batch: 410196

Client Sample ID: Method Blank
Prep Type: TCLP
Prep Batch: 410040

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Zinc	<0.50		0.50	0.020	mg/L		11/15/17 09:19	11/15/17 15:54	1
Potassium	<2.5		2.5	0.50	mg/L		11/15/17 09:19	11/15/17 15:54	1

Lab Sample ID: LB2 500-409904/1-B
Matrix: Solid
Analysis Batch: 410196

Client Sample ID: Method Blank
Prep Type: TCLP
Prep Batch: 410040

Analyte	LB2 Result	LB2 Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.050		0.050	0.010	mg/L		11/15/17 09:19	11/15/17 17:50	1
Barium	<0.50		0.50	0.050	mg/L		11/15/17 09:19	11/15/17 17:50	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		11/15/17 09:19	11/15/17 17:50	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		11/15/17 09:19	11/15/17 17:50	1
Chromium	<0.025		0.025	0.010	mg/L		11/15/17 09:19	11/15/17 17:50	1
Cobalt	<0.025		0.025	0.010	mg/L		11/15/17 09:19	11/15/17 17:50	1
Copper	<0.025		0.025	0.010	mg/L		11/15/17 09:19	11/15/17 17:50	1
Iron	<0.40		0.40	0.20	mg/L		11/15/17 09:19	11/15/17 17:50	1
Lead	<0.0075		0.0075	0.0075	mg/L		11/15/17 09:19	11/15/17 17:50	1
Magnesium	<2.5		2.5	0.50	mg/L		11/15/17 09:19	11/15/17 17:50	1
Calcium	<5.0		5.0	0.50	mg/L		11/15/17 09:19	11/15/17 17:50	1
Manganese	<0.025		0.025	0.010	mg/L		11/15/17 09:19	11/15/17 17:50	1
Nickel	<0.025		0.025	0.010	mg/L		11/15/17 09:19	11/15/17 17:50	1
Selenium	<0.050		0.050	0.020	mg/L		11/15/17 09:19	11/15/17 17:50	1
Silver	<0.025		0.025	0.010	mg/L		11/15/17 09:19	11/15/17 17:50	1
Vanadium	<0.025		0.025	0.010	mg/L		11/15/17 09:19	11/15/17 17:50	1
Zinc	<0.50		0.50	0.020	mg/L		11/15/17 09:19	11/15/17 17:50	1
Potassium	<2.5		2.5	0.50	mg/L		11/15/17 09:19	11/15/17 17:50	1

Lab Sample ID: 500-137078-16 MS
Matrix: Solid
Analysis Batch: 410196

Client Sample ID: 2696V-61-B12 (0-5)
Prep Type: TCLP
Prep Batch: 410040

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	<0.050		0.100	0.116		mg/L		116	50 - 150
Barium	0.32	J	0.500	0.848		mg/L		106	50 - 150
Beryllium	<0.0040		0.0500	0.0573		mg/L		115	50 - 150
Cadmium	0.0033	J	0.0500	0.0628		mg/L		119	50 - 150
Chromium	<0.025		0.200	0.212		mg/L		106	50 - 150
Cobalt	<0.025		0.500	0.570		mg/L		114	50 - 150
Copper	<0.025		0.250	0.318		mg/L		127	50 - 150
Iron	<0.40		1.00	1.20		mg/L		120	50 - 150
Lead	<0.0075		0.100	0.111		mg/L		111	50 - 150
Magnesium	83		10.0	93.8	4	mg/L		109	50 - 150
Calcium	190		10.0	203	4	mg/L		126	50 - 150
Manganese	0.60		0.500	1.13		mg/L		106	50 - 150
Nickel	<0.025		0.500	0.559		mg/L		112	50 - 150
Selenium	<0.050		0.100	0.0991		mg/L		99	50 - 150
Silver	<0.025		0.0500	0.0647		mg/L		129	50 - 150
Vanadium	<0.025		0.500	0.544		mg/L		109	50 - 150
Zinc	0.069	J	0.500	0.641		mg/L		114	50 - 150

TestAmerica Chicago

QC Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137078-1

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

Lab Sample ID: 500-137078-16 MS
Matrix: Solid
Analysis Batch: 410196

Client Sample ID: 2696V-61-B12 (0-5)
Prep Type: TCLP
Prep Batch: 410040

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Potassium	<2.5		10.0	11.9		mg/L		119	50 - 150

Lab Sample ID: 500-137078-16 DU
Matrix: Solid
Analysis Batch: 410196

Client Sample ID: 2696V-61-B12 (0-5)
Prep Type: TCLP
Prep Batch: 410040

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Arsenic	<0.050		<0.050		mg/L		NC	20
Barium	0.32	J	0.317	J	mg/L		0.2	20
Beryllium	<0.0040		<0.0040		mg/L		NC	20
Cadmium	0.0033	J	0.00339	J	mg/L		2	20
Chromium	<0.025		<0.025		mg/L		NC	20
Cobalt	<0.025		<0.025		mg/L		NC	20
Copper	<0.025		<0.025		mg/L		NC	20
Iron	<0.40		<0.40		mg/L		NC	20
Lead	<0.0075		<0.0075		mg/L		NC	20
Magnesium	83		82.7		mg/L		0.3	20
Calcium	190		191		mg/L		0.4	20
Manganese	0.60		0.600		mg/L		0.6	20
Nickel	<0.025		<0.025		mg/L		NC	20
Selenium	<0.050		<0.050		mg/L		NC	20
Silver	<0.025		<0.025		mg/L		NC	20
Vanadium	<0.025		<0.025		mg/L		NC	20
Zinc	0.069	J	0.0697	J	mg/L		0.4	20
Potassium	<2.5		<2.5		mg/L		NC	20

Lab Sample ID: LB 500-409911/1-C
Matrix: Solid
Analysis Batch: 410395

Client Sample ID: Method Blank
Prep Type: SPLP East
Prep Batch: 410211

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	<0.0075		0.0075	0.0075	mg/L		11/15/17 08:20	11/16/17 23:57	1
Manganese	<0.025		0.025	0.010	mg/L		11/15/17 08:20	11/16/17 23:57	1

Lab Sample ID: 500-137078-16 MS
Matrix: Solid
Analysis Batch: 410395

Client Sample ID: 2696V-61-B12 (0-5)
Prep Type: SPLP East
Prep Batch: 410211

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Manganese	0.31		0.500	0.602		mg/L		58	50 - 150

Lab Sample ID: 500-137078-16 DU
Matrix: Solid
Analysis Batch: 410395

Client Sample ID: 2696V-61-B12 (0-5)
Prep Type: SPLP East
Prep Batch: 410211

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Manganese	0.31		0.313		mg/L		1	20

TestAmerica Chicago

QC Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137078-1

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: LCS 500-410040/2-A
Matrix: Solid
Analysis Batch: 410434

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 410040

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Antimony	0.500	0.507		mg/L		101	80 - 120
Thallium	0.100	0.103		mg/L		103	80 - 120

Lab Sample ID: MB 500-409517/1-A
Matrix: Water
Analysis Batch: 409856

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 409517

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030	0.0013	mg/L		11/11/17 13:03	11/13/17 11:37	1
Arsenic	<0.0010		0.0010	0.00023	mg/L		11/11/17 13:03	11/13/17 11:37	1
Cadmium	<0.00050		0.00050	0.00017	mg/L		11/11/17 13:03	11/13/17 11:37	1
Copper	0.000598	J	0.0020	0.00050	mg/L		11/11/17 13:03	11/13/17 11:37	1
Selenium	<0.0025		0.0025	0.00098	mg/L		11/11/17 13:03	11/13/17 11:37	1
Silver	<0.00050		0.00050	0.00012	mg/L		11/11/17 13:03	11/13/17 11:37	1
Zinc	<0.020		0.020	0.0069	mg/L		11/11/17 13:03	11/13/17 11:37	1

Lab Sample ID: MB 500-409517/1-A
Matrix: Water
Analysis Batch: 410229

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 409517

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	<0.0025		0.0025	0.00073	mg/L		11/11/17 13:03	11/15/17 12:29	1
Beryllium	<0.0010		0.0010	0.00053	mg/L		11/11/17 13:03	11/15/17 12:29	1
Chromium	<0.0050		0.0050	0.0011	mg/L		11/11/17 13:03	11/15/17 12:29	1
Cobalt	<0.0010		0.0010	0.00040	mg/L		11/11/17 13:03	11/15/17 12:29	1
Iron	0.0499	J	0.10	0.047	mg/L		11/11/17 13:03	11/15/17 12:29	1
Lead	<0.00050		0.00050	0.00019	mg/L		11/11/17 13:03	11/15/17 12:29	1
Magnesium	0.0876	J	0.20	0.049	mg/L		11/11/17 13:03	11/15/17 12:29	1
Manganese	0.00154	J	0.0025	0.00079	mg/L		11/11/17 13:03	11/15/17 12:29	1
Nickel	<0.0020		0.0020	0.00063	mg/L		11/11/17 13:03	11/15/17 12:29	1
Potassium	<0.50		0.50	0.11	mg/L		11/11/17 13:03	11/15/17 12:29	1
Sodium	<0.20		0.20	0.077	mg/L		11/11/17 13:03	11/15/17 12:29	1
Thallium	<0.0020		0.0020	0.00057	mg/L		11/11/17 13:03	11/15/17 12:29	1
Vanadium	<0.0050		0.0050	0.0022	mg/L		11/11/17 13:03	11/15/17 12:29	1

Lab Sample ID: MB 500-409517/1-A
Matrix: Water
Analysis Batch: 410434

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 409517

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	0.289		0.20	0.044	mg/L		11/11/17 13:03	11/16/17 18:58	1

Lab Sample ID: LCS 500-409517/2-A
Matrix: Water
Analysis Batch: 409856

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 409517

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Antimony	0.500	0.495		mg/L		99	80 - 120
Arsenic	0.100	0.0946		mg/L		95	80 - 120

TestAmerica Chicago

QC Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137078-1

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

Lab Sample ID: LCS 500-409517/2-A
Matrix: Water
Analysis Batch: 409856

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 409517

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cadmium	0.0500	0.0505		mg/L		101	80 - 120
Copper	0.250	0.243		mg/L		97	80 - 120
Selenium	0.100	0.0961		mg/L		96	80 - 120
Silver	0.0500	0.0516		mg/L		103	80 - 120
Zinc	0.500	0.485		mg/L		97	80 - 120

Lab Sample ID: LCS 500-409517/2-A
Matrix: Water
Analysis Batch: 410229

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 409517

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Barium	0.500	0.505		mg/L		101	80 - 120
Beryllium	0.0500	0.0501		mg/L		100	80 - 120
Chromium	0.200	0.207		mg/L		103	80 - 120
Cobalt	0.500	0.512		mg/L		102	80 - 120
Iron	1.00	1.06		mg/L		106	80 - 120
Lead	0.100	0.103		mg/L		103	80 - 120
Magnesium	10.0	10.2		mg/L		102	80 - 120
Manganese	0.500	0.508		mg/L		102	80 - 120
Nickel	0.500	0.519		mg/L		104	80 - 120
Potassium	10.0	9.99		mg/L		100	80 - 120
Sodium	10.0	10.3		mg/L		103	80 - 120
Thallium	0.100	0.100		mg/L		100	80 - 120
Vanadium	0.500	0.497		mg/L		99	80 - 120

Lab Sample ID: LCS 500-409517/2-A
Matrix: Water
Analysis Batch: 410434

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 409517

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Calcium	10.0	8.63		mg/L		86	80 - 120

Lab Sample ID: LB 500-409902/1-B
Matrix: Solid
Analysis Batch: 410434

Client Sample ID: Method Blank
Prep Type: TCLP
Prep Batch: 410040

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		11/15/17 09:19	11/16/17 14:55	1
Thallium	<0.0020		0.0020	0.0020	mg/L		11/15/17 09:19	11/16/17 14:55	1

Lab Sample ID: LB2 500-409904/1-B
Matrix: Solid
Analysis Batch: 410434

Client Sample ID: Method Blank
Prep Type: TCLP
Prep Batch: 410040

Analyte	LB2 Result	LB2 Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		11/15/17 09:19	11/16/17 16:30	1
Thallium	<0.0020		0.0020	0.0020	mg/L		11/15/17 09:19	11/16/17 16:30	1

TestAmerica Chicago

QC Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137078-1

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

Lab Sample ID: 500-137078-16 MS

Matrix: Solid
Analysis Batch: 410434

Client Sample ID: 2696V-61-B12 (0-5)

Prep Type: TCLP
Prep Batch: 410040

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Antimony	<0.0060		0.500	0.571		mg/L		114	50 - 150
Thallium	<0.0020		0.100	0.111		mg/L		111	50 - 150

Lab Sample ID: 500-137078-16 DU

Matrix: Solid
Analysis Batch: 410434

Client Sample ID: 2696V-61-B12 (0-5)

Prep Type: TCLP
Prep Batch: 410040

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 - Mercury

Lab Sample ID: MB 500-409772/12-A

Matrix: Water
Analysis Batch: 409951

Client Sample ID: Method Blank

Prep Type: Total/NA
Prep Batch: 409772

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.000098	mg/L		11/13/17 16:00	11/14/17 12:06	1

Lab Sample ID: LCS 500-409772/13-A

Matrix: Water
Analysis Batch: 409951

Client Sample ID: Lab Control Sample

Prep Type: Total/NA
Prep Batch: 409772

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Mercury	0.00200	0.00204		mg/L		102	80 - 120

Method: 7470A - TCLP Mercury

Lab Sample ID: MB 500-410419/12-A

Matrix: Solid
Analysis Batch: 410492

Client Sample ID: Method Blank

Prep Type: Total/NA
Prep Batch: 410419

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		11/17/17 08:10	11/17/17 12:18	1

Lab Sample ID: LCS 500-410419/13-A

Matrix: Solid
Analysis Batch: 410492

Client Sample ID: Lab Control Sample

Prep Type: Total/NA
Prep Batch: 410419

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Mercury	0.00200	0.00211		mg/L		105	80 - 120

Lab Sample ID: LB 500-409902/1-D

Matrix: Solid
Analysis Batch: 410492

Client Sample ID: Method Blank

Prep Type: TCLP
Prep Batch: 410419

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		11/17/17 08:10	11/17/17 12:21	1

TestAmerica Chicago

QC Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137078-1

Lab Sample ID: LB2 500-409904/1-C
Matrix: Solid
Analysis Batch: 410492

Client Sample ID: Method Blank
Prep Type: TCLP
Prep Batch: 410419

Analyte	LB2 Result	LB2 Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		11/17/17 08:10	11/17/17 13:00	1

Lab Sample ID: 500-137078-16 MS
Matrix: Solid
Analysis Batch: 410492

Client Sample ID: 2696V-61-B12 (0-5)
Prep Type: TCLP
Prep Batch: 410419

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Mercury	<0.00020		0.00100	0.000983		mg/L		98	50 - 150

Lab Sample ID: 500-137078-16 DU
Matrix: Solid
Analysis Batch: 410492

Client Sample ID: 2696V-61-B12 (0-5)
Prep Type: TCLP
Prep Batch: 410419

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

Method: 7471B - Mercury (CVAA)

Lab Sample ID: MB 500-409695/12-A
Matrix: Solid
Analysis Batch: 410454

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 409695

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00617	J	0.017	0.0056	mg/Kg		11/13/17 13:20	11/17/17 09:20	1

Lab Sample ID: LCS 500-409695/13-A
Matrix: Solid
Analysis Batch: 410454

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 409695

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Mercury	0.167	0.162		mg/Kg		97	80 - 120

Lab Sample ID: 500-137078-8 MS
Matrix: Solid
Analysis Batch: 410454

Client Sample ID: 2696V-61-B06 (10-15)
Prep Type: Total/NA
Prep Batch: 409695

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Mercury	0.024	B F1	0.0896	0.0788	F1	mg/Kg	☼	62	75 - 125

Lab Sample ID: 500-137078-8 MSD
Matrix: Solid
Analysis Batch: 410454

Client Sample ID: 2696V-61-B06 (10-15)
Prep Type: Total/NA
Prep Batch: 409695

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	RPD Limit
Mercury	0.024	B F1	0.0897	0.0793	F1	mg/Kg	☼	62	75 - 125	1	20

Lab Sample ID: 500-137078-8 DU
Matrix: Solid
Analysis Batch: 410454

Client Sample ID: 2696V-61-B06 (10-15)
Prep Type: Total/NA
Prep Batch: 409695

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Mercury	0.024	B F1	0.0173	J F5	mg/Kg	☼	31	20

TestAmerica Chicago

QC Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137078-1

Method: 9014 - Cyanide

Lab Sample ID: MB 500-410608/1-A
Matrix: Solid
Analysis Batch: 410740

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 410608

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.50		0.50	0.17	mg/Kg		11/19/17 10:30	11/19/17 14:33	1

Lab Sample ID: LCS 500-410608/2-A
Matrix: Solid
Analysis Batch: 410740

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 410608

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Cyanide, Total	5.00	4.45		mg/Kg		89	80 - 120

Lab Sample ID: 500-137078-1 MS
Matrix: Solid
Analysis Batch: 410740

Client Sample ID: 2696V-61-B01 (0-5)
Prep Type: Total/NA
Prep Batch: 410608

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Cyanide, Total	<0.49		2.26	2.12		mg/Kg	☼	94	75 - 125

Lab Sample ID: 500-137078-1 MSD
Matrix: Solid
Analysis Batch: 410740

Client Sample ID: 2696V-61-B01 (0-5)
Prep Type: Total/NA
Prep Batch: 410608

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Cyanide, Total	<0.49		2.35	2.31		mg/Kg	☼	98	75 - 125	9	20

Lab Sample ID: MB 500-410609/1-A
Matrix: Water
Analysis Batch: 410745

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 410609

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.010		0.010	0.0035	mg/L		11/19/17 13:10	11/19/17 15:58	1

Lab Sample ID: LCS 500-410609/2-A
Matrix: Water
Analysis Batch: 410745

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 410609

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Cyanide, Total	0.100	0.0891		mg/L		89	80 - 120

Method: 9045D - pH

Lab Sample ID: 500-137078-15 DU
Matrix: Solid
Analysis Batch: 410622

Client Sample ID: 2696V-61-B11 (0-5)
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
pH	8.8		8.76		SU		0.2	

TestAmerica Chicago

Lab Chronicle

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137078-1

Client Sample ID: 2696V-61-B01 (0-5)

Lab Sample ID: 500-137078-1

Date Collected: 11/09/17 13:35

Matrix: Solid

Date Received: 11/09/17 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
SPLP East	Leach	1312			409911	11/14/17 14:04	JLC	TAL CHI
SPLP East	Prep	3010A			410211	11/15/17 08:20	PJ1	TAL CHI
SPLP East	Analysis	6010B		1	410395	11/17/17 00:05	PJ1	TAL CHI
TCLP	Leach	1311			409902	11/14/17 14:04	JLC	TAL CHI
TCLP	Prep	3010A			410040	11/15/17 09:19	JEF	TAL CHI
TCLP	Analysis	6010B		1	410196	11/15/17 16:14	PJ1	TAL CHI
TCLP	Leach	1311			409902	11/14/17 14:04	JLC	TAL CHI
TCLP	Prep	3010A			410040	11/15/17 09:19	JEF	TAL CHI
TCLP	Analysis	6020A		1	410434	11/16/17 15:03	FXG	TAL CHI
TCLP	Leach	1311			409902	11/14/17 14:04	JLC	TAL CHI
TCLP	Prep	7470A			410419	11/17/17 08:10	EEN	TAL CHI
TCLP	Analysis	7470A		1	410492	11/17/17 12:23	EEN	TAL CHI
Total/NA	Analysis	9045D		1	410622		SMO	TAL CHI
					(Start)	11/18/17 11:03		
					(End)	11/18/17 11:05		
Total/NA	Analysis	Moisture		1	409413	11/10/17 15:12	PFK	TAL CHI

Client Sample ID: 2696V-61-B01 (0-5)

Lab Sample ID: 500-137078-1

Date Collected: 11/09/17 13:35

Matrix: Solid

Date Received: 11/09/17 17:00

Percent Solids: 83.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			409585	11/10/17 18:28	WRE	TAL CHI
Total/NA	Analysis	8260B		1	409897	11/15/17 02:13	DJD	TAL CHI
Total/NA	Prep	3541			410180	11/16/17 07:12	DAK	TAL CHI
Total/NA	Analysis	8270D		1	410358	11/16/17 20:53	GES	TAL CHI
Total/NA	Prep	3050B			409521	11/11/17 13:26	BDE	TAL CHI
Total/NA	Analysis	6010B		1	409795	11/13/17 18:47	PJ1	TAL CHI
Total/NA	Prep	3050B			409521	11/11/17 13:26	BDE	TAL CHI
Total/NA	Analysis	6010B		1	410007	11/14/17 16:40	PJ1	TAL CHI
Total/NA	Prep	7471B			409695	11/13/17 13:20	EEN	TAL CHI
Total/NA	Analysis	7471B		1	410454	11/17/17 09:25	PFK	TAL CHI
Total/NA	Prep	9010B			410608	11/19/17 10:30	EAT	TAL CHI
Total/NA	Analysis	9014		1	410740		MAN	TAL CHI
					(Start)	11/19/17 14:34		
					(End)	11/19/17 14:34		

Client Sample ID: 2696V-61-B02 (0-5)

Lab Sample ID: 500-137078-2

Date Collected: 11/09/17 13:25

Matrix: Solid

Date Received: 11/09/17 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
SPLP East	Leach	1312			409911	11/14/17 14:04	JLC	TAL CHI
SPLP East	Prep	3010A			410211	11/15/17 08:20	PJ1	TAL CHI

TestAmerica Chicago

Lab Chronicle

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137078-1

Client Sample ID: 2696V-61-B02 (0-5)

Lab Sample ID: 500-137078-2

Date Collected: 11/09/17 13:25

Matrix: Solid

Date Received: 11/09/17 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
SPLP East	Analysis	6010B		1	410395	11/17/17 00:09	PJ1	TAL CHI
TCLP	Leach	1311			409902	11/14/17 14:04	JLC	TAL CHI
TCLP	Prep	3010A			410040	11/15/17 09:19	JEF	TAL CHI
TCLP	Analysis	6010B		1	410196	11/15/17 16:18	PJ1	TAL CHI
TCLP	Leach	1311			409902	11/14/17 14:04	JLC	TAL CHI
TCLP	Prep	3010A			410040	11/15/17 09:19	JEF	TAL CHI
TCLP	Analysis	6020A		1	410434	11/16/17 15:07	FXG	TAL CHI
TCLP	Leach	1311			409902	11/14/17 14:04	JLC	TAL CHI
TCLP	Prep	7470A			410419	11/17/17 08:10	EEN	TAL CHI
TCLP	Analysis	7470A		1	410492	11/17/17 12:24	EEN	TAL CHI
Total/NA	Analysis	9045D		1	410622		SMO	TAL CHI
					(Start)	11/18/17 11:05		
					(End)	11/18/17 11:07		
Total/NA	Analysis	Moisture		1	409413	11/10/17 15:12	PFK	TAL CHI

Client Sample ID: 2696V-61-B02 (0-5)

Lab Sample ID: 500-137078-2

Date Collected: 11/09/17 13:25

Matrix: Solid

Date Received: 11/09/17 17:00

Percent Solids: 86.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			409585	11/10/17 18:28	WRE	TAL CHI
Total/NA	Analysis	8260B		1	409897	11/15/17 02:39	DJD	TAL CHI
Total/NA	Prep	3541			410180	11/16/17 07:12	DAK	TAL CHI
Total/NA	Analysis	8270D		1	410358	11/16/17 21:20	GES	TAL CHI
Total/NA	Prep	3050B			409521	11/11/17 13:26	BDE	TAL CHI
Total/NA	Analysis	6010B		1	409795	11/13/17 19:14	PJ1	TAL CHI
Total/NA	Prep	3050B			409521	11/11/17 13:26	BDE	TAL CHI
Total/NA	Analysis	6010B		5	410007	11/14/17 17:00	PJ1	TAL CHI
Total/NA	Prep	7471B			409695	11/13/17 13:20	EEN	TAL CHI
Total/NA	Analysis	7471B		1	410454	11/17/17 09:27	PFK	TAL CHI
Total/NA	Prep	9010B			410608	11/19/17 10:30	EAT	TAL CHI
Total/NA	Analysis	9014		1	410740		MAN	TAL CHI
					(Start)	11/19/17 14:35		
					(End)	11/19/17 14:36		

Client Sample ID: 2696V-61-B03 (0-5)

Lab Sample ID: 500-137078-3

Date Collected: 11/09/17 13:10

Matrix: Solid

Date Received: 11/09/17 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
SPLP East	Leach	1312			409911	11/14/17 14:04	JLC	TAL CHI
SPLP East	Prep	3010A			410211	11/15/17 08:20	PJ1	TAL CHI
SPLP East	Analysis	6010B		1	410395	11/17/17 00:13	PJ1	TAL CHI
TCLP	Leach	1311			409902	11/14/17 14:04	JLC	TAL CHI

TestAmerica Chicago

Lab Chronicle

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137078-1

Client Sample ID: 2696V-61-B03 (0-5)

Lab Sample ID: 500-137078-3

Date Collected: 11/09/17 13:10

Matrix: Solid

Date Received: 11/09/17 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Prep	3010A			410040	11/15/17 09:19	JEF	TAL CHI
TCLP	Analysis	6010B		1	410196	11/15/17 16:22	PJ1	TAL CHI
TCLP	Leach	1311			409902	11/14/17 14:04	JLC	TAL CHI
TCLP	Prep	3010A			410040	11/15/17 09:19	JEF	TAL CHI
TCLP	Analysis	6020A		1	410434	11/16/17 15:10	FXG	TAL CHI
TCLP	Leach	1311			409902	11/14/17 14:04	JLC	TAL CHI
TCLP	Prep	7470A			410419	11/17/17 08:10	EEN	TAL CHI
TCLP	Analysis	7470A		1	410492	11/17/17 12:26	EEN	TAL CHI
Total/NA	Analysis	9045D		1	410622		SMO	TAL CHI
					(Start)	11/18/17 11:07		
					(End)	11/18/17 11:09		
Total/NA	Analysis	Moisture		1	409413	11/10/17 15:12	PFK	TAL CHI

Client Sample ID: 2696V-61-B03 (0-5)

Lab Sample ID: 500-137078-3

Date Collected: 11/09/17 13:10

Matrix: Solid

Date Received: 11/09/17 17:00

Percent Solids: 80.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			409585	11/10/17 18:28	WRE	TAL CHI
Total/NA	Analysis	8260B		1	410018	11/15/17 13:31	DJD	TAL CHI
Total/NA	Prep	3541			410180	11/16/17 07:12	DAK	TAL CHI
Total/NA	Analysis	8270D		1	410358	11/16/17 21:47	GES	TAL CHI
Total/NA	Prep	3050B			409521	11/11/17 13:26	BDE	TAL CHI
Total/NA	Analysis	6010B		1	409795	11/13/17 19:18	PJ1	TAL CHI
Total/NA	Prep	3050B			409521	11/11/17 13:26	BDE	TAL CHI
Total/NA	Analysis	6010B		1	410007	11/14/17 17:04	PJ1	TAL CHI
Total/NA	Prep	7471B			409695	11/13/17 13:20	EEN	TAL CHI
Total/NA	Analysis	7471B		1	410454	11/17/17 09:30	PFK	TAL CHI
Total/NA	Prep	9010B			410608	11/19/17 10:30	EAT	TAL CHI
Total/NA	Analysis	9014		1	410740		MAN	TAL CHI
					(Start)	11/19/17 14:36		
					(End)	11/19/17 14:36		

Client Sample ID: 2696V-61-B04 (0-5)

Lab Sample ID: 500-137078-4

Date Collected: 11/09/17 12:55

Matrix: Solid

Date Received: 11/09/17 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
SPLP East	Leach	1312			409911	11/14/17 14:04	JLC	TAL CHI
SPLP East	Prep	3010A			410211	11/15/17 08:20	PJ1	TAL CHI
SPLP East	Analysis	6010B		1	410395	11/17/17 00:17	PJ1	TAL CHI
TCLP	Leach	1311			409902	11/14/17 14:04	JLC	TAL CHI
TCLP	Prep	3010A			410040	11/15/17 09:19	JEF	TAL CHI
TCLP	Analysis	6010B		1	410196	11/15/17 16:26	PJ1	TAL CHI

TestAmerica Chicago

Lab Chronicle

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137078-1

Client Sample ID: 2696V-61-B04 (0-5)

Lab Sample ID: 500-137078-4

Date Collected: 11/09/17 12:55

Matrix: Solid

Date Received: 11/09/17 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Leach	1311			409902	11/14/17 14:04	JLC	TAL CHI
TCLP	Prep	3010A			410040	11/15/17 09:19	JEF	TAL CHI
TCLP	Analysis	6020A		1	410434	11/16/17 15:14	FXG	TAL CHI
TCLP	Leach	1311			409902	11/14/17 14:04	JLC	TAL CHI
TCLP	Prep	7470A			410419	11/17/17 08:10	EEN	TAL CHI
TCLP	Analysis	7470A		1	410492	11/17/17 12:27	EEN	TAL CHI
Total/NA	Analysis	9045D		1	410622		SMO	TAL CHI
					(Start)	11/18/17 11:09		
					(End)	11/18/17 11:12		
Total/NA	Analysis	Moisture		1	409413	11/10/17 15:12	PFK	TAL CHI

Client Sample ID: 2696V-61-B04 (0-5)

Lab Sample ID: 500-137078-4

Date Collected: 11/09/17 12:55

Matrix: Solid

Date Received: 11/09/17 17:00

Percent Solids: 87.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			409585	11/10/17 18:28	WRE	TAL CHI
Total/NA	Analysis	8260B		1	410018	11/15/17 13:57	DJD	TAL CHI
Total/NA	Prep	3541			410180	11/16/17 07:12	DAK	TAL CHI
Total/NA	Analysis	8270D		1	410358	11/16/17 22:14	GES	TAL CHI
Total/NA	Prep	3050B			409521	11/11/17 13:26	BDE	TAL CHI
Total/NA	Analysis	6010B		1	409795	11/13/17 19:22	PJ1	TAL CHI
Total/NA	Prep	3050B			409521	11/11/17 13:26	BDE	TAL CHI
Total/NA	Analysis	6010B		1	410007	11/14/17 17:09	PJ1	TAL CHI
Total/NA	Prep	7471B			409695	11/13/17 13:20	EEN	TAL CHI
Total/NA	Analysis	7471B		1	410454	11/17/17 09:32	PFK	TAL CHI
Total/NA	Prep	9010B			410608	11/19/17 10:30	EAT	TAL CHI
Total/NA	Analysis	9014		1	410740		MAN	TAL CHI
					(Start)	11/19/17 14:36		
					(End)	11/19/17 14:36		

Client Sample ID: 2696V-61-B05 (0-5)

Lab Sample ID: 500-137078-5

Date Collected: 11/09/17 12:45

Matrix: Solid

Date Received: 11/09/17 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
SPLP East	Leach	1312			409911	11/14/17 14:04	JLC	TAL CHI
SPLP East	Prep	3010A			410211	11/15/17 08:20	PJ1	TAL CHI
SPLP East	Analysis	6010B		1	410395	11/17/17 00:21	PJ1	TAL CHI
TCLP	Leach	1311			409902	11/14/17 14:04	JLC	TAL CHI
TCLP	Prep	3010A			410040	11/15/17 09:19	JEF	TAL CHI
TCLP	Analysis	6010B		1	410196	11/15/17 16:43	PJ1	TAL CHI
TCLP	Leach	1311			409902	11/14/17 14:04	JLC	TAL CHI
TCLP	Prep	3010A			410040	11/15/17 09:19	JEF	TAL CHI

TestAmerica Chicago

Lab Chronicle

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137078-1

Client Sample ID: 2696V-61-B05 (0-5)

Lab Sample ID: 500-137078-5

Date Collected: 11/09/17 12:45

Matrix: Solid

Date Received: 11/09/17 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Analysis	6020A		1	410434	11/16/17 15:18	FXG	TAL CHI
TCLP	Leach	1311			409902	11/14/17 14:04	JLC	TAL CHI
TCLP	Prep	7470A			410419	11/17/17 08:10	EEN	TAL CHI
TCLP	Analysis	7470A		1	410492	11/17/17 12:29	EEN	TAL CHI
Total/NA	Analysis	9045D		1	410622	(Start) 11/18/17 11:12 (End) 11/18/17 11:14	SMO	TAL CHI
Total/NA	Analysis	Moisture		1	409413	11/10/17 15:12	PFK	TAL CHI

Client Sample ID: 2696V-61-B05 (0-5)

Lab Sample ID: 500-137078-5

Date Collected: 11/09/17 12:45

Matrix: Solid

Date Received: 11/09/17 17:00

Percent Solids: 85.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			409585	11/10/17 18:28	WRE	TAL CHI
Total/NA	Analysis	8260B		1	410018	11/15/17 14:22	DJD	TAL CHI
Total/NA	Prep	3541			410180	11/16/17 07:12	DAK	TAL CHI
Total/NA	Analysis	8270D		1	410358	11/16/17 22:40	GES	TAL CHI
Total/NA	Prep	3050B			409521	11/11/17 13:26	BDE	TAL CHI
Total/NA	Analysis	6010B		1	409795	11/13/17 19:26	PJ1	TAL CHI
Total/NA	Prep	3050B			409521	11/11/17 13:26	BDE	TAL CHI
Total/NA	Analysis	6010B		5	410007	11/14/17 17:21	PJ1	TAL CHI
Total/NA	Prep	7471B			409695	11/13/17 13:20	EEN	TAL CHI
Total/NA	Analysis	7471B		1	410454	11/17/17 09:34	PFK	TAL CHI
Total/NA	Prep	9010B			410608	11/19/17 10:30	EAT	TAL CHI
Total/NA	Analysis	9014		1	410740	(Start) 11/19/17 14:36 (End) 11/19/17 14:37	MAN	TAL CHI

Client Sample ID: 2696V-61-B06 (0-5)

Lab Sample ID: 500-137078-6

Date Collected: 11/09/17 10:30

Matrix: Solid

Date Received: 11/09/17 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
SPLP East	Leach	1312			409911	11/14/17 14:04	JLC	TAL CHI
SPLP East	Prep	3010A			410211	11/15/17 08:20	PJ1	TAL CHI
SPLP East	Analysis	6010B		1	410395	11/17/17 00:25	PJ1	TAL CHI
TCLP	Leach	1311			409902	11/14/17 14:04	JLC	TAL CHI
TCLP	Prep	3010A			410040	11/15/17 09:19	JEF	TAL CHI
TCLP	Analysis	6010B		1	410196	11/15/17 16:47	PJ1	TAL CHI
TCLP	Leach	1311			409902	11/14/17 14:04	JLC	TAL CHI
TCLP	Prep	3010A			410040	11/15/17 09:19	JEF	TAL CHI
TCLP	Analysis	6020A		1	410434	11/16/17 15:22	FXG	TAL CHI
TCLP	Leach	1311			409902	11/14/17 14:04	JLC	TAL CHI

TestAmerica Chicago

Lab Chronicle

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137078-1

Client Sample ID: 2696V-61-B06 (0-5)

Lab Sample ID: 500-137078-6

Date Collected: 11/09/17 10:30

Matrix: Solid

Date Received: 11/09/17 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Prep	7470A			410419	11/17/17 08:10	EEN	TAL CHI
TCLP	Analysis	7470A		1	410492	11/17/17 12:31	EEN	TAL CHI
Total/NA	Analysis	9045D		1	410622	11/18/17 11:14 (Start) 11/18/17 11:16 (End)	SMO	TAL CHI
Total/NA	Analysis	Moisture		1	409413	11/10/17 15:12	PFK	TAL CHI

Client Sample ID: 2696V-61-B06 (0-5)

Lab Sample ID: 500-137078-6

Date Collected: 11/09/17 10:30

Matrix: Solid

Date Received: 11/09/17 17:00

Percent Solids: 83.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			409585	11/10/17 18:28	WRE	TAL CHI
Total/NA	Analysis	8260B		1	410018	11/15/17 14:47	DJD	TAL CHI
Total/NA	Prep	3541			410180	11/16/17 07:12	DAK	TAL CHI
Total/NA	Analysis	8270D		1	410358	11/16/17 23:07	GES	TAL CHI
Total/NA	Prep	3050B			409521	11/11/17 13:26	BDE	TAL CHI
Total/NA	Analysis	6010B		1	409795	11/13/17 19:30	PJ1	TAL CHI
Total/NA	Prep	3050B			409521	11/11/17 13:26	BDE	TAL CHI
Total/NA	Analysis	6010B		1	410007	11/14/17 17:25	PJ1	TAL CHI
Total/NA	Prep	7471B			409695	11/13/17 13:20	EEN	TAL CHI
Total/NA	Analysis	7471B		1	410454	11/17/17 09:36	PFK	TAL CHI
Total/NA	Prep	9010B			410608	11/19/17 10:30	EAT	TAL CHI
Total/NA	Analysis	9014		1	410740	11/19/17 14:37 (Start) 11/19/17 14:37 (End)	MAN	TAL CHI

Client Sample ID: 2696V-61-B06 (5-10)

Lab Sample ID: 500-137078-7

Date Collected: 11/09/17 10:35

Matrix: Solid

Date Received: 11/09/17 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
SPLP East	Leach	1312			409911	11/14/17 14:04	JLC	TAL CHI
SPLP East	Prep	3010A			410211	11/15/17 08:20	PJ1	TAL CHI
SPLP East	Analysis	6010B		1	410395	11/17/17 00:28	PJ1	TAL CHI
TCLP	Leach	1311			409904	11/14/17 14:04	JLC	TAL CHI
TCLP	Prep	3010A			410040	11/15/17 09:19	JEF	TAL CHI
TCLP	Analysis	6010B		1	410196	11/15/17 17:54	PJ1	TAL CHI
TCLP	Leach	1311			409904	11/14/17 14:04	JLC	TAL CHI
TCLP	Prep	3010A			410040	11/15/17 09:19	JEF	TAL CHI
TCLP	Analysis	6010B		10	410328	11/16/17 13:22	PJ1	TAL CHI
TCLP	Leach	1311			409904	11/14/17 14:04	JLC	TAL CHI
TCLP	Prep	3010A			410040	11/15/17 09:19	JEF	TAL CHI
TCLP	Analysis	6020A		1	410434	11/16/17 16:34	FXG	TAL CHI

TestAmerica Chicago

Lab Chronicle

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137078-1

Client Sample ID: 2696V-61-B06 (5-10)

Lab Sample ID: 500-137078-7

Date Collected: 11/09/17 10:35

Matrix: Solid

Date Received: 11/09/17 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Leach	1311			409904	11/14/17 14:04	JLC	TAL CHI
TCLP	Prep	7470A			410419	11/17/17 08:10	EEN	TAL CHI
TCLP	Analysis	7470A		1	410492	11/17/17 13:02	EEN	TAL CHI
Total/NA	Analysis	9045D		1	410622		SMO	TAL CHI
					(Start)	11/18/17 11:16		
					(End)	11/18/17 11:18		
Total/NA	Analysis	Moisture		1	409413	11/10/17 15:12	PFK	TAL CHI

Client Sample ID: 2696V-61-B06 (5-10)

Lab Sample ID: 500-137078-7

Date Collected: 11/09/17 10:35

Matrix: Solid

Date Received: 11/09/17 17:00

Percent Solids: 81.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			409585	11/10/17 18:28	WRE	TAL CHI
Total/NA	Analysis	8260B		1	410018	11/15/17 15:13	DJD	TAL CHI
Total/NA	Prep	3541			410180	11/16/17 07:12	DAK	TAL CHI
Total/NA	Analysis	8270D		1	410358	11/16/17 23:34	GES	TAL CHI
Total/NA	Prep	3050B			409521	11/11/17 13:26	BDE	TAL CHI
Total/NA	Analysis	6010B		1	409795	11/13/17 19:34	PJ1	TAL CHI
Total/NA	Prep	3050B			409521	11/11/17 13:26	BDE	TAL CHI
Total/NA	Analysis	6010B		5	410007	11/14/17 17:29	PJ1	TAL CHI
Total/NA	Prep	7471B			409695	11/13/17 13:20	EEN	TAL CHI
Total/NA	Analysis	7471B		1	410454	11/17/17 09:39	PFK	TAL CHI
Total/NA	Prep	9010B			410608	11/19/17 10:30	EAT	TAL CHI
Total/NA	Analysis	9014		1	410740		MAN	TAL CHI
					(Start)	11/19/17 14:38		
					(End)	11/19/17 14:38		

Client Sample ID: 2696V-61-B06 (10-15)

Lab Sample ID: 500-137078-8

Date Collected: 11/09/17 10:40

Matrix: Solid

Date Received: 11/09/17 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
SPLP East	Leach	1312			409911	11/14/17 14:04	JLC	TAL CHI
SPLP East	Prep	3010A			410211	11/15/17 08:20	PJ1	TAL CHI
SPLP East	Analysis	6010B		1	410395	11/17/17 00:32	PJ1	TAL CHI
TCLP	Leach	1311			409902	11/14/17 14:04	JLC	TAL CHI
TCLP	Prep	3010A			410040	11/15/17 09:19	JEF	TAL CHI
TCLP	Analysis	6010B		1	410196	11/15/17 16:51	PJ1	TAL CHI
TCLP	Leach	1311			409902	11/14/17 14:04	JLC	TAL CHI
TCLP	Prep	3010A			410040	11/15/17 09:19	JEF	TAL CHI
TCLP	Analysis	6010B		10	410328	11/16/17 13:06	PJ1	TAL CHI
TCLP	Leach	1311			409902	11/14/17 14:04	JLC	TAL CHI
TCLP	Prep	3010A			410040	11/15/17 09:19	JEF	TAL CHI

TestAmerica Chicago

Lab Chronicle

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137078-1

Client Sample ID: 2696V-61-B06 (10-15)

Lab Sample ID: 500-137078-8

Date Collected: 11/09/17 10:40

Matrix: Solid

Date Received: 11/09/17 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Analysis	6020A		1	410434	11/16/17 15:26	FXG	TAL CHI
TCLP	Leach	1311			409902	11/14/17 14:04	JLC	TAL CHI
TCLP	Prep	7470A			410419	11/17/17 08:10	EEN	TAL CHI
TCLP	Analysis	7470A		1	410492	11/17/17 12:32	EEN	TAL CHI
Total/NA	Analysis	9045D		1	410622	(Start) 11/18/17 11:18 (End) 11/18/17 11:20	SMO	TAL CHI
Total/NA	Analysis	Moisture		1	409413	11/10/17 15:12	PFK	TAL CHI

Client Sample ID: 2696V-61-B06 (10-15)

Lab Sample ID: 500-137078-8

Date Collected: 11/09/17 10:40

Matrix: Solid

Date Received: 11/09/17 17:00

Percent Solids: 80.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			409585	11/10/17 18:28	WRE	TAL CHI
Total/NA	Analysis	8260B		1	410018	11/15/17 15:38	DJD	TAL CHI
Total/NA	Prep	3541			410180	11/16/17 07:12	DAK	TAL CHI
Total/NA	Analysis	8270D		1	410358	11/17/17 00:00	GES	TAL CHI
Total/NA	Prep	3050B			409521	11/11/17 13:26	BDE	TAL CHI
Total/NA	Analysis	6010B		1	409795	11/13/17 19:46	PJ1	TAL CHI
Total/NA	Prep	3050B			409521	11/11/17 13:26	BDE	TAL CHI
Total/NA	Analysis	6010B		5	410007	11/14/17 17:33	PJ1	TAL CHI
Total/NA	Prep	7471B			409695	11/13/17 13:20	EEN	TAL CHI
Total/NA	Analysis	7471B		1	410454	11/17/17 09:49	PFK	TAL CHI
Total/NA	Prep	9010B			410608	11/19/17 10:30	EAT	TAL CHI
Total/NA	Analysis	9014		1	410740	(Start) 11/19/17 14:38 (End) 11/19/17 14:39	MAN	TAL CHI

Client Sample ID: 2696V-61-B06 (15-21)

Lab Sample ID: 500-137078-9

Date Collected: 11/09/17 10:45

Matrix: Solid

Date Received: 11/09/17 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
SPLP East	Leach	1312			409911	11/14/17 14:04	JLC	TAL CHI
SPLP East	Prep	3010A			410211	11/15/17 08:20	PJ1	TAL CHI
SPLP East	Analysis	6010B		1	410395	11/17/17 00:45	PJ1	TAL CHI
TCLP	Leach	1311			409902	11/14/17 14:04	JLC	TAL CHI
TCLP	Prep	3010A			410040	11/15/17 09:19	JEF	TAL CHI
TCLP	Analysis	6010B		1	410196	11/15/17 16:55	PJ1	TAL CHI
TCLP	Leach	1311			409902	11/14/17 14:04	JLC	TAL CHI
TCLP	Prep	3010A			410040	11/15/17 09:19	JEF	TAL CHI
TCLP	Analysis	6010B		10	410328	11/16/17 13:10	PJ1	TAL CHI
TCLP	Leach	1311			409902	11/14/17 14:04	JLC	TAL CHI

TestAmerica Chicago

Lab Chronicle

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137078-1

Client Sample ID: 2696V-61-B06 (15-21)

Lab Sample ID: 500-137078-9

Date Collected: 11/09/17 10:45

Matrix: Solid

Date Received: 11/09/17 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Prep	3010A			410040	11/15/17 09:19	JEF	TAL CHI
TCLP	Analysis	6020A		1	410434	11/16/17 15:29	FXG	TAL CHI
TCLP	Leach	1311			409902	11/14/17 14:04	JLC	TAL CHI
TCLP	Prep	7470A			410419	11/17/17 08:10	EEN	TAL CHI
TCLP	Analysis	7470A		1	410492	11/17/17 12:37	EEN	TAL CHI
Total/NA	Analysis	9045D		1	410622	(Start) 11/18/17 11:20 (End) 11/18/17 11:22	SMO	TAL CHI
Total/NA	Analysis	Moisture		1	409413	11/10/17 15:12	PFK	TAL CHI

Client Sample ID: 2696V-61-B06 (15-21)

Lab Sample ID: 500-137078-9

Date Collected: 11/09/17 10:45

Matrix: Solid

Date Received: 11/09/17 17:00

Percent Solids: 78.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			409585	11/10/17 18:28	WRE	TAL CHI
Total/NA	Analysis	8260B		1	410018	11/15/17 16:04	DJD	TAL CHI
Total/NA	Prep	3541			410180	11/16/17 07:12	DAK	TAL CHI
Total/NA	Analysis	8270D		1	410358	11/17/17 00:27	GES	TAL CHI
Total/NA	Prep	3050B			409521	11/11/17 13:26	BDE	TAL CHI
Total/NA	Analysis	6010B		1	409795	11/13/17 19:50	PJ1	TAL CHI
Total/NA	Prep	3050B			409521	11/11/17 13:26	BDE	TAL CHI
Total/NA	Analysis	6010B		5	410007	11/14/17 17:37	PJ1	TAL CHI
Total/NA	Prep	7471B			409695	11/13/17 13:20	EEN	TAL CHI
Total/NA	Analysis	7471B		1	410454	11/17/17 09:58	PFK	TAL CHI
Total/NA	Prep	9010B			410608	11/19/17 10:30	EAT	TAL CHI
Total/NA	Analysis	9014		1	410740	(Start) 11/19/17 14:39 (End) 11/19/17 14:39	MAN	TAL CHI

Client Sample ID: 2696V-61-B06 (15-21) Dup

Lab Sample ID: 500-137078-10

Date Collected: 11/09/17 10:45

Matrix: Solid

Date Received: 11/09/17 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
SPLP East	Leach	1312			409911	11/14/17 14:04	JLC	TAL CHI
SPLP East	Prep	3010A			410211	11/15/17 08:20	PJ1	TAL CHI
SPLP East	Analysis	6010B		1	410395	11/17/17 00:49	PJ1	TAL CHI
TCLP	Leach	1311			409902	11/14/17 14:04	JLC	TAL CHI
TCLP	Prep	3010A			410040	11/15/17 09:19	JEF	TAL CHI
TCLP	Analysis	6010B		1	410196	11/15/17 16:59	PJ1	TAL CHI
TCLP	Leach	1311			409902	11/14/17 14:04	JLC	TAL CHI
TCLP	Prep	3010A			410040	11/15/17 09:19	JEF	TAL CHI
TCLP	Analysis	6010B		10	410328	11/16/17 13:14	PJ1	TAL CHI

TestAmerica Chicago

Lab Chronicle

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137078-1

Client Sample ID: 2696V-61-B06 (15-21) Dup

Lab Sample ID: 500-137078-10

Date Collected: 11/09/17 10:45

Matrix: Solid

Date Received: 11/09/17 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Leach	1311			409902	11/14/17 14:04	JLC	TAL CHI
TCLP	Prep	3010A			410040	11/15/17 09:19	JEF	TAL CHI
TCLP	Analysis	6020A		1	410434	11/16/17 15:41	FXG	TAL CHI
TCLP	Leach	1311			409902	11/14/17 14:04	JLC	TAL CHI
TCLP	Prep	7470A			410419	11/17/17 08:10	EEN	TAL CHI
TCLP	Analysis	7470A		1	410492	11/17/17 12:38	EEN	TAL CHI
Total/NA	Analysis	9045D		1	410622		SMO	TAL CHI
					(Start)	11/18/17 11:22		
					(End)	11/18/17 11:24		
Total/NA	Analysis	Moisture		1	409413	11/10/17 15:12	PFK	TAL CHI

Client Sample ID: 2696V-61-B06 (15-21) Dup

Lab Sample ID: 500-137078-10

Date Collected: 11/09/17 10:45

Matrix: Solid

Date Received: 11/09/17 17:00

Percent Solids: 85.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			409585	11/10/17 18:28	WRE	TAL CHI
Total/NA	Analysis	8260B		1	410018	11/15/17 16:28	DJD	TAL CHI
Total/NA	Prep	3541			410180	11/16/17 07:12	DAK	TAL CHI
Total/NA	Analysis	8270D		1	410358	11/17/17 00:54	GES	TAL CHI
Total/NA	Prep	3050B			409521	11/11/17 13:26	BDE	TAL CHI
Total/NA	Analysis	6010B		1	409795	11/13/17 19:54	PJ1	TAL CHI
Total/NA	Prep	3050B			409521	11/11/17 13:26	BDE	TAL CHI
Total/NA	Analysis	6010B		5	410007	11/14/17 17:41	PJ1	TAL CHI
Total/NA	Prep	7471B			409695	11/13/17 13:20	EEN	TAL CHI
Total/NA	Analysis	7471B		1	410454	11/17/17 10:00	PFK	TAL CHI
Total/NA	Prep	9010B			410608	11/19/17 10:30	EAT	TAL CHI
Total/NA	Analysis	9014		1	410740		MAN	TAL CHI
					(Start)	11/19/17 14:39		
					(End)	11/19/17 14:39		

Client Sample ID: 2696V-61-B07 (0-5)

Lab Sample ID: 500-137078-11

Date Collected: 11/09/17 10:05

Matrix: Solid

Date Received: 11/09/17 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
SPLP East	Leach	1312			409911	11/14/17 14:04	JLC	TAL CHI
SPLP East	Prep	3010A			410211	11/15/17 08:20	PJ1	TAL CHI
SPLP East	Analysis	6010B		1	410395	11/17/17 00:53	PJ1	TAL CHI
TCLP	Leach	1311			409902	11/14/17 14:04	JLC	TAL CHI
TCLP	Prep	3010A			410040	11/15/17 09:19	JEF	TAL CHI
TCLP	Analysis	6010B		1	410196	11/15/17 17:03	PJ1	TAL CHI
TCLP	Leach	1311			409902	11/14/17 14:04	JLC	TAL CHI
TCLP	Prep	3010A			410040	11/15/17 09:19	JEF	TAL CHI

TestAmerica Chicago

Lab Chronicle

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137078-1

Client Sample ID: 2696V-61-B07 (0-5)

Lab Sample ID: 500-137078-11

Date Collected: 11/09/17 10:05

Matrix: Solid

Date Received: 11/09/17 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Analysis	6020A		1	410434	11/16/17 15:45	FXG	TAL CHI
TCLP	Leach	1311			409902	11/14/17 14:04	JLC	TAL CHI
TCLP	Prep	7470A			410419	11/17/17 08:10	EEN	TAL CHI
TCLP	Analysis	7470A		1	410492	11/17/17 12:40	EEN	TAL CHI
Total/NA	Analysis	9045D		1	410622	(Start) 11/18/17 11:24 (End) 11/18/17 11:26	SMO	TAL CHI
Total/NA	Analysis	Moisture		1	409413	11/10/17 15:12	PFK	TAL CHI

Client Sample ID: 2696V-61-B07 (0-5)

Lab Sample ID: 500-137078-11

Date Collected: 11/09/17 10:05

Matrix: Solid

Date Received: 11/09/17 17:00

Percent Solids: 87.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			409585	11/10/17 18:28	WRE	TAL CHI
Total/NA	Analysis	8260B		1	410018	11/15/17 16:54	DJD	TAL CHI
Total/NA	Prep	3541			410180	11/16/17 07:12	DAK	TAL CHI
Total/NA	Analysis	8270D		1	410358	11/17/17 01:21	GES	TAL CHI
Total/NA	Prep	3050B			409521	11/11/17 13:26	BDE	TAL CHI
Total/NA	Analysis	6010B		1	409795	11/13/17 19:58	PJ1	TAL CHI
Total/NA	Prep	3050B			409521	11/11/17 13:26	BDE	TAL CHI
Total/NA	Analysis	6010B		1	410007	11/14/17 17:46	PJ1	TAL CHI
Total/NA	Prep	7471B			409695	11/13/17 13:20	EEN	TAL CHI
Total/NA	Analysis	7471B		1	410454	11/17/17 10:02	PFK	TAL CHI
Total/NA	Prep	9010B			410608	11/19/17 10:30	EAT	TAL CHI
Total/NA	Analysis	9014		1	410740	(Start) 11/19/17 14:39 (End) 11/19/17 14:40	MAN	TAL CHI

Client Sample ID: 2696V-61-B08 (0-5)

Lab Sample ID: 500-137078-12

Date Collected: 11/09/17 09:45

Matrix: Solid

Date Received: 11/09/17 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
SPLP East	Leach	1312			409911	11/14/17 14:04	JLC	TAL CHI
SPLP East	Prep	3010A			410211	11/15/17 08:20	PJ1	TAL CHI
SPLP East	Analysis	6010B		1	410395	11/17/17 00:57	PJ1	TAL CHI
TCLP	Leach	1311			409902	11/14/17 14:04	JLC	TAL CHI
TCLP	Prep	3010A			410040	11/15/17 09:19	JEF	TAL CHI
TCLP	Analysis	6010B		1	410196	11/15/17 17:07	PJ1	TAL CHI
TCLP	Leach	1311			409902	11/14/17 14:04	JLC	TAL CHI
TCLP	Prep	3010A			410040	11/15/17 09:19	JEF	TAL CHI
TCLP	Analysis	6020A		1	410434	11/16/17 15:48	FXG	TAL CHI
TCLP	Leach	1311			409902	11/14/17 14:04	JLC	TAL CHI

TestAmerica Chicago

Lab Chronicle

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137078-1

Client Sample ID: 2696V-61-B08 (0-5)

Lab Sample ID: 500-137078-12

Date Collected: 11/09/17 09:45

Matrix: Solid

Date Received: 11/09/17 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Prep	7470A			410419	11/17/17 08:10	EEN	TAL CHI
TCLP	Analysis	7470A		1	410492	11/17/17 12:41	EEN	TAL CHI
Total/NA	Analysis	9045D		1	410622	11/18/17 11:26 (Start) 11/18/17 11:29 (End)	SMO	TAL CHI
Total/NA	Analysis	Moisture		1	409413	11/10/17 15:12	PFK	TAL CHI

Client Sample ID: 2696V-61-B08 (0-5)

Lab Sample ID: 500-137078-12

Date Collected: 11/09/17 09:45

Matrix: Solid

Date Received: 11/09/17 17:00

Percent Solids: 79.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			409585	11/10/17 18:28	WRE	TAL CHI
Total/NA	Analysis	8260B		1	410201	11/16/17 11:45	DJD	TAL CHI
Total/NA	Prep	3541			410180	11/16/17 07:12	DAK	TAL CHI
Total/NA	Analysis	8270D		1	410358	11/17/17 01:47	GES	TAL CHI
Total/NA	Prep	3050B			409521	11/11/17 13:26	BDE	TAL CHI
Total/NA	Analysis	6010B		1	409795	11/13/17 20:02	PJ1	TAL CHI
Total/NA	Prep	3050B			409521	11/11/17 13:26	BDE	TAL CHI
Total/NA	Analysis	6010B		5	410007	11/14/17 17:50	PJ1	TAL CHI
Total/NA	Prep	7471B			409695	11/13/17 13:20	EEN	TAL CHI
Total/NA	Analysis	7471B		1	410454	11/17/17 10:05	PFK	TAL CHI
Total/NA	Prep	9010B			410608	11/19/17 10:30	EAT	TAL CHI
Total/NA	Analysis	9014		1	410740	11/19/17 14:40 (Start) 11/19/17 14:40 (End)	MAN	TAL CHI

Client Sample ID: 2696V-61-B09 (0-5)

Lab Sample ID: 500-137078-13

Date Collected: 11/09/17 09:20

Matrix: Solid

Date Received: 11/09/17 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
SPLP East	Leach	1312			409911	11/14/17 14:04	JLC	TAL CHI
SPLP East	Prep	3010A			410211	11/15/17 08:20	PJ1	TAL CHI
SPLP East	Analysis	6010B		1	410395	11/17/17 01:01	PJ1	TAL CHI
TCLP	Leach	1311			409902	11/14/17 14:04	JLC	TAL CHI
TCLP	Prep	3010A			410040	11/15/17 09:19	JEF	TAL CHI
TCLP	Analysis	6010B		1	410196	11/15/17 17:11	PJ1	TAL CHI
TCLP	Leach	1311			409902	11/14/17 14:04	JLC	TAL CHI
TCLP	Prep	3010A			410040	11/15/17 09:19	JEF	TAL CHI
TCLP	Analysis	6020A		1	410434	11/16/17 15:52	FXG	TAL CHI
TCLP	Leach	1311			409902	11/14/17 14:04	JLC	TAL CHI
TCLP	Prep	7470A			410419	11/17/17 08:10	EEN	TAL CHI
TCLP	Analysis	7470A		1	410492	11/17/17 12:43	EEN	TAL CHI

TestAmerica Chicago

Lab Chronicle

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137078-1

Client Sample ID: 2696V-61-B09 (0-5)

Lab Sample ID: 500-137078-13

Date Collected: 11/09/17 09:20

Matrix: Solid

Date Received: 11/09/17 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9045D		1	410622	11/18/17 11:29 (Start) 11/18/17 11:31 (End)	SMO	TAL CHI
Total/NA	Analysis	Moisture		1	409413	11/10/17 15:12	PFK	TAL CHI

Client Sample ID: 2696V-61-B09 (0-5)

Lab Sample ID: 500-137078-13

Date Collected: 11/09/17 09:20

Matrix: Solid

Date Received: 11/09/17 17:00

Percent Solids: 81.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			409585	11/10/17 18:28	WRE	TAL CHI
Total/NA	Analysis	8260B		1	410018	11/15/17 17:44	DJD	TAL CHI
Total/NA	Prep	3541			410180	11/16/17 07:12	DAK	TAL CHI
Total/NA	Analysis	8270D		1	410358	11/17/17 02:14	GES	TAL CHI
Total/NA	Prep	3050B			409521	11/11/17 13:26	BDE	TAL CHI
Total/NA	Analysis	6010B		1	409795	11/13/17 20:06	PJ1	TAL CHI
Total/NA	Prep	3050B			409521	11/11/17 13:26	BDE	TAL CHI
Total/NA	Analysis	6010B		1	410198	11/15/17 15:44	PJ1	TAL CHI
Total/NA	Prep	7471B			409695	11/13/17 13:20	EEN	TAL CHI
Total/NA	Analysis	7471B		1	410454	11/17/17 10:07	PFK	TAL CHI
Total/NA	Prep	9010B			410608	11/19/17 10:30	EAT	TAL CHI
Total/NA	Analysis	9014		1	410740	11/19/17 14:40 (Start) 11/19/17 14:40 (End)	MAN	TAL CHI

Client Sample ID: 2696V-61-B10 (0-5)

Lab Sample ID: 500-137078-14

Date Collected: 11/09/17 09:00

Matrix: Solid

Date Received: 11/09/17 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
SPLP East	Leach	1312			409911	11/14/17 14:04	JLC	TAL CHI
SPLP East	Prep	3010A			410211	11/15/17 08:20	PJ1	TAL CHI
SPLP East	Analysis	6010B		1	410395	11/17/17 01:05	PJ1	TAL CHI
TCLP	Leach	1311			409902	11/14/17 14:04	JLC	TAL CHI
TCLP	Prep	3010A			410040	11/15/17 09:19	JEF	TAL CHI
TCLP	Analysis	6010B		1	410196	11/15/17 17:15	PJ1	TAL CHI
TCLP	Leach	1311			409902	11/14/17 14:04	JLC	TAL CHI
TCLP	Prep	3010A			410040	11/15/17 09:19	JEF	TAL CHI
TCLP	Analysis	6010B		10	410328	11/16/17 13:18	PJ1	TAL CHI
TCLP	Leach	1311			409902	11/14/17 14:04	JLC	TAL CHI
TCLP	Prep	3010A			410040	11/15/17 09:19	JEF	TAL CHI
TCLP	Analysis	6020A		1	410434	11/16/17 15:56	FXG	TAL CHI
TCLP	Leach	1311			409902	11/14/17 14:04	JLC	TAL CHI
TCLP	Prep	7470A			410419	11/17/17 08:10	EEN	TAL CHI

TestAmerica Chicago

Lab Chronicle

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137078-1

Client Sample ID: 2696V-61-B10 (0-5)

Lab Sample ID: 500-137078-14

Date Collected: 11/09/17 09:00

Matrix: Solid

Date Received: 11/09/17 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Analysis	7470A		1	410492	11/17/17 12:45	EEN	TAL CHI
Total/NA	Analysis	9045D		1	410622	(Start) 11/18/17 11:31 (End) 11/18/17 11:33	SMO	TAL CHI
Total/NA	Analysis	Moisture		1	409413	11/10/17 15:12	PFK	TAL CHI

Client Sample ID: 2696V-61-B10 (0-5)

Lab Sample ID: 500-137078-14

Date Collected: 11/09/17 09:00

Matrix: Solid

Date Received: 11/09/17 17:00

Percent Solids: 85.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			409585	11/10/17 18:28	WRE	TAL CHI
Total/NA	Analysis	8260B		1	410018	11/15/17 18:09	DJD	TAL CHI
Total/NA	Prep	3541			410180	11/16/17 07:12	DAK	TAL CHI
Total/NA	Analysis	8270D		1	410358	11/17/17 02:41	GES	TAL CHI
Total/NA	Prep	3050B			409521	11/11/17 13:26	BDE	TAL CHI
Total/NA	Analysis	6010B		1	409795	11/13/17 20:10	PJ1	TAL CHI
Total/NA	Prep	3050B			409521	11/11/17 13:26	BDE	TAL CHI
Total/NA	Analysis	6010B		5	410007	11/14/17 17:58	PJ1	TAL CHI
Total/NA	Prep	7471B			409695	11/13/17 13:20	EEN	TAL CHI
Total/NA	Analysis	7471B		1	410454	11/17/17 10:09	PFK	TAL CHI
Total/NA	Prep	9010B			410608	11/19/17 10:30	EAT	TAL CHI
Total/NA	Analysis	9014		1	410740	(Start) 11/19/17 14:40 (End) 11/19/17 14:41	MAN	TAL CHI

Client Sample ID: 2696V-61-B11 (0-5)

Lab Sample ID: 500-137078-15

Date Collected: 11/09/17 08:40

Matrix: Solid

Date Received: 11/09/17 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
SPLP East	Leach	1312			409911	11/14/17 14:04	JLC	TAL CHI
SPLP East	Prep	3010A			410211	11/15/17 08:20	PJ1	TAL CHI
SPLP East	Analysis	6010B		1	410395	11/17/17 01:09	PJ1	TAL CHI
TCLP	Leach	1311			409902	11/14/17 14:04	JLC	TAL CHI
TCLP	Prep	3010A			410040	11/15/17 09:19	JEF	TAL CHI
TCLP	Analysis	6010B		1	410196	11/15/17 17:19	PJ1	TAL CHI
TCLP	Leach	1311			409902	11/14/17 14:04	JLC	TAL CHI
TCLP	Prep	3010A			410040	11/15/17 09:19	JEF	TAL CHI
TCLP	Analysis	6020A		1	410434	11/16/17 16:00	FXG	TAL CHI
TCLP	Leach	1311			409902	11/14/17 14:04	JLC	TAL CHI
TCLP	Prep	7470A			410419	11/17/17 08:10	EEN	TAL CHI
TCLP	Analysis	7470A		1	410492	11/17/17 12:46	EEN	TAL CHI

TestAmerica Chicago

Lab Chronicle

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137078-1

Client Sample ID: 2696V-61-B11 (0-5)

Lab Sample ID: 500-137078-15

Date Collected: 11/09/17 08:40

Matrix: Solid

Date Received: 11/09/17 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9045D		1	410622	11/18/17 11:33 (Start) (End) 11/18/17 11:35	SMO	TAL CHI
Total/NA	Analysis	Moisture		1	409413	11/10/17 15:12	PFK	TAL CHI

Client Sample ID: 2696V-61-B11 (0-5)

Lab Sample ID: 500-137078-15

Date Collected: 11/09/17 08:40

Matrix: Solid

Date Received: 11/09/17 17:00

Percent Solids: 76.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			409585	11/10/17 18:28	WRE	TAL CHI
Total/NA	Analysis	8260B		1	410018	11/15/17 18:35	DJD	TAL CHI
Total/NA	Prep	3541			410180	11/16/17 07:12	DAK	TAL CHI
Total/NA	Analysis	8270D		1	410358	11/17/17 03:07	GES	TAL CHI
Total/NA	Prep	3050B			409521	11/11/17 13:26	BDE	TAL CHI
Total/NA	Analysis	6010B		1	409795	11/13/17 20:14	PJ1	TAL CHI
Total/NA	Prep	3050B			409521	11/11/17 13:26	BDE	TAL CHI
Total/NA	Analysis	6010B		1	410007	11/14/17 18:10	PJ1	TAL CHI
Total/NA	Prep	7471B			409695	11/13/17 13:20	EEN	TAL CHI
Total/NA	Analysis	7471B		1	410454	11/17/17 10:19	PFK	TAL CHI
Total/NA	Prep	9010B			410608	11/19/17 10:30	EAT	TAL CHI
Total/NA	Analysis	9014		1	410740	11/19/17 14:41 (Start) (End) 11/19/17 14:41	MAN	TAL CHI

Client Sample ID: 2696V-61-B12 (0-5)

Lab Sample ID: 500-137078-16

Date Collected: 11/09/17 08:30

Matrix: Solid

Date Received: 11/09/17 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
SPLP East	Leach	1312			409911	11/14/17 14:04	JLC	TAL CHI
SPLP East	Prep	3010A			410211	11/15/17 08:20	PJ1	TAL CHI
SPLP East	Analysis	6010B		1	410395	11/17/17 01:13	PJ1	TAL CHI
TCLP	Leach	1311			409902	11/14/17 14:04	JLC	TAL CHI
TCLP	Prep	3010A			410040	11/15/17 09:19	JEF	TAL CHI
TCLP	Analysis	6010B		1	410196	11/15/17 17:31	PJ1	TAL CHI
TCLP	Leach	1311			409902	11/14/17 14:04	JLC	TAL CHI
TCLP	Prep	3010A			410040	11/15/17 09:19	JEF	TAL CHI
TCLP	Analysis	6020A		1	410434	11/16/17 16:03	FXG	TAL CHI
TCLP	Leach	1311			409902	11/14/17 14:04	JLC	TAL CHI
TCLP	Prep	7470A			410419	11/17/17 08:10	EEN	TAL CHI
TCLP	Analysis	7470A		1	410492	11/17/17 12:48	EEN	TAL CHI

TestAmerica Chicago

Lab Chronicle

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137078-1

Client Sample ID: 2696V-61-B12 (0-5)

Lab Sample ID: 500-137078-16

Date Collected: 11/09/17 08:30

Matrix: Solid

Date Received: 11/09/17 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9045D		1	410622	11/18/17 11:37 (Start) 11/18/17 11:39 (End)	SMO	TAL CHI
Total/NA	Analysis	Moisture		1	409413	11/10/17 15:12	PFK	TAL CHI

Client Sample ID: 2696V-61-B12 (0-5)

Lab Sample ID: 500-137078-16

Date Collected: 11/09/17 08:30

Matrix: Solid

Date Received: 11/09/17 17:00

Percent Solids: 79.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			409585	11/10/17 18:28	WRE	TAL CHI
Total/NA	Analysis	8260B		1	410201	11/16/17 12:12	DJD	TAL CHI
Total/NA	Prep	3541			410180	11/16/17 07:12	DAK	TAL CHI
Total/NA	Analysis	8270D		1	410358	11/17/17 03:34	GES	TAL CHI
Total/NA	Prep	3050B			409521	11/11/17 13:26	BDE	TAL CHI
Total/NA	Analysis	6010B		1	409795	11/13/17 20:18	PJ1	TAL CHI
Total/NA	Prep	3050B			409521	11/11/17 13:26	BDE	TAL CHI
Total/NA	Analysis	6010B		1	410007	11/14/17 18:14	PJ1	TAL CHI
Total/NA	Prep	7471B			409695	11/13/17 13:20	EEN	TAL CHI
Total/NA	Analysis	7471B		5	410454	11/17/17 10:21	PFK	TAL CHI
Total/NA	Prep	9010B			410608	11/19/17 10:30	EAT	TAL CHI
Total/NA	Analysis	9014		1	410740	11/19/17 14:41 (Start) 11/19/17 14:42 (End)	MAN	TAL CHI

Client Sample ID: 2692V-61-G01

Lab Sample ID: 500-137078-17

Date Collected: 11/09/17 11:25

Matrix: Water

Date Received: 11/09/17 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	410248	11/16/17 18:35	JMP	TAL CHI
Total/NA	Prep	3510C			409625	11/13/17 07:25	BSO	TAL CHI
Total/NA	Analysis	8270D		1	409714	11/13/17 18:28	WDS	TAL CHI
Total Recoverable	Prep	3005A			409517	11/11/17 13:03	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	409856	11/13/17 11:44	FXG	TAL CHI
Total Recoverable	Prep	3005A			409517	11/11/17 13:03	BDE	TAL CHI
Total Recoverable	Analysis	6020A		5	410229	11/15/17 18:46	FXG	TAL CHI
Total Recoverable	Prep	3005A			409517	11/11/17 13:03	BDE	TAL CHI
Total Recoverable	Analysis	6020A		10	410229	11/15/17 18:49	FXG	TAL CHI
Total Recoverable	Prep	3005A			409517	11/11/17 13:03	BDE	TAL CHI
Total Recoverable	Analysis	6020A		20	410434	11/16/17 19:05	FXG	TAL CHI
Total/NA	Prep	7470A			409772	11/13/17 16:00	EEN	TAL CHI
Total/NA	Analysis	7470A		1	409951	11/14/17 12:19	PFK	TAL CHI

TestAmerica Chicago

Lab Chronicle

Client: Terracon Consulting Eng & Scientists
Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137078-1

Client Sample ID: 2692V-61-G01

Lab Sample ID: 500-137078-17

Date Collected: 11/09/17 11:25

Matrix: Water

Date Received: 11/09/17 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	9010B			410609	11/19/17 13:10	EAT	TAL CHI
Total/NA	Analysis	9014		1	410745	(Start) 11/19/17 15:59 (End) 11/19/17 16:00	MAN	TAL CHI

Laboratory References:

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

Accreditation/Certification Summary

Client: Terracon Consulting Eng & Scientists
Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137078-1

Laboratory: TestAmerica Chicago

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

Authority	Program	EPA Region	Identification Number	Expiration Date
Illinois	NELAP	5	100201	04-30-18

The following analytes are included in this report, but accreditation/certification is not offered by the governing authority:

Analysis Method	Prep Method	Matrix	Analyte
6020A	3010A	Solid	Antimony
6020A	3010A	Solid	Thallium
8260B		Water	1,3-Dichloropropene, Total
8260B	5035	Solid	1,3-Dichloropropene, Total
9045D		Solid	pH
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

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

Report To: (optional) Matt Weiss
 Contact: TERRACON
 Company: TERRACON
 Address: 135 Ambassador Drive
Naperville, IL
 Address: _____
 Phone: _____
 Fax: _____
 E-Mail: _____

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

Chain of Custody Record

Lab Job #: 500-137078
 Chain of Custody Number: _____
 Page _____ of _____
 Temperature °C of Cooler: 3.7, 29.3, 2
4.0, 19.20

Client		Client Project #		Preservative		Parameter		Matrix		Matrix		Matrix		Matrix		Matrix		Matrix		Matrix		Matrix	
<u>TERRACON</u>		<u>11177029M</u>																					
Project Name		Lab Project #																					
<u>FAP 351 - W037</u>		<u>PSA SITE 61</u>																					
Project Location/State		Lab Project #																					
<u>DAK FOREST / MARIANVILLE</u>		<u>PSA SITE 61</u>																					
Sampler		Lab PM																					
<u>JUNYALWSKA WILLIAMS</u>																							
Lab ID	MS/MSD	Sample ID	Date	Time	# of Containers	Matrix																	
1		<u>2696V-61-B01(0-5)</u>	<u>11/9/17</u>	<u>1335</u>	<u>5</u>	<u>S</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>
2		<u>2696V-61-B02(0-5)</u>	<u>11/9/17</u>	<u>1325</u>	<u>5</u>	<u>S</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>
3		<u>2696V-61-B03(0-5)</u>	<u>11/9/17</u>	<u>1310</u>	<u>5</u>	<u>S</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>
4		<u>2696V-61-B04(0-5)</u>	<u>11/9/17</u>	<u>1255</u>	<u>5</u>	<u>S</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>
5		<u>2696V-61-B05(0-5)</u>	<u>11/9/17</u>	<u>1245</u>	<u>5</u>	<u>S</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>
6		<u>2696V-61-B06(0-5)</u>	<u>11/9/17</u>	<u>1030</u>	<u>5</u>	<u>S</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>
7		<u>2696V-61-B06(5-10)</u>	<u>11/9/17</u>	<u>1035</u>	<u>5</u>	<u>S</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>
8		<u>2696V-61-B06(10-15)</u>	<u>11/9/17</u>	<u>1040</u>	<u>5</u>	<u>S</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>
9		<u>2696V-61-B06(15-21)</u>	<u>11/9/17</u>	<u>1045</u>	<u>5</u>	<u>S</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>
10		<u>2696V-61-B06DUP(15-21)</u>	<u>11/9/17</u>	<u>1045</u>	<u>5</u>	<u>S</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>

- Preservative Key
1. HCL, Cool to 4°
 2. H2SO4, Cool to 4°
 3. HNO3, Cool to 4°
 4. NaOH, Cool to 4°
 5. NaOH/Zn, Cool to 4°
 6. NaHSO4
 7. Cool to 4°
 8. None
 9. Other



500-137078 COC

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>TERRACON</u> Date: <u>11/9/17</u> Time: <u>1630</u>	Received By: <u>P. Neal</u> Company: <u>TA</u> Date: <u>11/9/17</u> Time: <u>1230</u>
Relinquished By: <u>P. Neal</u> Company: <u>TA</u> Date: <u>11/9/17</u> Time: <u>1700</u>	Received By: <u>Cheryl Sanchez</u> Company: <u>TERRACON</u> Date: <u>11/9/17</u> Time: <u>1700</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: No Aluminum

Lab Comments: _____

Login Sample Receipt Checklist

Client: Terracon Consulting Eng & Scientists

Job Number: 500-137078-1

Login Number: 137078

List Source: TestAmerica Chicago

List Number: 1

Creator: Sanchez, Ariel 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	1.9, 2.0, 2.9, 3.2, 3.7, 4.0
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



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 351-US Rte 6 at Pulaski/Crawford & Kedzie Office Phone Number, if available: _____

Physical Site Location (address, including number and street):
US Route 6 (Eastbound) 29+70 to 31+30 (ISGS Site 2696V-62)

City: Oak Forest/Markham State: IL Zip Code: 60428

County: Cook Township: Bremen

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

Latitude: 41.60367 Longitude: -87.71682
(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: 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 Phone: 847-705-4122

Zip Code: 60196 Phone: 847-705-4122

Contact: Paul Nickles

Contact: Paul Nickles

Email, if available: paul.nickles@illinois.gov

Email, if available: paul.nickles@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 351-US Rte 6 at Pulaski/Crawford & Kedzie

Latitude: 41.60367 Longitude: -87.71682

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)]:

Soil from boring B01 was sampled adjacent to ISGS Site No 2696V-62.
See Exhibits 3, 3A, and Table 83 of the Preliminary Site Investigation Report prepared by Terracon.

- 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]:

TestAmerica Lab Report No J137079-1
Also see Preliminary Site Investigation Report prepared by Terracon. CCDD/USFO facility in MSA County.

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

I, Matt Weiss (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: Terracon Consultants, Inc
 Street Address: 135 Ambassador Drive
 City: Naperville State: IL Zip Code: 60540
 Phone: 630-717-4263

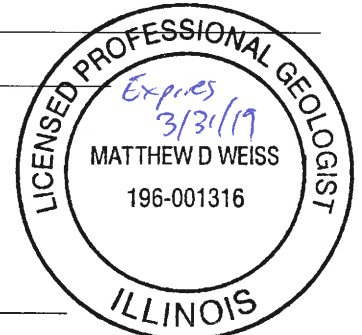
Matt Weiss
 Printed Name:

[Signature]

7/24/18

Licensed Professional Engineer or
 Licensed Professional Geologist Signature:

Date:



Detected Constituents to MACs-PTB 174-009;Work Order:037A
Preliminary Site Investigation
FAP 351-US Rte 6 at S. Pulaski/Crawford + Kedzie (PESA #2696V-62)
Oak Forest/Markham, Cook County, IL
Terracon Project No. 11177029M
Page 1 of 2

Analyte	Units	Background		Maximum Allowed Concentration	Sample Identification	2696V-62-B01 (0-2)
				CCDD	Sample Depth (feet)	(0-2)
		Chicago	MSAs	mg/kg pH 6.25-9.0	Date Collected	11/09/2017
Semivolatile Organic Analytical Parameters						
Benzo(a)anthracene	mg/kg	1.1	1.8	0.9		0.029
Benzo(a)pyrene	mg/kg	1.3	2.1	0.09		0.042
Benzo(b)fluoranthene	mg/kg	1.5	2.1	0.9		0.057
Benzo(g,h,i)perylene	mg/kg	0.68	1.7	2300		0.044
Benzo(k)fluoranthene	mg/kg	0.99	1.7	9		0.035
Chrysene	mg/kg	1.2	2.7	88		0.04
Fluoranthene	mg/kg	2.7	4.1	3100		0.066
Indeno(1,2,3-c,d)pyrene	mg/kg	0.86	1.6	0.9		0.036
Phenanthrene	mg/kg	1.3	2.5	210		0.025
Pyrene	mg/kg	1.9	3.0	2300		0.053
Inorganic Analytical Parameters						
Arsenic	mg/kg	---	13	11.3		7.4
Barium	mg/kg	---	110	1500		61
Cadmium	mg/kg	---	0.6	5.2		0.23
Chromium, total	mg/kg	---	16.2	21		17
Lead	mg/kg	---	36	107		41
Mercury	mg/kg	---	0.06	0.1		0.034
Selenium	mg/kg	---	0.48	1.3		<0.56
Silver	mg/kg	---	0.55	4.4		<0.28
Antimony	mg/kg	---	4.0	5		0.37
Beryllium	mg/kg	---	0.59	22		0.67
Calcium	mg/kg	---	9,300	---		15000
Cobalt	mg/kg	---	8.9	20		8.5
Copper	mg/kg	---	19.6	2900		19
Cyanide	mg/kg	---	0.51	---		<0.59
Iron	mg/kg	---	15,900	15000		15000
Magnesium	mg/kg	---	4,820	325000		9000
Manganese	mg/kg	---	636	630		290
Nickel	mg/kg	---	18	100		24
Potassium	mg/kg	---	1,268	---		1300
Sodium	mg/kg	---	130	---		610
Thallium	mg/kg	---	0.32	2.6		<0.56
Vanadium	mg/kg	---	25.2	550		22
Zinc	mg/kg	---	95	5100		76
pH			6.25	9		9

Detected Constituents to MACs-PTB 174-009;Work Order:037A
Preliminary Site Investigation
FAP 351-US Rte 6 at S. Pulaski/Crawford + Kedzie (PESA #2696V-62)
Oak Forest/Markham, Cook County, IL
Terracon Project No. 11177029M
Page 2 of 2

Analyte	Units	Background		Maximum Allowed Concentration	Sample Identification	2696V-62-B01 (0-2)
				CCDD	Sample Depth (feet)	(0-2)
		Chicago	MSAs	mg/kg pH 6.25-9.0	Date Collected	11/09/2017
Inorganic Analytical Parameters (SPLP)						
Antimony,SPLP	mg/L	---	---	---		--
Arsenic,SPLP	mg/L	---	---	---		--
Barium,SPLP	mg/L	---	---	---		--
Beryllium,SPLP	mg/L	---	---	---		--
Cadmium,SPLP	mg/L	---	---	---		--
Calcium,SPLP	mg/L	---	---	---		--
Chromium,SPLP	mg/L	---	---	---		--
Cobalt,SPLP	mg/L	---	---	---		--
Copper,SPLP	mg/L	---	---	---		--
Iron,SPLP	mg/L	---	---	---		--
Lead,SPLP	mg/L	---	---	---		--
Magnesium,SPLP	mg/L	---	---	---		--
Manganese,SPLP	mg/L	---	---	---		0.58
Mercury,SPLP	mg/L	---	---	---		--
Nickel,SPLP	mg/L	---	---	---		--
Potassium,SPLP	mg/L	---	---	---		--
Selenium,SPLP	mg/L	---	---	---		--
Silver,SPLP	mg/L	---	---	---		--
Sodium,SPLP	mg/L	---	---	---		--
Thallium,SPLP	mg/L	---	---	---		--
Vanadium,SPLP	mg/L	---	---	---		--
Zinc,SPLP	mg/L	---	---	---		--
Cyanide,SPLP	mg/L	---	---	---		--
Inorganic Analytical Parameters (TCLP)						
Arsenic,TCLP	mg/L	---	---	---		<0.050
Barium,TCLP	mg/L	---	---	---		0.31
Cadmium,TCLP	mg/L	---	---	---		0.0022
Chromium,TCLP	mg/L	---	---	---		<0.025
Lead,TCLP	mg/L	---	---	---		<0.0075
Mercury,TCLP	mg/L	---	---	---		<0.00020
Selenium,TCLP	mg/L	---	---	---		<0.050
Silver,TCLP	mg/L	---	---	---		<0.025
Antimony,TCLP	mg/L	---	---	---		<0.0060
Beryllium,TCLP	mg/L	---	---	---		<0.0040
Calcium,TCLP	mg/L	---	---	---		280
Cobalt,TCLP	mg/L	---	---	---		<0.025
Copper,TCLP	mg/L	---	---	---		0.011
Cyanide,TCLP	mg/L	---	---	---		----
Iron,TCLP	mg/L	---	---	---		<0.40
Magnesium,TCLP	mg/L	---	---	---		110
Manganese,TCLP	mg/L	---	---	---		0.43
Nickel,TCLP	mg/L	---	---	---		0.01
Potassium,TCLP	mg/L	---	---	---		1
Sodium,TCLP	mg/L	---	---	---		----
Thallium,TCLP	mg/L	---	---	---		<0.0020
Vanadium,TCLP	mg/L	---	---	---		<0.025
Zinc,TCLP	mg/L	---	---	---		0.061

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: 500-137079-1

Client Project/Site: IDOT - Oak Forest/Markham - WO37

For:

Terracon Consulting Eng & Scientists

135 Ambassador Drive

Naperville, Illinois 60540

Attn: Mr. Matthew Weiss

Jodie Bracken

Authorized for release by:

11/22/2017 12:19:32 PM

Jodie Bracken, Project Management Assistant II

jodie.bracken@testamericainc.com

Designee for

Richard Wright, Senior Project Manager

(708)534-5200

richard.wright@testamericainc.com

LINKS

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results through

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www.testamericainc.com

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

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

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

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Case Narrative

Client: Terracon Consulting Eng & Scientists
Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137079-1

Job ID: 500-137079-1

Laboratory: TestAmerica Chicago

Narrative

Job Narrative 500-137079-1

Receipt

The samples were received on 11/10/2017 8:00 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 6 coolers at receipt time were 1.9° C, 2.0° C, 2.9° C, 3.2° C, 3.7° C and 4.0° C.

GC/MS VOA

Method(s) 8260B: The following analytes recovered outside control limits for the LCS associated with batch 410201: Carbon Tetrachloride and Chloromethane. This is not indicative of a systematic control problem because these were random marginal exceedances. The laboratory control sample (LCS) had all compounds within control limits. Qualified results have been reported.

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

GC/MS Semi VOA

Method(s) 8270D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 500-410346 and analytical batch 500-410465 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovered within acceptance limits.

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

Metals

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

General Chemistry

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

Organic Prep

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

Detection Summary

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137079-1

Client Sample ID: 2696V-62-B01 (0-2)

Lab Sample ID: 500-137079-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]anthracene	0.029	J	0.039	0.0052	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.042		0.039	0.0075	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.057		0.039	0.0084	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.044		0.039	0.013	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.035	J	0.039	0.011	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.040		0.039	0.011	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.066		0.039	0.0072	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
Phenanthrene	0.025	J	0.039	0.0054	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.053		0.039	0.0077	mg/Kg	1	☼	8270D	Total/NA
Antimony	0.37	J	1.1	0.22	mg/Kg	1	☼	6010B	Total/NA
Arsenic	7.4		0.56	0.19	mg/Kg	1	☼	6010B	Total/NA
Barium	61		0.56	0.064	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.67		0.22	0.053	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.23	B	0.11	0.020	mg/Kg	1	☼	6010B	Total/NA
Chromium	17		0.56	0.28	mg/Kg	1	☼	6010B	Total/NA
Cobalt	8.5		0.28	0.074	mg/Kg	1	☼	6010B	Total/NA
Copper	19		0.56	0.16	mg/Kg	1	☼	6010B	Total/NA
Iron	15000		11	5.7	mg/Kg	1	☼	6010B	Total/NA
Lead	41		0.28	0.13	mg/Kg	1	☼	6010B	Total/NA
Magnesium	9000		5.6	2.8	mg/Kg	1	☼	6010B	Total/NA
Calcium	15000	B	11	1.9	mg/Kg	1	☼	6010B	Total/NA
Manganese	290		0.56	0.082	mg/Kg	1	☼	6010B	Total/NA
Nickel	24		0.56	0.16	mg/Kg	1	☼	6010B	Total/NA
Vanadium	22		0.28	0.066	mg/Kg	1	☼	6010B	Total/NA
Zinc	76		1.1	0.49	mg/Kg	1	☼	6010B	Total/NA
Potassium	1300		28	10	mg/Kg	1	☼	6010B	Total/NA
Sodium	610		56	8.3	mg/Kg	1	☼	6010B	Total/NA
Barium	0.31	J	0.50	0.050	mg/L	1		6010B	TCLP
Cadmium	0.0022	J	0.0050	0.0020	mg/L	1		6010B	TCLP
Calcium	280		5.0	0.50	mg/L	1		6010B	TCLP
Copper	0.011	J	0.025	0.010	mg/L	1		6010B	TCLP
Magnesium	110		2.5	0.50	mg/L	1		6010B	TCLP
Manganese	0.43		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.010	J	0.025	0.010	mg/L	1		6010B	TCLP
Potassium	1.0	J	2.5	0.50	mg/L	1		6010B	TCLP
Zinc	0.061	J	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.58		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.034		0.019	0.0062	mg/Kg	1	☼	7471B	Total/NA
pH	9.0		0.20	0.20	SU	1		9045D	Total/NA

Client Sample ID: 2696V-62-B02 (0-2)

Lab Sample ID: 500-137079-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]anthracene	0.013	J	0.037	0.0050	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.017	J	0.037	0.0071	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.024	J	0.037	0.0079	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.016	J	0.037	0.012	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.011	J	0.037	0.011	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.015	J	0.037	0.010	mg/Kg	1	☼	8270D	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137079-1

Client Sample ID: 2696V-62-B02 (0-2) (Continued)

Lab Sample ID: 500-137079-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Fluoranthene	0.027	J	0.037	0.0068	mg/Kg	1	☼	8270D	Total/NA	
Indeno[1,2,3-cd]pyrene	0.012	J	0.037	0.0095	mg/Kg	1	☼	8270D	Total/NA	
Phenanthrene	0.0090	J	0.037	0.0051	mg/Kg	1	☼	8270D	Total/NA	
Pyrene	0.020	J	0.037	0.0073	mg/Kg	1	☼	8270D	Total/NA	
Antimony	0.26	J	1.1	0.21	mg/Kg	1	☼	6010B	Total/NA	
Arsenic	8.4		0.55	0.19	mg/Kg	1	☼	6010B	Total/NA	
Barium	86		0.55	0.063	mg/Kg	1	☼	6010B	Total/NA	
Beryllium	0.66		0.22	0.051	mg/Kg	1	☼	6010B	Total/NA	
Cadmium	0.22	B	0.11	0.020	mg/Kg	1	☼	6010B	Total/NA	
Chromium	16		0.55	0.27	mg/Kg	1	☼	6010B	Total/NA	
Cobalt	13		0.27	0.072	mg/Kg	1	☼	6010B	Total/NA	
Copper	20		0.55	0.15	mg/Kg	1	☼	6010B	Total/NA	
Iron	15000		11	5.6	mg/Kg	1	☼	6010B	Total/NA	
Lead	20		0.27	0.13	mg/Kg	1	☼	6010B	Total/NA	
Magnesium	9600		5.5	2.7	mg/Kg	1	☼	6010B	Total/NA	
Calcium	13000	B	11	1.9	mg/Kg	1	☼	6010B	Total/NA	
Manganese	720		0.55	0.080	mg/Kg	1	☼	6010B	Total/NA	
Nickel	31		0.55	0.16	mg/Kg	1	☼	6010B	Total/NA	
Selenium	0.47	J B	0.55	0.32	mg/Kg	1	☼	6010B	Total/NA	
Vanadium	22		0.27	0.065	mg/Kg	1	☼	6010B	Total/NA	
Zinc	57		1.1	0.48	mg/Kg	1	☼	6010B	Total/NA	
Potassium	1400		27	9.7	mg/Kg	1	☼	6010B	Total/NA	
Sodium	440		55	8.1	mg/Kg	1	☼	6010B	Total/NA	
Barium	0.30	J	0.50	0.050	mg/L	1		6010B	TCLP	
Cadmium	0.0020	J	0.0050	0.0020	mg/L	1		6010B	TCLP	
Calcium	290		5.0	0.50	mg/L	1		6010B	TCLP	
Copper	0.013	J	0.025	0.010	mg/L	1		6010B	TCLP	
Magnesium	110		2.5	0.50	mg/L	1		6010B	TCLP	
Manganese	0.75		0.025	0.010	mg/L	1		6010B	TCLP	
Potassium	1.9	J	2.5	0.50	mg/L	1		6010B	TCLP	
Zinc	0.044	J	0.50	0.020	mg/L	1		6010B	TCLP	
Manganese	0.40		0.025	0.010	mg/L	1		6010B	SPLP East	
Mercury	0.020		0.017	0.0055	mg/Kg	1	☼	7471B	Total/NA	
pH	9.0		0.20	0.20	SU	1		9045D	Total/NA	

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Sample Summary

Client: Terracon Consulting Eng & Scientists
Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137079-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-137079-1	2696V-62-B01 (0-2)	Solid	11/09/17 14:05	11/10/17 08:00
500-137079-2	2696V-62-B02 (0-2)	Solid	11/09/17 14:10	11/10/17 08:00

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Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137079-1

Client Sample ID: 2696V-62-B01 (0-2)

Lab Sample ID: 500-137079-1

Date Collected: 11/09/17 14:05

Matrix: Solid

Date Received: 11/10/17 08:00

Percent Solids: 83.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.017		0.017	0.0075	mg/Kg	☼	11/10/17 18:28	11/16/17 15:08	1
Benzene	<0.0017		0.0017	0.00044	mg/Kg	☼	11/10/17 18:28	11/16/17 15:08	1
Bromodichloromethane	<0.0017		0.0017	0.00035	mg/Kg	☼	11/10/17 18:28	11/16/17 15:08	1
Bromoform	<0.0017		0.0017	0.00050	mg/Kg	☼	11/10/17 18:28	11/16/17 15:08	1
Bromomethane	<0.0043		0.0043	0.0016	mg/Kg	☼	11/10/17 18:28	11/16/17 15:08	1
2-Butanone (MEK)	<0.0043		0.0043	0.0019	mg/Kg	☼	11/10/17 18:28	11/16/17 15:08	1
Carbon disulfide	<0.0043		0.0043	0.00089	mg/Kg	☼	11/10/17 18:28	11/16/17 15:08	1
Carbon tetrachloride	<0.0017 *		0.0017	0.00050	mg/Kg	☼	11/10/17 18:28	11/16/17 15:08	1
Chlorobenzene	<0.0017		0.0017	0.00063	mg/Kg	☼	11/10/17 18:28	11/16/17 15:08	1
Chloroethane	<0.0043		0.0043	0.0013	mg/Kg	☼	11/10/17 18:28	11/16/17 15:08	1
Chloroform	<0.0017		0.0017	0.00059	mg/Kg	☼	11/10/17 18:28	11/16/17 15:08	1
Chloromethane	<0.0043 *		0.0043	0.0017	mg/Kg	☼	11/10/17 18:28	11/16/17 15:08	1
cis-1,2-Dichloroethene	<0.0017		0.0017	0.00048	mg/Kg	☼	11/10/17 18:28	11/16/17 15:08	1
cis-1,3-Dichloropropene	<0.0017		0.0017	0.00052	mg/Kg	☼	11/10/17 18:28	11/16/17 15:08	1
Dibromochloromethane	<0.0017		0.0017	0.00056	mg/Kg	☼	11/10/17 18:28	11/16/17 15:08	1
1,1-Dichloroethane	<0.0017		0.0017	0.00059	mg/Kg	☼	11/10/17 18:28	11/16/17 15:08	1
1,2-Dichloroethane	<0.0043		0.0043	0.0013	mg/Kg	☼	11/10/17 18:28	11/16/17 15:08	1
1,1-Dichloroethene	<0.0017		0.0017	0.00059	mg/Kg	☼	11/10/17 18:28	11/16/17 15:08	1
1,2-Dichloropropane	<0.0017		0.0017	0.00044	mg/Kg	☼	11/10/17 18:28	11/16/17 15:08	1
1,3-Dichloropropane, Total	<0.0017		0.0017	0.00060	mg/Kg	☼	11/10/17 18:28	11/16/17 15:08	1
Ethylbenzene	<0.0017		0.0017	0.00082	mg/Kg	☼	11/10/17 18:28	11/16/17 15:08	1
2-Hexanone	<0.0043		0.0043	0.0013	mg/Kg	☼	11/10/17 18:28	11/16/17 15:08	1
Methylene Chloride	<0.0043		0.0043	0.0017	mg/Kg	☼	11/10/17 18:28	11/16/17 15:08	1
4-Methyl-2-pentanone (MIBK)	<0.0043		0.0043	0.0013	mg/Kg	☼	11/10/17 18:28	11/16/17 15:08	1
Methyl tert-butyl ether	<0.0017		0.0017	0.00050	mg/Kg	☼	11/10/17 18:28	11/16/17 15:08	1
Styrene	<0.0017		0.0017	0.00052	mg/Kg	☼	11/10/17 18:28	11/16/17 15:08	1
1,1,2,2-Tetrachloroethane	<0.0017		0.0017	0.00055	mg/Kg	☼	11/10/17 18:28	11/16/17 15:08	1
Tetrachloroethene	<0.0017		0.0017	0.00058	mg/Kg	☼	11/10/17 18:28	11/16/17 15:08	1
Toluene	<0.0017		0.0017	0.00043	mg/Kg	☼	11/10/17 18:28	11/16/17 15:08	1
trans-1,2-Dichloroethene	<0.0017		0.0017	0.00076	mg/Kg	☼	11/10/17 18:28	11/16/17 15:08	1
trans-1,3-Dichloropropene	<0.0017		0.0017	0.00060	mg/Kg	☼	11/10/17 18:28	11/16/17 15:08	1
1,1,1-Trichloroethane	<0.0017		0.0017	0.00057	mg/Kg	☼	11/10/17 18:28	11/16/17 15:08	1
1,1,2-Trichloroethane	<0.0017		0.0017	0.00073	mg/Kg	☼	11/10/17 18:28	11/16/17 15:08	1
Trichloroethene	<0.0017		0.0017	0.00058	mg/Kg	☼	11/10/17 18:28	11/16/17 15:08	1
Vinyl acetate	<0.0043		0.0043	0.0015	mg/Kg	☼	11/10/17 18:28	11/16/17 15:08	1
Vinyl chloride	<0.0017		0.0017	0.00076	mg/Kg	☼	11/10/17 18:28	11/16/17 15:08	1
Xylenes, Total	<0.0034		0.0034	0.00055	mg/Kg	☼	11/10/17 18:28	11/16/17 15:08	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	94		75 - 131	11/10/17 18:28	11/16/17 15:08	1
Dibromofluoromethane	107		75 - 126	11/10/17 18:28	11/16/17 15:08	1
1,2-Dichloroethane-d4 (Surr)	120		70 - 134	11/10/17 18:28	11/16/17 15:08	1
Toluene-d8 (Surr)	97		75 - 124	11/10/17 18:28	11/16/17 15:08	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.039		0.039	0.0070	mg/Kg	☼	11/16/17 16:12	11/17/17 14:29	1
Acenaphthylene	<0.039		0.039	0.0051	mg/Kg	☼	11/16/17 16:12	11/17/17 14:29	1
Anthracene	<0.039		0.039	0.0065	mg/Kg	☼	11/16/17 16:12	11/17/17 14:29	1
Benzo[a]anthracene	0.029	J	0.039	0.0052	mg/Kg	☼	11/16/17 16:12	11/17/17 14:29	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137079-1

Client Sample ID: 2696V-62-B01 (0-2)

Lab Sample ID: 500-137079-1

Date Collected: 11/09/17 14:05

Matrix: Solid

Date Received: 11/10/17 08:00

Percent Solids: 83.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	0.042		0.039	0.0075	mg/Kg	☼	11/16/17 16:12	11/17/17 14:29	1
Benzo[b]fluoranthene	0.057		0.039	0.0084	mg/Kg	☼	11/16/17 16:12	11/17/17 14:29	1
Benzo[g,h,i]perylene	0.044		0.039	0.013	mg/Kg	☼	11/16/17 16:12	11/17/17 14:29	1
Benzo[k]fluoranthene	0.035	J	0.039	0.011	mg/Kg	☼	11/16/17 16:12	11/17/17 14:29	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.040	mg/Kg	☼	11/16/17 16:12	11/17/17 14:29	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.058	mg/Kg	☼	11/16/17 16:12	11/17/17 14:29	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.071	mg/Kg	☼	11/16/17 16:12	11/17/17 14:29	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.051	mg/Kg	☼	11/16/17 16:12	11/17/17 14:29	1
Butyl benzyl phthalate	<0.20		0.20	0.074	mg/Kg	☼	11/16/17 16:12	11/17/17 14:29	1
Carbazole	<0.20		0.20	0.097	mg/Kg	☼	11/16/17 16:12	11/17/17 14:29	1
4-Chloroaniline	<0.79		0.79	0.18	mg/Kg	☼	11/16/17 16:12	11/17/17 14:29	1
4-Chloro-3-methylphenol	<0.39		0.39	0.13	mg/Kg	☼	11/16/17 16:12	11/17/17 14:29	1
2-Chloronaphthalene	<0.20		0.20	0.043	mg/Kg	☼	11/16/17 16:12	11/17/17 14:29	1
2-Chlorophenol	<0.20		0.20	0.067	mg/Kg	☼	11/16/17 16:12	11/17/17 14:29	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.046	mg/Kg	☼	11/16/17 16:12	11/17/17 14:29	1
Chrysene	0.040		0.039	0.011	mg/Kg	☼	11/16/17 16:12	11/17/17 14:29	1
Dibenz(a,h)anthracene	<0.039		0.039	0.0075	mg/Kg	☼	11/16/17 16:12	11/17/17 14:29	1
Dibenzofuran	<0.20		0.20	0.046	mg/Kg	☼	11/16/17 16:12	11/17/17 14:29	1
1,2-Dichlorobenzene	<0.20		0.20	0.047	mg/Kg	☼	11/16/17 16:12	11/17/17 14:29	1
1,3-Dichlorobenzene	<0.20		0.20	0.044	mg/Kg	☼	11/16/17 16:12	11/17/17 14:29	1
1,4-Dichlorobenzene	<0.20		0.20	0.050	mg/Kg	☼	11/16/17 16:12	11/17/17 14:29	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.055	mg/Kg	☼	11/16/17 16:12	11/17/17 14:29	1
2,4-Dichlorophenol	<0.39		0.39	0.093	mg/Kg	☼	11/16/17 16:12	11/17/17 14:29	1
Diethyl phthalate	<0.20		0.20	0.066	mg/Kg	☼	11/16/17 16:12	11/17/17 14:29	1
2,4-Dimethylphenol	<0.39		0.39	0.15	mg/Kg	☼	11/16/17 16:12	11/17/17 14:29	1
Dimethyl phthalate	<0.20		0.20	0.051	mg/Kg	☼	11/16/17 16:12	11/17/17 14:29	1
Di-n-butyl phthalate	<0.20		0.20	0.059	mg/Kg	☼	11/16/17 16:12	11/17/17 14:29	1
4,6-Dinitro-2-methylphenol	<0.79		0.79	0.31	mg/Kg	☼	11/16/17 16:12	11/17/17 14:29	1
2,4-Dinitrophenol	<0.79		0.79	0.69	mg/Kg	☼	11/16/17 16:12	11/17/17 14:29	1
2,4-Dinitrotoluene	<0.20		0.20	0.062	mg/Kg	☼	11/16/17 16:12	11/17/17 14:29	1
2,6-Dinitrotoluene	<0.20		0.20	0.077	mg/Kg	☼	11/16/17 16:12	11/17/17 14:29	1
Di-n-octyl phthalate	<0.20		0.20	0.064	mg/Kg	☼	11/16/17 16:12	11/17/17 14:29	1
Fluoranthene	0.066		0.039	0.0072	mg/Kg	☼	11/16/17 16:12	11/17/17 14:29	1
Fluorene	<0.039		0.039	0.0055	mg/Kg	☼	11/16/17 16:12	11/17/17 14:29	1
Hexachlorobenzene	<0.079		0.079	0.0090	mg/Kg	☼	11/16/17 16:12	11/17/17 14:29	1
Hexachlorobutadiene	<0.20		0.20	0.061	mg/Kg	☼	11/16/17 16:12	11/17/17 14:29	1
Hexachlorocyclopentadiene	<0.79		0.79	0.22	mg/Kg	☼	11/16/17 16:12	11/17/17 14:29	1
Hexachloroethane	<0.20		0.20	0.059	mg/Kg	☼	11/16/17 16:12	11/17/17 14:29	1
Indeno[1,2,3-cd]pyrene	0.036	J	0.039	0.010	mg/Kg	☼	11/16/17 16:12	11/17/17 14:29	1
Isophorone	<0.20		0.20	0.044	mg/Kg	☼	11/16/17 16:12	11/17/17 14:29	1
2-Methylnaphthalene	<0.079		0.079	0.0072	mg/Kg	☼	11/16/17 16:12	11/17/17 14:29	1
2-Methylphenol	<0.20		0.20	0.063	mg/Kg	☼	11/16/17 16:12	11/17/17 14:29	1
3 & 4 Methylphenol	<0.20		0.20	0.065	mg/Kg	☼	11/16/17 16:12	11/17/17 14:29	1
Naphthalene	<0.039		0.039	0.0060	mg/Kg	☼	11/16/17 16:12	11/17/17 14:29	1
2-Nitroaniline	<0.20		0.20	0.052	mg/Kg	☼	11/16/17 16:12	11/17/17 14:29	1
3-Nitroaniline	<0.39		0.39	0.12	mg/Kg	☼	11/16/17 16:12	11/17/17 14:29	1
4-Nitroaniline	<0.39		0.39	0.16	mg/Kg	☼	11/16/17 16:12	11/17/17 14:29	1
Nitrobenzene	<0.039		0.039	0.0097	mg/Kg	☼	11/16/17 16:12	11/17/17 14:29	1
2-Nitrophenol	<0.39		0.39	0.092	mg/Kg	☼	11/16/17 16:12	11/17/17 14:29	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137079-1

Client Sample ID: 2696V-62-B01 (0-2)

Lab Sample ID: 500-137079-1

Date Collected: 11/09/17 14:05

Matrix: Solid

Date Received: 11/10/17 08:00

Percent Solids: 83.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Nitrophenol	<0.79		0.79	0.37	mg/Kg	☼	11/16/17 16:12	11/17/17 14:29	1
N-Nitrosodi-n-propylamine	<0.079		0.079	0.048	mg/Kg	☼	11/16/17 16:12	11/17/17 14:29	1
N-Nitrosodiphenylamine	<0.20		0.20	0.046	mg/Kg	☼	11/16/17 16:12	11/17/17 14:29	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.045	mg/Kg	☼	11/16/17 16:12	11/17/17 14:29	1
Pentachlorophenol	<0.79		0.79	0.63	mg/Kg	☼	11/16/17 16:12	11/17/17 14:29	1
Phenanthrene	0.025	J	0.039	0.0054	mg/Kg	☼	11/16/17 16:12	11/17/17 14:29	1
Phenol	<0.20		0.20	0.087	mg/Kg	☼	11/16/17 16:12	11/17/17 14:29	1
Pyrene	0.053		0.039	0.0077	mg/Kg	☼	11/16/17 16:12	11/17/17 14:29	1
1,2,4-Trichlorobenzene	<0.20		0.20	0.042	mg/Kg	☼	11/16/17 16:12	11/17/17 14:29	1
2,4,5-Trichlorophenol	<0.39		0.39	0.089	mg/Kg	☼	11/16/17 16:12	11/17/17 14:29	1
2,4,6-Trichlorophenol	<0.39		0.39	0.13	mg/Kg	☼	11/16/17 16:12	11/17/17 14:29	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	76		44 - 121	11/16/17 16:12	11/17/17 14:29	1
2-Fluorophenol	86		46 - 133	11/16/17 16:12	11/17/17 14:29	1
Nitrobenzene-d5	74		41 - 120	11/16/17 16:12	11/17/17 14:29	1
Phenol-d5	82		46 - 125	11/16/17 16:12	11/17/17 14:29	1
Terphenyl-d14	74		35 - 160	11/16/17 16:12	11/17/17 14:29	1
2,4,6-Tribromophenol	57		25 - 139	11/16/17 16:12	11/17/17 14:29	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.37	J	1.1	0.22	mg/Kg	☼	11/11/17 13:30	11/14/17 02:36	1
Arsenic	7.4		0.56	0.19	mg/Kg	☼	11/11/17 13:30	11/14/17 02:36	1
Barium	61		0.56	0.064	mg/Kg	☼	11/11/17 13:30	11/14/17 02:36	1
Beryllium	0.67		0.22	0.053	mg/Kg	☼	11/11/17 13:30	11/14/17 02:36	1
Cadmium	0.23	B	0.11	0.020	mg/Kg	☼	11/11/17 13:30	11/14/17 02:36	1
Chromium	17		0.56	0.28	mg/Kg	☼	11/11/17 13:30	11/14/17 02:36	1
Cobalt	8.5		0.28	0.074	mg/Kg	☼	11/11/17 13:30	11/14/17 02:36	1
Copper	19		0.56	0.16	mg/Kg	☼	11/11/17 13:30	11/14/17 23:13	1
Iron	15000		11	5.7	mg/Kg	☼	11/15/17 16:01	11/16/17 14:17	1
Lead	41		0.28	0.13	mg/Kg	☼	11/11/17 13:30	11/14/17 02:36	1
Magnesium	9000		5.6	2.8	mg/Kg	☼	11/11/17 13:30	11/14/17 02:36	1
Calcium	15000	B	11	1.9	mg/Kg	☼	11/11/17 13:30	11/14/17 02:36	1
Manganese	290		0.56	0.082	mg/Kg	☼	11/11/17 13:30	11/14/17 02:36	1
Nickel	24		0.56	0.16	mg/Kg	☼	11/11/17 13:30	11/14/17 02:36	1
Selenium	<0.56		0.56	0.33	mg/Kg	☼	11/11/17 13:30	11/14/17 02:36	1
Silver	<0.28		0.28	0.073	mg/Kg	☼	11/11/17 13:30	11/14/17 02:36	1
Thallium	<0.56		0.56	0.28	mg/Kg	☼	11/11/17 13:30	11/14/17 02:36	1
Vanadium	22		0.28	0.066	mg/Kg	☼	11/11/17 13:30	11/14/17 02:36	1
Zinc	76		1.1	0.49	mg/Kg	☼	11/11/17 13:30	11/14/17 02:36	1
Potassium	1300		28	10	mg/Kg	☼	11/11/17 13:30	11/14/17 02:36	1
Sodium	610		56	8.3	mg/Kg	☼	11/11/17 13:30	11/14/17 02:36	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.050		0.050	0.010	mg/L		11/17/17 06:52	11/17/17 16:48	1
Barium	0.31	J	0.50	0.050	mg/L		11/17/17 06:52	11/17/17 16:48	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		11/17/17 06:52	11/17/17 16:48	1
Cadmium	0.0022	J	0.0050	0.0020	mg/L		11/17/17 06:52	11/17/17 16:48	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137079-1

Client Sample ID: 2696V-62-B01 (0-2)

Lab Sample ID: 500-137079-1

Date Collected: 11/09/17 14:05

Matrix: Solid

Date Received: 11/10/17 08:00

Percent Solids: 83.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	280		5.0	0.50	mg/L		11/17/17 06:52	11/17/17 16:48	1
Chromium	<0.025		0.025	0.010	mg/L		11/17/17 06:52	11/17/17 16:48	1
Cobalt	<0.025		0.025	0.010	mg/L		11/17/17 06:52	11/17/17 16:48	1
Copper	0.011	J	0.025	0.010	mg/L		11/17/17 06:52	11/17/17 16:48	1
Iron	<0.40		0.40	0.20	mg/L		11/17/17 06:52	11/17/17 16:48	1
Lead	<0.0075		0.0075	0.0075	mg/L		11/17/17 06:52	11/17/17 16:48	1
Magnesium	110		2.5	0.50	mg/L		11/17/17 06:52	11/17/17 16:48	1
Manganese	0.43		0.025	0.010	mg/L		11/17/17 06:52	11/17/17 16:48	1
Nickel	0.010	J	0.025	0.010	mg/L		11/17/17 06:52	11/17/17 16:48	1
Potassium	1.0	J	2.5	0.50	mg/L		11/17/17 06:52	11/17/17 16:48	1
Selenium	<0.050		0.050	0.020	mg/L		11/17/17 06:52	11/17/17 16:48	1
Silver	<0.025		0.025	0.010	mg/L		11/17/17 06:52	11/17/17 16:48	1
Vanadium	<0.025		0.025	0.010	mg/L		11/17/17 06:52	11/17/17 16:48	1
Zinc	0.061	J	0.50	0.020	mg/L		11/17/17 06:52	11/17/17 16:48	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.58		0.025	0.010	mg/L		11/16/17 14:16	11/17/17 23:14	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		11/17/17 06:52	11/18/17 02:05	1
Thallium	<0.0020		0.0020	0.0020	mg/L		11/17/17 06:52	11/18/17 02:05	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		11/17/17 08:10	11/18/17 12:02	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.034		0.019	0.0062	mg/Kg	☼	11/17/17 10:45	11/17/17 13:42	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.59		0.59	0.20	mg/Kg	☼	11/19/17 13:10	11/19/17 16:07	1
pH	9.0		0.20	0.20	SU			11/18/17 12:13	1

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137079-1

Client Sample ID: 2696V-62-B02 (0-2)

Lab Sample ID: 500-137079-2

Date Collected: 11/09/17 14:10

Matrix: Solid

Date Received: 11/10/17 08:00

Percent Solids: 86.2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.016		0.016	0.0068	mg/Kg	☼	11/10/17 18:28	11/16/17 15:33	1
Benzene	<0.0016		0.0016	0.00040	mg/Kg	☼	11/10/17 18:28	11/16/17 15:33	1
Bromodichloromethane	<0.0016		0.0016	0.00032	mg/Kg	☼	11/10/17 18:28	11/16/17 15:33	1
Bromoform	<0.0016		0.0016	0.00045	mg/Kg	☼	11/10/17 18:28	11/16/17 15:33	1
Bromomethane	<0.0039		0.0039	0.0015	mg/Kg	☼	11/10/17 18:28	11/16/17 15:33	1
2-Butanone (MEK)	<0.0039		0.0039	0.0017	mg/Kg	☼	11/10/17 18:28	11/16/17 15:33	1
Carbon disulfide	<0.0039		0.0039	0.00081	mg/Kg	☼	11/10/17 18:28	11/16/17 15:33	1
Carbon tetrachloride	<0.0016 *		0.0016	0.00045	mg/Kg	☼	11/10/17 18:28	11/16/17 15:33	1
Chlorobenzene	<0.0016		0.0016	0.00057	mg/Kg	☼	11/10/17 18:28	11/16/17 15:33	1
Chloroethane	<0.0039		0.0039	0.0011	mg/Kg	☼	11/10/17 18:28	11/16/17 15:33	1
Chloroform	<0.0016		0.0016	0.00054	mg/Kg	☼	11/10/17 18:28	11/16/17 15:33	1
Chloromethane	<0.0039 *		0.0039	0.0016	mg/Kg	☼	11/10/17 18:28	11/16/17 15:33	1
cis-1,2-Dichloroethene	<0.0016		0.0016	0.00043	mg/Kg	☼	11/10/17 18:28	11/16/17 15:33	1
cis-1,3-Dichloropropene	<0.0016		0.0016	0.00047	mg/Kg	☼	11/10/17 18:28	11/16/17 15:33	1
Dibromochloromethane	<0.0016		0.0016	0.00051	mg/Kg	☼	11/10/17 18:28	11/16/17 15:33	1
1,1-Dichloroethane	<0.0016		0.0016	0.00053	mg/Kg	☼	11/10/17 18:28	11/16/17 15:33	1
1,2-Dichloroethane	<0.0039		0.0039	0.0012	mg/Kg	☼	11/10/17 18:28	11/16/17 15:33	1
1,1-Dichloroethene	<0.0016		0.0016	0.00053	mg/Kg	☼	11/10/17 18:28	11/16/17 15:33	1
1,2-Dichloropropane	<0.0016		0.0016	0.00040	mg/Kg	☼	11/10/17 18:28	11/16/17 15:33	1
1,3-Dichloropropane, Total	<0.0016		0.0016	0.00054	mg/Kg	☼	11/10/17 18:28	11/16/17 15:33	1
Ethylbenzene	<0.0016		0.0016	0.00074	mg/Kg	☼	11/10/17 18:28	11/16/17 15:33	1
2-Hexanone	<0.0039		0.0039	0.0012	mg/Kg	☼	11/10/17 18:28	11/16/17 15:33	1
Methylene Chloride	<0.0039		0.0039	0.0015	mg/Kg	☼	11/10/17 18:28	11/16/17 15:33	1
4-Methyl-2-pentanone (MIBK)	<0.0039		0.0039	0.0011	mg/Kg	☼	11/10/17 18:28	11/16/17 15:33	1
Methyl tert-butyl ether	<0.0016		0.0016	0.00046	mg/Kg	☼	11/10/17 18:28	11/16/17 15:33	1
Styrene	<0.0016		0.0016	0.00047	mg/Kg	☼	11/10/17 18:28	11/16/17 15:33	1
1,1,2,2-Tetrachloroethane	<0.0016		0.0016	0.00050	mg/Kg	☼	11/10/17 18:28	11/16/17 15:33	1
Tetrachloroethene	<0.0016		0.0016	0.00053	mg/Kg	☼	11/10/17 18:28	11/16/17 15:33	1
Toluene	<0.0016		0.0016	0.00039	mg/Kg	☼	11/10/17 18:28	11/16/17 15:33	1
trans-1,2-Dichloroethene	<0.0016		0.0016	0.00069	mg/Kg	☼	11/10/17 18:28	11/16/17 15:33	1
trans-1,3-Dichloropropene	<0.0016		0.0016	0.00054	mg/Kg	☼	11/10/17 18:28	11/16/17 15:33	1
1,1,1-Trichloroethane	<0.0016		0.0016	0.00052	mg/Kg	☼	11/10/17 18:28	11/16/17 15:33	1
1,1,2-Trichloroethane	<0.0016		0.0016	0.00067	mg/Kg	☼	11/10/17 18:28	11/16/17 15:33	1
Trichloroethene	<0.0016		0.0016	0.00052	mg/Kg	☼	11/10/17 18:28	11/16/17 15:33	1
Vinyl acetate	<0.0039		0.0039	0.0013	mg/Kg	☼	11/10/17 18:28	11/16/17 15:33	1
Vinyl chloride	<0.0016		0.0016	0.00069	mg/Kg	☼	11/10/17 18:28	11/16/17 15:33	1
Xylenes, Total	<0.0031		0.0031	0.00050	mg/Kg	☼	11/10/17 18:28	11/16/17 15:33	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	87		75 - 131	11/10/17 18:28	11/16/17 15:33	1
Dibromofluoromethane	109		75 - 126	11/10/17 18:28	11/16/17 15:33	1
1,2-Dichloroethane-d4 (Surr)	121		70 - 134	11/10/17 18:28	11/16/17 15:33	1
Toluene-d8 (Surr)	95		75 - 124	11/10/17 18:28	11/16/17 15:33	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.037		0.037	0.0066	mg/Kg	☼	11/16/17 16:12	11/17/17 14:56	1
Acenaphthylene	<0.037		0.037	0.0049	mg/Kg	☼	11/16/17 16:12	11/17/17 14:56	1
Anthracene	<0.037		0.037	0.0061	mg/Kg	☼	11/16/17 16:12	11/17/17 14:56	1
Benzo[a]anthracene	0.013	J	0.037	0.0050	mg/Kg	☼	11/16/17 16:12	11/17/17 14:56	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137079-1

Client Sample ID: 2696V-62-B02 (0-2)

Lab Sample ID: 500-137079-2

Date Collected: 11/09/17 14:10

Matrix: Solid

Date Received: 11/10/17 08:00

Percent Solids: 86.2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	0.017	J	0.037	0.0071	mg/Kg	☼	11/16/17 16:12	11/17/17 14:56	1
Benzo[b]fluoranthene	0.024	J	0.037	0.0079	mg/Kg	☼	11/16/17 16:12	11/17/17 14:56	1
Benzo[g,h,i]perylene	0.016	J	0.037	0.012	mg/Kg	☼	11/16/17 16:12	11/17/17 14:56	1
Benzo[k]fluoranthene	0.011	J	0.037	0.011	mg/Kg	☼	11/16/17 16:12	11/17/17 14:56	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.038	mg/Kg	☼	11/16/17 16:12	11/17/17 14:56	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.055	mg/Kg	☼	11/16/17 16:12	11/17/17 14:56	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.067	mg/Kg	☼	11/16/17 16:12	11/17/17 14:56	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.049	mg/Kg	☼	11/16/17 16:12	11/17/17 14:56	1
Butyl benzyl phthalate	<0.19		0.19	0.070	mg/Kg	☼	11/16/17 16:12	11/17/17 14:56	1
Carbazole	<0.19		0.19	0.092	mg/Kg	☼	11/16/17 16:12	11/17/17 14:56	1
4-Chloroaniline	<0.74		0.74	0.17	mg/Kg	☼	11/16/17 16:12	11/17/17 14:56	1
4-Chloro-3-methylphenol	<0.37		0.37	0.13	mg/Kg	☼	11/16/17 16:12	11/17/17 14:56	1
2-Chloronaphthalene	<0.19		0.19	0.041	mg/Kg	☼	11/16/17 16:12	11/17/17 14:56	1
2-Chlorophenol	<0.19		0.19	0.063	mg/Kg	☼	11/16/17 16:12	11/17/17 14:56	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.043	mg/Kg	☼	11/16/17 16:12	11/17/17 14:56	1
Chrysene	0.015	J	0.037	0.010	mg/Kg	☼	11/16/17 16:12	11/17/17 14:56	1
Dibenz(a,h)anthracene	<0.037		0.037	0.0071	mg/Kg	☼	11/16/17 16:12	11/17/17 14:56	1
Dibenzofuran	<0.19		0.19	0.043	mg/Kg	☼	11/16/17 16:12	11/17/17 14:56	1
1,2-Dichlorobenzene	<0.19		0.19	0.044	mg/Kg	☼	11/16/17 16:12	11/17/17 14:56	1
1,3-Dichlorobenzene	<0.19		0.19	0.041	mg/Kg	☼	11/16/17 16:12	11/17/17 14:56	1
1,4-Dichlorobenzene	<0.19		0.19	0.047	mg/Kg	☼	11/16/17 16:12	11/17/17 14:56	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.052	mg/Kg	☼	11/16/17 16:12	11/17/17 14:56	1
2,4-Dichlorophenol	<0.37		0.37	0.087	mg/Kg	☼	11/16/17 16:12	11/17/17 14:56	1
Diethyl phthalate	<0.19		0.19	0.062	mg/Kg	☼	11/16/17 16:12	11/17/17 14:56	1
2,4-Dimethylphenol	<0.37		0.37	0.14	mg/Kg	☼	11/16/17 16:12	11/17/17 14:56	1
Dimethyl phthalate	<0.19		0.19	0.048	mg/Kg	☼	11/16/17 16:12	11/17/17 14:56	1
Di-n-butyl phthalate	<0.19		0.19	0.056	mg/Kg	☼	11/16/17 16:12	11/17/17 14:56	1
4,6-Dinitro-2-methylphenol	<0.74		0.74	0.30	mg/Kg	☼	11/16/17 16:12	11/17/17 14:56	1
2,4-Dinitrophenol	<0.74		0.74	0.65	mg/Kg	☼	11/16/17 16:12	11/17/17 14:56	1
2,4-Dinitrotoluene	<0.19		0.19	0.059	mg/Kg	☼	11/16/17 16:12	11/17/17 14:56	1
2,6-Dinitrotoluene	<0.19		0.19	0.072	mg/Kg	☼	11/16/17 16:12	11/17/17 14:56	1
Di-n-octyl phthalate	<0.19		0.19	0.060	mg/Kg	☼	11/16/17 16:12	11/17/17 14:56	1
Fluoranthene	0.027	J	0.037	0.0068	mg/Kg	☼	11/16/17 16:12	11/17/17 14:56	1
Fluorene	<0.037		0.037	0.0052	mg/Kg	☼	11/16/17 16:12	11/17/17 14:56	1
Hexachlorobenzene	<0.074		0.074	0.0085	mg/Kg	☼	11/16/17 16:12	11/17/17 14:56	1
Hexachlorobutadiene	<0.19		0.19	0.058	mg/Kg	☼	11/16/17 16:12	11/17/17 14:56	1
Hexachlorocyclopentadiene	<0.74		0.74	0.21	mg/Kg	☼	11/16/17 16:12	11/17/17 14:56	1
Hexachloroethane	<0.19		0.19	0.056	mg/Kg	☼	11/16/17 16:12	11/17/17 14:56	1
Indeno[1,2,3-cd]pyrene	0.012	J	0.037	0.0095	mg/Kg	☼	11/16/17 16:12	11/17/17 14:56	1
Isophorone	<0.19		0.19	0.041	mg/Kg	☼	11/16/17 16:12	11/17/17 14:56	1
2-Methylnaphthalene	<0.074		0.074	0.0068	mg/Kg	☼	11/16/17 16:12	11/17/17 14:56	1
2-Methylphenol	<0.19		0.19	0.059	mg/Kg	☼	11/16/17 16:12	11/17/17 14:56	1
3 & 4 Methylphenol	<0.19		0.19	0.061	mg/Kg	☼	11/16/17 16:12	11/17/17 14:56	1
Naphthalene	<0.037		0.037	0.0057	mg/Kg	☼	11/16/17 16:12	11/17/17 14:56	1
2-Nitroaniline	<0.19		0.19	0.050	mg/Kg	☼	11/16/17 16:12	11/17/17 14:56	1
3-Nitroaniline	<0.37		0.37	0.11	mg/Kg	☼	11/16/17 16:12	11/17/17 14:56	1
4-Nitroaniline	<0.37		0.37	0.15	mg/Kg	☼	11/16/17 16:12	11/17/17 14:56	1
Nitrobenzene	<0.037		0.037	0.0092	mg/Kg	☼	11/16/17 16:12	11/17/17 14:56	1
2-Nitrophenol	<0.37		0.37	0.087	mg/Kg	☼	11/16/17 16:12	11/17/17 14:56	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137079-1

Client Sample ID: 2696V-62-B02 (0-2)

Lab Sample ID: 500-137079-2

Date Collected: 11/09/17 14:10

Matrix: Solid

Date Received: 11/10/17 08:00

Percent Solids: 86.2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Nitrophenol	<0.74		0.74	0.35	mg/Kg	☼	11/16/17 16:12	11/17/17 14:56	1
N-Nitrosodi-n-propylamine	<0.074		0.074	0.045	mg/Kg	☼	11/16/17 16:12	11/17/17 14:56	1
N-Nitrosodiphenylamine	<0.19		0.19	0.043	mg/Kg	☼	11/16/17 16:12	11/17/17 14:56	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.043	mg/Kg	☼	11/16/17 16:12	11/17/17 14:56	1
Pentachlorophenol	<0.74		0.74	0.59	mg/Kg	☼	11/16/17 16:12	11/17/17 14:56	1
Phenanthrene	0.0090	J	0.037	0.0051	mg/Kg	☼	11/16/17 16:12	11/17/17 14:56	1
Phenol	<0.19		0.19	0.082	mg/Kg	☼	11/16/17 16:12	11/17/17 14:56	1
Pyrene	0.020	J	0.037	0.0073	mg/Kg	☼	11/16/17 16:12	11/17/17 14:56	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.040	mg/Kg	☼	11/16/17 16:12	11/17/17 14:56	1
2,4,5-Trichlorophenol	<0.37		0.37	0.084	mg/Kg	☼	11/16/17 16:12	11/17/17 14:56	1
2,4,6-Trichlorophenol	<0.37		0.37	0.13	mg/Kg	☼	11/16/17 16:12	11/17/17 14:56	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	84		44 - 121	11/16/17 16:12	11/17/17 14:56	1
2-Fluorophenol	90		46 - 133	11/16/17 16:12	11/17/17 14:56	1
Nitrobenzene-d5	80		41 - 120	11/16/17 16:12	11/17/17 14:56	1
Phenol-d5	87		46 - 125	11/16/17 16:12	11/17/17 14:56	1
Terphenyl-d14	76		35 - 160	11/16/17 16:12	11/17/17 14:56	1
2,4,6-Tribromophenol	67		25 - 139	11/16/17 16:12	11/17/17 14:56	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.26	J	1.1	0.21	mg/Kg	☼	11/11/17 13:30	11/14/17 02:40	1
Arsenic	8.4		0.55	0.19	mg/Kg	☼	11/11/17 13:30	11/14/17 02:40	1
Barium	86		0.55	0.063	mg/Kg	☼	11/11/17 13:30	11/14/17 02:40	1
Beryllium	0.66		0.22	0.051	mg/Kg	☼	11/11/17 13:30	11/14/17 02:40	1
Cadmium	0.22	B	0.11	0.020	mg/Kg	☼	11/11/17 13:30	11/14/17 02:40	1
Chromium	16		0.55	0.27	mg/Kg	☼	11/11/17 13:30	11/14/17 02:40	1
Cobalt	13		0.27	0.072	mg/Kg	☼	11/11/17 13:30	11/14/17 02:40	1
Copper	20		0.55	0.15	mg/Kg	☼	11/11/17 13:30	11/14/17 23:17	1
Iron	15000		11	5.6	mg/Kg	☼	11/15/17 16:01	11/16/17 14:21	1
Lead	20		0.27	0.13	mg/Kg	☼	11/11/17 13:30	11/14/17 02:40	1
Magnesium	9600		5.5	2.7	mg/Kg	☼	11/11/17 13:30	11/14/17 02:40	1
Calcium	13000	B	11	1.9	mg/Kg	☼	11/11/17 13:30	11/14/17 02:40	1
Manganese	720		0.55	0.080	mg/Kg	☼	11/11/17 13:30	11/14/17 02:40	1
Nickel	31		0.55	0.16	mg/Kg	☼	11/11/17 13:30	11/14/17 02:40	1
Selenium	0.47	J B	0.55	0.32	mg/Kg	☼	11/11/17 13:30	11/14/17 02:40	1
Silver	<0.27		0.27	0.071	mg/Kg	☼	11/11/17 13:30	11/14/17 02:40	1
Thallium	<0.55		0.55	0.27	mg/Kg	☼	11/11/17 13:30	11/14/17 02:40	1
Vanadium	22		0.27	0.065	mg/Kg	☼	11/11/17 13:30	11/14/17 02:40	1
Zinc	57		1.1	0.48	mg/Kg	☼	11/11/17 13:30	11/14/17 02:40	1
Potassium	1400		27	9.7	mg/Kg	☼	11/11/17 13:30	11/14/17 02:40	1
Sodium	440		55	8.1	mg/Kg	☼	11/11/17 13:30	11/14/17 02:40	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.050		0.050	0.010	mg/L		11/17/17 06:52	11/17/17 16:52	1
Barium	0.30	J	0.50	0.050	mg/L		11/17/17 06:52	11/17/17 16:52	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		11/17/17 06:52	11/17/17 16:52	1
Cadmium	0.0020	J	0.0050	0.0020	mg/L		11/17/17 06:52	11/17/17 16:52	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137079-1

Client Sample ID: 2696V-62-B02 (0-2)

Lab Sample ID: 500-137079-2

Date Collected: 11/09/17 14:10

Matrix: Solid

Date Received: 11/10/17 08:00

Percent Solids: 86.2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	290		5.0	0.50	mg/L		11/17/17 06:52	11/17/17 16:52	1
Chromium	<0.025		0.025	0.010	mg/L		11/17/17 06:52	11/17/17 16:52	1
Cobalt	<0.025		0.025	0.010	mg/L		11/17/17 06:52	11/17/17 16:52	1
Copper	0.013	J	0.025	0.010	mg/L		11/17/17 06:52	11/17/17 16:52	1
Iron	<0.40		0.40	0.20	mg/L		11/17/17 06:52	11/17/17 16:52	1
Lead	<0.0075		0.0075	0.0075	mg/L		11/17/17 06:52	11/17/17 16:52	1
Magnesium	110		2.5	0.50	mg/L		11/17/17 06:52	11/17/17 16:52	1
Manganese	0.75		0.025	0.010	mg/L		11/17/17 06:52	11/17/17 16:52	1
Nickel	<0.025		0.025	0.010	mg/L		11/17/17 06:52	11/17/17 16:52	1
Potassium	1.9	J	2.5	0.50	mg/L		11/17/17 06:52	11/17/17 16:52	1
Selenium	<0.050		0.050	0.020	mg/L		11/17/17 06:52	11/17/17 16:52	1
Silver	<0.025		0.025	0.010	mg/L		11/17/17 06:52	11/17/17 16:52	1
Vanadium	<0.025		0.025	0.010	mg/L		11/17/17 06:52	11/17/17 16:52	1
Zinc	0.044	J	0.50	0.020	mg/L		11/17/17 06:52	11/17/17 16:52	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.40		0.025	0.010	mg/L		11/16/17 14:16	11/17/17 23:18	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		11/17/17 06:52	11/18/17 02:09	1
Thallium	<0.0020		0.0020	0.0020	mg/L		11/17/17 06:52	11/18/17 02:09	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		11/17/17 08:10	11/18/17 12:03	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.020		0.017	0.0055	mg/Kg	☼	11/17/17 10:45	11/17/17 13:45	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.46		0.46	0.16	mg/Kg	☼	11/19/17 13:10	11/19/17 16:08	1
pH	9.0		0.20	0.20	SU			11/18/17 12:15	1

Definitions/Glossary

Client: Terracon Consulting Eng & Scientists
Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137079-1

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.

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
B	Compound was found in the blank and sample.

Glossary

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

Accreditation/Certification Summary

Client: Terracon Consulting Eng & Scientists
Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137079-1

Laboratory: TestAmerica Chicago

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

Authority	Program	EPA Region	Identification Number	Expiration Date
Illinois	NELAP	5	100201	04-30-18

The following analytes are included in this report, but accreditation/certification is not offered by the governing authority:

Analysis Method	Prep Method	Matrix	Analyte
6020A	3010A	Solid	Antimony
6020A	3010A	Solid	Thallium
8260B	5035	Solid	1,3-Dichloropropene, Total
9045D		Solid	pH
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

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

Report To: (optional) MATT WEISS
Contact: TERRACON
Company: TERRACON
Address: NAYBEVILLE IL
Address: _____
Phone: _____
Fax: _____
E-Mail: matt.weiss@terracon.com

Bill To: (optional) _____
Contact: _____
Company: _____
Address: _____
Address: _____
Phone: _____
Fax: 500-137079 COC
PO#/Reference# _____

Chain of Custody Record

Lab Job #: 500-137079

Chain of Custody Number: _____

Page _____ of (4.0)(2.0)(1.9)

Temperature °C of Cooler: (3.7)(2.9)(3.2)



Client: <u>TERRACON</u>		Client Project # <u>11T7029M</u>		Preservative		Parameter										Preservative Key			
Project Name <u>WORK ORDER #37</u>				Project Location/State <u>MARKHAM IL</u>				Lab Project #				Lab PM							
Lab ID	MS/MSD	Sample ID	Sampling		# of Containers	Matrix	VOCs	SVOCs	TOTAL TALZ3	Heavy	PH	TCLP TALZ3	SPLP TALZ3	Heavy	Comments				
			Date	Time															
<u>1</u>		<u>2696V-62-B01 (0-2)</u>	<u>11/9</u>	<u>1405</u>	<u>5</u>	<u>5</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>					
<u>2</u>		<u>2696V-62-B02 (0-2)</u>	<u>11/9</u>	<u>1410</u>	<u>5</u>	<u>5</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>					

- 1. HCL, Cool to 4°
- 2. H2SO4, Cool to 4°
- 3. HNO3, Cool to 4°
- 4. NaOH, Cool to 4°
- 5. NaOH/Zn, Cool to 4°
- 6. NaHSO4
- 7. Cool to 4°
- 8. None
- 9. Other

Turnaround Time Required (Business Days) _____
Requested 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>TERRACON</u> Date: <u>11/9/17</u> Time: <u>1630</u>	Received By: <u>P. Neal</u> Company: <u>TA</u> Date: <u>11/9/17</u> Time: <u>1630</u>
Relinquished By: <u>P. Neal</u> Company: <u>TA</u> Date: <u>11/9/17</u> Time: <u>1700</u>	Received By: <u>[Signature]</u> Company: <u>TA</u> Date: <u>11/10/17</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: NO AK in TAL ANALYSES
SPLP on hold, pending approval

Lab Comments: _____

Login Sample Receipt Checklist

Client: Terracon Consulting Eng & Scientists

Job Number: 500-137079-1

Login Number: 137079

List Source: TestAmerica Chicago

List Number: 1

Creator: Kelsey, Shawn M

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	(4.0)(2.0)(1.9)(3.7)(2.9)(3.2)c
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	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 351-US Rte 6 at Pulaski/Crawford & Kedzie Office Phone Number, if available: _____

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

US Route 6 (Eastbound) 27+20 to 29+70 (ISGS Site 2696V-63)

City: Oak Forest/Markham State: IL Zip Code: 60428

County: Cook Township: Bremen

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

Latitude: 41.60367 Longitude: -87.71682
(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: 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 Phone: 847-705-4122

Zip Code: 60196 Phone: 847-705-4122

Contact: Paul Nickles

Contact: Paul Nickles

Email, if available: paul.nickles@illinois.gov

Email, if available: paul.nickles@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

Project Name: FAP 351-US Rte 6 at Pulaski/Crawford & Kedzie

Latitude: 41.60367 Longitude: -87.71682

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)]:

Soil from boring B01 was sampled adjacent to ISGS Site No 2696V-63.
See Exhibits 3, 3A, and Table 85 of the Preliminary Site Investigation Report prepared by Terracon.

- 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]:

TestAmerica Lab Report No J137079-2
Also see Preliminary Site Investigation Report prepared by Terracon. CCDD/USFO facility in MSA County.

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

I, Matt Weiss (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.

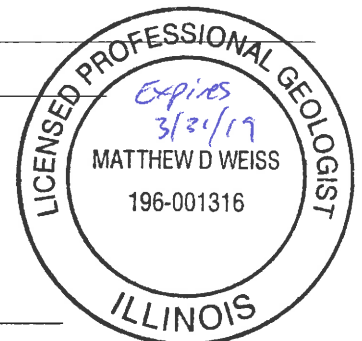
Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))

Company Name: Terracon Consultants, Inc
 Street Address: 135 Ambassador Drive
 City: Naperville State: IL Zip Code: 60540
 Phone: 630-717-4263

Matt Weiss
 Printed Name:

[Signature]
 Licensed Professional Engineer or
 Licensed Professional Geologist Signature:

7/24/18
 Date:



Detected Constituents to MACs-PTB 174-009;Work Order:037A
Preliminary Site Investigation
FAP 351-US Rte 6 at S. Pulaski/Crawford + Kedzie (PESA #2696V-63)
Oak Forest/Markham, Cook County, IL
Terracon Project No. 11177029M
Page 1 of 2

Analyte	Units	Background		Maximum Allowed Concentration	Sample Identification	2696V-63-B01 (0-5)	2696V-63-B01 (5-9)
				CCDD	Sample Depth (feet)	(0-5)	(5-9)
		Chicago	MSAs	mg/kg pH 6.25-9.0	Date Collected	11/09/2017	11/09/2017
Semivolatile Organic Analytical Parameters							
Anthracene	mg/kg	0.25	0.4	12000		0.012	<0.035
Benzo(a)anthracene	mg/kg	1.1	1.8	0.9		0.066	<0.035
Benzo(a)pyrene	mg/kg	1.3	2.1	0.09		0.1	<0.035
Benzo(b)fluoranthene	mg/kg	1.5	2.1	0.9		0.16	<0.035
Benzo(g,h,i)perylene	mg/kg	0.68	1.7	2300		0.08	<0.035
Benzo(k)fluoranthene	mg/kg	0.99	1.7	9		0.07	<0.035
Chrysene	mg/kg	1.2	2.7	88		0.098	<0.035
Fluoranthene	mg/kg	2.7	4.1	3100		0.17	<0.035
Indeno(1,2,3-c,d)pyrene	mg/kg	0.86	1.6	0.9		0.071	<0.035
Phenanthrene	mg/kg	1.3	2.5	210		0.054	<0.035
Pyrene	mg/kg	1.9	3.0	2300		0.12	<0.035
bis(2-Ethylhexyl)phthalate	mg/kg	---	---	46		0.18	<0.18
Inorganic Analytical Parameters							
Arsenic	mg/kg	---	13	11.3		7.1	2.8
Barium	mg/kg	---	110	1500		53	3.9
Cadmium	mg/kg	---	0.6	5.2		0.17	0.17
Chromium, total	mg/kg	---	16.2	21		14	3.2
Lead	mg/kg	---	36	107		12	3.2
Mercury	mg/kg	---	0.06	0.1		0.023	0.0098
Selenium	mg/kg	---	0.48	1.3		<0.55	0.31
Silver	mg/kg	---	0.55	4.4		<0.28	<0.26
Antimony	mg/kg	---	4.0	5		0.4	<1.1
Beryllium	mg/kg	---	0.59	22		0.62	0.1
Calcium	mg/kg	---	9,300	---		77000	27000
Cobalt	mg/kg	---	8.9	20		7.4	1.7
Copper	mg/kg	---	19.6	2900		21	6.4
Cyanide	mg/kg	---	0.51	---		<0.57	<0.48
Iron	mg/kg	---	15,900	15000		23000	5700
Magnesium	mg/kg	---	4,820	325000		18000	9400
Manganese	mg/kg	---	636	630		210	92
Nickel	mg/kg	---	18	100		21	4.8
Potassium	mg/kg	---	1,268	---		1500	280
Sodium	mg/kg	---	130	---		480	91
Thallium	mg/kg	---	0.32	2.6		<0.55	<0.53
Vanadium	mg/kg	---	25.2	550		19	4.5
Zinc	mg/kg	---	95	5100		49	34
pH			6.25	9		8.6	8.5

Detected Constituents to MACs-PTB 174-009;Work Order:037A
Preliminary Site Investigation
FAP 351-US Rte 6 at S. Pulaski/Crawford + Kedzie (PESA #2696V-63)
Oak Forest/Markham, Cook County, IL
Terracon Project No. 11177029M
Page 2 of 2

Analyte	Units	Background		Maximum Allowed Concentration	Sample Identification	2696V-63-B01 (0-5)	2696V-63-B01 (5-9)
				CCDD	Sample Depth (feet)	(0-5)	(5-9)
		Chicago	MSAs	mg/kg pH 6.25-9.0	Date Collected	11/09/2017	11/09/2017
Inorganic Analytical Parameters (SPLP)							
Antimony,SPLP	mg/L	---	---	---		--	--
Arsenic,SPLP	mg/L	---	---	---		--	--
Barium,SPLP	mg/L	---	---	---		--	--
Beryllium,SPLP	mg/L	---	---	---		--	--
Cadmium,SPLP	mg/L	---	---	---		--	--
Calcium,SPLP	mg/L	---	---	---		--	--
Chromium,SPLP	mg/L	---	---	---		--	--
Cobalt,SPLP	mg/L	---	---	---		--	--
Copper,SPLP	mg/L	---	---	---		--	--
Iron,SPLP	mg/L	---	---	---		--	--
Lead,SPLP	mg/L	---	---	---		--	--
Magnesium,SPLP	mg/L	---	---	---		--	--
Manganese,SPLP	mg/L	---	---	---		--	0.041
Mercury,SPLP	mg/L	---	---	---		--	--
Nickel,SPLP	mg/L	---	---	---		--	--
Potassium,SPLP	mg/L	---	---	---		--	--
Selenium,SPLP	mg/L	---	---	---		--	--
Silver,SPLP	mg/L	---	---	---		--	--
Sodium,SPLP	mg/L	---	---	---		--	--
Thallium,SPLP	mg/L	---	---	---		--	--
Vanadium,SPLP	mg/L	---	---	---		--	--
Zinc,SPLP	mg/L	---	---	---		--	--
Cyanide,SPLP	mg/L	---	---	---		--	--
Inorganic Analytical Parameters (TCLP)							
Arsenic,TCLP	mg/L	---	---	---		<0.050	<0.050
Barium,TCLP	mg/L	---	---	---		0.43	0.17
Cadmium,TCLP	mg/L	---	---	---		<0.0050	0.0022
Chromium,TCLP	mg/L	---	---	---		<0.025	<0.025
Lead,TCLP	mg/L	---	---	---		<0.0075	<0.0075
Mercury,TCLP	mg/L	---	---	---		<0.00020	<0.00020
Selenium,TCLP	mg/L	---	---	---		<0.050	<0.050
Silver,TCLP	mg/L	---	---	---		<0.025	<0.025
Antimony,TCLP	mg/L	---	---	---		<0.0060	<0.0060
Beryllium,TCLP	mg/L	---	---	---		<0.0040	<0.0040
Calcium,TCLP	mg/L	---	---	---		790	540
Cobalt,TCLP	mg/L	---	---	---		<0.025	<0.025
Copper,TCLP	mg/L	---	---	---		0.022	0.015
Cyanide,TCLP	mg/L	---	---	---		----	----
Iron,TCLP	mg/L	---	---	---		<0.40	<0.40
Magnesium,TCLP	mg/L	---	---	---		19	18
Manganese,TCLP	mg/L	---	---	---		0.045	0.84
Nickel,TCLP	mg/L	---	---	---		<0.025	0.015
Potassium,TCLP	mg/L	---	---	---		1.4	1.4
Sodium,TCLP	mg/L	---	---	---		----	----
Thallium,TCLP	mg/L	---	---	---		<0.0020	<0.0020
Vanadium,TCLP	mg/L	---	---	---		<0.025	<0.025
Zinc,TCLP	mg/L	---	---	---		0.045	0.05

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: 500-137079-2

Client Project/Site: IDOT - Oak Forest/Markham - WO37

For:

Terracon Consulting Eng & Scientists
135 Ambassador Drive
Naperville, Illinois 60540

Attn: Mr. Matthew Weiss

Jodie Bracken

Authorized for release by:
11/22/2017 12:23:10 PM

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Designee for

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LINKS

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Have a Question?



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www.testamericainc.com

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

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

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

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Case Narrative

Client: Terracon Consulting Eng & Scientists
Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137079-2

Job ID: 500-137079-2

Laboratory: TestAmerica Chicago

Narrative

Job Narrative 500-137079-2

Receipt

The samples were received on 11/10/2017 8:00 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 6 coolers at receipt time were 1.9° C, 2.0° C, 2.9° C, 3.2° C, 3.7° C and 4.0° C.

GC/MS VOA

Method(s) 8260B: The following analytes recovered outside control limits for the LCS associated with batch 410201: Carbon Tetrachloride and Chloromethane. This is not indicative of a systematic control problem because these were random marginal exceedances. The laboratory control sample (LCS) had all compounds within control limits. Qualified results have been reported.

Method(s) 8260B: One internal standard response and one surrogate recovery were outside of acceptance limits for the following sample: 2696V-63-B01 (0-5) (500-137079-3). The sample was re-analyzed with similar results. The best analysis 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 matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 500-410346 and analytical batch 500-410465 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovered within acceptance limits.

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 target and non-target analytes: 2696V-63-B01 (0-5) (500-137079-3). 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.

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: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137079-2

Client Sample ID: 2696V-63-B01 (0-5)

Lab Sample ID: 500-137079-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Anthracene	0.012	J	0.039	0.0065	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.066		0.039	0.0053	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.10		0.039	0.0076	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.16		0.039	0.0084	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.080		0.039	0.013	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.070		0.039	0.012	mg/Kg	1	☼	8270D	Total/NA
Bis(2-ethylhexyl) phtalate	0.18	J	0.20	0.072	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.098		0.039	0.011	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.17		0.039	0.0073	mg/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.071		0.039	0.010	mg/Kg	1	☼	8270D	Total/NA
Phenanthrene	0.054		0.039	0.0055	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.12		0.039	0.0078	mg/Kg	1	☼	8270D	Total/NA
Antimony	0.40	J	1.1	0.22	mg/Kg	1	☼	6010B	Total/NA
Arsenic	7.1		0.55	0.19	mg/Kg	1	☼	6010B	Total/NA
Barium	53		0.55	0.063	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.62		0.22	0.052	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.17	B	0.11	0.020	mg/Kg	1	☼	6010B	Total/NA
Chromium	14		0.55	0.27	mg/Kg	1	☼	6010B	Total/NA
Cobalt	7.4		0.28	0.073	mg/Kg	1	☼	6010B	Total/NA
Copper	21		2.8	0.78	mg/Kg	5	☼	6010B	Total/NA
Iron	23000		12	6.1	mg/Kg	1	☼	6010B	Total/NA
Lead	12		0.28	0.13	mg/Kg	1	☼	6010B	Total/NA
Magnesium	18000		5.5	2.8	mg/Kg	1	☼	6010B	Total/NA
Calcium	77000	B	55	9.4	mg/Kg	5	☼	6010B	Total/NA
Manganese	210		0.55	0.080	mg/Kg	1	☼	6010B	Total/NA
Nickel	21		0.55	0.16	mg/Kg	1	☼	6010B	Total/NA
Vanadium	19		0.28	0.065	mg/Kg	1	☼	6010B	Total/NA
Zinc	49		1.1	0.49	mg/Kg	1	☼	6010B	Total/NA
Potassium	1500		28	9.8	mg/Kg	1	☼	6010B	Total/NA
Sodium	480		55	8.2	mg/Kg	1	☼	6010B	Total/NA
Barium	0.43	J	0.50	0.050	mg/L	1		6010B	TCLP
Calcium	790		50	5.0	mg/L	10		6010B	TCLP
Copper	0.022	J	0.025	0.010	mg/L	1		6010B	TCLP
Magnesium	19		2.5	0.50	mg/L	1		6010B	TCLP
Manganese	0.045		0.025	0.010	mg/L	1		6010B	TCLP
Potassium	1.4	J	2.5	0.50	mg/L	1		6010B	TCLP
Zinc	0.045	J	0.50	0.020	mg/L	1		6010B	TCLP
Mercury	0.023		0.018	0.0059	mg/Kg	1	☼	7471B	Total/NA
pH	8.6		0.20	0.20	SU	1		9045D	Total/NA

Client Sample ID: 2696V-63-B01 (5-9)

Lab Sample ID: 500-137079-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	2.8		0.53	0.18	mg/Kg	1	☼	6010B	Total/NA
Barium	3.9		0.53	0.060	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.10	J	0.21	0.049	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.17	B	0.11	0.019	mg/Kg	1	☼	6010B	Total/NA
Chromium	3.2		0.53	0.26	mg/Kg	1	☼	6010B	Total/NA
Cobalt	1.7		0.26	0.069	mg/Kg	1	☼	6010B	Total/NA
Copper	6.4		0.53	0.15	mg/Kg	1	☼	6010B	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137079-2

Client Sample ID: 2696V-63-B01 (5-9) (Continued)

Lab Sample ID: 500-137079-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Iron	5700		11	5.6	mg/Kg	1	☼	6010B	Total/NA
Lead	3.2		0.26	0.12	mg/Kg	1	☼	6010B	Total/NA
Magnesium	9400		5.3	2.6	mg/Kg	1	☼	6010B	Total/NA
Calcium	27000	B	11	1.8	mg/Kg	1	☼	6010B	Total/NA
Manganese	92		0.53	0.077	mg/Kg	1	☼	6010B	Total/NA
Nickel	4.8		0.53	0.15	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.31	J B	0.53	0.31	mg/Kg	1	☼	6010B	Total/NA
Vanadium	4.5		0.26	0.062	mg/Kg	1	☼	6010B	Total/NA
Zinc	34		1.1	0.46	mg/Kg	1	☼	6010B	Total/NA
Potassium	280		26	9.4	mg/Kg	1	☼	6010B	Total/NA
Sodium	91		53	7.8	mg/Kg	1	☼	6010B	Total/NA
Barium	0.17	J	0.50	0.050	mg/L	1		6010B	TCLP
Cadmium	0.0022	J	0.0050	0.0020	mg/L	1		6010B	TCLP
Calcium	540		5.0	0.50	mg/L	1		6010B	TCLP
Copper	0.015	J	0.025	0.010	mg/L	1		6010B	TCLP
Magnesium	18		2.5	0.50	mg/L	1		6010B	TCLP
Manganese	0.84		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.015	J	0.025	0.010	mg/L	1		6010B	TCLP
Potassium	1.4	J	2.5	0.50	mg/L	1		6010B	TCLP
Zinc	0.050	J	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.041		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.0098	J	0.017	0.0055	mg/Kg	1	☼	7471B	Total/NA
pH	8.5		0.20	0.20	SU	1		9045D	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Sample Summary

Client: Terracon Consulting Eng & Scientists
Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137079-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-137079-3	2696V-63-B01 (0-5)	Solid	11/09/17 13:45	11/10/17 08:00
500-137079-4	2696V-63-B01 (5-9)	Solid	11/09/17 13:50	11/10/17 08:00

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Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137079-2

Client Sample ID: 2696V-63-B01 (0-5)

Lab Sample ID: 500-137079-3

Date Collected: 11/09/17 13:45

Matrix: Solid

Date Received: 11/10/17 08:00

Percent Solids: 84.2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.018		0.018	0.0078	mg/Kg	☼	11/10/17 18:28	11/20/17 12:08	1
Benzene	<0.0018		0.0018	0.00046	mg/Kg	☼	11/10/17 18:28	11/20/17 12:08	1
Bromodichloromethane	<0.0018		0.0018	0.00037	mg/Kg	☼	11/10/17 18:28	11/20/17 12:08	1
Bromoform	<0.0018		0.0018	0.00052	mg/Kg	☼	11/10/17 18:28	11/20/17 12:08	1
Bromomethane	<0.0045		0.0045	0.0017	mg/Kg	☼	11/10/17 18:28	11/20/17 12:08	1
2-Butanone (MEK)	<0.0045		0.0045	0.0020	mg/Kg	☼	11/10/17 18:28	11/20/17 12:08	1
Carbon disulfide	<0.0045		0.0045	0.00093	mg/Kg	☼	11/10/17 18:28	11/20/17 12:08	1
Carbon tetrachloride	<0.0018		0.0018	0.00052	mg/Kg	☼	11/10/17 18:28	11/20/17 12:08	1
Chlorobenzene	<0.0018		0.0018	0.00066	mg/Kg	☼	11/10/17 18:28	11/20/17 12:08	1
Chloroethane	<0.0045		0.0045	0.0013	mg/Kg	☼	11/10/17 18:28	11/20/17 12:08	1
Chloroform	<0.0018		0.0018	0.00062	mg/Kg	☼	11/10/17 18:28	11/20/17 12:08	1
Chloromethane	<0.0045		0.0045	0.0018	mg/Kg	☼	11/10/17 18:28	11/20/17 12:08	1
cis-1,2-Dichloroethene	<0.0018		0.0018	0.00050	mg/Kg	☼	11/10/17 18:28	11/20/17 12:08	1
cis-1,3-Dichloropropene	<0.0018		0.0018	0.00054	mg/Kg	☼	11/10/17 18:28	11/20/17 12:08	1
Dibromochloromethane	<0.0018		0.0018	0.00059	mg/Kg	☼	11/10/17 18:28	11/20/17 12:08	1
1,1-Dichloroethane	<0.0018		0.0018	0.00062	mg/Kg	☼	11/10/17 18:28	11/20/17 12:08	1
1,2-Dichloroethane	<0.0045		0.0045	0.0014	mg/Kg	☼	11/10/17 18:28	11/20/17 12:08	1
1,1-Dichloroethene	<0.0018		0.0018	0.00062	mg/Kg	☼	11/10/17 18:28	11/20/17 12:08	1
1,2-Dichloropropane	<0.0018		0.0018	0.00046	mg/Kg	☼	11/10/17 18:28	11/20/17 12:08	1
1,3-Dichloropropane, Total	<0.0018		0.0018	0.00063	mg/Kg	☼	11/10/17 18:28	11/20/17 12:08	1
Ethylbenzene	<0.0018		0.0018	0.00086	mg/Kg	☼	11/10/17 18:28	11/20/17 12:08	1
2-Hexanone	<0.0045		0.0045	0.0014	mg/Kg	☼	11/10/17 18:28	11/20/17 12:08	1
Methylene Chloride	<0.0045		0.0045	0.0018	mg/Kg	☼	11/10/17 18:28	11/20/17 12:08	1
4-Methyl-2-pentanone (MIBK)	<0.0045		0.0045	0.0013	mg/Kg	☼	11/10/17 18:28	11/20/17 12:08	1
Methyl tert-butyl ether	<0.0018		0.0018	0.00053	mg/Kg	☼	11/10/17 18:28	11/20/17 12:08	1
Styrene	<0.0018		0.0018	0.00054	mg/Kg	☼	11/10/17 18:28	11/20/17 12:08	1
1,1,2,2-Tetrachloroethane	<0.0018 *		0.0018	0.00057	mg/Kg	☼	11/10/17 18:28	11/20/17 12:08	1
Tetrachloroethene	<0.0018		0.0018	0.00061	mg/Kg	☼	11/10/17 18:28	11/20/17 12:08	1
Toluene	<0.0018		0.0018	0.00045	mg/Kg	☼	11/10/17 18:28	11/20/17 12:08	1
trans-1,2-Dichloroethene	<0.0018		0.0018	0.00080	mg/Kg	☼	11/10/17 18:28	11/20/17 12:08	1
trans-1,3-Dichloropropene	<0.0018		0.0018	0.00063	mg/Kg	☼	11/10/17 18:28	11/20/17 12:08	1
1,1,1-Trichloroethane	<0.0018		0.0018	0.00060	mg/Kg	☼	11/10/17 18:28	11/20/17 12:08	1
1,1,2-Trichloroethane	<0.0018		0.0018	0.00077	mg/Kg	☼	11/10/17 18:28	11/20/17 12:08	1
Trichloroethene	<0.0018		0.0018	0.00061	mg/Kg	☼	11/10/17 18:28	11/20/17 12:08	1
Vinyl acetate	<0.0045		0.0045	0.0016	mg/Kg	☼	11/10/17 18:28	11/20/17 12:08	1
Vinyl chloride	<0.0018		0.0018	0.00080	mg/Kg	☼	11/10/17 18:28	11/20/17 12:08	1
Xylenes, Total	<0.0036		0.0036	0.00058	mg/Kg	☼	11/10/17 18:28	11/20/17 12:08	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	74	X	75 - 131	11/10/17 18:28	11/20/17 12:08	1
Dibromofluoromethane	102		75 - 126	11/10/17 18:28	11/20/17 12:08	1
1,2-Dichloroethane-d4 (Surr)	94		70 - 134	11/10/17 18:28	11/20/17 12:08	1
Toluene-d8 (Surr)	110		75 - 124	11/10/17 18:28	11/20/17 12:08	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.039		0.039	0.0070	mg/Kg	☼	11/16/17 16:12	11/17/17 15:22	1
Acenaphthylene	<0.039		0.039	0.0052	mg/Kg	☼	11/16/17 16:12	11/17/17 15:22	1
Anthracene	0.012	J	0.039	0.0065	mg/Kg	☼	11/16/17 16:12	11/17/17 15:22	1
Benzo[a]anthracene	0.066		0.039	0.0053	mg/Kg	☼	11/16/17 16:12	11/17/17 15:22	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137079-2

Client Sample ID: 2696V-63-B01 (0-5)

Lab Sample ID: 500-137079-3

Date Collected: 11/09/17 13:45

Matrix: Solid

Date Received: 11/10/17 08:00

Percent Solids: 84.2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	0.10		0.039	0.0076	mg/Kg	☼	11/16/17 16:12	11/17/17 15:22	1
Benzo[b]fluoranthene	0.16		0.039	0.0084	mg/Kg	☼	11/16/17 16:12	11/17/17 15:22	1
Benzo[g,h,i]perylene	0.080		0.039	0.013	mg/Kg	☼	11/16/17 16:12	11/17/17 15:22	1
Benzo[k]fluoranthene	0.070		0.039	0.012	mg/Kg	☼	11/16/17 16:12	11/17/17 15:22	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.040	mg/Kg	☼	11/16/17 16:12	11/17/17 15:22	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.059	mg/Kg	☼	11/16/17 16:12	11/17/17 15:22	1
Bis(2-ethylhexyl) phthalate	0.18	J	0.20	0.072	mg/Kg	☼	11/16/17 16:12	11/17/17 15:22	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.052	mg/Kg	☼	11/16/17 16:12	11/17/17 15:22	1
Butyl benzyl phthalate	<0.20		0.20	0.074	mg/Kg	☼	11/16/17 16:12	11/17/17 15:22	1
Carbazole	<0.20		0.20	0.098	mg/Kg	☼	11/16/17 16:12	11/17/17 15:22	1
4-Chloroaniline	<0.79		0.79	0.18	mg/Kg	☼	11/16/17 16:12	11/17/17 15:22	1
4-Chloro-3-methylphenol	<0.39		0.39	0.13	mg/Kg	☼	11/16/17 16:12	11/17/17 15:22	1
2-Chloronaphthalene	<0.20		0.20	0.043	mg/Kg	☼	11/16/17 16:12	11/17/17 15:22	1
2-Chlorophenol	<0.20		0.20	0.067	mg/Kg	☼	11/16/17 16:12	11/17/17 15:22	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.046	mg/Kg	☼	11/16/17 16:12	11/17/17 15:22	1
Chrysene	0.098		0.039	0.011	mg/Kg	☼	11/16/17 16:12	11/17/17 15:22	1
Dibenz(a,h)anthracene	<0.039		0.039	0.0076	mg/Kg	☼	11/16/17 16:12	11/17/17 15:22	1
Dibenzofuran	<0.20		0.20	0.046	mg/Kg	☼	11/16/17 16:12	11/17/17 15:22	1
1,2-Dichlorobenzene	<0.20		0.20	0.047	mg/Kg	☼	11/16/17 16:12	11/17/17 15:22	1
1,3-Dichlorobenzene	<0.20		0.20	0.044	mg/Kg	☼	11/16/17 16:12	11/17/17 15:22	1
1,4-Dichlorobenzene	<0.20		0.20	0.050	mg/Kg	☼	11/16/17 16:12	11/17/17 15:22	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.055	mg/Kg	☼	11/16/17 16:12	11/17/17 15:22	1
2,4-Dichlorophenol	<0.39		0.39	0.093	mg/Kg	☼	11/16/17 16:12	11/17/17 15:22	1
Diethyl phthalate	<0.20		0.20	0.066	mg/Kg	☼	11/16/17 16:12	11/17/17 15:22	1
2,4-Dimethylphenol	<0.39		0.39	0.15	mg/Kg	☼	11/16/17 16:12	11/17/17 15:22	1
Dimethyl phthalate	<0.20		0.20	0.051	mg/Kg	☼	11/16/17 16:12	11/17/17 15:22	1
Di-n-butyl phthalate	<0.20		0.20	0.060	mg/Kg	☼	11/16/17 16:12	11/17/17 15:22	1
4,6-Dinitro-2-methylphenol	<0.79		0.79	0.31	mg/Kg	☼	11/16/17 16:12	11/17/17 15:22	1
2,4-Dinitrophenol	<0.79		0.79	0.69	mg/Kg	☼	11/16/17 16:12	11/17/17 15:22	1
2,4-Dinitrotoluene	<0.20		0.20	0.062	mg/Kg	☼	11/16/17 16:12	11/17/17 15:22	1
2,6-Dinitrotoluene	<0.20		0.20	0.077	mg/Kg	☼	11/16/17 16:12	11/17/17 15:22	1
Di-n-octyl phthalate	<0.20		0.20	0.064	mg/Kg	☼	11/16/17 16:12	11/17/17 15:22	1
Fluoranthene	0.17		0.039	0.0073	mg/Kg	☼	11/16/17 16:12	11/17/17 15:22	1
Fluorene	<0.039		0.039	0.0055	mg/Kg	☼	11/16/17 16:12	11/17/17 15:22	1
Hexachlorobenzene	<0.079		0.079	0.0091	mg/Kg	☼	11/16/17 16:12	11/17/17 15:22	1
Hexachlorobutadiene	<0.20		0.20	0.061	mg/Kg	☼	11/16/17 16:12	11/17/17 15:22	1
Hexachlorocyclopentadiene	<0.79		0.79	0.22	mg/Kg	☼	11/16/17 16:12	11/17/17 15:22	1
Hexachloroethane	<0.20		0.20	0.059	mg/Kg	☼	11/16/17 16:12	11/17/17 15:22	1
Indeno[1,2,3-cd]pyrene	0.071		0.039	0.010	mg/Kg	☼	11/16/17 16:12	11/17/17 15:22	1
Isophorone	<0.20		0.20	0.044	mg/Kg	☼	11/16/17 16:12	11/17/17 15:22	1
2-Methylnaphthalene	<0.079		0.079	0.0072	mg/Kg	☼	11/16/17 16:12	11/17/17 15:22	1
2-Methylphenol	<0.20		0.20	0.063	mg/Kg	☼	11/16/17 16:12	11/17/17 15:22	1
3 & 4 Methylphenol	<0.20		0.20	0.065	mg/Kg	☼	11/16/17 16:12	11/17/17 15:22	1
Naphthalene	<0.039		0.039	0.0060	mg/Kg	☼	11/16/17 16:12	11/17/17 15:22	1
2-Nitroaniline	<0.20		0.20	0.053	mg/Kg	☼	11/16/17 16:12	11/17/17 15:22	1
3-Nitroaniline	<0.39		0.39	0.12	mg/Kg	☼	11/16/17 16:12	11/17/17 15:22	1
4-Nitroaniline	<0.39		0.39	0.16	mg/Kg	☼	11/16/17 16:12	11/17/17 15:22	1
Nitrobenzene	<0.039		0.039	0.0098	mg/Kg	☼	11/16/17 16:12	11/17/17 15:22	1
2-Nitrophenol	<0.39		0.39	0.092	mg/Kg	☼	11/16/17 16:12	11/17/17 15:22	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137079-2

Client Sample ID: 2696V-63-B01 (0-5)

Lab Sample ID: 500-137079-3

Date Collected: 11/09/17 13:45

Matrix: Solid

Date Received: 11/10/17 08:00

Percent Solids: 84.2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Nitrophenol	<0.79		0.79	0.37	mg/Kg	☼	11/16/17 16:12	11/17/17 15:22	1
N-Nitrosodi-n-propylamine	<0.079		0.079	0.048	mg/Kg	☼	11/16/17 16:12	11/17/17 15:22	1
N-Nitrosodiphenylamine	<0.20		0.20	0.046	mg/Kg	☼	11/16/17 16:12	11/17/17 15:22	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.045	mg/Kg	☼	11/16/17 16:12	11/17/17 15:22	1
Pentachlorophenol	<0.79		0.79	0.63	mg/Kg	☼	11/16/17 16:12	11/17/17 15:22	1
Phenanthrene	0.054		0.039	0.0055	mg/Kg	☼	11/16/17 16:12	11/17/17 15:22	1
Phenol	<0.20		0.20	0.087	mg/Kg	☼	11/16/17 16:12	11/17/17 15:22	1
Pyrene	0.12		0.039	0.0078	mg/Kg	☼	11/16/17 16:12	11/17/17 15:22	1
1,2,4-Trichlorobenzene	<0.20		0.20	0.042	mg/Kg	☼	11/16/17 16:12	11/17/17 15:22	1
2,4,5-Trichlorophenol	<0.39		0.39	0.089	mg/Kg	☼	11/16/17 16:12	11/17/17 15:22	1
2,4,6-Trichlorophenol	<0.39		0.39	0.13	mg/Kg	☼	11/16/17 16:12	11/17/17 15:22	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	84		44 - 121	11/16/17 16:12	11/17/17 15:22	1
2-Fluorophenol	89		46 - 133	11/16/17 16:12	11/17/17 15:22	1
Nitrobenzene-d5	78		41 - 120	11/16/17 16:12	11/17/17 15:22	1
Phenol-d5	85		46 - 125	11/16/17 16:12	11/17/17 15:22	1
Terphenyl-d14	77		35 - 160	11/16/17 16:12	11/17/17 15:22	1
2,4,6-Tribromophenol	65		25 - 139	11/16/17 16:12	11/17/17 15:22	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.40	J	1.1	0.22	mg/Kg	☼	11/11/17 13:30	11/14/17 02:44	1
Arsenic	7.1		0.55	0.19	mg/Kg	☼	11/11/17 13:30	11/14/17 02:44	1
Barium	53		0.55	0.063	mg/Kg	☼	11/11/17 13:30	11/14/17 02:44	1
Beryllium	0.62		0.22	0.052	mg/Kg	☼	11/11/17 13:30	11/14/17 02:44	1
Cadmium	0.17	B	0.11	0.020	mg/Kg	☼	11/11/17 13:30	11/14/17 02:44	1
Chromium	14		0.55	0.27	mg/Kg	☼	11/11/17 13:30	11/14/17 02:44	1
Cobalt	7.4		0.28	0.073	mg/Kg	☼	11/11/17 13:30	11/14/17 02:44	1
Copper	21		2.8	0.78	mg/Kg	☼	11/11/17 13:30	11/14/17 23:21	5
Iron	23000		12	6.1	mg/Kg	☼	11/15/17 16:01	11/16/17 14:25	1
Lead	12		0.28	0.13	mg/Kg	☼	11/11/17 13:30	11/14/17 02:44	1
Magnesium	18000		5.5	2.8	mg/Kg	☼	11/11/17 13:30	11/14/17 02:44	1
Calcium	77000	B	55	9.4	mg/Kg	☼	11/11/17 13:30	11/14/17 23:21	5
Manganese	210		0.55	0.080	mg/Kg	☼	11/11/17 13:30	11/14/17 02:44	1
Nickel	21		0.55	0.16	mg/Kg	☼	11/11/17 13:30	11/14/17 02:44	1
Selenium	<0.55		0.55	0.33	mg/Kg	☼	11/11/17 13:30	11/14/17 02:44	1
Silver	<0.28		0.28	0.072	mg/Kg	☼	11/11/17 13:30	11/14/17 02:44	1
Thallium	<0.55		0.55	0.28	mg/Kg	☼	11/11/17 13:30	11/14/17 02:44	1
Vanadium	19		0.28	0.065	mg/Kg	☼	11/11/17 13:30	11/14/17 02:44	1
Zinc	49		1.1	0.49	mg/Kg	☼	11/11/17 13:30	11/14/17 02:44	1
Potassium	1500		28	9.8	mg/Kg	☼	11/11/17 13:30	11/14/17 02:44	1
Sodium	480		55	8.2	mg/Kg	☼	11/11/17 13:30	11/14/17 02:44	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.050		0.050	0.010	mg/L		11/17/17 06:52	11/17/17 17:04	1
Barium	0.43	J	0.50	0.050	mg/L		11/17/17 06:52	11/17/17 17:04	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		11/17/17 06:52	11/17/17 17:04	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		11/17/17 06:52	11/17/17 17:04	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137079-2

Client Sample ID: 2696V-63-B01 (0-5)

Lab Sample ID: 500-137079-3

Date Collected: 11/09/17 13:45

Matrix: Solid

Date Received: 11/10/17 08:00

Percent Solids: 84.2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	790		50	5.0	mg/L		11/17/17 06:52	11/19/17 00:13	10
Chromium	<0.025		0.025	0.010	mg/L		11/17/17 06:52	11/17/17 17:04	1
Cobalt	<0.025		0.025	0.010	mg/L		11/17/17 06:52	11/17/17 17:04	1
Copper	0.022	J	0.025	0.010	mg/L		11/17/17 06:52	11/17/17 17:04	1
Iron	<0.40		0.40	0.20	mg/L		11/17/17 06:52	11/17/17 17:04	1
Lead	<0.0075		0.0075	0.0075	mg/L		11/17/17 06:52	11/17/17 17:04	1
Magnesium	19		2.5	0.50	mg/L		11/17/17 06:52	11/17/17 17:04	1
Manganese	0.045		0.025	0.010	mg/L		11/17/17 06:52	11/17/17 17:04	1
Nickel	<0.025		0.025	0.010	mg/L		11/17/17 06:52	11/17/17 17:04	1
Potassium	1.4	J	2.5	0.50	mg/L		11/17/17 06:52	11/17/17 17:04	1
Selenium	<0.050		0.050	0.020	mg/L		11/17/17 06:52	11/17/17 17:04	1
Silver	<0.025		0.025	0.010	mg/L		11/17/17 06:52	11/17/17 17:04	1
Vanadium	<0.025		0.025	0.010	mg/L		11/17/17 06:52	11/17/17 17:04	1
Zinc	0.045	J	0.50	0.020	mg/L		11/17/17 06:52	11/17/17 17:04	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		11/17/17 06:52	11/18/17 02:13	1
Thallium	<0.0020		0.0020	0.0020	mg/L		11/17/17 06:52	11/18/17 02:13	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		11/17/17 08:10	11/18/17 12:05	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.023		0.018	0.0059	mg/Kg	☼	11/17/17 10:45	11/17/17 13:47	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.57		0.57	0.20	mg/Kg	☼	11/19/17 13:10	11/19/17 16:08	1
pH	8.6		0.20	0.20	SU			11/18/17 12:20	1

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137079-2

Client Sample ID: 2696V-63-B01 (5-9)

Lab Sample ID: 500-137079-4

Date Collected: 11/09/17 13:50

Matrix: Solid

Date Received: 11/10/17 08:00

Percent Solids: 90.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.017		0.017	0.0076	mg/Kg	☼	11/10/17 18:28	11/16/17 16:23	1
Benzene	<0.0017		0.0017	0.00044	mg/Kg	☼	11/10/17 18:28	11/16/17 16:23	1
Bromodichloromethane	<0.0017		0.0017	0.00035	mg/Kg	☼	11/10/17 18:28	11/16/17 16:23	1
Bromoform	<0.0017		0.0017	0.00051	mg/Kg	☼	11/10/17 18:28	11/16/17 16:23	1
Bromomethane	<0.0044		0.0044	0.0016	mg/Kg	☼	11/10/17 18:28	11/16/17 16:23	1
2-Butanone (MEK)	<0.0044		0.0044	0.0019	mg/Kg	☼	11/10/17 18:28	11/16/17 16:23	1
Carbon disulfide	<0.0044		0.0044	0.00091	mg/Kg	☼	11/10/17 18:28	11/16/17 16:23	1
Carbon tetrachloride	<0.0017 *		0.0017	0.00050	mg/Kg	☼	11/10/17 18:28	11/16/17 16:23	1
Chlorobenzene	<0.0017		0.0017	0.00064	mg/Kg	☼	11/10/17 18:28	11/16/17 16:23	1
Chloroethane	<0.0044		0.0044	0.0013	mg/Kg	☼	11/10/17 18:28	11/16/17 16:23	1
Chloroform	<0.0017		0.0017	0.00060	mg/Kg	☼	11/10/17 18:28	11/16/17 16:23	1
Chloromethane	<0.0044 *		0.0044	0.0017	mg/Kg	☼	11/10/17 18:28	11/16/17 16:23	1
cis-1,2-Dichloroethene	<0.0017		0.0017	0.00049	mg/Kg	☼	11/10/17 18:28	11/16/17 16:23	1
cis-1,3-Dichloropropene	<0.0017		0.0017	0.00052	mg/Kg	☼	11/10/17 18:28	11/16/17 16:23	1
Dibromochloromethane	<0.0017		0.0017	0.00057	mg/Kg	☼	11/10/17 18:28	11/16/17 16:23	1
1,1-Dichloroethane	<0.0017		0.0017	0.00060	mg/Kg	☼	11/10/17 18:28	11/16/17 16:23	1
1,2-Dichloroethane	<0.0044		0.0044	0.0014	mg/Kg	☼	11/10/17 18:28	11/16/17 16:23	1
1,1-Dichloroethene	<0.0017		0.0017	0.00060	mg/Kg	☼	11/10/17 18:28	11/16/17 16:23	1
1,2-Dichloropropane	<0.0017		0.0017	0.00045	mg/Kg	☼	11/10/17 18:28	11/16/17 16:23	1
1,3-Dichloropropane, Total	<0.0017		0.0017	0.00061	mg/Kg	☼	11/10/17 18:28	11/16/17 16:23	1
Ethylbenzene	<0.0017		0.0017	0.00083	mg/Kg	☼	11/10/17 18:28	11/16/17 16:23	1
2-Hexanone	<0.0044		0.0044	0.0014	mg/Kg	☼	11/10/17 18:28	11/16/17 16:23	1
Methylene Chloride	<0.0044		0.0044	0.0017	mg/Kg	☼	11/10/17 18:28	11/16/17 16:23	1
4-Methyl-2-pentanone (MIBK)	<0.0044		0.0044	0.0013	mg/Kg	☼	11/10/17 18:28	11/16/17 16:23	1
Methyl tert-butyl ether	<0.0017		0.0017	0.00051	mg/Kg	☼	11/10/17 18:28	11/16/17 16:23	1
Styrene	<0.0017		0.0017	0.00053	mg/Kg	☼	11/10/17 18:28	11/16/17 16:23	1
1,1,1,2-Tetrachloroethane	<0.0017		0.0017	0.00056	mg/Kg	☼	11/10/17 18:28	11/16/17 16:23	1
Tetrachloroethene	<0.0017		0.0017	0.00059	mg/Kg	☼	11/10/17 18:28	11/16/17 16:23	1
Toluene	<0.0017		0.0017	0.00044	mg/Kg	☼	11/10/17 18:28	11/16/17 16:23	1
trans-1,2-Dichloroethene	<0.0017		0.0017	0.00077	mg/Kg	☼	11/10/17 18:28	11/16/17 16:23	1
trans-1,3-Dichloropropene	<0.0017		0.0017	0.00061	mg/Kg	☼	11/10/17 18:28	11/16/17 16:23	1
1,1,1-Trichloroethane	<0.0017		0.0017	0.00058	mg/Kg	☼	11/10/17 18:28	11/16/17 16:23	1
1,1,2-Trichloroethane	<0.0017		0.0017	0.00075	mg/Kg	☼	11/10/17 18:28	11/16/17 16:23	1
Trichloroethene	<0.0017		0.0017	0.00059	mg/Kg	☼	11/10/17 18:28	11/16/17 16:23	1
Vinyl acetate	<0.0044		0.0044	0.0015	mg/Kg	☼	11/10/17 18:28	11/16/17 16:23	1
Vinyl chloride	<0.0017		0.0017	0.00077	mg/Kg	☼	11/10/17 18:28	11/16/17 16:23	1
Xylenes, Total	<0.0035		0.0035	0.00056	mg/Kg	☼	11/10/17 18:28	11/16/17 16:23	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	93		75 - 131	11/10/17 18:28	11/16/17 16:23	1
Dibromofluoromethane	110		75 - 126	11/10/17 18:28	11/16/17 16:23	1
1,2-Dichloroethane-d4 (Surr)	125		70 - 134	11/10/17 18:28	11/16/17 16:23	1
Toluene-d8 (Surr)	97		75 - 124	11/10/17 18:28	11/16/17 16:23	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.035		0.035	0.0064	mg/Kg	☼	11/16/17 16:12	11/17/17 15:49	1
Acenaphthylene	<0.035		0.035	0.0047	mg/Kg	☼	11/16/17 16:12	11/17/17 15:49	1
Anthracene	<0.035		0.035	0.0059	mg/Kg	☼	11/16/17 16:12	11/17/17 15:49	1
Benzo[a]anthracene	<0.035		0.035	0.0048	mg/Kg	☼	11/16/17 16:12	11/17/17 15:49	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137079-2

Client Sample ID: 2696V-63-B01 (5-9)

Lab Sample ID: 500-137079-4

Date Collected: 11/09/17 13:50

Matrix: Solid

Date Received: 11/10/17 08:00

Percent Solids: 90.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	<0.035		0.035	0.0069	mg/Kg	☼	11/16/17 16:12	11/17/17 15:49	1
Benzo[b]fluoranthene	<0.035		0.035	0.0077	mg/Kg	☼	11/16/17 16:12	11/17/17 15:49	1
Benzo[g,h,i]perylene	<0.035		0.035	0.011	mg/Kg	☼	11/16/17 16:12	11/17/17 15:49	1
Benzo[k]fluoranthene	<0.035		0.035	0.010	mg/Kg	☼	11/16/17 16:12	11/17/17 15:49	1
Bis(2-chloroethoxy)methane	<0.18		0.18	0.036	mg/Kg	☼	11/16/17 16:12	11/17/17 15:49	1
Bis(2-chloroethyl)ether	<0.18		0.18	0.053	mg/Kg	☼	11/16/17 16:12	11/17/17 15:49	1
Bis(2-ethylhexyl) phthalate	<0.18		0.18	0.065	mg/Kg	☼	11/16/17 16:12	11/17/17 15:49	1
4-Bromophenyl phenyl ether	<0.18		0.18	0.047	mg/Kg	☼	11/16/17 16:12	11/17/17 15:49	1
Butyl benzyl phthalate	<0.18		0.18	0.068	mg/Kg	☼	11/16/17 16:12	11/17/17 15:49	1
Carbazole	<0.18		0.18	0.089	mg/Kg	☼	11/16/17 16:12	11/17/17 15:49	1
4-Chloroaniline	<0.72		0.72	0.17	mg/Kg	☼	11/16/17 16:12	11/17/17 15:49	1
4-Chloro-3-methylphenol	<0.35		0.35	0.12	mg/Kg	☼	11/16/17 16:12	11/17/17 15:49	1
2-Chloronaphthalene	<0.18		0.18	0.039	mg/Kg	☼	11/16/17 16:12	11/17/17 15:49	1
2-Chlorophenol	<0.18		0.18	0.061	mg/Kg	☼	11/16/17 16:12	11/17/17 15:49	1
4-Chlorophenyl phenyl ether	<0.18		0.18	0.042	mg/Kg	☼	11/16/17 16:12	11/17/17 15:49	1
Chrysene	<0.035		0.035	0.0097	mg/Kg	☼	11/16/17 16:12	11/17/17 15:49	1
Dibenz(a,h)anthracene	<0.035		0.035	0.0069	mg/Kg	☼	11/16/17 16:12	11/17/17 15:49	1
Dibenzofuran	<0.18		0.18	0.042	mg/Kg	☼	11/16/17 16:12	11/17/17 15:49	1
1,2-Dichlorobenzene	<0.18	F1	0.18	0.042	mg/Kg	☼	11/16/17 16:12	11/17/17 15:49	1
1,3-Dichlorobenzene	<0.18	F1	0.18	0.040	mg/Kg	☼	11/16/17 16:12	11/17/17 15:49	1
1,4-Dichlorobenzene	<0.18	F1	0.18	0.046	mg/Kg	☼	11/16/17 16:12	11/17/17 15:49	1
3,3'-Dichlorobenzidine	<0.18		0.18	0.050	mg/Kg	☼	11/16/17 16:12	11/17/17 15:49	1
2,4-Dichlorophenol	<0.35		0.35	0.084	mg/Kg	☼	11/16/17 16:12	11/17/17 15:49	1
Diethyl phthalate	<0.18		0.18	0.060	mg/Kg	☼	11/16/17 16:12	11/17/17 15:49	1
2,4-Dimethylphenol	<0.35		0.35	0.13	mg/Kg	☼	11/16/17 16:12	11/17/17 15:49	1
Dimethyl phthalate	<0.18		0.18	0.046	mg/Kg	☼	11/16/17 16:12	11/17/17 15:49	1
Di-n-butyl phthalate	<0.18		0.18	0.054	mg/Kg	☼	11/16/17 16:12	11/17/17 15:49	1
4,6-Dinitro-2-methylphenol	<0.72		0.72	0.29	mg/Kg	☼	11/16/17 16:12	11/17/17 15:49	1
2,4-Dinitrophenol	<0.72	F2	0.72	0.63	mg/Kg	☼	11/16/17 16:12	11/17/17 15:49	1
2,4-Dinitrotoluene	<0.18		0.18	0.056	mg/Kg	☼	11/16/17 16:12	11/17/17 15:49	1
2,6-Dinitrotoluene	<0.18		0.18	0.070	mg/Kg	☼	11/16/17 16:12	11/17/17 15:49	1
Di-n-octyl phthalate	<0.18		0.18	0.058	mg/Kg	☼	11/16/17 16:12	11/17/17 15:49	1
Fluoranthene	<0.035		0.035	0.0066	mg/Kg	☼	11/16/17 16:12	11/17/17 15:49	1
Fluorene	<0.035		0.035	0.0050	mg/Kg	☼	11/16/17 16:12	11/17/17 15:49	1
Hexachlorobenzene	<0.072		0.072	0.0082	mg/Kg	☼	11/16/17 16:12	11/17/17 15:49	1
Hexachlorobutadiene	<0.18		0.18	0.056	mg/Kg	☼	11/16/17 16:12	11/17/17 15:49	1
Hexachlorocyclopentadiene	<0.72	F1	0.72	0.20	mg/Kg	☼	11/16/17 16:12	11/17/17 15:49	1
Hexachloroethane	<0.18	F1	0.18	0.054	mg/Kg	☼	11/16/17 16:12	11/17/17 15:49	1
Indeno[1,2,3-cd]pyrene	<0.035		0.035	0.0092	mg/Kg	☼	11/16/17 16:12	11/17/17 15:49	1
Isophorone	<0.18		0.18	0.040	mg/Kg	☼	11/16/17 16:12	11/17/17 15:49	1
2-Methylnaphthalene	<0.072		0.072	0.0065	mg/Kg	☼	11/16/17 16:12	11/17/17 15:49	1
2-Methylphenol	<0.18		0.18	0.057	mg/Kg	☼	11/16/17 16:12	11/17/17 15:49	1
3 & 4 Methylphenol	<0.18		0.18	0.059	mg/Kg	☼	11/16/17 16:12	11/17/17 15:49	1
Naphthalene	<0.035		0.035	0.0055	mg/Kg	☼	11/16/17 16:12	11/17/17 15:49	1
2-Nitroaniline	<0.18		0.18	0.048	mg/Kg	☼	11/16/17 16:12	11/17/17 15:49	1
3-Nitroaniline	<0.35		0.35	0.11	mg/Kg	☼	11/16/17 16:12	11/17/17 15:49	1
4-Nitroaniline	<0.35		0.35	0.15	mg/Kg	☼	11/16/17 16:12	11/17/17 15:49	1
Nitrobenzene	<0.035		0.035	0.0089	mg/Kg	☼	11/16/17 16:12	11/17/17 15:49	1
2-Nitrophenol	<0.35		0.35	0.084	mg/Kg	☼	11/16/17 16:12	11/17/17 15:49	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137079-2

Client Sample ID: 2696V-63-B01 (5-9)

Lab Sample ID: 500-137079-4

Date Collected: 11/09/17 13:50

Matrix: Solid

Date Received: 11/10/17 08:00

Percent Solids: 90.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Nitrophenol	<0.72		0.72	0.34	mg/Kg	☼	11/16/17 16:12	11/17/17 15:49	1
N-Nitrosodi-n-propylamine	<0.072		0.072	0.043	mg/Kg	☼	11/16/17 16:12	11/17/17 15:49	1
N-Nitrosodiphenylamine	<0.18		0.18	0.042	mg/Kg	☼	11/16/17 16:12	11/17/17 15:49	1
2,2'-oxybis[1-chloropropane]	<0.18		0.18	0.041	mg/Kg	☼	11/16/17 16:12	11/17/17 15:49	1
Pentachlorophenol	<0.72		0.72	0.57	mg/Kg	☼	11/16/17 16:12	11/17/17 15:49	1
Phenanthrene	<0.035		0.035	0.0050	mg/Kg	☼	11/16/17 16:12	11/17/17 15:49	1
Phenol	<0.18		0.18	0.079	mg/Kg	☼	11/16/17 16:12	11/17/17 15:49	1
Pyrene	<0.035		0.035	0.0071	mg/Kg	☼	11/16/17 16:12	11/17/17 15:49	1
1,2,4-Trichlorobenzene	<0.18		0.18	0.038	mg/Kg	☼	11/16/17 16:12	11/17/17 15:49	1
2,4,5-Trichlorophenol	<0.35		0.35	0.081	mg/Kg	☼	11/16/17 16:12	11/17/17 15:49	1
2,4,6-Trichlorophenol	<0.35		0.35	0.12	mg/Kg	☼	11/16/17 16:12	11/17/17 15:49	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	85		44 - 121	11/16/17 16:12	11/17/17 15:49	1
2-Fluorophenol	87		46 - 133	11/16/17 16:12	11/17/17 15:49	1
Nitrobenzene-d5	78		41 - 120	11/16/17 16:12	11/17/17 15:49	1
Phenol-d5	86		46 - 125	11/16/17 16:12	11/17/17 15:49	1
Terphenyl-d14	78		35 - 160	11/16/17 16:12	11/17/17 15:49	1
2,4,6-Tribromophenol	63		25 - 139	11/16/17 16:12	11/17/17 15:49	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.1		1.1	0.21	mg/Kg	☼	11/11/17 13:30	11/14/17 02:48	1
Arsenic	2.8		0.53	0.18	mg/Kg	☼	11/11/17 13:30	11/14/17 02:48	1
Barium	3.9		0.53	0.060	mg/Kg	☼	11/11/17 13:30	11/14/17 02:48	1
Beryllium	0.10	J	0.21	0.049	mg/Kg	☼	11/11/17 13:30	11/14/17 02:48	1
Cadmium	0.17	B	0.11	0.019	mg/Kg	☼	11/11/17 13:30	11/14/17 02:48	1
Chromium	3.2		0.53	0.26	mg/Kg	☼	11/11/17 13:30	11/14/17 02:48	1
Cobalt	1.7		0.26	0.069	mg/Kg	☼	11/11/17 13:30	11/14/17 02:48	1
Copper	6.4		0.53	0.15	mg/Kg	☼	11/11/17 13:30	11/14/17 23:25	1
Iron	5700		11	5.6	mg/Kg	☼	11/15/17 16:01	11/16/17 14:29	1
Lead	3.2		0.26	0.12	mg/Kg	☼	11/11/17 13:30	11/14/17 02:48	1
Magnesium	9400		5.3	2.6	mg/Kg	☼	11/11/17 13:30	11/14/17 02:48	1
Calcium	27000	B	11	1.8	mg/Kg	☼	11/11/17 13:30	11/14/17 02:48	1
Manganese	92		0.53	0.077	mg/Kg	☼	11/11/17 13:30	11/14/17 02:48	1
Nickel	4.8		0.53	0.15	mg/Kg	☼	11/11/17 13:30	11/14/17 02:48	1
Selenium	0.31	J B	0.53	0.31	mg/Kg	☼	11/11/17 13:30	11/14/17 02:48	1
Silver	<0.26		0.26	0.068	mg/Kg	☼	11/11/17 13:30	11/14/17 02:48	1
Thallium	<0.53		0.53	0.26	mg/Kg	☼	11/11/17 13:30	11/14/17 02:48	1
Vanadium	4.5		0.26	0.062	mg/Kg	☼	11/11/17 13:30	11/14/17 02:48	1
Zinc	34		1.1	0.46	mg/Kg	☼	11/11/17 13:30	11/14/17 02:48	1
Potassium	280		26	9.4	mg/Kg	☼	11/11/17 13:30	11/14/17 02:48	1
Sodium	91		53	7.8	mg/Kg	☼	11/11/17 13:30	11/14/17 02:48	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.050		0.050	0.010	mg/L		11/17/17 06:52	11/17/17 17:08	1
Barium	0.17	J	0.50	0.050	mg/L		11/17/17 06:52	11/17/17 17:08	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		11/17/17 06:52	11/17/17 17:08	1
Cadmium	0.0022	J	0.0050	0.0020	mg/L		11/17/17 06:52	11/17/17 17:08	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137079-2

Client Sample ID: 2696V-63-B01 (5-9)

Lab Sample ID: 500-137079-4

Date Collected: 11/09/17 13:50

Matrix: Solid

Date Received: 11/10/17 08:00

Percent Solids: 90.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	540		5.0	0.50	mg/L		11/17/17 06:52	11/17/17 17:08	1
Chromium	<0.025		0.025	0.010	mg/L		11/17/17 06:52	11/17/17 17:08	1
Cobalt	<0.025		0.025	0.010	mg/L		11/17/17 06:52	11/17/17 17:08	1
Copper	0.015	J	0.025	0.010	mg/L		11/17/17 06:52	11/17/17 17:08	1
Iron	<0.40		0.40	0.20	mg/L		11/17/17 06:52	11/17/17 17:08	1
Lead	<0.0075		0.0075	0.0075	mg/L		11/17/17 06:52	11/17/17 17:08	1
Magnesium	18		2.5	0.50	mg/L		11/17/17 06:52	11/17/17 17:08	1
Manganese	0.84		0.025	0.010	mg/L		11/17/17 06:52	11/17/17 17:08	1
Nickel	0.015	J	0.025	0.010	mg/L		11/17/17 06:52	11/17/17 17:08	1
Potassium	1.4	J	2.5	0.50	mg/L		11/17/17 06:52	11/17/17 17:08	1
Selenium	<0.050		0.050	0.020	mg/L		11/17/17 06:52	11/17/17 17:08	1
Silver	<0.025		0.025	0.010	mg/L		11/17/17 06:52	11/17/17 17:08	1
Vanadium	<0.025		0.025	0.010	mg/L		11/17/17 06:52	11/17/17 17:08	1
Zinc	0.050	J	0.50	0.020	mg/L		11/17/17 06:52	11/17/17 17:08	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.041		0.025	0.010	mg/L		11/16/17 14:16	11/17/17 23:26	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		11/17/17 06:52	11/18/17 02:17	1
Thallium	<0.0020		0.0020	0.0020	mg/L		11/17/17 06:52	11/18/17 02:17	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		11/17/17 08:10	11/18/17 12:06	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0098	J	0.017	0.0055	mg/Kg	☼	11/17/17 10:45	11/17/17 13:54	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.48		0.48	0.17	mg/Kg	☼	11/19/17 13:10	11/19/17 16:08	1
pH	8.5		0.20	0.20	SU			11/18/17 12:22	1

Definitions/Glossary

Client: Terracon Consulting Eng & Scientists
Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137079-2

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	ISTD response or retention time outside acceptable limits
X	Surrogate is outside control limits
*	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.
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.
B	Compound was found in the blank and sample.

Glossary

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

Accreditation/Certification Summary

Client: Terracon Consulting Eng & Scientists
Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137079-2

Laboratory: TestAmerica Chicago

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

Authority	Program	EPA Region	Identification Number	Expiration Date
Illinois	NELAP	5	100201	04-30-18

The following analytes are included in this report, but accreditation/certification is not offered by the governing authority:

Analysis Method	Prep Method	Matrix	Analyte
6020A	3010A	Solid	Antimony
6020A	3010A	Solid	Thallium
8260B	5035	Solid	1,3-Dichloropropene, Total
9045D		Solid	pH
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

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

Report To (optional)
 Contact: MATT WEISS
 Company: TERRACON
 Address: NAPERVILLE
 Phone: _____
 Fax: _____
 E-Mail: _____

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

Chain of Custody Record

Lab Job #: 500-137079
 Chain of Custody Number: _____
 Page _____ of _____
 Temperature °C of Cooler: _____

Client: <u>TERRACON</u>		Client Project #: <u>11172029M</u>		Preservative		Parameter												Preservative Key		
Project Name: <u>WORK ORDER #52</u>				Lab Project #		Matrix												1. HCL, Cool to 4°		
Project Location/State: <u>MARKHAM IL</u>				Lab PM														2. H2SO4, Cool to 4°		
Sampler: <u>KYAN J PETERSON</u>																		3. HNO3, Cool to 4°		
Lab ID	MS/MSD	Sample ID	Sampling		# of Containers	Matrix	VOCs	SVOCs	TOTAL TAL23 Inorg.	PH	TELP TAL23 Inorg.	SPLP TAL23 Inorg.							Comments	
			Date	Time																
3		2686V-63-B01(5-9)	11/9	1345	5	5	X	X	X	X	X	X								
4		2688V-63-B01(5-9)	11/9	1350	5	5	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>TERRACON</u> Date: <u>11/9/17</u> Time: <u>1630</u>	Received By: <u>[Signature]</u> Company: <u>TA</u> Date: <u>11/9/17</u> Time: <u>1630</u>
Relinquished By: <u>[Signature]</u> Company: <u>TA</u> Date: <u>11/9/17</u> Time: <u>1700</u>	Received By: <u>[Signature]</u> Company: <u>TA</u> Date: <u>11/10/17</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:
- No Aluminum
- SPLP on Hold

Lab Comments:

Login Sample Receipt Checklist

Client: Terracon Consulting Eng & Scientists

Job Number: 500-137079-2

Login Number: 137079

List Source: TestAmerica Chicago

List Number: 1

Creator: Kelsey, Shawn M

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	(4.0)(2.0)(1.9)(3.7)(2.9)(3.2)c
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	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 351-US Rte 6 at Pulaski/Crawford & Kedzie Office Phone Number, if available: _____

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

Crawford Ave (Northbound) IDOT STA 61+20 to 62+40 and IDOT STA 59+60 to 60+40 (ISGS Site 2696V-65)

City: Oak Forest/Markham State: IL Zip Code: 60428

County: Cook Township: Bremen

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

Latitude: 41.60367 Longitude: -87.71682
(Decimal Degrees) (-Decimal Degrees)

Identify how the lat/long data were determined:

- GPS Map Interpolation Photo Interpolation Survey Other

EPA 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: 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 Phone: 847-705-4122

Zip Code: 60196 Phone: 847-705-4122

Contact: Paul Nickles

Contact: Paul Nickles

Email, if available: paul.nickles@illinois.gov

Email, if available: paul.nickles@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 351-US Rte 6 at Pulaski/Crawford & Kedzie

Latitude: 41.60367 Longitude: -87.71682

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)]:

Soil from borings B03, B04, and B06 were sampled adjacent to ISGS Site No 2696V-65. See Exhibits 2, 2C, 4, 4A, and Table 89 of the Preliminary Site Investigation Report prepared by Terracon.

- 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]:

TestAmerica Lab Report No J137079-4
Also see Preliminary Site Investigation Report prepared by Terracon. CCDD/USFO facility in MSA County.

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

I, Matt Weiss (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: Terracon Consultants, Inc

Street Address: 135 Ambassador Drive

City: Naperville State: IL Zip Code: 60540

Phone: 630-717-4263

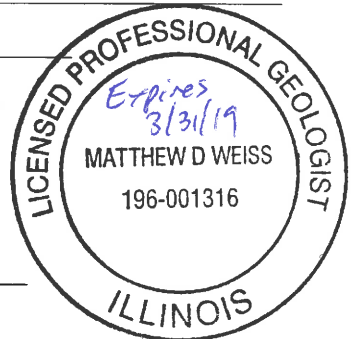
Matt Weiss

Printed Name:

[Signature]

7/24/18

Date:



Licensed Professional Engineer or
Licensed Professional Geologist Signature:

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

Detected Constituents to MACs-PTB 174-009;Work Order:037A
Preliminary Site Investigation
FAP 351-US Rte 6 at S. Pulaski/Crawford + Kedzie (PESA #2696V-65)
Oak Forest/Markham, Cook County, IL
Terracon Project No. 11177029M
Page 1 of 4

Analyte	Units	Background		Maximum Allowed Concentration	Sample Identification	2696V-65-B03 (0-5)	2696V-65-B04 (0-5)
				CCDD	Sample Depth (feet)	(0-5)	(0-5)
		Chicago	MSAs	mg/kg pH 6.25-9.0	Date Collected	11/09/2017	11/09/2017
Volatile Organic Analytical Parameters							
Acetone	mg/kg	---	---	25		<0.015	<0.019
Semivolatile Organic Analytical Parameters							
Anthracene	mg/kg	0.25	0.4	12000		<0.035	0.012
Benzo(a)anthracene	mg/kg	1.1	1.8	0.9		0.017	0.064
Benzo(a)pyrene	mg/kg	1.3	2.1	0.09		0.058	0.11
Benzo(b)fluoranthene	mg/kg	1.5	2.1	0.9		0.06	0.13
Benzo(g,h,i)perylene	mg/kg	0.68	1.7	2300		0.056	0.071
Benzo(k)fluoranthene	mg/kg	0.99	1.7	9		0.022	0.042
Chrysene	mg/kg	1.2	2.7	88		0.042	0.079
Dibenzo(a,h)anthracene	mg/kg	0.2	0.42	0.09		<0.035	0.042
Fluoranthene	mg/kg	2.7	4.1	3100		0.035	0.15
Indeno(1,2,3-c,d)pyrene	mg/kg	0.86	1.6	0.9		0.043	0.07
Naphthalene	mg/kg	0.04	0.2	1.8		0.029	<0.036
Phenanthrene	mg/kg	1.3	2.5	210		0.042	0.074
Pyrene	mg/kg	1.9	3.0	2300		0.046	0.1
2-Methylnaphthalene	mg/kg	---	0.14	---		0.077	0.018
Inorganic Analytical Parameters							
Arsenic	mg/kg	---	13	11.3		6.7	6.7
Barium	mg/kg	---	110	1500		14	70
Cadmium	mg/kg	---	0.6	5.2		0.18	0.2
Chromium, total	mg/kg	---	16.2	21		6.4	9.9
Lead	mg/kg	---	36	107		13	33
Mercury	mg/kg	---	0.06	0.1		0.017	0.024
Selenium	mg/kg	---	0.48	1.3		0.34	0.57
Silver	mg/kg	---	0.55	4.4		<0.26	<0.28
Antimony	mg/kg	---	4.0	5		0.41	0.27
Beryllium	mg/kg	---	0.59	22		0.29	1.1
Calcium	mg/kg	---	9,300	---		110000	58000
Cobalt	mg/kg	---	8.9	20		6.1	6.8
Copper	mg/kg	---	19.6	2900		17	16
Cyanide	mg/kg	---	0.51	---		<0.52	<0.58
Iron	mg/kg	---	15,900	15000		12000	12000
Magnesium	mg/kg	---	4,820	325000		66000	21000
Manganese	mg/kg	---	636	630		390	530
Nickel	mg/kg	---	18	100		15	16
Potassium	mg/kg	---	1,268	---		960	1100
Sodium	mg/kg	---	130	---		140	280
Thallium	mg/kg	---	0.32	2.6		<0.51	0.28
Vanadium	mg/kg	---	25.2	550		11	13
Zinc	mg/kg	---	95	5100		42	49
pH			6.25	9		7.7	8.6

Detected Constituents to MACs-PTB 174-009;Work Order:037A
Preliminary Site Investigation
FAP 351-US Rte 6 at S. Pulaski/Crawford + Kedzie (PESA #2696V-65)
Oak Forest/Markham, Cook County, IL
Terracon Project No. 11177029M
Page 2 of 4

Analyte	Units	Background		Maximum Allowed Concentration	Sample Identification	2696V-65-B03 (0-5)	2696V-65-B04 (0-5)
				CCDD	Sample Depth (feet)	(0-5)	(0-5)
		Chicago	MSAs	mg/kg pH 6.25-9.0	Date Collected	11/09/2017	11/09/2017
Inorganic Analytical Parameters (SPLP)							
Antimony,SPLP	mg/L	---	---	---		--	--
Arsenic,SPLP	mg/L	---	---	---		--	--
Barium,SPLP	mg/L	---	---	---		--	--
Beryllium,SPLP	mg/L	---	---	---		--	--
Cadmium,SPLP	mg/L	---	---	---		--	--
Calcium,SPLP	mg/L	---	---	---		--	--
Chromium,SPLP	mg/L	---	---	---		--	--
Cobalt,SPLP	mg/L	---	---	---		--	--
Copper,SPLP	mg/L	---	---	---		--	--
Iron,SPLP	mg/L	---	---	---		--	--
Lead,SPLP	mg/L	---	---	---		--	--
Magnesium,SPLP	mg/L	---	---	---		--	--
Manganese,SPLP	mg/L	---	---	---		<0.025	0.44
Mercury,SPLP	mg/L	---	---	---		--	--
Nickel,SPLP	mg/L	---	---	---		--	--
Potassium,SPLP	mg/L	---	---	---		--	--
Selenium,SPLP	mg/L	---	---	---		--	--
Silver,SPLP	mg/L	---	---	---		--	--
Sodium,SPLP	mg/L	---	---	---		--	--
Thallium,SPLP	mg/L	---	---	---		--	--
Vanadium,SPLP	mg/L	---	---	---		--	--
Zinc,SPLP	mg/L	---	---	---		--	--
Cyanide,SPLP	mg/L	---	---	---		--	--
Inorganic Analytical Parameters (TCLP)							
Arsenic,TCLP	mg/L	---	---	---		<0.050	<0.050
Barium,TCLP	mg/L	---	---	---		0.19	0.46
Cadmium,TCLP	mg/L	---	---	---		0.0024	0.0023
Chromium,TCLP	mg/L	---	---	---		<0.025	<0.025
Lead,TCLP	mg/L	---	---	---		<0.0075	<0.0075
Mercury,TCLP	mg/L	---	---	---		<0.00020	<0.00020
Selenium,TCLP	mg/L	---	---	---		<0.050	<0.050
Silver,TCLP	mg/L	---	---	---		<0.025	<0.025
Antimony,TCLP	mg/L	---	---	---		<0.0060	<0.0060
Beryllium,TCLP	mg/L	---	---	---		<0.0040	<0.0040
Calcium,TCLP	mg/L	---	---	---		460	400
Cobalt,TCLP	mg/L	---	---	---		0.019	<0.025
Copper,TCLP	mg/L	---	---	---		0.028	0.022
Cyanide,TCLP	mg/L	---	---	---		----	----
Iron,TCLP	mg/L	---	---	---		<0.40	<0.40
Magnesium,TCLP	mg/L	---	---	---		110	80
Manganese,TCLP	mg/L	---	---	---		2.2	2
Nickel,TCLP	mg/L	---	---	---		0.045	<0.025
Potassium,TCLP	mg/L	---	---	---		3.4	2.3
Sodium,TCLP	mg/L	---	---	---		----	----
Thallium,TCLP	mg/L	---	---	---		<0.0020	<0.0020
Vanadium,TCLP	mg/L	---	---	---		<0.025	<0.025
Zinc,TCLP	mg/L	---	---	---		0.084	0.052

Detected Constituents to MACs-PTB 174-009;Work Order:037A
Preliminary Site Investigation
FAP 351-US Rte 6 at S. Pulaski/Crawford + Kedzie (PESA #2696V-65)
Oak Forest/Markham, Cook County, IL
Terracon Project No. 11177029M
Page 3 of 4

Analyte	Units	Background		Maximum Allowed Concentration	Sample Identification	2696V-65-B06 (0-5)
				CCDD	Sample Depth (feet)	(0-5)
		Chicago	MSAs	mg/kg pH 6.25-9.0	Date Collected	11/09/2017
Volatile Organic Analytical Parameters						
Acetone	mg/kg	---	---	25		0.047
Semivolatile Organic Analytical Parameters						
Anthracene	mg/kg	0.25	0.4	12000		<0.038
Benzo(a)anthracene	mg/kg	1.1	1.8	0.9		0.031
Benzo(a)pyrene	mg/kg	1.3	2.1	0.09		0.034
Benzo(b)fluoranthene	mg/kg	1.5	2.1	0.9		0.069
Benzo(g,h,i)perylene	mg/kg	0.68	1.7	2300		0.022
Benzo(k)fluoranthene	mg/kg	0.99	1.7	9		0.032
Chrysene	mg/kg	1.2	2.7	88		0.055
Dibenzo(a,h)anthracene	mg/kg	0.2	0.42	0.09		<0.038
Fluoranthene	mg/kg	2.7	4.1	3100		0.061
Indeno(1,2,3-c,d)pyrene	mg/kg	0.86	1.6	0.9		0.019
Naphthalene	mg/kg	0.04	0.2	1.8		<0.038
Phenanthrene	mg/kg	1.3	2.5	210		0.041
Pyrene	mg/kg	1.9	3.0	2300		0.05
2-Methylnaphthalene	mg/kg	---	0.14	---		<0.078
Inorganic Analytical Parameters						
Arsenic	mg/kg	---	13	11.3		8.7
Barium	mg/kg	---	110	1500		40
Cadmium	mg/kg	---	0.6	5.2		0.22
Chromium, total	mg/kg	---	16.2	21		12
Lead	mg/kg	---	36	107		41
Mercury	mg/kg	---	0.06	0.1		0.029
Selenium	mg/kg	---	0.48	1.3		0.36
Silver	mg/kg	---	0.55	4.4		<0.29
Antimony	mg/kg	---	4.0	5		0.4
Beryllium	mg/kg	---	0.59	22		0.55
Calcium	mg/kg	---	9,300	---		42000
Cobalt	mg/kg	---	8.9	20		11
Copper	mg/kg	---	19.6	2900		22
Cyanide	mg/kg	---	0.51	---		<0.57
Iron	mg/kg	---	15,900	15000		16000
Magnesium	mg/kg	---	4,820	325000		18000
Manganese	mg/kg	---	636	630		230
Nickel	mg/kg	---	18	100		25
Potassium	mg/kg	---	1,268	---		1300
Sodium	mg/kg	---	130	---		880
Thallium	mg/kg	---	0.32	2.6		<0.58
Vanadium	mg/kg	---	25.2	550		17
Zinc	mg/kg	---	95	5100		70
pH			6.25	9		8.6

Analyte	Units	Background		Maximum Allowed Concentration	Sample Identification	2696V-65-B06 (0-5)
				CCDD	Sample Depth (feet)	(0-5)
		Chicago	MSAs	mg/kg pH 6.25-9.0	Date Collected	11/09/2017
Inorganic Analytical Parameters (SPLP)						
Antimony,SPLP	mg/L	---	---	---		--
Arsenic,SPLP	mg/L	---	---	---		--
Barium,SPLP	mg/L	---	---	---		--
Beryllium,SPLP	mg/L	---	---	---		--
Cadmium,SPLP	mg/L	---	---	---		--
Calcium,SPLP	mg/L	---	---	---		--
Chromium,SPLP	mg/L	---	---	---		--
Cobalt,SPLP	mg/L	---	---	---		--
Copper,SPLP	mg/L	---	---	---		--
Iron,SPLP	mg/L	---	---	---		--
Lead,SPLP	mg/L	---	---	---		0.059
Magnesium,SPLP	mg/L	---	---	---		--
Manganese,SPLP	mg/L	---	---	---		0.27
Mercury,SPLP	mg/L	---	---	---		--
Nickel,SPLP	mg/L	---	---	---		--
Potassium,SPLP	mg/L	---	---	---		--
Selenium,SPLP	mg/L	---	---	---		--
Silver,SPLP	mg/L	---	---	---		--
Sodium,SPLP	mg/L	---	---	---		--
Thallium,SPLP	mg/L	---	---	---		--
Vanadium,SPLP	mg/L	---	---	---		--
Zinc,SPLP	mg/L	---	---	---		--
Cyanide,SPLP	mg/L	---	---	---		--
Inorganic Analytical Parameters (TCLP)						
Arsenic,TCLP	mg/L	---	---	---		<0.050
Barium,TCLP	mg/L	---	---	---		0.54
Cadmium,TCLP	mg/L	---	---	---		0.0026
Chromium,TCLP	mg/L	---	---	---		<0.025
Lead,TCLP	mg/L	---	---	---		0.022
Mercury,TCLP	mg/L	---	---	---		<0.00020
Selenium,TCLP	mg/L	---	---	---		<0.050
Silver,TCLP	mg/L	---	---	---		<0.025
Antimony,TCLP	mg/L	---	---	---		<0.0060
Beryllium,TCLP	mg/L	---	---	---		<0.0040
Calcium,TCLP	mg/L	---	---	---		380
Cobalt,TCLP	mg/L	---	---	---		0.019
Copper,TCLP	mg/L	---	---	---		0.028
Cyanide,TCLP	mg/L	---	---	---		----
Iron,TCLP	mg/L	---	---	---		<0.40
Magnesium,TCLP	mg/L	---	---	---		55
Manganese,TCLP	mg/L	---	---	---		4.5
Nickel,TCLP	mg/L	---	---	---		0.02
Potassium,TCLP	mg/L	---	---	---		2.2
Sodium,TCLP	mg/L	---	---	---		----
Thallium,TCLP	mg/L	---	---	---		<0.0020
Vanadium,TCLP	mg/L	---	---	---		<0.025
Zinc,TCLP	mg/L	---	---	---		0.091

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: 500-137079-4

Client Project/Site: IDOT - Oak Forest/Markham - WO37

For:

Terracon Consulting Eng & Scientists

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

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

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

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Case Narrative

Client: Terracon Consulting Eng & Scientists
Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137079-4

Job ID: 500-137079-4

Laboratory: TestAmerica Chicago

Narrative

Job Narrative 500-137079-4

Receipt

The samples were received on 11/10/2017 8:00 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 6 coolers at receipt time were 1.9° C, 2.0° C, 2.9° C, 3.2° C, 3.7° C and 4.0° C.

GC/MS VOA

Method(s) 8260B: The following samples were diluted due to the abundance of non-target analytes: 2696V-65-B02 (10-15) (500-137079-11), 2696V-65-B05 (0-5) (500-137079-15) and 2696V-65-G01 (500-137079-17). Elevated reporting limits (RLs) are provided.

Method(s) 8260B: The following analytes recovered outside control limits for the LCS associated with batch 410201: Carbon Tetrachloride and Chromomethane. This is not indicative of a systematic control problem because these were random marginal exceedances. The laboratory control sample (LCS) had all compounds within control limits. 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

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

Metals

Method(s) 6010B: The continuing calibration verification (CCV) associated with batch 500-409796 at line 87 recovered above the upper control limit for Silver. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The following samples are impacted: 2696V-65-B02 (0-5) (500-137079-9), 2696V-65-B02 (5-10) (500-137079-10), 2696V-65-B02 (10-15) (500-137079-11), 2696V-65-B02 (15-21) (500-137079-12), 2696V-65-B03 (0-5) (500-137079-13), 2696V-65-B04 (0-5) (500-137079-14), 2696V-65-B05 (0-5) (500-137079-15) and 2696V-65-B06 (0-5) (500-137079-16).

Method(s) 6010B: The following samples was diluted due to the abundance of target and non-target analytes: 2696V-65-B02 (0-5) (500-137079-9), 2696V-65-B02 (5-10) (500-137079-10), 2696V-65-B02 (10-15) (500-137079-11), 2696V-65-B02 (15-21) (500-137079-12), 2696V-65-B03 (0-5) (500-137079-13), 2696V-65-B04 (0-5) (500-137079-14), 2696V-65-B05 (0-5) (500-137079-15) and 2696V-65-B06 (0-5) (500-137079-16). Elevated reporting limits (RLs) are provided.

Method(s) 6020A: The method blank for preparation batch 500-409517 and analytical batch 500-409856 contained Calcium above the reporting limit (RL). Associated sample(s) were not re-extracted and/or re-analyzed because results were greater than 10X the value found in the method blank.

Method(s) 6020A: Due to sample matrix effect on the internal standard (ISTD), a dilution was required for the following sample: 2696V-65-G01 (500-137079-17).

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: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137079-4

Client Sample ID: 2696V-65-B01 (0-5)

Lab Sample ID: 500-137079-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Anthracene	0.0089	J	0.038	0.0063	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.051		0.038	0.0051	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.060		0.038	0.0073	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.11		0.038	0.0082	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.048		0.038	0.012	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.048		0.038	0.011	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.066		0.038	0.010	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.13		0.038	0.0070	mg/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.039		0.038	0.0098	mg/Kg	1	☼	8270D	Total/NA
Phenanthrene	0.035	J	0.038	0.0053	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.087		0.038	0.0075	mg/Kg	1	☼	8270D	Total/NA
Antimony	0.42	J	1.1	0.22	mg/Kg	1	☼	6010B	Total/NA
Arsenic	12		0.56	0.19	mg/Kg	1	☼	6010B	Total/NA
Barium	24		0.56	0.064	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.67		0.22	0.052	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.21	B	0.11	0.020	mg/Kg	1	☼	6010B	Total/NA
Chromium	15		0.56	0.28	mg/Kg	1	☼	6010B	Total/NA
Cobalt	12		0.28	0.073	mg/Kg	1	☼	6010B	Total/NA
Copper	36		0.56	0.16	mg/Kg	1	☼	6010B	Total/NA
Iron	24000		11	5.7	mg/Kg	1	☼	6010B	Total/NA
Lead	27		0.28	0.13	mg/Kg	1	☼	6010B	Total/NA
Magnesium	17000		5.6	2.8	mg/Kg	1	☼	6010B	Total/NA
Calcium	25000	B	11	1.9	mg/Kg	1	☼	6010B	Total/NA
Manganese	200		0.56	0.081	mg/Kg	1	☼	6010B	Total/NA
Nickel	35		0.56	0.16	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.45	J B	0.56	0.33	mg/Kg	1	☼	6010B	Total/NA
Thallium	0.39	J	0.56	0.28	mg/Kg	1	☼	6010B	Total/NA
Vanadium	21		0.28	0.066	mg/Kg	1	☼	6010B	Total/NA
Zinc	92		1.1	0.49	mg/Kg	1	☼	6010B	Total/NA
Potassium	1800		28	9.9	mg/Kg	1	☼	6010B	Total/NA
Sodium	240		56	8.2	mg/Kg	1	☼	6010B	Total/NA
Barium	0.22	J	0.50	0.050	mg/L	1		6010B	TCLP
Cadmium	0.0025	J	0.0050	0.0020	mg/L	1		6010B	TCLP
Calcium	330		5.0	0.50	mg/L	1		6010B	TCLP
Magnesium	130		2.5	0.50	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
Potassium	0.87	J	2.5	0.50	mg/L	1		6010B	TCLP
Zinc	0.022	J	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.046		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.031		0.020	0.0065	mg/Kg	1	☼	7471B	Total/NA
pH	8.8		0.20	0.20	SU	1		9045D	Total/NA

Client Sample ID: 2696V-65-B01 (0-5) Dup

Lab Sample ID: 500-137079-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]anthracene	0.016	J	0.037	0.0050	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.022	J	0.037	0.0072	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.043		0.037	0.0080	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.012	J	0.037	0.011	mg/Kg	1	☼	8270D	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137079-4

Client Sample ID: 2696V-65-B01 (0-5) Dup (Continued)

Lab Sample ID: 500-137079-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chrysene	0.023	J	0.037	0.010	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.032	J	0.037	0.0069	mg/Kg	1	☼	8270D	Total/NA
Phenanthrene	0.0073	J	0.037	0.0052	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.034	J	0.037	0.0074	mg/Kg	1	☼	8270D	Total/NA
Antimony	0.47	J	1.1	0.22	mg/Kg	1	☼	6010B	Total/NA
Arsenic	14		0.57	0.19	mg/Kg	1	☼	6010B	Total/NA
Barium	32		0.57	0.065	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.64		0.23	0.053	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.098	J B	0.11	0.021	mg/Kg	1	☼	6010B	Total/NA
Chromium	14		0.57	0.28	mg/Kg	1	☼	6010B	Total/NA
Cobalt	11		0.29	0.075	mg/Kg	1	☼	6010B	Total/NA
Copper	23		0.57	0.16	mg/Kg	1	☼	6010B	Total/NA
Iron	18000		11	5.7	mg/Kg	1	☼	6010B	Total/NA
Lead	21		0.29	0.13	mg/Kg	1	☼	6010B	Total/NA
Magnesium	16000		5.7	2.8	mg/Kg	1	☼	6010B	Total/NA
Calcium	25000	B	11	1.9	mg/Kg	1	☼	6010B	Total/NA
Manganese	230		0.57	0.083	mg/Kg	1	☼	6010B	Total/NA
Nickel	27		0.57	0.17	mg/Kg	1	☼	6010B	Total/NA
Thallium	0.29	J	0.57	0.28	mg/Kg	1	☼	6010B	Total/NA
Vanadium	23		0.29	0.067	mg/Kg	1	☼	6010B	Total/NA
Zinc	65		1.1	0.50	mg/Kg	1	☼	6010B	Total/NA
Potassium	1200		29	10	mg/Kg	1	☼	6010B	Total/NA
Sodium	200		57	8.4	mg/Kg	1	☼	6010B	Total/NA
Barium	0.22	J	0.50	0.050	mg/L	1		6010B	TCLP
Cadmium	0.0021	J	0.0050	0.0020	mg/L	1		6010B	TCLP
Calcium	350		5.0	0.50	mg/L	1		6010B	TCLP
Magnesium	130		2.5	0.50	mg/L	1		6010B	TCLP
Manganese	0.41		0.025	0.010	mg/L	1		6010B	TCLP
Potassium	0.74	J	2.5	0.50	mg/L	1		6010B	TCLP
Manganese	0.13		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.029		0.018	0.0059	mg/Kg	1	☼	7471B	Total/NA
pH	8.5		0.20	0.20	SU	1		9045D	Total/NA

Client Sample ID: 2696V-65-B02 (0-5)

Lab Sample ID: 500-137079-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]anthracene	0.0066	J	0.037	0.0051	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.012	J	0.037	0.0081	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.011	J	0.037	0.0070	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.0087	J	0.037	0.0075	mg/Kg	1	☼	8270D	Total/NA
Antimony	0.38	J	1.2	0.23	mg/Kg	1	☼	6010B	Total/NA
Arsenic	6.8		0.59	0.20	mg/Kg	1	☼	6010B	Total/NA
Barium	27		0.59	0.067	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.49		0.24	0.055	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.16	B	0.12	0.021	mg/Kg	1	☼	6010B	Total/NA
Chromium	12		0.59	0.29	mg/Kg	1	☼	6010B	Total/NA
Cobalt	6.6		0.29	0.077	mg/Kg	1	☼	6010B	Total/NA
Copper	17		2.9	0.82	mg/Kg	5	☼	6010B	Total/NA
Iron	14000		12	6.1	mg/Kg	1	☼	6010B	Total/NA
Lead	20		0.29	0.14	mg/Kg	1	☼	6010B	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137079-4

Client Sample ID: 2696V-65-B02 (0-5) (Continued)

Lab Sample ID: 500-137079-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Magnesium	23000		5.9	2.9	mg/Kg	1	☼	6010B	Total/NA
Calcium	57000	B	59	10	mg/Kg	5	☼	6010B	Total/NA
Manganese	240		0.59	0.085	mg/Kg	1	☼	6010B	Total/NA
Nickel	19		0.59	0.17	mg/Kg	1	☼	6010B	Total/NA
Vanadium	17		0.29	0.069	mg/Kg	1	☼	6010B	Total/NA
Zinc	51		1.2	0.52	mg/Kg	1	☼	6010B	Total/NA
Potassium	1400		29	10	mg/Kg	1	☼	6010B	Total/NA
Sodium	140		59	8.7	mg/Kg	1	☼	6010B	Total/NA
Barium	0.17	J	0.50	0.050	mg/L	1		6010B	TCLP
Calcium	530		5.0	0.50	mg/L	1		6010B	TCLP
Copper	0.013	J	0.025	0.010	mg/L	1		6010B	TCLP
Magnesium	52		2.5	0.50	mg/L	1		6010B	TCLP
Manganese	0.21		0.025	0.010	mg/L	1		6010B	TCLP
Potassium	1.6	J	2.5	0.50	mg/L	1		6010B	TCLP
Zinc	0.034	J	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.064		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.020		0.020	0.0066	mg/Kg	1	☼	7471B	Total/NA
pH	8.4		0.20	0.20	SU	1		9045D	Total/NA

Client Sample ID: 2696V-65-B02 (5-10)

Lab Sample ID: 500-137079-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[b]fluoranthene	0.0099	J	0.040	0.0087	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.014	J	0.040	0.011	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.011	J	0.040	0.0075	mg/Kg	1	☼	8270D	Total/NA
Phenanthrene	0.015	J	0.040	0.0056	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.014	J	0.040	0.0080	mg/Kg	1	☼	8270D	Total/NA
Antimony	0.55	J	1.2	0.23	mg/Kg	1	☼	6010B	Total/NA
Arsenic	5.8		0.60	0.21	mg/Kg	1	☼	6010B	Total/NA
Barium	28		0.60	0.068	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.47		0.24	0.056	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.16	B	0.12	0.022	mg/Kg	1	☼	6010B	Total/NA
Chromium	10		0.60	0.30	mg/Kg	1	☼	6010B	Total/NA
Cobalt	6.7		0.30	0.079	mg/Kg	1	☼	6010B	Total/NA
Copper	18		3.0	0.84	mg/Kg	5	☼	6010B	Total/NA
Iron	21000		12	6.1	mg/Kg	1	☼	6010B	Total/NA
Lead	8.5		0.30	0.14	mg/Kg	1	☼	6010B	Total/NA
Magnesium	33000		6.0	3.0	mg/Kg	1	☼	6010B	Total/NA
Calcium	94000	B	60	10	mg/Kg	5	☼	6010B	Total/NA
Manganese	270		0.60	0.087	mg/Kg	1	☼	6010B	Total/NA
Nickel	18		0.60	0.17	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.39	J B	0.60	0.35	mg/Kg	1	☼	6010B	Total/NA
Vanadium	15		0.30	0.071	mg/Kg	1	☼	6010B	Total/NA
Zinc	42		1.2	0.53	mg/Kg	1	☼	6010B	Total/NA
Potassium	1300		30	11	mg/Kg	1	☼	6010B	Total/NA
Sodium	240		60	8.9	mg/Kg	1	☼	6010B	Total/NA
Barium	0.42	J	0.50	0.050	mg/L	1		6010B	TCLP
Calcium	550		5.0	0.50	mg/L	1		6010B	TCLP
Copper	0.022	J	0.025	0.010	mg/L	1		6010B	TCLP
Magnesium	16		2.5	0.50	mg/L	1		6010B	TCLP

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137079-4

Client Sample ID: 2696V-65-B02 (5-10) (Continued)

Lab Sample ID: 500-137079-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Manganese	1.6		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.036		0.025	0.010	mg/L	1		6010B	TCLP
Potassium	2.9		2.5	0.50	mg/L	1		6010B	TCLP
Zinc	0.059	J	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.052		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.019		0.018	0.0059	mg/Kg	1	☼	7471B	Total/NA
pH	8.2		0.20	0.20	SU	1		9045D	Total/NA

Client Sample ID: 2696V-65-B02 (10-15)

Lab Sample ID: 500-137079-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Ethylbenzene	1.6		0.011	0.0081	mg/Kg	50	☼	8260B	Total/NA
Xylenes, Total	1.1		0.022	0.0097	mg/Kg	50	☼	8260B	Total/NA
Acenaphthene	0.057		0.035	0.0064	mg/Kg	1	☼	8270D	Total/NA
Anthracene	0.047		0.035	0.0059	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.025	J	0.035	0.0048	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.030	J	0.035	0.0068	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.042		0.035	0.0096	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.055		0.035	0.0066	mg/Kg	1	☼	8270D	Total/NA
Fluorene	0.11		0.035	0.0050	mg/Kg	1	☼	8270D	Total/NA
Phenanthrene	0.31		0.035	0.0049	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.090		0.035	0.0070	mg/Kg	1	☼	8270D	Total/NA
2-Methylnaphthalene - DL	9.1		0.36	0.033	mg/Kg	5	☼	8270D	Total/NA
Naphthalene - DL	9.7		0.18	0.027	mg/Kg	5	☼	8270D	Total/NA
Antimony	0.41	J	1.0	0.20	mg/Kg	1	☼	6010B	Total/NA
Arsenic	11		0.51	0.18	mg/Kg	1	☼	6010B	Total/NA
Barium	5.6		0.51	0.059	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.38		0.21	0.048	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.083	J B	0.10	0.018	mg/Kg	1	☼	6010B	Total/NA
Chromium	6.7		0.51	0.25	mg/Kg	1	☼	6010B	Total/NA
Cobalt	9.2		0.26	0.067	mg/Kg	1	☼	6010B	Total/NA
Copper	37		2.6	0.72	mg/Kg	5	☼	6010B	Total/NA
Iron	17000		10	5.2	mg/Kg	1	☼	6010B	Total/NA
Lead	16		0.26	0.12	mg/Kg	1	☼	6010B	Total/NA
Magnesium	42000		5.1	2.5	mg/Kg	1	☼	6010B	Total/NA
Calcium	94000	B	51	8.7	mg/Kg	5	☼	6010B	Total/NA
Manganese	420		0.51	0.074	mg/Kg	1	☼	6010B	Total/NA
Nickel	24		0.51	0.15	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.38	J B	0.51	0.30	mg/Kg	1	☼	6010B	Total/NA
Thallium	0.69		0.51	0.26	mg/Kg	1	☼	6010B	Total/NA
Vanadium	10		0.26	0.061	mg/Kg	1	☼	6010B	Total/NA
Zinc	53		1.0	0.45	mg/Kg	1	☼	6010B	Total/NA
Potassium	1200		26	9.1	mg/Kg	1	☼	6010B	Total/NA
Sodium	190		51	7.6	mg/Kg	1	☼	6010B	Total/NA
Barium	0.092	J	0.50	0.050	mg/L	1		6010B	TCLP
Calcium	330		5.0	0.50	mg/L	1		6010B	TCLP
Cobalt	0.025		0.025	0.010	mg/L	1		6010B	TCLP
Copper	0.031		0.025	0.010	mg/L	1		6010B	TCLP
Magnesium	110		2.5	0.50	mg/L	1		6010B	TCLP
Manganese	1.4		0.025	0.010	mg/L	1		6010B	TCLP

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137079-4

Client Sample ID: 2696V-65-B02 (10-15) (Continued)

Lab Sample ID: 500-137079-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Nickel	0.055		0.025	0.010	mg/L	1		6010B	TCLP
Potassium	4.3		2.5	0.50	mg/L	1		6010B	TCLP
Zinc	0.069	J	0.50	0.020	mg/L	1		6010B	TCLP
Mercury	0.020		0.018	0.0061	mg/Kg	1	☼	7471B	Total/NA
pH	7.9		0.20	0.20	SU	1		9045D	Total/NA

Client Sample ID: 2696V-65-B02 (15-21)

Lab Sample ID: 500-137079-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	0.027		0.017	0.0073	mg/Kg	1	☼	8260B	Total/NA
Chrysene	0.021	J	0.037	0.010	mg/Kg	1	☼	8270D	Total/NA
2-Methylnaphthalene	0.14		0.075	0.0069	mg/Kg	1	☼	8270D	Total/NA
Naphthalene	0.038		0.037	0.0057	mg/Kg	1	☼	8270D	Total/NA
Phenanthrene	0.068		0.037	0.0052	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.014	J	0.037	0.0074	mg/Kg	1	☼	8270D	Total/NA
Antimony	0.43	J	1.1	0.21	mg/Kg	1	☼	6010B	Total/NA
Arsenic	7.7		0.55	0.19	mg/Kg	1	☼	6010B	Total/NA
Barium	4.3		0.55	0.063	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.24		0.22	0.051	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.16	B	0.11	0.020	mg/Kg	1	☼	6010B	Total/NA
Chromium	6.5		0.55	0.27	mg/Kg	1	☼	6010B	Total/NA
Cobalt	6.1		0.27	0.072	mg/Kg	1	☼	6010B	Total/NA
Copper	22		2.7	0.77	mg/Kg	5	☼	6010B	Total/NA
Iron	9600		11	5.5	mg/Kg	1	☼	6010B	Total/NA
Lead	8.8		0.27	0.13	mg/Kg	1	☼	6010B	Total/NA
Magnesium	39000		5.5	2.7	mg/Kg	1	☼	6010B	Total/NA
Calcium	130000	B	55	9.3	mg/Kg	5	☼	6010B	Total/NA
Manganese	340		0.55	0.080	mg/Kg	1	☼	6010B	Total/NA
Nickel	15		0.55	0.16	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.46	J B	0.55	0.32	mg/Kg	1	☼	6010B	Total/NA
Thallium	0.35	J	0.55	0.27	mg/Kg	1	☼	6010B	Total/NA
Vanadium	7.4		0.27	0.065	mg/Kg	1	☼	6010B	Total/NA
Zinc	29		1.1	0.48	mg/Kg	1	☼	6010B	Total/NA
Potassium	860		27	9.7	mg/Kg	1	☼	6010B	Total/NA
Sodium	150		55	8.1	mg/Kg	1	☼	6010B	Total/NA
Barium	0.087	J	0.50	0.050	mg/L	1		6010B	TCLP
Calcium	360		5.0	0.50	mg/L	1		6010B	TCLP
Cobalt	0.015	J	0.025	0.010	mg/L	1		6010B	TCLP
Copper	0.023	J	0.025	0.010	mg/L	1		6010B	TCLP
Magnesium	68		2.5	0.50	mg/L	1		6010B	TCLP
Manganese	1.2		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.035		0.025	0.010	mg/L	1		6010B	TCLP
Potassium	4.0		2.5	0.50	mg/L	1		6010B	TCLP
Zinc	0.057	J	0.50	0.020	mg/L	1		6010B	TCLP
Mercury	0.011	J	0.018	0.0059	mg/Kg	1	☼	7471B	Total/NA
pH	7.8		0.20	0.20	SU	1		9045D	Total/NA

Client Sample ID: 2696V-65-B03 (0-5)

Lab Sample ID: 500-137079-13

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137079-4

Client Sample ID: 2696V-65-B03 (0-5) (Continued)

Lab Sample ID: 500-137079-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Benzo[a]anthracene	0.017	J	0.035	0.0047	mg/Kg	1	☼	8270D	Total/NA	
Benzo[a]pyrene	0.058		0.035	0.0068	mg/Kg	1	☼	8270D	Total/NA	
Benzo[b]fluoranthene	0.060		0.035	0.0076	mg/Kg	1	☼	8270D	Total/NA	
Benzo[g,h,i]perylene	0.056		0.035	0.011	mg/Kg	1	☼	8270D	Total/NA	
Benzo[k]fluoranthene	0.022	J	0.035	0.010	mg/Kg	1	☼	8270D	Total/NA	
Chrysene	0.042		0.035	0.0096	mg/Kg	1	☼	8270D	Total/NA	
Fluoranthene	0.035		0.035	0.0065	mg/Kg	1	☼	8270D	Total/NA	
Indeno[1,2,3-cd]pyrene	0.043		0.035	0.0091	mg/Kg	1	☼	8270D	Total/NA	
2-Methylnaphthalene	0.077		0.071	0.0064	mg/Kg	1	☼	8270D	Total/NA	
Naphthalene	0.029	J	0.035	0.0054	mg/Kg	1	☼	8270D	Total/NA	
Phenanthrene	0.042		0.035	0.0049	mg/Kg	1	☼	8270D	Total/NA	
Pyrene	0.046		0.035	0.0070	mg/Kg	1	☼	8270D	Total/NA	
Antimony	0.41	J	1.0	0.20	mg/Kg	1	☼	6010B	Total/NA	
Arsenic	6.7		0.51	0.17	mg/Kg	1	☼	6010B	Total/NA	
Barium	14		0.51	0.058	mg/Kg	1	☼	6010B	Total/NA	
Beryllium	0.29		0.20	0.048	mg/Kg	1	☼	6010B	Total/NA	
Cadmium	0.18	B	0.10	0.018	mg/Kg	1	☼	6010B	Total/NA	
Chromium	6.4		0.51	0.25	mg/Kg	1	☼	6010B	Total/NA	
Cobalt	6.1		0.26	0.067	mg/Kg	1	☼	6010B	Total/NA	
Copper	17		2.6	0.71	mg/Kg	5	☼	6010B	Total/NA	
Iron	12000		10	5.3	mg/Kg	1	☼	6010B	Total/NA	
Lead	13		0.26	0.12	mg/Kg	1	☼	6010B	Total/NA	
Magnesium	66000	B	26	13	mg/Kg	5	☼	6010B	Total/NA	
Calcium	110000	B	51	8.6	mg/Kg	5	☼	6010B	Total/NA	
Manganese	390		0.51	0.074	mg/Kg	1	☼	6010B	Total/NA	
Nickel	15		0.51	0.15	mg/Kg	1	☼	6010B	Total/NA	
Selenium	0.34	J B	0.51	0.30	mg/Kg	1	☼	6010B	Total/NA	
Vanadium	11		0.26	0.060	mg/Kg	1	☼	6010B	Total/NA	
Zinc	42		1.0	0.45	mg/Kg	1	☼	6010B	Total/NA	
Potassium	960		26	9.0	mg/Kg	1	☼	6010B	Total/NA	
Sodium	140		51	7.5	mg/Kg	1	☼	6010B	Total/NA	
Barium	0.19	J	0.50	0.050	mg/L	1		6010B	TCLP	
Cadmium	0.0024	J	0.0050	0.0020	mg/L	1		6010B	TCLP	
Calcium	460		5.0	0.50	mg/L	1		6010B	TCLP	
Cobalt	0.019	J	0.025	0.010	mg/L	1		6010B	TCLP	
Copper	0.028		0.025	0.010	mg/L	1		6010B	TCLP	
Magnesium	110		2.5	0.50	mg/L	1		6010B	TCLP	
Manganese	2.2		0.025	0.010	mg/L	1		6010B	TCLP	
Nickel	0.045		0.025	0.010	mg/L	1		6010B	TCLP	
Potassium	3.4		2.5	0.50	mg/L	1		6010B	TCLP	
Zinc	0.084	J	0.50	0.020	mg/L	1		6010B	TCLP	
Mercury	0.017		0.017	0.0056	mg/Kg	1	☼	7471B	Total/NA	
pH	7.7		0.20	0.20	SU	1		9045D	Total/NA	

Client Sample ID: 2696V-65-B04 (0-5)

Lab Sample ID: 500-137079-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Anthracene	0.012	J	0.036	0.0061	mg/Kg	1	☼	8270D	Total/NA	
Benzo[a]anthracene	0.064		0.036	0.0049	mg/Kg	1	☼	8270D	Total/NA	
Benzo[a]pyrene	0.11		0.036	0.0070	mg/Kg	1	☼	8270D	Total/NA	

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137079-4

Client Sample ID: 2696V-65-B04 (0-5) (Continued)

Lab Sample ID: 500-137079-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[b]fluoranthene	0.13		0.036	0.0078	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.071		0.036	0.012	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.042		0.036	0.011	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.079		0.036	0.0099	mg/Kg	1	☼	8270D	Total/NA
Dibenz(a,h)anthracene	0.042		0.036	0.0070	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.15		0.036	0.0067	mg/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.070		0.036	0.0094	mg/Kg	1	☼	8270D	Total/NA
2-Methylnaphthalene	0.018	J	0.073	0.0067	mg/Kg	1	☼	8270D	Total/NA
Phenanthrene	0.074		0.036	0.0051	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.10		0.036	0.0072	mg/Kg	1	☼	8270D	Total/NA
Antimony	0.27	J	1.1	0.21	mg/Kg	1	☼	6010B	Total/NA
Arsenic	6.7		0.55	0.19	mg/Kg	1	☼	6010B	Total/NA
Barium	70		0.55	0.063	mg/Kg	1	☼	6010B	Total/NA
Beryllium	1.1		0.22	0.051	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.20	B	0.11	0.020	mg/Kg	1	☼	6010B	Total/NA
Chromium	9.9		0.55	0.27	mg/Kg	1	☼	6010B	Total/NA
Cobalt	6.8		0.28	0.072	mg/Kg	1	☼	6010B	Total/NA
Copper	16		2.8	0.77	mg/Kg	5	☼	6010B	Total/NA
Iron	12000		11	5.6	mg/Kg	1	☼	6010B	Total/NA
Lead	33		0.28	0.13	mg/Kg	1	☼	6010B	Total/NA
Magnesium	21000		5.5	2.7	mg/Kg	1	☼	6010B	Total/NA
Calcium	58000	B	55	9.3	mg/Kg	5	☼	6010B	Total/NA
Manganese	530		0.55	0.080	mg/Kg	1	☼	6010B	Total/NA
Nickel	16		0.55	0.16	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.57	B	0.55	0.32	mg/Kg	1	☼	6010B	Total/NA
Thallium	0.28	J	0.55	0.27	mg/Kg	1	☼	6010B	Total/NA
Vanadium	13		0.28	0.065	mg/Kg	1	☼	6010B	Total/NA
Zinc	49		1.1	0.48	mg/Kg	1	☼	6010B	Total/NA
Potassium	1100		28	9.7	mg/Kg	1	☼	6010B	Total/NA
Sodium	280		55	8.2	mg/Kg	1	☼	6010B	Total/NA
Barium	0.46	J	0.50	0.050	mg/L	1		6010B	TCLP
Cadmium	0.0023	J	0.0050	0.0020	mg/L	1		6010B	TCLP
Calcium	400		5.0	0.50	mg/L	1		6010B	TCLP
Copper	0.022	J	0.025	0.010	mg/L	1		6010B	TCLP
Magnesium	80		2.5	0.50	mg/L	1		6010B	TCLP
Manganese	2.0		0.025	0.010	mg/L	1		6010B	TCLP
Potassium	2.3	J	2.5	0.50	mg/L	1		6010B	TCLP
Zinc	0.052	J	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.44		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.024		0.017	0.0057	mg/Kg	1	☼	7471B	Total/NA
pH	8.6		0.20	0.20	SU	1		9045D	Total/NA

Client Sample ID: 2696V-65-B05 (0-5)

Lab Sample ID: 500-137079-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]anthracene	0.075		0.037	0.0050	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.14		0.037	0.0073	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.099		0.037	0.0081	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.090		0.037	0.012	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.16		0.037	0.011	mg/Kg	1	☼	8270D	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137079-4

Client Sample ID: 2696V-65-B05 (0-5) (Continued)

Lab Sample ID: 500-137079-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chrysene	0.21		0.037	0.010	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.19		0.037	0.0070	mg/Kg	1	☼	8270D	Total/NA
Fluorene	0.11		0.037	0.0053	mg/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.085		0.037	0.0097	mg/Kg	1	☼	8270D	Total/NA
2-Methylnaphthalene	0.70		0.076	0.0069	mg/Kg	1	☼	8270D	Total/NA
Naphthalene	0.24		0.037	0.0058	mg/Kg	1	☼	8270D	Total/NA
Phenanthrene	0.41		0.037	0.0052	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.15		0.037	0.0075	mg/Kg	1	☼	8270D	Total/NA
Antimony	0.28	J	1.1	0.21	mg/Kg	1	☼	6010B	Total/NA
Arsenic	9.4		0.54	0.18	mg/Kg	1	☼	6010B	Total/NA
Barium	40		0.54	0.061	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.44		0.21	0.050	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.28	B	0.11	0.019	mg/Kg	1	☼	6010B	Total/NA
Chromium	11		0.54	0.26	mg/Kg	1	☼	6010B	Total/NA
Cobalt	7.7		0.27	0.070	mg/Kg	1	☼	6010B	Total/NA
Copper	23		2.7	0.75	mg/Kg	5	☼	6010B	Total/NA
Iron	13000		11	5.6	mg/Kg	1	☼	6010B	Total/NA
Lead	28		0.27	0.12	mg/Kg	1	☼	6010B	Total/NA
Magnesium	20000		5.4	2.7	mg/Kg	1	☼	6010B	Total/NA
Calcium	44000	B	54	9.1	mg/Kg	5	☼	6010B	Total/NA
Manganese	250		0.54	0.078	mg/Kg	1	☼	6010B	Total/NA
Nickel	19		0.54	0.16	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.45	J B	0.54	0.31	mg/Kg	1	☼	6010B	Total/NA
Vanadium	16		0.27	0.063	mg/Kg	1	☼	6010B	Total/NA
Zinc	71		1.1	0.47	mg/Kg	1	☼	6010B	Total/NA
Potassium	1100		27	9.5	mg/Kg	1	☼	6010B	Total/NA
Sodium	620		54	7.9	mg/Kg	1	☼	6010B	Total/NA
Barium	0.53		0.50	0.050	mg/L	1		6010B	TCLP
Cadmium	0.0029	J	0.0050	0.0020	mg/L	1		6010B	TCLP
Calcium	360		5.0	0.50	mg/L	1		6010B	TCLP
Cobalt	0.026		0.025	0.010	mg/L	1		6010B	TCLP
Copper	0.049		0.025	0.010	mg/L	1		6010B	TCLP
Lead	0.0083		0.0075	0.0075	mg/L	1		6010B	TCLP
Magnesium	55		2.5	0.50	mg/L	1		6010B	TCLP
Manganese	3.8		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.022	J	0.025	0.010	mg/L	1		6010B	TCLP
Potassium	3.2		2.5	0.50	mg/L	1		6010B	TCLP
Zinc	0.13	J	0.50	0.020	mg/L	1		6010B	TCLP
Lead	0.085		0.0075	0.0075	mg/L	1		6010B	SPLP East
Manganese	0.39		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.020	F1	0.019	0.0062	mg/Kg	1	☼	7471B	Total/NA
pH	8.7		0.20	0.20	SU	1		9045D	Total/NA

Client Sample ID: 2696V-65-B06 (0-5)

Lab Sample ID: 500-137079-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	0.047		0.016	0.0068	mg/Kg	1	☼	8260B	Total/NA
Benzo[a]anthracene	0.031	J	0.038	0.0052	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.034	J	0.038	0.0075	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.069		0.038	0.0084	mg/Kg	1	☼	8270D	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137079-4

Client Sample ID: 2696V-65-B06 (0-5) (Continued)

Lab Sample ID: 500-137079-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[g,h,i]perylene	0.022	J	0.038	0.012	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.032	J	0.038	0.011	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.055		0.038	0.011	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.061		0.038	0.0072	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
Phenanthrene	0.041		0.038	0.0054	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.050		0.038	0.0077	mg/Kg	1	☼	8270D	Total/NA
Antimony	0.40	J F1	1.2	0.23	mg/Kg	1	☼	6010B	Total/NA
Arsenic	8.7	F1	0.58	0.20	mg/Kg	1	☼	6010B	Total/NA
Barium	40		0.58	0.066	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.55		0.23	0.054	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.22	B	0.12	0.021	mg/Kg	1	☼	6010B	Total/NA
Chromium	12		0.58	0.29	mg/Kg	1	☼	6010B	Total/NA
Cobalt	11		0.29	0.076	mg/Kg	1	☼	6010B	Total/NA
Copper	22		2.9	0.81	mg/Kg	5	☼	6010B	Total/NA
Iron	16000		11	5.9	mg/Kg	1	☼	6010B	Total/NA
Lead	41		0.29	0.13	mg/Kg	1	☼	6010B	Total/NA
Magnesium	18000	F2	5.8	2.9	mg/Kg	1	☼	6010B	Total/NA
Calcium	42000	B	58	9.9	mg/Kg	5	☼	6010B	Total/NA
Manganese	230	F2	0.58	0.084	mg/Kg	1	☼	6010B	Total/NA
Nickel	25	F1	0.58	0.17	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.36	J B	0.58	0.34	mg/Kg	1	☼	6010B	Total/NA
Vanadium	17		0.29	0.069	mg/Kg	1	☼	6010B	Total/NA
Zinc	70	F1	1.2	0.51	mg/Kg	1	☼	6010B	Total/NA
Potassium	1300	F1	29	10	mg/Kg	1	☼	6010B	Total/NA
Sodium	880		58	8.6	mg/Kg	1	☼	6010B	Total/NA
Barium	0.54		0.50	0.050	mg/L	1		6010B	TCLP
Cadmium	0.0026	J	0.0050	0.0020	mg/L	1		6010B	TCLP
Calcium	380		5.0	0.50	mg/L	1		6010B	TCLP
Cobalt	0.019	J	0.025	0.010	mg/L	1		6010B	TCLP
Copper	0.028		0.025	0.010	mg/L	1		6010B	TCLP
Lead	0.022		0.0075	0.0075	mg/L	1		6010B	TCLP
Magnesium	55		2.5	0.50	mg/L	1		6010B	TCLP
Manganese	4.5		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.020	J	0.025	0.010	mg/L	1		6010B	TCLP
Potassium	2.2	J	2.5	0.50	mg/L	1		6010B	TCLP
Zinc	0.091	J	0.50	0.020	mg/L	1		6010B	TCLP
Lead	0.059	F1	0.0075	0.0075	mg/L	1		6010B	SPLP East
Manganese	0.27	F1	0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.029		0.020	0.0065	mg/Kg	1	☼	7471B	Total/NA
pH	8.6		0.20	0.20	SU	1		9045D	Total/NA

Client Sample ID: 2696V-65-G01

Lab Sample ID: 500-137079-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Ethylbenzene	0.14		0.0025	0.00092	mg/L	5		8260B	Total/NA
Xylenes, Total	0.012		0.0050	0.0011	mg/L	5		8260B	Total/NA
Benzo[a]anthracene	0.000047	J	0.00012	0.000042	mg/L	1		8270D	Total/NA
Bis(2-ethylhexyl) phthalate	0.0017	J	0.0074	0.0013	mg/L	1		8270D	Total/NA
Chrysene	0.000064	J	0.00015	0.000050	mg/L	1		8270D	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137079-4

Client Sample ID: 2696V-65-G01 (Continued)

Lab Sample ID: 500-137079-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Naphthalene	0.011		0.00074	0.00023	mg/L	1			8270D	Total/NA
Phenanthrene	0.00025	J	0.00074	0.00022	mg/L	1			8270D	Total/NA
Antimony	0.0015	J	0.0030	0.0013	mg/L	1			6020A	Total Recoverable
Arsenic	0.044		0.0010	0.00023	mg/L	1			6020A	Total Recoverable
Barium	0.081		0.0025	0.00073	mg/L	1			6020A	Total Recoverable
Beryllium	0.0032	J	0.0050	0.0027	mg/L	5			6020A	Total Recoverable
Cadmium	0.0010		0.00050	0.00017	mg/L	1			6020A	Total Recoverable
Calcium	150	B	0.20	0.044	mg/L	1			6020A	Total Recoverable
Chromium	0.047		0.0050	0.0011	mg/L	1			6020A	Total Recoverable
Cobalt	0.031		0.0010	0.00040	mg/L	1			6020A	Total Recoverable
Copper	0.14	B	0.0020	0.00050	mg/L	1			6020A	Total Recoverable
Iron	53	B	0.10	0.047	mg/L	1			6020A	Total Recoverable
Lead	0.075		0.00050	0.00019	mg/L	1			6020A	Total Recoverable
Magnesium	75	B	0.20	0.049	mg/L	1			6020A	Total Recoverable
Manganese	0.79	B	0.0025	0.00079	mg/L	1			6020A	Total Recoverable
Nickel	0.078		0.0020	0.00063	mg/L	1			6020A	Total Recoverable
Potassium	12		0.50	0.11	mg/L	1			6020A	Total Recoverable
Selenium	0.0030		0.0025	0.00098	mg/L	1			6020A	Total Recoverable
Silver	0.00028	J	0.00050	0.00012	mg/L	1			6020A	Total Recoverable
Sodium	180		20	7.7	mg/L	100			6020A	Total Recoverable
Thallium	0.0042		0.0020	0.00057	mg/L	1			6020A	Total Recoverable
Vanadium	0.048		0.0050	0.0022	mg/L	1			6020A	Total Recoverable
Zinc	0.18		0.020	0.0069	mg/L	1			6020A	Total Recoverable

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Sample Summary

Client: Terracon Consulting Eng & Scientists
Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137079-4

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-137079-7	2696V-65-B01 (0-5)	Solid	11/09/17 12:55	11/10/17 08:00
500-137079-8	2696V-65-B01 (0-5) Dup	Solid	11/09/17 12:55	11/10/17 08:00
500-137079-9	2696V-65-B02 (0-5)	Solid	11/09/17 11:05	11/10/17 08:00
500-137079-10	2696V-65-B02 (5-10)	Solid	11/09/17 11:10	11/10/17 08:00
500-137079-11	2696V-65-B02 (10-15)	Solid	11/09/17 11:15	11/10/17 08:00
500-137079-12	2696V-65-B02 (15-21)	Solid	11/09/17 11:20	11/10/17 08:00
500-137079-13	2696V-65-B03 (0-5)	Solid	11/09/17 10:35	11/10/17 08:00
500-137079-14	2696V-65-B04 (0-5)	Solid	11/09/17 10:25	11/10/17 08:00
500-137079-15	2696V-65-B05 (0-5)	Solid	11/09/17 10:10	11/10/17 08:00
500-137079-16	2696V-65-B06 (0-5)	Solid	11/09/17 10:00	11/10/17 08:00
500-137079-17	2696V-65-G01	Water	11/09/17 11:30	11/10/17 08:00



Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137079-4

Client Sample ID: 2696V-65-B01 (0-5)

Lab Sample ID: 500-137079-7

Date Collected: 11/09/17 12:55

Matrix: Solid

Date Received: 11/10/17 08:00

Percent Solids: 84.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<120		120	51	mg/Kg	☼	11/10/17 18:28	11/16/17 17:38	1
Benzene	<12		12	3.0	mg/Kg	☼	11/10/17 18:28	11/16/17 17:38	1
Bromodichloromethane	<12		12	2.4	mg/Kg	☼	11/10/17 18:28	11/16/17 17:38	1
Bromoform	<12		12	3.4	mg/Kg	☼	11/10/17 18:28	11/16/17 17:38	1
Bromomethane	<29		29	11	mg/Kg	☼	11/10/17 18:28	11/16/17 17:38	1
2-Butanone (MEK)	<29		29	13	mg/Kg	☼	11/10/17 18:28	11/16/17 17:38	1
Carbon disulfide	<29		29	6.1	mg/Kg	☼	11/10/17 18:28	11/16/17 17:38	1
Carbon tetrachloride	<12 *		12	3.4	mg/Kg	☼	11/10/17 18:28	11/16/17 17:38	1
Chlorobenzene	<12		12	4.4	mg/Kg	☼	11/10/17 18:28	11/16/17 17:38	1
Chloroethane	<29		29	8.7	mg/Kg	☼	11/10/17 18:28	11/16/17 17:38	1
Chloroform	<12		12	4.1	mg/Kg	☼	11/10/17 18:28	11/16/17 17:38	1
Chloromethane	<29 *		29	12	mg/Kg	☼	11/10/17 18:28	11/16/17 17:38	1
cis-1,2-Dichloroethene	<12		12	3.3	mg/Kg	☼	11/10/17 18:28	11/16/17 17:38	1
cis-1,3-Dichloropropene	<12		12	3.6	mg/Kg	☼	11/10/17 18:28	11/16/17 17:38	1
Dibromochloromethane	<12		12	3.9	mg/Kg	☼	11/10/17 18:28	11/16/17 17:38	1
1,1-Dichloroethane	<12		12	4.0	mg/Kg	☼	11/10/17 18:28	11/16/17 17:38	1
1,2-Dichloroethane	<29		29	9.2	mg/Kg	☼	11/10/17 18:28	11/16/17 17:38	1
1,1-Dichloroethene	<12		12	4.1	mg/Kg	☼	11/10/17 18:28	11/16/17 17:38	1
1,2-Dichloropropane	<12		12	3.0	mg/Kg	☼	11/10/17 18:28	11/16/17 17:38	1
1,3-Dichloropropene, Total	<12		12	4.1	mg/Kg	☼	11/10/17 18:28	11/16/17 17:38	1
Ethylbenzene	<12		12	5.6	mg/Kg	☼	11/10/17 18:28	11/16/17 17:38	1
2-Hexanone	<29		29	9.2	mg/Kg	☼	11/10/17 18:28	11/16/17 17:38	1
Methylene Chloride	<29		29	12	mg/Kg	☼	11/10/17 18:28	11/16/17 17:38	1
4-Methyl-2-pentanone (MIBK)	<29		29	8.7	mg/Kg	☼	11/10/17 18:28	11/16/17 17:38	1
Methyl tert-butyl ether	<12		12	3.5	mg/Kg	☼	11/10/17 18:28	11/16/17 17:38	1
Styrene	<12		12	3.6	mg/Kg	☼	11/10/17 18:28	11/16/17 17:38	1
1,1,2,2-Tetrachloroethane	<12		12	3.8	mg/Kg	☼	11/10/17 18:28	11/16/17 17:38	1
Tetrachloroethene	<12		12	4.0	mg/Kg	☼	11/10/17 18:28	11/16/17 17:38	1
Toluene	<12		12	3.0	mg/Kg	☼	11/10/17 18:28	11/16/17 17:38	1
trans-1,2-Dichloroethene	<12		12	5.2	mg/Kg	☼	11/10/17 18:28	11/16/17 17:38	1
trans-1,3-Dichloropropene	<12		12	4.1	mg/Kg	☼	11/10/17 18:28	11/16/17 17:38	1
1,1,1-Trichloroethane	<12		12	4.0	mg/Kg	☼	11/10/17 18:28	11/16/17 17:38	1
1,1,2-Trichloroethane	<12		12	5.1	mg/Kg	☼	11/10/17 18:28	11/16/17 17:38	1
Trichloroethene	<12		12	4.0	mg/Kg	☼	11/10/17 18:28	11/16/17 17:38	1
Vinyl acetate	<29		29	10	mg/Kg	☼	11/10/17 18:28	11/16/17 17:38	1
Vinyl chloride	<12		12	5.2	mg/Kg	☼	11/10/17 18:28	11/16/17 17:38	1
Xylenes, Total	<24		24	3.8	mg/Kg	☼	11/10/17 18:28	11/16/17 17:38	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	89		75 - 131	11/10/17 18:28	11/16/17 17:38	1
Dibromofluoromethane	112		75 - 126	11/10/17 18:28	11/16/17 17:38	1
1,2-Dichloroethane-d4 (Surr)	123		70 - 134	11/10/17 18:28	11/16/17 17:38	1
Toluene-d8 (Surr)	92		75 - 124	11/10/17 18:28	11/16/17 17:38	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.038		0.038	0.0068	mg/Kg	☼	11/16/17 16:12	11/17/17 17:09	1
Acenaphthylene	<0.038		0.038	0.0050	mg/Kg	☼	11/16/17 16:12	11/17/17 17:09	1
Anthracene	0.0089	J	0.038	0.0063	mg/Kg	☼	11/16/17 16:12	11/17/17 17:09	1
Benzo[a]anthracene	0.051		0.038	0.0051	mg/Kg	☼	11/16/17 16:12	11/17/17 17:09	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137079-4

Client Sample ID: 2696V-65-B01 (0-5)

Lab Sample ID: 500-137079-7

Date Collected: 11/09/17 12:55

Matrix: Solid

Date Received: 11/10/17 08:00

Percent Solids: 84.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	0.060		0.038	0.0073	mg/Kg	☼	11/16/17 16:12	11/17/17 17:09	1
Benzo[b]fluoranthene	0.11		0.038	0.0082	mg/Kg	☼	11/16/17 16:12	11/17/17 17:09	1
Benzo[g,h,i]perylene	0.048		0.038	0.012	mg/Kg	☼	11/16/17 16:12	11/17/17 17:09	1
Benzo[k]fluoranthene	0.048		0.038	0.011	mg/Kg	☼	11/16/17 16:12	11/17/17 17:09	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.039	mg/Kg	☼	11/16/17 16:12	11/17/17 17:09	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.057	mg/Kg	☼	11/16/17 16:12	11/17/17 17:09	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.069	mg/Kg	☼	11/16/17 16:12	11/17/17 17:09	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.050	mg/Kg	☼	11/16/17 16:12	11/17/17 17:09	1
Butyl benzyl phthalate	<0.19		0.19	0.072	mg/Kg	☼	11/16/17 16:12	11/17/17 17:09	1
Carbazole	<0.19		0.19	0.094	mg/Kg	☼	11/16/17 16:12	11/17/17 17:09	1
4-Chloroaniline	<0.76		0.76	0.18	mg/Kg	☼	11/16/17 16:12	11/17/17 17:09	1
4-Chloro-3-methylphenol	<0.38		0.38	0.13	mg/Kg	☼	11/16/17 16:12	11/17/17 17:09	1
2-Chloronaphthalene	<0.19		0.19	0.042	mg/Kg	☼	11/16/17 16:12	11/17/17 17:09	1
2-Chlorophenol	<0.19		0.19	0.064	mg/Kg	☼	11/16/17 16:12	11/17/17 17:09	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.044	mg/Kg	☼	11/16/17 16:12	11/17/17 17:09	1
Chrysene	0.066		0.038	0.010	mg/Kg	☼	11/16/17 16:12	11/17/17 17:09	1
Dibenz(a,h)anthracene	<0.038		0.038	0.0073	mg/Kg	☼	11/16/17 16:12	11/17/17 17:09	1
Dibenzofuran	<0.19		0.19	0.044	mg/Kg	☼	11/16/17 16:12	11/17/17 17:09	1
1,2-Dichlorobenzene	<0.19		0.19	0.045	mg/Kg	☼	11/16/17 16:12	11/17/17 17:09	1
1,3-Dichlorobenzene	<0.19		0.19	0.043	mg/Kg	☼	11/16/17 16:12	11/17/17 17:09	1
1,4-Dichlorobenzene	<0.19		0.19	0.048	mg/Kg	☼	11/16/17 16:12	11/17/17 17:09	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.053	mg/Kg	☼	11/16/17 16:12	11/17/17 17:09	1
2,4-Dichlorophenol	<0.38		0.38	0.090	mg/Kg	☼	11/16/17 16:12	11/17/17 17:09	1
Diethyl phthalate	<0.19		0.19	0.064	mg/Kg	☼	11/16/17 16:12	11/17/17 17:09	1
2,4-Dimethylphenol	<0.38		0.38	0.14	mg/Kg	☼	11/16/17 16:12	11/17/17 17:09	1
Dimethyl phthalate	<0.19		0.19	0.049	mg/Kg	☼	11/16/17 16:12	11/17/17 17:09	1
Di-n-butyl phthalate	<0.19		0.19	0.058	mg/Kg	☼	11/16/17 16:12	11/17/17 17:09	1
4,6-Dinitro-2-methylphenol	<0.76		0.76	0.30	mg/Kg	☼	11/16/17 16:12	11/17/17 17:09	1
2,4-Dinitrophenol	<0.76		0.76	0.67	mg/Kg	☼	11/16/17 16:12	11/17/17 17:09	1
2,4-Dinitrotoluene	<0.19		0.19	0.060	mg/Kg	☼	11/16/17 16:12	11/17/17 17:09	1
2,6-Dinitrotoluene	<0.19		0.19	0.074	mg/Kg	☼	11/16/17 16:12	11/17/17 17:09	1
Di-n-octyl phthalate	<0.19		0.19	0.062	mg/Kg	☼	11/16/17 16:12	11/17/17 17:09	1
Fluoranthene	0.13		0.038	0.0070	mg/Kg	☼	11/16/17 16:12	11/17/17 17:09	1
Fluorene	<0.038		0.038	0.0053	mg/Kg	☼	11/16/17 16:12	11/17/17 17:09	1
Hexachlorobenzene	<0.076		0.076	0.0088	mg/Kg	☼	11/16/17 16:12	11/17/17 17:09	1
Hexachlorobutadiene	<0.19		0.19	0.059	mg/Kg	☼	11/16/17 16:12	11/17/17 17:09	1
Hexachlorocyclopentadiene	<0.76		0.76	0.22	mg/Kg	☼	11/16/17 16:12	11/17/17 17:09	1
Hexachloroethane	<0.19		0.19	0.057	mg/Kg	☼	11/16/17 16:12	11/17/17 17:09	1
Indeno[1,2,3-cd]pyrene	0.039		0.038	0.0098	mg/Kg	☼	11/16/17 16:12	11/17/17 17:09	1
Isophorone	<0.19		0.19	0.042	mg/Kg	☼	11/16/17 16:12	11/17/17 17:09	1
2-Methylnaphthalene	<0.076		0.076	0.0069	mg/Kg	☼	11/16/17 16:12	11/17/17 17:09	1
2-Methylphenol	<0.19		0.19	0.061	mg/Kg	☼	11/16/17 16:12	11/17/17 17:09	1
3 & 4 Methylphenol	<0.19		0.19	0.063	mg/Kg	☼	11/16/17 16:12	11/17/17 17:09	1
Naphthalene	<0.038		0.038	0.0058	mg/Kg	☼	11/16/17 16:12	11/17/17 17:09	1
2-Nitroaniline	<0.19		0.19	0.051	mg/Kg	☼	11/16/17 16:12	11/17/17 17:09	1
3-Nitroaniline	<0.38		0.38	0.12	mg/Kg	☼	11/16/17 16:12	11/17/17 17:09	1
4-Nitroaniline	<0.38		0.38	0.16	mg/Kg	☼	11/16/17 16:12	11/17/17 17:09	1
Nitrobenzene	<0.038		0.038	0.0094	mg/Kg	☼	11/16/17 16:12	11/17/17 17:09	1
2-Nitrophenol	<0.38		0.38	0.089	mg/Kg	☼	11/16/17 16:12	11/17/17 17:09	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137079-4

Client Sample ID: 2696V-65-B01 (0-5)

Lab Sample ID: 500-137079-7

Date Collected: 11/09/17 12:55

Matrix: Solid

Date Received: 11/10/17 08:00

Percent Solids: 84.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Nitrophenol	<0.76		0.76	0.36	mg/Kg	☼	11/16/17 16:12	11/17/17 17:09	1
N-Nitrosodi-n-propylamine	<0.076		0.076	0.046	mg/Kg	☼	11/16/17 16:12	11/17/17 17:09	1
N-Nitrosodiphenylamine	<0.19		0.19	0.045	mg/Kg	☼	11/16/17 16:12	11/17/17 17:09	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.044	mg/Kg	☼	11/16/17 16:12	11/17/17 17:09	1
Pentachlorophenol	<0.76		0.76	0.61	mg/Kg	☼	11/16/17 16:12	11/17/17 17:09	1
Phenanthrene	0.035	J	0.038	0.0053	mg/Kg	☼	11/16/17 16:12	11/17/17 17:09	1
Phenol	<0.19		0.19	0.084	mg/Kg	☼	11/16/17 16:12	11/17/17 17:09	1
Pyrene	0.087		0.038	0.0075	mg/Kg	☼	11/16/17 16:12	11/17/17 17:09	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.041	mg/Kg	☼	11/16/17 16:12	11/17/17 17:09	1
2,4,5-Trichlorophenol	<0.38		0.38	0.086	mg/Kg	☼	11/16/17 16:12	11/17/17 17:09	1
2,4,6-Trichlorophenol	<0.38		0.38	0.13	mg/Kg	☼	11/16/17 16:12	11/17/17 17:09	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	90		44 - 121	11/16/17 16:12	11/17/17 17:09	1
2-Fluorophenol	91		46 - 133	11/16/17 16:12	11/17/17 17:09	1
Nitrobenzene-d5	78		41 - 120	11/16/17 16:12	11/17/17 17:09	1
Phenol-d5	88		46 - 125	11/16/17 16:12	11/17/17 17:09	1
Terphenyl-d14	78		35 - 160	11/16/17 16:12	11/17/17 17:09	1
2,4,6-Tribromophenol	59		25 - 139	11/16/17 16:12	11/17/17 17:09	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.42	J	1.1	0.22	mg/Kg	☼	11/11/17 13:30	11/14/17 03:00	1
Arsenic	12		0.56	0.19	mg/Kg	☼	11/11/17 13:30	11/14/17 03:00	1
Barium	24		0.56	0.064	mg/Kg	☼	11/11/17 13:30	11/14/17 03:00	1
Beryllium	0.67		0.22	0.052	mg/Kg	☼	11/11/17 13:30	11/14/17 03:00	1
Cadmium	0.21	B	0.11	0.020	mg/Kg	☼	11/11/17 13:30	11/14/17 03:00	1
Chromium	15		0.56	0.28	mg/Kg	☼	11/11/17 13:30	11/14/17 03:00	1
Cobalt	12		0.28	0.073	mg/Kg	☼	11/11/17 13:30	11/14/17 03:00	1
Copper	36		0.56	0.16	mg/Kg	☼	11/11/17 13:30	11/14/17 23:37	1
Iron	24000		11	5.7	mg/Kg	☼	11/15/17 16:01	11/16/17 14:49	1
Lead	27		0.28	0.13	mg/Kg	☼	11/11/17 13:30	11/14/17 03:00	1
Magnesium	17000		5.6	2.8	mg/Kg	☼	11/11/17 13:30	11/14/17 03:00	1
Calcium	25000	B	11	1.9	mg/Kg	☼	11/11/17 13:30	11/14/17 03:00	1
Manganese	200		0.56	0.081	mg/Kg	☼	11/11/17 13:30	11/14/17 03:00	1
Nickel	35		0.56	0.16	mg/Kg	☼	11/11/17 13:30	11/14/17 03:00	1
Selenium	0.45	J B	0.56	0.33	mg/Kg	☼	11/11/17 13:30	11/14/17 03:00	1
Silver	<0.28		0.28	0.072	mg/Kg	☼	11/11/17 13:30	11/14/17 03:00	1
Thallium	0.39	J	0.56	0.28	mg/Kg	☼	11/11/17 13:30	11/14/17 03:00	1
Vanadium	21		0.28	0.066	mg/Kg	☼	11/11/17 13:30	11/14/17 03:00	1
Zinc	92		1.1	0.49	mg/Kg	☼	11/11/17 13:30	11/14/17 03:00	1
Potassium	1800		28	9.9	mg/Kg	☼	11/11/17 13:30	11/14/17 03:00	1
Sodium	240		56	8.2	mg/Kg	☼	11/11/17 13:30	11/14/17 03:00	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.050		0.050	0.010	mg/L		11/17/17 06:52	11/17/17 17:21	1
Barium	0.22	J	0.50	0.050	mg/L		11/17/17 06:52	11/17/17 17:21	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		11/17/17 06:52	11/17/17 17:21	1
Cadmium	0.0025	J	0.0050	0.0020	mg/L		11/17/17 06:52	11/17/17 17:21	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137079-4

Client Sample ID: 2696V-65-B01 (0-5)

Lab Sample ID: 500-137079-7

Date Collected: 11/09/17 12:55

Matrix: Solid

Date Received: 11/10/17 08:00

Percent Solids: 84.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	330		5.0	0.50	mg/L		11/17/17 06:52	11/17/17 17:21	1
Chromium	<0.025		0.025	0.010	mg/L		11/17/17 06:52	11/17/17 17:21	1
Cobalt	<0.025		0.025	0.010	mg/L		11/17/17 06:52	11/17/17 17:21	1
Copper	<0.025		0.025	0.010	mg/L		11/17/17 06:52	11/17/17 17:21	1
Iron	<0.40		0.40	0.20	mg/L		11/17/17 06:52	11/17/17 17:21	1
Lead	<0.0075		0.0075	0.0075	mg/L		11/17/17 06:52	11/17/17 17:21	1
Magnesium	130		2.5	0.50	mg/L		11/17/17 06:52	11/17/17 17:21	1
Manganese	1.0		0.025	0.010	mg/L		11/17/17 06:52	11/17/17 17:21	1
Nickel	0.010	J	0.025	0.010	mg/L		11/17/17 06:52	11/17/17 17:21	1
Potassium	0.87	J	2.5	0.50	mg/L		11/17/17 06:52	11/17/17 17:21	1
Selenium	<0.050		0.050	0.020	mg/L		11/17/17 06:52	11/17/17 17:21	1
Silver	<0.025		0.025	0.010	mg/L		11/17/17 06:52	11/17/17 17:21	1
Vanadium	<0.025		0.025	0.010	mg/L		11/17/17 06:52	11/17/17 17:21	1
Zinc	0.022	J	0.50	0.020	mg/L		11/17/17 06:52	11/17/17 17:21	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.046		0.025	0.010	mg/L		11/16/17 14:16	11/17/17 23:39	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		11/17/17 06:52	11/18/17 02:28	1
Thallium	<0.0020		0.0020	0.0020	mg/L		11/17/17 06:52	11/18/17 02:28	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		11/17/17 08:10	11/18/17 12:14	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.031		0.020	0.0065	mg/Kg	☼	11/17/17 10:45	11/17/17 14:00	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.53		0.53	0.18	mg/Kg	☼	11/21/17 11:00	11/21/17 14:14	1
pH	8.8		0.20	0.20	SU			11/18/17 12:28	1

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137079-4

Client Sample ID: 2696V-65-B01 (0-5) Dup

Lab Sample ID: 500-137079-8

Date Collected: 11/09/17 12:55

Matrix: Solid

Date Received: 11/10/17 08:00

Percent Solids: 84.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.017		0.017	0.0073	mg/Kg	☼	11/10/17 18:28	11/16/17 18:04	1
Benzene	<0.0017		0.0017	0.00043	mg/Kg	☼	11/10/17 18:28	11/16/17 18:04	1
Bromodichloromethane	<0.0017		0.0017	0.00034	mg/Kg	☼	11/10/17 18:28	11/16/17 18:04	1
Bromoform	<0.0017		0.0017	0.00049	mg/Kg	☼	11/10/17 18:28	11/16/17 18:04	1
Bromomethane	<0.0042		0.0042	0.0016	mg/Kg	☼	11/10/17 18:28	11/16/17 18:04	1
2-Butanone (MEK)	<0.0042		0.0042	0.0019	mg/Kg	☼	11/10/17 18:28	11/16/17 18:04	1
Carbon disulfide	<0.0042		0.0042	0.00087	mg/Kg	☼	11/10/17 18:28	11/16/17 18:04	1
Carbon tetrachloride	<0.0017 *		0.0017	0.00049	mg/Kg	☼	11/10/17 18:28	11/16/17 18:04	1
Chlorobenzene	<0.0017		0.0017	0.00062	mg/Kg	☼	11/10/17 18:28	11/16/17 18:04	1
Chloroethane	<0.0042		0.0042	0.0012	mg/Kg	☼	11/10/17 18:28	11/16/17 18:04	1
Chloroform	<0.0017		0.0017	0.00058	mg/Kg	☼	11/10/17 18:28	11/16/17 18:04	1
Chloromethane	<0.0042 *		0.0042	0.0017	mg/Kg	☼	11/10/17 18:28	11/16/17 18:04	1
cis-1,2-Dichloroethene	<0.0017		0.0017	0.00047	mg/Kg	☼	11/10/17 18:28	11/16/17 18:04	1
cis-1,3-Dichloropropene	<0.0017		0.0017	0.00051	mg/Kg	☼	11/10/17 18:28	11/16/17 18:04	1
Dibromochloromethane	<0.0017		0.0017	0.00055	mg/Kg	☼	11/10/17 18:28	11/16/17 18:04	1
1,1-Dichloroethane	<0.0017		0.0017	0.00058	mg/Kg	☼	11/10/17 18:28	11/16/17 18:04	1
1,2-Dichloroethane	<0.0042		0.0042	0.0013	mg/Kg	☼	11/10/17 18:28	11/16/17 18:04	1
1,1-Dichloroethene	<0.0017		0.0017	0.00058	mg/Kg	☼	11/10/17 18:28	11/16/17 18:04	1
1,2-Dichloropropane	<0.0017		0.0017	0.00043	mg/Kg	☼	11/10/17 18:28	11/16/17 18:04	1
1,3-Dichloropropane, Total	<0.0017		0.0017	0.00059	mg/Kg	☼	11/10/17 18:28	11/16/17 18:04	1
Ethylbenzene	<0.0017		0.0017	0.00080	mg/Kg	☼	11/10/17 18:28	11/16/17 18:04	1
2-Hexanone	<0.0042		0.0042	0.0013	mg/Kg	☼	11/10/17 18:28	11/16/17 18:04	1
Methylene Chloride	<0.0042		0.0042	0.0017	mg/Kg	☼	11/10/17 18:28	11/16/17 18:04	1
4-Methyl-2-pentanone (MIBK)	<0.0042		0.0042	0.0012	mg/Kg	☼	11/10/17 18:28	11/16/17 18:04	1
Methyl tert-butyl ether	<0.0017		0.0017	0.00049	mg/Kg	☼	11/10/17 18:28	11/16/17 18:04	1
Styrene	<0.0017		0.0017	0.00051	mg/Kg	☼	11/10/17 18:28	11/16/17 18:04	1
1,1,2,2-Tetrachloroethane	<0.0017		0.0017	0.00054	mg/Kg	☼	11/10/17 18:28	11/16/17 18:04	1
Tetrachloroethene	<0.0017		0.0017	0.00057	mg/Kg	☼	11/10/17 18:28	11/16/17 18:04	1
Toluene	<0.0017		0.0017	0.00042	mg/Kg	☼	11/10/17 18:28	11/16/17 18:04	1
trans-1,2-Dichloroethene	<0.0017		0.0017	0.00074	mg/Kg	☼	11/10/17 18:28	11/16/17 18:04	1
trans-1,3-Dichloropropene	<0.0017		0.0017	0.00059	mg/Kg	☼	11/10/17 18:28	11/16/17 18:04	1
1,1,1-Trichloroethane	<0.0017		0.0017	0.00056	mg/Kg	☼	11/10/17 18:28	11/16/17 18:04	1
1,1,2-Trichloroethane	<0.0017		0.0017	0.00072	mg/Kg	☼	11/10/17 18:28	11/16/17 18:04	1
Trichloroethene	<0.0017		0.0017	0.00057	mg/Kg	☼	11/10/17 18:28	11/16/17 18:04	1
Vinyl acetate	<0.0042		0.0042	0.0015	mg/Kg	☼	11/10/17 18:28	11/16/17 18:04	1
Vinyl chloride	<0.0017		0.0017	0.00074	mg/Kg	☼	11/10/17 18:28	11/16/17 18:04	1
Xylenes, Total	<0.0034		0.0034	0.00054	mg/Kg	☼	11/10/17 18:28	11/16/17 18:04	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	89		75 - 131	11/10/17 18:28	11/16/17 18:04	1
Dibromofluoromethane	111		75 - 126	11/10/17 18:28	11/16/17 18:04	1
1,2-Dichloroethane-d4 (Surr)	122		70 - 134	11/10/17 18:28	11/16/17 18:04	1
Toluene-d8 (Surr)	95		75 - 124	11/10/17 18:28	11/16/17 18:04	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.037		0.037	0.0066	mg/Kg	☼	11/16/17 16:12	11/17/17 17:36	1
Acenaphthylene	<0.037		0.037	0.0049	mg/Kg	☼	11/16/17 16:12	11/17/17 17:36	1
Anthracene	<0.037		0.037	0.0062	mg/Kg	☼	11/16/17 16:12	11/17/17 17:36	1
Benzo[a]anthracene	0.016	J	0.037	0.0050	mg/Kg	☼	11/16/17 16:12	11/17/17 17:36	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137079-4

Client Sample ID: 2696V-65-B01 (0-5) Dup

Lab Sample ID: 500-137079-8

Date Collected: 11/09/17 12:55

Matrix: Solid

Date Received: 11/10/17 08:00

Percent Solids: 84.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	0.022	J	0.037	0.0072	mg/Kg	☼	11/16/17 16:12	11/17/17 17:36	1
Benzo[b]fluoranthene	0.043		0.037	0.0080	mg/Kg	☼	11/16/17 16:12	11/17/17 17:36	1
Benzo[g,h,i]perylene	<0.037		0.037	0.012	mg/Kg	☼	11/16/17 16:12	11/17/17 17:36	1
Benzo[k]fluoranthene	0.012	J	0.037	0.011	mg/Kg	☼	11/16/17 16:12	11/17/17 17:36	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.038	mg/Kg	☼	11/16/17 16:12	11/17/17 17:36	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.055	mg/Kg	☼	11/16/17 16:12	11/17/17 17:36	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.068	mg/Kg	☼	11/16/17 16:12	11/17/17 17:36	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.049	mg/Kg	☼	11/16/17 16:12	11/17/17 17:36	1
Butyl benzyl phthalate	<0.19		0.19	0.070	mg/Kg	☼	11/16/17 16:12	11/17/17 17:36	1
Carbazole	<0.19		0.19	0.092	mg/Kg	☼	11/16/17 16:12	11/17/17 17:36	1
4-Chloroaniline	<0.75		0.75	0.17	mg/Kg	☼	11/16/17 16:12	11/17/17 17:36	1
4-Chloro-3-methylphenol	<0.37		0.37	0.13	mg/Kg	☼	11/16/17 16:12	11/17/17 17:36	1
2-Chloronaphthalene	<0.19		0.19	0.041	mg/Kg	☼	11/16/17 16:12	11/17/17 17:36	1
2-Chlorophenol	<0.19		0.19	0.063	mg/Kg	☼	11/16/17 16:12	11/17/17 17:36	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.043	mg/Kg	☼	11/16/17 16:12	11/17/17 17:36	1
Chrysene	0.023	J	0.037	0.010	mg/Kg	☼	11/16/17 16:12	11/17/17 17:36	1
Dibenz(a,h)anthracene	<0.037		0.037	0.0072	mg/Kg	☼	11/16/17 16:12	11/17/17 17:36	1
Dibenzofuran	<0.19		0.19	0.043	mg/Kg	☼	11/16/17 16:12	11/17/17 17:36	1
1,2-Dichlorobenzene	<0.19		0.19	0.044	mg/Kg	☼	11/16/17 16:12	11/17/17 17:36	1
1,3-Dichlorobenzene	<0.19		0.19	0.042	mg/Kg	☼	11/16/17 16:12	11/17/17 17:36	1
1,4-Dichlorobenzene	<0.19		0.19	0.047	mg/Kg	☼	11/16/17 16:12	11/17/17 17:36	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.052	mg/Kg	☼	11/16/17 16:12	11/17/17 17:36	1
2,4-Dichlorophenol	<0.37		0.37	0.088	mg/Kg	☼	11/16/17 16:12	11/17/17 17:36	1
Diethyl phthalate	<0.19		0.19	0.063	mg/Kg	☼	11/16/17 16:12	11/17/17 17:36	1
2,4-Dimethylphenol	<0.37		0.37	0.14	mg/Kg	☼	11/16/17 16:12	11/17/17 17:36	1
Dimethyl phthalate	<0.19		0.19	0.048	mg/Kg	☼	11/16/17 16:12	11/17/17 17:36	1
Di-n-butyl phthalate	<0.19		0.19	0.056	mg/Kg	☼	11/16/17 16:12	11/17/17 17:36	1
4,6-Dinitro-2-methylphenol	<0.75		0.75	0.30	mg/Kg	☼	11/16/17 16:12	11/17/17 17:36	1
2,4-Dinitrophenol	<0.75		0.75	0.65	mg/Kg	☼	11/16/17 16:12	11/17/17 17:36	1
2,4-Dinitrotoluene	<0.19		0.19	0.059	mg/Kg	☼	11/16/17 16:12	11/17/17 17:36	1
2,6-Dinitrotoluene	<0.19		0.19	0.073	mg/Kg	☼	11/16/17 16:12	11/17/17 17:36	1
Di-n-octyl phthalate	<0.19		0.19	0.060	mg/Kg	☼	11/16/17 16:12	11/17/17 17:36	1
Fluoranthene	0.032	J	0.037	0.0069	mg/Kg	☼	11/16/17 16:12	11/17/17 17:36	1
Fluorene	<0.037		0.037	0.0052	mg/Kg	☼	11/16/17 16:12	11/17/17 17:36	1
Hexachlorobenzene	<0.075		0.075	0.0086	mg/Kg	☼	11/16/17 16:12	11/17/17 17:36	1
Hexachlorobutadiene	<0.19		0.19	0.058	mg/Kg	☼	11/16/17 16:12	11/17/17 17:36	1
Hexachlorocyclopentadiene	<0.75		0.75	0.21	mg/Kg	☼	11/16/17 16:12	11/17/17 17:36	1
Hexachloroethane	<0.19		0.19	0.056	mg/Kg	☼	11/16/17 16:12	11/17/17 17:36	1
Indeno[1,2,3-cd]pyrene	<0.037		0.037	0.0096	mg/Kg	☼	11/16/17 16:12	11/17/17 17:36	1
Isophorone	<0.19		0.19	0.042	mg/Kg	☼	11/16/17 16:12	11/17/17 17:36	1
2-Methylnaphthalene	<0.075		0.075	0.0068	mg/Kg	☼	11/16/17 16:12	11/17/17 17:36	1
2-Methylphenol	<0.19		0.19	0.059	mg/Kg	☼	11/16/17 16:12	11/17/17 17:36	1
3 & 4 Methylphenol	<0.19		0.19	0.062	mg/Kg	☼	11/16/17 16:12	11/17/17 17:36	1
Naphthalene	<0.037		0.037	0.0057	mg/Kg	☼	11/16/17 16:12	11/17/17 17:36	1
2-Nitroaniline	<0.19		0.19	0.050	mg/Kg	☼	11/16/17 16:12	11/17/17 17:36	1
3-Nitroaniline	<0.37		0.37	0.11	mg/Kg	☼	11/16/17 16:12	11/17/17 17:36	1
4-Nitroaniline	<0.37		0.37	0.15	mg/Kg	☼	11/16/17 16:12	11/17/17 17:36	1
Nitrobenzene	<0.037		0.037	0.0092	mg/Kg	☼	11/16/17 16:12	11/17/17 17:36	1
2-Nitrophenol	<0.37		0.37	0.087	mg/Kg	☼	11/16/17 16:12	11/17/17 17:36	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137079-4

Client Sample ID: 2696V-65-B01 (0-5) Dup

Lab Sample ID: 500-137079-8

Date Collected: 11/09/17 12:55

Matrix: Solid

Date Received: 11/10/17 08:00

Percent Solids: 84.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Nitrophenol	<0.75		0.75	0.35	mg/Kg	☼	11/16/17 16:12	11/17/17 17:36	1
N-Nitrosodi-n-propylamine	<0.075		0.075	0.045	mg/Kg	☼	11/16/17 16:12	11/17/17 17:36	1
N-Nitrosodiphenylamine	<0.19		0.19	0.044	mg/Kg	☼	11/16/17 16:12	11/17/17 17:36	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.043	mg/Kg	☼	11/16/17 16:12	11/17/17 17:36	1
Pentachlorophenol	<0.75		0.75	0.59	mg/Kg	☼	11/16/17 16:12	11/17/17 17:36	1
Phenanthrene	0.0073	J	0.037	0.0052	mg/Kg	☼	11/16/17 16:12	11/17/17 17:36	1
Phenol	<0.19		0.19	0.082	mg/Kg	☼	11/16/17 16:12	11/17/17 17:36	1
Pyrene	0.034	J	0.037	0.0074	mg/Kg	☼	11/16/17 16:12	11/17/17 17:36	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.040	mg/Kg	☼	11/16/17 16:12	11/17/17 17:36	1
2,4,5-Trichlorophenol	<0.37		0.37	0.084	mg/Kg	☼	11/16/17 16:12	11/17/17 17:36	1
2,4,6-Trichlorophenol	<0.37		0.37	0.13	mg/Kg	☼	11/16/17 16:12	11/17/17 17:36	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	85		44 - 121	11/16/17 16:12	11/17/17 17:36	1
2-Fluorophenol	92		46 - 133	11/16/17 16:12	11/17/17 17:36	1
Nitrobenzene-d5	81		41 - 120	11/16/17 16:12	11/17/17 17:36	1
Phenol-d5	85		46 - 125	11/16/17 16:12	11/17/17 17:36	1
Terphenyl-d14	70		35 - 160	11/16/17 16:12	11/17/17 17:36	1
2,4,6-Tribromophenol	65		25 - 139	11/16/17 16:12	11/17/17 17:36	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.47	J	1.1	0.22	mg/Kg	☼	11/11/17 13:30	11/14/17 03:04	1
Arsenic	14		0.57	0.19	mg/Kg	☼	11/11/17 13:30	11/14/17 03:04	1
Barium	32		0.57	0.065	mg/Kg	☼	11/11/17 13:30	11/14/17 03:04	1
Beryllium	0.64		0.23	0.053	mg/Kg	☼	11/11/17 13:30	11/14/17 03:04	1
Cadmium	0.098	J B	0.11	0.021	mg/Kg	☼	11/11/17 13:30	11/14/17 03:04	1
Chromium	14		0.57	0.28	mg/Kg	☼	11/11/17 13:30	11/14/17 03:04	1
Cobalt	11		0.29	0.075	mg/Kg	☼	11/11/17 13:30	11/14/17 03:04	1
Copper	23		0.57	0.16	mg/Kg	☼	11/11/17 13:30	11/14/17 23:53	1
Iron	18000		11	5.7	mg/Kg	☼	11/15/17 16:01	11/16/17 21:50	1
Lead	21		0.29	0.13	mg/Kg	☼	11/11/17 13:30	11/14/17 03:04	1
Magnesium	16000		5.7	2.8	mg/Kg	☼	11/11/17 13:30	11/14/17 03:04	1
Calcium	25000	B	11	1.9	mg/Kg	☼	11/11/17 13:30	11/14/17 03:04	1
Manganese	230		0.57	0.083	mg/Kg	☼	11/11/17 13:30	11/14/17 03:04	1
Nickel	27		0.57	0.17	mg/Kg	☼	11/11/17 13:30	11/14/17 03:04	1
Selenium	<0.57		0.57	0.34	mg/Kg	☼	11/11/17 13:30	11/14/17 03:04	1
Silver	<0.29		0.29	0.074	mg/Kg	☼	11/11/17 13:30	11/14/17 03:04	1
Thallium	0.29	J	0.57	0.28	mg/Kg	☼	11/11/17 13:30	11/14/17 03:04	1
Vanadium	23		0.29	0.067	mg/Kg	☼	11/11/17 13:30	11/14/17 03:04	1
Zinc	65		1.1	0.50	mg/Kg	☼	11/11/17 13:30	11/14/17 03:04	1
Potassium	1200		29	10	mg/Kg	☼	11/11/17 13:30	11/14/17 03:04	1
Sodium	200		57	8.4	mg/Kg	☼	11/11/17 13:30	11/14/17 03:04	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.050		0.050	0.010	mg/L		11/17/17 06:52	11/17/17 17:25	1
Barium	0.22	J	0.50	0.050	mg/L		11/17/17 06:52	11/17/17 17:25	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		11/17/17 06:52	11/17/17 17:25	1
Cadmium	0.0021	J	0.0050	0.0020	mg/L		11/17/17 06:52	11/17/17 17:25	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137079-4

Client Sample ID: 2696V-65-B01 (0-5) Dup

Lab Sample ID: 500-137079-8

Date Collected: 11/09/17 12:55

Matrix: Solid

Date Received: 11/10/17 08:00

Percent Solids: 84.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	350		5.0	0.50	mg/L		11/17/17 06:52	11/17/17 17:25	1
Chromium	<0.025		0.025	0.010	mg/L		11/17/17 06:52	11/17/17 17:25	1
Cobalt	<0.025		0.025	0.010	mg/L		11/17/17 06:52	11/17/17 17:25	1
Copper	<0.025		0.025	0.010	mg/L		11/17/17 06:52	11/17/17 17:25	1
Iron	<0.40		0.40	0.20	mg/L		11/17/17 06:52	11/17/17 17:25	1
Lead	<0.0075		0.0075	0.0075	mg/L		11/17/17 06:52	11/17/17 17:25	1
Magnesium	130		2.5	0.50	mg/L		11/17/17 06:52	11/17/17 17:25	1
Manganese	0.41		0.025	0.010	mg/L		11/17/17 06:52	11/17/17 17:25	1
Nickel	<0.025		0.025	0.010	mg/L		11/17/17 06:52	11/17/17 17:25	1
Potassium	0.74 J		2.5	0.50	mg/L		11/17/17 06:52	11/17/17 17:25	1
Selenium	<0.050		0.050	0.020	mg/L		11/17/17 06:52	11/17/17 17:25	1
Silver	<0.025		0.025	0.010	mg/L		11/17/17 06:52	11/17/17 17:25	1
Vanadium	<0.025		0.025	0.010	mg/L		11/17/17 06:52	11/17/17 17:25	1
Zinc	<0.50		0.50	0.020	mg/L		11/17/17 06:52	11/17/17 17:25	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		11/16/17 14:16	11/17/17 23:43	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		11/17/17 06:52	11/18/17 02:32	1
Thallium	<0.0020		0.0020	0.0020	mg/L		11/17/17 06:52	11/18/17 02:32	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		11/17/17 08:10	11/18/17 12:16	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.029		0.018	0.0059	mg/Kg	☼	11/17/17 10:45	11/17/17 14:03	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.47		0.47	0.16	mg/Kg	☼	11/21/17 11:00	11/21/17 14:15	1
pH	8.5		0.20	0.20	SU			11/18/17 12:30	1

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137079-4

Client Sample ID: 2696V-65-B02 (0-5)

Lab Sample ID: 500-137079-9

Date Collected: 11/09/17 11:05

Matrix: Solid

Date Received: 11/10/17 08:00

Percent Solids: 83.2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.017		0.017	0.0073	mg/Kg	☼	11/10/17 18:28	11/16/17 18:28	1
Benzene	<0.0017		0.0017	0.00043	mg/Kg	☼	11/10/17 18:28	11/16/17 18:28	1
Bromodichloromethane	<0.0017		0.0017	0.00034	mg/Kg	☼	11/10/17 18:28	11/16/17 18:28	1
Bromoform	<0.0017		0.0017	0.00049	mg/Kg	☼	11/10/17 18:28	11/16/17 18:28	1
Bromomethane	<0.0042		0.0042	0.0016	mg/Kg	☼	11/10/17 18:28	11/16/17 18:28	1
2-Butanone (MEK)	<0.0042		0.0042	0.0019	mg/Kg	☼	11/10/17 18:28	11/16/17 18:28	1
Carbon disulfide	<0.0042		0.0042	0.00087	mg/Kg	☼	11/10/17 18:28	11/16/17 18:28	1
Carbon tetrachloride	<0.0017 *		0.0017	0.00048	mg/Kg	☼	11/10/17 18:28	11/16/17 18:28	1
Chlorobenzene	<0.0017		0.0017	0.00062	mg/Kg	☼	11/10/17 18:28	11/16/17 18:28	1
Chloroethane	<0.0042		0.0042	0.0012	mg/Kg	☼	11/10/17 18:28	11/16/17 18:28	1
Chloroform	<0.0017		0.0017	0.00058	mg/Kg	☼	11/10/17 18:28	11/16/17 18:28	1
Chloromethane	<0.0042 *		0.0042	0.0017	mg/Kg	☼	11/10/17 18:28	11/16/17 18:28	1
cis-1,2-Dichloroethene	<0.0017		0.0017	0.00047	mg/Kg	☼	11/10/17 18:28	11/16/17 18:28	1
cis-1,3-Dichloropropene	<0.0017		0.0017	0.00050	mg/Kg	☼	11/10/17 18:28	11/16/17 18:28	1
Dibromochloromethane	<0.0017		0.0017	0.00055	mg/Kg	☼	11/10/17 18:28	11/16/17 18:28	1
1,1-Dichloroethane	<0.0017		0.0017	0.00057	mg/Kg	☼	11/10/17 18:28	11/16/17 18:28	1
1,2-Dichloroethane	<0.0042		0.0042	0.0013	mg/Kg	☼	11/10/17 18:28	11/16/17 18:28	1
1,1-Dichloroethene	<0.0017		0.0017	0.00057	mg/Kg	☼	11/10/17 18:28	11/16/17 18:28	1
1,2-Dichloropropane	<0.0017		0.0017	0.00043	mg/Kg	☼	11/10/17 18:28	11/16/17 18:28	1
1,3-Dichloropropane, Total	<0.0017		0.0017	0.00059	mg/Kg	☼	11/10/17 18:28	11/16/17 18:28	1
Ethylbenzene	<0.0017		0.0017	0.00080	mg/Kg	☼	11/10/17 18:28	11/16/17 18:28	1
2-Hexanone	<0.0042		0.0042	0.0013	mg/Kg	☼	11/10/17 18:28	11/16/17 18:28	1
Methylene Chloride	<0.0042		0.0042	0.0016	mg/Kg	☼	11/10/17 18:28	11/16/17 18:28	1
4-Methyl-2-pentanone (MIBK)	<0.0042		0.0042	0.0012	mg/Kg	☼	11/10/17 18:28	11/16/17 18:28	1
Methyl tert-butyl ether	<0.0017		0.0017	0.00049	mg/Kg	☼	11/10/17 18:28	11/16/17 18:28	1
Styrene	<0.0017		0.0017	0.00050	mg/Kg	☼	11/10/17 18:28	11/16/17 18:28	1
1,1,2,2-Tetrachloroethane	<0.0017		0.0017	0.00053	mg/Kg	☼	11/10/17 18:28	11/16/17 18:28	1
Tetrachloroethene	<0.0017		0.0017	0.00057	mg/Kg	☼	11/10/17 18:28	11/16/17 18:28	1
Toluene	<0.0017		0.0017	0.00042	mg/Kg	☼	11/10/17 18:28	11/16/17 18:28	1
trans-1,2-Dichloroethene	<0.0017		0.0017	0.00074	mg/Kg	☼	11/10/17 18:28	11/16/17 18:28	1
trans-1,3-Dichloropropene	<0.0017		0.0017	0.00059	mg/Kg	☼	11/10/17 18:28	11/16/17 18:28	1
1,1,1-Trichloroethane	<0.0017		0.0017	0.00056	mg/Kg	☼	11/10/17 18:28	11/16/17 18:28	1
1,1,2-Trichloroethane	<0.0017		0.0017	0.00072	mg/Kg	☼	11/10/17 18:28	11/16/17 18:28	1
Trichloroethene	<0.0017		0.0017	0.00056	mg/Kg	☼	11/10/17 18:28	11/16/17 18:28	1
Vinyl acetate	<0.0042		0.0042	0.0015	mg/Kg	☼	11/10/17 18:28	11/16/17 18:28	1
Vinyl chloride	<0.0017		0.0017	0.00074	mg/Kg	☼	11/10/17 18:28	11/16/17 18:28	1
Xylenes, Total	<0.0033		0.0033	0.00053	mg/Kg	☼	11/10/17 18:28	11/16/17 18:28	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	89		75 - 131	11/10/17 18:28	11/16/17 18:28	1
Dibromofluoromethane	109		75 - 126	11/10/17 18:28	11/16/17 18:28	1
1,2-Dichloroethane-d4 (Surr)	117		70 - 134	11/10/17 18:28	11/16/17 18:28	1
Toluene-d8 (Surr)	94		75 - 124	11/10/17 18:28	11/16/17 18:28	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.037		0.037	0.0068	mg/Kg	☼	11/16/17 16:12	11/17/17 18:03	1
Acenaphthylene	<0.037		0.037	0.0050	mg/Kg	☼	11/16/17 16:12	11/17/17 18:03	1
Anthracene	<0.037		0.037	0.0063	mg/Kg	☼	11/16/17 16:12	11/17/17 18:03	1
Benzo[a]anthracene	0.0066	J	0.037	0.0051	mg/Kg	☼	11/16/17 16:12	11/17/17 18:03	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137079-4

Client Sample ID: 2696V-65-B02 (0-5)

Lab Sample ID: 500-137079-9

Date Collected: 11/09/17 11:05

Matrix: Solid

Date Received: 11/10/17 08:00

Percent Solids: 83.2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	<0.037		0.037	0.0073	mg/Kg	☼	11/16/17 16:12	11/17/17 18:03	1
Benzo[b]fluoranthene	0.012	J	0.037	0.0081	mg/Kg	☼	11/16/17 16:12	11/17/17 18:03	1
Benzo[g,h,i]perylene	<0.037		0.037	0.012	mg/Kg	☼	11/16/17 16:12	11/17/17 18:03	1
Benzo[k]fluoranthene	<0.037		0.037	0.011	mg/Kg	☼	11/16/17 16:12	11/17/17 18:03	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.038	mg/Kg	☼	11/16/17 16:12	11/17/17 18:03	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.056	mg/Kg	☼	11/16/17 16:12	11/17/17 18:03	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.069	mg/Kg	☼	11/16/17 16:12	11/17/17 18:03	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.050	mg/Kg	☼	11/16/17 16:12	11/17/17 18:03	1
Butyl benzyl phthalate	<0.19		0.19	0.072	mg/Kg	☼	11/16/17 16:12	11/17/17 18:03	1
Carbazole	<0.19		0.19	0.094	mg/Kg	☼	11/16/17 16:12	11/17/17 18:03	1
4-Chloroaniline	<0.76		0.76	0.18	mg/Kg	☼	11/16/17 16:12	11/17/17 18:03	1
4-Chloro-3-methylphenol	<0.37		0.37	0.13	mg/Kg	☼	11/16/17 16:12	11/17/17 18:03	1
2-Chloronaphthalene	<0.19		0.19	0.042	mg/Kg	☼	11/16/17 16:12	11/17/17 18:03	1
2-Chlorophenol	<0.19		0.19	0.064	mg/Kg	☼	11/16/17 16:12	11/17/17 18:03	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.044	mg/Kg	☼	11/16/17 16:12	11/17/17 18:03	1
Chrysene	<0.037		0.037	0.010	mg/Kg	☼	11/16/17 16:12	11/17/17 18:03	1
Dibenz(a,h)anthracene	<0.037		0.037	0.0073	mg/Kg	☼	11/16/17 16:12	11/17/17 18:03	1
Dibenzofuran	<0.19		0.19	0.044	mg/Kg	☼	11/16/17 16:12	11/17/17 18:03	1
1,2-Dichlorobenzene	<0.19		0.19	0.045	mg/Kg	☼	11/16/17 16:12	11/17/17 18:03	1
1,3-Dichlorobenzene	<0.19		0.19	0.042	mg/Kg	☼	11/16/17 16:12	11/17/17 18:03	1
1,4-Dichlorobenzene	<0.19		0.19	0.048	mg/Kg	☼	11/16/17 16:12	11/17/17 18:03	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.053	mg/Kg	☼	11/16/17 16:12	11/17/17 18:03	1
2,4-Dichlorophenol	<0.37		0.37	0.089	mg/Kg	☼	11/16/17 16:12	11/17/17 18:03	1
Diethyl phthalate	<0.19		0.19	0.064	mg/Kg	☼	11/16/17 16:12	11/17/17 18:03	1
2,4-Dimethylphenol	<0.37		0.37	0.14	mg/Kg	☼	11/16/17 16:12	11/17/17 18:03	1
Dimethyl phthalate	<0.19		0.19	0.049	mg/Kg	☼	11/16/17 16:12	11/17/17 18:03	1
Di-n-butyl phthalate	<0.19		0.19	0.057	mg/Kg	☼	11/16/17 16:12	11/17/17 18:03	1
4,6-Dinitro-2-methylphenol	<0.76		0.76	0.30	mg/Kg	☼	11/16/17 16:12	11/17/17 18:03	1
2,4-Dinitrophenol	<0.76		0.76	0.66	mg/Kg	☼	11/16/17 16:12	11/17/17 18:03	1
2,4-Dinitrotoluene	<0.19		0.19	0.060	mg/Kg	☼	11/16/17 16:12	11/17/17 18:03	1
2,6-Dinitrotoluene	<0.19		0.19	0.074	mg/Kg	☼	11/16/17 16:12	11/17/17 18:03	1
Di-n-octyl phthalate	<0.19		0.19	0.061	mg/Kg	☼	11/16/17 16:12	11/17/17 18:03	1
Fluoranthene	0.011	J	0.037	0.0070	mg/Kg	☼	11/16/17 16:12	11/17/17 18:03	1
Fluorene	<0.037		0.037	0.0053	mg/Kg	☼	11/16/17 16:12	11/17/17 18:03	1
Hexachlorobenzene	<0.076		0.076	0.0087	mg/Kg	☼	11/16/17 16:12	11/17/17 18:03	1
Hexachlorobutadiene	<0.19		0.19	0.059	mg/Kg	☼	11/16/17 16:12	11/17/17 18:03	1
Hexachlorocyclopentadiene	<0.76		0.76	0.22	mg/Kg	☼	11/16/17 16:12	11/17/17 18:03	1
Hexachloroethane	<0.19		0.19	0.057	mg/Kg	☼	11/16/17 16:12	11/17/17 18:03	1
Indeno[1,2,3-cd]pyrene	<0.037		0.037	0.0097	mg/Kg	☼	11/16/17 16:12	11/17/17 18:03	1
Isophorone	<0.19		0.19	0.042	mg/Kg	☼	11/16/17 16:12	11/17/17 18:03	1
2-Methylnaphthalene	<0.076		0.076	0.0069	mg/Kg	☼	11/16/17 16:12	11/17/17 18:03	1
2-Methylphenol	<0.19		0.19	0.060	mg/Kg	☼	11/16/17 16:12	11/17/17 18:03	1
3 & 4 Methylphenol	<0.19		0.19	0.063	mg/Kg	☼	11/16/17 16:12	11/17/17 18:03	1
Naphthalene	<0.037		0.037	0.0058	mg/Kg	☼	11/16/17 16:12	11/17/17 18:03	1
2-Nitroaniline	<0.19		0.19	0.051	mg/Kg	☼	11/16/17 16:12	11/17/17 18:03	1
3-Nitroaniline	<0.37		0.37	0.12	mg/Kg	☼	11/16/17 16:12	11/17/17 18:03	1
4-Nitroaniline	<0.37		0.37	0.16	mg/Kg	☼	11/16/17 16:12	11/17/17 18:03	1
Nitrobenzene	<0.037		0.037	0.0094	mg/Kg	☼	11/16/17 16:12	11/17/17 18:03	1
2-Nitrophenol	<0.37		0.37	0.089	mg/Kg	☼	11/16/17 16:12	11/17/17 18:03	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137079-4

Client Sample ID: 2696V-65-B02 (0-5)

Lab Sample ID: 500-137079-9

Date Collected: 11/09/17 11:05

Matrix: Solid

Date Received: 11/10/17 08:00

Percent Solids: 83.2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Nitrophenol	<0.76		0.76	0.36	mg/Kg	☼	11/16/17 16:12	11/17/17 18:03	1
N-Nitrosodi-n-propylamine	<0.076		0.076	0.046	mg/Kg	☼	11/16/17 16:12	11/17/17 18:03	1
N-Nitrosodiphenylamine	<0.19		0.19	0.044	mg/Kg	☼	11/16/17 16:12	11/17/17 18:03	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.044	mg/Kg	☼	11/16/17 16:12	11/17/17 18:03	1
Pentachlorophenol	<0.76		0.76	0.60	mg/Kg	☼	11/16/17 16:12	11/17/17 18:03	1
Phenanthrene	<0.037		0.037	0.0052	mg/Kg	☼	11/16/17 16:12	11/17/17 18:03	1
Phenol	<0.19		0.19	0.084	mg/Kg	☼	11/16/17 16:12	11/17/17 18:03	1
Pyrene	0.0087	J	0.037	0.0075	mg/Kg	☼	11/16/17 16:12	11/17/17 18:03	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.041	mg/Kg	☼	11/16/17 16:12	11/17/17 18:03	1
2,4,5-Trichlorophenol	<0.37		0.37	0.086	mg/Kg	☼	11/16/17 16:12	11/17/17 18:03	1
2,4,6-Trichlorophenol	<0.37		0.37	0.13	mg/Kg	☼	11/16/17 16:12	11/17/17 18:03	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	88		44 - 121	11/16/17 16:12	11/17/17 18:03	1
2-Fluorophenol	95		46 - 133	11/16/17 16:12	11/17/17 18:03	1
Nitrobenzene-d5	85		41 - 120	11/16/17 16:12	11/17/17 18:03	1
Phenol-d5	90		46 - 125	11/16/17 16:12	11/17/17 18:03	1
Terphenyl-d14	79		35 - 160	11/16/17 16:12	11/17/17 18:03	1
2,4,6-Tribromophenol	64		25 - 139	11/16/17 16:12	11/17/17 18:03	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.38	J	1.2	0.23	mg/Kg	☼	11/11/17 13:30	11/14/17 03:16	1
Arsenic	6.8		0.59	0.20	mg/Kg	☼	11/11/17 13:30	11/14/17 03:16	1
Barium	27		0.59	0.067	mg/Kg	☼	11/11/17 13:30	11/14/17 03:16	1
Beryllium	0.49		0.24	0.055	mg/Kg	☼	11/11/17 13:30	11/14/17 03:16	1
Cadmium	0.16	B	0.12	0.021	mg/Kg	☼	11/11/17 13:30	11/14/17 03:16	1
Chromium	12		0.59	0.29	mg/Kg	☼	11/11/17 13:30	11/14/17 03:16	1
Cobalt	6.6		0.29	0.077	mg/Kg	☼	11/11/17 13:30	11/14/17 03:16	1
Copper	17		2.9	0.82	mg/Kg	☼	11/11/17 13:30	11/14/17 23:57	5
Iron	14000		12	6.1	mg/Kg	☼	11/15/17 16:01	11/16/17 21:54	1
Lead	20		0.29	0.14	mg/Kg	☼	11/11/17 13:30	11/14/17 03:16	1
Magnesium	23000		5.9	2.9	mg/Kg	☼	11/11/17 13:30	11/14/17 03:16	1
Calcium	57000	B	59	10	mg/Kg	☼	11/11/17 13:30	11/14/17 23:57	5
Manganese	240		0.59	0.085	mg/Kg	☼	11/11/17 13:30	11/14/17 03:16	1
Nickel	19		0.59	0.17	mg/Kg	☼	11/11/17 13:30	11/14/17 03:16	1
Selenium	<0.59		0.59	0.35	mg/Kg	☼	11/11/17 13:30	11/14/17 03:16	1
Silver	<0.29	^	0.29	0.076	mg/Kg	☼	11/11/17 13:30	11/14/17 03:16	1
Thallium	<0.59		0.59	0.29	mg/Kg	☼	11/11/17 13:30	11/14/17 03:16	1
Vanadium	17		0.29	0.069	mg/Kg	☼	11/11/17 13:30	11/14/17 03:16	1
Zinc	51		1.2	0.52	mg/Kg	☼	11/11/17 13:30	11/14/17 03:16	1
Potassium	1400		29	10	mg/Kg	☼	11/11/17 13:30	11/14/17 03:16	1
Sodium	140		59	8.7	mg/Kg	☼	11/11/17 13:30	11/14/17 03:16	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.050		0.050	0.010	mg/L		11/17/17 06:52	11/17/17 17:29	1
Barium	0.17	J	0.50	0.050	mg/L		11/17/17 06:52	11/17/17 17:29	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		11/17/17 06:52	11/17/17 17:29	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		11/17/17 06:52	11/17/17 17:29	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137079-4

Client Sample ID: 2696V-65-B02 (0-5)

Lab Sample ID: 500-137079-9

Date Collected: 11/09/17 11:05

Matrix: Solid

Date Received: 11/10/17 08:00

Percent Solids: 83.2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	530		5.0	0.50	mg/L		11/17/17 06:52	11/17/17 17:29	1
Chromium	<0.025		0.025	0.010	mg/L		11/17/17 06:52	11/17/17 17:29	1
Cobalt	<0.025		0.025	0.010	mg/L		11/17/17 06:52	11/17/17 17:29	1
Copper	0.013	J	0.025	0.010	mg/L		11/17/17 06:52	11/17/17 17:29	1
Iron	<0.40		0.40	0.20	mg/L		11/17/17 06:52	11/17/17 17:29	1
Lead	<0.0075		0.0075	0.0075	mg/L		11/17/17 06:52	11/17/17 17:29	1
Magnesium	52		2.5	0.50	mg/L		11/17/17 06:52	11/17/17 17:29	1
Manganese	0.21		0.025	0.010	mg/L		11/17/17 06:52	11/17/17 17:29	1
Nickel	<0.025		0.025	0.010	mg/L		11/17/17 06:52	11/17/17 17:29	1
Potassium	1.6	J	2.5	0.50	mg/L		11/17/17 06:52	11/17/17 17:29	1
Selenium	<0.050		0.050	0.020	mg/L		11/17/17 06:52	11/17/17 17:29	1
Silver	<0.025		0.025	0.010	mg/L		11/17/17 06:52	11/17/17 17:29	1
Vanadium	<0.025		0.025	0.010	mg/L		11/17/17 06:52	11/17/17 17:29	1
Zinc	0.034	J	0.50	0.020	mg/L		11/17/17 06:52	11/17/17 17:29	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.064		0.025	0.010	mg/L		11/16/17 14:16	11/17/17 23:55	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		11/17/17 06:52	11/18/17 02:43	1
Thallium	<0.0020		0.0020	0.0020	mg/L		11/17/17 06:52	11/18/17 02:43	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		11/17/17 08:10	11/18/17 12:17	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.020		0.020	0.0066	mg/Kg	☼	11/17/17 10:45	11/17/17 14:05	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.53		0.53	0.18	mg/Kg	☼	11/21/17 11:00	11/21/17 14:15	1
pH	8.4		0.20	0.20	SU			11/18/17 12:32	1

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137079-4

Client Sample ID: 2696V-65-B02 (5-10)

Lab Sample ID: 500-137079-10

Date Collected: 11/09/17 11:10

Matrix: Solid

Date Received: 11/10/17 08:00

Percent Solids: 81.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.016		0.016	0.0071	mg/Kg	☼	11/10/17 18:28	11/16/17 18:53	1
Benzene	<0.0016		0.0016	0.00042	mg/Kg	☼	11/10/17 18:28	11/16/17 18:53	1
Bromodichloromethane	<0.0016		0.0016	0.00033	mg/Kg	☼	11/10/17 18:28	11/16/17 18:53	1
Bromoform	<0.0016		0.0016	0.00048	mg/Kg	☼	11/10/17 18:28	11/16/17 18:53	1
Bromomethane	<0.0041		0.0041	0.0016	mg/Kg	☼	11/10/17 18:28	11/16/17 18:53	1
2-Butanone (MEK)	<0.0041		0.0041	0.0018	mg/Kg	☼	11/10/17 18:28	11/16/17 18:53	1
Carbon disulfide	<0.0041		0.0041	0.00085	mg/Kg	☼	11/10/17 18:28	11/16/17 18:53	1
Carbon tetrachloride	<0.0016 *		0.0016	0.00048	mg/Kg	☼	11/10/17 18:28	11/16/17 18:53	1
Chlorobenzene	<0.0016		0.0016	0.00061	mg/Kg	☼	11/10/17 18:28	11/16/17 18:53	1
Chloroethane	<0.0041		0.0041	0.0012	mg/Kg	☼	11/10/17 18:28	11/16/17 18:53	1
Chloroform	<0.0016		0.0016	0.00057	mg/Kg	☼	11/10/17 18:28	11/16/17 18:53	1
Chloromethane	<0.0041 *		0.0041	0.0016	mg/Kg	☼	11/10/17 18:28	11/16/17 18:53	1
cis-1,2-Dichloroethene	<0.0016		0.0016	0.00046	mg/Kg	☼	11/10/17 18:28	11/16/17 18:53	1
cis-1,3-Dichloropropene	<0.0016		0.0016	0.00049	mg/Kg	☼	11/10/17 18:28	11/16/17 18:53	1
Dibromochloromethane	<0.0016		0.0016	0.00054	mg/Kg	☼	11/10/17 18:28	11/16/17 18:53	1
1,1-Dichloroethane	<0.0016		0.0016	0.00056	mg/Kg	☼	11/10/17 18:28	11/16/17 18:53	1
1,2-Dichloroethane	<0.0041		0.0041	0.0013	mg/Kg	☼	11/10/17 18:28	11/16/17 18:53	1
1,1-Dichloroethene	<0.0016		0.0016	0.00056	mg/Kg	☼	11/10/17 18:28	11/16/17 18:53	1
1,2-Dichloropropane	<0.0016		0.0016	0.00042	mg/Kg	☼	11/10/17 18:28	11/16/17 18:53	1
1,3-Dichloropropane, Total	<0.0016		0.0016	0.00058	mg/Kg	☼	11/10/17 18:28	11/16/17 18:53	1
Ethylbenzene	<0.0016		0.0016	0.00079	mg/Kg	☼	11/10/17 18:28	11/16/17 18:53	1
2-Hexanone	<0.0041		0.0041	0.0013	mg/Kg	☼	11/10/17 18:28	11/16/17 18:53	1
Methylene Chloride	<0.0041		0.0041	0.0016	mg/Kg	☼	11/10/17 18:28	11/16/17 18:53	1
4-Methyl-2-pentanone (MIBK)	<0.0041		0.0041	0.0012	mg/Kg	☼	11/10/17 18:28	11/16/17 18:53	1
Methyl tert-butyl ether	<0.0016		0.0016	0.00048	mg/Kg	☼	11/10/17 18:28	11/16/17 18:53	1
Styrene	<0.0016		0.0016	0.00050	mg/Kg	☼	11/10/17 18:28	11/16/17 18:53	1
1,1,2,2-Tetrachloroethane	<0.0016		0.0016	0.00052	mg/Kg	☼	11/10/17 18:28	11/16/17 18:53	1
Tetrachloroethene	<0.0016		0.0016	0.00056	mg/Kg	☼	11/10/17 18:28	11/16/17 18:53	1
Toluene	<0.0016		0.0016	0.00041	mg/Kg	☼	11/10/17 18:28	11/16/17 18:53	1
trans-1,2-Dichloroethene	<0.0016		0.0016	0.00073	mg/Kg	☼	11/10/17 18:28	11/16/17 18:53	1
trans-1,3-Dichloropropene	<0.0016		0.0016	0.00058	mg/Kg	☼	11/10/17 18:28	11/16/17 18:53	1
1,1,1-Trichloroethane	<0.0016		0.0016	0.00055	mg/Kg	☼	11/10/17 18:28	11/16/17 18:53	1
1,1,2-Trichloroethane	<0.0016		0.0016	0.00070	mg/Kg	☼	11/10/17 18:28	11/16/17 18:53	1
Trichloroethene	<0.0016		0.0016	0.00055	mg/Kg	☼	11/10/17 18:28	11/16/17 18:53	1
Vinyl acetate	<0.0041		0.0041	0.0014	mg/Kg	☼	11/10/17 18:28	11/16/17 18:53	1
Vinyl chloride	<0.0016		0.0016	0.00073	mg/Kg	☼	11/10/17 18:28	11/16/17 18:53	1
Xylenes, Total	<0.0033		0.0033	0.00053	mg/Kg	☼	11/10/17 18:28	11/16/17 18:53	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	108		75 - 131	11/10/17 18:28	11/16/17 18:53	1
Dibromofluoromethane	103		75 - 126	11/10/17 18:28	11/16/17 18:53	1
1,2-Dichloroethane-d4 (Surr)	104		70 - 134	11/10/17 18:28	11/16/17 18:53	1
Toluene-d8 (Surr)	101		75 - 124	11/10/17 18:28	11/16/17 18:53	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.040		0.040	0.0073	mg/Kg	☼	11/16/17 16:12	11/17/17 18:56	1
Acenaphthylene	<0.040		0.040	0.0053	mg/Kg	☼	11/16/17 16:12	11/17/17 18:56	1
Anthracene	<0.040		0.040	0.0068	mg/Kg	☼	11/16/17 16:12	11/17/17 18:56	1
Benzo[a]anthracene	<0.040		0.040	0.0054	mg/Kg	☼	11/16/17 16:12	11/17/17 18:56	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137079-4

Client Sample ID: 2696V-65-B02 (5-10)

Lab Sample ID: 500-137079-10

Date Collected: 11/09/17 11:10

Matrix: Solid

Date Received: 11/10/17 08:00

Percent Solids: 81.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	<0.040		0.040	0.0078	mg/Kg	☼	11/16/17 16:12	11/17/17 18:56	1
Benzo[b]fluoranthene	0.0099	J	0.040	0.0087	mg/Kg	☼	11/16/17 16:12	11/17/17 18:56	1
Benzo[g,h,i]perylene	<0.040		0.040	0.013	mg/Kg	☼	11/16/17 16:12	11/17/17 18:56	1
Benzo[k]fluoranthene	<0.040		0.040	0.012	mg/Kg	☼	11/16/17 16:12	11/17/17 18:56	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.041	mg/Kg	☼	11/16/17 16:12	11/17/17 18:56	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.061	mg/Kg	☼	11/16/17 16:12	11/17/17 18:56	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.074	mg/Kg	☼	11/16/17 16:12	11/17/17 18:56	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.053	mg/Kg	☼	11/16/17 16:12	11/17/17 18:56	1
Butyl benzyl phthalate	<0.20		0.20	0.077	mg/Kg	☼	11/16/17 16:12	11/17/17 18:56	1
Carbazole	<0.20		0.20	0.10	mg/Kg	☼	11/16/17 16:12	11/17/17 18:56	1
4-Chloroaniline	<0.82		0.82	0.19	mg/Kg	☼	11/16/17 16:12	11/17/17 18:56	1
4-Chloro-3-methylphenol	<0.40		0.40	0.14	mg/Kg	☼	11/16/17 16:12	11/17/17 18:56	1
2-Chloronaphthalene	<0.20		0.20	0.045	mg/Kg	☼	11/16/17 16:12	11/17/17 18:56	1
2-Chlorophenol	<0.20		0.20	0.069	mg/Kg	☼	11/16/17 16:12	11/17/17 18:56	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.047	mg/Kg	☼	11/16/17 16:12	11/17/17 18:56	1
Chrysene	0.014	J	0.040	0.011	mg/Kg	☼	11/16/17 16:12	11/17/17 18:56	1
Dibenz(a,h)anthracene	<0.040		0.040	0.0078	mg/Kg	☼	11/16/17 16:12	11/17/17 18:56	1
Dibenzofuran	<0.20		0.20	0.047	mg/Kg	☼	11/16/17 16:12	11/17/17 18:56	1
1,2-Dichlorobenzene	<0.20		0.20	0.048	mg/Kg	☼	11/16/17 16:12	11/17/17 18:56	1
1,3-Dichlorobenzene	<0.20		0.20	0.046	mg/Kg	☼	11/16/17 16:12	11/17/17 18:56	1
1,4-Dichlorobenzene	<0.20		0.20	0.052	mg/Kg	☼	11/16/17 16:12	11/17/17 18:56	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.057	mg/Kg	☼	11/16/17 16:12	11/17/17 18:56	1
2,4-Dichlorophenol	<0.40		0.40	0.096	mg/Kg	☼	11/16/17 16:12	11/17/17 18:56	1
Diethyl phthalate	<0.20		0.20	0.069	mg/Kg	☼	11/16/17 16:12	11/17/17 18:56	1
2,4-Dimethylphenol	<0.40		0.40	0.15	mg/Kg	☼	11/16/17 16:12	11/17/17 18:56	1
Dimethyl phthalate	<0.20		0.20	0.053	mg/Kg	☼	11/16/17 16:12	11/17/17 18:56	1
Di-n-butyl phthalate	<0.20		0.20	0.062	mg/Kg	☼	11/16/17 16:12	11/17/17 18:56	1
4,6-Dinitro-2-methylphenol	<0.82		0.82	0.32	mg/Kg	☼	11/16/17 16:12	11/17/17 18:56	1
2,4-Dinitrophenol	<0.82		0.82	0.71	mg/Kg	☼	11/16/17 16:12	11/17/17 18:56	1
2,4-Dinitrotoluene	<0.20		0.20	0.064	mg/Kg	☼	11/16/17 16:12	11/17/17 18:56	1
2,6-Dinitrotoluene	<0.20		0.20	0.079	mg/Kg	☼	11/16/17 16:12	11/17/17 18:56	1
Di-n-octyl phthalate	<0.20		0.20	0.066	mg/Kg	☼	11/16/17 16:12	11/17/17 18:56	1
Fluoranthene	0.011	J	0.040	0.0075	mg/Kg	☼	11/16/17 16:12	11/17/17 18:56	1
Fluorene	<0.040		0.040	0.0057	mg/Kg	☼	11/16/17 16:12	11/17/17 18:56	1
Hexachlorobenzene	<0.082		0.082	0.0094	mg/Kg	☼	11/16/17 16:12	11/17/17 18:56	1
Hexachlorobutadiene	<0.20		0.20	0.064	mg/Kg	☼	11/16/17 16:12	11/17/17 18:56	1
Hexachlorocyclopentadiene	<0.82		0.82	0.23	mg/Kg	☼	11/16/17 16:12	11/17/17 18:56	1
Hexachloroethane	<0.20		0.20	0.061	mg/Kg	☼	11/16/17 16:12	11/17/17 18:56	1
Indeno[1,2,3-cd]pyrene	<0.040		0.040	0.010	mg/Kg	☼	11/16/17 16:12	11/17/17 18:56	1
Isophorone	<0.20		0.20	0.045	mg/Kg	☼	11/16/17 16:12	11/17/17 18:56	1
2-Methylnaphthalene	<0.082		0.082	0.0074	mg/Kg	☼	11/16/17 16:12	11/17/17 18:56	1
2-Methylphenol	<0.20		0.20	0.065	mg/Kg	☼	11/16/17 16:12	11/17/17 18:56	1
3 & 4 Methylphenol	<0.20		0.20	0.067	mg/Kg	☼	11/16/17 16:12	11/17/17 18:56	1
Naphthalene	<0.040		0.040	0.0062	mg/Kg	☼	11/16/17 16:12	11/17/17 18:56	1
2-Nitroaniline	<0.20		0.20	0.054	mg/Kg	☼	11/16/17 16:12	11/17/17 18:56	1
3-Nitroaniline	<0.40		0.40	0.13	mg/Kg	☼	11/16/17 16:12	11/17/17 18:56	1
4-Nitroaniline	<0.40		0.40	0.17	mg/Kg	☼	11/16/17 16:12	11/17/17 18:56	1
Nitrobenzene	<0.040		0.040	0.010	mg/Kg	☼	11/16/17 16:12	11/17/17 18:56	1
2-Nitrophenol	<0.40		0.40	0.096	mg/Kg	☼	11/16/17 16:12	11/17/17 18:56	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137079-4

Client Sample ID: 2696V-65-B02 (5-10)

Lab Sample ID: 500-137079-10

Date Collected: 11/09/17 11:10

Matrix: Solid

Date Received: 11/10/17 08:00

Percent Solids: 81.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Nitrophenol	<0.82		0.82	0.38	mg/Kg	☼	11/16/17 16:12	11/17/17 18:56	1
N-Nitrosodi-n-propylamine	<0.082		0.082	0.049	mg/Kg	☼	11/16/17 16:12	11/17/17 18:56	1
N-Nitrosodiphenylamine	<0.20		0.20	0.048	mg/Kg	☼	11/16/17 16:12	11/17/17 18:56	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.047	mg/Kg	☼	11/16/17 16:12	11/17/17 18:56	1
Pentachlorophenol	<0.82		0.82	0.65	mg/Kg	☼	11/16/17 16:12	11/17/17 18:56	1
Phenanthrene	0.015	J	0.040	0.0056	mg/Kg	☼	11/16/17 16:12	11/17/17 18:56	1
Phenol	<0.20		0.20	0.090	mg/Kg	☼	11/16/17 16:12	11/17/17 18:56	1
Pyrene	0.014	J	0.040	0.0080	mg/Kg	☼	11/16/17 16:12	11/17/17 18:56	1
1,2,4-Trichlorobenzene	<0.20		0.20	0.044	mg/Kg	☼	11/16/17 16:12	11/17/17 18:56	1
2,4,5-Trichlorophenol	<0.40		0.40	0.092	mg/Kg	☼	11/16/17 16:12	11/17/17 18:56	1
2,4,6-Trichlorophenol	<0.40		0.40	0.14	mg/Kg	☼	11/16/17 16:12	11/17/17 18:56	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	98		44 - 121	11/16/17 16:12	11/17/17 18:56	1
2-Fluorophenol	101		46 - 133	11/16/17 16:12	11/17/17 18:56	1
Nitrobenzene-d5	95		41 - 120	11/16/17 16:12	11/17/17 18:56	1
Phenol-d5	96		46 - 125	11/16/17 16:12	11/17/17 18:56	1
Terphenyl-d14	82		35 - 160	11/16/17 16:12	11/17/17 18:56	1
2,4,6-Tribromophenol	65		25 - 139	11/16/17 16:12	11/17/17 18:56	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.55	J	1.2	0.23	mg/Kg	☼	11/11/17 13:30	11/14/17 03:20	1
Arsenic	5.8		0.60	0.21	mg/Kg	☼	11/11/17 13:30	11/14/17 03:20	1
Barium	28		0.60	0.068	mg/Kg	☼	11/11/17 13:30	11/14/17 03:20	1
Beryllium	0.47		0.24	0.056	mg/Kg	☼	11/11/17 13:30	11/14/17 03:20	1
Cadmium	0.16	B	0.12	0.022	mg/Kg	☼	11/11/17 13:30	11/14/17 03:20	1
Chromium	10		0.60	0.30	mg/Kg	☼	11/11/17 13:30	11/14/17 03:20	1
Cobalt	6.7		0.30	0.079	mg/Kg	☼	11/11/17 13:30	11/14/17 03:20	1
Copper	18		3.0	0.84	mg/Kg	☼	11/11/17 13:30	11/15/17 00:01	5
Iron	21000		12	6.1	mg/Kg	☼	11/15/17 16:01	11/16/17 21:58	1
Lead	8.5		0.30	0.14	mg/Kg	☼	11/11/17 13:30	11/14/17 03:20	1
Magnesium	33000		6.0	3.0	mg/Kg	☼	11/11/17 13:30	11/14/17 03:20	1
Calcium	94000	B	60	10	mg/Kg	☼	11/11/17 13:30	11/15/17 00:01	5
Manganese	270		0.60	0.087	mg/Kg	☼	11/11/17 13:30	11/14/17 03:20	1
Nickel	18		0.60	0.17	mg/Kg	☼	11/11/17 13:30	11/14/17 03:20	1
Selenium	0.39	J B	0.60	0.35	mg/Kg	☼	11/11/17 13:30	11/14/17 03:20	1
Silver	<0.30	^	0.30	0.077	mg/Kg	☼	11/11/17 13:30	11/14/17 03:20	1
Thallium	<0.60		0.60	0.30	mg/Kg	☼	11/11/17 13:30	11/14/17 03:20	1
Vanadium	15		0.30	0.071	mg/Kg	☼	11/11/17 13:30	11/14/17 03:20	1
Zinc	42		1.2	0.53	mg/Kg	☼	11/11/17 13:30	11/14/17 03:20	1
Potassium	1300		30	11	mg/Kg	☼	11/11/17 13:30	11/14/17 03:20	1
Sodium	240		60	8.9	mg/Kg	☼	11/11/17 13:30	11/14/17 03:20	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.050		0.050	0.010	mg/L		11/17/17 06:52	11/17/17 17:33	1
Barium	0.42	J	0.50	0.050	mg/L		11/17/17 06:52	11/17/17 17:33	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		11/17/17 06:52	11/17/17 17:33	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		11/17/17 06:52	11/17/17 17:33	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137079-4

Client Sample ID: 2696V-65-B02 (5-10)

Lab Sample ID: 500-137079-10

Date Collected: 11/09/17 11:10

Matrix: Solid

Date Received: 11/10/17 08:00

Percent Solids: 81.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	550		5.0	0.50	mg/L		11/17/17 06:52	11/17/17 17:33	1
Chromium	<0.025		0.025	0.010	mg/L		11/17/17 06:52	11/17/17 17:33	1
Cobalt	<0.025		0.025	0.010	mg/L		11/17/17 06:52	11/17/17 17:33	1
Copper	0.022	J	0.025	0.010	mg/L		11/17/17 06:52	11/17/17 17:33	1
Iron	<0.40		0.40	0.20	mg/L		11/17/17 06:52	11/17/17 17:33	1
Lead	<0.0075		0.0075	0.0075	mg/L		11/17/17 06:52	11/17/17 17:33	1
Magnesium	16		2.5	0.50	mg/L		11/17/17 06:52	11/17/17 17:33	1
Manganese	1.6		0.025	0.010	mg/L		11/17/17 06:52	11/17/17 17:33	1
Nickel	0.036		0.025	0.010	mg/L		11/17/17 06:52	11/17/17 17:33	1
Potassium	2.9		2.5	0.50	mg/L		11/17/17 06:52	11/17/17 17:33	1
Selenium	<0.050		0.050	0.020	mg/L		11/17/17 06:52	11/17/17 17:33	1
Silver	<0.025		0.025	0.010	mg/L		11/17/17 06:52	11/17/17 17:33	1
Vanadium	<0.025		0.025	0.010	mg/L		11/17/17 06:52	11/17/17 17:33	1
Zinc	0.059	J	0.50	0.020	mg/L		11/17/17 06:52	11/17/17 17:33	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.052		0.025	0.010	mg/L		11/16/17 14:16	11/17/17 23:59	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		11/17/17 06:52	11/18/17 02:47	1
Thallium	<0.0020		0.0020	0.0020	mg/L		11/17/17 06:52	11/18/17 02:47	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		11/17/17 08:10	11/18/17 12:19	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.019		0.018	0.0059	mg/Kg	☼	11/17/17 10:45	11/17/17 14:07	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.58		0.58	0.20	mg/Kg	☼	11/21/17 11:00	11/21/17 14:15	1
pH	8.2		0.20	0.20	SU			11/18/17 12:35	1

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137079-4

Client Sample ID: 2696V-65-B02 (10-15)

Lab Sample ID: 500-137079-11

Date Collected: 11/09/17 11:15

Matrix: Solid

Date Received: 11/10/17 08:00

Percent Solids: 90.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.22		0.22	0.076	mg/Kg	☼	11/09/17 11:15	11/19/17 22:23	50
Benzene	<0.011		0.011	0.0065	mg/Kg	☼	11/09/17 11:15	11/19/17 22:23	50
Bromodichloromethane	<0.044		0.044	0.016	mg/Kg	☼	11/09/17 11:15	11/19/17 22:23	50
Bromoform	<0.044		0.044	0.021	mg/Kg	☼	11/09/17 11:15	11/19/17 22:23	50
Bromomethane	<0.088		0.088	0.035	mg/Kg	☼	11/09/17 11:15	11/19/17 22:23	50
2-Butanone (MEK)	<0.22		0.22	0.094	mg/Kg	☼	11/09/17 11:15	11/19/17 22:23	50
Carbon disulfide	<0.088		0.088	0.035	mg/Kg	☼	11/09/17 11:15	11/19/17 22:23	50
Carbon tetrachloride	<0.044		0.044	0.017	mg/Kg	☼	11/09/17 11:15	11/19/17 22:23	50
Chlorobenzene	<0.044		0.044	0.017	mg/Kg	☼	11/09/17 11:15	11/19/17 22:23	50
Chloroethane	<0.044		0.044	0.022	mg/Kg	☼	11/09/17 11:15	11/19/17 22:23	50
Chloroform	<0.088		0.088	0.016	mg/Kg	☼	11/09/17 11:15	11/19/17 22:23	50
Chloromethane	<0.044		0.044	0.014	mg/Kg	☼	11/09/17 11:15	11/19/17 22:23	50
cis-1,2-Dichloroethene	<0.044		0.044	0.018	mg/Kg	☼	11/09/17 11:15	11/19/17 22:23	50
cis-1,3-Dichloropropene	<0.044		0.044	0.018	mg/Kg	☼	11/09/17 11:15	11/19/17 22:23	50
Dibromochloromethane	<0.044		0.044	0.022	mg/Kg	☼	11/09/17 11:15	11/19/17 22:23	50
1,1-Dichloroethane	<0.044		0.044	0.018	mg/Kg	☼	11/09/17 11:15	11/19/17 22:23	50
1,2-Dichloroethane	<0.044		0.044	0.017	mg/Kg	☼	11/09/17 11:15	11/19/17 22:23	50
1,1-Dichloroethene	<0.044		0.044	0.017	mg/Kg	☼	11/09/17 11:15	11/19/17 22:23	50
1,2-Dichloropropane	<0.044		0.044	0.019	mg/Kg	☼	11/09/17 11:15	11/19/17 22:23	50
1,3-Dichloropropene, Total	<0.044		0.044	0.018	mg/Kg	☼	11/09/17 11:15	11/19/17 22:23	50
Ethylbenzene	1.6		0.011	0.0081	mg/Kg	☼	11/09/17 11:15	11/19/17 22:23	50
2-Hexanone	<0.22		0.22	0.069	mg/Kg	☼	11/09/17 11:15	11/19/17 22:23	50
Methylene Chloride	<0.22		0.22	0.072	mg/Kg	☼	11/09/17 11:15	11/19/17 22:23	50
4-Methyl-2-pentanone (MIBK)	<0.22		0.22	0.095	mg/Kg	☼	11/09/17 11:15	11/19/17 22:23	50
Methyl tert-butyl ether	<0.044		0.044	0.017	mg/Kg	☼	11/09/17 11:15	11/19/17 22:23	50
Styrene	<0.044		0.044	0.017	mg/Kg	☼	11/09/17 11:15	11/19/17 22:23	50
1,1,2,2-Tetrachloroethane	<0.044		0.044	0.018	mg/Kg	☼	11/09/17 11:15	11/19/17 22:23	50
Tetrachloroethene	<0.044		0.044	0.016	mg/Kg	☼	11/09/17 11:15	11/19/17 22:23	50
Toluene	<0.011		0.011	0.0065	mg/Kg	☼	11/09/17 11:15	11/19/17 22:23	50
trans-1,2-Dichloroethene	<0.044		0.044	0.015	mg/Kg	☼	11/09/17 11:15	11/19/17 22:23	50
trans-1,3-Dichloropropene	<0.044		0.044	0.016	mg/Kg	☼	11/09/17 11:15	11/19/17 22:23	50
1,1,1-Trichloroethane	<0.044		0.044	0.017	mg/Kg	☼	11/09/17 11:15	11/19/17 22:23	50
1,1,2-Trichloroethane	<0.044		0.044	0.016	mg/Kg	☼	11/09/17 11:15	11/19/17 22:23	50
Trichloroethene	<0.022		0.022	0.0073	mg/Kg	☼	11/09/17 11:15	11/19/17 22:23	50
Vinyl acetate	<0.088		0.088	0.040	mg/Kg	☼	11/09/17 11:15	11/19/17 22:23	50
Vinyl chloride	<0.022		0.022	0.012	mg/Kg	☼	11/09/17 11:15	11/19/17 22:23	50
Xylenes, Total	1.1		0.022	0.0097	mg/Kg	☼	11/09/17 11:15	11/19/17 22:23	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	89		72 - 124	11/09/17 11:15	11/19/17 22:23	50
Dibromofluoromethane	87		75 - 120	11/09/17 11:15	11/19/17 22:23	50
1,2-Dichloroethane-d4 (Surr)	87		75 - 126	11/09/17 11:15	11/19/17 22:23	50
Toluene-d8 (Surr)	105		75 - 120	11/09/17 11:15	11/19/17 22:23	50

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.057		0.035	0.0064	mg/Kg	☼	11/16/17 16:12	11/17/17 19:23	1
Acenaphthylene	<0.035		0.035	0.0047	mg/Kg	☼	11/16/17 16:12	11/17/17 19:23	1
Anthracene	0.047		0.035	0.0059	mg/Kg	☼	11/16/17 16:12	11/17/17 19:23	1
Benzo[a]anthracene	0.025	J	0.035	0.0048	mg/Kg	☼	11/16/17 16:12	11/17/17 19:23	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137079-4

Client Sample ID: 2696V-65-B02 (10-15)

Lab Sample ID: 500-137079-11

Date Collected: 11/09/17 11:15

Matrix: Solid

Date Received: 11/10/17 08:00

Percent Solids: 90.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	0.030	J	0.035	0.0068	mg/Kg	☼	11/16/17 16:12	11/17/17 19:23	1
Benzo[b]fluoranthene	<0.035		0.035	0.0076	mg/Kg	☼	11/16/17 16:12	11/17/17 19:23	1
Benzo[g,h,i]perylene	<0.035		0.035	0.011	mg/Kg	☼	11/16/17 16:12	11/17/17 19:23	1
Benzo[k]fluoranthene	<0.035		0.035	0.010	mg/Kg	☼	11/16/17 16:12	11/17/17 19:23	1
Bis(2-chloroethoxy)methane	<0.18		0.18	0.036	mg/Kg	☼	11/16/17 16:12	11/17/17 19:23	1
Bis(2-chloroethyl)ether	<0.18		0.18	0.053	mg/Kg	☼	11/16/17 16:12	11/17/17 19:23	1
Bis(2-ethylhexyl) phthalate	<0.18		0.18	0.065	mg/Kg	☼	11/16/17 16:12	11/17/17 19:23	1
4-Bromophenyl phenyl ether	<0.18		0.18	0.047	mg/Kg	☼	11/16/17 16:12	11/17/17 19:23	1
Butyl benzyl phthalate	<0.18		0.18	0.067	mg/Kg	☼	11/16/17 16:12	11/17/17 19:23	1
Carbazole	<0.18		0.18	0.088	mg/Kg	☼	11/16/17 16:12	11/17/17 19:23	1
4-Chloroaniline	<0.71		0.71	0.17	mg/Kg	☼	11/16/17 16:12	11/17/17 19:23	1
4-Chloro-3-methylphenol	<0.35		0.35	0.12	mg/Kg	☼	11/16/17 16:12	11/17/17 19:23	1
2-Chloronaphthalene	<0.18		0.18	0.039	mg/Kg	☼	11/16/17 16:12	11/17/17 19:23	1
2-Chlorophenol	<0.18		0.18	0.060	mg/Kg	☼	11/16/17 16:12	11/17/17 19:23	1
4-Chlorophenyl phenyl ether	<0.18		0.18	0.041	mg/Kg	☼	11/16/17 16:12	11/17/17 19:23	1
Chrysene	0.042		0.035	0.0096	mg/Kg	☼	11/16/17 16:12	11/17/17 19:23	1
Dibenz(a,h)anthracene	<0.035		0.035	0.0068	mg/Kg	☼	11/16/17 16:12	11/17/17 19:23	1
Dibenzofuran	<0.18		0.18	0.041	mg/Kg	☼	11/16/17 16:12	11/17/17 19:23	1
1,2-Dichlorobenzene	<0.18		0.18	0.042	mg/Kg	☼	11/16/17 16:12	11/17/17 19:23	1
1,3-Dichlorobenzene	<0.18		0.18	0.040	mg/Kg	☼	11/16/17 16:12	11/17/17 19:23	1
1,4-Dichlorobenzene	<0.18		0.18	0.045	mg/Kg	☼	11/16/17 16:12	11/17/17 19:23	1
3,3'-Dichlorobenzidine	<0.18		0.18	0.049	mg/Kg	☼	11/16/17 16:12	11/17/17 19:23	1
2,4-Dichlorophenol	<0.35		0.35	0.084	mg/Kg	☼	11/16/17 16:12	11/17/17 19:23	1
Diethyl phthalate	<0.18		0.18	0.060	mg/Kg	☼	11/16/17 16:12	11/17/17 19:23	1
2,4-Dimethylphenol	<0.35		0.35	0.13	mg/Kg	☼	11/16/17 16:12	11/17/17 19:23	1
Dimethyl phthalate	<0.18		0.18	0.046	mg/Kg	☼	11/16/17 16:12	11/17/17 19:23	1
Di-n-butyl phthalate	<0.18		0.18	0.054	mg/Kg	☼	11/16/17 16:12	11/17/17 19:23	1
4,6-Dinitro-2-methylphenol	<0.71		0.71	0.28	mg/Kg	☼	11/16/17 16:12	11/17/17 19:23	1
2,4-Dinitrophenol	<0.71		0.71	0.62	mg/Kg	☼	11/16/17 16:12	11/17/17 19:23	1
2,4-Dinitrotoluene	<0.18		0.18	0.056	mg/Kg	☼	11/16/17 16:12	11/17/17 19:23	1
2,6-Dinitrotoluene	<0.18		0.18	0.069	mg/Kg	☼	11/16/17 16:12	11/17/17 19:23	1
Di-n-octyl phthalate	<0.18		0.18	0.058	mg/Kg	☼	11/16/17 16:12	11/17/17 19:23	1
Fluoranthene	0.055		0.035	0.0066	mg/Kg	☼	11/16/17 16:12	11/17/17 19:23	1
Fluorene	0.11		0.035	0.0050	mg/Kg	☼	11/16/17 16:12	11/17/17 19:23	1
Hexachlorobenzene	<0.071		0.071	0.0082	mg/Kg	☼	11/16/17 16:12	11/17/17 19:23	1
Hexachlorobutadiene	<0.18		0.18	0.056	mg/Kg	☼	11/16/17 16:12	11/17/17 19:23	1
Hexachlorocyclopentadiene	<0.71		0.71	0.20	mg/Kg	☼	11/16/17 16:12	11/17/17 19:23	1
Hexachloroethane	<0.18		0.18	0.054	mg/Kg	☼	11/16/17 16:12	11/17/17 19:23	1
Indeno[1,2,3-cd]pyrene	<0.035		0.035	0.0092	mg/Kg	☼	11/16/17 16:12	11/17/17 19:23	1
Isophorone	<0.18		0.18	0.040	mg/Kg	☼	11/16/17 16:12	11/17/17 19:23	1
2-Methylphenol	<0.18		0.18	0.057	mg/Kg	☼	11/16/17 16:12	11/17/17 19:23	1
3 & 4 Methylphenol	<0.18		0.18	0.059	mg/Kg	☼	11/16/17 16:12	11/17/17 19:23	1
2-Nitroaniline	<0.18		0.18	0.048	mg/Kg	☼	11/16/17 16:12	11/17/17 19:23	1
3-Nitroaniline	<0.35		0.35	0.11	mg/Kg	☼	11/16/17 16:12	11/17/17 19:23	1
4-Nitroaniline	<0.35		0.35	0.15	mg/Kg	☼	11/16/17 16:12	11/17/17 19:23	1
Nitrobenzene	<0.035		0.035	0.0088	mg/Kg	☼	11/16/17 16:12	11/17/17 19:23	1
2-Nitrophenol	<0.35		0.35	0.084	mg/Kg	☼	11/16/17 16:12	11/17/17 19:23	1
4-Nitrophenol	<0.71		0.71	0.34	mg/Kg	☼	11/16/17 16:12	11/17/17 19:23	1
N-Nitrosodi-n-propylamine	<0.071		0.071	0.043	mg/Kg	☼	11/16/17 16:12	11/17/17 19:23	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137079-4

Client Sample ID: 2696V-65-B02 (10-15)

Lab Sample ID: 500-137079-11

Date Collected: 11/09/17 11:15

Matrix: Solid

Date Received: 11/10/17 08:00

Percent Solids: 90.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodiphenylamine	<0.18		0.18	0.042	mg/Kg	☼	11/16/17 16:12	11/17/17 19:23	1
2,2'-oxybis[1-chloropropane]	<0.18		0.18	0.041	mg/Kg	☼	11/16/17 16:12	11/17/17 19:23	1
Pentachlorophenol	<0.71		0.71	0.57	mg/Kg	☼	11/16/17 16:12	11/17/17 19:23	1
Phenanthrene	0.31		0.035	0.0049	mg/Kg	☼	11/16/17 16:12	11/17/17 19:23	1
Phenol	<0.18		0.18	0.079	mg/Kg	☼	11/16/17 16:12	11/17/17 19:23	1
Pyrene	0.090		0.035	0.0070	mg/Kg	☼	11/16/17 16:12	11/17/17 19:23	1
1,2,4-Trichlorobenzene	<0.18		0.18	0.038	mg/Kg	☼	11/16/17 16:12	11/17/17 19:23	1
2,4,5-Trichlorophenol	<0.35		0.35	0.081	mg/Kg	☼	11/16/17 16:12	11/17/17 19:23	1
2,4,6-Trichlorophenol	<0.35		0.35	0.12	mg/Kg	☼	11/16/17 16:12	11/17/17 19:23	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	92		44 - 121				11/16/17 16:12	11/17/17 19:23	1
2-Fluorophenol	92		46 - 133				11/16/17 16:12	11/17/17 19:23	1
Nitrobenzene-d5	75		41 - 120				11/16/17 16:12	11/17/17 19:23	1
Phenol-d5	90		46 - 125				11/16/17 16:12	11/17/17 19:23	1
Terphenyl-d14	82		35 - 160				11/16/17 16:12	11/17/17 19:23	1
2,4,6-Tribromophenol	61		25 - 139				11/16/17 16:12	11/17/17 19:23	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	9.1		0.36	0.033	mg/Kg	☼	11/16/17 16:12	11/20/17 17:30	5
Naphthalene	9.7		0.18	0.027	mg/Kg	☼	11/16/17 16:12	11/20/17 17:30	5

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.41	J	1.0	0.20	mg/Kg	☼	11/11/17 13:30	11/14/17 03:24	1
Arsenic	11		0.51	0.18	mg/Kg	☼	11/11/17 13:30	11/14/17 03:24	1
Barium	5.6		0.51	0.059	mg/Kg	☼	11/11/17 13:30	11/14/17 03:24	1
Beryllium	0.38		0.21	0.048	mg/Kg	☼	11/11/17 13:30	11/14/17 03:24	1
Cadmium	0.083	J B	0.10	0.018	mg/Kg	☼	11/11/17 13:30	11/14/17 03:24	1
Chromium	6.7		0.51	0.25	mg/Kg	☼	11/11/17 13:30	11/14/17 03:24	1
Cobalt	9.2		0.26	0.067	mg/Kg	☼	11/11/17 13:30	11/14/17 03:24	1
Copper	37		2.6	0.72	mg/Kg	☼	11/11/17 13:30	11/15/17 00:05	5
Iron	17000		10	5.2	mg/Kg	☼	11/15/17 16:01	11/16/17 22:03	1
Lead	16		0.26	0.12	mg/Kg	☼	11/11/17 13:30	11/14/17 03:24	1
Magnesium	42000		5.1	2.5	mg/Kg	☼	11/11/17 13:30	11/14/17 03:24	1
Calcium	94000	B	51	8.7	mg/Kg	☼	11/11/17 13:30	11/15/17 00:05	5
Manganese	420		0.51	0.074	mg/Kg	☼	11/11/17 13:30	11/14/17 03:24	1
Nickel	24		0.51	0.15	mg/Kg	☼	11/11/17 13:30	11/14/17 03:24	1
Selenium	0.38	J B	0.51	0.30	mg/Kg	☼	11/11/17 13:30	11/14/17 03:24	1
Silver	<0.26	[^]	0.26	0.066	mg/Kg	☼	11/11/17 13:30	11/14/17 03:24	1
Thallium	0.69		0.51	0.26	mg/Kg	☼	11/11/17 13:30	11/14/17 03:24	1
Vanadium	10		0.26	0.061	mg/Kg	☼	11/11/17 13:30	11/14/17 03:24	1
Zinc	53		1.0	0.45	mg/Kg	☼	11/11/17 13:30	11/14/17 03:24	1
Potassium	1200		26	9.1	mg/Kg	☼	11/11/17 13:30	11/14/17 03:24	1
Sodium	190		51	7.6	mg/Kg	☼	11/11/17 13:30	11/14/17 03:24	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.050		0.050	0.010	mg/L		11/17/17 06:52	11/17/17 17:37	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137079-4

Client Sample ID: 2696V-65-B02 (10-15)

Lab Sample ID: 500-137079-11

Date Collected: 11/09/17 11:15

Matrix: Solid

Date Received: 11/10/17 08:00

Percent Solids: 90.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.092	J	0.50	0.050	mg/L		11/17/17 06:52	11/17/17 17:37	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		11/17/17 06:52	11/17/17 17:37	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		11/17/17 06:52	11/17/17 17:37	1
Calcium	330		5.0	0.50	mg/L		11/17/17 06:52	11/17/17 17:37	1
Chromium	<0.025		0.025	0.010	mg/L		11/17/17 06:52	11/17/17 17:37	1
Cobalt	0.025		0.025	0.010	mg/L		11/17/17 06:52	11/17/17 17:37	1
Copper	0.031		0.025	0.010	mg/L		11/17/17 06:52	11/17/17 17:37	1
Iron	<0.40		0.40	0.20	mg/L		11/17/17 06:52	11/17/17 17:37	1
Lead	<0.0075		0.0075	0.0075	mg/L		11/17/17 06:52	11/17/17 17:37	1
Magnesium	110		2.5	0.50	mg/L		11/17/17 06:52	11/17/17 17:37	1
Manganese	1.4		0.025	0.010	mg/L		11/17/17 06:52	11/17/17 17:37	1
Nickel	0.055		0.025	0.010	mg/L		11/17/17 06:52	11/17/17 17:37	1
Potassium	4.3		2.5	0.50	mg/L		11/17/17 06:52	11/17/17 17:37	1
Selenium	<0.050		0.050	0.020	mg/L		11/17/17 06:52	11/17/17 17:37	1
Silver	<0.025		0.025	0.010	mg/L		11/17/17 06:52	11/17/17 17:37	1
Vanadium	<0.025		0.025	0.010	mg/L		11/17/17 06:52	11/17/17 17:37	1
Zinc	0.069	J	0.50	0.020	mg/L		11/17/17 06:52	11/17/17 17:37	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		11/16/17 14:16	11/18/17 00:03	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		11/17/17 06:52	11/18/17 02:51	1
Thallium	<0.0020		0.0020	0.0020	mg/L		11/17/17 06:52	11/18/17 02:51	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		11/17/17 08:10	11/18/17 12:21	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.020		0.018	0.0061	mg/Kg	☼	11/17/17 10:45	11/17/17 14:09	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.50		0.50	0.17	mg/Kg	☼	11/21/17 11:00	11/21/17 14:15	1
pH	7.9		0.20	0.20	SU			11/18/17 12:37	1

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137079-4

Client Sample ID: 2696V-65-B02 (15-21)

Lab Sample ID: 500-137079-12

Date Collected: 11/09/17 11:20

Matrix: Solid

Date Received: 11/10/17 08:00

Percent Solids: 89.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	0.027		0.017	0.0073	mg/Kg	☼	11/10/17 18:28	11/16/17 19:18	1
Benzene	<0.0017		0.0017	0.00043	mg/Kg	☼	11/10/17 18:28	11/16/17 19:18	1
Bromodichloromethane	<0.0017		0.0017	0.00034	mg/Kg	☼	11/10/17 18:28	11/16/17 19:18	1
Bromoform	<0.0017		0.0017	0.00049	mg/Kg	☼	11/10/17 18:28	11/16/17 19:18	1
Bromomethane	<0.0042		0.0042	0.0016	mg/Kg	☼	11/10/17 18:28	11/16/17 19:18	1
2-Butanone (MEK)	<0.0042		0.0042	0.0019	mg/Kg	☼	11/10/17 18:28	11/16/17 19:18	1
Carbon disulfide	<0.0042		0.0042	0.00087	mg/Kg	☼	11/10/17 18:28	11/16/17 19:18	1
Carbon tetrachloride	<0.0017 *		0.0017	0.00048	mg/Kg	☼	11/10/17 18:28	11/16/17 19:18	1
Chlorobenzene	<0.0017		0.0017	0.00062	mg/Kg	☼	11/10/17 18:28	11/16/17 19:18	1
Chloroethane	<0.0042		0.0042	0.0012	mg/Kg	☼	11/10/17 18:28	11/16/17 19:18	1
Chloroform	<0.0017		0.0017	0.00058	mg/Kg	☼	11/10/17 18:28	11/16/17 19:18	1
Chloromethane	<0.0042 *		0.0042	0.0017	mg/Kg	☼	11/10/17 18:28	11/16/17 19:18	1
cis-1,2-Dichloroethene	<0.0017		0.0017	0.00047	mg/Kg	☼	11/10/17 18:28	11/16/17 19:18	1
cis-1,3-Dichloropropene	<0.0017		0.0017	0.00050	mg/Kg	☼	11/10/17 18:28	11/16/17 19:18	1
Dibromochloromethane	<0.0017		0.0017	0.00055	mg/Kg	☼	11/10/17 18:28	11/16/17 19:18	1
1,1-Dichloroethane	<0.0017		0.0017	0.00057	mg/Kg	☼	11/10/17 18:28	11/16/17 19:18	1
1,2-Dichloroethane	<0.0042		0.0042	0.0013	mg/Kg	☼	11/10/17 18:28	11/16/17 19:18	1
1,1-Dichloroethene	<0.0017		0.0017	0.00057	mg/Kg	☼	11/10/17 18:28	11/16/17 19:18	1
1,2-Dichloropropane	<0.0017		0.0017	0.00043	mg/Kg	☼	11/10/17 18:28	11/16/17 19:18	1
1,3-Dichloropropane, Total	<0.0017		0.0017	0.00059	mg/Kg	☼	11/10/17 18:28	11/16/17 19:18	1
Ethylbenzene	<0.0017		0.0017	0.00080	mg/Kg	☼	11/10/17 18:28	11/16/17 19:18	1
2-Hexanone	<0.0042		0.0042	0.0013	mg/Kg	☼	11/10/17 18:28	11/16/17 19:18	1
Methylene Chloride	<0.0042		0.0042	0.0016	mg/Kg	☼	11/10/17 18:28	11/16/17 19:18	1
4-Methyl-2-pentanone (MIBK)	<0.0042		0.0042	0.0012	mg/Kg	☼	11/10/17 18:28	11/16/17 19:18	1
Methyl tert-butyl ether	<0.0017		0.0017	0.00049	mg/Kg	☼	11/10/17 18:28	11/16/17 19:18	1
Styrene	<0.0017		0.0017	0.00050	mg/Kg	☼	11/10/17 18:28	11/16/17 19:18	1
1,1,1,2-Tetrachloroethane	<0.0017		0.0017	0.00053	mg/Kg	☼	11/10/17 18:28	11/16/17 19:18	1
Tetrachloroethene	<0.0017		0.0017	0.00057	mg/Kg	☼	11/10/17 18:28	11/16/17 19:18	1
Toluene	<0.0017		0.0017	0.00042	mg/Kg	☼	11/10/17 18:28	11/16/17 19:18	1
trans-1,2-Dichloroethene	<0.0017		0.0017	0.00074	mg/Kg	☼	11/10/17 18:28	11/16/17 19:18	1
trans-1,3-Dichloropropene	<0.0017		0.0017	0.00059	mg/Kg	☼	11/10/17 18:28	11/16/17 19:18	1
1,1,1-Trichloroethane	<0.0017		0.0017	0.00056	mg/Kg	☼	11/10/17 18:28	11/16/17 19:18	1
1,1,2-Trichloroethane	<0.0017		0.0017	0.00072	mg/Kg	☼	11/10/17 18:28	11/16/17 19:18	1
Trichloroethene	<0.0017		0.0017	0.00056	mg/Kg	☼	11/10/17 18:28	11/16/17 19:18	1
Vinyl acetate	<0.0042		0.0042	0.0015	mg/Kg	☼	11/10/17 18:28	11/16/17 19:18	1
Vinyl chloride	<0.0017		0.0017	0.00074	mg/Kg	☼	11/10/17 18:28	11/16/17 19:18	1
Xylenes, Total	<0.0033		0.0033	0.00053	mg/Kg	☼	11/10/17 18:28	11/16/17 19:18	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	103		75 - 131	11/10/17 18:28	11/16/17 19:18	1
Dibromofluoromethane	109		75 - 126	11/10/17 18:28	11/16/17 19:18	1
1,2-Dichloroethane-d4 (Surr)	111		70 - 134	11/10/17 18:28	11/16/17 19:18	1
Toluene-d8 (Surr)	78		75 - 124	11/10/17 18:28	11/16/17 19:18	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.037		0.037	0.0067	mg/Kg	☼	11/16/17 16:12	11/17/17 19:50	1
Acenaphthylene	<0.037		0.037	0.0049	mg/Kg	☼	11/16/17 16:12	11/17/17 19:50	1
Anthracene	<0.037		0.037	0.0062	mg/Kg	☼	11/16/17 16:12	11/17/17 19:50	1
Benzo[a]anthracene	<0.037		0.037	0.0050	mg/Kg	☼	11/16/17 16:12	11/17/17 19:50	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137079-4

Client Sample ID: 2696V-65-B02 (15-21)

Lab Sample ID: 500-137079-12

Date Collected: 11/09/17 11:20

Matrix: Solid

Date Received: 11/10/17 08:00

Percent Solids: 89.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	<0.037		0.037	0.0072	mg/Kg	☼	11/16/17 16:12	11/17/17 19:50	1
Benzo[b]fluoranthene	<0.037		0.037	0.0080	mg/Kg	☼	11/16/17 16:12	11/17/17 19:50	1
Benzo[g,h,i]perylene	<0.037		0.037	0.012	mg/Kg	☼	11/16/17 16:12	11/17/17 19:50	1
Benzo[k]fluoranthene	<0.037		0.037	0.011	mg/Kg	☼	11/16/17 16:12	11/17/17 19:50	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.038	mg/Kg	☼	11/16/17 16:12	11/17/17 19:50	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.056	mg/Kg	☼	11/16/17 16:12	11/17/17 19:50	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.068	mg/Kg	☼	11/16/17 16:12	11/17/17 19:50	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.049	mg/Kg	☼	11/16/17 16:12	11/17/17 19:50	1
Butyl benzyl phthalate	<0.19		0.19	0.071	mg/Kg	☼	11/16/17 16:12	11/17/17 19:50	1
Carbazole	<0.19		0.19	0.093	mg/Kg	☼	11/16/17 16:12	11/17/17 19:50	1
4-Chloroaniline	<0.75		0.75	0.17	mg/Kg	☼	11/16/17 16:12	11/17/17 19:50	1
4-Chloro-3-methylphenol	<0.37		0.37	0.13	mg/Kg	☼	11/16/17 16:12	11/17/17 19:50	1
2-Chloronaphthalene	<0.19		0.19	0.041	mg/Kg	☼	11/16/17 16:12	11/17/17 19:50	1
2-Chlorophenol	<0.19		0.19	0.064	mg/Kg	☼	11/16/17 16:12	11/17/17 19:50	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.044	mg/Kg	☼	11/16/17 16:12	11/17/17 19:50	1
Chrysene	0.021	J	0.037	0.010	mg/Kg	☼	11/16/17 16:12	11/17/17 19:50	1
Dibenz(a,h)anthracene	<0.037		0.037	0.0072	mg/Kg	☼	11/16/17 16:12	11/17/17 19:50	1
Dibenzofuran	<0.19		0.19	0.044	mg/Kg	☼	11/16/17 16:12	11/17/17 19:50	1
1,2-Dichlorobenzene	<0.19		0.19	0.045	mg/Kg	☼	11/16/17 16:12	11/17/17 19:50	1
1,3-Dichlorobenzene	<0.19		0.19	0.042	mg/Kg	☼	11/16/17 16:12	11/17/17 19:50	1
1,4-Dichlorobenzene	<0.19		0.19	0.048	mg/Kg	☼	11/16/17 16:12	11/17/17 19:50	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.052	mg/Kg	☼	11/16/17 16:12	11/17/17 19:50	1
2,4-Dichlorophenol	<0.37		0.37	0.088	mg/Kg	☼	11/16/17 16:12	11/17/17 19:50	1
Diethyl phthalate	<0.19		0.19	0.063	mg/Kg	☼	11/16/17 16:12	11/17/17 19:50	1
2,4-Dimethylphenol	<0.37		0.37	0.14	mg/Kg	☼	11/16/17 16:12	11/17/17 19:50	1
Dimethyl phthalate	<0.19		0.19	0.049	mg/Kg	☼	11/16/17 16:12	11/17/17 19:50	1
Di-n-butyl phthalate	<0.19		0.19	0.057	mg/Kg	☼	11/16/17 16:12	11/17/17 19:50	1
4,6-Dinitro-2-methylphenol	<0.75		0.75	0.30	mg/Kg	☼	11/16/17 16:12	11/17/17 19:50	1
2,4-Dinitrophenol	<0.75		0.75	0.66	mg/Kg	☼	11/16/17 16:12	11/17/17 19:50	1
2,4-Dinitrotoluene	<0.19		0.19	0.059	mg/Kg	☼	11/16/17 16:12	11/17/17 19:50	1
2,6-Dinitrotoluene	<0.19		0.19	0.073	mg/Kg	☼	11/16/17 16:12	11/17/17 19:50	1
Di-n-octyl phthalate	<0.19		0.19	0.061	mg/Kg	☼	11/16/17 16:12	11/17/17 19:50	1
Fluoranthene	<0.037		0.037	0.0069	mg/Kg	☼	11/16/17 16:12	11/17/17 19:50	1
Fluorene	<0.037		0.037	0.0052	mg/Kg	☼	11/16/17 16:12	11/17/17 19:50	1
Hexachlorobenzene	<0.075		0.075	0.0086	mg/Kg	☼	11/16/17 16:12	11/17/17 19:50	1
Hexachlorobutadiene	<0.19		0.19	0.059	mg/Kg	☼	11/16/17 16:12	11/17/17 19:50	1
Hexachlorocyclopentadiene	<0.75		0.75	0.21	mg/Kg	☼	11/16/17 16:12	11/17/17 19:50	1
Hexachloroethane	<0.19		0.19	0.057	mg/Kg	☼	11/16/17 16:12	11/17/17 19:50	1
Indeno[1,2,3-cd]pyrene	<0.037		0.037	0.0097	mg/Kg	☼	11/16/17 16:12	11/17/17 19:50	1
Isophorone	<0.19		0.19	0.042	mg/Kg	☼	11/16/17 16:12	11/17/17 19:50	1
2-Methylnaphthalene	0.14		0.075	0.0069	mg/Kg	☼	11/16/17 16:12	11/17/17 19:50	1
2-Methylphenol	<0.19		0.19	0.060	mg/Kg	☼	11/16/17 16:12	11/17/17 19:50	1
3 & 4 Methylphenol	<0.19		0.19	0.062	mg/Kg	☼	11/16/17 16:12	11/17/17 19:50	1
Naphthalene	0.038		0.037	0.0057	mg/Kg	☼	11/16/17 16:12	11/17/17 19:50	1
2-Nitroaniline	<0.19		0.19	0.050	mg/Kg	☼	11/16/17 16:12	11/17/17 19:50	1
3-Nitroaniline	<0.37		0.37	0.12	mg/Kg	☼	11/16/17 16:12	11/17/17 19:50	1
4-Nitroaniline	<0.37		0.37	0.16	mg/Kg	☼	11/16/17 16:12	11/17/17 19:50	1
Nitrobenzene	<0.037		0.037	0.0093	mg/Kg	☼	11/16/17 16:12	11/17/17 19:50	1
2-Nitrophenol	<0.37		0.37	0.088	mg/Kg	☼	11/16/17 16:12	11/17/17 19:50	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137079-4

Client Sample ID: 2696V-65-B02 (15-21)

Lab Sample ID: 500-137079-12

Date Collected: 11/09/17 11:20

Matrix: Solid

Date Received: 11/10/17 08:00

Percent Solids: 89.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Nitrophenol	<0.75		0.75	0.35	mg/Kg	☼	11/16/17 16:12	11/17/17 19:50	1
N-Nitrosodi-n-propylamine	<0.075		0.075	0.046	mg/Kg	☼	11/16/17 16:12	11/17/17 19:50	1
N-Nitrosodiphenylamine	<0.19		0.19	0.044	mg/Kg	☼	11/16/17 16:12	11/17/17 19:50	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.043	mg/Kg	☼	11/16/17 16:12	11/17/17 19:50	1
Pentachlorophenol	<0.75		0.75	0.60	mg/Kg	☼	11/16/17 16:12	11/17/17 19:50	1
Phenanthrene	0.068		0.037	0.0052	mg/Kg	☼	11/16/17 16:12	11/17/17 19:50	1
Phenol	<0.19		0.19	0.083	mg/Kg	☼	11/16/17 16:12	11/17/17 19:50	1
Pyrene	0.014	J	0.037	0.0074	mg/Kg	☼	11/16/17 16:12	11/17/17 19:50	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.040	mg/Kg	☼	11/16/17 16:12	11/17/17 19:50	1
2,4,5-Trichlorophenol	<0.37		0.37	0.085	mg/Kg	☼	11/16/17 16:12	11/17/17 19:50	1
2,4,6-Trichlorophenol	<0.37		0.37	0.13	mg/Kg	☼	11/16/17 16:12	11/17/17 19:50	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	86		44 - 121	11/16/17 16:12	11/17/17 19:50	1
2-Fluorophenol	95		46 - 133	11/16/17 16:12	11/17/17 19:50	1
Nitrobenzene-d5	81		41 - 120	11/16/17 16:12	11/17/17 19:50	1
Phenol-d5	87		46 - 125	11/16/17 16:12	11/17/17 19:50	1
Terphenyl-d14	77		35 - 160	11/16/17 16:12	11/17/17 19:50	1
2,4,6-Tribromophenol	58		25 - 139	11/16/17 16:12	11/17/17 19:50	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.43	J	1.1	0.21	mg/Kg	☼	11/11/17 13:30	11/14/17 03:28	1
Arsenic	7.7		0.55	0.19	mg/Kg	☼	11/11/17 13:30	11/14/17 03:28	1
Barium	4.3		0.55	0.063	mg/Kg	☼	11/11/17 13:30	11/14/17 03:28	1
Beryllium	0.24		0.22	0.051	mg/Kg	☼	11/11/17 13:30	11/14/17 03:28	1
Cadmium	0.16	B	0.11	0.020	mg/Kg	☼	11/11/17 13:30	11/14/17 03:28	1
Chromium	6.5		0.55	0.27	mg/Kg	☼	11/11/17 13:30	11/14/17 03:28	1
Cobalt	6.1		0.27	0.072	mg/Kg	☼	11/11/17 13:30	11/14/17 03:28	1
Copper	22		2.7	0.77	mg/Kg	☼	11/11/17 13:30	11/15/17 00:09	5
Iron	9600		11	5.5	mg/Kg	☼	11/15/17 16:01	11/16/17 22:07	1
Lead	8.8		0.27	0.13	mg/Kg	☼	11/11/17 13:30	11/14/17 03:28	1
Magnesium	39000		5.5	2.7	mg/Kg	☼	11/11/17 13:30	11/14/17 03:28	1
Calcium	130000	B	55	9.3	mg/Kg	☼	11/11/17 13:30	11/15/17 00:09	5
Manganese	340		0.55	0.080	mg/Kg	☼	11/11/17 13:30	11/14/17 03:28	1
Nickel	15		0.55	0.16	mg/Kg	☼	11/11/17 13:30	11/14/17 03:28	1
Selenium	0.46	J B	0.55	0.32	mg/Kg	☼	11/11/17 13:30	11/14/17 03:28	1
Silver	<0.27	^	0.27	0.071	mg/Kg	☼	11/11/17 13:30	11/14/17 03:28	1
Thallium	0.35	J	0.55	0.27	mg/Kg	☼	11/11/17 13:30	11/14/17 03:28	1
Vanadium	7.4		0.27	0.065	mg/Kg	☼	11/11/17 13:30	11/14/17 03:28	1
Zinc	29		1.1	0.48	mg/Kg	☼	11/11/17 13:30	11/14/17 03:28	1
Potassium	860		27	9.7	mg/Kg	☼	11/11/17 13:30	11/14/17 03:28	1
Sodium	150		55	8.1	mg/Kg	☼	11/11/17 13:30	11/14/17 03:28	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.050		0.050	0.010	mg/L		11/17/17 06:52	11/17/17 17:41	1
Barium	0.087	J	0.50	0.050	mg/L		11/17/17 06:52	11/17/17 17:41	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		11/17/17 06:52	11/17/17 17:41	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		11/17/17 06:52	11/17/17 17:41	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137079-4

Client Sample ID: 2696V-65-B02 (15-21)

Lab Sample ID: 500-137079-12

Date Collected: 11/09/17 11:20

Matrix: Solid

Date Received: 11/10/17 08:00

Percent Solids: 89.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	360		5.0	0.50	mg/L		11/17/17 06:52	11/17/17 17:41	1
Chromium	<0.025		0.025	0.010	mg/L		11/17/17 06:52	11/17/17 17:41	1
Cobalt	0.015	J	0.025	0.010	mg/L		11/17/17 06:52	11/17/17 17:41	1
Copper	0.023	J	0.025	0.010	mg/L		11/17/17 06:52	11/17/17 17:41	1
Iron	<0.40		0.40	0.20	mg/L		11/17/17 06:52	11/17/17 17:41	1
Lead	<0.0075		0.0075	0.0075	mg/L		11/17/17 06:52	11/17/17 17:41	1
Magnesium	68		2.5	0.50	mg/L		11/17/17 06:52	11/17/17 17:41	1
Manganese	1.2		0.025	0.010	mg/L		11/17/17 06:52	11/17/17 17:41	1
Nickel	0.035		0.025	0.010	mg/L		11/17/17 06:52	11/17/17 17:41	1
Potassium	4.0		2.5	0.50	mg/L		11/17/17 06:52	11/17/17 17:41	1
Selenium	<0.050		0.050	0.020	mg/L		11/17/17 06:52	11/17/17 17:41	1
Silver	<0.025		0.025	0.010	mg/L		11/17/17 06:52	11/17/17 17:41	1
Vanadium	<0.025		0.025	0.010	mg/L		11/17/17 06:52	11/17/17 17:41	1
Zinc	0.057	J	0.50	0.020	mg/L		11/17/17 06:52	11/17/17 17:41	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		11/16/17 14:16	11/18/17 00:07	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		11/17/17 06:52	11/18/17 02:55	1
Thallium	<0.0020		0.0020	0.0020	mg/L		11/17/17 06:52	11/18/17 02:55	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		11/17/17 08:10	11/18/17 12:22	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.011	J	0.018	0.0059	mg/Kg	☼	11/17/17 10:45	11/17/17 14:11	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.52		0.52	0.18	mg/Kg	☼	11/21/17 11:00	11/21/17 14:16	1
pH	7.8		0.20	0.20	SU			11/18/17 12:41	1

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137079-4

Client Sample ID: 2696V-65-B03 (0-5)

Lab Sample ID: 500-137079-13

Date Collected: 11/09/17 10:35

Matrix: Solid

Date Received: 11/10/17 08:00

Percent Solids: 90.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.015		0.015	0.0064	mg/Kg	☼	11/10/17 18:28	11/16/17 19:43	1
Benzene	<0.0015		0.0015	0.00038	mg/Kg	☼	11/10/17 18:28	11/16/17 19:43	1
Bromodichloromethane	<0.0015		0.0015	0.00030	mg/Kg	☼	11/10/17 18:28	11/16/17 19:43	1
Bromoform	<0.0015		0.0015	0.00043	mg/Kg	☼	11/10/17 18:28	11/16/17 19:43	1
Bromomethane	<0.0037		0.0037	0.0014	mg/Kg	☼	11/10/17 18:28	11/16/17 19:43	1
2-Butanone (MEK)	<0.0037		0.0037	0.0016	mg/Kg	☼	11/10/17 18:28	11/16/17 19:43	1
Carbon disulfide	<0.0037		0.0037	0.00077	mg/Kg	☼	11/10/17 18:28	11/16/17 19:43	1
Carbon tetrachloride	<0.0015 *		0.0015	0.00043	mg/Kg	☼	11/10/17 18:28	11/16/17 19:43	1
Chlorobenzene	<0.0015		0.0015	0.00054	mg/Kg	☼	11/10/17 18:28	11/16/17 19:43	1
Chloroethane	<0.0037		0.0037	0.0011	mg/Kg	☼	11/10/17 18:28	11/16/17 19:43	1
Chloroform	<0.0015		0.0015	0.00051	mg/Kg	☼	11/10/17 18:28	11/16/17 19:43	1
Chloromethane	<0.0037 *		0.0037	0.0015	mg/Kg	☼	11/10/17 18:28	11/16/17 19:43	1
cis-1,2-Dichloroethene	<0.0015		0.0015	0.00041	mg/Kg	☼	11/10/17 18:28	11/16/17 19:43	1
cis-1,3-Dichloropropene	<0.0015		0.0015	0.00045	mg/Kg	☼	11/10/17 18:28	11/16/17 19:43	1
Dibromochloromethane	<0.0015		0.0015	0.00048	mg/Kg	☼	11/10/17 18:28	11/16/17 19:43	1
1,1-Dichloroethane	<0.0015		0.0015	0.00051	mg/Kg	☼	11/10/17 18:28	11/16/17 19:43	1
1,2-Dichloroethane	<0.0037		0.0037	0.0012	mg/Kg	☼	11/10/17 18:28	11/16/17 19:43	1
1,1-Dichloroethene	<0.0015		0.0015	0.00051	mg/Kg	☼	11/10/17 18:28	11/16/17 19:43	1
1,2-Dichloropropane	<0.0015		0.0015	0.00038	mg/Kg	☼	11/10/17 18:28	11/16/17 19:43	1
1,3-Dichloropropane, Total	<0.0015		0.0015	0.00052	mg/Kg	☼	11/10/17 18:28	11/16/17 19:43	1
Ethylbenzene	<0.0015		0.0015	0.00071	mg/Kg	☼	11/10/17 18:28	11/16/17 19:43	1
2-Hexanone	<0.0037		0.0037	0.0012	mg/Kg	☼	11/10/17 18:28	11/16/17 19:43	1
Methylene Chloride	<0.0037		0.0037	0.0015	mg/Kg	☼	11/10/17 18:28	11/16/17 19:43	1
4-Methyl-2-pentanone (MIBK)	<0.0037		0.0037	0.0011	mg/Kg	☼	11/10/17 18:28	11/16/17 19:43	1
Methyl tert-butyl ether	<0.0015		0.0015	0.00043	mg/Kg	☼	11/10/17 18:28	11/16/17 19:43	1
Styrene	<0.0015		0.0015	0.00045	mg/Kg	☼	11/10/17 18:28	11/16/17 19:43	1
1,1,2,2-Tetrachloroethane	<0.0015		0.0015	0.00047	mg/Kg	☼	11/10/17 18:28	11/16/17 19:43	1
Tetrachloroethene	<0.0015		0.0015	0.00050	mg/Kg	☼	11/10/17 18:28	11/16/17 19:43	1
Toluene	<0.0015		0.0015	0.00037	mg/Kg	☼	11/10/17 18:28	11/16/17 19:43	1
trans-1,2-Dichloroethene	<0.0015		0.0015	0.00065	mg/Kg	☼	11/10/17 18:28	11/16/17 19:43	1
trans-1,3-Dichloropropene	<0.0015		0.0015	0.00052	mg/Kg	☼	11/10/17 18:28	11/16/17 19:43	1
1,1,1-Trichloroethane	<0.0015		0.0015	0.00050	mg/Kg	☼	11/10/17 18:28	11/16/17 19:43	1
1,1,2-Trichloroethane	<0.0015		0.0015	0.00063	mg/Kg	☼	11/10/17 18:28	11/16/17 19:43	1
Trichloroethene	<0.0015		0.0015	0.00050	mg/Kg	☼	11/10/17 18:28	11/16/17 19:43	1
Vinyl acetate	<0.0037		0.0037	0.0013	mg/Kg	☼	11/10/17 18:28	11/16/17 19:43	1
Vinyl chloride	<0.0015		0.0015	0.00065	mg/Kg	☼	11/10/17 18:28	11/16/17 19:43	1
Xylenes, Total	<0.0030		0.0030	0.00047	mg/Kg	☼	11/10/17 18:28	11/16/17 19:43	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	84		75 - 131	11/10/17 18:28	11/16/17 19:43	1
Dibromofluoromethane	108		75 - 126	11/10/17 18:28	11/16/17 19:43	1
1,2-Dichloroethane-d4 (Surr)	108		70 - 134	11/10/17 18:28	11/16/17 19:43	1
Toluene-d8 (Surr)	97		75 - 124	11/10/17 18:28	11/16/17 19:43	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.035		0.035	0.0063	mg/Kg	☼	11/16/17 16:12	11/20/17 17:57	1
Acenaphthylene	<0.035		0.035	0.0046	mg/Kg	☼	11/16/17 16:12	11/20/17 17:57	1
Anthracene	<0.035		0.035	0.0059	mg/Kg	☼	11/16/17 16:12	11/20/17 17:57	1
Benzo[a]anthracene	0.017	J	0.035	0.0047	mg/Kg	☼	11/16/17 16:12	11/20/17 17:57	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137079-4

Client Sample ID: 2696V-65-B03 (0-5)

Lab Sample ID: 500-137079-13

Date Collected: 11/09/17 10:35

Matrix: Solid

Date Received: 11/10/17 08:00

Percent Solids: 90.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	0.058		0.035	0.0068	mg/Kg	☼	11/16/17 16:12	11/20/17 17:57	1
Benzo[b]fluoranthene	0.060		0.035	0.0076	mg/Kg	☼	11/16/17 16:12	11/20/17 17:57	1
Benzo[g,h,i]perylene	0.056		0.035	0.011	mg/Kg	☼	11/16/17 16:12	11/20/17 17:57	1
Benzo[k]fluoranthene	0.022	J	0.035	0.010	mg/Kg	☼	11/16/17 16:12	11/20/17 17:57	1
Bis(2-chloroethoxy)methane	<0.18		0.18	0.036	mg/Kg	☼	11/16/17 16:12	11/20/17 17:57	1
Bis(2-chloroethyl)ether	<0.18		0.18	0.053	mg/Kg	☼	11/16/17 16:12	11/20/17 17:57	1
Bis(2-ethylhexyl) phthalate	<0.18		0.18	0.064	mg/Kg	☼	11/16/17 16:12	11/20/17 17:57	1
4-Bromophenyl phenyl ether	<0.18		0.18	0.046	mg/Kg	☼	11/16/17 16:12	11/20/17 17:57	1
Butyl benzyl phthalate	<0.18		0.18	0.067	mg/Kg	☼	11/16/17 16:12	11/20/17 17:57	1
Carbazole	<0.18		0.18	0.088	mg/Kg	☼	11/16/17 16:12	11/20/17 17:57	1
4-Chloroaniline	<0.71		0.71	0.16	mg/Kg	☼	11/16/17 16:12	11/20/17 17:57	1
4-Chloro-3-methylphenol	<0.35		0.35	0.12	mg/Kg	☼	11/16/17 16:12	11/20/17 17:57	1
2-Chloronaphthalene	<0.18		0.18	0.039	mg/Kg	☼	11/16/17 16:12	11/20/17 17:57	1
2-Chlorophenol	<0.18		0.18	0.060	mg/Kg	☼	11/16/17 16:12	11/20/17 17:57	1
4-Chlorophenyl phenyl ether	<0.18		0.18	0.041	mg/Kg	☼	11/16/17 16:12	11/20/17 17:57	1
Chrysene	0.042		0.035	0.0096	mg/Kg	☼	11/16/17 16:12	11/20/17 17:57	1
Dibenz(a,h)anthracene	<0.035		0.035	0.0068	mg/Kg	☼	11/16/17 16:12	11/20/17 17:57	1
Dibenzofuran	<0.18		0.18	0.041	mg/Kg	☼	11/16/17 16:12	11/20/17 17:57	1
1,2-Dichlorobenzene	<0.18		0.18	0.042	mg/Kg	☼	11/16/17 16:12	11/20/17 17:57	1
1,3-Dichlorobenzene	<0.18		0.18	0.039	mg/Kg	☼	11/16/17 16:12	11/20/17 17:57	1
1,4-Dichlorobenzene	<0.18		0.18	0.045	mg/Kg	☼	11/16/17 16:12	11/20/17 17:57	1
3,3'-Dichlorobenzidine	<0.18		0.18	0.049	mg/Kg	☼	11/16/17 16:12	11/20/17 17:57	1
2,4-Dichlorophenol	<0.35		0.35	0.083	mg/Kg	☼	11/16/17 16:12	11/20/17 17:57	1
Diethyl phthalate	<0.18		0.18	0.059	mg/Kg	☼	11/16/17 16:12	11/20/17 17:57	1
2,4-Dimethylphenol	<0.35		0.35	0.13	mg/Kg	☼	11/16/17 16:12	11/20/17 17:57	1
Dimethyl phthalate	<0.18		0.18	0.046	mg/Kg	☼	11/16/17 16:12	11/20/17 17:57	1
Di-n-butyl phthalate	<0.18		0.18	0.053	mg/Kg	☼	11/16/17 16:12	11/20/17 17:57	1
4,6-Dinitro-2-methylphenol	<0.71		0.71	0.28	mg/Kg	☼	11/16/17 16:12	11/20/17 17:57	1
2,4-Dinitrophenol	<0.71		0.71	0.62	mg/Kg	☼	11/16/17 16:12	11/20/17 17:57	1
2,4-Dinitrotoluene	<0.18		0.18	0.056	mg/Kg	☼	11/16/17 16:12	11/20/17 17:57	1
2,6-Dinitrotoluene	<0.18		0.18	0.069	mg/Kg	☼	11/16/17 16:12	11/20/17 17:57	1
Di-n-octyl phthalate	<0.18		0.18	0.057	mg/Kg	☼	11/16/17 16:12	11/20/17 17:57	1
Fluoranthene	0.035		0.035	0.0065	mg/Kg	☼	11/16/17 16:12	11/20/17 17:57	1
Fluorene	<0.035		0.035	0.0049	mg/Kg	☼	11/16/17 16:12	11/20/17 17:57	1
Hexachlorobenzene	<0.071		0.071	0.0081	mg/Kg	☼	11/16/17 16:12	11/20/17 17:57	1
Hexachlorobutadiene	<0.18		0.18	0.055	mg/Kg	☼	11/16/17 16:12	11/20/17 17:57	1
Hexachlorocyclopentadiene	<0.71		0.71	0.20	mg/Kg	☼	11/16/17 16:12	11/20/17 17:57	1
Hexachloroethane	<0.18		0.18	0.053	mg/Kg	☼	11/16/17 16:12	11/20/17 17:57	1
Indeno[1,2,3-cd]pyrene	0.043		0.035	0.0091	mg/Kg	☼	11/16/17 16:12	11/20/17 17:57	1
Isophorone	<0.18		0.18	0.039	mg/Kg	☼	11/16/17 16:12	11/20/17 17:57	1
2-Methylnaphthalene	0.077		0.071	0.0064	mg/Kg	☼	11/16/17 16:12	11/20/17 17:57	1
2-Methylphenol	<0.18		0.18	0.056	mg/Kg	☼	11/16/17 16:12	11/20/17 17:57	1
3 & 4 Methylphenol	<0.18		0.18	0.058	mg/Kg	☼	11/16/17 16:12	11/20/17 17:57	1
Naphthalene	0.029	J	0.035	0.0054	mg/Kg	☼	11/16/17 16:12	11/20/17 17:57	1
2-Nitroaniline	<0.18		0.18	0.047	mg/Kg	☼	11/16/17 16:12	11/20/17 17:57	1
3-Nitroaniline	<0.35		0.35	0.11	mg/Kg	☼	11/16/17 16:12	11/20/17 17:57	1
4-Nitroaniline	<0.35		0.35	0.15	mg/Kg	☼	11/16/17 16:12	11/20/17 17:57	1
Nitrobenzene	<0.035		0.035	0.0087	mg/Kg	☼	11/16/17 16:12	11/20/17 17:57	1
2-Nitrophenol	<0.35		0.35	0.083	mg/Kg	☼	11/16/17 16:12	11/20/17 17:57	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137079-4

Client Sample ID: 2696V-65-B03 (0-5)

Lab Sample ID: 500-137079-13

Date Collected: 11/09/17 10:35

Matrix: Solid

Date Received: 11/10/17 08:00

Percent Solids: 90.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Nitrophenol	<0.71		0.71	0.33	mg/Kg	☼	11/16/17 16:12	11/20/17 17:57	1
N-Nitrosodi-n-propylamine	<0.071		0.071	0.043	mg/Kg	☼	11/16/17 16:12	11/20/17 17:57	1
N-Nitrosodiphenylamine	<0.18		0.18	0.041	mg/Kg	☼	11/16/17 16:12	11/20/17 17:57	1
2,2'-oxybis[1-chloropropane]	<0.18		0.18	0.041	mg/Kg	☼	11/16/17 16:12	11/20/17 17:57	1
Pentachlorophenol	<0.71		0.71	0.56	mg/Kg	☼	11/16/17 16:12	11/20/17 17:57	1
Phenanthrene	0.042		0.035	0.0049	mg/Kg	☼	11/16/17 16:12	11/20/17 17:57	1
Phenol	<0.18		0.18	0.078	mg/Kg	☼	11/16/17 16:12	11/20/17 17:57	1
Pyrene	0.046		0.035	0.0070	mg/Kg	☼	11/16/17 16:12	11/20/17 17:57	1
1,2,4-Trichlorobenzene	<0.18		0.18	0.038	mg/Kg	☼	11/16/17 16:12	11/20/17 17:57	1
2,4,5-Trichlorophenol	<0.35		0.35	0.080	mg/Kg	☼	11/16/17 16:12	11/20/17 17:57	1
2,4,6-Trichlorophenol	<0.35		0.35	0.12	mg/Kg	☼	11/16/17 16:12	11/20/17 17:57	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	78		44 - 121	11/16/17 16:12	11/20/17 17:57	1
2-Fluorophenol	87		46 - 133	11/16/17 16:12	11/20/17 17:57	1
Nitrobenzene-d5	75		41 - 120	11/16/17 16:12	11/20/17 17:57	1
Phenol-d5	88		46 - 125	11/16/17 16:12	11/20/17 17:57	1
Terphenyl-d14	82		35 - 160	11/16/17 16:12	11/20/17 17:57	1
2,4,6-Tribromophenol	66		25 - 139	11/16/17 16:12	11/20/17 17:57	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.41	J	1.0	0.20	mg/Kg	☼	11/11/17 13:30	11/14/17 03:32	1
Arsenic	6.7		0.51	0.17	mg/Kg	☼	11/11/17 13:30	11/14/17 03:32	1
Barium	14		0.51	0.058	mg/Kg	☼	11/11/17 13:30	11/14/17 03:32	1
Beryllium	0.29		0.20	0.048	mg/Kg	☼	11/11/17 13:30	11/14/17 03:32	1
Cadmium	0.18	B	0.10	0.018	mg/Kg	☼	11/11/17 13:30	11/14/17 03:32	1
Chromium	6.4		0.51	0.25	mg/Kg	☼	11/11/17 13:30	11/14/17 03:32	1
Cobalt	6.1		0.26	0.067	mg/Kg	☼	11/11/17 13:30	11/14/17 03:32	1
Copper	17		2.6	0.71	mg/Kg	☼	11/11/17 13:30	11/15/17 00:13	5
Iron	12000		10	5.3	mg/Kg	☼	11/15/17 16:01	11/16/17 22:19	1
Lead	13		0.26	0.12	mg/Kg	☼	11/11/17 13:30	11/14/17 03:32	1
Magnesium	66000	B	26	13	mg/Kg	☼	11/11/17 13:30	11/15/17 00:13	5
Calcium	110000	B	51	8.6	mg/Kg	☼	11/11/17 13:30	11/15/17 00:13	5
Manganese	390		0.51	0.074	mg/Kg	☼	11/11/17 13:30	11/14/17 03:32	1
Nickel	15		0.51	0.15	mg/Kg	☼	11/11/17 13:30	11/14/17 03:32	1
Selenium	0.34	J B	0.51	0.30	mg/Kg	☼	11/11/17 13:30	11/14/17 03:32	1
Silver	<0.26	^	0.26	0.066	mg/Kg	☼	11/11/17 13:30	11/14/17 03:32	1
Thallium	<0.51		0.51	0.25	mg/Kg	☼	11/11/17 13:30	11/14/17 03:32	1
Vanadium	11		0.26	0.060	mg/Kg	☼	11/11/17 13:30	11/14/17 03:32	1
Zinc	42		1.0	0.45	mg/Kg	☼	11/11/17 13:30	11/14/17 03:32	1
Potassium	960		26	9.0	mg/Kg	☼	11/11/17 13:30	11/14/17 03:32	1
Sodium	140		51	7.5	mg/Kg	☼	11/11/17 13:30	11/14/17 03:32	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.050		0.050	0.010	mg/L		11/17/17 06:52	11/17/17 17:54	1
Barium	0.19	J	0.50	0.050	mg/L		11/17/17 06:52	11/17/17 17:54	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		11/17/17 06:52	11/17/17 17:54	1
Cadmium	0.0024	J	0.0050	0.0020	mg/L		11/17/17 06:52	11/17/17 17:54	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137079-4

Client Sample ID: 2696V-65-B03 (0-5)

Lab Sample ID: 500-137079-13

Date Collected: 11/09/17 10:35

Matrix: Solid

Date Received: 11/10/17 08:00

Percent Solids: 90.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	460		5.0	0.50	mg/L		11/17/17 06:52	11/17/17 17:54	1
Chromium	<0.025		0.025	0.010	mg/L		11/17/17 06:52	11/17/17 17:54	1
Cobalt	0.019	J	0.025	0.010	mg/L		11/17/17 06:52	11/17/17 17:54	1
Copper	0.028		0.025	0.010	mg/L		11/17/17 06:52	11/17/17 17:54	1
Iron	<0.40		0.40	0.20	mg/L		11/17/17 06:52	11/17/17 17:54	1
Lead	<0.0075		0.0075	0.0075	mg/L		11/17/17 06:52	11/17/17 17:54	1
Magnesium	110		2.5	0.50	mg/L		11/17/17 06:52	11/17/17 17:54	1
Manganese	2.2		0.025	0.010	mg/L		11/17/17 06:52	11/17/17 17:54	1
Nickel	0.045		0.025	0.010	mg/L		11/17/17 06:52	11/17/17 17:54	1
Potassium	3.4		2.5	0.50	mg/L		11/17/17 06:52	11/17/17 17:54	1
Selenium	<0.050		0.050	0.020	mg/L		11/17/17 06:52	11/17/17 17:54	1
Silver	<0.025		0.025	0.010	mg/L		11/17/17 06:52	11/17/17 17:54	1
Vanadium	<0.025		0.025	0.010	mg/L		11/17/17 06:52	11/17/17 17:54	1
Zinc	0.084	J	0.50	0.020	mg/L		11/17/17 06:52	11/17/17 17:54	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		11/16/17 14:16	11/18/17 00:11	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		11/17/17 06:52	11/18/17 02:58	1
Thallium	<0.0020		0.0020	0.0020	mg/L		11/17/17 06:52	11/18/17 02:58	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		11/17/17 08:10	11/18/17 12:24	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.017		0.017	0.0056	mg/Kg	☼	11/17/17 10:45	11/17/17 14:14	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.52		0.52	0.18	mg/Kg	☼	11/21/17 11:00	11/21/17 14:17	1
pH	7.7		0.20	0.20	SU			11/18/17 12:43	1

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137079-4

Client Sample ID: 2696V-65-B04 (0-5)

Lab Sample ID: 500-137079-14

Date Collected: 11/09/17 10:25

Matrix: Solid

Date Received: 11/10/17 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	<0.019		0.019	0.0081	mg/Kg	☼	11/10/17 18:28	11/16/17 20:08	1
Benzene	<0.0019		0.0019	0.00047	mg/Kg	☼	11/10/17 18:28	11/16/17 20:08	1
Bromodichloromethane	<0.0019		0.0019	0.00038	mg/Kg	☼	11/10/17 18:28	11/16/17 20:08	1
Bromoform	<0.0019		0.0019	0.00054	mg/Kg	☼	11/10/17 18:28	11/16/17 20:08	1
Bromomethane	<0.0047		0.0047	0.0018	mg/Kg	☼	11/10/17 18:28	11/16/17 20:08	1
2-Butanone (MEK)	<0.0047		0.0047	0.0021	mg/Kg	☼	11/10/17 18:28	11/16/17 20:08	1
Carbon disulfide	<0.0047		0.0047	0.00097	mg/Kg	☼	11/10/17 18:28	11/16/17 20:08	1
Carbon tetrachloride	<0.0019	*	0.0019	0.00054	mg/Kg	☼	11/10/17 18:28	11/16/17 20:08	1
Chlorobenzene	<0.0019		0.0019	0.00069	mg/Kg	☼	11/10/17 18:28	11/16/17 20:08	1
Chloroethane	<0.0047		0.0047	0.0014	mg/Kg	☼	11/10/17 18:28	11/16/17 20:08	1
Chloroform	<0.0019		0.0019	0.00065	mg/Kg	☼	11/10/17 18:28	11/16/17 20:08	1
Chloromethane	<0.0047	*	0.0047	0.0019	mg/Kg	☼	11/10/17 18:28	11/16/17 20:08	1
cis-1,2-Dichloroethene	<0.0019		0.0019	0.00052	mg/Kg	☼	11/10/17 18:28	11/16/17 20:08	1
cis-1,3-Dichloropropene	<0.0019		0.0019	0.00056	mg/Kg	☼	11/10/17 18:28	11/16/17 20:08	1
Dibromochloromethane	<0.0019		0.0019	0.00061	mg/Kg	☼	11/10/17 18:28	11/16/17 20:08	1
1,1-Dichloroethane	<0.0019		0.0019	0.00064	mg/Kg	☼	11/10/17 18:28	11/16/17 20:08	1
1,2-Dichloroethane	<0.0047		0.0047	0.0015	mg/Kg	☼	11/10/17 18:28	11/16/17 20:08	1
1,1-Dichloroethene	<0.0019		0.0019	0.00064	mg/Kg	☼	11/10/17 18:28	11/16/17 20:08	1
1,2-Dichloropropane	<0.0019		0.0019	0.00048	mg/Kg	☼	11/10/17 18:28	11/16/17 20:08	1
1,3-Dichloropropane, Total	<0.0019		0.0019	0.00065	mg/Kg	☼	11/10/17 18:28	11/16/17 20:08	1
Ethylbenzene	<0.0019		0.0019	0.00089	mg/Kg	☼	11/10/17 18:28	11/16/17 20:08	1
2-Hexanone	<0.0047		0.0047	0.0015	mg/Kg	☼	11/10/17 18:28	11/16/17 20:08	1
Methylene Chloride	<0.0047		0.0047	0.0018	mg/Kg	☼	11/10/17 18:28	11/16/17 20:08	1
4-Methyl-2-pentanone (MIBK)	<0.0047		0.0047	0.0014	mg/Kg	☼	11/10/17 18:28	11/16/17 20:08	1
Methyl tert-butyl ether	<0.0019		0.0019	0.00055	mg/Kg	☼	11/10/17 18:28	11/16/17 20:08	1
Styrene	<0.0019		0.0019	0.00056	mg/Kg	☼	11/10/17 18:28	11/16/17 20:08	1
1,1,2,2-Tetrachloroethane	<0.0019		0.0019	0.00059	mg/Kg	☼	11/10/17 18:28	11/16/17 20:08	1
Tetrachloroethene	<0.0019		0.0019	0.00063	mg/Kg	☼	11/10/17 18:28	11/16/17 20:08	1
Toluene	<0.0019		0.0019	0.00047	mg/Kg	☼	11/10/17 18:28	11/16/17 20:08	1
trans-1,2-Dichloroethene	<0.0019		0.0019	0.00082	mg/Kg	☼	11/10/17 18:28	11/16/17 20:08	1
trans-1,3-Dichloropropene	<0.0019		0.0019	0.00065	mg/Kg	☼	11/10/17 18:28	11/16/17 20:08	1
1,1,1-Trichloroethane	<0.0019		0.0019	0.00062	mg/Kg	☼	11/10/17 18:28	11/16/17 20:08	1
1,1,2-Trichloroethane	<0.0019		0.0019	0.00080	mg/Kg	☼	11/10/17 18:28	11/16/17 20:08	1
Trichloroethene	<0.0019		0.0019	0.00063	mg/Kg	☼	11/10/17 18:28	11/16/17 20:08	1
Vinyl acetate	<0.0047		0.0047	0.0016	mg/Kg	☼	11/10/17 18:28	11/16/17 20:08	1
Vinyl chloride	<0.0019		0.0019	0.00082	mg/Kg	☼	11/10/17 18:28	11/16/17 20:08	1
Xylenes, Total	<0.0037		0.0037	0.00060	mg/Kg	☼	11/10/17 18:28	11/16/17 20:08	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	94		75 - 131	11/10/17 18:28	11/16/17 20:08	1
Dibromofluoromethane	110		75 - 126	11/10/17 18:28	11/16/17 20:08	1
1,2-Dichloroethane-d4 (Surr)	120		70 - 134	11/10/17 18:28	11/16/17 20:08	1
Toluene-d8 (Surr)	96		75 - 124	11/10/17 18:28	11/16/17 20:08	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.036		0.036	0.0065	mg/Kg	☼	11/16/17 16:12	11/20/17 18:25	1
Acenaphthylene	<0.036		0.036	0.0048	mg/Kg	☼	11/16/17 16:12	11/20/17 18:25	1
Anthracene	0.012	J	0.036	0.0061	mg/Kg	☼	11/16/17 16:12	11/20/17 18:25	1
Benzo[a]anthracene	0.064		0.036	0.0049	mg/Kg	☼	11/16/17 16:12	11/20/17 18:25	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137079-4

Client Sample ID: 2696V-65-B04 (0-5)

Lab Sample ID: 500-137079-14

Date Collected: 11/09/17 10:25

Matrix: Solid

Date Received: 11/10/17 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
Benzo[a]pyrene	0.11		0.036	0.0070	mg/Kg	☼	11/16/17 16:12	11/20/17 18:25	1
Benzo[b]fluoranthene	0.13		0.036	0.0078	mg/Kg	☼	11/16/17 16:12	11/20/17 18:25	1
Benzo[g,h,i]perylene	0.071		0.036	0.012	mg/Kg	☼	11/16/17 16:12	11/20/17 18:25	1
Benzo[k]fluoranthene	0.042		0.036	0.011	mg/Kg	☼	11/16/17 16:12	11/20/17 18:25	1
Bis(2-chloroethoxy)methane	<0.18		0.18	0.037	mg/Kg	☼	11/16/17 16:12	11/20/17 18:25	1
Bis(2-chloroethyl)ether	<0.18		0.18	0.054	mg/Kg	☼	11/16/17 16:12	11/20/17 18:25	1
Bis(2-ethylhexyl) phthalate	<0.18		0.18	0.066	mg/Kg	☼	11/16/17 16:12	11/20/17 18:25	1
4-Bromophenyl phenyl ether	<0.18		0.18	0.048	mg/Kg	☼	11/16/17 16:12	11/20/17 18:25	1
Butyl benzyl phthalate	<0.18		0.18	0.069	mg/Kg	☼	11/16/17 16:12	11/20/17 18:25	1
Carbazole	<0.18		0.18	0.091	mg/Kg	☼	11/16/17 16:12	11/20/17 18:25	1
4-Chloroaniline	<0.73		0.73	0.17	mg/Kg	☼	11/16/17 16:12	11/20/17 18:25	1
4-Chloro-3-methylphenol	<0.36		0.36	0.12	mg/Kg	☼	11/16/17 16:12	11/20/17 18:25	1
2-Chloronaphthalene	<0.18		0.18	0.040	mg/Kg	☼	11/16/17 16:12	11/20/17 18:25	1
2-Chlorophenol	<0.18		0.18	0.062	mg/Kg	☼	11/16/17 16:12	11/20/17 18:25	1
4-Chlorophenyl phenyl ether	<0.18		0.18	0.042	mg/Kg	☼	11/16/17 16:12	11/20/17 18:25	1
Chrysene	0.079		0.036	0.0099	mg/Kg	☼	11/16/17 16:12	11/20/17 18:25	1
Dibenz(a,h)anthracene	0.042		0.036	0.0070	mg/Kg	☼	11/16/17 16:12	11/20/17 18:25	1
Dibenzofuran	<0.18		0.18	0.043	mg/Kg	☼	11/16/17 16:12	11/20/17 18:25	1
1,2-Dichlorobenzene	<0.18		0.18	0.043	mg/Kg	☼	11/16/17 16:12	11/20/17 18:25	1
1,3-Dichlorobenzene	<0.18		0.18	0.041	mg/Kg	☼	11/16/17 16:12	11/20/17 18:25	1
1,4-Dichlorobenzene	<0.18		0.18	0.047	mg/Kg	☼	11/16/17 16:12	11/20/17 18:25	1
3,3'-Dichlorobenzidine	<0.18		0.18	0.051	mg/Kg	☼	11/16/17 16:12	11/20/17 18:25	1
2,4-Dichlorophenol	<0.36		0.36	0.086	mg/Kg	☼	11/16/17 16:12	11/20/17 18:25	1
Diethyl phthalate	<0.18		0.18	0.062	mg/Kg	☼	11/16/17 16:12	11/20/17 18:25	1
2,4-Dimethylphenol	<0.36		0.36	0.14	mg/Kg	☼	11/16/17 16:12	11/20/17 18:25	1
Dimethyl phthalate	<0.18		0.18	0.047	mg/Kg	☼	11/16/17 16:12	11/20/17 18:25	1
Di-n-butyl phthalate	<0.18		0.18	0.055	mg/Kg	☼	11/16/17 16:12	11/20/17 18:25	1
4,6-Dinitro-2-methylphenol	<0.73		0.73	0.29	mg/Kg	☼	11/16/17 16:12	11/20/17 18:25	1
2,4-Dinitrophenol	<0.73		0.73	0.64	mg/Kg	☼	11/16/17 16:12	11/20/17 18:25	1
2,4-Dinitrotoluene	<0.18		0.18	0.058	mg/Kg	☼	11/16/17 16:12	11/20/17 18:25	1
2,6-Dinitrotoluene	<0.18		0.18	0.071	mg/Kg	☼	11/16/17 16:12	11/20/17 18:25	1
Di-n-octyl phthalate	<0.18		0.18	0.059	mg/Kg	☼	11/16/17 16:12	11/20/17 18:25	1
Fluoranthene	0.15		0.036	0.0067	mg/Kg	☼	11/16/17 16:12	11/20/17 18:25	1
Fluorene	<0.036		0.036	0.0051	mg/Kg	☼	11/16/17 16:12	11/20/17 18:25	1
Hexachlorobenzene	<0.073		0.073	0.0084	mg/Kg	☼	11/16/17 16:12	11/20/17 18:25	1
Hexachlorobutadiene	<0.18		0.18	0.057	mg/Kg	☼	11/16/17 16:12	11/20/17 18:25	1
Hexachlorocyclopentadiene	<0.73		0.73	0.21	mg/Kg	☼	11/16/17 16:12	11/20/17 18:25	1
Hexachloroethane	<0.18		0.18	0.055	mg/Kg	☼	11/16/17 16:12	11/20/17 18:25	1
Indeno[1,2,3-cd]pyrene	0.070		0.036	0.0094	mg/Kg	☼	11/16/17 16:12	11/20/17 18:25	1
Isophorone	<0.18		0.18	0.041	mg/Kg	☼	11/16/17 16:12	11/20/17 18:25	1
2-Methylnaphthalene	0.018 J		0.073	0.0067	mg/Kg	☼	11/16/17 16:12	11/20/17 18:25	1
2-Methylphenol	<0.18		0.18	0.058	mg/Kg	☼	11/16/17 16:12	11/20/17 18:25	1
3 & 4 Methylphenol	<0.18		0.18	0.061	mg/Kg	☼	11/16/17 16:12	11/20/17 18:25	1
Naphthalene	<0.036		0.036	0.0056	mg/Kg	☼	11/16/17 16:12	11/20/17 18:25	1
2-Nitroaniline	<0.18		0.18	0.049	mg/Kg	☼	11/16/17 16:12	11/20/17 18:25	1
3-Nitroaniline	<0.36		0.36	0.11	mg/Kg	☼	11/16/17 16:12	11/20/17 18:25	1
4-Nitroaniline	<0.36		0.36	0.15	mg/Kg	☼	11/16/17 16:12	11/20/17 18:25	1
Nitrobenzene	<0.036		0.036	0.0091	mg/Kg	☼	11/16/17 16:12	11/20/17 18:25	1
2-Nitrophenol	<0.36		0.36	0.086	mg/Kg	☼	11/16/17 16:12	11/20/17 18:25	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137079-4

Client Sample ID: 2696V-65-B04 (0-5)

Lab Sample ID: 500-137079-14

Date Collected: 11/09/17 10:25

Matrix: Solid

Date Received: 11/10/17 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
4-Nitrophenol	<0.73		0.73	0.35	mg/Kg	☼	11/16/17 16:12	11/20/17 18:25	1
N-Nitrosodi-n-propylamine	<0.073		0.073	0.044	mg/Kg	☼	11/16/17 16:12	11/20/17 18:25	1
N-Nitrosodiphenylamine	<0.18		0.18	0.043	mg/Kg	☼	11/16/17 16:12	11/20/17 18:25	1
2,2'-oxybis[1-chloropropane]	<0.18		0.18	0.042	mg/Kg	☼	11/16/17 16:12	11/20/17 18:25	1
Pentachlorophenol	<0.73		0.73	0.58	mg/Kg	☼	11/16/17 16:12	11/20/17 18:25	1
Phenanthrene	0.074		0.036	0.0051	mg/Kg	☼	11/16/17 16:12	11/20/17 18:25	1
Phenol	<0.18		0.18	0.081	mg/Kg	☼	11/16/17 16:12	11/20/17 18:25	1
Pyrene	0.10		0.036	0.0072	mg/Kg	☼	11/16/17 16:12	11/20/17 18:25	1
1,2,4-Trichlorobenzene	<0.18		0.18	0.039	mg/Kg	☼	11/16/17 16:12	11/20/17 18:25	1
2,4,5-Trichlorophenol	<0.36		0.36	0.083	mg/Kg	☼	11/16/17 16:12	11/20/17 18:25	1
2,4,6-Trichlorophenol	<0.36		0.36	0.12	mg/Kg	☼	11/16/17 16:12	11/20/17 18:25	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	83		44 - 121	11/16/17 16:12	11/20/17 18:25	1
2-Fluorophenol	103		46 - 133	11/16/17 16:12	11/20/17 18:25	1
Nitrobenzene-d5	82		41 - 120	11/16/17 16:12	11/20/17 18:25	1
Phenol-d5	109		46 - 125	11/16/17 16:12	11/20/17 18:25	1
Terphenyl-d14	89		35 - 160	11/16/17 16:12	11/20/17 18:25	1
2,4,6-Tribromophenol	65		25 - 139	11/16/17 16:12	11/20/17 18:25	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.27	J	1.1	0.21	mg/Kg	☼	11/11/17 13:30	11/14/17 03:37	1
Arsenic	6.7		0.55	0.19	mg/Kg	☼	11/11/17 13:30	11/14/17 03:37	1
Barium	70		0.55	0.063	mg/Kg	☼	11/11/17 13:30	11/14/17 03:37	1
Beryllium	1.1		0.22	0.051	mg/Kg	☼	11/11/17 13:30	11/14/17 03:37	1
Cadmium	0.20	B	0.11	0.020	mg/Kg	☼	11/11/17 13:30	11/14/17 03:37	1
Chromium	9.9		0.55	0.27	mg/Kg	☼	11/11/17 13:30	11/14/17 03:37	1
Cobalt	6.8		0.28	0.072	mg/Kg	☼	11/11/17 13:30	11/14/17 03:37	1
Copper	16		2.8	0.77	mg/Kg	☼	11/11/17 13:30	11/15/17 00:17	5
Iron	12000		11	5.6	mg/Kg	☼	11/15/17 16:01	11/16/17 22:23	1
Lead	33		0.28	0.13	mg/Kg	☼	11/11/17 13:30	11/14/17 03:37	1
Magnesium	21000		5.5	2.7	mg/Kg	☼	11/11/17 13:30	11/14/17 03:37	1
Calcium	58000	B	55	9.3	mg/Kg	☼	11/11/17 13:30	11/15/17 00:17	5
Manganese	530		0.55	0.080	mg/Kg	☼	11/11/17 13:30	11/14/17 03:37	1
Nickel	16		0.55	0.16	mg/Kg	☼	11/11/17 13:30	11/14/17 03:37	1
Selenium	0.57	B	0.55	0.32	mg/Kg	☼	11/11/17 13:30	11/14/17 03:37	1
Silver	<0.28	^	0.28	0.071	mg/Kg	☼	11/11/17 13:30	11/14/17 03:37	1
Thallium	0.28	J	0.55	0.27	mg/Kg	☼	11/11/17 13:30	11/14/17 03:37	1
Vanadium	13		0.28	0.065	mg/Kg	☼	11/11/17 13:30	11/14/17 03:37	1
Zinc	49		1.1	0.48	mg/Kg	☼	11/11/17 13:30	11/14/17 03:37	1
Potassium	1100		28	9.7	mg/Kg	☼	11/11/17 13:30	11/14/17 03:37	1
Sodium	280		55	8.2	mg/Kg	☼	11/11/17 13:30	11/14/17 03:37	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.050		0.050	0.010	mg/L		11/17/17 06:52	11/17/17 17:58	1
Barium	0.46	J	0.50	0.050	mg/L		11/17/17 06:52	11/17/17 17:58	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		11/17/17 06:52	11/17/17 17:58	1
Cadmium	0.0023	J	0.0050	0.0020	mg/L		11/17/17 06:52	11/17/17 17:58	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137079-4

Client Sample ID: 2696V-65-B04 (0-5)

Lab Sample ID: 500-137079-14

Date Collected: 11/09/17 10:25

Matrix: Solid

Date Received: 11/10/17 08:00

Percent Solids: 86.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	400		5.0	0.50	mg/L		11/17/17 06:52	11/17/17 17:58	1
Chromium	<0.025		0.025	0.010	mg/L		11/17/17 06:52	11/17/17 17:58	1
Cobalt	<0.025		0.025	0.010	mg/L		11/17/17 06:52	11/17/17 17:58	1
Copper	0.022	J	0.025	0.010	mg/L		11/17/17 06:52	11/17/17 17:58	1
Iron	<0.40		0.40	0.20	mg/L		11/17/17 06:52	11/17/17 17:58	1
Lead	<0.0075		0.0075	0.0075	mg/L		11/17/17 06:52	11/17/17 17:58	1
Magnesium	80		2.5	0.50	mg/L		11/17/17 06:52	11/17/17 17:58	1
Manganese	2.0		0.025	0.010	mg/L		11/17/17 06:52	11/17/17 17:58	1
Nickel	<0.025		0.025	0.010	mg/L		11/17/17 06:52	11/17/17 17:58	1
Potassium	2.3	J	2.5	0.50	mg/L		11/17/17 06:52	11/17/17 17:58	1
Selenium	<0.050		0.050	0.020	mg/L		11/17/17 06:52	11/17/17 17:58	1
Silver	<0.025		0.025	0.010	mg/L		11/17/17 06:52	11/17/17 17:58	1
Vanadium	<0.025		0.025	0.010	mg/L		11/17/17 06:52	11/17/17 17:58	1
Zinc	0.052	J	0.50	0.020	mg/L		11/17/17 06:52	11/17/17 17:58	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.44		0.025	0.010	mg/L		11/16/17 14:16	11/18/17 00:15	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		11/17/17 06:52	11/18/17 03:02	1
Thallium	<0.0020		0.0020	0.0020	mg/L		11/17/17 06:52	11/18/17 03:02	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		11/17/17 08:10	11/18/17 12:25	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.024		0.017	0.0057	mg/Kg	☼	11/17/17 10:45	11/17/17 14:20	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.58		0.58	0.20	mg/Kg	☼	11/21/17 11:00	11/21/17 14:17	1
pH	8.6		0.20	0.20	SU			11/18/17 12:45	1

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137079-4

Client Sample ID: 2696V-65-B05 (0-5)

Lab Sample ID: 500-137079-15

Date Collected: 11/09/17 10:10

Matrix: Solid

Date Received: 11/10/17 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	<0.23		0.23	0.079	mg/Kg	☼	11/09/17 10:10	11/19/17 22:51	50
Benzene	<0.011		0.011	0.0066	mg/Kg	☼	11/09/17 10:10	11/19/17 22:51	50
Bromodichloromethane	<0.046		0.046	0.017	mg/Kg	☼	11/09/17 10:10	11/19/17 22:51	50
Bromoform	<0.046		0.046	0.022	mg/Kg	☼	11/09/17 10:10	11/19/17 22:51	50
Bromomethane	<0.091		0.091	0.036	mg/Kg	☼	11/09/17 10:10	11/19/17 22:51	50
2-Butanone (MEK)	<0.23		0.23	0.096	mg/Kg	☼	11/09/17 10:10	11/19/17 22:51	50
Carbon disulfide	<0.091		0.091	0.036	mg/Kg	☼	11/09/17 10:10	11/19/17 22:51	50
Carbon tetrachloride	<0.046		0.046	0.017	mg/Kg	☼	11/09/17 10:10	11/19/17 22:51	50
Chlorobenzene	<0.046		0.046	0.018	mg/Kg	☼	11/09/17 10:10	11/19/17 22:51	50
Chloroethane	<0.046		0.046	0.023	mg/Kg	☼	11/09/17 10:10	11/19/17 22:51	50
Chloroform	<0.091		0.091	0.017	mg/Kg	☼	11/09/17 10:10	11/19/17 22:51	50
Chloromethane	<0.046		0.046	0.015	mg/Kg	☼	11/09/17 10:10	11/19/17 22:51	50
cis-1,2-Dichloroethene	<0.046		0.046	0.019	mg/Kg	☼	11/09/17 10:10	11/19/17 22:51	50
cis-1,3-Dichloropropene	<0.046		0.046	0.019	mg/Kg	☼	11/09/17 10:10	11/19/17 22:51	50
Dibromochloromethane	<0.046		0.046	0.022	mg/Kg	☼	11/09/17 10:10	11/19/17 22:51	50
1,1-Dichloroethane	<0.046		0.046	0.019	mg/Kg	☼	11/09/17 10:10	11/19/17 22:51	50
1,2-Dichloroethane	<0.046		0.046	0.018	mg/Kg	☼	11/09/17 10:10	11/19/17 22:51	50
1,1-Dichloroethene	<0.046		0.046	0.018	mg/Kg	☼	11/09/17 10:10	11/19/17 22:51	50
1,2-Dichloropropane	<0.046		0.046	0.019	mg/Kg	☼	11/09/17 10:10	11/19/17 22:51	50
1,3-Dichloropropene, Total	<0.046		0.046	0.019	mg/Kg	☼	11/09/17 10:10	11/19/17 22:51	50
Ethylbenzene	<0.011		0.011	0.0083	mg/Kg	☼	11/09/17 10:10	11/19/17 22:51	50
2-Hexanone	<0.23		0.23	0.071	mg/Kg	☼	11/09/17 10:10	11/19/17 22:51	50
Methylene Chloride	<0.23		0.23	0.074	mg/Kg	☼	11/09/17 10:10	11/19/17 22:51	50
4-Methyl-2-pentanone (MIBK)	<0.23		0.23	0.098	mg/Kg	☼	11/09/17 10:10	11/19/17 22:51	50
Methyl tert-butyl ether	<0.046		0.046	0.018	mg/Kg	☼	11/09/17 10:10	11/19/17 22:51	50
Styrene	<0.046		0.046	0.018	mg/Kg	☼	11/09/17 10:10	11/19/17 22:51	50
1,1,2,2-Tetrachloroethane	<0.046		0.046	0.018	mg/Kg	☼	11/09/17 10:10	11/19/17 22:51	50
Tetrachloroethene	<0.046		0.046	0.017	mg/Kg	☼	11/09/17 10:10	11/19/17 22:51	50
Toluene	<0.011		0.011	0.0067	mg/Kg	☼	11/09/17 10:10	11/19/17 22:51	50
trans-1,2-Dichloroethene	<0.046		0.046	0.016	mg/Kg	☼	11/09/17 10:10	11/19/17 22:51	50
trans-1,3-Dichloropropene	<0.046		0.046	0.016	mg/Kg	☼	11/09/17 10:10	11/19/17 22:51	50
1,1,1-Trichloroethane	<0.046		0.046	0.017	mg/Kg	☼	11/09/17 10:10	11/19/17 22:51	50
1,1,2-Trichloroethane	<0.046		0.046	0.016	mg/Kg	☼	11/09/17 10:10	11/19/17 22:51	50
Trichloroethene	<0.023		0.023	0.0075	mg/Kg	☼	11/09/17 10:10	11/19/17 22:51	50
Vinyl acetate	<0.091		0.091	0.041	mg/Kg	☼	11/09/17 10:10	11/19/17 22:51	50
Vinyl chloride	<0.023		0.023	0.012	mg/Kg	☼	11/09/17 10:10	11/19/17 22:51	50
Xylenes, Total	<0.023		0.023	0.010	mg/Kg	☼	11/09/17 10:10	11/19/17 22:51	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	90		72 - 124	11/09/17 10:10	11/19/17 22:51	50
Dibromofluoromethane	88		75 - 120	11/09/17 10:10	11/19/17 22:51	50
1,2-Dichloroethane-d4 (Surr)	93		75 - 126	11/09/17 10:10	11/19/17 22:51	50
Toluene-d8 (Surr)	119		75 - 120	11/09/17 10:10	11/19/17 22:51	50

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.037		0.037	0.0067	mg/Kg	☼	11/16/17 16:12	11/20/17 18:52	1
Acenaphthylene	<0.037		0.037	0.0049	mg/Kg	☼	11/16/17 16:12	11/20/17 18:52	1
Anthracene	<0.037		0.037	0.0063	mg/Kg	☼	11/16/17 16:12	11/20/17 18:52	1
Benzo[a]anthracene	0.075		0.037	0.0050	mg/Kg	☼	11/16/17 16:12	11/20/17 18:52	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137079-4

Client Sample ID: 2696V-65-B05 (0-5)

Lab Sample ID: 500-137079-15

Date Collected: 11/09/17 10:10

Matrix: Solid

Date Received: 11/10/17 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
Benzo[a]pyrene	0.14		0.037	0.0073	mg/Kg	☼	11/16/17 16:12	11/20/17 18:52	1
Benzo[b]fluoranthene	0.099		0.037	0.0081	mg/Kg	☼	11/16/17 16:12	11/20/17 18:52	1
Benzo[g,h,i]perylene	0.090		0.037	0.012	mg/Kg	☼	11/16/17 16:12	11/20/17 18:52	1
Benzo[k]fluoranthene	0.16		0.037	0.011	mg/Kg	☼	11/16/17 16:12	11/20/17 18:52	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.038	mg/Kg	☼	11/16/17 16:12	11/20/17 18:52	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.056	mg/Kg	☼	11/16/17 16:12	11/20/17 18:52	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.069	mg/Kg	☼	11/16/17 16:12	11/20/17 18:52	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.049	mg/Kg	☼	11/16/17 16:12	11/20/17 18:52	1
Butyl benzyl phthalate	<0.19		0.19	0.071	mg/Kg	☼	11/16/17 16:12	11/20/17 18:52	1
Carbazole	<0.19		0.19	0.094	mg/Kg	☼	11/16/17 16:12	11/20/17 18:52	1
4-Chloroaniline	<0.76		0.76	0.18	mg/Kg	☼	11/16/17 16:12	11/20/17 18:52	1
4-Chloro-3-methylphenol	<0.37		0.37	0.13	mg/Kg	☼	11/16/17 16:12	11/20/17 18:52	1
2-Chloronaphthalene	<0.19		0.19	0.041	mg/Kg	☼	11/16/17 16:12	11/20/17 18:52	1
2-Chlorophenol	<0.19		0.19	0.064	mg/Kg	☼	11/16/17 16:12	11/20/17 18:52	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.044	mg/Kg	☼	11/16/17 16:12	11/20/17 18:52	1
Chrysene	0.21		0.037	0.010	mg/Kg	☼	11/16/17 16:12	11/20/17 18:52	1
Dibenz(a,h)anthracene	<0.037		0.037	0.0073	mg/Kg	☼	11/16/17 16:12	11/20/17 18:52	1
Dibenzofuran	<0.19		0.19	0.044	mg/Kg	☼	11/16/17 16:12	11/20/17 18:52	1
1,2-Dichlorobenzene	<0.19		0.19	0.045	mg/Kg	☼	11/16/17 16:12	11/20/17 18:52	1
1,3-Dichlorobenzene	<0.19		0.19	0.042	mg/Kg	☼	11/16/17 16:12	11/20/17 18:52	1
1,4-Dichlorobenzene	<0.19		0.19	0.048	mg/Kg	☼	11/16/17 16:12	11/20/17 18:52	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.053	mg/Kg	☼	11/16/17 16:12	11/20/17 18:52	1
2,4-Dichlorophenol	<0.37		0.37	0.089	mg/Kg	☼	11/16/17 16:12	11/20/17 18:52	1
Diethyl phthalate	<0.19		0.19	0.064	mg/Kg	☼	11/16/17 16:12	11/20/17 18:52	1
2,4-Dimethylphenol	<0.37		0.37	0.14	mg/Kg	☼	11/16/17 16:12	11/20/17 18:52	1
Dimethyl phthalate	<0.19		0.19	0.049	mg/Kg	☼	11/16/17 16:12	11/20/17 18:52	1
Di-n-butyl phthalate	<0.19		0.19	0.057	mg/Kg	☼	11/16/17 16:12	11/20/17 18:52	1
4,6-Dinitro-2-methylphenol	<0.76		0.76	0.30	mg/Kg	☼	11/16/17 16:12	11/20/17 18:52	1
2,4-Dinitrophenol	<0.76		0.76	0.66	mg/Kg	☼	11/16/17 16:12	11/20/17 18:52	1
2,4-Dinitrotoluene	<0.19		0.19	0.060	mg/Kg	☼	11/16/17 16:12	11/20/17 18:52	1
2,6-Dinitrotoluene	<0.19		0.19	0.074	mg/Kg	☼	11/16/17 16:12	11/20/17 18:52	1
Di-n-octyl phthalate	<0.19		0.19	0.061	mg/Kg	☼	11/16/17 16:12	11/20/17 18:52	1
Fluoranthene	0.19		0.037	0.0070	mg/Kg	☼	11/16/17 16:12	11/20/17 18:52	1
Fluorene	0.11		0.037	0.0053	mg/Kg	☼	11/16/17 16:12	11/20/17 18:52	1
Hexachlorobenzene	<0.076		0.076	0.0087	mg/Kg	☼	11/16/17 16:12	11/20/17 18:52	1
Hexachlorobutadiene	<0.19		0.19	0.059	mg/Kg	☼	11/16/17 16:12	11/20/17 18:52	1
Hexachlorocyclopentadiene	<0.76		0.76	0.22	mg/Kg	☼	11/16/17 16:12	11/20/17 18:52	1
Hexachloroethane	<0.19		0.19	0.057	mg/Kg	☼	11/16/17 16:12	11/20/17 18:52	1
Indeno[1,2,3-cd]pyrene	0.085		0.037	0.0097	mg/Kg	☼	11/16/17 16:12	11/20/17 18:52	1
Isophorone	<0.19		0.19	0.042	mg/Kg	☼	11/16/17 16:12	11/20/17 18:52	1
2-Methylnaphthalene	0.70		0.076	0.0069	mg/Kg	☼	11/16/17 16:12	11/20/17 18:52	1
2-Methylphenol	<0.19		0.19	0.060	mg/Kg	☼	11/16/17 16:12	11/20/17 18:52	1
3 & 4 Methylphenol	<0.19		0.19	0.063	mg/Kg	☼	11/16/17 16:12	11/20/17 18:52	1
Naphthalene	0.24		0.037	0.0058	mg/Kg	☼	11/16/17 16:12	11/20/17 18:52	1
2-Nitroaniline	<0.19		0.19	0.050	mg/Kg	☼	11/16/17 16:12	11/20/17 18:52	1
3-Nitroaniline	<0.37		0.37	0.12	mg/Kg	☼	11/16/17 16:12	11/20/17 18:52	1
4-Nitroaniline	<0.37		0.37	0.16	mg/Kg	☼	11/16/17 16:12	11/20/17 18:52	1
Nitrobenzene	<0.037		0.037	0.0094	mg/Kg	☼	11/16/17 16:12	11/20/17 18:52	1
2-Nitrophenol	<0.37		0.37	0.089	mg/Kg	☼	11/16/17 16:12	11/20/17 18:52	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137079-4

Client Sample ID: 2696V-65-B05 (0-5)

Lab Sample ID: 500-137079-15

Date Collected: 11/09/17 10:10

Matrix: Solid

Date Received: 11/10/17 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
4-Nitrophenol	<0.76		0.76	0.36	mg/Kg	☼	11/16/17 16:12	11/20/17 18:52	1
N-Nitrosodi-n-propylamine	<0.076		0.076	0.046	mg/Kg	☼	11/16/17 16:12	11/20/17 18:52	1
N-Nitrosodiphenylamine	<0.19		0.19	0.044	mg/Kg	☼	11/16/17 16:12	11/20/17 18:52	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.043	mg/Kg	☼	11/16/17 16:12	11/20/17 18:52	1
Pentachlorophenol	<0.76		0.76	0.60	mg/Kg	☼	11/16/17 16:12	11/20/17 18:52	1
Phenanthrene	0.41		0.037	0.0052	mg/Kg	☼	11/16/17 16:12	11/20/17 18:52	1
Phenol	<0.19		0.19	0.083	mg/Kg	☼	11/16/17 16:12	11/20/17 18:52	1
Pyrene	0.15		0.037	0.0075	mg/Kg	☼	11/16/17 16:12	11/20/17 18:52	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.040	mg/Kg	☼	11/16/17 16:12	11/20/17 18:52	1
2,4,5-Trichlorophenol	<0.37		0.37	0.086	mg/Kg	☼	11/16/17 16:12	11/20/17 18:52	1
2,4,6-Trichlorophenol	<0.37		0.37	0.13	mg/Kg	☼	11/16/17 16:12	11/20/17 18:52	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	77		44 - 121	11/16/17 16:12	11/20/17 18:52	1
2-Fluorophenol	87		46 - 133	11/16/17 16:12	11/20/17 18:52	1
Nitrobenzene-d5	88		41 - 120	11/16/17 16:12	11/20/17 18:52	1
Phenol-d5	88		46 - 125	11/16/17 16:12	11/20/17 18:52	1
Terphenyl-d14	76		35 - 160	11/16/17 16:12	11/20/17 18:52	1
2,4,6-Tribromophenol	82		25 - 139	11/16/17 16:12	11/20/17 18:52	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.28	J	1.1	0.21	mg/Kg	☼	11/11/17 13:30	11/14/17 03:41	1
Arsenic	9.4		0.54	0.18	mg/Kg	☼	11/11/17 13:30	11/14/17 03:41	1
Barium	40		0.54	0.061	mg/Kg	☼	11/11/17 13:30	11/14/17 03:41	1
Beryllium	0.44		0.21	0.050	mg/Kg	☼	11/11/17 13:30	11/14/17 03:41	1
Cadmium	0.28	B	0.11	0.019	mg/Kg	☼	11/11/17 13:30	11/14/17 03:41	1
Chromium	11		0.54	0.26	mg/Kg	☼	11/11/17 13:30	11/14/17 03:41	1
Cobalt	7.7		0.27	0.070	mg/Kg	☼	11/11/17 13:30	11/14/17 03:41	1
Copper	23		2.7	0.75	mg/Kg	☼	11/11/17 13:30	11/15/17 00:21	5
Iron	13000		11	5.6	mg/Kg	☼	11/15/17 16:01	11/16/17 22:27	1
Lead	28		0.27	0.12	mg/Kg	☼	11/11/17 13:30	11/14/17 03:41	1
Magnesium	20000		5.4	2.7	mg/Kg	☼	11/11/17 13:30	11/14/17 03:41	1
Calcium	44000	B	54	9.1	mg/Kg	☼	11/11/17 13:30	11/15/17 00:21	5
Manganese	250		0.54	0.078	mg/Kg	☼	11/11/17 13:30	11/14/17 03:41	1
Nickel	19		0.54	0.16	mg/Kg	☼	11/11/17 13:30	11/14/17 03:41	1
Selenium	0.45	J B	0.54	0.31	mg/Kg	☼	11/11/17 13:30	11/14/17 03:41	1
Silver	<0.27	[^]	0.27	0.069	mg/Kg	☼	11/11/17 13:30	11/14/17 03:41	1
Thallium	<0.54		0.54	0.27	mg/Kg	☼	11/11/17 13:30	11/14/17 03:41	1
Vanadium	16		0.27	0.063	mg/Kg	☼	11/11/17 13:30	11/14/17 03:41	1
Zinc	71		1.1	0.47	mg/Kg	☼	11/11/17 13:30	11/14/17 03:41	1
Potassium	1100		27	9.5	mg/Kg	☼	11/11/17 13:30	11/14/17 03:41	1
Sodium	620		54	7.9	mg/Kg	☼	11/11/17 13:30	11/14/17 03:41	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.050		0.050	0.010	mg/L		11/17/17 06:52	11/17/17 18:02	1
Barium	0.53		0.50	0.050	mg/L		11/17/17 06:52	11/17/17 18:02	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		11/17/17 06:52	11/17/17 18:02	1
Cadmium	0.0029	J	0.0050	0.0020	mg/L		11/17/17 06:52	11/17/17 18:02	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137079-4

Client Sample ID: 2696V-65-B05 (0-5)

Lab Sample ID: 500-137079-15

Date Collected: 11/09/17 10:10

Matrix: Solid

Date Received: 11/10/17 08:00

Percent Solids: 86.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	360		5.0	0.50	mg/L		11/17/17 06:52	11/17/17 18:02	1
Chromium	<0.025		0.025	0.010	mg/L		11/17/17 06:52	11/17/17 18:02	1
Cobalt	0.026		0.025	0.010	mg/L		11/17/17 06:52	11/17/17 18:02	1
Copper	0.049		0.025	0.010	mg/L		11/17/17 06:52	11/17/17 18:02	1
Iron	<0.40		0.40	0.20	mg/L		11/17/17 06:52	11/17/17 18:02	1
Lead	0.0083		0.0075	0.0075	mg/L		11/17/17 06:52	11/17/17 18:02	1
Magnesium	55		2.5	0.50	mg/L		11/17/17 06:52	11/17/17 18:02	1
Manganese	3.8		0.025	0.010	mg/L		11/17/17 06:52	11/17/17 18:02	1
Nickel	0.022	J	0.025	0.010	mg/L		11/17/17 06:52	11/17/17 18:02	1
Potassium	3.2		2.5	0.50	mg/L		11/17/17 06:52	11/17/17 18:02	1
Selenium	<0.050		0.050	0.020	mg/L		11/17/17 06:52	11/17/17 18:02	1
Silver	<0.025		0.025	0.010	mg/L		11/17/17 06:52	11/17/17 18:02	1
Vanadium	<0.025		0.025	0.010	mg/L		11/17/17 06:52	11/17/17 18:02	1
Zinc	0.13	J	0.50	0.020	mg/L		11/17/17 06:52	11/17/17 18:02	1

Method: 6010B - SPLP Metals - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.085		0.0075	0.0075	mg/L		11/16/17 14:16	11/18/17 00:19	1
Manganese	0.39		0.025	0.010	mg/L		11/16/17 14:16	11/18/17 00:19	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		11/17/17 06:52	11/18/17 03:06	1
Thallium	<0.0020		0.0020	0.0020	mg/L		11/17/17 06:52	11/18/17 03:06	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		11/17/17 08:10	11/18/17 12:27	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.020	F1	0.019	0.0062	mg/Kg	☼	11/17/17 10:45	11/17/17 14:22	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.54		0.54	0.19	mg/Kg	☼	11/21/17 11:00	11/21/17 14:17	1
pH	8.7		0.20	0.20	SU			11/18/17 12:47	1

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137079-4

Client Sample ID: 2696V-65-B06 (0-5)

Lab Sample ID: 500-137079-16

Date Collected: 11/09/17 10:00

Matrix: Solid

Date Received: 11/10/17 08:00

Percent Solids: 84.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	0.047		0.016	0.0068	mg/Kg	☼	11/10/17 18:28	11/16/17 20:34	1
Benzene	<0.0016		0.0016	0.00040	mg/Kg	☼	11/10/17 18:28	11/16/17 20:34	1
Bromodichloromethane	<0.0016		0.0016	0.00032	mg/Kg	☼	11/10/17 18:28	11/16/17 20:34	1
Bromoform	<0.0016		0.0016	0.00046	mg/Kg	☼	11/10/17 18:28	11/16/17 20:34	1
Bromomethane	<0.0039		0.0039	0.0015	mg/Kg	☼	11/10/17 18:28	11/16/17 20:34	1
2-Butanone (MEK)	<0.0039		0.0039	0.0017	mg/Kg	☼	11/10/17 18:28	11/16/17 20:34	1
Carbon disulfide	<0.0039		0.0039	0.00082	mg/Kg	☼	11/10/17 18:28	11/16/17 20:34	1
Carbon tetrachloride	<0.0016 *		0.0016	0.00046	mg/Kg	☼	11/10/17 18:28	11/16/17 20:34	1
Chlorobenzene	<0.0016		0.0016	0.00058	mg/Kg	☼	11/10/17 18:28	11/16/17 20:34	1
Chloroethane	<0.0039		0.0039	0.0012	mg/Kg	☼	11/10/17 18:28	11/16/17 20:34	1
Chloroform	<0.0016		0.0016	0.00054	mg/Kg	☼	11/10/17 18:28	11/16/17 20:34	1
Chloromethane	<0.0039 *		0.0039	0.0016	mg/Kg	☼	11/10/17 18:28	11/16/17 20:34	1
cis-1,2-Dichloroethene	<0.0016		0.0016	0.00044	mg/Kg	☼	11/10/17 18:28	11/16/17 20:34	1
cis-1,3-Dichloropropene	<0.0016		0.0016	0.00047	mg/Kg	☼	11/10/17 18:28	11/16/17 20:34	1
Dibromochloromethane	<0.0016		0.0016	0.00051	mg/Kg	☼	11/10/17 18:28	11/16/17 20:34	1
1,1-Dichloroethane	<0.0016		0.0016	0.00054	mg/Kg	☼	11/10/17 18:28	11/16/17 20:34	1
1,2-Dichloroethane	<0.0039		0.0039	0.0012	mg/Kg	☼	11/10/17 18:28	11/16/17 20:34	1
1,1-Dichloroethene	<0.0016		0.0016	0.00054	mg/Kg	☼	11/10/17 18:28	11/16/17 20:34	1
1,2-Dichloropropane	<0.0016		0.0016	0.00041	mg/Kg	☼	11/10/17 18:28	11/16/17 20:34	1
1,3-Dichloropropane, Total	<0.0016		0.0016	0.00055	mg/Kg	☼	11/10/17 18:28	11/16/17 20:34	1
Ethylbenzene	<0.0016		0.0016	0.00075	mg/Kg	☼	11/10/17 18:28	11/16/17 20:34	1
2-Hexanone	<0.0039		0.0039	0.0012	mg/Kg	☼	11/10/17 18:28	11/16/17 20:34	1
Methylene Chloride	<0.0039		0.0039	0.0015	mg/Kg	☼	11/10/17 18:28	11/16/17 20:34	1
4-Methyl-2-pentanone (MIBK)	<0.0039		0.0039	0.0012	mg/Kg	☼	11/10/17 18:28	11/16/17 20:34	1
Methyl tert-butyl ether	<0.0016		0.0016	0.00046	mg/Kg	☼	11/10/17 18:28	11/16/17 20:34	1
Styrene	<0.0016		0.0016	0.00047	mg/Kg	☼	11/10/17 18:28	11/16/17 20:34	1
1,1,2,2-Tetrachloroethane	<0.0016		0.0016	0.00050	mg/Kg	☼	11/10/17 18:28	11/16/17 20:34	1
Tetrachloroethene	<0.0016		0.0016	0.00053	mg/Kg	☼	11/10/17 18:28	11/16/17 20:34	1
Toluene	<0.0016		0.0016	0.00040	mg/Kg	☼	11/10/17 18:28	11/16/17 20:34	1
trans-1,2-Dichloroethene	<0.0016		0.0016	0.00070	mg/Kg	☼	11/10/17 18:28	11/16/17 20:34	1
trans-1,3-Dichloropropene	<0.0016		0.0016	0.00055	mg/Kg	☼	11/10/17 18:28	11/16/17 20:34	1
1,1,1-Trichloroethane	<0.0016		0.0016	0.00053	mg/Kg	☼	11/10/17 18:28	11/16/17 20:34	1
1,1,2-Trichloroethane	<0.0016		0.0016	0.00067	mg/Kg	☼	11/10/17 18:28	11/16/17 20:34	1
Trichloroethene	<0.0016		0.0016	0.00053	mg/Kg	☼	11/10/17 18:28	11/16/17 20:34	1
Vinyl acetate	<0.0039		0.0039	0.0014	mg/Kg	☼	11/10/17 18:28	11/16/17 20:34	1
Vinyl chloride	<0.0016		0.0016	0.00069	mg/Kg	☼	11/10/17 18:28	11/16/17 20:34	1
Xylenes, Total	<0.0031		0.0031	0.00050	mg/Kg	☼	11/10/17 18:28	11/16/17 20:34	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	86		75 - 131	11/10/17 18:28	11/16/17 20:34	1
Dibromofluoromethane	105		75 - 126	11/10/17 18:28	11/16/17 20:34	1
1,2-Dichloroethane-d4 (Surr)	102		70 - 134	11/10/17 18:28	11/16/17 20:34	1
Toluene-d8 (Surr)	96		75 - 124	11/10/17 18:28	11/16/17 20:34	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.038		0.038	0.0070	mg/Kg	☼	11/16/17 16:12	11/17/17 18:29	1
Acenaphthylene	<0.038		0.038	0.0051	mg/Kg	☼	11/16/17 16:12	11/17/17 18:29	1
Anthracene	<0.038		0.038	0.0065	mg/Kg	☼	11/16/17 16:12	11/17/17 18:29	1
Benzo[a]anthracene	0.031	J	0.038	0.0052	mg/Kg	☼	11/16/17 16:12	11/17/17 18:29	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137079-4

Client Sample ID: 2696V-65-B06 (0-5)

Lab Sample ID: 500-137079-16

Date Collected: 11/09/17 10:00

Matrix: Solid

Date Received: 11/10/17 08:00

Percent Solids: 84.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	0.034	J	0.038	0.0075	mg/Kg	☼	11/16/17 16:12	11/17/17 18:29	1
Benzo[b]fluoranthene	0.069		0.038	0.0084	mg/Kg	☼	11/16/17 16:12	11/17/17 18:29	1
Benzo[g,h,i]perylene	0.022	J	0.038	0.012	mg/Kg	☼	11/16/17 16:12	11/17/17 18:29	1
Benzo[k]fluoranthene	0.032	J	0.038	0.011	mg/Kg	☼	11/16/17 16:12	11/17/17 18:29	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.039	mg/Kg	☼	11/16/17 16:12	11/17/17 18:29	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.058	mg/Kg	☼	11/16/17 16:12	11/17/17 18:29	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.071	mg/Kg	☼	11/16/17 16:12	11/17/17 18:29	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.051	mg/Kg	☼	11/16/17 16:12	11/17/17 18:29	1
Butyl benzyl phthalate	<0.19		0.19	0.074	mg/Kg	☼	11/16/17 16:12	11/17/17 18:29	1
Carbazole	<0.19		0.19	0.097	mg/Kg	☼	11/16/17 16:12	11/17/17 18:29	1
4-Chloroaniline	<0.78		0.78	0.18	mg/Kg	☼	11/16/17 16:12	11/17/17 18:29	1
4-Chloro-3-methylphenol	<0.38		0.38	0.13	mg/Kg	☼	11/16/17 16:12	11/17/17 18:29	1
2-Chloronaphthalene	<0.19		0.19	0.043	mg/Kg	☼	11/16/17 16:12	11/17/17 18:29	1
2-Chlorophenol	<0.19		0.19	0.066	mg/Kg	☼	11/16/17 16:12	11/17/17 18:29	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.045	mg/Kg	☼	11/16/17 16:12	11/17/17 18:29	1
Chrysene	0.055		0.038	0.011	mg/Kg	☼	11/16/17 16:12	11/17/17 18:29	1
Dibenz(a,h)anthracene	<0.038		0.038	0.0075	mg/Kg	☼	11/16/17 16:12	11/17/17 18:29	1
Dibenzofuran	<0.19		0.19	0.045	mg/Kg	☼	11/16/17 16:12	11/17/17 18:29	1
1,2-Dichlorobenzene	<0.19		0.19	0.046	mg/Kg	☼	11/16/17 16:12	11/17/17 18:29	1
1,3-Dichlorobenzene	<0.19		0.19	0.044	mg/Kg	☼	11/16/17 16:12	11/17/17 18:29	1
1,4-Dichlorobenzene	<0.19		0.19	0.050	mg/Kg	☼	11/16/17 16:12	11/17/17 18:29	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.054	mg/Kg	☼	11/16/17 16:12	11/17/17 18:29	1
2,4-Dichlorophenol	<0.38		0.38	0.092	mg/Kg	☼	11/16/17 16:12	11/17/17 18:29	1
Diethyl phthalate	<0.19		0.19	0.066	mg/Kg	☼	11/16/17 16:12	11/17/17 18:29	1
2,4-Dimethylphenol	<0.38		0.38	0.15	mg/Kg	☼	11/16/17 16:12	11/17/17 18:29	1
Dimethyl phthalate	<0.19		0.19	0.051	mg/Kg	☼	11/16/17 16:12	11/17/17 18:29	1
Di-n-butyl phthalate	<0.19		0.19	0.059	mg/Kg	☼	11/16/17 16:12	11/17/17 18:29	1
4,6-Dinitro-2-methylphenol	<0.78		0.78	0.31	mg/Kg	☼	11/16/17 16:12	11/17/17 18:29	1
2,4-Dinitrophenol	<0.78		0.78	0.68	mg/Kg	☼	11/16/17 16:12	11/17/17 18:29	1
2,4-Dinitrotoluene	<0.19		0.19	0.062	mg/Kg	☼	11/16/17 16:12	11/17/17 18:29	1
2,6-Dinitrotoluene	<0.19		0.19	0.076	mg/Kg	☼	11/16/17 16:12	11/17/17 18:29	1
Di-n-octyl phthalate	<0.19		0.19	0.063	mg/Kg	☼	11/16/17 16:12	11/17/17 18:29	1
Fluoranthene	0.061		0.038	0.0072	mg/Kg	☼	11/16/17 16:12	11/17/17 18:29	1
Fluorene	<0.038		0.038	0.0054	mg/Kg	☼	11/16/17 16:12	11/17/17 18:29	1
Hexachlorobenzene	<0.078		0.078	0.0090	mg/Kg	☼	11/16/17 16:12	11/17/17 18:29	1
Hexachlorobutadiene	<0.19		0.19	0.061	mg/Kg	☼	11/16/17 16:12	11/17/17 18:29	1
Hexachlorocyclopentadiene	<0.78		0.78	0.22	mg/Kg	☼	11/16/17 16:12	11/17/17 18:29	1
Hexachloroethane	<0.19		0.19	0.059	mg/Kg	☼	11/16/17 16:12	11/17/17 18:29	1
Indeno[1,2,3-cd]pyrene	0.019	J	0.038	0.010	mg/Kg	☼	11/16/17 16:12	11/17/17 18:29	1
Isophorone	<0.19		0.19	0.043	mg/Kg	☼	11/16/17 16:12	11/17/17 18:29	1
2-Methylnaphthalene	<0.078		0.078	0.0071	mg/Kg	☼	11/16/17 16:12	11/17/17 18:29	1
2-Methylphenol	<0.19		0.19	0.062	mg/Kg	☼	11/16/17 16:12	11/17/17 18:29	1
3 & 4 Methylphenol	<0.19		0.19	0.065	mg/Kg	☼	11/16/17 16:12	11/17/17 18:29	1
Naphthalene	<0.038		0.038	0.0060	mg/Kg	☼	11/16/17 16:12	11/17/17 18:29	1
2-Nitroaniline	<0.19		0.19	0.052	mg/Kg	☼	11/16/17 16:12	11/17/17 18:29	1
3-Nitroaniline	<0.38		0.38	0.12	mg/Kg	☼	11/16/17 16:12	11/17/17 18:29	1
4-Nitroaniline	<0.38		0.38	0.16	mg/Kg	☼	11/16/17 16:12	11/17/17 18:29	1
Nitrobenzene	<0.038		0.038	0.0097	mg/Kg	☼	11/16/17 16:12	11/17/17 18:29	1
2-Nitrophenol	<0.38		0.38	0.091	mg/Kg	☼	11/16/17 16:12	11/17/17 18:29	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137079-4

Client Sample ID: 2696V-65-B06 (0-5)

Lab Sample ID: 500-137079-16

Date Collected: 11/09/17 10:00

Matrix: Solid

Date Received: 11/10/17 08:00

Percent Solids: 84.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Nitrophenol	<0.78		0.78	0.37	mg/Kg	☼	11/16/17 16:12	11/17/17 18:29	1
N-Nitrosodi-n-propylamine	<0.078		0.078	0.047	mg/Kg	☼	11/16/17 16:12	11/17/17 18:29	1
N-Nitrosodiphenylamine	<0.19		0.19	0.046	mg/Kg	☼	11/16/17 16:12	11/17/17 18:29	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.045	mg/Kg	☼	11/16/17 16:12	11/17/17 18:29	1
Pentachlorophenol	<0.78		0.78	0.62	mg/Kg	☼	11/16/17 16:12	11/17/17 18:29	1
Phenanthrene	0.041		0.038	0.0054	mg/Kg	☼	11/16/17 16:12	11/17/17 18:29	1
Phenol	<0.19		0.19	0.086	mg/Kg	☼	11/16/17 16:12	11/17/17 18:29	1
Pyrene	0.050		0.038	0.0077	mg/Kg	☼	11/16/17 16:12	11/17/17 18:29	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.042	mg/Kg	☼	11/16/17 16:12	11/17/17 18:29	1
2,4,5-Trichlorophenol	<0.38		0.38	0.088	mg/Kg	☼	11/16/17 16:12	11/17/17 18:29	1
2,4,6-Trichlorophenol	<0.38		0.38	0.13	mg/Kg	☼	11/16/17 16:12	11/17/17 18:29	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	75		44 - 121	11/16/17 16:12	11/17/17 18:29	1
2-Fluorophenol	84		46 - 133	11/16/17 16:12	11/17/17 18:29	1
Nitrobenzene-d5	71		41 - 120	11/16/17 16:12	11/17/17 18:29	1
Phenol-d5	81		46 - 125	11/16/17 16:12	11/17/17 18:29	1
Terphenyl-d14	78		35 - 160	11/16/17 16:12	11/17/17 18:29	1
2,4,6-Tribromophenol	65		25 - 139	11/16/17 16:12	11/17/17 18:29	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.40	J F1	1.2	0.23	mg/Kg	☼	11/11/17 13:30	11/14/17 03:45	1
Arsenic	8.7	F1	0.58	0.20	mg/Kg	☼	11/11/17 13:30	11/14/17 03:45	1
Barium	40		0.58	0.066	mg/Kg	☼	11/11/17 13:30	11/14/17 03:45	1
Beryllium	0.55		0.23	0.054	mg/Kg	☼	11/11/17 13:30	11/14/17 03:45	1
Cadmium	0.22	B	0.12	0.021	mg/Kg	☼	11/11/17 13:30	11/14/17 03:45	1
Chromium	12		0.58	0.29	mg/Kg	☼	11/11/17 13:30	11/14/17 03:45	1
Cobalt	11		0.29	0.076	mg/Kg	☼	11/11/17 13:30	11/14/17 03:45	1
Copper	22		2.9	0.81	mg/Kg	☼	11/11/17 13:30	11/15/17 00:25	5
Iron	16000		11	5.9	mg/Kg	☼	11/15/17 16:01	11/16/17 22:31	1
Lead	41		0.29	0.13	mg/Kg	☼	11/11/17 13:30	11/14/17 03:45	1
Magnesium	18000	F2	5.8	2.9	mg/Kg	☼	11/11/17 13:30	11/14/17 03:45	1
Calcium	42000	B	58	9.9	mg/Kg	☼	11/11/17 13:30	11/15/17 00:25	5
Manganese	230	F2	0.58	0.084	mg/Kg	☼	11/11/17 13:30	11/14/17 03:45	1
Nickel	25	F1	0.58	0.17	mg/Kg	☼	11/11/17 13:30	11/14/17 03:45	1
Selenium	0.36	J B	0.58	0.34	mg/Kg	☼	11/11/17 13:30	11/14/17 03:45	1
Silver	<0.29	^	0.29	0.075	mg/Kg	☼	11/11/17 13:30	11/14/17 03:45	1
Thallium	<0.58		0.58	0.29	mg/Kg	☼	11/11/17 13:30	11/14/17 03:45	1
Vanadium	17		0.29	0.069	mg/Kg	☼	11/11/17 13:30	11/14/17 03:45	1
Zinc	70	F1	1.2	0.51	mg/Kg	☼	11/11/17 13:30	11/14/17 03:45	1
Potassium	1300	F1	29	10	mg/Kg	☼	11/11/17 13:30	11/14/17 03:45	1
Sodium	880		58	8.6	mg/Kg	☼	11/11/17 13:30	11/14/17 03:45	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.050		0.050	0.010	mg/L		11/17/17 06:52	11/17/17 18:07	1
Barium	0.54		0.50	0.050	mg/L		11/17/17 06:52	11/17/17 18:07	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		11/17/17 06:52	11/17/17 18:07	1
Cadmium	0.0026	J	0.0050	0.0020	mg/L		11/17/17 06:52	11/17/17 18:07	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137079-4

Client Sample ID: 2696V-65-B06 (0-5)

Lab Sample ID: 500-137079-16

Date Collected: 11/09/17 10:00

Matrix: Solid

Date Received: 11/10/17 08:00

Percent Solids: 84.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	380		5.0	0.50	mg/L		11/17/17 06:52	11/17/17 18:07	1
Chromium	<0.025		0.025	0.010	mg/L		11/17/17 06:52	11/17/17 18:07	1
Cobalt	0.019	J	0.025	0.010	mg/L		11/17/17 06:52	11/17/17 18:07	1
Copper	0.028		0.025	0.010	mg/L		11/17/17 06:52	11/17/17 18:07	1
Iron	<0.40		0.40	0.20	mg/L		11/17/17 06:52	11/17/17 18:07	1
Lead	0.022		0.0075	0.0075	mg/L		11/17/17 06:52	11/17/17 18:07	1
Magnesium	55		2.5	0.50	mg/L		11/17/17 06:52	11/17/17 18:07	1
Manganese	4.5		0.025	0.010	mg/L		11/17/17 06:52	11/17/17 18:07	1
Nickel	0.020	J	0.025	0.010	mg/L		11/17/17 06:52	11/17/17 18:07	1
Potassium	2.2	J	2.5	0.50	mg/L		11/17/17 06:52	11/17/17 18:07	1
Selenium	<0.050		0.050	0.020	mg/L		11/17/17 06:52	11/17/17 18:07	1
Silver	<0.025		0.025	0.010	mg/L		11/17/17 06:52	11/17/17 18:07	1
Vanadium	<0.025		0.025	0.010	mg/L		11/17/17 06:52	11/17/17 18:07	1
Zinc	0.091	J	0.50	0.020	mg/L		11/17/17 06:52	11/17/17 18:07	1

Method: 6010B - SPLP Metals - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.059	F1	0.0075	0.0075	mg/L		11/16/17 14:16	11/18/17 00:27	1
Manganese	0.27	F1	0.025	0.010	mg/L		11/16/17 14:16	11/18/17 00:27	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		11/17/17 06:52	11/18/17 03:17	1
Thallium	<0.0020		0.0020	0.0020	mg/L		11/17/17 06:52	11/18/17 03:17	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		11/17/17 08:10	11/18/17 12:29	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.029		0.020	0.0065	mg/Kg	☼	11/17/17 10:45	11/17/17 14:31	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.57		0.57	0.20	mg/Kg	☼	11/21/17 11:00	11/21/17 14:18	1
pH	8.6		0.20	0.20	SU			11/18/17 12:50	1

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137079-4

Client Sample ID: 2696V-65-G01

Lab Sample ID: 500-137079-17

Date Collected: 11/09/17 11:30

Matrix: Water

Date Received: 11/10/17 08:00

Method: 8260B - VOC

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.025		0.025	0.0087	mg/L			11/19/17 23:20	5
Benzene	<0.0025		0.0025	0.00073	mg/L			11/19/17 23:20	5
Bromodichloromethane	<0.0050		0.0050	0.0019	mg/L			11/19/17 23:20	5
Bromoform	<0.0050		0.0050	0.0024	mg/L			11/19/17 23:20	5
Bromomethane	<0.010		0.010	0.0040	mg/L			11/19/17 23:20	5
Carbon disulfide	<0.010		0.010	0.0022	mg/L			11/19/17 23:20	5
Carbon tetrachloride	<0.0050		0.0050	0.0019	mg/L			11/19/17 23:20	5
Chlorobenzene	<0.0050		0.0050	0.0019	mg/L			11/19/17 23:20	5
Chloroethane	<0.0050		0.0050	0.0025	mg/L			11/19/17 23:20	5
Chloroform	<0.010		0.010	0.0019	mg/L			11/19/17 23:20	5
Chloromethane	<0.0050		0.0050	0.0016	mg/L			11/19/17 23:20	5
cis-1,2-Dichloroethene	<0.0050		0.0050	0.0020	mg/L			11/19/17 23:20	5
cis-1,3-Dichloropropene	<0.0050		0.0050	0.0021	mg/L			11/19/17 23:20	5
Dibromochloromethane	<0.0050		0.0050	0.0024	mg/L			11/19/17 23:20	5
1,1-Dichloroethane	<0.0050		0.0050	0.0021	mg/L			11/19/17 23:20	5
1,2-Dichloroethane	<0.0050		0.0050	0.0020	mg/L			11/19/17 23:20	5
1,1-Dichloroethene	<0.0050		0.0050	0.0020	mg/L			11/19/17 23:20	5
1,2-Dichloropropane	<0.0050		0.0050	0.0021	mg/L			11/19/17 23:20	5
1,3-Dichloropropene, Total	<0.0050		0.0050	0.0021	mg/L			11/19/17 23:20	5
Ethylbenzene	0.14		0.0025	0.00092	mg/L			11/19/17 23:20	5
2-Hexanone	<0.025		0.025	0.0078	mg/L			11/19/17 23:20	5
Methylene Chloride	<0.025		0.025	0.0082	mg/L			11/19/17 23:20	5
Methyl Ethyl Ketone	<0.025		0.025	0.011	mg/L			11/19/17 23:20	5
methyl isobutyl ketone	<0.025		0.025	0.011	mg/L			11/19/17 23:20	5
Methyl tert-butyl ether	<0.0050		0.0050	0.0020	mg/L			11/19/17 23:20	5
Styrene	<0.0050		0.0050	0.0019	mg/L			11/19/17 23:20	5
1,1,2,2-Tetrachloroethane	<0.0050		0.0050	0.0020	mg/L			11/19/17 23:20	5
Tetrachloroethene	<0.0050		0.0050	0.0019	mg/L			11/19/17 23:20	5
Toluene	<0.0025		0.0025	0.00076	mg/L			11/19/17 23:20	5
trans-1,2-Dichloroethene	<0.0050		0.0050	0.0017	mg/L			11/19/17 23:20	5
trans-1,3-Dichloropropene	<0.0050		0.0050	0.0018	mg/L			11/19/17 23:20	5
1,1,1-Trichloroethane	<0.0050		0.0050	0.0019	mg/L			11/19/17 23:20	5
1,1,2-Trichloroethane	<0.0050		0.0050	0.0018	mg/L			11/19/17 23:20	5
Trichloroethene	<0.0025		0.0025	0.00082	mg/L			11/19/17 23:20	5
Vinyl acetate	<0.010		0.010	0.0045	mg/L			11/19/17 23:20	5
Vinyl chloride	<0.0025		0.0025	0.0010	mg/L			11/19/17 23:20	5
Xylenes, Total	0.012		0.0050	0.0011	mg/L			11/19/17 23:20	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	86		72 - 124		11/19/17 23:20	5
Dibromofluoromethane	87		75 - 120		11/19/17 23:20	5
1,2-Dichloroethane-d4 (Surr)	89		75 - 126		11/19/17 23:20	5
Toluene-d8 (Surr)	103		75 - 120		11/19/17 23:20	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.00074		0.00074	0.00023	mg/L		11/13/17 07:25	11/16/17 17:20	1
Acenaphthylene	<0.00074		0.00074	0.00020	mg/L		11/13/17 07:25	11/16/17 17:20	1
Anthracene	<0.00074		0.00074	0.00025	mg/L		11/13/17 07:25	11/16/17 17:20	1
Benzo[a]anthracene	0.000047	J	0.00012	0.000042	mg/L		11/13/17 07:25	11/16/17 17:20	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137079-4

Client Sample ID: 2696V-65-G01

Lab Sample ID: 500-137079-17

Date Collected: 11/09/17 11:30

Matrix: Water

Date Received: 11/10/17 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	<0.00015		0.00015	0.000073	mg/L		11/13/17 07:25	11/16/17 17:20	1
Benzo[b]fluoranthene	<0.00015		0.00015	0.000059	mg/L		11/13/17 07:25	11/16/17 17:20	1
Benzo[g,h,i]perylene	<0.00074		0.00074	0.00028	mg/L		11/13/17 07:25	11/16/17 17:20	1
Benzo[k]fluoranthene	<0.00015		0.00015	0.000047	mg/L		11/13/17 07:25	11/16/17 17:20	1
Bis(2-chloroethoxy)methane	<0.0015		0.0015	0.00021	mg/L		11/13/17 07:25	11/16/17 17:20	1
Bis(2-chloroethyl)ether	<0.0015		0.0015	0.00021	mg/L		11/13/17 07:25	11/16/17 17:20	1
Bis(2-ethylhexyl) phthalate	0.0017	J	0.0074	0.0013	mg/L		11/13/17 07:25	11/16/17 17:20	1
4-Bromophenyl phenyl ether	<0.0037		0.0037	0.00040	mg/L		11/13/17 07:25	11/16/17 17:20	1
Butyl benzyl phthalate	<0.0015		0.0015	0.00035	mg/L		11/13/17 07:25	11/16/17 17:20	1
Carbazole	<0.0037		0.0037	0.00026	mg/L		11/13/17 07:25	11/16/17 17:20	1
4-Chloroaniline	<0.0074		0.0074	0.0015	mg/L		11/13/17 07:25	11/16/17 17:20	1
4-Chloro-3-methylphenol	<0.0074		0.0074	0.0017	mg/L		11/13/17 07:25	11/16/17 17:20	1
2-Chloronaphthalene	<0.0015		0.0015	0.00017	mg/L		11/13/17 07:25	11/16/17 17:20	1
2-Chlorophenol	<0.0037		0.0037	0.00041	mg/L		11/13/17 07:25	11/16/17 17:20	1
4-Chlorophenyl phenyl ether	<0.0037		0.0037	0.00047	mg/L		11/13/17 07:25	11/16/17 17:20	1
Chrysene	0.000064	J	0.00015	0.000050	mg/L		11/13/17 07:25	11/16/17 17:20	1
Dibenz(a,h)anthracene	<0.00022		0.00022	0.000037	mg/L		11/13/17 07:25	11/16/17 17:20	1
Dibenzofuran	<0.0015		0.0015	0.00019	mg/L		11/13/17 07:25	11/16/17 17:20	1
1,2-Dichlorobenzene	<0.0015		0.0015	0.00018	mg/L		11/13/17 07:25	11/16/17 17:20	1
1,3-Dichlorobenzene	<0.0015		0.0015	0.00015	mg/L		11/13/17 07:25	11/16/17 17:20	1
1,4-Dichlorobenzene	<0.0015		0.0015	0.00015	mg/L		11/13/17 07:25	11/16/17 17:20	1
3,3'-Dichlorobenzidine	<0.0037		0.0037	0.0013	mg/L		11/13/17 07:25	11/16/17 17:20	1
2,4-Dichlorophenol	<0.0074		0.0074	0.0019	mg/L		11/13/17 07:25	11/16/17 17:20	1
Diethyl phthalate	<0.0037		0.0037	0.00027	mg/L		11/13/17 07:25	11/16/17 17:20	1
2,4-Dimethylphenol	<0.0074		0.0074	0.0013	mg/L		11/13/17 07:25	11/16/17 17:20	1
Dimethyl phthalate	<0.0037		0.0037	0.00023	mg/L		11/13/17 07:25	11/16/17 17:20	1
Di-n-butyl phthalate	<0.0037		0.0037	0.00054	mg/L		11/13/17 07:25	11/16/17 17:20	1
4,6-Dinitro-2-methylphenol	<0.015		0.015	0.0043	mg/L		11/13/17 07:25	11/16/17 17:20	1
2,4-Dinitrophenol	<0.015		0.015	0.0063	mg/L		11/13/17 07:25	11/16/17 17:20	1
2,4-Dinitrotoluene	<0.00074		0.00074	0.00018	mg/L		11/13/17 07:25	11/16/17 17:20	1
2,6-Dinitrotoluene	<0.00074		0.00074	0.000054	mg/L		11/13/17 07:25	11/16/17 17:20	1
Di-n-octyl phthalate	<0.0074		0.0074	0.00077	mg/L		11/13/17 07:25	11/16/17 17:20	1
Fluoranthene	<0.00074		0.00074	0.00033	mg/L		11/13/17 07:25	11/16/17 17:20	1
Fluorene	<0.00074		0.00074	0.00018	mg/L		11/13/17 07:25	11/16/17 17:20	1
Hexachlorobenzene	<0.00037		0.00037	0.000058	mg/L		11/13/17 07:25	11/16/17 17:20	1
Hexachlorobutadiene	<0.0037		0.0037	0.00038	mg/L		11/13/17 07:25	11/16/17 17:20	1
Hexachlorocyclopentadiene	<0.015		0.015	0.0047	mg/L		11/13/17 07:25	11/16/17 17:20	1
Hexachloroethane	<0.0037		0.0037	0.00044	mg/L		11/13/17 07:25	11/16/17 17:20	1
Indeno[1,2,3-cd]pyrene	<0.00015		0.00015	0.000055	mg/L		11/13/17 07:25	11/16/17 17:20	1
Isophorone	<0.0015		0.0015	0.00028	mg/L		11/13/17 07:25	11/16/17 17:20	1
2-Methylnaphthalene	<0.0015		0.0015	0.000048	mg/L		11/13/17 07:25	11/16/17 17:20	1
2-Methylphenol	<0.0015		0.0015	0.00022	mg/L		11/13/17 07:25	11/16/17 17:20	1
3 & 4 Methylphenol	<0.0015		0.0015	0.00033	mg/L		11/13/17 07:25	11/16/17 17:20	1
Naphthalene	0.011		0.00074	0.00023	mg/L		11/13/17 07:25	11/16/17 17:20	1
2-Nitroaniline	<0.0037		0.0037	0.00095	mg/L		11/13/17 07:25	11/16/17 17:20	1
3-Nitroaniline	<0.0074		0.0074	0.0013	mg/L		11/13/17 07:25	11/16/17 17:20	1
4-Nitroaniline	<0.0074		0.0074	0.0012	mg/L		11/13/17 07:25	11/16/17 17:20	1
Nitrobenzene	<0.00074		0.00074	0.00033	mg/L		11/13/17 07:25	11/16/17 17:20	1
2-Nitrophenol	<0.0074		0.0074	0.0018	mg/L		11/13/17 07:25	11/16/17 17:20	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137079-4

Client Sample ID: 2696V-65-G01

Lab Sample ID: 500-137079-17

Date Collected: 11/09/17 11:30

Matrix: Water

Date Received: 11/10/17 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Nitrophenol	<0.015		0.015	0.0055	mg/L		11/13/17 07:25	11/16/17 17:20	1
N-Nitrosodi-n-propylamine	<0.00037		0.00037	0.00011	mg/L		11/13/17 07:25	11/16/17 17:20	1
N-Nitrosodiphenylamine	<0.0015		0.0015	0.00027	mg/L		11/13/17 07:25	11/16/17 17:20	1
2,2'-oxybis[1-chloropropane]	<0.0015		0.0015	0.00028	mg/L		11/13/17 07:25	11/16/17 17:20	1
Pentachlorophenol	<0.015		0.015	0.0029	mg/L		11/13/17 07:25	11/16/17 17:20	1
Phenanthrene	0.00025	J	0.00074	0.00022	mg/L		11/13/17 07:25	11/16/17 17:20	1
Phenol	<0.0037		0.0037	0.00049	mg/L		11/13/17 07:25	11/16/17 17:20	1
Pyrene	<0.00074		0.00074	0.00031	mg/L		11/13/17 07:25	11/16/17 17:20	1
1,2,4-Trichlorobenzene	<0.0015		0.0015	0.00017	mg/L		11/13/17 07:25	11/16/17 17:20	1
2,4,5-Trichlorophenol	<0.0074		0.0074	0.0019	mg/L		11/13/17 07:25	11/16/17 17:20	1
2,4,6-Trichlorophenol	<0.0037		0.0037	0.00053	mg/L		11/13/17 07:25	11/16/17 17:20	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	63		34 - 110	11/13/17 07:25	11/16/17 17:20	1
2-Fluorophenol	60		27 - 110	11/13/17 07:25	11/16/17 17:20	1
Nitrobenzene-d5	80		36 - 120	11/13/17 07:25	11/16/17 17:20	1
Phenol-d5	49		20 - 100	11/13/17 07:25	11/16/17 17:20	1
Terphenyl-d14	66		40 - 145	11/13/17 07:25	11/16/17 17:20	1
2,4,6-Tribromophenol	82		40 - 145	11/13/17 07:25	11/16/17 17:20	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.0015	J	0.0030	0.0013	mg/L		11/11/17 13:03	11/13/17 11:52	1
Arsenic	0.044		0.0010	0.00023	mg/L		11/11/17 13:03	11/13/17 11:52	1
Barium	0.081		0.0025	0.00073	mg/L		11/11/17 13:03	11/13/17 11:52	1
Beryllium	0.0032	J	0.0050	0.0027	mg/L		11/11/17 13:03	11/20/17 12:22	5
Cadmium	0.0010		0.00050	0.00017	mg/L		11/11/17 13:03	11/13/17 11:52	1
Calcium	150	B	0.20	0.044	mg/L		11/11/17 13:03	11/13/17 11:52	1
Chromium	0.047		0.0050	0.0011	mg/L		11/11/17 13:03	11/13/17 11:52	1
Cobalt	0.031		0.0010	0.00040	mg/L		11/11/17 13:03	11/13/17 11:52	1
Copper	0.14	B	0.0020	0.00050	mg/L		11/11/17 13:03	11/13/17 11:52	1
Iron	53	B	0.10	0.047	mg/L		11/11/17 13:03	11/13/17 11:52	1
Lead	0.075		0.00050	0.00019	mg/L		11/11/17 13:03	11/13/17 11:52	1
Magnesium	75	B	0.20	0.049	mg/L		11/11/17 13:03	11/13/17 11:52	1
Manganese	0.79	B	0.0025	0.00079	mg/L		11/11/17 13:03	11/13/17 11:52	1
Nickel	0.078		0.0020	0.00063	mg/L		11/11/17 13:03	11/16/17 19:17	1
Potassium	12		0.50	0.11	mg/L		11/11/17 13:03	11/13/17 11:52	1
Selenium	0.0030		0.0025	0.00098	mg/L		11/11/17 13:03	11/13/17 11:52	1
Silver	0.00028	J	0.00050	0.00012	mg/L		11/11/17 13:03	11/13/17 11:52	1
Sodium	180		20	7.7	mg/L		11/11/17 13:03	11/17/17 22:48	100
Thallium	0.0042		0.0020	0.00057	mg/L		11/11/17 13:03	11/15/17 19:01	1
Vanadium	0.048		0.0050	0.0022	mg/L		11/11/17 13:03	11/16/17 19:17	1
Zinc	0.18		0.020	0.0069	mg/L		11/11/17 13:03	11/13/17 11:52	1

Method: 7470A - Mercury

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.000098	mg/L		11/13/17 16:00	11/14/17 13:39	1

Client Sample Results

Client: Terracon Consulting Eng & Scientists
Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137079-4

Client Sample ID: 2696V-65-G01

Lab Sample ID: 500-137079-17

Date Collected: 11/09/17 11:30

Matrix: Water

Date Received: 11/10/17 08:00

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.010		0.010	0.0035	mg/L		11/19/17 13:10	11/19/17 16:00	1

Definitions/Glossary

Client: Terracon Consulting Eng & Scientists
Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137079-4

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.

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.
F1	MS and/or MSD Recovery is outside acceptance limits.
F2	MS/MSD RPD exceeds control limits
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	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Accreditation/Certification Summary

Client: Terracon Consulting Eng & Scientists
Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137079-4

Laboratory: TestAmerica Chicago

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

Authority	Program	EPA Region	Identification Number	Expiration Date
Illinois	NELAP	5	100201	04-30-18

The following analytes are included in this report, but accreditation/certification is not offered by the governing authority:

Analysis Method	Prep Method	Matrix	Analyte
6020A	3010A	Solid	Antimony
6020A	3010A	Solid	Thallium
8260B		Water	1,3-Dichloropropene, Total
8260B	5035	Solid	1,3-Dichloropropene, Total
9045D		Solid	pH
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

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

Report To (optional)
Contact: MATT WEISS
Company: TERRACON
Address: NAPERVILLE IL
Phone: _____
Fax: _____
E-Mail: matt.weiss@terracon.com

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

Chain of Custody Record

Lab Job #: 500-137079
Chain of Custody Number: _____
Page _____ of _____
Temperature °C of Cooler: _____

Client: <u>TERRACON</u>		Client Project #: <u>11177029M</u>		Preservative		Parameter		Sample ID		Sampling		# of Containers	Matrix	Comments
Project Name: <u>WORK ORDER #37</u>		Project Location/State: <u>MARKHAM IL</u>		Lab Project #		Sampler: <u>LYNN J PETERSON</u>		Date		Time				
7	2696V-65-B01 (0-5)	11/9	1253	5	5	VOCs	SOCS	TOTAL TAL	23 Inorg	PH	TEMP TAL	23 Inorg	SPLP TAL	23 Inorg
8	2696V-65-B01 (0-5) DUP		1255											
9	2696V-65-B02 (0-5)		1105											
10	2696V-65-B02 (5-10)		1110											
11	2696V-65-B02 (10-15)		1115											
12	2696V-65-B02 (15-21)		1120											
13	2696V-65-B03 (0-5)		1035											
14	2696V-65-B04 (0-5)		1025											
15	2696V-65-B05 (0-5)		1010											
16	2696V-65-B06 (0-5)		1000											

- 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: [Signature] Company: TERRACON Date: 11/9/17 Time: 1630

Relinquished By: [Signature] Company: TA Date: 11/9/17 Time: 1700

Received By: [Signature] Company: TA Date: 11/9/17 Time: 1630

Received By: [Signature] Company: TA Date: 11/10/17 Time: 0800

Lab Courier: _____
Shipped: _____
Hand Delivered: _____

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

Client Comments: No Alumen Hold SPLP

Lab Comments: _____

Login Sample Receipt Checklist

Client: Terracon Consulting Eng & Scientists

Job Number: 500-137079-4

Login Number: 137079

List Source: TestAmerica Chicago

List Number: 1

Creator: Kelsey, Shawn M

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	(4.0)(2.0)(1.9)(3.7)(2.9)(3.2)c
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	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 351-US Rte 6 at Pulaski/Crawford & Kedzie Office Phone Number, if available:

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

Crawford Ave (Northbound) IDOT STA 56+10 to 57+20 (ISGS Site 2696V-66)

City: Oak Forest/Markham State: IL Zip Code: 60428

County: Cook Township: Bremen

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

Latitude: 41.60367 Longitude: -87.71682
(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: 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 Phone: 847-705-4122

Zip Code: 60196 Phone: 847-705-4122

Contact: Paul Nickles

Contact: Paul Nickles

Email, if available: paul.nickles@illinois.gov

Email, if available: paul.nickles@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

Project Name: FAP 351-US Rte 6 at Pulaski/Crawford & Kedzie

Latitude: 41.60367 Longitude: -87.71682

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)]:

Soil from boring B03 was sampled adjacent to ISGS Site No 2696V-66.
See Exhibits 4, 4B, and Table 92 of the Preliminary Site Investigation Report prepared by Terracon.

- 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]:

TestAmerica Lab Report No J137080-1
Also see Preliminary Site Investigation Report prepared by Terracon. CCDD/USFO facility in MSA County.

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

I, Matt Weiss (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: Terracon Consultants, Inc

Street Address: 135 Ambassador Drive

City: Naperville State: IL Zip Code: 60540

Phone: 630-717-4263

Matt Weiss
Printed Name:

[Signature]

Licensed Professional Engineer or
Licensed Professional Geologist Signature:

7/24/18

Date:



Detected Constituents to MACs-PTB 174-009;Work Order:037A
Preliminary Site Investigation
FAP 351-US Rte 6 at S. Pulaski/Crawford + Kedzie (PESA #2696V-66)
Oak Forest/Markham, Cook County, IL
Terracon Project No. 11177029M
Page 1 of 2

Analyte	Units	Background		Maximum Allowed Concentration	Sample Identification	2696V-66-B03 (0-5)
				CCDD	Sample Depth (feet)	(0-5)
		Chicago	MSAs	mg/kg pH 6.25-9.0	Date Collected	11/09/2017
Semivolatile Organic Analytical Parameters						
Benzo(a)anthracene	mg/kg	1.1	1.8	0.9		0.0088
Benzo(a)pyrene	mg/kg	1.3	2.1	0.09		0.013
Benzo(b)fluoranthene	mg/kg	1.5	2.1	0.9		0.026
Benzo(g,h,i)perylene	mg/kg	0.68	1.7	2300		0.016
Chrysene	mg/kg	1.2	2.7	88		0.023
Fluoranthene	mg/kg	2.7	4.1	3100		0.014
Phenanthrene	mg/kg	1.3	2.5	210		0.021
Pyrene	mg/kg	1.9	3.0	2300		0.023
2-Methylnaphthalene	mg/kg	---	0.14	---		0.013
Inorganic Analytical Parameters						
Arsenic	mg/kg	---	13	11.3		9.8
Barium	mg/kg	---	110	1500		39
Cadmium	mg/kg	---	0.6	5.2		0.21
Chromium, total	mg/kg	---	16.2	21		21
Lead	mg/kg	---	36	107		36
Mercury	mg/kg	---	0.06	0.1		0.02
Selenium	mg/kg	---	0.48	1.3		0.33
Silver	mg/kg	---	0.55	4.4		<0.28
Antimony	mg/kg	---	4.0	5		0.22
Beryllium	mg/kg	---	0.59	22		0.53
Calcium	mg/kg	---	9,300	---		51000
Cobalt	mg/kg	---	8.9	20		12
Copper	mg/kg	---	19.6	2900		29
Cyanide	mg/kg	---	0.51	---		<0.53
Iron	mg/kg	---	15,900	15000		26000
Magnesium	mg/kg	---	4,820	325000		22000
Manganese	mg/kg	---	636	630		480
Nickel	mg/kg	---	18	100		38
Potassium	mg/kg	---	1,268	---		1400
Sodium	mg/kg	---	130	---		140
Thallium	mg/kg	---	0.32	2.6		<0.56
Vanadium	mg/kg	---	25.2	550		16
Zinc	mg/kg	---	95	5100		59
pH			6.25	9		8.5

Detected Constituents to MACs-PTB 174-009;Work Order:037A
Preliminary Site Investigation
FAP 351-US Rte 6 at S. Pulaski/Crawford + Kedzie (PESA #2696V-66)
Oak Forest/Markham, Cook County, IL
Terracon Project No. 11177029M
Page 2 of 2

Analyte	Units	Background		Maximum Allowed Concentration	Sample Identification	2696V-66-B03 (0-5)
				CCDD	Sample Depth (feet)	(0-5)
		Chicago	MSAs	mg/kg pH 6.25-9.0	Date Collected	11/09/2017
Inorganic Analytical Parameters (SPLP)						
Antimony,SPLP	mg/L	---	---	---		--
Arsenic,SPLP	mg/L	---	---	---		--
Barium,SPLP	mg/L	---	---	---		--
Beryllium,SPLP	mg/L	---	---	---		--
Cadmium,SPLP	mg/L	---	---	---		--
Calcium,SPLP	mg/L	---	---	---		--
Chromium,SPLP	mg/L	---	---	---		--
Cobalt,SPLP	mg/L	---	---	---		--
Copper,SPLP	mg/L	---	---	---		--
Iron,SPLP	mg/L	---	---	---		--
Lead,SPLP	mg/L	---	---	---		--
Magnesium,SPLP	mg/L	---	---	---		--
Manganese,SPLP	mg/L	---	---	---		0.15
Mercury,SPLP	mg/L	---	---	---		--
Nickel,SPLP	mg/L	---	---	---		--
Potassium,SPLP	mg/L	---	---	---		--
Selenium,SPLP	mg/L	---	---	---		--
Silver,SPLP	mg/L	---	---	---		--
Sodium,SPLP	mg/L	---	---	---		--
Thallium,SPLP	mg/L	---	---	---		--
Vanadium,SPLP	mg/L	---	---	---		--
Zinc,SPLP	mg/L	---	---	---		--
Cyanide,SPLP	mg/L	---	---	---		--
Inorganic Analytical Parameters (TCLP)						
Arsenic,TCLP	mg/L	---	---	---		<0.050
Barium,TCLP	mg/L	---	---	---		0.34
Cadmium,TCLP	mg/L	---	---	---		0.0022
Chromium,TCLP	mg/L	---	---	---		<0.025
Lead,TCLP	mg/L	---	---	---		<0.0075
Mercury,TCLP	mg/L	---	---	---		<0.00020
Selenium,TCLP	mg/L	---	---	---		<0.050
Silver,TCLP	mg/L	---	---	---		<0.025
Antimony,TCLP	mg/L	---	---	---		<0.0060
Beryllium,TCLP	mg/L	---	---	---		<0.0040
Calcium,TCLP	mg/L	---	---	---		430
Cobalt,TCLP	mg/L	---	---	---		<0.025
Copper,TCLP	mg/L	---	---	---		0.012
Cyanide,TCLP	mg/L	---	---	---		----
Iron,TCLP	mg/L	---	---	---		<0.40
Magnesium,TCLP	mg/L	---	---	---		78
Manganese,TCLP	mg/L	---	---	---		0.57
Nickel,TCLP	mg/L	---	---	---		<0.025
Potassium,TCLP	mg/L	---	---	---		1.6
Sodium,TCLP	mg/L	---	---	---		----
Thallium,TCLP	mg/L	---	---	---		<0.0020
Vanadium,TCLP	mg/L	---	---	---		<0.025
Zinc,TCLP	mg/L	---	---	---		<0.50

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: 500-137080-1

Client Project/Site: IDOT - Oak Forest/Markham - WO37

For:

Terracon Consulting Eng & Scientists

135 Ambassador Drive

Naperville, Illinois 60540

Attn: Mr. Matthew Weiss

Jodie Bracken

Authorized for release by:

11/22/2017 12:05:21 PM

Jodie Bracken, Project Management Assistant II

jodie.bracken@testamericainc.com

Designee for

Richard Wright, Senior Project Manager

(708)534-5200

richard.wright@testamericainc.com

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

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

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

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Case Narrative

Client: Terracon Consulting Eng & Scientists
Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137080-1

Job ID: 500-137080-1

Laboratory: TestAmerica Chicago

Narrative

Job Narrative 500-137080-1

Receipt

The samples were received on 11/10/2017 8:00 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 6 coolers at receipt time were 1.9° C, 2.0° C, 2.9° C, 3.2° C, 3.7° C and 4.0° 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: 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 utilizing this list of analytes. The LCS associated with batch 500-410360 had 2 analytes outside control limits: 2,4-Dinitrophenol and 2,2'-oxybis[1-chloropropane]. These results have been reported and qualified. (LCS 500-410360/2-A)

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

Metals

Method(s) 6010B: The continuing calibration blanks (CCB) contained Zinc above the reporting limit (RL). The samples 2696V-66-B01 (0-5) (500-137080-1), 2696V-66-B02 (0-5) (500-137080-2), 2696V-66-B02 (0-5) Dup (500-137080-3) and 2696V-66-B03 (0-5) (500-137080-4) associated with this CCB did not contain the target compound; therefore, 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.

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: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137080-1

Client Sample ID: 2696V-66-B01 (0-5)

Lab Sample ID: 500-137080-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]anthracene	0.021	J	0.036	0.0049	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.036		0.036	0.0071	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.056		0.036	0.0079	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.019	J	0.036	0.012	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.025	J	0.036	0.011	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.036		0.036	0.010	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.043		0.036	0.0068	mg/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.015	J	0.036	0.0095	mg/Kg	1	☼	8270D	Total/NA
2-Methylnaphthalene	0.0072	J	0.074	0.0067	mg/Kg	1	☼	8270D	Total/NA
Phenanthrene	0.025	J	0.036	0.0051	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.039		0.036	0.0073	mg/Kg	1	☼	8270D	Total/NA
Antimony	0.37	J F1	1.1	0.21	mg/Kg	1	☼	6010B	Total/NA
Arsenic	6.4		0.55	0.19	mg/Kg	1	☼	6010B	Total/NA
Barium	40		0.55	0.063	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.45		0.22	0.051	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.23	B	0.11	0.020	mg/Kg	1	☼	6010B	Total/NA
Chromium	10	F1	0.55	0.27	mg/Kg	1	☼	6010B	Total/NA
Cobalt	8.1		0.28	0.072	mg/Kg	1	☼	6010B	Total/NA
Copper	17		0.55	0.15	mg/Kg	1	☼	6010B	Total/NA
Iron	11000		11	5.7	mg/Kg	1	☼	6010B	Total/NA
Lead	120	F2	0.28	0.13	mg/Kg	1	☼	6010B	Total/NA
Magnesium	29000		5.5	2.7	mg/Kg	1	☼	6010B	Total/NA
Calcium	58000	B	110	19	mg/Kg	10	☼	6010B	Total/NA
Manganese	210	F2	0.55	0.080	mg/Kg	1	☼	6010B	Total/NA
Nickel	17		0.55	0.16	mg/Kg	1	☼	6010B	Total/NA
Vanadium	14		0.28	0.065	mg/Kg	1	☼	6010B	Total/NA
Zinc	56		1.1	0.48	mg/Kg	1	☼	6010B	Total/NA
Potassium	840	F1	28	9.7	mg/Kg	1	☼	6010B	Total/NA
Sodium	670		55	8.2	mg/Kg	1	☼	6010B	Total/NA
Barium	0.31	J	0.50	0.050	mg/L	1		6010B	TCLP
Cadmium	0.0027	J	0.0050	0.0020	mg/L	1		6010B	TCLP
Calcium	320		5.0	0.50	mg/L	1		6010B	TCLP
Copper	0.028		0.025	0.010	mg/L	1		6010B	TCLP
Lead	0.013		0.0075	0.0075	mg/L	1		6010B	TCLP
Magnesium	100		2.5	0.50	mg/L	1		6010B	TCLP
Manganese	0.64		0.025	0.010	mg/L	1		6010B	TCLP
Potassium	0.96	J	2.5	0.50	mg/L	1		6010B	TCLP
Zinc	0.033	J ^	0.50	0.020	mg/L	1		6010B	TCLP
Lead	0.29		0.0075	0.0075	mg/L	1		6010B	SPLP East
Manganese	0.41		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.023		0.017	0.0057	mg/Kg	1	☼	7471B	Total/NA
Cyanide, Total	0.42	J	0.52	0.18	mg/Kg	1	☼	9014	Total/NA
pH	9.5		0.20	0.20	SU	1		9045D	Total/NA

Client Sample ID: 2696V-66-B02 (0-5)

Lab Sample ID: 500-137080-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Phenanthrene	0.0063	J	0.039	0.0055	mg/Kg	1	☼	8270D	Total/NA
Arsenic	4.7		0.60	0.20	mg/Kg	1	☼	6010B	Total/NA
Barium	72		0.60	0.068	mg/Kg	1	☼	6010B	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137080-1

Client Sample ID: 2696V-66-B02 (0-5) (Continued)

Lab Sample ID: 500-137080-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Beryllium	0.82		0.24	0.056	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.047	J B	0.12	0.021	mg/Kg	1	☼	6010B	Total/NA
Chromium	21		0.60	0.29	mg/Kg	1	☼	6010B	Total/NA
Cobalt	9.2		0.30	0.078	mg/Kg	1	☼	6010B	Total/NA
Copper	15		0.60	0.17	mg/Kg	1	☼	6010B	Total/NA
Iron	20000		12	6.2	mg/Kg	1	☼	6010B	Total/NA
Lead	15		0.30	0.14	mg/Kg	1	☼	6010B	Total/NA
Magnesium	5500		6.0	3.0	mg/Kg	1	☼	6010B	Total/NA
Calcium	5900	B	12	2.0	mg/Kg	1	☼	6010B	Total/NA
Manganese	160		0.60	0.086	mg/Kg	1	☼	6010B	Total/NA
Nickel	27		0.60	0.17	mg/Kg	1	☼	6010B	Total/NA
Vanadium	23		0.30	0.070	mg/Kg	1	☼	6010B	Total/NA
Zinc	54		1.2	0.52	mg/Kg	1	☼	6010B	Total/NA
Potassium	1600		30	11	mg/Kg	1	☼	6010B	Total/NA
Sodium	1800		60	8.8	mg/Kg	1	☼	6010B	Total/NA
Barium	0.40	J	0.50	0.050	mg/L	1		6010B	TCLP
Cadmium	0.0021	J	0.0050	0.0020	mg/L	1		6010B	TCLP
Calcium	420		5.0	0.50	mg/L	1		6010B	TCLP
Magnesium	84		2.5	0.50	mg/L	1		6010B	TCLP
Manganese	0.42		0.025	0.010	mg/L	1		6010B	TCLP
Potassium	1.3	J	2.5	0.50	mg/L	1		6010B	TCLP
Manganese	0.39		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.023		0.018	0.0058	mg/Kg	1	☼	7471B	Total/NA
pH	8.8		0.20	0.20	SU	1		9045D	Total/NA

Client Sample ID: 2696V-66-B02 (0-5) Dup

Lab Sample ID: 500-137080-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Phenanthrene	0.0063	J	0.039	0.0054	mg/Kg	1	☼	8270D	Total/NA
Antimony	0.45	J	1.1	0.22	mg/Kg	1	☼	6010B	Total/NA
Arsenic	8.0		0.56	0.19	mg/Kg	1	☼	6010B	Total/NA
Barium	57		0.56	0.064	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.74		0.23	0.053	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.19	B	0.11	0.020	mg/Kg	1	☼	6010B	Total/NA
Chromium	22		0.56	0.28	mg/Kg	1	☼	6010B	Total/NA
Cobalt	22		0.28	0.074	mg/Kg	1	☼	6010B	Total/NA
Copper	36		0.56	0.16	mg/Kg	1	☼	6010B	Total/NA
Iron	27000		11	5.9	mg/Kg	1	☼	6010B	Total/NA
Lead	27		0.28	0.13	mg/Kg	1	☼	6010B	Total/NA
Magnesium	15000		5.6	2.8	mg/Kg	1	☼	6010B	Total/NA
Calcium	30000	B	11	1.9	mg/Kg	1	☼	6010B	Total/NA
Manganese	1000		0.56	0.082	mg/Kg	1	☼	6010B	Total/NA
Nickel	64		0.56	0.16	mg/Kg	1	☼	6010B	Total/NA
Thallium	0.46	J	0.56	0.28	mg/Kg	1	☼	6010B	Total/NA
Vanadium	22		0.28	0.066	mg/Kg	1	☼	6010B	Total/NA
Zinc	59		1.1	0.49	mg/Kg	1	☼	6010B	Total/NA
Potassium	2400		28	10	mg/Kg	1	☼	6010B	Total/NA
Sodium	1500		56	8.3	mg/Kg	1	☼	6010B	Total/NA
Barium	0.43	J	0.50	0.050	mg/L	1		6010B	TCLP
Cadmium	0.0024	J	0.0050	0.0020	mg/L	1		6010B	TCLP

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137080-1

Client Sample ID: 2696V-66-B02 (0-5) Dup (Continued)

Lab Sample ID: 500-137080-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	430		5.0	0.50	mg/L	1		6010B	TCLP
Copper	0.016	J	0.025	0.010	mg/L	1		6010B	TCLP
Magnesium	79		2.5	0.50	mg/L	1		6010B	TCLP
Manganese	0.48		0.025	0.010	mg/L	1		6010B	TCLP
Potassium	1.3	J	2.5	0.50	mg/L	1		6010B	TCLP
Zinc	0.021	J ^	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.45		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.028		0.018	0.0060	mg/Kg	1	☼	7471B	Total/NA
pH	8.5		0.20	0.20	SU	1		9045D	Total/NA

Client Sample ID: 2696V-66-B03 (0-5)

Lab Sample ID: 500-137080-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]anthracene	0.0088	J	0.038	0.0051	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.013	J	0.038	0.0073	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.026	J	0.038	0.0082	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.016	J	0.038	0.012	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.023	J	0.038	0.010	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.014	J	0.038	0.0070	mg/Kg	1	☼	8270D	Total/NA
2-Methylnaphthalene	0.013	J	0.076	0.0070	mg/Kg	1	☼	8270D	Total/NA
Phenanthrene	0.021	J	0.038	0.0053	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.023	J	0.038	0.0075	mg/Kg	1	☼	8270D	Total/NA
Antimony	0.22	J	1.1	0.22	mg/Kg	1	☼	6010B	Total/NA
Arsenic	9.8		0.56	0.19	mg/Kg	1	☼	6010B	Total/NA
Barium	39		0.56	0.064	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.53		0.22	0.052	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.21	B	0.11	0.020	mg/Kg	1	☼	6010B	Total/NA
Chromium	21		0.56	0.28	mg/Kg	1	☼	6010B	Total/NA
Cobalt	12		0.28	0.073	mg/Kg	1	☼	6010B	Total/NA
Copper	29		0.56	0.16	mg/Kg	1	☼	6010B	Total/NA
Iron	26000		11	5.8	mg/Kg	1	☼	6010B	Total/NA
Lead	36		0.28	0.13	mg/Kg	1	☼	6010B	Total/NA
Magnesium	22000		5.6	2.8	mg/Kg	1	☼	6010B	Total/NA
Calcium	51000	B	110	19	mg/Kg	10	☼	6010B	Total/NA
Manganese	480		0.56	0.081	mg/Kg	1	☼	6010B	Total/NA
Nickel	38		0.56	0.16	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.33	J	0.56	0.33	mg/Kg	1	☼	6010B	Total/NA
Vanadium	16		0.28	0.066	mg/Kg	1	☼	6010B	Total/NA
Zinc	59		1.1	0.49	mg/Kg	1	☼	6010B	Total/NA
Potassium	1400		28	9.9	mg/Kg	1	☼	6010B	Total/NA
Sodium	140		56	8.3	mg/Kg	1	☼	6010B	Total/NA
Barium	0.34	J	0.50	0.050	mg/L	1		6010B	TCLP
Cadmium	0.0022	J	0.0050	0.0020	mg/L	1		6010B	TCLP
Calcium	430		5.0	0.50	mg/L	1		6010B	TCLP
Copper	0.012	J	0.025	0.010	mg/L	1		6010B	TCLP
Magnesium	78		2.5	0.50	mg/L	1		6010B	TCLP
Manganese	0.57		0.025	0.010	mg/L	1		6010B	TCLP
Potassium	1.6	J	2.5	0.50	mg/L	1		6010B	TCLP
Manganese	0.15		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.020		0.020	0.0066	mg/Kg	1	☼	7471B	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Terracon Consulting Eng & Scientists
Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137080-1

Client Sample ID: 2696V-66-B03 (0-5) (Continued)

Lab Sample ID: 500-137080-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
pH	8.5		0.20	0.20	SU	1		9045D	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

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Sample Summary

Client: Terracon Consulting Eng & Scientists
Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137080-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-137080-1	2696V-66-B01 (0-5)	Solid	11/09/17 09:40	11/10/17 08:00
500-137080-2	2696V-66-B02 (0-5)	Solid	11/09/17 09:25	11/10/17 08:00
500-137080-3	2696V-66-B02 (0-5) Dup	Solid	11/09/17 09:25	11/10/17 08:00
500-137080-4	2696V-66-B03 (0-5)	Solid	11/09/17 09:15	11/10/17 08:00

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Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137080-1

Client Sample ID: 2696V-66-B01 (0-5)

Lab Sample ID: 500-137080-1

Date Collected: 11/09/17 09:40

Matrix: Solid

Date Received: 11/10/17 08:00

Percent Solids: 85.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.017		0.017	0.0076	mg/Kg	☼	11/10/17 18:28	11/17/17 00:47	1
Benzene	<0.0017		0.0017	0.00044	mg/Kg	☼	11/10/17 18:28	11/17/17 00:47	1
Bromodichloromethane	<0.0017		0.0017	0.00035	mg/Kg	☼	11/10/17 18:28	11/17/17 00:47	1
Bromoform	<0.0017		0.0017	0.00051	mg/Kg	☼	11/10/17 18:28	11/17/17 00:47	1
Bromomethane	<0.0044		0.0044	0.0016	mg/Kg	☼	11/10/17 18:28	11/17/17 00:47	1
2-Butanone (MEK)	<0.0044		0.0044	0.0019	mg/Kg	☼	11/10/17 18:28	11/17/17 00:47	1
Carbon disulfide	<0.0044		0.0044	0.00091	mg/Kg	☼	11/10/17 18:28	11/17/17 00:47	1
Carbon tetrachloride	<0.0017		0.0017	0.00050	mg/Kg	☼	11/10/17 18:28	11/17/17 00:47	1
Chlorobenzene	<0.0017		0.0017	0.00064	mg/Kg	☼	11/10/17 18:28	11/17/17 00:47	1
Chloroethane	<0.0044		0.0044	0.0013	mg/Kg	☼	11/10/17 18:28	11/17/17 00:47	1
Chloroform	<0.0017		0.0017	0.00060	mg/Kg	☼	11/10/17 18:28	11/17/17 00:47	1
Chloromethane	<0.0044		0.0044	0.0017	mg/Kg	☼	11/10/17 18:28	11/17/17 00:47	1
cis-1,2-Dichloroethene	<0.0017		0.0017	0.00049	mg/Kg	☼	11/10/17 18:28	11/17/17 00:47	1
cis-1,3-Dichloropropene	<0.0017		0.0017	0.00052	mg/Kg	☼	11/10/17 18:28	11/17/17 00:47	1
Dibromochloromethane	<0.0017		0.0017	0.00057	mg/Kg	☼	11/10/17 18:28	11/17/17 00:47	1
1,1-Dichloroethane	<0.0017		0.0017	0.00060	mg/Kg	☼	11/10/17 18:28	11/17/17 00:47	1
1,2-Dichloroethane	<0.0044		0.0044	0.0014	mg/Kg	☼	11/10/17 18:28	11/17/17 00:47	1
1,1-Dichloroethene	<0.0017		0.0017	0.00060	mg/Kg	☼	11/10/17 18:28	11/17/17 00:47	1
1,2-Dichloropropane	<0.0017		0.0017	0.00045	mg/Kg	☼	11/10/17 18:28	11/17/17 00:47	1
1,3-Dichloropropane, Total	<0.0017		0.0017	0.00061	mg/Kg	☼	11/10/17 18:28	11/17/17 00:47	1
Ethylbenzene	<0.0017		0.0017	0.00083	mg/Kg	☼	11/10/17 18:28	11/17/17 00:47	1
2-Hexanone	<0.0044		0.0044	0.0014	mg/Kg	☼	11/10/17 18:28	11/17/17 00:47	1
Methylene Chloride	<0.0044		0.0044	0.0017	mg/Kg	☼	11/10/17 18:28	11/17/17 00:47	1
4-Methyl-2-pentanone (MIBK)	<0.0044		0.0044	0.0013	mg/Kg	☼	11/10/17 18:28	11/17/17 00:47	1
Methyl tert-butyl ether	<0.0017		0.0017	0.00051	mg/Kg	☼	11/10/17 18:28	11/17/17 00:47	1
Styrene	<0.0017		0.0017	0.00053	mg/Kg	☼	11/10/17 18:28	11/17/17 00:47	1
1,1,2,2-Tetrachloroethane	<0.0017		0.0017	0.00056	mg/Kg	☼	11/10/17 18:28	11/17/17 00:47	1
Tetrachloroethene	<0.0017		0.0017	0.00059	mg/Kg	☼	11/10/17 18:28	11/17/17 00:47	1
Toluene	<0.0017		0.0017	0.00044	mg/Kg	☼	11/10/17 18:28	11/17/17 00:47	1
trans-1,2-Dichloroethene	<0.0017		0.0017	0.00077	mg/Kg	☼	11/10/17 18:28	11/17/17 00:47	1
trans-1,3-Dichloropropene	<0.0017		0.0017	0.00061	mg/Kg	☼	11/10/17 18:28	11/17/17 00:47	1
1,1,1-Trichloroethane	<0.0017		0.0017	0.00058	mg/Kg	☼	11/10/17 18:28	11/17/17 00:47	1
1,1,2-Trichloroethane	<0.0017		0.0017	0.00075	mg/Kg	☼	11/10/17 18:28	11/17/17 00:47	1
Trichloroethene	<0.0017		0.0017	0.00059	mg/Kg	☼	11/10/17 18:28	11/17/17 00:47	1
Vinyl acetate	<0.0044		0.0044	0.0015	mg/Kg	☼	11/10/17 18:28	11/17/17 00:47	1
Vinyl chloride	<0.0017		0.0017	0.00077	mg/Kg	☼	11/10/17 18:28	11/17/17 00:47	1
Xylenes, Total	<0.0035		0.0035	0.00056	mg/Kg	☼	11/10/17 18:28	11/17/17 00:47	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	89		75 - 131	11/10/17 18:28	11/17/17 00:47	1
Dibromofluoromethane	100		75 - 126	11/10/17 18:28	11/17/17 00:47	1
1,2-Dichloroethane-d4 (Surr)	95		70 - 134	11/10/17 18:28	11/17/17 00:47	1
Toluene-d8 (Surr)	97		75 - 124	11/10/17 18:28	11/17/17 00:47	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.036		0.036	0.0066	mg/Kg	☼	11/16/17 20:28	11/17/17 18:59	1
Acenaphthylene	<0.036		0.036	0.0048	mg/Kg	☼	11/16/17 20:28	11/17/17 18:59	1
Anthracene	<0.036		0.036	0.0061	mg/Kg	☼	11/16/17 20:28	11/17/17 18:59	1
Benzo[a]anthracene	0.021	J	0.036	0.0049	mg/Kg	☼	11/16/17 20:28	11/17/17 18:59	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137080-1

Client Sample ID: 2696V-66-B01 (0-5)

Lab Sample ID: 500-137080-1

Date Collected: 11/09/17 09:40

Matrix: Solid

Date Received: 11/10/17 08:00

Percent Solids: 85.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	0.036		0.036	0.0071	mg/Kg	☼	11/16/17 20:28	11/17/17 18:59	1
Benzo[b]fluoranthene	0.056		0.036	0.0079	mg/Kg	☼	11/16/17 20:28	11/17/17 18:59	1
Benzo[g,h,i]perylene	0.019	J	0.036	0.012	mg/Kg	☼	11/16/17 20:28	11/17/17 18:59	1
Benzo[k]fluoranthene	0.025	J	0.036	0.011	mg/Kg	☼	11/16/17 20:28	11/17/17 18:59	1
Bis(2-chloroethoxy)methane	<0.18		0.18	0.037	mg/Kg	☼	11/16/17 20:28	11/17/17 18:59	1
Bis(2-chloroethyl)ether	<0.18		0.18	0.055	mg/Kg	☼	11/16/17 20:28	11/17/17 18:59	1
Bis(2-ethylhexyl) phthalate	<0.18		0.18	0.067	mg/Kg	☼	11/16/17 20:28	11/17/17 18:59	1
4-Bromophenyl phenyl ether	<0.18		0.18	0.048	mg/Kg	☼	11/16/17 20:28	11/17/17 18:59	1
Butyl benzyl phthalate	<0.18		0.18	0.070	mg/Kg	☼	11/16/17 20:28	11/17/17 18:59	1
Carbazole	<0.18		0.18	0.092	mg/Kg	☼	11/16/17 20:28	11/17/17 18:59	1
4-Chloroaniline	<0.74		0.74	0.17	mg/Kg	☼	11/16/17 20:28	11/17/17 18:59	1
4-Chloro-3-methylphenol	<0.36		0.36	0.12	mg/Kg	☼	11/16/17 20:28	11/17/17 18:59	1
2-Chloronaphthalene	<0.18		0.18	0.041	mg/Kg	☼	11/16/17 20:28	11/17/17 18:59	1
2-Chlorophenol	<0.18		0.18	0.063	mg/Kg	☼	11/16/17 20:28	11/17/17 18:59	1
4-Chlorophenyl phenyl ether	<0.18		0.18	0.043	mg/Kg	☼	11/16/17 20:28	11/17/17 18:59	1
Chrysene	0.036		0.036	0.010	mg/Kg	☼	11/16/17 20:28	11/17/17 18:59	1
Dibenz(a,h)anthracene	<0.036		0.036	0.0071	mg/Kg	☼	11/16/17 20:28	11/17/17 18:59	1
Dibenzofuran	<0.18		0.18	0.043	mg/Kg	☼	11/16/17 20:28	11/17/17 18:59	1
1,2-Dichlorobenzene	<0.18		0.18	0.044	mg/Kg	☼	11/16/17 20:28	11/17/17 18:59	1
1,3-Dichlorobenzene	<0.18		0.18	0.041	mg/Kg	☼	11/16/17 20:28	11/17/17 18:59	1
1,4-Dichlorobenzene	<0.18		0.18	0.047	mg/Kg	☼	11/16/17 20:28	11/17/17 18:59	1
3,3'-Dichlorobenzidine	<0.18		0.18	0.051	mg/Kg	☼	11/16/17 20:28	11/17/17 18:59	1
2,4-Dichlorophenol	<0.36		0.36	0.087	mg/Kg	☼	11/16/17 20:28	11/17/17 18:59	1
Diethyl phthalate	<0.18		0.18	0.062	mg/Kg	☼	11/16/17 20:28	11/17/17 18:59	1
2,4-Dimethylphenol	<0.36		0.36	0.14	mg/Kg	☼	11/16/17 20:28	11/17/17 18:59	1
Dimethyl phthalate	<0.18		0.18	0.048	mg/Kg	☼	11/16/17 20:28	11/17/17 18:59	1
Di-n-butyl phthalate	<0.18		0.18	0.056	mg/Kg	☼	11/16/17 20:28	11/17/17 18:59	1
4,6-Dinitro-2-methylphenol	<0.74		0.74	0.29	mg/Kg	☼	11/16/17 20:28	11/17/17 18:59	1
2,4-Dinitrophenol	<0.74	*	0.74	0.65	mg/Kg	☼	11/16/17 20:28	11/17/17 18:59	1
2,4-Dinitrotoluene	<0.18		0.18	0.058	mg/Kg	☼	11/16/17 20:28	11/17/17 18:59	1
2,6-Dinitrotoluene	<0.18		0.18	0.072	mg/Kg	☼	11/16/17 20:28	11/17/17 18:59	1
Di-n-octyl phthalate	<0.18		0.18	0.060	mg/Kg	☼	11/16/17 20:28	11/17/17 18:59	1
Fluoranthene	0.043		0.036	0.0068	mg/Kg	☼	11/16/17 20:28	11/17/17 18:59	1
Fluorene	<0.036		0.036	0.0052	mg/Kg	☼	11/16/17 20:28	11/17/17 18:59	1
Hexachlorobenzene	<0.074		0.074	0.0085	mg/Kg	☼	11/16/17 20:28	11/17/17 18:59	1
Hexachlorobutadiene	<0.18		0.18	0.058	mg/Kg	☼	11/16/17 20:28	11/17/17 18:59	1
Hexachlorocyclopentadiene	<0.74		0.74	0.21	mg/Kg	☼	11/16/17 20:28	11/17/17 18:59	1
Hexachloroethane	<0.18		0.18	0.056	mg/Kg	☼	11/16/17 20:28	11/17/17 18:59	1
Indeno[1,2,3-cd]pyrene	0.015	J	0.036	0.0095	mg/Kg	☼	11/16/17 20:28	11/17/17 18:59	1
Isophorone	<0.18		0.18	0.041	mg/Kg	☼	11/16/17 20:28	11/17/17 18:59	1
2-Methylnaphthalene	0.0072	J	0.074	0.0067	mg/Kg	☼	11/16/17 20:28	11/17/17 18:59	1
2-Methylphenol	<0.18		0.18	0.059	mg/Kg	☼	11/16/17 20:28	11/17/17 18:59	1
3 & 4 Methylphenol	<0.18		0.18	0.061	mg/Kg	☼	11/16/17 20:28	11/17/17 18:59	1
Naphthalene	<0.036		0.036	0.0056	mg/Kg	☼	11/16/17 20:28	11/17/17 18:59	1
2-Nitroaniline	<0.18		0.18	0.049	mg/Kg	☼	11/16/17 20:28	11/17/17 18:59	1
3-Nitroaniline	<0.36		0.36	0.11	mg/Kg	☼	11/16/17 20:28	11/17/17 18:59	1
4-Nitroaniline	<0.36		0.36	0.15	mg/Kg	☼	11/16/17 20:28	11/17/17 18:59	1
Nitrobenzene	<0.036		0.036	0.0092	mg/Kg	☼	11/16/17 20:28	11/17/17 18:59	1
2-Nitrophenol	<0.36		0.36	0.087	mg/Kg	☼	11/16/17 20:28	11/17/17 18:59	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137080-1

Client Sample ID: 2696V-66-B01 (0-5)

Lab Sample ID: 500-137080-1

Date Collected: 11/09/17 09:40

Matrix: Solid

Date Received: 11/10/17 08:00

Percent Solids: 85.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Nitrophenol	<0.74		0.74	0.35	mg/Kg	☼	11/16/17 20:28	11/17/17 18:59	1
N-Nitrosodi-n-propylamine	<0.074		0.074	0.045	mg/Kg	☼	11/16/17 20:28	11/17/17 18:59	1
N-Nitrosodiphenylamine	<0.18		0.18	0.043	mg/Kg	☼	11/16/17 20:28	11/17/17 18:59	1
2,2'-oxybis[1-chloropropane]	<0.18	*	0.18	0.043	mg/Kg	☼	11/16/17 20:28	11/17/17 18:59	1
Pentachlorophenol	<0.74		0.74	0.59	mg/Kg	☼	11/16/17 20:28	11/17/17 18:59	1
Phenanthrene	0.025	J	0.036	0.0051	mg/Kg	☼	11/16/17 20:28	11/17/17 18:59	1
Phenol	<0.18		0.18	0.082	mg/Kg	☼	11/16/17 20:28	11/17/17 18:59	1
Pyrene	0.039		0.036	0.0073	mg/Kg	☼	11/16/17 20:28	11/17/17 18:59	1
1,2,4-Trichlorobenzene	<0.18		0.18	0.040	mg/Kg	☼	11/16/17 20:28	11/17/17 18:59	1
2,4,5-Trichlorophenol	<0.36		0.36	0.084	mg/Kg	☼	11/16/17 20:28	11/17/17 18:59	1
2,4,6-Trichlorophenol	<0.36		0.36	0.13	mg/Kg	☼	11/16/17 20:28	11/17/17 18:59	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	94		44 - 121	11/16/17 20:28	11/17/17 18:59	1
2-Fluorophenol	99		46 - 133	11/16/17 20:28	11/17/17 18:59	1
Nitrobenzene-d5	82		41 - 120	11/16/17 20:28	11/17/17 18:59	1
Phenol-d5	83		46 - 125	11/16/17 20:28	11/17/17 18:59	1
Terphenyl-d14	101		35 - 160	11/16/17 20:28	11/17/17 18:59	1
2,4,6-Tribromophenol	88		25 - 139	11/16/17 20:28	11/17/17 18:59	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.37	J F1	1.1	0.21	mg/Kg	☼	11/10/17 17:37	11/11/17 18:10	1
Arsenic	6.4		0.55	0.19	mg/Kg	☼	11/10/17 17:37	11/11/17 18:10	1
Barium	40		0.55	0.063	mg/Kg	☼	11/10/17 17:37	11/11/17 18:10	1
Beryllium	0.45		0.22	0.051	mg/Kg	☼	11/10/17 17:37	11/11/17 18:10	1
Cadmium	0.23	B	0.11	0.020	mg/Kg	☼	11/10/17 17:37	11/11/17 18:10	1
Chromium	10	F1	0.55	0.27	mg/Kg	☼	11/10/17 17:37	11/11/17 18:10	1
Cobalt	8.1		0.28	0.072	mg/Kg	☼	11/10/17 17:37	11/11/17 18:10	1
Copper	17		0.55	0.15	mg/Kg	☼	11/10/17 17:37	11/11/17 18:10	1
Iron	11000		11	5.7	mg/Kg	☼	11/10/17 17:37	11/11/17 18:10	1
Lead	120	F2	0.28	0.13	mg/Kg	☼	11/10/17 17:37	11/11/17 18:10	1
Magnesium	29000		5.5	2.7	mg/Kg	☼	11/10/17 17:37	11/11/17 18:10	1
Calcium	58000	B	110	19	mg/Kg	☼	11/10/17 17:37	11/13/17 12:48	10
Manganese	210	F2	0.55	0.080	mg/Kg	☼	11/10/17 17:37	11/11/17 18:10	1
Nickel	17		0.55	0.16	mg/Kg	☼	11/10/17 17:37	11/11/17 18:10	1
Selenium	<0.55		0.55	0.32	mg/Kg	☼	11/10/17 17:37	11/11/17 18:10	1
Silver	<0.28		0.28	0.071	mg/Kg	☼	11/10/17 17:37	11/11/17 18:10	1
Thallium	<0.55		0.55	0.27	mg/Kg	☼	11/10/17 17:37	11/11/17 18:10	1
Vanadium	14		0.28	0.065	mg/Kg	☼	11/10/17 17:37	11/11/17 18:10	1
Zinc	56		1.1	0.48	mg/Kg	☼	11/10/17 17:37	11/11/17 18:10	1
Potassium	840	F1	28	9.7	mg/Kg	☼	11/10/17 17:37	11/11/17 18:10	1
Sodium	670		55	8.2	mg/Kg	☼	11/10/17 17:37	11/11/17 18:10	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.050		0.050	0.010	mg/L		11/15/17 08:09	11/16/17 16:44	1
Barium	0.31	J	0.50	0.050	mg/L		11/15/17 08:09	11/16/17 16:44	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		11/15/17 08:09	11/16/17 16:44	1
Cadmium	0.0027	J	0.0050	0.0020	mg/L		11/15/17 08:09	11/16/17 16:44	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137080-1

Client Sample ID: 2696V-66-B01 (0-5)

Lab Sample ID: 500-137080-1

Date Collected: 11/09/17 09:40

Matrix: Solid

Date Received: 11/10/17 08:00

Percent Solids: 85.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	320		5.0	0.50	mg/L		11/15/17 08:09	11/16/17 16:44	1
Chromium	<0.025		0.025	0.010	mg/L		11/15/17 08:09	11/16/17 16:44	1
Cobalt	<0.025		0.025	0.010	mg/L		11/15/17 08:09	11/16/17 16:44	1
Copper	0.028		0.025	0.010	mg/L		11/15/17 08:09	11/16/17 16:44	1
Iron	<0.40		0.40	0.20	mg/L		11/15/17 08:09	11/16/17 16:44	1
Lead	0.013		0.0075	0.0075	mg/L		11/15/17 08:09	11/16/17 16:44	1
Magnesium	100		2.5	0.50	mg/L		11/15/17 08:09	11/16/17 16:44	1
Manganese	0.64		0.025	0.010	mg/L		11/15/17 08:09	11/16/17 16:44	1
Nickel	<0.025		0.025	0.010	mg/L		11/15/17 08:09	11/16/17 16:44	1
Potassium	0.96	J	2.5	0.50	mg/L		11/15/17 08:09	11/16/17 16:44	1
Selenium	<0.050		0.050	0.020	mg/L		11/15/17 08:09	11/16/17 16:44	1
Silver	<0.025		0.025	0.010	mg/L		11/15/17 08:09	11/16/17 16:44	1
Vanadium	<0.025		0.025	0.010	mg/L		11/15/17 08:09	11/16/17 16:44	1
Zinc	0.033	J ^	0.50	0.020	mg/L		11/15/17 08:09	11/16/17 16:44	1

Method: 6010B - SPLP Metals - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.29		0.0075	0.0075	mg/L		11/14/17 14:25	11/15/17 20:27	1
Manganese	0.41		0.025	0.010	mg/L		11/14/17 14:25	11/15/17 20:27	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		11/15/17 08:09	11/16/17 17:57	1
Thallium	<0.0020		0.0020	0.0020	mg/L		11/15/17 08:09	11/16/17 17:57	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		11/17/17 08:10	11/18/17 11:37	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.023		0.017	0.0057	mg/Kg	☼	11/17/17 10:45	11/18/17 13:33	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.42	J	0.52	0.18	mg/Kg	☼	11/21/17 11:00	11/21/17 14:12	1
pH	9.5		0.20	0.20	SU			11/18/17 12:52	1

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137080-1

Client Sample ID: 2696V-66-B02 (0-5)

Lab Sample ID: 500-137080-2

Date Collected: 11/09/17 09:25

Matrix: Solid

Date Received: 11/10/17 08:00

Percent Solids: 82.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.017		0.017	0.0072	mg/Kg	☼	11/10/17 18:28	11/17/17 01:13	1
Benzene	<0.0017		0.0017	0.00042	mg/Kg	☼	11/10/17 18:28	11/17/17 01:13	1
Bromodichloromethane	<0.0017		0.0017	0.00034	mg/Kg	☼	11/10/17 18:28	11/17/17 01:13	1
Bromoform	<0.0017		0.0017	0.00049	mg/Kg	☼	11/10/17 18:28	11/17/17 01:13	1
Bromomethane	<0.0042		0.0042	0.0016	mg/Kg	☼	11/10/17 18:28	11/17/17 01:13	1
2-Butanone (MEK)	<0.0042		0.0042	0.0018	mg/Kg	☼	11/10/17 18:28	11/17/17 01:13	1
Carbon disulfide	<0.0042		0.0042	0.00086	mg/Kg	☼	11/10/17 18:28	11/17/17 01:13	1
Carbon tetrachloride	<0.0017		0.0017	0.00048	mg/Kg	☼	11/10/17 18:28	11/17/17 01:13	1
Chlorobenzene	<0.0017		0.0017	0.00061	mg/Kg	☼	11/10/17 18:28	11/17/17 01:13	1
Chloroethane	<0.0042		0.0042	0.0012	mg/Kg	☼	11/10/17 18:28	11/17/17 01:13	1
Chloroform	<0.0017		0.0017	0.00058	mg/Kg	☼	11/10/17 18:28	11/17/17 01:13	1
Chloromethane	<0.0042		0.0042	0.0017	mg/Kg	☼	11/10/17 18:28	11/17/17 01:13	1
cis-1,2-Dichloroethene	<0.0017		0.0017	0.00046	mg/Kg	☼	11/10/17 18:28	11/17/17 01:13	1
cis-1,3-Dichloropropene	<0.0017		0.0017	0.00050	mg/Kg	☼	11/10/17 18:28	11/17/17 01:13	1
Dibromochloromethane	<0.0017		0.0017	0.00054	mg/Kg	☼	11/10/17 18:28	11/17/17 01:13	1
1,1-Dichloroethane	<0.0017		0.0017	0.00057	mg/Kg	☼	11/10/17 18:28	11/17/17 01:13	1
1,2-Dichloroethane	<0.0042		0.0042	0.0013	mg/Kg	☼	11/10/17 18:28	11/17/17 01:13	1
1,1-Dichloroethene	<0.0017		0.0017	0.00057	mg/Kg	☼	11/10/17 18:28	11/17/17 01:13	1
1,2-Dichloropropane	<0.0017		0.0017	0.00043	mg/Kg	☼	11/10/17 18:28	11/17/17 01:13	1
1,3-Dichloropropane, Total	<0.0017		0.0017	0.00058	mg/Kg	☼	11/10/17 18:28	11/17/17 01:13	1
Ethylbenzene	<0.0017		0.0017	0.00080	mg/Kg	☼	11/10/17 18:28	11/17/17 01:13	1
2-Hexanone	<0.0042		0.0042	0.0013	mg/Kg	☼	11/10/17 18:28	11/17/17 01:13	1
Methylene Chloride	<0.0042		0.0042	0.0016	mg/Kg	☼	11/10/17 18:28	11/17/17 01:13	1
4-Methyl-2-pentanone (MIBK)	<0.0042		0.0042	0.0012	mg/Kg	☼	11/10/17 18:28	11/17/17 01:13	1
Methyl tert-butyl ether	<0.0017		0.0017	0.00049	mg/Kg	☼	11/10/17 18:28	11/17/17 01:13	1
Styrene	<0.0017		0.0017	0.00050	mg/Kg	☼	11/10/17 18:28	11/17/17 01:13	1
1,1,2,2-Tetrachloroethane	<0.0017		0.0017	0.00053	mg/Kg	☼	11/10/17 18:28	11/17/17 01:13	1
Tetrachloroethene	<0.0017		0.0017	0.00057	mg/Kg	☼	11/10/17 18:28	11/17/17 01:13	1
Toluene	<0.0017		0.0017	0.00042	mg/Kg	☼	11/10/17 18:28	11/17/17 01:13	1
trans-1,2-Dichloroethene	<0.0017		0.0017	0.00074	mg/Kg	☼	11/10/17 18:28	11/17/17 01:13	1
trans-1,3-Dichloropropene	<0.0017		0.0017	0.00058	mg/Kg	☼	11/10/17 18:28	11/17/17 01:13	1
1,1,1-Trichloroethane	<0.0017		0.0017	0.00056	mg/Kg	☼	11/10/17 18:28	11/17/17 01:13	1
1,1,2-Trichloroethane	<0.0017		0.0017	0.00071	mg/Kg	☼	11/10/17 18:28	11/17/17 01:13	1
Trichloroethene	<0.0017		0.0017	0.00056	mg/Kg	☼	11/10/17 18:28	11/17/17 01:13	1
Vinyl acetate	<0.0042		0.0042	0.0014	mg/Kg	☼	11/10/17 18:28	11/17/17 01:13	1
Vinyl chloride	<0.0017		0.0017	0.00074	mg/Kg	☼	11/10/17 18:28	11/17/17 01:13	1
Xylenes, Total	<0.0033		0.0033	0.00053	mg/Kg	☼	11/10/17 18:28	11/17/17 01:13	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	88		75 - 131	11/10/17 18:28	11/17/17 01:13	1
Dibromofluoromethane	103		75 - 126	11/10/17 18:28	11/17/17 01:13	1
1,2-Dichloroethane-d4 (Surr)	97		70 - 134	11/10/17 18:28	11/17/17 01:13	1
Toluene-d8 (Surr)	100		75 - 124	11/10/17 18:28	11/17/17 01:13	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.039		0.039	0.0070	mg/Kg	☼	11/16/17 20:28	11/17/17 15:25	1
Acenaphthylene	<0.039		0.039	0.0052	mg/Kg	☼	11/16/17 20:28	11/17/17 15:25	1
Anthracene	<0.039		0.039	0.0065	mg/Kg	☼	11/16/17 20:28	11/17/17 15:25	1
Benzo[a]anthracene	<0.039		0.039	0.0053	mg/Kg	☼	11/16/17 20:28	11/17/17 15:25	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137080-1

Client Sample ID: 2696V-66-B02 (0-5)

Lab Sample ID: 500-137080-2

Date Collected: 11/09/17 09:25

Matrix: Solid

Date Received: 11/10/17 08:00

Percent Solids: 82.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	<0.039		0.039	0.0076	mg/Kg	☼	11/16/17 20:28	11/17/17 15:25	1
Benzo[b]fluoranthene	<0.039		0.039	0.0084	mg/Kg	☼	11/16/17 20:28	11/17/17 15:25	1
Benzo[g,h,i]perylene	<0.039		0.039	0.013	mg/Kg	☼	11/16/17 20:28	11/17/17 15:25	1
Benzo[k]fluoranthene	<0.039		0.039	0.012	mg/Kg	☼	11/16/17 20:28	11/17/17 15:25	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.040	mg/Kg	☼	11/16/17 20:28	11/17/17 15:25	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.059	mg/Kg	☼	11/16/17 20:28	11/17/17 15:25	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.071	mg/Kg	☼	11/16/17 20:28	11/17/17 15:25	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.052	mg/Kg	☼	11/16/17 20:28	11/17/17 15:25	1
Butyl benzyl phthalate	<0.20		0.20	0.074	mg/Kg	☼	11/16/17 20:28	11/17/17 15:25	1
Carbazole	<0.20		0.20	0.098	mg/Kg	☼	11/16/17 20:28	11/17/17 15:25	1
4-Chloroaniline	<0.79		0.79	0.18	mg/Kg	☼	11/16/17 20:28	11/17/17 15:25	1
4-Chloro-3-methylphenol	<0.39		0.39	0.13	mg/Kg	☼	11/16/17 20:28	11/17/17 15:25	1
2-Chloronaphthalene	<0.20		0.20	0.043	mg/Kg	☼	11/16/17 20:28	11/17/17 15:25	1
2-Chlorophenol	<0.20		0.20	0.067	mg/Kg	☼	11/16/17 20:28	11/17/17 15:25	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.046	mg/Kg	☼	11/16/17 20:28	11/17/17 15:25	1
Chrysene	<0.039		0.039	0.011	mg/Kg	☼	11/16/17 20:28	11/17/17 15:25	1
Dibenz(a,h)anthracene	<0.039		0.039	0.0076	mg/Kg	☼	11/16/17 20:28	11/17/17 15:25	1
Dibenzofuran	<0.20		0.20	0.046	mg/Kg	☼	11/16/17 20:28	11/17/17 15:25	1
1,2-Dichlorobenzene	<0.20		0.20	0.047	mg/Kg	☼	11/16/17 20:28	11/17/17 15:25	1
1,3-Dichlorobenzene	<0.20		0.20	0.044	mg/Kg	☼	11/16/17 20:28	11/17/17 15:25	1
1,4-Dichlorobenzene	<0.20		0.20	0.050	mg/Kg	☼	11/16/17 20:28	11/17/17 15:25	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.055	mg/Kg	☼	11/16/17 20:28	11/17/17 15:25	1
2,4-Dichlorophenol	<0.39		0.39	0.093	mg/Kg	☼	11/16/17 20:28	11/17/17 15:25	1
Diethyl phthalate	<0.20		0.20	0.066	mg/Kg	☼	11/16/17 20:28	11/17/17 15:25	1
2,4-Dimethylphenol	<0.39		0.39	0.15	mg/Kg	☼	11/16/17 20:28	11/17/17 15:25	1
Dimethyl phthalate	<0.20		0.20	0.051	mg/Kg	☼	11/16/17 20:28	11/17/17 15:25	1
Di-n-butyl phthalate	<0.20		0.20	0.060	mg/Kg	☼	11/16/17 20:28	11/17/17 15:25	1
4,6-Dinitro-2-methylphenol	<0.79		0.79	0.31	mg/Kg	☼	11/16/17 20:28	11/17/17 15:25	1
2,4-Dinitrophenol	<0.79	*	0.79	0.69	mg/Kg	☼	11/16/17 20:28	11/17/17 15:25	1
2,4-Dinitrotoluene	<0.20		0.20	0.062	mg/Kg	☼	11/16/17 20:28	11/17/17 15:25	1
2,6-Dinitrotoluene	<0.20		0.20	0.077	mg/Kg	☼	11/16/17 20:28	11/17/17 15:25	1
Di-n-octyl phthalate	<0.20		0.20	0.064	mg/Kg	☼	11/16/17 20:28	11/17/17 15:25	1
Fluoranthene	<0.039		0.039	0.0073	mg/Kg	☼	11/16/17 20:28	11/17/17 15:25	1
Fluorene	<0.039		0.039	0.0055	mg/Kg	☼	11/16/17 20:28	11/17/17 15:25	1
Hexachlorobenzene	<0.079		0.079	0.0091	mg/Kg	☼	11/16/17 20:28	11/17/17 15:25	1
Hexachlorobutadiene	<0.20		0.20	0.061	mg/Kg	☼	11/16/17 20:28	11/17/17 15:25	1
Hexachlorocyclopentadiene	<0.79		0.79	0.22	mg/Kg	☼	11/16/17 20:28	11/17/17 15:25	1
Hexachloroethane	<0.20		0.20	0.059	mg/Kg	☼	11/16/17 20:28	11/17/17 15:25	1
Indeno[1,2,3-cd]pyrene	<0.039		0.039	0.010	mg/Kg	☼	11/16/17 20:28	11/17/17 15:25	1
Isophorone	<0.20		0.20	0.044	mg/Kg	☼	11/16/17 20:28	11/17/17 15:25	1
2-Methylnaphthalene	<0.079		0.079	0.0072	mg/Kg	☼	11/16/17 20:28	11/17/17 15:25	1
2-Methylphenol	<0.20		0.20	0.063	mg/Kg	☼	11/16/17 20:28	11/17/17 15:25	1
3 & 4 Methylphenol	<0.20		0.20	0.065	mg/Kg	☼	11/16/17 20:28	11/17/17 15:25	1
Naphthalene	<0.039		0.039	0.0060	mg/Kg	☼	11/16/17 20:28	11/17/17 15:25	1
2-Nitroaniline	<0.20		0.20	0.053	mg/Kg	☼	11/16/17 20:28	11/17/17 15:25	1
3-Nitroaniline	<0.39		0.39	0.12	mg/Kg	☼	11/16/17 20:28	11/17/17 15:25	1
4-Nitroaniline	<0.39		0.39	0.16	mg/Kg	☼	11/16/17 20:28	11/17/17 15:25	1
Nitrobenzene	<0.039		0.039	0.0098	mg/Kg	☼	11/16/17 20:28	11/17/17 15:25	1
2-Nitrophenol	<0.39		0.39	0.092	mg/Kg	☼	11/16/17 20:28	11/17/17 15:25	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137080-1

Client Sample ID: 2696V-66-B02 (0-5)

Lab Sample ID: 500-137080-2

Date Collected: 11/09/17 09:25

Matrix: Solid

Date Received: 11/10/17 08:00

Percent Solids: 82.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Nitrophenol	<0.79		0.79	0.37	mg/Kg	☼	11/16/17 20:28	11/17/17 15:25	1
N-Nitrosodi-n-propylamine	<0.079		0.079	0.048	mg/Kg	☼	11/16/17 20:28	11/17/17 15:25	1
N-Nitrosodiphenylamine	<0.20		0.20	0.046	mg/Kg	☼	11/16/17 20:28	11/17/17 15:25	1
2,2'-oxybis[1-chloropropane]	<0.20	*	0.20	0.045	mg/Kg	☼	11/16/17 20:28	11/17/17 15:25	1
Pentachlorophenol	<0.79		0.79	0.63	mg/Kg	☼	11/16/17 20:28	11/17/17 15:25	1
Phenanthrene	0.0063	J	0.039	0.0055	mg/Kg	☼	11/16/17 20:28	11/17/17 15:25	1
Phenol	<0.20		0.20	0.087	mg/Kg	☼	11/16/17 20:28	11/17/17 15:25	1
Pyrene	<0.039		0.039	0.0078	mg/Kg	☼	11/16/17 20:28	11/17/17 15:25	1
1,2,4-Trichlorobenzene	<0.20		0.20	0.042	mg/Kg	☼	11/16/17 20:28	11/17/17 15:25	1
2,4,5-Trichlorophenol	<0.39		0.39	0.089	mg/Kg	☼	11/16/17 20:28	11/17/17 15:25	1
2,4,6-Trichlorophenol	<0.39		0.39	0.13	mg/Kg	☼	11/16/17 20:28	11/17/17 15:25	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	96		44 - 121	11/16/17 20:28	11/17/17 15:25	1
2-Fluorophenol	99		46 - 133	11/16/17 20:28	11/17/17 15:25	1
Nitrobenzene-d5	85		41 - 120	11/16/17 20:28	11/17/17 15:25	1
Phenol-d5	86		46 - 125	11/16/17 20:28	11/17/17 15:25	1
Terphenyl-d14	89		35 - 160	11/16/17 20:28	11/17/17 15:25	1
2,4,6-Tribromophenol	108		25 - 139	11/16/17 20:28	11/17/17 15:25	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.2		1.2	0.23	mg/Kg	☼	11/10/17 17:37	11/11/17 18:30	1
Arsenic	4.7		0.60	0.20	mg/Kg	☼	11/10/17 17:37	11/11/17 18:30	1
Barium	72		0.60	0.068	mg/Kg	☼	11/10/17 17:37	11/11/17 18:30	1
Beryllium	0.82		0.24	0.056	mg/Kg	☼	11/10/17 17:37	11/11/17 18:30	1
Cadmium	0.047	J B	0.12	0.021	mg/Kg	☼	11/10/17 17:37	11/11/17 18:30	1
Chromium	21		0.60	0.29	mg/Kg	☼	11/10/17 17:37	11/11/17 18:30	1
Cobalt	9.2		0.30	0.078	mg/Kg	☼	11/10/17 17:37	11/11/17 18:30	1
Copper	15		0.60	0.17	mg/Kg	☼	11/10/17 17:37	11/11/17 18:30	1
Iron	20000		12	6.2	mg/Kg	☼	11/10/17 17:37	11/11/17 18:30	1
Lead	15		0.30	0.14	mg/Kg	☼	11/10/17 17:37	11/11/17 18:30	1
Magnesium	5500		6.0	3.0	mg/Kg	☼	11/10/17 17:37	11/11/17 18:30	1
Calcium	5900	B	12	2.0	mg/Kg	☼	11/10/17 17:37	11/11/17 18:30	1
Manganese	160		0.60	0.086	mg/Kg	☼	11/10/17 17:37	11/11/17 18:30	1
Nickel	27		0.60	0.17	mg/Kg	☼	11/10/17 17:37	11/11/17 18:30	1
Selenium	<0.60		0.60	0.35	mg/Kg	☼	11/10/17 17:37	11/11/17 18:30	1
Silver	<0.30		0.30	0.077	mg/Kg	☼	11/10/17 17:37	11/11/17 18:30	1
Thallium	<0.60		0.60	0.30	mg/Kg	☼	11/10/17 17:37	11/11/17 18:30	1
Vanadium	23		0.30	0.070	mg/Kg	☼	11/10/17 17:37	11/11/17 18:30	1
Zinc	54		1.2	0.52	mg/Kg	☼	11/10/17 17:37	11/11/17 18:30	1
Potassium	1600		30	11	mg/Kg	☼	11/10/17 17:37	11/11/17 18:30	1
Sodium	1800		60	8.8	mg/Kg	☼	11/10/17 17:37	11/11/17 18:30	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.050		0.050	0.010	mg/L		11/15/17 08:09	11/16/17 16:48	1
Barium	0.40	J	0.50	0.050	mg/L		11/15/17 08:09	11/16/17 16:48	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		11/15/17 08:09	11/16/17 16:48	1
Cadmium	0.0021	J	0.0050	0.0020	mg/L		11/15/17 08:09	11/16/17 16:48	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137080-1

Client Sample ID: 2696V-66-B02 (0-5)

Lab Sample ID: 500-137080-2

Date Collected: 11/09/17 09:25

Matrix: Solid

Date Received: 11/10/17 08:00

Percent Solids: 82.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	420		5.0	0.50	mg/L		11/15/17 08:09	11/16/17 16:48	1
Chromium	<0.025		0.025	0.010	mg/L		11/15/17 08:09	11/16/17 16:48	1
Cobalt	<0.025		0.025	0.010	mg/L		11/15/17 08:09	11/16/17 16:48	1
Copper	<0.025		0.025	0.010	mg/L		11/15/17 08:09	11/16/17 16:48	1
Iron	<0.40		0.40	0.20	mg/L		11/15/17 08:09	11/16/17 16:48	1
Lead	<0.0075		0.0075	0.0075	mg/L		11/15/17 08:09	11/16/17 16:48	1
Magnesium	84		2.5	0.50	mg/L		11/15/17 08:09	11/16/17 16:48	1
Manganese	0.42		0.025	0.010	mg/L		11/15/17 08:09	11/16/17 16:48	1
Nickel	<0.025		0.025	0.010	mg/L		11/15/17 08:09	11/16/17 16:48	1
Potassium	1.3 J		2.5	0.50	mg/L		11/15/17 08:09	11/16/17 16:48	1
Selenium	<0.050		0.050	0.020	mg/L		11/15/17 08:09	11/16/17 16:48	1
Silver	<0.025		0.025	0.010	mg/L		11/15/17 08:09	11/16/17 16:48	1
Vanadium	<0.025		0.025	0.010	mg/L		11/15/17 08:09	11/16/17 16:48	1
Zinc	<0.50		0.50	0.020	mg/L		11/15/17 08:09	11/16/17 16:48	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		11/14/17 14:25	11/15/17 20:31	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		11/15/17 08:09	11/16/17 18:01	1
Thallium	<0.0020		0.0020	0.0020	mg/L		11/15/17 08:09	11/16/17 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		11/17/17 08:10	11/18/17 11:39	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.023		0.018	0.0058	mg/Kg	☼	11/17/17 10:45	11/18/17 13:35	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.45		0.45	0.16	mg/Kg	☼	11/21/17 11:00	11/21/17 14:12	1
pH	8.8		0.20	0.20	SU			11/18/17 12:54	1

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137080-1

Client Sample ID: 2696V-66-B02 (0-5) Dup

Lab Sample ID: 500-137080-3

Date Collected: 11/09/17 09:25

Matrix: Solid

Date Received: 11/10/17 08:00

Percent Solids: 84.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.016		0.016	0.0070	mg/Kg	☼	11/10/17 18:28	11/17/17 01:39	1
Benzene	<0.0016		0.0016	0.00041	mg/Kg	☼	11/10/17 18:28	11/17/17 01:39	1
Bromodichloromethane	<0.0016		0.0016	0.00033	mg/Kg	☼	11/10/17 18:28	11/17/17 01:39	1
Bromoform	<0.0016		0.0016	0.00047	mg/Kg	☼	11/10/17 18:28	11/17/17 01:39	1
Bromomethane	<0.0040		0.0040	0.0015	mg/Kg	☼	11/10/17 18:28	11/17/17 01:39	1
2-Butanone (MEK)	<0.0040		0.0040	0.0018	mg/Kg	☼	11/10/17 18:28	11/17/17 01:39	1
Carbon disulfide	<0.0040		0.0040	0.00084	mg/Kg	☼	11/10/17 18:28	11/17/17 01:39	1
Carbon tetrachloride	<0.0016		0.0016	0.00047	mg/Kg	☼	11/10/17 18:28	11/17/17 01:39	1
Chlorobenzene	<0.0016		0.0016	0.00059	mg/Kg	☼	11/10/17 18:28	11/17/17 01:39	1
Chloroethane	<0.0040		0.0040	0.0012	mg/Kg	☼	11/10/17 18:28	11/17/17 01:39	1
Chloroform	<0.0016		0.0016	0.00056	mg/Kg	☼	11/10/17 18:28	11/17/17 01:39	1
Chloromethane	<0.0040		0.0040	0.0016	mg/Kg	☼	11/10/17 18:28	11/17/17 01:39	1
cis-1,2-Dichloroethene	<0.0016		0.0016	0.00045	mg/Kg	☼	11/10/17 18:28	11/17/17 01:39	1
cis-1,3-Dichloropropene	<0.0016		0.0016	0.00048	mg/Kg	☼	11/10/17 18:28	11/17/17 01:39	1
Dibromochloromethane	<0.0016		0.0016	0.00053	mg/Kg	☼	11/10/17 18:28	11/17/17 01:39	1
1,1-Dichloroethane	<0.0016		0.0016	0.00055	mg/Kg	☼	11/10/17 18:28	11/17/17 01:39	1
1,2-Dichloroethane	<0.0040		0.0040	0.0013	mg/Kg	☼	11/10/17 18:28	11/17/17 01:39	1
1,1-Dichloroethene	<0.0016		0.0016	0.00055	mg/Kg	☼	11/10/17 18:28	11/17/17 01:39	1
1,2-Dichloropropane	<0.0016		0.0016	0.00042	mg/Kg	☼	11/10/17 18:28	11/17/17 01:39	1
1,3-Dichloropropane, Total	<0.0016		0.0016	0.00056	mg/Kg	☼	11/10/17 18:28	11/17/17 01:39	1
Ethylbenzene	<0.0016		0.0016	0.00077	mg/Kg	☼	11/10/17 18:28	11/17/17 01:39	1
2-Hexanone	<0.0040		0.0040	0.0013	mg/Kg	☼	11/10/17 18:28	11/17/17 01:39	1
Methylene Chloride	<0.0040		0.0040	0.0016	mg/Kg	☼	11/10/17 18:28	11/17/17 01:39	1
4-Methyl-2-pentanone (MIBK)	<0.0040		0.0040	0.0012	mg/Kg	☼	11/10/17 18:28	11/17/17 01:39	1
Methyl tert-butyl ether	<0.0016		0.0016	0.00047	mg/Kg	☼	11/10/17 18:28	11/17/17 01:39	1
Styrene	<0.0016		0.0016	0.00049	mg/Kg	☼	11/10/17 18:28	11/17/17 01:39	1
1,1,2,2-Tetrachloroethane	<0.0016		0.0016	0.00051	mg/Kg	☼	11/10/17 18:28	11/17/17 01:39	1
Tetrachloroethene	<0.0016		0.0016	0.00055	mg/Kg	☼	11/10/17 18:28	11/17/17 01:39	1
Toluene	<0.0016		0.0016	0.00041	mg/Kg	☼	11/10/17 18:28	11/17/17 01:39	1
trans-1,2-Dichloroethene	<0.0016		0.0016	0.00071	mg/Kg	☼	11/10/17 18:28	11/17/17 01:39	1
trans-1,3-Dichloropropene	<0.0016		0.0016	0.00056	mg/Kg	☼	11/10/17 18:28	11/17/17 01:39	1
1,1,1-Trichloroethane	<0.0016		0.0016	0.00054	mg/Kg	☼	11/10/17 18:28	11/17/17 01:39	1
1,1,2-Trichloroethane	<0.0016		0.0016	0.00069	mg/Kg	☼	11/10/17 18:28	11/17/17 01:39	1
Trichloroethene	<0.0016		0.0016	0.00054	mg/Kg	☼	11/10/17 18:28	11/17/17 01:39	1
Vinyl acetate	<0.0040		0.0040	0.0014	mg/Kg	☼	11/10/17 18:28	11/17/17 01:39	1
Vinyl chloride	<0.0016		0.0016	0.00071	mg/Kg	☼	11/10/17 18:28	11/17/17 01:39	1
Xylenes, Total	<0.0032		0.0032	0.00051	mg/Kg	☼	11/10/17 18:28	11/17/17 01:39	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	89		75 - 131	11/10/17 18:28	11/17/17 01:39	1
Dibromofluoromethane	99		75 - 126	11/10/17 18:28	11/17/17 01:39	1
1,2-Dichloroethane-d4 (Surr)	94		70 - 134	11/10/17 18:28	11/17/17 01:39	1
Toluene-d8 (Surr)	98		75 - 124	11/10/17 18:28	11/17/17 01:39	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.039		0.039	0.0070	mg/Kg	☼	11/16/17 20:28	11/17/17 15:51	1
Acenaphthylene	<0.039		0.039	0.0051	mg/Kg	☼	11/16/17 20:28	11/17/17 15:51	1
Anthracene	<0.039		0.039	0.0065	mg/Kg	☼	11/16/17 20:28	11/17/17 15:51	1
Benzo[a]anthracene	<0.039		0.039	0.0053	mg/Kg	☼	11/16/17 20:28	11/17/17 15:51	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137080-1

Client Sample ID: 2696V-66-B02 (0-5) Dup

Lab Sample ID: 500-137080-3

Date Collected: 11/09/17 09:25

Matrix: Solid

Date Received: 11/10/17 08:00

Percent Solids: 84.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	<0.039		0.039	0.0076	mg/Kg	☼	11/16/17 20:28	11/17/17 15:51	1
Benzo[b]fluoranthene	<0.039		0.039	0.0084	mg/Kg	☼	11/16/17 20:28	11/17/17 15:51	1
Benzo[g,h,i]perylene	<0.039		0.039	0.013	mg/Kg	☼	11/16/17 20:28	11/17/17 15:51	1
Benzo[k]fluoranthene	<0.039		0.039	0.012	mg/Kg	☼	11/16/17 20:28	11/17/17 15:51	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.040	mg/Kg	☼	11/16/17 20:28	11/17/17 15:51	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.059	mg/Kg	☼	11/16/17 20:28	11/17/17 15:51	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.071	mg/Kg	☼	11/16/17 20:28	11/17/17 15:51	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.051	mg/Kg	☼	11/16/17 20:28	11/17/17 15:51	1
Butyl benzyl phthalate	<0.20		0.20	0.074	mg/Kg	☼	11/16/17 20:28	11/17/17 15:51	1
Carbazole	<0.20		0.20	0.098	mg/Kg	☼	11/16/17 20:28	11/17/17 15:51	1
4-Chloroaniline	<0.79		0.79	0.18	mg/Kg	☼	11/16/17 20:28	11/17/17 15:51	1
4-Chloro-3-methylphenol	<0.39		0.39	0.13	mg/Kg	☼	11/16/17 20:28	11/17/17 15:51	1
2-Chloronaphthalene	<0.20		0.20	0.043	mg/Kg	☼	11/16/17 20:28	11/17/17 15:51	1
2-Chlorophenol	<0.20		0.20	0.067	mg/Kg	☼	11/16/17 20:28	11/17/17 15:51	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.046	mg/Kg	☼	11/16/17 20:28	11/17/17 15:51	1
Chrysene	<0.039		0.039	0.011	mg/Kg	☼	11/16/17 20:28	11/17/17 15:51	1
Dibenz(a,h)anthracene	<0.039		0.039	0.0075	mg/Kg	☼	11/16/17 20:28	11/17/17 15:51	1
Dibenzofuran	<0.20		0.20	0.046	mg/Kg	☼	11/16/17 20:28	11/17/17 15:51	1
1,2-Dichlorobenzene	<0.20		0.20	0.047	mg/Kg	☼	11/16/17 20:28	11/17/17 15:51	1
1,3-Dichlorobenzene	<0.20		0.20	0.044	mg/Kg	☼	11/16/17 20:28	11/17/17 15:51	1
1,4-Dichlorobenzene	<0.20		0.20	0.050	mg/Kg	☼	11/16/17 20:28	11/17/17 15:51	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.055	mg/Kg	☼	11/16/17 20:28	11/17/17 15:51	1
2,4-Dichlorophenol	<0.39		0.39	0.093	mg/Kg	☼	11/16/17 20:28	11/17/17 15:51	1
Diethyl phthalate	<0.20		0.20	0.066	mg/Kg	☼	11/16/17 20:28	11/17/17 15:51	1
2,4-Dimethylphenol	<0.39		0.39	0.15	mg/Kg	☼	11/16/17 20:28	11/17/17 15:51	1
Dimethyl phthalate	<0.20		0.20	0.051	mg/Kg	☼	11/16/17 20:28	11/17/17 15:51	1
Di-n-butyl phthalate	<0.20		0.20	0.059	mg/Kg	☼	11/16/17 20:28	11/17/17 15:51	1
4,6-Dinitro-2-methylphenol	<0.79		0.79	0.31	mg/Kg	☼	11/16/17 20:28	11/17/17 15:51	1
2,4-Dinitrophenol	<0.79	*	0.79	0.69	mg/Kg	☼	11/16/17 20:28	11/17/17 15:51	1
2,4-Dinitrotoluene	<0.20		0.20	0.062	mg/Kg	☼	11/16/17 20:28	11/17/17 15:51	1
2,6-Dinitrotoluene	<0.20		0.20	0.077	mg/Kg	☼	11/16/17 20:28	11/17/17 15:51	1
Di-n-octyl phthalate	<0.20		0.20	0.064	mg/Kg	☼	11/16/17 20:28	11/17/17 15:51	1
Fluoranthene	<0.039		0.039	0.0072	mg/Kg	☼	11/16/17 20:28	11/17/17 15:51	1
Fluorene	<0.039		0.039	0.0055	mg/Kg	☼	11/16/17 20:28	11/17/17 15:51	1
Hexachlorobenzene	<0.079		0.079	0.0090	mg/Kg	☼	11/16/17 20:28	11/17/17 15:51	1
Hexachlorobutadiene	<0.20		0.20	0.061	mg/Kg	☼	11/16/17 20:28	11/17/17 15:51	1
Hexachlorocyclopentadiene	<0.79		0.79	0.22	mg/Kg	☼	11/16/17 20:28	11/17/17 15:51	1
Hexachloroethane	<0.20		0.20	0.059	mg/Kg	☼	11/16/17 20:28	11/17/17 15:51	1
Indeno[1,2,3-cd]pyrene	<0.039		0.039	0.010	mg/Kg	☼	11/16/17 20:28	11/17/17 15:51	1
Isophorone	<0.20		0.20	0.044	mg/Kg	☼	11/16/17 20:28	11/17/17 15:51	1
2-Methylnaphthalene	<0.079		0.079	0.0072	mg/Kg	☼	11/16/17 20:28	11/17/17 15:51	1
2-Methylphenol	<0.20		0.20	0.063	mg/Kg	☼	11/16/17 20:28	11/17/17 15:51	1
3 & 4 Methylphenol	<0.20		0.20	0.065	mg/Kg	☼	11/16/17 20:28	11/17/17 15:51	1
Naphthalene	<0.039		0.039	0.0060	mg/Kg	☼	11/16/17 20:28	11/17/17 15:51	1
2-Nitroaniline	<0.20		0.20	0.053	mg/Kg	☼	11/16/17 20:28	11/17/17 15:51	1
3-Nitroaniline	<0.39		0.39	0.12	mg/Kg	☼	11/16/17 20:28	11/17/17 15:51	1
4-Nitroaniline	<0.39		0.39	0.16	mg/Kg	☼	11/16/17 20:28	11/17/17 15:51	1
Nitrobenzene	<0.039		0.039	0.0097	mg/Kg	☼	11/16/17 20:28	11/17/17 15:51	1
2-Nitrophenol	<0.39		0.39	0.092	mg/Kg	☼	11/16/17 20:28	11/17/17 15:51	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137080-1

Client Sample ID: 2696V-66-B02 (0-5) Dup

Lab Sample ID: 500-137080-3

Date Collected: 11/09/17 09:25

Matrix: Solid

Date Received: 11/10/17 08:00

Percent Solids: 84.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Nitrophenol	<0.79		0.79	0.37	mg/Kg	☼	11/16/17 20:28	11/17/17 15:51	1
N-Nitrosodi-n-propylamine	<0.079		0.079	0.048	mg/Kg	☼	11/16/17 20:28	11/17/17 15:51	1
N-Nitrosodiphenylamine	<0.20		0.20	0.046	mg/Kg	☼	11/16/17 20:28	11/17/17 15:51	1
2,2'-oxybis[1-chloropropane]	<0.20	*	0.20	0.045	mg/Kg	☼	11/16/17 20:28	11/17/17 15:51	1
Pentachlorophenol	<0.79		0.79	0.63	mg/Kg	☼	11/16/17 20:28	11/17/17 15:51	1
Phenanthrene	0.0063	J	0.039	0.0054	mg/Kg	☼	11/16/17 20:28	11/17/17 15:51	1
Phenol	<0.20		0.20	0.087	mg/Kg	☼	11/16/17 20:28	11/17/17 15:51	1
Pyrene	<0.039		0.039	0.0078	mg/Kg	☼	11/16/17 20:28	11/17/17 15:51	1
1,2,4-Trichlorobenzene	<0.20		0.20	0.042	mg/Kg	☼	11/16/17 20:28	11/17/17 15:51	1
2,4,5-Trichlorophenol	<0.39		0.39	0.089	mg/Kg	☼	11/16/17 20:28	11/17/17 15:51	1
2,4,6-Trichlorophenol	<0.39		0.39	0.13	mg/Kg	☼	11/16/17 20:28	11/17/17 15:51	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	89		44 - 121	11/16/17 20:28	11/17/17 15:51	1
2-Fluorophenol	91		46 - 133	11/16/17 20:28	11/17/17 15:51	1
Nitrobenzene-d5	78		41 - 120	11/16/17 20:28	11/17/17 15:51	1
Phenol-d5	78		46 - 125	11/16/17 20:28	11/17/17 15:51	1
Terphenyl-d14	82		35 - 160	11/16/17 20:28	11/17/17 15:51	1
2,4,6-Tribromophenol	96		25 - 139	11/16/17 20:28	11/17/17 15:51	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.45	J	1.1	0.22	mg/Kg	☼	11/10/17 17:37	11/11/17 18:42	1
Arsenic	8.0		0.56	0.19	mg/Kg	☼	11/10/17 17:37	11/11/17 18:42	1
Barium	57		0.56	0.064	mg/Kg	☼	11/10/17 17:37	11/11/17 18:42	1
Beryllium	0.74		0.23	0.053	mg/Kg	☼	11/10/17 17:37	11/11/17 18:42	1
Cadmium	0.19	B	0.11	0.020	mg/Kg	☼	11/10/17 17:37	11/11/17 18:42	1
Chromium	22		0.56	0.28	mg/Kg	☼	11/10/17 17:37	11/11/17 18:42	1
Cobalt	22		0.28	0.074	mg/Kg	☼	11/10/17 17:37	11/11/17 18:42	1
Copper	36		0.56	0.16	mg/Kg	☼	11/10/17 17:37	11/11/17 18:42	1
Iron	27000		11	5.9	mg/Kg	☼	11/10/17 17:37	11/11/17 18:42	1
Lead	27		0.28	0.13	mg/Kg	☼	11/10/17 17:37	11/11/17 18:42	1
Magnesium	15000		5.6	2.8	mg/Kg	☼	11/10/17 17:37	11/11/17 18:42	1
Calcium	30000	B	11	1.9	mg/Kg	☼	11/10/17 17:37	11/11/17 18:42	1
Manganese	1000		0.56	0.082	mg/Kg	☼	11/10/17 17:37	11/11/17 18:42	1
Nickel	64		0.56	0.16	mg/Kg	☼	11/10/17 17:37	11/11/17 18:42	1
Selenium	<0.56		0.56	0.33	mg/Kg	☼	11/10/17 17:37	11/11/17 18:42	1
Silver	<0.28		0.28	0.073	mg/Kg	☼	11/10/17 17:37	11/11/17 18:42	1
Thallium	0.46	J	0.56	0.28	mg/Kg	☼	11/10/17 17:37	11/11/17 18:42	1
Vanadium	22		0.28	0.066	mg/Kg	☼	11/10/17 17:37	11/11/17 18:42	1
Zinc	59		1.1	0.49	mg/Kg	☼	11/10/17 17:37	11/11/17 18:42	1
Potassium	2400		28	10	mg/Kg	☼	11/10/17 17:37	11/11/17 18:42	1
Sodium	1500		56	8.3	mg/Kg	☼	11/10/17 17:37	11/11/17 18:42	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.050		0.050	0.010	mg/L		11/15/17 08:09	11/16/17 16:52	1
Barium	0.43	J	0.50	0.050	mg/L		11/15/17 08:09	11/16/17 16:52	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		11/15/17 08:09	11/16/17 16:52	1
Cadmium	0.0024	J	0.0050	0.0020	mg/L		11/15/17 08:09	11/16/17 16:52	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137080-1

Client Sample ID: 2696V-66-B02 (0-5) Dup

Lab Sample ID: 500-137080-3

Date Collected: 11/09/17 09:25

Matrix: Solid

Date Received: 11/10/17 08:00

Percent Solids: 84.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	430		5.0	0.50	mg/L		11/15/17 08:09	11/16/17 16:52	1
Chromium	<0.025		0.025	0.010	mg/L		11/15/17 08:09	11/16/17 16:52	1
Cobalt	<0.025		0.025	0.010	mg/L		11/15/17 08:09	11/16/17 16:52	1
Copper	0.016	J	0.025	0.010	mg/L		11/15/17 08:09	11/16/17 16:52	1
Iron	<0.40		0.40	0.20	mg/L		11/15/17 08:09	11/16/17 16:52	1
Lead	<0.0075		0.0075	0.0075	mg/L		11/15/17 08:09	11/16/17 16:52	1
Magnesium	79		2.5	0.50	mg/L		11/15/17 08:09	11/16/17 16:52	1
Manganese	0.48		0.025	0.010	mg/L		11/15/17 08:09	11/16/17 16:52	1
Nickel	<0.025		0.025	0.010	mg/L		11/15/17 08:09	11/16/17 16:52	1
Potassium	1.3	J	2.5	0.50	mg/L		11/15/17 08:09	11/16/17 16:52	1
Selenium	<0.050		0.050	0.020	mg/L		11/15/17 08:09	11/16/17 16:52	1
Silver	<0.025		0.025	0.010	mg/L		11/15/17 08:09	11/16/17 16:52	1
Vanadium	<0.025		0.025	0.010	mg/L		11/15/17 08:09	11/16/17 16:52	1
Zinc	0.021	J ^	0.50	0.020	mg/L		11/15/17 08:09	11/16/17 16:52	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		11/14/17 14:25	11/15/17 20:43	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		11/15/17 08:09	11/16/17 18:05	1
Thallium	<0.0020		0.0020	0.0020	mg/L		11/15/17 08:09	11/16/17 18:05	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		11/17/17 08:10	11/18/17 11:41	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.028		0.018	0.0060	mg/Kg	☼	11/17/17 10:45	11/18/17 13:38	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.56		0.56	0.19	mg/Kg	☼	11/21/17 11:00	11/21/17 14:13	1
pH	8.5		0.20	0.20	SU			11/18/17 12:56	1

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137080-1

Client Sample ID: 2696V-66-B03 (0-5)

Lab Sample ID: 500-137080-4

Date Collected: 11/09/17 09:15

Matrix: Solid

Date Received: 11/10/17 08:00

Percent Solids: 84.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.016		0.016	0.0070	mg/Kg	☼	11/10/17 18:28	11/17/17 02:05	1
Benzene	<0.0016		0.0016	0.00041	mg/Kg	☼	11/10/17 18:28	11/17/17 02:05	1
Bromodichloromethane	<0.0016		0.0016	0.00033	mg/Kg	☼	11/10/17 18:28	11/17/17 02:05	1
Bromoform	<0.0016		0.0016	0.00047	mg/Kg	☼	11/10/17 18:28	11/17/17 02:05	1
Bromomethane	<0.0040		0.0040	0.0015	mg/Kg	☼	11/10/17 18:28	11/17/17 02:05	1
2-Butanone (MEK)	<0.0040		0.0040	0.0018	mg/Kg	☼	11/10/17 18:28	11/17/17 02:05	1
Carbon disulfide	<0.0040		0.0040	0.00084	mg/Kg	☼	11/10/17 18:28	11/17/17 02:05	1
Carbon tetrachloride	<0.0016		0.0016	0.00047	mg/Kg	☼	11/10/17 18:28	11/17/17 02:05	1
Chlorobenzene	<0.0016		0.0016	0.00060	mg/Kg	☼	11/10/17 18:28	11/17/17 02:05	1
Chloroethane	<0.0040		0.0040	0.0012	mg/Kg	☼	11/10/17 18:28	11/17/17 02:05	1
Chloroform	<0.0016		0.0016	0.00056	mg/Kg	☼	11/10/17 18:28	11/17/17 02:05	1
Chloromethane	<0.0040		0.0040	0.0016	mg/Kg	☼	11/10/17 18:28	11/17/17 02:05	1
cis-1,2-Dichloroethene	<0.0016		0.0016	0.00045	mg/Kg	☼	11/10/17 18:28	11/17/17 02:05	1
cis-1,3-Dichloropropene	<0.0016		0.0016	0.00049	mg/Kg	☼	11/10/17 18:28	11/17/17 02:05	1
Dibromochloromethane	<0.0016		0.0016	0.00053	mg/Kg	☼	11/10/17 18:28	11/17/17 02:05	1
1,1-Dichloroethane	<0.0016		0.0016	0.00055	mg/Kg	☼	11/10/17 18:28	11/17/17 02:05	1
1,2-Dichloroethane	<0.0040		0.0040	0.0013	mg/Kg	☼	11/10/17 18:28	11/17/17 02:05	1
1,1-Dichloroethene	<0.0016		0.0016	0.00056	mg/Kg	☼	11/10/17 18:28	11/17/17 02:05	1
1,2-Dichloropropane	<0.0016		0.0016	0.00042	mg/Kg	☼	11/10/17 18:28	11/17/17 02:05	1
1,3-Dichloropropane, Total	<0.0016		0.0016	0.00057	mg/Kg	☼	11/10/17 18:28	11/17/17 02:05	1
Ethylbenzene	<0.0016		0.0016	0.00077	mg/Kg	☼	11/10/17 18:28	11/17/17 02:05	1
2-Hexanone	<0.0040		0.0040	0.0013	mg/Kg	☼	11/10/17 18:28	11/17/17 02:05	1
Methylene Chloride	<0.0040		0.0040	0.0016	mg/Kg	☼	11/10/17 18:28	11/17/17 02:05	1
4-Methyl-2-pentanone (MIBK)	<0.0040		0.0040	0.0012	mg/Kg	☼	11/10/17 18:28	11/17/17 02:05	1
Methyl tert-butyl ether	<0.0016		0.0016	0.00047	mg/Kg	☼	11/10/17 18:28	11/17/17 02:05	1
Styrene	<0.0016		0.0016	0.00049	mg/Kg	☼	11/10/17 18:28	11/17/17 02:05	1
1,1,2,2-Tetrachloroethane	<0.0016		0.0016	0.00052	mg/Kg	☼	11/10/17 18:28	11/17/17 02:05	1
Tetrachloroethene	<0.0016		0.0016	0.00055	mg/Kg	☼	11/10/17 18:28	11/17/17 02:05	1
Toluene	<0.0016		0.0016	0.00041	mg/Kg	☼	11/10/17 18:28	11/17/17 02:05	1
trans-1,2-Dichloroethene	<0.0016		0.0016	0.00072	mg/Kg	☼	11/10/17 18:28	11/17/17 02:05	1
trans-1,3-Dichloropropene	<0.0016		0.0016	0.00057	mg/Kg	☼	11/10/17 18:28	11/17/17 02:05	1
1,1,1-Trichloroethane	<0.0016		0.0016	0.00054	mg/Kg	☼	11/10/17 18:28	11/17/17 02:05	1
1,1,2-Trichloroethane	<0.0016		0.0016	0.00069	mg/Kg	☼	11/10/17 18:28	11/17/17 02:05	1
Trichloroethene	<0.0016		0.0016	0.00055	mg/Kg	☼	11/10/17 18:28	11/17/17 02:05	1
Vinyl acetate	<0.0040		0.0040	0.0014	mg/Kg	☼	11/10/17 18:28	11/17/17 02:05	1
Vinyl chloride	<0.0016		0.0016	0.00071	mg/Kg	☼	11/10/17 18:28	11/17/17 02:05	1
Xylenes, Total	<0.0032		0.0032	0.00052	mg/Kg	☼	11/10/17 18:28	11/17/17 02:05	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	89		75 - 131	11/10/17 18:28	11/17/17 02:05	1
Dibromofluoromethane	99		75 - 126	11/10/17 18:28	11/17/17 02:05	1
1,2-Dichloroethane-d4 (Surr)	96		70 - 134	11/10/17 18:28	11/17/17 02:05	1
Toluene-d8 (Surr)	95		75 - 124	11/10/17 18:28	11/17/17 02:05	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.038		0.038	0.0068	mg/Kg	☼	11/16/17 20:28	11/17/17 19:26	1
Acenaphthylene	<0.038		0.038	0.0050	mg/Kg	☼	11/16/17 20:28	11/17/17 19:26	1
Anthracene	<0.038		0.038	0.0063	mg/Kg	☼	11/16/17 20:28	11/17/17 19:26	1
Benzo[a]anthracene	0.0088	J	0.038	0.0051	mg/Kg	☼	11/16/17 20:28	11/17/17 19:26	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137080-1

Client Sample ID: 2696V-66-B03 (0-5)

Lab Sample ID: 500-137080-4

Date Collected: 11/09/17 09:15

Matrix: Solid

Date Received: 11/10/17 08:00

Percent Solids: 84.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	0.013	J	0.038	0.0073	mg/Kg	☼	11/16/17 20:28	11/17/17 19:26	1
Benzo[b]fluoranthene	0.026	J	0.038	0.0082	mg/Kg	☼	11/16/17 20:28	11/17/17 19:26	1
Benzo[g,h,i]perylene	0.016	J	0.038	0.012	mg/Kg	☼	11/16/17 20:28	11/17/17 19:26	1
Benzo[k]fluoranthene	<0.038		0.038	0.011	mg/Kg	☼	11/16/17 20:28	11/17/17 19:26	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.039	mg/Kg	☼	11/16/17 20:28	11/17/17 19:26	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.057	mg/Kg	☼	11/16/17 20:28	11/17/17 19:26	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.069	mg/Kg	☼	11/16/17 20:28	11/17/17 19:26	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.050	mg/Kg	☼	11/16/17 20:28	11/17/17 19:26	1
Butyl benzyl phthalate	<0.19		0.19	0.072	mg/Kg	☼	11/16/17 20:28	11/17/17 19:26	1
Carbazole	<0.19		0.19	0.095	mg/Kg	☼	11/16/17 20:28	11/17/17 19:26	1
4-Chloroaniline	<0.76		0.76	0.18	mg/Kg	☼	11/16/17 20:28	11/17/17 19:26	1
4-Chloro-3-methylphenol	<0.38		0.38	0.13	mg/Kg	☼	11/16/17 20:28	11/17/17 19:26	1
2-Chloronaphthalene	<0.19		0.19	0.042	mg/Kg	☼	11/16/17 20:28	11/17/17 19:26	1
2-Chlorophenol	<0.19		0.19	0.065	mg/Kg	☼	11/16/17 20:28	11/17/17 19:26	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.044	mg/Kg	☼	11/16/17 20:28	11/17/17 19:26	1
Chrysene	0.023	J	0.038	0.010	mg/Kg	☼	11/16/17 20:28	11/17/17 19:26	1
Dibenz(a,h)anthracene	<0.038		0.038	0.0073	mg/Kg	☼	11/16/17 20:28	11/17/17 19:26	1
Dibenzofuran	<0.19		0.19	0.044	mg/Kg	☼	11/16/17 20:28	11/17/17 19:26	1
1,2-Dichlorobenzene	<0.19		0.19	0.045	mg/Kg	☼	11/16/17 20:28	11/17/17 19:26	1
1,3-Dichlorobenzene	<0.19		0.19	0.043	mg/Kg	☼	11/16/17 20:28	11/17/17 19:26	1
1,4-Dichlorobenzene	<0.19		0.19	0.049	mg/Kg	☼	11/16/17 20:28	11/17/17 19:26	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.053	mg/Kg	☼	11/16/17 20:28	11/17/17 19:26	1
2,4-Dichlorophenol	<0.38		0.38	0.090	mg/Kg	☼	11/16/17 20:28	11/17/17 19:26	1
Diethyl phthalate	<0.19		0.19	0.064	mg/Kg	☼	11/16/17 20:28	11/17/17 19:26	1
2,4-Dimethylphenol	<0.38		0.38	0.14	mg/Kg	☼	11/16/17 20:28	11/17/17 19:26	1
Dimethyl phthalate	<0.19		0.19	0.050	mg/Kg	☼	11/16/17 20:28	11/17/17 19:26	1
Di-n-butyl phthalate	<0.19		0.19	0.058	mg/Kg	☼	11/16/17 20:28	11/17/17 19:26	1
4,6-Dinitro-2-methylphenol	<0.76		0.76	0.30	mg/Kg	☼	11/16/17 20:28	11/17/17 19:26	1
2,4-Dinitrophenol	<0.76	*	0.76	0.67	mg/Kg	☼	11/16/17 20:28	11/17/17 19:26	1
2,4-Dinitrotoluene	<0.19		0.19	0.060	mg/Kg	☼	11/16/17 20:28	11/17/17 19:26	1
2,6-Dinitrotoluene	<0.19		0.19	0.075	mg/Kg	☼	11/16/17 20:28	11/17/17 19:26	1
Di-n-octyl phthalate	<0.19		0.19	0.062	mg/Kg	☼	11/16/17 20:28	11/17/17 19:26	1
Fluoranthene	0.014	J	0.038	0.0070	mg/Kg	☼	11/16/17 20:28	11/17/17 19:26	1
Fluorene	<0.038		0.038	0.0053	mg/Kg	☼	11/16/17 20:28	11/17/17 19:26	1
Hexachlorobenzene	<0.076		0.076	0.0088	mg/Kg	☼	11/16/17 20:28	11/17/17 19:26	1
Hexachlorobutadiene	<0.19		0.19	0.060	mg/Kg	☼	11/16/17 20:28	11/17/17 19:26	1
Hexachlorocyclopentadiene	<0.76		0.76	0.22	mg/Kg	☼	11/16/17 20:28	11/17/17 19:26	1
Hexachloroethane	<0.19		0.19	0.058	mg/Kg	☼	11/16/17 20:28	11/17/17 19:26	1
Indeno[1,2,3-cd]pyrene	<0.038		0.038	0.0098	mg/Kg	☼	11/16/17 20:28	11/17/17 19:26	1
Isophorone	<0.19		0.19	0.043	mg/Kg	☼	11/16/17 20:28	11/17/17 19:26	1
2-Methylnaphthalene	0.013	J	0.076	0.0070	mg/Kg	☼	11/16/17 20:28	11/17/17 19:26	1
2-Methylphenol	<0.19		0.19	0.061	mg/Kg	☼	11/16/17 20:28	11/17/17 19:26	1
3 & 4 Methylphenol	<0.19		0.19	0.063	mg/Kg	☼	11/16/17 20:28	11/17/17 19:26	1
Naphthalene	<0.038		0.038	0.0058	mg/Kg	☼	11/16/17 20:28	11/17/17 19:26	1
2-Nitroaniline	<0.19		0.19	0.051	mg/Kg	☼	11/16/17 20:28	11/17/17 19:26	1
3-Nitroaniline	<0.38		0.38	0.12	mg/Kg	☼	11/16/17 20:28	11/17/17 19:26	1
4-Nitroaniline	<0.38		0.38	0.16	mg/Kg	☼	11/16/17 20:28	11/17/17 19:26	1
Nitrobenzene	<0.038		0.038	0.0095	mg/Kg	☼	11/16/17 20:28	11/17/17 19:26	1
2-Nitrophenol	<0.38		0.38	0.090	mg/Kg	☼	11/16/17 20:28	11/17/17 19:26	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137080-1

Client Sample ID: 2696V-66-B03 (0-5)

Lab Sample ID: 500-137080-4

Date Collected: 11/09/17 09:15

Matrix: Solid

Date Received: 11/10/17 08:00

Percent Solids: 84.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Nitrophenol	<0.76		0.76	0.36	mg/Kg	☼	11/16/17 20:28	11/17/17 19:26	1
N-Nitrosodi-n-propylamine	<0.076		0.076	0.046	mg/Kg	☼	11/16/17 20:28	11/17/17 19:26	1
N-Nitrosodiphenylamine	<0.19		0.19	0.045	mg/Kg	☼	11/16/17 20:28	11/17/17 19:26	1
2,2'-oxybis[1-chloropropane]	<0.19	*	0.19	0.044	mg/Kg	☼	11/16/17 20:28	11/17/17 19:26	1
Pentachlorophenol	<0.76		0.76	0.61	mg/Kg	☼	11/16/17 20:28	11/17/17 19:26	1
Phenanthrene	0.021	J	0.038	0.0053	mg/Kg	☼	11/16/17 20:28	11/17/17 19:26	1
Phenol	<0.19		0.19	0.084	mg/Kg	☼	11/16/17 20:28	11/17/17 19:26	1
Pyrene	0.023	J	0.038	0.0075	mg/Kg	☼	11/16/17 20:28	11/17/17 19:26	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.041	mg/Kg	☼	11/16/17 20:28	11/17/17 19:26	1
2,4,5-Trichlorophenol	<0.38		0.38	0.087	mg/Kg	☼	11/16/17 20:28	11/17/17 19:26	1
2,4,6-Trichlorophenol	<0.38		0.38	0.13	mg/Kg	☼	11/16/17 20:28	11/17/17 19:26	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	95		44 - 121	11/16/17 20:28	11/17/17 19:26	1
2-Fluorophenol	96		46 - 133	11/16/17 20:28	11/17/17 19:26	1
Nitrobenzene-d5	84		41 - 120	11/16/17 20:28	11/17/17 19:26	1
Phenol-d5	81		46 - 125	11/16/17 20:28	11/17/17 19:26	1
Terphenyl-d14	112		35 - 160	11/16/17 20:28	11/17/17 19:26	1
2,4,6-Tribromophenol	102		25 - 139	11/16/17 20:28	11/17/17 19:26	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.22	J	1.1	0.22	mg/Kg	☼	11/10/17 17:37	11/11/17 18:46	1
Arsenic	9.8		0.56	0.19	mg/Kg	☼	11/10/17 17:37	11/11/17 18:46	1
Barium	39		0.56	0.064	mg/Kg	☼	11/10/17 17:37	11/11/17 18:46	1
Beryllium	0.53		0.22	0.052	mg/Kg	☼	11/10/17 17:37	11/11/17 18:46	1
Cadmium	0.21	B	0.11	0.020	mg/Kg	☼	11/10/17 17:37	11/11/17 18:46	1
Chromium	21		0.56	0.28	mg/Kg	☼	11/10/17 17:37	11/11/17 18:46	1
Cobalt	12		0.28	0.073	mg/Kg	☼	11/10/17 17:37	11/11/17 18:46	1
Copper	29		0.56	0.16	mg/Kg	☼	11/10/17 17:37	11/11/17 18:46	1
Iron	26000		11	5.8	mg/Kg	☼	11/10/17 17:37	11/11/17 18:46	1
Lead	36		0.28	0.13	mg/Kg	☼	11/10/17 17:37	11/11/17 18:46	1
Magnesium	22000		5.6	2.8	mg/Kg	☼	11/10/17 17:37	11/11/17 18:46	1
Calcium	51000	B	110	19	mg/Kg	☼	11/10/17 17:37	11/13/17 13:07	10
Manganese	480		0.56	0.081	mg/Kg	☼	11/10/17 17:37	11/11/17 18:46	1
Nickel	38		0.56	0.16	mg/Kg	☼	11/10/17 17:37	11/11/17 18:46	1
Selenium	0.33	J	0.56	0.33	mg/Kg	☼	11/10/17 17:37	11/11/17 18:46	1
Silver	<0.28		0.28	0.072	mg/Kg	☼	11/10/17 17:37	11/11/17 18:46	1
Thallium	<0.56		0.56	0.28	mg/Kg	☼	11/10/17 17:37	11/11/17 18:46	1
Vanadium	16		0.28	0.066	mg/Kg	☼	11/10/17 17:37	11/11/17 18:46	1
Zinc	59		1.1	0.49	mg/Kg	☼	11/10/17 17:37	11/11/17 18:46	1
Potassium	1400		28	9.9	mg/Kg	☼	11/10/17 17:37	11/11/17 18:46	1
Sodium	140		56	8.3	mg/Kg	☼	11/10/17 17:37	11/11/17 18:46	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.050		0.050	0.010	mg/L		11/15/17 08:09	11/16/17 16:56	1
Barium	0.34	J	0.50	0.050	mg/L		11/15/17 08:09	11/16/17 16:56	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		11/15/17 08:09	11/16/17 16:56	1
Cadmium	0.0022	J	0.0050	0.0020	mg/L		11/15/17 08:09	11/16/17 16:56	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137080-1

Client Sample ID: 2696V-66-B03 (0-5)

Lab Sample ID: 500-137080-4

Date Collected: 11/09/17 09:15

Matrix: Solid

Date Received: 11/10/17 08:00

Percent Solids: 84.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	430		5.0	0.50	mg/L		11/15/17 08:09	11/16/17 16:56	1
Chromium	<0.025		0.025	0.010	mg/L		11/15/17 08:09	11/16/17 16:56	1
Cobalt	<0.025		0.025	0.010	mg/L		11/15/17 08:09	11/16/17 16:56	1
Copper	0.012	J	0.025	0.010	mg/L		11/15/17 08:09	11/16/17 16:56	1
Iron	<0.40		0.40	0.20	mg/L		11/15/17 08:09	11/16/17 16:56	1
Lead	<0.0075		0.0075	0.0075	mg/L		11/15/17 08:09	11/16/17 16:56	1
Magnesium	78		2.5	0.50	mg/L		11/15/17 08:09	11/16/17 16:56	1
Manganese	0.57		0.025	0.010	mg/L		11/15/17 08:09	11/16/17 16:56	1
Nickel	<0.025		0.025	0.010	mg/L		11/15/17 08:09	11/16/17 16:56	1
Potassium	1.6	J	2.5	0.50	mg/L		11/15/17 08:09	11/16/17 16:56	1
Selenium	<0.050		0.050	0.020	mg/L		11/15/17 08:09	11/16/17 16:56	1
Silver	<0.025		0.025	0.010	mg/L		11/15/17 08:09	11/16/17 16:56	1
Vanadium	<0.025		0.025	0.010	mg/L		11/15/17 08:09	11/16/17 16:56	1
Zinc	<0.50		0.50	0.020	mg/L		11/15/17 08:09	11/16/17 16:56	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.15		0.025	0.010	mg/L		11/14/17 14:25	11/15/17 20:47	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		11/15/17 08:09	11/16/17 18:08	1
Thallium	<0.0020		0.0020	0.0020	mg/L		11/15/17 08:09	11/16/17 18:08	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		11/17/17 08:10	11/18/17 11:42	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.020		0.020	0.0066	mg/Kg	☼	11/17/17 10:45	11/18/17 13:40	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.53		0.53	0.18	mg/Kg	☼	11/21/17 11:00	11/21/17 14:13	1
pH	8.5		0.20	0.20	SU			11/18/17 12:58	1

Definitions/Glossary

Client: Terracon Consulting Eng & Scientists
Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137080-1

Qualifiers

GC/MS Semi VOA

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

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.
F2	MS/MSD RPD exceeds control limits
^	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC is outside acceptance limits.
F5	Duplicate RPD exceeds limit, and one or both sample results are less than 5 times RL. The data are considered valid because the absolute difference is less than the RL.
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.

General Chemistry

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.

Glossary

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

Accreditation/Certification Summary

Client: Terracon Consulting Eng & Scientists
Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137080-1

Laboratory: TestAmerica Chicago

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

Authority	Program	EPA Region	Identification Number	Expiration Date
Illinois	NELAP	5	100201	04-30-18

The following analytes are included in this report, but accreditation/certification is not offered by the governing authority:

Analysis Method	Prep Method	Matrix	Analyte
6020A	3010A	Solid	Antimony
6020A	3010A	Solid	Thallium
8260B	5035	Solid	1,3-Dichloropropene, Total
9045D		Solid	pH
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids

Report To: (optional) MATT WEISS
Contact: _____
Company: TERRA CON
Address: _____
Address: NAPERVILLE IL
Phone: _____
Fax: _____
E-Mail: _____

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

Chain of Custody Record

Lab Job #: 500-137080

Chain of Custody Number: _____

Page _____ of _____ (40)(2.0)(1.9)

Temperature °C of Cooler: (3.7)(2.9)(3.2)



Client: <u>TERRA CON</u>		Client Project # <u>11177029M</u>		Preservative											
Project Name <u>WORK ORDER #37</u>		Project Location/State <u>MARKHAM IL</u>		Parameter											
Sampler <u>KYAN J PETERSON</u>		Lab Project #		Lab PM											
Lab ID	MS/MSD	Sample ID	Sampling		# of Containers	Matrix									
			Date	Time											
1		<u>Z696V-66-B01 (0-5)</u>	<u>11/9</u>	<u>940</u>	<u>5</u>	<u>5</u>	<u>VOCs</u>	<u>S/VOCs</u>	<u>TOTAL 23</u>	<u>TCUP 23</u>	<u>SPLP 23</u>	<u>Iuvy</u>	<u>Iuvy</u>	<u>PH</u>	
2		<u>Z696V-66-B02 (0-5)</u>		<u>925</u>	<u>1</u>	<u>1</u>									
3		<u>Z696V-66-B02 (0-5) DUP</u>		<u>925</u>	<u>1</u>	<u>1</u>									
4		<u>Z696V-66-B03 (0-5)</u>		<u>915</u>	<u>1</u>	<u>1</u>									

- Preservative Key
1. HCL, Cool to 4°
 2. H2SO4, Cool to 4°
 3. HNO3, Cool to 4°
 4. NaOH, Cool to 4°
 5. NaOH/Zn, Cool to 4°
 6. NaHSO4
 7. Cool to 4°
 8. None
 9. Other

Turnaround Time Required (Business Days)

1 Day 2 Days 5 Days 7 Days 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)

Requisitioned By: <u>[Signature]</u> Company: <u>TERRA CON</u> Date: <u>11/9/17</u> Time: <u>1630</u>	Received By: <u>A. Neal</u> Company: <u>TA</u> Date: <u>11/9/17</u> Time: <u>1630</u>
Requisitioned By: <u>A. Neal</u> Company: <u>TA</u> Date: <u>11/9/17</u> Time: <u>1700</u>	Received By: <u>[Signature]</u> Company: <u>TA</u> Date: <u>11/10/17</u> Time: <u>0800</u>

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

Hold SPLP

Lab Comments:

Login Sample Receipt Checklist

Client: Terracon Consulting Eng & Scientists

Job Number: 500-137080-1

Login Number: 137080

List Source: TestAmerica Chicago

List Number: 1

Creator: Kelsey, Shawn M

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	(4.0)(2.0)(1.9)(3.7)(2.9)(3.2)c
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	





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 351-US Rte 6 at Pulaski/Crawford & Kedzie Office Phone Number, if available: _____

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

Crawford Ave (Northbound) IDOT STA 53+19 to 56+10 (ISGS Site 2696V-67)

City: Oak Forest/Markham State: IL Zip Code: 60428

County: Cook Township: Bremen

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

Latitude: 41.60367 Longitude: -87.71682
(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: 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 Phone: 847-705-4122

Zip Code: 60196 Phone: 847-705-4122

Contact: Paul Nickles

Contact: Paul Nickles

Email, if available: paul.nickles@illinois.gov

Email, if available: paul.nickles@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 351-US Rte 6 at Pulaski/Crawford & Kedzie

Latitude: 41.60367 Longitude: -87.71682

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)];

Soil from borings B01 and B02 were sampled adjacent to ISGS Site No 2696V-67.
See Exhibits 4, 4B, and Table 94 of the Preliminary Site Investigation Report prepared by Terracon.

- 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]:

TestAmerica Lab Report No J137080-2
Also see Preliminary Site Investigation Report prepared by Terracon. CCDD/USFO facility in MSA County.

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

I, Matt Weiss (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.

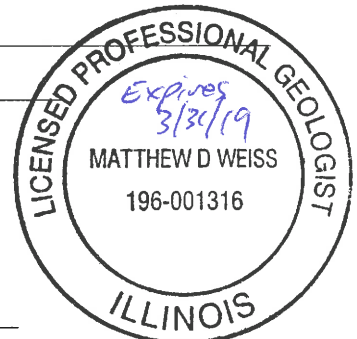
Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))

Company Name: Terracon Consultants, Inc
 Street Address: 135 Ambassador Drive
 City: Naperville State: IL Zip Code: 60540
 Phone: 630-717-4263

Matt Weiss
 Printed Name:

[Signature]
 Licensed Professional Engineer or
 Licensed Professional Geologist Signature:

7/24/18
 Date:



Detected Constituents to MACs-PTB 174-009;Work Order:037A
Preliminary Site Investigation
FAP 351-US Rte 6 at S. Pulaski/Crawford + Kedzie (PESA #2696V-67)
Oak Forest/Markham, Cook County, IL
Terracon Project No. 11177029M
Page 1 of 4

Analyte	Units	Background		Maximum Allowed Concentration	Sample Identification	2696V-67-B01 (0-5)	2696V-67-B01 (5-7)
				CCDD	Sample Depth (feet)	(0-5)	(5-7)
		Chicago	MSAs	mg/kg pH 6.25-9.0	Date Collected	11/09/2017	11/09/2017
Volatile Organic Analytical Parameters							
Acetone	mg/kg	---	---	25		<0.019	<0.017
Semivolatile Organic Analytical Parameters							
Acenaphthene	mg/kg	0.09	0.13	570		<0.040	<0.039
Acenaphthylene	mg/kg	0.03	0.07	85		<0.040	<0.039
Anthracene	mg/kg	0.25	0.4	12000		<0.040	<0.039
Benzo(a)anthracene	mg/kg	1.1	1.8	0.9		<0.040	<0.039
Benzo(a)pyrene	mg/kg	1.3	2.1	0.09		<0.040	<0.039
Benzo(b)fluoranthene	mg/kg	1.5	2.1	0.9		<0.040	<0.039
Benzo(g,h,i)perylene	mg/kg	0.68	1.7	2300		<0.040	<0.039
Benzo(k)fluoranthene	mg/kg	0.99	1.7	9		<0.040	<0.039
Chrysene	mg/kg	1.2	2.7	88		<0.040	<0.039
Dibenzo(a,h)anthracene	mg/kg	0.2	0.42	0.09		<0.040	<0.039
Fluoranthene	mg/kg	2.7	4.1	3100		<0.040	<0.039
Fluorene	mg/kg	0.1	0.18	560		<0.040	<0.039
Indeno(1,2,3-c,d)pyrene	mg/kg	0.86	1.6	0.9		<0.040	<0.039
Naphthalene	mg/kg	0.04	0.2	1.8		<0.040	<0.039
Phenanthrene	mg/kg	1.3	2.5	210		<0.040	<0.039
Pyrene	mg/kg	1.9	3.0	2300		<0.040	<0.039
2-Methylnaphthalene	mg/kg	---	0.14	---		<0.082	<0.079
Inorganic Analytical Parameters							
Arsenic	mg/kg	---	13	11.3		2.7	10
Barium	mg/kg	---	110	1500		31	43
Cadmium	mg/kg	---	0.6	5.2		0.12	0.11
Chromium, total	mg/kg	---	16.2	21		4.3	16
Lead	mg/kg	---	36	107		6.6	15
Mercury	mg/kg	---	0.06	0.1		<0.020	0.023
Selenium	mg/kg	---	0.48	1.3		0.59	<0.59
Silver	mg/kg	---	0.55	4.4		<0.30	<0.30
Antimony	mg/kg	---	4.0	5		<1.2	<1.2
Beryllium	mg/kg	---	0.59	22		0.17	0.56
Calcium	mg/kg	---	9,300	---		1800	1600
Cobalt	mg/kg	---	8.9	20		2.1	10
Copper	mg/kg	---	19.6	2900		7	18
Cyanide	mg/kg	---	0.51	---		<0.61	<0.58
Iron	mg/kg	---	15,900	15000		5000	23000
Magnesium	mg/kg	---	4,820	325000		710	2500
Manganese	mg/kg	---	636	630		88	410
Nickel	mg/kg	---	18	100		7	30
Potassium	mg/kg	---	1,268	---		360	1100
Sodium	mg/kg	---	130	---		180	160
Thallium	mg/kg	---	0.32	2.6		<0.60	<0.59
Vanadium	mg/kg	---	25.2	550		7.7	21
Zinc	mg/kg	---	95	5100		21	71
pH			6.25	9		8.4	8

Detected Constituents to MACs-PTB 174-009;Work Order:037A
Preliminary Site Investigation
FAP 351-US Rte 6 at S. Pulaski/Crawford + Kedzie (PESA #2696V-67)
Oak Forest/Markham, Cook County, IL
Terracon Project No. 11177029M
Page 2 of 4

Analyte	Units	Background		Maximum Allowed Concentration	Sample Identification	2696V-67-B01 (0-5)	2696V-67-B01 (5-7)
				CCDD	Sample Depth (feet)	(0-5)	(5-7)
		Chicago	MSAs	mg/kg pH 6.25-9.0	Date Collected	11/09/2017	11/09/2017
Inorganic Analytical Parameters (SPLP)							
Antimony,SPLP	mg/L	---	---	---		--	--
Arsenic,SPLP	mg/L	---	---	---		--	--
Barium,SPLP	mg/L	---	---	---		--	--
Beryllium,SPLP	mg/L	---	---	---		--	--
Cadmium,SPLP	mg/L	---	---	---		--	--
Calcium,SPLP	mg/L	---	---	---		--	--
Chromium,SPLP	mg/L	---	---	---		--	--
Cobalt,SPLP	mg/L	---	---	---		--	--
Copper,SPLP	mg/L	---	---	---		--	--
Iron,SPLP	mg/L	---	---	---		--	--
Lead,SPLP	mg/L	---	---	---		--	--
Magnesium,SPLP	mg/L	---	---	---		--	--
Manganese,SPLP	mg/L	---	---	---		--	0.039
Mercury,SPLP	mg/L	---	---	---		--	--
Nickel,SPLP	mg/L	---	---	---		--	--
Potassium,SPLP	mg/L	---	---	---		--	--
Selenium,SPLP	mg/L	---	---	---		--	--
Silver,SPLP	mg/L	---	---	---		--	--
Sodium,SPLP	mg/L	---	---	---		--	--
Thallium,SPLP	mg/L	---	---	---		--	--
Vanadium,SPLP	mg/L	---	---	---		--	--
Zinc,SPLP	mg/L	---	---	---		--	--
Cyanide,SPLP	mg/L	---	---	---		--	--
Inorganic Analytical Parameters (TCLP)							
Arsenic,TCLP	mg/L	---	---	---		<0.050	<0.050
Barium,TCLP	mg/L	---	---	---		0.14	0.11
Cadmium,TCLP	mg/L	---	---	---		<0.0050	<0.0050
Chromium,TCLP	mg/L	---	---	---		<0.025	<0.025
Lead,TCLP	mg/L	---	---	---		<0.0075	<0.0075
Mercury,TCLP	mg/L	---	---	---		<0.00020	<0.00020
Selenium,TCLP	mg/L	---	---	---		<0.050	<0.050
Silver,TCLP	mg/L	---	---	---		<0.025	<0.025
Antimony,TCLP	mg/L	---	---	---		<0.0060	<0.0060
Beryllium,TCLP	mg/L	---	---	---		<0.0040	<0.0040
Calcium,TCLP	mg/L	---	---	---		41	36
Cobalt,TCLP	mg/L	---	---	---		<0.025	<0.025
Copper,TCLP	mg/L	---	---	---		<0.025	0.01
Cyanide,TCLP	mg/L	---	---	---		----	----
Iron,TCLP	mg/L	---	---	---		0.49	<0.40
Magnesium,TCLP	mg/L	---	---	---		6.1	8.6
Manganese,TCLP	mg/L	---	---	---		0.024	0.47
Nickel,TCLP	mg/L	---	---	---		<0.025	<0.025
Potassium,TCLP	mg/L	---	---	---		0.53	1.7
Sodium,TCLP	mg/L	---	---	---		----	----
Thallium,TCLP	mg/L	---	---	---		<0.0020	<0.0020
Vanadium,TCLP	mg/L	---	---	---		<0.025	<0.025
Zinc,TCLP	mg/L	---	---	---		<0.50	<0.50

Detected Constituents to MACs-PTB 174-009;Work Order:037A
Preliminary Site Investigation
FAP 351-US Rte 6 at S. Pulaski/Crawford + Kedzie (PESA #2696V-67)
Oak Forest/Markham, Cook County, IL
Terracon Project No. 11177029M
Page 3 of 4

Analyte	Units	Background		Maximum Allowed Concentration	Sample Identification	2696V-67-B02 (0-5)	2696V-67-B02 (5-7)
				CCDD	Sample Depth (feet)	(0-5)	(5-7)
		Chicago	MSAs	mg/kg pH 6.25-9.0	Date Collected	11/09/2017	11/09/2017
Volatile Organic Analytical Parameters							
Acetone	mg/kg	---	---	25		<0.020	0.028
Semivolatile Organic Analytical Parameters							
Acenaphthene	mg/kg	0.09	0.13	570		0.031	<0.040
Acenaphthylene	mg/kg	0.03	0.07	85		0.014	<0.040
Anthracene	mg/kg	0.25	0.4	12000		0.087	<0.040
Benzo(a)anthracene	mg/kg	1.1	1.8	0.9		0.23	0.016
Benzo(a)pyrene	mg/kg	1.3	2.1	0.09		0.24	0.021
Benzo(b)fluoranthene	mg/kg	1.5	2.1	0.9		0.33	0.03
Benzo(g,h,i)perylene	mg/kg	0.68	1.7	2300		0.072	0.016
Benzo(k)fluoranthene	mg/kg	0.99	1.7	9		0.13	0.017
Chrysene	mg/kg	1.2	2.7	88		0.22	0.023
Dibenzo(a,h)anthracene	mg/kg	0.2	0.42	0.09		0.022	<0.040
Fluoranthene	mg/kg	2.7	4.1	3100		0.53	0.036
Fluorene	mg/kg	0.1	0.18	560		0.04	<0.040
Indeno(1,2,3-c,d)pyrene	mg/kg	0.86	1.6	0.9		0.075	0.015
Naphthalene	mg/kg	0.04	0.2	1.8		0.0097	<0.040
Phenanthrene	mg/kg	1.3	2.5	210		0.37	0.011
Pyrene	mg/kg	1.9	3.0	2300		0.45	0.026
2-Methylnaphthalene	mg/kg	---	0.14	---		0.011	<0.082
Inorganic Analytical Parameters							
Arsenic	mg/kg	---	13	11.3		5	5.3
Barium	mg/kg	---	110	1500		66	56
Cadmium	mg/kg	---	0.6	5.2		0.23	0.059
Chromium, total	mg/kg	---	16.2	21		13	15
Lead	mg/kg	---	36	107		49	11
Mercury	mg/kg	---	0.06	0.1		0.027	0.015
Selenium	mg/kg	---	0.48	1.3		0.6	0.39
Silver	mg/kg	---	0.55	4.4		<0.31	<0.29
Antimony	mg/kg	---	4.0	5		0.3	<1.2
Beryllium	mg/kg	---	0.59	22		0.55	0.55
Calcium	mg/kg	---	9,300	---		24000	7800
Cobalt	mg/kg	---	8.9	20		7.9	9.3
Copper	mg/kg	---	19.6	2900		15	10
Cyanide	mg/kg	---	0.51	---		<0.64	<0.60
Iron	mg/kg	---	15,900	15000		13000	15000
Magnesium	mg/kg	---	4,820	325000		14000	5900
Manganese	mg/kg	---	636	630		330	250
Nickel	mg/kg	---	18	100		19	20
Potassium	mg/kg	---	1,268	---		1100	1200
Sodium	mg/kg	---	130	---		570	290
Thallium	mg/kg	---	0.32	2.6		<0.63	<0.59
Vanadium	mg/kg	---	25.2	550		18	20
Zinc	mg/kg	---	95	5100		49	37
pH			6.25	9		8.4	8.3

Analyte	Units	Background		Maximum Allowed Concentration	Sample Identification	2696V-67-B02 (0-5)	2696V-67-B02 (5-7)
				CCDD	Sample Depth (feet)	(0-5)	(5-7)
		Chicago	MSAs	mg/kg pH 6.25-9.0	Date Collected	11/09/2017	11/09/2017
Inorganic Analytical Parameters (SPLP)							
Antimony,SPLP	mg/L	---	---	---		--	--
Arsenic,SPLP	mg/L	---	---	---		--	--
Barium,SPLP	mg/L	---	---	---		--	--
Beryllium,SPLP	mg/L	---	---	---		--	--
Cadmium,SPLP	mg/L	---	---	---		--	--
Calcium,SPLP	mg/L	---	---	---		--	--
Chromium,SPLP	mg/L	---	---	---		--	--
Cobalt,SPLP	mg/L	---	---	---		--	--
Copper,SPLP	mg/L	---	---	---		--	--
Iron,SPLP	mg/L	---	---	---		--	--
Lead,SPLP	mg/L	---	---	---		--	--
Magnesium,SPLP	mg/L	---	---	---		--	--
Manganese,SPLP	mg/L	---	---	---		0.36	0.076
Mercury,SPLP	mg/L	---	---	---		--	--
Nickel,SPLP	mg/L	---	---	---		--	--
Potassium,SPLP	mg/L	---	---	---		--	--
Selenium,SPLP	mg/L	---	---	---		--	--
Silver,SPLP	mg/L	---	---	---		--	--
Sodium,SPLP	mg/L	---	---	---		--	--
Thallium,SPLP	mg/L	---	---	---		--	--
Vanadium,SPLP	mg/L	---	---	---		--	--
Zinc,SPLP	mg/L	---	---	---		--	--
Cyanide,SPLP	mg/L	---	---	---		--	--
Inorganic Analytical Parameters (TCLP)							
Arsenic,TCLP	mg/L	---	---	---		<0.050	<0.050
Barium,TCLP	mg/L	---	---	---		0.35	0.4
Cadmium,TCLP	mg/L	---	---	---		<0.0050	<0.0050
Chromium,TCLP	mg/L	---	---	---		<0.025	<0.025
Lead,TCLP	mg/L	---	---	---		<0.0075	<0.0075
Mercury,TCLP	mg/L	---	---	---		<0.00020	<0.00020
Selenium,TCLP	mg/L	---	---	---		<0.050	<0.050
Silver,TCLP	mg/L	---	---	---		<0.025	<0.025
Antimony,TCLP	mg/L	---	---	---		<0.0060	<0.0060
Beryllium,TCLP	mg/L	---	---	---		<0.0040	<0.0040
Calcium,TCLP	mg/L	---	---	---		250	290
Cobalt,TCLP	mg/L	---	---	---		<0.025	0.028
Copper,TCLP	mg/L	---	---	---		<0.025	0.011
Cyanide,TCLP	mg/L	---	---	---		----	----
Iron,TCLP	mg/L	---	---	---		<0.40	<0.40
Magnesium,TCLP	mg/L	---	---	---		91	120
Manganese,TCLP	mg/L	---	---	---		1.8	4.9
Nickel,TCLP	mg/L	---	---	---		<0.025	0.027
Potassium,TCLP	mg/L	---	---	---		0.93	0.7
Sodium,TCLP	mg/L	---	---	---		----	----
Thallium,TCLP	mg/L	---	---	---		<0.0020	<0.0020
Vanadium,TCLP	mg/L	---	---	---		<0.025	<0.025
Zinc,TCLP	mg/L	---	---	---		0.021	<0.50

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: 500-137080-2

Client Project/Site: IDOT - Oak Forest/Markham - WO37

For:

Terracon Consulting Eng & Scientists
135 Ambassador Drive
Naperville, Illinois 60540

Attn: Mr. Matthew Weiss

Jodie Bracken

Authorized for release by:
11/22/2017 12:06:18 PM

Jodie Bracken, Project Management Assistant II
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Designee for

Richard Wright, Senior Project Manager
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LINKS

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www.testamericainc.com

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

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

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

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Case Narrative

Client: Terracon Consulting Eng & Scientists
Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137080-2

Job ID: 500-137080-2

Laboratory: TestAmerica Chicago

Narrative

Job Narrative 500-137080-2

Receipt

The samples were received on 11/10/2017 8:00 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 6 coolers at receipt time were 1.9° C, 2.0° C, 2.9° C, 3.2° C, 3.7° C and 4.0° 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: 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 utilizing this list of analytes. The LCS associated with batch 500-410360 had 2 analytes outside control limits: 2,4-Dinitrophenol and 2,2'-oxybis[1-chloropropane]. These results have been reported and qualified. (LCS 500-410360/2-A)

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

Metals

Method(s) 6010B: The continuing calibration blanks (CCB) contained Zinc above the reporting limit (RL). The samples 2696V-67-B01 (0-5) (500-137080-5), 2696V-67-B01 (5-7) (500-137080-6), 2696V-67-B02 (0-5) (500-137080-7) and 2696V-67-B02 (5-7) (500-137080-8) associated with this CCB did not contain the target compound; therefore, 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.

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: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137080-2

Client Sample ID: 2696V-67-B01 (0-5)

Lab Sample ID: 500-137080-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	2.7		0.60	0.21	mg/Kg	1	☼	6010B	Total/NA
Barium	31		0.60	0.069	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.17	J	0.24	0.056	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.12	B	0.12	0.022	mg/Kg	1	☼	6010B	Total/NA
Chromium	4.3		0.60	0.30	mg/Kg	1	☼	6010B	Total/NA
Cobalt	2.1		0.30	0.079	mg/Kg	1	☼	6010B	Total/NA
Copper	7.0		0.60	0.17	mg/Kg	1	☼	6010B	Total/NA
Iron	5000		12	6.3	mg/Kg	1	☼	6010B	Total/NA
Lead	6.6		0.30	0.14	mg/Kg	1	☼	6010B	Total/NA
Magnesium	710		6.0	3.0	mg/Kg	1	☼	6010B	Total/NA
Calcium	1800	B	12	2.0	mg/Kg	1	☼	6010B	Total/NA
Manganese	88		0.60	0.087	mg/Kg	1	☼	6010B	Total/NA
Nickel	7.0		0.60	0.17	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.59	J	0.60	0.35	mg/Kg	1	☼	6010B	Total/NA
Vanadium	7.7		0.30	0.071	mg/Kg	1	☼	6010B	Total/NA
Zinc	21		1.2	0.53	mg/Kg	1	☼	6010B	Total/NA
Potassium	360		30	11	mg/Kg	1	☼	6010B	Total/NA
Sodium	180		60	8.9	mg/Kg	1	☼	6010B	Total/NA
Barium	0.14	J	0.50	0.050	mg/L	1		6010B	TCLP
Calcium	41		5.0	0.50	mg/L	1		6010B	TCLP
Iron	0.49		0.40	0.20	mg/L	1		6010B	TCLP
Magnesium	6.1		2.5	0.50	mg/L	1		6010B	TCLP
Manganese	0.024	J	0.025	0.010	mg/L	1		6010B	TCLP
Potassium	0.53	J	2.5	0.50	mg/L	1		6010B	TCLP
pH	8.4		0.20	0.20	SU	1		9045D	Total/NA

Client Sample ID: 2696V-67-B01 (5-7)

Lab Sample ID: 500-137080-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	10		0.59	0.20	mg/Kg	1	☼	6010B	Total/NA
Barium	43		0.59	0.068	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.56		0.24	0.056	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.11	J B	0.12	0.021	mg/Kg	1	☼	6010B	Total/NA
Chromium	16		0.59	0.29	mg/Kg	1	☼	6010B	Total/NA
Cobalt	10		0.30	0.078	mg/Kg	1	☼	6010B	Total/NA
Copper	18		0.59	0.17	mg/Kg	1	☼	6010B	Total/NA
Iron	23000		12	6.2	mg/Kg	1	☼	6010B	Total/NA
Lead	15		0.30	0.14	mg/Kg	1	☼	6010B	Total/NA
Magnesium	2500		5.9	2.9	mg/Kg	1	☼	6010B	Total/NA
Calcium	1600	B	12	2.0	mg/Kg	1	☼	6010B	Total/NA
Manganese	410		0.59	0.086	mg/Kg	1	☼	6010B	Total/NA
Nickel	30		0.59	0.17	mg/Kg	1	☼	6010B	Total/NA
Vanadium	21		0.30	0.070	mg/Kg	1	☼	6010B	Total/NA
Zinc	71		1.2	0.52	mg/Kg	1	☼	6010B	Total/NA
Potassium	1100		30	11	mg/Kg	1	☼	6010B	Total/NA
Sodium	160		59	8.8	mg/Kg	1	☼	6010B	Total/NA
Barium	0.11	J	0.50	0.050	mg/L	1		6010B	TCLP
Calcium	36		5.0	0.50	mg/L	1		6010B	TCLP
Copper	0.010	J	0.025	0.010	mg/L	1		6010B	TCLP
Magnesium	8.6		2.5	0.50	mg/L	1		6010B	TCLP

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137080-2

Client Sample ID: 2696V-67-B01 (5-7) (Continued)

Lab Sample ID: 500-137080-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Manganese	0.47		0.025	0.010	mg/L	1		6010B	TCLP
Potassium	1.7	J	2.5	0.50	mg/L	1		6010B	TCLP
Manganese	0.039		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.023		0.018	0.0061	mg/Kg	1	*	7471B	Total/NA
pH	8.0		0.20	0.20	SU	1		9045D	Total/NA

Client Sample ID: 2696V-67-B02 (0-5)

Lab Sample ID: 500-137080-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acenaphthene	0.031	J	0.042	0.0075	mg/Kg	1	*	8270D	Total/NA
Acenaphthylene	0.014	J	0.042	0.0055	mg/Kg	1	*	8270D	Total/NA
Anthracene	0.087		0.042	0.0070	mg/Kg	1	*	8270D	Total/NA
Benzo[a]anthracene	0.23		0.042	0.0056	mg/Kg	1	*	8270D	Total/NA
Benzo[a]pyrene	0.24		0.042	0.0081	mg/Kg	1	*	8270D	Total/NA
Benzo[b]fluoranthene	0.33		0.042	0.0091	mg/Kg	1	*	8270D	Total/NA
Benzo[g,h,i]perylene	0.072		0.042	0.014	mg/Kg	1	*	8270D	Total/NA
Benzo[k]fluoranthene	0.13		0.042	0.012	mg/Kg	1	*	8270D	Total/NA
Chrysene	0.22		0.042	0.011	mg/Kg	1	*	8270D	Total/NA
Dibenz(a,h)anthracene	0.022	J	0.042	0.0081	mg/Kg	1	*	8270D	Total/NA
Fluoranthene	0.53		0.042	0.0078	mg/Kg	1	*	8270D	Total/NA
Fluorene	0.040	J	0.042	0.0059	mg/Kg	1	*	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.075		0.042	0.011	mg/Kg	1	*	8270D	Total/NA
2-Methylnaphthalene	0.011	J	0.085	0.0077	mg/Kg	1	*	8270D	Total/NA
Naphthalene	0.0097	J	0.042	0.0065	mg/Kg	1	*	8270D	Total/NA
Phenanthrene	0.37		0.042	0.0058	mg/Kg	1	*	8270D	Total/NA
Pyrene	0.45		0.042	0.0083	mg/Kg	1	*	8270D	Total/NA
Antimony	0.30	J	1.3	0.24	mg/Kg	1	*	6010B	Total/NA
Arsenic	5.0		0.63	0.22	mg/Kg	1	*	6010B	Total/NA
Barium	66		0.63	0.072	mg/Kg	1	*	6010B	Total/NA
Beryllium	0.55		0.25	0.059	mg/Kg	1	*	6010B	Total/NA
Cadmium	0.23	B	0.13	0.023	mg/Kg	1	*	6010B	Total/NA
Chromium	13		0.63	0.31	mg/Kg	1	*	6010B	Total/NA
Cobalt	7.9		0.31	0.082	mg/Kg	1	*	6010B	Total/NA
Copper	15		0.63	0.18	mg/Kg	1	*	6010B	Total/NA
Iron	13000		13	6.5	mg/Kg	1	*	6010B	Total/NA
Lead	49		0.31	0.15	mg/Kg	1	*	6010B	Total/NA
Magnesium	14000		6.3	3.1	mg/Kg	1	*	6010B	Total/NA
Calcium	24000	B	13	2.1	mg/Kg	1	*	6010B	Total/NA
Manganese	330		0.63	0.091	mg/Kg	1	*	6010B	Total/NA
Nickel	19		0.63	0.18	mg/Kg	1	*	6010B	Total/NA
Selenium	0.60	J	0.63	0.37	mg/Kg	1	*	6010B	Total/NA
Vanadium	18		0.31	0.074	mg/Kg	1	*	6010B	Total/NA
Zinc	49		1.3	0.55	mg/Kg	1	*	6010B	Total/NA
Potassium	1100		31	11	mg/Kg	1	*	6010B	Total/NA
Sodium	570		63	9.3	mg/Kg	1	*	6010B	Total/NA
Barium	0.35	J	0.50	0.050	mg/L	1		6010B	TCLP
Calcium	250		5.0	0.50	mg/L	1		6010B	TCLP
Magnesium	91		2.5	0.50	mg/L	1		6010B	TCLP
Manganese	1.8		0.025	0.010	mg/L	1		6010B	TCLP
Potassium	0.93	J	2.5	0.50	mg/L	1		6010B	TCLP

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137080-2

Client Sample ID: 2696V-67-B02 (0-5) (Continued)

Lab Sample ID: 500-137080-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Zinc	0.021	J ^	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.36		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.027		0.020	0.0066	mg/Kg	1	☼	7471B	Total/NA
pH	8.4		0.20	0.20	SU	1		9045D	Total/NA

Client Sample ID: 2696V-67-B02 (5-7)

Lab Sample ID: 500-137080-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	0.028		0.017	0.0074	mg/Kg	1	☼	8260B	Total/NA
Benzo[a]anthracene	0.016	J	0.040	0.0055	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.021	J	0.040	0.0079	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.030	J	0.040	0.0088	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.016	J	0.040	0.013	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.017	J	0.040	0.012	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.023	J	0.040	0.011	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.036	J	0.040	0.0075	mg/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.015	J	0.040	0.011	mg/Kg	1	☼	8270D	Total/NA
Phenanthrene	0.011	J	0.040	0.0057	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.026	J	0.040	0.0081	mg/Kg	1	☼	8270D	Total/NA
Arsenic	5.3		0.59	0.20	mg/Kg	1	☼	6010B	Total/NA
Barium	56		0.59	0.067	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.55		0.24	0.055	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.059	J B	0.12	0.021	mg/Kg	1	☼	6010B	Total/NA
Chromium	15		0.59	0.29	mg/Kg	1	☼	6010B	Total/NA
Cobalt	9.3		0.29	0.077	mg/Kg	1	☼	6010B	Total/NA
Copper	10		0.59	0.17	mg/Kg	1	☼	6010B	Total/NA
Iron	15000		12	6.1	mg/Kg	1	☼	6010B	Total/NA
Lead	11		0.29	0.14	mg/Kg	1	☼	6010B	Total/NA
Magnesium	5900		5.9	2.9	mg/Kg	1	☼	6010B	Total/NA
Calcium	7800	B	12	2.0	mg/Kg	1	☼	6010B	Total/NA
Manganese	250		0.59	0.085	mg/Kg	1	☼	6010B	Total/NA
Nickel	20		0.59	0.17	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.39	J	0.59	0.35	mg/Kg	1	☼	6010B	Total/NA
Vanadium	20		0.29	0.070	mg/Kg	1	☼	6010B	Total/NA
Zinc	37		1.2	0.52	mg/Kg	1	☼	6010B	Total/NA
Potassium	1200		29	10	mg/Kg	1	☼	6010B	Total/NA
Sodium	290		59	8.7	mg/Kg	1	☼	6010B	Total/NA
Barium	0.40	J	0.50	0.050	mg/L	1		6010B	TCLP
Calcium	290		5.0	0.50	mg/L	1		6010B	TCLP
Cobalt	0.028		0.025	0.010	mg/L	1		6010B	TCLP
Copper	0.011	J	0.025	0.010	mg/L	1		6010B	TCLP
Magnesium	120		2.5	0.50	mg/L	1		6010B	TCLP
Manganese	4.9		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.027		0.025	0.010	mg/L	1		6010B	TCLP
Potassium	0.70	J	2.5	0.50	mg/L	1		6010B	TCLP
Manganese	0.076		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.015	J	0.018	0.0061	mg/Kg	1	☼	7471B	Total/NA
pH	8.3		0.20	0.20	SU	1		9045D	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Sample Summary

Client: Terracon Consulting Eng & Scientists
Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137080-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-137080-5	2696V-67-B01 (0-5)	Solid	11/09/17 08:30	11/10/17 08:00
500-137080-6	2696V-67-B01 (5-7)	Solid	11/09/17 08:35	11/10/17 08:00
500-137080-7	2696V-67-B02 (0-5)	Solid	11/09/17 08:50	11/10/17 08:00
500-137080-8	2696V-67-B02 (5-7)	Solid	11/09/17 09:00	11/10/17 08:00

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Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137080-2

Client Sample ID: 2696V-67-B01 (0-5)

Lab Sample ID: 500-137080-5

Date Collected: 11/09/17 08:30

Matrix: Solid

Date Received: 11/10/17 08:00

Percent Solids: 77.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.019		0.019	0.0084	mg/Kg	☼	11/10/17 18:28	11/17/17 02:30	1
Benzene	<0.0019		0.0019	0.00049	mg/Kg	☼	11/10/17 18:28	11/17/17 02:30	1
Bromodichloromethane	<0.0019		0.0019	0.00039	mg/Kg	☼	11/10/17 18:28	11/17/17 02:30	1
Bromoform	<0.0019		0.0019	0.00057	mg/Kg	☼	11/10/17 18:28	11/17/17 02:30	1
Bromomethane	<0.0048		0.0048	0.0018	mg/Kg	☼	11/10/17 18:28	11/17/17 02:30	1
2-Butanone (MEK)	<0.0048		0.0048	0.0022	mg/Kg	☼	11/10/17 18:28	11/17/17 02:30	1
Carbon disulfide	<0.0048		0.0048	0.0010	mg/Kg	☼	11/10/17 18:28	11/17/17 02:30	1
Carbon tetrachloride	<0.0019		0.0019	0.00056	mg/Kg	☼	11/10/17 18:28	11/17/17 02:30	1
Chlorobenzene	<0.0019		0.0019	0.00072	mg/Kg	☼	11/10/17 18:28	11/17/17 02:30	1
Chloroethane	<0.0048		0.0048	0.0014	mg/Kg	☼	11/10/17 18:28	11/17/17 02:30	1
Chloroform	<0.0019		0.0019	0.00067	mg/Kg	☼	11/10/17 18:28	11/17/17 02:30	1
Chloromethane	<0.0048		0.0048	0.0019	mg/Kg	☼	11/10/17 18:28	11/17/17 02:30	1
cis-1,2-Dichloroethene	<0.0019		0.0019	0.00054	mg/Kg	☼	11/10/17 18:28	11/17/17 02:30	1
cis-1,3-Dichloropropene	<0.0019		0.0019	0.00058	mg/Kg	☼	11/10/17 18:28	11/17/17 02:30	1
Dibromochloromethane	<0.0019		0.0019	0.00063	mg/Kg	☼	11/10/17 18:28	11/17/17 02:30	1
1,1-Dichloroethane	<0.0019		0.0019	0.00066	mg/Kg	☼	11/10/17 18:28	11/17/17 02:30	1
1,2-Dichloroethane	<0.0048		0.0048	0.0015	mg/Kg	☼	11/10/17 18:28	11/17/17 02:30	1
1,1-Dichloroethene	<0.0019		0.0019	0.00067	mg/Kg	☼	11/10/17 18:28	11/17/17 02:30	1
1,2-Dichloropropane	<0.0019		0.0019	0.00050	mg/Kg	☼	11/10/17 18:28	11/17/17 02:30	1
1,3-Dichloropropane, Total	<0.0019		0.0019	0.00068	mg/Kg	☼	11/10/17 18:28	11/17/17 02:30	1
Ethylbenzene	<0.0019		0.0019	0.00093	mg/Kg	☼	11/10/17 18:28	11/17/17 02:30	1
2-Hexanone	<0.0048		0.0048	0.0015	mg/Kg	☼	11/10/17 18:28	11/17/17 02:30	1
Methylene Chloride	<0.0048		0.0048	0.0019	mg/Kg	☼	11/10/17 18:28	11/17/17 02:30	1
4-Methyl-2-pentanone (MIBK)	<0.0048		0.0048	0.0014	mg/Kg	☼	11/10/17 18:28	11/17/17 02:30	1
Methyl tert-butyl ether	<0.0019		0.0019	0.00057	mg/Kg	☼	11/10/17 18:28	11/17/17 02:30	1
Styrene	<0.0019		0.0019	0.00059	mg/Kg	☼	11/10/17 18:28	11/17/17 02:30	1
1,1,2,2-Tetrachloroethane	<0.0019		0.0019	0.00062	mg/Kg	☼	11/10/17 18:28	11/17/17 02:30	1
Tetrachloroethene	<0.0019		0.0019	0.00066	mg/Kg	☼	11/10/17 18:28	11/17/17 02:30	1
Toluene	<0.0019		0.0019	0.00049	mg/Kg	☼	11/10/17 18:28	11/17/17 02:30	1
trans-1,2-Dichloroethene	<0.0019		0.0019	0.00086	mg/Kg	☼	11/10/17 18:28	11/17/17 02:30	1
trans-1,3-Dichloropropene	<0.0019		0.0019	0.00068	mg/Kg	☼	11/10/17 18:28	11/17/17 02:30	1
1,1,1-Trichloroethane	<0.0019		0.0019	0.00065	mg/Kg	☼	11/10/17 18:28	11/17/17 02:30	1
1,1,2-Trichloroethane	<0.0019		0.0019	0.00083	mg/Kg	☼	11/10/17 18:28	11/17/17 02:30	1
Trichloroethene	<0.0019		0.0019	0.00066	mg/Kg	☼	11/10/17 18:28	11/17/17 02:30	1
Vinyl acetate	<0.0048		0.0048	0.0017	mg/Kg	☼	11/10/17 18:28	11/17/17 02:30	1
Vinyl chloride	<0.0019		0.0019	0.00086	mg/Kg	☼	11/10/17 18:28	11/17/17 02:30	1
Xylenes, Total	<0.0039		0.0039	0.00062	mg/Kg	☼	11/10/17 18:28	11/17/17 02:30	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	88		75 - 131	11/10/17 18:28	11/17/17 02:30	1
Dibromofluoromethane	101		75 - 126	11/10/17 18:28	11/17/17 02:30	1
1,2-Dichloroethane-d4 (Surr)	95		70 - 134	11/10/17 18:28	11/17/17 02:30	1
Toluene-d8 (Surr)	96		75 - 124	11/10/17 18:28	11/17/17 02:30	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.040		0.040	0.0073	mg/Kg	☼	11/16/17 20:28	11/17/17 14:31	1
Acenaphthylene	<0.040		0.040	0.0054	mg/Kg	☼	11/16/17 20:28	11/17/17 14:31	1
Anthracene	<0.040		0.040	0.0068	mg/Kg	☼	11/16/17 20:28	11/17/17 14:31	1
Benzo[a]anthracene	<0.040		0.040	0.0055	mg/Kg	☼	11/16/17 20:28	11/17/17 14:31	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137080-2

Client Sample ID: 2696V-67-B01 (0-5)

Lab Sample ID: 500-137080-5

Date Collected: 11/09/17 08:30

Matrix: Solid

Date Received: 11/10/17 08:00

Percent Solids: 77.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	<0.040		0.040	0.0079	mg/Kg	☼	11/16/17 20:28	11/17/17 14:31	1
Benzo[b]fluoranthene	<0.040		0.040	0.0088	mg/Kg	☼	11/16/17 20:28	11/17/17 14:31	1
Benzo[g,h,i]perylene	<0.040		0.040	0.013	mg/Kg	☼	11/16/17 20:28	11/17/17 14:31	1
Benzo[k]fluoranthene	<0.040		0.040	0.012	mg/Kg	☼	11/16/17 20:28	11/17/17 14:31	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.041	mg/Kg	☼	11/16/17 20:28	11/17/17 14:31	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.061	mg/Kg	☼	11/16/17 20:28	11/17/17 14:31	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.074	mg/Kg	☼	11/16/17 20:28	11/17/17 14:31	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.054	mg/Kg	☼	11/16/17 20:28	11/17/17 14:31	1
Butyl benzyl phthalate	<0.20		0.20	0.077	mg/Kg	☼	11/16/17 20:28	11/17/17 14:31	1
Carbazole	<0.20		0.20	0.10	mg/Kg	☼	11/16/17 20:28	11/17/17 14:31	1
4-Chloroaniline	<0.82		0.82	0.19	mg/Kg	☼	11/16/17 20:28	11/17/17 14:31	1
4-Chloro-3-methylphenol	<0.40		0.40	0.14	mg/Kg	☼	11/16/17 20:28	11/17/17 14:31	1
2-Chloronaphthalene	<0.20		0.20	0.045	mg/Kg	☼	11/16/17 20:28	11/17/17 14:31	1
2-Chlorophenol	<0.20		0.20	0.069	mg/Kg	☼	11/16/17 20:28	11/17/17 14:31	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.047	mg/Kg	☼	11/16/17 20:28	11/17/17 14:31	1
Chrysene	<0.040		0.040	0.011	mg/Kg	☼	11/16/17 20:28	11/17/17 14:31	1
Dibenz(a,h)anthracene	<0.040		0.040	0.0078	mg/Kg	☼	11/16/17 20:28	11/17/17 14:31	1
Dibenzofuran	<0.20		0.20	0.048	mg/Kg	☼	11/16/17 20:28	11/17/17 14:31	1
1,2-Dichlorobenzene	<0.20		0.20	0.049	mg/Kg	☼	11/16/17 20:28	11/17/17 14:31	1
1,3-Dichlorobenzene	<0.20		0.20	0.046	mg/Kg	☼	11/16/17 20:28	11/17/17 14:31	1
1,4-Dichlorobenzene	<0.20		0.20	0.052	mg/Kg	☼	11/16/17 20:28	11/17/17 14:31	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.057	mg/Kg	☼	11/16/17 20:28	11/17/17 14:31	1
2,4-Dichlorophenol	<0.40		0.40	0.096	mg/Kg	☼	11/16/17 20:28	11/17/17 14:31	1
Diethyl phthalate	<0.20		0.20	0.069	mg/Kg	☼	11/16/17 20:28	11/17/17 14:31	1
2,4-Dimethylphenol	<0.40		0.40	0.15	mg/Kg	☼	11/16/17 20:28	11/17/17 14:31	1
Dimethyl phthalate	<0.20		0.20	0.053	mg/Kg	☼	11/16/17 20:28	11/17/17 14:31	1
Di-n-butyl phthalate	<0.20		0.20	0.062	mg/Kg	☼	11/16/17 20:28	11/17/17 14:31	1
4,6-Dinitro-2-methylphenol	<0.82		0.82	0.33	mg/Kg	☼	11/16/17 20:28	11/17/17 14:31	1
2,4-Dinitrophenol	<0.82	*	0.82	0.72	mg/Kg	☼	11/16/17 20:28	11/17/17 14:31	1
2,4-Dinitrotoluene	<0.20		0.20	0.065	mg/Kg	☼	11/16/17 20:28	11/17/17 14:31	1
2,6-Dinitrotoluene	<0.20		0.20	0.080	mg/Kg	☼	11/16/17 20:28	11/17/17 14:31	1
Di-n-octyl phthalate	<0.20		0.20	0.066	mg/Kg	☼	11/16/17 20:28	11/17/17 14:31	1
Fluoranthene	<0.040		0.040	0.0075	mg/Kg	☼	11/16/17 20:28	11/17/17 14:31	1
Fluorene	<0.040		0.040	0.0057	mg/Kg	☼	11/16/17 20:28	11/17/17 14:31	1
Hexachlorobenzene	<0.082		0.082	0.0094	mg/Kg	☼	11/16/17 20:28	11/17/17 14:31	1
Hexachlorobutadiene	<0.20		0.20	0.064	mg/Kg	☼	11/16/17 20:28	11/17/17 14:31	1
Hexachlorocyclopentadiene	<0.82		0.82	0.23	mg/Kg	☼	11/16/17 20:28	11/17/17 14:31	1
Hexachloroethane	<0.20		0.20	0.062	mg/Kg	☼	11/16/17 20:28	11/17/17 14:31	1
Indeno[1,2,3-cd]pyrene	<0.040		0.040	0.011	mg/Kg	☼	11/16/17 20:28	11/17/17 14:31	1
Isophorone	<0.20		0.20	0.046	mg/Kg	☼	11/16/17 20:28	11/17/17 14:31	1
2-Methylnaphthalene	<0.082		0.082	0.0075	mg/Kg	☼	11/16/17 20:28	11/17/17 14:31	1
2-Methylphenol	<0.20		0.20	0.065	mg/Kg	☼	11/16/17 20:28	11/17/17 14:31	1
3 & 4 Methylphenol	<0.20		0.20	0.068	mg/Kg	☼	11/16/17 20:28	11/17/17 14:31	1
Naphthalene	<0.040		0.040	0.0062	mg/Kg	☼	11/16/17 20:28	11/17/17 14:31	1
2-Nitroaniline	<0.20		0.20	0.055	mg/Kg	☼	11/16/17 20:28	11/17/17 14:31	1
3-Nitroaniline	<0.40		0.40	0.13	mg/Kg	☼	11/16/17 20:28	11/17/17 14:31	1
4-Nitroaniline	<0.40		0.40	0.17	mg/Kg	☼	11/16/17 20:28	11/17/17 14:31	1
Nitrobenzene	<0.040		0.040	0.010	mg/Kg	☼	11/16/17 20:28	11/17/17 14:31	1
2-Nitrophenol	<0.40		0.40	0.096	mg/Kg	☼	11/16/17 20:28	11/17/17 14:31	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137080-2

Client Sample ID: 2696V-67-B01 (0-5)

Lab Sample ID: 500-137080-5

Date Collected: 11/09/17 08:30

Matrix: Solid

Date Received: 11/10/17 08:00

Percent Solids: 77.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Nitrophenol	<0.82		0.82	0.39	mg/Kg	☼	11/16/17 20:28	11/17/17 14:31	1
N-Nitrosodi-n-propylamine	<0.082		0.082	0.050	mg/Kg	☼	11/16/17 20:28	11/17/17 14:31	1
N-Nitrosodiphenylamine	<0.20		0.20	0.048	mg/Kg	☼	11/16/17 20:28	11/17/17 14:31	1
2,2'-oxybis[1-chloropropane]	<0.20	*	0.20	0.047	mg/Kg	☼	11/16/17 20:28	11/17/17 14:31	1
Pentachlorophenol	<0.82		0.82	0.65	mg/Kg	☼	11/16/17 20:28	11/17/17 14:31	1
Phenanthrene	<0.040		0.040	0.0057	mg/Kg	☼	11/16/17 20:28	11/17/17 14:31	1
Phenol	<0.20		0.20	0.090	mg/Kg	☼	11/16/17 20:28	11/17/17 14:31	1
Pyrene	<0.040		0.040	0.0081	mg/Kg	☼	11/16/17 20:28	11/17/17 14:31	1
1,2,4-Trichlorobenzene	<0.20		0.20	0.044	mg/Kg	☼	11/16/17 20:28	11/17/17 14:31	1
2,4,5-Trichlorophenol	<0.40		0.40	0.093	mg/Kg	☼	11/16/17 20:28	11/17/17 14:31	1
2,4,6-Trichlorophenol	<0.40		0.40	0.14	mg/Kg	☼	11/16/17 20:28	11/17/17 14:31	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	85		44 - 121	11/16/17 20:28	11/17/17 14:31	1
2-Fluorophenol	91		46 - 133	11/16/17 20:28	11/17/17 14:31	1
Nitrobenzene-d5	76		41 - 120	11/16/17 20:28	11/17/17 14:31	1
Phenol-d5	77		46 - 125	11/16/17 20:28	11/17/17 14:31	1
Terphenyl-d14	85		35 - 160	11/16/17 20:28	11/17/17 14:31	1
2,4,6-Tribromophenol	99		25 - 139	11/16/17 20:28	11/17/17 14:31	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.2		1.2	0.23	mg/Kg	☼	11/10/17 17:37	11/11/17 18:50	1
Arsenic	2.7		0.60	0.21	mg/Kg	☼	11/10/17 17:37	11/11/17 18:50	1
Barium	31		0.60	0.069	mg/Kg	☼	11/10/17 17:37	11/11/17 18:50	1
Beryllium	0.17	J	0.24	0.056	mg/Kg	☼	11/10/17 17:37	11/11/17 18:50	1
Cadmium	0.12	B	0.12	0.022	mg/Kg	☼	11/10/17 17:37	11/11/17 18:50	1
Chromium	4.3		0.60	0.30	mg/Kg	☼	11/10/17 17:37	11/11/17 18:50	1
Cobalt	2.1		0.30	0.079	mg/Kg	☼	11/10/17 17:37	11/11/17 18:50	1
Copper	7.0		0.60	0.17	mg/Kg	☼	11/10/17 17:37	11/11/17 18:50	1
Iron	5000		12	6.3	mg/Kg	☼	11/10/17 17:37	11/11/17 18:50	1
Lead	6.6		0.30	0.14	mg/Kg	☼	11/10/17 17:37	11/11/17 18:50	1
Magnesium	710		6.0	3.0	mg/Kg	☼	11/10/17 17:37	11/11/17 18:50	1
Calcium	1800	B	12	2.0	mg/Kg	☼	11/10/17 17:37	11/11/17 18:50	1
Manganese	88		0.60	0.087	mg/Kg	☼	11/10/17 17:37	11/11/17 18:50	1
Nickel	7.0		0.60	0.17	mg/Kg	☼	11/10/17 17:37	11/11/17 18:50	1
Selenium	0.59	J	0.60	0.35	mg/Kg	☼	11/10/17 17:37	11/11/17 18:50	1
Silver	<0.30		0.30	0.078	mg/Kg	☼	11/10/17 17:37	11/11/17 18:50	1
Thallium	<0.60		0.60	0.30	mg/Kg	☼	11/10/17 17:37	11/11/17 18:50	1
Vanadium	7.7		0.30	0.071	mg/Kg	☼	11/10/17 17:37	11/11/17 18:50	1
Zinc	21		1.2	0.53	mg/Kg	☼	11/10/17 17:37	11/11/17 18:50	1
Potassium	360		30	11	mg/Kg	☼	11/10/17 17:37	11/11/17 18:50	1
Sodium	180		60	8.9	mg/Kg	☼	11/10/17 17:37	11/11/17 18:50	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.050		0.050	0.010	mg/L		11/15/17 08:09	11/16/17 17:00	1
Barium	0.14	J	0.50	0.050	mg/L		11/15/17 08:09	11/16/17 17:00	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		11/15/17 08:09	11/16/17 17:00	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		11/15/17 08:09	11/16/17 17:00	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137080-2

Client Sample ID: 2696V-67-B01 (0-5)

Lab Sample ID: 500-137080-5

Date Collected: 11/09/17 08:30

Matrix: Solid

Date Received: 11/10/17 08:00

Percent Solids: 77.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	41		5.0	0.50	mg/L		11/15/17 08:09	11/16/17 17:00	1
Chromium	<0.025		0.025	0.010	mg/L		11/15/17 08:09	11/16/17 17:00	1
Cobalt	<0.025		0.025	0.010	mg/L		11/15/17 08:09	11/16/17 17:00	1
Copper	<0.025		0.025	0.010	mg/L		11/15/17 08:09	11/16/17 17:00	1
Iron	0.49		0.40	0.20	mg/L		11/15/17 08:09	11/16/17 17:00	1
Lead	<0.0075		0.0075	0.0075	mg/L		11/15/17 08:09	11/16/17 17:00	1
Magnesium	6.1		2.5	0.50	mg/L		11/15/17 08:09	11/16/17 17:00	1
Manganese	0.024	J	0.025	0.010	mg/L		11/15/17 08:09	11/16/17 17:00	1
Nickel	<0.025		0.025	0.010	mg/L		11/15/17 08:09	11/16/17 17:00	1
Potassium	0.53	J	2.5	0.50	mg/L		11/15/17 08:09	11/16/17 17:00	1
Selenium	<0.050		0.050	0.020	mg/L		11/15/17 08:09	11/16/17 17:00	1
Silver	<0.025		0.025	0.010	mg/L		11/15/17 08:09	11/16/17 17:00	1
Vanadium	<0.025		0.025	0.010	mg/L		11/15/17 08:09	11/16/17 17:00	1
Zinc	<0.50		0.50	0.020	mg/L		11/15/17 08:09	11/16/17 17:00	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		11/15/17 08:09	11/16/17 18:12	1
Thallium	<0.0020		0.0020	0.0020	mg/L		11/15/17 08:09	11/16/17 18:12	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		11/17/17 08:10	11/18/17 11:44	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.020		0.020	0.0065	mg/Kg	☼	11/17/17 10:45	11/18/17 13:42	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.61		0.61	0.21	mg/Kg	☼	11/21/17 11:00	11/21/17 14:14	1
pH	8.4		0.20	0.20	SU			11/18/17 13:02	1

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137080-2

Client Sample ID: 2696V-67-B01 (5-7)

Lab Sample ID: 500-137080-6

Date Collected: 11/09/17 08:35

Matrix: Solid

Date Received: 11/10/17 08:00

Percent Solids: 83.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.017		0.017	0.0074	mg/Kg	☼	11/10/17 18:28	11/17/17 02:56	1
Benzene	<0.0017		0.0017	0.00044	mg/Kg	☼	11/10/17 18:28	11/17/17 02:56	1
Bromodichloromethane	<0.0017		0.0017	0.00035	mg/Kg	☼	11/10/17 18:28	11/17/17 02:56	1
Bromoform	<0.0017		0.0017	0.00050	mg/Kg	☼	11/10/17 18:28	11/17/17 02:56	1
Bromomethane	<0.0043		0.0043	0.0016	mg/Kg	☼	11/10/17 18:28	11/17/17 02:56	1
2-Butanone (MEK)	<0.0043		0.0043	0.0019	mg/Kg	☼	11/10/17 18:28	11/17/17 02:56	1
Carbon disulfide	<0.0043		0.0043	0.00089	mg/Kg	☼	11/10/17 18:28	11/17/17 02:56	1
Carbon tetrachloride	<0.0017		0.0017	0.00050	mg/Kg	☼	11/10/17 18:28	11/17/17 02:56	1
Chlorobenzene	<0.0017		0.0017	0.00063	mg/Kg	☼	11/10/17 18:28	11/17/17 02:56	1
Chloroethane	<0.0043		0.0043	0.0013	mg/Kg	☼	11/10/17 18:28	11/17/17 02:56	1
Chloroform	<0.0017		0.0017	0.00059	mg/Kg	☼	11/10/17 18:28	11/17/17 02:56	1
Chloromethane	<0.0043		0.0043	0.0017	mg/Kg	☼	11/10/17 18:28	11/17/17 02:56	1
cis-1,2-Dichloroethene	<0.0017		0.0017	0.00048	mg/Kg	☼	11/10/17 18:28	11/17/17 02:56	1
cis-1,3-Dichloropropene	<0.0017		0.0017	0.00052	mg/Kg	☼	11/10/17 18:28	11/17/17 02:56	1
Dibromochloromethane	<0.0017		0.0017	0.00056	mg/Kg	☼	11/10/17 18:28	11/17/17 02:56	1
1,1-Dichloroethane	<0.0017		0.0017	0.00059	mg/Kg	☼	11/10/17 18:28	11/17/17 02:56	1
1,2-Dichloroethane	<0.0043		0.0043	0.0013	mg/Kg	☼	11/10/17 18:28	11/17/17 02:56	1
1,1-Dichloroethene	<0.0017		0.0017	0.00059	mg/Kg	☼	11/10/17 18:28	11/17/17 02:56	1
1,2-Dichloropropane	<0.0017		0.0017	0.00044	mg/Kg	☼	11/10/17 18:28	11/17/17 02:56	1
1,3-Dichloropropane, Total	<0.0017		0.0017	0.00060	mg/Kg	☼	11/10/17 18:28	11/17/17 02:56	1
Ethylbenzene	<0.0017		0.0017	0.00082	mg/Kg	☼	11/10/17 18:28	11/17/17 02:56	1
2-Hexanone	<0.0043		0.0043	0.0013	mg/Kg	☼	11/10/17 18:28	11/17/17 02:56	1
Methylene Chloride	<0.0043		0.0043	0.0017	mg/Kg	☼	11/10/17 18:28	11/17/17 02:56	1
4-Methyl-2-pentanone (MIBK)	<0.0043		0.0043	0.0013	mg/Kg	☼	11/10/17 18:28	11/17/17 02:56	1
Methyl tert-butyl ether	<0.0017		0.0017	0.00050	mg/Kg	☼	11/10/17 18:28	11/17/17 02:56	1
Styrene	<0.0017		0.0017	0.00052	mg/Kg	☼	11/10/17 18:28	11/17/17 02:56	1
1,1,2,2-Tetrachloroethane	<0.0017		0.0017	0.00055	mg/Kg	☼	11/10/17 18:28	11/17/17 02:56	1
Tetrachloroethene	<0.0017		0.0017	0.00058	mg/Kg	☼	11/10/17 18:28	11/17/17 02:56	1
Toluene	<0.0017		0.0017	0.00043	mg/Kg	☼	11/10/17 18:28	11/17/17 02:56	1
trans-1,2-Dichloroethene	<0.0017		0.0017	0.00076	mg/Kg	☼	11/10/17 18:28	11/17/17 02:56	1
trans-1,3-Dichloropropene	<0.0017		0.0017	0.00060	mg/Kg	☼	11/10/17 18:28	11/17/17 02:56	1
1,1,1-Trichloroethane	<0.0017		0.0017	0.00057	mg/Kg	☼	11/10/17 18:28	11/17/17 02:56	1
1,1,2-Trichloroethane	<0.0017		0.0017	0.00073	mg/Kg	☼	11/10/17 18:28	11/17/17 02:56	1
Trichloroethene	<0.0017		0.0017	0.00058	mg/Kg	☼	11/10/17 18:28	11/17/17 02:56	1
Vinyl acetate	<0.0043		0.0043	0.0015	mg/Kg	☼	11/10/17 18:28	11/17/17 02:56	1
Vinyl chloride	<0.0017		0.0017	0.00076	mg/Kg	☼	11/10/17 18:28	11/17/17 02:56	1
Xylenes, Total	<0.0034		0.0034	0.00055	mg/Kg	☼	11/10/17 18:28	11/17/17 02:56	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	89		75 - 131	11/10/17 18:28	11/17/17 02:56	1
Dibromofluoromethane	101		75 - 126	11/10/17 18:28	11/17/17 02:56	1
1,2-Dichloroethane-d4 (Surr)	95		70 - 134	11/10/17 18:28	11/17/17 02:56	1
Toluene-d8 (Surr)	96		75 - 124	11/10/17 18:28	11/17/17 02:56	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.039		0.039	0.0070	mg/Kg	☼	11/16/17 20:28	11/17/17 14:58	1
Acenaphthylene	<0.039		0.039	0.0052	mg/Kg	☼	11/16/17 20:28	11/17/17 14:58	1
Anthracene	<0.039		0.039	0.0065	mg/Kg	☼	11/16/17 20:28	11/17/17 14:58	1
Benzo[a]anthracene	<0.039		0.039	0.0053	mg/Kg	☼	11/16/17 20:28	11/17/17 14:58	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137080-2

Client Sample ID: 2696V-67-B01 (5-7)

Lab Sample ID: 500-137080-6

Date Collected: 11/09/17 08:35

Matrix: Solid

Date Received: 11/10/17 08:00

Percent Solids: 83.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	<0.039		0.039	0.0076	mg/Kg	☼	11/16/17 20:28	11/17/17 14:58	1
Benzo[b]fluoranthene	<0.039		0.039	0.0084	mg/Kg	☼	11/16/17 20:28	11/17/17 14:58	1
Benzo[g,h,i]perylene	<0.039		0.039	0.013	mg/Kg	☼	11/16/17 20:28	11/17/17 14:58	1
Benzo[k]fluoranthene	<0.039		0.039	0.012	mg/Kg	☼	11/16/17 20:28	11/17/17 14:58	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.040	mg/Kg	☼	11/16/17 20:28	11/17/17 14:58	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.059	mg/Kg	☼	11/16/17 20:28	11/17/17 14:58	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.071	mg/Kg	☼	11/16/17 20:28	11/17/17 14:58	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.052	mg/Kg	☼	11/16/17 20:28	11/17/17 14:58	1
Butyl benzyl phthalate	<0.20		0.20	0.074	mg/Kg	☼	11/16/17 20:28	11/17/17 14:58	1
Carbazole	<0.20		0.20	0.098	mg/Kg	☼	11/16/17 20:28	11/17/17 14:58	1
4-Chloroaniline	<0.79		0.79	0.18	mg/Kg	☼	11/16/17 20:28	11/17/17 14:58	1
4-Chloro-3-methylphenol	<0.39		0.39	0.13	mg/Kg	☼	11/16/17 20:28	11/17/17 14:58	1
2-Chloronaphthalene	<0.20		0.20	0.043	mg/Kg	☼	11/16/17 20:28	11/17/17 14:58	1
2-Chlorophenol	<0.20		0.20	0.067	mg/Kg	☼	11/16/17 20:28	11/17/17 14:58	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.046	mg/Kg	☼	11/16/17 20:28	11/17/17 14:58	1
Chrysene	<0.039		0.039	0.011	mg/Kg	☼	11/16/17 20:28	11/17/17 14:58	1
Dibenz(a,h)anthracene	<0.039		0.039	0.0076	mg/Kg	☼	11/16/17 20:28	11/17/17 14:58	1
Dibenzofuran	<0.20		0.20	0.046	mg/Kg	☼	11/16/17 20:28	11/17/17 14:58	1
1,2-Dichlorobenzene	<0.20		0.20	0.047	mg/Kg	☼	11/16/17 20:28	11/17/17 14:58	1
1,3-Dichlorobenzene	<0.20		0.20	0.044	mg/Kg	☼	11/16/17 20:28	11/17/17 14:58	1
1,4-Dichlorobenzene	<0.20		0.20	0.050	mg/Kg	☼	11/16/17 20:28	11/17/17 14:58	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.055	mg/Kg	☼	11/16/17 20:28	11/17/17 14:58	1
2,4-Dichlorophenol	<0.39		0.39	0.093	mg/Kg	☼	11/16/17 20:28	11/17/17 14:58	1
Diethyl phthalate	<0.20		0.20	0.066	mg/Kg	☼	11/16/17 20:28	11/17/17 14:58	1
2,4-Dimethylphenol	<0.39		0.39	0.15	mg/Kg	☼	11/16/17 20:28	11/17/17 14:58	1
Dimethyl phthalate	<0.20		0.20	0.051	mg/Kg	☼	11/16/17 20:28	11/17/17 14:58	1
Di-n-butyl phthalate	<0.20		0.20	0.060	mg/Kg	☼	11/16/17 20:28	11/17/17 14:58	1
4,6-Dinitro-2-methylphenol	<0.79		0.79	0.31	mg/Kg	☼	11/16/17 20:28	11/17/17 14:58	1
2,4-Dinitrophenol	<0.79	*	0.79	0.69	mg/Kg	☼	11/16/17 20:28	11/17/17 14:58	1
2,4-Dinitrotoluene	<0.20		0.20	0.062	mg/Kg	☼	11/16/17 20:28	11/17/17 14:58	1
2,6-Dinitrotoluene	<0.20		0.20	0.077	mg/Kg	☼	11/16/17 20:28	11/17/17 14:58	1
Di-n-octyl phthalate	<0.20		0.20	0.064	mg/Kg	☼	11/16/17 20:28	11/17/17 14:58	1
Fluoranthene	<0.039		0.039	0.0073	mg/Kg	☼	11/16/17 20:28	11/17/17 14:58	1
Fluorene	<0.039		0.039	0.0055	mg/Kg	☼	11/16/17 20:28	11/17/17 14:58	1
Hexachlorobenzene	<0.079		0.079	0.0091	mg/Kg	☼	11/16/17 20:28	11/17/17 14:58	1
Hexachlorobutadiene	<0.20		0.20	0.061	mg/Kg	☼	11/16/17 20:28	11/17/17 14:58	1
Hexachlorocyclopentadiene	<0.79		0.79	0.22	mg/Kg	☼	11/16/17 20:28	11/17/17 14:58	1
Hexachloroethane	<0.20		0.20	0.059	mg/Kg	☼	11/16/17 20:28	11/17/17 14:58	1
Indeno[1,2,3-cd]pyrene	<0.039		0.039	0.010	mg/Kg	☼	11/16/17 20:28	11/17/17 14:58	1
Isophorone	<0.20		0.20	0.044	mg/Kg	☼	11/16/17 20:28	11/17/17 14:58	1
2-Methylnaphthalene	<0.079		0.079	0.0072	mg/Kg	☼	11/16/17 20:28	11/17/17 14:58	1
2-Methylphenol	<0.20		0.20	0.063	mg/Kg	☼	11/16/17 20:28	11/17/17 14:58	1
3 & 4 Methylphenol	<0.20		0.20	0.065	mg/Kg	☼	11/16/17 20:28	11/17/17 14:58	1
Naphthalene	<0.039		0.039	0.0060	mg/Kg	☼	11/16/17 20:28	11/17/17 14:58	1
2-Nitroaniline	<0.20		0.20	0.053	mg/Kg	☼	11/16/17 20:28	11/17/17 14:58	1
3-Nitroaniline	<0.39		0.39	0.12	mg/Kg	☼	11/16/17 20:28	11/17/17 14:58	1
4-Nitroaniline	<0.39		0.39	0.16	mg/Kg	☼	11/16/17 20:28	11/17/17 14:58	1
Nitrobenzene	<0.039		0.039	0.0098	mg/Kg	☼	11/16/17 20:28	11/17/17 14:58	1
2-Nitrophenol	<0.39		0.39	0.092	mg/Kg	☼	11/16/17 20:28	11/17/17 14:58	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137080-2

Client Sample ID: 2696V-67-B01 (5-7)

Lab Sample ID: 500-137080-6

Date Collected: 11/09/17 08:35

Matrix: Solid

Date Received: 11/10/17 08:00

Percent Solids: 83.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Nitrophenol	<0.79		0.79	0.37	mg/Kg	☼	11/16/17 20:28	11/17/17 14:58	1
N-Nitrosodi-n-propylamine	<0.079		0.079	0.048	mg/Kg	☼	11/16/17 20:28	11/17/17 14:58	1
N-Nitrosodiphenylamine	<0.20		0.20	0.046	mg/Kg	☼	11/16/17 20:28	11/17/17 14:58	1
2,2'-oxybis[1-chloropropane]	<0.20	*	0.20	0.045	mg/Kg	☼	11/16/17 20:28	11/17/17 14:58	1
Pentachlorophenol	<0.79		0.79	0.63	mg/Kg	☼	11/16/17 20:28	11/17/17 14:58	1
Phenanthrene	<0.039		0.039	0.0054	mg/Kg	☼	11/16/17 20:28	11/17/17 14:58	1
Phenol	<0.20		0.20	0.087	mg/Kg	☼	11/16/17 20:28	11/17/17 14:58	1
Pyrene	<0.039		0.039	0.0078	mg/Kg	☼	11/16/17 20:28	11/17/17 14:58	1
1,2,4-Trichlorobenzene	<0.20		0.20	0.042	mg/Kg	☼	11/16/17 20:28	11/17/17 14:58	1
2,4,5-Trichlorophenol	<0.39		0.39	0.089	mg/Kg	☼	11/16/17 20:28	11/17/17 14:58	1
2,4,6-Trichlorophenol	<0.39		0.39	0.13	mg/Kg	☼	11/16/17 20:28	11/17/17 14:58	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	85		44 - 121	11/16/17 20:28	11/17/17 14:58	1
2-Fluorophenol	95		46 - 133	11/16/17 20:28	11/17/17 14:58	1
Nitrobenzene-d5	78		41 - 120	11/16/17 20:28	11/17/17 14:58	1
Phenol-d5	79		46 - 125	11/16/17 20:28	11/17/17 14:58	1
Terphenyl-d14	86		35 - 160	11/16/17 20:28	11/17/17 14:58	1
2,4,6-Tribromophenol	94		25 - 139	11/16/17 20:28	11/17/17 14:58	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.2		1.2	0.23	mg/Kg	☼	11/10/17 17:37	11/11/17 18:54	1
Arsenic	10		0.59	0.20	mg/Kg	☼	11/10/17 17:37	11/11/17 18:54	1
Barium	43		0.59	0.068	mg/Kg	☼	11/10/17 17:37	11/11/17 18:54	1
Beryllium	0.56		0.24	0.056	mg/Kg	☼	11/10/17 17:37	11/11/17 18:54	1
Cadmium	0.11	J B	0.12	0.021	mg/Kg	☼	11/10/17 17:37	11/11/17 18:54	1
Chromium	16		0.59	0.29	mg/Kg	☼	11/10/17 17:37	11/11/17 18:54	1
Cobalt	10		0.30	0.078	mg/Kg	☼	11/10/17 17:37	11/11/17 18:54	1
Copper	18		0.59	0.17	mg/Kg	☼	11/10/17 17:37	11/11/17 18:54	1
Iron	23000		12	6.2	mg/Kg	☼	11/10/17 17:37	11/11/17 18:54	1
Lead	15		0.30	0.14	mg/Kg	☼	11/10/17 17:37	11/11/17 18:54	1
Magnesium	2500		5.9	2.9	mg/Kg	☼	11/10/17 17:37	11/11/17 18:54	1
Calcium	1600	B	12	2.0	mg/Kg	☼	11/10/17 17:37	11/11/17 18:54	1
Manganese	410		0.59	0.086	mg/Kg	☼	11/10/17 17:37	11/11/17 18:54	1
Nickel	30		0.59	0.17	mg/Kg	☼	11/10/17 17:37	11/11/17 18:54	1
Selenium	<0.59		0.59	0.35	mg/Kg	☼	11/10/17 17:37	11/11/17 18:54	1
Silver	<0.30		0.30	0.077	mg/Kg	☼	11/10/17 17:37	11/11/17 18:54	1
Thallium	<0.59		0.59	0.30	mg/Kg	☼	11/10/17 17:37	11/11/17 18:54	1
Vanadium	21		0.30	0.070	mg/Kg	☼	11/10/17 17:37	11/11/17 18:54	1
Zinc	71		1.2	0.52	mg/Kg	☼	11/10/17 17:37	11/11/17 18:54	1
Potassium	1100		30	11	mg/Kg	☼	11/10/17 17:37	11/11/17 18:54	1
Sodium	160		59	8.8	mg/Kg	☼	11/10/17 17:37	11/11/17 18:54	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.050		0.050	0.010	mg/L		11/15/17 08:09	11/16/17 17:04	1
Barium	0.11	J	0.50	0.050	mg/L		11/15/17 08:09	11/16/17 17:04	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		11/15/17 08:09	11/16/17 17:04	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		11/15/17 08:09	11/16/17 17:04	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137080-2

Client Sample ID: 2696V-67-B01 (5-7)

Lab Sample ID: 500-137080-6

Date Collected: 11/09/17 08:35

Matrix: Solid

Date Received: 11/10/17 08:00

Percent Solids: 83.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	36		5.0	0.50	mg/L		11/15/17 08:09	11/16/17 17:04	1
Chromium	<0.025		0.025	0.010	mg/L		11/15/17 08:09	11/16/17 17:04	1
Cobalt	<0.025		0.025	0.010	mg/L		11/15/17 08:09	11/16/17 17:04	1
Copper	0.010	J	0.025	0.010	mg/L		11/15/17 08:09	11/16/17 17:04	1
Iron	<0.40		0.40	0.20	mg/L		11/15/17 08:09	11/16/17 17:04	1
Lead	<0.0075		0.0075	0.0075	mg/L		11/15/17 08:09	11/16/17 17:04	1
Magnesium	8.6		2.5	0.50	mg/L		11/15/17 08:09	11/16/17 17:04	1
Manganese	0.47		0.025	0.010	mg/L		11/15/17 08:09	11/16/17 17:04	1
Nickel	<0.025		0.025	0.010	mg/L		11/15/17 08:09	11/16/17 17:04	1
Potassium	1.7	J	2.5	0.50	mg/L		11/15/17 08:09	11/16/17 17:04	1
Selenium	<0.050		0.050	0.020	mg/L		11/15/17 08:09	11/16/17 17:04	1
Silver	<0.025		0.025	0.010	mg/L		11/15/17 08:09	11/16/17 17:04	1
Vanadium	<0.025		0.025	0.010	mg/L		11/15/17 08:09	11/16/17 17:04	1
Zinc	<0.50		0.50	0.020	mg/L		11/15/17 08:09	11/16/17 17:04	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.039		0.025	0.010	mg/L		11/14/17 14:25	11/15/17 20:55	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		11/15/17 08:09	11/16/17 18:16	1
Thallium	<0.0020		0.0020	0.0020	mg/L		11/15/17 08:09	11/16/17 18:16	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		11/17/17 08:10	11/18/17 11:45	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.023		0.018	0.0061	mg/Kg	☼	11/17/17 10:45	11/18/17 13:44	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.58		0.58	0.20	mg/Kg	☼	11/21/17 13:15	11/21/17 16:38	1
pH	8.0		0.20	0.20	SU			11/18/17 13:04	1

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137080-2

Client Sample ID: 2696V-67-B02 (0-5)

Lab Sample ID: 500-137080-7

Date Collected: 11/09/17 08:50

Matrix: Solid

Date Received: 11/10/17 08:00

Percent Solids: 75.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.020		0.020	0.0086	mg/Kg	☼	11/10/17 18:28	11/17/17 03:21	1
Benzene	<0.0020		0.0020	0.00051	mg/Kg	☼	11/10/17 18:28	11/17/17 03:21	1
Bromodichloromethane	<0.0020		0.0020	0.00040	mg/Kg	☼	11/10/17 18:28	11/17/17 03:21	1
Bromoform	<0.0020		0.0020	0.00058	mg/Kg	☼	11/10/17 18:28	11/17/17 03:21	1
Bromomethane	<0.0050		0.0050	0.0019	mg/Kg	☼	11/10/17 18:28	11/17/17 03:21	1
2-Butanone (MEK)	<0.0050		0.0050	0.0022	mg/Kg	☼	11/10/17 18:28	11/17/17 03:21	1
Carbon disulfide	<0.0050		0.0050	0.0010	mg/Kg	☼	11/10/17 18:28	11/17/17 03:21	1
Carbon tetrachloride	<0.0020		0.0020	0.00058	mg/Kg	☼	11/10/17 18:28	11/17/17 03:21	1
Chlorobenzene	<0.0020		0.0020	0.00073	mg/Kg	☼	11/10/17 18:28	11/17/17 03:21	1
Chloroethane	<0.0050		0.0050	0.0015	mg/Kg	☼	11/10/17 18:28	11/17/17 03:21	1
Chloroform	<0.0020		0.0020	0.00069	mg/Kg	☼	11/10/17 18:28	11/17/17 03:21	1
Chloromethane	<0.0050		0.0050	0.0020	mg/Kg	☼	11/10/17 18:28	11/17/17 03:21	1
cis-1,2-Dichloroethene	<0.0020		0.0020	0.00055	mg/Kg	☼	11/10/17 18:28	11/17/17 03:21	1
cis-1,3-Dichloropropene	<0.0020		0.0020	0.00060	mg/Kg	☼	11/10/17 18:28	11/17/17 03:21	1
Dibromochloromethane	<0.0020		0.0020	0.00065	mg/Kg	☼	11/10/17 18:28	11/17/17 03:21	1
1,1-Dichloroethane	<0.0020		0.0020	0.00068	mg/Kg	☼	11/10/17 18:28	11/17/17 03:21	1
1,2-Dichloroethane	<0.0050		0.0050	0.0015	mg/Kg	☼	11/10/17 18:28	11/17/17 03:21	1
1,1-Dichloroethene	<0.0020		0.0020	0.00068	mg/Kg	☼	11/10/17 18:28	11/17/17 03:21	1
1,2-Dichloropropane	<0.0020		0.0020	0.00051	mg/Kg	☼	11/10/17 18:28	11/17/17 03:21	1
1,3-Dichloropropane, Total	<0.0020		0.0020	0.00070	mg/Kg	☼	11/10/17 18:28	11/17/17 03:21	1
Ethylbenzene	<0.0020		0.0020	0.00095	mg/Kg	☼	11/10/17 18:28	11/17/17 03:21	1
2-Hexanone	<0.0050		0.0050	0.0015	mg/Kg	☼	11/10/17 18:28	11/17/17 03:21	1
Methylene Chloride	<0.0050		0.0050	0.0020	mg/Kg	☼	11/10/17 18:28	11/17/17 03:21	1
4-Methyl-2-pentanone (MIBK)	<0.0050		0.0050	0.0015	mg/Kg	☼	11/10/17 18:28	11/17/17 03:21	1
Methyl tert-butyl ether	<0.0020		0.0020	0.00058	mg/Kg	☼	11/10/17 18:28	11/17/17 03:21	1
Styrene	<0.0020		0.0020	0.00060	mg/Kg	☼	11/10/17 18:28	11/17/17 03:21	1
1,1,2,2-Tetrachloroethane	<0.0020		0.0020	0.00063	mg/Kg	☼	11/10/17 18:28	11/17/17 03:21	1
Tetrachloroethene	<0.0020		0.0020	0.00068	mg/Kg	☼	11/10/17 18:28	11/17/17 03:21	1
Toluene	<0.0020		0.0020	0.00050	mg/Kg	☼	11/10/17 18:28	11/17/17 03:21	1
trans-1,2-Dichloroethene	<0.0020		0.0020	0.00088	mg/Kg	☼	11/10/17 18:28	11/17/17 03:21	1
trans-1,3-Dichloropropene	<0.0020		0.0020	0.00070	mg/Kg	☼	11/10/17 18:28	11/17/17 03:21	1
1,1,1-Trichloroethane	<0.0020		0.0020	0.00067	mg/Kg	☼	11/10/17 18:28	11/17/17 03:21	1
1,1,2-Trichloroethane	<0.0020		0.0020	0.00085	mg/Kg	☼	11/10/17 18:28	11/17/17 03:21	1
Trichloroethene	<0.0020		0.0020	0.00067	mg/Kg	☼	11/10/17 18:28	11/17/17 03:21	1
Vinyl acetate	<0.0050		0.0050	0.0017	mg/Kg	☼	11/10/17 18:28	11/17/17 03:21	1
Vinyl chloride	<0.0020		0.0020	0.00088	mg/Kg	☼	11/10/17 18:28	11/17/17 03:21	1
Xylenes, Total	<0.0040		0.0040	0.00064	mg/Kg	☼	11/10/17 18:28	11/17/17 03:21	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	90		75 - 131	11/10/17 18:28	11/17/17 03:21	1
Dibromofluoromethane	100		75 - 126	11/10/17 18:28	11/17/17 03:21	1
1,2-Dichloroethane-d4 (Surr)	97		70 - 134	11/10/17 18:28	11/17/17 03:21	1
Toluene-d8 (Surr)	99		75 - 124	11/10/17 18:28	11/17/17 03:21	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.031	J	0.042	0.0075	mg/Kg	☼	11/16/17 20:28	11/17/17 18:32	1
Acenaphthylene	0.014	J	0.042	0.0055	mg/Kg	☼	11/16/17 20:28	11/17/17 18:32	1
Anthracene	0.087		0.042	0.0070	mg/Kg	☼	11/16/17 20:28	11/17/17 18:32	1
Benzo[a]anthracene	0.23		0.042	0.0056	mg/Kg	☼	11/16/17 20:28	11/17/17 18:32	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137080-2

Client Sample ID: 2696V-67-B02 (0-5)

Lab Sample ID: 500-137080-7

Date Collected: 11/09/17 08:50

Matrix: Solid

Date Received: 11/10/17 08:00

Percent Solids: 75.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	0.24		0.042	0.0081	mg/Kg	☼	11/16/17 20:28	11/17/17 18:32	1
Benzo[b]fluoranthene	0.33		0.042	0.0091	mg/Kg	☼	11/16/17 20:28	11/17/17 18:32	1
Benzo[g,h,i]perylene	0.072		0.042	0.014	mg/Kg	☼	11/16/17 20:28	11/17/17 18:32	1
Benzo[k]fluoranthene	0.13		0.042	0.012	mg/Kg	☼	11/16/17 20:28	11/17/17 18:32	1
Bis(2-chloroethoxy)methane	<0.21		0.21	0.043	mg/Kg	☼	11/16/17 20:28	11/17/17 18:32	1
Bis(2-chloroethyl)ether	<0.21		0.21	0.063	mg/Kg	☼	11/16/17 20:28	11/17/17 18:32	1
Bis(2-ethylhexyl) phthalate	<0.21		0.21	0.077	mg/Kg	☼	11/16/17 20:28	11/17/17 18:32	1
4-Bromophenyl phenyl ether	<0.21		0.21	0.055	mg/Kg	☼	11/16/17 20:28	11/17/17 18:32	1
Butyl benzyl phthalate	<0.21		0.21	0.080	mg/Kg	☼	11/16/17 20:28	11/17/17 18:32	1
Carbazole	<0.21		0.21	0.10	mg/Kg	☼	11/16/17 20:28	11/17/17 18:32	1
4-Chloroaniline	<0.85		0.85	0.20	mg/Kg	☼	11/16/17 20:28	11/17/17 18:32	1
4-Chloro-3-methylphenol	<0.42		0.42	0.14	mg/Kg	☼	11/16/17 20:28	11/17/17 18:32	1
2-Chloronaphthalene	<0.21		0.21	0.046	mg/Kg	☼	11/16/17 20:28	11/17/17 18:32	1
2-Chlorophenol	<0.21		0.21	0.072	mg/Kg	☼	11/16/17 20:28	11/17/17 18:32	1
4-Chlorophenyl phenyl ether	<0.21		0.21	0.049	mg/Kg	☼	11/16/17 20:28	11/17/17 18:32	1
Chrysene	0.22		0.042	0.011	mg/Kg	☼	11/16/17 20:28	11/17/17 18:32	1
Dibenz(a,h)anthracene	0.022	J	0.042	0.0081	mg/Kg	☼	11/16/17 20:28	11/17/17 18:32	1
Dibenzofuran	<0.21		0.21	0.049	mg/Kg	☼	11/16/17 20:28	11/17/17 18:32	1
1,2-Dichlorobenzene	<0.21		0.21	0.050	mg/Kg	☼	11/16/17 20:28	11/17/17 18:32	1
1,3-Dichlorobenzene	<0.21		0.21	0.047	mg/Kg	☼	11/16/17 20:28	11/17/17 18:32	1
1,4-Dichlorobenzene	<0.21		0.21	0.054	mg/Kg	☼	11/16/17 20:28	11/17/17 18:32	1
3,3'-Dichlorobenzidine	<0.21		0.21	0.059	mg/Kg	☼	11/16/17 20:28	11/17/17 18:32	1
2,4-Dichlorophenol	<0.42		0.42	0.10	mg/Kg	☼	11/16/17 20:28	11/17/17 18:32	1
Diethyl phthalate	<0.21		0.21	0.071	mg/Kg	☼	11/16/17 20:28	11/17/17 18:32	1
2,4-Dimethylphenol	<0.42		0.42	0.16	mg/Kg	☼	11/16/17 20:28	11/17/17 18:32	1
Dimethyl phthalate	<0.21		0.21	0.055	mg/Kg	☼	11/16/17 20:28	11/17/17 18:32	1
Di-n-butyl phthalate	<0.21		0.21	0.064	mg/Kg	☼	11/16/17 20:28	11/17/17 18:32	1
4,6-Dinitro-2-methylphenol	<0.85		0.85	0.34	mg/Kg	☼	11/16/17 20:28	11/17/17 18:32	1
2,4-Dinitrophenol	<0.85	*	0.85	0.74	mg/Kg	☼	11/16/17 20:28	11/17/17 18:32	1
2,4-Dinitrotoluene	<0.21		0.21	0.067	mg/Kg	☼	11/16/17 20:28	11/17/17 18:32	1
2,6-Dinitrotoluene	<0.21		0.21	0.082	mg/Kg	☼	11/16/17 20:28	11/17/17 18:32	1
Di-n-octyl phthalate	<0.21		0.21	0.068	mg/Kg	☼	11/16/17 20:28	11/17/17 18:32	1
Fluoranthene	0.53		0.042	0.0078	mg/Kg	☼	11/16/17 20:28	11/17/17 18:32	1
Fluorene	0.040	J	0.042	0.0059	mg/Kg	☼	11/16/17 20:28	11/17/17 18:32	1
Hexachlorobenzene	<0.085		0.085	0.0097	mg/Kg	☼	11/16/17 20:28	11/17/17 18:32	1
Hexachlorobutadiene	<0.21		0.21	0.066	mg/Kg	☼	11/16/17 20:28	11/17/17 18:32	1
Hexachlorocyclopentadiene	<0.85		0.85	0.24	mg/Kg	☼	11/16/17 20:28	11/17/17 18:32	1
Hexachloroethane	<0.21		0.21	0.064	mg/Kg	☼	11/16/17 20:28	11/17/17 18:32	1
Indeno[1,2,3-cd]pyrene	0.075		0.042	0.011	mg/Kg	☼	11/16/17 20:28	11/17/17 18:32	1
Isophorone	<0.21		0.21	0.047	mg/Kg	☼	11/16/17 20:28	11/17/17 18:32	1
2-Methylnaphthalene	0.011	J	0.085	0.0077	mg/Kg	☼	11/16/17 20:28	11/17/17 18:32	1
2-Methylphenol	<0.21		0.21	0.067	mg/Kg	☼	11/16/17 20:28	11/17/17 18:32	1
3 & 4 Methylphenol	<0.21		0.21	0.070	mg/Kg	☼	11/16/17 20:28	11/17/17 18:32	1
Naphthalene	0.0097	J	0.042	0.0065	mg/Kg	☼	11/16/17 20:28	11/17/17 18:32	1
2-Nitroaniline	<0.21		0.21	0.056	mg/Kg	☼	11/16/17 20:28	11/17/17 18:32	1
3-Nitroaniline	<0.42		0.42	0.13	mg/Kg	☼	11/16/17 20:28	11/17/17 18:32	1
4-Nitroaniline	<0.42		0.42	0.18	mg/Kg	☼	11/16/17 20:28	11/17/17 18:32	1
Nitrobenzene	<0.042		0.042	0.010	mg/Kg	☼	11/16/17 20:28	11/17/17 18:32	1
2-Nitrophenol	<0.42		0.42	0.099	mg/Kg	☼	11/16/17 20:28	11/17/17 18:32	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137080-2

Client Sample ID: 2696V-67-B02 (0-5)

Lab Sample ID: 500-137080-7

Date Collected: 11/09/17 08:50

Matrix: Solid

Date Received: 11/10/17 08:00

Percent Solids: 75.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Nitrophenol	<0.85		0.85	0.40	mg/Kg	☼	11/16/17 20:28	11/17/17 18:32	1
N-Nitrosodi-n-propylamine	<0.085		0.085	0.051	mg/Kg	☼	11/16/17 20:28	11/17/17 18:32	1
N-Nitrosodiphenylamine	<0.21		0.21	0.049	mg/Kg	☼	11/16/17 20:28	11/17/17 18:32	1
2,2'-oxybis[1-chloropropane]	<0.21	*	0.21	0.049	mg/Kg	☼	11/16/17 20:28	11/17/17 18:32	1
Pentachlorophenol	<0.85		0.85	0.67	mg/Kg	☼	11/16/17 20:28	11/17/17 18:32	1
Phenanthrene	0.37		0.042	0.0058	mg/Kg	☼	11/16/17 20:28	11/17/17 18:32	1
Phenol	<0.21		0.21	0.093	mg/Kg	☼	11/16/17 20:28	11/17/17 18:32	1
Pyrene	0.45		0.042	0.0083	mg/Kg	☼	11/16/17 20:28	11/17/17 18:32	1
1,2,4-Trichlorobenzene	<0.21		0.21	0.045	mg/Kg	☼	11/16/17 20:28	11/17/17 18:32	1
2,4,5-Trichlorophenol	<0.42		0.42	0.096	mg/Kg	☼	11/16/17 20:28	11/17/17 18:32	1
2,4,6-Trichlorophenol	<0.42		0.42	0.14	mg/Kg	☼	11/16/17 20:28	11/17/17 18:32	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	92		44 - 121	11/16/17 20:28	11/17/17 18:32	1
2-Fluorophenol	98		46 - 133	11/16/17 20:28	11/17/17 18:32	1
Nitrobenzene-d5	81		41 - 120	11/16/17 20:28	11/17/17 18:32	1
Phenol-d5	84		46 - 125	11/16/17 20:28	11/17/17 18:32	1
Terphenyl-d14	97		35 - 160	11/16/17 20:28	11/17/17 18:32	1
2,4,6-Tribromophenol	121		25 - 139	11/16/17 20:28	11/17/17 18:32	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.30	J	1.3	0.24	mg/Kg	☼	11/10/17 17:37	11/11/17 18:58	1
Arsenic	5.0		0.63	0.22	mg/Kg	☼	11/10/17 17:37	11/11/17 18:58	1
Barium	66		0.63	0.072	mg/Kg	☼	11/10/17 17:37	11/11/17 18:58	1
Beryllium	0.55		0.25	0.059	mg/Kg	☼	11/10/17 17:37	11/11/17 18:58	1
Cadmium	0.23	B	0.13	0.023	mg/Kg	☼	11/10/17 17:37	11/11/17 18:58	1
Chromium	13		0.63	0.31	mg/Kg	☼	11/10/17 17:37	11/11/17 18:58	1
Cobalt	7.9		0.31	0.082	mg/Kg	☼	11/10/17 17:37	11/11/17 18:58	1
Copper	15		0.63	0.18	mg/Kg	☼	11/10/17 17:37	11/11/17 18:58	1
Iron	13000		13	6.5	mg/Kg	☼	11/10/17 17:37	11/11/17 18:58	1
Lead	49		0.31	0.15	mg/Kg	☼	11/10/17 17:37	11/11/17 18:58	1
Magnesium	14000		6.3	3.1	mg/Kg	☼	11/10/17 17:37	11/11/17 18:58	1
Calcium	24000	B	13	2.1	mg/Kg	☼	11/10/17 17:37	11/11/17 18:58	1
Manganese	330		0.63	0.091	mg/Kg	☼	11/10/17 17:37	11/11/17 18:58	1
Nickel	19		0.63	0.18	mg/Kg	☼	11/10/17 17:37	11/11/17 18:58	1
Selenium	0.60	J	0.63	0.37	mg/Kg	☼	11/10/17 17:37	11/11/17 18:58	1
Silver	<0.31		0.31	0.081	mg/Kg	☼	11/10/17 17:37	11/11/17 18:58	1
Thallium	<0.63		0.63	0.31	mg/Kg	☼	11/10/17 17:37	11/11/17 18:58	1
Vanadium	18		0.31	0.074	mg/Kg	☼	11/10/17 17:37	11/11/17 18:58	1
Zinc	49		1.3	0.55	mg/Kg	☼	11/10/17 17:37	11/11/17 18:58	1
Potassium	1100		31	11	mg/Kg	☼	11/10/17 17:37	11/11/17 18:58	1
Sodium	570		63	9.3	mg/Kg	☼	11/10/17 17:37	11/11/17 18:58	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.050		0.050	0.010	mg/L		11/15/17 08:09	11/16/17 17:08	1
Barium	0.35	J	0.50	0.050	mg/L		11/15/17 08:09	11/16/17 17:08	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		11/15/17 08:09	11/16/17 17:08	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		11/15/17 08:09	11/16/17 17:08	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137080-2

Client Sample ID: 2696V-67-B02 (0-5)

Lab Sample ID: 500-137080-7

Date Collected: 11/09/17 08:50

Matrix: Solid

Date Received: 11/10/17 08:00

Percent Solids: 75.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	250		5.0	0.50	mg/L		11/15/17 08:09	11/16/17 17:08	1
Chromium	<0.025		0.025	0.010	mg/L		11/15/17 08:09	11/16/17 17:08	1
Cobalt	<0.025		0.025	0.010	mg/L		11/15/17 08:09	11/16/17 17:08	1
Copper	<0.025		0.025	0.010	mg/L		11/15/17 08:09	11/16/17 17:08	1
Iron	<0.40		0.40	0.20	mg/L		11/15/17 08:09	11/16/17 17:08	1
Lead	<0.0075		0.0075	0.0075	mg/L		11/15/17 08:09	11/16/17 17:08	1
Magnesium	91		2.5	0.50	mg/L		11/15/17 08:09	11/16/17 17:08	1
Manganese	1.8		0.025	0.010	mg/L		11/15/17 08:09	11/16/17 17:08	1
Nickel	<0.025		0.025	0.010	mg/L		11/15/17 08:09	11/16/17 17:08	1
Potassium	0.93	J	2.5	0.50	mg/L		11/15/17 08:09	11/16/17 17:08	1
Selenium	<0.050		0.050	0.020	mg/L		11/15/17 08:09	11/16/17 17:08	1
Silver	<0.025		0.025	0.010	mg/L		11/15/17 08:09	11/16/17 17:08	1
Vanadium	<0.025		0.025	0.010	mg/L		11/15/17 08:09	11/16/17 17:08	1
Zinc	0.021	J ^	0.50	0.020	mg/L		11/15/17 08:09	11/16/17 17:08	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.36		0.025	0.010	mg/L		11/14/17 14:25	11/15/17 20:59	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		11/15/17 08:09	11/16/17 18:20	1
Thallium	<0.0020		0.0020	0.0020	mg/L		11/15/17 08:09	11/16/17 18:20	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		11/17/17 08:10	11/18/17 11:47	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.027		0.020	0.0066	mg/Kg	☼	11/17/17 10:45	11/18/17 13:46	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.64		0.64	0.22	mg/Kg	☼	11/21/17 13:15	11/21/17 16:38	1
pH	8.4		0.20	0.20	SU			11/18/17 13:07	1

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137080-2

Client Sample ID: 2696V-67-B02 (5-7)

Lab Sample ID: 500-137080-8

Date Collected: 11/09/17 09:00

Matrix: Solid

Date Received: 11/10/17 08:00

Percent Solids: 81.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	0.028		0.017	0.0074	mg/Kg	☼	11/10/17 18:28	11/17/17 03:46	1
Benzene	<0.0017		0.0017	0.00043	mg/Kg	☼	11/10/17 18:28	11/17/17 03:46	1
Bromodichloromethane	<0.0017		0.0017	0.00035	mg/Kg	☼	11/10/17 18:28	11/17/17 03:46	1
Bromoform	<0.0017		0.0017	0.00050	mg/Kg	☼	11/10/17 18:28	11/17/17 03:46	1
Bromomethane	<0.0042		0.0042	0.0016	mg/Kg	☼	11/10/17 18:28	11/17/17 03:46	1
2-Butanone (MEK)	<0.0042		0.0042	0.0019	mg/Kg	☼	11/10/17 18:28	11/17/17 03:46	1
Carbon disulfide	<0.0042		0.0042	0.00088	mg/Kg	☼	11/10/17 18:28	11/17/17 03:46	1
Carbon tetrachloride	<0.0017		0.0017	0.00049	mg/Kg	☼	11/10/17 18:28	11/17/17 03:46	1
Chlorobenzene	<0.0017		0.0017	0.00063	mg/Kg	☼	11/10/17 18:28	11/17/17 03:46	1
Chloroethane	<0.0042		0.0042	0.0013	mg/Kg	☼	11/10/17 18:28	11/17/17 03:46	1
Chloroform	<0.0017		0.0017	0.00059	mg/Kg	☼	11/10/17 18:28	11/17/17 03:46	1
Chloromethane	<0.0042		0.0042	0.0017	mg/Kg	☼	11/10/17 18:28	11/17/17 03:46	1
cis-1,2-Dichloroethene	<0.0017		0.0017	0.00048	mg/Kg	☼	11/10/17 18:28	11/17/17 03:46	1
cis-1,3-Dichloropropene	<0.0017		0.0017	0.00051	mg/Kg	☼	11/10/17 18:28	11/17/17 03:46	1
Dibromochloromethane	<0.0017		0.0017	0.00056	mg/Kg	☼	11/10/17 18:28	11/17/17 03:46	1
1,1-Dichloroethane	<0.0017		0.0017	0.00058	mg/Kg	☼	11/10/17 18:28	11/17/17 03:46	1
1,2-Dichloroethane	<0.0042		0.0042	0.0013	mg/Kg	☼	11/10/17 18:28	11/17/17 03:46	1
1,1-Dichloroethene	<0.0017		0.0017	0.00058	mg/Kg	☼	11/10/17 18:28	11/17/17 03:46	1
1,2-Dichloropropane	<0.0017		0.0017	0.00044	mg/Kg	☼	11/10/17 18:28	11/17/17 03:46	1
1,3-Dichloropropane, Total	<0.0017		0.0017	0.00060	mg/Kg	☼	11/10/17 18:28	11/17/17 03:46	1
Ethylbenzene	<0.0017		0.0017	0.00081	mg/Kg	☼	11/10/17 18:28	11/17/17 03:46	1
2-Hexanone	<0.0042		0.0042	0.0013	mg/Kg	☼	11/10/17 18:28	11/17/17 03:46	1
Methylene Chloride	<0.0042		0.0042	0.0017	mg/Kg	☼	11/10/17 18:28	11/17/17 03:46	1
4-Methyl-2-pentanone (MIBK)	<0.0042		0.0042	0.0013	mg/Kg	☼	11/10/17 18:28	11/17/17 03:46	1
Methyl tert-butyl ether	<0.0017		0.0017	0.00050	mg/Kg	☼	11/10/17 18:28	11/17/17 03:46	1
Styrene	<0.0017		0.0017	0.00051	mg/Kg	☼	11/10/17 18:28	11/17/17 03:46	1
1,1,2,2-Tetrachloroethane	<0.0017		0.0017	0.00054	mg/Kg	☼	11/10/17 18:28	11/17/17 03:46	1
Tetrachloroethene	<0.0017		0.0017	0.00058	mg/Kg	☼	11/10/17 18:28	11/17/17 03:46	1
Toluene	<0.0017		0.0017	0.00043	mg/Kg	☼	11/10/17 18:28	11/17/17 03:46	1
trans-1,2-Dichloroethene	<0.0017		0.0017	0.00075	mg/Kg	☼	11/10/17 18:28	11/17/17 03:46	1
trans-1,3-Dichloropropene	<0.0017		0.0017	0.00060	mg/Kg	☼	11/10/17 18:28	11/17/17 03:46	1
1,1,1-Trichloroethane	<0.0017		0.0017	0.00057	mg/Kg	☼	11/10/17 18:28	11/17/17 03:46	1
1,1,2-Trichloroethane	<0.0017		0.0017	0.00073	mg/Kg	☼	11/10/17 18:28	11/17/17 03:46	1
Trichloroethene	<0.0017		0.0017	0.00057	mg/Kg	☼	11/10/17 18:28	11/17/17 03:46	1
Vinyl acetate	<0.0042		0.0042	0.0015	mg/Kg	☼	11/10/17 18:28	11/17/17 03:46	1
Vinyl chloride	<0.0017		0.0017	0.00075	mg/Kg	☼	11/10/17 18:28	11/17/17 03:46	1
Xylenes, Total	<0.0034		0.0034	0.00054	mg/Kg	☼	11/10/17 18:28	11/17/17 03:46	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	93		75 - 131	11/10/17 18:28	11/17/17 03:46	1
Dibromofluoromethane	102		75 - 126	11/10/17 18:28	11/17/17 03:46	1
1,2-Dichloroethane-d4 (Surr)	97		70 - 134	11/10/17 18:28	11/17/17 03:46	1
Toluene-d8 (Surr)	97		75 - 124	11/10/17 18:28	11/17/17 03:46	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.040		0.040	0.0073	mg/Kg	☼	11/16/17 20:28	11/17/17 16:18	1
Acenaphthylene	<0.040		0.040	0.0054	mg/Kg	☼	11/16/17 20:28	11/17/17 16:18	1
Anthracene	<0.040		0.040	0.0068	mg/Kg	☼	11/16/17 20:28	11/17/17 16:18	1
Benzo[a]anthracene	0.016	J	0.040	0.0055	mg/Kg	☼	11/16/17 20:28	11/17/17 16:18	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137080-2

Client Sample ID: 2696V-67-B02 (5-7)

Lab Sample ID: 500-137080-8

Date Collected: 11/09/17 09:00

Matrix: Solid

Date Received: 11/10/17 08:00

Percent Solids: 81.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	0.021	J	0.040	0.0079	mg/Kg	☼	11/16/17 20:28	11/17/17 16:18	1
Benzo[b]fluoranthene	0.030	J	0.040	0.0088	mg/Kg	☼	11/16/17 20:28	11/17/17 16:18	1
Benzo[g,h,i]perylene	0.016	J	0.040	0.013	mg/Kg	☼	11/16/17 20:28	11/17/17 16:18	1
Benzo[k]fluoranthene	0.017	J	0.040	0.012	mg/Kg	☼	11/16/17 20:28	11/17/17 16:18	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.041	mg/Kg	☼	11/16/17 20:28	11/17/17 16:18	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.061	mg/Kg	☼	11/16/17 20:28	11/17/17 16:18	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.074	mg/Kg	☼	11/16/17 20:28	11/17/17 16:18	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.054	mg/Kg	☼	11/16/17 20:28	11/17/17 16:18	1
Butyl benzyl phthalate	<0.20		0.20	0.077	mg/Kg	☼	11/16/17 20:28	11/17/17 16:18	1
Carbazole	<0.20		0.20	0.10	mg/Kg	☼	11/16/17 20:28	11/17/17 16:18	1
4-Chloroaniline	<0.82		0.82	0.19	mg/Kg	☼	11/16/17 20:28	11/17/17 16:18	1
4-Chloro-3-methylphenol	<0.40		0.40	0.14	mg/Kg	☼	11/16/17 20:28	11/17/17 16:18	1
2-Chloronaphthalene	<0.20		0.20	0.045	mg/Kg	☼	11/16/17 20:28	11/17/17 16:18	1
2-Chlorophenol	<0.20		0.20	0.069	mg/Kg	☼	11/16/17 20:28	11/17/17 16:18	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.047	mg/Kg	☼	11/16/17 20:28	11/17/17 16:18	1
Chrysene	0.023	J	0.040	0.011	mg/Kg	☼	11/16/17 20:28	11/17/17 16:18	1
Dibenz(a,h)anthracene	<0.040		0.040	0.0079	mg/Kg	☼	11/16/17 20:28	11/17/17 16:18	1
Dibenzofuran	<0.20		0.20	0.048	mg/Kg	☼	11/16/17 20:28	11/17/17 16:18	1
1,2-Dichlorobenzene	<0.20		0.20	0.049	mg/Kg	☼	11/16/17 20:28	11/17/17 16:18	1
1,3-Dichlorobenzene	<0.20		0.20	0.046	mg/Kg	☼	11/16/17 20:28	11/17/17 16:18	1
1,4-Dichlorobenzene	<0.20		0.20	0.052	mg/Kg	☼	11/16/17 20:28	11/17/17 16:18	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.057	mg/Kg	☼	11/16/17 20:28	11/17/17 16:18	1
2,4-Dichlorophenol	<0.40		0.40	0.096	mg/Kg	☼	11/16/17 20:28	11/17/17 16:18	1
Diethyl phthalate	<0.20		0.20	0.069	mg/Kg	☼	11/16/17 20:28	11/17/17 16:18	1
2,4-Dimethylphenol	<0.40		0.40	0.15	mg/Kg	☼	11/16/17 20:28	11/17/17 16:18	1
Dimethyl phthalate	<0.20		0.20	0.053	mg/Kg	☼	11/16/17 20:28	11/17/17 16:18	1
Di-n-butyl phthalate	<0.20		0.20	0.062	mg/Kg	☼	11/16/17 20:28	11/17/17 16:18	1
4,6-Dinitro-2-methylphenol	<0.82		0.82	0.33	mg/Kg	☼	11/16/17 20:28	11/17/17 16:18	1
2,4-Dinitrophenol	<0.82	*	0.82	0.72	mg/Kg	☼	11/16/17 20:28	11/17/17 16:18	1
2,4-Dinitrotoluene	<0.20		0.20	0.065	mg/Kg	☼	11/16/17 20:28	11/17/17 16:18	1
2,6-Dinitrotoluene	<0.20		0.20	0.080	mg/Kg	☼	11/16/17 20:28	11/17/17 16:18	1
Di-n-octyl phthalate	<0.20		0.20	0.066	mg/Kg	☼	11/16/17 20:28	11/17/17 16:18	1
Fluoranthene	0.036	J	0.040	0.0075	mg/Kg	☼	11/16/17 20:28	11/17/17 16:18	1
Fluorene	<0.040		0.040	0.0057	mg/Kg	☼	11/16/17 20:28	11/17/17 16:18	1
Hexachlorobenzene	<0.082		0.082	0.0094	mg/Kg	☼	11/16/17 20:28	11/17/17 16:18	1
Hexachlorobutadiene	<0.20		0.20	0.064	mg/Kg	☼	11/16/17 20:28	11/17/17 16:18	1
Hexachlorocyclopentadiene	<0.82		0.82	0.23	mg/Kg	☼	11/16/17 20:28	11/17/17 16:18	1
Hexachloroethane	<0.20		0.20	0.062	mg/Kg	☼	11/16/17 20:28	11/17/17 16:18	1
Indeno[1,2,3-cd]pyrene	0.015	J	0.040	0.011	mg/Kg	☼	11/16/17 20:28	11/17/17 16:18	1
Isophorone	<0.20		0.20	0.046	mg/Kg	☼	11/16/17 20:28	11/17/17 16:18	1
2-Methylnaphthalene	<0.082		0.082	0.0075	mg/Kg	☼	11/16/17 20:28	11/17/17 16:18	1
2-Methylphenol	<0.20		0.20	0.065	mg/Kg	☼	11/16/17 20:28	11/17/17 16:18	1
3 & 4 Methylphenol	<0.20		0.20	0.068	mg/Kg	☼	11/16/17 20:28	11/17/17 16:18	1
Naphthalene	<0.040		0.040	0.0062	mg/Kg	☼	11/16/17 20:28	11/17/17 16:18	1
2-Nitroaniline	<0.20		0.20	0.055	mg/Kg	☼	11/16/17 20:28	11/17/17 16:18	1
3-Nitroaniline	<0.40		0.40	0.13	mg/Kg	☼	11/16/17 20:28	11/17/17 16:18	1
4-Nitroaniline	<0.40		0.40	0.17	mg/Kg	☼	11/16/17 20:28	11/17/17 16:18	1
Nitrobenzene	<0.040		0.040	0.010	mg/Kg	☼	11/16/17 20:28	11/17/17 16:18	1
2-Nitrophenol	<0.40		0.40	0.096	mg/Kg	☼	11/16/17 20:28	11/17/17 16:18	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137080-2

Client Sample ID: 2696V-67-B02 (5-7)

Lab Sample ID: 500-137080-8

Date Collected: 11/09/17 09:00

Matrix: Solid

Date Received: 11/10/17 08:00

Percent Solids: 81.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Nitrophenol	<0.82		0.82	0.39	mg/Kg	☼	11/16/17 20:28	11/17/17 16:18	1
N-Nitrosodi-n-propylamine	<0.082		0.082	0.050	mg/Kg	☼	11/16/17 20:28	11/17/17 16:18	1
N-Nitrosodiphenylamine	<0.20		0.20	0.048	mg/Kg	☼	11/16/17 20:28	11/17/17 16:18	1
2,2'-oxybis[1-chloropropane]	<0.20	*	0.20	0.047	mg/Kg	☼	11/16/17 20:28	11/17/17 16:18	1
Pentachlorophenol	<0.82		0.82	0.65	mg/Kg	☼	11/16/17 20:28	11/17/17 16:18	1
Phenanthrene	0.011	J	0.040	0.0057	mg/Kg	☼	11/16/17 20:28	11/17/17 16:18	1
Phenol	<0.20		0.20	0.090	mg/Kg	☼	11/16/17 20:28	11/17/17 16:18	1
Pyrene	0.026	J	0.040	0.0081	mg/Kg	☼	11/16/17 20:28	11/17/17 16:18	1
1,2,4-Trichlorobenzene	<0.20		0.20	0.044	mg/Kg	☼	11/16/17 20:28	11/17/17 16:18	1
2,4,5-Trichlorophenol	<0.40		0.40	0.093	mg/Kg	☼	11/16/17 20:28	11/17/17 16:18	1
2,4,6-Trichlorophenol	<0.40		0.40	0.14	mg/Kg	☼	11/16/17 20:28	11/17/17 16:18	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	75		44 - 121	11/16/17 20:28	11/17/17 16:18	1
2-Fluorophenol	83		46 - 133	11/16/17 20:28	11/17/17 16:18	1
Nitrobenzene-d5	63		41 - 120	11/16/17 20:28	11/17/17 16:18	1
Phenol-d5	70		46 - 125	11/16/17 20:28	11/17/17 16:18	1
Terphenyl-d14	81		35 - 160	11/16/17 20:28	11/17/17 16:18	1
2,4,6-Tribromophenol	88		25 - 139	11/16/17 20:28	11/17/17 16:18	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.2		1.2	0.23	mg/Kg	☼	11/10/17 17:37	11/11/17 19:02	1
Arsenic	5.3		0.59	0.20	mg/Kg	☼	11/10/17 17:37	11/11/17 19:02	1
Barium	56		0.59	0.067	mg/Kg	☼	11/10/17 17:37	11/11/17 19:02	1
Beryllium	0.55		0.24	0.055	mg/Kg	☼	11/10/17 17:37	11/11/17 19:02	1
Cadmium	0.059	J B	0.12	0.021	mg/Kg	☼	11/10/17 17:37	11/11/17 19:02	1
Chromium	15		0.59	0.29	mg/Kg	☼	11/10/17 17:37	11/11/17 19:02	1
Cobalt	9.3		0.29	0.077	mg/Kg	☼	11/10/17 17:37	11/11/17 19:02	1
Copper	10		0.59	0.17	mg/Kg	☼	11/10/17 17:37	11/11/17 19:02	1
Iron	15000		12	6.1	mg/Kg	☼	11/10/17 17:37	11/11/17 19:02	1
Lead	11		0.29	0.14	mg/Kg	☼	11/10/17 17:37	11/11/17 19:02	1
Magnesium	5900		5.9	2.9	mg/Kg	☼	11/10/17 17:37	11/11/17 19:02	1
Calcium	7800	B	12	2.0	mg/Kg	☼	11/10/17 17:37	11/11/17 19:02	1
Manganese	250		0.59	0.085	mg/Kg	☼	11/10/17 17:37	11/11/17 19:02	1
Nickel	20		0.59	0.17	mg/Kg	☼	11/10/17 17:37	11/11/17 19:02	1
Selenium	0.39	J	0.59	0.35	mg/Kg	☼	11/10/17 17:37	11/11/17 19:02	1
Silver	<0.29		0.29	0.076	mg/Kg	☼	11/10/17 17:37	11/11/17 19:02	1
Thallium	<0.59		0.59	0.29	mg/Kg	☼	11/10/17 17:37	11/11/17 19:02	1
Vanadium	20		0.29	0.070	mg/Kg	☼	11/10/17 17:37	11/11/17 19:02	1
Zinc	37		1.2	0.52	mg/Kg	☼	11/10/17 17:37	11/11/17 19:02	1
Potassium	1200		29	10	mg/Kg	☼	11/10/17 17:37	11/11/17 19:02	1
Sodium	290		59	8.7	mg/Kg	☼	11/10/17 17:37	11/11/17 19:02	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.050		0.050	0.010	mg/L		11/15/17 08:09	11/16/17 17:12	1
Barium	0.40	J	0.50	0.050	mg/L		11/15/17 08:09	11/16/17 17:12	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		11/15/17 08:09	11/16/17 17:12	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		11/15/17 08:09	11/16/17 17:12	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137080-2

Client Sample ID: 2696V-67-B02 (5-7)

Lab Sample ID: 500-137080-8

Date Collected: 11/09/17 09:00

Matrix: Solid

Date Received: 11/10/17 08:00

Percent Solids: 81.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	290		5.0	0.50	mg/L		11/15/17 08:09	11/16/17 17:12	1
Chromium	<0.025		0.025	0.010	mg/L		11/15/17 08:09	11/16/17 17:12	1
Cobalt	0.028		0.025	0.010	mg/L		11/15/17 08:09	11/16/17 17:12	1
Copper	0.011	J	0.025	0.010	mg/L		11/15/17 08:09	11/16/17 17:12	1
Iron	<0.40		0.40	0.20	mg/L		11/15/17 08:09	11/16/17 17:12	1
Lead	<0.0075		0.0075	0.0075	mg/L		11/15/17 08:09	11/16/17 17:12	1
Magnesium	120		2.5	0.50	mg/L		11/15/17 08:09	11/16/17 17:12	1
Manganese	4.9		0.025	0.010	mg/L		11/15/17 08:09	11/16/17 17:12	1
Nickel	0.027		0.025	0.010	mg/L		11/15/17 08:09	11/16/17 17:12	1
Potassium	0.70	J	2.5	0.50	mg/L		11/15/17 08:09	11/16/17 17:12	1
Selenium	<0.050		0.050	0.020	mg/L		11/15/17 08:09	11/16/17 17:12	1
Silver	<0.025		0.025	0.010	mg/L		11/15/17 08:09	11/16/17 17:12	1
Vanadium	<0.025		0.025	0.010	mg/L		11/15/17 08:09	11/16/17 17:12	1
Zinc	<0.50		0.50	0.020	mg/L		11/15/17 08:09	11/16/17 17:12	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.076		0.025	0.010	mg/L		11/14/17 14:25	11/15/17 21:03	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		11/15/17 08:09	11/16/17 18:31	1
Thallium	<0.0020		0.0020	0.0020	mg/L		11/15/17 08:09	11/16/17 18:31	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		11/17/17 08:10	11/18/17 11:48	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.015	J	0.018	0.0061	mg/Kg	☼	11/17/17 10:45	11/18/17 13:49	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.60		0.60	0.21	mg/Kg	☼	11/21/17 13:15	11/21/17 16:38	1
pH	8.3		0.20	0.20	SU			11/18/17 13:09	1

Definitions/Glossary

Client: Terracon Consulting Eng & Scientists
Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137080-2

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.

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.
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.

Glossary

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

Accreditation/Certification Summary

Client: Terracon Consulting Eng & Scientists
Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-137080-2

Laboratory: TestAmerica Chicago

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

Authority	Program	EPA Region	Identification Number	Expiration Date
Illinois	NELAP	5	100201	04-30-18

The following analytes are included in this report, but accreditation/certification is not offered by the governing authority:

Analysis Method	Prep Method	Matrix	Analyte
6020A	3010A	Solid	Antimony
6020A	3010A	Solid	Thallium
8260B	5035	Solid	1,3-Dichloropropene, Total
9045D		Solid	pH
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids

Login Sample Receipt Checklist

Client: Terracon Consulting Eng & Scientists

Job Number: 500-137080-2

Login Number: 137080

List Source: TestAmerica Chicago

List Number: 1

Creator: Kelsey, Shawn M

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	(4.0)(2.0)(1.9)(3.7)(2.9)(3.2)c
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	





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 351-US Rte 6 at Pulaski/Crawford & Kedzie Office Phone Number, if available: _____

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

Crawford Ave (Southbound) 60+40 to 61+40 and US Route 6 (Eastbound) 17+90 to 20+20 (ISGS Site 2696V-68)

City: Oak Forest/Markham State: IL Zip Code: 60428

County: Cook Township: Bremen

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

Latitude: 41.60367 Longitude: -87.71682
(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: 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 Phone: 847-705-4122

Zip Code: 60196 Phone: 847-705-4122

Contact: Paul Nickles

Contact: Paul Nickles

Email, if available: paul.nickles@illinois.gov

Email, if available: paul.nickles@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 351-US Rte 6 at Pulaski/Crawford & Kedzie

Latitude: 41.60367 Longitude: -87.71682

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)]:

Soil from borings B02, B03, B04, and B09 were sampled adjacent to ISGS Site No 2696V-68. See Exhibits 2, 2C, 2D, 2E, 4, and Table 96 of the Preliminary Site Investigation Report prepared by Terracon.

- 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]:

TestAmerica Lab Report No J136990-1
Also see Preliminary Site Investigation Report prepared by Terracon. CCDD/USFO facility in MSA County.

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

I, Matt Weiss (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.

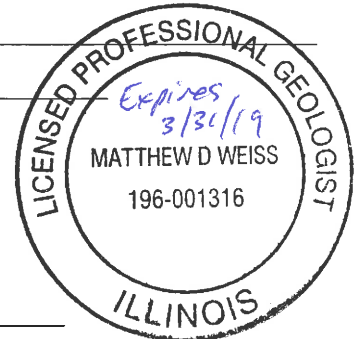
Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))

Company Name: Terracon Consultants, Inc
 Street Address: 135 Ambassador Drive
 City: Naperville State: IL Zip Code: 60540
 Phone: 630-717-4263

Matt Weiss
 Printed Name:

[Signature]
 Licensed Professional Engineer or
 Licensed Professional Geologist Signature:

7/24/18
 Date:



Detected Constituents to MACs-PTB 174-009;Work Order:037A
Preliminary Site Investigation
FAP 351-US Rte 6 at S. Pulaski/Crawford + Kedzie (PESA #2696V-68)
Oak Forest/Markham, Cook County, IL
Terracon Project No. 11177029M
Page 1 of 4

Analyte	Units	Background		Maximum Allowed Concentration	Sample Identification	2696V-68-B02 (0-5)	2696V-68-B03 (0-5)
				CCDD	Sample Depth (feet)	(0-5)	(0-5)
		Chicago	MSAs	mg/kg pH 6.25-9.0	Date Collected	11/08/2017	11/08/2017
Volatile Organic Analytical Parameters							
Acetone	mg/kg	---	---	25		0.028	<0.018
Semivolatile Organic Analytical Parameters							
Anthracene	mg/kg	0.25	0.4	12000		<0.040	<0.039
Benzo(a)anthracene	mg/kg	1.1	1.8	0.9		<0.040	<0.039
Benzo(a)pyrene	mg/kg	1.3	2.1	0.09		<0.040	<0.039
Benzo(b)fluoranthene	mg/kg	1.5	2.1	0.9		0.0093	<0.039
Benzo(g,h,i)perylene	mg/kg	0.68	1.7	2300		<0.040	<0.039
Benzo(k)fluoranthene	mg/kg	0.99	1.7	9		<0.040	<0.039
Chrysene	mg/kg	1.2	2.7	88		<0.040	<0.039
Fluoranthene	mg/kg	2.7	4.1	3100		<0.040	<0.039
Indeno(1,2,3-c,d)pyrene	mg/kg	0.86	1.6	0.9		<0.040	<0.039
Phenanthrene	mg/kg	1.3	2.5	210		<0.040	<0.039
Pyrene	mg/kg	1.9	3.0	2300		<0.040	<0.039
Inorganic Analytical Parameters							
Arsenic	mg/kg	---	13	11.3		7.3	8.1
Barium	mg/kg	---	110	1500		89	68
Cadmium	mg/kg	---	0.6	5.2		0.23	0.077
Chromium, total	mg/kg	---	16.2	21		20	21
Lead	mg/kg	---	36	107		43	15
Mercury	mg/kg	---	0.06	0.1		0.033	0.025
Selenium	mg/kg	---	0.48	1.3		0.91	0.76
Silver	mg/kg	---	0.55	4.4		<0.29	<0.28
Antimony	mg/kg	---	4.0	5		<1.2	<1.1
Beryllium	mg/kg	---	0.59	22		0.85	0.88
Calcium	mg/kg	---	9,300	---		8400	6100
Cobalt	mg/kg	---	8.9	20		14	13
Copper	mg/kg	---	19.6	2900		19	19
Cyanide	mg/kg	---	0.51	---		<0.54	<0.49
Iron	mg/kg	---	15,900	15000		21000	23000
Magnesium	mg/kg	---	4,820	325000		7300	7600
Manganese	mg/kg	---	636	630		320	300
Nickel	mg/kg	---	18	100		30	34
Potassium	mg/kg	---	1,268	---		1700	2600
Sodium	mg/kg	---	130	---		830	520
Thallium	mg/kg	---	0.32	2.6		<0.58	<0.56
Vanadium	mg/kg	---	25.2	550		22	24
Zinc	mg/kg	---	95	5100		80	61
pH			6.25	9		9	8.7

Detected Constituents to MACs-PTB 174-009;Work Order:037A
Preliminary Site Investigation
FAP 351-US Rte 6 at S. Pulaski/Crawford + Kedzie (PESA #2696V-68)
Oak Forest/Markham, Cook County, IL
Terracon Project No. 11177029M
Page 2 of 4

Analyte	Units	Background		Maximum Allowed Concentration	Sample Identification	2696V-68-B02 (0-5)	2696V-68-B03 (0-5)
				CCDD	Sample Depth (feet)	(0-5)	(0-5)
		Chicago	MSAs	mg/kg pH 6.25-9.0	Date Collected	11/08/2017	11/08/2017
Inorganic Analytical Parameters (SPLP)							
Antimony,SPLP	mg/L	---	---	---		--	--
Arsenic,SPLP	mg/L	---	---	---		--	--
Barium,SPLP	mg/L	---	---	---		--	--
Beryllium,SPLP	mg/L	---	---	---		--	--
Cadmium,SPLP	mg/L	---	---	---		--	--
Calcium,SPLP	mg/L	---	---	---		--	--
Chromium,SPLP	mg/L	---	---	---		--	--
Cobalt,SPLP	mg/L	---	---	---		--	--
Copper,SPLP	mg/L	---	---	---		--	--
Iron,SPLP	mg/L	---	---	---		--	--
Lead,SPLP	mg/L	---	---	---		--	--
Magnesium,SPLP	mg/L	---	---	---		--	--
Manganese,SPLP	mg/L	---	---	---		0.87	0.41
Mercury,SPLP	mg/L	---	---	---		--	--
Nickel,SPLP	mg/L	---	---	---		--	--
Potassium,SPLP	mg/L	---	---	---		--	--
Selenium,SPLP	mg/L	---	---	---		--	--
Silver,SPLP	mg/L	---	---	---		--	--
Sodium,SPLP	mg/L	---	---	---		--	--
Thallium,SPLP	mg/L	---	---	---		--	--
Vanadium,SPLP	mg/L	---	---	---		--	--
Zinc,SPLP	mg/L	---	---	---		--	--
Cyanide,SPLP	mg/L	---	---	---		--	--
Inorganic Analytical Parameters (TCLP)							
Arsenic,TCLP	mg/L	---	---	---		<0.050	<0.050
Barium,TCLP	mg/L	---	---	---		0.31	0.33
Cadmium,TCLP	mg/L	---	---	---		<0.0050	<0.0050
Chromium,TCLP	mg/L	---	---	---		<0.025	<0.025
Lead,TCLP	mg/L	---	---	---		<0.0075	<0.0075
Mercury,TCLP	mg/L	---	---	---		<0.00020	<0.00020
Selenium,TCLP	mg/L	---	---	---		<0.050	<0.050
Silver,TCLP	mg/L	---	---	---		<0.025	<0.025
Antimony,TCLP	mg/L	---	---	---		<0.0060	<0.0060
Beryllium,TCLP	mg/L	---	---	---		<0.0040	<0.0040
Calcium,TCLP	mg/L	---	---	---		170	220
Cobalt,TCLP	mg/L	---	---	---		<0.025	<0.025
Copper,TCLP	mg/L	---	---	---		0.031	0.07
Cyanide,TCLP	mg/L	---	---	---		----	----
Iron,TCLP	mg/L	---	---	---		<0.40	<0.40
Magnesium,TCLP	mg/L	---	---	---		56	94
Manganese,TCLP	mg/L	---	---	---		0.27	0.16
Nickel,TCLP	mg/L	---	---	---		<0.025	<0.025
Potassium,TCLP	mg/L	---	---	---		1.4	1.3
Sodium,TCLP	mg/L	---	---	---		----	----
Thallium,TCLP	mg/L	---	---	---		<0.0020	<0.0020
Vanadium,TCLP	mg/L	---	---	---		<0.025	<0.025
Zinc,TCLP	mg/L	---	---	---		0.065	0.062

Detected Constituents to MACs-PTB 174-009;Work Order:037A
Preliminary Site Investigation
FAP 351-US Rte 6 at S. Pulaski/Crawford + Kedzie (PESA #2696V-68)
Oak Forest/Markham, Cook County, IL
Terracon Project No. 11177029M
Page 3 of 4

Analyte	Units	Background		Maximum Allowed Concentration	Sample Identification	2696V-68-B04 (0-5)	2696V-68-B09 (0-5)
				CCDD	Sample Depth (feet)	(0-5)	(0-5)
		Chicago	MSAs	mg/kg pH 6.25-9.0	Date Collected	11/08/2017	11/08/2017
Volatile Organic Analytical Parameters							
Acetone	mg/kg	---	---	25		0.052	0.068
Semivolatile Organic Analytical Parameters							
Anthracene	mg/kg	0.25	0.4	12000		<0.039	0.013
Benzo(a)anthracene	mg/kg	1.1	1.8	0.9		<0.039	0.04
Benzo(a)pyrene	mg/kg	1.3	2.1	0.09		<0.039	0.045
Benzo(b)fluoranthene	mg/kg	1.5	2.1	0.9		<0.039	0.084
Benzo(g,h,i)perylene	mg/kg	0.68	1.7	2300		<0.039	0.018
Benzo(k)fluoranthene	mg/kg	0.99	1.7	9		<0.039	0.028
Chrysene	mg/kg	1.2	2.7	88		<0.039	0.053
Fluoranthene	mg/kg	2.7	4.1	3100		<0.039	0.099
Indeno(1,2,3-c,d)pyrene	mg/kg	0.86	1.6	0.9		<0.039	0.019
Phenanthrene	mg/kg	1.3	2.5	210		<0.039	0.057
Pyrene	mg/kg	1.9	3.0	2300		<0.039	0.081
Inorganic Analytical Parameters							
Arsenic	mg/kg	---	13	11.3		6	7.3
Barium	mg/kg	---	110	1500		72	61
Cadmium	mg/kg	---	0.6	5.2		0.17	0.56
Chromium, total	mg/kg	---	16.2	21		23	15
Lead	mg/kg	---	36	107		14	55
Mercury	mg/kg	---	0.06	0.1		0.031	0.037
Selenium	mg/kg	---	0.48	1.3		0.96	0.6
Silver	mg/kg	---	0.55	4.4		<0.25	<0.28
Antimony	mg/kg	---	4.0	5		<0.99	<1.1
Beryllium	mg/kg	---	0.59	22		0.88	0.58
Calcium	mg/kg	---	9,300	---		3100	30000
Cobalt	mg/kg	---	8.9	20		17	8.3
Copper	mg/kg	---	19.6	2900		22	21
Cyanide	mg/kg	---	0.51	---		<0.60	<0.59
Iron	mg/kg	---	15,900	15000		23000	16000
Magnesium	mg/kg	---	4,820	325000		6100	19000
Manganese	mg/kg	---	636	630		380	270
Nickel	mg/kg	---	18	100		43	20
Potassium	mg/kg	---	1,268	---		3100	1300
Sodium	mg/kg	---	130	---		750	170
Thallium	mg/kg	---	0.32	2.6		<0.50	<0.56
Vanadium	mg/kg	---	25.2	550		23	18
Zinc	mg/kg	---	95	5100		65	150
pH			6.25	9		8.7	8.4

Detected Constituents to MACs-PTB 174-009;Work Order:037A
Preliminary Site Investigation
FAP 351-US Rte 6 at S. Pulaski/Crawford + Kedzie (PESA #2696V-68)
Oak Forest/Markham, Cook County, IL
Terracon Project No. 11177029M
Page 4 of 4

Analyte	Units	Background		Maximum Allowed Concentration	Sample Identification	2696V-68-B04 (0-5)	2696V-68-B09 (0-5)
				CCDD	Sample Depth (feet)	(0-5)	(0-5)
		Chicago	MSAs	mg/kg pH 6.25-9.0	Date Collected	11/08/2017	11/08/2017
Inorganic Analytical Parameters (SPLP)							
Antimony,SPLP	mg/L	---	---	---		--	--
Arsenic,SPLP	mg/L	---	---	---		--	--
Barium,SPLP	mg/L	---	---	---		--	--
Beryllium,SPLP	mg/L	---	---	---		--	--
Cadmium,SPLP	mg/L	---	---	---		--	--
Calcium,SPLP	mg/L	---	---	---		--	--
Chromium,SPLP	mg/L	---	---	---		--	--
Cobalt,SPLP	mg/L	---	---	---		--	--
Copper,SPLP	mg/L	---	---	---		--	--
Iron,SPLP	mg/L	---	---	---		--	--
Lead,SPLP	mg/L	---	---	---		0.14	--
Magnesium,SPLP	mg/L	---	---	---		--	--
Manganese,SPLP	mg/L	---	---	---		3.8	0.15
Mercury,SPLP	mg/L	---	---	---		--	--
Nickel,SPLP	mg/L	---	---	---		--	--
Potassium,SPLP	mg/L	---	---	---		--	--
Selenium,SPLP	mg/L	---	---	---		--	--
Silver,SPLP	mg/L	---	---	---		--	--
Sodium,SPLP	mg/L	---	---	---		--	--
Thallium,SPLP	mg/L	---	---	---		--	--
Vanadium,SPLP	mg/L	---	---	---		--	--
Zinc,SPLP	mg/L	---	---	---		--	--
Cyanide,SPLP	mg/L	---	---	---		--	--
Inorganic Analytical Parameters (TCLP)							
Arsenic,TCLP	mg/L	---	---	---		<0.050	<0.050
Barium,TCLP	mg/L	---	---	---		0.35	0.33
Cadmium,TCLP	mg/L	---	---	---		0.0034	0.0024
Chromium,TCLP	mg/L	---	---	---		<0.025	<0.025
Lead,TCLP	mg/L	---	---	---		0.016	<0.0075
Mercury,TCLP	mg/L	---	---	---		<0.00020	<0.00020
Selenium,TCLP	mg/L	---	---	---		<0.050	<0.050
Silver,TCLP	mg/L	---	---	---		<0.025	<0.025
Antimony,TCLP	mg/L	---	---	---		<0.0060	<0.0060
Beryllium,TCLP	mg/L	---	---	---		<0.0040	<0.0040
Calcium,TCLP	mg/L	---	---	---		76	260
Cobalt,TCLP	mg/L	---	---	---		0.057	<0.025
Copper,TCLP	mg/L	---	---	---		0.03	0.029
Cyanide,TCLP	mg/L	---	---	---		----	----
Iron,TCLP	mg/L	---	---	---		0.21	<0.40
Magnesium,TCLP	mg/L	---	---	---		26	120
Manganese,TCLP	mg/L	---	---	---		11	0.45
Nickel,TCLP	mg/L	---	---	---		0.046	<0.025
Potassium,TCLP	mg/L	---	---	---		1.4	1.6
Sodium,TCLP	mg/L	---	---	---		----	----
Thallium,TCLP	mg/L	---	---	---		<0.0020	<0.0020
Vanadium,TCLP	mg/L	---	---	---		<0.025	<0.025
Zinc,TCLP	mg/L	---	---	---		0.065	0.11

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: 500-136990-1
Client Project/Site: IDOT - Oak Forest/Markham - WO37
Revision: 1

For:
Terracon Consulting Eng & Scientists
135 Ambassador Drive
Naperville, Illinois 60540

Attn: Mr. Matthew Weiss

Jodie Bracken

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LINKS

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

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

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

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Case Narrative

Client: Terracon Consulting Eng & Scientists
Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136990-1

Job ID: 500-136990-1

Laboratory: TestAmerica Chicago

Narrative

**Job Narrative
500-136990-1**

Revised Report

Revision added to regenerate the final report without a "preliminary" watermark.

Receipt

The samples were received on 11/8/2017 4:30 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 2.0° C and 2.1° C.

GC/MS VOA

Method(s) 8260B: The following samples were diluted to bring the concentration of target analytes within the calibration range and to prevent saturation of non-target analytes that are present at high concentrations: 2696V-68-B05 (0-5) (500-136990-5), 2696V-68-B05 (0-5) Dup (500-136990-6) and 2696V-68-B06 (0-5) (500-136990-7). Elevated reporting limits (RLs) are provided.

Method(s) 8260B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for 4-Methyl-2-pentanone were not detected. Sample matrix interference are suspected. The associated laboratory control sample (LCS) recovery was within acceptance limits.

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 laboratory control sample (LCS) for preparation batch 500-409153 and analytical batch 500-409237 recovered outside control limits for 2,2'-oxybis[1-chloropropane]. This analyte was biased high in the LCS and was not detected in the associated sample; therefore, the data has been reported.

Method(s) 8270D: 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 utilizing this list of analytes. The LCS associated with batch 500-409947 had 1 analyte outside control limits: 2,2'-oxybis[1-chloropropane]. These results have been reported and qualified. (LCS 500-409947/2-A)

Method(s) 8270D: The following samples contained one acid and/or one base surrogate outside acceptance limits: 2696V-68-B03 (0-5) (500-136990-3), 2696V-68-B05 (0-5) (500-136990-5), 2696V-68-B05 (0-5) Dup (500-136990-6), 2696V-68-B06 (0-5) (500-136990-7) and 2696V-68-B07 (15-21) (500-136990-11). The laboratory's SOP allows one acid and one base surrogate to be outside acceptance limits; therefore, re-extraction was not performed. These results have been reported and qualified.

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

Metals

Method(s) 6020A: The low level continuing calibration verification (CCVL) at line 46, associated with batch 500-409652 recovered above the upper control limit for Beryllium. The samples associated with this CCVL were non-detects for the affected analyte; therefore, the data have been reported.

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

General Chemistry

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

Organic Prep

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

Detection Summary

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136990-1

Client Sample ID: 2696V-68-B01 (0-5)

Lab Sample ID: 500-136990-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	10	F1	0.48	0.17	mg/Kg	1	☼	6010B	Total/NA
Barium	77	F1	0.48	0.055	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.85		0.19	0.045	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.23	B	0.097	0.017	mg/Kg	1	☼	6010B	Total/NA
Chromium	18		0.48	0.24	mg/Kg	1	☼	6010B	Total/NA
Cobalt	23	F1	0.24	0.063	mg/Kg	1	☼	6010B	Total/NA
Copper	24	F1	0.48	0.14	mg/Kg	1	☼	6010B	Total/NA
Iron	22000		9.7	5.0	mg/Kg	1	☼	6010B	Total/NA
Lead	20	F1	0.24	0.11	mg/Kg	1	☼	6010B	Total/NA
Magnesium	17000		4.8	2.4	mg/Kg	1	☼	6010B	Total/NA
Calcium	23000	B	9.7	1.6	mg/Kg	1	☼	6010B	Total/NA
Manganese	760	F2	0.48	0.070	mg/Kg	1	☼	6010B	Total/NA
Nickel	45	F1	0.48	0.14	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.61	F1	0.48	0.28	mg/Kg	1	☼	6010B	Total/NA
Vanadium	23		0.24	0.057	mg/Kg	1	☼	6010B	Total/NA
Zinc	56	F1	0.97	0.42	mg/Kg	1	☼	6010B	Total/NA
Potassium	2600		24	8.6	mg/Kg	1	☼	6010B	Total/NA
Sodium	870	F1	48	7.2	mg/Kg	1	☼	6010B	Total/NA
Barium	0.35	J	0.50	0.050	mg/L	1		6010B	TCLP
Cadmium	0.0020	J	0.0050	0.0020	mg/L	1		6010B	TCLP
Calcium	360		5.0	0.50	mg/L	1		6010B	TCLP
Copper	0.017	J B	0.025	0.010	mg/L	1		6010B	TCLP
Magnesium	130		2.5	0.50	mg/L	1		6010B	TCLP
Manganese	0.25		0.025	0.010	mg/L	1		6010B	TCLP
Potassium	1.3	J	2.5	0.50	mg/L	1		6010B	TCLP
Zinc	0.038	J	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.73		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.029		0.017	0.0057	mg/Kg	1	☼	7471B	Total/NA
pH	9.3		0.20	0.20	SU	1		9045D	Total/NA

Client Sample ID: 2696V-68-B02 (0-5)

Lab Sample ID: 500-136990-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	0.028		0.017	0.0073	mg/Kg	1	☼	8260B	Total/NA
Benzo[b]fluoranthene	0.0093	J F1	0.040	0.0087	mg/Kg	1	☼	8270D	Total/NA
Arsenic	7.3		0.58	0.20	mg/Kg	1	☼	6010B	Total/NA
Barium	89		0.58	0.066	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.85		0.23	0.054	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.23	B	0.12	0.021	mg/Kg	1	☼	6010B	Total/NA
Chromium	20		0.58	0.29	mg/Kg	1	☼	6010B	Total/NA
Cobalt	14		0.29	0.076	mg/Kg	1	☼	6010B	Total/NA
Copper	19		0.58	0.16	mg/Kg	1	☼	6010B	Total/NA
Iron	21000		12	6.0	mg/Kg	1	☼	6010B	Total/NA
Lead	43		0.29	0.13	mg/Kg	1	☼	6010B	Total/NA
Magnesium	7300		5.8	2.9	mg/Kg	1	☼	6010B	Total/NA
Calcium	8400	B	12	2.0	mg/Kg	1	☼	6010B	Total/NA
Manganese	320		0.58	0.084	mg/Kg	1	☼	6010B	Total/NA
Nickel	30		0.58	0.17	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.91		0.58	0.34	mg/Kg	1	☼	6010B	Total/NA
Vanadium	22		0.29	0.068	mg/Kg	1	☼	6010B	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136990-1

Client Sample ID: 2696V-68-B02 (0-5) (Continued)

Lab Sample ID: 500-136990-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Zinc	80		1.2	0.51	mg/Kg	1	☼	6010B	Total/NA
Potassium	1700		29	10	mg/Kg	1	☼	6010B	Total/NA
Sodium	830		58	8.6	mg/Kg	1	☼	6010B	Total/NA
Barium	0.31	J	0.50	0.050	mg/L	1		6010B	TCLP
Calcium	170		5.0	0.50	mg/L	1		6010B	TCLP
Copper	0.031	B	0.025	0.010	mg/L	1		6010B	TCLP
Magnesium	56		2.5	0.50	mg/L	1		6010B	TCLP
Manganese	0.27		0.025	0.010	mg/L	1		6010B	TCLP
Potassium	1.4	J	2.5	0.50	mg/L	1		6010B	TCLP
Zinc	0.065	J	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.87		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.033		0.019	0.0062	mg/Kg	1	☼	7471B	Total/NA
pH	9.0		0.20	0.20	SU	1		9045D	Total/NA

Client Sample ID: 2696V-68-B03 (0-5)

Lab Sample ID: 500-136990-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	8.1		0.56	0.19	mg/Kg	1	☼	6010B	Total/NA
Barium	68		0.56	0.064	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.88		0.22	0.052	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.077	J B	0.11	0.020	mg/Kg	1	☼	6010B	Total/NA
Chromium	21		0.56	0.28	mg/Kg	1	☼	6010B	Total/NA
Cobalt	13		0.28	0.073	mg/Kg	1	☼	6010B	Total/NA
Copper	19		0.56	0.16	mg/Kg	1	☼	6010B	Total/NA
Iron	23000		11	5.8	mg/Kg	1	☼	6010B	Total/NA
Lead	15		0.28	0.13	mg/Kg	1	☼	6010B	Total/NA
Magnesium	7600		5.6	2.8	mg/Kg	1	☼	6010B	Total/NA
Calcium	6100	B	11	1.9	mg/Kg	1	☼	6010B	Total/NA
Manganese	300		0.56	0.081	mg/Kg	1	☼	6010B	Total/NA
Nickel	34		0.56	0.16	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.76		0.56	0.33	mg/Kg	1	☼	6010B	Total/NA
Vanadium	24		0.28	0.066	mg/Kg	1	☼	6010B	Total/NA
Zinc	61		1.1	0.49	mg/Kg	1	☼	6010B	Total/NA
Potassium	2600		28	9.9	mg/Kg	1	☼	6010B	Total/NA
Sodium	520		56	8.2	mg/Kg	1	☼	6010B	Total/NA
Barium	0.33	J	0.50	0.050	mg/L	1		6010B	TCLP
Calcium	220		5.0	0.50	mg/L	1		6010B	TCLP
Copper	0.070	B	0.025	0.010	mg/L	1		6010B	TCLP
Magnesium	94		2.5	0.50	mg/L	1		6010B	TCLP
Manganese	0.16		0.025	0.010	mg/L	1		6010B	TCLP
Potassium	1.3	J	2.5	0.50	mg/L	1		6010B	TCLP
Zinc	0.062	J	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.41		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.025		0.019	0.0065	mg/Kg	1	☼	7471B	Total/NA
pH	8.7		0.20	0.20	SU	1		9045D	Total/NA

Client Sample ID: 2696V-68-B04 (0-5)

Lab Sample ID: 500-136990-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	0.052		0.017	0.0074	mg/Kg	1	☼	8260B	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136990-1

Client Sample ID: 2696V-68-B04 (0-5) (Continued)

Lab Sample ID: 500-136990-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	6.0		0.50	0.17	mg/Kg	1	☼	6010B	Total/NA
Barium	72		0.50	0.057	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.88		0.20	0.046	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.17	B	0.099	0.018	mg/Kg	1	☼	6010B	Total/NA
Chromium	23		0.50	0.25	mg/Kg	1	☼	6010B	Total/NA
Cobalt	17		0.25	0.065	mg/Kg	1	☼	6010B	Total/NA
Copper	22		0.50	0.14	mg/Kg	1	☼	6010B	Total/NA
Iron	23000		9.9	5.2	mg/Kg	1	☼	6010B	Total/NA
Lead	14		0.25	0.11	mg/Kg	1	☼	6010B	Total/NA
Magnesium	6100		5.0	2.5	mg/Kg	1	☼	6010B	Total/NA
Calcium	3100	B	9.9	1.7	mg/Kg	1	☼	6010B	Total/NA
Manganese	380		0.50	0.072	mg/Kg	1	☼	6010B	Total/NA
Nickel	43		0.50	0.14	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.96		0.50	0.29	mg/Kg	1	☼	6010B	Total/NA
Vanadium	23		0.25	0.059	mg/Kg	1	☼	6010B	Total/NA
Zinc	65		0.99	0.44	mg/Kg	1	☼	6010B	Total/NA
Potassium	3100		25	8.8	mg/Kg	1	☼	6010B	Total/NA
Sodium	750		50	7.3	mg/Kg	1	☼	6010B	Total/NA
Barium	0.35	J	0.50	0.050	mg/L	1		6010B	TCLP
Cadmium	0.0034	J	0.0050	0.0020	mg/L	1		6010B	TCLP
Calcium	76		5.0	0.50	mg/L	1		6010B	TCLP
Cobalt	0.057		0.025	0.010	mg/L	1		6010B	TCLP
Copper	0.030	B	0.025	0.010	mg/L	1		6010B	TCLP
Iron	0.21	J	0.40	0.20	mg/L	1		6010B	TCLP
Lead	0.016		0.0075	0.0075	mg/L	1		6010B	TCLP
Magnesium	26		2.5	0.50	mg/L	1		6010B	TCLP
Manganese	11		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.046		0.025	0.010	mg/L	1		6010B	TCLP
Potassium	1.4	J	2.5	0.50	mg/L	1		6010B	TCLP
Zinc	0.065	J	0.50	0.020	mg/L	1		6010B	TCLP
Lead	0.14		0.0075	0.0075	mg/L	1		6010B	SPLP East
Manganese	3.8		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.031		0.019	0.0064	mg/Kg	1	☼	7471B	Total/NA
pH	8.7		0.20	0.20	SU	1		9045D	Total/NA

Client Sample ID: 2696V-68-B05 (0-5)

Lab Sample ID: 500-136990-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	2.6		0.025	0.014	mg/Kg	100	☼	8260B	Total/NA
1,2-Dichloroethane	0.12		0.099	0.039	mg/Kg	100	☼	8260B	Total/NA
Toluene	0.99		0.025	0.015	mg/Kg	100	☼	8260B	Total/NA
Ethylbenzene - DL	21		0.25	0.18	mg/Kg	1000	☼	8260B	Total/NA
Xylenes, Total - DL	32		0.50	0.22	mg/Kg	1000	☼	8260B	Total/NA
Fluoranthene	0.0075	J	0.038	0.0071	mg/Kg	1	☼	8270D	Total/NA
2-Methylnaphthalene	0.50		0.077	0.0070	mg/Kg	1	☼	8270D	Total/NA
Naphthalene	1.1		0.038	0.0059	mg/Kg	1	☼	8270D	Total/NA
Phenanthrene	0.0078	J	0.038	0.0053	mg/Kg	1	☼	8270D	Total/NA
Antimony	0.37	J	1.0	0.20	mg/Kg	1	☼	6010B	Total/NA
Arsenic	4.6		0.52	0.18	mg/Kg	1	☼	6010B	Total/NA
Barium	57		0.52	0.059	mg/Kg	1	☼	6010B	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136990-1

Client Sample ID: 2696V-68-B05 (0-5) (Continued)

Lab Sample ID: 500-136990-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Beryllium	0.63		0.21	0.049	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.25	B	0.10	0.019	mg/Kg	1	☼	6010B	Total/NA
Chromium	12		0.52	0.26	mg/Kg	1	☼	6010B	Total/NA
Cobalt	8.2		0.26	0.068	mg/Kg	1	☼	6010B	Total/NA
Copper	19		0.52	0.15	mg/Kg	1	☼	6010B	Total/NA
Iron	12000		10	5.4	mg/Kg	1	☼	6010B	Total/NA
Lead	18		0.26	0.12	mg/Kg	1	☼	6010B	Total/NA
Magnesium	2200		5.2	2.6	mg/Kg	1	☼	6010B	Total/NA
Calcium	3200	B	10	1.8	mg/Kg	1	☼	6010B	Total/NA
Manganese	220		0.52	0.076	mg/Kg	1	☼	6010B	Total/NA
Nickel	19		0.52	0.15	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.74		0.52	0.31	mg/Kg	1	☼	6010B	Total/NA
Vanadium	21		0.26	0.062	mg/Kg	1	☼	6010B	Total/NA
Zinc	43		1.0	0.46	mg/Kg	1	☼	6010B	Total/NA
Potassium	940		26	9.2	mg/Kg	1	☼	6010B	Total/NA
Sodium	1500		52	7.7	mg/Kg	1	☼	6010B	Total/NA
Barium	0.36	J	0.50	0.050	mg/L	1		6010B	TCLP
Calcium	56		5.0	0.50	mg/L	1		6010B	TCLP
Cobalt	0.025		0.025	0.010	mg/L	1		6010B	TCLP
Copper	0.072	B	0.025	0.010	mg/L	1		6010B	TCLP
Iron	4.1		0.40	0.20	mg/L	1		6010B	TCLP
Magnesium	8.3		2.5	0.50	mg/L	1		6010B	TCLP
Manganese	3.0		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.026		0.025	0.010	mg/L	1		6010B	TCLP
Potassium	2.8		2.5	0.50	mg/L	1		6010B	TCLP
Zinc	0.10	J	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.66		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.017	J	0.018	0.0059	mg/Kg	1	☼	7471B	Total/NA
Cyanide, Total	1.5		0.45	0.16	mg/Kg	1	☼	9014	Total/NA
pH	9.6		0.20	0.20	SU	1		9045D	Total/NA

Client Sample ID: 2696V-68-B05 (0-5) Dup

Lab Sample ID: 500-136990-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	2.1		0.023	0.014	mg/Kg	100	☼	8260B	Total/NA
Toluene	0.88		0.023	0.014	mg/Kg	100	☼	8260B	Total/NA
Ethylbenzene - DL	20		0.23	0.17	mg/Kg	1000	☼	8260B	Total/NA
Xylenes, Total - DL	32		0.46	0.20	mg/Kg	1000	☼	8260B	Total/NA
Benzo[a]anthracene	0.0055	J	0.036	0.0049	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.010	J	0.036	0.0079	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.021	J	0.036	0.0068	mg/Kg	1	☼	8270D	Total/NA
Fluorene	0.0082	J	0.036	0.0051	mg/Kg	1	☼	8270D	Total/NA
2-Methylnaphthalene	0.62		0.074	0.0067	mg/Kg	1	☼	8270D	Total/NA
Naphthalene	1.1		0.036	0.0056	mg/Kg	1	☼	8270D	Total/NA
Phenanthrene	0.026	J	0.036	0.0051	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.014	J	0.036	0.0072	mg/Kg	1	☼	8270D	Total/NA
Arsenic	3.0		0.55	0.19	mg/Kg	1	☼	6010B	Total/NA
Barium	56		0.55	0.062	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.64		0.22	0.051	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.17	B	0.11	0.020	mg/Kg	1	☼	6010B	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136990-1

Client Sample ID: 2696V-68-B05 (0-5) Dup (Continued)

Lab Sample ID: 500-136990-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chromium	12		0.55	0.27	mg/Kg	1	☼	6010B	Total/NA
Cobalt	5.0		0.27	0.072	mg/Kg	1	☼	6010B	Total/NA
Copper	16		0.55	0.15	mg/Kg	1	☼	6010B	Total/NA
Iron	11000		11	5.7	mg/Kg	1	☼	6010B	Total/NA
Lead	14		0.27	0.13	mg/Kg	1	☼	6010B	Total/NA
Magnesium	3700		5.5	2.7	mg/Kg	1	☼	6010B	Total/NA
Calcium	8900	B	11	1.9	mg/Kg	1	☼	6010B	Total/NA
Manganese	130		0.55	0.079	mg/Kg	1	☼	6010B	Total/NA
Nickel	16		0.55	0.16	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.54	J	0.55	0.32	mg/Kg	1	☼	6010B	Total/NA
Vanadium	19		0.27	0.065	mg/Kg	1	☼	6010B	Total/NA
Zinc	40		1.1	0.48	mg/Kg	1	☼	6010B	Total/NA
Potassium	1100		27	9.7	mg/Kg	1	☼	6010B	Total/NA
Sodium	1900		55	8.1	mg/Kg	1	☼	6010B	Total/NA
Arsenic	0.011	J	0.050	0.010	mg/L	1		6010B	TCLP
Barium	0.53		0.50	0.050	mg/L	1		6010B	TCLP
Calcium	300		5.0	0.50	mg/L	1		6010B	TCLP
Cobalt	0.017	J	0.025	0.010	mg/L	1		6010B	TCLP
Copper	0.032	B	0.025	0.010	mg/L	1		6010B	TCLP
Iron	0.75		0.40	0.20	mg/L	1		6010B	TCLP
Magnesium	20		2.5	0.50	mg/L	1		6010B	TCLP
Manganese	3.7		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.018	J	0.025	0.010	mg/L	1		6010B	TCLP
Potassium	3.6		2.5	0.50	mg/L	1		6010B	TCLP
Zinc	0.076	J	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	1.1		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.023		0.018	0.0061	mg/Kg	1	☼	7471B	Total/NA
Cyanide, Total	3.1		0.51	0.18	mg/Kg	1	☼	9014	Total/NA
pH	9.7		0.20	0.20	SU	1		9045D	Total/NA

Client Sample ID: 2696V-68-B06 (0-5)

Lab Sample ID: 500-136990-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	1.2		0.024	0.014	mg/Kg	100	☼	8260B	Total/NA
Toluene	0.92		0.024	0.014	mg/Kg	100	☼	8260B	Total/NA
Xylenes, Total	12		0.048	0.021	mg/Kg	100	☼	8260B	Total/NA
Ethylbenzene - DL	43		0.24	0.18	mg/Kg	1000	☼	8260B	Total/NA
Acenaphthylene	0.014	J	0.038	0.0050	mg/Kg	1	☼	8270D	Total/NA
Anthracene	0.016	J	0.038	0.0064	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.031	J	0.038	0.0051	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.039		0.038	0.0074	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.064		0.038	0.0082	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.022	J	0.038	0.012	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.023	J	0.038	0.011	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.040		0.038	0.010	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.068		0.038	0.0071	mg/Kg	1	☼	8270D	Total/NA
Fluorene	0.031	J	0.038	0.0054	mg/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.018	J	0.038	0.0099	mg/Kg	1	☼	8270D	Total/NA
Phenanthrene	0.072		0.038	0.0053	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.060		0.038	0.0076	mg/Kg	1	☼	8270D	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136990-1

Client Sample ID: 2696V-68-B06 (0-5) (Continued)

Lab Sample ID: 500-136990-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Methylnaphthalene - DL	4.9		0.15	0.014	mg/Kg	2	☼	8270D	Total/NA
Naphthalene - DL	4.3		0.076	0.012	mg/Kg	2	☼	8270D	Total/NA
Antimony	0.22	J	1.1	0.21	mg/Kg	1	☼	6010B	Total/NA
Arsenic	7.2		0.53	0.18	mg/Kg	1	☼	6010B	Total/NA
Barium	59		0.53	0.061	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.53		0.21	0.050	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.14	B	0.11	0.019	mg/Kg	1	☼	6010B	Total/NA
Chromium	12		0.53	0.26	mg/Kg	1	☼	6010B	Total/NA
Cobalt	8.7		0.27	0.070	mg/Kg	1	☼	6010B	Total/NA
Copper	15		0.53	0.15	mg/Kg	1	☼	6010B	Total/NA
Iron	13000		11	5.5	mg/Kg	1	☼	6010B	Total/NA
Lead	21		0.27	0.12	mg/Kg	1	☼	6010B	Total/NA
Magnesium	3700		5.3	2.6	mg/Kg	1	☼	6010B	Total/NA
Calcium	4700	B	11	1.8	mg/Kg	1	☼	6010B	Total/NA
Manganese	240		0.53	0.077	mg/Kg	1	☼	6010B	Total/NA
Nickel	19		0.53	0.15	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.41	J	0.53	0.31	mg/Kg	1	☼	6010B	Total/NA
Vanadium	20		0.27	0.063	mg/Kg	1	☼	6010B	Total/NA
Zinc	52		1.1	0.47	mg/Kg	1	☼	6010B	Total/NA
Potassium	1200		27	9.4	mg/Kg	1	☼	6010B	Total/NA
Sodium	360		53	7.9	mg/Kg	1	☼	6010B	Total/NA
Barium	0.46	J	0.50	0.050	mg/L	1		6010B	TCLP
Cadmium	0.0028	J	0.0050	0.0020	mg/L	1		6010B	TCLP
Calcium	210		5.0	0.50	mg/L	1		6010B	TCLP
Cobalt	0.015	J	0.025	0.010	mg/L	1		6010B	TCLP
Copper	0.025	B	0.025	0.010	mg/L	1		6010B	TCLP
Lead	0.019		0.0075	0.0075	mg/L	1		6010B	TCLP
Magnesium	85		2.5	0.50	mg/L	1		6010B	TCLP
Manganese	3.2		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.013	J	0.025	0.010	mg/L	1		6010B	TCLP
Potassium	1.7	J	2.5	0.50	mg/L	1		6010B	TCLP
Zinc	0.076	J	0.50	0.020	mg/L	1		6010B	TCLP
Lead	0.11		0.0075	0.0075	mg/L	1		6010B	SPLP East
Manganese	0.33		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.029		0.017	0.0057	mg/Kg	1	☼	7471B	Total/NA
pH	8.1		0.20	0.20	SU	1		9045D	Total/NA

Client Sample ID: 2696V-68-B07 (0-5)

Lab Sample ID: 500-136990-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]anthracene	0.013	J	0.040	0.0054	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.0078	J	0.040	0.0077	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.018	J	0.040	0.0086	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.013	J	0.040	0.011	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.024	J	0.040	0.0074	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.023	J	0.040	0.0080	mg/Kg	1	☼	8270D	Total/NA
Antimony	0.23	J	1.0	0.19	mg/Kg	1	☼	6010B	Total/NA
Arsenic	7.1		0.50	0.17	mg/Kg	1	☼	6010B	Total/NA
Barium	33		0.50	0.057	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.54		0.20	0.047	mg/Kg	1	☼	6010B	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136990-1

Client Sample ID: 2696V-68-B07 (0-5) (Continued)

Lab Sample ID: 500-136990-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cadmium	0.14	B	0.10	0.018	mg/Kg	1	☼	6010B	Total/NA
Chromium	12		0.50	0.25	mg/Kg	1	☼	6010B	Total/NA
Cobalt	7.6		0.25	0.066	mg/Kg	1	☼	6010B	Total/NA
Copper	14		0.50	0.14	mg/Kg	1	☼	6010B	Total/NA
Iron	17000		10	5.2	mg/Kg	1	☼	6010B	Total/NA
Lead	23		0.25	0.12	mg/Kg	1	☼	6010B	Total/NA
Magnesium	12000		5.0	2.5	mg/Kg	1	☼	6010B	Total/NA
Calcium	20000	B	10	1.7	mg/Kg	1	☼	6010B	Total/NA
Manganese	180		0.50	0.073	mg/Kg	1	☼	6010B	Total/NA
Nickel	19		0.50	0.15	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.66		0.50	0.29	mg/Kg	1	☼	6010B	Total/NA
Vanadium	16		0.25	0.059	mg/Kg	1	☼	6010B	Total/NA
Zinc	54		1.0	0.44	mg/Kg	1	☼	6010B	Total/NA
Potassium	1700		25	8.9	mg/Kg	1	☼	6010B	Total/NA
Sodium	130		50	7.4	mg/Kg	1	☼	6010B	Total/NA
Barium	0.29	J	0.50	0.050	mg/L	1		6010B	TCLP
Calcium	310		5.0	0.50	mg/L	1		6010B	TCLP
Copper	0.022	J B	0.025	0.010	mg/L	1		6010B	TCLP
Magnesium	140		2.5	0.50	mg/L	1		6010B	TCLP
Manganese	0.14		0.025	0.010	mg/L	1		6010B	TCLP
Potassium	1.7	J	2.5	0.50	mg/L	1		6010B	TCLP
Zinc	0.054	J	0.50	0.020	mg/L	1		6010B	TCLP
Mercury	0.028		0.020	0.0065	mg/Kg	1	☼	7471B	Total/NA
pH	8.1		0.20	0.20	SU	1		9045D	Total/NA

Client Sample ID: 2696V-68-B07 (5-10)

Lab Sample ID: 500-136990-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	0.024		0.018	0.0077	mg/Kg	1	☼	8260B	Total/NA
Benzo[a]anthracene	0.010	J	0.039	0.0053	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.011	J	0.039	0.0076	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.014	J	0.039	0.0085	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.022	J	0.039	0.013	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.018	J	0.039	0.011	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.018	J	0.039	0.0073	mg/Kg	1	☼	8270D	Total/NA
2-Methylnaphthalene	0.016	J	0.079	0.0072	mg/Kg	1	☼	8270D	Total/NA
Naphthalene	0.020	J	0.039	0.0060	mg/Kg	1	☼	8270D	Total/NA
Phenanthrene	0.016	J	0.039	0.0055	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.023	J	0.039	0.0078	mg/Kg	1	☼	8270D	Total/NA
Antimony	0.23	J	1.0	0.20	mg/Kg	1	☼	6010B	Total/NA
Arsenic	3.3		0.51	0.17	mg/Kg	1	☼	6010B	Total/NA
Barium	19		0.51	0.058	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.36		0.20	0.047	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.076	J B	0.10	0.018	mg/Kg	1	☼	6010B	Total/NA
Chromium	8.2		0.51	0.25	mg/Kg	1	☼	6010B	Total/NA
Cobalt	4.5		0.25	0.066	mg/Kg	1	☼	6010B	Total/NA
Copper	13		0.51	0.14	mg/Kg	1	☼	6010B	Total/NA
Iron	18000		10	5.3	mg/Kg	1	☼	6010B	Total/NA
Lead	7.3		0.25	0.12	mg/Kg	1	☼	6010B	Total/NA
Magnesium	31000		5.1	2.5	mg/Kg	1	☼	6010B	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136990-1

Client Sample ID: 2696V-68-B07 (5-10) (Continued)

Lab Sample ID: 500-136990-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	110000	B	100	17	mg/Kg	10	☼	6010B	Total/NA
Manganese	240		0.51	0.073	mg/Kg	1	☼	6010B	Total/NA
Nickel	13		0.51	0.15	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.52		0.51	0.30	mg/Kg	1	☼	6010B	Total/NA
Vanadium	12		0.25	0.060	mg/Kg	1	☼	6010B	Total/NA
Zinc	33		1.0	0.44	mg/Kg	1	☼	6010B	Total/NA
Potassium	1100		25	9.0	mg/Kg	1	☼	6010B	Total/NA
Sodium	170		51	7.5	mg/Kg	1	☼	6010B	Total/NA
Barium	0.34	J	0.50	0.050	mg/L	1		6010B	TCLP
Calcium	710		50	5.0	mg/L	10		6010B	TCLP
Copper	0.021	J B	0.025	0.010	mg/L	1		6010B	TCLP
Magnesium	22		2.5	0.50	mg/L	1		6010B	TCLP
Manganese	0.95		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.027		0.025	0.010	mg/L	1		6010B	TCLP
Potassium	2.8		2.5	0.50	mg/L	1		6010B	TCLP
Zinc	0.054	J	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.023	J	0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.014	J	0.019	0.0063	mg/Kg	1	☼	7471B	Total/NA
pH	7.9		0.20	0.20	SU	1		9045D	Total/NA

Client Sample ID: 2696V-68-B07 (10-15)

Lab Sample ID: 500-136990-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	0.055		0.017	0.0073	mg/Kg	1	☼	8260B	Total/NA
Chrysene	0.021	J	0.036	0.0098	mg/Kg	1	☼	8270D	Total/NA
2-Methylnaphthalene	0.016	J	0.073	0.0066	mg/Kg	1	☼	8270D	Total/NA
Phenanthrene	0.046		0.036	0.0050	mg/Kg	1	☼	8270D	Total/NA
Antimony	0.23	J	1.0	0.20	mg/Kg	1	☼	6010B	Total/NA
Arsenic	14		0.51	0.17	mg/Kg	1	☼	6010B	Total/NA
Barium	7.3		0.51	0.058	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.39		0.20	0.047	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.20	B	0.10	0.018	mg/Kg	1	☼	6010B	Total/NA
Chromium	6.2		0.51	0.25	mg/Kg	1	☼	6010B	Total/NA
Cobalt	9.3		0.25	0.066	mg/Kg	1	☼	6010B	Total/NA
Copper	24		0.51	0.14	mg/Kg	1	☼	6010B	Total/NA
Iron	19000		10	5.3	mg/Kg	1	☼	6010B	Total/NA
Lead	14		0.25	0.12	mg/Kg	1	☼	6010B	Total/NA
Magnesium	36000		5.1	2.5	mg/Kg	1	☼	6010B	Total/NA
Calcium	110000	B	100	17	mg/Kg	10	☼	6010B	Total/NA
Manganese	320		0.51	0.073	mg/Kg	1	☼	6010B	Total/NA
Nickel	23		0.51	0.15	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.73		0.51	0.30	mg/Kg	1	☼	6010B	Total/NA
Thallium	0.44	J	0.51	0.25	mg/Kg	1	☼	6010B	Total/NA
Vanadium	10		0.25	0.060	mg/Kg	1	☼	6010B	Total/NA
Zinc	45		1.0	0.44	mg/Kg	1	☼	6010B	Total/NA
Potassium	1500		25	9.0	mg/Kg	1	☼	6010B	Total/NA
Sodium	160		51	7.5	mg/Kg	1	☼	6010B	Total/NA
Barium	0.12	J	0.50	0.050	mg/L	1		6010B	TCLP
Calcium	360		5.0	0.50	mg/L	1		6010B	TCLP
Cobalt	0.026		0.025	0.010	mg/L	1		6010B	TCLP

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136990-1

Client Sample ID: 2696V-68-B07 (10-15) (Continued)

Lab Sample ID: 500-136990-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Copper	0.033	B	0.025	0.010	mg/L	1		6010B	TCLP
Magnesium	74		2.5	0.50	mg/L	1		6010B	TCLP
Manganese	1.3		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.052		0.025	0.010	mg/L	1		6010B	TCLP
Potassium	4.2		2.5	0.50	mg/L	1		6010B	TCLP
Zinc	0.067	J	0.50	0.020	mg/L	1		6010B	TCLP
Mercury	0.012	J	0.017	0.0057	mg/Kg	1	☼	7471B	Total/NA
pH	7.9		0.20	0.20	SU	1		9045D	Total/NA

Client Sample ID: 2696V-68-B07 (15-21)

Lab Sample ID: 500-136990-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	0.030		0.017	0.0073	mg/Kg	1	☼	8260B	Total/NA
Benzo[a]anthracene	0.0061	J	0.038	0.0052	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.035	J	0.038	0.011	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.012	J	0.038	0.0072	mg/Kg	1	☼	8270D	Total/NA
2-Methylnaphthalene	0.028	J	0.078	0.0071	mg/Kg	1	☼	8270D	Total/NA
Phenanthrene	0.063		0.038	0.0054	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.035	J	0.038	0.0077	mg/Kg	1	☼	8270D	Total/NA
Arsenic	9.0		0.56	0.19	mg/Kg	1	☼	6010B	Total/NA
Barium	7.3		0.56	0.064	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.33		0.22	0.052	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.23	B	0.11	0.020	mg/Kg	1	☼	6010B	Total/NA
Chromium	6.2		0.56	0.28	mg/Kg	1	☼	6010B	Total/NA
Cobalt	7.3		0.28	0.073	mg/Kg	1	☼	6010B	Total/NA
Copper	24		0.56	0.16	mg/Kg	1	☼	6010B	Total/NA
Iron	13000		11	5.8	mg/Kg	1	☼	6010B	Total/NA
Lead	12		0.28	0.13	mg/Kg	1	☼	6010B	Total/NA
Magnesium	26000		5.6	2.8	mg/Kg	1	☼	6010B	Total/NA
Calcium	78000	B	110	19	mg/Kg	10	☼	6010B	Total/NA
Manganese	280		0.56	0.081	mg/Kg	1	☼	6010B	Total/NA
Nickel	20		0.56	0.16	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.46	J	0.56	0.33	mg/Kg	1	☼	6010B	Total/NA
Vanadium	9.1		0.28	0.066	mg/Kg	1	☼	6010B	Total/NA
Zinc	49		1.1	0.49	mg/Kg	1	☼	6010B	Total/NA
Potassium	1300		28	9.9	mg/Kg	1	☼	6010B	Total/NA
Sodium	160		56	8.2	mg/Kg	1	☼	6010B	Total/NA
Barium	0.30	J	0.50	0.050	mg/L	1		6010B	TCLP
Calcium	440		5.0	0.50	mg/L	1		6010B	TCLP
Cobalt	0.017	J	0.025	0.010	mg/L	1		6010B	TCLP
Copper	0.034	B	0.025	0.010	mg/L	1		6010B	TCLP
Magnesium	37		2.5	0.50	mg/L	1		6010B	TCLP
Manganese	1.3		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.036		0.025	0.010	mg/L	1		6010B	TCLP
Potassium	3.9		2.5	0.50	mg/L	1		6010B	TCLP
Zinc	0.077	J	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.015	J	0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.012	J	0.019	0.0064	mg/Kg	1	☼	7471B	Total/NA
pH	7.9		0.20	0.20	SU	1		9045D	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136990-1

Client Sample ID: 2696V-68-B08 (0-5)

Lab Sample ID: 500-136990-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	0.085		0.016	0.0070	mg/Kg	1	☼	8260B	Total/NA
Benzene	0.0018		0.0016	0.00041	mg/Kg	1	☼	8260B	Total/NA
Benzo[a]anthracene	0.0060	J	0.038	0.0052	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.0096	J	0.038	0.0083	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.011	J	0.038	0.0071	mg/Kg	1	☼	8270D	Total/NA
Phenanthrene	0.0067	J	0.038	0.0054	mg/Kg	1	☼	8270D	Total/NA
Arsenic	6.0		0.55	0.19	mg/Kg	1	☼	6010B	Total/NA
Barium	52		0.55	0.062	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.57		0.22	0.051	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.30	B	0.11	0.020	mg/Kg	1	☼	6010B	Total/NA
Chromium	11		0.55	0.27	mg/Kg	1	☼	6010B	Total/NA
Cobalt	6.2		0.27	0.071	mg/Kg	1	☼	6010B	Total/NA
Copper	16		0.55	0.15	mg/Kg	1	☼	6010B	Total/NA
Iron	13000		11	5.7	mg/Kg	1	☼	6010B	Total/NA
Lead	17		0.27	0.13	mg/Kg	1	☼	6010B	Total/NA
Magnesium	14000		5.5	2.7	mg/Kg	1	☼	6010B	Total/NA
Calcium	25000	B	11	1.8	mg/Kg	1	☼	6010B	Total/NA
Manganese	150		0.55	0.079	mg/Kg	1	☼	6010B	Total/NA
Nickel	16		0.55	0.16	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.71		0.55	0.32	mg/Kg	1	☼	6010B	Total/NA
Vanadium	16		0.27	0.064	mg/Kg	1	☼	6010B	Total/NA
Zinc	82		1.1	0.48	mg/Kg	1	☼	6010B	Total/NA
Potassium	1200		27	9.7	mg/Kg	1	☼	6010B	Total/NA
Sodium	260		55	8.1	mg/Kg	1	☼	6010B	Total/NA
Barium	0.36	J	0.50	0.050	mg/L	1		6010B	TCLP
Cadmium	0.0025	J	0.0050	0.0020	mg/L	1		6010B	TCLP
Calcium	290		5.0	0.50	mg/L	1		6010B	TCLP
Copper	0.025	B	0.025	0.010	mg/L	1		6010B	TCLP
Iron	0.23	J	0.40	0.20	mg/L	1		6010B	TCLP
Magnesium	83		2.5	0.50	mg/L	1		6010B	TCLP
Manganese	2.9		0.025	0.010	mg/L	1		6010B	TCLP
Potassium	1.4	J	2.5	0.50	mg/L	1		6010B	TCLP
Zinc	0.14	J	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.021	J	0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.019		0.019	0.0063	mg/Kg	1	☼	7471B	Total/NA
pH	8.1		0.20	0.20	SU	1		9045D	Total/NA

Client Sample ID: 2696V-68-B09 (0-5)

Lab Sample ID: 500-136990-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	0.068		0.017	0.0074	mg/Kg	1	☼	8260B	Total/NA
Anthracene	0.013	J	0.040	0.0067	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.040		0.040	0.0054	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.045		0.040	0.0077	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.084		0.040	0.0086	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.018	J	0.040	0.013	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.028	J	0.040	0.012	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.053		0.040	0.011	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.099		0.040	0.0074	mg/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.019	J	0.040	0.010	mg/Kg	1	☼	8270D	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136990-1

Client Sample ID: 2696V-68-B09 (0-5) (Continued)

Lab Sample ID: 500-136990-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Phenanthrene	0.057		0.040	0.0055	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.081		0.040	0.0079	mg/Kg	1	☼	8270D	Total/NA
Arsenic	7.3		0.56	0.19	mg/Kg	1	☼	6010B	Total/NA
Barium	61		0.56	0.064	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.58		0.22	0.052	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.56	B	0.11	0.020	mg/Kg	1	☼	6010B	Total/NA
Chromium	15		0.56	0.28	mg/Kg	1	☼	6010B	Total/NA
Cobalt	8.3		0.28	0.073	mg/Kg	1	☼	6010B	Total/NA
Copper	21		0.56	0.16	mg/Kg	1	☼	6010B	Total/NA
Iron	16000		11	5.8	mg/Kg	1	☼	6010B	Total/NA
Lead	55		0.28	0.13	mg/Kg	1	☼	6010B	Total/NA
Magnesium	19000		5.6	2.8	mg/Kg	1	☼	6010B	Total/NA
Calcium	30000	B	11	1.9	mg/Kg	1	☼	6010B	Total/NA
Manganese	270		0.56	0.081	mg/Kg	1	☼	6010B	Total/NA
Nickel	20		0.56	0.16	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.60		0.56	0.33	mg/Kg	1	☼	6010B	Total/NA
Vanadium	18		0.28	0.066	mg/Kg	1	☼	6010B	Total/NA
Zinc	150		1.1	0.49	mg/Kg	1	☼	6010B	Total/NA
Potassium	1300		28	9.9	mg/Kg	1	☼	6010B	Total/NA
Sodium	170		56	8.3	mg/Kg	1	☼	6010B	Total/NA
Barium	0.33	J	0.50	0.050	mg/L	1		6010B	TCLP
Cadmium	0.0024	J	0.0050	0.0020	mg/L	1		6010B	TCLP
Calcium	260		5.0	0.50	mg/L	1		6010B	TCLP
Copper	0.029	B	0.025	0.010	mg/L	1		6010B	TCLP
Magnesium	120		2.5	0.50	mg/L	1		6010B	TCLP
Manganese	0.45		0.025	0.010	mg/L	1		6010B	TCLP
Potassium	1.6	J	2.5	0.50	mg/L	1		6010B	TCLP
Zinc	0.11	J	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.15		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.037		0.019	0.0064	mg/Kg	1	☼	7471B	Total/NA
pH	8.4		0.20	0.20	SU	1		9045D	Total/NA

Client Sample ID: 2696V-68-G01

Lab Sample ID: 500-136990-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.020		0.0010	0.00023	mg/L	1		6020A	Total
Barium	0.12	V	0.0025	0.00073	mg/L	1		6020A	Recoverable Total
Cadmium	0.00051		0.00050	0.00017	mg/L	1		6020A	Recoverable Total
Calcium	150	V	0.20	0.044	mg/L	1		6020A	Recoverable Total
Chromium	0.022	F1	0.0050	0.0011	mg/L	1		6020A	Recoverable Total
Cobalt	0.015	F1	0.0010	0.00040	mg/L	1		6020A	Recoverable Total
Copper	0.049		0.0020	0.00050	mg/L	1		6020A	Recoverable Total
Iron	24	V	0.10	0.047	mg/L	1		6020A	Recoverable Total
Lead	0.044	V	0.00050	0.00019	mg/L	1		6020A	Recoverable Total

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136990-1

Client Sample ID: 2696V-68-G01 (Continued)

Lab Sample ID: 500-136990-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Magnesium	68	V	0.20	0.049	mg/L	1		6020A	Total Recoverable
Manganese	0.37	F1 V	0.0025	0.00079	mg/L	1		6020A	Total Recoverable
Nickel	0.039	F1 V	0.0020	0.00063	mg/L	1		6020A	Total Recoverable
Potassium	11	V	0.50	0.11	mg/L	1		6020A	Total Recoverable
Selenium	0.0017	J	0.0025	0.00098	mg/L	1		6020A	Total Recoverable
Silver	0.00012	J	0.00050	0.00012	mg/L	1		6020A	Total Recoverable
Sodium	150	V	0.20	0.077	mg/L	1		6020A	Total Recoverable
Thallium	0.0016	J	0.0020	0.00057	mg/L	1		6020A	Total Recoverable
Vanadium	0.025	F1	0.0050	0.0022	mg/L	1		6020A	Total Recoverable
Zinc	0.064		0.020	0.0069	mg/L	1		6020A	Total Recoverable

Client Sample ID: Trip Blank

Lab Sample ID: 500-136990-15

No Detections.

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Sample Summary

Client: Terracon Consulting Eng & Scientists
Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136990-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-136990-1	2696V-68-B01 (0-5)	Solid	11/08/17 10:10	11/08/17 16:30
500-136990-2	2696V-68-B02 (0-5)	Solid	11/08/17 10:20	11/08/17 16:30
500-136990-3	2696V-68-B03 (0-5)	Solid	11/08/17 10:40	11/08/17 16:30
500-136990-4	2696V-68-B04 (0-5)	Solid	11/08/17 10:50	11/08/17 16:30
500-136990-5	2696V-68-B05 (0-5)	Solid	11/08/17 11:05	11/08/17 16:30
500-136990-6	2696V-68-B05 (0-5) Dup	Solid	11/08/17 11:05	11/08/17 16:30
500-136990-7	2696V-68-B06 (0-5)	Solid	11/08/17 11:25	11/08/17 16:30
500-136990-8	2696V-68-B07 (0-5)	Solid	11/08/17 11:55	11/08/17 16:30
500-136990-9	2696V-68-B07 (5-10)	Solid	11/08/17 12:00	11/08/17 16:30
500-136990-10	2696V-68-B07 (10-15)	Solid	11/08/17 12:05	11/08/17 16:30
500-136990-11	2696V-68-B07 (15-21)	Solid	11/08/17 12:10	11/08/17 16:30
500-136990-12	2696V-68-B08 (0-5)	Solid	11/08/17 13:20	11/08/17 16:30
500-136990-13	2696V-68-B09 (0-5)	Solid	11/08/17 13:30	11/08/17 16:30
500-136990-14	2696V-68-G01	Water	11/08/17 12:20	11/08/17 16:30
500-136990-15	Trip Blank	Water	11/08/17 00:00	11/08/17 16:30

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136990-1

Client Sample ID: 2696V-68-B01 (0-5)

Lab Sample ID: 500-136990-1

Date Collected: 11/08/17 10:10

Matrix: Solid

Date Received: 11/08/17 16:30

Percent Solids: 84.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.016		0.016	0.0071	mg/Kg	☼	11/08/17 18:13	11/14/17 22:02	1
Benzene	<0.0016		0.0016	0.00041	mg/Kg	☼	11/08/17 18:13	11/14/17 22:02	1
Bromodichloromethane	<0.0016		0.0016	0.00033	mg/Kg	☼	11/08/17 18:13	11/14/17 22:02	1
Bromoform	<0.0016		0.0016	0.00047	mg/Kg	☼	11/08/17 18:13	11/14/17 22:02	1
Bromomethane	<0.0040		0.0040	0.0015	mg/Kg	☼	11/08/17 18:13	11/14/17 22:02	1
2-Butanone (MEK)	<0.0040		0.0040	0.0018	mg/Kg	☼	11/08/17 18:13	11/14/17 22:02	1
Carbon disulfide	<0.0040		0.0040	0.00084	mg/Kg	☼	11/08/17 18:13	11/14/17 22:02	1
Carbon tetrachloride	<0.0016		0.0016	0.00047	mg/Kg	☼	11/08/17 18:13	11/14/17 22:02	1
Chlorobenzene	<0.0016		0.0016	0.00060	mg/Kg	☼	11/08/17 18:13	11/14/17 22:02	1
Chloroethane	<0.0040		0.0040	0.0012	mg/Kg	☼	11/08/17 18:13	11/14/17 22:02	1
Chloroform	<0.0016		0.0016	0.00056	mg/Kg	☼	11/08/17 18:13	11/14/17 22:02	1
Chloromethane	<0.0040		0.0040	0.0016	mg/Kg	☼	11/08/17 18:13	11/14/17 22:02	1
cis-1,2-Dichloroethene	<0.0016		0.0016	0.00045	mg/Kg	☼	11/08/17 18:13	11/14/17 22:02	1
cis-1,3-Dichloropropene	<0.0016		0.0016	0.00049	mg/Kg	☼	11/08/17 18:13	11/14/17 22:02	1
Dibromochloromethane	<0.0016		0.0016	0.00053	mg/Kg	☼	11/08/17 18:13	11/14/17 22:02	1
1,1-Dichloroethane	<0.0016		0.0016	0.00055	mg/Kg	☼	11/08/17 18:13	11/14/17 22:02	1
1,2-Dichloroethane	<0.0040		0.0040	0.0013	mg/Kg	☼	11/08/17 18:13	11/14/17 22:02	1
1,1-Dichloroethene	<0.0016		0.0016	0.00056	mg/Kg	☼	11/08/17 18:13	11/14/17 22:02	1
1,2-Dichloropropane	<0.0016		0.0016	0.00042	mg/Kg	☼	11/08/17 18:13	11/14/17 22:02	1
1,3-Dichloropropene, Total	<0.0016		0.0016	0.00057	mg/Kg	☼	11/08/17 18:13	11/14/17 22:02	1
Ethylbenzene	<0.0016		0.0016	0.00077	mg/Kg	☼	11/08/17 18:13	11/14/17 22:02	1
2-Hexanone	<0.0040		0.0040	0.0013	mg/Kg	☼	11/08/17 18:13	11/14/17 22:02	1
Methylene Chloride	<0.0040		0.0040	0.0016	mg/Kg	☼	11/08/17 18:13	11/14/17 22:02	1
4-Methyl-2-pentanone (MIBK)	<0.0040		0.0040	0.0012	mg/Kg	☼	11/08/17 18:13	11/14/17 22:02	1
Methyl tert-butyl ether	<0.0016		0.0016	0.00048	mg/Kg	☼	11/08/17 18:13	11/14/17 22:02	1
Styrene	<0.0016		0.0016	0.00049	mg/Kg	☼	11/08/17 18:13	11/14/17 22:02	1
1,1,2,2-Tetrachloroethane	<0.0016		0.0016	0.00052	mg/Kg	☼	11/08/17 18:13	11/14/17 22:02	1
Tetrachloroethene	<0.0016		0.0016	0.00055	mg/Kg	☼	11/08/17 18:13	11/14/17 22:02	1
Toluene	<0.0016		0.0016	0.00041	mg/Kg	☼	11/08/17 18:13	11/14/17 22:02	1
trans-1,2-Dichloroethene	<0.0016		0.0016	0.00072	mg/Kg	☼	11/08/17 18:13	11/14/17 22:02	1
trans-1,3-Dichloropropene	<0.0016		0.0016	0.00057	mg/Kg	☼	11/08/17 18:13	11/14/17 22:02	1
1,1,1-Trichloroethane	<0.0016		0.0016	0.00054	mg/Kg	☼	11/08/17 18:13	11/14/17 22:02	1
1,1,2-Trichloroethane	<0.0016		0.0016	0.00069	mg/Kg	☼	11/08/17 18:13	11/14/17 22:02	1
Trichloroethene	<0.0016		0.0016	0.00055	mg/Kg	☼	11/08/17 18:13	11/14/17 22:02	1
Vinyl acetate	<0.0040		0.0040	0.0014	mg/Kg	☼	11/08/17 18:13	11/14/17 22:02	1
Vinyl chloride	<0.0016		0.0016	0.00072	mg/Kg	☼	11/08/17 18:13	11/14/17 22:02	1
Xylenes, Total	<0.0032		0.0032	0.00052	mg/Kg	☼	11/08/17 18:13	11/14/17 22:02	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	90		75 - 131	11/08/17 18:13	11/14/17 22:02	1
Dibromofluoromethane	100		75 - 126	11/08/17 18:13	11/14/17 22:02	1
1,2-Dichloroethane-d4 (Surr)	103		70 - 134	11/08/17 18:13	11/14/17 22:02	1
Toluene-d8 (Surr)	95		75 - 124	11/08/17 18:13	11/14/17 22:02	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.039		0.039	0.0070	mg/Kg	☼	11/14/17 17:23	11/16/17 15:17	1
Acenaphthylene	<0.039		0.039	0.0051	mg/Kg	☼	11/14/17 17:23	11/16/17 15:17	1
Anthracene	<0.039		0.039	0.0065	mg/Kg	☼	11/14/17 17:23	11/16/17 15:17	1
Benzo[a]anthracene	<0.039		0.039	0.0053	mg/Kg	☼	11/14/17 17:23	11/16/17 15:17	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136990-1

Client Sample ID: 2696V-68-B01 (0-5)

Lab Sample ID: 500-136990-1

Date Collected: 11/08/17 10:10

Matrix: Solid

Date Received: 11/08/17 16:30

Percent Solids: 84.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	<0.039		0.039	0.0076	mg/Kg	☼	11/14/17 17:23	11/16/17 15:17	1
Benzo[b]fluoranthene	<0.039		0.039	0.0084	mg/Kg	☼	11/14/17 17:23	11/16/17 15:17	1
Benzo[g,h,i]perylene	<0.039		0.039	0.013	mg/Kg	☼	11/14/17 17:23	11/16/17 15:17	1
Benzo[k]fluoranthene	<0.039		0.039	0.011	mg/Kg	☼	11/14/17 17:23	11/16/17 15:17	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.040	mg/Kg	☼	11/14/17 17:23	11/16/17 15:17	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.058	mg/Kg	☼	11/14/17 17:23	11/16/17 15:17	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.071	mg/Kg	☼	11/14/17 17:23	11/16/17 15:17	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.051	mg/Kg	☼	11/14/17 17:23	11/16/17 15:17	1
Butyl benzyl phthalate	<0.20		0.20	0.074	mg/Kg	☼	11/14/17 17:23	11/16/17 15:17	1
Carbazole	<0.20		0.20	0.097	mg/Kg	☼	11/14/17 17:23	11/16/17 15:17	1
4-Chloroaniline	<0.79		0.79	0.18	mg/Kg	☼	11/14/17 17:23	11/16/17 15:17	1
4-Chloro-3-methylphenol	<0.39		0.39	0.13	mg/Kg	☼	11/14/17 17:23	11/16/17 15:17	1
2-Chloronaphthalene	<0.20		0.20	0.043	mg/Kg	☼	11/14/17 17:23	11/16/17 15:17	1
2-Chlorophenol	<0.20		0.20	0.067	mg/Kg	☼	11/14/17 17:23	11/16/17 15:17	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.046	mg/Kg	☼	11/14/17 17:23	11/16/17 15:17	1
Chrysene	<0.039		0.039	0.011	mg/Kg	☼	11/14/17 17:23	11/16/17 15:17	1
Dibenz(a,h)anthracene	<0.039		0.039	0.0075	mg/Kg	☼	11/14/17 17:23	11/16/17 15:17	1
Dibenzofuran	<0.20		0.20	0.046	mg/Kg	☼	11/14/17 17:23	11/16/17 15:17	1
1,2-Dichlorobenzene	<0.20		0.20	0.047	mg/Kg	☼	11/14/17 17:23	11/16/17 15:17	1
1,3-Dichlorobenzene	<0.20		0.20	0.044	mg/Kg	☼	11/14/17 17:23	11/16/17 15:17	1
1,4-Dichlorobenzene	<0.20		0.20	0.050	mg/Kg	☼	11/14/17 17:23	11/16/17 15:17	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.055	mg/Kg	☼	11/14/17 17:23	11/16/17 15:17	1
2,4-Dichlorophenol	<0.39		0.39	0.093	mg/Kg	☼	11/14/17 17:23	11/16/17 15:17	1
Diethyl phthalate	<0.20		0.20	0.066	mg/Kg	☼	11/14/17 17:23	11/16/17 15:17	1
2,4-Dimethylphenol	<0.39		0.39	0.15	mg/Kg	☼	11/14/17 17:23	11/16/17 15:17	1
Dimethyl phthalate	<0.20		0.20	0.051	mg/Kg	☼	11/14/17 17:23	11/16/17 15:17	1
Di-n-butyl phthalate	<0.20		0.20	0.059	mg/Kg	☼	11/14/17 17:23	11/16/17 15:17	1
4,6-Dinitro-2-methylphenol	<0.79		0.79	0.31	mg/Kg	☼	11/14/17 17:23	11/16/17 15:17	1
2,4-Dinitrophenol	<0.79		0.79	0.69	mg/Kg	☼	11/14/17 17:23	11/16/17 15:17	1
2,4-Dinitrotoluene	<0.20		0.20	0.062	mg/Kg	☼	11/14/17 17:23	11/16/17 15:17	1
2,6-Dinitrotoluene	<0.20		0.20	0.077	mg/Kg	☼	11/14/17 17:23	11/16/17 15:17	1
Di-n-octyl phthalate	<0.20		0.20	0.064	mg/Kg	☼	11/14/17 17:23	11/16/17 15:17	1
Fluoranthene	<0.039		0.039	0.0072	mg/Kg	☼	11/14/17 17:23	11/16/17 15:17	1
Fluorene	<0.039		0.039	0.0055	mg/Kg	☼	11/14/17 17:23	11/16/17 15:17	1
Hexachlorobenzene	<0.079		0.079	0.0090	mg/Kg	☼	11/14/17 17:23	11/16/17 15:17	1
Hexachlorobutadiene	<0.20		0.20	0.061	mg/Kg	☼	11/14/17 17:23	11/16/17 15:17	1
Hexachlorocyclopentadiene	<0.79		0.79	0.22	mg/Kg	☼	11/14/17 17:23	11/16/17 15:17	1
Hexachloroethane	<0.20		0.20	0.059	mg/Kg	☼	11/14/17 17:23	11/16/17 15:17	1
Indeno[1,2,3-cd]pyrene	<0.039		0.039	0.010	mg/Kg	☼	11/14/17 17:23	11/16/17 15:17	1
Isophorone	<0.20		0.20	0.044	mg/Kg	☼	11/14/17 17:23	11/16/17 15:17	1
2-Methylnaphthalene	<0.079		0.079	0.0072	mg/Kg	☼	11/14/17 17:23	11/16/17 15:17	1
2-Methylphenol	<0.20		0.20	0.063	mg/Kg	☼	11/14/17 17:23	11/16/17 15:17	1
3 & 4 Methylphenol	<0.20		0.20	0.065	mg/Kg	☼	11/14/17 17:23	11/16/17 15:17	1
Naphthalene	<0.039		0.039	0.0060	mg/Kg	☼	11/14/17 17:23	11/16/17 15:17	1
2-Nitroaniline	<0.20		0.20	0.053	mg/Kg	☼	11/14/17 17:23	11/16/17 15:17	1
3-Nitroaniline	<0.39		0.39	0.12	mg/Kg	☼	11/14/17 17:23	11/16/17 15:17	1
4-Nitroaniline	<0.39		0.39	0.16	mg/Kg	☼	11/14/17 17:23	11/16/17 15:17	1
Nitrobenzene	<0.039		0.039	0.0097	mg/Kg	☼	11/14/17 17:23	11/16/17 15:17	1
2-Nitrophenol	<0.39		0.39	0.092	mg/Kg	☼	11/14/17 17:23	11/16/17 15:17	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136990-1

Client Sample ID: 2696V-68-B01 (0-5)

Lab Sample ID: 500-136990-1

Date Collected: 11/08/17 10:10

Matrix: Solid

Date Received: 11/08/17 16:30

Percent Solids: 84.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Nitrophenol	<0.79		0.79	0.37	mg/Kg	☼	11/14/17 17:23	11/16/17 15:17	1
N-Nitrosodi-n-propylamine	<0.079		0.079	0.048	mg/Kg	☼	11/14/17 17:23	11/16/17 15:17	1
N-Nitrosodiphenylamine	<0.20		0.20	0.046	mg/Kg	☼	11/14/17 17:23	11/16/17 15:17	1
2,2'-oxybis[1-chloropropane]	<0.20	*	0.20	0.045	mg/Kg	☼	11/14/17 17:23	11/16/17 15:17	1
Pentachlorophenol	<0.79		0.79	0.63	mg/Kg	☼	11/14/17 17:23	11/16/17 15:17	1
Phenanthrene	<0.039		0.039	0.0054	mg/Kg	☼	11/14/17 17:23	11/16/17 15:17	1
Phenol	<0.20		0.20	0.087	mg/Kg	☼	11/14/17 17:23	11/16/17 15:17	1
Pyrene	<0.039		0.039	0.0078	mg/Kg	☼	11/14/17 17:23	11/16/17 15:17	1
1,2,4-Trichlorobenzene	<0.20		0.20	0.042	mg/Kg	☼	11/14/17 17:23	11/16/17 15:17	1
2,4,5-Trichlorophenol	<0.39		0.39	0.089	mg/Kg	☼	11/14/17 17:23	11/16/17 15:17	1
2,4,6-Trichlorophenol	<0.39		0.39	0.13	mg/Kg	☼	11/14/17 17:23	11/16/17 15:17	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	114		44 - 121	11/14/17 17:23	11/16/17 15:17	1
2-Fluorophenol	111		46 - 133	11/14/17 17:23	11/16/17 15:17	1
Nitrobenzene-d5	101		41 - 120	11/14/17 17:23	11/16/17 15:17	1
Phenol-d5	100		46 - 125	11/14/17 17:23	11/16/17 15:17	1
Terphenyl-d14	104		35 - 160	11/14/17 17:23	11/16/17 15:17	1
2,4,6-Tribromophenol	99		25 - 139	11/14/17 17:23	11/16/17 15:17	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.97	F1	0.97	0.19	mg/Kg	☼	11/10/17 07:34	11/10/17 17:20	1
Arsenic	10	F1	0.48	0.17	mg/Kg	☼	11/10/17 07:34	11/10/17 17:20	1
Barium	77	F1	0.48	0.055	mg/Kg	☼	11/10/17 07:34	11/10/17 17:20	1
Beryllium	0.85		0.19	0.045	mg/Kg	☼	11/10/17 07:34	11/10/17 17:20	1
Cadmium	0.23	B	0.097	0.017	mg/Kg	☼	11/10/17 07:34	11/10/17 17:20	1
Chromium	18		0.48	0.24	mg/Kg	☼	11/10/17 07:34	11/10/17 17:20	1
Cobalt	23	F1	0.24	0.063	mg/Kg	☼	11/10/17 07:34	11/10/17 17:20	1
Copper	24	F1	0.48	0.14	mg/Kg	☼	11/10/17 07:34	11/10/17 17:20	1
Iron	22000		9.7	5.0	mg/Kg	☼	11/10/17 07:34	11/10/17 17:20	1
Lead	20	F1	0.24	0.11	mg/Kg	☼	11/10/17 07:34	11/10/17 17:20	1
Magnesium	17000		4.8	2.4	mg/Kg	☼	11/10/17 07:34	11/10/17 17:20	1
Calcium	23000	B	9.7	1.6	mg/Kg	☼	11/10/17 07:34	11/10/17 17:20	1
Manganese	760	F2	0.48	0.070	mg/Kg	☼	11/10/17 07:34	11/10/17 17:20	1
Nickel	45	F1	0.48	0.14	mg/Kg	☼	11/10/17 07:34	11/10/17 17:20	1
Selenium	0.61	F1	0.48	0.28	mg/Kg	☼	11/10/17 07:34	11/10/17 17:20	1
Silver	<0.24		0.24	0.062	mg/Kg	☼	11/10/17 07:34	11/10/17 17:20	1
Thallium	<0.48	F1	0.48	0.24	mg/Kg	☼	11/10/17 07:34	11/10/17 17:20	1
Vanadium	23		0.24	0.057	mg/Kg	☼	11/10/17 07:34	11/10/17 17:20	1
Zinc	56	F1	0.97	0.42	mg/Kg	☼	11/10/17 07:34	11/10/17 17:20	1
Potassium	2600		24	8.6	mg/Kg	☼	11/10/17 07:34	11/10/17 17:20	1
Sodium	870	F1	48	7.2	mg/Kg	☼	11/10/17 07:34	11/10/17 17:20	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.050		0.050	0.010	mg/L		11/14/17 15:47	11/15/17 12:51	1
Barium	0.35	J	0.50	0.050	mg/L		11/14/17 15:47	11/15/17 12:51	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		11/14/17 15:47	11/15/17 12:51	1
Cadmium	0.0020	J	0.0050	0.0020	mg/L		11/14/17 15:47	11/15/17 12:51	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136990-1

Client Sample ID: 2696V-68-B01 (0-5)

Lab Sample ID: 500-136990-1

Date Collected: 11/08/17 10:10

Matrix: Solid

Date Received: 11/08/17 16:30

Percent Solids: 84.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	360		5.0	0.50	mg/L		11/14/17 15:47	11/15/17 12:51	1
Chromium	<0.025		0.025	0.010	mg/L		11/14/17 15:47	11/15/17 12:51	1
Cobalt	<0.025		0.025	0.010	mg/L		11/14/17 15:47	11/15/17 12:51	1
Copper	0.017	J B	0.025	0.010	mg/L		11/14/17 15:47	11/15/17 12:51	1
Iron	<0.40		0.40	0.20	mg/L		11/14/17 15:47	11/15/17 12:51	1
Lead	<0.0075		0.0075	0.0075	mg/L		11/14/17 15:47	11/15/17 12:51	1
Magnesium	130		2.5	0.50	mg/L		11/14/17 15:47	11/15/17 12:51	1
Manganese	0.25		0.025	0.010	mg/L		11/14/17 15:47	11/15/17 12:51	1
Nickel	<0.025		0.025	0.010	mg/L		11/14/17 15:47	11/15/17 12:51	1
Potassium	1.3	J	2.5	0.50	mg/L		11/14/17 15:47	11/15/17 12:51	1
Selenium	<0.050		0.050	0.020	mg/L		11/14/17 15:47	11/15/17 12:51	1
Silver	<0.025		0.025	0.010	mg/L		11/14/17 15:47	11/15/17 12:51	1
Vanadium	<0.025		0.025	0.010	mg/L		11/14/17 15:47	11/15/17 12:51	1
Zinc	0.038	J	0.50	0.020	mg/L		11/14/17 15:47	11/15/17 12:51	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.73		0.025	0.010	mg/L		11/13/17 07:23	11/13/17 19:28	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		11/14/17 15:47	11/16/17 11:22	1
Thallium	<0.0020		0.0020	0.0020	mg/L		11/14/17 15:47	11/16/17 11:22	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		11/14/17 15:15	11/16/17 11:35	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.029		0.017	0.0057	mg/Kg	☼	11/13/17 13:20	11/16/17 13:14	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.47		0.47	0.16	mg/Kg	☼	11/17/17 10:45	11/17/17 15:01	1
pH	9.3		0.20	0.20	SU			11/15/17 10:50	1

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136990-1

Client Sample ID: 2696V-68-B02 (0-5)

Lab Sample ID: 500-136990-2

Date Collected: 11/08/17 10:20

Matrix: Solid

Date Received: 11/08/17 16:30

Percent Solids: 82.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	0.028		0.017	0.0073	mg/Kg	☼	11/08/17 18:13	11/15/17 14:27	1
Benzene	<0.0017		0.0017	0.00043	mg/Kg	☼	11/08/17 18:13	11/15/17 14:27	1
Bromodichloromethane	<0.0017		0.0017	0.00034	mg/Kg	☼	11/08/17 18:13	11/15/17 14:27	1
Bromoform	<0.0017		0.0017	0.00049	mg/Kg	☼	11/08/17 18:13	11/15/17 14:27	1
Bromomethane	<0.0042		0.0042	0.0016	mg/Kg	☼	11/08/17 18:13	11/15/17 14:27	1
2-Butanone (MEK)	<0.0042		0.0042	0.0019	mg/Kg	☼	11/08/17 18:13	11/15/17 14:27	1
Carbon disulfide	<0.0042		0.0042	0.00088	mg/Kg	☼	11/08/17 18:13	11/15/17 14:27	1
Carbon tetrachloride	<0.0017		0.0017	0.00049	mg/Kg	☼	11/08/17 18:13	11/15/17 14:27	1
Chlorobenzene	<0.0017		0.0017	0.00062	mg/Kg	☼	11/08/17 18:13	11/15/17 14:27	1
Chloroethane	<0.0042		0.0042	0.0012	mg/Kg	☼	11/08/17 18:13	11/15/17 14:27	1
Chloroform	<0.0017		0.0017	0.00059	mg/Kg	☼	11/08/17 18:13	11/15/17 14:27	1
Chloromethane	<0.0042		0.0042	0.0017	mg/Kg	☼	11/08/17 18:13	11/15/17 14:27	1
cis-1,2-Dichloroethene	<0.0017		0.0017	0.00047	mg/Kg	☼	11/08/17 18:13	11/15/17 14:27	1
cis-1,3-Dichloropropene	<0.0017		0.0017	0.00051	mg/Kg	☼	11/08/17 18:13	11/15/17 14:27	1
Dibromochloromethane	<0.0017		0.0017	0.00055	mg/Kg	☼	11/08/17 18:13	11/15/17 14:27	1
1,1-Dichloroethane	<0.0017		0.0017	0.00058	mg/Kg	☼	11/08/17 18:13	11/15/17 14:27	1
1,2-Dichloroethane	<0.0042		0.0042	0.0013	mg/Kg	☼	11/08/17 18:13	11/15/17 14:27	1
1,1-Dichloroethene	<0.0017		0.0017	0.00058	mg/Kg	☼	11/08/17 18:13	11/15/17 14:27	1
1,2-Dichloropropane	<0.0017		0.0017	0.00044	mg/Kg	☼	11/08/17 18:13	11/15/17 14:27	1
1,3-Dichloropropane, Total	<0.0017		0.0017	0.00059	mg/Kg	☼	11/08/17 18:13	11/15/17 14:27	1
Ethylbenzene	<0.0017		0.0017	0.00081	mg/Kg	☼	11/08/17 18:13	11/15/17 14:27	1
2-Hexanone	<0.0042		0.0042	0.0013	mg/Kg	☼	11/08/17 18:13	11/15/17 14:27	1
Methylene Chloride	<0.0042		0.0042	0.0017	mg/Kg	☼	11/08/17 18:13	11/15/17 14:27	1
4-Methyl-2-pentanone (MIBK)	<0.0042		0.0042	0.0012	mg/Kg	☼	11/08/17 18:13	11/15/17 14:27	1
Methyl tert-butyl ether	<0.0017		0.0017	0.00049	mg/Kg	☼	11/08/17 18:13	11/15/17 14:27	1
Styrene	<0.0017		0.0017	0.00051	mg/Kg	☼	11/08/17 18:13	11/15/17 14:27	1
1,1,2,2-Tetrachloroethane	<0.0017		0.0017	0.00054	mg/Kg	☼	11/08/17 18:13	11/15/17 14:27	1
Tetrachloroethene	<0.0017		0.0017	0.00057	mg/Kg	☼	11/08/17 18:13	11/15/17 14:27	1
Toluene	<0.0017		0.0017	0.00043	mg/Kg	☼	11/08/17 18:13	11/15/17 14:27	1
trans-1,2-Dichloroethene	<0.0017		0.0017	0.00075	mg/Kg	☼	11/08/17 18:13	11/15/17 14:27	1
trans-1,3-Dichloropropene	<0.0017		0.0017	0.00059	mg/Kg	☼	11/08/17 18:13	11/15/17 14:27	1
1,1,1-Trichloroethane	<0.0017		0.0017	0.00057	mg/Kg	☼	11/08/17 18:13	11/15/17 14:27	1
1,1,2-Trichloroethane	<0.0017		0.0017	0.00072	mg/Kg	☼	11/08/17 18:13	11/15/17 14:27	1
Trichloroethene	<0.0017		0.0017	0.00057	mg/Kg	☼	11/08/17 18:13	11/15/17 14:27	1
Vinyl acetate	<0.0042		0.0042	0.0015	mg/Kg	☼	11/08/17 18:13	11/15/17 14:27	1
Vinyl chloride	<0.0017		0.0017	0.00075	mg/Kg	☼	11/08/17 18:13	11/15/17 14:27	1
Xylenes, Total	<0.0034		0.0034	0.00054	mg/Kg	☼	11/08/17 18:13	11/15/17 14:27	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	91		75 - 131	11/08/17 18:13	11/15/17 14:27	1
Dibromofluoromethane	100		75 - 126	11/08/17 18:13	11/15/17 14:27	1
1,2-Dichloroethane-d4 (Surr)	98		70 - 134	11/08/17 18:13	11/15/17 14:27	1
Toluene-d8 (Surr)	98		75 - 124	11/08/17 18:13	11/15/17 14:27	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.040		0.040	0.0072	mg/Kg	☼	11/14/17 17:23	11/16/17 15:44	1
Acenaphthylene	<0.040		0.040	0.0053	mg/Kg	☼	11/14/17 17:23	11/16/17 15:44	1
Anthracene	<0.040	F1	0.040	0.0067	mg/Kg	☼	11/14/17 17:23	11/16/17 15:44	1
Benzo[a]anthracene	<0.040	F1	0.040	0.0054	mg/Kg	☼	11/14/17 17:23	11/16/17 15:44	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136990-1

Client Sample ID: 2696V-68-B02 (0-5)

Lab Sample ID: 500-136990-2

Date Collected: 11/08/17 10:20

Matrix: Solid

Date Received: 11/08/17 16:30

Percent Solids: 82.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	<0.040	F1	0.040	0.0078	mg/Kg	☼	11/14/17 17:23	11/16/17 15:44	1
Benzo[b]fluoranthene	0.0093	J F1	0.040	0.0087	mg/Kg	☼	11/14/17 17:23	11/16/17 15:44	1
Benzo[g,h,i]perylene	<0.040	F1	0.040	0.013	mg/Kg	☼	11/14/17 17:23	11/16/17 15:44	1
Benzo[k]fluoranthene	<0.040	F1	0.040	0.012	mg/Kg	☼	11/14/17 17:23	11/16/17 15:44	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.041	mg/Kg	☼	11/14/17 17:23	11/16/17 15:44	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.060	mg/Kg	☼	11/14/17 17:23	11/16/17 15:44	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.073	mg/Kg	☼	11/14/17 17:23	11/16/17 15:44	1
4-Bromophenyl phenyl ether	<0.20	F1	0.20	0.053	mg/Kg	☼	11/14/17 17:23	11/16/17 15:44	1
Butyl benzyl phthalate	<0.20		0.20	0.076	mg/Kg	☼	11/14/17 17:23	11/16/17 15:44	1
Carbazole	<0.20		0.20	0.10	mg/Kg	☼	11/14/17 17:23	11/16/17 15:44	1
4-Chloroaniline	<0.81		0.81	0.19	mg/Kg	☼	11/14/17 17:23	11/16/17 15:44	1
4-Chloro-3-methylphenol	<0.40	F1	0.40	0.14	mg/Kg	☼	11/14/17 17:23	11/16/17 15:44	1
2-Chloronaphthalene	<0.20	F1	0.20	0.044	mg/Kg	☼	11/14/17 17:23	11/16/17 15:44	1
2-Chlorophenol	<0.20	F1	0.20	0.068	mg/Kg	☼	11/14/17 17:23	11/16/17 15:44	1
4-Chlorophenyl phenyl ether	<0.20	F1	0.20	0.047	mg/Kg	☼	11/14/17 17:23	11/16/17 15:44	1
Chrysene	<0.040		0.040	0.011	mg/Kg	☼	11/14/17 17:23	11/16/17 15:44	1
Dibenz(a,h)anthracene	<0.040	F1	0.040	0.0078	mg/Kg	☼	11/14/17 17:23	11/16/17 15:44	1
Dibenzofuran	<0.20	F1	0.20	0.047	mg/Kg	☼	11/14/17 17:23	11/16/17 15:44	1
1,2-Dichlorobenzene	<0.20		0.20	0.048	mg/Kg	☼	11/14/17 17:23	11/16/17 15:44	1
1,3-Dichlorobenzene	<0.20		0.20	0.045	mg/Kg	☼	11/14/17 17:23	11/16/17 15:44	1
1,4-Dichlorobenzene	<0.20		0.20	0.051	mg/Kg	☼	11/14/17 17:23	11/16/17 15:44	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.056	mg/Kg	☼	11/14/17 17:23	11/16/17 15:44	1
2,4-Dichlorophenol	<0.40	F1	0.40	0.095	mg/Kg	☼	11/14/17 17:23	11/16/17 15:44	1
Diethyl phthalate	<0.20	F1	0.20	0.068	mg/Kg	☼	11/14/17 17:23	11/16/17 15:44	1
2,4-Dimethylphenol	<0.40		0.40	0.15	mg/Kg	☼	11/14/17 17:23	11/16/17 15:44	1
Dimethyl phthalate	<0.20	F1	0.20	0.052	mg/Kg	☼	11/14/17 17:23	11/16/17 15:44	1
Di-n-butyl phthalate	<0.20		0.20	0.061	mg/Kg	☼	11/14/17 17:23	11/16/17 15:44	1
4,6-Dinitro-2-methylphenol	<0.81		0.81	0.32	mg/Kg	☼	11/14/17 17:23	11/16/17 15:44	1
2,4-Dinitrophenol	<0.81		0.81	0.71	mg/Kg	☼	11/14/17 17:23	11/16/17 15:44	1
2,4-Dinitrotoluene	<0.20	F1	0.20	0.064	mg/Kg	☼	11/14/17 17:23	11/16/17 15:44	1
2,6-Dinitrotoluene	<0.20	F1	0.20	0.079	mg/Kg	☼	11/14/17 17:23	11/16/17 15:44	1
Di-n-octyl phthalate	<0.20	F1	0.20	0.065	mg/Kg	☼	11/14/17 17:23	11/16/17 15:44	1
Fluoranthene	<0.040	F1	0.040	0.0074	mg/Kg	☼	11/14/17 17:23	11/16/17 15:44	1
Fluorene	<0.040		0.040	0.0056	mg/Kg	☼	11/14/17 17:23	11/16/17 15:44	1
Hexachlorobenzene	<0.081	F1	0.081	0.0093	mg/Kg	☼	11/14/17 17:23	11/16/17 15:44	1
Hexachlorobutadiene	<0.20		0.20	0.063	mg/Kg	☼	11/14/17 17:23	11/16/17 15:44	1
Hexachlorocyclopentadiene	<0.81	F2	0.81	0.23	mg/Kg	☼	11/14/17 17:23	11/16/17 15:44	1
Hexachloroethane	<0.20		0.20	0.061	mg/Kg	☼	11/14/17 17:23	11/16/17 15:44	1
Indeno[1,2,3-cd]pyrene	<0.040	F1	0.040	0.010	mg/Kg	☼	11/14/17 17:23	11/16/17 15:44	1
Isophorone	<0.20		0.20	0.045	mg/Kg	☼	11/14/17 17:23	11/16/17 15:44	1
2-Methylnaphthalene	<0.081		0.081	0.0074	mg/Kg	☼	11/14/17 17:23	11/16/17 15:44	1
2-Methylphenol	<0.20		0.20	0.064	mg/Kg	☼	11/14/17 17:23	11/16/17 15:44	1
3 & 4 Methylphenol	<0.20		0.20	0.067	mg/Kg	☼	11/14/17 17:23	11/16/17 15:44	1
Naphthalene	<0.040		0.040	0.0062	mg/Kg	☼	11/14/17 17:23	11/16/17 15:44	1
2-Nitroaniline	<0.20		0.20	0.054	mg/Kg	☼	11/14/17 17:23	11/16/17 15:44	1
3-Nitroaniline	<0.40		0.40	0.12	mg/Kg	☼	11/14/17 17:23	11/16/17 15:44	1
4-Nitroaniline	<0.40		0.40	0.17	mg/Kg	☼	11/14/17 17:23	11/16/17 15:44	1
Nitrobenzene	<0.040	F1	0.040	0.010	mg/Kg	☼	11/14/17 17:23	11/16/17 15:44	1
2-Nitrophenol	<0.40		0.40	0.095	mg/Kg	☼	11/14/17 17:23	11/16/17 15:44	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136990-1

Client Sample ID: 2696V-68-B02 (0-5)

Lab Sample ID: 500-136990-2

Date Collected: 11/08/17 10:20

Matrix: Solid

Date Received: 11/08/17 16:30

Percent Solids: 82.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Nitrophenol	<0.81		0.81	0.38	mg/Kg	☼	11/14/17 17:23	11/16/17 15:44	1
N-Nitrosodi-n-propylamine	<0.081		0.081	0.049	mg/Kg	☼	11/14/17 17:23	11/16/17 15:44	1
N-Nitrosodiphenylamine	<0.20	F1	0.20	0.047	mg/Kg	☼	11/14/17 17:23	11/16/17 15:44	1
2,2'-oxybis[1-chloropropane]	<0.20	*	0.20	0.046	mg/Kg	☼	11/14/17 17:23	11/16/17 15:44	1
Pentachlorophenol	<0.81		0.81	0.64	mg/Kg	☼	11/14/17 17:23	11/16/17 15:44	1
Phenanthrene	<0.040		0.040	0.0056	mg/Kg	☼	11/14/17 17:23	11/16/17 15:44	1
Phenol	<0.20		0.20	0.089	mg/Kg	☼	11/14/17 17:23	11/16/17 15:44	1
Pyrene	<0.040		0.040	0.0080	mg/Kg	☼	11/14/17 17:23	11/16/17 15:44	1
1,2,4-Trichlorobenzene	<0.20	F1	0.20	0.043	mg/Kg	☼	11/14/17 17:23	11/16/17 15:44	1
2,4,5-Trichlorophenol	<0.40	F1	0.40	0.092	mg/Kg	☼	11/14/17 17:23	11/16/17 15:44	1
2,4,6-Trichlorophenol	<0.40		0.40	0.14	mg/Kg	☼	11/14/17 17:23	11/16/17 15:44	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	107		44 - 121	11/14/17 17:23	11/16/17 15:44	1
2-Fluorophenol	105		46 - 133	11/14/17 17:23	11/16/17 15:44	1
Nitrobenzene-d5	95		41 - 120	11/14/17 17:23	11/16/17 15:44	1
Phenol-d5	93		46 - 125	11/14/17 17:23	11/16/17 15:44	1
Terphenyl-d14	103		35 - 160	11/14/17 17:23	11/16/17 15:44	1
2,4,6-Tribromophenol	120		25 - 139	11/14/17 17:23	11/16/17 15:44	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.2		1.2	0.23	mg/Kg	☼	11/10/17 07:34	11/10/17 17:49	1
Arsenic	7.3		0.58	0.20	mg/Kg	☼	11/10/17 07:34	11/10/17 17:49	1
Barium	89		0.58	0.066	mg/Kg	☼	11/10/17 07:34	11/10/17 17:49	1
Beryllium	0.85		0.23	0.054	mg/Kg	☼	11/10/17 07:34	11/10/17 17:49	1
Cadmium	0.23	B	0.12	0.021	mg/Kg	☼	11/10/17 07:34	11/10/17 17:49	1
Chromium	20		0.58	0.29	mg/Kg	☼	11/10/17 07:34	11/10/17 17:49	1
Cobalt	14		0.29	0.076	mg/Kg	☼	11/10/17 07:34	11/10/17 17:49	1
Copper	19		0.58	0.16	mg/Kg	☼	11/10/17 07:34	11/10/17 17:49	1
Iron	21000		12	6.0	mg/Kg	☼	11/10/17 07:34	11/10/17 17:49	1
Lead	43		0.29	0.13	mg/Kg	☼	11/10/17 07:34	11/10/17 17:49	1
Magnesium	7300		5.8	2.9	mg/Kg	☼	11/10/17 07:34	11/10/17 17:49	1
Calcium	8400	B	12	2.0	mg/Kg	☼	11/10/17 07:34	11/10/17 17:49	1
Manganese	320		0.58	0.084	mg/Kg	☼	11/10/17 07:34	11/10/17 17:49	1
Nickel	30		0.58	0.17	mg/Kg	☼	11/10/17 07:34	11/10/17 17:49	1
Selenium	0.91		0.58	0.34	mg/Kg	☼	11/10/17 07:34	11/10/17 17:49	1
Silver	<0.29		0.29	0.075	mg/Kg	☼	11/10/17 07:34	11/10/17 17:49	1
Thallium	<0.58		0.58	0.29	mg/Kg	☼	11/10/17 07:34	11/10/17 17:49	1
Vanadium	22		0.29	0.068	mg/Kg	☼	11/10/17 07:34	11/10/17 17:49	1
Zinc	80		1.2	0.51	mg/Kg	☼	11/10/17 07:34	11/10/17 17:49	1
Potassium	1700		29	10	mg/Kg	☼	11/10/17 07:34	11/10/17 17:49	1
Sodium	830		58	8.6	mg/Kg	☼	11/10/17 07:34	11/10/17 17:49	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.050		0.050	0.010	mg/L		11/14/17 15:47	11/15/17 12:55	1
Barium	0.31	J	0.50	0.050	mg/L		11/14/17 15:47	11/15/17 12:55	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		11/14/17 15:47	11/15/17 12:55	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		11/14/17 15:47	11/15/17 12:55	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136990-1

Client Sample ID: 2696V-68-B02 (0-5)

Lab Sample ID: 500-136990-2

Date Collected: 11/08/17 10:20

Matrix: Solid

Date Received: 11/08/17 16:30

Percent Solids: 82.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	170		5.0	0.50	mg/L		11/14/17 15:47	11/15/17 12:55	1
Chromium	<0.025		0.025	0.010	mg/L		11/14/17 15:47	11/15/17 12:55	1
Cobalt	<0.025		0.025	0.010	mg/L		11/14/17 15:47	11/15/17 12:55	1
Copper	0.031	B	0.025	0.010	mg/L		11/14/17 15:47	11/15/17 12:55	1
Iron	<0.40		0.40	0.20	mg/L		11/14/17 15:47	11/15/17 12:55	1
Lead	<0.0075		0.0075	0.0075	mg/L		11/14/17 15:47	11/15/17 12:55	1
Magnesium	56		2.5	0.50	mg/L		11/14/17 15:47	11/15/17 12:55	1
Manganese	0.27		0.025	0.010	mg/L		11/14/17 15:47	11/15/17 12:55	1
Nickel	<0.025		0.025	0.010	mg/L		11/14/17 15:47	11/15/17 12:55	1
Potassium	1.4	J	2.5	0.50	mg/L		11/14/17 15:47	11/15/17 12:55	1
Selenium	<0.050		0.050	0.020	mg/L		11/14/17 15:47	11/15/17 12:55	1
Silver	<0.025		0.025	0.010	mg/L		11/14/17 15:47	11/15/17 12:55	1
Vanadium	<0.025		0.025	0.010	mg/L		11/14/17 15:47	11/15/17 12:55	1
Zinc	0.065	J	0.50	0.020	mg/L		11/14/17 15:47	11/15/17 12:55	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.87		0.025	0.010	mg/L		11/13/17 07:23	11/13/17 19:32	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		11/14/17 15:47	11/16/17 11:26	1
Thallium	<0.0020		0.0020	0.0020	mg/L		11/14/17 15:47	11/16/17 11:26	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		11/14/17 15:15	11/16/17 12:09	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.033		0.019	0.0062	mg/Kg	☼	11/13/17 13:20	11/16/17 13:17	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.54		0.54	0.19	mg/Kg	☼	11/17/17 10:45	11/17/17 15:02	1
pH	9.0		0.20	0.20	SU			11/15/17 11:44	1

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136990-1

Client Sample ID: 2696V-68-B03 (0-5)

Lab Sample ID: 500-136990-3

Date Collected: 11/08/17 10:40

Matrix: Solid

Date Received: 11/08/17 16:30

Percent Solids: 82.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.018		0.018	0.0078	mg/Kg	☼	11/08/17 18:13	11/14/17 22:53	1
Benzene	<0.0018		0.0018	0.00045	mg/Kg	☼	11/08/17 18:13	11/14/17 22:53	1
Bromodichloromethane	<0.0018		0.0018	0.00036	mg/Kg	☼	11/08/17 18:13	11/14/17 22:53	1
Bromoform	<0.0018		0.0018	0.00052	mg/Kg	☼	11/08/17 18:13	11/14/17 22:53	1
Bromomethane	<0.0044		0.0044	0.0017	mg/Kg	☼	11/08/17 18:13	11/14/17 22:53	1
2-Butanone (MEK)	<0.0044		0.0044	0.0020	mg/Kg	☼	11/08/17 18:13	11/14/17 22:53	1
Carbon disulfide	<0.0044		0.0044	0.00093	mg/Kg	☼	11/08/17 18:13	11/14/17 22:53	1
Carbon tetrachloride	<0.0018		0.0018	0.00052	mg/Kg	☼	11/08/17 18:13	11/14/17 22:53	1
Chlorobenzene	<0.0018		0.0018	0.00066	mg/Kg	☼	11/08/17 18:13	11/14/17 22:53	1
Chloroethane	<0.0044		0.0044	0.0013	mg/Kg	☼	11/08/17 18:13	11/14/17 22:53	1
Chloroform	<0.0018		0.0018	0.00062	mg/Kg	☼	11/08/17 18:13	11/14/17 22:53	1
Chloromethane	<0.0044		0.0044	0.0018	mg/Kg	☼	11/08/17 18:13	11/14/17 22:53	1
cis-1,2-Dichloroethene	<0.0018		0.0018	0.00050	mg/Kg	☼	11/08/17 18:13	11/14/17 22:53	1
cis-1,3-Dichloropropene	<0.0018		0.0018	0.00054	mg/Kg	☼	11/08/17 18:13	11/14/17 22:53	1
Dibromochloromethane	<0.0018		0.0018	0.00058	mg/Kg	☼	11/08/17 18:13	11/14/17 22:53	1
1,1-Dichloroethane	<0.0018		0.0018	0.00061	mg/Kg	☼	11/08/17 18:13	11/14/17 22:53	1
1,2-Dichloroethane	<0.0044		0.0044	0.0014	mg/Kg	☼	11/08/17 18:13	11/14/17 22:53	1
1,1-Dichloroethene	<0.0018		0.0018	0.00061	mg/Kg	☼	11/08/17 18:13	11/14/17 22:53	1
1,2-Dichloropropane	<0.0018		0.0018	0.00046	mg/Kg	☼	11/08/17 18:13	11/14/17 22:53	1
1,3-Dichloropropane, Total	<0.0018		0.0018	0.00062	mg/Kg	☼	11/08/17 18:13	11/14/17 22:53	1
Ethylbenzene	<0.0018		0.0018	0.00085	mg/Kg	☼	11/08/17 18:13	11/14/17 22:53	1
2-Hexanone	<0.0044		0.0044	0.0014	mg/Kg	☼	11/08/17 18:13	11/14/17 22:53	1
Methylene Chloride	<0.0044		0.0044	0.0018	mg/Kg	☼	11/08/17 18:13	11/14/17 22:53	1
4-Methyl-2-pentanone (MIBK)	<0.0044		0.0044	0.0013	mg/Kg	☼	11/08/17 18:13	11/14/17 22:53	1
Methyl tert-butyl ether	<0.0018		0.0018	0.00052	mg/Kg	☼	11/08/17 18:13	11/14/17 22:53	1
Styrene	<0.0018		0.0018	0.00054	mg/Kg	☼	11/08/17 18:13	11/14/17 22:53	1
1,1,2,2-Tetrachloroethane	<0.0018		0.0018	0.00057	mg/Kg	☼	11/08/17 18:13	11/14/17 22:53	1
Tetrachloroethene	<0.0018		0.0018	0.00061	mg/Kg	☼	11/08/17 18:13	11/14/17 22:53	1
Toluene	<0.0018		0.0018	0.00045	mg/Kg	☼	11/08/17 18:13	11/14/17 22:53	1
trans-1,2-Dichloroethene	<0.0018		0.0018	0.00079	mg/Kg	☼	11/08/17 18:13	11/14/17 22:53	1
trans-1,3-Dichloropropene	<0.0018		0.0018	0.00062	mg/Kg	☼	11/08/17 18:13	11/14/17 22:53	1
1,1,1-Trichloroethane	<0.0018		0.0018	0.00060	mg/Kg	☼	11/08/17 18:13	11/14/17 22:53	1
1,1,2-Trichloroethane	<0.0018		0.0018	0.00076	mg/Kg	☼	11/08/17 18:13	11/14/17 22:53	1
Trichloroethene	<0.0018		0.0018	0.00060	mg/Kg	☼	11/08/17 18:13	11/14/17 22:53	1
Vinyl acetate	<0.0044		0.0044	0.0015	mg/Kg	☼	11/08/17 18:13	11/14/17 22:53	1
Vinyl chloride	<0.0018		0.0018	0.00079	mg/Kg	☼	11/08/17 18:13	11/14/17 22:53	1
Xylenes, Total	<0.0036		0.0036	0.00057	mg/Kg	☼	11/08/17 18:13	11/14/17 22:53	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	88		75 - 131	11/08/17 18:13	11/14/17 22:53	1
Dibromofluoromethane	104		75 - 126	11/08/17 18:13	11/14/17 22:53	1
1,2-Dichloroethane-d4 (Surr)	100		70 - 134	11/08/17 18:13	11/14/17 22:53	1
Toluene-d8 (Surr)	94		75 - 124	11/08/17 18:13	11/14/17 22:53	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.039		0.039	0.0071	mg/Kg	☼	11/14/17 17:23	11/16/17 16:11	1
Acenaphthylene	<0.039		0.039	0.0052	mg/Kg	☼	11/14/17 17:23	11/16/17 16:11	1
Anthracene	<0.039		0.039	0.0066	mg/Kg	☼	11/14/17 17:23	11/16/17 16:11	1
Benzo[a]anthracene	<0.039		0.039	0.0053	mg/Kg	☼	11/14/17 17:23	11/16/17 16:11	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136990-1

Client Sample ID: 2696V-68-B03 (0-5)

Lab Sample ID: 500-136990-3

Date Collected: 11/08/17 10:40

Matrix: Solid

Date Received: 11/08/17 16:30

Percent Solids: 82.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	<0.039		0.039	0.0077	mg/Kg	☼	11/14/17 17:23	11/16/17 16:11	1
Benzo[b]fluoranthene	<0.039		0.039	0.0086	mg/Kg	☼	11/14/17 17:23	11/16/17 16:11	1
Benzo[g,h,i]perylene	<0.039		0.039	0.013	mg/Kg	☼	11/14/17 17:23	11/16/17 16:11	1
Benzo[k]fluoranthene	<0.039		0.039	0.012	mg/Kg	☼	11/14/17 17:23	11/16/17 16:11	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.041	mg/Kg	☼	11/14/17 17:23	11/16/17 16:11	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.060	mg/Kg	☼	11/14/17 17:23	11/16/17 16:11	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.073	mg/Kg	☼	11/14/17 17:23	11/16/17 16:11	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.052	mg/Kg	☼	11/14/17 17:23	11/16/17 16:11	1
Butyl benzyl phthalate	<0.20		0.20	0.076	mg/Kg	☼	11/14/17 17:23	11/16/17 16:11	1
Carbazole	<0.20		0.20	0.099	mg/Kg	☼	11/14/17 17:23	11/16/17 16:11	1
4-Chloroaniline	<0.80		0.80	0.19	mg/Kg	☼	11/14/17 17:23	11/16/17 16:11	1
4-Chloro-3-methylphenol	<0.39		0.39	0.14	mg/Kg	☼	11/14/17 17:23	11/16/17 16:11	1
2-Chloronaphthalene	<0.20		0.20	0.044	mg/Kg	☼	11/14/17 17:23	11/16/17 16:11	1
2-Chlorophenol	<0.20		0.20	0.068	mg/Kg	☼	11/14/17 17:23	11/16/17 16:11	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.046	mg/Kg	☼	11/14/17 17:23	11/16/17 16:11	1
Chrysene	<0.039		0.039	0.011	mg/Kg	☼	11/14/17 17:23	11/16/17 16:11	1
Dibenz(a,h)anthracene	<0.039		0.039	0.0077	mg/Kg	☼	11/14/17 17:23	11/16/17 16:11	1
Dibenzofuran	<0.20		0.20	0.047	mg/Kg	☼	11/14/17 17:23	11/16/17 16:11	1
1,2-Dichlorobenzene	<0.20		0.20	0.047	mg/Kg	☼	11/14/17 17:23	11/16/17 16:11	1
1,3-Dichlorobenzene	<0.20		0.20	0.045	mg/Kg	☼	11/14/17 17:23	11/16/17 16:11	1
1,4-Dichlorobenzene	<0.20		0.20	0.051	mg/Kg	☼	11/14/17 17:23	11/16/17 16:11	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.056	mg/Kg	☼	11/14/17 17:23	11/16/17 16:11	1
2,4-Dichlorophenol	<0.39		0.39	0.094	mg/Kg	☼	11/14/17 17:23	11/16/17 16:11	1
Diethyl phthalate	<0.20		0.20	0.067	mg/Kg	☼	11/14/17 17:23	11/16/17 16:11	1
2,4-Dimethylphenol	<0.39		0.39	0.15	mg/Kg	☼	11/14/17 17:23	11/16/17 16:11	1
Dimethyl phthalate	<0.20		0.20	0.052	mg/Kg	☼	11/14/17 17:23	11/16/17 16:11	1
Di-n-butyl phthalate	<0.20		0.20	0.061	mg/Kg	☼	11/14/17 17:23	11/16/17 16:11	1
4,6-Dinitro-2-methylphenol	<0.80		0.80	0.32	mg/Kg	☼	11/14/17 17:23	11/16/17 16:11	1
2,4-Dinitrophenol	<0.80		0.80	0.70	mg/Kg	☼	11/14/17 17:23	11/16/17 16:11	1
2,4-Dinitrotoluene	<0.20		0.20	0.063	mg/Kg	☼	11/14/17 17:23	11/16/17 16:11	1
2,6-Dinitrotoluene	<0.20		0.20	0.078	mg/Kg	☼	11/14/17 17:23	11/16/17 16:11	1
Di-n-octyl phthalate	<0.20		0.20	0.065	mg/Kg	☼	11/14/17 17:23	11/16/17 16:11	1
Fluoranthene	<0.039		0.039	0.0074	mg/Kg	☼	11/14/17 17:23	11/16/17 16:11	1
Fluorene	<0.039		0.039	0.0056	mg/Kg	☼	11/14/17 17:23	11/16/17 16:11	1
Hexachlorobenzene	<0.080		0.080	0.0092	mg/Kg	☼	11/14/17 17:23	11/16/17 16:11	1
Hexachlorobutadiene	<0.20		0.20	0.062	mg/Kg	☼	11/14/17 17:23	11/16/17 16:11	1
Hexachlorocyclopentadiene	<0.80		0.80	0.23	mg/Kg	☼	11/14/17 17:23	11/16/17 16:11	1
Hexachloroethane	<0.20		0.20	0.060	mg/Kg	☼	11/14/17 17:23	11/16/17 16:11	1
Indeno[1,2,3-cd]pyrene	<0.039		0.039	0.010	mg/Kg	☼	11/14/17 17:23	11/16/17 16:11	1
Isophorone	<0.20		0.20	0.045	mg/Kg	☼	11/14/17 17:23	11/16/17 16:11	1
2-Methylnaphthalene	<0.080		0.080	0.0073	mg/Kg	☼	11/14/17 17:23	11/16/17 16:11	1
2-Methylphenol	<0.20		0.20	0.064	mg/Kg	☼	11/14/17 17:23	11/16/17 16:11	1
3 & 4 Methylphenol	<0.20		0.20	0.066	mg/Kg	☼	11/14/17 17:23	11/16/17 16:11	1
Naphthalene	<0.039		0.039	0.0061	mg/Kg	☼	11/14/17 17:23	11/16/17 16:11	1
2-Nitroaniline	<0.20		0.20	0.053	mg/Kg	☼	11/14/17 17:23	11/16/17 16:11	1
3-Nitroaniline	<0.39		0.39	0.12	mg/Kg	☼	11/14/17 17:23	11/16/17 16:11	1
4-Nitroaniline	<0.39		0.39	0.17	mg/Kg	☼	11/14/17 17:23	11/16/17 16:11	1
Nitrobenzene	<0.039		0.039	0.0099	mg/Kg	☼	11/14/17 17:23	11/16/17 16:11	1
2-Nitrophenol	<0.39		0.39	0.094	mg/Kg	☼	11/14/17 17:23	11/16/17 16:11	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136990-1

Client Sample ID: 2696V-68-B03 (0-5)

Lab Sample ID: 500-136990-3

Date Collected: 11/08/17 10:40

Matrix: Solid

Date Received: 11/08/17 16:30

Percent Solids: 82.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Nitrophenol	<0.80		0.80	0.38	mg/Kg	☼	11/14/17 17:23	11/16/17 16:11	1
N-Nitrosodi-n-propylamine	<0.080		0.080	0.049	mg/Kg	☼	11/14/17 17:23	11/16/17 16:11	1
N-Nitrosodiphenylamine	<0.20		0.20	0.047	mg/Kg	☼	11/14/17 17:23	11/16/17 16:11	1
2,2'-oxybis[1-chloropropane]	<0.20	*	0.20	0.046	mg/Kg	☼	11/14/17 17:23	11/16/17 16:11	1
Pentachlorophenol	<0.80		0.80	0.64	mg/Kg	☼	11/14/17 17:23	11/16/17 16:11	1
Phenanthrene	<0.039		0.039	0.0055	mg/Kg	☼	11/14/17 17:23	11/16/17 16:11	1
Phenol	<0.20		0.20	0.088	mg/Kg	☼	11/14/17 17:23	11/16/17 16:11	1
Pyrene	<0.039		0.039	0.0079	mg/Kg	☼	11/14/17 17:23	11/16/17 16:11	1
1,2,4-Trichlorobenzene	<0.20		0.20	0.043	mg/Kg	☼	11/14/17 17:23	11/16/17 16:11	1
2,4,5-Trichlorophenol	<0.39		0.39	0.091	mg/Kg	☼	11/14/17 17:23	11/16/17 16:11	1
2,4,6-Trichlorophenol	<0.39		0.39	0.14	mg/Kg	☼	11/14/17 17:23	11/16/17 16:11	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	123	X	44 - 121	11/14/17 17:23	11/16/17 16:11	1
2-Fluorophenol	117		46 - 133	11/14/17 17:23	11/16/17 16:11	1
Nitrobenzene-d5	111		41 - 120	11/14/17 17:23	11/16/17 16:11	1
Phenol-d5	106		46 - 125	11/14/17 17:23	11/16/17 16:11	1
Terphenyl-d14	115		35 - 160	11/14/17 17:23	11/16/17 16:11	1
2,4,6-Tribromophenol	140	X	25 - 139	11/14/17 17:23	11/16/17 16:11	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	☼	11/10/17 07:34	11/10/17 17:53	1
Arsenic	8.1		0.56	0.19	mg/Kg	☼	11/10/17 07:34	11/10/17 17:53	1
Barium	68		0.56	0.064	mg/Kg	☼	11/10/17 07:34	11/10/17 17:53	1
Beryllium	0.88		0.22	0.052	mg/Kg	☼	11/10/17 07:34	11/10/17 17:53	1
Cadmium	0.077	J B	0.11	0.020	mg/Kg	☼	11/10/17 07:34	11/10/17 17:53	1
Chromium	21		0.56	0.28	mg/Kg	☼	11/10/17 07:34	11/10/17 17:53	1
Cobalt	13		0.28	0.073	mg/Kg	☼	11/10/17 07:34	11/10/17 17:53	1
Copper	19		0.56	0.16	mg/Kg	☼	11/10/17 07:34	11/10/17 17:53	1
Iron	23000		11	5.8	mg/Kg	☼	11/10/17 07:34	11/10/17 17:53	1
Lead	15		0.28	0.13	mg/Kg	☼	11/10/17 07:34	11/10/17 17:53	1
Magnesium	7600		5.6	2.8	mg/Kg	☼	11/10/17 07:34	11/10/17 17:53	1
Calcium	6100	B	11	1.9	mg/Kg	☼	11/10/17 07:34	11/10/17 17:53	1
Manganese	300		0.56	0.081	mg/Kg	☼	11/10/17 07:34	11/10/17 17:53	1
Nickel	34		0.56	0.16	mg/Kg	☼	11/10/17 07:34	11/10/17 17:53	1
Selenium	0.76		0.56	0.33	mg/Kg	☼	11/10/17 07:34	11/10/17 17:53	1
Silver	<0.28		0.28	0.072	mg/Kg	☼	11/10/17 07:34	11/10/17 17:53	1
Thallium	<0.56		0.56	0.28	mg/Kg	☼	11/10/17 07:34	11/10/17 17:53	1
Vanadium	24		0.28	0.066	mg/Kg	☼	11/10/17 07:34	11/10/17 17:53	1
Zinc	61		1.1	0.49	mg/Kg	☼	11/10/17 07:34	11/10/17 17:53	1
Potassium	2600		28	9.9	mg/Kg	☼	11/10/17 07:34	11/10/17 17:53	1
Sodium	520		56	8.2	mg/Kg	☼	11/10/17 07:34	11/10/17 17:53	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.050		0.050	0.010	mg/L		11/14/17 15:47	11/15/17 12:59	1
Barium	0.33	J	0.50	0.050	mg/L		11/14/17 15:47	11/15/17 12:59	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		11/14/17 15:47	11/15/17 12:59	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		11/14/17 15:47	11/15/17 12:59	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136990-1

Client Sample ID: 2696V-68-B03 (0-5)

Lab Sample ID: 500-136990-3

Date Collected: 11/08/17 10:40

Matrix: Solid

Date Received: 11/08/17 16:30

Percent Solids: 82.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	220		5.0	0.50	mg/L		11/14/17 15:47	11/15/17 12:59	1
Chromium	<0.025		0.025	0.010	mg/L		11/14/17 15:47	11/15/17 12:59	1
Cobalt	<0.025		0.025	0.010	mg/L		11/14/17 15:47	11/15/17 12:59	1
Copper	0.070	B	0.025	0.010	mg/L		11/14/17 15:47	11/15/17 12:59	1
Iron	<0.40		0.40	0.20	mg/L		11/14/17 15:47	11/15/17 12:59	1
Lead	<0.0075		0.0075	0.0075	mg/L		11/14/17 15:47	11/15/17 12:59	1
Magnesium	94		2.5	0.50	mg/L		11/14/17 15:47	11/15/17 12:59	1
Manganese	0.16		0.025	0.010	mg/L		11/14/17 15:47	11/15/17 12:59	1
Nickel	<0.025		0.025	0.010	mg/L		11/14/17 15:47	11/15/17 12:59	1
Potassium	1.3	J	2.5	0.50	mg/L		11/14/17 15:47	11/15/17 12:59	1
Selenium	<0.050		0.050	0.020	mg/L		11/14/17 15:47	11/15/17 12:59	1
Silver	<0.025		0.025	0.010	mg/L		11/14/17 15:47	11/15/17 12:59	1
Vanadium	<0.025		0.025	0.010	mg/L		11/14/17 15:47	11/15/17 12:59	1
Zinc	0.062	J	0.50	0.020	mg/L		11/14/17 15:47	11/15/17 12:59	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.41		0.025	0.010	mg/L		11/13/17 07:23	11/13/17 19:36	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		11/14/17 15:47	11/16/17 11:30	1
Thallium	<0.0020		0.0020	0.0020	mg/L		11/14/17 15:47	11/16/17 11:30	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		11/14/17 15:15	11/16/17 12:10	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.025		0.019	0.0065	mg/Kg	☼	11/13/17 13:20	11/16/17 13:19	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.49		0.49	0.17	mg/Kg	☼	11/17/17 10:45	11/17/17 15:02	1
pH	8.7		0.20	0.20	SU			11/15/17 11:46	1

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136990-1

Client Sample ID: 2696V-68-B04 (0-5)

Lab Sample ID: 500-136990-4

Date Collected: 11/08/17 10:50

Matrix: Solid

Date Received: 11/08/17 16:30

Percent Solids: 80.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	0.052		0.017	0.0074	mg/Kg	☼	11/08/17 18:13	11/14/17 23:18	1
Benzene	<0.0017		0.0017	0.00043	mg/Kg	☼	11/08/17 18:13	11/14/17 23:18	1
Bromodichloromethane	<0.0017		0.0017	0.00034	mg/Kg	☼	11/08/17 18:13	11/14/17 23:18	1
Bromoform	<0.0017		0.0017	0.00050	mg/Kg	☼	11/08/17 18:13	11/14/17 23:18	1
Bromomethane	<0.0042		0.0042	0.0016	mg/Kg	☼	11/08/17 18:13	11/14/17 23:18	1
2-Butanone (MEK)	<0.0042		0.0042	0.0019	mg/Kg	☼	11/08/17 18:13	11/14/17 23:18	1
Carbon disulfide	<0.0042		0.0042	0.00088	mg/Kg	☼	11/08/17 18:13	11/14/17 23:18	1
Carbon tetrachloride	<0.0017		0.0017	0.00049	mg/Kg	☼	11/08/17 18:13	11/14/17 23:18	1
Chlorobenzene	<0.0017		0.0017	0.00063	mg/Kg	☼	11/08/17 18:13	11/14/17 23:18	1
Chloroethane	<0.0042		0.0042	0.0013	mg/Kg	☼	11/08/17 18:13	11/14/17 23:18	1
Chloroform	<0.0017		0.0017	0.00059	mg/Kg	☼	11/08/17 18:13	11/14/17 23:18	1
Chloromethane	<0.0042		0.0042	0.0017	mg/Kg	☼	11/08/17 18:13	11/14/17 23:18	1
cis-1,2-Dichloroethene	<0.0017		0.0017	0.00047	mg/Kg	☼	11/08/17 18:13	11/14/17 23:18	1
cis-1,3-Dichloropropene	<0.0017		0.0017	0.00051	mg/Kg	☼	11/08/17 18:13	11/14/17 23:18	1
Dibromochloromethane	<0.0017		0.0017	0.00055	mg/Kg	☼	11/08/17 18:13	11/14/17 23:18	1
1,1-Dichloroethane	<0.0017		0.0017	0.00058	mg/Kg	☼	11/08/17 18:13	11/14/17 23:18	1
1,2-Dichloroethane	<0.0042		0.0042	0.0013	mg/Kg	☼	11/08/17 18:13	11/14/17 23:18	1
1,1-Dichloroethene	<0.0017		0.0017	0.00058	mg/Kg	☼	11/08/17 18:13	11/14/17 23:18	1
1,2-Dichloropropane	<0.0017		0.0017	0.00044	mg/Kg	☼	11/08/17 18:13	11/14/17 23:18	1
1,3-Dichloropropene, Total	<0.0017		0.0017	0.00060	mg/Kg	☼	11/08/17 18:13	11/14/17 23:18	1
Ethylbenzene	<0.0017		0.0017	0.00081	mg/Kg	☼	11/08/17 18:13	11/14/17 23:18	1
2-Hexanone	<0.0042		0.0042	0.0013	mg/Kg	☼	11/08/17 18:13	11/14/17 23:18	1
Methylene Chloride	<0.0042		0.0042	0.0017	mg/Kg	☼	11/08/17 18:13	11/14/17 23:18	1
4-Methyl-2-pentanone (MIBK)	<0.0042		0.0042	0.0013	mg/Kg	☼	11/08/17 18:13	11/14/17 23:18	1
Methyl tert-butyl ether	<0.0017		0.0017	0.00050	mg/Kg	☼	11/08/17 18:13	11/14/17 23:18	1
Styrene	<0.0017		0.0017	0.00051	mg/Kg	☼	11/08/17 18:13	11/14/17 23:18	1
1,1,2,2-Tetrachloroethane	<0.0017		0.0017	0.00054	mg/Kg	☼	11/08/17 18:13	11/14/17 23:18	1
Tetrachloroethene	<0.0017		0.0017	0.00058	mg/Kg	☼	11/08/17 18:13	11/14/17 23:18	1
Toluene	<0.0017		0.0017	0.00043	mg/Kg	☼	11/08/17 18:13	11/14/17 23:18	1
trans-1,2-Dichloroethene	<0.0017		0.0017	0.00075	mg/Kg	☼	11/08/17 18:13	11/14/17 23:18	1
trans-1,3-Dichloropropene	<0.0017		0.0017	0.00060	mg/Kg	☼	11/08/17 18:13	11/14/17 23:18	1
1,1,1-Trichloroethane	<0.0017		0.0017	0.00057	mg/Kg	☼	11/08/17 18:13	11/14/17 23:18	1
1,1,2-Trichloroethane	<0.0017		0.0017	0.00073	mg/Kg	☼	11/08/17 18:13	11/14/17 23:18	1
Trichloroethene	<0.0017		0.0017	0.00057	mg/Kg	☼	11/08/17 18:13	11/14/17 23:18	1
Vinyl acetate	<0.0042		0.0042	0.0015	mg/Kg	☼	11/08/17 18:13	11/14/17 23:18	1
Vinyl chloride	<0.0017		0.0017	0.00075	mg/Kg	☼	11/08/17 18:13	11/14/17 23:18	1
Xylenes, Total	<0.0034		0.0034	0.00054	mg/Kg	☼	11/08/17 18:13	11/14/17 23:18	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	86		75 - 131	11/08/17 18:13	11/14/17 23:18	1
Dibromofluoromethane	102		75 - 126	11/08/17 18:13	11/14/17 23:18	1
1,2-Dichloroethane-d4 (Surr)	100		70 - 134	11/08/17 18:13	11/14/17 23:18	1
Toluene-d8 (Surr)	95		75 - 124	11/08/17 18:13	11/14/17 23:18	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.039		0.039	0.0071	mg/Kg	☼	11/14/17 17:23	11/16/17 16:37	1
Acenaphthylene	<0.039		0.039	0.0052	mg/Kg	☼	11/14/17 17:23	11/16/17 16:37	1
Anthracene	<0.039		0.039	0.0066	mg/Kg	☼	11/14/17 17:23	11/16/17 16:37	1
Benzo[a]anthracene	<0.039		0.039	0.0053	mg/Kg	☼	11/14/17 17:23	11/16/17 16:37	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136990-1

Client Sample ID: 2696V-68-B04 (0-5)

Lab Sample ID: 500-136990-4

Date Collected: 11/08/17 10:50

Matrix: Solid

Date Received: 11/08/17 16:30

Percent Solids: 80.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	<0.039		0.039	0.0076	mg/Kg	☼	11/14/17 17:23	11/16/17 16:37	1
Benzo[b]fluoranthene	<0.039		0.039	0.0085	mg/Kg	☼	11/14/17 17:23	11/16/17 16:37	1
Benzo[g,h,i]perylene	<0.039		0.039	0.013	mg/Kg	☼	11/14/17 17:23	11/16/17 16:37	1
Benzo[k]fluoranthene	<0.039		0.039	0.012	mg/Kg	☼	11/14/17 17:23	11/16/17 16:37	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.040	mg/Kg	☼	11/14/17 17:23	11/16/17 16:37	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.059	mg/Kg	☼	11/14/17 17:23	11/16/17 16:37	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.072	mg/Kg	☼	11/14/17 17:23	11/16/17 16:37	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.052	mg/Kg	☼	11/14/17 17:23	11/16/17 16:37	1
Butyl benzyl phthalate	<0.20		0.20	0.075	mg/Kg	☼	11/14/17 17:23	11/16/17 16:37	1
Carbazole	<0.20		0.20	0.098	mg/Kg	☼	11/14/17 17:23	11/16/17 16:37	1
4-Chloroaniline	<0.79		0.79	0.18	mg/Kg	☼	11/14/17 17:23	11/16/17 16:37	1
4-Chloro-3-methylphenol	<0.39		0.39	0.13	mg/Kg	☼	11/14/17 17:23	11/16/17 16:37	1
2-Chloronaphthalene	<0.20		0.20	0.043	mg/Kg	☼	11/14/17 17:23	11/16/17 16:37	1
2-Chlorophenol	<0.20		0.20	0.067	mg/Kg	☼	11/14/17 17:23	11/16/17 16:37	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.046	mg/Kg	☼	11/14/17 17:23	11/16/17 16:37	1
Chrysene	<0.039		0.039	0.011	mg/Kg	☼	11/14/17 17:23	11/16/17 16:37	1
Dibenz(a,h)anthracene	<0.039		0.039	0.0076	mg/Kg	☼	11/14/17 17:23	11/16/17 16:37	1
Dibenzofuran	<0.20		0.20	0.046	mg/Kg	☼	11/14/17 17:23	11/16/17 16:37	1
1,2-Dichlorobenzene	<0.20		0.20	0.047	mg/Kg	☼	11/14/17 17:23	11/16/17 16:37	1
1,3-Dichlorobenzene	<0.20		0.20	0.044	mg/Kg	☼	11/14/17 17:23	11/16/17 16:37	1
1,4-Dichlorobenzene	<0.20		0.20	0.050	mg/Kg	☼	11/14/17 17:23	11/16/17 16:37	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.055	mg/Kg	☼	11/14/17 17:23	11/16/17 16:37	1
2,4-Dichlorophenol	<0.39		0.39	0.093	mg/Kg	☼	11/14/17 17:23	11/16/17 16:37	1
Diethyl phthalate	<0.20		0.20	0.067	mg/Kg	☼	11/14/17 17:23	11/16/17 16:37	1
2,4-Dimethylphenol	<0.39		0.39	0.15	mg/Kg	☼	11/14/17 17:23	11/16/17 16:37	1
Dimethyl phthalate	<0.20		0.20	0.051	mg/Kg	☼	11/14/17 17:23	11/16/17 16:37	1
Di-n-butyl phthalate	<0.20		0.20	0.060	mg/Kg	☼	11/14/17 17:23	11/16/17 16:37	1
4,6-Dinitro-2-methylphenol	<0.79		0.79	0.32	mg/Kg	☼	11/14/17 17:23	11/16/17 16:37	1
2,4-Dinitrophenol	<0.79		0.79	0.69	mg/Kg	☼	11/14/17 17:23	11/16/17 16:37	1
2,4-Dinitrotoluene	<0.20		0.20	0.063	mg/Kg	☼	11/14/17 17:23	11/16/17 16:37	1
2,6-Dinitrotoluene	<0.20		0.20	0.077	mg/Kg	☼	11/14/17 17:23	11/16/17 16:37	1
Di-n-octyl phthalate	<0.20		0.20	0.064	mg/Kg	☼	11/14/17 17:23	11/16/17 16:37	1
Fluoranthene	<0.039		0.039	0.0073	mg/Kg	☼	11/14/17 17:23	11/16/17 16:37	1
Fluorene	<0.039		0.039	0.0055	mg/Kg	☼	11/14/17 17:23	11/16/17 16:37	1
Hexachlorobenzene	<0.079		0.079	0.0091	mg/Kg	☼	11/14/17 17:23	11/16/17 16:37	1
Hexachlorobutadiene	<0.20		0.20	0.062	mg/Kg	☼	11/14/17 17:23	11/16/17 16:37	1
Hexachlorocyclopentadiene	<0.79		0.79	0.23	mg/Kg	☼	11/14/17 17:23	11/16/17 16:37	1
Hexachloroethane	<0.20		0.20	0.060	mg/Kg	☼	11/14/17 17:23	11/16/17 16:37	1
Indeno[1,2,3-cd]pyrene	<0.039		0.039	0.010	mg/Kg	☼	11/14/17 17:23	11/16/17 16:37	1
Isophorone	<0.20		0.20	0.044	mg/Kg	☼	11/14/17 17:23	11/16/17 16:37	1
2-Methylnaphthalene	<0.079		0.079	0.0072	mg/Kg	☼	11/14/17 17:23	11/16/17 16:37	1
2-Methylphenol	<0.20		0.20	0.063	mg/Kg	☼	11/14/17 17:23	11/16/17 16:37	1
3 & 4 Methylphenol	<0.20		0.20	0.066	mg/Kg	☼	11/14/17 17:23	11/16/17 16:37	1
Naphthalene	<0.039		0.039	0.0061	mg/Kg	☼	11/14/17 17:23	11/16/17 16:37	1
2-Nitroaniline	<0.20		0.20	0.053	mg/Kg	☼	11/14/17 17:23	11/16/17 16:37	1
3-Nitroaniline	<0.39		0.39	0.12	mg/Kg	☼	11/14/17 17:23	11/16/17 16:37	1
4-Nitroaniline	<0.39		0.39	0.16	mg/Kg	☼	11/14/17 17:23	11/16/17 16:37	1
Nitrobenzene	<0.039		0.039	0.0098	mg/Kg	☼	11/14/17 17:23	11/16/17 16:37	1
2-Nitrophenol	<0.39		0.39	0.093	mg/Kg	☼	11/14/17 17:23	11/16/17 16:37	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136990-1

Client Sample ID: 2696V-68-B04 (0-5)

Lab Sample ID: 500-136990-4

Date Collected: 11/08/17 10:50

Matrix: Solid

Date Received: 11/08/17 16:30

Percent Solids: 80.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Nitrophenol	<0.79		0.79	0.37	mg/Kg	☼	11/14/17 17:23	11/16/17 16:37	1
N-Nitrosodi-n-propylamine	<0.079		0.079	0.048	mg/Kg	☼	11/14/17 17:23	11/16/17 16:37	1
N-Nitrosodiphenylamine	<0.20		0.20	0.046	mg/Kg	☼	11/14/17 17:23	11/16/17 16:37	1
2,2'-oxybis[1-chloropropane]	<0.20	*	0.20	0.046	mg/Kg	☼	11/14/17 17:23	11/16/17 16:37	1
Pentachlorophenol	<0.79		0.79	0.63	mg/Kg	☼	11/14/17 17:23	11/16/17 16:37	1
Phenanthrene	<0.039		0.039	0.0055	mg/Kg	☼	11/14/17 17:23	11/16/17 16:37	1
Phenol	<0.20		0.20	0.087	mg/Kg	☼	11/14/17 17:23	11/16/17 16:37	1
Pyrene	<0.039		0.039	0.0078	mg/Kg	☼	11/14/17 17:23	11/16/17 16:37	1
1,2,4-Trichlorobenzene	<0.20		0.20	0.042	mg/Kg	☼	11/14/17 17:23	11/16/17 16:37	1
2,4,5-Trichlorophenol	<0.39		0.39	0.090	mg/Kg	☼	11/14/17 17:23	11/16/17 16:37	1
2,4,6-Trichlorophenol	<0.39		0.39	0.14	mg/Kg	☼	11/14/17 17:23	11/16/17 16:37	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	109		44 - 121	11/14/17 17:23	11/16/17 16:37	1
2-Fluorophenol	109		46 - 133	11/14/17 17:23	11/16/17 16:37	1
Nitrobenzene-d5	97		41 - 120	11/14/17 17:23	11/16/17 16:37	1
Phenol-d5	95		46 - 125	11/14/17 17:23	11/16/17 16:37	1
Terphenyl-d14	105		35 - 160	11/14/17 17:23	11/16/17 16:37	1
2,4,6-Tribromophenol	113		25 - 139	11/14/17 17:23	11/16/17 16:37	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.99		0.99	0.19	mg/Kg	☼	11/10/17 07:34	11/10/17 17:57	1
Arsenic	6.0		0.50	0.17	mg/Kg	☼	11/10/17 07:34	11/10/17 17:57	1
Barium	72		0.50	0.057	mg/Kg	☼	11/10/17 07:34	11/10/17 17:57	1
Beryllium	0.88		0.20	0.046	mg/Kg	☼	11/10/17 07:34	11/10/17 17:57	1
Cadmium	0.17	B	0.099	0.018	mg/Kg	☼	11/10/17 07:34	11/10/17 17:57	1
Chromium	23		0.50	0.25	mg/Kg	☼	11/10/17 07:34	11/10/17 17:57	1
Cobalt	17		0.25	0.065	mg/Kg	☼	11/10/17 07:34	11/10/17 17:57	1
Copper	22		0.50	0.14	mg/Kg	☼	11/10/17 07:34	11/10/17 17:57	1
Iron	23000		9.9	5.2	mg/Kg	☼	11/10/17 07:34	11/10/17 17:57	1
Lead	14		0.25	0.11	mg/Kg	☼	11/10/17 07:34	11/10/17 17:57	1
Magnesium	6100		5.0	2.5	mg/Kg	☼	11/10/17 07:34	11/10/17 17:57	1
Calcium	3100	B	9.9	1.7	mg/Kg	☼	11/10/17 07:34	11/10/17 17:57	1
Manganese	380		0.50	0.072	mg/Kg	☼	11/10/17 07:34	11/10/17 17:57	1
Nickel	43		0.50	0.14	mg/Kg	☼	11/10/17 07:34	11/10/17 17:57	1
Selenium	0.96		0.50	0.29	mg/Kg	☼	11/10/17 07:34	11/10/17 17:57	1
Silver	<0.25		0.25	0.064	mg/Kg	☼	11/10/17 07:34	11/10/17 17:57	1
Thallium	<0.50		0.50	0.25	mg/Kg	☼	11/10/17 07:34	11/10/17 17:57	1
Vanadium	23		0.25	0.059	mg/Kg	☼	11/10/17 07:34	11/10/17 17:57	1
Zinc	65		0.99	0.44	mg/Kg	☼	11/10/17 07:34	11/10/17 17:57	1
Potassium	3100		25	8.8	mg/Kg	☼	11/10/17 07:34	11/10/17 17:57	1
Sodium	750		50	7.3	mg/Kg	☼	11/10/17 07:34	11/10/17 17:57	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.050		0.050	0.010	mg/L		11/14/17 15:47	11/15/17 13:03	1
Barium	0.35	J	0.50	0.050	mg/L		11/14/17 15:47	11/15/17 13:03	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		11/14/17 15:47	11/15/17 13:03	1
Cadmium	0.0034	J	0.0050	0.0020	mg/L		11/14/17 15:47	11/15/17 13:03	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136990-1

Client Sample ID: 2696V-68-B04 (0-5)

Lab Sample ID: 500-136990-4

Date Collected: 11/08/17 10:50

Matrix: Solid

Date Received: 11/08/17 16:30

Percent Solids: 80.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	76		5.0	0.50	mg/L		11/14/17 15:47	11/15/17 13:03	1
Chromium	<0.025		0.025	0.010	mg/L		11/14/17 15:47	11/15/17 13:03	1
Cobalt	0.057		0.025	0.010	mg/L		11/14/17 15:47	11/15/17 13:03	1
Copper	0.030	B	0.025	0.010	mg/L		11/14/17 15:47	11/15/17 13:03	1
Iron	0.21	J	0.40	0.20	mg/L		11/14/17 15:47	11/15/17 13:03	1
Lead	0.016		0.0075	0.0075	mg/L		11/14/17 15:47	11/15/17 13:03	1
Magnesium	26		2.5	0.50	mg/L		11/14/17 15:47	11/15/17 13:03	1
Manganese	11		0.025	0.010	mg/L		11/14/17 15:47	11/15/17 13:03	1
Nickel	0.046		0.025	0.010	mg/L		11/14/17 15:47	11/15/17 13:03	1
Potassium	1.4	J	2.5	0.50	mg/L		11/14/17 15:47	11/15/17 13:03	1
Selenium	<0.050		0.050	0.020	mg/L		11/14/17 15:47	11/15/17 13:03	1
Silver	<0.025		0.025	0.010	mg/L		11/14/17 15:47	11/15/17 13:03	1
Vanadium	<0.025		0.025	0.010	mg/L		11/14/17 15:47	11/15/17 13:03	1
Zinc	0.065	J	0.50	0.020	mg/L		11/14/17 15:47	11/15/17 13:03	1

Method: 6010B - SPLP Metals - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.14		0.0075	0.0075	mg/L		11/13/17 07:23	11/13/17 19:39	1
Manganese	3.8		0.025	0.010	mg/L		11/13/17 07:23	11/13/17 19:39	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		11/14/17 15:47	11/16/17 11:34	1
Thallium	<0.0020		0.0020	0.0020	mg/L		11/14/17 15:47	11/16/17 11:34	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		11/14/17 15:15	11/16/17 12:12	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.031		0.019	0.0064	mg/Kg	☼	11/13/17 13:20	11/16/17 13:21	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.60		0.60	0.21	mg/Kg	☼	11/17/17 10:45	11/17/17 15:02	1
pH	8.7		0.20	0.20	SU			11/15/17 11:48	1

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136990-1

Client Sample ID: 2696V-68-B05 (0-5)

Lab Sample ID: 500-136990-5

Date Collected: 11/08/17 11:05

Matrix: Solid

Date Received: 11/08/17 16:30

Percent Solids: 84.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.50		0.50	0.17	mg/Kg	☼	11/08/17 11:05	11/18/17 02:54	100
Benzene	2.6		0.025	0.014	mg/Kg	☼	11/08/17 11:05	11/18/17 02:54	100
Bromodichloromethane	<0.099		0.099	0.037	mg/Kg	☼	11/08/17 11:05	11/18/17 02:54	100
Bromoform	<0.099		0.099	0.048	mg/Kg	☼	11/08/17 11:05	11/18/17 02:54	100
Bromomethane	<0.20		0.20	0.079	mg/Kg	☼	11/08/17 11:05	11/18/17 02:54	100
2-Butanone (MEK)	<0.50		0.50	0.21	mg/Kg	☼	11/08/17 11:05	11/18/17 02:54	100
Carbon disulfide	<0.20		0.20	0.080	mg/Kg	☼	11/08/17 11:05	11/18/17 02:54	100
Carbon tetrachloride	<0.099		0.099	0.038	mg/Kg	☼	11/08/17 11:05	11/18/17 02:54	100
Chlorobenzene	<0.099		0.099	0.038	mg/Kg	☼	11/08/17 11:05	11/18/17 02:54	100
Chloroethane	<0.099		0.099	0.050	mg/Kg	☼	11/08/17 11:05	11/18/17 02:54	100
Chloroform	<0.20		0.20	0.037	mg/Kg	☼	11/08/17 11:05	11/18/17 02:54	100
Chloromethane	<0.099		0.099	0.032	mg/Kg	☼	11/08/17 11:05	11/18/17 02:54	100
cis-1,2-Dichloroethene	<0.099		0.099	0.041	mg/Kg	☼	11/08/17 11:05	11/18/17 02:54	100
cis-1,3-Dichloropropene	<0.099		0.099	0.041	mg/Kg	☼	11/08/17 11:05	11/18/17 02:54	100
Dibromochloromethane	<0.099		0.099	0.048	mg/Kg	☼	11/08/17 11:05	11/18/17 02:54	100
1,1-Dichloroethane	<0.099		0.099	0.041	mg/Kg	☼	11/08/17 11:05	11/18/17 02:54	100
1,2-Dichloroethane	0.12		0.099	0.039	mg/Kg	☼	11/08/17 11:05	11/18/17 02:54	100
1,1-Dichloroethene	<0.099		0.099	0.039	mg/Kg	☼	11/08/17 11:05	11/18/17 02:54	100
1,2-Dichloropropane	<0.099		0.099	0.042	mg/Kg	☼	11/08/17 11:05	11/18/17 02:54	100
1,3-Dichloropropene, Total	<0.099		0.099	0.041	mg/Kg	☼	11/08/17 11:05	11/18/17 02:54	100
2-Hexanone	<0.50		0.50	0.15	mg/Kg	☼	11/08/17 11:05	11/18/17 02:54	100
Methylene Chloride	<0.50		0.50	0.16	mg/Kg	☼	11/08/17 11:05	11/18/17 02:54	100
4-Methyl-2-pentanone (MIBK)	<0.50		0.50	0.21	mg/Kg	☼	11/08/17 11:05	11/18/17 02:54	100
Methyl tert-butyl ether	<0.099		0.099	0.039	mg/Kg	☼	11/08/17 11:05	11/18/17 02:54	100
Styrene	<0.099		0.099	0.038	mg/Kg	☼	11/08/17 11:05	11/18/17 02:54	100
1,1,2,2-Tetrachloroethane	<0.099		0.099	0.040	mg/Kg	☼	11/08/17 11:05	11/18/17 02:54	100
Tetrachloroethene	<0.099		0.099	0.037	mg/Kg	☼	11/08/17 11:05	11/18/17 02:54	100
Toluene	0.99		0.025	0.015	mg/Kg	☼	11/08/17 11:05	11/18/17 02:54	100
trans-1,2-Dichloroethene	<0.099		0.099	0.035	mg/Kg	☼	11/08/17 11:05	11/18/17 02:54	100
trans-1,3-Dichloropropene	<0.099		0.099	0.036	mg/Kg	☼	11/08/17 11:05	11/18/17 02:54	100
1,1,1-Trichloroethane	<0.099		0.099	0.038	mg/Kg	☼	11/08/17 11:05	11/18/17 02:54	100
1,1,2-Trichloroethane	<0.099		0.099	0.035	mg/Kg	☼	11/08/17 11:05	11/18/17 02:54	100
Trichloroethene	<0.050		0.050	0.016	mg/Kg	☼	11/08/17 11:05	11/18/17 02:54	100
Vinyl acetate	<0.20		0.20	0.090	mg/Kg	☼	11/08/17 11:05	11/18/17 02:54	100
Vinyl chloride	<0.050		0.050	0.026	mg/Kg	☼	11/08/17 11:05	11/18/17 02:54	100

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	86		72 - 124	11/08/17 11:05	11/18/17 02:54	100
Dibromofluoromethane	87		75 - 120	11/08/17 11:05	11/18/17 02:54	100
1,2-Dichloroethane-d4 (Surr)	83		75 - 126	11/08/17 11:05	11/18/17 02:54	100
Toluene-d8 (Surr)	95		75 - 120	11/08/17 11:05	11/18/17 02:54	100

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	21		0.25	0.18	mg/Kg	☼	11/08/17 11:05	11/20/17 11:43	1000
Xylenes, Total	32		0.50	0.22	mg/Kg	☼	11/08/17 11:05	11/20/17 11:43	1000

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	82		72 - 124	11/08/17 11:05	11/20/17 11:43	1000
Dibromofluoromethane	86		75 - 120	11/08/17 11:05	11/20/17 11:43	1000

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136990-1

Client Sample ID: 2696V-68-B05 (0-5)

Lab Sample ID: 500-136990-5

Date Collected: 11/08/17 11:05

Matrix: Solid

Date Received: 11/08/17 16:30

Percent Solids: 84.1

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	77		75 - 126	11/08/17 11:05	11/20/17 11:43	1000
Toluene-d8 (Surr)	91		75 - 120	11/08/17 11:05	11/20/17 11:43	1000

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.038		0.038	0.0068	mg/Kg	☼	11/14/17 17:23	11/16/17 17:04	1
Acenaphthylene	<0.038		0.038	0.0050	mg/Kg	☼	11/14/17 17:23	11/16/17 17:04	1
Anthracene	<0.038		0.038	0.0064	mg/Kg	☼	11/14/17 17:23	11/16/17 17:04	1
Benzo[a]anthracene	<0.038		0.038	0.0051	mg/Kg	☼	11/14/17 17:23	11/16/17 17:04	1
Benzo[a]pyrene	<0.038		0.038	0.0074	mg/Kg	☼	11/14/17 17:23	11/16/17 17:04	1
Benzo[b]fluoranthene	<0.038		0.038	0.0082	mg/Kg	☼	11/14/17 17:23	11/16/17 17:04	1
Benzo[g,h,i]perylene	<0.038		0.038	0.012	mg/Kg	☼	11/14/17 17:23	11/16/17 17:04	1
Benzo[k]fluoranthene	<0.038		0.038	0.011	mg/Kg	☼	11/14/17 17:23	11/16/17 17:04	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.039	mg/Kg	☼	11/14/17 17:23	11/16/17 17:04	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.057	mg/Kg	☼	11/14/17 17:23	11/16/17 17:04	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.070	mg/Kg	☼	11/14/17 17:23	11/16/17 17:04	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.050	mg/Kg	☼	11/14/17 17:23	11/16/17 17:04	1
Butyl benzyl phthalate	<0.19		0.19	0.073	mg/Kg	☼	11/14/17 17:23	11/16/17 17:04	1
Carbazole	<0.19		0.19	0.095	mg/Kg	☼	11/14/17 17:23	11/16/17 17:04	1
4-Chloroaniline	<0.77		0.77	0.18	mg/Kg	☼	11/14/17 17:23	11/16/17 17:04	1
4-Chloro-3-methylphenol	<0.38		0.38	0.13	mg/Kg	☼	11/14/17 17:23	11/16/17 17:04	1
2-Chloronaphthalene	<0.19		0.19	0.042	mg/Kg	☼	11/14/17 17:23	11/16/17 17:04	1
2-Chlorophenol	<0.19		0.19	0.065	mg/Kg	☼	11/14/17 17:23	11/16/17 17:04	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.045	mg/Kg	☼	11/14/17 17:23	11/16/17 17:04	1
Chrysene	<0.038		0.038	0.010	mg/Kg	☼	11/14/17 17:23	11/16/17 17:04	1
Dibenz(a,h)anthracene	<0.038		0.038	0.0074	mg/Kg	☼	11/14/17 17:23	11/16/17 17:04	1
Dibenzofuran	<0.19		0.19	0.045	mg/Kg	☼	11/14/17 17:23	11/16/17 17:04	1
1,2-Dichlorobenzene	<0.19		0.19	0.046	mg/Kg	☼	11/14/17 17:23	11/16/17 17:04	1
1,3-Dichlorobenzene	<0.19		0.19	0.043	mg/Kg	☼	11/14/17 17:23	11/16/17 17:04	1
1,4-Dichlorobenzene	<0.19		0.19	0.049	mg/Kg	☼	11/14/17 17:23	11/16/17 17:04	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.053	mg/Kg	☼	11/14/17 17:23	11/16/17 17:04	1
2,4-Dichlorophenol	<0.38		0.38	0.091	mg/Kg	☼	11/14/17 17:23	11/16/17 17:04	1
Diethyl phthalate	<0.19		0.19	0.065	mg/Kg	☼	11/14/17 17:23	11/16/17 17:04	1
2,4-Dimethylphenol	<0.38		0.38	0.14	mg/Kg	☼	11/14/17 17:23	11/16/17 17:04	1
Dimethyl phthalate	<0.19		0.19	0.050	mg/Kg	☼	11/14/17 17:23	11/16/17 17:04	1
Di-n-butyl phthalate	<0.19		0.19	0.058	mg/Kg	☼	11/14/17 17:23	11/16/17 17:04	1
4,6-Dinitro-2-methylphenol	<0.77		0.77	0.31	mg/Kg	☼	11/14/17 17:23	11/16/17 17:04	1
2,4-Dinitrophenol	<0.77		0.77	0.67	mg/Kg	☼	11/14/17 17:23	11/16/17 17:04	1
2,4-Dinitrotoluene	<0.19		0.19	0.061	mg/Kg	☼	11/14/17 17:23	11/16/17 17:04	1
2,6-Dinitrotoluene	<0.19		0.19	0.075	mg/Kg	☼	11/14/17 17:23	11/16/17 17:04	1
Di-n-octyl phthalate	<0.19		0.19	0.062	mg/Kg	☼	11/14/17 17:23	11/16/17 17:04	1
Fluoranthene	0.0075	J	0.038	0.0071	mg/Kg	☼	11/14/17 17:23	11/16/17 17:04	1
Fluorene	<0.038		0.038	0.0054	mg/Kg	☼	11/14/17 17:23	11/16/17 17:04	1
Hexachlorobenzene	<0.077		0.077	0.0088	mg/Kg	☼	11/14/17 17:23	11/16/17 17:04	1
Hexachlorobutadiene	<0.19		0.19	0.060	mg/Kg	☼	11/14/17 17:23	11/16/17 17:04	1
Hexachlorocyclopentadiene	<0.77		0.77	0.22	mg/Kg	☼	11/14/17 17:23	11/16/17 17:04	1
Hexachloroethane	<0.19		0.19	0.058	mg/Kg	☼	11/14/17 17:23	11/16/17 17:04	1
Indeno[1,2,3-cd]pyrene	<0.038		0.038	0.0099	mg/Kg	☼	11/14/17 17:23	11/16/17 17:04	1
Isophorone	<0.19		0.19	0.043	mg/Kg	☼	11/14/17 17:23	11/16/17 17:04	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136990-1

Client Sample ID: 2696V-68-B05 (0-5)

Lab Sample ID: 500-136990-5

Date Collected: 11/08/17 11:05

Matrix: Solid

Date Received: 11/08/17 16:30

Percent Solids: 84.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	0.50		0.077	0.0070	mg/Kg	☼	11/14/17 17:23	11/16/17 17:04	1
2-Methylphenol	<0.19		0.19	0.061	mg/Kg	☼	11/14/17 17:23	11/16/17 17:04	1
3 & 4 Methylphenol	<0.19		0.19	0.064	mg/Kg	☼	11/14/17 17:23	11/16/17 17:04	1
Naphthalene	1.1		0.038	0.0059	mg/Kg	☼	11/14/17 17:23	11/16/17 17:04	1
2-Nitroaniline	<0.19		0.19	0.051	mg/Kg	☼	11/14/17 17:23	11/16/17 17:04	1
3-Nitroaniline	<0.38		0.38	0.12	mg/Kg	☼	11/14/17 17:23	11/16/17 17:04	1
4-Nitroaniline	<0.38		0.38	0.16	mg/Kg	☼	11/14/17 17:23	11/16/17 17:04	1
Nitrobenzene	<0.038		0.038	0.0095	mg/Kg	☼	11/14/17 17:23	11/16/17 17:04	1
2-Nitrophenol	<0.38		0.38	0.090	mg/Kg	☼	11/14/17 17:23	11/16/17 17:04	1
4-Nitrophenol	<0.77		0.77	0.36	mg/Kg	☼	11/14/17 17:23	11/16/17 17:04	1
N-Nitrosodi-n-propylamine	<0.077		0.077	0.047	mg/Kg	☼	11/14/17 17:23	11/16/17 17:04	1
N-Nitrosodiphenylamine	<0.19		0.19	0.045	mg/Kg	☼	11/14/17 17:23	11/16/17 17:04	1
2,2'-oxybis[1-chloropropane]	<0.19 *		0.19	0.044	mg/Kg	☼	11/14/17 17:23	11/16/17 17:04	1
Pentachlorophenol	<0.77		0.77	0.61	mg/Kg	☼	11/14/17 17:23	11/16/17 17:04	1
Phenanthrene	0.0078	J	0.038	0.0053	mg/Kg	☼	11/14/17 17:23	11/16/17 17:04	1
Phenol	<0.19		0.19	0.085	mg/Kg	☼	11/14/17 17:23	11/16/17 17:04	1
Pyrene	<0.038		0.038	0.0076	mg/Kg	☼	11/14/17 17:23	11/16/17 17:04	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.041	mg/Kg	☼	11/14/17 17:23	11/16/17 17:04	1
2,4,5-Trichlorophenol	<0.38		0.38	0.087	mg/Kg	☼	11/14/17 17:23	11/16/17 17:04	1
2,4,6-Trichlorophenol	<0.38		0.38	0.13	mg/Kg	☼	11/14/17 17:23	11/16/17 17:04	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	113		44 - 121	11/14/17 17:23	11/16/17 17:04	1
2-Fluorophenol	115		46 - 133	11/14/17 17:23	11/16/17 17:04	1
Nitrobenzene-d5	99		41 - 120	11/14/17 17:23	11/16/17 17:04	1
Phenol-d5	101		46 - 125	11/14/17 17:23	11/16/17 17:04	1
Terphenyl-d14	111		35 - 160	11/14/17 17:23	11/16/17 17:04	1
2,4,6-Tribromophenol	147	X	25 - 139	11/14/17 17:23	11/16/17 17:04	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.37	J	1.0	0.20	mg/Kg	☼	11/10/17 07:34	11/10/17 18:01	1
Arsenic	4.6		0.52	0.18	mg/Kg	☼	11/10/17 07:34	11/10/17 18:01	1
Barium	57		0.52	0.059	mg/Kg	☼	11/10/17 07:34	11/10/17 18:01	1
Beryllium	0.63		0.21	0.049	mg/Kg	☼	11/10/17 07:34	11/10/17 18:01	1
Cadmium	0.25	B	0.10	0.019	mg/Kg	☼	11/10/17 07:34	11/10/17 18:01	1
Chromium	12		0.52	0.26	mg/Kg	☼	11/10/17 07:34	11/10/17 18:01	1
Cobalt	8.2		0.26	0.068	mg/Kg	☼	11/10/17 07:34	11/10/17 18:01	1
Copper	19		0.52	0.15	mg/Kg	☼	11/10/17 07:34	11/10/17 18:01	1
Iron	12000		10	5.4	mg/Kg	☼	11/10/17 07:34	11/10/17 18:01	1
Lead	18		0.26	0.12	mg/Kg	☼	11/10/17 07:34	11/10/17 18:01	1
Magnesium	2200		5.2	2.6	mg/Kg	☼	11/10/17 07:34	11/10/17 18:01	1
Calcium	3200	B	10	1.8	mg/Kg	☼	11/10/17 07:34	11/10/17 18:01	1
Manganese	220		0.52	0.076	mg/Kg	☼	11/10/17 07:34	11/10/17 18:01	1
Nickel	19		0.52	0.15	mg/Kg	☼	11/10/17 07:34	11/10/17 18:01	1
Selenium	0.74		0.52	0.31	mg/Kg	☼	11/10/17 07:34	11/10/17 18:01	1
Silver	<0.26		0.26	0.067	mg/Kg	☼	11/10/17 07:34	11/10/17 18:01	1
Thallium	<0.52		0.52	0.26	mg/Kg	☼	11/10/17 07:34	11/10/17 18:01	1
Vanadium	21		0.26	0.062	mg/Kg	☼	11/10/17 07:34	11/10/17 18:01	1
Zinc	43		1.0	0.46	mg/Kg	☼	11/10/17 07:34	11/10/17 18:01	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136990-1

Client Sample ID: 2696V-68-B05 (0-5)

Lab Sample ID: 500-136990-5

Date Collected: 11/08/17 11:05

Matrix: Solid

Date Received: 11/08/17 16:30

Percent Solids: 84.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Potassium	940		26	9.2	mg/Kg	☼	11/10/17 07:34	11/10/17 18:01	1
Sodium	1500		52	7.7	mg/Kg	☼	11/10/17 07:34	11/10/17 18:01	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.050		0.050	0.010	mg/L		11/14/17 15:47	11/15/17 13:07	1
Barium	0.36	J	0.50	0.050	mg/L		11/14/17 15:47	11/15/17 13:07	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		11/14/17 15:47	11/15/17 13:07	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		11/14/17 15:47	11/15/17 13:07	1
Calcium	56		5.0	0.50	mg/L		11/14/17 15:47	11/15/17 13:07	1
Chromium	<0.025		0.025	0.010	mg/L		11/14/17 15:47	11/15/17 13:07	1
Cobalt	0.025		0.025	0.010	mg/L		11/14/17 15:47	11/15/17 13:07	1
Copper	0.072	B	0.025	0.010	mg/L		11/14/17 15:47	11/15/17 13:07	1
Iron	4.1		0.40	0.20	mg/L		11/14/17 15:47	11/15/17 13:07	1
Lead	<0.0075		0.0075	0.0075	mg/L		11/14/17 15:47	11/15/17 13:07	1
Magnesium	8.3		2.5	0.50	mg/L		11/14/17 15:47	11/15/17 13:07	1
Manganese	3.0		0.025	0.010	mg/L		11/14/17 15:47	11/15/17 13:07	1
Nickel	0.026		0.025	0.010	mg/L		11/14/17 15:47	11/15/17 13:07	1
Potassium	2.8		2.5	0.50	mg/L		11/14/17 15:47	11/15/17 13:07	1
Selenium	<0.050		0.050	0.020	mg/L		11/14/17 15:47	11/15/17 13:07	1
Silver	<0.025		0.025	0.010	mg/L		11/14/17 15:47	11/15/17 13:07	1
Vanadium	<0.025		0.025	0.010	mg/L		11/14/17 15:47	11/15/17 13:07	1
Zinc	0.10	J	0.50	0.020	mg/L		11/14/17 15:47	11/15/17 13:07	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.66		0.025	0.010	mg/L		11/13/17 07:23	11/13/17 19:43	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		11/14/17 15:47	11/16/17 11:37	1
Thallium	<0.0020		0.0020	0.0020	mg/L		11/14/17 15:47	11/16/17 11:37	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		11/14/17 15:15	11/16/17 12:14	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.017	J	0.018	0.0059	mg/Kg	☼	11/13/17 13:20	11/16/17 13:24	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	1.5		0.45	0.16	mg/Kg	☼	11/17/17 10:45	11/17/17 15:03	1
pH	9.6		0.20	0.20	SU			11/15/17 11:51	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136990-1

Client Sample ID: 2696V-68-B05 (0-5) Dup

Lab Sample ID: 500-136990-6

Date Collected: 11/08/17 11:05

Matrix: Solid

Date Received: 11/08/17 16:30

Percent Solids: 86.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.46		0.46	0.16	mg/Kg	☼	11/08/17 11:05	11/18/17 03:21	100
Benzene	2.1		0.023	0.014	mg/Kg	☼	11/08/17 11:05	11/18/17 03:21	100
Bromodichloromethane	<0.093		0.093	0.035	mg/Kg	☼	11/08/17 11:05	11/18/17 03:21	100
Bromoform	<0.093		0.093	0.045	mg/Kg	☼	11/08/17 11:05	11/18/17 03:21	100
Bromomethane	<0.19		0.19	0.074	mg/Kg	☼	11/08/17 11:05	11/18/17 03:21	100
2-Butanone (MEK)	<0.46		0.46	0.20	mg/Kg	☼	11/08/17 11:05	11/18/17 03:21	100
Carbon disulfide	<0.19		0.19	0.074	mg/Kg	☼	11/08/17 11:05	11/18/17 03:21	100
Carbon tetrachloride	<0.093		0.093	0.036	mg/Kg	☼	11/08/17 11:05	11/18/17 03:21	100
Chlorobenzene	<0.093		0.093	0.036	mg/Kg	☼	11/08/17 11:05	11/18/17 03:21	100
Chloroethane	<0.093		0.093	0.047	mg/Kg	☼	11/08/17 11:05	11/18/17 03:21	100
Chloroform	<0.19		0.19	0.034	mg/Kg	☼	11/08/17 11:05	11/18/17 03:21	100
Chloromethane	<0.093		0.093	0.030	mg/Kg	☼	11/08/17 11:05	11/18/17 03:21	100
cis-1,2-Dichloroethene	<0.093		0.093	0.038	mg/Kg	☼	11/08/17 11:05	11/18/17 03:21	100
cis-1,3-Dichloropropene	<0.093		0.093	0.039	mg/Kg	☼	11/08/17 11:05	11/18/17 03:21	100
Dibromochloromethane	<0.093		0.093	0.045	mg/Kg	☼	11/08/17 11:05	11/18/17 03:21	100
1,1-Dichloroethane	<0.093		0.093	0.038	mg/Kg	☼	11/08/17 11:05	11/18/17 03:21	100
1,2-Dichloroethane	<0.093		0.093	0.036	mg/Kg	☼	11/08/17 11:05	11/18/17 03:21	100
1,1-Dichloroethene	<0.093		0.093	0.036	mg/Kg	☼	11/08/17 11:05	11/18/17 03:21	100
1,2-Dichloropropane	<0.093		0.093	0.040	mg/Kg	☼	11/08/17 11:05	11/18/17 03:21	100
1,3-Dichloropropene, Total	<0.093		0.093	0.039	mg/Kg	☼	11/08/17 11:05	11/18/17 03:21	100
2-Hexanone	<0.46		0.46	0.14	mg/Kg	☼	11/08/17 11:05	11/18/17 03:21	100
Methylene Chloride	<0.46		0.46	0.15	mg/Kg	☼	11/08/17 11:05	11/18/17 03:21	100
4-Methyl-2-pentanone (MIBK)	<0.46		0.46	0.20	mg/Kg	☼	11/08/17 11:05	11/18/17 03:21	100
Methyl tert-butyl ether	<0.093		0.093	0.037	mg/Kg	☼	11/08/17 11:05	11/18/17 03:21	100
Styrene	<0.093		0.093	0.036	mg/Kg	☼	11/08/17 11:05	11/18/17 03:21	100
1,1,2,2-Tetrachloroethane	<0.093		0.093	0.037	mg/Kg	☼	11/08/17 11:05	11/18/17 03:21	100
Tetrachloroethene	<0.093		0.093	0.034	mg/Kg	☼	11/08/17 11:05	11/18/17 03:21	100
Toluene	0.88		0.023	0.014	mg/Kg	☼	11/08/17 11:05	11/18/17 03:21	100
trans-1,2-Dichloroethene	<0.093		0.093	0.032	mg/Kg	☼	11/08/17 11:05	11/18/17 03:21	100
trans-1,3-Dichloropropene	<0.093		0.093	0.034	mg/Kg	☼	11/08/17 11:05	11/18/17 03:21	100
1,1,1-Trichloroethane	<0.093		0.093	0.035	mg/Kg	☼	11/08/17 11:05	11/18/17 03:21	100
1,1,2-Trichloroethane	<0.093		0.093	0.033	mg/Kg	☼	11/08/17 11:05	11/18/17 03:21	100
Trichloroethene	<0.046		0.046	0.015	mg/Kg	☼	11/08/17 11:05	11/18/17 03:21	100
Vinyl acetate	<0.19		0.19	0.084	mg/Kg	☼	11/08/17 11:05	11/18/17 03:21	100
Vinyl chloride	<0.046		0.046	0.024	mg/Kg	☼	11/08/17 11:05	11/18/17 03:21	100

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	82		72 - 124	11/08/17 11:05	11/18/17 03:21	100
Dibromofluoromethane	88		75 - 120	11/08/17 11:05	11/18/17 03:21	100
1,2-Dichloroethane-d4 (Surr)	84		75 - 126	11/08/17 11:05	11/18/17 03:21	100
Toluene-d8 (Surr)	97		75 - 120	11/08/17 11:05	11/18/17 03:21	100

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	20		0.23	0.17	mg/Kg	☼	11/08/17 11:05	11/20/17 12:10	1000
Xylenes, Total	32		0.46	0.20	mg/Kg	☼	11/08/17 11:05	11/20/17 12:10	1000

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	85		72 - 124	11/08/17 11:05	11/20/17 12:10	1000
Dibromofluoromethane	84		75 - 120	11/08/17 11:05	11/20/17 12:10	1000

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136990-1

Client Sample ID: 2696V-68-B05 (0-5) Dup

Lab Sample ID: 500-136990-6

Date Collected: 11/08/17 11:05

Matrix: Solid

Date Received: 11/08/17 16:30

Percent Solids: 86.1

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	78		75 - 126	11/08/17 11:05	11/20/17 12:10	1000
Toluene-d8 (Surr)	92		75 - 120	11/08/17 11:05	11/20/17 12:10	1000

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.036		0.036	0.0066	mg/Kg	☼	11/14/17 17:23	11/16/17 17:58	1
Acenaphthylene	<0.036		0.036	0.0048	mg/Kg	☼	11/14/17 17:23	11/16/17 17:58	1
Anthracene	<0.036		0.036	0.0061	mg/Kg	☼	11/14/17 17:23	11/16/17 17:58	1
Benzo[a]anthracene	0.0055	J	0.036	0.0049	mg/Kg	☼	11/14/17 17:23	11/16/17 17:58	1
Benzo[a]pyrene	<0.036		0.036	0.0071	mg/Kg	☼	11/14/17 17:23	11/16/17 17:58	1
Benzo[b]fluoranthene	0.010	J	0.036	0.0079	mg/Kg	☼	11/14/17 17:23	11/16/17 17:58	1
Benzo[g,h,i]perylene	<0.036		0.036	0.012	mg/Kg	☼	11/14/17 17:23	11/16/17 17:58	1
Benzo[k]fluoranthene	<0.036		0.036	0.011	mg/Kg	☼	11/14/17 17:23	11/16/17 17:58	1
Bis(2-chloroethoxy)methane	<0.18		0.18	0.037	mg/Kg	☼	11/14/17 17:23	11/16/17 17:58	1
Bis(2-chloroethyl)ether	<0.18		0.18	0.055	mg/Kg	☼	11/14/17 17:23	11/16/17 17:58	1
Bis(2-ethylhexyl) phthalate	<0.18		0.18	0.067	mg/Kg	☼	11/14/17 17:23	11/16/17 17:58	1
4-Bromophenyl phenyl ether	<0.18		0.18	0.048	mg/Kg	☼	11/14/17 17:23	11/16/17 17:58	1
Butyl benzyl phthalate	<0.18		0.18	0.069	mg/Kg	☼	11/14/17 17:23	11/16/17 17:58	1
Carbazole	<0.18		0.18	0.091	mg/Kg	☼	11/14/17 17:23	11/16/17 17:58	1
4-Chloroaniline	<0.74		0.74	0.17	mg/Kg	☼	11/14/17 17:23	11/16/17 17:58	1
4-Chloro-3-methylphenol	<0.36		0.36	0.12	mg/Kg	☼	11/14/17 17:23	11/16/17 17:58	1
2-Chloronaphthalene	<0.18		0.18	0.040	mg/Kg	☼	11/14/17 17:23	11/16/17 17:58	1
2-Chlorophenol	<0.18		0.18	0.062	mg/Kg	☼	11/14/17 17:23	11/16/17 17:58	1
4-Chlorophenyl phenyl ether	<0.18		0.18	0.043	mg/Kg	☼	11/14/17 17:23	11/16/17 17:58	1
Chrysene	<0.036		0.036	0.0099	mg/Kg	☼	11/14/17 17:23	11/16/17 17:58	1
Dibenz(a,h)anthracene	<0.036		0.036	0.0070	mg/Kg	☼	11/14/17 17:23	11/16/17 17:58	1
Dibenzofuran	<0.18		0.18	0.043	mg/Kg	☼	11/14/17 17:23	11/16/17 17:58	1
1,2-Dichlorobenzene	<0.18		0.18	0.044	mg/Kg	☼	11/14/17 17:23	11/16/17 17:58	1
1,3-Dichlorobenzene	<0.18		0.18	0.041	mg/Kg	☼	11/14/17 17:23	11/16/17 17:58	1
1,4-Dichlorobenzene	<0.18		0.18	0.047	mg/Kg	☼	11/14/17 17:23	11/16/17 17:58	1
3,3'-Dichlorobenzidine	<0.18		0.18	0.051	mg/Kg	☼	11/14/17 17:23	11/16/17 17:58	1
2,4-Dichlorophenol	<0.36		0.36	0.087	mg/Kg	☼	11/14/17 17:23	11/16/17 17:58	1
Diethyl phthalate	<0.18		0.18	0.062	mg/Kg	☼	11/14/17 17:23	11/16/17 17:58	1
2,4-Dimethylphenol	<0.36		0.36	0.14	mg/Kg	☼	11/14/17 17:23	11/16/17 17:58	1
Dimethyl phthalate	<0.18		0.18	0.048	mg/Kg	☼	11/14/17 17:23	11/16/17 17:58	1
Di-n-butyl phthalate	<0.18		0.18	0.056	mg/Kg	☼	11/14/17 17:23	11/16/17 17:58	1
4,6-Dinitro-2-methylphenol	<0.74		0.74	0.29	mg/Kg	☼	11/14/17 17:23	11/16/17 17:58	1
2,4-Dinitrophenol	<0.74		0.74	0.64	mg/Kg	☼	11/14/17 17:23	11/16/17 17:58	1
2,4-Dinitrotoluene	<0.18		0.18	0.058	mg/Kg	☼	11/14/17 17:23	11/16/17 17:58	1
2,6-Dinitrotoluene	<0.18		0.18	0.072	mg/Kg	☼	11/14/17 17:23	11/16/17 17:58	1
Di-n-octyl phthalate	<0.18		0.18	0.059	mg/Kg	☼	11/14/17 17:23	11/16/17 17:58	1
Fluoranthene	0.021	J	0.036	0.0068	mg/Kg	☼	11/14/17 17:23	11/16/17 17:58	1
Fluorene	0.0082	J	0.036	0.0051	mg/Kg	☼	11/14/17 17:23	11/16/17 17:58	1
Hexachlorobenzene	<0.074		0.074	0.0085	mg/Kg	☼	11/14/17 17:23	11/16/17 17:58	1
Hexachlorobutadiene	<0.18		0.18	0.057	mg/Kg	☼	11/14/17 17:23	11/16/17 17:58	1
Hexachlorocyclopentadiene	<0.74		0.74	0.21	mg/Kg	☼	11/14/17 17:23	11/16/17 17:58	1
Hexachloroethane	<0.18		0.18	0.055	mg/Kg	☼	11/14/17 17:23	11/16/17 17:58	1
Indeno[1,2,3-cd]pyrene	<0.036		0.036	0.0095	mg/Kg	☼	11/14/17 17:23	11/16/17 17:58	1
Isophorone	<0.18		0.18	0.041	mg/Kg	☼	11/14/17 17:23	11/16/17 17:58	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136990-1

Client Sample ID: 2696V-68-B05 (0-5) Dup

Lab Sample ID: 500-136990-6

Date Collected: 11/08/17 11:05

Matrix: Solid

Date Received: 11/08/17 16:30

Percent Solids: 86.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	0.62		0.074	0.0067	mg/Kg	☼	11/14/17 17:23	11/16/17 17:58	1
2-Methylphenol	<0.18		0.18	0.059	mg/Kg	☼	11/14/17 17:23	11/16/17 17:58	1
3 & 4 Methylphenol	<0.18		0.18	0.061	mg/Kg	☼	11/14/17 17:23	11/16/17 17:58	1
Naphthalene	1.1		0.036	0.0056	mg/Kg	☼	11/14/17 17:23	11/16/17 17:58	1
2-Nitroaniline	<0.18		0.18	0.049	mg/Kg	☼	11/14/17 17:23	11/16/17 17:58	1
3-Nitroaniline	<0.36		0.36	0.11	mg/Kg	☼	11/14/17 17:23	11/16/17 17:58	1
4-Nitroaniline	<0.36		0.36	0.15	mg/Kg	☼	11/14/17 17:23	11/16/17 17:58	1
Nitrobenzene	<0.036		0.036	0.0091	mg/Kg	☼	11/14/17 17:23	11/16/17 17:58	1
2-Nitrophenol	<0.36		0.36	0.086	mg/Kg	☼	11/14/17 17:23	11/16/17 17:58	1
4-Nitrophenol	<0.74		0.74	0.35	mg/Kg	☼	11/14/17 17:23	11/16/17 17:58	1
N-Nitrosodi-n-propylamine	<0.074		0.074	0.045	mg/Kg	☼	11/14/17 17:23	11/16/17 17:58	1
N-Nitrosodiphenylamine	<0.18		0.18	0.043	mg/Kg	☼	11/14/17 17:23	11/16/17 17:58	1
2,2'-oxybis[1-chloropropane]	<0.18 *		0.18	0.042	mg/Kg	☼	11/14/17 17:23	11/16/17 17:58	1
Pentachlorophenol	<0.74		0.74	0.59	mg/Kg	☼	11/14/17 17:23	11/16/17 17:58	1
Phenanthrene	0.026 J		0.036	0.0051	mg/Kg	☼	11/14/17 17:23	11/16/17 17:58	1
Phenol	<0.18		0.18	0.081	mg/Kg	☼	11/14/17 17:23	11/16/17 17:58	1
Pyrene	0.014 J		0.036	0.0072	mg/Kg	☼	11/14/17 17:23	11/16/17 17:58	1
1,2,4-Trichlorobenzene	<0.18		0.18	0.039	mg/Kg	☼	11/14/17 17:23	11/16/17 17:58	1
2,4,5-Trichlorophenol	<0.36		0.36	0.083	mg/Kg	☼	11/14/17 17:23	11/16/17 17:58	1
2,4,6-Trichlorophenol	<0.36		0.36	0.13	mg/Kg	☼	11/14/17 17:23	11/16/17 17:58	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	107		44 - 121	11/14/17 17:23	11/16/17 17:58	1
2-Fluorophenol	108		46 - 133	11/14/17 17:23	11/16/17 17:58	1
Nitrobenzene-d5	93		41 - 120	11/14/17 17:23	11/16/17 17:58	1
Phenol-d5	97		46 - 125	11/14/17 17:23	11/16/17 17:58	1
Terphenyl-d14	106		35 - 160	11/14/17 17:23	11/16/17 17:58	1
2,4,6-Tribromophenol	141 X		25 - 139	11/14/17 17:23	11/16/17 17:58	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.1		1.1	0.21	mg/Kg	☼	11/10/17 07:34	11/10/17 18:05	1
Arsenic	3.0		0.55	0.19	mg/Kg	☼	11/10/17 07:34	11/10/17 18:05	1
Barium	56		0.55	0.062	mg/Kg	☼	11/10/17 07:34	11/10/17 18:05	1
Beryllium	0.64		0.22	0.051	mg/Kg	☼	11/10/17 07:34	11/10/17 18:05	1
Cadmium	0.17 B		0.11	0.020	mg/Kg	☼	11/10/17 07:34	11/10/17 18:05	1
Chromium	12		0.55	0.27	mg/Kg	☼	11/10/17 07:34	11/10/17 18:05	1
Cobalt	5.0		0.27	0.072	mg/Kg	☼	11/10/17 07:34	11/10/17 18:05	1
Copper	16		0.55	0.15	mg/Kg	☼	11/10/17 07:34	11/10/17 18:05	1
Iron	11000		11	5.7	mg/Kg	☼	11/10/17 07:34	11/10/17 18:05	1
Lead	14		0.27	0.13	mg/Kg	☼	11/10/17 07:34	11/10/17 18:05	1
Magnesium	3700		5.5	2.7	mg/Kg	☼	11/10/17 07:34	11/10/17 18:05	1
Calcium	8900 B		11	1.9	mg/Kg	☼	11/10/17 07:34	11/10/17 18:05	1
Manganese	130		0.55	0.079	mg/Kg	☼	11/10/17 07:34	11/10/17 18:05	1
Nickel	16		0.55	0.16	mg/Kg	☼	11/10/17 07:34	11/10/17 18:05	1
Selenium	0.54 J		0.55	0.32	mg/Kg	☼	11/10/17 07:34	11/10/17 18:05	1
Silver	<0.27		0.27	0.071	mg/Kg	☼	11/10/17 07:34	11/10/17 18:05	1
Thallium	<0.55		0.55	0.27	mg/Kg	☼	11/10/17 07:34	11/10/17 18:05	1
Vanadium	19		0.27	0.065	mg/Kg	☼	11/10/17 07:34	11/10/17 18:05	1
Zinc	40		1.1	0.48	mg/Kg	☼	11/10/17 07:34	11/10/17 18:05	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136990-1

Client Sample ID: 2696V-68-B05 (0-5) Dup

Lab Sample ID: 500-136990-6

Date Collected: 11/08/17 11:05

Matrix: Solid

Date Received: 11/08/17 16:30

Percent Solids: 86.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Potassium	1100		27	9.7	mg/Kg	☼	11/10/17 07:34	11/10/17 18:05	1
Sodium	1900		55	8.1	mg/Kg	☼	11/10/17 07:34	11/10/17 18:05	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.011	J	0.050	0.010	mg/L		11/14/17 15:47	11/15/17 13:11	1
Barium	0.53		0.50	0.050	mg/L		11/14/17 15:47	11/15/17 13:11	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		11/14/17 15:47	11/15/17 13:11	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		11/14/17 15:47	11/15/17 13:11	1
Calcium	300		5.0	0.50	mg/L		11/14/17 15:47	11/15/17 13:11	1
Chromium	<0.025		0.025	0.010	mg/L		11/14/17 15:47	11/15/17 13:11	1
Cobalt	0.017	J	0.025	0.010	mg/L		11/14/17 15:47	11/15/17 13:11	1
Copper	0.032	B	0.025	0.010	mg/L		11/14/17 15:47	11/15/17 13:11	1
Iron	0.75		0.40	0.20	mg/L		11/14/17 15:47	11/15/17 13:11	1
Lead	<0.0075		0.0075	0.0075	mg/L		11/14/17 15:47	11/15/17 13:11	1
Magnesium	20		2.5	0.50	mg/L		11/14/17 15:47	11/15/17 13:11	1
Manganese	3.7		0.025	0.010	mg/L		11/14/17 15:47	11/15/17 13:11	1
Nickel	0.018	J	0.025	0.010	mg/L		11/14/17 15:47	11/15/17 13:11	1
Potassium	3.6		2.5	0.50	mg/L		11/14/17 15:47	11/15/17 13:11	1
Selenium	<0.050		0.050	0.020	mg/L		11/14/17 15:47	11/15/17 13:11	1
Silver	<0.025		0.025	0.010	mg/L		11/14/17 15:47	11/15/17 13:11	1
Vanadium	<0.025		0.025	0.010	mg/L		11/14/17 15:47	11/15/17 13:11	1
Zinc	0.076	J	0.50	0.020	mg/L		11/14/17 15:47	11/15/17 13:11	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	1.1		0.025	0.010	mg/L		11/13/17 07:23	11/13/17 19:55	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		11/14/17 15:47	11/16/17 11:42	1
Thallium	<0.0020		0.0020	0.0020	mg/L		11/14/17 15:47	11/16/17 11:42	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		11/14/17 15:15	11/16/17 12:15	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.023		0.018	0.0061	mg/Kg	☼	11/13/17 13:20	11/16/17 13:26	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	3.1		0.51	0.18	mg/Kg	☼	11/17/17 10:45	11/17/17 15:03	1
pH	9.7		0.20	0.20	SU			11/15/17 11:53	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136990-1

Client Sample ID: 2696V-68-B06 (0-5)

Lab Sample ID: 500-136990-7

Date Collected: 11/08/17 11:25

Matrix: Solid

Date Received: 11/08/17 16:30

Percent Solids: 86.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.48		0.48	0.17	mg/Kg	☼	11/08/17 11:25	11/18/17 03:49	100
Benzene	1.2		0.024	0.014	mg/Kg	☼	11/08/17 11:25	11/18/17 03:49	100
Bromodichloromethane	<0.096	F1	0.096	0.036	mg/Kg	☼	11/08/17 11:25	11/18/17 03:49	100
Bromoform	<0.096		0.096	0.047	mg/Kg	☼	11/08/17 11:25	11/18/17 03:49	100
Bromomethane	<0.19		0.19	0.076	mg/Kg	☼	11/08/17 11:25	11/18/17 03:49	100
2-Butanone (MEK)	<0.48	F2	0.48	0.20	mg/Kg	☼	11/08/17 11:25	11/18/17 03:49	100
Carbon disulfide	<0.19		0.19	0.077	mg/Kg	☼	11/08/17 11:25	11/18/17 03:49	100
Carbon tetrachloride	<0.096		0.096	0.037	mg/Kg	☼	11/08/17 11:25	11/18/17 03:49	100
Chlorobenzene	<0.096		0.096	0.037	mg/Kg	☼	11/08/17 11:25	11/18/17 03:49	100
Chloroethane	<0.096		0.096	0.048	mg/Kg	☼	11/08/17 11:25	11/18/17 03:49	100
Chloroform	<0.19	F1	0.19	0.036	mg/Kg	☼	11/08/17 11:25	11/18/17 03:49	100
Chloromethane	<0.096		0.096	0.031	mg/Kg	☼	11/08/17 11:25	11/18/17 03:49	100
cis-1,2-Dichloroethene	<0.096		0.096	0.039	mg/Kg	☼	11/08/17 11:25	11/18/17 03:49	100
cis-1,3-Dichloropropene	<0.096		0.096	0.040	mg/Kg	☼	11/08/17 11:25	11/18/17 03:49	100
Dibromochloromethane	<0.096		0.096	0.047	mg/Kg	☼	11/08/17 11:25	11/18/17 03:49	100
1,1-Dichloroethane	<0.096		0.096	0.039	mg/Kg	☼	11/08/17 11:25	11/18/17 03:49	100
1,2-Dichloroethane	<0.096		0.096	0.038	mg/Kg	☼	11/08/17 11:25	11/18/17 03:49	100
1,1-Dichloroethene	<0.096		0.096	0.037	mg/Kg	☼	11/08/17 11:25	11/18/17 03:49	100
1,2-Dichloropropane	<0.096		0.096	0.041	mg/Kg	☼	11/08/17 11:25	11/18/17 03:49	100
1,3-Dichloropropene, Total	<0.096		0.096	0.040	mg/Kg	☼	11/08/17 11:25	11/18/17 03:49	100
2-Hexanone	<0.48		0.48	0.15	mg/Kg	☼	11/08/17 11:25	11/18/17 03:49	100
Methylene Chloride	<0.48		0.48	0.16	mg/Kg	☼	11/08/17 11:25	11/18/17 03:49	100
4-Methyl-2-pentanone (MIBK)	<0.48	F1	0.48	0.21	mg/Kg	☼	11/08/17 11:25	11/18/17 03:49	100
Methyl tert-butyl ether	<0.096		0.096	0.038	mg/Kg	☼	11/08/17 11:25	11/18/17 03:49	100
Styrene	<0.096		0.096	0.037	mg/Kg	☼	11/08/17 11:25	11/18/17 03:49	100
1,1,2,2-Tetrachloroethane	<0.096		0.096	0.038	mg/Kg	☼	11/08/17 11:25	11/18/17 03:49	100
Tetrachloroethene	<0.096		0.096	0.036	mg/Kg	☼	11/08/17 11:25	11/18/17 03:49	100
Toluene	0.92		0.024	0.014	mg/Kg	☼	11/08/17 11:25	11/18/17 03:49	100
trans-1,2-Dichloroethene	<0.096		0.096	0.034	mg/Kg	☼	11/08/17 11:25	11/18/17 03:49	100
trans-1,3-Dichloropropene	<0.096		0.096	0.035	mg/Kg	☼	11/08/17 11:25	11/18/17 03:49	100
1,1,1-Trichloroethane	<0.096		0.096	0.037	mg/Kg	☼	11/08/17 11:25	11/18/17 03:49	100
1,1,2-Trichloroethane	<0.096		0.096	0.034	mg/Kg	☼	11/08/17 11:25	11/18/17 03:49	100
Trichloroethene	<0.048		0.048	0.016	mg/Kg	☼	11/08/17 11:25	11/18/17 03:49	100
Vinyl acetate	<0.19		0.19	0.087	mg/Kg	☼	11/08/17 11:25	11/18/17 03:49	100
Vinyl chloride	<0.048		0.048	0.025	mg/Kg	☼	11/08/17 11:25	11/18/17 03:49	100
Xylenes, Total	12		0.048	0.021	mg/Kg	☼	11/08/17 11:25	11/18/17 03:49	100

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	85		72 - 124	11/08/17 11:25	11/18/17 03:49	100
Dibromofluoromethane	89		75 - 120	11/08/17 11:25	11/18/17 03:49	100
1,2-Dichloroethane-d4 (Surr)	85		75 - 126	11/08/17 11:25	11/18/17 03:49	100
Toluene-d8 (Surr)	96		75 - 120	11/08/17 11:25	11/18/17 03:49	100

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	43		0.24	0.18	mg/Kg	☼	11/08/17 11:25	11/20/17 12:38	1000

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	84		72 - 124	11/08/17 11:25	11/20/17 12:38	1000
Dibromofluoromethane	86		75 - 120	11/08/17 11:25	11/20/17 12:38	1000

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136990-1

Client Sample ID: 2696V-68-B06 (0-5)

Lab Sample ID: 500-136990-7

Date Collected: 11/08/17 11:25

Matrix: Solid

Date Received: 11/08/17 16:30

Percent Solids: 86.1

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	79		75 - 126	11/08/17 11:25	11/20/17 12:38	1000
Toluene-d8 (Surr)	92		75 - 120	11/08/17 11:25	11/20/17 12:38	1000

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.038		0.038	0.0068	mg/Kg	☼	11/14/17 17:23	11/16/17 18:24	1
Acenaphthylene	0.014	J	0.038	0.0050	mg/Kg	☼	11/14/17 17:23	11/16/17 18:24	1
Anthracene	0.016	J	0.038	0.0064	mg/Kg	☼	11/14/17 17:23	11/16/17 18:24	1
Benzo[a]anthracene	0.031	J	0.038	0.0051	mg/Kg	☼	11/14/17 17:23	11/16/17 18:24	1
Benzo[a]pyrene	0.039		0.038	0.0074	mg/Kg	☼	11/14/17 17:23	11/16/17 18:24	1
Benzo[b]fluoranthene	0.064		0.038	0.0082	mg/Kg	☼	11/14/17 17:23	11/16/17 18:24	1
Benzo[g,h,i]perylene	0.022	J	0.038	0.012	mg/Kg	☼	11/14/17 17:23	11/16/17 18:24	1
Benzo[k]fluoranthene	0.023	J	0.038	0.011	mg/Kg	☼	11/14/17 17:23	11/16/17 18:24	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.039	mg/Kg	☼	11/14/17 17:23	11/16/17 18:24	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.057	mg/Kg	☼	11/14/17 17:23	11/16/17 18:24	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.070	mg/Kg	☼	11/14/17 17:23	11/16/17 18:24	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.050	mg/Kg	☼	11/14/17 17:23	11/16/17 18:24	1
Butyl benzyl phthalate	<0.19		0.19	0.072	mg/Kg	☼	11/14/17 17:23	11/16/17 18:24	1
Carbazole	<0.19		0.19	0.095	mg/Kg	☼	11/14/17 17:23	11/16/17 18:24	1
4-Chloroaniline	<0.77		0.77	0.18	mg/Kg	☼	11/14/17 17:23	11/16/17 18:24	1
4-Chloro-3-methylphenol	<0.38		0.38	0.13	mg/Kg	☼	11/14/17 17:23	11/16/17 18:24	1
2-Chloronaphthalene	<0.19		0.19	0.042	mg/Kg	☼	11/14/17 17:23	11/16/17 18:24	1
2-Chlorophenol	<0.19		0.19	0.065	mg/Kg	☼	11/14/17 17:23	11/16/17 18:24	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.044	mg/Kg	☼	11/14/17 17:23	11/16/17 18:24	1
Chrysene	0.040		0.038	0.010	mg/Kg	☼	11/14/17 17:23	11/16/17 18:24	1
Dibenz(a,h)anthracene	<0.038		0.038	0.0074	mg/Kg	☼	11/14/17 17:23	11/16/17 18:24	1
Dibenzofuran	<0.19		0.19	0.045	mg/Kg	☼	11/14/17 17:23	11/16/17 18:24	1
1,2-Dichlorobenzene	<0.19		0.19	0.046	mg/Kg	☼	11/14/17 17:23	11/16/17 18:24	1
1,3-Dichlorobenzene	<0.19		0.19	0.043	mg/Kg	☼	11/14/17 17:23	11/16/17 18:24	1
1,4-Dichlorobenzene	<0.19		0.19	0.049	mg/Kg	☼	11/14/17 17:23	11/16/17 18:24	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.053	mg/Kg	☼	11/14/17 17:23	11/16/17 18:24	1
2,4-Dichlorophenol	<0.38		0.38	0.090	mg/Kg	☼	11/14/17 17:23	11/16/17 18:24	1
Diethyl phthalate	<0.19		0.19	0.065	mg/Kg	☼	11/14/17 17:23	11/16/17 18:24	1
2,4-Dimethylphenol	<0.38		0.38	0.14	mg/Kg	☼	11/14/17 17:23	11/16/17 18:24	1
Dimethyl phthalate	<0.19		0.19	0.050	mg/Kg	☼	11/14/17 17:23	11/16/17 18:24	1
Di-n-butyl phthalate	<0.19		0.19	0.058	mg/Kg	☼	11/14/17 17:23	11/16/17 18:24	1
4,6-Dinitro-2-methylphenol	<0.77		0.77	0.31	mg/Kg	☼	11/14/17 17:23	11/16/17 18:24	1
2,4-Dinitrophenol	<0.77		0.77	0.67	mg/Kg	☼	11/14/17 17:23	11/16/17 18:24	1
2,4-Dinitrotoluene	<0.19		0.19	0.061	mg/Kg	☼	11/14/17 17:23	11/16/17 18:24	1
2,6-Dinitrotoluene	<0.19		0.19	0.075	mg/Kg	☼	11/14/17 17:23	11/16/17 18:24	1
Di-n-octyl phthalate	<0.19		0.19	0.062	mg/Kg	☼	11/14/17 17:23	11/16/17 18:24	1
Fluoranthene	0.068		0.038	0.0071	mg/Kg	☼	11/14/17 17:23	11/16/17 18:24	1
Fluorene	0.031	J	0.038	0.0054	mg/Kg	☼	11/14/17 17:23	11/16/17 18:24	1
Hexachlorobenzene	<0.077		0.077	0.0088	mg/Kg	☼	11/14/17 17:23	11/16/17 18:24	1
Hexachlorobutadiene	<0.19		0.19	0.060	mg/Kg	☼	11/14/17 17:23	11/16/17 18:24	1
Hexachlorocyclopentadiene	<0.77		0.77	0.22	mg/Kg	☼	11/14/17 17:23	11/16/17 18:24	1
Hexachloroethane	<0.19		0.19	0.058	mg/Kg	☼	11/14/17 17:23	11/16/17 18:24	1
Indeno[1,2,3-cd]pyrene	0.018	J	0.038	0.0099	mg/Kg	☼	11/14/17 17:23	11/16/17 18:24	1
Isophorone	<0.19		0.19	0.043	mg/Kg	☼	11/14/17 17:23	11/16/17 18:24	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136990-1

Client Sample ID: 2696V-68-B06 (0-5)

Lab Sample ID: 500-136990-7

Date Collected: 11/08/17 11:25

Matrix: Solid

Date Received: 11/08/17 16:30

Percent Solids: 86.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylphenol	<0.19		0.19	0.061	mg/Kg	☼	11/14/17 17:23	11/16/17 18:24	1
3 & 4 Methylphenol	<0.19		0.19	0.064	mg/Kg	☼	11/14/17 17:23	11/16/17 18:24	1
2-Nitroaniline	<0.19		0.19	0.051	mg/Kg	☼	11/14/17 17:23	11/16/17 18:24	1
3-Nitroaniline	<0.38		0.38	0.12	mg/Kg	☼	11/14/17 17:23	11/16/17 18:24	1
4-Nitroaniline	<0.38		0.38	0.16	mg/Kg	☼	11/14/17 17:23	11/16/17 18:24	1
Nitrobenzene	<0.038		0.038	0.0095	mg/Kg	☼	11/14/17 17:23	11/16/17 18:24	1
2-Nitrophenol	<0.38		0.38	0.090	mg/Kg	☼	11/14/17 17:23	11/16/17 18:24	1
4-Nitrophenol	<0.77		0.77	0.36	mg/Kg	☼	11/14/17 17:23	11/16/17 18:24	1
N-Nitrosodi-n-propylamine	<0.077		0.077	0.047	mg/Kg	☼	11/14/17 17:23	11/16/17 18:24	1
N-Nitrosodiphenylamine	<0.19		0.19	0.045	mg/Kg	☼	11/14/17 17:23	11/16/17 18:24	1
2,2'-oxybis[1-chloropropane]	<0.19 *		0.19	0.044	mg/Kg	☼	11/14/17 17:23	11/16/17 18:24	1
Pentachlorophenol	<0.77		0.77	0.61	mg/Kg	☼	11/14/17 17:23	11/16/17 18:24	1
Phenanthrene	0.072		0.038	0.0053	mg/Kg	☼	11/14/17 17:23	11/16/17 18:24	1
Phenol	<0.19		0.19	0.085	mg/Kg	☼	11/14/17 17:23	11/16/17 18:24	1
Pyrene	0.060		0.038	0.0076	mg/Kg	☼	11/14/17 17:23	11/16/17 18:24	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.041	mg/Kg	☼	11/14/17 17:23	11/16/17 18:24	1
2,4,5-Trichlorophenol	<0.38		0.38	0.087	mg/Kg	☼	11/14/17 17:23	11/16/17 18:24	1
2,4,6-Trichlorophenol	<0.38		0.38	0.13	mg/Kg	☼	11/14/17 17:23	11/16/17 18:24	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	112		44 - 121	11/14/17 17:23	11/16/17 18:24	1
2-Fluorophenol	107		46 - 133	11/14/17 17:23	11/16/17 18:24	1
Nitrobenzene-d5	97		41 - 120	11/14/17 17:23	11/16/17 18:24	1
Phenol-d5	97		46 - 125	11/14/17 17:23	11/16/17 18:24	1
Terphenyl-d14	113		35 - 160	11/14/17 17:23	11/16/17 18:24	1
2,4,6-Tribromophenol	152 X		25 - 139	11/14/17 17:23	11/16/17 18:24	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	4.9		0.15	0.014	mg/Kg	☼	11/14/17 17:23	11/17/17 21:37	2
Naphthalene	4.3		0.076	0.012	mg/Kg	☼	11/14/17 17:23	11/17/17 21:37	2

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.22	J	1.1	0.21	mg/Kg	☼	11/10/17 07:34	11/10/17 18:08	1
Arsenic	7.2		0.53	0.18	mg/Kg	☼	11/10/17 07:34	11/10/17 18:08	1
Barium	59		0.53	0.061	mg/Kg	☼	11/10/17 07:34	11/10/17 18:08	1
Beryllium	0.53		0.21	0.050	mg/Kg	☼	11/10/17 07:34	11/10/17 18:08	1
Cadmium	0.14	B	0.11	0.019	mg/Kg	☼	11/10/17 07:34	11/10/17 18:08	1
Chromium	12		0.53	0.26	mg/Kg	☼	11/10/17 07:34	11/10/17 18:08	1
Cobalt	8.7		0.27	0.070	mg/Kg	☼	11/10/17 07:34	11/10/17 18:08	1
Copper	15		0.53	0.15	mg/Kg	☼	11/10/17 07:34	11/10/17 18:08	1
Iron	13000		11	5.5	mg/Kg	☼	11/10/17 07:34	11/10/17 18:08	1
Lead	21		0.27	0.12	mg/Kg	☼	11/10/17 07:34	11/10/17 18:08	1
Magnesium	3700		5.3	2.6	mg/Kg	☼	11/10/17 07:34	11/10/17 18:08	1
Calcium	4700	B	11	1.8	mg/Kg	☼	11/10/17 07:34	11/10/17 18:08	1
Manganese	240		0.53	0.077	mg/Kg	☼	11/10/17 07:34	11/10/17 18:08	1
Nickel	19		0.53	0.15	mg/Kg	☼	11/10/17 07:34	11/10/17 18:08	1
Selenium	0.41	J	0.53	0.31	mg/Kg	☼	11/10/17 07:34	11/10/17 18:08	1
Silver	<0.27		0.27	0.069	mg/Kg	☼	11/10/17 07:34	11/10/17 18:08	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136990-1

Client Sample ID: 2696V-68-B06 (0-5)

Lab Sample ID: 500-136990-7

Date Collected: 11/08/17 11:25

Matrix: Solid

Date Received: 11/08/17 16:30

Percent Solids: 86.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Thallium	<0.53		0.53	0.27	mg/Kg	☼	11/10/17 07:34	11/10/17 18:08	1
Vanadium	20		0.27	0.063	mg/Kg	☼	11/10/17 07:34	11/10/17 18:08	1
Zinc	52		1.1	0.47	mg/Kg	☼	11/10/17 07:34	11/10/17 18:08	1
Potassium	1200		27	9.4	mg/Kg	☼	11/10/17 07:34	11/10/17 18:08	1
Sodium	360		53	7.9	mg/Kg	☼	11/10/17 07:34	11/10/17 18:08	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.050		0.050	0.010	mg/L		11/14/17 15:47	11/15/17 13:15	1
Barium	0.46	J	0.50	0.050	mg/L		11/14/17 15:47	11/15/17 13:15	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		11/14/17 15:47	11/15/17 13:15	1
Cadmium	0.0028	J	0.0050	0.0020	mg/L		11/14/17 15:47	11/15/17 13:15	1
Calcium	210		5.0	0.50	mg/L		11/14/17 15:47	11/15/17 13:15	1
Chromium	<0.025		0.025	0.010	mg/L		11/14/17 15:47	11/15/17 13:15	1
Cobalt	0.015	J	0.025	0.010	mg/L		11/14/17 15:47	11/15/17 13:15	1
Copper	0.025	B	0.025	0.010	mg/L		11/14/17 15:47	11/15/17 13:15	1
Iron	<0.40		0.40	0.20	mg/L		11/14/17 15:47	11/15/17 13:15	1
Lead	0.019		0.0075	0.0075	mg/L		11/14/17 15:47	11/15/17 13:15	1
Magnesium	85		2.5	0.50	mg/L		11/14/17 15:47	11/15/17 13:15	1
Manganese	3.2		0.025	0.010	mg/L		11/14/17 15:47	11/15/17 13:15	1
Nickel	0.013	J	0.025	0.010	mg/L		11/14/17 15:47	11/15/17 13:15	1
Potassium	1.7	J	2.5	0.50	mg/L		11/14/17 15:47	11/15/17 13:15	1
Selenium	<0.050		0.050	0.020	mg/L		11/14/17 15:47	11/15/17 13:15	1
Silver	<0.025		0.025	0.010	mg/L		11/14/17 15:47	11/15/17 13:15	1
Vanadium	<0.025		0.025	0.010	mg/L		11/14/17 15:47	11/15/17 13:15	1
Zinc	0.076	J	0.50	0.020	mg/L		11/14/17 15:47	11/15/17 13:15	1

Method: 6010B - SPLP Metals - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.11		0.0075	0.0075	mg/L		11/13/17 07:23	11/13/17 19:59	1
Manganese	0.33		0.025	0.010	mg/L		11/13/17 07:23	11/13/17 19:59	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		11/14/17 15:47	11/16/17 11:45	1
Thallium	<0.0020		0.0020	0.0020	mg/L		11/14/17 15:47	11/16/17 11:45	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		11/14/17 15:15	11/16/17 12:17	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.029		0.017	0.0057	mg/Kg	☼	11/13/17 13:20	11/16/17 13:37	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.57		0.57	0.20	mg/Kg	☼	11/18/17 09:00	11/18/17 12:36	1
pH	8.1		0.20	0.20	SU			11/15/17 11:55	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136990-1

Client Sample ID: 2696V-68-B07 (0-5)

Lab Sample ID: 500-136990-8

Date Collected: 11/08/17 11:55

Matrix: Solid

Date Received: 11/08/17 16:30

Percent Solids: 80.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.018		0.018	0.0080	mg/Kg	☼	11/08/17 18:13	11/14/17 23:43	1
Benzene	<0.0018		0.0018	0.00047	mg/Kg	☼	11/08/17 18:13	11/14/17 23:43	1
Bromodichloromethane	<0.0018		0.0018	0.00037	mg/Kg	☼	11/08/17 18:13	11/14/17 23:43	1
Bromoform	<0.0018		0.0018	0.00053	mg/Kg	☼	11/08/17 18:13	11/14/17 23:43	1
Bromomethane	<0.0046		0.0046	0.0017	mg/Kg	☼	11/08/17 18:13	11/14/17 23:43	1
2-Butanone (MEK)	<0.0046		0.0046	0.0020	mg/Kg	☼	11/08/17 18:13	11/14/17 23:43	1
Carbon disulfide	<0.0046		0.0046	0.00095	mg/Kg	☼	11/08/17 18:13	11/14/17 23:43	1
Carbon tetrachloride	<0.0018		0.0018	0.00053	mg/Kg	☼	11/08/17 18:13	11/14/17 23:43	1
Chlorobenzene	<0.0018		0.0018	0.00068	mg/Kg	☼	11/08/17 18:13	11/14/17 23:43	1
Chloroethane	<0.0046		0.0046	0.0014	mg/Kg	☼	11/08/17 18:13	11/14/17 23:43	1
Chloroform	<0.0018		0.0018	0.00064	mg/Kg	☼	11/08/17 18:13	11/14/17 23:43	1
Chloromethane	<0.0046		0.0046	0.0018	mg/Kg	☼	11/08/17 18:13	11/14/17 23:43	1
cis-1,2-Dichloroethene	<0.0018		0.0018	0.00051	mg/Kg	☼	11/08/17 18:13	11/14/17 23:43	1
cis-1,3-Dichloropropene	<0.0018		0.0018	0.00055	mg/Kg	☼	11/08/17 18:13	11/14/17 23:43	1
Dibromochloromethane	<0.0018		0.0018	0.00060	mg/Kg	☼	11/08/17 18:13	11/14/17 23:43	1
1,1-Dichloroethane	<0.0018		0.0018	0.00063	mg/Kg	☼	11/08/17 18:13	11/14/17 23:43	1
1,2-Dichloroethane	<0.0046		0.0046	0.0014	mg/Kg	☼	11/08/17 18:13	11/14/17 23:43	1
1,1-Dichloroethene	<0.0018		0.0018	0.00063	mg/Kg	☼	11/08/17 18:13	11/14/17 23:43	1
1,2-Dichloropropane	<0.0018		0.0018	0.00047	mg/Kg	☼	11/08/17 18:13	11/14/17 23:43	1
1,3-Dichloropropane, Total	<0.0018		0.0018	0.00064	mg/Kg	☼	11/08/17 18:13	11/14/17 23:43	1
Ethylbenzene	<0.0018		0.0018	0.00088	mg/Kg	☼	11/08/17 18:13	11/14/17 23:43	1
2-Hexanone	<0.0046		0.0046	0.0014	mg/Kg	☼	11/08/17 18:13	11/14/17 23:43	1
Methylene Chloride	<0.0046		0.0046	0.0018	mg/Kg	☼	11/08/17 18:13	11/14/17 23:43	1
4-Methyl-2-pentanone (MIBK)	<0.0046		0.0046	0.0014	mg/Kg	☼	11/08/17 18:13	11/14/17 23:43	1
Methyl tert-butyl ether	<0.0018		0.0018	0.00054	mg/Kg	☼	11/08/17 18:13	11/14/17 23:43	1
Styrene	<0.0018		0.0018	0.00055	mg/Kg	☼	11/08/17 18:13	11/14/17 23:43	1
1,1,2,2-Tetrachloroethane	<0.0018		0.0018	0.00058	mg/Kg	☼	11/08/17 18:13	11/14/17 23:43	1
Tetrachloroethene	<0.0018		0.0018	0.00062	mg/Kg	☼	11/08/17 18:13	11/14/17 23:43	1
Toluene	<0.0018		0.0018	0.00046	mg/Kg	☼	11/08/17 18:13	11/14/17 23:43	1
trans-1,2-Dichloroethene	<0.0018		0.0018	0.00081	mg/Kg	☼	11/08/17 18:13	11/14/17 23:43	1
trans-1,3-Dichloropropene	<0.0018		0.0018	0.00064	mg/Kg	☼	11/08/17 18:13	11/14/17 23:43	1
1,1,1-Trichloroethane	<0.0018		0.0018	0.00061	mg/Kg	☼	11/08/17 18:13	11/14/17 23:43	1
1,1,2-Trichloroethane	<0.0018		0.0018	0.00079	mg/Kg	☼	11/08/17 18:13	11/14/17 23:43	1
Trichloroethene	<0.0018		0.0018	0.00062	mg/Kg	☼	11/08/17 18:13	11/14/17 23:43	1
Vinyl acetate	<0.0046		0.0046	0.0016	mg/Kg	☼	11/08/17 18:13	11/14/17 23:43	1
Vinyl chloride	<0.0018		0.0018	0.00081	mg/Kg	☼	11/08/17 18:13	11/14/17 23:43	1
Xylenes, Total	<0.0037		0.0037	0.00059	mg/Kg	☼	11/08/17 18:13	11/14/17 23:43	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	89		75 - 131	11/08/17 18:13	11/14/17 23:43	1
Dibromofluoromethane	104		75 - 126	11/08/17 18:13	11/14/17 23:43	1
1,2-Dichloroethane-d4 (Surr)	104		70 - 134	11/08/17 18:13	11/14/17 23:43	1
Toluene-d8 (Surr)	96		75 - 124	11/08/17 18:13	11/14/17 23:43	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.040		0.040	0.0072	mg/Kg	☼	11/14/17 17:23	11/16/17 18:51	1
Acenaphthylene	<0.040		0.040	0.0053	mg/Kg	☼	11/14/17 17:23	11/16/17 18:51	1
Anthracene	<0.040		0.040	0.0067	mg/Kg	☼	11/14/17 17:23	11/16/17 18:51	1
Benzo[a]anthracene	0.013	J	0.040	0.0054	mg/Kg	☼	11/14/17 17:23	11/16/17 18:51	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136990-1

Client Sample ID: 2696V-68-B07 (0-5)

Lab Sample ID: 500-136990-8

Date Collected: 11/08/17 11:55

Matrix: Solid

Date Received: 11/08/17 16:30

Percent Solids: 80.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	0.0078	J	0.040	0.0077	mg/Kg	☼	11/14/17 17:23	11/16/17 18:51	1
Benzo[b]fluoranthene	0.018	J	0.040	0.0086	mg/Kg	☼	11/14/17 17:23	11/16/17 18:51	1
Benzo[g,h,i]perylene	<0.040		0.040	0.013	mg/Kg	☼	11/14/17 17:23	11/16/17 18:51	1
Benzo[k]fluoranthene	<0.040		0.040	0.012	mg/Kg	☼	11/14/17 17:23	11/16/17 18:51	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.041	mg/Kg	☼	11/14/17 17:23	11/16/17 18:51	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.060	mg/Kg	☼	11/14/17 17:23	11/16/17 18:51	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.073	mg/Kg	☼	11/14/17 17:23	11/16/17 18:51	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.053	mg/Kg	☼	11/14/17 17:23	11/16/17 18:51	1
Butyl benzyl phthalate	<0.20		0.20	0.076	mg/Kg	☼	11/14/17 17:23	11/16/17 18:51	1
Carbazole	<0.20		0.20	0.10	mg/Kg	☼	11/14/17 17:23	11/16/17 18:51	1
4-Chloroaniline	<0.81		0.81	0.19	mg/Kg	☼	11/14/17 17:23	11/16/17 18:51	1
4-Chloro-3-methylphenol	<0.40		0.40	0.14	mg/Kg	☼	11/14/17 17:23	11/16/17 18:51	1
2-Chloronaphthalene	<0.20		0.20	0.044	mg/Kg	☼	11/14/17 17:23	11/16/17 18:51	1
2-Chlorophenol	<0.20		0.20	0.068	mg/Kg	☼	11/14/17 17:23	11/16/17 18:51	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.047	mg/Kg	☼	11/14/17 17:23	11/16/17 18:51	1
Chrysene	0.013	J	0.040	0.011	mg/Kg	☼	11/14/17 17:23	11/16/17 18:51	1
Dibenz(a,h)anthracene	<0.040		0.040	0.0077	mg/Kg	☼	11/14/17 17:23	11/16/17 18:51	1
Dibenzofuran	<0.20		0.20	0.047	mg/Kg	☼	11/14/17 17:23	11/16/17 18:51	1
1,2-Dichlorobenzene	<0.20		0.20	0.048	mg/Kg	☼	11/14/17 17:23	11/16/17 18:51	1
1,3-Dichlorobenzene	<0.20		0.20	0.045	mg/Kg	☼	11/14/17 17:23	11/16/17 18:51	1
1,4-Dichlorobenzene	<0.20		0.20	0.051	mg/Kg	☼	11/14/17 17:23	11/16/17 18:51	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.056	mg/Kg	☼	11/14/17 17:23	11/16/17 18:51	1
2,4-Dichlorophenol	<0.40		0.40	0.095	mg/Kg	☼	11/14/17 17:23	11/16/17 18:51	1
Diethyl phthalate	<0.20		0.20	0.068	mg/Kg	☼	11/14/17 17:23	11/16/17 18:51	1
2,4-Dimethylphenol	<0.40		0.40	0.15	mg/Kg	☼	11/14/17 17:23	11/16/17 18:51	1
Dimethyl phthalate	<0.20		0.20	0.052	mg/Kg	☼	11/14/17 17:23	11/16/17 18:51	1
Di-n-butyl phthalate	<0.20		0.20	0.061	mg/Kg	☼	11/14/17 17:23	11/16/17 18:51	1
4,6-Dinitro-2-methylphenol	<0.81		0.81	0.32	mg/Kg	☼	11/14/17 17:23	11/16/17 18:51	1
2,4-Dinitrophenol	<0.81		0.81	0.71	mg/Kg	☼	11/14/17 17:23	11/16/17 18:51	1
2,4-Dinitrotoluene	<0.20		0.20	0.064	mg/Kg	☼	11/14/17 17:23	11/16/17 18:51	1
2,6-Dinitrotoluene	<0.20		0.20	0.079	mg/Kg	☼	11/14/17 17:23	11/16/17 18:51	1
Di-n-octyl phthalate	<0.20		0.20	0.065	mg/Kg	☼	11/14/17 17:23	11/16/17 18:51	1
Fluoranthene	0.024	J	0.040	0.0074	mg/Kg	☼	11/14/17 17:23	11/16/17 18:51	1
Fluorene	<0.040		0.040	0.0056	mg/Kg	☼	11/14/17 17:23	11/16/17 18:51	1
Hexachlorobenzene	<0.081		0.081	0.0093	mg/Kg	☼	11/14/17 17:23	11/16/17 18:51	1
Hexachlorobutadiene	<0.20		0.20	0.063	mg/Kg	☼	11/14/17 17:23	11/16/17 18:51	1
Hexachlorocyclopentadiene	<0.81		0.81	0.23	mg/Kg	☼	11/14/17 17:23	11/16/17 18:51	1
Hexachloroethane	<0.20		0.20	0.061	mg/Kg	☼	11/14/17 17:23	11/16/17 18:51	1
Indeno[1,2,3-cd]pyrene	<0.040		0.040	0.010	mg/Kg	☼	11/14/17 17:23	11/16/17 18:51	1
Isophorone	<0.20		0.20	0.045	mg/Kg	☼	11/14/17 17:23	11/16/17 18:51	1
2-Methylnaphthalene	<0.081		0.081	0.0074	mg/Kg	☼	11/14/17 17:23	11/16/17 18:51	1
2-Methylphenol	<0.20		0.20	0.064	mg/Kg	☼	11/14/17 17:23	11/16/17 18:51	1
3 & 4 Methylphenol	<0.20		0.20	0.067	mg/Kg	☼	11/14/17 17:23	11/16/17 18:51	1
Naphthalene	<0.040		0.040	0.0062	mg/Kg	☼	11/14/17 17:23	11/16/17 18:51	1
2-Nitroaniline	<0.20		0.20	0.054	mg/Kg	☼	11/14/17 17:23	11/16/17 18:51	1
3-Nitroaniline	<0.40		0.40	0.12	mg/Kg	☼	11/14/17 17:23	11/16/17 18:51	1
4-Nitroaniline	<0.40		0.40	0.17	mg/Kg	☼	11/14/17 17:23	11/16/17 18:51	1
Nitrobenzene	<0.040		0.040	0.010	mg/Kg	☼	11/14/17 17:23	11/16/17 18:51	1
2-Nitrophenol	<0.40		0.40	0.095	mg/Kg	☼	11/14/17 17:23	11/16/17 18:51	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136990-1

Client Sample ID: 2696V-68-B07 (0-5)

Lab Sample ID: 500-136990-8

Date Collected: 11/08/17 11:55

Matrix: Solid

Date Received: 11/08/17 16:30

Percent Solids: 80.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Nitrophenol	<0.81		0.81	0.38	mg/Kg	☼	11/14/17 17:23	11/16/17 18:51	1
N-Nitrosodi-n-propylamine	<0.081		0.081	0.049	mg/Kg	☼	11/14/17 17:23	11/16/17 18:51	1
N-Nitrosodiphenylamine	<0.20		0.20	0.047	mg/Kg	☼	11/14/17 17:23	11/16/17 18:51	1
2,2'-oxybis[1-chloropropane]	<0.20	*	0.20	0.046	mg/Kg	☼	11/14/17 17:23	11/16/17 18:51	1
Pentachlorophenol	<0.81		0.81	0.64	mg/Kg	☼	11/14/17 17:23	11/16/17 18:51	1
Phenanthrene	<0.040		0.040	0.0056	mg/Kg	☼	11/14/17 17:23	11/16/17 18:51	1
Phenol	<0.20		0.20	0.089	mg/Kg	☼	11/14/17 17:23	11/16/17 18:51	1
Pyrene	0.023	J	0.040	0.0080	mg/Kg	☼	11/14/17 17:23	11/16/17 18:51	1
1,2,4-Trichlorobenzene	<0.20		0.20	0.043	mg/Kg	☼	11/14/17 17:23	11/16/17 18:51	1
2,4,5-Trichlorophenol	<0.40		0.40	0.091	mg/Kg	☼	11/14/17 17:23	11/16/17 18:51	1
2,4,6-Trichlorophenol	<0.40		0.40	0.14	mg/Kg	☼	11/14/17 17:23	11/16/17 18:51	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	114		44 - 121	11/14/17 17:23	11/16/17 18:51	1
2-Fluorophenol	111		46 - 133	11/14/17 17:23	11/16/17 18:51	1
Nitrobenzene-d5	97		41 - 120	11/14/17 17:23	11/16/17 18:51	1
Phenol-d5	97		46 - 125	11/14/17 17:23	11/16/17 18:51	1
Terphenyl-d14	106		35 - 160	11/14/17 17:23	11/16/17 18:51	1
2,4,6-Tribromophenol	138		25 - 139	11/14/17 17:23	11/16/17 18:51	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.23	J	1.0	0.19	mg/Kg	☼	11/10/17 07:34	11/10/17 18:21	1
Arsenic	7.1		0.50	0.17	mg/Kg	☼	11/10/17 07:34	11/10/17 18:21	1
Barium	33		0.50	0.057	mg/Kg	☼	11/10/17 07:34	11/10/17 18:21	1
Beryllium	0.54		0.20	0.047	mg/Kg	☼	11/10/17 07:34	11/10/17 18:21	1
Cadmium	0.14	B	0.10	0.018	mg/Kg	☼	11/10/17 07:34	11/10/17 18:21	1
Chromium	12		0.50	0.25	mg/Kg	☼	11/10/17 07:34	11/10/17 18:21	1
Cobalt	7.6		0.25	0.066	mg/Kg	☼	11/10/17 07:34	11/10/17 18:21	1
Copper	14		0.50	0.14	mg/Kg	☼	11/10/17 07:34	11/10/17 18:21	1
Iron	17000		10	5.2	mg/Kg	☼	11/10/17 07:34	11/10/17 18:21	1
Lead	23		0.25	0.12	mg/Kg	☼	11/10/17 07:34	11/10/17 18:21	1
Magnesium	12000		5.0	2.5	mg/Kg	☼	11/10/17 07:34	11/10/17 18:21	1
Calcium	20000	B	10	1.7	mg/Kg	☼	11/10/17 07:34	11/10/17 18:21	1
Manganese	180		0.50	0.073	mg/Kg	☼	11/10/17 07:34	11/10/17 18:21	1
Nickel	19		0.50	0.15	mg/Kg	☼	11/10/17 07:34	11/10/17 18:21	1
Selenium	0.66		0.50	0.29	mg/Kg	☼	11/10/17 07:34	11/10/17 18:21	1
Silver	<0.25		0.25	0.065	mg/Kg	☼	11/10/17 07:34	11/10/17 18:21	1
Thallium	<0.50		0.50	0.25	mg/Kg	☼	11/10/17 07:34	11/10/17 18:21	1
Vanadium	16		0.25	0.059	mg/Kg	☼	11/10/17 07:34	11/10/17 18:21	1
Zinc	54		1.0	0.44	mg/Kg	☼	11/10/17 07:34	11/10/17 18:21	1
Potassium	1700		25	8.9	mg/Kg	☼	11/10/17 07:34	11/10/17 18:21	1
Sodium	130		50	7.4	mg/Kg	☼	11/10/17 07:34	11/10/17 18:21	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.050		0.050	0.010	mg/L		11/14/17 15:47	11/15/17 13:19	1
Barium	0.29	J	0.50	0.050	mg/L		11/14/17 15:47	11/15/17 13:19	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		11/14/17 15:47	11/15/17 13:19	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		11/14/17 15:47	11/15/17 13:19	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136990-1

Client Sample ID: 2696V-68-B07 (0-5)

Lab Sample ID: 500-136990-8

Date Collected: 11/08/17 11:55

Matrix: Solid

Date Received: 11/08/17 16:30

Percent Solids: 80.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	310		5.0	0.50	mg/L		11/14/17 15:47	11/15/17 13:19	1
Chromium	<0.025		0.025	0.010	mg/L		11/14/17 15:47	11/15/17 13:19	1
Cobalt	<0.025		0.025	0.010	mg/L		11/14/17 15:47	11/15/17 13:19	1
Copper	0.022	J B	0.025	0.010	mg/L		11/14/17 15:47	11/15/17 13:19	1
Iron	<0.40		0.40	0.20	mg/L		11/14/17 15:47	11/15/17 13:19	1
Lead	<0.0075		0.0075	0.0075	mg/L		11/14/17 15:47	11/15/17 13:19	1
Magnesium	140		2.5	0.50	mg/L		11/14/17 15:47	11/15/17 13:19	1
Manganese	0.14		0.025	0.010	mg/L		11/14/17 15:47	11/15/17 13:19	1
Nickel	<0.025		0.025	0.010	mg/L		11/14/17 15:47	11/15/17 13:19	1
Potassium	1.7	J	2.5	0.50	mg/L		11/14/17 15:47	11/15/17 13:19	1
Selenium	<0.050		0.050	0.020	mg/L		11/14/17 15:47	11/15/17 13:19	1
Silver	<0.025		0.025	0.010	mg/L		11/14/17 15:47	11/15/17 13:19	1
Vanadium	<0.025		0.025	0.010	mg/L		11/14/17 15:47	11/15/17 13:19	1
Zinc	0.054	J	0.50	0.020	mg/L		11/14/17 15:47	11/15/17 13:19	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		11/14/17 15:47	11/16/17 12:01	1
Thallium	<0.0020		0.0020	0.0020	mg/L		11/14/17 15:47	11/16/17 12:01	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		11/14/17 15:15	11/16/17 12:18	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.028		0.020	0.0065	mg/Kg	☼	11/13/17 13:20	11/16/17 13:39	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.57		0.57	0.20	mg/Kg	☼	11/18/17 09:00	11/18/17 12:38	1
pH	8.1		0.20	0.20	SU			11/15/17 11:58	1

Client Sample Results

Client: Terracon Consulting Eng & Scientists
Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136990-1

Client Sample ID: 2696V-68-B07 (5-10)

Lab Sample ID: 500-136990-9

Date Collected: 11/08/17 12:00

Matrix: Solid

Date Received: 11/08/17 16:30

Percent Solids: 80.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	0.024		0.018	0.0077	mg/Kg	☼	11/08/17 18:13	11/15/17 00:08	1
Benzene	<0.0018		0.0018	0.00045	mg/Kg	☼	11/08/17 18:13	11/15/17 00:08	1
Bromodichloromethane	<0.0018		0.0018	0.00036	mg/Kg	☼	11/08/17 18:13	11/15/17 00:08	1
Bromoform	<0.0018		0.0018	0.00052	mg/Kg	☼	11/08/17 18:13	11/15/17 00:08	1
Bromomethane	<0.0044		0.0044	0.0017	mg/Kg	☼	11/08/17 18:13	11/15/17 00:08	1
2-Butanone (MEK)	<0.0044		0.0044	0.0020	mg/Kg	☼	11/08/17 18:13	11/15/17 00:08	1
Carbon disulfide	<0.0044		0.0044	0.00092	mg/Kg	☼	11/08/17 18:13	11/15/17 00:08	1
Carbon tetrachloride	<0.0018		0.0018	0.00051	mg/Kg	☼	11/08/17 18:13	11/15/17 00:08	1
Chlorobenzene	<0.0018		0.0018	0.00065	mg/Kg	☼	11/08/17 18:13	11/15/17 00:08	1
Chloroethane	<0.0044		0.0044	0.0013	mg/Kg	☼	11/08/17 18:13	11/15/17 00:08	1
Chloroform	<0.0018		0.0018	0.00062	mg/Kg	☼	11/08/17 18:13	11/15/17 00:08	1
Chloromethane	<0.0044		0.0044	0.0018	mg/Kg	☼	11/08/17 18:13	11/15/17 00:08	1
cis-1,2-Dichloroethene	<0.0018		0.0018	0.00050	mg/Kg	☼	11/08/17 18:13	11/15/17 00:08	1
cis-1,3-Dichloropropene	<0.0018		0.0018	0.00053	mg/Kg	☼	11/08/17 18:13	11/15/17 00:08	1
Dibromochloromethane	<0.0018		0.0018	0.00058	mg/Kg	☼	11/08/17 18:13	11/15/17 00:08	1
1,1-Dichloroethane	<0.0018		0.0018	0.00061	mg/Kg	☼	11/08/17 18:13	11/15/17 00:08	1
1,2-Dichloroethane	<0.0044		0.0044	0.0014	mg/Kg	☼	11/08/17 18:13	11/15/17 00:08	1
1,1-Dichloroethene	<0.0018		0.0018	0.00061	mg/Kg	☼	11/08/17 18:13	11/15/17 00:08	1
1,2-Dichloropropane	<0.0018		0.0018	0.00046	mg/Kg	☼	11/08/17 18:13	11/15/17 00:08	1
1,3-Dichloropropane, Total	<0.0018		0.0018	0.00062	mg/Kg	☼	11/08/17 18:13	11/15/17 00:08	1
Ethylbenzene	<0.0018		0.0018	0.00085	mg/Kg	☼	11/08/17 18:13	11/15/17 00:08	1
2-Hexanone	<0.0044		0.0044	0.0014	mg/Kg	☼	11/08/17 18:13	11/15/17 00:08	1
Methylene Chloride	<0.0044		0.0044	0.0017	mg/Kg	☼	11/08/17 18:13	11/15/17 00:08	1
4-Methyl-2-pentanone (MIBK)	<0.0044		0.0044	0.0013	mg/Kg	☼	11/08/17 18:13	11/15/17 00:08	1
Methyl tert-butyl ether	<0.0018		0.0018	0.00052	mg/Kg	☼	11/08/17 18:13	11/15/17 00:08	1
Styrene	<0.0018		0.0018	0.00054	mg/Kg	☼	11/08/17 18:13	11/15/17 00:08	1
1,1,2,2-Tetrachloroethane	<0.0018		0.0018	0.00057	mg/Kg	☼	11/08/17 18:13	11/15/17 00:08	1
Tetrachloroethene	<0.0018		0.0018	0.00060	mg/Kg	☼	11/08/17 18:13	11/15/17 00:08	1
Toluene	<0.0018		0.0018	0.00045	mg/Kg	☼	11/08/17 18:13	11/15/17 00:08	1
trans-1,2-Dichloroethene	<0.0018		0.0018	0.00079	mg/Kg	☼	11/08/17 18:13	11/15/17 00:08	1
trans-1,3-Dichloropropene	<0.0018		0.0018	0.00062	mg/Kg	☼	11/08/17 18:13	11/15/17 00:08	1
1,1,1-Trichloroethane	<0.0018		0.0018	0.00060	mg/Kg	☼	11/08/17 18:13	11/15/17 00:08	1
1,1,2-Trichloroethane	<0.0018		0.0018	0.00076	mg/Kg	☼	11/08/17 18:13	11/15/17 00:08	1
Trichloroethene	<0.0018		0.0018	0.00060	mg/Kg	☼	11/08/17 18:13	11/15/17 00:08	1
Vinyl acetate	<0.0044		0.0044	0.0015	mg/Kg	☼	11/08/17 18:13	11/15/17 00:08	1
Vinyl chloride	<0.0018		0.0018	0.00078	mg/Kg	☼	11/08/17 18:13	11/15/17 00:08	1
Xylenes, Total	<0.0035		0.0035	0.00057	mg/Kg	☼	11/08/17 18:13	11/15/17 00:08	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	103		75 - 131	11/08/17 18:13	11/15/17 00:08	1
Dibromofluoromethane	100		75 - 126	11/08/17 18:13	11/15/17 00:08	1
1,2-Dichloroethane-d4 (Surr)	96		70 - 134	11/08/17 18:13	11/15/17 00:08	1
Toluene-d8 (Surr)	96		75 - 124	11/08/17 18:13	11/15/17 00:08	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.039		0.039	0.0071	mg/Kg	☼	11/14/17 17:23	11/16/17 19:17	1
Acenaphthylene	<0.039		0.039	0.0052	mg/Kg	☼	11/14/17 17:23	11/16/17 19:17	1
Anthracene	<0.039		0.039	0.0066	mg/Kg	☼	11/14/17 17:23	11/16/17 19:17	1
Benzo[a]anthracene	0.010	J	0.039	0.0053	mg/Kg	☼	11/14/17 17:23	11/16/17 19:17	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136990-1

Client Sample ID: 2696V-68-B07 (5-10)

Lab Sample ID: 500-136990-9

Date Collected: 11/08/17 12:00

Matrix: Solid

Date Received: 11/08/17 16:30

Percent Solids: 80.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	0.011	J	0.039	0.0076	mg/Kg	☼	11/14/17 17:23	11/16/17 19:17	1
Benzo[b]fluoranthene	0.014	J	0.039	0.0085	mg/Kg	☼	11/14/17 17:23	11/16/17 19:17	1
Benzo[g,h,i]perylene	0.022	J	0.039	0.013	mg/Kg	☼	11/14/17 17:23	11/16/17 19:17	1
Benzo[k]fluoranthene	<0.039		0.039	0.012	mg/Kg	☼	11/14/17 17:23	11/16/17 19:17	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.040	mg/Kg	☼	11/14/17 17:23	11/16/17 19:17	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.059	mg/Kg	☼	11/14/17 17:23	11/16/17 19:17	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.072	mg/Kg	☼	11/14/17 17:23	11/16/17 19:17	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.052	mg/Kg	☼	11/14/17 17:23	11/16/17 19:17	1
Butyl benzyl phthalate	<0.20		0.20	0.075	mg/Kg	☼	11/14/17 17:23	11/16/17 19:17	1
Carbazole	<0.20		0.20	0.098	mg/Kg	☼	11/14/17 17:23	11/16/17 19:17	1
4-Chloroaniline	<0.79		0.79	0.18	mg/Kg	☼	11/14/17 17:23	11/16/17 19:17	1
4-Chloro-3-methylphenol	<0.39		0.39	0.13	mg/Kg	☼	11/14/17 17:23	11/16/17 19:17	1
2-Chloronaphthalene	<0.20		0.20	0.043	mg/Kg	☼	11/14/17 17:23	11/16/17 19:17	1
2-Chlorophenol	<0.20		0.20	0.067	mg/Kg	☼	11/14/17 17:23	11/16/17 19:17	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.046	mg/Kg	☼	11/14/17 17:23	11/16/17 19:17	1
Chrysene	0.018	J	0.039	0.011	mg/Kg	☼	11/14/17 17:23	11/16/17 19:17	1
Dibenz(a,h)anthracene	<0.039		0.039	0.0076	mg/Kg	☼	11/14/17 17:23	11/16/17 19:17	1
Dibenzofuran	<0.20		0.20	0.046	mg/Kg	☼	11/14/17 17:23	11/16/17 19:17	1
1,2-Dichlorobenzene	<0.20		0.20	0.047	mg/Kg	☼	11/14/17 17:23	11/16/17 19:17	1
1,3-Dichlorobenzene	<0.20		0.20	0.044	mg/Kg	☼	11/14/17 17:23	11/16/17 19:17	1
1,4-Dichlorobenzene	<0.20		0.20	0.050	mg/Kg	☼	11/14/17 17:23	11/16/17 19:17	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.055	mg/Kg	☼	11/14/17 17:23	11/16/17 19:17	1
2,4-Dichlorophenol	<0.39		0.39	0.093	mg/Kg	☼	11/14/17 17:23	11/16/17 19:17	1
Diethyl phthalate	<0.20		0.20	0.067	mg/Kg	☼	11/14/17 17:23	11/16/17 19:17	1
2,4-Dimethylphenol	<0.39		0.39	0.15	mg/Kg	☼	11/14/17 17:23	11/16/17 19:17	1
Dimethyl phthalate	<0.20		0.20	0.051	mg/Kg	☼	11/14/17 17:23	11/16/17 19:17	1
Di-n-butyl phthalate	<0.20		0.20	0.060	mg/Kg	☼	11/14/17 17:23	11/16/17 19:17	1
4,6-Dinitro-2-methylphenol	<0.79		0.79	0.32	mg/Kg	☼	11/14/17 17:23	11/16/17 19:17	1
2,4-Dinitrophenol	<0.79		0.79	0.69	mg/Kg	☼	11/14/17 17:23	11/16/17 19:17	1
2,4-Dinitrotoluene	<0.20		0.20	0.063	mg/Kg	☼	11/14/17 17:23	11/16/17 19:17	1
2,6-Dinitrotoluene	<0.20		0.20	0.077	mg/Kg	☼	11/14/17 17:23	11/16/17 19:17	1
Di-n-octyl phthalate	<0.20		0.20	0.064	mg/Kg	☼	11/14/17 17:23	11/16/17 19:17	1
Fluoranthene	0.018	J	0.039	0.0073	mg/Kg	☼	11/14/17 17:23	11/16/17 19:17	1
Fluorene	<0.039		0.039	0.0055	mg/Kg	☼	11/14/17 17:23	11/16/17 19:17	1
Hexachlorobenzene	<0.079		0.079	0.0091	mg/Kg	☼	11/14/17 17:23	11/16/17 19:17	1
Hexachlorobutadiene	<0.20		0.20	0.062	mg/Kg	☼	11/14/17 17:23	11/16/17 19:17	1
Hexachlorocyclopentadiene	<0.79		0.79	0.23	mg/Kg	☼	11/14/17 17:23	11/16/17 19:17	1
Hexachloroethane	<0.20		0.20	0.060	mg/Kg	☼	11/14/17 17:23	11/16/17 19:17	1
Indeno[1,2,3-cd]pyrene	<0.039		0.039	0.010	mg/Kg	☼	11/14/17 17:23	11/16/17 19:17	1
Isophorone	<0.20		0.20	0.044	mg/Kg	☼	11/14/17 17:23	11/16/17 19:17	1
2-Methylnaphthalene	0.016	J	0.079	0.0072	mg/Kg	☼	11/14/17 17:23	11/16/17 19:17	1
2-Methylphenol	<0.20		0.20	0.063	mg/Kg	☼	11/14/17 17:23	11/16/17 19:17	1
3 & 4 Methylphenol	<0.20		0.20	0.066	mg/Kg	☼	11/14/17 17:23	11/16/17 19:17	1
Naphthalene	0.020	J	0.039	0.0060	mg/Kg	☼	11/14/17 17:23	11/16/17 19:17	1
2-Nitroaniline	<0.20		0.20	0.053	mg/Kg	☼	11/14/17 17:23	11/16/17 19:17	1
3-Nitroaniline	<0.39		0.39	0.12	mg/Kg	☼	11/14/17 17:23	11/16/17 19:17	1
4-Nitroaniline	<0.39		0.39	0.16	mg/Kg	☼	11/14/17 17:23	11/16/17 19:17	1
Nitrobenzene	<0.039		0.039	0.0098	mg/Kg	☼	11/14/17 17:23	11/16/17 19:17	1
2-Nitrophenol	<0.39		0.39	0.093	mg/Kg	☼	11/14/17 17:23	11/16/17 19:17	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136990-1

Client Sample ID: 2696V-68-B07 (5-10)

Lab Sample ID: 500-136990-9

Date Collected: 11/08/17 12:00

Matrix: Solid

Date Received: 11/08/17 16:30

Percent Solids: 80.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Nitrophenol	<0.79		0.79	0.37	mg/Kg	☼	11/14/17 17:23	11/16/17 19:17	1
N-Nitrosodi-n-propylamine	<0.079		0.079	0.048	mg/Kg	☼	11/14/17 17:23	11/16/17 19:17	1
N-Nitrosodiphenylamine	<0.20		0.20	0.046	mg/Kg	☼	11/14/17 17:23	11/16/17 19:17	1
2,2'-oxybis[1-chloropropane]	<0.20	*	0.20	0.046	mg/Kg	☼	11/14/17 17:23	11/16/17 19:17	1
Pentachlorophenol	<0.79		0.79	0.63	mg/Kg	☼	11/14/17 17:23	11/16/17 19:17	1
Phenanthrene	0.016	J	0.039	0.0055	mg/Kg	☼	11/14/17 17:23	11/16/17 19:17	1
Phenol	<0.20		0.20	0.087	mg/Kg	☼	11/14/17 17:23	11/16/17 19:17	1
Pyrene	0.023	J	0.039	0.0078	mg/Kg	☼	11/14/17 17:23	11/16/17 19:17	1
1,2,4-Trichlorobenzene	<0.20		0.20	0.042	mg/Kg	☼	11/14/17 17:23	11/16/17 19:17	1
2,4,5-Trichlorophenol	<0.39		0.39	0.090	mg/Kg	☼	11/14/17 17:23	11/16/17 19:17	1
2,4,6-Trichlorophenol	<0.39		0.39	0.13	mg/Kg	☼	11/14/17 17:23	11/16/17 19:17	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	109		44 - 121				11/14/17 17:23	11/16/17 19:17	1
2-Fluorophenol	106		46 - 133				11/14/17 17:23	11/16/17 19:17	1
Nitrobenzene-d5	91		41 - 120				11/14/17 17:23	11/16/17 19:17	1
Phenol-d5	93		46 - 125				11/14/17 17:23	11/16/17 19:17	1
Terphenyl-d14	108		35 - 160				11/14/17 17:23	11/16/17 19:17	1
2,4,6-Tribromophenol	124		25 - 139				11/14/17 17:23	11/16/17 19:17	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.23	J	1.0	0.20	mg/Kg	☼	11/10/17 07:34	11/10/17 18:25	1
Arsenic	3.3		0.51	0.17	mg/Kg	☼	11/10/17 07:34	11/10/17 18:25	1
Barium	19		0.51	0.058	mg/Kg	☼	11/10/17 07:34	11/10/17 18:25	1
Beryllium	0.36		0.20	0.047	mg/Kg	☼	11/10/17 07:34	11/10/17 18:25	1
Cadmium	0.076	J B	0.10	0.018	mg/Kg	☼	11/10/17 07:34	11/10/17 18:25	1
Chromium	8.2		0.51	0.25	mg/Kg	☼	11/10/17 07:34	11/10/17 18:25	1
Cobalt	4.5		0.25	0.066	mg/Kg	☼	11/10/17 07:34	11/10/17 18:25	1
Copper	13		0.51	0.14	mg/Kg	☼	11/10/17 07:34	11/10/17 18:25	1
Iron	18000		10	5.3	mg/Kg	☼	11/10/17 07:34	11/10/17 18:25	1
Lead	7.3		0.25	0.12	mg/Kg	☼	11/10/17 07:34	11/10/17 18:25	1
Magnesium	31000		5.1	2.5	mg/Kg	☼	11/10/17 07:34	11/10/17 18:25	1
Calcium	110000	B	100	17	mg/Kg	☼	11/10/17 07:34	11/11/17 22:37	10
Manganese	240		0.51	0.073	mg/Kg	☼	11/10/17 07:34	11/10/17 18:25	1
Nickel	13		0.51	0.15	mg/Kg	☼	11/10/17 07:34	11/10/17 18:25	1
Selenium	0.52		0.51	0.30	mg/Kg	☼	11/10/17 07:34	11/10/17 18:25	1
Silver	<0.25		0.25	0.065	mg/Kg	☼	11/10/17 07:34	11/10/17 18:25	1
Thallium	<0.51		0.51	0.25	mg/Kg	☼	11/10/17 07:34	11/10/17 18:25	1
Vanadium	12		0.25	0.060	mg/Kg	☼	11/10/17 07:34	11/10/17 18:25	1
Zinc	33		1.0	0.44	mg/Kg	☼	11/10/17 07:34	11/10/17 18:25	1
Potassium	1100		25	9.0	mg/Kg	☼	11/10/17 07:34	11/10/17 18:25	1
Sodium	170		51	7.5	mg/Kg	☼	11/10/17 07:34	11/10/17 18:25	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.050		0.050	0.010	mg/L		11/14/17 15:47	11/15/17 13:23	1
Barium	0.34	J	0.50	0.050	mg/L		11/14/17 15:47	11/15/17 13:23	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		11/14/17 15:47	11/15/17 13:23	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		11/14/17 15:47	11/15/17 13:23	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136990-1

Client Sample ID: 2696V-68-B07 (5-10)

Lab Sample ID: 500-136990-9

Date Collected: 11/08/17 12:00

Matrix: Solid

Date Received: 11/08/17 16:30

Percent Solids: 80.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	710		50	5.0	mg/L		11/14/17 15:47	11/15/17 15:48	10
Chromium	<0.025		0.025	0.010	mg/L		11/14/17 15:47	11/15/17 13:23	1
Cobalt	<0.025		0.025	0.010	mg/L		11/14/17 15:47	11/15/17 13:23	1
Copper	0.021	J B	0.025	0.010	mg/L		11/14/17 15:47	11/15/17 13:23	1
Iron	<0.40		0.40	0.20	mg/L		11/14/17 15:47	11/15/17 13:23	1
Lead	<0.0075		0.0075	0.0075	mg/L		11/14/17 15:47	11/15/17 13:23	1
Magnesium	22		2.5	0.50	mg/L		11/14/17 15:47	11/15/17 13:23	1
Manganese	0.95		0.025	0.010	mg/L		11/14/17 15:47	11/15/17 13:23	1
Nickel	0.027		0.025	0.010	mg/L		11/14/17 15:47	11/15/17 13:23	1
Potassium	2.8		2.5	0.50	mg/L		11/14/17 15:47	11/15/17 13:23	1
Selenium	<0.050		0.050	0.020	mg/L		11/14/17 15:47	11/15/17 13:23	1
Silver	<0.025		0.025	0.010	mg/L		11/14/17 15:47	11/15/17 13:23	1
Vanadium	<0.025		0.025	0.010	mg/L		11/14/17 15:47	11/15/17 13:23	1
Zinc	0.054	J	0.50	0.020	mg/L		11/14/17 15:47	11/15/17 13:23	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		11/13/17 07:23	11/13/17 20:07	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		11/14/17 15:47	11/16/17 12:04	1
Thallium	<0.0020		0.0020	0.0020	mg/L		11/14/17 15:47	11/16/17 12:04	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		11/14/17 15:15	11/16/17 12:20	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.014	J	0.019	0.0063	mg/Kg	☼	11/13/17 13:20	11/16/17 13:42	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.61		0.61	0.21	mg/Kg	☼	11/18/17 09:00	11/18/17 12:38	1
pH	7.9		0.20	0.20	SU			11/15/17 12:00	1

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136990-1

Client Sample ID: 2696V-68-B07 (10-15)

Lab Sample ID: 500-136990-10

Date Collected: 11/08/17 12:05

Matrix: Solid

Date Received: 11/08/17 16:30

Percent Solids: 89.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	0.055		0.017	0.0073	mg/Kg	☼	11/08/17 18:13	11/15/17 00:33	1
Benzene	<0.0017		0.0017	0.00043	mg/Kg	☼	11/08/17 18:13	11/15/17 00:33	1
Bromodichloromethane	<0.0017		0.0017	0.00034	mg/Kg	☼	11/08/17 18:13	11/15/17 00:33	1
Bromoform	<0.0017		0.0017	0.00049	mg/Kg	☼	11/08/17 18:13	11/15/17 00:33	1
Bromomethane	<0.0042		0.0042	0.0016	mg/Kg	☼	11/08/17 18:13	11/15/17 00:33	1
2-Butanone (MEK)	<0.0042		0.0042	0.0019	mg/Kg	☼	11/08/17 18:13	11/15/17 00:33	1
Carbon disulfide	<0.0042		0.0042	0.00087	mg/Kg	☼	11/08/17 18:13	11/15/17 00:33	1
Carbon tetrachloride	<0.0017		0.0017	0.00048	mg/Kg	☼	11/08/17 18:13	11/15/17 00:33	1
Chlorobenzene	<0.0017		0.0017	0.00062	mg/Kg	☼	11/08/17 18:13	11/15/17 00:33	1
Chloroethane	<0.0042		0.0042	0.0012	mg/Kg	☼	11/08/17 18:13	11/15/17 00:33	1
Chloroform	<0.0017		0.0017	0.00058	mg/Kg	☼	11/08/17 18:13	11/15/17 00:33	1
Chloromethane	<0.0042		0.0042	0.0017	mg/Kg	☼	11/08/17 18:13	11/15/17 00:33	1
cis-1,2-Dichloroethene	<0.0017		0.0017	0.00047	mg/Kg	☼	11/08/17 18:13	11/15/17 00:33	1
cis-1,3-Dichloropropene	<0.0017		0.0017	0.00050	mg/Kg	☼	11/08/17 18:13	11/15/17 00:33	1
Dibromochloromethane	<0.0017		0.0017	0.00055	mg/Kg	☼	11/08/17 18:13	11/15/17 00:33	1
1,1-Dichloroethane	<0.0017		0.0017	0.00057	mg/Kg	☼	11/08/17 18:13	11/15/17 00:33	1
1,2-Dichloroethane	<0.0042		0.0042	0.0013	mg/Kg	☼	11/08/17 18:13	11/15/17 00:33	1
1,1-Dichloroethene	<0.0017		0.0017	0.00057	mg/Kg	☼	11/08/17 18:13	11/15/17 00:33	1
1,2-Dichloropropane	<0.0017		0.0017	0.00043	mg/Kg	☼	11/08/17 18:13	11/15/17 00:33	1
1,3-Dichloropropene, Total	<0.0017		0.0017	0.00059	mg/Kg	☼	11/08/17 18:13	11/15/17 00:33	1
Ethylbenzene	<0.0017		0.0017	0.00080	mg/Kg	☼	11/08/17 18:13	11/15/17 00:33	1
2-Hexanone	<0.0042		0.0042	0.0013	mg/Kg	☼	11/08/17 18:13	11/15/17 00:33	1
Methylene Chloride	<0.0042		0.0042	0.0016	mg/Kg	☼	11/08/17 18:13	11/15/17 00:33	1
4-Methyl-2-pentanone (MIBK)	<0.0042		0.0042	0.0012	mg/Kg	☼	11/08/17 18:13	11/15/17 00:33	1
Methyl tert-butyl ether	<0.0017		0.0017	0.00049	mg/Kg	☼	11/08/17 18:13	11/15/17 00:33	1
Styrene	<0.0017		0.0017	0.00050	mg/Kg	☼	11/08/17 18:13	11/15/17 00:33	1
1,1,1,2-Tetrachloroethane	<0.0017		0.0017	0.00053	mg/Kg	☼	11/08/17 18:13	11/15/17 00:33	1
Tetrachloroethene	<0.0017		0.0017	0.00057	mg/Kg	☼	11/08/17 18:13	11/15/17 00:33	1
Toluene	<0.0017		0.0017	0.00042	mg/Kg	☼	11/08/17 18:13	11/15/17 00:33	1
trans-1,2-Dichloroethene	<0.0017		0.0017	0.00074	mg/Kg	☼	11/08/17 18:13	11/15/17 00:33	1
trans-1,3-Dichloropropene	<0.0017		0.0017	0.00059	mg/Kg	☼	11/08/17 18:13	11/15/17 00:33	1
1,1,1-Trichloroethane	<0.0017		0.0017	0.00056	mg/Kg	☼	11/08/17 18:13	11/15/17 00:33	1
1,1,2-Trichloroethane	<0.0017		0.0017	0.00072	mg/Kg	☼	11/08/17 18:13	11/15/17 00:33	1
Trichloroethene	<0.0017		0.0017	0.00056	mg/Kg	☼	11/08/17 18:13	11/15/17 00:33	1
Vinyl acetate	<0.0042		0.0042	0.0015	mg/Kg	☼	11/08/17 18:13	11/15/17 00:33	1
Vinyl chloride	<0.0017		0.0017	0.00074	mg/Kg	☼	11/08/17 18:13	11/15/17 00:33	1
Xylenes, Total	<0.0033		0.0033	0.00053	mg/Kg	☼	11/08/17 18:13	11/15/17 00:33	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	95		75 - 131	11/08/17 18:13	11/15/17 00:33	1
Dibromofluoromethane	103		75 - 126	11/08/17 18:13	11/15/17 00:33	1
1,2-Dichloroethane-d4 (Surr)	95		70 - 134	11/08/17 18:13	11/15/17 00:33	1
Toluene-d8 (Surr)	99		75 - 124	11/08/17 18:13	11/15/17 00:33	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.036		0.036	0.0065	mg/Kg	☼	11/14/17 17:23	11/16/17 19:44	1
Acenaphthylene	<0.036		0.036	0.0048	mg/Kg	☼	11/14/17 17:23	11/16/17 19:44	1
Anthracene	<0.036		0.036	0.0060	mg/Kg	☼	11/14/17 17:23	11/16/17 19:44	1
Benzo[a]anthracene	<0.036		0.036	0.0049	mg/Kg	☼	11/14/17 17:23	11/16/17 19:44	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136990-1

Client Sample ID: 2696V-68-B07 (10-15)

Lab Sample ID: 500-136990-10

Date Collected: 11/08/17 12:05

Matrix: Solid

Date Received: 11/08/17 16:30

Percent Solids: 89.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	<0.036		0.036	0.0070	mg/Kg	☼	11/14/17 17:23	11/16/17 19:44	1
Benzo[b]fluoranthene	<0.036		0.036	0.0078	mg/Kg	☼	11/14/17 17:23	11/16/17 19:44	1
Benzo[g,h,i]perylene	<0.036		0.036	0.012	mg/Kg	☼	11/14/17 17:23	11/16/17 19:44	1
Benzo[k]fluoranthene	<0.036		0.036	0.011	mg/Kg	☼	11/14/17 17:23	11/16/17 19:44	1
Bis(2-chloroethoxy)methane	<0.18		0.18	0.037	mg/Kg	☼	11/14/17 17:23	11/16/17 19:44	1
Bis(2-chloroethyl)ether	<0.18		0.18	0.054	mg/Kg	☼	11/14/17 17:23	11/16/17 19:44	1
Bis(2-ethylhexyl) phthalate	<0.18		0.18	0.066	mg/Kg	☼	11/14/17 17:23	11/16/17 19:44	1
4-Bromophenyl phenyl ether	<0.18		0.18	0.048	mg/Kg	☼	11/14/17 17:23	11/16/17 19:44	1
Butyl benzyl phthalate	<0.18		0.18	0.069	mg/Kg	☼	11/14/17 17:23	11/16/17 19:44	1
Carbazole	<0.18		0.18	0.090	mg/Kg	☼	11/14/17 17:23	11/16/17 19:44	1
4-Chloroaniline	<0.73		0.73	0.17	mg/Kg	☼	11/14/17 17:23	11/16/17 19:44	1
4-Chloro-3-methylphenol	<0.36		0.36	0.12	mg/Kg	☼	11/14/17 17:23	11/16/17 19:44	1
2-Chloronaphthalene	<0.18		0.18	0.040	mg/Kg	☼	11/14/17 17:23	11/16/17 19:44	1
2-Chlorophenol	<0.18		0.18	0.062	mg/Kg	☼	11/14/17 17:23	11/16/17 19:44	1
4-Chlorophenyl phenyl ether	<0.18		0.18	0.042	mg/Kg	☼	11/14/17 17:23	11/16/17 19:44	1
Chrysene	0.021	J	0.036	0.0098	mg/Kg	☼	11/14/17 17:23	11/16/17 19:44	1
Dibenz(a,h)anthracene	<0.036		0.036	0.0070	mg/Kg	☼	11/14/17 17:23	11/16/17 19:44	1
Dibenzofuran	<0.18		0.18	0.042	mg/Kg	☼	11/14/17 17:23	11/16/17 19:44	1
1,2-Dichlorobenzene	<0.18		0.18	0.043	mg/Kg	☼	11/14/17 17:23	11/16/17 19:44	1
1,3-Dichlorobenzene	<0.18		0.18	0.041	mg/Kg	☼	11/14/17 17:23	11/16/17 19:44	1
1,4-Dichlorobenzene	<0.18		0.18	0.046	mg/Kg	☼	11/14/17 17:23	11/16/17 19:44	1
3,3'-Dichlorobenzidine	<0.18		0.18	0.050	mg/Kg	☼	11/14/17 17:23	11/16/17 19:44	1
2,4-Dichlorophenol	<0.36		0.36	0.086	mg/Kg	☼	11/14/17 17:23	11/16/17 19:44	1
Diethyl phthalate	<0.18		0.18	0.061	mg/Kg	☼	11/14/17 17:23	11/16/17 19:44	1
2,4-Dimethylphenol	<0.36		0.36	0.14	mg/Kg	☼	11/14/17 17:23	11/16/17 19:44	1
Dimethyl phthalate	<0.18		0.18	0.047	mg/Kg	☼	11/14/17 17:23	11/16/17 19:44	1
Di-n-butyl phthalate	<0.18		0.18	0.055	mg/Kg	☼	11/14/17 17:23	11/16/17 19:44	1
4,6-Dinitro-2-methylphenol	<0.73		0.73	0.29	mg/Kg	☼	11/14/17 17:23	11/16/17 19:44	1
2,4-Dinitrophenol	<0.73		0.73	0.64	mg/Kg	☼	11/14/17 17:23	11/16/17 19:44	1
2,4-Dinitrotoluene	<0.18		0.18	0.057	mg/Kg	☼	11/14/17 17:23	11/16/17 19:44	1
2,6-Dinitrotoluene	<0.18		0.18	0.071	mg/Kg	☼	11/14/17 17:23	11/16/17 19:44	1
Di-n-octyl phthalate	<0.18		0.18	0.059	mg/Kg	☼	11/14/17 17:23	11/16/17 19:44	1
Fluoranthene	<0.036		0.036	0.0067	mg/Kg	☼	11/14/17 17:23	11/16/17 19:44	1
Fluorene	<0.036		0.036	0.0051	mg/Kg	☼	11/14/17 17:23	11/16/17 19:44	1
Hexachlorobenzene	<0.073		0.073	0.0084	mg/Kg	☼	11/14/17 17:23	11/16/17 19:44	1
Hexachlorobutadiene	<0.18		0.18	0.057	mg/Kg	☼	11/14/17 17:23	11/16/17 19:44	1
Hexachlorocyclopentadiene	<0.73		0.73	0.21	mg/Kg	☼	11/14/17 17:23	11/16/17 19:44	1
Hexachloroethane	<0.18		0.18	0.055	mg/Kg	☼	11/14/17 17:23	11/16/17 19:44	1
Indeno[1,2,3-cd]pyrene	<0.036		0.036	0.0093	mg/Kg	☼	11/14/17 17:23	11/16/17 19:44	1
Isophorone	<0.18		0.18	0.040	mg/Kg	☼	11/14/17 17:23	11/16/17 19:44	1
2-Methylnaphthalene	0.016	J	0.073	0.0066	mg/Kg	☼	11/14/17 17:23	11/16/17 19:44	1
2-Methylphenol	<0.18		0.18	0.058	mg/Kg	☼	11/14/17 17:23	11/16/17 19:44	1
3 & 4 Methylphenol	<0.18		0.18	0.060	mg/Kg	☼	11/14/17 17:23	11/16/17 19:44	1
Naphthalene	<0.036		0.036	0.0055	mg/Kg	☼	11/14/17 17:23	11/16/17 19:44	1
2-Nitroaniline	<0.18		0.18	0.049	mg/Kg	☼	11/14/17 17:23	11/16/17 19:44	1
3-Nitroaniline	<0.36		0.36	0.11	mg/Kg	☼	11/14/17 17:23	11/16/17 19:44	1
4-Nitroaniline	<0.36		0.36	0.15	mg/Kg	☼	11/14/17 17:23	11/16/17 19:44	1
Nitrobenzene	<0.036		0.036	0.0090	mg/Kg	☼	11/14/17 17:23	11/16/17 19:44	1
2-Nitrophenol	<0.36		0.36	0.085	mg/Kg	☼	11/14/17 17:23	11/16/17 19:44	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136990-1

Client Sample ID: 2696V-68-B07 (10-15)

Lab Sample ID: 500-136990-10

Date Collected: 11/08/17 12:05

Matrix: Solid

Date Received: 11/08/17 16:30

Percent Solids: 89.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Nitrophenol	<0.73		0.73	0.34	mg/Kg	☼	11/14/17 17:23	11/16/17 19:44	1
N-Nitrosodi-n-propylamine	<0.073		0.073	0.044	mg/Kg	☼	11/14/17 17:23	11/16/17 19:44	1
N-Nitrosodiphenylamine	<0.18		0.18	0.043	mg/Kg	☼	11/14/17 17:23	11/16/17 19:44	1
2,2'-oxybis[1-chloropropane]	<0.18	*	0.18	0.042	mg/Kg	☼	11/14/17 17:23	11/16/17 19:44	1
Pentachlorophenol	<0.73		0.73	0.58	mg/Kg	☼	11/14/17 17:23	11/16/17 19:44	1
Phenanthrene	0.046		0.036	0.0050	mg/Kg	☼	11/14/17 17:23	11/16/17 19:44	1
Phenol	<0.18		0.18	0.080	mg/Kg	☼	11/14/17 17:23	11/16/17 19:44	1
Pyrene	<0.036		0.036	0.0072	mg/Kg	☼	11/14/17 17:23	11/16/17 19:44	1
1,2,4-Trichlorobenzene	<0.18		0.18	0.039	mg/Kg	☼	11/14/17 17:23	11/16/17 19:44	1
2,4,5-Trichlorophenol	<0.36		0.36	0.082	mg/Kg	☼	11/14/17 17:23	11/16/17 19:44	1
2,4,6-Trichlorophenol	<0.36		0.36	0.12	mg/Kg	☼	11/14/17 17:23	11/16/17 19:44	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	110		44 - 121	11/14/17 17:23	11/16/17 19:44	1
2-Fluorophenol	108		46 - 133	11/14/17 17:23	11/16/17 19:44	1
Nitrobenzene-d5	96		41 - 120	11/14/17 17:23	11/16/17 19:44	1
Phenol-d5	94		46 - 125	11/14/17 17:23	11/16/17 19:44	1
Terphenyl-d14	110		35 - 160	11/14/17 17:23	11/16/17 19:44	1
2,4,6-Tribromophenol	99		25 - 139	11/14/17 17:23	11/16/17 19:44	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.23	J	1.0	0.20	mg/Kg	☼	11/10/17 07:34	11/10/17 18:30	1
Arsenic	14		0.51	0.17	mg/Kg	☼	11/10/17 07:34	11/10/17 18:30	1
Barium	7.3		0.51	0.058	mg/Kg	☼	11/10/17 07:34	11/10/17 18:30	1
Beryllium	0.39		0.20	0.047	mg/Kg	☼	11/10/17 07:34	11/10/17 18:30	1
Cadmium	0.20	B	0.10	0.018	mg/Kg	☼	11/10/17 07:34	11/10/17 18:30	1
Chromium	6.2		0.51	0.25	mg/Kg	☼	11/10/17 07:34	11/10/17 18:30	1
Cobalt	9.3		0.25	0.066	mg/Kg	☼	11/10/17 07:34	11/10/17 18:30	1
Copper	24		0.51	0.14	mg/Kg	☼	11/10/17 07:34	11/10/17 18:30	1
Iron	19000		10	5.3	mg/Kg	☼	11/10/17 07:34	11/10/17 18:30	1
Lead	14		0.25	0.12	mg/Kg	☼	11/10/17 07:34	11/10/17 18:30	1
Magnesium	36000		5.1	2.5	mg/Kg	☼	11/10/17 07:34	11/10/17 18:30	1
Calcium	110000	B	100	17	mg/Kg	☼	11/10/17 07:34	11/11/17 22:41	10
Manganese	320		0.51	0.073	mg/Kg	☼	11/10/17 07:34	11/10/17 18:30	1
Nickel	23		0.51	0.15	mg/Kg	☼	11/10/17 07:34	11/10/17 18:30	1
Selenium	0.73		0.51	0.30	mg/Kg	☼	11/10/17 07:34	11/10/17 18:30	1
Silver	<0.25		0.25	0.065	mg/Kg	☼	11/10/17 07:34	11/10/17 18:30	1
Thallium	0.44	J	0.51	0.25	mg/Kg	☼	11/10/17 07:34	11/10/17 18:30	1
Vanadium	10		0.25	0.060	mg/Kg	☼	11/10/17 07:34	11/10/17 18:30	1
Zinc	45		1.0	0.44	mg/Kg	☼	11/10/17 07:34	11/10/17 18:30	1
Potassium	1500		25	9.0	mg/Kg	☼	11/10/17 07:34	11/10/17 18:30	1
Sodium	160		51	7.5	mg/Kg	☼	11/10/17 07:34	11/10/17 18:30	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.050		0.050	0.010	mg/L		11/14/17 15:47	11/15/17 13:41	1
Barium	0.12	J	0.50	0.050	mg/L		11/14/17 15:47	11/15/17 13:41	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		11/14/17 15:47	11/15/17 13:41	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		11/14/17 15:47	11/15/17 13:41	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136990-1

Client Sample ID: 2696V-68-B07 (10-15)

Lab Sample ID: 500-136990-10

Date Collected: 11/08/17 12:05

Matrix: Solid

Date Received: 11/08/17 16:30

Percent Solids: 89.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	360		5.0	0.50	mg/L		11/14/17 15:47	11/15/17 13:41	1
Chromium	<0.025		0.025	0.010	mg/L		11/14/17 15:47	11/15/17 13:41	1
Cobalt	0.026		0.025	0.010	mg/L		11/14/17 15:47	11/15/17 13:41	1
Copper	0.033	B	0.025	0.010	mg/L		11/14/17 15:47	11/15/17 13:41	1
Iron	<0.40		0.40	0.20	mg/L		11/14/17 15:47	11/15/17 13:41	1
Lead	<0.0075		0.0075	0.0075	mg/L		11/14/17 15:47	11/15/17 13:41	1
Magnesium	74		2.5	0.50	mg/L		11/14/17 15:47	11/15/17 13:41	1
Manganese	1.3		0.025	0.010	mg/L		11/14/17 15:47	11/15/17 13:41	1
Nickel	0.052		0.025	0.010	mg/L		11/14/17 15:47	11/15/17 13:41	1
Potassium	4.2		2.5	0.50	mg/L		11/14/17 15:47	11/15/17 13:41	1
Selenium	<0.050		0.050	0.020	mg/L		11/14/17 15:47	11/15/17 13:41	1
Silver	<0.025		0.025	0.010	mg/L		11/14/17 15:47	11/15/17 13:41	1
Vanadium	<0.025		0.025	0.010	mg/L		11/14/17 15:47	11/15/17 13:41	1
Zinc	0.067	J	0.50	0.020	mg/L		11/14/17 15:47	11/15/17 13:41	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		11/13/17 07:23	11/13/17 20:11	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		11/14/17 15:47	11/16/17 12:09	1
Thallium	<0.0020		0.0020	0.0020	mg/L		11/14/17 15:47	11/16/17 12:09	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		11/14/17 15:15	11/16/17 12:21	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.012	J	0.017	0.0057	mg/Kg	☼	11/13/17 13:20	11/16/17 13:44	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.43		0.43	0.15	mg/Kg	☼	11/18/17 09:00	11/18/17 12:39	1
pH	7.9		0.20	0.20	SU			11/15/17 12:02	1

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136990-1

Client Sample ID: 2696V-68-B07 (15-21)

Lab Sample ID: 500-136990-11

Date Collected: 11/08/17 12:10

Matrix: Solid

Date Received: 11/08/17 16:30

Percent Solids: 85.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	0.030		0.017	0.0073	mg/Kg	☼	11/08/17 18:13	11/15/17 00:58	1
Benzene	<0.0017		0.0017	0.00043	mg/Kg	☼	11/08/17 18:13	11/15/17 00:58	1
Bromodichloromethane	<0.0017		0.0017	0.00034	mg/Kg	☼	11/08/17 18:13	11/15/17 00:58	1
Bromoform	<0.0017		0.0017	0.00049	mg/Kg	☼	11/08/17 18:13	11/15/17 00:58	1
Bromomethane	<0.0042		0.0042	0.0016	mg/Kg	☼	11/08/17 18:13	11/15/17 00:58	1
2-Butanone (MEK)	<0.0042		0.0042	0.0019	mg/Kg	☼	11/08/17 18:13	11/15/17 00:58	1
Carbon disulfide	<0.0042		0.0042	0.00088	mg/Kg	☼	11/08/17 18:13	11/15/17 00:58	1
Carbon tetrachloride	<0.0017		0.0017	0.00049	mg/Kg	☼	11/08/17 18:13	11/15/17 00:58	1
Chlorobenzene	<0.0017		0.0017	0.00062	mg/Kg	☼	11/08/17 18:13	11/15/17 00:58	1
Chloroethane	<0.0042		0.0042	0.0012	mg/Kg	☼	11/08/17 18:13	11/15/17 00:58	1
Chloroform	<0.0017		0.0017	0.00058	mg/Kg	☼	11/08/17 18:13	11/15/17 00:58	1
Chloromethane	<0.0042		0.0042	0.0017	mg/Kg	☼	11/08/17 18:13	11/15/17 00:58	1
cis-1,2-Dichloroethene	<0.0017		0.0017	0.00047	mg/Kg	☼	11/08/17 18:13	11/15/17 00:58	1
cis-1,3-Dichloropropene	<0.0017		0.0017	0.00051	mg/Kg	☼	11/08/17 18:13	11/15/17 00:58	1
Dibromochloromethane	<0.0017		0.0017	0.00055	mg/Kg	☼	11/08/17 18:13	11/15/17 00:58	1
1,1-Dichloroethane	<0.0017		0.0017	0.00058	mg/Kg	☼	11/08/17 18:13	11/15/17 00:58	1
1,2-Dichloroethane	<0.0042		0.0042	0.0013	mg/Kg	☼	11/08/17 18:13	11/15/17 00:58	1
1,1-Dichloroethene	<0.0017		0.0017	0.00058	mg/Kg	☼	11/08/17 18:13	11/15/17 00:58	1
1,2-Dichloropropane	<0.0017		0.0017	0.00044	mg/Kg	☼	11/08/17 18:13	11/15/17 00:58	1
1,3-Dichloropropane, Total	<0.0017		0.0017	0.00059	mg/Kg	☼	11/08/17 18:13	11/15/17 00:58	1
Ethylbenzene	<0.0017		0.0017	0.00081	mg/Kg	☼	11/08/17 18:13	11/15/17 00:58	1
2-Hexanone	<0.0042		0.0042	0.0013	mg/Kg	☼	11/08/17 18:13	11/15/17 00:58	1
Methylene Chloride	<0.0042		0.0042	0.0017	mg/Kg	☼	11/08/17 18:13	11/15/17 00:58	1
4-Methyl-2-pentanone (MIBK)	<0.0042		0.0042	0.0012	mg/Kg	☼	11/08/17 18:13	11/15/17 00:58	1
Methyl tert-butyl ether	<0.0017		0.0017	0.00049	mg/Kg	☼	11/08/17 18:13	11/15/17 00:58	1
Styrene	<0.0017		0.0017	0.00051	mg/Kg	☼	11/08/17 18:13	11/15/17 00:58	1
1,1,2,2-Tetrachloroethane	<0.0017		0.0017	0.00054	mg/Kg	☼	11/08/17 18:13	11/15/17 00:58	1
Tetrachloroethene	<0.0017		0.0017	0.00057	mg/Kg	☼	11/08/17 18:13	11/15/17 00:58	1
Toluene	<0.0017		0.0017	0.00043	mg/Kg	☼	11/08/17 18:13	11/15/17 00:58	1
trans-1,2-Dichloroethene	<0.0017		0.0017	0.00075	mg/Kg	☼	11/08/17 18:13	11/15/17 00:58	1
trans-1,3-Dichloropropene	<0.0017		0.0017	0.00059	mg/Kg	☼	11/08/17 18:13	11/15/17 00:58	1
1,1,1-Trichloroethane	<0.0017		0.0017	0.00057	mg/Kg	☼	11/08/17 18:13	11/15/17 00:58	1
1,1,2-Trichloroethane	<0.0017		0.0017	0.00072	mg/Kg	☼	11/08/17 18:13	11/15/17 00:58	1
Trichloroethene	<0.0017		0.0017	0.00057	mg/Kg	☼	11/08/17 18:13	11/15/17 00:58	1
Vinyl acetate	<0.0042		0.0042	0.0015	mg/Kg	☼	11/08/17 18:13	11/15/17 00:58	1
Vinyl chloride	<0.0017		0.0017	0.00075	mg/Kg	☼	11/08/17 18:13	11/15/17 00:58	1
Xylenes, Total	<0.0034		0.0034	0.00054	mg/Kg	☼	11/08/17 18:13	11/15/17 00:58	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	96		75 - 131	11/08/17 18:13	11/15/17 00:58	1
Dibromofluoromethane	76		75 - 126	11/08/17 18:13	11/15/17 00:58	1
1,2-Dichloroethane-d4 (Surr)	88		70 - 134	11/08/17 18:13	11/15/17 00:58	1
Toluene-d8 (Surr)	98		75 - 124	11/08/17 18:13	11/15/17 00:58	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.038		0.038	0.0070	mg/Kg	☼	11/14/17 17:23	11/16/17 20:11	1
Acenaphthylene	<0.038		0.038	0.0051	mg/Kg	☼	11/14/17 17:23	11/16/17 20:11	1
Anthracene	<0.038		0.038	0.0065	mg/Kg	☼	11/14/17 17:23	11/16/17 20:11	1
Benzo[a]anthracene	0.0061	J	0.038	0.0052	mg/Kg	☼	11/14/17 17:23	11/16/17 20:11	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136990-1

Client Sample ID: 2696V-68-B07 (15-21)

Lab Sample ID: 500-136990-11

Date Collected: 11/08/17 12:10

Matrix: Solid

Date Received: 11/08/17 16:30

Percent Solids: 85.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	<0.038		0.038	0.0075	mg/Kg	☼	11/14/17 17:23	11/16/17 20:11	1
Benzo[b]fluoranthene	<0.038		0.038	0.0083	mg/Kg	☼	11/14/17 17:23	11/16/17 20:11	1
Benzo[g,h,i]perylene	<0.038		0.038	0.012	mg/Kg	☼	11/14/17 17:23	11/16/17 20:11	1
Benzo[k]fluoranthene	<0.038		0.038	0.011	mg/Kg	☼	11/14/17 17:23	11/16/17 20:11	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.039	mg/Kg	☼	11/14/17 17:23	11/16/17 20:11	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.058	mg/Kg	☼	11/14/17 17:23	11/16/17 20:11	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.071	mg/Kg	☼	11/14/17 17:23	11/16/17 20:11	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.051	mg/Kg	☼	11/14/17 17:23	11/16/17 20:11	1
Butyl benzyl phthalate	<0.19		0.19	0.074	mg/Kg	☼	11/14/17 17:23	11/16/17 20:11	1
Carbazole	<0.19		0.19	0.097	mg/Kg	☼	11/14/17 17:23	11/16/17 20:11	1
4-Chloroaniline	<0.78		0.78	0.18	mg/Kg	☼	11/14/17 17:23	11/16/17 20:11	1
4-Chloro-3-methylphenol	<0.38		0.38	0.13	mg/Kg	☼	11/14/17 17:23	11/16/17 20:11	1
2-Chloronaphthalene	<0.19		0.19	0.043	mg/Kg	☼	11/14/17 17:23	11/16/17 20:11	1
2-Chlorophenol	<0.19		0.19	0.066	mg/Kg	☼	11/14/17 17:23	11/16/17 20:11	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.045	mg/Kg	☼	11/14/17 17:23	11/16/17 20:11	1
Chrysene	0.035	J	0.038	0.011	mg/Kg	☼	11/14/17 17:23	11/16/17 20:11	1
Dibenz(a,h)anthracene	<0.038		0.038	0.0075	mg/Kg	☼	11/14/17 17:23	11/16/17 20:11	1
Dibenzofuran	<0.19		0.19	0.045	mg/Kg	☼	11/14/17 17:23	11/16/17 20:11	1
1,2-Dichlorobenzene	<0.19		0.19	0.046	mg/Kg	☼	11/14/17 17:23	11/16/17 20:11	1
1,3-Dichlorobenzene	<0.19		0.19	0.044	mg/Kg	☼	11/14/17 17:23	11/16/17 20:11	1
1,4-Dichlorobenzene	<0.19		0.19	0.050	mg/Kg	☼	11/14/17 17:23	11/16/17 20:11	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.054	mg/Kg	☼	11/14/17 17:23	11/16/17 20:11	1
2,4-Dichlorophenol	<0.38		0.38	0.092	mg/Kg	☼	11/14/17 17:23	11/16/17 20:11	1
Diethyl phthalate	<0.19		0.19	0.066	mg/Kg	☼	11/14/17 17:23	11/16/17 20:11	1
2,4-Dimethylphenol	<0.38		0.38	0.15	mg/Kg	☼	11/14/17 17:23	11/16/17 20:11	1
Dimethyl phthalate	<0.19		0.19	0.051	mg/Kg	☼	11/14/17 17:23	11/16/17 20:11	1
Di-n-butyl phthalate	<0.19		0.19	0.059	mg/Kg	☼	11/14/17 17:23	11/16/17 20:11	1
4,6-Dinitro-2-methylphenol	<0.78		0.78	0.31	mg/Kg	☼	11/14/17 17:23	11/16/17 20:11	1
2,4-Dinitrophenol	<0.78		0.78	0.68	mg/Kg	☼	11/14/17 17:23	11/16/17 20:11	1
2,4-Dinitrotoluene	<0.19		0.19	0.061	mg/Kg	☼	11/14/17 17:23	11/16/17 20:11	1
2,6-Dinitrotoluene	<0.19		0.19	0.076	mg/Kg	☼	11/14/17 17:23	11/16/17 20:11	1
Di-n-octyl phthalate	<0.19		0.19	0.063	mg/Kg	☼	11/14/17 17:23	11/16/17 20:11	1
Fluoranthene	0.012	J	0.038	0.0072	mg/Kg	☼	11/14/17 17:23	11/16/17 20:11	1
Fluorene	<0.038		0.038	0.0054	mg/Kg	☼	11/14/17 17:23	11/16/17 20:11	1
Hexachlorobenzene	<0.078		0.078	0.0090	mg/Kg	☼	11/14/17 17:23	11/16/17 20:11	1
Hexachlorobutadiene	<0.19		0.19	0.061	mg/Kg	☼	11/14/17 17:23	11/16/17 20:11	1
Hexachlorocyclopentadiene	<0.78		0.78	0.22	mg/Kg	☼	11/14/17 17:23	11/16/17 20:11	1
Hexachloroethane	<0.19		0.19	0.059	mg/Kg	☼	11/14/17 17:23	11/16/17 20:11	1
Indeno[1,2,3-cd]pyrene	<0.038		0.038	0.010	mg/Kg	☼	11/14/17 17:23	11/16/17 20:11	1
Isophorone	<0.19		0.19	0.043	mg/Kg	☼	11/14/17 17:23	11/16/17 20:11	1
2-Methylnaphthalene	0.028	J	0.078	0.0071	mg/Kg	☼	11/14/17 17:23	11/16/17 20:11	1
2-Methylphenol	<0.19		0.19	0.062	mg/Kg	☼	11/14/17 17:23	11/16/17 20:11	1
3 & 4 Methylphenol	<0.19		0.19	0.065	mg/Kg	☼	11/14/17 17:23	11/16/17 20:11	1
Naphthalene	<0.038		0.038	0.0060	mg/Kg	☼	11/14/17 17:23	11/16/17 20:11	1
2-Nitroaniline	<0.19		0.19	0.052	mg/Kg	☼	11/14/17 17:23	11/16/17 20:11	1
3-Nitroaniline	<0.38		0.38	0.12	mg/Kg	☼	11/14/17 17:23	11/16/17 20:11	1
4-Nitroaniline	<0.38		0.38	0.16	mg/Kg	☼	11/14/17 17:23	11/16/17 20:11	1
Nitrobenzene	<0.038		0.038	0.0097	mg/Kg	☼	11/14/17 17:23	11/16/17 20:11	1
2-Nitrophenol	<0.38		0.38	0.091	mg/Kg	☼	11/14/17 17:23	11/16/17 20:11	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136990-1

Client Sample ID: 2696V-68-B07 (15-21)

Lab Sample ID: 500-136990-11

Date Collected: 11/08/17 12:10

Matrix: Solid

Date Received: 11/08/17 16:30

Percent Solids: 85.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Nitrophenol	<0.78		0.78	0.37	mg/Kg	☼	11/14/17 17:23	11/16/17 20:11	1
N-Nitrosodi-n-propylamine	<0.078		0.078	0.047	mg/Kg	☼	11/14/17 17:23	11/16/17 20:11	1
N-Nitrosodiphenylamine	<0.19		0.19	0.046	mg/Kg	☼	11/14/17 17:23	11/16/17 20:11	1
2,2'-oxybis[1-chloropropane]	<0.19	*	0.19	0.045	mg/Kg	☼	11/14/17 17:23	11/16/17 20:11	1
Pentachlorophenol	<0.78		0.78	0.62	mg/Kg	☼	11/14/17 17:23	11/16/17 20:11	1
Phenanthrene	0.063		0.038	0.0054	mg/Kg	☼	11/14/17 17:23	11/16/17 20:11	1
Phenol	<0.19		0.19	0.086	mg/Kg	☼	11/14/17 17:23	11/16/17 20:11	1
Pyrene	0.035	J	0.038	0.0077	mg/Kg	☼	11/14/17 17:23	11/16/17 20:11	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.042	mg/Kg	☼	11/14/17 17:23	11/16/17 20:11	1
2,4,5-Trichlorophenol	<0.38		0.38	0.088	mg/Kg	☼	11/14/17 17:23	11/16/17 20:11	1
2,4,6-Trichlorophenol	<0.38		0.38	0.13	mg/Kg	☼	11/14/17 17:23	11/16/17 20:11	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	133	X	44 - 121	11/14/17 17:23	11/16/17 20:11	1
2-Fluorophenol	123		46 - 133	11/14/17 17:23	11/16/17 20:11	1
Nitrobenzene-d5	114		41 - 120	11/14/17 17:23	11/16/17 20:11	1
Phenol-d5	110		46 - 125	11/14/17 17:23	11/16/17 20:11	1
Terphenyl-d14	137		35 - 160	11/14/17 17:23	11/16/17 20:11	1
2,4,6-Tribromophenol	143	X	25 - 139	11/14/17 17:23	11/16/17 20:11	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	☼	11/10/17 07:34	11/10/17 18:34	1
Arsenic	9.0		0.56	0.19	mg/Kg	☼	11/10/17 07:34	11/10/17 18:34	1
Barium	7.3		0.56	0.064	mg/Kg	☼	11/10/17 07:34	11/10/17 18:34	1
Beryllium	0.33		0.22	0.052	mg/Kg	☼	11/10/17 07:34	11/10/17 18:34	1
Cadmium	0.23	B	0.11	0.020	mg/Kg	☼	11/10/17 07:34	11/10/17 18:34	1
Chromium	6.2		0.56	0.28	mg/Kg	☼	11/10/17 07:34	11/10/17 18:34	1
Cobalt	7.3		0.28	0.073	mg/Kg	☼	11/10/17 07:34	11/10/17 18:34	1
Copper	24		0.56	0.16	mg/Kg	☼	11/10/17 07:34	11/10/17 18:34	1
Iron	13000		11	5.8	mg/Kg	☼	11/10/17 07:34	11/10/17 18:34	1
Lead	12		0.28	0.13	mg/Kg	☼	11/10/17 07:34	11/10/17 18:34	1
Magnesium	26000		5.6	2.8	mg/Kg	☼	11/10/17 07:34	11/10/17 18:34	1
Calcium	78000	B	110	19	mg/Kg	☼	11/10/17 07:34	11/11/17 22:45	10
Manganese	280		0.56	0.081	mg/Kg	☼	11/10/17 07:34	11/10/17 18:34	1
Nickel	20		0.56	0.16	mg/Kg	☼	11/10/17 07:34	11/10/17 18:34	1
Selenium	0.46	J	0.56	0.33	mg/Kg	☼	11/10/17 07:34	11/10/17 18:34	1
Silver	<0.28		0.28	0.072	mg/Kg	☼	11/10/17 07:34	11/10/17 18:34	1
Thallium	<0.56		0.56	0.28	mg/Kg	☼	11/10/17 07:34	11/10/17 18:34	1
Vanadium	9.1		0.28	0.066	mg/Kg	☼	11/10/17 07:34	11/10/17 18:34	1
Zinc	49		1.1	0.49	mg/Kg	☼	11/10/17 07:34	11/10/17 18:34	1
Potassium	1300		28	9.9	mg/Kg	☼	11/10/17 07:34	11/10/17 18:34	1
Sodium	160		56	8.2	mg/Kg	☼	11/10/17 07:34	11/10/17 18:34	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.050		0.050	0.010	mg/L		11/14/17 15:47	11/15/17 13:45	1
Barium	0.30	J	0.50	0.050	mg/L		11/14/17 15:47	11/15/17 13:45	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		11/14/17 15:47	11/15/17 13:45	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		11/14/17 15:47	11/15/17 13:45	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136990-1

Client Sample ID: 2696V-68-B07 (15-21)

Lab Sample ID: 500-136990-11

Date Collected: 11/08/17 12:10

Matrix: Solid

Date Received: 11/08/17 16:30

Percent Solids: 85.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	440		5.0	0.50	mg/L		11/14/17 15:47	11/15/17 13:45	1
Chromium	<0.025		0.025	0.010	mg/L		11/14/17 15:47	11/15/17 13:45	1
Cobalt	0.017	J	0.025	0.010	mg/L		11/14/17 15:47	11/15/17 13:45	1
Copper	0.034	B	0.025	0.010	mg/L		11/14/17 15:47	11/15/17 13:45	1
Iron	<0.40		0.40	0.20	mg/L		11/14/17 15:47	11/15/17 13:45	1
Lead	<0.0075		0.0075	0.0075	mg/L		11/14/17 15:47	11/15/17 13:45	1
Magnesium	37		2.5	0.50	mg/L		11/14/17 15:47	11/15/17 13:45	1
Manganese	1.3		0.025	0.010	mg/L		11/14/17 15:47	11/15/17 13:45	1
Nickel	0.036		0.025	0.010	mg/L		11/14/17 15:47	11/15/17 13:45	1
Potassium	3.9		2.5	0.50	mg/L		11/14/17 15:47	11/15/17 13:45	1
Selenium	<0.050		0.050	0.020	mg/L		11/14/17 15:47	11/15/17 13:45	1
Silver	<0.025		0.025	0.010	mg/L		11/14/17 15:47	11/15/17 13:45	1
Vanadium	<0.025		0.025	0.010	mg/L		11/14/17 15:47	11/15/17 13:45	1
Zinc	0.077	J	0.50	0.020	mg/L		11/14/17 15:47	11/15/17 13:45	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.015	J	0.025	0.010	mg/L		11/13/17 07:23	11/13/17 20:15	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		11/14/17 15:47	11/16/17 12:13	1
Thallium	<0.0020		0.0020	0.0020	mg/L		11/14/17 15:47	11/16/17 12:13	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		11/14/17 15:15	11/16/17 12:23	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.012	J	0.019	0.0064	mg/Kg	☼	11/13/17 13:20	11/16/17 13:46	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.57		0.57	0.20	mg/Kg	☼	11/18/17 09:00	11/18/17 12:39	1
pH	7.9		0.20	0.20	SU			11/15/17 12:04	1

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136990-1

Client Sample ID: 2696V-68-B08 (0-5)

Lab Sample ID: 500-136990-12

Date Collected: 11/08/17 13:20

Matrix: Solid

Date Received: 11/08/17 16:30

Percent Solids: 85.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	0.085		0.016	0.0070	mg/Kg	☼	11/08/17 18:13	11/15/17 01:23	1
Benzene	0.0018		0.0016	0.00041	mg/Kg	☼	11/08/17 18:13	11/15/17 01:23	1
Bromodichloromethane	<0.0016		0.0016	0.00033	mg/Kg	☼	11/08/17 18:13	11/15/17 01:23	1
Bromoform	<0.0016		0.0016	0.00047	mg/Kg	☼	11/08/17 18:13	11/15/17 01:23	1
Bromomethane	<0.0040		0.0040	0.0015	mg/Kg	☼	11/08/17 18:13	11/15/17 01:23	1
2-Butanone (MEK)	<0.0040		0.0040	0.0018	mg/Kg	☼	11/08/17 18:13	11/15/17 01:23	1
Carbon disulfide	<0.0040		0.0040	0.00084	mg/Kg	☼	11/08/17 18:13	11/15/17 01:23	1
Carbon tetrachloride	<0.0016		0.0016	0.00047	mg/Kg	☼	11/08/17 18:13	11/15/17 01:23	1
Chlorobenzene	<0.0016		0.0016	0.00059	mg/Kg	☼	11/08/17 18:13	11/15/17 01:23	1
Chloroethane	<0.0040		0.0040	0.0012	mg/Kg	☼	11/08/17 18:13	11/15/17 01:23	1
Chloroform	<0.0016		0.0016	0.00056	mg/Kg	☼	11/08/17 18:13	11/15/17 01:23	1
Chloromethane	<0.0040		0.0040	0.0016	mg/Kg	☼	11/08/17 18:13	11/15/17 01:23	1
cis-1,2-Dichloroethene	<0.0016		0.0016	0.00045	mg/Kg	☼	11/08/17 18:13	11/15/17 01:23	1
cis-1,3-Dichloropropene	<0.0016		0.0016	0.00049	mg/Kg	☼	11/08/17 18:13	11/15/17 01:23	1
Dibromochloromethane	<0.0016		0.0016	0.00053	mg/Kg	☼	11/08/17 18:13	11/15/17 01:23	1
1,1-Dichloroethane	<0.0016		0.0016	0.00055	mg/Kg	☼	11/08/17 18:13	11/15/17 01:23	1
1,2-Dichloroethane	<0.0040		0.0040	0.0013	mg/Kg	☼	11/08/17 18:13	11/15/17 01:23	1
1,1-Dichloroethene	<0.0016		0.0016	0.00055	mg/Kg	☼	11/08/17 18:13	11/15/17 01:23	1
1,2-Dichloropropane	<0.0016		0.0016	0.00042	mg/Kg	☼	11/08/17 18:13	11/15/17 01:23	1
1,3-Dichloropropane, Total	<0.0016		0.0016	0.00057	mg/Kg	☼	11/08/17 18:13	11/15/17 01:23	1
Ethylbenzene	<0.0016		0.0016	0.00077	mg/Kg	☼	11/08/17 18:13	11/15/17 01:23	1
2-Hexanone	<0.0040		0.0040	0.0013	mg/Kg	☼	11/08/17 18:13	11/15/17 01:23	1
Methylene Chloride	<0.0040		0.0040	0.0016	mg/Kg	☼	11/08/17 18:13	11/15/17 01:23	1
4-Methyl-2-pentanone (MIBK)	<0.0040		0.0040	0.0012	mg/Kg	☼	11/08/17 18:13	11/15/17 01:23	1
Methyl tert-butyl ether	<0.0016		0.0016	0.00047	mg/Kg	☼	11/08/17 18:13	11/15/17 01:23	1
Styrene	<0.0016		0.0016	0.00049	mg/Kg	☼	11/08/17 18:13	11/15/17 01:23	1
1,1,2,2-Tetrachloroethane	<0.0016		0.0016	0.00052	mg/Kg	☼	11/08/17 18:13	11/15/17 01:23	1
Tetrachloroethene	<0.0016		0.0016	0.00055	mg/Kg	☼	11/08/17 18:13	11/15/17 01:23	1
Toluene	<0.0016		0.0016	0.00041	mg/Kg	☼	11/08/17 18:13	11/15/17 01:23	1
trans-1,2-Dichloroethene	<0.0016		0.0016	0.00071	mg/Kg	☼	11/08/17 18:13	11/15/17 01:23	1
trans-1,3-Dichloropropene	<0.0016		0.0016	0.00057	mg/Kg	☼	11/08/17 18:13	11/15/17 01:23	1
1,1,1-Trichloroethane	<0.0016		0.0016	0.00054	mg/Kg	☼	11/08/17 18:13	11/15/17 01:23	1
1,1,2-Trichloroethane	<0.0016		0.0016	0.00069	mg/Kg	☼	11/08/17 18:13	11/15/17 01:23	1
Trichloroethene	<0.0016		0.0016	0.00054	mg/Kg	☼	11/08/17 18:13	11/15/17 01:23	1
Vinyl acetate	<0.0040		0.0040	0.0014	mg/Kg	☼	11/08/17 18:13	11/15/17 01:23	1
Vinyl chloride	<0.0016		0.0016	0.00071	mg/Kg	☼	11/08/17 18:13	11/15/17 01:23	1
Xylenes, Total	<0.0032		0.0032	0.00052	mg/Kg	☼	11/08/17 18:13	11/15/17 01:23	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	91		75 - 131	11/08/17 18:13	11/15/17 01:23	1
Dibromofluoromethane	101		75 - 126	11/08/17 18:13	11/15/17 01:23	1
1,2-Dichloroethane-d4 (Surr)	100		70 - 134	11/08/17 18:13	11/15/17 01:23	1
Toluene-d8 (Surr)	99		75 - 124	11/08/17 18:13	11/15/17 01:23	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.038		0.038	0.0069	mg/Kg	☼	11/14/17 17:23	11/16/17 17:31	1
Acenaphthylene	<0.038		0.038	0.0051	mg/Kg	☼	11/14/17 17:23	11/16/17 17:31	1
Anthracene	<0.038		0.038	0.0064	mg/Kg	☼	11/14/17 17:23	11/16/17 17:31	1
Benzo[a]anthracene	0.0060	J	0.038	0.0052	mg/Kg	☼	11/14/17 17:23	11/16/17 17:31	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136990-1

Client Sample ID: 2696V-68-B08 (0-5)

Lab Sample ID: 500-136990-12

Date Collected: 11/08/17 13:20

Matrix: Solid

Date Received: 11/08/17 16:30

Percent Solids: 85.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	<0.038		0.038	0.0075	mg/Kg	☼	11/14/17 17:23	11/16/17 17:31	1
Benzo[b]fluoranthene	0.0096	J	0.038	0.0083	mg/Kg	☼	11/14/17 17:23	11/16/17 17:31	1
Benzo[g,h,i]perylene	<0.038		0.038	0.012	mg/Kg	☼	11/14/17 17:23	11/16/17 17:31	1
Benzo[k]fluoranthene	<0.038		0.038	0.011	mg/Kg	☼	11/14/17 17:23	11/16/17 17:31	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.039	mg/Kg	☼	11/14/17 17:23	11/16/17 17:31	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.058	mg/Kg	☼	11/14/17 17:23	11/16/17 17:31	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.070	mg/Kg	☼	11/14/17 17:23	11/16/17 17:31	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.051	mg/Kg	☼	11/14/17 17:23	11/16/17 17:31	1
Butyl benzyl phthalate	<0.19		0.19	0.073	mg/Kg	☼	11/14/17 17:23	11/16/17 17:31	1
Carbazole	<0.19		0.19	0.096	mg/Kg	☼	11/14/17 17:23	11/16/17 17:31	1
4-Chloroaniline	<0.78		0.78	0.18	mg/Kg	☼	11/14/17 17:23	11/16/17 17:31	1
4-Chloro-3-methylphenol	<0.38		0.38	0.13	mg/Kg	☼	11/14/17 17:23	11/16/17 17:31	1
2-Chloronaphthalene	<0.19		0.19	0.043	mg/Kg	☼	11/14/17 17:23	11/16/17 17:31	1
2-Chlorophenol	<0.19		0.19	0.066	mg/Kg	☼	11/14/17 17:23	11/16/17 17:31	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.045	mg/Kg	☼	11/14/17 17:23	11/16/17 17:31	1
Chrysene	<0.038		0.038	0.011	mg/Kg	☼	11/14/17 17:23	11/16/17 17:31	1
Dibenz(a,h)anthracene	<0.038		0.038	0.0074	mg/Kg	☼	11/14/17 17:23	11/16/17 17:31	1
Dibenzofuran	<0.19		0.19	0.045	mg/Kg	☼	11/14/17 17:23	11/16/17 17:31	1
1,2-Dichlorobenzene	<0.19		0.19	0.046	mg/Kg	☼	11/14/17 17:23	11/16/17 17:31	1
1,3-Dichlorobenzene	<0.19		0.19	0.043	mg/Kg	☼	11/14/17 17:23	11/16/17 17:31	1
1,4-Dichlorobenzene	<0.19		0.19	0.049	mg/Kg	☼	11/14/17 17:23	11/16/17 17:31	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.054	mg/Kg	☼	11/14/17 17:23	11/16/17 17:31	1
2,4-Dichlorophenol	<0.38		0.38	0.091	mg/Kg	☼	11/14/17 17:23	11/16/17 17:31	1
Diethyl phthalate	<0.19		0.19	0.065	mg/Kg	☼	11/14/17 17:23	11/16/17 17:31	1
2,4-Dimethylphenol	<0.38		0.38	0.15	mg/Kg	☼	11/14/17 17:23	11/16/17 17:31	1
Dimethyl phthalate	<0.19		0.19	0.050	mg/Kg	☼	11/14/17 17:23	11/16/17 17:31	1
Di-n-butyl phthalate	<0.19		0.19	0.059	mg/Kg	☼	11/14/17 17:23	11/16/17 17:31	1
4,6-Dinitro-2-methylphenol	<0.78		0.78	0.31	mg/Kg	☼	11/14/17 17:23	11/16/17 17:31	1
2,4-Dinitrophenol	<0.78		0.78	0.68	mg/Kg	☼	11/14/17 17:23	11/16/17 17:31	1
2,4-Dinitrotoluene	<0.19		0.19	0.061	mg/Kg	☼	11/14/17 17:23	11/16/17 17:31	1
2,6-Dinitrotoluene	<0.19		0.19	0.076	mg/Kg	☼	11/14/17 17:23	11/16/17 17:31	1
Di-n-octyl phthalate	<0.19		0.19	0.063	mg/Kg	☼	11/14/17 17:23	11/16/17 17:31	1
Fluoranthene	0.011	J	0.038	0.0071	mg/Kg	☼	11/14/17 17:23	11/16/17 17:31	1
Fluorene	<0.038		0.038	0.0054	mg/Kg	☼	11/14/17 17:23	11/16/17 17:31	1
Hexachlorobenzene	<0.078		0.078	0.0089	mg/Kg	☼	11/14/17 17:23	11/16/17 17:31	1
Hexachlorobutadiene	<0.19		0.19	0.061	mg/Kg	☼	11/14/17 17:23	11/16/17 17:31	1
Hexachlorocyclopentadiene	<0.78		0.78	0.22	mg/Kg	☼	11/14/17 17:23	11/16/17 17:31	1
Hexachloroethane	<0.19		0.19	0.059	mg/Kg	☼	11/14/17 17:23	11/16/17 17:31	1
Indeno[1,2,3-cd]pyrene	<0.038		0.038	0.010	mg/Kg	☼	11/14/17 17:23	11/16/17 17:31	1
Isophorone	<0.19		0.19	0.043	mg/Kg	☼	11/14/17 17:23	11/16/17 17:31	1
2-Methylnaphthalene	<0.078		0.078	0.0071	mg/Kg	☼	11/14/17 17:23	11/16/17 17:31	1
2-Methylphenol	<0.19		0.19	0.062	mg/Kg	☼	11/14/17 17:23	11/16/17 17:31	1
3 & 4 Methylphenol	<0.19		0.19	0.064	mg/Kg	☼	11/14/17 17:23	11/16/17 17:31	1
Naphthalene	<0.038		0.038	0.0059	mg/Kg	☼	11/14/17 17:23	11/16/17 17:31	1
2-Nitroaniline	<0.19		0.19	0.052	mg/Kg	☼	11/14/17 17:23	11/16/17 17:31	1
3-Nitroaniline	<0.38		0.38	0.12	mg/Kg	☼	11/14/17 17:23	11/16/17 17:31	1
4-Nitroaniline	<0.38		0.38	0.16	mg/Kg	☼	11/14/17 17:23	11/16/17 17:31	1
Nitrobenzene	<0.038		0.038	0.0096	mg/Kg	☼	11/14/17 17:23	11/16/17 17:31	1
2-Nitrophenol	<0.38		0.38	0.091	mg/Kg	☼	11/14/17 17:23	11/16/17 17:31	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136990-1

Client Sample ID: 2696V-68-B08 (0-5)

Lab Sample ID: 500-136990-12

Date Collected: 11/08/17 13:20

Matrix: Solid

Date Received: 11/08/17 16:30

Percent Solids: 85.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Nitrophenol	<0.78		0.78	0.37	mg/Kg	☒	11/14/17 17:23	11/16/17 17:31	1
N-Nitrosodi-n-propylamine	<0.078		0.078	0.047	mg/Kg	☒	11/14/17 17:23	11/16/17 17:31	1
N-Nitrosodiphenylamine	<0.19		0.19	0.045	mg/Kg	☒	11/14/17 17:23	11/16/17 17:31	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.045	mg/Kg	☒	11/14/17 17:23	11/16/17 17:31	1
Pentachlorophenol	<0.78		0.78	0.62	mg/Kg	☒	11/14/17 17:23	11/16/17 17:31	1
Phenanthrene	0.0067	J	0.038	0.0054	mg/Kg	☒	11/14/17 17:23	11/16/17 17:31	1
Phenol	<0.19		0.19	0.086	mg/Kg	☒	11/14/17 17:23	11/16/17 17:31	1
Pyrene	<0.038		0.038	0.0077	mg/Kg	☒	11/14/17 17:23	11/16/17 17:31	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.042	mg/Kg	☒	11/14/17 17:23	11/16/17 17:31	1
2,4,5-Trichlorophenol	<0.38		0.38	0.088	mg/Kg	☒	11/14/17 17:23	11/16/17 17:31	1
2,4,6-Trichlorophenol	<0.38		0.38	0.13	mg/Kg	☒	11/14/17 17:23	11/16/17 17:31	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	101		44 - 121				11/14/17 17:23	11/16/17 17:31	1
2-Fluorophenol	104		46 - 133				11/14/17 17:23	11/16/17 17:31	1
Nitrobenzene-d5	88		41 - 120				11/14/17 17:23	11/16/17 17:31	1
Phenol-d5	92		46 - 125				11/14/17 17:23	11/16/17 17:31	1
Terphenyl-d14	104		35 - 160				11/14/17 17:23	11/16/17 17:31	1
2,4,6-Tribromophenol	133		25 - 139				11/14/17 17:23	11/16/17 17:31	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.1		1.1	0.21	mg/Kg	☒	11/10/17 07:34	11/10/17 18:38	1
Arsenic	6.0		0.55	0.19	mg/Kg	☒	11/10/17 07:34	11/10/17 18:38	1
Barium	52		0.55	0.062	mg/Kg	☒	11/10/17 07:34	11/10/17 18:38	1
Beryllium	0.57		0.22	0.051	mg/Kg	☒	11/10/17 07:34	11/10/17 18:38	1
Cadmium	0.30	B	0.11	0.020	mg/Kg	☒	11/10/17 07:34	11/10/17 18:38	1
Chromium	11		0.55	0.27	mg/Kg	☒	11/10/17 07:34	11/10/17 18:38	1
Cobalt	6.2		0.27	0.071	mg/Kg	☒	11/10/17 07:34	11/10/17 18:38	1
Copper	16		0.55	0.15	mg/Kg	☒	11/10/17 07:34	11/10/17 18:38	1
Iron	13000		11	5.7	mg/Kg	☒	11/10/17 07:34	11/10/17 18:38	1
Lead	17		0.27	0.13	mg/Kg	☒	11/10/17 07:34	11/10/17 18:38	1
Magnesium	14000		5.5	2.7	mg/Kg	☒	11/10/17 07:34	11/10/17 18:38	1
Calcium	25000	B	11	1.8	mg/Kg	☒	11/10/17 07:34	11/10/17 18:38	1
Manganese	150		0.55	0.079	mg/Kg	☒	11/10/17 07:34	11/10/17 18:38	1
Nickel	16		0.55	0.16	mg/Kg	☒	11/10/17 07:34	11/10/17 18:38	1
Selenium	0.71		0.55	0.32	mg/Kg	☒	11/10/17 07:34	11/10/17 18:38	1
Silver	<0.27		0.27	0.070	mg/Kg	☒	11/10/17 07:34	11/10/17 18:38	1
Thallium	<0.55		0.55	0.27	mg/Kg	☒	11/10/17 07:34	11/10/17 18:38	1
Vanadium	16		0.27	0.064	mg/Kg	☒	11/10/17 07:34	11/10/17 18:38	1
Zinc	82		1.1	0.48	mg/Kg	☒	11/10/17 07:34	11/10/17 18:38	1
Potassium	1200		27	9.7	mg/Kg	☒	11/10/17 07:34	11/10/17 18:38	1
Sodium	260		55	8.1	mg/Kg	☒	11/10/17 07:34	11/10/17 18:38	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.050		0.050	0.010	mg/L		11/14/17 15:47	11/15/17 13:49	1
Barium	0.36	J	0.50	0.050	mg/L		11/14/17 15:47	11/15/17 13:49	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		11/14/17 15:47	11/15/17 13:49	1
Cadmium	0.0025	J	0.0050	0.0020	mg/L		11/14/17 15:47	11/15/17 13:49	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136990-1

Client Sample ID: 2696V-68-B08 (0-5)

Lab Sample ID: 500-136990-12

Date Collected: 11/08/17 13:20

Matrix: Solid

Date Received: 11/08/17 16:30

Percent Solids: 85.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	290		5.0	0.50	mg/L		11/14/17 15:47	11/15/17 13:49	1
Chromium	<0.025		0.025	0.010	mg/L		11/14/17 15:47	11/15/17 13:49	1
Cobalt	<0.025		0.025	0.010	mg/L		11/14/17 15:47	11/15/17 13:49	1
Copper	0.025	B	0.025	0.010	mg/L		11/14/17 15:47	11/15/17 13:49	1
Iron	0.23	J	0.40	0.20	mg/L		11/14/17 15:47	11/15/17 13:49	1
Lead	<0.0075		0.0075	0.0075	mg/L		11/14/17 15:47	11/15/17 13:49	1
Magnesium	83		2.5	0.50	mg/L		11/14/17 15:47	11/15/17 13:49	1
Manganese	2.9		0.025	0.010	mg/L		11/14/17 15:47	11/15/17 13:49	1
Nickel	<0.025		0.025	0.010	mg/L		11/14/17 15:47	11/15/17 13:49	1
Potassium	1.4	J	2.5	0.50	mg/L		11/14/17 15:47	11/15/17 13:49	1
Selenium	<0.050		0.050	0.020	mg/L		11/14/17 15:47	11/15/17 13:49	1
Silver	<0.025		0.025	0.010	mg/L		11/14/17 15:47	11/15/17 13:49	1
Vanadium	<0.025		0.025	0.010	mg/L		11/14/17 15:47	11/15/17 13:49	1
Zinc	0.14	J	0.50	0.020	mg/L		11/14/17 15:47	11/15/17 13:49	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		11/13/17 07:23	11/13/17 20:19	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		11/14/17 15:47	11/16/17 12:17	1
Thallium	<0.0020		0.0020	0.0020	mg/L		11/14/17 15:47	11/16/17 12:17	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		11/14/17 15:15	11/16/17 12:28	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.019		0.019	0.0063	mg/Kg	☼	11/13/17 13:20	11/16/17 13:48	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.54		0.54	0.19	mg/Kg	☼	11/18/17 09:00	11/18/17 12:40	1
pH	8.1		0.20	0.20	SU			11/15/17 12:07	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136990-1

Client Sample ID: 2696V-68-B09 (0-5)

Lab Sample ID: 500-136990-13

Date Collected: 11/08/17 13:30

Matrix: Solid

Date Received: 11/08/17 16:30

Percent Solids: 82.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	0.068		0.017	0.0074	mg/Kg	☼	11/08/17 18:13	11/15/17 01:48	1
Benzene	<0.0017		0.0017	0.00043	mg/Kg	☼	11/08/17 18:13	11/15/17 01:48	1
Bromodichloromethane	<0.0017		0.0017	0.00034	mg/Kg	☼	11/08/17 18:13	11/15/17 01:48	1
Bromoform	<0.0017		0.0017	0.00049	mg/Kg	☼	11/08/17 18:13	11/15/17 01:48	1
Bromomethane	<0.0042		0.0042	0.0016	mg/Kg	☼	11/08/17 18:13	11/15/17 01:48	1
2-Butanone (MEK)	<0.0042		0.0042	0.0019	mg/Kg	☼	11/08/17 18:13	11/15/17 01:48	1
Carbon disulfide	<0.0042		0.0042	0.00088	mg/Kg	☼	11/08/17 18:13	11/15/17 01:48	1
Carbon tetrachloride	<0.0017		0.0017	0.00049	mg/Kg	☼	11/08/17 18:13	11/15/17 01:48	1
Chlorobenzene	<0.0017		0.0017	0.00062	mg/Kg	☼	11/08/17 18:13	11/15/17 01:48	1
Chloroethane	<0.0042		0.0042	0.0012	mg/Kg	☼	11/08/17 18:13	11/15/17 01:48	1
Chloroform	<0.0017		0.0017	0.00059	mg/Kg	☼	11/08/17 18:13	11/15/17 01:48	1
Chloromethane	<0.0042		0.0042	0.0017	mg/Kg	☼	11/08/17 18:13	11/15/17 01:48	1
cis-1,2-Dichloroethene	<0.0017		0.0017	0.00047	mg/Kg	☼	11/08/17 18:13	11/15/17 01:48	1
cis-1,3-Dichloropropene	<0.0017		0.0017	0.00051	mg/Kg	☼	11/08/17 18:13	11/15/17 01:48	1
Dibromochloromethane	<0.0017		0.0017	0.00055	mg/Kg	☼	11/08/17 18:13	11/15/17 01:48	1
1,1-Dichloroethane	<0.0017		0.0017	0.00058	mg/Kg	☼	11/08/17 18:13	11/15/17 01:48	1
1,2-Dichloroethane	<0.0042		0.0042	0.0013	mg/Kg	☼	11/08/17 18:13	11/15/17 01:48	1
1,1-Dichloroethene	<0.0017		0.0017	0.00058	mg/Kg	☼	11/08/17 18:13	11/15/17 01:48	1
1,2-Dichloropropane	<0.0017		0.0017	0.00044	mg/Kg	☼	11/08/17 18:13	11/15/17 01:48	1
1,3-Dichloropropane, Total	<0.0017		0.0017	0.00059	mg/Kg	☼	11/08/17 18:13	11/15/17 01:48	1
Ethylbenzene	<0.0017		0.0017	0.00081	mg/Kg	☼	11/08/17 18:13	11/15/17 01:48	1
2-Hexanone	<0.0042		0.0042	0.0013	mg/Kg	☼	11/08/17 18:13	11/15/17 01:48	1
Methylene Chloride	<0.0042		0.0042	0.0017	mg/Kg	☼	11/08/17 18:13	11/15/17 01:48	1
4-Methyl-2-pentanone (MIBK)	<0.0042		0.0042	0.0012	mg/Kg	☼	11/08/17 18:13	11/15/17 01:48	1
Methyl tert-butyl ether	<0.0017		0.0017	0.00050	mg/Kg	☼	11/08/17 18:13	11/15/17 01:48	1
Styrene	<0.0017		0.0017	0.00051	mg/Kg	☼	11/08/17 18:13	11/15/17 01:48	1
1,1,2,2-Tetrachloroethane	<0.0017		0.0017	0.00054	mg/Kg	☼	11/08/17 18:13	11/15/17 01:48	1
Tetrachloroethene	<0.0017		0.0017	0.00057	mg/Kg	☼	11/08/17 18:13	11/15/17 01:48	1
Toluene	<0.0017		0.0017	0.00043	mg/Kg	☼	11/08/17 18:13	11/15/17 01:48	1
trans-1,2-Dichloroethene	<0.0017		0.0017	0.00075	mg/Kg	☼	11/08/17 18:13	11/15/17 01:48	1
trans-1,3-Dichloropropene	<0.0017		0.0017	0.00059	mg/Kg	☼	11/08/17 18:13	11/15/17 01:48	1
1,1,1-Trichloroethane	<0.0017		0.0017	0.00057	mg/Kg	☼	11/08/17 18:13	11/15/17 01:48	1
1,1,2-Trichloroethane	<0.0017		0.0017	0.00072	mg/Kg	☼	11/08/17 18:13	11/15/17 01:48	1
Trichloroethene	<0.0017		0.0017	0.00057	mg/Kg	☼	11/08/17 18:13	11/15/17 01:48	1
Vinyl acetate	<0.0042		0.0042	0.0015	mg/Kg	☼	11/08/17 18:13	11/15/17 01:48	1
Vinyl chloride	<0.0017		0.0017	0.00075	mg/Kg	☼	11/08/17 18:13	11/15/17 01:48	1
Xylenes, Total	<0.0034		0.0034	0.00054	mg/Kg	☼	11/08/17 18:13	11/15/17 01:48	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	86		75 - 131	11/08/17 18:13	11/15/17 01:48	1
Dibromofluoromethane	107		75 - 126	11/08/17 18:13	11/15/17 01:48	1
1,2-Dichloroethane-d4 (Surr)	114		70 - 134	11/08/17 18:13	11/15/17 01:48	1
Toluene-d8 (Surr)	95		75 - 124	11/08/17 18:13	11/15/17 01:48	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.040		0.040	0.0072	mg/Kg	☼	11/14/17 17:23	11/16/17 20:38	1
Acenaphthylene	<0.040		0.040	0.0053	mg/Kg	☼	11/14/17 17:23	11/16/17 20:38	1
Anthracene	0.013	J	0.040	0.0067	mg/Kg	☼	11/14/17 17:23	11/16/17 20:38	1
Benzo[a]anthracene	0.040		0.040	0.0054	mg/Kg	☼	11/14/17 17:23	11/16/17 20:38	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136990-1

Client Sample ID: 2696V-68-B09 (0-5)

Lab Sample ID: 500-136990-13

Date Collected: 11/08/17 13:30

Matrix: Solid

Date Received: 11/08/17 16:30

Percent Solids: 82.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	0.045		0.040	0.0077	mg/Kg	☼	11/14/17 17:23	11/16/17 20:38	1
Benzo[b]fluoranthene	0.084		0.040	0.0086	mg/Kg	☼	11/14/17 17:23	11/16/17 20:38	1
Benzo[g,h,i]perylene	0.018	J	0.040	0.013	mg/Kg	☼	11/14/17 17:23	11/16/17 20:38	1
Benzo[k]fluoranthene	0.028	J	0.040	0.012	mg/Kg	☼	11/14/17 17:23	11/16/17 20:38	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.041	mg/Kg	☼	11/14/17 17:23	11/16/17 20:38	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.060	mg/Kg	☼	11/14/17 17:23	11/16/17 20:38	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.073	mg/Kg	☼	11/14/17 17:23	11/16/17 20:38	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.053	mg/Kg	☼	11/14/17 17:23	11/16/17 20:38	1
Butyl benzyl phthalate	<0.20		0.20	0.076	mg/Kg	☼	11/14/17 17:23	11/16/17 20:38	1
Carbazole	<0.20		0.20	0.099	mg/Kg	☼	11/14/17 17:23	11/16/17 20:38	1
4-Chloroaniline	<0.80		0.80	0.19	mg/Kg	☼	11/14/17 17:23	11/16/17 20:38	1
4-Chloro-3-methylphenol	<0.40		0.40	0.14	mg/Kg	☼	11/14/17 17:23	11/16/17 20:38	1
2-Chloronaphthalene	<0.20		0.20	0.044	mg/Kg	☼	11/14/17 17:23	11/16/17 20:38	1
2-Chlorophenol	<0.20		0.20	0.068	mg/Kg	☼	11/14/17 17:23	11/16/17 20:38	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.047	mg/Kg	☼	11/14/17 17:23	11/16/17 20:38	1
Chrysene	0.053		0.040	0.011	mg/Kg	☼	11/14/17 17:23	11/16/17 20:38	1
Dibenz(a,h)anthracene	<0.040		0.040	0.0077	mg/Kg	☼	11/14/17 17:23	11/16/17 20:38	1
Dibenzofuran	<0.20		0.20	0.047	mg/Kg	☼	11/14/17 17:23	11/16/17 20:38	1
1,2-Dichlorobenzene	<0.20		0.20	0.048	mg/Kg	☼	11/14/17 17:23	11/16/17 20:38	1
1,3-Dichlorobenzene	<0.20		0.20	0.045	mg/Kg	☼	11/14/17 17:23	11/16/17 20:38	1
1,4-Dichlorobenzene	<0.20		0.20	0.051	mg/Kg	☼	11/14/17 17:23	11/16/17 20:38	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.056	mg/Kg	☼	11/14/17 17:23	11/16/17 20:38	1
2,4-Dichlorophenol	<0.40		0.40	0.095	mg/Kg	☼	11/14/17 17:23	11/16/17 20:38	1
Diethyl phthalate	<0.20		0.20	0.067	mg/Kg	☼	11/14/17 17:23	11/16/17 20:38	1
2,4-Dimethylphenol	<0.40		0.40	0.15	mg/Kg	☼	11/14/17 17:23	11/16/17 20:38	1
Dimethyl phthalate	<0.20		0.20	0.052	mg/Kg	☼	11/14/17 17:23	11/16/17 20:38	1
Di-n-butyl phthalate	<0.20		0.20	0.061	mg/Kg	☼	11/14/17 17:23	11/16/17 20:38	1
4,6-Dinitro-2-methylphenol	<0.80		0.80	0.32	mg/Kg	☼	11/14/17 17:23	11/16/17 20:38	1
2,4-Dinitrophenol	<0.80		0.80	0.70	mg/Kg	☼	11/14/17 17:23	11/16/17 20:38	1
2,4-Dinitrotoluene	<0.20		0.20	0.063	mg/Kg	☼	11/14/17 17:23	11/16/17 20:38	1
2,6-Dinitrotoluene	<0.20		0.20	0.078	mg/Kg	☼	11/14/17 17:23	11/16/17 20:38	1
Di-n-octyl phthalate	<0.20		0.20	0.065	mg/Kg	☼	11/14/17 17:23	11/16/17 20:38	1
Fluoranthene	0.099		0.040	0.0074	mg/Kg	☼	11/14/17 17:23	11/16/17 20:38	1
Fluorene	<0.040		0.040	0.0056	mg/Kg	☼	11/14/17 17:23	11/16/17 20:38	1
Hexachlorobenzene	<0.080		0.080	0.0092	mg/Kg	☼	11/14/17 17:23	11/16/17 20:38	1
Hexachlorobutadiene	<0.20		0.20	0.063	mg/Kg	☼	11/14/17 17:23	11/16/17 20:38	1
Hexachlorocyclopentadiene	<0.80		0.80	0.23	mg/Kg	☼	11/14/17 17:23	11/16/17 20:38	1
Hexachloroethane	<0.20		0.20	0.061	mg/Kg	☼	11/14/17 17:23	11/16/17 20:38	1
Indeno[1,2,3-cd]pyrene	0.019	J	0.040	0.010	mg/Kg	☼	11/14/17 17:23	11/16/17 20:38	1
Isophorone	<0.20		0.20	0.045	mg/Kg	☼	11/14/17 17:23	11/16/17 20:38	1
2-Methylnaphthalene	<0.080		0.080	0.0073	mg/Kg	☼	11/14/17 17:23	11/16/17 20:38	1
2-Methylphenol	<0.20		0.20	0.064	mg/Kg	☼	11/14/17 17:23	11/16/17 20:38	1
3 & 4 Methylphenol	<0.20		0.20	0.066	mg/Kg	☼	11/14/17 17:23	11/16/17 20:38	1
Naphthalene	<0.040		0.040	0.0061	mg/Kg	☼	11/14/17 17:23	11/16/17 20:38	1
2-Nitroaniline	<0.20		0.20	0.054	mg/Kg	☼	11/14/17 17:23	11/16/17 20:38	1
3-Nitroaniline	<0.40		0.40	0.12	mg/Kg	☼	11/14/17 17:23	11/16/17 20:38	1
4-Nitroaniline	<0.40		0.40	0.17	mg/Kg	☼	11/14/17 17:23	11/16/17 20:38	1
Nitrobenzene	<0.040		0.040	0.0099	mg/Kg	☼	11/14/17 17:23	11/16/17 20:38	1
2-Nitrophenol	<0.40		0.40	0.094	mg/Kg	☼	11/14/17 17:23	11/16/17 20:38	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136990-1

Client Sample ID: 2696V-68-B09 (0-5)

Lab Sample ID: 500-136990-13

Date Collected: 11/08/17 13:30

Matrix: Solid

Date Received: 11/08/17 16:30

Percent Solids: 82.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Nitrophenol	<0.80		0.80	0.38	mg/Kg	☼	11/14/17 17:23	11/16/17 20:38	1
N-Nitrosodi-n-propylamine	<0.080		0.080	0.049	mg/Kg	☼	11/14/17 17:23	11/16/17 20:38	1
N-Nitrosodiphenylamine	<0.20		0.20	0.047	mg/Kg	☼	11/14/17 17:23	11/16/17 20:38	1
2,2'-oxybis[1-chloropropane]	<0.20	*	0.20	0.046	mg/Kg	☼	11/14/17 17:23	11/16/17 20:38	1
Pentachlorophenol	<0.80		0.80	0.64	mg/Kg	☼	11/14/17 17:23	11/16/17 20:38	1
Phenanthrene	0.057		0.040	0.0055	mg/Kg	☼	11/14/17 17:23	11/16/17 20:38	1
Phenol	<0.20		0.20	0.088	mg/Kg	☼	11/14/17 17:23	11/16/17 20:38	1
Pyrene	0.081		0.040	0.0079	mg/Kg	☼	11/14/17 17:23	11/16/17 20:38	1
1,2,4-Trichlorobenzene	<0.20		0.20	0.043	mg/Kg	☼	11/14/17 17:23	11/16/17 20:38	1
2,4,5-Trichlorophenol	<0.40		0.40	0.091	mg/Kg	☼	11/14/17 17:23	11/16/17 20:38	1
2,4,6-Trichlorophenol	<0.40		0.40	0.14	mg/Kg	☼	11/14/17 17:23	11/16/17 20:38	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	104		44 - 121	11/14/17 17:23	11/16/17 20:38	1
2-Fluorophenol	103		46 - 133	11/14/17 17:23	11/16/17 20:38	1
Nitrobenzene-d5	86		41 - 120	11/14/17 17:23	11/16/17 20:38	1
Phenol-d5	91		46 - 125	11/14/17 17:23	11/16/17 20:38	1
Terphenyl-d14	116		35 - 160	11/14/17 17:23	11/16/17 20:38	1
2,4,6-Tribromophenol	133		25 - 139	11/14/17 17:23	11/16/17 20:38	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	☼	11/10/17 07:34	11/10/17 18:42	1
Arsenic	7.3		0.56	0.19	mg/Kg	☼	11/10/17 07:34	11/10/17 18:42	1
Barium	61		0.56	0.064	mg/Kg	☼	11/10/17 07:34	11/10/17 18:42	1
Beryllium	0.58		0.22	0.052	mg/Kg	☼	11/10/17 07:34	11/10/17 18:42	1
Cadmium	0.56	B	0.11	0.020	mg/Kg	☼	11/10/17 07:34	11/10/17 18:42	1
Chromium	15		0.56	0.28	mg/Kg	☼	11/10/17 07:34	11/10/17 18:42	1
Cobalt	8.3		0.28	0.073	mg/Kg	☼	11/10/17 07:34	11/10/17 18:42	1
Copper	21		0.56	0.16	mg/Kg	☼	11/10/17 07:34	11/10/17 18:42	1
Iron	16000		11	5.8	mg/Kg	☼	11/10/17 07:34	11/10/17 18:42	1
Lead	55		0.28	0.13	mg/Kg	☼	11/10/17 07:34	11/10/17 18:42	1
Magnesium	19000		5.6	2.8	mg/Kg	☼	11/10/17 07:34	11/10/17 18:42	1
Calcium	30000	B	11	1.9	mg/Kg	☼	11/10/17 07:34	11/10/17 18:42	1
Manganese	270		0.56	0.081	mg/Kg	☼	11/10/17 07:34	11/10/17 18:42	1
Nickel	20		0.56	0.16	mg/Kg	☼	11/10/17 07:34	11/10/17 18:42	1
Selenium	0.60		0.56	0.33	mg/Kg	☼	11/10/17 07:34	11/10/17 18:42	1
Silver	<0.28		0.28	0.072	mg/Kg	☼	11/10/17 07:34	11/10/17 18:42	1
Thallium	<0.56		0.56	0.28	mg/Kg	☼	11/10/17 07:34	11/10/17 18:42	1
Vanadium	18		0.28	0.066	mg/Kg	☼	11/10/17 07:34	11/10/17 18:42	1
Zinc	150		1.1	0.49	mg/Kg	☼	11/10/17 07:34	11/10/17 18:42	1
Potassium	1300		28	9.9	mg/Kg	☼	11/10/17 07:34	11/10/17 18:42	1
Sodium	170		56	8.3	mg/Kg	☼	11/10/17 07:34	11/10/17 18:42	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.050		0.050	0.010	mg/L		11/14/17 15:47	11/15/17 14:05	1
Barium	0.33	J	0.50	0.050	mg/L		11/14/17 15:47	11/15/17 14:05	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		11/14/17 15:47	11/15/17 14:05	1
Cadmium	0.0024	J	0.0050	0.0020	mg/L		11/14/17 15:47	11/15/17 14:05	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136990-1

Client Sample ID: 2696V-68-B09 (0-5)

Lab Sample ID: 500-136990-13

Date Collected: 11/08/17 13:30

Matrix: Solid

Date Received: 11/08/17 16:30

Percent Solids: 82.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	260		5.0	0.50	mg/L		11/14/17 15:47	11/15/17 14:05	1
Chromium	<0.025		0.025	0.010	mg/L		11/14/17 15:47	11/15/17 14:05	1
Cobalt	<0.025		0.025	0.010	mg/L		11/14/17 15:47	11/15/17 14:05	1
Copper	0.029	B	0.025	0.010	mg/L		11/14/17 15:47	11/15/17 14:05	1
Iron	<0.40		0.40	0.20	mg/L		11/14/17 15:47	11/15/17 14:05	1
Lead	<0.0075		0.0075	0.0075	mg/L		11/14/17 15:47	11/15/17 14:05	1
Magnesium	120		2.5	0.50	mg/L		11/14/17 15:47	11/15/17 14:05	1
Manganese	0.45		0.025	0.010	mg/L		11/14/17 15:47	11/15/17 14:05	1
Nickel	<0.025		0.025	0.010	mg/L		11/14/17 15:47	11/15/17 14:05	1
Potassium	1.6	J	2.5	0.50	mg/L		11/14/17 15:47	11/15/17 14:05	1
Selenium	<0.050		0.050	0.020	mg/L		11/14/17 15:47	11/15/17 14:05	1
Silver	<0.025		0.025	0.010	mg/L		11/14/17 15:47	11/15/17 14:05	1
Vanadium	<0.025		0.025	0.010	mg/L		11/14/17 15:47	11/15/17 14:05	1
Zinc	0.11	J	0.50	0.020	mg/L		11/14/17 15:47	11/15/17 14:05	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.15		0.025	0.010	mg/L		11/13/17 07:23	11/13/17 20:23	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		11/14/17 15:47	11/16/17 12:32	1
Thallium	<0.0020		0.0020	0.0020	mg/L		11/14/17 15:47	11/16/17 12:32	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		11/14/17 15:15	11/16/17 12:29	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.037		0.019	0.0064	mg/Kg	☼	11/13/17 13:20	11/16/17 17:09	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.59		0.59	0.20	mg/Kg	☼	11/18/17 09:00	11/18/17 12:41	1
pH	8.4		0.20	0.20	SU			11/15/17 12:09	1

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136990-1

Client Sample ID: 2696V-68-G01

Lab Sample ID: 500-136990-14

Date Collected: 11/08/17 12:20

Matrix: Water

Date Received: 11/08/17 16:30

Method: 8260B - VOC

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.0050		0.0050	0.0017	mg/L			11/18/17 01:10	1
Benzene	<0.00050		0.00050	0.00015	mg/L			11/18/17 01:10	1
Bromodichloromethane	<0.0010		0.0010	0.00037	mg/L			11/18/17 01:10	1
Bromoform	<0.0010		0.0010	0.00048	mg/L			11/18/17 01:10	1
Bromomethane	<0.0020		0.0020	0.00080	mg/L			11/18/17 01:10	1
Carbon disulfide	<0.0020		0.0020	0.00045	mg/L			11/18/17 01:10	1
Carbon tetrachloride	<0.0010		0.0010	0.00038	mg/L			11/18/17 01:10	1
Chlorobenzene	<0.0010		0.0010	0.00039	mg/L			11/18/17 01:10	1
Chloroethane	<0.0010		0.0010	0.00051	mg/L			11/18/17 01:10	1
Chloroform	<0.0020		0.0020	0.00037	mg/L			11/18/17 01:10	1
Chloromethane	<0.0010		0.0010	0.00032	mg/L			11/18/17 01:10	1
cis-1,2-Dichloroethene	<0.0010		0.0010	0.00041	mg/L			11/18/17 01:10	1
cis-1,3-Dichloropropene	<0.0010		0.0010	0.00042	mg/L			11/18/17 01:10	1
Dibromochloromethane	<0.0010		0.0010	0.00049	mg/L			11/18/17 01:10	1
1,1-Dichloroethane	<0.0010		0.0010	0.00041	mg/L			11/18/17 01:10	1
1,2-Dichloroethane	<0.0010		0.0010	0.00039	mg/L			11/18/17 01:10	1
1,1-Dichloroethene	<0.0010		0.0010	0.00039	mg/L			11/18/17 01:10	1
1,2-Dichloropropane	<0.0010		0.0010	0.00043	mg/L			11/18/17 01:10	1
1,3-Dichloropropene, Total	<0.0010		0.0010	0.00042	mg/L			11/18/17 01:10	1
Ethylbenzene	<0.00050		0.00050	0.00018	mg/L			11/18/17 01:10	1
2-Hexanone	<0.0050		0.0050	0.0016	mg/L			11/18/17 01:10	1
Methylene Chloride	<0.0050		0.0050	0.0016	mg/L			11/18/17 01:10	1
Methyl Ethyl Ketone	<0.0050		0.0050	0.0021	mg/L			11/18/17 01:10	1
methyl isobutyl ketone	<0.0050		0.0050	0.0022	mg/L			11/18/17 01:10	1
Methyl tert-butyl ether	<0.0010		0.0010	0.00039	mg/L			11/18/17 01:10	1
Styrene	<0.0010		0.0010	0.00039	mg/L			11/18/17 01:10	1
1,1,2,2-Tetrachloroethane	<0.0010		0.0010	0.00040	mg/L			11/18/17 01:10	1
Tetrachloroethene	<0.0010		0.0010	0.00037	mg/L			11/18/17 01:10	1
Toluene	<0.00050		0.00050	0.00015	mg/L			11/18/17 01:10	1
trans-1,2-Dichloroethene	<0.0010		0.0010	0.00035	mg/L			11/18/17 01:10	1
trans-1,3-Dichloropropene	<0.0010		0.0010	0.00036	mg/L			11/18/17 01:10	1
1,1,1-Trichloroethane	<0.0010		0.0010	0.00038	mg/L			11/18/17 01:10	1
1,1,2-Trichloroethane	<0.0010		0.0010	0.00035	mg/L			11/18/17 01:10	1
Trichloroethene	<0.00050		0.00050	0.00016	mg/L			11/18/17 01:10	1
Vinyl acetate	<0.0020		0.0020	0.00091	mg/L			11/18/17 01:10	1
Vinyl chloride	<0.00050		0.00050	0.00020	mg/L			11/18/17 01:10	1
Xylenes, Total	<0.0010		0.0010	0.00022	mg/L			11/18/17 01:10	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	93		72 - 124		11/18/17 01:10	1
Dibromofluoromethane	94		75 - 120		11/18/17 01:10	1
1,2-Dichloroethane-d4 (Surr)	90		75 - 126		11/18/17 01:10	1
Toluene-d8 (Surr)	94		75 - 120		11/18/17 01:10	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.00078		0.00078	0.00024	mg/L		11/09/17 07:33	11/09/17 20:35	1
Acenaphthylene	<0.00078		0.00078	0.00021	mg/L		11/09/17 07:33	11/09/17 20:35	1
Anthracene	<0.00078		0.00078	0.00026	mg/L		11/09/17 07:33	11/09/17 20:35	1
Benzo[a]anthracene	<0.00013		0.00013	0.000044	mg/L		11/09/17 07:33	11/09/17 20:35	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136990-1

Client Sample ID: 2696V-68-G01

Lab Sample ID: 500-136990-14

Date Collected: 11/08/17 12:20

Matrix: Water

Date Received: 11/08/17 16:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	<0.00016		0.00016	0.000077	mg/L		11/09/17 07:33	11/09/17 20:35	1
Benzo[b]fluoranthene	<0.00016		0.00016	0.000063	mg/L		11/09/17 07:33	11/09/17 20:35	1
Benzo[g,h,i]perylene	<0.00078		0.00078	0.00029	mg/L		11/09/17 07:33	11/09/17 20:35	1
Benzo[k]fluoranthene	<0.00016		0.00016	0.000050	mg/L		11/09/17 07:33	11/09/17 20:35	1
Bis(2-chloroethoxy)methane	<0.0016		0.0016	0.00022	mg/L		11/09/17 07:33	11/09/17 20:35	1
Bis(2-chloroethyl)ether	<0.0016		0.0016	0.00023	mg/L		11/09/17 07:33	11/09/17 20:35	1
Bis(2-ethylhexyl) phthalate	<0.0078		0.0078	0.0013	mg/L		11/09/17 07:33	11/09/17 20:35	1
4-Bromophenyl phenyl ether	<0.0039		0.0039	0.00042	mg/L		11/09/17 07:33	11/09/17 20:35	1
Butyl benzyl phthalate	<0.0016		0.0016	0.00037	mg/L		11/09/17 07:33	11/09/17 20:35	1
Carbazole	<0.0039		0.0039	0.00027	mg/L		11/09/17 07:33	11/09/17 20:35	1
4-Chloroaniline	<0.0078		0.0078	0.0016	mg/L		11/09/17 07:33	11/09/17 20:35	1
4-Chloro-3-methylphenol	<0.0078		0.0078	0.0018	mg/L		11/09/17 07:33	11/09/17 20:35	1
2-Chloronaphthalene	<0.0016		0.0016	0.00018	mg/L		11/09/17 07:33	11/09/17 20:35	1
2-Chlorophenol	<0.0039		0.0039	0.00043	mg/L		11/09/17 07:33	11/09/17 20:35	1
4-Chlorophenyl phenyl ether	<0.0039		0.0039	0.00049	mg/L		11/09/17 07:33	11/09/17 20:35	1
Chrysene	<0.00016		0.00016	0.000053	mg/L		11/09/17 07:33	11/09/17 20:35	1
Dibenz(a,h)anthracene	<0.00023		0.00023	0.000039	mg/L		11/09/17 07:33	11/09/17 20:35	1
Dibenzofuran	<0.0016		0.0016	0.00020	mg/L		11/09/17 07:33	11/09/17 20:35	1
1,2-Dichlorobenzene	<0.0016		0.0016	0.00019	mg/L		11/09/17 07:33	11/09/17 20:35	1
1,3-Dichlorobenzene	<0.0016		0.0016	0.00016	mg/L		11/09/17 07:33	11/09/17 20:35	1
1,4-Dichlorobenzene	<0.0016		0.0016	0.00016	mg/L		11/09/17 07:33	11/09/17 20:35	1
3,3'-Dichlorobenzidine	<0.0039		0.0039	0.0013	mg/L		11/09/17 07:33	11/09/17 20:35	1
2,4-Dichlorophenol	<0.0078		0.0078	0.0020	mg/L		11/09/17 07:33	11/09/17 20:35	1
Diethyl phthalate	<0.0039		0.0039	0.00028	mg/L		11/09/17 07:33	11/09/17 20:35	1
2,4-Dimethylphenol	<0.0078		0.0078	0.0014	mg/L		11/09/17 07:33	11/09/17 20:35	1
Dimethyl phthalate	<0.0039		0.0039	0.00024	mg/L		11/09/17 07:33	11/09/17 20:35	1
Di-n-butyl phthalate	<0.0039		0.0039	0.00057	mg/L		11/09/17 07:33	11/09/17 20:35	1
4,6-Dinitro-2-methylphenol	<0.016		0.016	0.0046	mg/L		11/09/17 07:33	11/09/17 20:35	1
2,4-Dinitrophenol	<0.016		0.016	0.0067	mg/L		11/09/17 07:33	11/09/17 20:35	1
2,4-Dinitrotoluene	<0.00078		0.00078	0.00019	mg/L		11/09/17 07:33	11/09/17 20:35	1
2,6-Dinitrotoluene	<0.00078		0.00078	0.000057	mg/L		11/09/17 07:33	11/09/17 20:35	1
Di-n-octyl phthalate	<0.0078		0.0078	0.00081	mg/L		11/09/17 07:33	11/09/17 20:35	1
Fluoranthene	<0.00078		0.00078	0.00035	mg/L		11/09/17 07:33	11/09/17 20:35	1
Fluorene	<0.00078		0.00078	0.00019	mg/L		11/09/17 07:33	11/09/17 20:35	1
Hexachlorobenzene	<0.00039		0.00039	0.000062	mg/L		11/09/17 07:33	11/09/17 20:35	1
Hexachlorobutadiene	<0.0039		0.0039	0.00040	mg/L		11/09/17 07:33	11/09/17 20:35	1
Hexachlorocyclopentadiene	<0.016		0.016	0.0049	mg/L		11/09/17 07:33	11/09/17 20:35	1
Hexachloroethane	<0.0039		0.0039	0.00046	mg/L		11/09/17 07:33	11/09/17 20:35	1
Indeno[1,2,3-cd]pyrene	<0.00016		0.00016	0.000058	mg/L		11/09/17 07:33	11/09/17 20:35	1
Isophorone	<0.0016		0.0016	0.00029	mg/L		11/09/17 07:33	11/09/17 20:35	1
2-Methylnaphthalene	<0.0016		0.0016	0.000051	mg/L		11/09/17 07:33	11/09/17 20:35	1
2-Methylphenol	<0.0016		0.0016	0.00024	mg/L		11/09/17 07:33	11/09/17 20:35	1
3 & 4 Methylphenol	<0.0016		0.0016	0.00035	mg/L		11/09/17 07:33	11/09/17 20:35	1
Naphthalene	<0.00078		0.00078	0.00024	mg/L		11/09/17 07:33	11/09/17 20:35	1
2-Nitroaniline	<0.0039		0.0039	0.0010	mg/L		11/09/17 07:33	11/09/17 20:35	1
3-Nitroaniline	<0.0078		0.0078	0.0014	mg/L		11/09/17 07:33	11/09/17 20:35	1
4-Nitroaniline	<0.0078		0.0078	0.0013	mg/L		11/09/17 07:33	11/09/17 20:35	1
Nitrobenzene	<0.00078		0.00078	0.00035	mg/L		11/09/17 07:33	11/09/17 20:35	1
2-Nitrophenol	<0.0078		0.0078	0.0019	mg/L		11/09/17 07:33	11/09/17 20:35	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136990-1

Client Sample ID: 2696V-68-G01

Lab Sample ID: 500-136990-14

Date Collected: 11/08/17 12:20

Matrix: Water

Date Received: 11/08/17 16:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Nitrophenol	<0.016		0.016	0.0058	mg/L		11/09/17 07:33	11/09/17 20:35	1
N-Nitrosodi-n-propylamine	<0.00039		0.00039	0.00012	mg/L		11/09/17 07:33	11/09/17 20:35	1
N-Nitrosodiphenylamine	<0.0016		0.0016	0.00029	mg/L		11/09/17 07:33	11/09/17 20:35	1
2,2'-oxybis[1-chloropropane]	<0.0016	*	0.0016	0.00029	mg/L		11/09/17 07:33	11/09/17 20:35	1
Pentachlorophenol	<0.016		0.016	0.0031	mg/L		11/09/17 07:33	11/09/17 20:35	1
Phenanthrene	<0.00078		0.00078	0.00023	mg/L		11/09/17 07:33	11/09/17 20:35	1
Phenol	<0.0039		0.0039	0.00052	mg/L		11/09/17 07:33	11/09/17 20:35	1
Pyrene	<0.00078		0.00078	0.00033	mg/L		11/09/17 07:33	11/09/17 20:35	1
1,2,4-Trichlorobenzene	<0.0016		0.0016	0.00018	mg/L		11/09/17 07:33	11/09/17 20:35	1
2,4,5-Trichlorophenol	<0.0078		0.0078	0.0020	mg/L		11/09/17 07:33	11/09/17 20:35	1
2,4,6-Trichlorophenol	<0.0039		0.0039	0.00056	mg/L		11/09/17 07:33	11/09/17 20:35	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	68		34 - 110				11/09/17 07:33	11/09/17 20:35	1
2-Fluorophenol	63		27 - 110				11/09/17 07:33	11/09/17 20:35	1
Nitrobenzene-d5	73		36 - 120				11/09/17 07:33	11/09/17 20:35	1
Phenol-d5	41		20 - 100				11/09/17 07:33	11/09/17 20:35	1
Terphenyl-d14	84		40 - 145				11/09/17 07:33	11/09/17 20:35	1
2,4,6-Tribromophenol	69		40 - 145				11/09/17 07:33	11/09/17 20:35	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030	0.0013	mg/L		11/09/17 15:37	11/10/17 11:39	1
Arsenic	0.020		0.0010	0.00023	mg/L		11/09/17 15:37	11/10/17 11:39	1
Barium	0.12	V	0.0025	0.00073	mg/L		11/09/17 15:37	11/10/17 11:39	1
Beryllium	<0.0010	^ F1	0.0010	0.00053	mg/L		11/09/17 15:37	11/10/17 11:39	1
Cadmium	0.00051		0.00050	0.00017	mg/L		11/09/17 15:37	11/10/17 11:39	1
Calcium	150	V	0.20	0.044	mg/L		11/09/17 15:37	11/10/17 11:39	1
Chromium	0.022	F1	0.0050	0.0011	mg/L		11/09/17 15:37	11/10/17 11:39	1
Cobalt	0.015	F1	0.0010	0.00040	mg/L		11/09/17 15:37	11/10/17 11:39	1
Copper	0.049		0.0020	0.00050	mg/L		11/09/17 15:37	11/10/17 11:39	1
Iron	24	V	0.10	0.047	mg/L		11/09/17 15:37	11/10/17 11:39	1
Lead	0.044	V	0.00050	0.00019	mg/L		11/09/17 15:37	11/10/17 11:39	1
Magnesium	68	V	0.20	0.049	mg/L		11/09/17 15:37	11/10/17 11:39	1
Manganese	0.37	F1 V	0.0025	0.00079	mg/L		11/09/17 15:37	11/10/17 11:39	1
Nickel	0.039	F1 V	0.0020	0.00063	mg/L		11/09/17 15:37	11/10/17 11:39	1
Potassium	11	V	0.50	0.11	mg/L		11/09/17 15:37	11/10/17 11:39	1
Selenium	0.0017	J	0.0025	0.00098	mg/L		11/09/17 15:37	11/10/17 11:39	1
Silver	0.00012	J	0.00050	0.00012	mg/L		11/09/17 15:37	11/10/17 11:39	1
Sodium	150	V	0.20	0.077	mg/L		11/09/17 15:37	11/10/17 11:39	1
Thallium	0.0016	J	0.0020	0.00057	mg/L		11/09/17 15:37	11/10/17 11:39	1
Vanadium	0.025	F1	0.0050	0.0022	mg/L		11/09/17 15:37	11/10/17 11:39	1
Zinc	0.064		0.020	0.0069	mg/L		11/09/17 15:37	11/10/17 11:39	1

Method: 7470A - Mercury

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.000098	mg/L		11/09/17 12:50	11/13/17 10:59	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136990-1

Client Sample ID: 2696V-68-G01

Lab Sample ID: 500-136990-14

Date Collected: 11/08/17 12:20

Matrix: Water

Date Received: 11/08/17 16:30

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.010		0.010	0.0035	mg/L		11/17/17 13:20	11/17/17 15:55	1

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

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136990-1

Client Sample ID: Trip Blank

Lab Sample ID: 500-136990-15

Date Collected: 11/08/17 00:00

Matrix: Water

Date Received: 11/08/17 16:30

Method: 8260B - VOC

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.0050		0.0050	0.0017	mg/L			11/18/17 01:38	1
Benzene	<0.00050		0.00050	0.00015	mg/L			11/18/17 01:38	1
Bromodichloromethane	<0.0010		0.0010	0.00037	mg/L			11/18/17 01:38	1
Bromoform	<0.0010		0.0010	0.00048	mg/L			11/18/17 01:38	1
Bromomethane	<0.0020		0.0020	0.00080	mg/L			11/18/17 01:38	1
Carbon disulfide	<0.0020		0.0020	0.00045	mg/L			11/18/17 01:38	1
Carbon tetrachloride	<0.0010		0.0010	0.00038	mg/L			11/18/17 01:38	1
Chlorobenzene	<0.0010		0.0010	0.00039	mg/L			11/18/17 01:38	1
Chloroethane	<0.0010		0.0010	0.00051	mg/L			11/18/17 01:38	1
Chloroform	<0.0020		0.0020	0.00037	mg/L			11/18/17 01:38	1
Chloromethane	<0.0010		0.0010	0.00032	mg/L			11/18/17 01:38	1
cis-1,2-Dichloroethene	<0.0010		0.0010	0.00041	mg/L			11/18/17 01:38	1
cis-1,3-Dichloropropene	<0.0010		0.0010	0.00042	mg/L			11/18/17 01:38	1
Dibromochloromethane	<0.0010		0.0010	0.00049	mg/L			11/18/17 01:38	1
1,1-Dichloroethane	<0.0010		0.0010	0.00041	mg/L			11/18/17 01:38	1
1,2-Dichloroethane	<0.0010		0.0010	0.00039	mg/L			11/18/17 01:38	1
1,1-Dichloroethene	<0.0010		0.0010	0.00039	mg/L			11/18/17 01:38	1
1,2-Dichloropropane	<0.0010		0.0010	0.00043	mg/L			11/18/17 01:38	1
1,3-Dichloropropene, Total	<0.0010		0.0010	0.00042	mg/L			11/18/17 01:38	1
Ethylbenzene	<0.00050		0.00050	0.00018	mg/L			11/18/17 01:38	1
2-Hexanone	<0.0050		0.0050	0.0016	mg/L			11/18/17 01:38	1
Methylene Chloride	<0.0050		0.0050	0.0016	mg/L			11/18/17 01:38	1
Methyl Ethyl Ketone	<0.0050		0.0050	0.0021	mg/L			11/18/17 01:38	1
methyl isobutyl ketone	<0.0050		0.0050	0.0022	mg/L			11/18/17 01:38	1
Methyl tert-butyl ether	<0.0010		0.0010	0.00039	mg/L			11/18/17 01:38	1
Styrene	<0.0010		0.0010	0.00039	mg/L			11/18/17 01:38	1
1,1,2,2-Tetrachloroethane	<0.0010		0.0010	0.00040	mg/L			11/18/17 01:38	1
Tetrachloroethene	<0.0010		0.0010	0.00037	mg/L			11/18/17 01:38	1
Toluene	<0.00050		0.00050	0.00015	mg/L			11/18/17 01:38	1
trans-1,2-Dichloroethene	<0.0010		0.0010	0.00035	mg/L			11/18/17 01:38	1
trans-1,3-Dichloropropene	<0.0010		0.0010	0.00036	mg/L			11/18/17 01:38	1
1,1,1-Trichloroethane	<0.0010		0.0010	0.00038	mg/L			11/18/17 01:38	1
1,1,2-Trichloroethane	<0.0010		0.0010	0.00035	mg/L			11/18/17 01:38	1
Trichloroethene	<0.00050		0.00050	0.00016	mg/L			11/18/17 01:38	1
Vinyl acetate	<0.0020		0.0020	0.00091	mg/L			11/18/17 01:38	1
Vinyl chloride	<0.00050		0.00050	0.00020	mg/L			11/18/17 01:38	1
Xylenes, Total	<0.0010		0.0010	0.00022	mg/L			11/18/17 01:38	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	92		72 - 124		11/18/17 01:38	1
Dibromofluoromethane	94		75 - 120		11/18/17 01:38	1
1,2-Dichloroethane-d4 (Surr)	91		75 - 126		11/18/17 01:38	1
Toluene-d8 (Surr)	94		75 - 120		11/18/17 01:38	1

TestAmerica Chicago

Definitions/Glossary

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136990-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
F2	MS/MSD RPD exceeds control limits
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.
E	Result exceeded calibration range.

GC/MS Semi VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
X	Surrogate is outside control limits
F1	MS and/or MSD Recovery is outside acceptance limits.
F2	MS/MSD RPD exceeds control limits

Metals

Qualifier	Qualifier Description
F1	MS and/or MSD Recovery is outside acceptance limits.
B	Compound was found in the blank and sample.
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.
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.
V	Serial Dilution exceeds the control limits
^	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC is outside acceptance limits.

Glossary

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

Definitions/Glossary

Client: Terracon Consulting Eng & Scientists
Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136990-1

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

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QC Association Summary

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136990-1

GC/MS VOA

Prep Batch: 409285

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-136990-5	2696V-68-B05 (0-5)	Total/NA	Solid	5035	
500-136990-5 - DL	2696V-68-B05 (0-5)	Total/NA	Solid	5035	
500-136990-6	2696V-68-B05 (0-5) Dup	Total/NA	Solid	5035	
500-136990-6 - DL	2696V-68-B05 (0-5) Dup	Total/NA	Solid	5035	
500-136990-7	2696V-68-B06 (0-5)	Total/NA	Solid	5035	
500-136990-7 - DL	2696V-68-B06 (0-5)	Total/NA	Solid	5035	
500-136990-7 MS	2696V-68-B06 (0-5)	Total/NA	Solid	5035	
500-136990-7 MSD	2696V-68-B06 (0-5)	Total/NA	Solid	5035	

Prep Batch: 409309

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-136990-1	2696V-68-B01 (0-5)	Total/NA	Solid	5035	
500-136990-2	2696V-68-B02 (0-5)	Total/NA	Solid	5035	
500-136990-3	2696V-68-B03 (0-5)	Total/NA	Solid	5035	
500-136990-4	2696V-68-B04 (0-5)	Total/NA	Solid	5035	
500-136990-8	2696V-68-B07 (0-5)	Total/NA	Solid	5035	
500-136990-9	2696V-68-B07 (5-10)	Total/NA	Solid	5035	
500-136990-10	2696V-68-B07 (10-15)	Total/NA	Solid	5035	
500-136990-11	2696V-68-B07 (15-21)	Total/NA	Solid	5035	
500-136990-12	2696V-68-B08 (0-5)	Total/NA	Solid	5035	
500-136990-13	2696V-68-B09 (0-5)	Total/NA	Solid	5035	

Analysis Batch: 409897

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-136990-1	2696V-68-B01 (0-5)	Total/NA	Solid	8260B	409309
500-136990-3	2696V-68-B03 (0-5)	Total/NA	Solid	8260B	409309
500-136990-4	2696V-68-B04 (0-5)	Total/NA	Solid	8260B	409309
500-136990-8	2696V-68-B07 (0-5)	Total/NA	Solid	8260B	409309
500-136990-9	2696V-68-B07 (5-10)	Total/NA	Solid	8260B	409309
500-136990-10	2696V-68-B07 (10-15)	Total/NA	Solid	8260B	409309
500-136990-11	2696V-68-B07 (15-21)	Total/NA	Solid	8260B	409309
500-136990-12	2696V-68-B08 (0-5)	Total/NA	Solid	8260B	409309
500-136990-13	2696V-68-B09 (0-5)	Total/NA	Solid	8260B	409309
MB 500-409897/5	Method Blank	Total/NA	Solid	8260B	
LCS 500-409897/3	Lab Control Sample	Total/NA	Solid	8260B	
LCSD 500-409897/4	Lab Control Sample Dup	Total/NA	Solid	8260B	

Analysis Batch: 410019

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-136990-2	2696V-68-B02 (0-5)	Total/NA	Solid	8260B	409309
MB 500-410019/8	Method Blank	Total/NA	Solid	8260B	
LCS 500-410019/5	Lab Control Sample	Total/NA	Solid	8260B	
LCSD 500-410019/6	Lab Control Sample Dup	Total/NA	Solid	8260B	

Analysis Batch: 410445

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-136990-5	2696V-68-B05 (0-5)	Total/NA	Solid	8260B	409285
500-136990-6	2696V-68-B05 (0-5) Dup	Total/NA	Solid	8260B	409285
500-136990-7	2696V-68-B06 (0-5)	Total/NA	Solid	8260B	409285
MB 500-410445/8	Method Blank	Total/NA	Solid	8260B	
LCS 500-410445/7	Lab Control Sample	Total/NA	Solid	8260B	

TestAmerica Chicago

QC Association Summary

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136990-1

GC/MS VOA (Continued)

Analysis Batch: 410445 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-136990-7 MS	2696V-68-B06 (0-5)	Total/NA	Solid	8260B	409285
500-136990-7 MSD	2696V-68-B06 (0-5)	Total/NA	Solid	8260B	409285

Analysis Batch: 410547

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-136990-14	2696V-68-G01	Total/NA	Water	8260B	
500-136990-15	Trip Blank	Total/NA	Water	8260B	
MB 500-410547/6	Method Blank	Total/NA	Water	8260B	
LCS 500-410547/4	Lab Control Sample	Total/NA	Water	8260B	

Prep Batch: 410682

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 500-410682/22-A	Lab Control Sample	Total/NA	Solid	5035	

Analysis Batch: 410712

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-136990-5 - DL	2696V-68-B05 (0-5)	Total/NA	Solid	8260B	409285
500-136990-6 - DL	2696V-68-B05 (0-5) Dup	Total/NA	Solid	8260B	409285
500-136990-7 - DL	2696V-68-B06 (0-5)	Total/NA	Solid	8260B	409285
MB 500-410712/5	Method Blank	Total/NA	Solid	8260B	
LCS 500-410682/22-A	Lab Control Sample	Total/NA	Solid	8260B	410682
LCS 500-410712/4	Lab Control Sample	Total/NA	Solid	8260B	

GC/MS Semi VOA

Prep Batch: 409153

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-136990-14	2696V-68-G01	Total/NA	Water	3510C	
MB 500-409153/1-A	Method Blank	Total/NA	Water	3510C	
LCS 500-409153/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 500-409153/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 409237

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-136990-14	2696V-68-G01	Total/NA	Water	8270D	409153
MB 500-409153/1-A	Method Blank	Total/NA	Water	8270D	409153
LCS 500-409153/2-A	Lab Control Sample	Total/NA	Water	8270D	409153
LCSD 500-409153/3-A	Lab Control Sample Dup	Total/NA	Water	8270D	409153

Prep Batch: 409947

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-136990-1	2696V-68-B01 (0-5)	Total/NA	Solid	3541	
500-136990-2	2696V-68-B02 (0-5)	Total/NA	Solid	3541	
500-136990-3	2696V-68-B03 (0-5)	Total/NA	Solid	3541	
500-136990-4	2696V-68-B04 (0-5)	Total/NA	Solid	3541	
500-136990-5	2696V-68-B05 (0-5)	Total/NA	Solid	3541	
500-136990-6	2696V-68-B05 (0-5) Dup	Total/NA	Solid	3541	
500-136990-7	2696V-68-B06 (0-5)	Total/NA	Solid	3541	
500-136990-7 - DL	2696V-68-B06 (0-5)	Total/NA	Solid	3541	
500-136990-8	2696V-68-B07 (0-5)	Total/NA	Solid	3541	

TestAmerica Chicago

QC Association Summary

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136990-1

GC/MS Semi VOA (Continued)

Prep Batch: 409947 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-136990-9	2696V-68-B07 (5-10)	Total/NA	Solid	3541	
500-136990-10	2696V-68-B07 (10-15)	Total/NA	Solid	3541	
500-136990-11	2696V-68-B07 (15-21)	Total/NA	Solid	3541	
500-136990-12	2696V-68-B08 (0-5)	Total/NA	Solid	3541	
500-136990-13	2696V-68-B09 (0-5)	Total/NA	Solid	3541	
MB 500-409947/1-A	Method Blank	Total/NA	Solid	3541	
LCS 500-409947/2-A	Lab Control Sample	Total/NA	Solid	3541	
500-136990-2 MS	2696V-68-B02 (0-5)	Total/NA	Solid	3541	
500-136990-2 MSD	2696V-68-B02 (0-5)	Total/NA	Solid	3541	

Analysis Batch: 410058

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 500-409947/1-A	Method Blank	Total/NA	Solid	8270D	409947
LCS 500-409947/2-A	Lab Control Sample	Total/NA	Solid	8270D	409947

Analysis Batch: 410234

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-136990-1	2696V-68-B01 (0-5)	Total/NA	Solid	8270D	409947
500-136990-2	2696V-68-B02 (0-5)	Total/NA	Solid	8270D	409947
500-136990-3	2696V-68-B03 (0-5)	Total/NA	Solid	8270D	409947
500-136990-4	2696V-68-B04 (0-5)	Total/NA	Solid	8270D	409947
500-136990-5	2696V-68-B05 (0-5)	Total/NA	Solid	8270D	409947
500-136990-6	2696V-68-B05 (0-5) Dup	Total/NA	Solid	8270D	409947
500-136990-7	2696V-68-B06 (0-5)	Total/NA	Solid	8270D	409947
500-136990-8	2696V-68-B07 (0-5)	Total/NA	Solid	8270D	409947
500-136990-9	2696V-68-B07 (5-10)	Total/NA	Solid	8270D	409947
500-136990-10	2696V-68-B07 (10-15)	Total/NA	Solid	8270D	409947
500-136990-11	2696V-68-B07 (15-21)	Total/NA	Solid	8270D	409947
500-136990-12	2696V-68-B08 (0-5)	Total/NA	Solid	8270D	409947
500-136990-13	2696V-68-B09 (0-5)	Total/NA	Solid	8270D	409947
500-136990-2 MS	2696V-68-B02 (0-5)	Total/NA	Solid	8270D	409947
500-136990-2 MSD	2696V-68-B02 (0-5)	Total/NA	Solid	8270D	409947

Analysis Batch: 410465

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-136990-7 - DL	2696V-68-B06 (0-5)	Total/NA	Solid	8270D	409947

Metals

Prep Batch: 409231

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-136990-14	2696V-68-G01	Total/NA	Water	7470A	
MB 500-409231/12-A	Method Blank	Total/NA	Water	7470A	
LCS 500-409231/13-A	Lab Control Sample	Total/NA	Water	7470A	

Prep Batch: 409258

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-136990-14	2696V-68-G01	Total Recoverable	Water	3005A	
MB 500-409258/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 500-409258/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

TestAmerica Chicago

QC Association Summary

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136990-1

Metals (Continued)

Prep Batch: 409258 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-136990-14 MS	2696V-68-G01	Total Recoverable	Water	3005A	
500-136990-14 MSD	2696V-68-G01	Total Recoverable	Water	3005A	
500-136990-14 DU	2696V-68-G01	Total Recoverable	Water	3005A	

Prep Batch: 409344

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-136990-1	2696V-68-B01 (0-5)	Total/NA	Solid	3050B	
500-136990-2	2696V-68-B02 (0-5)	Total/NA	Solid	3050B	
500-136990-3	2696V-68-B03 (0-5)	Total/NA	Solid	3050B	
500-136990-4	2696V-68-B04 (0-5)	Total/NA	Solid	3050B	
500-136990-5	2696V-68-B05 (0-5)	Total/NA	Solid	3050B	
500-136990-6	2696V-68-B05 (0-5) Dup	Total/NA	Solid	3050B	
500-136990-7	2696V-68-B06 (0-5)	Total/NA	Solid	3050B	
500-136990-8	2696V-68-B07 (0-5)	Total/NA	Solid	3050B	
500-136990-9	2696V-68-B07 (5-10)	Total/NA	Solid	3050B	
500-136990-10	2696V-68-B07 (10-15)	Total/NA	Solid	3050B	
500-136990-11	2696V-68-B07 (15-21)	Total/NA	Solid	3050B	
500-136990-12	2696V-68-B08 (0-5)	Total/NA	Solid	3050B	
500-136990-13	2696V-68-B09 (0-5)	Total/NA	Solid	3050B	
MB 500-409344/1-A	Method Blank	Total/NA	Solid	3050B	
LCS 500-409344/2-A	Lab Control Sample	Total/NA	Solid	3050B	
500-136990-1 MS	2696V-68-B01 (0-5)	Total/NA	Solid	3050B	
500-136990-1 MSD	2696V-68-B01 (0-5)	Total/NA	Solid	3050B	
500-136990-1 DU	2696V-68-B01 (0-5)	Total/NA	Solid	3050B	

Leach Batch: 409427

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-136990-1	2696V-68-B01 (0-5)	SPLP East	Solid	1312	
500-136990-2	2696V-68-B02 (0-5)	SPLP East	Solid	1312	
500-136990-3	2696V-68-B03 (0-5)	SPLP East	Solid	1312	
500-136990-4	2696V-68-B04 (0-5)	SPLP East	Solid	1312	
500-136990-5	2696V-68-B05 (0-5)	SPLP East	Solid	1312	
500-136990-6	2696V-68-B05 (0-5) Dup	SPLP East	Solid	1312	
500-136990-7	2696V-68-B06 (0-5)	SPLP East	Solid	1312	
500-136990-9	2696V-68-B07 (5-10)	SPLP East	Solid	1312	
500-136990-10	2696V-68-B07 (10-15)	SPLP East	Solid	1312	
500-136990-11	2696V-68-B07 (15-21)	SPLP East	Solid	1312	
500-136990-12	2696V-68-B08 (0-5)	SPLP East	Solid	1312	
500-136990-13	2696V-68-B09 (0-5)	SPLP East	Solid	1312	
LB 500-409427/1-B	Method Blank	SPLP East	Solid	1312	
500-136990-13 MS	2696V-68-B09 (0-5)	SPLP East	Solid	1312	
500-136990-13 DU	2696V-68-B09 (0-5)	SPLP East	Solid	1312	

Analysis Batch: 409505

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-136990-1	2696V-68-B01 (0-5)	Total/NA	Solid	6010B	409344
500-136990-2	2696V-68-B02 (0-5)	Total/NA	Solid	6010B	409344
500-136990-3	2696V-68-B03 (0-5)	Total/NA	Solid	6010B	409344
500-136990-4	2696V-68-B04 (0-5)	Total/NA	Solid	6010B	409344
500-136990-5	2696V-68-B05 (0-5)	Total/NA	Solid	6010B	409344
500-136990-6	2696V-68-B05 (0-5) Dup	Total/NA	Solid	6010B	409344

TestAmerica Chicago

QC Association Summary

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136990-1

Metals (Continued)

Analysis Batch: 409505 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-136990-7	2696V-68-B06 (0-5)	Total/NA	Solid	6010B	409344
500-136990-8	2696V-68-B07 (0-5)	Total/NA	Solid	6010B	409344
500-136990-9	2696V-68-B07 (5-10)	Total/NA	Solid	6010B	409344
500-136990-10	2696V-68-B07 (10-15)	Total/NA	Solid	6010B	409344
500-136990-11	2696V-68-B07 (15-21)	Total/NA	Solid	6010B	409344
500-136990-12	2696V-68-B08 (0-5)	Total/NA	Solid	6010B	409344
500-136990-13	2696V-68-B09 (0-5)	Total/NA	Solid	6010B	409344
MB 500-409344/1-A	Method Blank	Total/NA	Solid	6010B	409344
LCS 500-409344/2-A	Lab Control Sample	Total/NA	Solid	6010B	409344
500-136990-1 MS	2696V-68-B01 (0-5)	Total/NA	Solid	6010B	409344
500-136990-1 MSD	2696V-68-B01 (0-5)	Total/NA	Solid	6010B	409344
500-136990-1 DU	2696V-68-B01 (0-5)	Total/NA	Solid	6010B	409344

Analysis Batch: 409603

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-136990-9	2696V-68-B07 (5-10)	Total/NA	Solid	6010B	409344
500-136990-10	2696V-68-B07 (10-15)	Total/NA	Solid	6010B	409344
500-136990-11	2696V-68-B07 (15-21)	Total/NA	Solid	6010B	409344

Prep Batch: 409620

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-136990-1	2696V-68-B01 (0-5)	SPLP East	Solid	3010A	409427
500-136990-2	2696V-68-B02 (0-5)	SPLP East	Solid	3010A	409427
500-136990-3	2696V-68-B03 (0-5)	SPLP East	Solid	3010A	409427
500-136990-4	2696V-68-B04 (0-5)	SPLP East	Solid	3010A	409427
500-136990-5	2696V-68-B05 (0-5)	SPLP East	Solid	3010A	409427
500-136990-6	2696V-68-B05 (0-5) Dup	SPLP East	Solid	3010A	409427
500-136990-7	2696V-68-B06 (0-5)	SPLP East	Solid	3010A	409427
500-136990-9	2696V-68-B07 (5-10)	SPLP East	Solid	3010A	409427
500-136990-10	2696V-68-B07 (10-15)	SPLP East	Solid	3010A	409427
500-136990-11	2696V-68-B07 (15-21)	SPLP East	Solid	3010A	409427
500-136990-12	2696V-68-B08 (0-5)	SPLP East	Solid	3010A	409427
500-136990-13	2696V-68-B09 (0-5)	SPLP East	Solid	3010A	409427
LB 500-409427/1-B	Method Blank	SPLP East	Solid	3010A	409427
LCS 500-409620/2-A	Lab Control Sample	Total/NA	Solid	3010A	
500-136990-13 MS	2696V-68-B09 (0-5)	SPLP East	Solid	3010A	409427
500-136990-13 DU	2696V-68-B09 (0-5)	SPLP East	Solid	3010A	409427

Analysis Batch: 409652

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-136990-14	2696V-68-G01	Total Recoverable	Water	6020A	409258
MB 500-409258/1-A	Method Blank	Total Recoverable	Water	6020A	409258
LCS 500-409258/2-A	Lab Control Sample	Total Recoverable	Water	6020A	409258
500-136990-14 MS	2696V-68-G01	Total Recoverable	Water	6020A	409258
500-136990-14 MSD	2696V-68-G01	Total Recoverable	Water	6020A	409258
500-136990-14 DU	2696V-68-G01	Total Recoverable	Water	6020A	409258

Prep Batch: 409678

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-136990-1	2696V-68-B01 (0-5)	Total/NA	Solid	7471B	
500-136990-2	2696V-68-B02 (0-5)	Total/NA	Solid	7471B	

TestAmerica Chicago

QC Association Summary

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136990-1

Metals (Continued)

Prep Batch: 409678 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-136990-3	2696V-68-B03 (0-5)	Total/NA	Solid	7471B	
500-136990-4	2696V-68-B04 (0-5)	Total/NA	Solid	7471B	
500-136990-5	2696V-68-B05 (0-5)	Total/NA	Solid	7471B	
500-136990-6	2696V-68-B05 (0-5) Dup	Total/NA	Solid	7471B	
500-136990-7	2696V-68-B06 (0-5)	Total/NA	Solid	7471B	
500-136990-8	2696V-68-B07 (0-5)	Total/NA	Solid	7471B	
500-136990-9	2696V-68-B07 (5-10)	Total/NA	Solid	7471B	
500-136990-10	2696V-68-B07 (10-15)	Total/NA	Solid	7471B	
500-136990-11	2696V-68-B07 (15-21)	Total/NA	Solid	7471B	
500-136990-12	2696V-68-B08 (0-5)	Total/NA	Solid	7471B	
500-136990-13	2696V-68-B09 (0-5)	Total/NA	Solid	7471B	
MB 500-409678/12-A	Method Blank	Total/NA	Solid	7471B	
LCS 500-409678/13-A	Lab Control Sample	Total/NA	Solid	7471B	

Analysis Batch: 409718

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-136990-14	2696V-68-G01	Total/NA	Water	7470A	409231
MB 500-409231/12-A	Method Blank	Total/NA	Water	7470A	409231
LCS 500-409231/13-A	Lab Control Sample	Total/NA	Water	7470A	409231

Leach Batch: 409722

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-136990-1	2696V-68-B01 (0-5)	TCLP	Solid	1311	
500-136990-2	2696V-68-B02 (0-5)	TCLP	Solid	1311	
500-136990-3	2696V-68-B03 (0-5)	TCLP	Solid	1311	
500-136990-4	2696V-68-B04 (0-5)	TCLP	Solid	1311	
500-136990-5	2696V-68-B05 (0-5)	TCLP	Solid	1311	
500-136990-6	2696V-68-B05 (0-5) Dup	TCLP	Solid	1311	
500-136990-7	2696V-68-B06 (0-5)	TCLP	Solid	1311	
500-136990-8	2696V-68-B07 (0-5)	TCLP	Solid	1311	
500-136990-9	2696V-68-B07 (5-10)	TCLP	Solid	1311	
500-136990-10	2696V-68-B07 (10-15)	TCLP	Solid	1311	
500-136990-11	2696V-68-B07 (15-21)	TCLP	Solid	1311	
500-136990-12	2696V-68-B08 (0-5)	TCLP	Solid	1311	
500-136990-13	2696V-68-B09 (0-5)	TCLP	Solid	1311	
LB 500-409722/1-B	Method Blank	TCLP	Solid	1311	
LB 500-409722/1-C	Method Blank	TCLP	Solid	1311	
500-136990-12 MS	2696V-68-B08 (0-5)	TCLP	Solid	1311	
500-136990-13 MS	2696V-68-B09 (0-5)	TCLP	Solid	1311	
500-136990-12 DU	2696V-68-B08 (0-5)	TCLP	Solid	1311	
500-136990-13 DU	2696V-68-B09 (0-5)	TCLP	Solid	1311	

Analysis Batch: 409822

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-136990-1	2696V-68-B01 (0-5)	SPLP East	Solid	6010B	409620
500-136990-2	2696V-68-B02 (0-5)	SPLP East	Solid	6010B	409620
500-136990-3	2696V-68-B03 (0-5)	SPLP East	Solid	6010B	409620
500-136990-4	2696V-68-B04 (0-5)	SPLP East	Solid	6010B	409620
500-136990-5	2696V-68-B05 (0-5)	SPLP East	Solid	6010B	409620
500-136990-6	2696V-68-B05 (0-5) Dup	SPLP East	Solid	6010B	409620
500-136990-7	2696V-68-B06 (0-5)	SPLP East	Solid	6010B	409620

TestAmerica Chicago

QC Association Summary

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136990-1

Metals (Continued)

Analysis Batch: 409822 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-136990-9	2696V-68-B07 (5-10)	SPLP East	Solid	6010B	409620
500-136990-10	2696V-68-B07 (10-15)	SPLP East	Solid	6010B	409620
500-136990-11	2696V-68-B07 (15-21)	SPLP East	Solid	6010B	409620
500-136990-12	2696V-68-B08 (0-5)	SPLP East	Solid	6010B	409620
500-136990-13	2696V-68-B09 (0-5)	SPLP East	Solid	6010B	409620
LB 500-409427/1-B	Method Blank	SPLP East	Solid	6010B	409620
LCS 500-409620/2-A	Lab Control Sample	Total/NA	Solid	6010B	409620
500-136990-13 MS	2696V-68-B09 (0-5)	SPLP East	Solid	6010B	409620
500-136990-13 DU	2696V-68-B09 (0-5)	SPLP East	Solid	6010B	409620

Prep Batch: 409885

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-136990-1	2696V-68-B01 (0-5)	TCLP	Solid	7470A	409722
500-136990-2	2696V-68-B02 (0-5)	TCLP	Solid	7470A	409722
500-136990-3	2696V-68-B03 (0-5)	TCLP	Solid	7470A	409722
500-136990-4	2696V-68-B04 (0-5)	TCLP	Solid	7470A	409722
500-136990-5	2696V-68-B05 (0-5)	TCLP	Solid	7470A	409722
500-136990-6	2696V-68-B05 (0-5) Dup	TCLP	Solid	7470A	409722
500-136990-7	2696V-68-B06 (0-5)	TCLP	Solid	7470A	409722
500-136990-8	2696V-68-B07 (0-5)	TCLP	Solid	7470A	409722
500-136990-9	2696V-68-B07 (5-10)	TCLP	Solid	7470A	409722
500-136990-10	2696V-68-B07 (10-15)	TCLP	Solid	7470A	409722
500-136990-11	2696V-68-B07 (15-21)	TCLP	Solid	7470A	409722
500-136990-12	2696V-68-B08 (0-5)	TCLP	Solid	7470A	409722
500-136990-13	2696V-68-B09 (0-5)	TCLP	Solid	7470A	409722
LB 500-409722/1-B	Method Blank	TCLP	Solid	7470A	409722
MB 500-409885/12-A	Method Blank	Total/NA	Solid	7470A	
LCS 500-409885/13-A	Lab Control Sample	Total/NA	Solid	7470A	
500-136990-13 MS	2696V-68-B09 (0-5)	TCLP	Solid	7470A	409722
500-136990-13 DU	2696V-68-B09 (0-5)	TCLP	Solid	7470A	409722

Prep Batch: 409927

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-136990-1	2696V-68-B01 (0-5)	TCLP	Solid	3010A	409722
500-136990-2	2696V-68-B02 (0-5)	TCLP	Solid	3010A	409722
500-136990-3	2696V-68-B03 (0-5)	TCLP	Solid	3010A	409722
500-136990-4	2696V-68-B04 (0-5)	TCLP	Solid	3010A	409722
500-136990-5	2696V-68-B05 (0-5)	TCLP	Solid	3010A	409722
500-136990-6	2696V-68-B05 (0-5) Dup	TCLP	Solid	3010A	409722
500-136990-7	2696V-68-B06 (0-5)	TCLP	Solid	3010A	409722
500-136990-8	2696V-68-B07 (0-5)	TCLP	Solid	3010A	409722
500-136990-9	2696V-68-B07 (5-10)	TCLP	Solid	3010A	409722
500-136990-10	2696V-68-B07 (10-15)	TCLP	Solid	3010A	409722
500-136990-11	2696V-68-B07 (15-21)	TCLP	Solid	3010A	409722
500-136990-12	2696V-68-B08 (0-5)	TCLP	Solid	3010A	409722
500-136990-13	2696V-68-B09 (0-5)	TCLP	Solid	3010A	409722
LB 500-409722/1-C	Method Blank	TCLP	Solid	3010A	409722
LCS 500-409927/2-A	Lab Control Sample	Total/NA	Solid	3010A	
500-136990-12 MS	2696V-68-B08 (0-5)	TCLP	Solid	3010A	409722
500-136990-12 DU	2696V-68-B08 (0-5)	TCLP	Solid	3010A	409722

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QC Association Summary

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136990-1

Metals (Continued)

Analysis Batch: 410088

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-136990-1	2696V-68-B01 (0-5)	TCLP	Solid	6010B	409927
500-136990-2	2696V-68-B02 (0-5)	TCLP	Solid	6010B	409927
500-136990-3	2696V-68-B03 (0-5)	TCLP	Solid	6010B	409927
500-136990-4	2696V-68-B04 (0-5)	TCLP	Solid	6010B	409927
500-136990-5	2696V-68-B05 (0-5)	TCLP	Solid	6010B	409927
500-136990-6	2696V-68-B05 (0-5) Dup	TCLP	Solid	6010B	409927
500-136990-7	2696V-68-B06 (0-5)	TCLP	Solid	6010B	409927
500-136990-8	2696V-68-B07 (0-5)	TCLP	Solid	6010B	409927
500-136990-9	2696V-68-B07 (5-10)	TCLP	Solid	6010B	409927
500-136990-10	2696V-68-B07 (10-15)	TCLP	Solid	6010B	409927
500-136990-11	2696V-68-B07 (15-21)	TCLP	Solid	6010B	409927
500-136990-12	2696V-68-B08 (0-5)	TCLP	Solid	6010B	409927
500-136990-13	2696V-68-B09 (0-5)	TCLP	Solid	6010B	409927
LB 500-409722/1-C	Method Blank	TCLP	Solid	6010B	409927
LCS 500-409927/2-A	Lab Control Sample	Total/NA	Solid	6010B	409927
500-136990-12 MS	2696V-68-B08 (0-5)	TCLP	Solid	6010B	409927
500-136990-12 DU	2696V-68-B08 (0-5)	TCLP	Solid	6010B	409927

Analysis Batch: 410196

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-136990-9	2696V-68-B07 (5-10)	TCLP	Solid	6010B	409927

Analysis Batch: 410287

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-136990-1	2696V-68-B01 (0-5)	TCLP	Solid	6020A	409927
500-136990-2	2696V-68-B02 (0-5)	TCLP	Solid	6020A	409927
500-136990-3	2696V-68-B03 (0-5)	TCLP	Solid	6020A	409927
500-136990-4	2696V-68-B04 (0-5)	TCLP	Solid	6020A	409927
500-136990-5	2696V-68-B05 (0-5)	TCLP	Solid	6020A	409927
500-136990-6	2696V-68-B05 (0-5) Dup	TCLP	Solid	6020A	409927
500-136990-7	2696V-68-B06 (0-5)	TCLP	Solid	6020A	409927
500-136990-8	2696V-68-B07 (0-5)	TCLP	Solid	6020A	409927
500-136990-9	2696V-68-B07 (5-10)	TCLP	Solid	6020A	409927
500-136990-10	2696V-68-B07 (10-15)	TCLP	Solid	6020A	409927
500-136990-11	2696V-68-B07 (15-21)	TCLP	Solid	6020A	409927
500-136990-12	2696V-68-B08 (0-5)	TCLP	Solid	6020A	409927
500-136990-13	2696V-68-B09 (0-5)	TCLP	Solid	6020A	409927
LB 500-409722/1-C	Method Blank	TCLP	Solid	6020A	409927
LCS 500-409927/2-A	Lab Control Sample	Total/NA	Solid	6020A	409927
500-136990-12 MS	2696V-68-B08 (0-5)	TCLP	Solid	6020A	409927
500-136990-12 DU	2696V-68-B08 (0-5)	TCLP	Solid	6020A	409927

Analysis Batch: 410343

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-136990-1	2696V-68-B01 (0-5)	TCLP	Solid	7470A	409885
500-136990-2	2696V-68-B02 (0-5)	TCLP	Solid	7470A	409885
500-136990-3	2696V-68-B03 (0-5)	TCLP	Solid	7470A	409885
500-136990-4	2696V-68-B04 (0-5)	TCLP	Solid	7470A	409885
500-136990-5	2696V-68-B05 (0-5)	TCLP	Solid	7470A	409885
500-136990-6	2696V-68-B05 (0-5) Dup	TCLP	Solid	7470A	409885
500-136990-7	2696V-68-B06 (0-5)	TCLP	Solid	7470A	409885

TestAmerica Chicago

QC Association Summary

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136990-1

Metals (Continued)

Analysis Batch: 410343 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-136990-8	2696V-68-B07 (0-5)	TCLP	Solid	7470A	409885
500-136990-9	2696V-68-B07 (5-10)	TCLP	Solid	7470A	409885
500-136990-10	2696V-68-B07 (10-15)	TCLP	Solid	7470A	409885
500-136990-11	2696V-68-B07 (15-21)	TCLP	Solid	7470A	409885
500-136990-12	2696V-68-B08 (0-5)	TCLP	Solid	7470A	409885
500-136990-13	2696V-68-B09 (0-5)	TCLP	Solid	7470A	409885
LB 500-409722/1-B	Method Blank	TCLP	Solid	7470A	409885
MB 500-409885/12-A	Method Blank	Total/NA	Solid	7470A	409885
LCS 500-409885/13-A	Lab Control Sample	Total/NA	Solid	7470A	409885
500-136990-13 MS	2696V-68-B09 (0-5)	TCLP	Solid	7470A	409885
500-136990-13 DU	2696V-68-B09 (0-5)	TCLP	Solid	7470A	409885

Analysis Batch: 410350

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-136990-1	2696V-68-B01 (0-5)	Total/NA	Solid	7471B	409678
500-136990-2	2696V-68-B02 (0-5)	Total/NA	Solid	7471B	409678
500-136990-3	2696V-68-B03 (0-5)	Total/NA	Solid	7471B	409678
500-136990-4	2696V-68-B04 (0-5)	Total/NA	Solid	7471B	409678
500-136990-5	2696V-68-B05 (0-5)	Total/NA	Solid	7471B	409678
500-136990-6	2696V-68-B05 (0-5) Dup	Total/NA	Solid	7471B	409678
500-136990-7	2696V-68-B06 (0-5)	Total/NA	Solid	7471B	409678
500-136990-8	2696V-68-B07 (0-5)	Total/NA	Solid	7471B	409678
500-136990-9	2696V-68-B07 (5-10)	Total/NA	Solid	7471B	409678
500-136990-10	2696V-68-B07 (10-15)	Total/NA	Solid	7471B	409678
500-136990-11	2696V-68-B07 (15-21)	Total/NA	Solid	7471B	409678
500-136990-12	2696V-68-B08 (0-5)	Total/NA	Solid	7471B	409678
MB 500-409678/12-A	Method Blank	Total/NA	Solid	7471B	409678
LCS 500-409678/13-A	Lab Control Sample	Total/NA	Solid	7471B	409678

Analysis Batch: 410410

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-136990-13	2696V-68-B09 (0-5)	Total/NA	Solid	7471B	409678

General Chemistry

Analysis Batch: 409350

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-136990-1	2696V-68-B01 (0-5)	Total/NA	Solid	Moisture	
500-136990-2	2696V-68-B02 (0-5)	Total/NA	Solid	Moisture	
500-136990-3	2696V-68-B03 (0-5)	Total/NA	Solid	Moisture	
500-136990-4	2696V-68-B04 (0-5)	Total/NA	Solid	Moisture	
500-136990-5	2696V-68-B05 (0-5)	Total/NA	Solid	Moisture	
500-136990-6	2696V-68-B05 (0-5) Dup	Total/NA	Solid	Moisture	
500-136990-7	2696V-68-B06 (0-5)	Total/NA	Solid	Moisture	
500-136990-8	2696V-68-B07 (0-5)	Total/NA	Solid	Moisture	
500-136990-9	2696V-68-B07 (5-10)	Total/NA	Solid	Moisture	
500-136990-10	2696V-68-B07 (10-15)	Total/NA	Solid	Moisture	
500-136990-11	2696V-68-B07 (15-21)	Total/NA	Solid	Moisture	
500-136990-12	2696V-68-B08 (0-5)	Total/NA	Solid	Moisture	
500-136990-13	2696V-68-B09 (0-5)	Total/NA	Solid	Moisture	

TestAmerica Chicago

QC Association Summary

Client: Terracon Consulting Eng & Scientists
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TestAmerica Job ID: 500-136990-1

General Chemistry (Continued)

Analysis Batch: 409350 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-136990-2 DU	2696V-68-B02 (0-5)	Total/NA	Solid	Moisture	

Analysis Batch: 410079

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-136990-1	2696V-68-B01 (0-5)	Total/NA	Solid	9045D	
500-136990-2	2696V-68-B02 (0-5)	Total/NA	Solid	9045D	
500-136990-3	2696V-68-B03 (0-5)	Total/NA	Solid	9045D	
500-136990-4	2696V-68-B04 (0-5)	Total/NA	Solid	9045D	
500-136990-5	2696V-68-B05 (0-5)	Total/NA	Solid	9045D	
500-136990-6	2696V-68-B05 (0-5) Dup	Total/NA	Solid	9045D	
500-136990-7	2696V-68-B06 (0-5)	Total/NA	Solid	9045D	
500-136990-8	2696V-68-B07 (0-5)	Total/NA	Solid	9045D	
500-136990-9	2696V-68-B07 (5-10)	Total/NA	Solid	9045D	
500-136990-10	2696V-68-B07 (10-15)	Total/NA	Solid	9045D	
500-136990-11	2696V-68-B07 (15-21)	Total/NA	Solid	9045D	
500-136990-12	2696V-68-B08 (0-5)	Total/NA	Solid	9045D	
500-136990-13	2696V-68-B09 (0-5)	Total/NA	Solid	9045D	
500-136990-1 DU	2696V-68-B01 (0-5)	Total/NA	Solid	9045D	

Prep Batch: 410433

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-136990-1	2696V-68-B01 (0-5)	Total/NA	Solid	9010B	
500-136990-2	2696V-68-B02 (0-5)	Total/NA	Solid	9010B	
500-136990-3	2696V-68-B03 (0-5)	Total/NA	Solid	9010B	
500-136990-4	2696V-68-B04 (0-5)	Total/NA	Solid	9010B	
500-136990-5	2696V-68-B05 (0-5)	Total/NA	Solid	9010B	
500-136990-6	2696V-68-B05 (0-5) Dup	Total/NA	Solid	9010B	
MB 500-410433/13-A	Method Blank	Total/NA	Solid	9010B	
LCS 500-410433/14-A	Lab Control Sample	Total/NA	Solid	9010B	

Prep Batch: 410477

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-136990-14	2696V-68-G01	Total/NA	Water	9010B	
MB 500-410477/1-A	Method Blank	Total/NA	Water	9010B	
LCS 500-410477/2-A	Lab Control Sample	Total/NA	Water	9010B	

Prep Batch: 410524

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-136990-7	2696V-68-B06 (0-5)	Total/NA	Solid	9010B	
500-136990-8	2696V-68-B07 (0-5)	Total/NA	Solid	9010B	
500-136990-9	2696V-68-B07 (5-10)	Total/NA	Solid	9010B	
500-136990-10	2696V-68-B07 (10-15)	Total/NA	Solid	9010B	
500-136990-11	2696V-68-B07 (15-21)	Total/NA	Solid	9010B	
500-136990-12	2696V-68-B08 (0-5)	Total/NA	Solid	9010B	
500-136990-13	2696V-68-B09 (0-5)	Total/NA	Solid	9010B	
MB 500-410524/1-A	Method Blank	Total/NA	Solid	9010B	
LCS 500-410524/2-A	Lab Control Sample	Total/NA	Solid	9010B	
500-136990-7 MS	2696V-68-B06 (0-5)	Total/NA	Solid	9010B	
500-136990-7 MSD	2696V-68-B06 (0-5)	Total/NA	Solid	9010B	

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QC Association Summary

Client: Terracon Consulting Eng & Scientists
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TestAmerica Job ID: 500-136990-1

General Chemistry (Continued)

Analysis Batch: 410591

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-136990-14	2696V-68-G01	Total/NA	Water	9014	410477
MB 500-410477/1-A	Method Blank	Total/NA	Water	9014	410477
LCS 500-410477/2-A	Lab Control Sample	Total/NA	Water	9014	410477

Analysis Batch: 410593

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-136990-1	2696V-68-B01 (0-5)	Total/NA	Solid	9014	410433
500-136990-2	2696V-68-B02 (0-5)	Total/NA	Solid	9014	410433
500-136990-3	2696V-68-B03 (0-5)	Total/NA	Solid	9014	410433
500-136990-4	2696V-68-B04 (0-5)	Total/NA	Solid	9014	410433
500-136990-5	2696V-68-B05 (0-5)	Total/NA	Solid	9014	410433
500-136990-6	2696V-68-B05 (0-5) Dup	Total/NA	Solid	9014	410433
MB 500-410433/13-A	Method Blank	Total/NA	Solid	9014	410433
LCS 500-410433/14-A	Lab Control Sample	Total/NA	Solid	9014	410433

Analysis Batch: 410610

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-136990-7	2696V-68-B06 (0-5)	Total/NA	Solid	9014	410524
500-136990-8	2696V-68-B07 (0-5)	Total/NA	Solid	9014	410524
500-136990-9	2696V-68-B07 (5-10)	Total/NA	Solid	9014	410524
500-136990-10	2696V-68-B07 (10-15)	Total/NA	Solid	9014	410524
500-136990-11	2696V-68-B07 (15-21)	Total/NA	Solid	9014	410524
500-136990-12	2696V-68-B08 (0-5)	Total/NA	Solid	9014	410524
500-136990-13	2696V-68-B09 (0-5)	Total/NA	Solid	9014	410524
MB 500-410524/1-A	Method Blank	Total/NA	Solid	9014	410524
LCS 500-410524/2-A	Lab Control Sample	Total/NA	Solid	9014	410524
500-136990-7 MS	2696V-68-B06 (0-5)	Total/NA	Solid	9014	410524
500-136990-7 MSD	2696V-68-B06 (0-5)	Total/NA	Solid	9014	410524

Surrogate Summary

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136990-1

Method: 8260B - VOC

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	BFB	DBFM	12DCE	TOL
		(72-124)	(75-120)	(75-126)	(75-120)
500-136990-14	2696V-68-G01	93	94	90	94
500-136990-15	Trip Blank	92	94	91	94
LCS 500-410547/4	Lab Control Sample	84	90	86	94
MB 500-410547/6	Method Blank	88	91	90	94

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

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	BFB	DBFM	12DCE	TOL
		(75-131)	(75-126)	(70-134)	(75-124)
500-136990-1	2696V-68-B01 (0-5)	90	100	103	95
500-136990-2	2696V-68-B02 (0-5)	91	100	98	98
500-136990-3	2696V-68-B03 (0-5)	88	104	100	94
500-136990-4	2696V-68-B04 (0-5)	86	102	100	95
500-136990-8	2696V-68-B07 (0-5)	89	104	104	96
500-136990-9	2696V-68-B07 (5-10)	103	100	96	96
500-136990-10	2696V-68-B07 (10-15)	95	103	95	99
500-136990-11	2696V-68-B07 (15-21)	96	76	88	98
500-136990-12	2696V-68-B08 (0-5)	91	101	100	99
500-136990-13	2696V-68-B09 (0-5)	86	107	114	95
LCS 500-409897/3	Lab Control Sample	86	96	91	105
LCS 500-410019/5	Lab Control Sample	92	101	90	98
LCSD 500-409897/4	Lab Control Sample Dup	80	100	91	97
LCSD 500-410019/6	Lab Control Sample Dup	92	98	86	99
MB 500-409897/5	Method Blank	90	99	96	92
MB 500-410019/8	Method Blank	93	99	93	98

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

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	BFB	DBFM	12DCE	TOL
		(72-124)	(75-120)	(75-126)	(75-120)
500-136990-5	2696V-68-B05 (0-5)	86	87	83	95
500-136990-5 - DL	2696V-68-B05 (0-5)	82	86	77	91
500-136990-6	2696V-68-B05 (0-5) Dup	82	88	84	97
500-136990-6 - DL	2696V-68-B05 (0-5) Dup	85	84	78	92

TestAmerica Chicago

Surrogate Summary

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136990-1

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

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		BFB (72-124)	DBFM (75-120)	12DCE (75-126)	TOL (75-120)
500-136990-7	2696V-68-B06 (0-5)	85	89	85	96
500-136990-7 - DL	2696V-68-B06 (0-5)	84	86	79	92
500-136990-7 MS	2696V-68-B06 (0-5)	84	88	81	100
500-136990-7 MSD	2696V-68-B06 (0-5)	84	91	82	98
LCS 500-410445/7	Lab Control Sample	83	89	82	95
LCS 500-410682/22-A	Lab Control Sample	80	88	76	93
LCS 500-410712/4	Lab Control Sample	81	86	78	94
MB 500-410445/8	Method Blank	87	87	84	94
MB 500-410712/5	Method Blank	86	86	79	93

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)					
		FBP (44-121)	2FP (46-133)	NBZ (41-120)	PHL (46-125)	TPH (35-160)	TBP (25-139)
500-136990-1	2696V-68-B01 (0-5)	114	111	101	100	104	99
500-136990-2	2696V-68-B02 (0-5)	107	105	95	93	103	120
500-136990-2 MS	2696V-68-B02 (0-5)	114	112	104	100	111	125
500-136990-2 MSD	2696V-68-B02 (0-5)	114	116	104	101	107	122
500-136990-3	2696V-68-B03 (0-5)	123 X	117	111	106	115	140 X
500-136990-4	2696V-68-B04 (0-5)	109	109	97	95	105	113
500-136990-5	2696V-68-B05 (0-5)	113	115	99	101	111	147 X
500-136990-6	2696V-68-B05 (0-5) Dup	107	108	93	97	106	141 X
500-136990-7	2696V-68-B06 (0-5)	112	107	97	97	113	152 X
500-136990-7 - DL	2696V-68-B06 (0-5)	103	124	98	106	119	89
500-136990-8	2696V-68-B07 (0-5)	114	111	97	97	106	138
500-136990-9	2696V-68-B07 (5-10)	109	106	91	93	108	124
500-136990-10	2696V-68-B07 (10-15)	110	108	96	94	110	99
500-136990-11	2696V-68-B07 (15-21)	133 X	123	114	110	137	143 X
500-136990-12	2696V-68-B08 (0-5)	101	104	88	92	104	133
500-136990-13	2696V-68-B09 (0-5)	104	103	86	91	116	133
LCS 500-409947/2-A	Lab Control Sample	92	98	85	84	87	116
MB 500-409947/1-A	Method Blank	99	105	84	84	92	97

Surrogate Legend

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

TestAmerica Chicago

Surrogate Summary

Client: Terracon Consulting Eng & Scientists
Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136990-1

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

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	FBP (34-110)	2FP (27-110)	NBZ (36-120)	PHL (20-100)	TPH (40-145)	TBP (40-145)
500-136990-14	2696V-68-G01	68	63	73	41	84	69
LCS 500-409153/2-A	Lab Control Sample	89	78	95	59	104	85
LCSD 500-409153/3-A	Lab Control Sample Dup	92	80	97	62	108	95
MB 500-409153/1-A	Method Blank	74	72	86	47	101	71

Surrogate Legend

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

QC Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136990-1

Method: 8260B - VOC

Lab Sample ID: MB 500-410547/6

Matrix: Water

Analysis Batch: 410547

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	0.0017	mg/L			11/17/17 23:14	1
Benzene	<0.00050		0.00050	0.00015	mg/L			11/17/17 23:14	1
Bromodichloromethane	<0.0010		0.0010	0.00037	mg/L			11/17/17 23:14	1
Bromoform	<0.0010		0.0010	0.00048	mg/L			11/17/17 23:14	1
Bromomethane	<0.0020		0.0020	0.00080	mg/L			11/17/17 23:14	1
Carbon disulfide	<0.0020		0.0020	0.00045	mg/L			11/17/17 23:14	1
Carbon tetrachloride	<0.0010		0.0010	0.00038	mg/L			11/17/17 23:14	1
Chlorobenzene	<0.0010		0.0010	0.00039	mg/L			11/17/17 23:14	1
Chloroethane	<0.0010		0.0010	0.00051	mg/L			11/17/17 23:14	1
Chloroform	<0.0020		0.0020	0.00037	mg/L			11/17/17 23:14	1
Chloromethane	<0.0010		0.0010	0.00032	mg/L			11/17/17 23:14	1
cis-1,2-Dichloroethene	<0.0010		0.0010	0.00041	mg/L			11/17/17 23:14	1
cis-1,3-Dichloropropene	<0.0010		0.0010	0.00042	mg/L			11/17/17 23:14	1
Dibromochloromethane	<0.0010		0.0010	0.00049	mg/L			11/17/17 23:14	1
1,1-Dichloroethane	<0.0010		0.0010	0.00041	mg/L			11/17/17 23:14	1
1,2-Dichloroethane	<0.0010		0.0010	0.00039	mg/L			11/17/17 23:14	1
1,1-Dichloroethene	<0.0010		0.0010	0.00039	mg/L			11/17/17 23:14	1
1,2-Dichloropropane	<0.0010		0.0010	0.00043	mg/L			11/17/17 23:14	1
1,3-Dichloropropene, Total	<0.0010		0.0010	0.00042	mg/L			11/17/17 23:14	1
Ethylbenzene	<0.00050		0.00050	0.00018	mg/L			11/17/17 23:14	1
2-Hexanone	<0.0050		0.0050	0.0016	mg/L			11/17/17 23:14	1
Methyl Ethyl Ketone	<0.0050		0.0050	0.0021	mg/L			11/17/17 23:14	1
Methylene Chloride	<0.0050		0.0050	0.0016	mg/L			11/17/17 23:14	1
methyl isobutyl ketone	<0.0050		0.0050	0.0022	mg/L			11/17/17 23:14	1
Methyl tert-butyl ether	<0.0010		0.0010	0.00039	mg/L			11/17/17 23:14	1
Styrene	<0.0010		0.0010	0.00039	mg/L			11/17/17 23:14	1
1,1,2,2-Tetrachloroethane	<0.0010		0.0010	0.00040	mg/L			11/17/17 23:14	1
Tetrachloroethene	<0.0010		0.0010	0.00037	mg/L			11/17/17 23:14	1
Toluene	<0.00050		0.00050	0.00015	mg/L			11/17/17 23:14	1
trans-1,2-Dichloroethene	<0.0010		0.0010	0.00035	mg/L			11/17/17 23:14	1
trans-1,3-Dichloropropene	<0.0010		0.0010	0.00036	mg/L			11/17/17 23:14	1
1,1,1-Trichloroethane	<0.0010		0.0010	0.00038	mg/L			11/17/17 23:14	1
1,1,2-Trichloroethane	<0.0010		0.0010	0.00035	mg/L			11/17/17 23:14	1
Trichloroethene	<0.00050		0.00050	0.00016	mg/L			11/17/17 23:14	1
Vinyl acetate	<0.0020		0.0020	0.00091	mg/L			11/17/17 23:14	1
Vinyl chloride	<0.00050		0.00050	0.00020	mg/L			11/17/17 23:14	1
Xylenes, Total	<0.0010		0.0010	0.00022	mg/L			11/17/17 23:14	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	88		72 - 124		11/17/17 23:14	1
Dibromofluoromethane	91		75 - 120		11/17/17 23:14	1
1,2-Dichloroethane-d4 (Surr)	90		75 - 126		11/17/17 23:14	1
Toluene-d8 (Surr)	94		75 - 120		11/17/17 23:14	1

TestAmerica Chicago

QC Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136990-1

Method: 8260B - VOC (Continued)

Lab Sample ID: LCS 500-410547/4

Matrix: Water

Analysis Batch: 410547

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	0.0563		mg/L		113	40 - 143
Benzene	0.0500	0.0474		mg/L		95	70 - 120
Bromodichloromethane	0.0500	0.0463		mg/L		93	69 - 120
Bromoform	0.0500	0.0488		mg/L		98	56 - 132
Bromomethane	0.0500	0.0380		mg/L		76	40 - 130
Carbon disulfide	0.0500	0.0469		mg/L		94	66 - 120
Carbon tetrachloride	0.0500	0.0463		mg/L		93	65 - 122
Chlorobenzene	0.0500	0.0485		mg/L		97	70 - 120
Chloroethane	0.0500	0.0323		mg/L		65	45 - 127
Chloroform	0.0500	0.0444		mg/L		89	70 - 120
Chloromethane	0.0500	0.0424		mg/L		85	54 - 147
cis-1,2-Dichloroethene	0.0500	0.0463		mg/L		93	70 - 125
cis-1,3-Dichloropropene	0.0500	0.0466		mg/L		93	64 - 127
Dibromochloromethane	0.0500	0.0482		mg/L		96	68 - 125
1,1-Dichloroethane	0.0500	0.0461		mg/L		92	70 - 125
1,2-Dichloroethane	0.0500	0.0460		mg/L		92	68 - 127
1,1-Dichloroethene	0.0500	0.0451		mg/L		90	67 - 122
1,2-Dichloropropane	0.0500	0.0489		mg/L		98	67 - 130
Ethylbenzene	0.0500	0.0474		mg/L		95	70 - 120
2-Hexanone	0.0500	0.0462		mg/L		92	56 - 135
Methyl Ethyl Ketone	0.0500	0.0509		mg/L		102	53 - 141
Methylene Chloride	0.0500	0.0467		mg/L		93	69 - 125
methyl isobutyl ketone	0.0500	0.0444		mg/L		89	56 - 133
Methyl tert-butyl ether	0.0500	0.0473		mg/L		95	70 - 120
Styrene	0.0500	0.0487		mg/L		97	70 - 120
1,1,2,2-Tetrachloroethane	0.0500	0.0445		mg/L		89	67 - 127
Tetrachloroethene	0.0500	0.0524		mg/L		105	70 - 128
Toluene	0.0500	0.0501		mg/L		100	70 - 125
trans-1,2-Dichloroethene	0.0500	0.0458		mg/L		92	70 - 125
trans-1,3-Dichloropropene	0.0500	0.0457		mg/L		91	62 - 128
1,1,1-Trichloroethane	0.0500	0.0457		mg/L		91	70 - 125
1,1,2-Trichloroethane	0.0500	0.0497		mg/L		99	70 - 122
Trichloroethene	0.0500	0.0474		mg/L		95	70 - 125
Vinyl acetate	0.0500	0.0419		mg/L		84	43 - 133
Vinyl chloride	0.0500	0.0485		mg/L		97	64 - 126
Xylenes, Total	0.100	0.0946		mg/L		95	70 - 125

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	84		72 - 124
Dibromofluoromethane	90		75 - 120
1,2-Dichloroethane-d4 (Surr)	86		75 - 126
Toluene-d8 (Surr)	94		75 - 120

QC Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136990-1

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

Lab Sample ID: 500-136990-7 MS

Matrix: Solid

Analysis Batch: 410445

Client Sample ID: 2696V-68-B06 (0-5)

Prep Type: Total/NA

Prep Batch: 409285

Analyte	Sample	Sample Qualifier	Spike Added	MS MS		Unit	D	%Rec	Limits
	Result			Result	Qualifier				
Acetone	<0.48		4.81	4.47		mg/Kg	☼	93	40 - 143
Benzene	1.2		4.81	5.97		mg/Kg	☼	98	70 - 120
Bromodichloromethane	<0.096	F1	4.81	6.10	F1	mg/Kg	☼	127	69 - 120
Bromoform	<0.096		4.81	4.10		mg/Kg	☼	85	56 - 132
Bromomethane	<0.19		4.81	4.01		mg/Kg	☼	83	40 - 130
Carbon disulfide	<0.19		4.81	4.68		mg/Kg	☼	97	66 - 120
Carbon tetrachloride	<0.096		4.81	4.26		mg/Kg	☼	89	65 - 122
Chlorobenzene	<0.096		4.81	4.62		mg/Kg	☼	96	70 - 120
Chloroethane	<0.096		4.81	4.80		mg/Kg	☼	100	45 - 127
Chloroform	<0.19	F1	4.81	6.92	F1	mg/Kg	☼	144	70 - 120
Chloromethane	<0.096		4.81	6.31		mg/Kg	☼	131	54 - 147
cis-1,2-Dichloroethene	<0.096		4.81	4.70		mg/Kg	☼	98	70 - 125
cis-1,3-Dichloropropene	<0.096		4.81	4.36		mg/Kg	☼	91	64 - 127
Dibromochloromethane	<0.096		4.81	4.11		mg/Kg	☼	85	68 - 125
1,1-Dichloroethane	<0.096		4.81	5.12		mg/Kg	☼	107	70 - 125
1,2-Dichloroethane	<0.096		4.81	4.48		mg/Kg	☼	93	68 - 127
1,1-Dichloroethene	<0.096		4.81	4.51		mg/Kg	☼	94	67 - 122
1,2-Dichloropropane	<0.096		4.81	6.09		mg/Kg	☼	127	67 - 130
Ethylbenzene	53	E	4.81	56.4	E 4	mg/Kg	☼	66	70 - 120
2-Hexanone	<0.48		4.81	4.00		mg/Kg	☼	83	56 - 135
2-Butanone (MEK)	<0.48	F2	4.81	3.48		mg/Kg	☼	72	53 - 141
Methylene Chloride	<0.48		4.81	4.68		mg/Kg	☼	97	69 - 125
4-Methyl-2-pentanone (MIBK)	<0.48	F1	4.81	<0.48	F1	mg/Kg	☼	0	56 - 133
Methyl tert-butyl ether	<0.096		4.81	4.44		mg/Kg	☼	92	70 - 120
Styrene	<0.096		4.81	4.82		mg/Kg	☼	100	70 - 120
1,1,2,2-Tetrachloroethane	<0.096		4.81	4.58		mg/Kg	☼	95	67 - 127
Tetrachloroethene	<0.096		4.81	4.91		mg/Kg	☼	102	70 - 128
Toluene	0.92		4.81	5.79		mg/Kg	☼	101	70 - 125
trans-1,2-Dichloroethene	<0.096		4.81	4.66		mg/Kg	☼	97	70 - 125
trans-1,3-Dichloropropene	<0.096		4.81	4.26		mg/Kg	☼	89	62 - 128
1,1,1-Trichloroethane	<0.096		4.81	4.31		mg/Kg	☼	90	70 - 125
1,1,2-Trichloroethane	<0.096		4.81	4.53		mg/Kg	☼	94	70 - 122
Trichloroethene	<0.048		4.81	4.75		mg/Kg	☼	99	70 - 125
Vinyl acetate	<0.19		4.81	5.82		mg/Kg	☼	121	43 - 133
Vinyl chloride	<0.048		4.81	4.59		mg/Kg	☼	96	64 - 126
Xylenes, Total	12		9.61	21.4		mg/Kg	☼	93	70 - 125

Surrogate	MS MS		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	84		72 - 124
Dibromofluoromethane	88		75 - 120
1,2-Dichloroethane-d4 (Surr)	81		75 - 126
Toluene-d8 (Surr)	100		75 - 120

TestAmerica Chicago

QC Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136990-1

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

Lab Sample ID: 500-136990-7 MSD

Matrix: Solid
Analysis Batch: 410445

Client Sample ID: 2696V-68-B06 (0-5)

Prep Type: Total/NA
Prep Batch: 409285

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD		Unit	D	%Rec	Limits	RPD	Limit
				Result	Qualifier						
Acetone	<0.48		4.81	4.90		mg/Kg	☼	102	40 - 143	9	30
Benzene	1.2		4.81	6.04		mg/Kg	☼	100	70 - 120	1	30
Bromodichloromethane	<0.096	F1	4.81	7.05	F1	mg/Kg	☼	147	69 - 120	14	30
Bromoform	<0.096		4.81	3.94		mg/Kg	☼	82	56 - 132	4	30
Bromomethane	<0.19		4.81	4.28		mg/Kg	☼	89	40 - 130	7	30
Carbon disulfide	<0.19		4.81	4.62		mg/Kg	☼	96	66 - 120	1	30
Carbon tetrachloride	<0.096		4.81	4.18		mg/Kg	☼	87	65 - 122	2	30
Chlorobenzene	<0.096		4.81	4.53		mg/Kg	☼	94	70 - 120	2	30
Chloroethane	<0.096		4.81	4.95		mg/Kg	☼	103	45 - 127	3	30
Chloroform	<0.19	F1	4.81	7.16	F1	mg/Kg	☼	149	70 - 120	3	30
Chloromethane	<0.096		4.81	6.69		mg/Kg	☼	139	54 - 147	6	30
cis-1,2-Dichloroethene	<0.096		4.81	4.61		mg/Kg	☼	96	70 - 125	2	30
cis-1,3-Dichloropropene	<0.096		4.81	4.38		mg/Kg	☼	91	64 - 127	0	30
Dibromochloromethane	<0.096		4.81	4.08		mg/Kg	☼	85	68 - 125	1	30
1,1-Dichloroethane	<0.096		4.81	5.04		mg/Kg	☼	105	70 - 125	2	30
1,2-Dichloroethane	<0.096		4.81	4.51		mg/Kg	☼	94	68 - 127	1	30
1,1-Dichloroethene	<0.096		4.81	4.49		mg/Kg	☼	94	67 - 122	0	30
1,2-Dichloropropane	<0.096		4.81	6.07		mg/Kg	☼	126	67 - 130	0	30
Ethylbenzene	53	E	4.81	60.2	E 4	mg/Kg	☼	145	70 - 120	7	30
2-Hexanone	<0.48		4.81	4.63		mg/Kg	☼	96	56 - 135	15	30
2-Butanone (MEK)	<0.48	F2	4.81	6.00	F2	mg/Kg	☼	125	53 - 141	53	30
Methylene Chloride	<0.48		4.81	4.66		mg/Kg	☼	97	69 - 125	0	30
4-Methyl-2-pentanone (MIBK)	<0.48	F1	4.81	<0.48	F1	mg/Kg	☼	0	56 - 133	NC	30
Methyl tert-butyl ether	<0.096		4.81	4.50		mg/Kg	☼	94	70 - 120	1	30
Styrene	<0.096		4.81	4.75		mg/Kg	☼	99	70 - 120	1	30
1,1,2,2-Tetrachloroethane	<0.096		4.81	4.49		mg/Kg	☼	93	67 - 127	2	30
Tetrachloroethene	<0.096		4.81	4.84		mg/Kg	☼	101	70 - 128	1	30
Toluene	0.92		4.81	5.74		mg/Kg	☼	100	70 - 125	1	30
trans-1,2-Dichloroethene	<0.096		4.81	4.57		mg/Kg	☼	95	70 - 125	2	30
trans-1,3-Dichloropropene	<0.096		4.81	4.17		mg/Kg	☼	87	62 - 128	2	30
1,1,1-Trichloroethane	<0.096		4.81	4.20		mg/Kg	☼	88	70 - 125	2	30
1,1,2-Trichloroethane	<0.096		4.81	4.39		mg/Kg	☼	91	70 - 122	3	30
Trichloroethene	<0.048		4.81	4.67		mg/Kg	☼	97	70 - 125	2	30
Vinyl acetate	<0.19		4.81	5.78		mg/Kg	☼	120	43 - 133	1	30
Vinyl chloride	<0.048		4.81	5.00		mg/Kg	☼	104	64 - 126	8	30
Xylenes, Total	12		9.61	22.1		mg/Kg	☼	100	70 - 125	3	30

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	84		72 - 124
Dibromofluoromethane	91		75 - 120
1,2-Dichloroethane-d4 (Surr)	82		75 - 126
Toluene-d8 (Surr)	98		75 - 120

QC Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136990-1

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

Lab Sample ID: MB 500-409897/5

Matrix: Solid

Analysis Batch: 409897

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.020		0.020	0.0087	mg/Kg			11/14/17 17:00	1
Benzene	<0.0020		0.0020	0.00051	mg/Kg			11/14/17 17:00	1
Bromodichloromethane	<0.0020		0.0020	0.00041	mg/Kg			11/14/17 17:00	1
Bromoform	<0.0020		0.0020	0.00058	mg/Kg			11/14/17 17:00	1
Bromomethane	<0.0050		0.0050	0.0019	mg/Kg			11/14/17 17:00	1
Carbon disulfide	<0.0050		0.0050	0.0010	mg/Kg			11/14/17 17:00	1
Carbon tetrachloride	<0.0020		0.0020	0.00058	mg/Kg			11/14/17 17:00	1
Chlorobenzene	<0.0020		0.0020	0.00074	mg/Kg			11/14/17 17:00	1
Chloroethane	<0.0050		0.0050	0.0015	mg/Kg			11/14/17 17:00	1
Chloroform	<0.0020		0.0020	0.00069	mg/Kg			11/14/17 17:00	1
Chloromethane	<0.0050		0.0050	0.0020	mg/Kg			11/14/17 17:00	1
cis-1,2-Dichloroethene	<0.0020		0.0020	0.00056	mg/Kg			11/14/17 17:00	1
cis-1,3-Dichloropropene	<0.0020		0.0020	0.00060	mg/Kg			11/14/17 17:00	1
Dibromochloromethane	<0.0020		0.0020	0.00065	mg/Kg			11/14/17 17:00	1
1,1-Dichloroethane	<0.0020		0.0020	0.00069	mg/Kg			11/14/17 17:00	1
1,2-Dichloroethane	<0.0050		0.0050	0.0016	mg/Kg			11/14/17 17:00	1
1,1-Dichloroethene	<0.0020		0.0020	0.00069	mg/Kg			11/14/17 17:00	1
1,2-Dichloropropane	<0.0020		0.0020	0.00052	mg/Kg			11/14/17 17:00	1
1,3-Dichloropropene, Total	<0.0020		0.0020	0.00070	mg/Kg			11/14/17 17:00	1
Ethylbenzene	<0.0020		0.0020	0.00096	mg/Kg			11/14/17 17:00	1
2-Hexanone	<0.0050		0.0050	0.0016	mg/Kg			11/14/17 17:00	1
2-Butanone (MEK)	<0.0050		0.0050	0.0022	mg/Kg			11/14/17 17:00	1
Methylene Chloride	<0.0050		0.0050	0.0020	mg/Kg			11/14/17 17:00	1
4-Methyl-2-pentanone (MIBK)	<0.0050		0.0050	0.0015	mg/Kg			11/14/17 17:00	1
Methyl tert-butyl ether	<0.0020		0.0020	0.00059	mg/Kg			11/14/17 17:00	1
Styrene	<0.0020		0.0020	0.00060	mg/Kg			11/14/17 17:00	1
1,1,2,2-Tetrachloroethane	<0.0020		0.0020	0.00064	mg/Kg			11/14/17 17:00	1
Tetrachloroethene	<0.0020		0.0020	0.00068	mg/Kg			11/14/17 17:00	1
Toluene	<0.0020		0.0020	0.00051	mg/Kg			11/14/17 17:00	1
trans-1,2-Dichloroethene	<0.0020		0.0020	0.00089	mg/Kg			11/14/17 17:00	1
trans-1,3-Dichloropropene	<0.0020		0.0020	0.00070	mg/Kg			11/14/17 17:00	1
1,1,1-Trichloroethane	<0.0020		0.0020	0.00067	mg/Kg			11/14/17 17:00	1
1,1,2-Trichloroethane	<0.0020		0.0020	0.00086	mg/Kg			11/14/17 17:00	1
Trichloroethene	<0.0020		0.0020	0.00068	mg/Kg			11/14/17 17:00	1
Vinyl acetate	<0.0050		0.0050	0.0017	mg/Kg			11/14/17 17:00	1
Vinyl chloride	<0.0020		0.0020	0.00089	mg/Kg			11/14/17 17:00	1
Xylenes, Total	<0.0040		0.0040	0.00064	mg/Kg			11/14/17 17:00	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	90		75 - 131		11/14/17 17:00	1
Dibromofluoromethane	99		75 - 126		11/14/17 17:00	1
1,2-Dichloroethane-d4 (Surr)	96		70 - 134		11/14/17 17:00	1
Toluene-d8 (Surr)	92		75 - 124		11/14/17 17:00	1

TestAmerica Chicago

QC Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136990-1

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

Lab Sample ID: LCS 500-409897/3

Matrix: Solid

Analysis Batch: 409897

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	0.0697		mg/Kg		139	40 - 150
Benzene	0.0500	0.0473		mg/Kg		95	70 - 125
Bromodichloromethane	0.0500	0.0465		mg/Kg		93	67 - 129
Bromoform	0.0500	0.0384		mg/Kg		77	68 - 136
Bromomethane	0.0500	0.0572		mg/Kg		114	70 - 130
Carbon disulfide	0.0500	0.0494		mg/Kg		99	70 - 129
Carbon tetrachloride	0.0500	0.0493		mg/Kg		99	75 - 125
Chlorobenzene	0.0500	0.0466		mg/Kg		93	50 - 150
Chloroethane	0.0500	0.0497		mg/Kg		99	75 - 125
Chloroform	0.0500	0.0477		mg/Kg		95	57 - 135
Chloromethane	0.0500	0.0493		mg/Kg		99	70 - 125
cis-1,2-Dichloroethene	0.0500	0.0474		mg/Kg		95	70 - 125
cis-1,3-Dichloropropene	0.0500	0.0494		mg/Kg		99	70 - 125
Dibromochloromethane	0.0500	0.0432		mg/Kg		86	69 - 125
1,1-Dichloroethane	0.0500	0.0443		mg/Kg		89	70 - 125
1,2-Dichloroethane	0.0500	0.0486		mg/Kg		97	70 - 130
1,1-Dichloroethene	0.0500	0.0494		mg/Kg		99	70 - 120
1,2-Dichloropropane	0.0500	0.0467		mg/Kg		93	70 - 125
Ethylbenzene	0.0500	0.0350		mg/Kg		70	61 - 136
2-Hexanone	0.0500	0.0470		mg/Kg		94	48 - 146
2-Butanone (MEK)	0.0500	0.0576		mg/Kg		115	47 - 138
Methylene Chloride	0.0500	0.0438		mg/Kg		88	70 - 126
4-Methyl-2-pentanone (MIBK)	0.0500	0.0578		mg/Kg		116	50 - 148
Methyl tert-butyl ether	0.0500	0.0436		mg/Kg		87	50 - 140
Styrene	0.0500	0.0358		mg/Kg		72	70 - 125
1,1,1,2-Tetrachloroethane	0.0500	0.0425		mg/Kg		85	70 - 122
Tetrachloroethene	0.0500	0.0437		mg/Kg		87	70 - 124
Toluene	0.0500	0.0491		mg/Kg		98	70 - 125
trans-1,2-Dichloroethene	0.0500	0.0426		mg/Kg		85	70 - 125
trans-1,3-Dichloropropene	0.0500	0.0476		mg/Kg		95	70 - 125
1,1,1-Trichloroethane	0.0500	0.0486		mg/Kg		97	70 - 128
1,1,2-Trichloroethane	0.0500	0.0426		mg/Kg		85	70 - 125
Trichloroethene	0.0500	0.0469		mg/Kg		94	70 - 125
Vinyl acetate	0.0500	0.0356		mg/Kg		71	40 - 153
Vinyl chloride	0.0500	0.0501		mg/Kg		100	70 - 125
Xylenes, Total	0.100	0.0711		mg/Kg		71	53 - 147

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	86		75 - 131
Dibromofluoromethane	96		75 - 126
1,2-Dichloroethane-d4 (Surr)	91		70 - 134
Toluene-d8 (Surr)	105		75 - 124

QC Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136990-1

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

Lab Sample ID: LCSD 500-409897/4

Matrix: Solid

Analysis Batch: 409897

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	0.0593		mg/Kg		119	40 - 150	16	30
Benzene	0.0500	0.0446		mg/Kg		89	70 - 125	6	30
Bromodichloromethane	0.0500	0.0439		mg/Kg		88	67 - 129	6	30
Bromoform	0.0500	0.0440		mg/Kg		88	68 - 136	13	30
Bromomethane	0.0500	0.0626		mg/Kg		125	70 - 130	9	30
Carbon disulfide	0.0500	0.0468		mg/Kg		94	70 - 129	5	30
Carbon tetrachloride	0.0500	0.0465		mg/Kg		93	75 - 125	6	30
Chlorobenzene	0.0500	0.0433		mg/Kg		87	50 - 150	7	30
Chloroethane	0.0500	0.0520		mg/Kg		104	75 - 125	5	30
Chloroform	0.0500	0.0458		mg/Kg		92	57 - 135	4	30
Chloromethane	0.0500	0.0501		mg/Kg		100	70 - 125	2	30
cis-1,2-Dichloroethene	0.0500	0.0472		mg/Kg		94	70 - 125	1	30
cis-1,3-Dichloropropene	0.0500	0.0428		mg/Kg		86	70 - 125	14	30
Dibromochloromethane	0.0500	0.0459		mg/Kg		92	69 - 125	6	30
1,1-Dichloroethane	0.0500	0.0470		mg/Kg		94	70 - 125	6	30
1,2-Dichloroethane	0.0500	0.0462		mg/Kg		92	70 - 130	5	30
1,1-Dichloroethene	0.0500	0.0459		mg/Kg		92	70 - 120	7	30
1,2-Dichloropropane	0.0500	0.0452		mg/Kg		90	70 - 125	3	30
Ethylbenzene	0.0500	0.0426		mg/Kg		85	61 - 136	20	30
2-Hexanone	0.0500	0.0454		mg/Kg		91	48 - 146	4	30
2-Butanone (MEK)	0.0500	0.0486		mg/Kg		97	47 - 138	17	30
Methylene Chloride	0.0500	0.0455		mg/Kg		91	70 - 126	4	30
4-Methyl-2-pentanone (MIBK)	0.0500	0.0483		mg/Kg		97	50 - 148	18	30
Methyl tert-butyl ether	0.0500	0.0480		mg/Kg		96	50 - 140	10	30
Styrene	0.0500	0.0415		mg/Kg		83	70 - 125	15	30
1,1,1,2-Tetrachloroethane	0.0500	0.0393		mg/Kg		79	70 - 122	8	30
Tetrachloroethene	0.0500	0.0434		mg/Kg		87	70 - 124	1	30
Toluene	0.0500	0.0427		mg/Kg		85	70 - 125	14	30
trans-1,2-Dichloroethene	0.0500	0.0470		mg/Kg		94	70 - 125	10	30
trans-1,3-Dichloropropene	0.0500	0.0425		mg/Kg		85	70 - 125	11	30
1,1,1-Trichloroethane	0.0500	0.0464		mg/Kg		93	70 - 128	5	30
1,1,2-Trichloroethane	0.0500	0.0439		mg/Kg		88	70 - 125	3	30
Trichloroethene	0.0500	0.0440		mg/Kg		88	70 - 125	6	30
Vinyl acetate	0.0500	0.0368		mg/Kg		74	40 - 153	3	30
Vinyl chloride	0.0500	0.0503		mg/Kg		101	70 - 125	0	30
Xylenes, Total	0.100	0.0858		mg/Kg		86	53 - 147	19	30

Surrogate	LCSD %Recovery	LCSD Qualifier	LCSD Limits
4-Bromofluorobenzene (Surr)	80		75 - 131
Dibromofluoromethane	100		75 - 126
1,2-Dichloroethane-d4 (Surr)	91		70 - 134
Toluene-d8 (Surr)	97		75 - 124

TestAmerica Chicago

QC Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136990-1

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

Lab Sample ID: MB 500-410019/8

Matrix: Solid

Analysis Batch: 410019

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.020		0.020	0.0087	mg/Kg			11/15/17 11:55	1
Benzene	<0.0020		0.0020	0.00051	mg/Kg			11/15/17 11:55	1
Bromodichloromethane	<0.0020		0.0020	0.00041	mg/Kg			11/15/17 11:55	1
Bromoform	<0.0020		0.0020	0.00058	mg/Kg			11/15/17 11:55	1
Bromomethane	<0.0050		0.0050	0.0019	mg/Kg			11/15/17 11:55	1
Carbon disulfide	<0.0050		0.0050	0.0010	mg/Kg			11/15/17 11:55	1
Carbon tetrachloride	<0.0020		0.0020	0.00058	mg/Kg			11/15/17 11:55	1
Chlorobenzene	<0.0020		0.0020	0.00074	mg/Kg			11/15/17 11:55	1
Chloroethane	<0.0050		0.0050	0.0015	mg/Kg			11/15/17 11:55	1
Chloroform	<0.0020		0.0020	0.00069	mg/Kg			11/15/17 11:55	1
Chloromethane	<0.0050		0.0050	0.0020	mg/Kg			11/15/17 11:55	1
cis-1,2-Dichloroethene	<0.0020		0.0020	0.00056	mg/Kg			11/15/17 11:55	1
cis-1,3-Dichloropropene	<0.0020		0.0020	0.00060	mg/Kg			11/15/17 11:55	1
Dibromochloromethane	<0.0020		0.0020	0.00065	mg/Kg			11/15/17 11:55	1
1,1-Dichloroethane	<0.0020		0.0020	0.00069	mg/Kg			11/15/17 11:55	1
1,2-Dichloroethane	<0.0050		0.0050	0.0016	mg/Kg			11/15/17 11:55	1
1,1-Dichloroethene	<0.0020		0.0020	0.00069	mg/Kg			11/15/17 11:55	1
1,2-Dichloropropane	<0.0020		0.0020	0.00052	mg/Kg			11/15/17 11:55	1
1,3-Dichloropropene, Total	<0.0020		0.0020	0.00070	mg/Kg			11/15/17 11:55	1
Ethylbenzene	<0.0020		0.0020	0.00096	mg/Kg			11/15/17 11:55	1
2-Hexanone	<0.0050		0.0050	0.0016	mg/Kg			11/15/17 11:55	1
2-Butanone (MEK)	<0.0050		0.0050	0.0022	mg/Kg			11/15/17 11:55	1
Methylene Chloride	<0.0050		0.0050	0.0020	mg/Kg			11/15/17 11:55	1
4-Methyl-2-pentanone (MIBK)	<0.0050		0.0050	0.0015	mg/Kg			11/15/17 11:55	1
Methyl tert-butyl ether	<0.0020		0.0020	0.00059	mg/Kg			11/15/17 11:55	1
Styrene	<0.0020		0.0020	0.00060	mg/Kg			11/15/17 11:55	1
1,1,2,2-Tetrachloroethane	<0.0020		0.0020	0.00064	mg/Kg			11/15/17 11:55	1
Tetrachloroethene	<0.0020		0.0020	0.00068	mg/Kg			11/15/17 11:55	1
Toluene	<0.0020		0.0020	0.00051	mg/Kg			11/15/17 11:55	1
trans-1,2-Dichloroethene	<0.0020		0.0020	0.00089	mg/Kg			11/15/17 11:55	1
trans-1,3-Dichloropropene	<0.0020		0.0020	0.00070	mg/Kg			11/15/17 11:55	1
1,1,1-Trichloroethane	<0.0020		0.0020	0.00067	mg/Kg			11/15/17 11:55	1
1,1,2-Trichloroethane	<0.0020		0.0020	0.00086	mg/Kg			11/15/17 11:55	1
Trichloroethene	<0.0020		0.0020	0.00068	mg/Kg			11/15/17 11:55	1
Vinyl acetate	<0.0050		0.0050	0.0017	mg/Kg			11/15/17 11:55	1
Vinyl chloride	<0.0020		0.0020	0.00089	mg/Kg			11/15/17 11:55	1
Xylenes, Total	<0.0040		0.0040	0.00064	mg/Kg			11/15/17 11:55	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	93		75 - 131		11/15/17 11:55	1
Dibromofluoromethane	99		75 - 126		11/15/17 11:55	1
1,2-Dichloroethane-d4 (Surr)	93		70 - 134		11/15/17 11:55	1
Toluene-d8 (Surr)	98		75 - 124		11/15/17 11:55	1

TestAmerica Chicago

QC Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136990-1

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

Lab Sample ID: LCS 500-410019/5

Matrix: Solid

Analysis Batch: 410019

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	0.0546		mg/Kg		109	40 - 150
Benzene	0.0500	0.0498		mg/Kg		100	70 - 125
Bromodichloromethane	0.0500	0.0523		mg/Kg		105	67 - 129
Bromoform	0.0500	0.0496		mg/Kg		99	68 - 136
Bromomethane	0.0500	0.0401		mg/Kg		80	70 - 130
Carbon disulfide	0.0500	0.0521		mg/Kg		104	70 - 129
Carbon tetrachloride	0.0500	0.0489		mg/Kg		98	75 - 125
Chlorobenzene	0.0500	0.0480		mg/Kg		96	50 - 150
Chloroethane	0.0500	0.0403		mg/Kg		81	75 - 125
Chloroform	0.0500	0.0467		mg/Kg		93	57 - 135
Chloromethane	0.0500	0.0415		mg/Kg		83	70 - 125
cis-1,2-Dichloroethene	0.0500	0.0504		mg/Kg		101	70 - 125
cis-1,3-Dichloropropene	0.0500	0.0516		mg/Kg		103	70 - 125
Dibromochloromethane	0.0500	0.0509		mg/Kg		102	69 - 125
1,1-Dichloroethane	0.0500	0.0468		mg/Kg		94	70 - 125
1,2-Dichloroethane	0.0500	0.0467		mg/Kg		93	70 - 130
1,1-Dichloroethene	0.0500	0.0488		mg/Kg		98	70 - 120
1,2-Dichloropropane	0.0500	0.0506		mg/Kg		101	70 - 125
Ethylbenzene	0.0500	0.0472		mg/Kg		94	61 - 136
2-Hexanone	0.0500	0.0499		mg/Kg		100	48 - 146
2-Butanone (MEK)	0.0500	0.0462		mg/Kg		92	47 - 138
Methylene Chloride	0.0500	0.0494		mg/Kg		99	70 - 126
4-Methyl-2-pentanone (MIBK)	0.0500	0.0480		mg/Kg		96	50 - 148
Methyl tert-butyl ether	0.0500	0.0537		mg/Kg		107	50 - 140
Styrene	0.0500	0.0482		mg/Kg		96	70 - 125
1,1,1,2-Tetrachloroethane	0.0500	0.0554		mg/Kg		111	70 - 122
Tetrachloroethene	0.0500	0.0499		mg/Kg		100	70 - 124
Toluene	0.0500	0.0475		mg/Kg		95	70 - 125
trans-1,2-Dichloroethene	0.0500	0.0489		mg/Kg		98	70 - 125
trans-1,3-Dichloropropene	0.0500	0.0492		mg/Kg		98	70 - 125
1,1,1-Trichloroethane	0.0500	0.0493		mg/Kg		99	70 - 128
1,1,2-Trichloroethane	0.0500	0.0496		mg/Kg		99	70 - 125
Trichloroethene	0.0500	0.0513		mg/Kg		103	70 - 125
Vinyl acetate	0.0500	0.0496		mg/Kg		99	40 - 153
Vinyl chloride	0.0500	0.0441		mg/Kg		88	70 - 125
Xylenes, Total	0.100	0.0941		mg/Kg		94	53 - 147

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	92		75 - 131
Dibromofluoromethane	101		75 - 126
1,2-Dichloroethane-d4 (Surr)	90		70 - 134
Toluene-d8 (Surr)	98		75 - 124

QC Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136990-1

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

Lab Sample ID: LCSD 500-410019/6

Matrix: Solid

Analysis Batch: 410019

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	0.0445		mg/Kg		89	40 - 150	20	30
Benzene	0.0500	0.0492		mg/Kg		98	70 - 125	1	30
Bromodichloromethane	0.0500	0.0507		mg/Kg		101	67 - 129	3	30
Bromoform	0.0500	0.0473		mg/Kg		95	68 - 136	5	30
Bromomethane	0.0500	0.0419		mg/Kg		84	70 - 130	4	30
Carbon disulfide	0.0500	0.0515		mg/Kg		103	70 - 129	1	30
Carbon tetrachloride	0.0500	0.0493		mg/Kg		99	75 - 125	1	30
Chlorobenzene	0.0500	0.0481		mg/Kg		96	50 - 150	0	30
Chloroethane	0.0500	0.0415		mg/Kg		83	75 - 125	3	30
Chloroform	0.0500	0.0467		mg/Kg		93	57 - 135	0	30
Chloromethane	0.0500	0.0399		mg/Kg		80	70 - 125	4	30
cis-1,2-Dichloroethene	0.0500	0.0496		mg/Kg		99	70 - 125	2	30
cis-1,3-Dichloropropene	0.0500	0.0511		mg/Kg		102	70 - 125	1	30
Dibromochloromethane	0.0500	0.0499		mg/Kg		100	69 - 125	2	30
1,1-Dichloroethane	0.0500	0.0467		mg/Kg		93	70 - 125	0	30
1,2-Dichloroethane	0.0500	0.0437		mg/Kg		87	70 - 130	7	30
1,1-Dichloroethene	0.0500	0.0484		mg/Kg		97	70 - 120	1	30
1,2-Dichloropropane	0.0500	0.0500		mg/Kg		100	70 - 125	1	30
Ethylbenzene	0.0500	0.0479		mg/Kg		96	61 - 136	1	30
2-Hexanone	0.0500	0.0419		mg/Kg		84	48 - 146	18	30
2-Butanone (MEK)	0.0500	0.0408		mg/Kg		82	47 - 138	12	30
Methylene Chloride	0.0500	0.0482		mg/Kg		96	70 - 126	3	30
4-Methyl-2-pentanone (MIBK)	0.0500	0.0416		mg/Kg		83	50 - 148	14	30
Methyl tert-butyl ether	0.0500	0.0499		mg/Kg		100	50 - 140	7	30
Styrene	0.0500	0.0483		mg/Kg		97	70 - 125	0	30
1,1,1,2-Tetrachloroethane	0.0500	0.0545		mg/Kg		109	70 - 122	2	30
Tetrachloroethene	0.0500	0.0499		mg/Kg		100	70 - 124	0	30
Toluene	0.0500	0.0486		mg/Kg		97	70 - 125	2	30
trans-1,2-Dichloroethene	0.0500	0.0472		mg/Kg		94	70 - 125	4	30
trans-1,3-Dichloropropene	0.0500	0.0485		mg/Kg		97	70 - 125	1	30
1,1,1-Trichloroethane	0.0500	0.0490		mg/Kg		98	70 - 128	1	30
1,1,2-Trichloroethane	0.0500	0.0487		mg/Kg		97	70 - 125	2	30
Trichloroethene	0.0500	0.0497		mg/Kg		99	70 - 125	3	30
Vinyl acetate	0.0500	0.0457		mg/Kg		91	40 - 153	8	30
Vinyl chloride	0.0500	0.0421		mg/Kg		84	70 - 125	5	30
Xylenes, Total	0.100	0.0950		mg/Kg		95	53 - 147	1	30

Surrogate	LCSD %Recovery	LCSD Qualifier	LCSD Limits
4-Bromofluorobenzene (Surr)	92		75 - 131
Dibromofluoromethane	98		75 - 126
1,2-Dichloroethane-d4 (Surr)	86		70 - 134
Toluene-d8 (Surr)	99		75 - 124

QC Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136990-1

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

Lab Sample ID: MB 500-410445/8

Matrix: Solid

Analysis Batch: 410445

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	0.0017	mg/Kg			11/17/17 19:11	1
Benzene	<0.00025		0.00025	0.00015	mg/Kg			11/17/17 19:11	1
Bromodichloromethane	<0.0010		0.0010	0.00037	mg/Kg			11/17/17 19:11	1
Bromoform	<0.0010		0.0010	0.00048	mg/Kg			11/17/17 19:11	1
Bromomethane	<0.0020		0.0020	0.00080	mg/Kg			11/17/17 19:11	1
Carbon disulfide	<0.0020		0.0020	0.00080	mg/Kg			11/17/17 19:11	1
Carbon tetrachloride	<0.0010		0.0010	0.00038	mg/Kg			11/17/17 19:11	1
Chlorobenzene	<0.0010		0.0010	0.00039	mg/Kg			11/17/17 19:11	1
Chloroethane	<0.0010		0.0010	0.00050	mg/Kg			11/17/17 19:11	1
Chloroform	<0.0020		0.0020	0.00037	mg/Kg			11/17/17 19:11	1
Chloromethane	<0.0010		0.0010	0.00032	mg/Kg			11/17/17 19:11	1
cis-1,2-Dichloroethene	<0.0010		0.0010	0.00041	mg/Kg			11/17/17 19:11	1
cis-1,3-Dichloropropene	<0.0010		0.0010	0.00042	mg/Kg			11/17/17 19:11	1
Dibromochloromethane	<0.0010		0.0010	0.00049	mg/Kg			11/17/17 19:11	1
1,1-Dichloroethane	<0.0010		0.0010	0.00041	mg/Kg			11/17/17 19:11	1
1,2-Dichloroethane	<0.0010		0.0010	0.00039	mg/Kg			11/17/17 19:11	1
1,1-Dichloroethene	<0.0010		0.0010	0.00039	mg/Kg			11/17/17 19:11	1
1,2-Dichloropropane	<0.0010		0.0010	0.00043	mg/Kg			11/17/17 19:11	1
1,3-Dichloropropene, Total	<0.0010		0.0010	0.00042	mg/Kg			11/17/17 19:11	1
Ethylbenzene	<0.00025		0.00025	0.00018	mg/Kg			11/17/17 19:11	1
2-Hexanone	<0.0050		0.0050	0.0016	mg/Kg			11/17/17 19:11	1
2-Butanone (MEK)	<0.0050		0.0050	0.0021	mg/Kg			11/17/17 19:11	1
Methylene Chloride	<0.0050		0.0050	0.0016	mg/Kg			11/17/17 19:11	1
4-Methyl-2-pentanone (MIBK)	<0.0050		0.0050	0.0022	mg/Kg			11/17/17 19:11	1
Methyl tert-butyl ether	<0.0010		0.0010	0.00039	mg/Kg			11/17/17 19:11	1
Styrene	<0.0010		0.0010	0.00039	mg/Kg			11/17/17 19:11	1
1,1,2,2-Tetrachloroethane	<0.0010		0.0010	0.00040	mg/Kg			11/17/17 19:11	1
Tetrachloroethene	<0.0010		0.0010	0.00037	mg/Kg			11/17/17 19:11	1
Toluene	<0.00025		0.00025	0.00015	mg/Kg			11/17/17 19:11	1
trans-1,2-Dichloroethene	<0.0010		0.0010	0.00035	mg/Kg			11/17/17 19:11	1
trans-1,3-Dichloropropene	<0.0010		0.0010	0.00036	mg/Kg			11/17/17 19:11	1
1,1,1-Trichloroethane	<0.0010		0.0010	0.00038	mg/Kg			11/17/17 19:11	1
1,1,2-Trichloroethane	<0.0010		0.0010	0.00035	mg/Kg			11/17/17 19:11	1
Trichloroethene	<0.00050		0.00050	0.00016	mg/Kg			11/17/17 19:11	1
Vinyl acetate	<0.0020		0.0020	0.00090	mg/Kg			11/17/17 19:11	1
Vinyl chloride	<0.00050		0.00050	0.00026	mg/Kg			11/17/17 19:11	1
Xylenes, Total	<0.00050		0.00050	0.00022	mg/Kg			11/17/17 19:11	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	87		72 - 124		11/17/17 19:11	1
Dibromofluoromethane	87		75 - 120		11/17/17 19:11	1
1,2-Dichloroethane-d4 (Surr)	84		75 - 126		11/17/17 19:11	1
Toluene-d8 (Surr)	94		75 - 120		11/17/17 19:11	1

TestAmerica Chicago

QC Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136990-1

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

Lab Sample ID: LCS 500-410445/7

Matrix: Solid

Analysis Batch: 410445

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	0.0406		mg/Kg		81	40 - 143
Benzene	0.0500	0.0506		mg/Kg		101	70 - 120
Bromodichloromethane	0.0500	0.0449		mg/Kg		90	69 - 120
Bromoform	0.0500	0.0424		mg/Kg		85	56 - 132
Bromomethane	0.0500	0.0335		mg/Kg		67	40 - 130
Carbon disulfide	0.0500	0.0507		mg/Kg		101	66 - 120
Carbon tetrachloride	0.0500	0.0453		mg/Kg		91	65 - 122
Chlorobenzene	0.0500	0.0495		mg/Kg		99	70 - 120
Chloroethane	0.0500	0.0390		mg/Kg		78	45 - 127
Chloroform	0.0500	0.0460		mg/Kg		92	70 - 120
Chloromethane	0.0500	0.0533		mg/Kg		107	54 - 147
cis-1,2-Dichloroethene	0.0500	0.0479		mg/Kg		96	70 - 125
cis-1,3-Dichloropropene	0.0500	0.0458		mg/Kg		92	64 - 127
Dibromochloromethane	0.0500	0.0434		mg/Kg		87	68 - 125
1,1-Dichloroethane	0.0500	0.0542		mg/Kg		108	70 - 125
1,2-Dichloroethane	0.0500	0.0455		mg/Kg		91	68 - 127
1,1-Dichloroethene	0.0500	0.0483		mg/Kg		97	67 - 122
1,2-Dichloropropane	0.0500	0.0541		mg/Kg		108	67 - 130
Ethylbenzene	0.0500	0.0494		mg/Kg		99	70 - 120
2-Hexanone	0.0500	0.0441		mg/Kg		88	56 - 135
2-Butanone (MEK)	0.0500	0.0396		mg/Kg		79	53 - 141
Methylene Chloride	0.0500	0.0502		mg/Kg		100	69 - 125
4-Methyl-2-pentanone (MIBK)	0.0500	0.0487		mg/Kg		97	56 - 133
Methyl tert-butyl ether	0.0500	0.0454		mg/Kg		91	70 - 120
Styrene	0.0500	0.0499		mg/Kg		100	70 - 120
1,1,1,2-Tetrachloroethane	0.0500	0.0448		mg/Kg		90	67 - 127
Tetrachloroethene	0.0500	0.0533		mg/Kg		107	70 - 128
Toluene	0.0500	0.0509		mg/Kg		102	70 - 125
trans-1,2-Dichloroethene	0.0500	0.0499		mg/Kg		100	70 - 125
trans-1,3-Dichloropropene	0.0500	0.0454		mg/Kg		91	62 - 128
1,1,1-Trichloroethane	0.0500	0.0463		mg/Kg		93	70 - 125
1,1,2-Trichloroethane	0.0500	0.0456		mg/Kg		91	70 - 122
Trichloroethene	0.0500	0.0496		mg/Kg		99	70 - 125
Vinyl acetate	0.0500	0.0468		mg/Kg		94	43 - 133
Vinyl chloride	0.0500	0.0395		mg/Kg		79	64 - 126
Xylenes, Total	0.100	0.0991		mg/Kg		99	70 - 125

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	83		72 - 124
Dibromofluoromethane	89		75 - 120
1,2-Dichloroethane-d4 (Surr)	82		75 - 126
Toluene-d8 (Surr)	95		75 - 120

QC Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136990-1

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

Lab Sample ID: LCS 500-410682/22-A
Matrix: Solid
Analysis Batch: 410712

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 410682

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Acetone	2.50	2.56		mg/Kg		102	40 - 143
Benzene	2.50	2.81		mg/Kg		112	70 - 120
Bromodichloromethane	2.50	2.40		mg/Kg		96	69 - 120
Bromoform	2.50	2.31		mg/Kg		92	56 - 132
Bromomethane	2.50	2.15		mg/Kg		86	40 - 130
Carbon disulfide	2.50	2.71		mg/Kg		108	66 - 120
Carbon tetrachloride	2.50	2.52		mg/Kg		101	65 - 122
Chlorobenzene	2.50	2.72		mg/Kg		109	70 - 120
Chloroethane	2.50	2.49		mg/Kg		99	45 - 127
Chloroform	2.50	2.51		mg/Kg		101	70 - 120
Chloromethane	2.50	2.91		mg/Kg		116	54 - 147
cis-1,2-Dichloroethene	2.50	2.72		mg/Kg		109	70 - 125
cis-1,3-Dichloropropene	2.50	2.42		mg/Kg		97	64 - 127
Dibromochloromethane	2.50	2.30		mg/Kg		92	68 - 125
1,1-Dichloroethane	2.50	2.91		mg/Kg		116	70 - 125
1,2-Dichloroethane	2.50	2.31		mg/Kg		92	68 - 127
1,1-Dichloroethene	2.50	2.68		mg/Kg		107	67 - 122
1,2-Dichloropropane	2.50	2.89		mg/Kg		115	67 - 130
Ethylbenzene	2.50	2.72		mg/Kg		109	70 - 120
2-Hexanone	2.50	2.81		mg/Kg		112	56 - 135
2-Butanone (MEK)	2.50	2.81		mg/Kg		112	53 - 141
Methylene Chloride	2.50	2.72		mg/Kg		109	69 - 125
4-Methyl-2-pentanone (MIBK)	2.50	2.95		mg/Kg		118	56 - 133
Methyl tert-butyl ether	2.50	2.42		mg/Kg		97	70 - 120
Styrene	2.50	2.71		mg/Kg		108	70 - 120
1,1,2,2-Tetrachloroethane	2.50	2.47		mg/Kg		99	67 - 127
Tetrachloroethene	2.50	3.06		mg/Kg		123	70 - 128
Toluene	2.50	2.83		mg/Kg		113	70 - 125
trans-1,2-Dichloroethene	2.50	2.80		mg/Kg		112	70 - 125
trans-1,3-Dichloropropene	2.50	2.40		mg/Kg		96	62 - 128
1,1,1-Trichloroethane	2.50	2.56		mg/Kg		102	70 - 125
1,1,2-Trichloroethane	2.50	2.49		mg/Kg		99	70 - 122
Trichloroethene	2.50	2.83		mg/Kg		113	70 - 125
Vinyl acetate	2.50	3.10		mg/Kg		124	43 - 133
Vinyl chloride	2.50	2.38		mg/Kg		95	64 - 126
Xylenes, Total	5.00	5.43		mg/Kg		109	70 - 125

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	80		72 - 124
Dibromofluoromethane	88		75 - 120
1,2-Dichloroethane-d4 (Surr)	76		75 - 126
Toluene-d8 (Surr)	93		75 - 120

QC Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136990-1

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

Lab Sample ID: MB 500-410712/5

Matrix: Solid

Analysis Batch: 410712

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	0.0017	mg/Kg			11/20/17 09:54	1
Benzene	<0.00025		0.00025	0.00015	mg/Kg			11/20/17 09:54	1
Bromodichloromethane	<0.0010		0.0010	0.00037	mg/Kg			11/20/17 09:54	1
Bromoform	<0.0010		0.0010	0.00048	mg/Kg			11/20/17 09:54	1
Bromomethane	<0.0020		0.0020	0.00080	mg/Kg			11/20/17 09:54	1
Carbon disulfide	<0.0020		0.0020	0.00080	mg/Kg			11/20/17 09:54	1
Carbon tetrachloride	<0.0010		0.0010	0.00038	mg/Kg			11/20/17 09:54	1
Chlorobenzene	<0.0010		0.0010	0.00039	mg/Kg			11/20/17 09:54	1
Chloroethane	<0.0010		0.0010	0.00050	mg/Kg			11/20/17 09:54	1
Chloroform	<0.0020		0.0020	0.00037	mg/Kg			11/20/17 09:54	1
Chloromethane	<0.0010		0.0010	0.00032	mg/Kg			11/20/17 09:54	1
cis-1,2-Dichloroethene	<0.0010		0.0010	0.00041	mg/Kg			11/20/17 09:54	1
cis-1,3-Dichloropropene	<0.0010		0.0010	0.00042	mg/Kg			11/20/17 09:54	1
Dibromochloromethane	<0.0010		0.0010	0.00049	mg/Kg			11/20/17 09:54	1
1,1-Dichloroethane	<0.0010		0.0010	0.00041	mg/Kg			11/20/17 09:54	1
1,2-Dichloroethane	<0.0010		0.0010	0.00039	mg/Kg			11/20/17 09:54	1
1,1-Dichloroethene	<0.0010		0.0010	0.00039	mg/Kg			11/20/17 09:54	1
1,2-Dichloropropane	<0.0010		0.0010	0.00043	mg/Kg			11/20/17 09:54	1
1,3-Dichloropropene, Total	<0.0010		0.0010	0.00042	mg/Kg			11/20/17 09:54	1
Ethylbenzene	<0.00025		0.00025	0.00018	mg/Kg			11/20/17 09:54	1
2-Hexanone	<0.0050		0.0050	0.0016	mg/Kg			11/20/17 09:54	1
2-Butanone (MEK)	<0.0050		0.0050	0.0021	mg/Kg			11/20/17 09:54	1
Methylene Chloride	<0.0050		0.0050	0.0016	mg/Kg			11/20/17 09:54	1
4-Methyl-2-pentanone (MIBK)	<0.0050		0.0050	0.0022	mg/Kg			11/20/17 09:54	1
Methyl tert-butyl ether	<0.0010		0.0010	0.00039	mg/Kg			11/20/17 09:54	1
Styrene	<0.0010		0.0010	0.00039	mg/Kg			11/20/17 09:54	1
1,1,2,2-Tetrachloroethane	<0.0010		0.0010	0.00040	mg/Kg			11/20/17 09:54	1
Tetrachloroethene	<0.0010		0.0010	0.00037	mg/Kg			11/20/17 09:54	1
Toluene	<0.00025		0.00025	0.00015	mg/Kg			11/20/17 09:54	1
trans-1,2-Dichloroethene	<0.0010		0.0010	0.00035	mg/Kg			11/20/17 09:54	1
trans-1,3-Dichloropropene	<0.0010		0.0010	0.00036	mg/Kg			11/20/17 09:54	1
1,1,1-Trichloroethane	<0.0010		0.0010	0.00038	mg/Kg			11/20/17 09:54	1
1,1,2-Trichloroethane	<0.0010		0.0010	0.00035	mg/Kg			11/20/17 09:54	1
Trichloroethene	<0.00050		0.00050	0.00016	mg/Kg			11/20/17 09:54	1
Vinyl acetate	<0.0020		0.0020	0.00090	mg/Kg			11/20/17 09:54	1
Vinyl chloride	<0.00050		0.00050	0.00026	mg/Kg			11/20/17 09:54	1
Xylenes, Total	<0.00050		0.00050	0.00022	mg/Kg			11/20/17 09:54	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	86		72 - 124		11/20/17 09:54	1
Dibromofluoromethane	86		75 - 120		11/20/17 09:54	1
1,2-Dichloroethane-d4 (Surr)	79		75 - 126		11/20/17 09:54	1
Toluene-d8 (Surr)	93		75 - 120		11/20/17 09:54	1

TestAmerica Chicago

QC Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136990-1

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

Lab Sample ID: LCS 500-410712/4

Matrix: Solid

Analysis Batch: 410712

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	0.0515		mg/Kg		103	40 - 143
Benzene	0.0500	0.0482		mg/Kg		96	70 - 120
Bromodichloromethane	0.0500	0.0415		mg/Kg		83	69 - 120
Bromoform	0.0500	0.0408		mg/Kg		82	56 - 132
Bromomethane	0.0500	0.0396		mg/Kg		79	40 - 130
Carbon disulfide	0.0500	0.0493		mg/Kg		99	66 - 120
Carbon tetrachloride	0.0500	0.0434		mg/Kg		87	65 - 122
Chlorobenzene	0.0500	0.0466		mg/Kg		93	70 - 120
Chloroethane	0.0500	0.0466		mg/Kg		93	45 - 127
Chloroform	0.0500	0.0439		mg/Kg		88	70 - 120
Chloromethane	0.0500	0.0603		mg/Kg		121	54 - 147
cis-1,2-Dichloroethene	0.0500	0.0464		mg/Kg		93	70 - 125
cis-1,3-Dichloropropene	0.0500	0.0420		mg/Kg		84	64 - 127
Dibromochloromethane	0.0500	0.0392		mg/Kg		78	68 - 125
1,1-Dichloroethane	0.0500	0.0504		mg/Kg		101	70 - 125
1,2-Dichloroethane	0.0500	0.0407		mg/Kg		81	68 - 127
1,1-Dichloroethene	0.0500	0.0478		mg/Kg		96	67 - 122
1,2-Dichloropropane	0.0500	0.0498		mg/Kg		100	67 - 130
Ethylbenzene	0.0500	0.0474		mg/Kg		95	70 - 120
2-Hexanone	0.0500	0.0482		mg/Kg		96	56 - 135
2-Butanone (MEK)	0.0500	0.0481		mg/Kg		96	53 - 141
Methylene Chloride	0.0500	0.0463		mg/Kg		93	69 - 125
4-Methyl-2-pentanone (MIBK)	0.0500	0.0498		mg/Kg		100	56 - 133
Methyl tert-butyl ether	0.0500	0.0421		mg/Kg		84	70 - 120
Styrene	0.0500	0.0470		mg/Kg		94	70 - 120
1,1,2,2-Tetrachloroethane	0.0500	0.0428		mg/Kg		86	67 - 127
Tetrachloroethene	0.0500	0.0537		mg/Kg		107	70 - 128
Toluene	0.0500	0.0484		mg/Kg		97	70 - 125
trans-1,2-Dichloroethene	0.0500	0.0489		mg/Kg		98	70 - 125
trans-1,3-Dichloropropene	0.0500	0.0415		mg/Kg		83	62 - 128
1,1,1-Trichloroethane	0.0500	0.0443		mg/Kg		89	70 - 125
1,1,2-Trichloroethane	0.0500	0.0425		mg/Kg		85	70 - 122
Trichloroethene	0.0500	0.0489		mg/Kg		98	70 - 125
Vinyl acetate	0.0500	0.0454		mg/Kg		91	43 - 133
Vinyl chloride	0.0500	0.0476		mg/Kg		95	64 - 126
Xylenes, Total	0.100	0.0945		mg/Kg		95	70 - 125

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	81		72 - 124
Dibromofluoromethane	86		75 - 120
1,2-Dichloroethane-d4 (Surr)	78		75 - 126
Toluene-d8 (Surr)	94		75 - 120

QC Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136990-1

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

Lab Sample ID: MB 500-409153/1-A

Matrix: Water

Analysis Batch: 409237

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 409153

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.00080		0.00080	0.00025	mg/L		11/09/17 07:33	11/09/17 18:22	1
Acenaphthylene	<0.00080		0.00080	0.00021	mg/L		11/09/17 07:33	11/09/17 18:22	1
Anthracene	<0.00080		0.00080	0.00027	mg/L		11/09/17 07:33	11/09/17 18:22	1
Benzo[a]anthracene	<0.00013		0.00013	0.000045	mg/L		11/09/17 07:33	11/09/17 18:22	1
Benzo[a]pyrene	<0.00016		0.00016	0.000079	mg/L		11/09/17 07:33	11/09/17 18:22	1
Benzo[b]fluoranthene	<0.00016		0.00016	0.000065	mg/L		11/09/17 07:33	11/09/17 18:22	1
Benzo[g,h,i]perylene	<0.00080		0.00080	0.00030	mg/L		11/09/17 07:33	11/09/17 18:22	1
Benzo[k]fluoranthene	<0.00016		0.00016	0.000051	mg/L		11/09/17 07:33	11/09/17 18:22	1
Bis(2-chloroethoxy)methane	<0.0016		0.0016	0.00023	mg/L		11/09/17 07:33	11/09/17 18:22	1
Bis(2-chloroethyl)ether	<0.0016		0.0016	0.00023	mg/L		11/09/17 07:33	11/09/17 18:22	1
Bis(2-ethylhexyl) phthalate	<0.0080		0.0080	0.0014	mg/L		11/09/17 07:33	11/09/17 18:22	1
4-Bromophenyl phenyl ether	<0.0040		0.0040	0.00043	mg/L		11/09/17 07:33	11/09/17 18:22	1
Butyl benzyl phthalate	<0.0016		0.0016	0.00038	mg/L		11/09/17 07:33	11/09/17 18:22	1
Carbazole	<0.0040		0.0040	0.00028	mg/L		11/09/17 07:33	11/09/17 18:22	1
4-Chloroaniline	<0.0080		0.0080	0.0016	mg/L		11/09/17 07:33	11/09/17 18:22	1
4-Chloro-3-methylphenol	<0.0080		0.0080	0.0018	mg/L		11/09/17 07:33	11/09/17 18:22	1
2-Chloronaphthalene	<0.0016		0.0016	0.00019	mg/L		11/09/17 07:33	11/09/17 18:22	1
2-Chlorophenol	<0.0040		0.0040	0.00045	mg/L		11/09/17 07:33	11/09/17 18:22	1
4-Chlorophenyl phenyl ether	<0.0040		0.0040	0.00051	mg/L		11/09/17 07:33	11/09/17 18:22	1
Chrysene	<0.00016		0.00016	0.000055	mg/L		11/09/17 07:33	11/09/17 18:22	1
Dibenz(a,h)anthracene	<0.00024		0.00024	0.000041	mg/L		11/09/17 07:33	11/09/17 18:22	1
Dibenzofuran	<0.0016		0.0016	0.00021	mg/L		11/09/17 07:33	11/09/17 18:22	1
1,2-Dichlorobenzene	<0.0016		0.0016	0.00020	mg/L		11/09/17 07:33	11/09/17 18:22	1
1,3-Dichlorobenzene	<0.0016		0.0016	0.00017	mg/L		11/09/17 07:33	11/09/17 18:22	1
1,4-Dichlorobenzene	<0.0016		0.0016	0.00017	mg/L		11/09/17 07:33	11/09/17 18:22	1
3,3'-Dichlorobenzidine	<0.0040		0.0040	0.0014	mg/L		11/09/17 07:33	11/09/17 18:22	1
2,4-Dichlorophenol	<0.0080		0.0080	0.0021	mg/L		11/09/17 07:33	11/09/17 18:22	1
Diethyl phthalate	<0.0040		0.0040	0.00029	mg/L		11/09/17 07:33	11/09/17 18:22	1
2,4-Dimethylphenol	<0.0080		0.0080	0.0014	mg/L		11/09/17 07:33	11/09/17 18:22	1
Dimethyl phthalate	<0.0040		0.0040	0.00025	mg/L		11/09/17 07:33	11/09/17 18:22	1
Di-n-butyl phthalate	<0.0040		0.0040	0.00058	mg/L		11/09/17 07:33	11/09/17 18:22	1
4,6-Dinitro-2-methylphenol	<0.016		0.016	0.0047	mg/L		11/09/17 07:33	11/09/17 18:22	1
2,4-Dinitrophenol	<0.016		0.016	0.0069	mg/L		11/09/17 07:33	11/09/17 18:22	1
2,4-Dinitrotoluene	<0.00080		0.00080	0.00020	mg/L		11/09/17 07:33	11/09/17 18:22	1
2,6-Dinitrotoluene	<0.00080		0.00080	0.000059	mg/L		11/09/17 07:33	11/09/17 18:22	1
Di-n-octyl phthalate	<0.0080		0.0080	0.00084	mg/L		11/09/17 07:33	11/09/17 18:22	1
Fluoranthene	<0.00080		0.00080	0.00036	mg/L		11/09/17 07:33	11/09/17 18:22	1
Fluorene	<0.00080		0.00080	0.00020	mg/L		11/09/17 07:33	11/09/17 18:22	1
Hexachlorobenzene	<0.00040		0.00040	0.000064	mg/L		11/09/17 07:33	11/09/17 18:22	1
Hexachlorobutadiene	<0.0040		0.0040	0.00041	mg/L		11/09/17 07:33	11/09/17 18:22	1
Hexachlorocyclopentadiene	<0.016		0.016	0.0051	mg/L		11/09/17 07:33	11/09/17 18:22	1
Hexachloroethane	<0.0040		0.0040	0.00048	mg/L		11/09/17 07:33	11/09/17 18:22	1
Indeno[1,2,3-cd]pyrene	<0.00016		0.00016	0.000060	mg/L		11/09/17 07:33	11/09/17 18:22	1
Isophorone	<0.0016		0.0016	0.00030	mg/L		11/09/17 07:33	11/09/17 18:22	1
2-Methylnaphthalene	<0.0016		0.0016	0.000052	mg/L		11/09/17 07:33	11/09/17 18:22	1
2-Methylphenol	<0.0016		0.0016	0.00024	mg/L		11/09/17 07:33	11/09/17 18:22	1
3 & 4 Methylphenol	<0.0016		0.0016	0.00036	mg/L		11/09/17 07:33	11/09/17 18:22	1
Naphthalene	<0.00080		0.00080	0.00025	mg/L		11/09/17 07:33	11/09/17 18:22	1

TestAmerica Chicago

QC Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136990-1

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

Lab Sample ID: MB 500-409153/1-A
Matrix: Water
Analysis Batch: 409237

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 409153

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Nitroaniline	<0.0040		0.0040	0.0010	mg/L		11/09/17 07:33	11/09/17 18:22	1
3-Nitroaniline	<0.0080		0.0080	0.0014	mg/L		11/09/17 07:33	11/09/17 18:22	1
4-Nitroaniline	<0.0080		0.0080	0.0013	mg/L		11/09/17 07:33	11/09/17 18:22	1
Nitrobenzene	<0.00080		0.00080	0.00036	mg/L		11/09/17 07:33	11/09/17 18:22	1
2-Nitrophenol	<0.0080		0.0080	0.0020	mg/L		11/09/17 07:33	11/09/17 18:22	1
4-Nitrophenol	<0.016		0.016	0.0059	mg/L		11/09/17 07:33	11/09/17 18:22	1
N-Nitrosodi-n-propylamine	<0.00040		0.00040	0.00012	mg/L		11/09/17 07:33	11/09/17 18:22	1
N-Nitrosodiphenylamine	<0.0016		0.0016	0.00030	mg/L		11/09/17 07:33	11/09/17 18:22	1
2,2'-oxybis[1-chloropropane]	<0.0016		0.0016	0.00030	mg/L		11/09/17 07:33	11/09/17 18:22	1
Pentachlorophenol	<0.016		0.016	0.0032	mg/L		11/09/17 07:33	11/09/17 18:22	1
Phenanthrene	<0.00080		0.00080	0.00024	mg/L		11/09/17 07:33	11/09/17 18:22	1
Phenol	<0.0040		0.0040	0.00054	mg/L		11/09/17 07:33	11/09/17 18:22	1
Pyrene	<0.00080		0.00080	0.00034	mg/L		11/09/17 07:33	11/09/17 18:22	1
1,2,4-Trichlorobenzene	<0.0016		0.0016	0.00019	mg/L		11/09/17 07:33	11/09/17 18:22	1
2,4,5-Trichlorophenol	<0.0080		0.0080	0.0021	mg/L		11/09/17 07:33	11/09/17 18:22	1
2,4,6-Trichlorophenol	<0.0040		0.0040	0.00057	mg/L		11/09/17 07:33	11/09/17 18:22	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	74		34 - 110	11/09/17 07:33	11/09/17 18:22	1
2-Fluorophenol	72		27 - 110	11/09/17 07:33	11/09/17 18:22	1
Nitrobenzene-d5	86		36 - 120	11/09/17 07:33	11/09/17 18:22	1
Phenol-d5	47		20 - 100	11/09/17 07:33	11/09/17 18:22	1
Terphenyl-d14	101		40 - 145	11/09/17 07:33	11/09/17 18:22	1
2,4,6-Tribromophenol	71		40 - 145	11/09/17 07:33	11/09/17 18:22	1

Lab Sample ID: LCS 500-409153/2-A
Matrix: Water
Analysis Batch: 409237

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 409153

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Acenaphthene	0.0320	0.0257		mg/L		80	46 - 110
Acenaphthylene	0.0320	0.0253		mg/L		79	47 - 110
Anthracene	0.0320	0.0313		mg/L		98	67 - 110
Benzo[a]anthracene	0.0320	0.0306		mg/L		96	70 - 120
Benzo[a]pyrene	0.0320	0.0333		mg/L		104	70 - 120
Benzo[b]fluoranthene	0.0320	0.0322		mg/L		101	69 - 123
Benzo[g,h,i]perylene	0.0320	0.0354		mg/L		111	70 - 120
Benzo[k]fluoranthene	0.0320	0.0348		mg/L		109	70 - 120
Bis(2-chloroethoxy)methane	0.0320	0.0297		mg/L		93	60 - 110
Bis(2-chloroethyl)ether	0.0320	0.0273		mg/L		85	49 - 110
Bis(2-ethylhexyl) phthalate	0.0320	0.0343		mg/L		107	69 - 120
4-Bromophenyl phenyl ether	0.0320	0.0256		mg/L		80	58 - 120
Butyl benzyl phthalate	0.0320	0.0339		mg/L		106	68 - 120
Carbazole	0.0320	0.0334		mg/L		104	61 - 145
4-Chloroaniline	0.0320	0.0301		mg/L		94	35 - 128
4-Chloro-3-methylphenol	0.0320	0.0287		mg/L		90	64 - 120
2-Chloronaphthalene	0.0320	0.0233		mg/L		73	39 - 110
2-Chlorophenol	0.0320	0.0265		mg/L		83	59 - 110

TestAmerica Chicago

QC Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136990-1

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

Lab Sample ID: LCS 500-409153/2-A

Matrix: Water

Analysis Batch: 409237

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 409153

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
4-Chlorophenyl phenyl ether	0.0320	0.0267		mg/L		83	47 - 112
Chrysene	0.0320	0.0318		mg/L		99	68 - 120
Dibenz(a,h)anthracene	0.0320	0.0365		mg/L		114	70 - 127
Dibenzofuran	0.0320	0.0266		mg/L		83	51 - 110
1,2-Dichlorobenzene	0.0320	0.0198		mg/L		62	26 - 110
1,3-Dichlorobenzene	0.0320	0.0191		mg/L		60	22 - 110
1,4-Dichlorobenzene	0.0320	0.0195		mg/L		61	23 - 110
3,3'-Dichlorobenzidine	0.0320	0.0300		mg/L		94	60 - 132
2,4-Dichlorophenol	0.0320	0.0271		mg/L		85	62 - 110
Diethyl phthalate	0.0320	0.0316		mg/L		99	62 - 120
2,4-Dimethylphenol	0.0320	0.0277		mg/L		87	51 - 110
Dimethyl phthalate	0.0320	0.0300		mg/L		94	63 - 120
Di-n-butyl phthalate	0.0320	0.0322		mg/L		101	70 - 120
4,6-Dinitro-2-methylphenol	0.0640	0.0543		mg/L		85	50 - 117
2,4-Dinitrophenol	0.0640	0.0644		mg/L		101	37 - 130
2,4-Dinitrotoluene	0.0320	0.0309		mg/L		97	63 - 122
2,6-Dinitrotoluene	0.0320	0.0312		mg/L		98	63 - 119
Di-n-octyl phthalate	0.0320	0.0313		mg/L		98	70 - 122
Fluoranthene	0.0320	0.0306		mg/L		96	68 - 120
Fluorene	0.0320	0.0282		mg/L		88	53 - 120
Hexachlorobenzene	0.0320	0.0262		mg/L		82	61 - 120
Hexachlorobutadiene	0.0320	0.0168		mg/L		53	20 - 100
Hexachlorocyclopentadiene	0.0320	0.0142	J	mg/L		44	10 - 100
Hexachloroethane	0.0320	0.0206		mg/L		64	20 - 100
Indeno[1,2,3-cd]pyrene	0.0320	0.0354		mg/L		111	65 - 133
Isophorone	0.0320	0.0290		mg/L		91	57 - 110
2-Methylnaphthalene	0.0320	0.0262		mg/L		82	34 - 110
2-Methylphenol	0.0320	0.0253		mg/L		79	53 - 110
3 & 4 Methylphenol	0.0320	0.0256		mg/L		80	53 - 110
Naphthalene	0.0320	0.0226		mg/L		71	36 - 110
2-Nitroaniline	0.0320	0.0331		mg/L		103	59 - 122
3-Nitroaniline	0.0320	0.0300		mg/L		94	47 - 123
4-Nitroaniline	0.0320	0.0374		mg/L		117	52 - 147
Nitrobenzene	0.0320	0.0332		mg/L		104	53 - 110
2-Nitrophenol	0.0320	0.0276		mg/L		86	58 - 110
4-Nitrophenol	0.0640	0.0338		mg/L		53	20 - 110
N-Nitrosodi-n-propylamine	0.0320	0.0289		mg/L		90	58 - 110
N-Nitrosodiphenylamine	0.0320	0.0307		mg/L		96	66 - 110
2,2'-oxybis[1-chloropropane]	0.0320	0.0365	*	mg/L		114	38 - 110
Pentachlorophenol	0.0640	0.0402		mg/L		63	23 - 129
Phenanthrene	0.0320	0.0300		mg/L		94	65 - 120
Phenol	0.0320	0.0168		mg/L		53	33 - 100
Pyrene	0.0320	0.0325		mg/L		102	70 - 110
1,2,4-Trichlorobenzene	0.0320	0.0195		mg/L		61	26 - 110
2,4,5-Trichlorophenol	0.0320	0.0263		mg/L		82	63 - 120
2,4,6-Trichlorophenol	0.0320	0.0284		mg/L		89	62 - 110

TestAmerica Chicago

QC Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136990-1

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

Lab Sample ID: LCS 500-409153/2-A
Matrix: Water
Analysis Batch: 409237

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 409153

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorobiphenyl	89		34 - 110
2-Fluorophenol	78		27 - 110
Nitrobenzene-d5	95		36 - 120
Phenol-d5	59		20 - 100
Terphenyl-d14	104		40 - 145
2,4,6-Tribromophenol	85		40 - 145

Lab Sample ID: LCSD 500-409153/3-A
Matrix: Water
Analysis Batch: 409237

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 409153

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acenaphthene	0.0320	0.0258		mg/L		81	46 - 110	0	20
Acenaphthylene	0.0320	0.0253		mg/L		79	47 - 110	0	20
Anthracene	0.0320	0.0315		mg/L		99	67 - 110	1	20
Benzo[a]anthracene	0.0320	0.0316		mg/L		99	70 - 120	3	20
Benzo[a]pyrene	0.0320	0.0337		mg/L		105	70 - 120	1	20
Benzo[b]fluoranthene	0.0320	0.0328		mg/L		102	69 - 123	2	20
Benzo[g,h,i]perylene	0.0320	0.0345		mg/L		108	70 - 120	3	20
Benzo[k]fluoranthene	0.0320	0.0329		mg/L		103	70 - 120	6	20
Bis(2-chloroethoxy)methane	0.0320	0.0302		mg/L		94	60 - 110	1	20
Bis(2-chloroethyl)ether	0.0320	0.0245		mg/L		77	49 - 110	11	20
Bis(2-ethylhexyl) phthalate	0.0320	0.0351		mg/L		110	69 - 120	2	20
4-Bromophenyl phenyl ether	0.0320	0.0264		mg/L		82	58 - 120	3	20
Butyl benzyl phthalate	0.0320	0.0353		mg/L		110	68 - 120	4	20
Carbazole	0.0320	0.0342		mg/L		107	61 - 145	2	20
4-Chloroaniline	0.0320	0.0310		mg/L		97	35 - 128	3	20
4-Chloro-3-methylphenol	0.0320	0.0277		mg/L		87	64 - 120	3	20
2-Chloronaphthalene	0.0320	0.0236		mg/L		74	39 - 110	1	20
2-Chlorophenol	0.0320	0.0268		mg/L		84	59 - 110	1	20
4-Chlorophenyl phenyl ether	0.0320	0.0272		mg/L		85	47 - 112	2	20
Chrysene	0.0320	0.0329		mg/L		103	68 - 120	4	20
Dibenz(a,h)anthracene	0.0320	0.0356		mg/L		111	70 - 127	3	20
Dibenzofuran	0.0320	0.0271		mg/L		85	51 - 110	2	20
1,2-Dichlorobenzene	0.0320	0.0203		mg/L		63	26 - 110	3	20
1,3-Dichlorobenzene	0.0320	0.0194		mg/L		61	22 - 110	2	20
1,4-Dichlorobenzene	0.0320	0.0199		mg/L		62	23 - 110	2	20
3,3'-Dichlorobenzidine	0.0320	0.0309		mg/L		97	60 - 132	3	20
2,4-Dichlorophenol	0.0320	0.0277		mg/L		87	62 - 110	2	20
Diethyl phthalate	0.0320	0.0320		mg/L		100	62 - 120	1	20
2,4-Dimethylphenol	0.0320	0.0293		mg/L		92	51 - 110	5	20
Dimethyl phthalate	0.0320	0.0302		mg/L		94	63 - 120	0	20
Di-n-butyl phthalate	0.0320	0.0317		mg/L		99	70 - 120	2	20
4,6-Dinitro-2-methylphenol	0.0640	0.0567		mg/L		89	50 - 117	4	20
2,4-Dinitrophenol	0.0640	0.0628		mg/L		98	37 - 130	3	20
2,4-Dinitrotoluene	0.0320	0.0312		mg/L		98	63 - 122	1	20
2,6-Dinitrotoluene	0.0320	0.0312		mg/L		97	63 - 119	0	20
Di-n-octyl phthalate	0.0320	0.0317		mg/L		99	70 - 122	1	20

TestAmerica Chicago

QC Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136990-1

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

Lab Sample ID: LCSD 500-409153/3-A
Matrix: Water
Analysis Batch: 409237

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 409153

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoranthene	0.0320	0.0306		mg/L		96	68 - 120	0	20
Fluorene	0.0320	0.0281		mg/L		88	53 - 120	0	20
Hexachlorobenzene	0.0320	0.0275		mg/L		86	61 - 120	5	20
Hexachlorobutadiene	0.0320	0.0173		mg/L		54	20 - 100	3	20
Hexachlorocyclopentadiene	0.0320	0.0143	J	mg/L		45	10 - 100	1	20
Hexachloroethane	0.0320	0.0206		mg/L		64	20 - 100	0	20
Indeno[1,2,3-cd]pyrene	0.0320	0.0352		mg/L		110	65 - 133	1	20
Isophorone	0.0320	0.0289		mg/L		90	57 - 110	0	20
2-Methylnaphthalene	0.0320	0.0287		mg/L		90	34 - 110	9	20
2-Methylphenol	0.0320	0.0287		mg/L		90	53 - 110	12	20
3 & 4 Methylphenol	0.0320	0.0270		mg/L		85	53 - 110	6	20
Naphthalene	0.0320	0.0225		mg/L		70	36 - 110	1	20
2-Nitroaniline	0.0320	0.0328		mg/L		103	59 - 122	1	20
3-Nitroaniline	0.0320	0.0305		mg/L		95	47 - 123	2	20
4-Nitroaniline	0.0320	0.0395		mg/L		123	52 - 147	6	20
Nitrobenzene	0.0320	0.0304		mg/L		95	53 - 110	9	20
2-Nitrophenol	0.0320	0.0285		mg/L		89	58 - 110	3	20
4-Nitrophenol	0.0640	0.0359		mg/L		56	20 - 110	6	20
N-Nitrosodi-n-propylamine	0.0320	0.0292		mg/L		91	58 - 110	1	20
N-Nitrosodiphenylamine	0.0320	0.0297		mg/L		93	66 - 110	3	20
2,2'-oxybis[1-chloropropane]	0.0320	0.0316		mg/L		99	38 - 110	14	20
Pentachlorophenol	0.0640	0.0485		mg/L		76	23 - 129	19	20
Phenanthrene	0.0320	0.0300		mg/L		94	65 - 120	0	20
Phenol	0.0320	0.0168		mg/L		52	33 - 100	0	20
Pyrene	0.0320	0.0335		mg/L		105	70 - 110	3	20
1,2,4-Trichlorobenzene	0.0320	0.0199		mg/L		62	26 - 110	2	20
2,4,5-Trichlorophenol	0.0320	0.0278		mg/L		87	63 - 120	5	20
2,4,6-Trichlorophenol	0.0320	0.0291		mg/L		91	62 - 110	2	20

Surrogate	LCSD %Recovery	LCSD Qualifier	LCSD Limits
2-Fluorobiphenyl	92		34 - 110
2-Fluorophenol	80		27 - 110
Nitrobenzene-d5	97		36 - 120
Phenol-d5	62		20 - 100
Terphenyl-d14	108		40 - 145
2,4,6-Tribromophenol	95		40 - 145

Lab Sample ID: MB 500-409947/1-A
Matrix: Solid
Analysis Batch: 410058

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 409947

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.033		0.033	0.0060	mg/Kg		11/14/17 17:23	11/15/17 16:54	1
Acenaphthylene	<0.033		0.033	0.0044	mg/Kg		11/14/17 17:23	11/15/17 16:54	1
Anthracene	<0.033		0.033	0.0056	mg/Kg		11/14/17 17:23	11/15/17 16:54	1
Benzo[a]anthracene	<0.033		0.033	0.0045	mg/Kg		11/14/17 17:23	11/15/17 16:54	1
Benzo[a]pyrene	<0.033		0.033	0.0064	mg/Kg		11/14/17 17:23	11/15/17 16:54	1
Benzo[b]fluoranthene	<0.033		0.033	0.0072	mg/Kg		11/14/17 17:23	11/15/17 16:54	1

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QC Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136990-1

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

Lab Sample ID: MB 500-409947/1-A
 Matrix: Solid
 Analysis Batch: 410058

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 409947

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[g,h,i]perylene	<0.033		0.033	0.011	mg/Kg		11/14/17 17:23	11/15/17 16:54	1
Benzo[k]fluoranthene	<0.033		0.033	0.0098	mg/Kg		11/14/17 17:23	11/15/17 16:54	1
Bis(2-chloroethoxy)methane	<0.17		0.17	0.034	mg/Kg		11/14/17 17:23	11/15/17 16:54	1
Bis(2-chloroethyl)ether	<0.17		0.17	0.050	mg/Kg		11/14/17 17:23	11/15/17 16:54	1
Bis(2-ethylhexyl) phthalate	<0.17		0.17	0.061	mg/Kg		11/14/17 17:23	11/15/17 16:54	1
4-Bromophenyl phenyl ether	<0.17		0.17	0.044	mg/Kg		11/14/17 17:23	11/15/17 16:54	1
Butyl benzyl phthalate	<0.17		0.17	0.063	mg/Kg		11/14/17 17:23	11/15/17 16:54	1
Carbazole	<0.17		0.17	0.083	mg/Kg		11/14/17 17:23	11/15/17 16:54	1
4-Chloroaniline	<0.67		0.67	0.16	mg/Kg		11/14/17 17:23	11/15/17 16:54	1
4-Chloro-3-methylphenol	<0.33		0.33	0.11	mg/Kg		11/14/17 17:23	11/15/17 16:54	1
2-Chloronaphthalene	<0.17		0.17	0.037	mg/Kg		11/14/17 17:23	11/15/17 16:54	1
2-Chlorophenol	<0.17		0.17	0.057	mg/Kg		11/14/17 17:23	11/15/17 16:54	1
4-Chlorophenyl phenyl ether	<0.17		0.17	0.039	mg/Kg		11/14/17 17:23	11/15/17 16:54	1
Chrysene	<0.033		0.033	0.0091	mg/Kg		11/14/17 17:23	11/15/17 16:54	1
Dibenz(a,h)anthracene	<0.033		0.033	0.0064	mg/Kg		11/14/17 17:23	11/15/17 16:54	1
Dibenzofuran	<0.17		0.17	0.039	mg/Kg		11/14/17 17:23	11/15/17 16:54	1
1,2-Dichlorobenzene	<0.17		0.17	0.040	mg/Kg		11/14/17 17:23	11/15/17 16:54	1
1,3-Dichlorobenzene	<0.17		0.17	0.037	mg/Kg		11/14/17 17:23	11/15/17 16:54	1
1,4-Dichlorobenzene	<0.17		0.17	0.043	mg/Kg		11/14/17 17:23	11/15/17 16:54	1
3,3'-Dichlorobenzidine	<0.17		0.17	0.047	mg/Kg		11/14/17 17:23	11/15/17 16:54	1
2,4-Dichlorophenol	<0.33		0.33	0.079	mg/Kg		11/14/17 17:23	11/15/17 16:54	1
Diethyl phthalate	<0.17		0.17	0.056	mg/Kg		11/14/17 17:23	11/15/17 16:54	1
2,4-Dimethylphenol	<0.33		0.33	0.13	mg/Kg		11/14/17 17:23	11/15/17 16:54	1
Dimethyl phthalate	<0.17		0.17	0.043	mg/Kg		11/14/17 17:23	11/15/17 16:54	1
Di-n-butyl phthalate	<0.17		0.17	0.051	mg/Kg		11/14/17 17:23	11/15/17 16:54	1
4,6-Dinitro-2-methylphenol	<0.67		0.67	0.27	mg/Kg		11/14/17 17:23	11/15/17 16:54	1
2,4-Dinitrophenol	<0.67		0.67	0.59	mg/Kg		11/14/17 17:23	11/15/17 16:54	1
2,4-Dinitrotoluene	<0.17		0.17	0.053	mg/Kg		11/14/17 17:23	11/15/17 16:54	1
2,6-Dinitrotoluene	<0.17		0.17	0.065	mg/Kg		11/14/17 17:23	11/15/17 16:54	1
Di-n-octyl phthalate	<0.17		0.17	0.054	mg/Kg		11/14/17 17:23	11/15/17 16:54	1
Fluoranthene	<0.033		0.033	0.0062	mg/Kg		11/14/17 17:23	11/15/17 16:54	1
Fluorene	<0.033		0.033	0.0047	mg/Kg		11/14/17 17:23	11/15/17 16:54	1
Hexachlorobenzene	<0.067		0.067	0.0077	mg/Kg		11/14/17 17:23	11/15/17 16:54	1
Hexachlorobutadiene	<0.17		0.17	0.052	mg/Kg		11/14/17 17:23	11/15/17 16:54	1
Hexachlorocyclopentadiene	<0.67		0.67	0.19	mg/Kg		11/14/17 17:23	11/15/17 16:54	1
Hexachloroethane	<0.17		0.17	0.051	mg/Kg		11/14/17 17:23	11/15/17 16:54	1
Indeno[1,2,3-cd]pyrene	<0.033		0.033	0.0086	mg/Kg		11/14/17 17:23	11/15/17 16:54	1
Isophorone	<0.17		0.17	0.037	mg/Kg		11/14/17 17:23	11/15/17 16:54	1
2-Methylnaphthalene	<0.067		0.067	0.0061	mg/Kg		11/14/17 17:23	11/15/17 16:54	1
2-Methylphenol	<0.17		0.17	0.053	mg/Kg		11/14/17 17:23	11/15/17 16:54	1
3 & 4 Methylphenol	<0.17		0.17	0.055	mg/Kg		11/14/17 17:23	11/15/17 16:54	1
Naphthalene	<0.033		0.033	0.0051	mg/Kg		11/14/17 17:23	11/15/17 16:54	1
2-Nitroaniline	<0.17		0.17	0.045	mg/Kg		11/14/17 17:23	11/15/17 16:54	1
3-Nitroaniline	<0.33		0.33	0.10	mg/Kg		11/14/17 17:23	11/15/17 16:54	1
4-Nitroaniline	<0.33		0.33	0.14	mg/Kg		11/14/17 17:23	11/15/17 16:54	1
Nitrobenzene	<0.033		0.033	0.0083	mg/Kg		11/14/17 17:23	11/15/17 16:54	1
2-Nitrophenol	<0.33		0.33	0.079	mg/Kg		11/14/17 17:23	11/15/17 16:54	1
4-Nitrophenol	<0.67		0.67	0.32	mg/Kg		11/14/17 17:23	11/15/17 16:54	1

TestAmerica Chicago

QC Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136990-1

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

Lab Sample ID: MB 500-409947/1-A
Matrix: Solid
Analysis Batch: 410058

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 409947

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	<0.067		0.067	0.041	mg/Kg		11/14/17 17:23	11/15/17 16:54	1
N-Nitrosodiphenylamine	<0.17		0.17	0.039	mg/Kg		11/14/17 17:23	11/15/17 16:54	1
2,2'-oxybis[1-chloropropane]	<0.17		0.17	0.039	mg/Kg		11/14/17 17:23	11/15/17 16:54	1
Pentachlorophenol	<0.67		0.67	0.53	mg/Kg		11/14/17 17:23	11/15/17 16:54	1
Phenanthrene	<0.033		0.033	0.0046	mg/Kg		11/14/17 17:23	11/15/17 16:54	1
Phenol	<0.17		0.17	0.074	mg/Kg		11/14/17 17:23	11/15/17 16:54	1
Pyrene	<0.033		0.033	0.0066	mg/Kg		11/14/17 17:23	11/15/17 16:54	1
1,2,4-Trichlorobenzene	<0.17		0.17	0.036	mg/Kg		11/14/17 17:23	11/15/17 16:54	1
2,4,5-Trichlorophenol	<0.33		0.33	0.076	mg/Kg		11/14/17 17:23	11/15/17 16:54	1
2,4,6-Trichlorophenol	<0.33		0.33	0.11	mg/Kg		11/14/17 17:23	11/15/17 16:54	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	99		44 - 121	11/14/17 17:23	11/15/17 16:54	1
2-Fluorophenol	105		46 - 133	11/14/17 17:23	11/15/17 16:54	1
Nitrobenzene-d5	84		41 - 120	11/14/17 17:23	11/15/17 16:54	1
Phenol-d5	84		46 - 125	11/14/17 17:23	11/15/17 16:54	1
Terphenyl-d14	92		35 - 160	11/14/17 17:23	11/15/17 16:54	1
2,4,6-Tribromophenol	97		25 - 139	11/14/17 17:23	11/15/17 16:54	1

Lab Sample ID: LCS 500-409947/2-A
Matrix: Solid
Analysis Batch: 410058

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 409947

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Acenaphthene	1.33	1.09		mg/Kg		82	58 - 110
Acenaphthylene	1.33	1.16		mg/Kg		87	60 - 110
Anthracene	1.33	1.23		mg/Kg		92	63 - 110
Benzo[a]anthracene	1.33	1.17		mg/Kg		88	63 - 110
Benzo[a]pyrene	1.33	1.32		mg/Kg		99	61 - 120
Benzo[b]fluoranthene	1.33	1.35		mg/Kg		101	62 - 120
Benzo[g,h,i]perylene	1.33	1.47		mg/Kg		110	64 - 120
Benzo[k]fluoranthene	1.33	1.19		mg/Kg		89	65 - 120
Bis(2-chloroethoxy)methane	1.33	1.12		mg/Kg		84	60 - 112
Bis(2-chloroethyl)ether	1.33	1.03		mg/Kg		77	55 - 111
Bis(2-ethylhexyl) phthalate	1.33	1.08		mg/Kg		81	63 - 118
4-Bromophenyl phenyl ether	1.33	1.41		mg/Kg		106	63 - 110
Butyl benzyl phthalate	1.33	1.11		mg/Kg		83	61 - 116
Carbazole	1.33	1.29		mg/Kg		97	59 - 158
4-Chloroaniline	1.33	1.15		mg/Kg		86	30 - 150
4-Chloro-3-methylphenol	1.33	1.23		mg/Kg		92	61 - 114
2-Chloronaphthalene	1.33	1.26		mg/Kg		94	64 - 110
2-Chlorophenol	1.33	1.23		mg/Kg		92	64 - 110
4-Chlorophenyl phenyl ether	1.33	1.29		mg/Kg		97	63 - 110
Chrysene	1.33	1.14		mg/Kg		86	63 - 120
Dibenz(a,h)anthracene	1.33	1.49		mg/Kg		112	64 - 119
Dibenzofuran	1.33	1.20		mg/Kg		90	64 - 110
1,2-Dichlorobenzene	1.33	1.10		mg/Kg		83	62 - 110
1,3-Dichlorobenzene	1.33	1.14		mg/Kg		85	60 - 110

TestAmerica Chicago

QC Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136990-1

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

Lab Sample ID: LCS 500-409947/2-A
Matrix: Solid
Analysis Batch: 410058

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 409947

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,4-Dichlorobenzene	1.33	1.14		mg/Kg		86	61 - 110
3,3'-Dichlorobenzidine	1.33	1.13		mg/Kg		85	49 - 112
2,4-Dichlorophenol	1.33	1.35		mg/Kg		101	58 - 120
Diethyl phthalate	1.33	1.26		mg/Kg		94	58 - 120
2,4-Dimethylphenol	1.33	1.22		mg/Kg		91	60 - 110
Dimethyl phthalate	1.33	1.25		mg/Kg		94	64 - 110
Di-n-butyl phthalate	1.33	1.17		mg/Kg		88	65 - 120
4,6-Dinitro-2-methylphenol	2.67	1.11		mg/Kg		41	10 - 110
2,4-Dinitrophenol	2.67	<0.67		mg/Kg		22	10 - 100
2,4-Dinitrotoluene	1.33	1.32		mg/Kg		99	62 - 117
2,6-Dinitrotoluene	1.33	1.33		mg/Kg		100	67 - 120
Di-n-octyl phthalate	1.33	1.26		mg/Kg		95	63 - 119
Fluoranthene	1.33	1.27		mg/Kg		95	62 - 120
Fluorene	1.33	1.24		mg/Kg		93	62 - 120
Hexachlorobenzene	1.33	1.48		mg/Kg		111	55 - 117
Hexachlorobutadiene	1.33	1.35		mg/Kg		101	56 - 120
Hexachlorocyclopentadiene	1.33	0.893		mg/Kg		67	10 - 106
Hexachloroethane	1.33	1.10		mg/Kg		83	61 - 110
Indeno[1,2,3-cd]pyrene	1.33	1.44		mg/Kg		108	57 - 127
Isophorone	1.33	1.03		mg/Kg		77	55 - 110
2-Methylnaphthalene	1.33	1.19		mg/Kg		89	62 - 110
2-Methylphenol	1.33	1.15		mg/Kg		86	60 - 120
3 & 4 Methylphenol	1.33	1.21		mg/Kg		91	57 - 120
Naphthalene	1.33	1.20		mg/Kg		90	63 - 110
2-Nitroaniline	1.33	1.11		mg/Kg		83	57 - 124
3-Nitroaniline	1.33	1.22		mg/Kg		92	40 - 122
4-Nitroaniline	1.33	1.38		mg/Kg		104	60 - 160
Nitrobenzene	1.33	1.29		mg/Kg		97	60 - 116
2-Nitrophenol	1.33	1.27		mg/Kg		95	60 - 120
4-Nitrophenol	2.67	2.26		mg/Kg		85	30 - 122
N-Nitrosodi-n-propylamine	1.33	1.07		mg/Kg		80	56 - 118
N-Nitrosodiphenylamine	1.33	1.25		mg/Kg		94	65 - 112
2,2'-oxybis[1-chloropropane]	1.33	0.501	*	mg/Kg		38	40 - 124
Pentachlorophenol	2.67	1.59		mg/Kg		60	13 - 112
Phenanthrene	1.33	1.21		mg/Kg		91	62 - 120
Phenol	1.33	1.23		mg/Kg		92	56 - 122
Pyrene	1.33	1.14		mg/Kg		86	63 - 120
1,2,4-Trichlorobenzene	1.33	1.35		mg/Kg		101	62 - 110
2,4,5-Trichlorophenol	1.33	1.29		mg/Kg		97	50 - 120
2,4,6-Trichlorophenol	1.33	1.29		mg/Kg		97	57 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorobiphenyl	92		44 - 121
2-Fluorophenol	98		46 - 133
Nitrobenzene-d5	85		41 - 120
Phenol-d5	84		46 - 125
Terphenyl-d14	87		35 - 160
2,4,6-Tribromophenol	116		25 - 139

TestAmerica Chicago

QC Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136990-1

Lab Sample ID: 500-136990-2 MS
Matrix: Solid
Analysis Batch: 410234

Client Sample ID: 2696V-68-B02 (0-5)
Prep Type: Total/NA
Prep Batch: 409947
%Rec.

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Acenaphthene	<0.040		1.59	1.63		mg/Kg	☼	103	58 - 110
Acenaphthylene	<0.040		1.59	1.70		mg/Kg	☼	107	60 - 110
Anthracene	<0.040	F1	1.59	1.91	F1	mg/Kg	☼	120	63 - 110
Benzo[a]anthracene	<0.040	F1	1.59	1.83	F1	mg/Kg	☼	115	63 - 110
Benzo[a]pyrene	<0.040	F1	1.59	2.06	F1	mg/Kg	☼	129	61 - 120
Benzo[b]fluoranthene	0.0093	J F1	1.59	2.29	F1	mg/Kg	☼	143	62 - 120
Benzo[g,h,i]perylene	<0.040	F1	1.59	1.99	F1	mg/Kg	☼	125	64 - 120
Benzo[k]fluoranthene	<0.040	F1	1.59	1.79		mg/Kg	☼	112	65 - 120
Bis(2-chloroethoxy)methane	<0.20		1.59	1.61		mg/Kg	☼	101	60 - 112
Bis(2-chloroethyl)ether	<0.20		1.59	1.40		mg/Kg	☼	88	55 - 111
Bis(2-ethylhexyl) phthalate	<0.20		1.59	1.68		mg/Kg	☼	106	63 - 118
4-Bromophenyl phenyl ether	<0.20	F1	1.59	2.08	F1	mg/Kg	☼	131	63 - 110
Butyl benzyl phthalate	<0.20		1.59	1.69		mg/Kg	☼	106	61 - 116
Carbazole	<0.20		1.59	2.00		mg/Kg	☼	126	59 - 158
4-Chloroaniline	<0.81		1.59	1.36		mg/Kg	☼	86	30 - 150
4-Chloro-3-methylphenol	<0.40	F1	1.59	1.88	F1	mg/Kg	☼	118	61 - 114
2-Chloronaphthalene	<0.20	F1	1.59	1.82	F1	mg/Kg	☼	115	64 - 110
2-Chlorophenol	<0.20	F1	1.59	1.73		mg/Kg	☼	109	64 - 110
4-Chlorophenyl phenyl ether	<0.20	F1	1.59	1.84	F1	mg/Kg	☼	116	63 - 110
Chrysene	<0.040		1.59	1.79		mg/Kg	☼	112	63 - 120
Dibenz(a,h)anthracene	<0.040	F1	1.59	2.12	F1	mg/Kg	☼	133	64 - 119
Dibenzofuran	<0.20	F1	1.59	1.77	F1	mg/Kg	☼	111	64 - 110
1,2-Dichlorobenzene	<0.20		1.59	1.53		mg/Kg	☼	96	62 - 110
1,3-Dichlorobenzene	<0.20		1.59	1.54		mg/Kg	☼	97	60 - 110
1,4-Dichlorobenzene	<0.20		1.59	1.55		mg/Kg	☼	97	61 - 110
3,3'-Dichlorobenzidine	<0.20		1.59	0.951		mg/Kg	☼	60	49 - 112
2,4-Dichlorophenol	<0.40	F1	1.59	1.97	F1	mg/Kg	☼	124	58 - 120
Diethyl phthalate	<0.20	F1	1.59	1.93	F1	mg/Kg	☼	122	58 - 120
2,4-Dimethylphenol	<0.40		1.59	1.76		mg/Kg	☼	110	60 - 110
Dimethyl phthalate	<0.20	F1	1.59	1.79	F1	mg/Kg	☼	112	64 - 110
Di-n-butyl phthalate	<0.20		1.59	1.84		mg/Kg	☼	115	65 - 120
4,6-Dinitro-2-methylphenol	<0.81		3.18	3.21		mg/Kg	☼	101	10 - 110
2,4-Dinitrophenol	<0.81		3.18	3.20		mg/Kg	☼	100	10 - 100
2,4-Dinitrotoluene	<0.20	F1	1.59	1.98	F1	mg/Kg	☼	125	62 - 117
2,6-Dinitrotoluene	<0.20	F1	1.59	1.90		mg/Kg	☼	120	67 - 120
Di-n-octyl phthalate	<0.20	F1	1.59	2.00	F1	mg/Kg	☼	126	63 - 119
Fluoranthene	<0.040	F1	1.59	1.96	F1	mg/Kg	☼	123	62 - 120
Fluorene	<0.040		1.59	1.85		mg/Kg	☼	116	62 - 120
Hexachlorobenzene	<0.081	F1	1.59	2.22	F1	mg/Kg	☼	139	55 - 117
Hexachlorobutadiene	<0.20		1.59	1.88		mg/Kg	☼	118	56 - 120
Hexachlorocyclopentadiene	<0.81	F2	1.59	0.632	J	mg/Kg	☼	40	10 - 106
Hexachloroethane	<0.20		1.59	1.56		mg/Kg	☼	98	61 - 110
Indeno[1,2,3-cd]pyrene	<0.040	F1	1.59	2.03	F1	mg/Kg	☼	128	57 - 127
Isophorone	<0.20		1.59	1.49		mg/Kg	☼	94	55 - 110
2-Methylnaphthalene	<0.081		1.59	1.75		mg/Kg	☼	110	62 - 110
2-Methylphenol	<0.20		1.59	1.68		mg/Kg	☼	106	60 - 120
3 & 4 Methylphenol	<0.20		1.59	1.64		mg/Kg	☼	103	57 - 120
Naphthalene	<0.040		1.59	1.69		mg/Kg	☼	106	63 - 110
2-Nitroaniline	<0.20		1.59	1.77		mg/Kg	☼	112	57 - 124
3-Nitroaniline	<0.40		1.59	1.73		mg/Kg	☼	108	40 - 122

TestAmerica Chicago

QC Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136990-1

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

Lab Sample ID: 500-136990-2 MS

Matrix: Solid

Analysis Batch: 410234

Client Sample ID: 2696V-68-B02 (0-5)

Prep Type: Total/NA

Prep Batch: 409947

Analyte	Sample	Sample Qualifier	Spike Added	MS	MS Qualifier	Unit	D	%Rec	Limits
	Result			Result					
4-Nitroaniline	<0.40		1.59	1.84		mg/Kg	☼	116	60 - 160
Nitrobenzene	<0.040	F1	1.59	1.86	F1	mg/Kg	☼	117	60 - 116
2-Nitrophenol	<0.40		1.59	1.77		mg/Kg	☼	112	60 - 120
4-Nitrophenol	<0.81		3.18	3.52		mg/Kg	☼	111	30 - 122
N-Nitrosodi-n-propylamine	<0.081		1.59	1.56		mg/Kg	☼	98	56 - 118
N-Nitrosodiphenylamine	<0.20	F1	1.59	1.88	F1	mg/Kg	☼	118	65 - 112
2,2'-oxybis[1-chloropropane]	<0.20	*	1.59	0.769		mg/Kg	☼	48	40 - 124
Pentachlorophenol	<0.81		3.18	0.979		mg/Kg	☼	31	13 - 112
Phenanthrene	<0.040		1.59	1.86		mg/Kg	☼	117	62 - 120
Phenol	<0.20		1.59	1.70		mg/Kg	☼	107	56 - 122
Pyrene	<0.040		1.59	1.73		mg/Kg	☼	109	63 - 120
1,2,4-Trichlorobenzene	<0.20	F1	1.59	1.89	F1	mg/Kg	☼	119	62 - 110
2,4,5-Trichlorophenol	<0.40	F1	1.59	1.98	F1	mg/Kg	☼	125	50 - 120
2,4,6-Trichlorophenol	<0.40		1.59	1.80		mg/Kg	☼	113	57 - 120

Surrogate	MS	MS Qualifier	Limits
	%Recovery		
2-Fluorobiphenyl	114		44 - 121
2-Fluorophenol	112		46 - 133
Nitrobenzene-d5	104		41 - 120
Phenol-d5	100		46 - 125
Terphenyl-d14	111		35 - 160
2,4,6-Tribromophenol	125		25 - 139

Lab Sample ID: 500-136990-2 MSD

Matrix: Solid

Analysis Batch: 410234

Client Sample ID: 2696V-68-B02 (0-5)

Prep Type: Total/NA

Prep Batch: 409947

Analyte	Sample	Sample Qualifier	Spike Added	MSD	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
	Result			Result							
Acenaphthene	<0.040		1.57	1.61		mg/Kg	☼	102	58 - 110	2	30
Acenaphthylene	<0.040		1.57	1.69		mg/Kg	☼	108	60 - 110	1	30
Anthracene	<0.040	F1	1.57	1.84	F1	mg/Kg	☼	117	63 - 110	3	30
Benzo[a]anthracene	<0.040	F1	1.57	1.74	F1	mg/Kg	☼	111	63 - 110	5	30
Benzo[a]pyrene	<0.040	F1	1.57	2.01	F1	mg/Kg	☼	128	61 - 120	2	30
Benzo[b]fluoranthene	0.0093	J F1	1.57	2.08	F1	mg/Kg	☼	132	62 - 120	10	30
Benzo[g,h,i]perylene	<0.040	F1	1.57	1.69		mg/Kg	☼	107	64 - 120	16	30
Benzo[k]fluoranthene	<0.040	F1	1.57	1.96	F1	mg/Kg	☼	125	65 - 120	9	30
Bis(2-chloroethoxy)methane	<0.20		1.57	1.61		mg/Kg	☼	103	60 - 112	0	30
Bis(2-chloroethyl)ether	<0.20		1.57	1.42		mg/Kg	☼	90	55 - 111	1	30
Bis(2-ethylhexyl) phthalate	<0.20		1.57	1.61		mg/Kg	☼	102	63 - 118	4	30
4-Bromophenyl phenyl ether	<0.20	F1	1.57	2.07	F1	mg/Kg	☼	132	63 - 110	1	30
Butyl benzyl phthalate	<0.20		1.57	1.63		mg/Kg	☼	104	61 - 116	4	30
Carbazole	<0.20		1.57	1.98		mg/Kg	☼	126	59 - 158	1	30
4-Chloroaniline	<0.81		1.57	1.30		mg/Kg	☼	83	30 - 150	4	30
4-Chloro-3-methylphenol	<0.40	F1	1.57	1.82	F1	mg/Kg	☼	116	61 - 114	3	30
2-Chloronaphthalene	<0.20	F1	1.57	1.82	F1	mg/Kg	☼	116	64 - 110	0	30
2-Chlorophenol	<0.20	F1	1.57	1.76	F1	mg/Kg	☼	112	64 - 110	2	30
4-Chlorophenyl phenyl ether	<0.20	F1	1.57	1.82	F1	mg/Kg	☼	116	63 - 110	1	30
Chrysene	<0.040		1.57	1.75		mg/Kg	☼	111	63 - 120	2	30

TestAmerica Chicago

QC Sample Results

Client: Terracon Consulting Eng & Scientists
Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136990-1

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

Lab Sample ID: 500-136990-2 MSD

Matrix: Solid

Analysis Batch: 410234

Client Sample ID: 2696V-68-B02 (0-5)

Prep Type: Total/NA

Prep Batch: 409947

Analyte	Sample	Sample Qualifier	Spike Added	MSD	MSD	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
	Result			Result	Qualifier						
Dibenz(a,h)anthracene	<0.040	F1	1.57	1.86		mg/Kg	☼	118	64 - 119	13	30
Dibenzofuran	<0.20	F1	1.57	1.79	F1	mg/Kg	☼	114	64 - 110	1	30
1,2-Dichlorobenzene	<0.20		1.57	1.58		mg/Kg	☼	100	62 - 110	3	30
1,3-Dichlorobenzene	<0.20		1.57	1.59		mg/Kg	☼	101	60 - 110	4	30
1,4-Dichlorobenzene	<0.20		1.57	1.60		mg/Kg	☼	102	61 - 110	3	30
3,3'-Dichlorobenzidine	<0.20		1.57	0.804		mg/Kg	☼	51	49 - 112	17	30
2,4-Dichlorophenol	<0.40	F1	1.57	1.96	F1	mg/Kg	☼	125	58 - 120	1	30
Diethyl phthalate	<0.20	F1	1.57	1.89		mg/Kg	☼	120	58 - 120	2	30
2,4-Dimethylphenol	<0.40		1.57	1.73		mg/Kg	☼	110	60 - 110	1	30
Dimethyl phthalate	<0.20	F1	1.57	1.74	F1	mg/Kg	☼	111	64 - 110	2	30
Di-n-butyl phthalate	<0.20		1.57	1.81		mg/Kg	☼	115	65 - 120	2	30
4,6-Dinitro-2-methylphenol	<0.81		3.14	2.76		mg/Kg	☼	88	10 - 110	15	30
2,4-Dinitrophenol	<0.81		3.14	2.57		mg/Kg	☼	82	10 - 100	22	30
2,4-Dinitrotoluene	<0.20	F1	1.57	1.92	F1	mg/Kg	☼	122	62 - 117	3	30
2,6-Dinitrotoluene	<0.20	F1	1.57	1.92	F1	mg/Kg	☼	123	67 - 120	1	30
Di-n-octyl phthalate	<0.20	F1	1.57	2.01	F1	mg/Kg	☼	128	63 - 119	0	30
Fluoranthene	<0.040	F1	1.57	1.90	F1	mg/Kg	☼	121	62 - 120	3	30
Fluorene	<0.040		1.57	1.82		mg/Kg	☼	116	62 - 120	2	30
Hexachlorobenzene	<0.081	F1	1.57	2.14	F1	mg/Kg	☼	136	55 - 117	4	30
Hexachlorobutadiene	<0.20		1.57	1.89		mg/Kg	☼	120	56 - 120	0	30
Hexachlorocyclopentadiene	<0.81	F2	1.57	0.256	J F2	mg/Kg	☼	16	10 - 106	85	30
Hexachloroethane	<0.20		1.57	1.58		mg/Kg	☼	101	61 - 110	1	30
Indeno[1,2,3-cd]pyrene	<0.040	F1	1.57	1.77		mg/Kg	☼	113	57 - 127	14	30
Isophorone	<0.20		1.57	1.45		mg/Kg	☼	93	55 - 110	2	30
2-Methylnaphthalene	<0.081		1.57	1.68		mg/Kg	☼	107	62 - 110	4	30
2-Methylphenol	<0.20		1.57	1.70		mg/Kg	☼	108	60 - 120	1	30
3 & 4 Methylphenol	<0.20		1.57	1.70		mg/Kg	☼	108	57 - 120	3	30
Naphthalene	<0.040		1.57	1.70		mg/Kg	☼	109	63 - 110	1	30
2-Nitroaniline	<0.20		1.57	1.77		mg/Kg	☼	113	57 - 124	0	30
3-Nitroaniline	<0.40		1.57	1.65		mg/Kg	☼	105	40 - 122	5	30
4-Nitroaniline	<0.40		1.57	2.03		mg/Kg	☼	129	60 - 160	10	30
Nitrobenzene	<0.040	F1	1.57	1.84	F1	mg/Kg	☼	117	60 - 116	1	30
2-Nitrophenol	<0.40		1.57	1.79		mg/Kg	☼	114	60 - 120	1	30
4-Nitrophenol	<0.81		3.14	3.46		mg/Kg	☼	110	30 - 122	2	30
N-Nitrosodi-n-propylamine	<0.081		1.57	1.59		mg/Kg	☼	101	56 - 118	2	30
N-Nitrosodiphenylamine	<0.20	F1	1.57	1.82	F1	mg/Kg	☼	116	65 - 112	3	30
2,2'-oxybis[1-chloropropane]	<0.20	*	1.57	0.792		mg/Kg	☼	50	40 - 124	3	30
Pentachlorophenol	<0.81		3.14	1.01		mg/Kg	☼	32	13 - 112	3	30
Phenanthrene	<0.040		1.57	1.84		mg/Kg	☼	117	62 - 120	1	30
Phenol	<0.20		1.57	1.71		mg/Kg	☼	109	56 - 122	0	30
Pyrene	<0.040		1.57	1.66		mg/Kg	☼	106	63 - 120	4	30
1,2,4-Trichlorobenzene	<0.20	F1	1.57	1.92	F1	mg/Kg	☼	122	62 - 110	1	30
2,4,5-Trichlorophenol	<0.40	F1	1.57	1.93	F1	mg/Kg	☼	123	50 - 120	3	30
2,4,6-Trichlorophenol	<0.40		1.57	1.80		mg/Kg	☼	115	57 - 120	0	30

Surrogate	MSD MSD		Limits
	%Recovery	Qualifier	
2-Fluorobiphenyl	114		44 - 121
2-Fluorophenol	116		46 - 133

TestAmerica Chicago

QC Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136990-1

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

Lab Sample ID: 500-136990-2 MSD
Matrix: Solid
Analysis Batch: 410234

Client Sample ID: 2696V-68-B02 (0-5)
Prep Type: Total/NA
Prep Batch: 409947

Surrogate	MSD %Recovery	MSD Qualifier	Limits
Nitrobenzene-d5	104		41 - 120
Phenol-d5	101		46 - 125
Terphenyl-d14	107		35 - 160
2,4,6-Tribromophenol	122		25 - 139

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 500-409344/1-A
Matrix: Solid
Analysis Batch: 409505

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 409344

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<2.0		2.0	0.39	mg/Kg		11/10/17 07:34	11/10/17 15:15	1
Arsenic	<1.0		1.0	0.34	mg/Kg		11/10/17 07:34	11/10/17 15:15	1
Barium	<1.0		1.0	0.11	mg/Kg		11/10/17 07:34	11/10/17 15:15	1
Beryllium	<0.40		0.40	0.093	mg/Kg		11/10/17 07:34	11/10/17 15:15	1
Cadmium	0.0638	J	0.20	0.036	mg/Kg		11/10/17 07:34	11/10/17 15:15	1
Chromium	<1.0		1.0	0.50	mg/Kg		11/10/17 07:34	11/10/17 15:15	1
Cobalt	<0.50		0.50	0.13	mg/Kg		11/10/17 07:34	11/10/17 15:15	1
Copper	<1.0		1.0	0.28	mg/Kg		11/10/17 07:34	11/10/17 15:15	1
Iron	<20		20	10	mg/Kg		11/10/17 07:34	11/10/17 15:15	1
Lead	<0.50		0.50	0.23	mg/Kg		11/10/17 07:34	11/10/17 15:15	1
Magnesium	<10		10	5.0	mg/Kg		11/10/17 07:34	11/10/17 15:15	1
Calcium	4.06	J	20	3.4	mg/Kg		11/10/17 07:34	11/10/17 15:15	1
Manganese	<1.0		1.0	0.15	mg/Kg		11/10/17 07:34	11/10/17 15:15	1
Nickel	<1.0		1.0	0.29	mg/Kg		11/10/17 07:34	11/10/17 15:15	1
Selenium	<1.0		1.0	0.59	mg/Kg		11/10/17 07:34	11/10/17 15:15	1
Silver	<0.50		0.50	0.13	mg/Kg		11/10/17 07:34	11/10/17 15:15	1
Thallium	<1.0		1.0	0.50	mg/Kg		11/10/17 07:34	11/10/17 15:15	1
Vanadium	<0.50		0.50	0.12	mg/Kg		11/10/17 07:34	11/10/17 15:15	1
Zinc	<2.0		2.0	0.88	mg/Kg		11/10/17 07:34	11/10/17 15:15	1
Potassium	<50		50	18	mg/Kg		11/10/17 07:34	11/10/17 15:15	1
Sodium	<100		100	15	mg/Kg		11/10/17 07:34	11/10/17 15:15	1

Lab Sample ID: LCS 500-409344/2-A
Matrix: Solid
Analysis Batch: 409505

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 409344

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Antimony	50.0	45.1		mg/Kg		90	80 - 120
Arsenic	10.0	9.19		mg/Kg		92	80 - 120
Barium	200	190		mg/Kg		95	80 - 120
Beryllium	5.00	4.71		mg/Kg		94	80 - 120
Cadmium	5.00	4.75		mg/Kg		95	80 - 120
Chromium	20.0	18.6		mg/Kg		93	80 - 120
Cobalt	50.0	46.4		mg/Kg		93	80 - 120
Copper	25.0	24.0		mg/Kg		96	80 - 120
Iron	100	103		mg/Kg		103	80 - 120

TestAmerica Chicago

QC Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136990-1

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

Lab Sample ID: LCS 500-409344/2-A
Matrix: Solid
Analysis Batch: 409505

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 409344

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	10.0	8.73		mg/Kg		87	80 - 120
Magnesium	1000	928		mg/Kg		93	80 - 120
Calcium	1000	920		mg/Kg		92	80 - 120
Manganese	50.0	46.7		mg/Kg		93	80 - 120
Nickel	50.0	46.2		mg/Kg		92	80 - 120
Selenium	10.0	9.29		mg/Kg		93	80 - 120
Silver	5.00	4.61		mg/Kg		92	80 - 120
Thallium	10.0	8.77		mg/Kg		88	80 - 120
Vanadium	50.0	46.8		mg/Kg		94	80 - 120
Zinc	50.0	45.2		mg/Kg		90	80 - 120
Potassium	1000	955		mg/Kg		96	80 - 120
Sodium	1000	968		mg/Kg		97	80 - 120

Lab Sample ID: 500-136990-1 MS
Matrix: Solid
Analysis Batch: 409505

Client Sample ID: 2696V-68-B01 (0-5)
Prep Type: Total/NA
Prep Batch: 409344

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	<0.97	F1	29.6	4.07	F1	mg/Kg	☼	14	75 - 125
Arsenic	10	F1	5.91	12.2	F1	mg/Kg	☼	37	75 - 125
Barium	77	F1	118	142	F1	mg/Kg	☼	56	75 - 125
Beryllium	0.85		2.96	3.32		mg/Kg	☼	84	75 - 125
Cadmium	0.23	B	2.96	2.56		mg/Kg	☼	79	75 - 125
Chromium	18		11.8	29.8		mg/Kg	☼	96	75 - 125
Cobalt	23	F1	29.6	38.5	F1	mg/Kg	☼	52	75 - 125
Copper	24	F1	14.8	35.4	F1	mg/Kg	☼	74	75 - 125
Iron	22000		59.1	22200	4	mg/Kg	☼	251	75 - 125
Lead	20	F1	5.91	20.0	F1	mg/Kg	☼	-6	75 - 125
Magnesium	17000		591	19000	4	mg/Kg	☼	297	75 - 125
Calcium	23000	B	591	27300	4	mg/Kg	☼	713	75 - 125
Manganese	760	F2	29.6	281	4	mg/Kg	☼	-1623	75 - 125
Nickel	45	F1	29.6	57.6	F1	mg/Kg	☼	44	75 - 125
Selenium	0.61	F1	5.91	4.59	F1	mg/Kg	☼	67	75 - 125
Silver	<0.24		2.96	2.36		mg/Kg	☼	80	75 - 125
Thallium	<0.48	F1	5.91	4.36	F1	mg/Kg	☼	74	75 - 125
Vanadium	23		29.6	50.6		mg/Kg	☼	93	75 - 125
Zinc	56	F1	29.6	84.8		mg/Kg	☼	97	75 - 125
Potassium	2600		591	4830	4	mg/Kg	☼	384	75 - 125
Sodium	870	F1	591	1390		mg/Kg	☼	88	75 - 125

Lab Sample ID: 500-136990-1 MSD
Matrix: Solid
Analysis Batch: 409505

Client Sample ID: 2696V-68-B01 (0-5)
Prep Type: Total/NA
Prep Batch: 409344

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Antimony	<0.97	F1	27.2	4.12	F1	mg/Kg	☼	15	75 - 125	1	20
Arsenic	10	F1	5.45	14.9		mg/Kg	☼	89	75 - 125	20	20
Barium	77	F1	109	130	F1	mg/Kg	☼	49	75 - 125	9	20
Beryllium	0.85		2.72	3.16		mg/Kg	☼	85	75 - 125	5	20

TestAmerica Chicago

QC Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136990-1

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

Lab Sample ID: 500-136990-1 MSD
Matrix: Solid
Analysis Batch: 409505

Client Sample ID: 2696V-68-B01 (0-5)
Prep Type: Total/NA
Prep Batch: 409344

Analyte	Sample	Sample	Spike	MSD		Unit	D	%Rec	%Rec.	RPD	Limit
	Result	Qualifier		Result	Qualifier						
Cadmium	0.23	B	2.72	2.54		mg/Kg	☼	85	75 - 125	1	20
Chromium	18		10.9	27.2		mg/Kg	☼	80	75 - 125	9	20
Cobalt	23	F1	27.2	41.0	F1	mg/Kg	☼	66	75 - 125	6	20
Copper	24	F1	13.6	39.6		mg/Kg	☼	112	75 - 125	11	20
Iron	22000		54.5	22000	4	mg/Kg	☼	-130	75 - 125	1	20
Lead	20	F1	5.45	23.7	F1	mg/Kg	☼	62	75 - 125	17	20
Magnesium	17000		545	20100	4	mg/Kg	☼	516	75 - 125	5	20
Calcium	23000	B	545	30500	4	mg/Kg	☼	1360	75 - 125	11	20
Manganese	760	F2	27.2	425	4 F2	mg/Kg	☼	-1232	75 - 125	41	20
Nickel	45	F1	27.2	62.4	F1	mg/Kg	☼	65	75 - 125	8	20
Selenium	0.61	F1	5.45	4.59	F1	mg/Kg	☼	73	75 - 125	0	20
Silver	<0.24		2.72	2.30		mg/Kg	☼	84	75 - 125	3	20
Thallium	<0.48	F1	5.45	4.33		mg/Kg	☼	80	75 - 125	1	20
Vanadium	23		27.2	44.0		mg/Kg	☼	77	75 - 125	14	20
Zinc	56	F1	27.2	91.9	F1	mg/Kg	☼	132	75 - 125	8	20
Potassium	2600		545	4240	4	mg/Kg	☼	309	75 - 125	13	20
Sodium	870	F1	545	1270	F1	mg/Kg	☼	73	75 - 125	9	20

Lab Sample ID: 500-136990-1 DU
Matrix: Solid
Analysis Batch: 409505

Client Sample ID: 2696V-68-B01 (0-5)
Prep Type: Total/NA
Prep Batch: 409344

Analyte	Sample	Sample	DU		Unit	D	RPD	Limit
	Result	Qualifier	Result	Qualifier				
Antimony	<0.97	F1	0.408	J	mg/Kg	☼	NC	20
Arsenic	10	F1	12.6	F3	mg/Kg	☼	23	20
Barium	77	F1	44.8	F3	mg/Kg	☼	53	20
Beryllium	0.85		0.781		mg/Kg	☼	8	20
Cadmium	0.23	B	0.153	F5	mg/Kg	☼	41	20
Chromium	18		16.2		mg/Kg	☼	13	20
Cobalt	23	F1	14.4	F3	mg/Kg	☼	46	20
Copper	24	F1	29.1		mg/Kg	☼	18	20
Iron	22000		23600		mg/Kg	☼	7	20
Lead	20	F1	25.4	F3	mg/Kg	☼	22	20
Magnesium	17000		16100		mg/Kg	☼	7	20
Calcium	23000	B	25800		mg/Kg	☼	11	20
Manganese	760	F2	324	F3	mg/Kg	☼	80	20
Nickel	45	F1	34.5	F3	mg/Kg	☼	26	20
Selenium	0.61	F1	0.675		mg/Kg	☼	10	20
Silver	<0.24		<0.28		mg/Kg	☼	NC	20
Thallium	<0.48	F1	<0.57		mg/Kg	☼	NC	20
Vanadium	23		19.6		mg/Kg	☼	17	20
Zinc	56	F1	76.5	F3	mg/Kg	☼	31	20
Potassium	2600		2210		mg/Kg	☼	15	20
Sodium	870	F1	836		mg/Kg	☼	4	20

TestAmerica Chicago

QC Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136990-1

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

Lab Sample ID: LCS 500-409620/2-A
Matrix: Solid
Analysis Batch: 409822

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 409620

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Lead	0.100	0.103		mg/L		103	80 - 120
Manganese	0.500	0.538		mg/L		108	80 - 120

Lab Sample ID: LCS 500-409927/2-A
Matrix: Solid
Analysis Batch: 410088

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 409927

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Arsenic	0.100	0.0970		mg/L		97	80 - 120
Barium	0.500	0.498	J	mg/L		100	80 - 120
Beryllium	0.0500	0.0485		mg/L		97	80 - 120
Cadmium	0.0500	0.0490		mg/L		98	80 - 120
Chromium	0.200	0.200		mg/L		100	80 - 120
Cobalt	0.500	0.494		mg/L		99	80 - 120
Copper	0.250	0.250		mg/L		100	80 - 120
Iron	1.00	1.07		mg/L		107	80 - 120
Lead	0.100	0.0950		mg/L		95	80 - 120
Magnesium	10.0	9.69		mg/L		97	80 - 120
Calcium	10.0	9.66		mg/L		97	80 - 120
Manganese	0.500	0.495		mg/L		99	80 - 120
Nickel	0.500	0.493		mg/L		99	80 - 120
Selenium	0.100	0.0832		mg/L		83	80 - 120
Silver	0.0500	0.0495		mg/L		99	80 - 120
Vanadium	0.500	0.503		mg/L		101	80 - 120
Zinc	0.500	0.477	J	mg/L		95	80 - 120
Potassium	10.0	10.2		mg/L		102	80 - 120

Lab Sample ID: LB 500-409722/1-C
Matrix: Solid
Analysis Batch: 410088

Client Sample ID: Method Blank
Prep Type: TCLP
Prep Batch: 409927

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.050		0.050	0.010	mg/L		11/14/17 15:47	11/15/17 12:35	1
Barium	<0.50		0.50	0.050	mg/L		11/14/17 15:47	11/15/17 12:35	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		11/14/17 15:47	11/15/17 12:35	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		11/14/17 15:47	11/15/17 12:35	1
Chromium	<0.025		0.025	0.010	mg/L		11/14/17 15:47	11/15/17 12:35	1
Cobalt	<0.025		0.025	0.010	mg/L		11/14/17 15:47	11/15/17 12:35	1
Copper	0.0177	J	0.025	0.010	mg/L		11/14/17 15:47	11/15/17 12:35	1
Iron	<0.40		0.40	0.20	mg/L		11/14/17 15:47	11/15/17 12:35	1
Lead	<0.0075		0.0075	0.0075	mg/L		11/14/17 15:47	11/15/17 12:35	1
Magnesium	<2.5		2.5	0.50	mg/L		11/14/17 15:47	11/15/17 12:35	1
Calcium	<5.0		5.0	0.50	mg/L		11/14/17 15:47	11/15/17 12:35	1
Manganese	<0.025		0.025	0.010	mg/L		11/14/17 15:47	11/15/17 12:35	1
Nickel	<0.025		0.025	0.010	mg/L		11/14/17 15:47	11/15/17 12:35	1
Selenium	<0.050		0.050	0.020	mg/L		11/14/17 15:47	11/15/17 12:35	1
Silver	<0.025		0.025	0.010	mg/L		11/14/17 15:47	11/15/17 12:35	1
Vanadium	<0.025		0.025	0.010	mg/L		11/14/17 15:47	11/15/17 12:35	1

TestAmerica Chicago

QC Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136990-1

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

Lab Sample ID: LB 500-409722/1-C
Matrix: Solid
Analysis Batch: 410088

Client Sample ID: Method Blank
Prep Type: TCLP
Prep Batch: 409927

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Zinc	<0.50		0.50	0.020	mg/L		11/14/17 15:47	11/15/17 12:35	1
Potassium	<2.5		2.5	0.50	mg/L		11/14/17 15:47	11/15/17 12:35	1

Lab Sample ID: 500-136990-12 MS
Matrix: Solid
Analysis Batch: 410088

Client Sample ID: 2696V-68-B08 (0-5)
Prep Type: TCLP
Prep Batch: 409927

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Arsenic	<0.050		0.100	0.120		mg/L		120	50 - 150
Barium	0.36	J	0.500	0.866		mg/L		101	50 - 150
Beryllium	<0.0040		0.0500	0.0535		mg/L		107	50 - 150
Cadmium	0.0025	J	0.0500	0.0587		mg/L		113	50 - 150
Chromium	<0.025		0.200	0.201		mg/L		101	50 - 150
Cobalt	<0.025		0.500	0.541		mg/L		108	50 - 150
Copper	0.025	B	0.250	0.320		mg/L		118	50 - 150
Iron	0.23	J	1.00	1.24		mg/L		101	50 - 150
Lead	<0.0075		0.100	0.102		mg/L		102	50 - 150
Magnesium	83		10.0	95.4	4	mg/L		128	50 - 150
Calcium	290		10.0	313	4	mg/L		196	50 - 150
Manganese	2.9		0.500	3.48	4	mg/L		118	50 - 150
Nickel	<0.025		0.500	0.523		mg/L		105	50 - 150
Selenium	<0.050		0.100	0.101		mg/L		101	50 - 150
Silver	<0.025		0.0500	0.0623		mg/L		125	50 - 150
Vanadium	<0.025		0.500	0.516		mg/L		103	50 - 150
Zinc	0.14	J	0.500	0.671		mg/L		107	50 - 150
Potassium	1.4	J	10.0	12.2		mg/L		108	50 - 150

Lab Sample ID: 500-136990-12 DU
Matrix: Solid
Analysis Batch: 410088

Client Sample ID: 2696V-68-B08 (0-5)
Prep Type: TCLP
Prep Batch: 409927

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Arsenic	<0.050		<0.050		mg/L		NC	20
Barium	0.36	J	0.359	J	mg/L		0.07	20
Beryllium	<0.0040		<0.0040		mg/L		NC	20
Cadmium	0.0025	J	0.00256	J	mg/L		4	20
Chromium	<0.025		<0.025		mg/L		NC	20
Cobalt	<0.025		<0.025		mg/L		NC	20
Copper	0.025	B	0.0258		mg/L		4	20
Iron	0.23	J	0.262	J	mg/L		11	20
Lead	<0.0075		<0.0075		mg/L		NC	20
Magnesium	83		82.3		mg/L		0.4	20
Calcium	290		290		mg/L		1	20
Manganese	2.9		2.87		mg/L		0.7	20
Nickel	<0.025		0.0100	J	mg/L		NC	20
Selenium	<0.050		<0.050		mg/L		NC	20
Silver	<0.025		<0.025		mg/L		NC	20
Vanadium	<0.025		<0.025		mg/L		NC	20
Zinc	0.14	J	0.139	J	mg/L		2	20

TestAmerica Chicago

QC Sample Results

Client: Terracon Consulting Eng & Scientists
Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136990-1

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

Lab Sample ID: 500-136990-12 DU
Matrix: Solid
Analysis Batch: 410088

Client Sample ID: 2696V-68-B08 (0-5)
Prep Type: TCLP
Prep Batch: 409927

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	Limit
	Result	Qualifier	Result	Qualifier				
Potassium	1.4	J	1.38	J	mg/L		2	20

Lab Sample ID: LB 500-409427/1-B
Matrix: Solid
Analysis Batch: 409822

Client Sample ID: Method Blank
Prep Type: SPLP East
Prep Batch: 409620

Analyte	LB	LB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Lead	<0.0075		0.0075	0.0075	mg/L		11/13/17 07:23	11/13/17 19:20	1
Manganese	<0.025		0.025	0.010	mg/L		11/13/17 07:23	11/13/17 19:20	1

Lab Sample ID: 500-136990-13 MS
Matrix: Solid
Analysis Batch: 409822

Client Sample ID: 2696V-68-B09 (0-5)
Prep Type: SPLP East
Prep Batch: 409620

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	Limits
	Result	Qualifier		Result	Qualifier				
Lead	0.035		0.100	0.148		mg/L		113	50 - 150
Manganese	0.15		0.500	0.733		mg/L		116	50 - 150

Lab Sample ID: 500-136990-13 DU
Matrix: Solid
Analysis Batch: 409822

Client Sample ID: 2696V-68-B09 (0-5)
Prep Type: SPLP East
Prep Batch: 409620

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	Limit
	Result	Qualifier	Result	Qualifier				
Lead	0.035		0.0395		mg/L		11	20
Manganese	0.15		0.176		mg/L		15	20

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: LCS 500-409927/2-A
Matrix: Solid
Analysis Batch: 410287

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 409927

Analyte	Spike	LCS	LCS	Unit	D	%Rec	Limits
		Added	Result				
Antimony	0.500	0.511		mg/L		102	80 - 120
Thallium	0.100	0.101		mg/L		101	80 - 120

Lab Sample ID: MB 500-409258/1-A
Matrix: Water
Analysis Batch: 409652

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 409258

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Antimony	<0.0030		0.0030	0.0013	mg/L		11/09/17 15:37	11/10/17 11:32	1
Arsenic	<0.0010		0.0010	0.00023	mg/L		11/09/17 15:37	11/10/17 11:32	1
Barium	<0.0025		0.0025	0.00073	mg/L		11/09/17 15:37	11/10/17 11:32	1
Beryllium	<0.0010	^	0.0010	0.00053	mg/L		11/09/17 15:37	11/10/17 11:32	1
Cadmium	<0.00050		0.00050	0.00017	mg/L		11/09/17 15:37	11/10/17 11:32	1
Calcium	<0.20		0.20	0.044	mg/L		11/09/17 15:37	11/10/17 11:32	1
Chromium	<0.0050		0.0050	0.0011	mg/L		11/09/17 15:37	11/10/17 11:32	1
Cobalt	<0.0010		0.0010	0.00040	mg/L		11/09/17 15:37	11/10/17 11:32	1

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QC Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136990-1

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

Lab Sample ID: MB 500-409258/1-A
Matrix: Water
Analysis Batch: 409652

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 409258

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Copper	<0.0020		0.0020	0.00050	mg/L		11/09/17 15:37	11/10/17 11:32	1
Iron	<0.10		0.10	0.047	mg/L		11/09/17 15:37	11/10/17 11:32	1
Lead	<0.00050		0.00050	0.00019	mg/L		11/09/17 15:37	11/10/17 11:32	1
Magnesium	<0.20		0.20	0.049	mg/L		11/09/17 15:37	11/10/17 11:32	1
Manganese	<0.0025		0.0025	0.00079	mg/L		11/09/17 15:37	11/10/17 11:32	1
Nickel	<0.0020		0.0020	0.00063	mg/L		11/09/17 15:37	11/10/17 11:32	1
Potassium	<0.50		0.50	0.11	mg/L		11/09/17 15:37	11/10/17 11:32	1
Selenium	<0.0025		0.0025	0.00098	mg/L		11/09/17 15:37	11/10/17 11:32	1
Silver	<0.00050		0.00050	0.00012	mg/L		11/09/17 15:37	11/10/17 11:32	1
Sodium	<0.20		0.20	0.077	mg/L		11/09/17 15:37	11/10/17 11:32	1
Thallium	<0.0020		0.0020	0.00057	mg/L		11/09/17 15:37	11/10/17 11:32	1
Vanadium	<0.0050		0.0050	0.0022	mg/L		11/09/17 15:37	11/10/17 11:32	1
Zinc	<0.020		0.020	0.0069	mg/L		11/09/17 15:37	11/10/17 11:32	1

Lab Sample ID: LCS 500-409258/2-A
Matrix: Water
Analysis Batch: 409652

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 409258

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
Antimony	0.500	0.512		mg/L		102	80 - 120
Arsenic	0.100	0.0990		mg/L		99	80 - 120
Barium	0.500	0.523		mg/L		105	80 - 120
Beryllium	0.0500	0.0473	^	mg/L		95	80 - 120
Cadmium	0.0500	0.0522		mg/L		104	80 - 120
Calcium	10.0	8.93		mg/L		89	80 - 120
Chromium	0.200	0.208		mg/L		104	80 - 120
Cobalt	0.500	0.515		mg/L		103	80 - 120
Copper	0.250	0.256		mg/L		102	80 - 120
Iron	1.00	1.07		mg/L		107	80 - 120
Lead	0.100	0.107		mg/L		107	80 - 120
Magnesium	10.0	10.1		mg/L		101	80 - 120
Manganese	0.500	0.521		mg/L		104	80 - 120
Nickel	0.500	0.521		mg/L		104	80 - 120
Potassium	10.0	10.3		mg/L		103	80 - 120
Selenium	0.100	0.101		mg/L		101	80 - 120
Silver	0.0500	0.0535		mg/L		107	80 - 120
Sodium	10.0	10.0		mg/L		100	80 - 120
Thallium	0.100	0.109		mg/L		109	80 - 120
Vanadium	0.500	0.508		mg/L		102	80 - 120
Zinc	0.500	0.511		mg/L		102	80 - 120

Lab Sample ID: 500-136990-14 MS
Matrix: Water
Analysis Batch: 409652

Client Sample ID: 2696V-68-G01
Prep Type: Total Recoverable
Prep Batch: 409258

Analyte	Sample	Sample	Spike Added	MS	MS	Unit	D	%Rec	%Rec. Limits
	Result	Qualifier		Result	Qualifier				
Antimony	<0.0030		0.500	0.445		mg/L		89	75 - 125
Arsenic	0.020		0.100	0.122		mg/L		102	75 - 125
Barium	0.12	V	0.500	0.588		mg/L		94	75 - 125

TestAmerica Chicago

QC Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136990-1

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

Lab Sample ID: 500-136990-14 MS

Matrix: Water

Analysis Batch: 409652

Client Sample ID: 2696V-68-G01

Prep Type: Total Recoverable

Prep Batch: 409258

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.	
	Result	Qualifier		Result	Qualifier				Limits	RPD
Beryllium	<0.0010	^ F1	0.0500	0.0284	F1 ^	mg/L		57	75 - 125	
Cadmium	0.00051		0.0500	0.0504		mg/L		100	75 - 125	
Calcium	150	V	10.0	137	4	mg/L		-86	75 - 125	
Chromium	0.022	F1	0.200	0.155	F1	mg/L		67	75 - 125	
Cobalt	0.015	F1	0.500	0.321	F1	mg/L		61	75 - 125	
Copper	0.049		0.250	0.293		mg/L		98	75 - 125	
Iron	24	V	1.00	23.4	4	mg/L		-58	75 - 125	
Lead	0.044	V	0.100	0.132		mg/L		88	75 - 125	
Magnesium	68	V	10.0	68.5	4	mg/L		4	75 - 125	
Manganese	0.37	F1 V	0.500	0.660	F1	mg/L		57	75 - 125	
Nickel	0.039	F1 V	0.500	0.343	F1	mg/L		61	75 - 125	
Potassium	11	V	10.0	19.3		mg/L		84	75 - 125	
Selenium	0.0017	J	0.100	0.103		mg/L		101	75 - 125	
Silver	0.00012	J	0.0500	0.0505		mg/L		101	75 - 125	
Sodium	150	V	10.0	142	4	mg/L		-85	75 - 125	
Thallium	0.0016	J	0.100	0.0879		mg/L		86	75 - 125	
Vanadium	0.025	F1	0.500	0.355	F1	mg/L		66	75 - 125	
Zinc	0.064		0.500	0.544		mg/L		96	75 - 125	

Lab Sample ID: 500-136990-14 MSD

Matrix: Water

Analysis Batch: 409652

Client Sample ID: 2696V-68-G01

Prep Type: Total Recoverable

Prep Batch: 409258

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.		RPD	Limit
	Result	Qualifier		Result	Qualifier				Limits			
Antimony	<0.0030		0.500	0.437		mg/L		87	75 - 125	2	20	
Arsenic	0.020		0.100	0.116		mg/L		95	75 - 125	5	20	
Barium	0.12	V	0.500	0.583		mg/L		93	75 - 125	1	20	
Beryllium	<0.0010	^ F1	0.0500	0.0301	F1 ^	mg/L		60	75 - 125	6	20	
Cadmium	0.00051		0.0500	0.0495		mg/L		98	75 - 125	2	20	
Calcium	150	V	10.0	140	4	mg/L		-60	75 - 125	2	20	
Chromium	0.022	F1	0.200	0.153	F1	mg/L		66	75 - 125	2	20	
Cobalt	0.015	F1	0.500	0.318	F1	mg/L		61	75 - 125	1	20	
Copper	0.049		0.250	0.277		mg/L		91	75 - 125	6	20	
Iron	24	V	1.00	21.2	4	mg/L		-276	75 - 125	10	20	
Lead	0.044	V	0.100	0.129		mg/L		86	75 - 125	2	20	
Magnesium	68	V	10.0	68.8	4	mg/L		8	75 - 125	0	20	
Manganese	0.37	F1 V	0.500	0.653	F1	mg/L		56	75 - 125	1	20	
Nickel	0.039	F1 V	0.500	0.338	F1	mg/L		60	75 - 125	1	20	
Potassium	11	V	10.0	19.0		mg/L		82	75 - 125	1	20	
Selenium	0.0017	J	0.100	0.0987		mg/L		97	75 - 125	4	20	
Silver	0.00012	J	0.0500	0.0488		mg/L		98	75 - 125	3	20	
Sodium	150	V	10.0	145	4	mg/L		-58	75 - 125	2	20	
Thallium	0.0016	J	0.100	0.0866		mg/L		85	75 - 125	2	20	
Vanadium	0.025	F1	0.500	0.351	F1	mg/L		65	75 - 125	1	20	
Zinc	0.064		0.500	0.520		mg/L		91	75 - 125	5	20	

TestAmerica Chicago

QC Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136990-1

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

Lab Sample ID: 500-136990-14 DU
Matrix: Water
Analysis Batch: 409652

Client Sample ID: 2696V-68-G01
Prep Type: Total Recoverable
Prep Batch: 409258

Analyte	Sample	Sample	DU		Unit	D	RPD	Limit
	Result	Qualifier	Result	Qualifier				
Antimony	<0.0030		<0.0030		mg/L		NC	20
Arsenic	0.020		0.0210		mg/L		3	20
Barium	0.12	V	0.122		mg/L		4	20
Beryllium	<0.0010	^ F1	0.000933	J	mg/L		NC	20
Cadmium	0.00051		0.000428	J	mg/L		17	20
Calcium	150	V	153		mg/L		5	20
Chromium	0.022	F1	0.0221		mg/L		0.9	20
Cobalt	0.015	F1	0.0153		mg/L		4	20
Copper	0.049		0.0508		mg/L		4	20
Iron	24	V	24.6		mg/L		3	20
Lead	0.044	V	0.0460		mg/L		4	20
Magnesium	68	V	71.5		mg/L		5	20
Manganese	0.37	F1 V	0.393		mg/L		5	20
Nickel	0.039	F1 V	0.0399		mg/L		3	20
Potassium	11	V	10.8		mg/L		0.4	20
Selenium	0.0017	J	0.00157	J	mg/L		10	20
Silver	0.00012	J	0.000134	J	mg/L		12	20
Sodium	150	V	159		mg/L		6	20
Thallium	0.0016	J	0.00157	J	mg/L		3	20
Vanadium	0.025	F1	0.0241		mg/L		3	20
Zinc	0.064		0.0655		mg/L		3	20

Lab Sample ID: LB 500-409722/1-C
Matrix: Solid
Analysis Batch: 410287

Client Sample ID: Method Blank
Prep Type: TCLP
Prep Batch: 409927

Analyte	LB	LB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Antimony	<0.0060		0.0060	0.0060	mg/L		11/14/17 15:47	11/16/17 11:13	1
Thallium	<0.0020		0.0020	0.0020	mg/L		11/14/17 15:47	11/16/17 11:13	1

Lab Sample ID: 500-136990-12 MS
Matrix: Solid
Analysis Batch: 410287

Client Sample ID: 2696V-68-B08 (0-5)
Prep Type: TCLP
Prep Batch: 409927

Analyte	Sample	Sample	Spike	MS		Unit	D	%Rec	Limits
	Result	Qualifier		Result	Qualifier				
Antimony	<0.0060		0.500	0.522		mg/L		104	50 - 150
Thallium	<0.0020		0.100	0.105		mg/L		105	50 - 150

Lab Sample ID: 500-136990-12 DU
Matrix: Solid
Analysis Batch: 410287

Client Sample ID: 2696V-68-B08 (0-5)
Prep Type: TCLP
Prep Batch: 409927

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

TestAmerica Chicago

QC Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136990-1

Method: 7470A - Mercury

Lab Sample ID: MB 500-409231/12-A
 Matrix: Water
 Analysis Batch: 409718

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 409231

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.000098	mg/L		11/09/17 12:50	11/13/17 10:55	1

Lab Sample ID: LCS 500-409231/13-A
 Matrix: Water
 Analysis Batch: 409718

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 409231

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Mercury	0.00200	0.00222		mg/L		111	80 - 120

Method: 7470A - TCLP Mercury

Lab Sample ID: MB 500-409885/12-A
 Matrix: Solid
 Analysis Batch: 410343

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 409885

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		11/14/17 15:15	11/16/17 11:22	1

Lab Sample ID: LCS 500-409885/13-A
 Matrix: Solid
 Analysis Batch: 410343

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 409885

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Mercury	0.00200	0.00229		mg/L		115	80 - 120

Lab Sample ID: LB 500-409722/1-B
 Matrix: Solid
 Analysis Batch: 410343

Client Sample ID: Method Blank
 Prep Type: TCLP
 Prep Batch: 409885

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		11/14/17 15:15	11/16/17 11:33	1

Lab Sample ID: 500-136990-13 MS
 Matrix: Solid
 Analysis Batch: 410343

Client Sample ID: 2696V-68-B09 (0-5)
 Prep Type: TCLP
 Prep Batch: 409885

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Mercury	<0.00020		0.00100	0.00110		mg/L		110	50 - 150

Lab Sample ID: 500-136990-13 DU
 Matrix: Solid
 Analysis Batch: 410343

Client Sample ID: 2696V-68-B09 (0-5)
 Prep Type: TCLP
 Prep Batch: 409885

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

TestAmerica Chicago

QC Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136990-1

Method: 7471B - Mercury (CVAA)

Lab Sample ID: MB 500-409678/12-A
Matrix: Solid
Analysis Batch: 410350

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 409678

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.017		0.017	0.0056	mg/Kg		11/13/17 13:20	11/16/17 13:10	1

Lab Sample ID: LCS 500-409678/13-A
Matrix: Solid
Analysis Batch: 410350

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 409678

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Mercury	0.167	0.166		mg/Kg		99	80 - 120

Method: 9014 - Cyanide

Lab Sample ID: MB 500-410433/13-A
Matrix: Solid
Analysis Batch: 410593

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 410433

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.50		0.50	0.17	mg/Kg		11/17/17 10:45	11/17/17 14:56	1

Lab Sample ID: LCS 500-410433/14-A
Matrix: Solid
Analysis Batch: 410593

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 410433

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Cyanide, Total	5.00	4.84		mg/Kg		97	80 - 120

Lab Sample ID: MB 500-410477/1-A
Matrix: Water
Analysis Batch: 410591

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 410477

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.010		0.010	0.0035	mg/L		11/17/17 13:20	11/17/17 15:45	1

Lab Sample ID: LCS 500-410477/2-A
Matrix: Water
Analysis Batch: 410591

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 410477

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Cyanide, Total	0.100	0.0903		mg/L		90	80 - 120

Lab Sample ID: MB 500-410524/1-A
Matrix: Solid
Analysis Batch: 410610

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 410524

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.50		0.50	0.17	mg/Kg		11/18/17 09:00	11/18/17 12:35	1

TestAmerica Chicago

QC Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136990-1

Method: 9014 - Cyanide (Continued)

Lab Sample ID: LCS 500-410524/2-A
 Matrix: Solid
 Analysis Batch: 410610

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 410524

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Cyanide, Total	5.00	4.61		mg/Kg		92	80 - 120

Lab Sample ID: 500-136990-7 MS
 Matrix: Solid
 Analysis Batch: 410610

Client Sample ID: 2696V-68-B06 (0-5)
 Prep Type: Total/NA
 Prep Batch: 410524

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Cyanide, Total	<0.57		2.31	2.14		mg/Kg	☼	93	75 - 125

Lab Sample ID: 500-136990-7 MSD
 Matrix: Solid
 Analysis Batch: 410610

Client Sample ID: 2696V-68-B06 (0-5)
 Prep Type: Total/NA
 Prep Batch: 410524

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Cyanide, Total	<0.57		2.29	2.18		mg/Kg	☼	95	75 - 125	2	20

Method: 9045D - pH

Lab Sample ID: 500-136990-1 DU
 Matrix: Solid
 Analysis Batch: 410079

Client Sample ID: 2696V-68-B01 (0-5)
 Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
pH	9.3		9.30		SU		0	

Lab Chronicle

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136990-1

Client Sample ID: 2696V-68-B01 (0-5)

Lab Sample ID: 500-136990-1

Date Collected: 11/08/17 10:10

Matrix: Solid

Date Received: 11/08/17 16:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
SPLP East	Leach	1312			409427	11/10/17 13:07	JLC	TAL CHI
SPLP East	Prep	3010A			409620	11/13/17 07:23	JEF	TAL CHI
SPLP East	Analysis	6010B		1	409822	11/13/17 19:28	PJ1	TAL CHI
TCLP	Leach	1311			409722	11/13/17 13:34	JLC	TAL CHI
TCLP	Prep	3010A			409927	11/14/17 15:47	BDE	TAL CHI
TCLP	Analysis	6010B		1	410088	11/15/17 12:51	PJ1	TAL CHI
TCLP	Leach	1311			409722	11/13/17 13:34	JLC	TAL CHI
TCLP	Prep	3010A			409927	11/14/17 15:47	BDE	TAL CHI
TCLP	Analysis	6020A		1	410287	11/16/17 11:22	FXG	TAL CHI
TCLP	Leach	1311			409722	11/13/17 13:34	JLC	TAL CHI
TCLP	Prep	7470A			409885	11/14/17 15:15	PFK	TAL CHI
TCLP	Analysis	7470A		1	410343	11/16/17 11:35	PFK	TAL CHI
Total/NA	Analysis	9045D		1	410079		SMO	TAL CHI
					(Start)	11/15/17 10:50		
					(End)	11/15/17 10:52		
Total/NA	Analysis	Moisture		1	409350	11/10/17 09:36	PFK	TAL CHI

Client Sample ID: 2696V-68-B01 (0-5)

Lab Sample ID: 500-136990-1

Date Collected: 11/08/17 10:10

Matrix: Solid

Date Received: 11/08/17 16:30

Percent Solids: 84.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			409309	11/08/17 18:13	WRE	TAL CHI
Total/NA	Analysis	8260B		1	409897	11/14/17 22:02	DJD	TAL CHI
Total/NA	Prep	3541			409947	11/14/17 17:23	JP1	TAL CHI
Total/NA	Analysis	8270D		1	410234	11/16/17 15:17	WDS	TAL CHI
Total/NA	Prep	3050B			409344	11/10/17 07:34	JEF	TAL CHI
Total/NA	Analysis	6010B		1	409505	11/10/17 17:20	KML	TAL CHI
Total/NA	Prep	7471B			409678	11/13/17 13:20	EEN	TAL CHI
Total/NA	Analysis	7471B		1	410350	11/16/17 13:14	PFK	TAL CHI
Total/NA	Prep	9010B			410433	11/17/17 10:45	EAT	TAL CHI
Total/NA	Analysis	9014		1	410593		EAT	TAL CHI
					(Start)	11/17/17 15:01		
					(End)	11/17/17 15:02		

Client Sample ID: 2696V-68-B02 (0-5)

Lab Sample ID: 500-136990-2

Date Collected: 11/08/17 10:20

Matrix: Solid

Date Received: 11/08/17 16:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
SPLP East	Leach	1312			409427	11/10/17 13:07	JLC	TAL CHI
SPLP East	Prep	3010A			409620	11/13/17 07:23	JEF	TAL CHI
SPLP East	Analysis	6010B		1	409822	11/13/17 19:32	PJ1	TAL CHI
TCLP	Leach	1311			409722	11/13/17 13:34	JLC	TAL CHI

TestAmerica Chicago

Lab Chronicle

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136990-1

Client Sample ID: 2696V-68-B02 (0-5)

Lab Sample ID: 500-136990-2

Date Collected: 11/08/17 10:20

Matrix: Solid

Date Received: 11/08/17 16:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Prep	3010A			409927	11/14/17 15:47	BDE	TAL CHI
TCLP	Analysis	6010B		1	410088	11/15/17 12:55	PJ1	TAL CHI
TCLP	Leach	1311			409722	11/13/17 13:34	JLC	TAL CHI
TCLP	Prep	3010A			409927	11/14/17 15:47	BDE	TAL CHI
TCLP	Analysis	6020A		1	410287	11/16/17 11:26	FXG	TAL CHI
TCLP	Leach	1311			409722	11/13/17 13:34	JLC	TAL CHI
TCLP	Prep	7470A			409885	11/14/17 15:15	PFK	TAL CHI
TCLP	Analysis	7470A		1	410343	11/16/17 12:09	PFK	TAL CHI
Total/NA	Analysis	9045D		1	410079		SMO	TAL CHI
					(Start)	11/15/17 11:44		
					(End)	11/15/17 11:46		
Total/NA	Analysis	Moisture		1	409350	11/10/17 09:36	PFK	TAL CHI

Client Sample ID: 2696V-68-B02 (0-5)

Lab Sample ID: 500-136990-2

Date Collected: 11/08/17 10:20

Matrix: Solid

Date Received: 11/08/17 16:30

Percent Solids: 82.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			409309	11/08/17 18:13	WRE	TAL CHI
Total/NA	Analysis	8260B		1	410019	11/15/17 14:27	DJD	TAL CHI
Total/NA	Prep	3541			409947	11/14/17 17:23	JP1	TAL CHI
Total/NA	Analysis	8270D		1	410234	11/16/17 15:44	WDS	TAL CHI
Total/NA	Prep	3050B			409344	11/10/17 07:34	JEF	TAL CHI
Total/NA	Analysis	6010B		1	409505	11/10/17 17:49	KML	TAL CHI
Total/NA	Prep	7471B			409678	11/13/17 13:20	EEN	TAL CHI
Total/NA	Analysis	7471B		1	410350	11/16/17 13:17	PFK	TAL CHI
Total/NA	Prep	9010B			410433	11/17/17 10:45	EAT	TAL CHI
Total/NA	Analysis	9014		1	410593		EAT	TAL CHI
					(Start)	11/17/17 15:02		
					(End)	11/17/17 15:02		

Client Sample ID: 2696V-68-B03 (0-5)

Lab Sample ID: 500-136990-3

Date Collected: 11/08/17 10:40

Matrix: Solid

Date Received: 11/08/17 16:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
SPLP East	Leach	1312			409427	11/10/17 13:07	JLC	TAL CHI
SPLP East	Prep	3010A			409620	11/13/17 07:23	JEF	TAL CHI
SPLP East	Analysis	6010B		1	409822	11/13/17 19:36	PJ1	TAL CHI
TCLP	Leach	1311			409722	11/13/17 13:34	JLC	TAL CHI
TCLP	Prep	3010A			409927	11/14/17 15:47	BDE	TAL CHI
TCLP	Analysis	6010B		1	410088	11/15/17 12:59	PJ1	TAL CHI
TCLP	Leach	1311			409722	11/13/17 13:34	JLC	TAL CHI
TCLP	Prep	3010A			409927	11/14/17 15:47	BDE	TAL CHI

TestAmerica Chicago

Lab Chronicle

Client: Terracon Consulting Eng & Scientists
Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136990-1

Client Sample ID: 2696V-68-B03 (0-5)

Lab Sample ID: 500-136990-3

Date Collected: 11/08/17 10:40

Matrix: Solid

Date Received: 11/08/17 16:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Analysis	6020A		1	410287	11/16/17 11:30	FXG	TAL CHI
TCLP	Leach	1311			409722	11/13/17 13:34	JLC	TAL CHI
TCLP	Prep	7470A			409885	11/14/17 15:15	PFK	TAL CHI
TCLP	Analysis	7470A		1	410343	11/16/17 12:10	PFK	TAL CHI
Total/NA	Analysis	9045D		1	410079	(Start) 11/15/17 11:46 (End) 11/15/17 11:48	SMO	TAL CHI
Total/NA	Analysis	Moisture		1	409350	11/10/17 09:36	PFK	TAL CHI

Client Sample ID: 2696V-68-B03 (0-5)

Lab Sample ID: 500-136990-3

Date Collected: 11/08/17 10:40

Matrix: Solid

Date Received: 11/08/17 16:30

Percent Solids: 82.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			409309	11/08/17 18:13	WRE	TAL CHI
Total/NA	Analysis	8260B		1	409897	11/14/17 22:53	DJD	TAL CHI
Total/NA	Prep	3541			409947	11/14/17 17:23	JP1	TAL CHI
Total/NA	Analysis	8270D		1	410234	11/16/17 16:11	WDS	TAL CHI
Total/NA	Prep	3050B			409344	11/10/17 07:34	JEF	TAL CHI
Total/NA	Analysis	6010B		1	409505	11/10/17 17:53	KML	TAL CHI
Total/NA	Prep	7471B			409678	11/13/17 13:20	EEN	TAL CHI
Total/NA	Analysis	7471B		1	410350	11/16/17 13:19	PFK	TAL CHI
Total/NA	Prep	9010B			410433	11/17/17 10:45	EAT	TAL CHI
Total/NA	Analysis	9014		1	410593	(Start) 11/17/17 15:02 (End) 11/17/17 15:02	EAT	TAL CHI

Client Sample ID: 2696V-68-B04 (0-5)

Lab Sample ID: 500-136990-4

Date Collected: 11/08/17 10:50

Matrix: Solid

Date Received: 11/08/17 16:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
SPLP East	Leach	1312			409427	11/10/17 13:07	JLC	TAL CHI
SPLP East	Prep	3010A			409620	11/13/17 07:23	JEF	TAL CHI
SPLP East	Analysis	6010B		1	409822	11/13/17 19:39	PJ1	TAL CHI
TCLP	Leach	1311			409722	11/13/17 13:34	JLC	TAL CHI
TCLP	Prep	3010A			409927	11/14/17 15:47	BDE	TAL CHI
TCLP	Analysis	6010B		1	410088	11/15/17 13:03	PJ1	TAL CHI
TCLP	Leach	1311			409722	11/13/17 13:34	JLC	TAL CHI
TCLP	Prep	3010A			409927	11/14/17 15:47	BDE	TAL CHI
TCLP	Analysis	6020A		1	410287	11/16/17 11:34	FXG	TAL CHI
TCLP	Leach	1311			409722	11/13/17 13:34	JLC	TAL CHI
TCLP	Prep	7470A			409885	11/14/17 15:15	PFK	TAL CHI
TCLP	Analysis	7470A		1	410343	11/16/17 12:12	PFK	TAL CHI

TestAmerica Chicago

Lab Chronicle

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136990-1

Client Sample ID: 2696V-68-B04 (0-5)

Lab Sample ID: 500-136990-4

Date Collected: 11/08/17 10:50

Matrix: Solid

Date Received: 11/08/17 16:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9045D		1	410079	11/15/17 11:48 (Start) 11/15/17 11:51 (End)	SMO	TAL CHI
Total/NA	Analysis	Moisture		1	409350	11/10/17 09:36	PFK	TAL CHI

Client Sample ID: 2696V-68-B04 (0-5)

Lab Sample ID: 500-136990-4

Date Collected: 11/08/17 10:50

Matrix: Solid

Date Received: 11/08/17 16:30

Percent Solids: 80.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			409309	11/08/17 18:13	WRE	TAL CHI
Total/NA	Analysis	8260B		1	409897	11/14/17 23:18	DJD	TAL CHI
Total/NA	Prep	3541			409947	11/14/17 17:23	JP1	TAL CHI
Total/NA	Analysis	8270D		1	410234	11/16/17 16:37	WDS	TAL CHI
Total/NA	Prep	3050B			409344	11/10/17 07:34	JEF	TAL CHI
Total/NA	Analysis	6010B		1	409505	11/10/17 17:57	KML	TAL CHI
Total/NA	Prep	7471B			409678	11/13/17 13:20	EEN	TAL CHI
Total/NA	Analysis	7471B		1	410350	11/16/17 13:21	PFK	TAL CHI
Total/NA	Prep	9010B			410433	11/17/17 10:45	EAT	TAL CHI
Total/NA	Analysis	9014		1	410593		EAT	TAL CHI
						(Start) 11/17/17 15:02 (End) 11/17/17 15:03		

Client Sample ID: 2696V-68-B05 (0-5)

Lab Sample ID: 500-136990-5

Date Collected: 11/08/17 11:05

Matrix: Solid

Date Received: 11/08/17 16:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
SPLP East	Leach	1312			409427	11/10/17 13:07	JLC	TAL CHI
SPLP East	Prep	3010A			409620	11/13/17 07:23	JEF	TAL CHI
SPLP East	Analysis	6010B		1	409822	11/13/17 19:43	PJ1	TAL CHI
TCLP	Leach	1311			409722	11/13/17 13:34	JLC	TAL CHI
TCLP	Prep	3010A			409927	11/14/17 15:47	BDE	TAL CHI
TCLP	Analysis	6010B		1	410088	11/15/17 13:07	PJ1	TAL CHI
TCLP	Leach	1311			409722	11/13/17 13:34	JLC	TAL CHI
TCLP	Prep	3010A			409927	11/14/17 15:47	BDE	TAL CHI
TCLP	Analysis	6020A		1	410287	11/16/17 11:37	FXG	TAL CHI
TCLP	Leach	1311			409722	11/13/17 13:34	JLC	TAL CHI
TCLP	Prep	7470A			409885	11/14/17 15:15	PFK	TAL CHI
TCLP	Analysis	7470A		1	410343	11/16/17 12:14	PFK	TAL CHI
Total/NA	Analysis	9045D		1	410079		SMO	TAL CHI
						(Start) 11/15/17 11:51 (End) 11/15/17 11:53		
Total/NA	Analysis	Moisture		1	409350	11/10/17 09:36	PFK	TAL CHI

TestAmerica Chicago

Lab Chronicle

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136990-1

Client Sample ID: 2696V-68-B05 (0-5)

Lab Sample ID: 500-136990-5

Date Collected: 11/08/17 11:05

Matrix: Solid

Date Received: 11/08/17 16:30

Percent Solids: 84.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			409285	11/08/17 11:05	WRE	TAL CHI
Total/NA	Analysis	8260B		100	410445	11/18/17 02:54	PMF	TAL CHI
Total/NA	Prep	5035	DL		409285	11/08/17 11:05	WRE	TAL CHI
Total/NA	Analysis	8260B	DL	1000	410712	11/20/17 11:43	PMF	TAL CHI
Total/NA	Prep	3541			409947	11/14/17 17:23	JP1	TAL CHI
Total/NA	Analysis	8270D		1	410234	11/16/17 17:04	WDS	TAL CHI
Total/NA	Prep	3050B			409344	11/10/17 07:34	JEF	TAL CHI
Total/NA	Analysis	6010B		1	409505	11/10/17 18:01	KML	TAL CHI
Total/NA	Prep	7471B			409678	11/13/17 13:20	EEN	TAL CHI
Total/NA	Analysis	7471B		1	410350	11/16/17 13:24	PFK	TAL CHI
Total/NA	Prep	9010B			410433	11/17/17 10:45	EAT	TAL CHI
Total/NA	Analysis	9014		1	410593		EAT	TAL CHI
					(Start)	11/17/17 15:03		
					(End)	11/17/17 15:03		

Client Sample ID: 2696V-68-B05 (0-5) Dup

Lab Sample ID: 500-136990-6

Date Collected: 11/08/17 11:05

Matrix: Solid

Date Received: 11/08/17 16:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
SPLP East	Leach	1312			409427	11/10/17 13:07	JLC	TAL CHI
SPLP East	Prep	3010A			409620	11/13/17 07:23	JEF	TAL CHI
SPLP East	Analysis	6010B		1	409822	11/13/17 19:55	PJ1	TAL CHI
TCLP	Leach	1311			409722	11/13/17 13:34	JLC	TAL CHI
TCLP	Prep	3010A			409927	11/14/17 15:47	BDE	TAL CHI
TCLP	Analysis	6010B		1	410088	11/15/17 13:11	PJ1	TAL CHI
TCLP	Leach	1311			409722	11/13/17 13:34	JLC	TAL CHI
TCLP	Prep	3010A			409927	11/14/17 15:47	BDE	TAL CHI
TCLP	Analysis	6020A		1	410287	11/16/17 11:42	FXG	TAL CHI
TCLP	Leach	1311			409722	11/13/17 13:34	JLC	TAL CHI
TCLP	Prep	7470A			409885	11/14/17 15:15	PFK	TAL CHI
TCLP	Analysis	7470A		1	410343	11/16/17 12:15	PFK	TAL CHI
Total/NA	Analysis	9045D		1	410079		SMO	TAL CHI
					(Start)	11/15/17 11:53		
					(End)	11/15/17 11:55		
Total/NA	Analysis	Moisture		1	409350	11/10/17 09:36	PFK	TAL CHI

Client Sample ID: 2696V-68-B05 (0-5) Dup

Lab Sample ID: 500-136990-6

Date Collected: 11/08/17 11:05

Matrix: Solid

Date Received: 11/08/17 16:30

Percent Solids: 86.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			409285	11/08/17 11:05	WRE	TAL CHI
Total/NA	Analysis	8260B		100	410445	11/18/17 03:21	PMF	TAL CHI

TestAmerica Chicago

Lab Chronicle

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136990-1

Client Sample ID: 2696V-68-B05 (0-5) Dup

Lab Sample ID: 500-136990-6

Date Collected: 11/08/17 11:05

Matrix: Solid

Date Received: 11/08/17 16:30

Percent Solids: 86.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035	DL		409285	11/08/17 11:05	WRE	TAL CHI
Total/NA	Analysis	8260B	DL	1000	410712	11/20/17 12:10	PMF	TAL CHI
Total/NA	Prep	3541			409947	11/14/17 17:23	JP1	TAL CHI
Total/NA	Analysis	8270D		1	410234	11/16/17 17:58	WDS	TAL CHI
Total/NA	Prep	3050B			409344	11/10/17 07:34	JEF	TAL CHI
Total/NA	Analysis	6010B		1	409505	11/10/17 18:05	KML	TAL CHI
Total/NA	Prep	7471B			409678	11/13/17 13:20	EEN	TAL CHI
Total/NA	Analysis	7471B		1	410350	11/16/17 13:26	PFK	TAL CHI
Total/NA	Prep	9010B			410433	11/17/17 10:45	EAT	TAL CHI
Total/NA	Analysis	9014		1	410593		EAT	TAL CHI
					(Start)	11/17/17 15:03		
					(End)	11/17/17 15:04		

Client Sample ID: 2696V-68-B06 (0-5)

Lab Sample ID: 500-136990-7

Date Collected: 11/08/17 11:25

Matrix: Solid

Date Received: 11/08/17 16:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
SPLP East	Leach	1312			409427	11/10/17 13:07	JLC	TAL CHI
SPLP East	Prep	3010A			409620	11/13/17 07:23	JEF	TAL CHI
SPLP East	Analysis	6010B		1	409822	11/13/17 19:59	PJ1	TAL CHI
TCLP	Leach	1311			409722	11/13/17 13:34	JLC	TAL CHI
TCLP	Prep	3010A			409927	11/14/17 15:47	BDE	TAL CHI
TCLP	Analysis	6010B		1	410088	11/15/17 13:15	PJ1	TAL CHI
TCLP	Leach	1311			409722	11/13/17 13:34	JLC	TAL CHI
TCLP	Prep	3010A			409927	11/14/17 15:47	BDE	TAL CHI
TCLP	Analysis	6020A		1	410287	11/16/17 11:45	FXG	TAL CHI
TCLP	Leach	1311			409722	11/13/17 13:34	JLC	TAL CHI
TCLP	Prep	7470A			409885	11/14/17 15:15	PFK	TAL CHI
TCLP	Analysis	7470A		1	410343	11/16/17 12:17	PFK	TAL CHI
Total/NA	Analysis	9045D		1	410079		SMO	TAL CHI
					(Start)	11/15/17 11:55		
					(End)	11/15/17 11:58		
Total/NA	Analysis	Moisture		1	409350	11/10/17 09:36	PFK	TAL CHI

Client Sample ID: 2696V-68-B06 (0-5)

Lab Sample ID: 500-136990-7

Date Collected: 11/08/17 11:25

Matrix: Solid

Date Received: 11/08/17 16:30

Percent Solids: 86.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			409285	11/08/17 11:25	WRE	TAL CHI
Total/NA	Analysis	8260B		100	410445	11/18/17 03:49	PMF	TAL CHI
Total/NA	Prep	5035	DL		409285	11/08/17 11:25	WRE	TAL CHI
Total/NA	Analysis	8260B	DL	1000	410712	11/20/17 12:38	PMF	TAL CHI

TestAmerica Chicago

Lab Chronicle

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136990-1

Client Sample ID: 2696V-68-B06 (0-5)

Lab Sample ID: 500-136990-7

Date Collected: 11/08/17 11:25

Matrix: Solid

Date Received: 11/08/17 16:30

Percent Solids: 86.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			409947	11/14/17 17:23	JP1	TAL CHI
Total/NA	Analysis	8270D		1	410234	11/16/17 18:24	WDS	TAL CHI
Total/NA	Prep	3541	DL		409947	11/14/17 17:23	JP1	TAL CHI
Total/NA	Analysis	8270D	DL	2	410465	11/17/17 21:37	AJD	TAL CHI
Total/NA	Prep	3050B			409344	11/10/17 07:34	JEF	TAL CHI
Total/NA	Analysis	6010B		1	409505	11/10/17 18:08	KML	TAL CHI
Total/NA	Prep	7471B			409678	11/13/17 13:20	EEN	TAL CHI
Total/NA	Analysis	7471B		1	410350	11/16/17 13:37	PFK	TAL CHI
Total/NA	Prep	9010B			410524	11/18/17 09:00	EAT	TAL CHI
Total/NA	Analysis	9014		1	410610		EAT	TAL CHI
					(Start)	11/18/17 12:36		
					(End)	11/18/17 12:37		

Client Sample ID: 2696V-68-B07 (0-5)

Lab Sample ID: 500-136990-8

Date Collected: 11/08/17 11:55

Matrix: Solid

Date Received: 11/08/17 16:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Leach	1311			409722	11/13/17 13:34	JLC	TAL CHI
TCLP	Prep	3010A			409927	11/14/17 15:47	BDE	TAL CHI
TCLP	Analysis	6010B		1	410088	11/15/17 13:19	PJ1	TAL CHI
TCLP	Leach	1311			409722	11/13/17 13:34	JLC	TAL CHI
TCLP	Prep	3010A			409927	11/14/17 15:47	BDE	TAL CHI
TCLP	Analysis	6020A		1	410287	11/16/17 12:01	FXG	TAL CHI
TCLP	Leach	1311			409722	11/13/17 13:34	JLC	TAL CHI
TCLP	Prep	7470A			409885	11/14/17 15:15	PFK	TAL CHI
TCLP	Analysis	7470A		1	410343	11/16/17 12:18	PFK	TAL CHI
Total/NA	Analysis	9045D		1	410079		SMO	TAL CHI
					(Start)	11/15/17 11:58		
					(End)	11/15/17 12:00		
Total/NA	Analysis	Moisture		1	409350	11/10/17 09:36	PFK	TAL CHI

Client Sample ID: 2696V-68-B07 (0-5)

Lab Sample ID: 500-136990-8

Date Collected: 11/08/17 11:55

Matrix: Solid

Date Received: 11/08/17 16:30

Percent Solids: 80.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			409309	11/08/17 18:13	WRE	TAL CHI
Total/NA	Analysis	8260B		1	409897	11/14/17 23:43	DJD	TAL CHI
Total/NA	Prep	3541			409947	11/14/17 17:23	JP1	TAL CHI
Total/NA	Analysis	8270D		1	410234	11/16/17 18:51	WDS	TAL CHI
Total/NA	Prep	3050B			409344	11/10/17 07:34	JEF	TAL CHI
Total/NA	Analysis	6010B		1	409505	11/10/17 18:21	KML	TAL CHI
Total/NA	Prep	7471B			409678	11/13/17 13:20	EEN	TAL CHI

TestAmerica Chicago

Lab Chronicle

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136990-1

Client Sample ID: 2696V-68-B07 (0-5)

Lab Sample ID: 500-136990-8

Date Collected: 11/08/17 11:55

Matrix: Solid

Date Received: 11/08/17 16:30

Percent Solids: 80.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	7471B		1	410350	11/16/17 13:39	PFK	TAL CHI
Total/NA	Prep	9010B			410524	11/18/17 09:00	EAT	TAL CHI
Total/NA	Analysis	9014		1	410610	11/18/17 12:38 (Start) (End) 11/18/17 12:38	EAT	TAL CHI

Client Sample ID: 2696V-68-B07 (5-10)

Lab Sample ID: 500-136990-9

Date Collected: 11/08/17 12:00

Matrix: Solid

Date Received: 11/08/17 16:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
SPLP East	Leach	1312			409427	11/10/17 13:07	JLC	TAL CHI
SPLP East	Prep	3010A			409620	11/13/17 07:23	JEF	TAL CHI
SPLP East	Analysis	6010B		1	409822	11/13/17 20:07	PJ1	TAL CHI
TCLP	Leach	1311			409722	11/13/17 13:34	JLC	TAL CHI
TCLP	Prep	3010A			409927	11/14/17 15:47	BDE	TAL CHI
TCLP	Analysis	6010B		1	410088	11/15/17 13:23	PJ1	TAL CHI
TCLP	Leach	1311			409722	11/13/17 13:34	JLC	TAL CHI
TCLP	Prep	3010A			409927	11/14/17 15:47	BDE	TAL CHI
TCLP	Analysis	6010B		10	410196	11/15/17 15:48	PJ1	TAL CHI
TCLP	Leach	1311			409722	11/13/17 13:34	JLC	TAL CHI
TCLP	Prep	3010A			409927	11/14/17 15:47	BDE	TAL CHI
TCLP	Analysis	6020A		1	410287	11/16/17 12:04	FXG	TAL CHI
TCLP	Leach	1311			409722	11/13/17 13:34	JLC	TAL CHI
TCLP	Prep	7470A			409885	11/14/17 15:15	PFK	TAL CHI
TCLP	Analysis	7470A		1	410343	11/16/17 12:20	PFK	TAL CHI
Total/NA	Analysis	9045D		1	410079	11/15/17 12:00 (Start) (End) 11/15/17 12:02	SMO	TAL CHI
Total/NA	Analysis	Moisture		1	409350	11/10/17 09:36	PFK	TAL CHI

Client Sample ID: 2696V-68-B07 (5-10)

Lab Sample ID: 500-136990-9

Date Collected: 11/08/17 12:00

Matrix: Solid

Date Received: 11/08/17 16:30

Percent Solids: 80.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			409309	11/08/17 18:13	WRE	TAL CHI
Total/NA	Analysis	8260B		1	409897	11/15/17 00:08	DJD	TAL CHI
Total/NA	Prep	3541			409947	11/14/17 17:23	JP1	TAL CHI
Total/NA	Analysis	8270D		1	410234	11/16/17 19:17	WDS	TAL CHI
Total/NA	Prep	3050B			409344	11/10/17 07:34	JEF	TAL CHI
Total/NA	Analysis	6010B		10	409603	11/11/17 22:37	PJ1	TAL CHI
Total/NA	Prep	3050B			409344	11/10/17 07:34	JEF	TAL CHI
Total/NA	Analysis	6010B		1	409505	11/10/17 18:25	KML	TAL CHI

TestAmerica Chicago

Lab Chronicle

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136990-1

Client Sample ID: 2696V-68-B07 (5-10)

Lab Sample ID: 500-136990-9

Date Collected: 11/08/17 12:00

Matrix: Solid

Date Received: 11/08/17 16:30

Percent Solids: 80.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	7471B			409678	11/13/17 13:20	EEN	TAL CHI
Total/NA	Analysis	7471B		1	410350	11/16/17 13:42	PFK	TAL CHI
Total/NA	Prep	9010B			410524	11/18/17 09:00	EAT	TAL CHI
Total/NA	Analysis	9014		1	410610	11/18/17 12:38 (Start) 11/18/17 12:39 (End)	EAT	TAL CHI

Client Sample ID: 2696V-68-B07 (10-15)

Lab Sample ID: 500-136990-10

Date Collected: 11/08/17 12:05

Matrix: Solid

Date Received: 11/08/17 16:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
SPLP East	Leach	1312			409427	11/10/17 13:07	JLC	TAL CHI
SPLP East	Prep	3010A			409620	11/13/17 07:23	JEF	TAL CHI
SPLP East	Analysis	6010B		1	409822	11/13/17 20:11	PJ1	TAL CHI
TCLP	Leach	1311			409722	11/13/17 13:34	JLC	TAL CHI
TCLP	Prep	3010A			409927	11/14/17 15:47	BDE	TAL CHI
TCLP	Analysis	6010B		1	410088	11/15/17 13:41	PJ1	TAL CHI
TCLP	Leach	1311			409722	11/13/17 13:34	JLC	TAL CHI
TCLP	Prep	3010A			409927	11/14/17 15:47	BDE	TAL CHI
TCLP	Analysis	6020A		1	410287	11/16/17 12:09	FXG	TAL CHI
TCLP	Leach	1311			409722	11/13/17 13:34	JLC	TAL CHI
TCLP	Prep	7470A			409885	11/14/17 15:15	PFK	TAL CHI
TCLP	Analysis	7470A		1	410343	11/16/17 12:21	PFK	TAL CHI
Total/NA	Analysis	9045D		1	410079	11/15/17 12:02 (Start) 11/15/17 12:04 (End)	SMO	TAL CHI
Total/NA	Analysis	Moisture		1	409350	11/10/17 09:36	PFK	TAL CHI

Client Sample ID: 2696V-68-B07 (10-15)

Lab Sample ID: 500-136990-10

Date Collected: 11/08/17 12:05

Matrix: Solid

Date Received: 11/08/17 16:30

Percent Solids: 89.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			409309	11/08/17 18:13	WRE	TAL CHI
Total/NA	Analysis	8260B		1	409897	11/15/17 00:33	DJD	TAL CHI
Total/NA	Prep	3541			409947	11/14/17 17:23	JP1	TAL CHI
Total/NA	Analysis	8270D		1	410234	11/16/17 19:44	WDS	TAL CHI
Total/NA	Prep	3050B			409344	11/10/17 07:34	JEF	TAL CHI
Total/NA	Analysis	6010B		10	409603	11/11/17 22:41	PJ1	TAL CHI
Total/NA	Prep	3050B			409344	11/10/17 07:34	JEF	TAL CHI
Total/NA	Analysis	6010B		1	409505	11/10/17 18:30	KML	TAL CHI
Total/NA	Prep	7471B			409678	11/13/17 13:20	EEN	TAL CHI
Total/NA	Analysis	7471B		1	410350	11/16/17 13:44	PFK	TAL CHI

TestAmerica Chicago

Lab Chronicle

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136990-1

Client Sample ID: 2696V-68-B07 (10-15)

Lab Sample ID: 500-136990-10

Date Collected: 11/08/17 12:05

Matrix: Solid

Date Received: 11/08/17 16:30

Percent Solids: 89.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	9010B			410524	11/18/17 09:00	EAT	TAL CHI
Total/NA	Analysis	9014		1	410610	(Start) 11/18/17 12:39 (End) 11/18/17 12:39	EAT	TAL CHI

Client Sample ID: 2696V-68-B07 (15-21)

Lab Sample ID: 500-136990-11

Date Collected: 11/08/17 12:10

Matrix: Solid

Date Received: 11/08/17 16:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
SPLP East	Leach	1312			409427	11/10/17 13:07	JLC	TAL CHI
SPLP East	Prep	3010A			409620	11/13/17 07:23	JEF	TAL CHI
SPLP East	Analysis	6010B		1	409822	11/13/17 20:15	PJ1	TAL CHI
TCLP	Leach	1311			409722	11/13/17 13:34	JLC	TAL CHI
TCLP	Prep	3010A			409927	11/14/17 15:47	BDE	TAL CHI
TCLP	Analysis	6010B		1	410088	11/15/17 13:45	PJ1	TAL CHI
TCLP	Leach	1311			409722	11/13/17 13:34	JLC	TAL CHI
TCLP	Prep	3010A			409927	11/14/17 15:47	BDE	TAL CHI
TCLP	Analysis	6020A		1	410287	11/16/17 12:13	FXG	TAL CHI
TCLP	Leach	1311			409722	11/13/17 13:34	JLC	TAL CHI
TCLP	Prep	7470A			409885	11/14/17 15:15	PFK	TAL CHI
TCLP	Analysis	7470A		1	410343	11/16/17 12:23	PFK	TAL CHI
Total/NA	Analysis	9045D		1	410079	(Start) 11/15/17 12:04 (End) 11/15/17 12:07	SMO	TAL CHI
Total/NA	Analysis	Moisture		1	409350	11/10/17 09:36	PFK	TAL CHI

Client Sample ID: 2696V-68-B07 (15-21)

Lab Sample ID: 500-136990-11

Date Collected: 11/08/17 12:10

Matrix: Solid

Date Received: 11/08/17 16:30

Percent Solids: 85.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			409309	11/08/17 18:13	WRE	TAL CHI
Total/NA	Analysis	8260B		1	409897	11/15/17 00:58	DJD	TAL CHI
Total/NA	Prep	3541			409947	11/14/17 17:23	JP1	TAL CHI
Total/NA	Analysis	8270D		1	410234	11/16/17 20:11	WDS	TAL CHI
Total/NA	Prep	3050B			409344	11/10/17 07:34	JEF	TAL CHI
Total/NA	Analysis	6010B		10	409603	11/11/17 22:45	PJ1	TAL CHI
Total/NA	Prep	3050B			409344	11/10/17 07:34	JEF	TAL CHI
Total/NA	Analysis	6010B		1	409505	11/10/17 18:34	KML	TAL CHI
Total/NA	Prep	7471B			409678	11/13/17 13:20	EEN	TAL CHI
Total/NA	Analysis	7471B		1	410350	11/16/17 13:46	PFK	TAL CHI
Total/NA	Prep	9010B			410524	11/18/17 09:00	EAT	TAL CHI

TestAmerica Chicago

Lab Chronicle

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136990-1

Client Sample ID: 2696V-68-B07 (15-21)

Lab Sample ID: 500-136990-11

Date Collected: 11/08/17 12:10

Matrix: Solid

Date Received: 11/08/17 16:30

Percent Solids: 85.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9014		1	410610	11/18/17 12:39 11/18/17 12:40	EAT	TAL CHI

Client Sample ID: 2696V-68-B08 (0-5)

Lab Sample ID: 500-136990-12

Date Collected: 11/08/17 13:20

Matrix: Solid

Date Received: 11/08/17 16:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
SPLP East	Leach	1312			409427	11/10/17 13:07	JLC	TAL CHI
SPLP East	Prep	3010A			409620	11/13/17 07:23	JEF	TAL CHI
SPLP East	Analysis	6010B		1	409822	11/13/17 20:19	PJ1	TAL CHI
TCLP	Leach	1311			409722	11/13/17 13:34	JLC	TAL CHI
TCLP	Prep	3010A			409927	11/14/17 15:47	BDE	TAL CHI
TCLP	Analysis	6010B		1	410088	11/15/17 13:49	PJ1	TAL CHI
TCLP	Leach	1311			409722	11/13/17 13:34	JLC	TAL CHI
TCLP	Prep	3010A			409927	11/14/17 15:47	BDE	TAL CHI
TCLP	Analysis	6020A		1	410287	11/16/17 12:17	FXG	TAL CHI
TCLP	Leach	1311			409722	11/13/17 13:34	JLC	TAL CHI
TCLP	Prep	7470A			409885	11/14/17 15:15	PFK	TAL CHI
TCLP	Analysis	7470A		1	410343	11/16/17 12:28	PFK	TAL CHI
Total/NA	Analysis	9045D		1	410079	11/15/17 12:07 11/15/17 12:09	SMO	TAL CHI
Total/NA	Analysis	Moisture		1	409350	11/10/17 09:36	PFK	TAL CHI

Client Sample ID: 2696V-68-B08 (0-5)

Lab Sample ID: 500-136990-12

Date Collected: 11/08/17 13:20

Matrix: Solid

Date Received: 11/08/17 16:30

Percent Solids: 85.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			409309	11/08/17 18:13	WRE	TAL CHI
Total/NA	Analysis	8260B		1	409897	11/15/17 01:23	DJD	TAL CHI
Total/NA	Prep	3541			409947	11/14/17 17:23	JP1	TAL CHI
Total/NA	Analysis	8270D		1	410234	11/16/17 17:31	WDS	TAL CHI
Total/NA	Prep	3050B			409344	11/10/17 07:34	JEF	TAL CHI
Total/NA	Analysis	6010B		1	409505	11/10/17 18:38	KML	TAL CHI
Total/NA	Prep	7471B			409678	11/13/17 13:20	EEN	TAL CHI
Total/NA	Analysis	7471B		1	410350	11/16/17 13:48	PFK	TAL CHI
Total/NA	Prep	9010B			410524	11/18/17 09:00	EAT	TAL CHI
Total/NA	Analysis	9014		1	410610	11/18/17 12:40 11/18/17 12:40	EAT	TAL CHI

TestAmerica Chicago

Lab Chronicle

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136990-1

Client Sample ID: 2696V-68-B09 (0-5)

Lab Sample ID: 500-136990-13

Date Collected: 11/08/17 13:30

Matrix: Solid

Date Received: 11/08/17 16:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
SPLP East	Leach	1312			409427	11/10/17 13:07	JLC	TAL CHI
SPLP East	Prep	3010A			409620	11/13/17 07:23	JEF	TAL CHI
SPLP East	Analysis	6010B		1	409822	11/13/17 20:23	PJ1	TAL CHI
TCLP	Leach	1311			409722	11/13/17 13:34	JLC	TAL CHI
TCLP	Prep	3010A			409927	11/14/17 15:47	BDE	TAL CHI
TCLP	Analysis	6010B		1	410088	11/15/17 14:05	PJ1	TAL CHI
TCLP	Leach	1311			409722	11/13/17 13:34	JLC	TAL CHI
TCLP	Prep	3010A			409927	11/14/17 15:47	BDE	TAL CHI
TCLP	Analysis	6020A		1	410287	11/16/17 12:32	FXG	TAL CHI
TCLP	Leach	1311			409722	11/13/17 13:34	JLC	TAL CHI
TCLP	Prep	7470A			409885	11/14/17 15:15	PFK	TAL CHI
TCLP	Analysis	7470A		1	410343	11/16/17 12:29	PFK	TAL CHI
Total/NA	Analysis	9045D		1	410079		SMO	TAL CHI
					(Start)	11/15/17 12:09		
					(End)	11/15/17 12:11		
Total/NA	Analysis	Moisture		1	409350	11/10/17 09:36	PFK	TAL CHI

Client Sample ID: 2696V-68-B09 (0-5)

Lab Sample ID: 500-136990-13

Date Collected: 11/08/17 13:30

Matrix: Solid

Date Received: 11/08/17 16:30

Percent Solids: 82.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			409309	11/08/17 18:13	WRE	TAL CHI
Total/NA	Analysis	8260B		1	409897	11/15/17 01:48	DJD	TAL CHI
Total/NA	Prep	3541			409947	11/14/17 17:23	JP1	TAL CHI
Total/NA	Analysis	8270D		1	410234	11/16/17 20:38	WDS	TAL CHI
Total/NA	Prep	3050B			409344	11/10/17 07:34	JEF	TAL CHI
Total/NA	Analysis	6010B		1	409505	11/10/17 18:42	KML	TAL CHI
Total/NA	Prep	7471B			409678	11/13/17 13:20	EEN	TAL CHI
Total/NA	Analysis	7471B		1	410410	11/16/17 17:09	PFK	TAL CHI
Total/NA	Prep	9010B			410524	11/18/17 09:00	EAT	TAL CHI
Total/NA	Analysis	9014		1	410610		EAT	TAL CHI
					(Start)	11/18/17 12:41		
					(End)	11/18/17 12:42		

Client Sample ID: 2696V-68-G01

Lab Sample ID: 500-136990-14

Date Collected: 11/08/17 12:20

Matrix: Water

Date Received: 11/08/17 16:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	410547	11/18/17 01:10	EMA	TAL CHI
Total/NA	Prep	3510C			409153	11/09/17 07:33	BSO	TAL CHI
Total/NA	Analysis	8270D		1	409237	11/09/17 20:35	WDS	TAL CHI
Total Recoverable	Prep	3005A			409258	11/09/17 15:37	BDE	TAL CHI

TestAmerica Chicago

Lab Chronicle

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136990-1

Client Sample ID: 2696V-68-G01

Lab Sample ID: 500-136990-14

Date Collected: 11/08/17 12:20

Matrix: Water

Date Received: 11/08/17 16:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Analysis	6020A		1	409652	11/10/17 11:39	FXG	TAL CHI
Total/NA	Prep	7470A			409231	11/09/17 12:50	EEN	TAL CHI
Total/NA	Analysis	7470A		1	409718	11/13/17 10:59	EEN	TAL CHI
Total/NA	Prep	9010B			410477	11/17/17 13:20	EAT	TAL CHI
Total/NA	Analysis	9014		1	410591		EAT	TAL CHI
					(Start)	11/17/17 15:55		
					(End)	11/17/17 15:55		

Client Sample ID: Trip Blank

Lab Sample ID: 500-136990-15

Date Collected: 11/08/17 00:00

Matrix: Water

Date Received: 11/08/17 16:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	410547	11/18/17 01:38	EMA	TAL CHI

Laboratory References:

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

Accreditation/Certification Summary

Client: Terracon Consulting Eng & Scientists
Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136990-1

Laboratory: TestAmerica Chicago

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

Authority	Program	EPA Region	Identification Number	Expiration Date
Illinois	NELAP	5	100201	04-30-18

The following analytes are included in this report, but accreditation/certification is not offered by the governing authority:

Analysis Method	Prep Method	Matrix	Analyte
6020A	3010A	Solid	Antimony
6020A	3010A	Solid	Thallium
8260B		Water	1,3-Dichloropropene, Total
8260B	5035	Solid	1,3-Dichloropropene, Total
9045D		Solid	pH
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

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

Report To (optional) MATT WEISS Bill To (optional) _____
 Contact: MATT WEISS Contact: _____
 Company: TERRACON Company: _____
 Address: 135 AMBASSADOR Address: _____
 Address: NAPERVILLE IL Address: _____
 Phone: _____ Phone: _____
 Fax: _____ Fax: _____
 E-Mail: matt.weiss@terracon.com PO#/Reference# _____

Chain of Custody Record

Lab Job #: 500-136990
 Chain of Custody Number: _____
 Page 1 of 2
 Temperature °C of Cooler: 20, 21

Client: <u>TERRACON</u>		Client Project # <u>1177029M</u>		Preservative								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 <u>WORK ORDER #37</u>				Parameter									Comments
Project Location/State <u>MARKHAM IL</u>		Lab Project #											
Sampler <u>RYAN J PETERSON</u>		Lab PM											
Lab ID	MS/MSD	Sample ID	Date	Time	# of Containers	Matrix	VOCs	SUOCs	Total TAL 23 Inorganics	PH	TCLP TAL 23 Inorganics	SPLP TAL 23 Inorganics	
1		2696V-68-801 (0-5)	11/8	1040	5	S	X	X	X	X	X	X	
2		2696V-68-802 (0-5)		1020									
3		2696V-68-803 (0-5)		1040									
4		2696V-68-804 (0-5)		1050									
5		2696V-68-805 (0-5)		1105									
6		2696V-68-805 (0-5) Dup		1105									
7		2696V-68-806 (0-5)		1125									
8		2696V-68-807 (0-5)		1155									
9		2696V-68-807 (5-10)		1200									
10		2696V-68-807 (10-15)		1205									



500-136990 COC

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>TERRACON</u> Date <u>11/8/17</u> Time <u>1600</u>	Received By <u>M. New</u> Company <u>TA</u> Date <u>11/8/17</u> Time <u>1600</u>	Lab Courier <u>TA</u>
Relinquished By <u>M. New</u> Company <u>TA</u> Date <u>11/8/17</u> Time <u>1630</u>	Received By <u>[Signature]</u> Company <u>TACM</u> Date <u>11/8/17</u> Time <u>1630</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
* No AL in TAL Analysis
* Hold SPLP, pending approval

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) MATT WEISS
 Contact: TERRACON
 Company: ISS AMBASSADOR
 Address: NAPERVILLE IL
 Address: 630-445-0160
 Phone: 630-445-0160
 Fax: 630-445-0160
 E-Mail: matt.weiss@terracon.com

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

Chain of Custody Record

Lab Job #: SCD-136990
 Chain of Custody Number: _____
 Page 2 of 2
 Temperature °C of Cooler: 20, 2.1

Client		Client Project #		Preservative		Parameter		Comments							
<u>TERRACON EST</u> <u>1177029M</u>		<u>1177029M</u>													
Project Name				Project Location/State		Lab Project #									
<u>WORK ORDER #37</u>				<u>MARKHAM IL</u>											
Sampler				Lab PM											
<u>KYAN J PETERSEN</u>															
Lab ID	MS/MSD	Sample ID	Sampling		# of Containers	Matrix	Parameter								
			Date	Time											
							<u>VOCS</u>	<u>SIXCS</u>	<u>TOTAL TAL23</u>	<u>Inorganics</u>	<u>PH</u>	<u>TCLP TAL23</u>	<u>Inorganics</u>	<u>SPLP TAL23</u>	<u>Inorganics</u>
<u>11</u>		<u>2696V-68-B07 (15-21)</u>	<u>11/8</u>	<u>1210</u>	<u>5</u>	<u>S</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	
<u>12</u>		<u>2696V-68-B08 (0-5)</u>	<u>↓</u>	<u>1320</u>	<u>↓</u>	<u>↓</u>	<u>↓</u>	<u>↓</u>	<u>↓</u>	<u>↓</u>	<u>↓</u>	<u>↓</u>	<u>↓</u>	<u>↓</u>	
<u>13</u>		<u>2696V-68-B09 (0-5)</u>	<u>↓</u>	<u>1330</u>	<u>↓</u>	<u>↓</u>	<u>↓</u>	<u>↓</u>	<u>↓</u>	<u>↓</u>	<u>↓</u>	<u>↓</u>	<u>↓</u>	<u>↓</u>	

- Preservative Key
1. HCL, Cool to 4°
 2. H2SO4, Cool to 4°
 3. HNO3, Cool to 4°
 4. NaOH, Cool to 4°
 5. NaOH/Zn, Cool to 4°
 6. NaHSO4
 7. Cool to 4°
 8. None
 9. Other

Turnaround Time Required (Business Days)
 ___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days ___ 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>TERRACON</u>	Date <u>11/8/17</u>	Time <u>1600</u>	Received By <u>J. Neal</u>	Company <u>TA</u>	Date <u>11/8/17</u>	Time <u>1600</u>
Relinquished By <u>J. Neal</u>	Company <u>TA</u>	Date <u>11/8/17</u>	Time <u>1630</u>	Received By <u>Ariel Sanchez</u>	Company <u>TA/MTI</u>	Date <u>11/8/17</u>	Time <u>1630</u>
Relinquished By	Company	Date	Time	Received By	Company	Date	Time

Lab Courier: TA
 Shipped: _____
 Hand Delivered: _____

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

Client Comments

No AL in TAL Analysis
Hold SPLP, pending approval

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: MATT WEISS _____ Contact: _____
 Company: TERRACON _____ Company: _____
 Address: 135 AMBASSADOR _____ Address: _____
 Address: NAPERVILLE IL _____ Address: _____
 Phone: _____ Phone: _____
 Fax: _____ Fax: _____
 E-Mail: matt.weiss@terracon.com PO#/Reference# _____

Chain of Custody Record

Lab Job #: 50073109910
 Chain of Custody Number: _____
 Page _____ of _____
 Temperature °C of Cooler: 20.21

Client		Client Project #		Preservative		Parameter		Matrix		Comments	
TERRACON		1177029M								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	
WORK ORDER #37				Date Time		Matrix					
Project Location/State		Lab PM		Date		Time		Matrix		Comments	
MARKHAM IL		RYAN J PETERSON		11/8		1220		7 W		VOCs	
Sampler		Lab PM		Date		Time		Matrix		Comments	
RYAN J PETERSON				-		-		2 W		SUCs	
14	MS/MSD	Sample ID		Date	Time	# of Containers	Matrix				
		2696V-68-901		11/8	1220	7	W	X	X		
15		TRIP BLANK		-	-	2	W	X			
TOTAL 23 Inorganic											

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: TERRACON Date: 11/8/17 Time: 1600	Received By: <u>P. Neal</u> Company: TA Date: 11/8/17 Time: 1600
Relinquished By: <u>P. Neal</u> Company: TA Date: 11/8/17 Time: 1630	Received By: <u>Deirdre Sandry</u> Company: TACHE Date: 11/8/17 Time: 1630

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: - No AL in TAL Analysis

Lab Comments: _____

Login Sample Receipt Checklist

Client: Terracon Consulting Eng & Scientists

Job Number: 500-136990-1

Login Number: 136990

List Source: TestAmerica Chicago

List Number: 1

Creator: Sanchez, Ariel M

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.0, 2.1
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 (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



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 351-US Rte 6 at Pulaski/Crawford & Kedzie Office Phone Number, if available: _____

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

Crawford Ave (Southbound) IDOT STA 56+90 to 60+40 (ISGS Site 2696V-69)

City: Oak Forest/Markham State: IL Zip Code: 60428

County: Cook Township: Bremen

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

Latitude: 41.60367 Longitude: -87.71682
(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: 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 Phone: 847-705-4122

Zip Code: 60196 Phone: 847-705-4122

Contact: Paul Nickles

Contact: Paul Nickles

Email, if available: paul.nickles@illinois.gov

Email, if available: paul.nickles@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 351-US Rte 6 at Pulaski/Crawford & Kedzie

Latitude: 41.60367 Longitude: -87.71682

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):

Soil from borings B01, B02, and B03, were sampled adjacent to ISGS Site No 2696V-69. See Exhibits 4, 4B, 4C, and Table 99 of the Preliminary Site Investigation Report prepared by Terracon.

- 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]:

TestAmerica Lab Report No J136991-1
Also see Preliminary Site Investigation Report prepared by Terracon. CCDD/USFO facility in MSA County.

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

I, Matt Weiss (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: Terracon Consultants, Inc
 Street Address: 135 Ambassador Drive
 City: Naperville State: IL Zip Code: 60540
 Phone: 630-717-4263

Matt Weiss

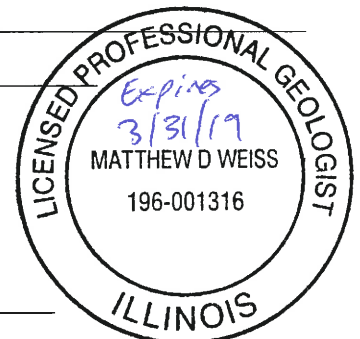
Printed Name:

[Signature]

Licensed Professional Engineer or
Licensed Professional Geologist Signature:

7/24/18

Date:



Detected Constituents to MACs-PTB 174-009;Work Order:037A
Preliminary Site Investigation
FAP 351-US Rte 6 at S. Pulaski/Crawford + Kedzie (PESA #2696V-69)
Oak Forest/Markham, Cook County, IL
Terracon Project No. 11177029M
Page 1 of 4

Analyte	Units	Background		Maximum Allowed Concentration	Sample Identification	2696V-69-B01 (0-6)	2696V-69-B02 (0-6)
				CCDD	Sample Depth (feet)	(0-6)	(0-6)
		Chicago	MSAs	mg/kg pH 6.25-9.0	Date Collected	11/08/2017	11/08/2017
Semivolatile Organic Analytical Parameters							
Acenaphthene	mg/kg	0.09	0.13	570		<0.039	<0.039
Acenaphthylene	mg/kg	0.03	0.07	85		<0.039	<0.039
Anthracene	mg/kg	0.25	0.4	12000		<0.039	<0.039
Benzo(a)anthracene	mg/kg	1.1	1.8	0.9		0.016	0.019
Benzo(a)pyrene	mg/kg	1.3	2.1	0.09		0.054	0.052
Benzo(b)fluoranthene	mg/kg	1.5	2.1	0.9		0.062	0.061
Benzo(g,h,i)perylene	mg/kg	0.68	1.7	2300		0.053	0.048
Benzo(k)fluoranthene	mg/kg	0.99	1.7	9		<0.039	<0.039
Chrysene	mg/kg	1.2	2.7	88		0.022	0.022
Dibenzo(a,h)anthracene	mg/kg	0.2	0.42	0.09		0.042	<0.039
Fluoranthene	mg/kg	2.7	4.1	3100		0.033	0.035
Fluorene	mg/kg	0.1	0.18	560		<0.039	<0.039
Indeno(1,2,3-c,d)pyrene	mg/kg	0.86	1.6	0.9		0.05	0.045
Naphthalene	mg/kg	0.04	0.2	1.8		<0.039	0.007
Phenanthrene	mg/kg	1.3	2.5	210		0.012	0.03
Pyrene	mg/kg	1.9	3.0	2300		0.025	0.025
2-Methylnaphthalene	mg/kg	---	0.14	---		<0.079	0.011
Inorganic Analytical Parameters							
Arsenic	mg/kg	---	13	11.3		7.5	6.8
Barium	mg/kg	---	110	1500		80	81
Cadmium	mg/kg	---	0.6	5.2		0.16	0.24
Chromium, total	mg/kg	---	16.2	21		21	17
Lead	mg/kg	---	36	107		33	34
Mercury	mg/kg	---	0.06	0.1		0.028	0.044
Selenium	mg/kg	---	0.48	1.3		0.33	0.48
Silver	mg/kg	---	0.55	4.4		<0.27	<0.31
Antimony	mg/kg	---	4.0	5		0.34	<1.2
Beryllium	mg/kg	---	0.59	22		0.83	0.67
Calcium	mg/kg	---	9,300	---		11000	15000
Cobalt	mg/kg	---	8.9	20		18	11
Copper	mg/kg	---	19.6	2900		21	22
Cyanide	mg/kg	---	0.51	---		<0.57	<0.54
Iron	mg/kg	---	15,900	15000		23000	18000
Magnesium	mg/kg	---	4,820	325000		9200	7900
Manganese	mg/kg	---	636	630		410	330
Nickel	mg/kg	---	18	100		38	24
Potassium	mg/kg	---	1,268	---		2100	1500
Sodium	mg/kg	---	130	---		130	100
Thallium	mg/kg	---	0.32	2.6		<0.55	<0.62
Vanadium	mg/kg	---	25.2	550		23	21
Zinc	mg/kg	---	95	5100		84	75
pH			6.25	9		8	8.3

Detected Constituents to MACs-PTB 174-009;Work Order:037A
Preliminary Site Investigation
FAP 351-US Rte 6 at S. Pulaski/Crawford + Kedzie (PESA #2696V-69)
Oak Forest/Markham, Cook County, IL
Terracon Project No. 11177029M
Page 2 of 4

Analyte	Units	Background		Maximum Allowed Concentration	Sample Identification	2696V-69-B01 (0-6)	2696V-69-B02 (0-6)
				CCDD	Sample Depth (feet)	(0-6)	(0-6)
		Chicago	MSAs	mg/kg pH 6.25-9.0	Date Collected	11/08/2017	11/08/2017
Inorganic Analytical Parameters (SPLP)							
Antimony,SPLP	mg/L	---	---	---		--	--
Arsenic,SPLP	mg/L	---	---	---		--	--
Barium,SPLP	mg/L	---	---	---		--	--
Beryllium,SPLP	mg/L	---	---	---		--	--
Cadmium,SPLP	mg/L	---	---	---		--	--
Calcium,SPLP	mg/L	---	---	---		--	--
Chromium,SPLP	mg/L	---	---	---		--	--
Cobalt,SPLP	mg/L	---	---	---		--	--
Copper,SPLP	mg/L	---	---	---		--	--
Iron,SPLP	mg/L	---	---	---		--	--
Lead,SPLP	mg/L	---	---	---		--	--
Magnesium,SPLP	mg/L	---	---	---		--	--
Manganese,SPLP	mg/L	---	---	---		0.088	--
Mercury,SPLP	mg/L	---	---	---		--	--
Nickel,SPLP	mg/L	---	---	---		--	--
Potassium,SPLP	mg/L	---	---	---		--	--
Selenium,SPLP	mg/L	---	---	---		--	--
Silver,SPLP	mg/L	---	---	---		--	--
Sodium,SPLP	mg/L	---	---	---		--	--
Thallium,SPLP	mg/L	---	---	---		--	--
Vanadium,SPLP	mg/L	---	---	---		--	--
Zinc,SPLP	mg/L	---	---	---		--	--
Cyanide,SPLP	mg/L	---	---	---		--	--
Inorganic Analytical Parameters (TCLP)							
Arsenic,TCLP	mg/L	---	---	---		<0.050	<0.050
Barium,TCLP	mg/L	---	---	---		0.43	0.26
Cadmium,TCLP	mg/L	---	---	---		0.002	<0.0050
Chromium,TCLP	mg/L	---	---	---		<0.025	<0.025
Lead,TCLP	mg/L	---	---	---		<0.0075	<0.0075
Mercury,TCLP	mg/L	---	---	---		<0.00020	<0.00020
Selenium,TCLP	mg/L	---	---	---		<0.050	<0.050
Silver,TCLP	mg/L	---	---	---		<0.025	<0.025
Antimony,TCLP	mg/L	---	---	---		<0.0060	<0.0060
Beryllium,TCLP	mg/L	---	---	---		<0.0040	<0.0040
Calcium,TCLP	mg/L	---	---	---		240	120
Cobalt,TCLP	mg/L	---	---	---		<0.025	<0.025
Copper,TCLP	mg/L	---	---	---		0.043	0.027
Cyanide,TCLP	mg/L	---	---	---		----	----
Iron,TCLP	mg/L	---	---	---		<0.40	0.25
Magnesium,TCLP	mg/L	---	---	---		110	36
Manganese,TCLP	mg/L	---	---	---		0.21	0.041
Nickel,TCLP	mg/L	---	---	---		<0.025	<0.025
Potassium,TCLP	mg/L	---	---	---		1.8	1.2
Sodium,TCLP	mg/L	---	---	---		----	----
Thallium,TCLP	mg/L	---	---	---		<0.0020	<0.0020
Vanadium,TCLP	mg/L	---	---	---		<0.025	<0.025
Zinc,TCLP	mg/L	---	---	---		0.079	0.048

Detected Constituents to MACs-PTB 174-009;Work Order:037A
Preliminary Site Investigation
FAP 351-US Rte 6 at S. Pulaski/Crawford + Kedzie (PESA #2696V-69)
Oak Forest/Markham, Cook County, IL
Terracon Project No. 11177029M
Page 3 of 4

Analyte	Units	Background		Maximum Allowed Concentration	Sample Identification	2696V-69-B03 (0-6)	2696V-69-B03 (0-6) Dup
				CCDD	Sample Depth (feet)	(0-6)	(0-6)
		Chicago	MSAs	mg/kg pH 6.25-9.0	Date Collected	11/08/2017	11/08/2017
Semivolatile Organic Analytical Parameters							
Acenaphthene	mg/kg	0.09	0.13	570		<0.040	0.036
Acenaphthylene	mg/kg	0.03	0.07	85		<0.040	0.017
Anthracene	mg/kg	0.25	0.4	12000		0.017	0.12
Benzo(a)anthracene	mg/kg	1.1	1.8	0.9		0.063	0.33
Benzo(a)pyrene	mg/kg	1.3	2.1	0.09		0.11	0.39
Benzo(b)fluoranthene	mg/kg	1.5	2.1	0.9		0.12	0.51
Benzo(g,h,i)perylene	mg/kg	0.68	1.7	2300		0.073	0.17
Benzo(k)fluoranthene	mg/kg	0.99	1.7	9		0.033	0.17
Chrysene	mg/kg	1.2	2.7	88		0.069	0.33
Dibenzo(a,h)anthracene	mg/kg	0.2	0.42	0.09		0.048	0.078
Fluoranthene	mg/kg	2.7	4.1	3100		0.13	0.75
Fluorene	mg/kg	0.1	0.18	560		<0.040	0.042
Indeno(1,2,3-c,d)pyrene	mg/kg	0.86	1.6	0.9		0.075	0.17
Naphthalene	mg/kg	0.04	0.2	1.8		<0.040	0.013
Phenanthrene	mg/kg	1.3	2.5	210		0.063	0.38
Pyrene	mg/kg	1.9	3.0	2300		0.091	0.54
2-Methylnaphthalene	mg/kg	---	0.14	---		<0.081	0.0094
Inorganic Analytical Parameters							
Arsenic	mg/kg	---	13	11.3		7.2	7.8
Barium	mg/kg	---	110	1500		86	100
Cadmium	mg/kg	---	0.6	5.2		0.53	0.58
Chromium, total	mg/kg	---	16.2	21		16	14
Lead	mg/kg	---	36	107		49	45
Mercury	mg/kg	---	0.06	0.1		0.026	0.04
Selenium	mg/kg	---	0.48	1.3		<0.61	0.37
Silver	mg/kg	---	0.55	4.4		<0.30	<0.30
Antimony	mg/kg	---	4.0	5		<1.2	0.29
Beryllium	mg/kg	---	0.59	22		0.68	0.61
Calcium	mg/kg	---	9,300	---		14000	11000
Cobalt	mg/kg	---	8.9	20		12	13
Copper	mg/kg	---	19.6	2900		20	20
Cyanide	mg/kg	---	0.51	---		<0.57	<0.59
Iron	mg/kg	---	15,900	15000		21000	17000
Magnesium	mg/kg	---	4,820	325000		7900	5900
Manganese	mg/kg	---	636	630		410	560
Nickel	mg/kg	---	18	100		25	24
Potassium	mg/kg	---	1,268	---		1400	1400
Sodium	mg/kg	---	130	---		96	93
Thallium	mg/kg	---	0.32	2.6		<0.61	<0.60
Vanadium	mg/kg	---	25.2	550		20	20
Zinc	mg/kg	---	95	5100		99	190
pH			6.25	9		8.2	8.1

Detected Constituents to MACs-PTB 174-009;Work Order:037A
 Preliminary Site Investigation
 FAP 351-US Rte 6 at S. Pulaski/Crawford + Kedzie (PESA #2696V-69)
 Oak Forest/Markham, Cook County, IL
 Terracon Project No. 11177029M
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Analyte	Units	Background		Maximum Allowed Concentration	Sample Identification	2696V-69-B03 (0-6)	2696V-69-B03 (0-6) Dup
				CCDD	Sample Depth (feet)	(0-6)	(0-6)
		Chicago	MSAs	mg/kg pH 6.25-9.0	Date Collected	11/08/2017	11/08/2017
Inorganic Analytical Parameters (SPLP)							
Antimony,SPLP	mg/L	---	---	---		--	--
Arsenic,SPLP	mg/L	---	---	---		--	--
Barium,SPLP	mg/L	---	---	---		--	--
Beryllium,SPLP	mg/L	---	---	---		--	--
Cadmium,SPLP	mg/L	---	---	---		--	--
Calcium,SPLP	mg/L	---	---	---		--	--
Chromium,SPLP	mg/L	---	---	---		--	--
Cobalt,SPLP	mg/L	---	---	---		--	--
Copper,SPLP	mg/L	---	---	---		--	--
Iron,SPLP	mg/L	---	---	---		--	--
Lead,SPLP	mg/L	---	---	---		--	--
Magnesium,SPLP	mg/L	---	---	---		--	--
Manganese,SPLP	mg/L	---	---	---		0.031	0.21
Mercury,SPLP	mg/L	---	---	---		--	--
Nickel,SPLP	mg/L	---	---	---		--	--
Potassium,SPLP	mg/L	---	---	---		--	--
Selenium,SPLP	mg/L	---	---	---		--	--
Silver,SPLP	mg/L	---	---	---		--	--
Sodium,SPLP	mg/L	---	---	---		--	--
Thallium,SPLP	mg/L	---	---	---		--	--
Vanadium,SPLP	mg/L	---	---	---		--	--
Zinc,SPLP	mg/L	---	---	---		--	--
Cyanide,SPLP	mg/L	---	---	---		--	--
Inorganic Analytical Parameters (TCLP)							
Arsenic,TCLP	mg/L	---	---	---		<0.050	<0.050
Barium,TCLP	mg/L	---	---	---		0.37	0.37
Cadmium,TCLP	mg/L	---	---	---		0.002	0.0021
Chromium,TCLP	mg/L	---	---	---		<0.025	<0.025
Lead,TCLP	mg/L	---	---	---		<0.0075	<0.0075
Mercury,TCLP	mg/L	---	---	---		<0.00020	<0.00020
Selenium,TCLP	mg/L	---	---	---		<0.050	<0.050
Silver,TCLP	mg/L	---	---	---		<0.025	<0.025
Antimony,TCLP	mg/L	---	---	---		<0.0060	<0.0060
Beryllium,TCLP	mg/L	---	---	---		<0.0040	<0.0040
Calcium,TCLP	mg/L	---	---	---		230	180
Cobalt,TCLP	mg/L	---	---	---		<0.025	<0.025
Copper,TCLP	mg/L	---	---	---		0.031	0.022
Cyanide,TCLP	mg/L	---	---	---		----	----
Iron,TCLP	mg/L	---	---	---		<0.40	<0.40
Magnesium,TCLP	mg/L	---	---	---		87	67
Manganese,TCLP	mg/L	---	---	---		0.3	0.23
Nickel,TCLP	mg/L	---	---	---		<0.025	<0.025
Potassium,TCLP	mg/L	---	---	---		1.4	1.5
Sodium,TCLP	mg/L	---	---	---		----	----
Thallium,TCLP	mg/L	---	---	---		<0.0020	<0.0020
Vanadium,TCLP	mg/L	---	---	---		<0.025	<0.025
Zinc,TCLP	mg/L	---	---	---		0.078	0.099

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: 500-136991-1

Client Project/Site: IDOT - Oak Forest/Markham - WO37

For:

Terracon Consulting Eng & Scientists

135 Ambassador Drive

Naperville, Illinois 60540

Attn: Mr. Matthew Weiss

Jodie Bracken

Authorized for release by:

11/20/2017 5:23:11 PM

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

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

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

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Case Narrative

Client: Terracon Consulting Eng & Scientists
Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136991-1

Job ID: 500-136991-1

Laboratory: TestAmerica Chicago

Narrative

Job Narrative 500-136991-1

Receipt

The samples were received on 11/8/2017 4:30 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 2.4° C and 2.9° C.

Receipt Exceptions

Received a sample identified as 2696V-69-B03 (0-6) that was not listed on the chain. Sample was added to the chain of custody by TestAmerica personnel and logged in for analysis.

GC/MS VOA

Method(s) 8260B: One surrogate recovery for the following sample was outside the upper control limit: 2696V-69-B03 (0-6) (500-136991-3). This sample did not contain any target analytes; therefore, re-extraction and/or re-analysis was not performed.

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

GC/MS Semi VOA

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

Metals

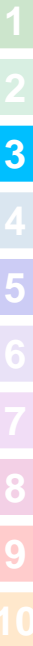
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

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: Terracon Consulting Eng & Scientists
Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136991-1

Client Sample ID: 2696V-69-B01 (0-6)

Lab Sample ID: 500-136991-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]anthracene	0.016	J	0.039	0.0053	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.054		0.039	0.0076	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.062		0.039	0.0085	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.053		0.039	0.013	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.022	J	0.039	0.011	mg/Kg	1	☼	8270D	Total/NA
Dibenz(a,h)anthracene	0.042		0.039	0.0076	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.033	J	0.039	0.0073	mg/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.050		0.039	0.010	mg/Kg	1	☼	8270D	Total/NA
Phenanthrene	0.012	J	0.039	0.0055	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.025	J	0.039	0.0078	mg/Kg	1	☼	8270D	Total/NA
Antimony	0.34	J	1.1	0.21	mg/Kg	1	☼	6010B	Total/NA
Arsenic	7.5		0.55	0.19	mg/Kg	1	☼	6010B	Total/NA
Barium	80		0.55	0.062	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.83		0.22	0.051	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.16	B	0.11	0.020	mg/Kg	1	☼	6010B	Total/NA
Chromium	21		0.55	0.27	mg/Kg	1	☼	6010B	Total/NA
Cobalt	18		0.27	0.071	mg/Kg	1	☼	6010B	Total/NA
Copper	21		0.55	0.15	mg/Kg	1	☼	6010B	Total/NA
Iron	23000		11	5.7	mg/Kg	1	☼	6010B	Total/NA
Lead	33		0.27	0.13	mg/Kg	1	☼	6010B	Total/NA
Magnesium	9200		5.5	2.7	mg/Kg	1	☼	6010B	Total/NA
Calcium	11000	B	11	1.8	mg/Kg	1	☼	6010B	Total/NA
Manganese	410		0.55	0.079	mg/Kg	1	☼	6010B	Total/NA
Nickel	38		0.55	0.16	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.33	J	0.55	0.32	mg/Kg	1	☼	6010B	Total/NA
Vanadium	23		0.27	0.064	mg/Kg	1	☼	6010B	Total/NA
Zinc	84		1.1	0.48	mg/Kg	1	☼	6010B	Total/NA
Potassium	2100		27	9.7	mg/Kg	1	☼	6010B	Total/NA
Sodium	130		55	8.1	mg/Kg	1	☼	6010B	Total/NA
Barium	0.43	J	0.50	0.050	mg/L	1		6010B	TCLP
Cadmium	0.0020	J	0.0050	0.0020	mg/L	1		6010B	TCLP
Calcium	240		5.0	0.50	mg/L	1		6010B	TCLP
Copper	0.043		0.025	0.010	mg/L	1		6010B	TCLP
Magnesium	110		2.5	0.50	mg/L	1		6010B	TCLP
Manganese	0.21		0.025	0.010	mg/L	1		6010B	TCLP
Potassium	1.8	J	2.5	0.50	mg/L	1		6010B	TCLP
Zinc	0.079	J	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.088		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.028		0.018	0.0058	mg/Kg	1	☼	7471B	Total/NA
pH	8.0		0.20	0.20	SU	1		9045D	Total/NA

Client Sample ID: 2696V-69-B02 (0-6)

Lab Sample ID: 500-136991-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]anthracene	0.019	J	0.039	0.0053	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.052		0.039	0.0077	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.061		0.039	0.0086	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.048		0.039	0.013	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.022	J	0.039	0.011	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.035	J	0.039	0.0074	mg/Kg	1	☼	8270D	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136991-1

Client Sample ID: 2696V-69-B02 (0-6) (Continued)

Lab Sample ID: 500-136991-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Indeno[1,2,3-cd]pyrene	0.045		0.039	0.010	mg/Kg	1	☼	8270D	Total/NA
2-Methylnaphthalene	0.011	J	0.080	0.0073	mg/Kg	1	☼	8270D	Total/NA
Naphthalene	0.0070	J	0.039	0.0061	mg/Kg	1	☼	8270D	Total/NA
Phenanthrene	0.030	J	0.039	0.0055	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.025	J	0.039	0.0079	mg/Kg	1	☼	8270D	Total/NA
Arsenic	6.8		0.62	0.21	mg/Kg	1	☼	6010B	Total/NA
Barium	81		0.62	0.071	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.67		0.25	0.058	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.24	B	0.12	0.022	mg/Kg	1	☼	6010B	Total/NA
Chromium	17		0.62	0.31	mg/Kg	1	☼	6010B	Total/NA
Cobalt	11		0.31	0.082	mg/Kg	1	☼	6010B	Total/NA
Copper	22		0.62	0.17	mg/Kg	1	☼	6010B	Total/NA
Iron	18000		12	6.5	mg/Kg	1	☼	6010B	Total/NA
Lead	34		0.31	0.14	mg/Kg	1	☼	6010B	Total/NA
Magnesium	7900		6.2	3.1	mg/Kg	1	☼	6010B	Total/NA
Calcium	15000	B	12	2.1	mg/Kg	1	☼	6010B	Total/NA
Manganese	330		0.62	0.090	mg/Kg	1	☼	6010B	Total/NA
Nickel	24		0.62	0.18	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.48	J	0.62	0.37	mg/Kg	1	☼	6010B	Total/NA
Vanadium	21		0.31	0.074	mg/Kg	1	☼	6010B	Total/NA
Zinc	75		1.2	0.55	mg/Kg	1	☼	6010B	Total/NA
Potassium	1500		31	11	mg/Kg	1	☼	6010B	Total/NA
Sodium	100		62	9.2	mg/Kg	1	☼	6010B	Total/NA
Barium	0.26	J	0.50	0.050	mg/L	1		6010B	TCLP
Calcium	120		5.0	0.50	mg/L	1		6010B	TCLP
Copper	0.027		0.025	0.010	mg/L	1		6010B	TCLP
Iron	0.25	J	0.40	0.20	mg/L	1		6010B	TCLP
Magnesium	36		2.5	0.50	mg/L	1		6010B	TCLP
Manganese	0.041		0.025	0.010	mg/L	1		6010B	TCLP
Potassium	1.2	J	2.5	0.50	mg/L	1		6010B	TCLP
Zinc	0.048	J	0.50	0.020	mg/L	1		6010B	TCLP
Mercury	0.044	F1	0.019	0.0065	mg/Kg	1	☼	7471B	Total/NA
pH	8.3		0.20	0.20	SU	1		9045D	Total/NA

Client Sample ID: 2696V-69-B03 (0-6)

Lab Sample ID: 500-136991-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Anthracene	0.017	J	0.040	0.0067	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.063		0.040	0.0054	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.11		0.040	0.0077	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.12		0.040	0.0086	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.073		0.040	0.013	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.033	J	0.040	0.012	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.069		0.040	0.011	mg/Kg	1	☼	8270D	Total/NA
Dibenz(a,h)anthracene	0.048		0.040	0.0077	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.13		0.040	0.0074	mg/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.075		0.040	0.010	mg/Kg	1	☼	8270D	Total/NA
Phenanthrene	0.063		0.040	0.0056	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.091		0.040	0.0079	mg/Kg	1	☼	8270D	Total/NA
Arsenic	7.2		0.61	0.21	mg/Kg	1	☼	6010B	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136991-1

Client Sample ID: 2696V-69-B03 (0-6) (Continued)

Lab Sample ID: 500-136991-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	86		0.61	0.070	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.68		0.24	0.057	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.53	B	0.12	0.022	mg/Kg	1	☼	6010B	Total/NA
Chromium	16		0.61	0.30	mg/Kg	1	☼	6010B	Total/NA
Cobalt	12		0.30	0.080	mg/Kg	1	☼	6010B	Total/NA
Copper	20		0.61	0.17	mg/Kg	1	☼	6010B	Total/NA
Iron	21000		12	6.3	mg/Kg	1	☼	6010B	Total/NA
Lead	49		0.30	0.14	mg/Kg	1	☼	6010B	Total/NA
Magnesium	7900		6.1	3.0	mg/Kg	1	☼	6010B	Total/NA
Calcium	14000	B	12	2.1	mg/Kg	1	☼	6010B	Total/NA
Manganese	410		0.61	0.088	mg/Kg	1	☼	6010B	Total/NA
Nickel	25		0.61	0.18	mg/Kg	1	☼	6010B	Total/NA
Vanadium	20		0.30	0.072	mg/Kg	1	☼	6010B	Total/NA
Zinc	99		1.2	0.54	mg/Kg	1	☼	6010B	Total/NA
Potassium	1400		30	11	mg/Kg	1	☼	6010B	Total/NA
Sodium	96		61	9.0	mg/Kg	1	☼	6010B	Total/NA
Barium	0.37	J	0.50	0.050	mg/L	1		6010B	TCLP
Cadmium	0.0020	J	0.0050	0.0020	mg/L	1		6010B	TCLP
Calcium	230		5.0	0.50	mg/L	1		6010B	TCLP
Copper	0.031		0.025	0.010	mg/L	1		6010B	TCLP
Magnesium	87		2.5	0.50	mg/L	1		6010B	TCLP
Manganese	0.30		0.025	0.010	mg/L	1		6010B	TCLP
Potassium	1.4	J	2.5	0.50	mg/L	1		6010B	TCLP
Zinc	0.078	J	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.031		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.026		0.019	0.0062	mg/Kg	1	☼	7471B	Total/NA
pH	8.2		0.20	0.20	SU	1		9045D	Total/NA

Client Sample ID: 2696V-69-B03 (0-6) Dup

Lab Sample ID: 500-136991-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acenaphthene	0.036	J	0.039	0.0070	mg/Kg	1	☼	8270D	Total/NA
Acenaphthylene	0.017	J	0.039	0.0052	mg/Kg	1	☼	8270D	Total/NA
Anthracene	0.12		0.039	0.0065	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.33		0.039	0.0053	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.39		0.039	0.0076	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.51		0.039	0.0085	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.17		0.039	0.013	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.17		0.039	0.012	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.33		0.039	0.011	mg/Kg	1	☼	8270D	Total/NA
Dibenz(a,h)anthracene	0.078		0.039	0.0076	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.75		0.039	0.0073	mg/Kg	1	☼	8270D	Total/NA
Fluorene	0.042		0.039	0.0055	mg/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.17		0.039	0.010	mg/Kg	1	☼	8270D	Total/NA
2-Methylnaphthalene	0.0094	J	0.079	0.0072	mg/Kg	1	☼	8270D	Total/NA
Naphthalene	0.013	J	0.039	0.0060	mg/Kg	1	☼	8270D	Total/NA
Phenanthrene	0.38		0.039	0.0055	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.54		0.039	0.0078	mg/Kg	1	☼	8270D	Total/NA
Antimony	0.29	J	1.2	0.23	mg/Kg	1	☼	6010B	Total/NA
Arsenic	7.8		0.60	0.20	mg/Kg	1	☼	6010B	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136991-1

Client Sample ID: 2696V-69-B03 (0-6) Dup (Continued)

Lab Sample ID: 500-136991-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Barium	100		0.60	0.068	mg/Kg	1		☼	6010B	Total/NA
Beryllium	0.61		0.24	0.056	mg/Kg	1		☼	6010B	Total/NA
Cadmium	0.58	B	0.12	0.022	mg/Kg	1		☼	6010B	Total/NA
Chromium	14		0.60	0.30	mg/Kg	1		☼	6010B	Total/NA
Cobalt	13		0.30	0.079	mg/Kg	1		☼	6010B	Total/NA
Copper	20		0.60	0.17	mg/Kg	1		☼	6010B	Total/NA
Iron	17000		12	6.2	mg/Kg	1		☼	6010B	Total/NA
Lead	45		0.30	0.14	mg/Kg	1		☼	6010B	Total/NA
Magnesium	5900		6.0	3.0	mg/Kg	1		☼	6010B	Total/NA
Calcium	11000	B	12	2.0	mg/Kg	1		☼	6010B	Total/NA
Manganese	560		0.60	0.087	mg/Kg	1		☼	6010B	Total/NA
Nickel	24		0.60	0.17	mg/Kg	1		☼	6010B	Total/NA
Selenium	0.37	J	0.60	0.35	mg/Kg	1		☼	6010B	Total/NA
Vanadium	20		0.30	0.071	mg/Kg	1		☼	6010B	Total/NA
Zinc	190		1.2	0.53	mg/Kg	1		☼	6010B	Total/NA
Potassium	1400		30	11	mg/Kg	1		☼	6010B	Total/NA
Sodium	93		60	8.9	mg/Kg	1		☼	6010B	Total/NA
Barium	0.37	J	0.50	0.050	mg/L	1			6010B	TCLP
Cadmium	0.0021	J	0.0050	0.0020	mg/L	1			6010B	TCLP
Calcium	180		5.0	0.50	mg/L	1			6010B	TCLP
Copper	0.022	J	0.025	0.010	mg/L	1			6010B	TCLP
Magnesium	67		2.5	0.50	mg/L	1			6010B	TCLP
Manganese	0.23		0.025	0.010	mg/L	1			6010B	TCLP
Potassium	1.5	J	2.5	0.50	mg/L	1			6010B	TCLP
Zinc	0.099	J	0.50	0.020	mg/L	1			6010B	TCLP
Manganese	0.21		0.025	0.010	mg/L	1			6010B	SPLP East
Mercury	0.040		0.018	0.0061	mg/Kg	1		☼	7471B	Total/NA
pH	8.1		0.20	0.20	SU	1			9045D	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Sample Summary

Client: Terracon Consulting Eng & Scientists
Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136991-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-136991-1	2696V-69-B01 (0-6)	Solid	11/08/17 14:40	11/08/17 16:30
500-136991-2	2696V-69-B02 (0-6)	Solid	11/08/17 14:10	11/08/17 16:30
500-136991-3	2696V-69-B03 (0-6)	Solid	11/08/17 13:50	11/08/17 16:30
500-136991-4	2696V-69-B03 (0-6) Dup	Solid	11/08/17 13:50	11/08/17 16:30

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Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136991-1

Client Sample ID: 2696V-69-B01 (0-6)

Lab Sample ID: 500-136991-1

Date Collected: 11/08/17 14:40

Matrix: Solid

Date Received: 11/08/17 16:30

Percent Solids: 83.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.017		0.017	0.0074	mg/Kg	☼	11/09/17 07:40	11/14/17 17:25	1
Benzene	<0.0017		0.0017	0.00043	mg/Kg	☼	11/09/17 07:40	11/14/17 17:25	1
Bromodichloromethane	<0.0017		0.0017	0.00034	mg/Kg	☼	11/09/17 07:40	11/14/17 17:25	1
Bromoform	<0.0017		0.0017	0.00049	mg/Kg	☼	11/09/17 07:40	11/14/17 17:25	1
Bromomethane	<0.0042		0.0042	0.0016	mg/Kg	☼	11/09/17 07:40	11/14/17 17:25	1
2-Butanone (MEK)	<0.0042		0.0042	0.0019	mg/Kg	☼	11/09/17 07:40	11/14/17 17:25	1
Carbon disulfide	<0.0042		0.0042	0.00088	mg/Kg	☼	11/09/17 07:40	11/14/17 17:25	1
Carbon tetrachloride	<0.0017		0.0017	0.00049	mg/Kg	☼	11/09/17 07:40	11/14/17 17:25	1
Chlorobenzene	<0.0017		0.0017	0.00063	mg/Kg	☼	11/09/17 07:40	11/14/17 17:25	1
Chloroethane	<0.0042		0.0042	0.0013	mg/Kg	☼	11/09/17 07:40	11/14/17 17:25	1
Chloroform	<0.0017		0.0017	0.00059	mg/Kg	☼	11/09/17 07:40	11/14/17 17:25	1
Chloromethane	<0.0042		0.0042	0.0017	mg/Kg	☼	11/09/17 07:40	11/14/17 17:25	1
cis-1,2-Dichloroethene	<0.0017		0.0017	0.00047	mg/Kg	☼	11/09/17 07:40	11/14/17 17:25	1
cis-1,3-Dichloropropene	<0.0017		0.0017	0.00051	mg/Kg	☼	11/09/17 07:40	11/14/17 17:25	1
Dibromochloromethane	<0.0017		0.0017	0.00055	mg/Kg	☼	11/09/17 07:40	11/14/17 17:25	1
1,1-Dichloroethane	<0.0017		0.0017	0.00058	mg/Kg	☼	11/09/17 07:40	11/14/17 17:25	1
1,2-Dichloroethane	<0.0042		0.0042	0.0013	mg/Kg	☼	11/09/17 07:40	11/14/17 17:25	1
1,1-Dichloroethene	<0.0017		0.0017	0.00058	mg/Kg	☼	11/09/17 07:40	11/14/17 17:25	1
1,2-Dichloropropane	<0.0017		0.0017	0.00044	mg/Kg	☼	11/09/17 07:40	11/14/17 17:25	1
1,3-Dichloropropane, Total	<0.0017		0.0017	0.00059	mg/Kg	☼	11/09/17 07:40	11/14/17 17:25	1
Ethylbenzene	<0.0017		0.0017	0.00081	mg/Kg	☼	11/09/17 07:40	11/14/17 17:25	1
2-Hexanone	<0.0042		0.0042	0.0013	mg/Kg	☼	11/09/17 07:40	11/14/17 17:25	1
Methylene Chloride	<0.0042		0.0042	0.0017	mg/Kg	☼	11/09/17 07:40	11/14/17 17:25	1
4-Methyl-2-pentanone (MIBK)	<0.0042		0.0042	0.0013	mg/Kg	☼	11/09/17 07:40	11/14/17 17:25	1
Methyl tert-butyl ether	<0.0017		0.0017	0.00050	mg/Kg	☼	11/09/17 07:40	11/14/17 17:25	1
Styrene	<0.0017		0.0017	0.00051	mg/Kg	☼	11/09/17 07:40	11/14/17 17:25	1
1,1,2,2-Tetrachloroethane	<0.0017		0.0017	0.00054	mg/Kg	☼	11/09/17 07:40	11/14/17 17:25	1
Tetrachloroethene	<0.0017		0.0017	0.00058	mg/Kg	☼	11/09/17 07:40	11/14/17 17:25	1
Toluene	<0.0017		0.0017	0.00043	mg/Kg	☼	11/09/17 07:40	11/14/17 17:25	1
trans-1,2-Dichloroethene	<0.0017		0.0017	0.00075	mg/Kg	☼	11/09/17 07:40	11/14/17 17:25	1
trans-1,3-Dichloropropene	<0.0017		0.0017	0.00059	mg/Kg	☼	11/09/17 07:40	11/14/17 17:25	1
1,1,1-Trichloroethane	<0.0017		0.0017	0.00057	mg/Kg	☼	11/09/17 07:40	11/14/17 17:25	1
1,1,2-Trichloroethane	<0.0017		0.0017	0.00073	mg/Kg	☼	11/09/17 07:40	11/14/17 17:25	1
Trichloroethene	<0.0017		0.0017	0.00057	mg/Kg	☼	11/09/17 07:40	11/14/17 17:25	1
Vinyl acetate	<0.0042		0.0042	0.0015	mg/Kg	☼	11/09/17 07:40	11/14/17 17:25	1
Vinyl chloride	<0.0017		0.0017	0.00075	mg/Kg	☼	11/09/17 07:40	11/14/17 17:25	1
Xylenes, Total	<0.0034		0.0034	0.00054	mg/Kg	☼	11/09/17 07:40	11/14/17 17:25	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	91		75 - 131	11/09/17 07:40	11/14/17 17:25	1
Dibromofluoromethane	89		75 - 126	11/09/17 07:40	11/14/17 17:25	1
1,2-Dichloroethane-d4 (Surr)	93		70 - 134	11/09/17 07:40	11/14/17 17:25	1
Toluene-d8 (Surr)	96		75 - 124	11/09/17 07:40	11/14/17 17:25	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.039		0.039	0.0071	mg/Kg	☼	11/15/17 08:50	11/16/17 12:57	1
Acenaphthylene	<0.039		0.039	0.0052	mg/Kg	☼	11/15/17 08:50	11/16/17 12:57	1
Anthracene	<0.039		0.039	0.0066	mg/Kg	☼	11/15/17 08:50	11/16/17 12:57	1
Benzo[a]anthracene	0.016	J	0.039	0.0053	mg/Kg	☼	11/15/17 08:50	11/16/17 12:57	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136991-1

Client Sample ID: 2696V-69-B01 (0-6)

Lab Sample ID: 500-136991-1

Date Collected: 11/08/17 14:40

Matrix: Solid

Date Received: 11/08/17 16:30

Percent Solids: 83.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	0.054		0.039	0.0076	mg/Kg	☼	11/15/17 08:50	11/16/17 12:57	1
Benzo[b]fluoranthene	0.062		0.039	0.0085	mg/Kg	☼	11/15/17 08:50	11/16/17 12:57	1
Benzo[g,h,i]perylene	0.053		0.039	0.013	mg/Kg	☼	11/15/17 08:50	11/16/17 12:57	1
Benzo[k]fluoranthene	<0.039		0.039	0.012	mg/Kg	☼	11/15/17 08:50	11/16/17 12:57	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.040	mg/Kg	☼	11/15/17 08:50	11/16/17 12:57	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.059	mg/Kg	☼	11/15/17 08:50	11/16/17 12:57	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.072	mg/Kg	☼	11/15/17 08:50	11/16/17 12:57	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.052	mg/Kg	☼	11/15/17 08:50	11/16/17 12:57	1
Butyl benzyl phthalate	<0.20		0.20	0.075	mg/Kg	☼	11/15/17 08:50	11/16/17 12:57	1
Carbazole	<0.20		0.20	0.098	mg/Kg	☼	11/15/17 08:50	11/16/17 12:57	1
4-Chloroaniline	<0.79		0.79	0.18	mg/Kg	☼	11/15/17 08:50	11/16/17 12:57	1
4-Chloro-3-methylphenol	<0.39		0.39	0.13	mg/Kg	☼	11/15/17 08:50	11/16/17 12:57	1
2-Chloronaphthalene	<0.20		0.20	0.043	mg/Kg	☼	11/15/17 08:50	11/16/17 12:57	1
2-Chlorophenol	<0.20		0.20	0.067	mg/Kg	☼	11/15/17 08:50	11/16/17 12:57	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.046	mg/Kg	☼	11/15/17 08:50	11/16/17 12:57	1
Chrysene	0.022	J	0.039	0.011	mg/Kg	☼	11/15/17 08:50	11/16/17 12:57	1
Dibenz(a,h)anthracene	0.042		0.039	0.0076	mg/Kg	☼	11/15/17 08:50	11/16/17 12:57	1
Dibenzofuran	<0.20		0.20	0.046	mg/Kg	☼	11/15/17 08:50	11/16/17 12:57	1
1,2-Dichlorobenzene	<0.20		0.20	0.047	mg/Kg	☼	11/15/17 08:50	11/16/17 12:57	1
1,3-Dichlorobenzene	<0.20		0.20	0.044	mg/Kg	☼	11/15/17 08:50	11/16/17 12:57	1
1,4-Dichlorobenzene	<0.20		0.20	0.050	mg/Kg	☼	11/15/17 08:50	11/16/17 12:57	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.055	mg/Kg	☼	11/15/17 08:50	11/16/17 12:57	1
2,4-Dichlorophenol	<0.39		0.39	0.093	mg/Kg	☼	11/15/17 08:50	11/16/17 12:57	1
Diethyl phthalate	<0.20		0.20	0.067	mg/Kg	☼	11/15/17 08:50	11/16/17 12:57	1
2,4-Dimethylphenol	<0.39		0.39	0.15	mg/Kg	☼	11/15/17 08:50	11/16/17 12:57	1
Dimethyl phthalate	<0.20		0.20	0.051	mg/Kg	☼	11/15/17 08:50	11/16/17 12:57	1
Di-n-butyl phthalate	<0.20		0.20	0.060	mg/Kg	☼	11/15/17 08:50	11/16/17 12:57	1
4,6-Dinitro-2-methylphenol	<0.79		0.79	0.32	mg/Kg	☼	11/15/17 08:50	11/16/17 12:57	1
2,4-Dinitrophenol	<0.79		0.79	0.69	mg/Kg	☼	11/15/17 08:50	11/16/17 12:57	1
2,4-Dinitrotoluene	<0.20		0.20	0.063	mg/Kg	☼	11/15/17 08:50	11/16/17 12:57	1
2,6-Dinitrotoluene	<0.20		0.20	0.077	mg/Kg	☼	11/15/17 08:50	11/16/17 12:57	1
Di-n-octyl phthalate	<0.20		0.20	0.064	mg/Kg	☼	11/15/17 08:50	11/16/17 12:57	1
Fluoranthene	0.033	J	0.039	0.0073	mg/Kg	☼	11/15/17 08:50	11/16/17 12:57	1
Fluorene	<0.039		0.039	0.0055	mg/Kg	☼	11/15/17 08:50	11/16/17 12:57	1
Hexachlorobenzene	<0.079		0.079	0.0091	mg/Kg	☼	11/15/17 08:50	11/16/17 12:57	1
Hexachlorobutadiene	<0.20		0.20	0.062	mg/Kg	☼	11/15/17 08:50	11/16/17 12:57	1
Hexachlorocyclopentadiene	<0.79		0.79	0.23	mg/Kg	☼	11/15/17 08:50	11/16/17 12:57	1
Hexachloroethane	<0.20		0.20	0.060	mg/Kg	☼	11/15/17 08:50	11/16/17 12:57	1
Indeno[1,2,3-cd]pyrene	0.050		0.039	0.010	mg/Kg	☼	11/15/17 08:50	11/16/17 12:57	1
Isophorone	<0.20		0.20	0.044	mg/Kg	☼	11/15/17 08:50	11/16/17 12:57	1
2-Methylnaphthalene	<0.079		0.079	0.0072	mg/Kg	☼	11/15/17 08:50	11/16/17 12:57	1
2-Methylphenol	<0.20		0.20	0.063	mg/Kg	☼	11/15/17 08:50	11/16/17 12:57	1
3 & 4 Methylphenol	<0.20		0.20	0.066	mg/Kg	☼	11/15/17 08:50	11/16/17 12:57	1
Naphthalene	<0.039		0.039	0.0061	mg/Kg	☼	11/15/17 08:50	11/16/17 12:57	1
2-Nitroaniline	<0.20		0.20	0.053	mg/Kg	☼	11/15/17 08:50	11/16/17 12:57	1
3-Nitroaniline	<0.39		0.39	0.12	mg/Kg	☼	11/15/17 08:50	11/16/17 12:57	1
4-Nitroaniline	<0.39		0.39	0.16	mg/Kg	☼	11/15/17 08:50	11/16/17 12:57	1
Nitrobenzene	<0.039		0.039	0.0098	mg/Kg	☼	11/15/17 08:50	11/16/17 12:57	1
2-Nitrophenol	<0.39		0.39	0.093	mg/Kg	☼	11/15/17 08:50	11/16/17 12:57	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136991-1

Client Sample ID: 2696V-69-B01 (0-6)

Lab Sample ID: 500-136991-1

Date Collected: 11/08/17 14:40

Matrix: Solid

Date Received: 11/08/17 16:30

Percent Solids: 83.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Nitrophenol	<0.79		0.79	0.37	mg/Kg	☼	11/15/17 08:50	11/16/17 12:57	1
N-Nitrosodi-n-propylamine	<0.079		0.079	0.048	mg/Kg	☼	11/15/17 08:50	11/16/17 12:57	1
N-Nitrosodiphenylamine	<0.20		0.20	0.046	mg/Kg	☼	11/15/17 08:50	11/16/17 12:57	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.046	mg/Kg	☼	11/15/17 08:50	11/16/17 12:57	1
Pentachlorophenol	<0.79		0.79	0.63	mg/Kg	☼	11/15/17 08:50	11/16/17 12:57	1
Phenanthrene	0.012	J	0.039	0.0055	mg/Kg	☼	11/15/17 08:50	11/16/17 12:57	1
Phenol	<0.20		0.20	0.087	mg/Kg	☼	11/15/17 08:50	11/16/17 12:57	1
Pyrene	0.025	J	0.039	0.0078	mg/Kg	☼	11/15/17 08:50	11/16/17 12:57	1
1,2,4-Trichlorobenzene	<0.20		0.20	0.042	mg/Kg	☼	11/15/17 08:50	11/16/17 12:57	1
2,4,5-Trichlorophenol	<0.39		0.39	0.090	mg/Kg	☼	11/15/17 08:50	11/16/17 12:57	1
2,4,6-Trichlorophenol	<0.39		0.39	0.13	mg/Kg	☼	11/15/17 08:50	11/16/17 12:57	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	90		44 - 121	11/15/17 08:50	11/16/17 12:57	1
2-Fluorophenol	105		46 - 133	11/15/17 08:50	11/16/17 12:57	1
Nitrobenzene-d5	93		41 - 120	11/15/17 08:50	11/16/17 12:57	1
Phenol-d5	104		46 - 125	11/15/17 08:50	11/16/17 12:57	1
Terphenyl-d14	86		35 - 160	11/15/17 08:50	11/16/17 12:57	1
2,4,6-Tribromophenol	64		25 - 139	11/15/17 08:50	11/16/17 12:57	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.34	J	1.1	0.21	mg/Kg	☼	11/10/17 17:37	11/11/17 19:06	1
Arsenic	7.5		0.55	0.19	mg/Kg	☼	11/10/17 17:37	11/11/17 19:06	1
Barium	80		0.55	0.062	mg/Kg	☼	11/10/17 17:37	11/11/17 19:06	1
Beryllium	0.83		0.22	0.051	mg/Kg	☼	11/10/17 17:37	11/11/17 19:06	1
Cadmium	0.16	B	0.11	0.020	mg/Kg	☼	11/10/17 17:37	11/11/17 19:06	1
Chromium	21		0.55	0.27	mg/Kg	☼	11/10/17 17:37	11/11/17 19:06	1
Cobalt	18		0.27	0.071	mg/Kg	☼	11/10/17 17:37	11/11/17 19:06	1
Copper	21		0.55	0.15	mg/Kg	☼	11/10/17 17:37	11/11/17 19:06	1
Iron	23000		11	5.7	mg/Kg	☼	11/10/17 17:37	11/11/17 19:06	1
Lead	33		0.27	0.13	mg/Kg	☼	11/10/17 17:37	11/11/17 19:06	1
Magnesium	9200		5.5	2.7	mg/Kg	☼	11/10/17 17:37	11/11/17 19:06	1
Calcium	11000	B	11	1.8	mg/Kg	☼	11/10/17 17:37	11/11/17 19:06	1
Manganese	410		0.55	0.079	mg/Kg	☼	11/10/17 17:37	11/11/17 19:06	1
Nickel	38		0.55	0.16	mg/Kg	☼	11/10/17 17:37	11/11/17 19:06	1
Selenium	0.33	J	0.55	0.32	mg/Kg	☼	11/10/17 17:37	11/11/17 19:06	1
Silver	<0.27		0.27	0.070	mg/Kg	☼	11/10/17 17:37	11/11/17 19:06	1
Thallium	<0.55		0.55	0.27	mg/Kg	☼	11/10/17 17:37	11/11/17 19:06	1
Vanadium	23		0.27	0.064	mg/Kg	☼	11/10/17 17:37	11/11/17 19:06	1
Zinc	84		1.1	0.48	mg/Kg	☼	11/10/17 17:37	11/11/17 19:06	1
Potassium	2100		27	9.7	mg/Kg	☼	11/10/17 17:37	11/11/17 19:06	1
Sodium	130		55	8.1	mg/Kg	☼	11/10/17 17:37	11/11/17 19:06	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.050		0.050	0.010	mg/L		11/14/17 08:55	11/14/17 15:30	1
Barium	0.43	J	0.50	0.050	mg/L		11/14/17 08:55	11/14/17 15:30	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		11/14/17 08:55	11/14/17 15:30	1
Cadmium	0.0020	J	0.0050	0.0020	mg/L		11/14/17 08:55	11/14/17 15:30	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136991-1

Client Sample ID: 2696V-69-B01 (0-6)

Lab Sample ID: 500-136991-1

Date Collected: 11/08/17 14:40

Matrix: Solid

Date Received: 11/08/17 16:30

Percent Solids: 83.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	240		5.0	0.50	mg/L		11/14/17 08:55	11/14/17 15:30	1
Chromium	<0.025		0.025	0.010	mg/L		11/14/17 08:55	11/14/17 15:30	1
Cobalt	<0.025		0.025	0.010	mg/L		11/14/17 08:55	11/14/17 15:30	1
Copper	0.043		0.025	0.010	mg/L		11/14/17 08:55	11/14/17 15:30	1
Iron	<0.40		0.40	0.20	mg/L		11/14/17 08:55	11/14/17 15:30	1
Lead	<0.0075		0.0075	0.0075	mg/L		11/14/17 08:55	11/14/17 15:30	1
Magnesium	110		2.5	0.50	mg/L		11/14/17 08:55	11/14/17 15:30	1
Manganese	0.21		0.025	0.010	mg/L		11/14/17 08:55	11/14/17 15:30	1
Nickel	<0.025		0.025	0.010	mg/L		11/14/17 08:55	11/14/17 15:30	1
Potassium	1.8 J		2.5	0.50	mg/L		11/14/17 08:55	11/14/17 15:30	1
Selenium	<0.050		0.050	0.020	mg/L		11/14/17 08:55	11/14/17 15:30	1
Silver	<0.025		0.025	0.010	mg/L		11/14/17 08:55	11/14/17 15:30	1
Vanadium	<0.025		0.025	0.010	mg/L		11/14/17 08:55	11/14/17 15:30	1
Zinc	0.079 J		0.50	0.020	mg/L		11/14/17 08:55	11/14/17 15:30	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.088		0.025	0.010	mg/L		11/14/17 14:25	11/15/17 19:44	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		11/14/17 08:55	11/15/17 13:01	1
Thallium	<0.0020		0.0020	0.0020	mg/L		11/14/17 08:55	11/15/17 13:01	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		11/14/17 15:15	11/16/17 13:06	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.028		0.018	0.0058	mg/Kg	☼	11/13/17 13:20	11/16/17 14:32	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.57		0.57	0.20	mg/Kg	☼	11/18/17 09:00	11/18/17 12:42	1
pH	8.0		0.20	0.20	SU			11/15/17 12:11	1

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136991-1

Client Sample ID: 2696V-69-B02 (0-6)

Lab Sample ID: 500-136991-2

Date Collected: 11/08/17 14:10

Matrix: Solid

Date Received: 11/08/17 16:30

Percent Solids: 79.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.021		0.021	0.0090	mg/Kg	☼	11/09/17 07:40	11/14/17 17:50	1
Benzene	<0.0021		0.0021	0.00052	mg/Kg	☼	11/09/17 07:40	11/14/17 17:50	1
Bromodichloromethane	<0.0021		0.0021	0.00042	mg/Kg	☼	11/09/17 07:40	11/14/17 17:50	1
Bromoform	<0.0021		0.0021	0.00060	mg/Kg	☼	11/09/17 07:40	11/14/17 17:50	1
Bromomethane	<0.0051		0.0051	0.0019	mg/Kg	☼	11/09/17 07:40	11/14/17 17:50	1
2-Butanone (MEK)	<0.0051		0.0051	0.0023	mg/Kg	☼	11/09/17 07:40	11/14/17 17:50	1
Carbon disulfide	<0.0051		0.0051	0.0011	mg/Kg	☼	11/09/17 07:40	11/14/17 17:50	1
Carbon tetrachloride	<0.0021		0.0021	0.00060	mg/Kg	☼	11/09/17 07:40	11/14/17 17:50	1
Chlorobenzene	<0.0021		0.0021	0.00076	mg/Kg	☼	11/09/17 07:40	11/14/17 17:50	1
Chloroethane	<0.0051		0.0051	0.0015	mg/Kg	☼	11/09/17 07:40	11/14/17 17:50	1
Chloroform	<0.0021		0.0021	0.00071	mg/Kg	☼	11/09/17 07:40	11/14/17 17:50	1
Chloromethane	<0.0051		0.0051	0.0021	mg/Kg	☼	11/09/17 07:40	11/14/17 17:50	1
cis-1,2-Dichloroethene	<0.0021		0.0021	0.00057	mg/Kg	☼	11/09/17 07:40	11/14/17 17:50	1
cis-1,3-Dichloropropene	<0.0021		0.0021	0.00062	mg/Kg	☼	11/09/17 07:40	11/14/17 17:50	1
Dibromochloromethane	<0.0021		0.0021	0.00067	mg/Kg	☼	11/09/17 07:40	11/14/17 17:50	1
1,1-Dichloroethane	<0.0021		0.0021	0.00070	mg/Kg	☼	11/09/17 07:40	11/14/17 17:50	1
1,2-Dichloroethane	<0.0051		0.0051	0.0016	mg/Kg	☼	11/09/17 07:40	11/14/17 17:50	1
1,1-Dichloroethene	<0.0021		0.0021	0.00071	mg/Kg	☼	11/09/17 07:40	11/14/17 17:50	1
1,2-Dichloropropane	<0.0021		0.0021	0.00053	mg/Kg	☼	11/09/17 07:40	11/14/17 17:50	1
1,3-Dichloropropene, Total	<0.0021		0.0021	0.00072	mg/Kg	☼	11/09/17 07:40	11/14/17 17:50	1
Ethylbenzene	<0.0021		0.0021	0.00098	mg/Kg	☼	11/09/17 07:40	11/14/17 17:50	1
2-Hexanone	<0.0051		0.0051	0.0016	mg/Kg	☼	11/09/17 07:40	11/14/17 17:50	1
Methylene Chloride	<0.0051		0.0051	0.0020	mg/Kg	☼	11/09/17 07:40	11/14/17 17:50	1
4-Methyl-2-pentanone (MIBK)	<0.0051		0.0051	0.0015	mg/Kg	☼	11/09/17 07:40	11/14/17 17:50	1
Methyl tert-butyl ether	<0.0021		0.0021	0.00060	mg/Kg	☼	11/09/17 07:40	11/14/17 17:50	1
Styrene	<0.0021		0.0021	0.00062	mg/Kg	☼	11/09/17 07:40	11/14/17 17:50	1
1,1,2,2-Tetrachloroethane	<0.0021		0.0021	0.00066	mg/Kg	☼	11/09/17 07:40	11/14/17 17:50	1
Tetrachloroethene	<0.0021		0.0021	0.00070	mg/Kg	☼	11/09/17 07:40	11/14/17 17:50	1
Toluene	<0.0021		0.0021	0.00052	mg/Kg	☼	11/09/17 07:40	11/14/17 17:50	1
trans-1,2-Dichloroethene	<0.0021		0.0021	0.00091	mg/Kg	☼	11/09/17 07:40	11/14/17 17:50	1
trans-1,3-Dichloropropene	<0.0021		0.0021	0.00072	mg/Kg	☼	11/09/17 07:40	11/14/17 17:50	1
1,1,1-Trichloroethane	<0.0021		0.0021	0.00069	mg/Kg	☼	11/09/17 07:40	11/14/17 17:50	1
1,1,2-Trichloroethane	<0.0021		0.0021	0.00088	mg/Kg	☼	11/09/17 07:40	11/14/17 17:50	1
Trichloroethene	<0.0021		0.0021	0.00070	mg/Kg	☼	11/09/17 07:40	11/14/17 17:50	1
Vinyl acetate	<0.0051		0.0051	0.0018	mg/Kg	☼	11/09/17 07:40	11/14/17 17:50	1
Vinyl chloride	<0.0021		0.0021	0.00091	mg/Kg	☼	11/09/17 07:40	11/14/17 17:50	1
Xylenes, Total	<0.0041		0.0041	0.00066	mg/Kg	☼	11/09/17 07:40	11/14/17 17:50	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	93		75 - 131	11/09/17 07:40	11/14/17 17:50	1
Dibromofluoromethane	93		75 - 126	11/09/17 07:40	11/14/17 17:50	1
1,2-Dichloroethane-d4 (Surr)	92		70 - 134	11/09/17 07:40	11/14/17 17:50	1
Toluene-d8 (Surr)	96		75 - 124	11/09/17 07:40	11/14/17 17:50	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.039		0.039	0.0071	mg/Kg	☼	11/15/17 08:50	11/16/17 13:25	1
Acenaphthylene	<0.039		0.039	0.0052	mg/Kg	☼	11/15/17 08:50	11/16/17 13:25	1
Anthracene	<0.039		0.039	0.0066	mg/Kg	☼	11/15/17 08:50	11/16/17 13:25	1
Benzo[a]anthracene	0.019	J	0.039	0.0053	mg/Kg	☼	11/15/17 08:50	11/16/17 13:25	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136991-1

Client Sample ID: 2696V-69-B02 (0-6)

Lab Sample ID: 500-136991-2

Date Collected: 11/08/17 14:10

Matrix: Solid

Date Received: 11/08/17 16:30

Percent Solids: 79.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	0.052		0.039	0.0077	mg/Kg	☼	11/15/17 08:50	11/16/17 13:25	1
Benzo[b]fluoranthene	0.061		0.039	0.0086	mg/Kg	☼	11/15/17 08:50	11/16/17 13:25	1
Benzo[g,h,i]perylene	0.048		0.039	0.013	mg/Kg	☼	11/15/17 08:50	11/16/17 13:25	1
Benzo[k]fluoranthene	<0.039		0.039	0.012	mg/Kg	☼	11/15/17 08:50	11/16/17 13:25	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.041	mg/Kg	☼	11/15/17 08:50	11/16/17 13:25	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.060	mg/Kg	☼	11/15/17 08:50	11/16/17 13:25	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.073	mg/Kg	☼	11/15/17 08:50	11/16/17 13:25	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.052	mg/Kg	☼	11/15/17 08:50	11/16/17 13:25	1
Butyl benzyl phthalate	<0.20		0.20	0.076	mg/Kg	☼	11/15/17 08:50	11/16/17 13:25	1
Carbazole	<0.20		0.20	0.099	mg/Kg	☼	11/15/17 08:50	11/16/17 13:25	1
4-Chloroaniline	<0.80		0.80	0.19	mg/Kg	☼	11/15/17 08:50	11/16/17 13:25	1
4-Chloro-3-methylphenol	<0.39		0.39	0.14	mg/Kg	☼	11/15/17 08:50	11/16/17 13:25	1
2-Chloronaphthalene	<0.20		0.20	0.044	mg/Kg	☼	11/15/17 08:50	11/16/17 13:25	1
2-Chlorophenol	<0.20		0.20	0.068	mg/Kg	☼	11/15/17 08:50	11/16/17 13:25	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.046	mg/Kg	☼	11/15/17 08:50	11/16/17 13:25	1
Chrysene	0.022 J		0.039	0.011	mg/Kg	☼	11/15/17 08:50	11/16/17 13:25	1
Dibenz(a,h)anthracene	<0.039		0.039	0.0077	mg/Kg	☼	11/15/17 08:50	11/16/17 13:25	1
Dibenzofuran	<0.20		0.20	0.047	mg/Kg	☼	11/15/17 08:50	11/16/17 13:25	1
1,2-Dichlorobenzene	<0.20		0.20	0.047	mg/Kg	☼	11/15/17 08:50	11/16/17 13:25	1
1,3-Dichlorobenzene	<0.20		0.20	0.045	mg/Kg	☼	11/15/17 08:50	11/16/17 13:25	1
1,4-Dichlorobenzene	<0.20		0.20	0.051	mg/Kg	☼	11/15/17 08:50	11/16/17 13:25	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.056	mg/Kg	☼	11/15/17 08:50	11/16/17 13:25	1
2,4-Dichlorophenol	<0.39		0.39	0.094	mg/Kg	☼	11/15/17 08:50	11/16/17 13:25	1
Diethyl phthalate	<0.20		0.20	0.067	mg/Kg	☼	11/15/17 08:50	11/16/17 13:25	1
2,4-Dimethylphenol	<0.39		0.39	0.15	mg/Kg	☼	11/15/17 08:50	11/16/17 13:25	1
Dimethyl phthalate	<0.20		0.20	0.052	mg/Kg	☼	11/15/17 08:50	11/16/17 13:25	1
Di-n-butyl phthalate	<0.20		0.20	0.061	mg/Kg	☼	11/15/17 08:50	11/16/17 13:25	1
4,6-Dinitro-2-methylphenol	<0.80		0.80	0.32	mg/Kg	☼	11/15/17 08:50	11/16/17 13:25	1
2,4-Dinitrophenol	<0.80		0.80	0.70	mg/Kg	☼	11/15/17 08:50	11/16/17 13:25	1
2,4-Dinitrotoluene	<0.20		0.20	0.063	mg/Kg	☼	11/15/17 08:50	11/16/17 13:25	1
2,6-Dinitrotoluene	<0.20		0.20	0.078	mg/Kg	☼	11/15/17 08:50	11/16/17 13:25	1
Di-n-octyl phthalate	<0.20		0.20	0.065	mg/Kg	☼	11/15/17 08:50	11/16/17 13:25	1
Fluoranthene	0.035 J		0.039	0.0074	mg/Kg	☼	11/15/17 08:50	11/16/17 13:25	1
Fluorene	<0.039		0.039	0.0056	mg/Kg	☼	11/15/17 08:50	11/16/17 13:25	1
Hexachlorobenzene	<0.080		0.080	0.0092	mg/Kg	☼	11/15/17 08:50	11/16/17 13:25	1
Hexachlorobutadiene	<0.20		0.20	0.062	mg/Kg	☼	11/15/17 08:50	11/16/17 13:25	1
Hexachlorocyclopentadiene	<0.80		0.80	0.23	mg/Kg	☼	11/15/17 08:50	11/16/17 13:25	1
Hexachloroethane	<0.20		0.20	0.060	mg/Kg	☼	11/15/17 08:50	11/16/17 13:25	1
Indeno[1,2,3-cd]pyrene	0.045		0.039	0.010	mg/Kg	☼	11/15/17 08:50	11/16/17 13:25	1
Isophorone	<0.20		0.20	0.045	mg/Kg	☼	11/15/17 08:50	11/16/17 13:25	1
2-Methylnaphthalene	0.011 J		0.080	0.0073	mg/Kg	☼	11/15/17 08:50	11/16/17 13:25	1
2-Methylphenol	<0.20		0.20	0.064	mg/Kg	☼	11/15/17 08:50	11/16/17 13:25	1
3 & 4 Methylphenol	<0.20		0.20	0.066	mg/Kg	☼	11/15/17 08:50	11/16/17 13:25	1
Naphthalene	0.0070 J		0.039	0.0061	mg/Kg	☼	11/15/17 08:50	11/16/17 13:25	1
2-Nitroaniline	<0.20		0.20	0.053	mg/Kg	☼	11/15/17 08:50	11/16/17 13:25	1
3-Nitroaniline	<0.39		0.39	0.12	mg/Kg	☼	11/15/17 08:50	11/16/17 13:25	1
4-Nitroaniline	<0.39		0.39	0.17	mg/Kg	☼	11/15/17 08:50	11/16/17 13:25	1
Nitrobenzene	<0.039		0.039	0.0099	mg/Kg	☼	11/15/17 08:50	11/16/17 13:25	1
2-Nitrophenol	<0.39		0.39	0.094	mg/Kg	☼	11/15/17 08:50	11/16/17 13:25	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136991-1

Client Sample ID: 2696V-69-B02 (0-6)

Lab Sample ID: 500-136991-2

Date Collected: 11/08/17 14:10

Matrix: Solid

Date Received: 11/08/17 16:30

Percent Solids: 79.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Nitrophenol	<0.80		0.80	0.38	mg/Kg	☼	11/15/17 08:50	11/16/17 13:25	1
N-Nitrosodi-n-propylamine	<0.080		0.080	0.049	mg/Kg	☼	11/15/17 08:50	11/16/17 13:25	1
N-Nitrosodiphenylamine	<0.20		0.20	0.047	mg/Kg	☼	11/15/17 08:50	11/16/17 13:25	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.046	mg/Kg	☼	11/15/17 08:50	11/16/17 13:25	1
Pentachlorophenol	<0.80		0.80	0.64	mg/Kg	☼	11/15/17 08:50	11/16/17 13:25	1
Phenanthrene	0.030	J	0.039	0.0055	mg/Kg	☼	11/15/17 08:50	11/16/17 13:25	1
Phenol	<0.20		0.20	0.088	mg/Kg	☼	11/15/17 08:50	11/16/17 13:25	1
Pyrene	0.025	J	0.039	0.0079	mg/Kg	☼	11/15/17 08:50	11/16/17 13:25	1
1,2,4-Trichlorobenzene	<0.20		0.20	0.043	mg/Kg	☼	11/15/17 08:50	11/16/17 13:25	1
2,4,5-Trichlorophenol	<0.39		0.39	0.091	mg/Kg	☼	11/15/17 08:50	11/16/17 13:25	1
2,4,6-Trichlorophenol	<0.39		0.39	0.14	mg/Kg	☼	11/15/17 08:50	11/16/17 13:25	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	86		44 - 121	11/15/17 08:50	11/16/17 13:25	1
2-Fluorophenol	98		46 - 133	11/15/17 08:50	11/16/17 13:25	1
Nitrobenzene-d5	88		41 - 120	11/15/17 08:50	11/16/17 13:25	1
Phenol-d5	94		46 - 125	11/15/17 08:50	11/16/17 13:25	1
Terphenyl-d14	77		35 - 160	11/15/17 08:50	11/16/17 13:25	1
2,4,6-Tribromophenol	73		25 - 139	11/15/17 08:50	11/16/17 13:25	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	☼	11/10/17 17:37	11/11/17 19:10	1
Arsenic	6.8		0.62	0.21	mg/Kg	☼	11/10/17 17:37	11/11/17 19:10	1
Barium	81		0.62	0.071	mg/Kg	☼	11/10/17 17:37	11/11/17 19:10	1
Beryllium	0.67		0.25	0.058	mg/Kg	☼	11/10/17 17:37	11/11/17 19:10	1
Cadmium	0.24	B	0.12	0.022	mg/Kg	☼	11/10/17 17:37	11/11/17 19:10	1
Chromium	17		0.62	0.31	mg/Kg	☼	11/10/17 17:37	11/11/17 19:10	1
Cobalt	11		0.31	0.082	mg/Kg	☼	11/10/17 17:37	11/11/17 19:10	1
Copper	22		0.62	0.17	mg/Kg	☼	11/10/17 17:37	11/11/17 19:10	1
Iron	18000		12	6.5	mg/Kg	☼	11/10/17 17:37	11/11/17 19:10	1
Lead	34		0.31	0.14	mg/Kg	☼	11/10/17 17:37	11/11/17 19:10	1
Magnesium	7900		6.2	3.1	mg/Kg	☼	11/10/17 17:37	11/11/17 19:10	1
Calcium	15000	B	12	2.1	mg/Kg	☼	11/10/17 17:37	11/11/17 19:10	1
Manganese	330		0.62	0.090	mg/Kg	☼	11/10/17 17:37	11/11/17 19:10	1
Nickel	24		0.62	0.18	mg/Kg	☼	11/10/17 17:37	11/11/17 19:10	1
Selenium	0.48	J	0.62	0.37	mg/Kg	☼	11/10/17 17:37	11/11/17 19:10	1
Silver	<0.31		0.31	0.080	mg/Kg	☼	11/10/17 17:37	11/11/17 19:10	1
Thallium	<0.62		0.62	0.31	mg/Kg	☼	11/10/17 17:37	11/11/17 19:10	1
Vanadium	21		0.31	0.074	mg/Kg	☼	11/10/17 17:37	11/11/17 19:10	1
Zinc	75		1.2	0.55	mg/Kg	☼	11/10/17 17:37	11/11/17 19:10	1
Potassium	1500		31	11	mg/Kg	☼	11/10/17 17:37	11/11/17 19:10	1
Sodium	100		62	9.2	mg/Kg	☼	11/10/17 17:37	11/11/17 19:10	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.050		0.050	0.010	mg/L		11/14/17 08:55	11/14/17 15:34	1
Barium	0.26	J	0.50	0.050	mg/L		11/14/17 08:55	11/14/17 15:34	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		11/14/17 08:55	11/14/17 15:34	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		11/14/17 08:55	11/14/17 15:34	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136991-1

Client Sample ID: 2696V-69-B02 (0-6)

Lab Sample ID: 500-136991-2

Date Collected: 11/08/17 14:10

Matrix: Solid

Date Received: 11/08/17 16:30

Percent Solids: 79.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	120		5.0	0.50	mg/L		11/14/17 08:55	11/14/17 15:34	1
Chromium	<0.025		0.025	0.010	mg/L		11/14/17 08:55	11/14/17 15:34	1
Cobalt	<0.025		0.025	0.010	mg/L		11/14/17 08:55	11/14/17 15:34	1
Copper	0.027		0.025	0.010	mg/L		11/14/17 08:55	11/14/17 15:34	1
Iron	0.25	J	0.40	0.20	mg/L		11/14/17 08:55	11/14/17 15:34	1
Lead	<0.0075		0.0075	0.0075	mg/L		11/14/17 08:55	11/14/17 15:34	1
Magnesium	36		2.5	0.50	mg/L		11/14/17 08:55	11/14/17 15:34	1
Manganese	0.041		0.025	0.010	mg/L		11/14/17 08:55	11/14/17 15:34	1
Nickel	<0.025		0.025	0.010	mg/L		11/14/17 08:55	11/14/17 15:34	1
Potassium	1.2	J	2.5	0.50	mg/L		11/14/17 08:55	11/14/17 15:34	1
Selenium	<0.050		0.050	0.020	mg/L		11/14/17 08:55	11/14/17 15:34	1
Silver	<0.025		0.025	0.010	mg/L		11/14/17 08:55	11/14/17 15:34	1
Vanadium	<0.025		0.025	0.010	mg/L		11/14/17 08:55	11/14/17 15:34	1
Zinc	0.048	J	0.50	0.020	mg/L		11/14/17 08:55	11/14/17 15:34	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		11/14/17 08:55	11/15/17 13:02	1
Thallium	<0.0020		0.0020	0.0020	mg/L		11/14/17 08:55	11/15/17 13:02	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		11/14/17 15:15	11/16/17 13:08	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.044	F1	0.019	0.0065	mg/Kg	☼	11/13/17 13:20	11/16/17 14:43	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.54		0.54	0.19	mg/Kg	☼	11/18/17 09:00	11/18/17 12:43	1
pH	8.3		0.20	0.20	SU			11/15/17 12:13	1

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136991-1

Client Sample ID: 2696V-69-B03 (0-6)

Lab Sample ID: 500-136991-3

Date Collected: 11/08/17 13:50

Matrix: Solid

Date Received: 11/08/17 16:30

Percent Solids: 81.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.020		0.020	0.0087	mg/Kg	☼	11/09/17 07:40	11/14/17 18:15	1
Benzene	<0.0020		0.0020	0.00051	mg/Kg	☼	11/09/17 07:40	11/14/17 18:15	1
Bromodichloromethane	<0.0020		0.0020	0.00040	mg/Kg	☼	11/09/17 07:40	11/14/17 18:15	1
Bromoform	<0.0020		0.0020	0.00058	mg/Kg	☼	11/09/17 07:40	11/14/17 18:15	1
Bromomethane	<0.0050		0.0050	0.0019	mg/Kg	☼	11/09/17 07:40	11/14/17 18:15	1
2-Butanone (MEK)	<0.0050		0.0050	0.0022	mg/Kg	☼	11/09/17 07:40	11/14/17 18:15	1
Carbon disulfide	<0.0050		0.0050	0.0010	mg/Kg	☼	11/09/17 07:40	11/14/17 18:15	1
Carbon tetrachloride	<0.0020		0.0020	0.00058	mg/Kg	☼	11/09/17 07:40	11/14/17 18:15	1
Chlorobenzene	<0.0020		0.0020	0.00073	mg/Kg	☼	11/09/17 07:40	11/14/17 18:15	1
Chloroethane	<0.0050		0.0050	0.0015	mg/Kg	☼	11/09/17 07:40	11/14/17 18:15	1
Chloroform	<0.0020		0.0020	0.00069	mg/Kg	☼	11/09/17 07:40	11/14/17 18:15	1
Chloromethane	<0.0050		0.0050	0.0020	mg/Kg	☼	11/09/17 07:40	11/14/17 18:15	1
cis-1,2-Dichloroethene	<0.0020		0.0020	0.00056	mg/Kg	☼	11/09/17 07:40	11/14/17 18:15	1
cis-1,3-Dichloropropene	<0.0020		0.0020	0.00060	mg/Kg	☼	11/09/17 07:40	11/14/17 18:15	1
Dibromochloromethane	<0.0020		0.0020	0.00065	mg/Kg	☼	11/09/17 07:40	11/14/17 18:15	1
1,1-Dichloroethane	<0.0020		0.0020	0.00068	mg/Kg	☼	11/09/17 07:40	11/14/17 18:15	1
1,2-Dichloroethane	<0.0050		0.0050	0.0015	mg/Kg	☼	11/09/17 07:40	11/14/17 18:15	1
1,1-Dichloroethene	<0.0020		0.0020	0.00068	mg/Kg	☼	11/09/17 07:40	11/14/17 18:15	1
1,2-Dichloropropane	<0.0020		0.0020	0.00051	mg/Kg	☼	11/09/17 07:40	11/14/17 18:15	1
1,3-Dichloropropene, Total	<0.0020		0.0020	0.00070	mg/Kg	☼	11/09/17 07:40	11/14/17 18:15	1
Ethylbenzene	<0.0020		0.0020	0.00095	mg/Kg	☼	11/09/17 07:40	11/14/17 18:15	1
2-Hexanone	<0.0050		0.0050	0.0015	mg/Kg	☼	11/09/17 07:40	11/14/17 18:15	1
Methylene Chloride	<0.0050		0.0050	0.0020	mg/Kg	☼	11/09/17 07:40	11/14/17 18:15	1
4-Methyl-2-pentanone (MIBK)	<0.0050		0.0050	0.0015	mg/Kg	☼	11/09/17 07:40	11/14/17 18:15	1
Methyl tert-butyl ether	<0.0020		0.0020	0.00058	mg/Kg	☼	11/09/17 07:40	11/14/17 18:15	1
Styrene	<0.0020		0.0020	0.00060	mg/Kg	☼	11/09/17 07:40	11/14/17 18:15	1
1,1,2,2-Tetrachloroethane	<0.0020		0.0020	0.00063	mg/Kg	☼	11/09/17 07:40	11/14/17 18:15	1
Tetrachloroethene	<0.0020		0.0020	0.00068	mg/Kg	☼	11/09/17 07:40	11/14/17 18:15	1
Toluene	<0.0020		0.0020	0.00050	mg/Kg	☼	11/09/17 07:40	11/14/17 18:15	1
trans-1,2-Dichloroethene	<0.0020		0.0020	0.00088	mg/Kg	☼	11/09/17 07:40	11/14/17 18:15	1
trans-1,3-Dichloropropene	<0.0020		0.0020	0.00070	mg/Kg	☼	11/09/17 07:40	11/14/17 18:15	1
1,1,1-Trichloroethane	<0.0020		0.0020	0.00067	mg/Kg	☼	11/09/17 07:40	11/14/17 18:15	1
1,1,2-Trichloroethane	<0.0020		0.0020	0.00085	mg/Kg	☼	11/09/17 07:40	11/14/17 18:15	1
Trichloroethene	<0.0020		0.0020	0.00067	mg/Kg	☼	11/09/17 07:40	11/14/17 18:15	1
Vinyl acetate	<0.0050		0.0050	0.0017	mg/Kg	☼	11/09/17 07:40	11/14/17 18:15	1
Vinyl chloride	<0.0020		0.0020	0.00088	mg/Kg	☼	11/09/17 07:40	11/14/17 18:15	1
Xylenes, Total	<0.0040		0.0040	0.00064	mg/Kg	☼	11/09/17 07:40	11/14/17 18:15	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	94		75 - 131	11/09/17 07:40	11/14/17 18:15	1
Dibromofluoromethane	147	X	75 - 126	11/09/17 07:40	11/14/17 18:15	1
1,2-Dichloroethane-d4 (Surr)	130		70 - 134	11/09/17 07:40	11/14/17 18:15	1
Toluene-d8 (Surr)	96		75 - 124	11/09/17 07:40	11/14/17 18:15	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.040		0.040	0.0072	mg/Kg	☼	11/15/17 08:50	11/16/17 13:52	1
Acenaphthylene	<0.040		0.040	0.0053	mg/Kg	☼	11/15/17 08:50	11/16/17 13:52	1
Anthracene	0.017	J	0.040	0.0067	mg/Kg	☼	11/15/17 08:50	11/16/17 13:52	1
Benzo[a]anthracene	0.063		0.040	0.0054	mg/Kg	☼	11/15/17 08:50	11/16/17 13:52	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136991-1

Client Sample ID: 2696V-69-B03 (0-6)

Lab Sample ID: 500-136991-3

Date Collected: 11/08/17 13:50

Matrix: Solid

Date Received: 11/08/17 16:30

Percent Solids: 81.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	0.11		0.040	0.0077	mg/Kg	☼	11/15/17 08:50	11/16/17 13:52	1
Benzo[b]fluoranthene	0.12		0.040	0.0086	mg/Kg	☼	11/15/17 08:50	11/16/17 13:52	1
Benzo[g,h,i]perylene	0.073		0.040	0.013	mg/Kg	☼	11/15/17 08:50	11/16/17 13:52	1
Benzo[k]fluoranthene	0.033	J	0.040	0.012	mg/Kg	☼	11/15/17 08:50	11/16/17 13:52	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.041	mg/Kg	☼	11/15/17 08:50	11/16/17 13:52	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.060	mg/Kg	☼	11/15/17 08:50	11/16/17 13:52	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.073	mg/Kg	☼	11/15/17 08:50	11/16/17 13:52	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.053	mg/Kg	☼	11/15/17 08:50	11/16/17 13:52	1
Butyl benzyl phthalate	<0.20		0.20	0.076	mg/Kg	☼	11/15/17 08:50	11/16/17 13:52	1
Carbazole	<0.20		0.20	0.10	mg/Kg	☼	11/15/17 08:50	11/16/17 13:52	1
4-Chloroaniline	<0.81		0.81	0.19	mg/Kg	☼	11/15/17 08:50	11/16/17 13:52	1
4-Chloro-3-methylphenol	<0.40		0.40	0.14	mg/Kg	☼	11/15/17 08:50	11/16/17 13:52	1
2-Chloronaphthalene	<0.20		0.20	0.044	mg/Kg	☼	11/15/17 08:50	11/16/17 13:52	1
2-Chlorophenol	<0.20		0.20	0.068	mg/Kg	☼	11/15/17 08:50	11/16/17 13:52	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.047	mg/Kg	☼	11/15/17 08:50	11/16/17 13:52	1
Chrysene	0.069		0.040	0.011	mg/Kg	☼	11/15/17 08:50	11/16/17 13:52	1
Dibenz(a,h)anthracene	0.048		0.040	0.0077	mg/Kg	☼	11/15/17 08:50	11/16/17 13:52	1
Dibenzofuran	<0.20		0.20	0.047	mg/Kg	☼	11/15/17 08:50	11/16/17 13:52	1
1,2-Dichlorobenzene	<0.20		0.20	0.048	mg/Kg	☼	11/15/17 08:50	11/16/17 13:52	1
1,3-Dichlorobenzene	<0.20		0.20	0.045	mg/Kg	☼	11/15/17 08:50	11/16/17 13:52	1
1,4-Dichlorobenzene	<0.20		0.20	0.051	mg/Kg	☼	11/15/17 08:50	11/16/17 13:52	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.056	mg/Kg	☼	11/15/17 08:50	11/16/17 13:52	1
2,4-Dichlorophenol	<0.40		0.40	0.095	mg/Kg	☼	11/15/17 08:50	11/16/17 13:52	1
Diethyl phthalate	<0.20		0.20	0.068	mg/Kg	☼	11/15/17 08:50	11/16/17 13:52	1
2,4-Dimethylphenol	<0.40		0.40	0.15	mg/Kg	☼	11/15/17 08:50	11/16/17 13:52	1
Dimethyl phthalate	<0.20		0.20	0.052	mg/Kg	☼	11/15/17 08:50	11/16/17 13:52	1
Di-n-butyl phthalate	<0.20		0.20	0.061	mg/Kg	☼	11/15/17 08:50	11/16/17 13:52	1
4,6-Dinitro-2-methylphenol	<0.81		0.81	0.32	mg/Kg	☼	11/15/17 08:50	11/16/17 13:52	1
2,4-Dinitrophenol	<0.81		0.81	0.70	mg/Kg	☼	11/15/17 08:50	11/16/17 13:52	1
2,4-Dinitrotoluene	<0.20		0.20	0.064	mg/Kg	☼	11/15/17 08:50	11/16/17 13:52	1
2,6-Dinitrotoluene	<0.20		0.20	0.079	mg/Kg	☼	11/15/17 08:50	11/16/17 13:52	1
Di-n-octyl phthalate	<0.20		0.20	0.065	mg/Kg	☼	11/15/17 08:50	11/16/17 13:52	1
Fluoranthene	0.13		0.040	0.0074	mg/Kg	☼	11/15/17 08:50	11/16/17 13:52	1
Fluorene	<0.040		0.040	0.0056	mg/Kg	☼	11/15/17 08:50	11/16/17 13:52	1
Hexachlorobenzene	<0.081		0.081	0.0093	mg/Kg	☼	11/15/17 08:50	11/16/17 13:52	1
Hexachlorobutadiene	<0.20		0.20	0.063	mg/Kg	☼	11/15/17 08:50	11/16/17 13:52	1
Hexachlorocyclopentadiene	<0.81		0.81	0.23	mg/Kg	☼	11/15/17 08:50	11/16/17 13:52	1
Hexachloroethane	<0.20		0.20	0.061	mg/Kg	☼	11/15/17 08:50	11/16/17 13:52	1
Indeno[1,2,3-cd]pyrene	0.075		0.040	0.010	mg/Kg	☼	11/15/17 08:50	11/16/17 13:52	1
Isophorone	<0.20		0.20	0.045	mg/Kg	☼	11/15/17 08:50	11/16/17 13:52	1
2-Methylnaphthalene	<0.081		0.081	0.0074	mg/Kg	☼	11/15/17 08:50	11/16/17 13:52	1
2-Methylphenol	<0.20		0.20	0.064	mg/Kg	☼	11/15/17 08:50	11/16/17 13:52	1
3 & 4 Methylphenol	<0.20		0.20	0.067	mg/Kg	☼	11/15/17 08:50	11/16/17 13:52	1
Naphthalene	<0.040		0.040	0.0061	mg/Kg	☼	11/15/17 08:50	11/16/17 13:52	1
2-Nitroaniline	<0.20		0.20	0.054	mg/Kg	☼	11/15/17 08:50	11/16/17 13:52	1
3-Nitroaniline	<0.40		0.40	0.12	mg/Kg	☼	11/15/17 08:50	11/16/17 13:52	1
4-Nitroaniline	<0.40		0.40	0.17	mg/Kg	☼	11/15/17 08:50	11/16/17 13:52	1
Nitrobenzene	<0.040		0.040	0.010	mg/Kg	☼	11/15/17 08:50	11/16/17 13:52	1
2-Nitrophenol	<0.40		0.40	0.094	mg/Kg	☼	11/15/17 08:50	11/16/17 13:52	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136991-1

Client Sample ID: 2696V-69-B03 (0-6)

Lab Sample ID: 500-136991-3

Date Collected: 11/08/17 13:50

Matrix: Solid

Date Received: 11/08/17 16:30

Percent Solids: 81.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Nitrophenol	<0.81		0.81	0.38	mg/Kg	☼	11/15/17 08:50	11/16/17 13:52	1
N-Nitrosodi-n-propylamine	<0.081		0.081	0.049	mg/Kg	☼	11/15/17 08:50	11/16/17 13:52	1
N-Nitrosodiphenylamine	<0.20		0.20	0.047	mg/Kg	☼	11/15/17 08:50	11/16/17 13:52	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.046	mg/Kg	☼	11/15/17 08:50	11/16/17 13:52	1
Pentachlorophenol	<0.81		0.81	0.64	mg/Kg	☼	11/15/17 08:50	11/16/17 13:52	1
Phenanthrene	0.063		0.040	0.0056	mg/Kg	☼	11/15/17 08:50	11/16/17 13:52	1
Phenol	<0.20		0.20	0.089	mg/Kg	☼	11/15/17 08:50	11/16/17 13:52	1
Pyrene	0.091		0.040	0.0079	mg/Kg	☼	11/15/17 08:50	11/16/17 13:52	1
1,2,4-Trichlorobenzene	<0.20		0.20	0.043	mg/Kg	☼	11/15/17 08:50	11/16/17 13:52	1
2,4,5-Trichlorophenol	<0.40		0.40	0.091	mg/Kg	☼	11/15/17 08:50	11/16/17 13:52	1
2,4,6-Trichlorophenol	<0.40		0.40	0.14	mg/Kg	☼	11/15/17 08:50	11/16/17 13:52	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	88		44 - 121	11/15/17 08:50	11/16/17 13:52	1
2-Fluorophenol	101		46 - 133	11/15/17 08:50	11/16/17 13:52	1
Nitrobenzene-d5	90		41 - 120	11/15/17 08:50	11/16/17 13:52	1
Phenol-d5	98		46 - 125	11/15/17 08:50	11/16/17 13:52	1
Terphenyl-d14	78		35 - 160	11/15/17 08:50	11/16/17 13:52	1
2,4,6-Tribromophenol	70		25 - 139	11/15/17 08:50	11/16/17 13:52	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	☼	11/10/17 17:37	11/11/17 19:14	1
Arsenic	7.2		0.61	0.21	mg/Kg	☼	11/10/17 17:37	11/11/17 19:14	1
Barium	86		0.61	0.070	mg/Kg	☼	11/10/17 17:37	11/11/17 19:14	1
Beryllium	0.68		0.24	0.057	mg/Kg	☼	11/10/17 17:37	11/11/17 19:14	1
Cadmium	0.53	B	0.12	0.022	mg/Kg	☼	11/10/17 17:37	11/11/17 19:14	1
Chromium	16		0.61	0.30	mg/Kg	☼	11/10/17 17:37	11/11/17 19:14	1
Cobalt	12		0.30	0.080	mg/Kg	☼	11/10/17 17:37	11/11/17 19:14	1
Copper	20		0.61	0.17	mg/Kg	☼	11/10/17 17:37	11/11/17 19:14	1
Iron	21000		12	6.3	mg/Kg	☼	11/10/17 17:37	11/11/17 19:14	1
Lead	49		0.30	0.14	mg/Kg	☼	11/10/17 17:37	11/11/17 19:14	1
Magnesium	7900		6.1	3.0	mg/Kg	☼	11/10/17 17:37	11/11/17 19:14	1
Calcium	14000	B	12	2.1	mg/Kg	☼	11/10/17 17:37	11/11/17 19:14	1
Manganese	410		0.61	0.088	mg/Kg	☼	11/10/17 17:37	11/11/17 19:14	1
Nickel	25		0.61	0.18	mg/Kg	☼	11/10/17 17:37	11/11/17 19:14	1
Selenium	<0.61		0.61	0.36	mg/Kg	☼	11/10/17 17:37	11/11/17 19:14	1
Silver	<0.30		0.30	0.079	mg/Kg	☼	11/10/17 17:37	11/11/17 19:14	1
Thallium	<0.61		0.61	0.30	mg/Kg	☼	11/10/17 17:37	11/11/17 19:14	1
Vanadium	20		0.30	0.072	mg/Kg	☼	11/10/17 17:37	11/11/17 19:14	1
Zinc	99		1.2	0.54	mg/Kg	☼	11/10/17 17:37	11/11/17 19:14	1
Potassium	1400		30	11	mg/Kg	☼	11/10/17 17:37	11/11/17 19:14	1
Sodium	96		61	9.0	mg/Kg	☼	11/10/17 17:37	11/11/17 19:14	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.050		0.050	0.010	mg/L		11/14/17 08:55	11/14/17 15:38	1
Barium	0.37	J	0.50	0.050	mg/L		11/14/17 08:55	11/14/17 15:38	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		11/14/17 08:55	11/14/17 15:38	1
Cadmium	0.0020	J	0.0050	0.0020	mg/L		11/14/17 08:55	11/14/17 15:38	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136991-1

Client Sample ID: 2696V-69-B03 (0-6)

Lab Sample ID: 500-136991-3

Date Collected: 11/08/17 13:50

Matrix: Solid

Date Received: 11/08/17 16:30

Percent Solids: 81.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	230		5.0	0.50	mg/L		11/14/17 08:55	11/14/17 15:38	1
Chromium	<0.025		0.025	0.010	mg/L		11/14/17 08:55	11/14/17 15:38	1
Cobalt	<0.025		0.025	0.010	mg/L		11/14/17 08:55	11/14/17 15:38	1
Copper	0.031		0.025	0.010	mg/L		11/14/17 08:55	11/14/17 15:38	1
Iron	<0.40		0.40	0.20	mg/L		11/14/17 08:55	11/14/17 15:38	1
Lead	<0.0075		0.0075	0.0075	mg/L		11/14/17 08:55	11/14/17 15:38	1
Magnesium	87		2.5	0.50	mg/L		11/14/17 08:55	11/14/17 15:38	1
Manganese	0.30		0.025	0.010	mg/L		11/14/17 08:55	11/14/17 15:38	1
Nickel	<0.025		0.025	0.010	mg/L		11/14/17 08:55	11/14/17 15:38	1
Potassium	1.4 J		2.5	0.50	mg/L		11/14/17 08:55	11/14/17 15:38	1
Selenium	<0.050		0.050	0.020	mg/L		11/14/17 08:55	11/14/17 15:38	1
Silver	<0.025		0.025	0.010	mg/L		11/14/17 08:55	11/14/17 15:38	1
Vanadium	<0.025		0.025	0.010	mg/L		11/14/17 08:55	11/14/17 15:38	1
Zinc	0.078 J		0.50	0.020	mg/L		11/14/17 08:55	11/14/17 15:38	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.031		0.025	0.010	mg/L		11/14/17 14:25	11/15/17 19:56	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		11/14/17 08:55	11/15/17 13:03	1
Thallium	<0.0020		0.0020	0.0020	mg/L		11/14/17 08:55	11/15/17 13:03	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		11/14/17 15:15	11/16/17 13:10	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.026		0.019	0.0062	mg/Kg	☼	11/13/17 13:20	11/16/17 14:52	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.57		0.57	0.20	mg/Kg	☼	11/18/17 09:00	11/18/17 12:43	1
pH	8.2		0.20	0.20	SU			11/15/17 12:16	1

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136991-1

Client Sample ID: 2696V-69-B03 (0-6) Dup

Lab Sample ID: 500-136991-4

Date Collected: 11/08/17 13:50

Matrix: Solid

Date Received: 11/08/17 16:30

Percent Solids: 80.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.021		0.021	0.0093	mg/Kg	☼	11/09/17 07:40	11/14/17 18:40	1
Benzene	<0.0021		0.0021	0.00054	mg/Kg	☼	11/09/17 07:40	11/14/17 18:40	1
Bromodichloromethane	<0.0021		0.0021	0.00043	mg/Kg	☼	11/09/17 07:40	11/14/17 18:40	1
Bromoform	<0.0021		0.0021	0.00062	mg/Kg	☼	11/09/17 07:40	11/14/17 18:40	1
Bromomethane	<0.0053		0.0053	0.0020	mg/Kg	☼	11/09/17 07:40	11/14/17 18:40	1
2-Butanone (MEK)	<0.0053		0.0053	0.0024	mg/Kg	☼	11/09/17 07:40	11/14/17 18:40	1
Carbon disulfide	<0.0053		0.0053	0.0011	mg/Kg	☼	11/09/17 07:40	11/14/17 18:40	1
Carbon tetrachloride	<0.0021		0.0021	0.00062	mg/Kg	☼	11/09/17 07:40	11/14/17 18:40	1
Chlorobenzene	<0.0021		0.0021	0.00078	mg/Kg	☼	11/09/17 07:40	11/14/17 18:40	1
Chloroethane	<0.0053		0.0053	0.0016	mg/Kg	☼	11/09/17 07:40	11/14/17 18:40	1
Chloroform	<0.0021		0.0021	0.00074	mg/Kg	☼	11/09/17 07:40	11/14/17 18:40	1
Chloromethane	<0.0053		0.0053	0.0021	mg/Kg	☼	11/09/17 07:40	11/14/17 18:40	1
cis-1,2-Dichloroethene	<0.0021		0.0021	0.00059	mg/Kg	☼	11/09/17 07:40	11/14/17 18:40	1
cis-1,3-Dichloropropene	<0.0021		0.0021	0.00064	mg/Kg	☼	11/09/17 07:40	11/14/17 18:40	1
Dibromochloromethane	<0.0021		0.0021	0.00070	mg/Kg	☼	11/09/17 07:40	11/14/17 18:40	1
1,1-Dichloroethane	<0.0021		0.0021	0.00073	mg/Kg	☼	11/09/17 07:40	11/14/17 18:40	1
1,2-Dichloroethane	<0.0053		0.0053	0.0017	mg/Kg	☼	11/09/17 07:40	11/14/17 18:40	1
1,1-Dichloroethene	<0.0021		0.0021	0.00073	mg/Kg	☼	11/09/17 07:40	11/14/17 18:40	1
1,2-Dichloropropane	<0.0021		0.0021	0.00055	mg/Kg	☼	11/09/17 07:40	11/14/17 18:40	1
1,3-Dichloropropane, Total	<0.0021		0.0021	0.00075	mg/Kg	☼	11/09/17 07:40	11/14/17 18:40	1
Ethylbenzene	<0.0021		0.0021	0.0010	mg/Kg	☼	11/09/17 07:40	11/14/17 18:40	1
2-Hexanone	<0.0053		0.0053	0.0017	mg/Kg	☼	11/09/17 07:40	11/14/17 18:40	1
Methylene Chloride	<0.0053		0.0053	0.0021	mg/Kg	☼	11/09/17 07:40	11/14/17 18:40	1
4-Methyl-2-pentanone (MIBK)	<0.0053		0.0053	0.0016	mg/Kg	☼	11/09/17 07:40	11/14/17 18:40	1
Methyl tert-butyl ether	<0.0021		0.0021	0.00062	mg/Kg	☼	11/09/17 07:40	11/14/17 18:40	1
Styrene	<0.0021		0.0021	0.00064	mg/Kg	☼	11/09/17 07:40	11/14/17 18:40	1
1,1,2,2-Tetrachloroethane	<0.0021		0.0021	0.00068	mg/Kg	☼	11/09/17 07:40	11/14/17 18:40	1
Tetrachloroethene	<0.0021		0.0021	0.00072	mg/Kg	☼	11/09/17 07:40	11/14/17 18:40	1
Toluene	<0.0021		0.0021	0.00054	mg/Kg	☼	11/09/17 07:40	11/14/17 18:40	1
trans-1,2-Dichloroethene	<0.0021		0.0021	0.00094	mg/Kg	☼	11/09/17 07:40	11/14/17 18:40	1
trans-1,3-Dichloropropene	<0.0021		0.0021	0.00075	mg/Kg	☼	11/09/17 07:40	11/14/17 18:40	1
1,1,1-Trichloroethane	<0.0021		0.0021	0.00071	mg/Kg	☼	11/09/17 07:40	11/14/17 18:40	1
1,1,2-Trichloroethane	<0.0021		0.0021	0.00091	mg/Kg	☼	11/09/17 07:40	11/14/17 18:40	1
Trichloroethene	<0.0021		0.0021	0.00072	mg/Kg	☼	11/09/17 07:40	11/14/17 18:40	1
Vinyl acetate	<0.0053		0.0053	0.0018	mg/Kg	☼	11/09/17 07:40	11/14/17 18:40	1
Vinyl chloride	<0.0021		0.0021	0.00094	mg/Kg	☼	11/09/17 07:40	11/14/17 18:40	1
Xylenes, Total	<0.0043		0.0043	0.00068	mg/Kg	☼	11/09/17 07:40	11/14/17 18:40	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	92		75 - 131	11/09/17 07:40	11/14/17 18:40	1
Dibromofluoromethane	93		75 - 126	11/09/17 07:40	11/14/17 18:40	1
1,2-Dichloroethane-d4 (Surr)	102		70 - 134	11/09/17 07:40	11/14/17 18:40	1
Toluene-d8 (Surr)	97		75 - 124	11/09/17 07:40	11/14/17 18:40	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.036	J	0.039	0.0070	mg/Kg	☼	11/15/17 08:50	11/16/17 18:27	1
Acenaphthylene	0.017	J	0.039	0.0052	mg/Kg	☼	11/15/17 08:50	11/16/17 18:27	1
Anthracene	0.12		0.039	0.0065	mg/Kg	☼	11/15/17 08:50	11/16/17 18:27	1
Benzo[a]anthracene	0.33		0.039	0.0053	mg/Kg	☼	11/15/17 08:50	11/16/17 18:27	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136991-1

Client Sample ID: 2696V-69-B03 (0-6) Dup

Lab Sample ID: 500-136991-4

Date Collected: 11/08/17 13:50

Matrix: Solid

Date Received: 11/08/17 16:30

Percent Solids: 80.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	0.39		0.039	0.0076	mg/Kg	☼	11/15/17 08:50	11/16/17 18:27	1
Benzo[b]fluoranthene	0.51		0.039	0.0085	mg/Kg	☼	11/15/17 08:50	11/16/17 18:27	1
Benzo[g,h,i]perylene	0.17		0.039	0.013	mg/Kg	☼	11/15/17 08:50	11/16/17 18:27	1
Benzo[k]fluoranthene	0.17		0.039	0.012	mg/Kg	☼	11/15/17 08:50	11/16/17 18:27	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.040	mg/Kg	☼	11/15/17 08:50	11/16/17 18:27	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.059	mg/Kg	☼	11/15/17 08:50	11/16/17 18:27	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.072	mg/Kg	☼	11/15/17 08:50	11/16/17 18:27	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.052	mg/Kg	☼	11/15/17 08:50	11/16/17 18:27	1
Butyl benzyl phthalate	<0.20		0.20	0.075	mg/Kg	☼	11/15/17 08:50	11/16/17 18:27	1
Carbazole	<0.20		0.20	0.098	mg/Kg	☼	11/15/17 08:50	11/16/17 18:27	1
4-Chloroaniline	<0.79		0.79	0.18	mg/Kg	☼	11/15/17 08:50	11/16/17 18:27	1
4-Chloro-3-methylphenol	<0.39		0.39	0.13	mg/Kg	☼	11/15/17 08:50	11/16/17 18:27	1
2-Chloronaphthalene	<0.20		0.20	0.043	mg/Kg	☼	11/15/17 08:50	11/16/17 18:27	1
2-Chlorophenol	<0.20		0.20	0.067	mg/Kg	☼	11/15/17 08:50	11/16/17 18:27	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.046	mg/Kg	☼	11/15/17 08:50	11/16/17 18:27	1
Chrysene	0.33		0.039	0.011	mg/Kg	☼	11/15/17 08:50	11/16/17 18:27	1
Dibenz(a,h)anthracene	0.078		0.039	0.0076	mg/Kg	☼	11/15/17 08:50	11/16/17 18:27	1
Dibenzofuran	<0.20		0.20	0.046	mg/Kg	☼	11/15/17 08:50	11/16/17 18:27	1
1,2-Dichlorobenzene	<0.20		0.20	0.047	mg/Kg	☼	11/15/17 08:50	11/16/17 18:27	1
1,3-Dichlorobenzene	<0.20		0.20	0.044	mg/Kg	☼	11/15/17 08:50	11/16/17 18:27	1
1,4-Dichlorobenzene	<0.20		0.20	0.050	mg/Kg	☼	11/15/17 08:50	11/16/17 18:27	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.055	mg/Kg	☼	11/15/17 08:50	11/16/17 18:27	1
2,4-Dichlorophenol	<0.39		0.39	0.093	mg/Kg	☼	11/15/17 08:50	11/16/17 18:27	1
Diethyl phthalate	<0.20		0.20	0.066	mg/Kg	☼	11/15/17 08:50	11/16/17 18:27	1
2,4-Dimethylphenol	<0.39		0.39	0.15	mg/Kg	☼	11/15/17 08:50	11/16/17 18:27	1
Dimethyl phthalate	<0.20		0.20	0.051	mg/Kg	☼	11/15/17 08:50	11/16/17 18:27	1
Di-n-butyl phthalate	<0.20		0.20	0.060	mg/Kg	☼	11/15/17 08:50	11/16/17 18:27	1
4,6-Dinitro-2-methylphenol	<0.79		0.79	0.31	mg/Kg	☼	11/15/17 08:50	11/16/17 18:27	1
2,4-Dinitrophenol	<0.79		0.79	0.69	mg/Kg	☼	11/15/17 08:50	11/16/17 18:27	1
2,4-Dinitrotoluene	<0.20		0.20	0.062	mg/Kg	☼	11/15/17 08:50	11/16/17 18:27	1
2,6-Dinitrotoluene	<0.20		0.20	0.077	mg/Kg	☼	11/15/17 08:50	11/16/17 18:27	1
Di-n-octyl phthalate	<0.20		0.20	0.064	mg/Kg	☼	11/15/17 08:50	11/16/17 18:27	1
Fluoranthene	0.75		0.039	0.0073	mg/Kg	☼	11/15/17 08:50	11/16/17 18:27	1
Fluorene	0.042		0.039	0.0055	mg/Kg	☼	11/15/17 08:50	11/16/17 18:27	1
Hexachlorobenzene	<0.079		0.079	0.0091	mg/Kg	☼	11/15/17 08:50	11/16/17 18:27	1
Hexachlorobutadiene	<0.20		0.20	0.062	mg/Kg	☼	11/15/17 08:50	11/16/17 18:27	1
Hexachlorocyclopentadiene	<0.79		0.79	0.23	mg/Kg	☼	11/15/17 08:50	11/16/17 18:27	1
Hexachloroethane	<0.20		0.20	0.060	mg/Kg	☼	11/15/17 08:50	11/16/17 18:27	1
Indeno[1,2,3-cd]pyrene	0.17		0.039	0.010	mg/Kg	☼	11/15/17 08:50	11/16/17 18:27	1
Isophorone	<0.20		0.20	0.044	mg/Kg	☼	11/15/17 08:50	11/16/17 18:27	1
2-Methylnaphthalene	0.0094	J	0.079	0.0072	mg/Kg	☼	11/15/17 08:50	11/16/17 18:27	1
2-Methylphenol	<0.20		0.20	0.063	mg/Kg	☼	11/15/17 08:50	11/16/17 18:27	1
3 & 4 Methylphenol	<0.20		0.20	0.065	mg/Kg	☼	11/15/17 08:50	11/16/17 18:27	1
Naphthalene	0.013	J	0.039	0.0060	mg/Kg	☼	11/15/17 08:50	11/16/17 18:27	1
2-Nitroaniline	<0.20		0.20	0.053	mg/Kg	☼	11/15/17 08:50	11/16/17 18:27	1
3-Nitroaniline	<0.39		0.39	0.12	mg/Kg	☼	11/15/17 08:50	11/16/17 18:27	1
4-Nitroaniline	<0.39		0.39	0.16	mg/Kg	☼	11/15/17 08:50	11/16/17 18:27	1
Nitrobenzene	<0.039		0.039	0.0098	mg/Kg	☼	11/15/17 08:50	11/16/17 18:27	1
2-Nitrophenol	<0.39		0.39	0.093	mg/Kg	☼	11/15/17 08:50	11/16/17 18:27	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136991-1

Client Sample ID: 2696V-69-B03 (0-6) Dup

Lab Sample ID: 500-136991-4

Date Collected: 11/08/17 13:50

Matrix: Solid

Date Received: 11/08/17 16:30

Percent Solids: 80.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Nitrophenol	<0.79		0.79	0.37	mg/Kg	☼	11/15/17 08:50	11/16/17 18:27	1
N-Nitrosodi-n-propylamine	<0.079		0.079	0.048	mg/Kg	☼	11/15/17 08:50	11/16/17 18:27	1
N-Nitrosodiphenylamine	<0.20		0.20	0.046	mg/Kg	☼	11/15/17 08:50	11/16/17 18:27	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.045	mg/Kg	☼	11/15/17 08:50	11/16/17 18:27	1
Pentachlorophenol	<0.79		0.79	0.63	mg/Kg	☼	11/15/17 08:50	11/16/17 18:27	1
Phenanthrene	0.38		0.039	0.0055	mg/Kg	☼	11/15/17 08:50	11/16/17 18:27	1
Phenol	<0.20		0.20	0.087	mg/Kg	☼	11/15/17 08:50	11/16/17 18:27	1
Pyrene	0.54		0.039	0.0078	mg/Kg	☼	11/15/17 08:50	11/16/17 18:27	1
1,2,4-Trichlorobenzene	<0.20		0.20	0.042	mg/Kg	☼	11/15/17 08:50	11/16/17 18:27	1
2,4,5-Trichlorophenol	<0.39		0.39	0.089	mg/Kg	☼	11/15/17 08:50	11/16/17 18:27	1
2,4,6-Trichlorophenol	<0.39		0.39	0.13	mg/Kg	☼	11/15/17 08:50	11/16/17 18:27	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	78		44 - 121	11/15/17 08:50	11/16/17 18:27	1
2-Fluorophenol	90		46 - 133	11/15/17 08:50	11/16/17 18:27	1
Nitrobenzene-d5	77		41 - 120	11/15/17 08:50	11/16/17 18:27	1
Phenol-d5	88		46 - 125	11/15/17 08:50	11/16/17 18:27	1
Terphenyl-d14	81		35 - 160	11/15/17 08:50	11/16/17 18:27	1
2,4,6-Tribromophenol	76		25 - 139	11/15/17 08:50	11/16/17 18:27	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.29	J	1.2	0.23	mg/Kg	☼	11/10/17 17:37	11/11/17 19:17	1
Arsenic	7.8		0.60	0.20	mg/Kg	☼	11/10/17 17:37	11/11/17 19:17	1
Barium	100		0.60	0.068	mg/Kg	☼	11/10/17 17:37	11/11/17 19:17	1
Beryllium	0.61		0.24	0.056	mg/Kg	☼	11/10/17 17:37	11/11/17 19:17	1
Cadmium	0.58	B	0.12	0.022	mg/Kg	☼	11/10/17 17:37	11/11/17 19:17	1
Chromium	14		0.60	0.30	mg/Kg	☼	11/10/17 17:37	11/11/17 19:17	1
Cobalt	13		0.30	0.079	mg/Kg	☼	11/10/17 17:37	11/11/17 19:17	1
Copper	20		0.60	0.17	mg/Kg	☼	11/10/17 17:37	11/11/17 19:17	1
Iron	17000		12	6.2	mg/Kg	☼	11/10/17 17:37	11/11/17 19:17	1
Lead	45		0.30	0.14	mg/Kg	☼	11/10/17 17:37	11/11/17 19:17	1
Magnesium	5900		6.0	3.0	mg/Kg	☼	11/10/17 17:37	11/11/17 19:17	1
Calcium	11000	B	12	2.0	mg/Kg	☼	11/10/17 17:37	11/11/17 19:17	1
Manganese	560		0.60	0.087	mg/Kg	☼	11/10/17 17:37	11/11/17 19:17	1
Nickel	24		0.60	0.17	mg/Kg	☼	11/10/17 17:37	11/11/17 19:17	1
Selenium	0.37	J	0.60	0.35	mg/Kg	☼	11/10/17 17:37	11/11/17 19:17	1
Silver	<0.30		0.30	0.077	mg/Kg	☼	11/10/17 17:37	11/11/17 19:17	1
Thallium	<0.60		0.60	0.30	mg/Kg	☼	11/10/17 17:37	11/11/17 19:17	1
Vanadium	20		0.30	0.071	mg/Kg	☼	11/10/17 17:37	11/11/17 19:17	1
Zinc	190		1.2	0.53	mg/Kg	☼	11/10/17 17:37	11/11/17 19:17	1
Potassium	1400		30	11	mg/Kg	☼	11/10/17 17:37	11/11/17 19:17	1
Sodium	93		60	8.9	mg/Kg	☼	11/10/17 17:37	11/11/17 19:17	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.050		0.050	0.010	mg/L		11/14/17 08:55	11/14/17 15:42	1
Barium	0.37	J	0.50	0.050	mg/L		11/14/17 08:55	11/14/17 15:42	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		11/14/17 08:55	11/14/17 15:42	1
Cadmium	0.0021	J	0.0050	0.0020	mg/L		11/14/17 08:55	11/14/17 15:42	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136991-1

Client Sample ID: 2696V-69-B03 (0-6) Dup

Lab Sample ID: 500-136991-4

Date Collected: 11/08/17 13:50

Matrix: Solid

Date Received: 11/08/17 16:30

Percent Solids: 80.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	180		5.0	0.50	mg/L		11/14/17 08:55	11/14/17 15:42	1
Chromium	<0.025		0.025	0.010	mg/L		11/14/17 08:55	11/14/17 15:42	1
Cobalt	<0.025		0.025	0.010	mg/L		11/14/17 08:55	11/14/17 15:42	1
Copper	0.022	J	0.025	0.010	mg/L		11/14/17 08:55	11/14/17 15:42	1
Iron	<0.40		0.40	0.20	mg/L		11/14/17 08:55	11/14/17 15:42	1
Lead	<0.0075		0.0075	0.0075	mg/L		11/14/17 08:55	11/14/17 15:42	1
Magnesium	67		2.5	0.50	mg/L		11/14/17 08:55	11/14/17 15:42	1
Manganese	0.23		0.025	0.010	mg/L		11/14/17 08:55	11/14/17 15:42	1
Nickel	<0.025		0.025	0.010	mg/L		11/14/17 08:55	11/14/17 15:42	1
Potassium	1.5	J	2.5	0.50	mg/L		11/14/17 08:55	11/14/17 15:42	1
Selenium	<0.050		0.050	0.020	mg/L		11/14/17 08:55	11/14/17 15:42	1
Silver	<0.025		0.025	0.010	mg/L		11/14/17 08:55	11/14/17 15:42	1
Vanadium	<0.025		0.025	0.010	mg/L		11/14/17 08:55	11/14/17 15:42	1
Zinc	0.099	J	0.50	0.020	mg/L		11/14/17 08:55	11/14/17 15:42	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.21		0.025	0.010	mg/L		11/14/17 14:25	11/15/17 20:00	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		11/14/17 08:55	11/15/17 13:04	1
Thallium	<0.0020		0.0020	0.0020	mg/L		11/14/17 08:55	11/15/17 13:04	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		11/14/17 15:15	11/16/17 13:11	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.040		0.018	0.0061	mg/Kg	☼	11/13/17 13:20	11/16/17 14:54	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.59		0.59	0.20	mg/Kg	☼	11/18/17 09:00	11/18/17 12:44	1
pH	8.1		0.20	0.20	SU			11/15/17 12:18	1

Definitions/Glossary

Client: Terracon Consulting Eng & Scientists
Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136991-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
X	Surrogate is outside control 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.

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.
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.

Glossary

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

Accreditation/Certification Summary

Client: Terracon Consulting Eng & Scientists
Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136991-1

Laboratory: TestAmerica Chicago

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

Authority	Program	EPA Region	Identification Number	Expiration Date
Illinois	NELAP	5	100201	04-30-18

The following analytes are included in this report, but accreditation/certification is not offered by the governing authority:

Analysis Method	Prep Method	Matrix	Analyte
6020A	3010A	Solid	Antimony
6020A	3010A	Solid	Thallium
8260B	5035	Solid	1,3-Dichloropropene, Total
9045D		Solid	pH
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids

THE LEADER IN ENVIRONMENTAL

2417 Bond Street, University Park, IL 604
Phone: 708.534.5200 Fax: 708.534.



500-136991 COC

Report To: (optional)
Contact: MATT WEISS
Company: TERRACON
Address: 135 AMBASSADOR
NAPERVILLE IL
Phone: _____
Fax: _____
E-Mail: matt.weiss@terracon.com

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

Chain of Custody Record

Lab Job #: 500-136991
Chain of Custody Number: _____
Page _____ of _____
Temperature °C of Cooler: 21.4/21.9

Client: <u>TERRACON</u>		Client Project # <u>1177029M</u>		Preservative		Parameter										Preservative Key	
Project Name <u>WORK ORDER #37</u>				Lab Project #												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 <u>MARKHAM IL</u>				Lab PM													
Sampler <u>KYAN J PETERSON</u>																	
Lab ID	MS/MSD	Sample ID	Sampling		# of Containers	Matrix	VOCs	SUBCS	PH	TOTAL TALZS	Inorg.	TCLP TALZS	Inorg.	SPLP TAL	2.3 Inorg.	Comments	
			Date	Time													
1		2696V-69-B01(0-6)	11/8	1440	5	S	X	X	X	X	X	X	X	X			
2		2696V-69-B02(0-6)	↓	1410	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓			
3		2696V-69-B03(0-6)	↓	1350	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓			
4		2696V-69-B03(0-6) Dup	↓	↓			X	X	X	X	X	X	X	X			Added by TP

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>TERRACON</u> Date: <u>11/8/17</u> Time: <u>1600</u>	Received By: <u>P. Neal</u> Company: <u>TA</u> Date: <u>11/8/17</u> Time: <u>1600</u>
Relinquished By: <u>P. Neal</u> Company: <u>TA</u> Date: <u>11/8/17</u> Time: <u>1630</u>	Received By: <u>[Signature]</u> Company: <u>TA</u> Date: <u>11/9/17</u> Time: <u>0715</u>

Lab Courier: TP
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:
No AL in TAL Analysis
Hold SPLP, Pending Approval

Lab Comments:

Login Sample Receipt Checklist

Client: Terracon Consulting Eng & Scientists

Job Number: 500-136991-1

Login Number: 136991

List Source: TestAmerica Chicago

List Number: 1

Creator: Scott, Sherri L

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.4,2.9
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	False	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	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 351-US Rte 6 at Pulaski/Crawford & Kedzie Office Phone Number, if available: _____

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

Crawford Ave (Southbound) IDOT STA 56+00 to 56+90 (ISGS Site 2696V-70)

City: Oak Forest/Markham State: IL Zip Code: 60428

County: Cook Township: Bremen

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

Latitude: 41.60367 Longitude: -87.71682
(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: 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 Phone: 847-705-4122

Zip Code: 60196 Phone: 847-705-4122

Contact: Paul Nickles

Contact: Paul Nickles

Email, if available: paul.nickles@illinois.gov

Email, if available: paul.nickles@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 351-US Rte 6 at Pulaski/Crawford & Kedzie

Latitude: 41.60367 Longitude: -87.71682

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)]:

Soil from boring B01 was sampled adjacent to ISGS Site No 2696V-70.
See Exhibits 4, 4C, and Table 101 of the Preliminary Site Investigation Report prepared by Terracon.

- 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]:

TestAmerica Lab Report No J136991-2
Also see Preliminary Site Investigation Report prepared by Terracon. CCDD/USFO facility in MSA County.

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

I, Matt Weiss (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: Terracon Consultants, Inc

Street Address: 135 Ambassador Drive

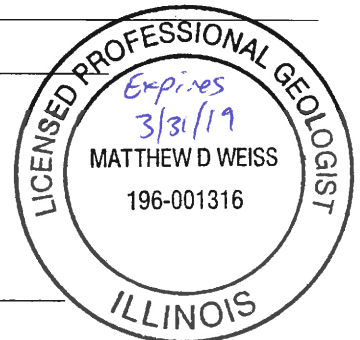
City: Naperville State: IL Zip Code: 60540

Phone: 630-717-4263

Matt Weiss
Printed Name:

[Signature]
Licensed Professional Engineer or
Licensed Professional Geologist Signature:

7/24/18
Date:



Detected Constituents to MACs-PTB 174-009;Work Order:037A
Preliminary Site Investigation
FAP 351-US Rte 6 at S. Pulaski/Crawford + Kedzie (PESA #2696V-70)
Oak Forest/Markham, Cook County, IL
Terracon Project No. 11177029M
Page 1 of 2

Analyte	Units	Background		Maximum Allowed Concentration	Sample Identification	2696V-70-B01 (0-5)
				CCDD	Sample Depth (feet)	(0-5)
		Chicago	MSAs	mg/kg pH 6.25-9.0	Date Collected	11/08/2017
Volatile Organic Analytical Parameters						
Acetone	mg/kg	---	---	25		0.025
Semivolatile Organic Analytical Parameters						
Benzo(a)anthracene	mg/kg	1.1	1.8	0.9		0.033
Benzo(a)pyrene	mg/kg	1.3	2.1	0.09		0.071
Benzo(b)fluoranthene	mg/kg	1.5	2.1	0.9		0.084
Benzo(g,h,i)perylene	mg/kg	0.68	1.7	2300		0.054
Benzo(k)fluoranthene	mg/kg	0.99	1.7	9		0.032
Chrysene	mg/kg	1.2	2.7	88		0.038
Dibenzo(a,h)anthracene	mg/kg	0.2	0.42	0.09		0.039
Fluoranthene	mg/kg	2.7	4.1	3100		0.068
Indeno(1,2,3-c,d)pyrene	mg/kg	0.86	1.6	0.9		0.05
Phenanthrene	mg/kg	1.3	2.5	210		0.02
Pyrene	mg/kg	1.9	3.0	2300		0.046
Inorganic Analytical Parameters						
Arsenic	mg/kg	---	13	11.3		2.7
Barium	mg/kg	---	110	1500		33
Cadmium	mg/kg	---	0.6	5.2		0.23
Chromium, total	mg/kg	---	16.2	21		10
Lead	mg/kg	---	36	107		45
Mercury	mg/kg	---	0.06	0.1		0.015
Selenium	mg/kg	---	0.48	1.3		<0.56
Silver	mg/kg	---	0.55	4.4		<0.28
Antimony	mg/kg	---	4.0	5		0.48
Beryllium	mg/kg	---	0.59	22		0.43
Calcium	mg/kg	---	9,300	---		180000
Cobalt	mg/kg	---	8.9	20		4
Copper	mg/kg	---	19.6	2900		11
Cyanide	mg/kg	---	0.51	---		<0.47
Iron	mg/kg	---	15,900	15000		8700
Magnesium	mg/kg	---	4,820	325000		110000
Manganese	mg/kg	---	636	630		180
Nickel	mg/kg	---	18	100		10
Potassium	mg/kg	---	1,268	---		1000
Sodium	mg/kg	---	130	---		300
Thallium	mg/kg	---	0.32	2.6		<0.56
Vanadium	mg/kg	---	25.2	550		9.6
Zinc	mg/kg	---	95	5100		49
pH			6.25	9		7.8

Detected Constituents to MACs-PTB 174-009;Work Order:037A
Preliminary Site Investigation
FAP 351-US Rte 6 at S. Pulaski/Crawford + Kedzie (PESA #2696V-70)
Oak Forest/Markham, Cook County, IL
Terracon Project No. 11177029M
Page 2 of 2

Analyte	Units	Background		Maximum Allowed Concentration	Sample Identification	2696V-70-B01 (0-5)
				CCDD	Sample Depth (feet)	(0-5)
		Chicago	MSAs	mg/kg pH 6.25-9.0	Date Collected	11/08/2017
Inorganic Analytical Parameters (SPLP)						
Antimony,SPLP	mg/L	---	---	---		--
Arsenic,SPLP	mg/L	---	---	---		--
Barium,SPLP	mg/L	---	---	---		--
Beryllium,SPLP	mg/L	---	---	---		--
Cadmium,SPLP	mg/L	---	---	---		--
Calcium,SPLP	mg/L	---	---	---		--
Chromium,SPLP	mg/L	---	---	---		--
Cobalt,SPLP	mg/L	---	---	---		--
Copper,SPLP	mg/L	---	---	---		--
Iron,SPLP	mg/L	---	---	---		--
Lead,SPLP	mg/L	---	---	---		--
Magnesium,SPLP	mg/L	---	---	---		--
Manganese,SPLP	mg/L	---	---	---		0.19
Mercury,SPLP	mg/L	---	---	---		--
Nickel,SPLP	mg/L	---	---	---		--
Potassium,SPLP	mg/L	---	---	---		--
Selenium,SPLP	mg/L	---	---	---		--
Silver,SPLP	mg/L	---	---	---		--
Sodium,SPLP	mg/L	---	---	---		--
Thallium,SPLP	mg/L	---	---	---		--
Vanadium,SPLP	mg/L	---	---	---		--
Zinc,SPLP	mg/L	---	---	---		--
Cyanide,SPLP	mg/L	---	---	---		--
Inorganic Analytical Parameters (TCLP)						
Arsenic,TCLP	mg/L	---	---	---		<0.050
Barium,TCLP	mg/L	---	---	---		0.43
Cadmium,TCLP	mg/L	---	---	---		0.0023
Chromium,TCLP	mg/L	---	---	---		<0.025
Lead,TCLP	mg/L	---	---	---		<0.0075
Mercury,TCLP	mg/L	---	---	---		<0.00020
Selenium,TCLP	mg/L	---	---	---		<0.050
Silver,TCLP	mg/L	---	---	---		<0.025
Antimony,TCLP	mg/L	---	---	---		<0.0060
Beryllium,TCLP	mg/L	---	---	---		<0.0040
Calcium,TCLP	mg/L	---	---	---		360
Cobalt,TCLP	mg/L	---	---	---		<0.025
Copper,TCLP	mg/L	---	---	---		0.023
Cyanide,TCLP	mg/L	---	---	---		----
Iron,TCLP	mg/L	---	---	---		<0.40
Magnesium,TCLP	mg/L	---	---	---		140
Manganese,TCLP	mg/L	---	---	---		0.28
Nickel,TCLP	mg/L	---	---	---		<0.025
Potassium,TCLP	mg/L	---	---	---		2.1
Sodium,TCLP	mg/L	---	---	---		----
Thallium,TCLP	mg/L	---	---	---		<0.0020
Vanadium,TCLP	mg/L	---	---	---		<0.025
Zinc,TCLP	mg/L	---	---	---		0.054

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: 500-136991-2
Client Project/Site: IDOT - Oak Forest/Markham - WO37

For:
Terracon Consulting Eng & Scientists
135 Ambassador Drive
Naperville, Illinois 60540

Attn: Mr. Matthew Weiss

Jodie Bracken

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LINKS

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www.testamericainc.com

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

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

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

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Case Narrative

Client: Terracon Consulting Eng & Scientists
Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136991-2

Job ID: 500-136991-2

Laboratory: TestAmerica Chicago

Narrative

**Job Narrative
500-136991-2**

Receipt

The samples were received on 11/8/2017 4:30 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 2.4° C and 2.9° C.

GC/MS VOA

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

GC/MS Semi VOA

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

Metals

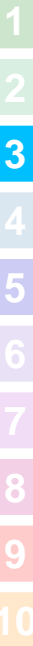
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

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: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136991-2

Client Sample ID: 2696V-70-B01 (0-5)

Lab Sample ID: 500-136991-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	0.025		0.015	0.0067	mg/Kg	1	☼	8260B	Total/NA
Benzo[a]anthracene	0.033	J	0.035	0.0047	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.071		0.035	0.0068	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.084		0.035	0.0076	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.054		0.035	0.011	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.032	J	0.035	0.010	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.038		0.035	0.0096	mg/Kg	1	☼	8270D	Total/NA
Dibenz(a,h)anthracene	0.039		0.035	0.0068	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.068		0.035	0.0065	mg/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.050		0.035	0.0091	mg/Kg	1	☼	8270D	Total/NA
Phenanthrene	0.020	J	0.035	0.0049	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.046		0.035	0.0070	mg/Kg	1	☼	8270D	Total/NA
Antimony	0.48	J	1.1	0.22	mg/Kg	1	☼	6010B	Total/NA
Arsenic	2.7		0.56	0.19	mg/Kg	1	☼	6010B	Total/NA
Barium	33		0.56	0.064	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.43		0.22	0.052	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.23	B	0.11	0.020	mg/Kg	1	☼	6010B	Total/NA
Chromium	10		0.56	0.28	mg/Kg	1	☼	6010B	Total/NA
Cobalt	4.0		0.28	0.073	mg/Kg	1	☼	6010B	Total/NA
Copper	11		0.56	0.16	mg/Kg	1	☼	6010B	Total/NA
Iron	8700		11	5.8	mg/Kg	1	☼	6010B	Total/NA
Lead	45		0.28	0.13	mg/Kg	1	☼	6010B	Total/NA
Magnesium	110000		56	28	mg/Kg	10	☼	6010B	Total/NA
Calcium	180000	B	110	19	mg/Kg	10	☼	6010B	Total/NA
Manganese	180		0.56	0.081	mg/Kg	1	☼	6010B	Total/NA
Nickel	10		0.56	0.16	mg/Kg	1	☼	6010B	Total/NA
Vanadium	9.6		0.28	0.066	mg/Kg	1	☼	6010B	Total/NA
Zinc	49		1.1	0.49	mg/Kg	1	☼	6010B	Total/NA
Potassium	1000		28	9.9	mg/Kg	1	☼	6010B	Total/NA
Sodium	300		56	8.3	mg/Kg	1	☼	6010B	Total/NA
Barium	0.43	J	0.50	0.050	mg/L	1		6010B	TCLP
Cadmium	0.0023	J	0.0050	0.0020	mg/L	1		6010B	TCLP
Calcium	360		5.0	0.50	mg/L	1		6010B	TCLP
Copper	0.023	J	0.025	0.010	mg/L	1		6010B	TCLP
Magnesium	140		2.5	0.50	mg/L	1		6010B	TCLP
Manganese	0.28		0.025	0.010	mg/L	1		6010B	TCLP
Potassium	2.1	J	2.5	0.50	mg/L	1		6010B	TCLP
Zinc	0.054	J	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.19		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.015	J	0.016	0.0054	mg/Kg	1	☼	7471B	Total/NA
pH	7.8		0.20	0.20	SU	1		9045D	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Sample Summary

Client: Terracon Consulting Eng & Scientists
Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136991-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-136991-5	2696V-70-B01 (0-5)	Solid	11/08/17 14:50	11/08/17 16:30

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Client Sample Results

Client: Terracon Consulting Eng & Scientists
Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136991-2

Client Sample ID: 2696V-70-B01 (0-5)

Lab Sample ID: 500-136991-5

Date Collected: 11/08/17 14:50

Matrix: Solid

Date Received: 11/08/17 16:30

Percent Solids: 88.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	0.025		0.015	0.0067	mg/Kg	☼	11/09/17 07:40	11/14/17 19:06	1
Benzene	<0.0015		0.0015	0.00039	mg/Kg	☼	11/09/17 07:40	11/14/17 19:06	1
Bromodichloromethane	<0.0015		0.0015	0.00031	mg/Kg	☼	11/09/17 07:40	11/14/17 19:06	1
Bromoform	<0.0015		0.0015	0.00045	mg/Kg	☼	11/09/17 07:40	11/14/17 19:06	1
Bromomethane	<0.0039		0.0039	0.0015	mg/Kg	☼	11/09/17 07:40	11/14/17 19:06	1
2-Butanone (MEK)	<0.0039		0.0039	0.0017	mg/Kg	☼	11/09/17 07:40	11/14/17 19:06	1
Carbon disulfide	<0.0039		0.0039	0.00080	mg/Kg	☼	11/09/17 07:40	11/14/17 19:06	1
Carbon tetrachloride	<0.0015		0.0015	0.00045	mg/Kg	☼	11/09/17 07:40	11/14/17 19:06	1
Chlorobenzene	<0.0015		0.0015	0.00057	mg/Kg	☼	11/09/17 07:40	11/14/17 19:06	1
Chloroethane	<0.0039		0.0039	0.0011	mg/Kg	☼	11/09/17 07:40	11/14/17 19:06	1
Chloroform	<0.0015		0.0015	0.00054	mg/Kg	☼	11/09/17 07:40	11/14/17 19:06	1
Chloromethane	<0.0039		0.0039	0.0016	mg/Kg	☼	11/09/17 07:40	11/14/17 19:06	1
cis-1,2-Dichloroethene	<0.0015		0.0015	0.00043	mg/Kg	☼	11/09/17 07:40	11/14/17 19:06	1
cis-1,3-Dichloropropene	<0.0015		0.0015	0.00047	mg/Kg	☼	11/09/17 07:40	11/14/17 19:06	1
Dibromochloromethane	<0.0015		0.0015	0.00051	mg/Kg	☼	11/09/17 07:40	11/14/17 19:06	1
1,1-Dichloroethane	<0.0015		0.0015	0.00053	mg/Kg	☼	11/09/17 07:40	11/14/17 19:06	1
1,2-Dichloroethane	<0.0039		0.0039	0.0012	mg/Kg	☼	11/09/17 07:40	11/14/17 19:06	1
1,1-Dichloroethene	<0.0015		0.0015	0.00053	mg/Kg	☼	11/09/17 07:40	11/14/17 19:06	1
1,2-Dichloropropane	<0.0015		0.0015	0.00040	mg/Kg	☼	11/09/17 07:40	11/14/17 19:06	1
1,3-Dichloropropane, Total	<0.0015		0.0015	0.00054	mg/Kg	☼	11/09/17 07:40	11/14/17 19:06	1
Ethylbenzene	<0.0015		0.0015	0.00074	mg/Kg	☼	11/09/17 07:40	11/14/17 19:06	1
2-Hexanone	<0.0039		0.0039	0.0012	mg/Kg	☼	11/09/17 07:40	11/14/17 19:06	1
Methylene Chloride	<0.0039		0.0039	0.0015	mg/Kg	☼	11/09/17 07:40	11/14/17 19:06	1
4-Methyl-2-pentanone (MIBK)	<0.0039		0.0039	0.0011	mg/Kg	☼	11/09/17 07:40	11/14/17 19:06	1
Methyl tert-butyl ether	<0.0015		0.0015	0.00045	mg/Kg	☼	11/09/17 07:40	11/14/17 19:06	1
Styrene	<0.0015		0.0015	0.00047	mg/Kg	☼	11/09/17 07:40	11/14/17 19:06	1
1,1,1,2-Tetrachloroethane	<0.0015		0.0015	0.00049	mg/Kg	☼	11/09/17 07:40	11/14/17 19:06	1
Tetrachloroethene	<0.0015		0.0015	0.00053	mg/Kg	☼	11/09/17 07:40	11/14/17 19:06	1
Toluene	<0.0015		0.0015	0.00039	mg/Kg	☼	11/09/17 07:40	11/14/17 19:06	1
trans-1,2-Dichloroethene	<0.0015		0.0015	0.00069	mg/Kg	☼	11/09/17 07:40	11/14/17 19:06	1
trans-1,3-Dichloropropene	<0.0015		0.0015	0.00054	mg/Kg	☼	11/09/17 07:40	11/14/17 19:06	1
1,1,1-Trichloroethane	<0.0015		0.0015	0.00052	mg/Kg	☼	11/09/17 07:40	11/14/17 19:06	1
1,1,2-Trichloroethane	<0.0015		0.0015	0.00066	mg/Kg	☼	11/09/17 07:40	11/14/17 19:06	1
Trichloroethene	<0.0015		0.0015	0.00052	mg/Kg	☼	11/09/17 07:40	11/14/17 19:06	1
Vinyl acetate	<0.0039		0.0039	0.0013	mg/Kg	☼	11/09/17 07:40	11/14/17 19:06	1
Vinyl chloride	<0.0015		0.0015	0.00068	mg/Kg	☼	11/09/17 07:40	11/14/17 19:06	1
Xylenes, Total	<0.0031		0.0031	0.00050	mg/Kg	☼	11/09/17 07:40	11/14/17 19:06	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	89		75 - 131	11/09/17 07:40	11/14/17 19:06	1
Dibromofluoromethane	119		75 - 126	11/09/17 07:40	11/14/17 19:06	1
1,2-Dichloroethane-d4 (Surr)	109		70 - 134	11/09/17 07:40	11/14/17 19:06	1
Toluene-d8 (Surr)	96		75 - 124	11/09/17 07:40	11/14/17 19:06	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.035		0.035	0.0063	mg/Kg	☼	11/15/17 08:50	11/16/17 14:20	1
Acenaphthylene	<0.035		0.035	0.0046	mg/Kg	☼	11/15/17 08:50	11/16/17 14:20	1
Anthracene	<0.035		0.035	0.0059	mg/Kg	☼	11/15/17 08:50	11/16/17 14:20	1
Benzo[a]anthracene	0.033	J	0.035	0.0047	mg/Kg	☼	11/15/17 08:50	11/16/17 14:20	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136991-2

Client Sample ID: 2696V-70-B01 (0-5)

Lab Sample ID: 500-136991-5

Date Collected: 11/08/17 14:50

Matrix: Solid

Date Received: 11/08/17 16:30

Percent Solids: 88.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	0.071		0.035	0.0068	mg/Kg	☼	11/15/17 08:50	11/16/17 14:20	1
Benzo[b]fluoranthene	0.084		0.035	0.0076	mg/Kg	☼	11/15/17 08:50	11/16/17 14:20	1
Benzo[g,h,i]perylene	0.054		0.035	0.011	mg/Kg	☼	11/15/17 08:50	11/16/17 14:20	1
Benzo[k]fluoranthene	0.032	J	0.035	0.010	mg/Kg	☼	11/15/17 08:50	11/16/17 14:20	1
Bis(2-chloroethoxy)methane	<0.18		0.18	0.036	mg/Kg	☼	11/15/17 08:50	11/16/17 14:20	1
Bis(2-chloroethyl)ether	<0.18		0.18	0.053	mg/Kg	☼	11/15/17 08:50	11/16/17 14:20	1
Bis(2-ethylhexyl) phthalate	<0.18		0.18	0.064	mg/Kg	☼	11/15/17 08:50	11/16/17 14:20	1
4-Bromophenyl phenyl ether	<0.18		0.18	0.046	mg/Kg	☼	11/15/17 08:50	11/16/17 14:20	1
Butyl benzyl phthalate	<0.18		0.18	0.067	mg/Kg	☼	11/15/17 08:50	11/16/17 14:20	1
Carbazole	<0.18		0.18	0.088	mg/Kg	☼	11/15/17 08:50	11/16/17 14:20	1
4-Chloroaniline	<0.71		0.71	0.17	mg/Kg	☼	11/15/17 08:50	11/16/17 14:20	1
4-Chloro-3-methylphenol	<0.35		0.35	0.12	mg/Kg	☼	11/15/17 08:50	11/16/17 14:20	1
2-Chloronaphthalene	<0.18		0.18	0.039	mg/Kg	☼	11/15/17 08:50	11/16/17 14:20	1
2-Chlorophenol	<0.18		0.18	0.060	mg/Kg	☼	11/15/17 08:50	11/16/17 14:20	1
4-Chlorophenyl phenyl ether	<0.18		0.18	0.041	mg/Kg	☼	11/15/17 08:50	11/16/17 14:20	1
Chrysene	0.038		0.035	0.0096	mg/Kg	☼	11/15/17 08:50	11/16/17 14:20	1
Dibenz(a,h)anthracene	0.039		0.035	0.0068	mg/Kg	☼	11/15/17 08:50	11/16/17 14:20	1
Dibenzofuran	<0.18		0.18	0.041	mg/Kg	☼	11/15/17 08:50	11/16/17 14:20	1
1,2-Dichlorobenzene	<0.18		0.18	0.042	mg/Kg	☼	11/15/17 08:50	11/16/17 14:20	1
1,3-Dichlorobenzene	<0.18		0.18	0.040	mg/Kg	☼	11/15/17 08:50	11/16/17 14:20	1
1,4-Dichlorobenzene	<0.18		0.18	0.045	mg/Kg	☼	11/15/17 08:50	11/16/17 14:20	1
3,3'-Dichlorobenzidine	<0.18		0.18	0.049	mg/Kg	☼	11/15/17 08:50	11/16/17 14:20	1
2,4-Dichlorophenol	<0.35		0.35	0.084	mg/Kg	☼	11/15/17 08:50	11/16/17 14:20	1
Diethyl phthalate	<0.18		0.18	0.060	mg/Kg	☼	11/15/17 08:50	11/16/17 14:20	1
2,4-Dimethylphenol	<0.35		0.35	0.13	mg/Kg	☼	11/15/17 08:50	11/16/17 14:20	1
Dimethyl phthalate	<0.18		0.18	0.046	mg/Kg	☼	11/15/17 08:50	11/16/17 14:20	1
Di-n-butyl phthalate	<0.18		0.18	0.054	mg/Kg	☼	11/15/17 08:50	11/16/17 14:20	1
4,6-Dinitro-2-methylphenol	<0.71		0.71	0.28	mg/Kg	☼	11/15/17 08:50	11/16/17 14:20	1
2,4-Dinitrophenol	<0.71		0.71	0.62	mg/Kg	☼	11/15/17 08:50	11/16/17 14:20	1
2,4-Dinitrotoluene	<0.18		0.18	0.056	mg/Kg	☼	11/15/17 08:50	11/16/17 14:20	1
2,6-Dinitrotoluene	<0.18		0.18	0.069	mg/Kg	☼	11/15/17 08:50	11/16/17 14:20	1
Di-n-octyl phthalate	<0.18		0.18	0.058	mg/Kg	☼	11/15/17 08:50	11/16/17 14:20	1
Fluoranthene	0.068		0.035	0.0065	mg/Kg	☼	11/15/17 08:50	11/16/17 14:20	1
Fluorene	<0.035		0.035	0.0050	mg/Kg	☼	11/15/17 08:50	11/16/17 14:20	1
Hexachlorobenzene	<0.071		0.071	0.0082	mg/Kg	☼	11/15/17 08:50	11/16/17 14:20	1
Hexachlorobutadiene	<0.18		0.18	0.055	mg/Kg	☼	11/15/17 08:50	11/16/17 14:20	1
Hexachlorocyclopentadiene	<0.71		0.71	0.20	mg/Kg	☼	11/15/17 08:50	11/16/17 14:20	1
Hexachloroethane	<0.18		0.18	0.054	mg/Kg	☼	11/15/17 08:50	11/16/17 14:20	1
Indeno[1,2,3-cd]pyrene	0.050		0.035	0.0091	mg/Kg	☼	11/15/17 08:50	11/16/17 14:20	1
Isophorone	<0.18		0.18	0.040	mg/Kg	☼	11/15/17 08:50	11/16/17 14:20	1
2-Methylnaphthalene	<0.071		0.071	0.0065	mg/Kg	☼	11/15/17 08:50	11/16/17 14:20	1
2-Methylphenol	<0.18		0.18	0.057	mg/Kg	☼	11/15/17 08:50	11/16/17 14:20	1
3 & 4 Methylphenol	<0.18		0.18	0.059	mg/Kg	☼	11/15/17 08:50	11/16/17 14:20	1
Naphthalene	<0.035		0.035	0.0054	mg/Kg	☼	11/15/17 08:50	11/16/17 14:20	1
2-Nitroaniline	<0.18		0.18	0.047	mg/Kg	☼	11/15/17 08:50	11/16/17 14:20	1
3-Nitroaniline	<0.35		0.35	0.11	mg/Kg	☼	11/15/17 08:50	11/16/17 14:20	1
4-Nitroaniline	<0.35		0.35	0.15	mg/Kg	☼	11/15/17 08:50	11/16/17 14:20	1
Nitrobenzene	<0.035		0.035	0.0088	mg/Kg	☼	11/15/17 08:50	11/16/17 14:20	1
2-Nitrophenol	<0.35		0.35	0.083	mg/Kg	☼	11/15/17 08:50	11/16/17 14:20	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136991-2

Client Sample ID: 2696V-70-B01 (0-5)

Lab Sample ID: 500-136991-5

Date Collected: 11/08/17 14:50

Matrix: Solid

Date Received: 11/08/17 16:30

Percent Solids: 88.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Nitrophenol	<0.71		0.71	0.34	mg/Kg	☼	11/15/17 08:50	11/16/17 14:20	1
N-Nitrosodi-n-propylamine	<0.071		0.071	0.043	mg/Kg	☼	11/15/17 08:50	11/16/17 14:20	1
N-Nitrosodiphenylamine	<0.18		0.18	0.042	mg/Kg	☼	11/15/17 08:50	11/16/17 14:20	1
2,2'-oxybis[1-chloropropane]	<0.18		0.18	0.041	mg/Kg	☼	11/15/17 08:50	11/16/17 14:20	1
Pentachlorophenol	<0.71		0.71	0.57	mg/Kg	☼	11/15/17 08:50	11/16/17 14:20	1
Phenanthrene	0.020	J	0.035	0.0049	mg/Kg	☼	11/15/17 08:50	11/16/17 14:20	1
Phenol	<0.18		0.18	0.078	mg/Kg	☼	11/15/17 08:50	11/16/17 14:20	1
Pyrene	0.046		0.035	0.0070	mg/Kg	☼	11/15/17 08:50	11/16/17 14:20	1
1,2,4-Trichlorobenzene	<0.18		0.18	0.038	mg/Kg	☼	11/15/17 08:50	11/16/17 14:20	1
2,4,5-Trichlorophenol	<0.35		0.35	0.080	mg/Kg	☼	11/15/17 08:50	11/16/17 14:20	1
2,4,6-Trichlorophenol	<0.35		0.35	0.12	mg/Kg	☼	11/15/17 08:50	11/16/17 14:20	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	84		44 - 121	11/15/17 08:50	11/16/17 14:20	1
2-Fluorophenol	94		46 - 133	11/15/17 08:50	11/16/17 14:20	1
Nitrobenzene-d5	82		41 - 120	11/15/17 08:50	11/16/17 14:20	1
Phenol-d5	93		46 - 125	11/15/17 08:50	11/16/17 14:20	1
Terphenyl-d14	79		35 - 160	11/15/17 08:50	11/16/17 14:20	1
2,4,6-Tribromophenol	72		25 - 139	11/15/17 08:50	11/16/17 14:20	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.48	J	1.1	0.22	mg/Kg	☼	11/10/17 17:37	11/11/17 19:29	1
Arsenic	2.7		0.56	0.19	mg/Kg	☼	11/10/17 17:37	11/11/17 19:29	1
Barium	33		0.56	0.064	mg/Kg	☼	11/10/17 17:37	11/11/17 19:29	1
Beryllium	0.43		0.22	0.052	mg/Kg	☼	11/10/17 17:37	11/11/17 19:29	1
Cadmium	0.23	B	0.11	0.020	mg/Kg	☼	11/10/17 17:37	11/11/17 19:29	1
Chromium	10		0.56	0.28	mg/Kg	☼	11/10/17 17:37	11/11/17 19:29	1
Cobalt	4.0		0.28	0.073	mg/Kg	☼	11/10/17 17:37	11/11/17 19:29	1
Copper	11		0.56	0.16	mg/Kg	☼	11/10/17 17:37	11/11/17 19:29	1
Iron	8700		11	5.8	mg/Kg	☼	11/10/17 17:37	11/11/17 19:29	1
Lead	45		0.28	0.13	mg/Kg	☼	11/10/17 17:37	11/11/17 19:29	1
Magnesium	110000		56	28	mg/Kg	☼	11/10/17 17:37	11/13/17 13:11	10
Calcium	180000	B	110	19	mg/Kg	☼	11/10/17 17:37	11/13/17 13:11	10
Manganese	180		0.56	0.081	mg/Kg	☼	11/10/17 17:37	11/11/17 19:29	1
Nickel	10		0.56	0.16	mg/Kg	☼	11/10/17 17:37	11/11/17 19:29	1
Selenium	<0.56		0.56	0.33	mg/Kg	☼	11/10/17 17:37	11/11/17 19:29	1
Silver	<0.28		0.28	0.072	mg/Kg	☼	11/10/17 17:37	11/11/17 19:29	1
Thallium	<0.56		0.56	0.28	mg/Kg	☼	11/10/17 17:37	11/11/17 19:29	1
Vanadium	9.6		0.28	0.066	mg/Kg	☼	11/10/17 17:37	11/11/17 19:29	1
Zinc	49		1.1	0.49	mg/Kg	☼	11/10/17 17:37	11/11/17 19:29	1
Potassium	1000		28	9.9	mg/Kg	☼	11/10/17 17:37	11/11/17 19:29	1
Sodium	300		56	8.3	mg/Kg	☼	11/10/17 17:37	11/11/17 19:29	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.050		0.050	0.010	mg/L		11/14/17 08:55	11/14/17 15:46	1
Barium	0.43	J	0.50	0.050	mg/L		11/14/17 08:55	11/14/17 15:46	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		11/14/17 08:55	11/14/17 15:46	1
Cadmium	0.0023	J	0.0050	0.0020	mg/L		11/14/17 08:55	11/14/17 15:46	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136991-2

Client Sample ID: 2696V-70-B01 (0-5)

Lab Sample ID: 500-136991-5

Date Collected: 11/08/17 14:50

Matrix: Solid

Date Received: 11/08/17 16:30

Percent Solids: 88.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	360		5.0	0.50	mg/L		11/14/17 08:55	11/14/17 15:46	1
Chromium	<0.025		0.025	0.010	mg/L		11/14/17 08:55	11/14/17 15:46	1
Cobalt	<0.025		0.025	0.010	mg/L		11/14/17 08:55	11/14/17 15:46	1
Copper	0.023	J	0.025	0.010	mg/L		11/14/17 08:55	11/14/17 15:46	1
Iron	<0.40		0.40	0.20	mg/L		11/14/17 08:55	11/14/17 15:46	1
Lead	<0.0075		0.0075	0.0075	mg/L		11/14/17 08:55	11/14/17 15:46	1
Magnesium	140		2.5	0.50	mg/L		11/14/17 08:55	11/14/17 15:46	1
Manganese	0.28		0.025	0.010	mg/L		11/14/17 08:55	11/14/17 15:46	1
Nickel	<0.025		0.025	0.010	mg/L		11/14/17 08:55	11/14/17 15:46	1
Potassium	2.1	J	2.5	0.50	mg/L		11/14/17 08:55	11/14/17 15:46	1
Selenium	<0.050		0.050	0.020	mg/L		11/14/17 08:55	11/14/17 15:46	1
Silver	<0.025		0.025	0.010	mg/L		11/14/17 08:55	11/14/17 15:46	1
Vanadium	<0.025		0.025	0.010	mg/L		11/14/17 08:55	11/14/17 15:46	1
Zinc	0.054	J	0.50	0.020	mg/L		11/14/17 08:55	11/14/17 15:46	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		11/14/17 14:25	11/15/17 20:04	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		11/14/17 08:55	11/15/17 13:05	1
Thallium	<0.0020		0.0020	0.0020	mg/L		11/14/17 08:55	11/15/17 13:05	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		11/14/17 15:15	11/16/17 13:13	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.015	J	0.016	0.0054	mg/Kg	☼	11/13/17 13:20	11/16/17 14:56	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.47		0.47	0.16	mg/Kg	☼	11/18/17 09:00	11/18/17 12:44	1
pH	7.8		0.20	0.20	SU			11/15/17 12:20	1

Definitions/Glossary

Client: Terracon Consulting Eng & Scientists
Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136991-2

Qualifiers

GC/MS Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
B	Compound was found in the blank and sample.

Glossary

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

Accreditation/Certification Summary

Client: Terracon Consulting Eng & Scientists
Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136991-2

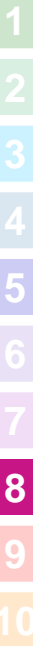
Laboratory: TestAmerica Chicago

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

Authority	Program	EPA Region	Identification Number	Expiration Date
Illinois	NELAP	5	100201	04-30-18

The following analytes are included in this report, but accreditation/certification is not offered by the governing authority:

Analysis Method	Prep Method	Matrix	Analyte
6020A	3010A	Solid	Antimony
6020A	3010A	Solid	Thallium
8260B	5035	Solid	1,3-Dichloropropene, Total
9045D		Solid	pH
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids



Login Sample Receipt Checklist

Client: Terracon Consulting Eng & Scientists

Job Number: 500-136991-2

Login Number: 136991

List Source: TestAmerica Chicago

List Number: 1

Creator: Scott, Sherri L

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.4,2.9
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	False	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	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 351-US Rte 6 at Pulaski/Crawford & Kedzie Office Phone Number, if available: _____

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

US Route 6 (Eastbound) IDOT STA 13+37 to 14+60 (ISGS Site 2696V-71)

City: Oak Forest/Markham State: IL Zip Code: 60428

County: Cook Township: Bremen

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

Latitude: 41.60367 Longitude: -87.71682
(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: 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 Phone: 847-705-4122

Zip Code: 60196 Phone: 847-705-4122

Contact: Paul Nickles

Contact: Paul Nickles

Email, if available: paul.nickles@illinois.gov

Email, if available: paul.nickles@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 351-US Rte 6 at Pulaski/Crawford & Kedzie

Latitude: 41.60367 Longitude: -87.71682

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)]:

Soil from boring B01 was sampled adjacent to ISGS Site No 2696V-71.
See Exhibits 2, 2E, and Table 103 of the Preliminary Site Investigation Report prepared by Terracon.

- 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]:

TestAmerica Lab Report No J136991-3
Also see Preliminary Site Investigation Report prepared by Terracon. CCDD/USFO facility in MSA County.

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

I, Matt Weiss (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.

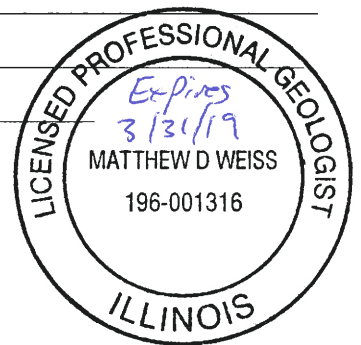
Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))

Company Name: Terracon Consultants, Inc
 Street Address: 135 Ambassador Drive
 City: Naperville State: IL Zip Code: 60540
 Phone: 630-717-4263

Matt Weiss
 Printed Name:

[Signature]
 Licensed Professional Engineer or
 Licensed Professional Geologist Signature:

7/24/18
 Date:



Detected Constituents to MACs-PTB 174-009;Work Order:037A
Preliminary Site Investigation
FAP 351-US Rte 6 at S. Pulaski/Crawford + Kedzie (PESA #2696V-71)
Oak Forest/Markham, Cook County, IL
Terracon Project No. 11177029M
Page 1 of 2

Analyte	Units	Background		Maximum Allowed Concentration	Sample Identification	2696V-71-B01 (0-5)	2696V-71-B01 (5-8)
				CCDD	Sample Depth (feet)	(0-5)	(5-8)
		Chicago	MSAs	mg/kg pH 6.25-9.0	Date Collected	11/08/2017	11/08/2017
Volatile Organic Analytical Parameters							
Acetone	mg/kg	---	---	25		0.019	0.048
Semivolatile Organic Analytical Parameters							
Benzo(a)anthracene	mg/kg	1.1	1.8	0.9		0.014	<0.040
Benzo(a)pyrene	mg/kg	1.3	2.1	0.09		0.048	<0.040
Benzo(b)fluoranthene	mg/kg	1.5	2.1	0.9		0.058	<0.040
Benzo(g,h,i)perylene	mg/kg	0.68	1.7	2300		0.051	0.037
Chrysene	mg/kg	1.2	2.7	88		0.025	<0.040
Fluoranthene	mg/kg	2.7	4.1	3100		0.029	<0.040
Indeno(1,2,3-c,d)pyrene	mg/kg	0.86	1.6	0.9		0.042	<0.040
Phenanthrene	mg/kg	1.3	2.5	210		0.019	<0.040
Pyrene	mg/kg	1.9	3.0	2300		0.027	<0.040
Inorganic Analytical Parameters							
Arsenic	mg/kg	---	13	11.3		4.4	5.1
Barium	mg/kg	---	110	1500		16	21
Cadmium	mg/kg	---	0.6	5.2		0.28	0.11
Chromium, total	mg/kg	---	16.2	21		6.6	11
Lead	mg/kg	---	36	107		39	11
Mercury	mg/kg	---	0.06	0.1		<0.018	0.013
Selenium	mg/kg	---	0.48	1.3		<0.57	2.3
Silver	mg/kg	---	0.55	4.4		<0.29	<0.29
Antimony	mg/kg	---	4.0	5		0.23	0.36
Beryllium	mg/kg	---	0.59	22		0.25	0.4
Calcium	mg/kg	---	9,300	---		54000	66000
Cobalt	mg/kg	---	8.9	20		5	8.1
Copper	mg/kg	---	19.6	2900		9.4	16
Cyanide	mg/kg	---	0.51	---		<0.59	<0.62
Iron	mg/kg	---	15,900	15000		7700	14000
Magnesium	mg/kg	---	4,820	325000		29000	28000
Manganese	mg/kg	---	636	630		120	340
Nickel	mg/kg	---	18	100		12	19
Potassium	mg/kg	---	1,268	---		790	1500
Sodium	mg/kg	---	130	---		240	300
Thallium	mg/kg	---	0.32	2.6		<0.57	<0.59
Vanadium	mg/kg	---	25.2	550		10	13
Zinc	mg/kg	---	95	5100		32	45
pH			6.25	9		8.8	8.9

Detected Constituents to MACs-PTB 174-009;Work Order:037A
Preliminary Site Investigation
FAP 351-US Rte 6 at S. Pulaski/Crawford + Kedzie (PESA #2696V-71)
Oak Forest/Markham, Cook County, IL
Terracon Project No. 11177029M
Page 2 of 2

Analyte	Units	Background		Maximum Allowed Concentration	Sample Identification	2696V-71-B01 (0-5)	2696V-71-B01 (5-8)
				CCDD	Sample Depth (feet)	(0-5)	(5-8)
		Chicago	MSAs	mg/kg pH 6.25-9.0	Date Collected	11/08/2017	11/08/2017
Inorganic Analytical Parameters (SPLP)							
Antimony,SPLP	mg/L	---	---	---		--	--
Arsenic,SPLP	mg/L	---	---	---		--	--
Barium,SPLP	mg/L	---	---	---		--	--
Beryllium,SPLP	mg/L	---	---	---		--	--
Cadmium,SPLP	mg/L	---	---	---		--	--
Calcium,SPLP	mg/L	---	---	---		--	--
Chromium,SPLP	mg/L	---	---	---		--	--
Cobalt,SPLP	mg/L	---	---	---		--	--
Copper,SPLP	mg/L	---	---	---		--	--
Iron,SPLP	mg/L	---	---	---		--	--
Lead,SPLP	mg/L	---	---	---		--	--
Magnesium,SPLP	mg/L	---	---	---		--	--
Manganese,SPLP	mg/L	---	---	---		0.56	0.12
Mercury,SPLP	mg/L	---	---	---		--	--
Nickel,SPLP	mg/L	---	---	---		--	--
Potassium,SPLP	mg/L	---	---	---		--	--
Selenium,SPLP	mg/L	---	---	---		--	--
Silver,SPLP	mg/L	---	---	---		--	--
Sodium,SPLP	mg/L	---	---	---		--	--
Thallium,SPLP	mg/L	---	---	---		--	--
Vanadium,SPLP	mg/L	---	---	---		--	--
Zinc,SPLP	mg/L	---	---	---		--	--
Cyanide,SPLP	mg/L	---	---	---		--	--
Inorganic Analytical Parameters (TCLP)							
Arsenic,TCLP	mg/L	---	---	---		<0.050	<0.050
Barium,TCLP	mg/L	---	---	---		0.37	0.25
Cadmium,TCLP	mg/L	---	---	---		0.003	<0.0050
Chromium,TCLP	mg/L	---	---	---		<0.025	<0.025
Lead,TCLP	mg/L	---	---	---		<0.0075	<0.0075
Mercury,TCLP	mg/L	---	---	---		<0.00020	<0.00020
Selenium,TCLP	mg/L	---	---	---		<0.050	<0.050
Silver,TCLP	mg/L	---	---	---		<0.025	<0.025
Antimony,TCLP	mg/L	---	---	---		<0.0060	<0.0060
Beryllium,TCLP	mg/L	---	---	---		<0.0040	<0.0040
Calcium,TCLP	mg/L	---	---	---		340	430
Cobalt,TCLP	mg/L	---	---	---		<0.025	<0.025
Copper,TCLP	mg/L	---	---	---		0.024	0.017
Cyanide,TCLP	mg/L	---	---	---		----	----
Iron,TCLP	mg/L	---	---	---		<0.40	<0.40
Magnesium,TCLP	mg/L	---	---	---		110	120
Manganese,TCLP	mg/L	---	---	---		1.2	0.83
Nickel,TCLP	mg/L	---	---	---		0.012	0.01
Potassium,TCLP	mg/L	---	---	---		2.8	1.5
Sodium,TCLP	mg/L	---	---	---		----	----
Thallium,TCLP	mg/L	---	---	---		<0.0020	<0.0020
Vanadium,TCLP	mg/L	---	---	---		<0.025	<0.025
Zinc,TCLP	mg/L	---	---	---		0.063	0.031

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: 500-136991-3

Client Project/Site: IDOT - Oak Forest/Markham - WO37

For:

Terracon Consulting Eng & Scientists

135 Ambassador Drive

Naperville, Illinois 60540

Attn: Mr. Matthew Weiss

Jodie Bracken

Authorized for release by:

11/20/2017 5:25:05 PM

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

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

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

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Case Narrative

Client: Terracon Consulting Eng & Scientists
Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136991-3

Job ID: 500-136991-3

Laboratory: TestAmerica Chicago

Narrative

**Job Narrative
500-136991-3**

Receipt

The samples were received on 11/8/2017 4:30 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 2.4° C and 2.9° C.

Receipt Exceptions

The ID on the chain of custody for laboratory samples 8 & 9 is 2696V-71-B01 (0-5) and 2696V-71-B01 (5-8) which is the same as samples 6 & 7. The bottle labels have 2696V-B71-B02 (0-5) and 2696V-B71-B02 (5-8). The samples were logged based on the bottle IDs.

GC/MS VOA

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

GC/MS Semi VOA

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

Metals

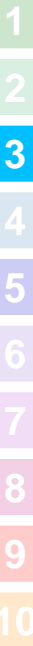
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

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: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136991-3

Client Sample ID: 2696V-71-B01 (0-5)

Lab Sample ID: 500-136991-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	0.019		0.016	0.0071	mg/Kg	1	☼	8260B	Total/NA
Benzo[a]anthracene	0.014	J	0.037	0.0051	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.048		0.037	0.0073	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.058		0.037	0.0081	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.051		0.037	0.012	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.025	J	0.037	0.010	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.029	J	0.037	0.0070	mg/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.042		0.037	0.0098	mg/Kg	1	☼	8270D	Total/NA
Phenanthrene	0.019	J	0.037	0.0053	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.027	J	0.037	0.0075	mg/Kg	1	☼	8270D	Total/NA
Antimony	0.23	J	1.1	0.22	mg/Kg	1	☼	6010B	Total/NA
Arsenic	4.4		0.57	0.20	mg/Kg	1	☼	6010B	Total/NA
Barium	16		0.57	0.065	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.25		0.23	0.054	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.28	B	0.11	0.021	mg/Kg	1	☼	6010B	Total/NA
Chromium	6.6		0.57	0.28	mg/Kg	1	☼	6010B	Total/NA
Cobalt	5.0		0.29	0.075	mg/Kg	1	☼	6010B	Total/NA
Copper	9.4		0.57	0.16	mg/Kg	1	☼	6010B	Total/NA
Iron	7700		11	6.0	mg/Kg	1	☼	6010B	Total/NA
Lead	39		0.29	0.13	mg/Kg	1	☼	6010B	Total/NA
Magnesium	29000		5.7	2.8	mg/Kg	1	☼	6010B	Total/NA
Calcium	54000	B	110	19	mg/Kg	10	☼	6010B	Total/NA
Manganese	120		0.57	0.083	mg/Kg	1	☼	6010B	Total/NA
Nickel	12		0.57	0.17	mg/Kg	1	☼	6010B	Total/NA
Vanadium	10		0.29	0.068	mg/Kg	1	☼	6010B	Total/NA
Zinc	32		1.1	0.50	mg/Kg	1	☼	6010B	Total/NA
Potassium	790		29	10	mg/Kg	1	☼	6010B	Total/NA
Sodium	240		57	8.5	mg/Kg	1	☼	6010B	Total/NA
Barium	0.37	J	0.50	0.050	mg/L	1		6010B	TCLP
Cadmium	0.0030	J	0.0050	0.0020	mg/L	1		6010B	TCLP
Calcium	340		5.0	0.50	mg/L	1		6010B	TCLP
Copper	0.024	J	0.025	0.010	mg/L	1		6010B	TCLP
Magnesium	110		2.5	0.50	mg/L	1		6010B	TCLP
Manganese	1.2		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.012	J	0.025	0.010	mg/L	1		6010B	TCLP
Potassium	2.8		2.5	0.50	mg/L	1		6010B	TCLP
Zinc	0.063	J	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.56		0.025	0.010	mg/L	1		6010B	SPLP East
pH	8.8		0.20	0.20	SU	1		9045D	Total/NA

Client Sample ID: 2696V-71-B01 (5-8)

Lab Sample ID: 500-136991-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	0.048		0.017	0.0076	mg/Kg	1	☼	8260B	Total/NA
Benzo[g,h,i]perylene	0.037	J	0.040	0.013	mg/Kg	1	☼	8270D	Total/NA
Antimony	0.36	J	1.2	0.23	mg/Kg	1	☼	6010B	Total/NA
Arsenic	5.1		0.59	0.20	mg/Kg	1	☼	6010B	Total/NA
Barium	21		0.59	0.067	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.40		0.24	0.055	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.11	J B	0.12	0.021	mg/Kg	1	☼	6010B	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136991-3

Client Sample ID: 2696V-71-B01 (5-8) (Continued)

Lab Sample ID: 500-136991-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chromium	11		0.59	0.29	mg/Kg	1	☼	6010B	Total/NA
Cobalt	8.1		0.29	0.077	mg/Kg	1	☼	6010B	Total/NA
Copper	16		0.59	0.17	mg/Kg	1	☼	6010B	Total/NA
Iron	14000		12	6.1	mg/Kg	1	☼	6010B	Total/NA
Lead	11		0.29	0.14	mg/Kg	1	☼	6010B	Total/NA
Magnesium	28000		5.9	2.9	mg/Kg	1	☼	6010B	Total/NA
Calcium	66000	B	120	20	mg/Kg	10	☼	6010B	Total/NA
Manganese	340		0.59	0.085	mg/Kg	1	☼	6010B	Total/NA
Nickel	19		0.59	0.17	mg/Kg	1	☼	6010B	Total/NA
Selenium	2.3		0.59	0.35	mg/Kg	1	☼	6010B	Total/NA
Vanadium	13		0.29	0.070	mg/Kg	1	☼	6010B	Total/NA
Zinc	45		1.2	0.52	mg/Kg	1	☼	6010B	Total/NA
Potassium	1500		29	10	mg/Kg	1	☼	6010B	Total/NA
Sodium	300		59	8.7	mg/Kg	1	☼	6010B	Total/NA
Barium	0.25	J	0.50	0.050	mg/L	1		6010B	TCLP
Calcium	430		5.0	0.50	mg/L	1		6010B	TCLP
Copper	0.017	J	0.025	0.010	mg/L	1		6010B	TCLP
Magnesium	120		2.5	0.50	mg/L	1		6010B	TCLP
Manganese	0.83		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.010	J	0.025	0.010	mg/L	1		6010B	TCLP
Potassium	1.5	J	2.5	0.50	mg/L	1		6010B	TCLP
Zinc	0.031	J	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.12		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.013	J	0.020	0.0068	mg/Kg	1	☼	7471B	Total/NA
pH	8.9		0.20	0.20	SU	1		9045D	Total/NA

Client Sample ID: 2696V-71-B02 (0-5)

Lab Sample ID: 500-136991-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	0.020		0.019	0.0081	mg/Kg	1	☼	8260B	Total/NA
Benzo[a]pyrene	0.037	J	0.041	0.0081	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.049		0.041	0.0090	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.037	J	0.041	0.013	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.011	J	0.041	0.011	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.011	J	0.041	0.0077	mg/Kg	1	☼	8270D	Total/NA
Phenanthrene	0.0071	J	0.041	0.0058	mg/Kg	1	☼	8270D	Total/NA
Arsenic	8.1		0.59	0.20	mg/Kg	1	☼	6010B	Total/NA
Barium	57		0.59	0.067	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.65		0.24	0.055	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.19	B	0.12	0.021	mg/Kg	1	☼	6010B	Total/NA
Chromium	18		0.59	0.29	mg/Kg	1	☼	6010B	Total/NA
Cobalt	13		0.30	0.077	mg/Kg	1	☼	6010B	Total/NA
Copper	23		0.59	0.17	mg/Kg	1	☼	6010B	Total/NA
Iron	20000		12	6.1	mg/Kg	1	☼	6010B	Total/NA
Lead	33		0.30	0.14	mg/Kg	1	☼	6010B	Total/NA
Magnesium	6400		5.9	2.9	mg/Kg	1	☼	6010B	Total/NA
Calcium	7200	B	12	2.0	mg/Kg	1	☼	6010B	Total/NA
Manganese	240		0.59	0.086	mg/Kg	1	☼	6010B	Total/NA
Nickel	31		0.59	0.17	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.41	J	0.59	0.35	mg/Kg	1	☼	6010B	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136991-3

Client Sample ID: 2696V-71-B02 (0-5) (Continued)

Lab Sample ID: 500-136991-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Vanadium	20		0.30	0.070	mg/Kg	1	☼	6010B	Total/NA
Zinc	76		1.2	0.52	mg/Kg	1	☼	6010B	Total/NA
Potassium	2000		30	10	mg/Kg	1	☼	6010B	Total/NA
Sodium	2000		59	8.7	mg/Kg	1	☼	6010B	Total/NA
Barium	0.48	J	0.50	0.050	mg/L	1		6010B	TCLP
Cadmium	0.0020	J	0.0050	0.0020	mg/L	1		6010B	TCLP
Calcium	270		5.0	0.50	mg/L	1		6010B	TCLP
Copper	0.037		0.025	0.010	mg/L	1		6010B	TCLP
Magnesium	110		2.5	0.50	mg/L	1		6010B	TCLP
Manganese	3.0		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.015	J	0.025	0.010	mg/L	1		6010B	TCLP
Potassium	2.6		2.5	0.50	mg/L	1		6010B	TCLP
Zinc	0.067	J	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	1.2		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.036		0.019	0.0063	mg/Kg	1	☼	7471B	Total/NA
pH	8.2		0.20	0.20	SU	1		9045D	Total/NA

Client Sample ID: 2696V-71-B02 (5-8)

Lab Sample ID: 500-136991-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	0.050		0.017	0.0073	mg/Kg	1	☼	8260B	Total/NA
Benzo[b]fluoranthene	0.043		0.038	0.0082	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.039		0.038	0.012	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.017	J	0.038	0.010	mg/Kg	1	☼	8270D	Total/NA
Arsenic	8.6		0.58	0.20	mg/Kg	1	☼	6010B	Total/NA
Barium	53		0.58	0.066	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.66		0.23	0.054	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.074	J B	0.12	0.021	mg/Kg	1	☼	6010B	Total/NA
Chromium	17		0.58	0.29	mg/Kg	1	☼	6010B	Total/NA
Cobalt	22		0.29	0.076	mg/Kg	1	☼	6010B	Total/NA
Copper	19		0.58	0.16	mg/Kg	1	☼	6010B	Total/NA
Iron	21000		12	6.0	mg/Kg	1	☼	6010B	Total/NA
Lead	12		0.29	0.13	mg/Kg	1	☼	6010B	Total/NA
Magnesium	21000		5.8	2.9	mg/Kg	1	☼	6010B	Total/NA
Calcium	58000	B	120	20	mg/Kg	10	☼	6010B	Total/NA
Manganese	730		0.58	0.084	mg/Kg	1	☼	6010B	Total/NA
Nickel	50		0.58	0.17	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.42	J	0.58	0.34	mg/Kg	1	☼	6010B	Total/NA
Thallium	0.47	J	0.58	0.29	mg/Kg	1	☼	6010B	Total/NA
Vanadium	19		0.29	0.068	mg/Kg	1	☼	6010B	Total/NA
Zinc	55		1.2	0.51	mg/Kg	1	☼	6010B	Total/NA
Potassium	2600		29	10	mg/Kg	1	☼	6010B	Total/NA
Sodium	390		58	8.6	mg/Kg	1	☼	6010B	Total/NA
Barium	0.39	J	0.50	0.050	mg/L	1		6010B	TCLP
Calcium	570		5.0	0.50	mg/L	1		6010B	TCLP
Copper	0.025		0.025	0.010	mg/L	1		6010B	TCLP
Magnesium	37		2.5	0.50	mg/L	1		6010B	TCLP
Manganese	0.74		0.025	0.010	mg/L	1		6010B	TCLP
Potassium	3.4		2.5	0.50	mg/L	1		6010B	TCLP
Zinc	0.057	J	0.50	0.020	mg/L	1		6010B	TCLP

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Terracon Consulting Eng & Scientists
Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136991-3

Client Sample ID: 2696V-71-B02 (5-8) (Continued)

Lab Sample ID: 500-136991-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Manganese	0.47		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.024		0.017	0.0057	mg/Kg	1	*	7471B	Total/NA
pH	8.1		0.20	0.20	SU	1		9045D	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

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Sample Summary

Client: Terracon Consulting Eng & Scientists
Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136991-3

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-136991-6	2696V-71-B01 (0-5)	Solid	11/08/17 09:30	11/08/17 16:30
500-136991-7	2696V-71-B01 (5-8)	Solid	11/08/17 09:35	11/08/17 16:30
500-136991-8	2696V-71-B02 (0-5)	Solid	11/08/17 09:50	11/08/17 16:30
500-136991-9	2696V-71-B02 (5-8)	Solid	11/08/17 09:55	11/08/17 16:30

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Client Sample Results

Client: Terracon Consulting Eng & Scientists
Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136991-3

Client Sample ID: 2696V-71-B01 (0-5)

Lab Sample ID: 500-136991-6

Date Collected: 11/08/17 09:30

Matrix: Solid

Date Received: 11/08/17 16:30

Percent Solids: 84.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	0.019		0.016	0.0071	mg/Kg	☼	11/09/17 07:40	11/14/17 19:31	1
Benzene	<0.0016		0.0016	0.00042	mg/Kg	☼	11/09/17 07:40	11/14/17 19:31	1
Bromodichloromethane	<0.0016		0.0016	0.00033	mg/Kg	☼	11/09/17 07:40	11/14/17 19:31	1
Bromoform	<0.0016		0.0016	0.00048	mg/Kg	☼	11/09/17 07:40	11/14/17 19:31	1
Bromomethane	<0.0041		0.0041	0.0015	mg/Kg	☼	11/09/17 07:40	11/14/17 19:31	1
2-Butanone (MEK)	<0.0041		0.0041	0.0018	mg/Kg	☼	11/09/17 07:40	11/14/17 19:31	1
Carbon disulfide	<0.0041		0.0041	0.00085	mg/Kg	☼	11/09/17 07:40	11/14/17 19:31	1
Carbon tetrachloride	<0.0016		0.0016	0.00047	mg/Kg	☼	11/09/17 07:40	11/14/17 19:31	1
Chlorobenzene	<0.0016		0.0016	0.00060	mg/Kg	☼	11/09/17 07:40	11/14/17 19:31	1
Chloroethane	<0.0041		0.0041	0.0012	mg/Kg	☼	11/09/17 07:40	11/14/17 19:31	1
Chloroform	<0.0016		0.0016	0.00057	mg/Kg	☼	11/09/17 07:40	11/14/17 19:31	1
Chloromethane	<0.0041		0.0041	0.0016	mg/Kg	☼	11/09/17 07:40	11/14/17 19:31	1
cis-1,2-Dichloroethene	<0.0016		0.0016	0.00046	mg/Kg	☼	11/09/17 07:40	11/14/17 19:31	1
cis-1,3-Dichloropropene	<0.0016		0.0016	0.00049	mg/Kg	☼	11/09/17 07:40	11/14/17 19:31	1
Dibromochloromethane	<0.0016		0.0016	0.00053	mg/Kg	☼	11/09/17 07:40	11/14/17 19:31	1
1,1-Dichloroethane	<0.0016		0.0016	0.00056	mg/Kg	☼	11/09/17 07:40	11/14/17 19:31	1
1,2-Dichloroethane	<0.0041		0.0041	0.0013	mg/Kg	☼	11/09/17 07:40	11/14/17 19:31	1
1,1-Dichloroethene	<0.0016		0.0016	0.00056	mg/Kg	☼	11/09/17 07:40	11/14/17 19:31	1
1,2-Dichloropropane	<0.0016		0.0016	0.00042	mg/Kg	☼	11/09/17 07:40	11/14/17 19:31	1
1,3-Dichloropropene, Total	<0.0016		0.0016	0.00057	mg/Kg	☼	11/09/17 07:40	11/14/17 19:31	1
Ethylbenzene	<0.0016		0.0016	0.00078	mg/Kg	☼	11/09/17 07:40	11/14/17 19:31	1
2-Hexanone	<0.0041		0.0041	0.0013	mg/Kg	☼	11/09/17 07:40	11/14/17 19:31	1
Methylene Chloride	<0.0041		0.0041	0.0016	mg/Kg	☼	11/09/17 07:40	11/14/17 19:31	1
4-Methyl-2-pentanone (MIBK)	<0.0041		0.0041	0.0012	mg/Kg	☼	11/09/17 07:40	11/14/17 19:31	1
Methyl tert-butyl ether	<0.0016		0.0016	0.00048	mg/Kg	☼	11/09/17 07:40	11/14/17 19:31	1
Styrene	<0.0016		0.0016	0.00049	mg/Kg	☼	11/09/17 07:40	11/14/17 19:31	1
1,1,2,2-Tetrachloroethane	<0.0016		0.0016	0.00052	mg/Kg	☼	11/09/17 07:40	11/14/17 19:31	1
Tetrachloroethene	<0.0016		0.0016	0.00056	mg/Kg	☼	11/09/17 07:40	11/14/17 19:31	1
Toluene	<0.0016		0.0016	0.00041	mg/Kg	☼	11/09/17 07:40	11/14/17 19:31	1
trans-1,2-Dichloroethene	<0.0016		0.0016	0.00072	mg/Kg	☼	11/09/17 07:40	11/14/17 19:31	1
trans-1,3-Dichloropropene	<0.0016		0.0016	0.00057	mg/Kg	☼	11/09/17 07:40	11/14/17 19:31	1
1,1,1-Trichloroethane	<0.0016		0.0016	0.00055	mg/Kg	☼	11/09/17 07:40	11/14/17 19:31	1
1,1,2-Trichloroethane	<0.0016		0.0016	0.00070	mg/Kg	☼	11/09/17 07:40	11/14/17 19:31	1
Trichloroethene	<0.0016		0.0016	0.00055	mg/Kg	☼	11/09/17 07:40	11/14/17 19:31	1
Vinyl acetate	<0.0041		0.0041	0.0014	mg/Kg	☼	11/09/17 07:40	11/14/17 19:31	1
Vinyl chloride	<0.0016		0.0016	0.00072	mg/Kg	☼	11/09/17 07:40	11/14/17 19:31	1
Xylenes, Total	<0.0033		0.0033	0.00052	mg/Kg	☼	11/09/17 07:40	11/14/17 19:31	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	90		75 - 131	11/09/17 07:40	11/14/17 19:31	1
Dibromofluoromethane	102		75 - 126	11/09/17 07:40	11/14/17 19:31	1
1,2-Dichloroethane-d4 (Surr)	100		70 - 134	11/09/17 07:40	11/14/17 19:31	1
Toluene-d8 (Surr)	96		75 - 124	11/09/17 07:40	11/14/17 19:31	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.037		0.037	0.0068	mg/Kg	☼	11/15/17 08:50	11/16/17 14:47	1
Acenaphthylene	<0.037		0.037	0.0050	mg/Kg	☼	11/15/17 08:50	11/16/17 14:47	1
Anthracene	<0.037		0.037	0.0063	mg/Kg	☼	11/15/17 08:50	11/16/17 14:47	1
Benzo[a]anthracene	0.014	J	0.037	0.0051	mg/Kg	☼	11/15/17 08:50	11/16/17 14:47	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136991-3

Client Sample ID: 2696V-71-B01 (0-5)

Lab Sample ID: 500-136991-6

Date Collected: 11/08/17 09:30

Matrix: Solid

Date Received: 11/08/17 16:30

Percent Solids: 84.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	0.048		0.037	0.0073	mg/Kg	☼	11/15/17 08:50	11/16/17 14:47	1
Benzo[b]fluoranthene	0.058		0.037	0.0081	mg/Kg	☼	11/15/17 08:50	11/16/17 14:47	1
Benzo[g,h,i]perylene	0.051		0.037	0.012	mg/Kg	☼	11/15/17 08:50	11/16/17 14:47	1
Benzo[k]fluoranthene	<0.037		0.037	0.011	mg/Kg	☼	11/15/17 08:50	11/16/17 14:47	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.038	mg/Kg	☼	11/15/17 08:50	11/16/17 14:47	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.057	mg/Kg	☼	11/15/17 08:50	11/16/17 14:47	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.069	mg/Kg	☼	11/15/17 08:50	11/16/17 14:47	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.050	mg/Kg	☼	11/15/17 08:50	11/16/17 14:47	1
Butyl benzyl phthalate	<0.19		0.19	0.072	mg/Kg	☼	11/15/17 08:50	11/16/17 14:47	1
Carbazole	<0.19		0.19	0.094	mg/Kg	☼	11/15/17 08:50	11/16/17 14:47	1
4-Chloroaniline	<0.76		0.76	0.18	mg/Kg	☼	11/15/17 08:50	11/16/17 14:47	1
4-Chloro-3-methylphenol	<0.37		0.37	0.13	mg/Kg	☼	11/15/17 08:50	11/16/17 14:47	1
2-Chloronaphthalene	<0.19		0.19	0.042	mg/Kg	☼	11/15/17 08:50	11/16/17 14:47	1
2-Chlorophenol	<0.19		0.19	0.064	mg/Kg	☼	11/15/17 08:50	11/16/17 14:47	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.044	mg/Kg	☼	11/15/17 08:50	11/16/17 14:47	1
Chrysene	0.025 J		0.037	0.010	mg/Kg	☼	11/15/17 08:50	11/16/17 14:47	1
Dibenz(a,h)anthracene	<0.037		0.037	0.0073	mg/Kg	☼	11/15/17 08:50	11/16/17 14:47	1
Dibenzofuran	<0.19		0.19	0.044	mg/Kg	☼	11/15/17 08:50	11/16/17 14:47	1
1,2-Dichlorobenzene	<0.19		0.19	0.045	mg/Kg	☼	11/15/17 08:50	11/16/17 14:47	1
1,3-Dichlorobenzene	<0.19		0.19	0.042	mg/Kg	☼	11/15/17 08:50	11/16/17 14:47	1
1,4-Dichlorobenzene	<0.19		0.19	0.048	mg/Kg	☼	11/15/17 08:50	11/16/17 14:47	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.053	mg/Kg	☼	11/15/17 08:50	11/16/17 14:47	1
2,4-Dichlorophenol	<0.37		0.37	0.090	mg/Kg	☼	11/15/17 08:50	11/16/17 14:47	1
Diethyl phthalate	<0.19		0.19	0.064	mg/Kg	☼	11/15/17 08:50	11/16/17 14:47	1
2,4-Dimethylphenol	<0.37		0.37	0.14	mg/Kg	☼	11/15/17 08:50	11/16/17 14:47	1
Dimethyl phthalate	<0.19		0.19	0.049	mg/Kg	☼	11/15/17 08:50	11/16/17 14:47	1
Di-n-butyl phthalate	<0.19		0.19	0.057	mg/Kg	☼	11/15/17 08:50	11/16/17 14:47	1
4,6-Dinitro-2-methylphenol	<0.76		0.76	0.30	mg/Kg	☼	11/15/17 08:50	11/16/17 14:47	1
2,4-Dinitrophenol	<0.76		0.76	0.66	mg/Kg	☼	11/15/17 08:50	11/16/17 14:47	1
2,4-Dinitrotoluene	<0.19		0.19	0.060	mg/Kg	☼	11/15/17 08:50	11/16/17 14:47	1
2,6-Dinitrotoluene	<0.19		0.19	0.074	mg/Kg	☼	11/15/17 08:50	11/16/17 14:47	1
Di-n-octyl phthalate	<0.19		0.19	0.062	mg/Kg	☼	11/15/17 08:50	11/16/17 14:47	1
Fluoranthene	0.029 J		0.037	0.0070	mg/Kg	☼	11/15/17 08:50	11/16/17 14:47	1
Fluorene	<0.037		0.037	0.0053	mg/Kg	☼	11/15/17 08:50	11/16/17 14:47	1
Hexachlorobenzene	<0.076		0.076	0.0087	mg/Kg	☼	11/15/17 08:50	11/16/17 14:47	1
Hexachlorobutadiene	<0.19		0.19	0.059	mg/Kg	☼	11/15/17 08:50	11/16/17 14:47	1
Hexachlorocyclopentadiene	<0.76		0.76	0.22	mg/Kg	☼	11/15/17 08:50	11/16/17 14:47	1
Hexachloroethane	<0.19		0.19	0.057	mg/Kg	☼	11/15/17 08:50	11/16/17 14:47	1
Indeno[1,2,3-cd]pyrene	0.042		0.037	0.0098	mg/Kg	☼	11/15/17 08:50	11/16/17 14:47	1
Isophorone	<0.19		0.19	0.042	mg/Kg	☼	11/15/17 08:50	11/16/17 14:47	1
2-Methylnaphthalene	<0.076		0.076	0.0069	mg/Kg	☼	11/15/17 08:50	11/16/17 14:47	1
2-Methylphenol	<0.19		0.19	0.060	mg/Kg	☼	11/15/17 08:50	11/16/17 14:47	1
3 & 4 Methylphenol	<0.19		0.19	0.063	mg/Kg	☼	11/15/17 08:50	11/16/17 14:47	1
Naphthalene	<0.037		0.037	0.0058	mg/Kg	☼	11/15/17 08:50	11/16/17 14:47	1
2-Nitroaniline	<0.19		0.19	0.051	mg/Kg	☼	11/15/17 08:50	11/16/17 14:47	1
3-Nitroaniline	<0.37		0.37	0.12	mg/Kg	☼	11/15/17 08:50	11/16/17 14:47	1
4-Nitroaniline	<0.37		0.37	0.16	mg/Kg	☼	11/15/17 08:50	11/16/17 14:47	1
Nitrobenzene	<0.037		0.037	0.0094	mg/Kg	☼	11/15/17 08:50	11/16/17 14:47	1
2-Nitrophenol	<0.37		0.37	0.089	mg/Kg	☼	11/15/17 08:50	11/16/17 14:47	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136991-3

Client Sample ID: 2696V-71-B01 (0-5)

Lab Sample ID: 500-136991-6

Date Collected: 11/08/17 09:30

Matrix: Solid

Date Received: 11/08/17 16:30

Percent Solids: 84.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Nitrophenol	<0.76		0.76	0.36	mg/Kg	☼	11/15/17 08:50	11/16/17 14:47	1
N-Nitrosodi-n-propylamine	<0.076		0.076	0.046	mg/Kg	☼	11/15/17 08:50	11/16/17 14:47	1
N-Nitrosodiphenylamine	<0.19		0.19	0.044	mg/Kg	☼	11/15/17 08:50	11/16/17 14:47	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.044	mg/Kg	☼	11/15/17 08:50	11/16/17 14:47	1
Pentachlorophenol	<0.76		0.76	0.60	mg/Kg	☼	11/15/17 08:50	11/16/17 14:47	1
Phenanthrene	0.019	J	0.037	0.0053	mg/Kg	☼	11/15/17 08:50	11/16/17 14:47	1
Phenol	<0.19		0.19	0.084	mg/Kg	☼	11/15/17 08:50	11/16/17 14:47	1
Pyrene	0.027	J	0.037	0.0075	mg/Kg	☼	11/15/17 08:50	11/16/17 14:47	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.041	mg/Kg	☼	11/15/17 08:50	11/16/17 14:47	1
2,4,5-Trichlorophenol	<0.37		0.37	0.086	mg/Kg	☼	11/15/17 08:50	11/16/17 14:47	1
2,4,6-Trichlorophenol	<0.37		0.37	0.13	mg/Kg	☼	11/15/17 08:50	11/16/17 14:47	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	82		44 - 121	11/15/17 08:50	11/16/17 14:47	1
2-Fluorophenol	99		46 - 133	11/15/17 08:50	11/16/17 14:47	1
Nitrobenzene-d5	86		41 - 120	11/15/17 08:50	11/16/17 14:47	1
Phenol-d5	96		46 - 125	11/15/17 08:50	11/16/17 14:47	1
Terphenyl-d14	79		35 - 160	11/15/17 08:50	11/16/17 14:47	1
2,4,6-Tribromophenol	61		25 - 139	11/15/17 08:50	11/16/17 14:47	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.23	J	1.1	0.22	mg/Kg	☼	11/10/17 17:37	11/11/17 19:33	1
Arsenic	4.4		0.57	0.20	mg/Kg	☼	11/10/17 17:37	11/11/17 19:33	1
Barium	16		0.57	0.065	mg/Kg	☼	11/10/17 17:37	11/11/17 19:33	1
Beryllium	0.25		0.23	0.054	mg/Kg	☼	11/10/17 17:37	11/11/17 19:33	1
Cadmium	0.28	B	0.11	0.021	mg/Kg	☼	11/10/17 17:37	11/11/17 19:33	1
Chromium	6.6		0.57	0.28	mg/Kg	☼	11/10/17 17:37	11/11/17 19:33	1
Cobalt	5.0		0.29	0.075	mg/Kg	☼	11/10/17 17:37	11/11/17 19:33	1
Copper	9.4		0.57	0.16	mg/Kg	☼	11/10/17 17:37	11/11/17 19:33	1
Iron	7700		11	6.0	mg/Kg	☼	11/10/17 17:37	11/11/17 19:33	1
Lead	39		0.29	0.13	mg/Kg	☼	11/10/17 17:37	11/11/17 19:33	1
Magnesium	29000		5.7	2.8	mg/Kg	☼	11/10/17 17:37	11/11/17 19:33	1
Calcium	54000	B	110	19	mg/Kg	☼	11/10/17 17:37	11/13/17 13:15	10
Manganese	120		0.57	0.083	mg/Kg	☼	11/10/17 17:37	11/11/17 19:33	1
Nickel	12		0.57	0.17	mg/Kg	☼	11/10/17 17:37	11/11/17 19:33	1
Selenium	<0.57		0.57	0.34	mg/Kg	☼	11/10/17 17:37	11/11/17 19:33	1
Silver	<0.29		0.29	0.074	mg/Kg	☼	11/10/17 17:37	11/11/17 19:33	1
Thallium	<0.57		0.57	0.29	mg/Kg	☼	11/10/17 17:37	11/11/17 19:33	1
Vanadium	10		0.29	0.068	mg/Kg	☼	11/10/17 17:37	11/11/17 19:33	1
Zinc	32		1.1	0.50	mg/Kg	☼	11/10/17 17:37	11/11/17 19:33	1
Potassium	790		29	10	mg/Kg	☼	11/10/17 17:37	11/11/17 19:33	1
Sodium	240		57	8.5	mg/Kg	☼	11/10/17 17:37	11/11/17 19:33	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.050		0.050	0.010	mg/L		11/14/17 08:55	11/14/17 15:50	1
Barium	0.37	J	0.50	0.050	mg/L		11/14/17 08:55	11/14/17 15:50	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		11/14/17 08:55	11/14/17 15:50	1
Cadmium	0.0030	J	0.0050	0.0020	mg/L		11/14/17 08:55	11/14/17 15:50	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136991-3

Client Sample ID: 2696V-71-B01 (0-5)

Lab Sample ID: 500-136991-6

Date Collected: 11/08/17 09:30

Matrix: Solid

Date Received: 11/08/17 16:30

Percent Solids: 84.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	340		5.0	0.50	mg/L		11/14/17 08:55	11/14/17 15:50	1
Chromium	<0.025		0.025	0.010	mg/L		11/14/17 08:55	11/14/17 15:50	1
Cobalt	<0.025		0.025	0.010	mg/L		11/14/17 08:55	11/14/17 15:50	1
Copper	0.024	J	0.025	0.010	mg/L		11/14/17 08:55	11/14/17 15:50	1
Iron	<0.40		0.40	0.20	mg/L		11/14/17 08:55	11/14/17 15:50	1
Lead	<0.0075		0.0075	0.0075	mg/L		11/14/17 08:55	11/14/17 15:50	1
Magnesium	110		2.5	0.50	mg/L		11/14/17 08:55	11/14/17 15:50	1
Manganese	1.2		0.025	0.010	mg/L		11/14/17 08:55	11/14/17 15:50	1
Nickel	0.012	J	0.025	0.010	mg/L		11/14/17 08:55	11/14/17 15:50	1
Potassium	2.8		2.5	0.50	mg/L		11/14/17 08:55	11/14/17 15:50	1
Selenium	<0.050		0.050	0.020	mg/L		11/14/17 08:55	11/14/17 15:50	1
Silver	<0.025		0.025	0.010	mg/L		11/14/17 08:55	11/14/17 15:50	1
Vanadium	<0.025		0.025	0.010	mg/L		11/14/17 08:55	11/14/17 15:50	1
Zinc	0.063	J	0.50	0.020	mg/L		11/14/17 08:55	11/14/17 15:50	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.56		0.025	0.010	mg/L		11/14/17 14:25	11/15/17 20:08	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		11/14/17 08:55	11/15/17 13:06	1
Thallium	<0.0020		0.0020	0.0020	mg/L		11/14/17 08:55	11/15/17 13:06	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		11/14/17 15:15	11/16/17 13:14	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.018		0.018	0.0061	mg/Kg	☼	11/13/17 13:20	11/16/17 14:59	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.59		0.59	0.20	mg/Kg	☼	11/18/17 09:00	11/18/17 12:45	1
pH	8.8		0.20	0.20	SU			11/15/17 12:25	1

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136991-3

Client Sample ID: 2696V-71-B01 (5-8)

Lab Sample ID: 500-136991-7

Date Collected: 11/08/17 09:35

Matrix: Solid

Date Received: 11/08/17 16:30

Percent Solids: 78.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	0.048		0.017	0.0076	mg/Kg	☼	11/09/17 07:40	11/14/17 19:56	1
Benzene	<0.0017		0.0017	0.00044	mg/Kg	☼	11/09/17 07:40	11/14/17 19:56	1
Bromodichloromethane	<0.0017		0.0017	0.00035	mg/Kg	☼	11/09/17 07:40	11/14/17 19:56	1
Bromoform	<0.0017		0.0017	0.00051	mg/Kg	☼	11/09/17 07:40	11/14/17 19:56	1
Bromomethane	<0.0043		0.0043	0.0016	mg/Kg	☼	11/09/17 07:40	11/14/17 19:56	1
2-Butanone (MEK)	<0.0043		0.0043	0.0019	mg/Kg	☼	11/09/17 07:40	11/14/17 19:56	1
Carbon disulfide	<0.0043		0.0043	0.00090	mg/Kg	☼	11/09/17 07:40	11/14/17 19:56	1
Carbon tetrachloride	<0.0017		0.0017	0.00050	mg/Kg	☼	11/09/17 07:40	11/14/17 19:56	1
Chlorobenzene	<0.0017		0.0017	0.00064	mg/Kg	☼	11/09/17 07:40	11/14/17 19:56	1
Chloroethane	<0.0043		0.0043	0.0013	mg/Kg	☼	11/09/17 07:40	11/14/17 19:56	1
Chloroform	<0.0017		0.0017	0.00060	mg/Kg	☼	11/09/17 07:40	11/14/17 19:56	1
Chloromethane	<0.0043		0.0043	0.0017	mg/Kg	☼	11/09/17 07:40	11/14/17 19:56	1
cis-1,2-Dichloroethene	<0.0017		0.0017	0.00049	mg/Kg	☼	11/09/17 07:40	11/14/17 19:56	1
cis-1,3-Dichloropropene	<0.0017		0.0017	0.00052	mg/Kg	☼	11/09/17 07:40	11/14/17 19:56	1
Dibromochloromethane	<0.0017		0.0017	0.00057	mg/Kg	☼	11/09/17 07:40	11/14/17 19:56	1
1,1-Dichloroethane	<0.0017		0.0017	0.00060	mg/Kg	☼	11/09/17 07:40	11/14/17 19:56	1
1,2-Dichloroethane	<0.0043		0.0043	0.0014	mg/Kg	☼	11/09/17 07:40	11/14/17 19:56	1
1,1-Dichloroethene	<0.0017		0.0017	0.00060	mg/Kg	☼	11/09/17 07:40	11/14/17 19:56	1
1,2-Dichloropropane	<0.0017		0.0017	0.00045	mg/Kg	☼	11/09/17 07:40	11/14/17 19:56	1
1,3-Dichloropropane, Total	<0.0017		0.0017	0.00061	mg/Kg	☼	11/09/17 07:40	11/14/17 19:56	1
Ethylbenzene	<0.0017		0.0017	0.00083	mg/Kg	☼	11/09/17 07:40	11/14/17 19:56	1
2-Hexanone	<0.0043		0.0043	0.0014	mg/Kg	☼	11/09/17 07:40	11/14/17 19:56	1
Methylene Chloride	<0.0043		0.0043	0.0017	mg/Kg	☼	11/09/17 07:40	11/14/17 19:56	1
4-Methyl-2-pentanone (MIBK)	<0.0043		0.0043	0.0013	mg/Kg	☼	11/09/17 07:40	11/14/17 19:56	1
Methyl tert-butyl ether	<0.0017		0.0017	0.00051	mg/Kg	☼	11/09/17 07:40	11/14/17 19:56	1
Styrene	<0.0017		0.0017	0.00052	mg/Kg	☼	11/09/17 07:40	11/14/17 19:56	1
1,1,2,2-Tetrachloroethane	<0.0017		0.0017	0.00056	mg/Kg	☼	11/09/17 07:40	11/14/17 19:56	1
Tetrachloroethene	<0.0017		0.0017	0.00059	mg/Kg	☼	11/09/17 07:40	11/14/17 19:56	1
Toluene	<0.0017		0.0017	0.00044	mg/Kg	☼	11/09/17 07:40	11/14/17 19:56	1
trans-1,2-Dichloroethene	<0.0017		0.0017	0.00077	mg/Kg	☼	11/09/17 07:40	11/14/17 19:56	1
trans-1,3-Dichloropropene	<0.0017		0.0017	0.00061	mg/Kg	☼	11/09/17 07:40	11/14/17 19:56	1
1,1,1-Trichloroethane	<0.0017		0.0017	0.00058	mg/Kg	☼	11/09/17 07:40	11/14/17 19:56	1
1,1,2-Trichloroethane	<0.0017		0.0017	0.00075	mg/Kg	☼	11/09/17 07:40	11/14/17 19:56	1
Trichloroethene	<0.0017		0.0017	0.00059	mg/Kg	☼	11/09/17 07:40	11/14/17 19:56	1
Vinyl acetate	<0.0043		0.0043	0.0015	mg/Kg	☼	11/09/17 07:40	11/14/17 19:56	1
Vinyl chloride	<0.0017		0.0017	0.00077	mg/Kg	☼	11/09/17 07:40	11/14/17 19:56	1
Xylenes, Total	<0.0035		0.0035	0.00056	mg/Kg	☼	11/09/17 07:40	11/14/17 19:56	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	88		75 - 131	11/09/17 07:40	11/14/17 19:56	1
Dibromofluoromethane	105		75 - 126	11/09/17 07:40	11/14/17 19:56	1
1,2-Dichloroethane-d4 (Surr)	101		70 - 134	11/09/17 07:40	11/14/17 19:56	1
Toluene-d8 (Surr)	111		75 - 124	11/09/17 07:40	11/14/17 19:56	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.040		0.040	0.0072	mg/Kg	☼	11/15/17 08:50	11/16/17 15:15	1
Acenaphthylene	<0.040		0.040	0.0053	mg/Kg	☼	11/15/17 08:50	11/16/17 15:15	1
Anthracene	<0.040		0.040	0.0067	mg/Kg	☼	11/15/17 08:50	11/16/17 15:15	1
Benzo[a]anthracene	<0.040		0.040	0.0054	mg/Kg	☼	11/15/17 08:50	11/16/17 15:15	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136991-3

Client Sample ID: 2696V-71-B01 (5-8)

Lab Sample ID: 500-136991-7

Date Collected: 11/08/17 09:35

Matrix: Solid

Date Received: 11/08/17 16:30

Percent Solids: 78.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	<0.040		0.040	0.0077	mg/Kg	☼	11/15/17 08:50	11/16/17 15:15	1
Benzo[b]fluoranthene	<0.040		0.040	0.0086	mg/Kg	☼	11/15/17 08:50	11/16/17 15:15	1
Benzo[g,h,i]perylene	0.037	J	0.040	0.013	mg/Kg	☼	11/15/17 08:50	11/16/17 15:15	1
Benzo[k]fluoranthene	<0.040		0.040	0.012	mg/Kg	☼	11/15/17 08:50	11/16/17 15:15	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.041	mg/Kg	☼	11/15/17 08:50	11/16/17 15:15	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.060	mg/Kg	☼	11/15/17 08:50	11/16/17 15:15	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.073	mg/Kg	☼	11/15/17 08:50	11/16/17 15:15	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.053	mg/Kg	☼	11/15/17 08:50	11/16/17 15:15	1
Butyl benzyl phthalate	<0.20		0.20	0.076	mg/Kg	☼	11/15/17 08:50	11/16/17 15:15	1
Carbazole	<0.20		0.20	0.10	mg/Kg	☼	11/15/17 08:50	11/16/17 15:15	1
4-Chloroaniline	<0.80		0.80	0.19	mg/Kg	☼	11/15/17 08:50	11/16/17 15:15	1
4-Chloro-3-methylphenol	<0.40		0.40	0.14	mg/Kg	☼	11/15/17 08:50	11/16/17 15:15	1
2-Chloronaphthalene	<0.20		0.20	0.044	mg/Kg	☼	11/15/17 08:50	11/16/17 15:15	1
2-Chlorophenol	<0.20		0.20	0.068	mg/Kg	☼	11/15/17 08:50	11/16/17 15:15	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.047	mg/Kg	☼	11/15/17 08:50	11/16/17 15:15	1
Chrysene	<0.040		0.040	0.011	mg/Kg	☼	11/15/17 08:50	11/16/17 15:15	1
Dibenz(a,h)anthracene	<0.040		0.040	0.0077	mg/Kg	☼	11/15/17 08:50	11/16/17 15:15	1
Dibenzofuran	<0.20		0.20	0.047	mg/Kg	☼	11/15/17 08:50	11/16/17 15:15	1
1,2-Dichlorobenzene	<0.20		0.20	0.048	mg/Kg	☼	11/15/17 08:50	11/16/17 15:15	1
1,3-Dichlorobenzene	<0.20		0.20	0.045	mg/Kg	☼	11/15/17 08:50	11/16/17 15:15	1
1,4-Dichlorobenzene	<0.20		0.20	0.051	mg/Kg	☼	11/15/17 08:50	11/16/17 15:15	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.056	mg/Kg	☼	11/15/17 08:50	11/16/17 15:15	1
2,4-Dichlorophenol	<0.40		0.40	0.095	mg/Kg	☼	11/15/17 08:50	11/16/17 15:15	1
Diethyl phthalate	<0.20		0.20	0.068	mg/Kg	☼	11/15/17 08:50	11/16/17 15:15	1
2,4-Dimethylphenol	<0.40		0.40	0.15	mg/Kg	☼	11/15/17 08:50	11/16/17 15:15	1
Dimethyl phthalate	<0.20		0.20	0.052	mg/Kg	☼	11/15/17 08:50	11/16/17 15:15	1
Di-n-butyl phthalate	<0.20		0.20	0.061	mg/Kg	☼	11/15/17 08:50	11/16/17 15:15	1
4,6-Dinitro-2-methylphenol	<0.80		0.80	0.32	mg/Kg	☼	11/15/17 08:50	11/16/17 15:15	1
2,4-Dinitrophenol	<0.80		0.80	0.70	mg/Kg	☼	11/15/17 08:50	11/16/17 15:15	1
2,4-Dinitrotoluene	<0.20		0.20	0.063	mg/Kg	☼	11/15/17 08:50	11/16/17 15:15	1
2,6-Dinitrotoluene	<0.20		0.20	0.078	mg/Kg	☼	11/15/17 08:50	11/16/17 15:15	1
Di-n-octyl phthalate	<0.20		0.20	0.065	mg/Kg	☼	11/15/17 08:50	11/16/17 15:15	1
Fluoranthene	<0.040		0.040	0.0074	mg/Kg	☼	11/15/17 08:50	11/16/17 15:15	1
Fluorene	<0.040		0.040	0.0056	mg/Kg	☼	11/15/17 08:50	11/16/17 15:15	1
Hexachlorobenzene	<0.080		0.080	0.0092	mg/Kg	☼	11/15/17 08:50	11/16/17 15:15	1
Hexachlorobutadiene	<0.20		0.20	0.063	mg/Kg	☼	11/15/17 08:50	11/16/17 15:15	1
Hexachlorocyclopentadiene	<0.80		0.80	0.23	mg/Kg	☼	11/15/17 08:50	11/16/17 15:15	1
Hexachloroethane	<0.20		0.20	0.061	mg/Kg	☼	11/15/17 08:50	11/16/17 15:15	1
Indeno[1,2,3-cd]pyrene	<0.040		0.040	0.010	mg/Kg	☼	11/15/17 08:50	11/16/17 15:15	1
Isophorone	<0.20		0.20	0.045	mg/Kg	☼	11/15/17 08:50	11/16/17 15:15	1
2-Methylnaphthalene	<0.080		0.080	0.0073	mg/Kg	☼	11/15/17 08:50	11/16/17 15:15	1
2-Methylphenol	<0.20		0.20	0.064	mg/Kg	☼	11/15/17 08:50	11/16/17 15:15	1
3 & 4 Methylphenol	<0.20		0.20	0.067	mg/Kg	☼	11/15/17 08:50	11/16/17 15:15	1
Naphthalene	<0.040		0.040	0.0061	mg/Kg	☼	11/15/17 08:50	11/16/17 15:15	1
2-Nitroaniline	<0.20		0.20	0.054	mg/Kg	☼	11/15/17 08:50	11/16/17 15:15	1
3-Nitroaniline	<0.40		0.40	0.12	mg/Kg	☼	11/15/17 08:50	11/16/17 15:15	1
4-Nitroaniline	<0.40		0.40	0.17	mg/Kg	☼	11/15/17 08:50	11/16/17 15:15	1
Nitrobenzene	<0.040		0.040	0.010	mg/Kg	☼	11/15/17 08:50	11/16/17 15:15	1
2-Nitrophenol	<0.40		0.40	0.094	mg/Kg	☼	11/15/17 08:50	11/16/17 15:15	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136991-3

Client Sample ID: 2696V-71-B01 (5-8)

Lab Sample ID: 500-136991-7

Date Collected: 11/08/17 09:35

Matrix: Solid

Date Received: 11/08/17 16:30

Percent Solids: 78.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Nitrophenol	<0.80		0.80	0.38	mg/Kg	☼	11/15/17 08:50	11/16/17 15:15	1
N-Nitrosodi-n-propylamine	<0.080		0.080	0.049	mg/Kg	☼	11/15/17 08:50	11/16/17 15:15	1
N-Nitrosodiphenylamine	<0.20		0.20	0.047	mg/Kg	☼	11/15/17 08:50	11/16/17 15:15	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.046	mg/Kg	☼	11/15/17 08:50	11/16/17 15:15	1
Pentachlorophenol	<0.80		0.80	0.64	mg/Kg	☼	11/15/17 08:50	11/16/17 15:15	1
Phenanthrene	<0.040		0.040	0.0056	mg/Kg	☼	11/15/17 08:50	11/16/17 15:15	1
Phenol	<0.20		0.20	0.089	mg/Kg	☼	11/15/17 08:50	11/16/17 15:15	1
Pyrene	<0.040		0.040	0.0079	mg/Kg	☼	11/15/17 08:50	11/16/17 15:15	1
1,2,4-Trichlorobenzene	<0.20		0.20	0.043	mg/Kg	☼	11/15/17 08:50	11/16/17 15:15	1
2,4,5-Trichlorophenol	<0.40		0.40	0.091	mg/Kg	☼	11/15/17 08:50	11/16/17 15:15	1
2,4,6-Trichlorophenol	<0.40		0.40	0.14	mg/Kg	☼	11/15/17 08:50	11/16/17 15:15	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	81		44 - 121	11/15/17 08:50	11/16/17 15:15	1
2-Fluorophenol	96		46 - 133	11/15/17 08:50	11/16/17 15:15	1
Nitrobenzene-d5	79		41 - 120	11/15/17 08:50	11/16/17 15:15	1
Phenol-d5	91		46 - 125	11/15/17 08:50	11/16/17 15:15	1
Terphenyl-d14	72		35 - 160	11/15/17 08:50	11/16/17 15:15	1
2,4,6-Tribromophenol	49		25 - 139	11/15/17 08:50	11/16/17 15:15	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.36	J	1.2	0.23	mg/Kg	☼	11/10/17 17:37	11/11/17 19:38	1
Arsenic	5.1		0.59	0.20	mg/Kg	☼	11/10/17 17:37	11/11/17 19:38	1
Barium	21		0.59	0.067	mg/Kg	☼	11/10/17 17:37	11/11/17 19:38	1
Beryllium	0.40		0.24	0.055	mg/Kg	☼	11/10/17 17:37	11/11/17 19:38	1
Cadmium	0.11	J B	0.12	0.021	mg/Kg	☼	11/10/17 17:37	11/11/17 19:38	1
Chromium	11		0.59	0.29	mg/Kg	☼	11/10/17 17:37	11/11/17 19:38	1
Cobalt	8.1		0.29	0.077	mg/Kg	☼	11/10/17 17:37	11/11/17 19:38	1
Copper	16		0.59	0.17	mg/Kg	☼	11/10/17 17:37	11/11/17 19:38	1
Iron	14000		12	6.1	mg/Kg	☼	11/10/17 17:37	11/11/17 19:38	1
Lead	11		0.29	0.14	mg/Kg	☼	11/10/17 17:37	11/11/17 19:38	1
Magnesium	28000		5.9	2.9	mg/Kg	☼	11/10/17 17:37	11/11/17 19:38	1
Calcium	66000	B	120	20	mg/Kg	☼	11/10/17 17:37	11/13/17 13:19	10
Manganese	340		0.59	0.085	mg/Kg	☼	11/10/17 17:37	11/11/17 19:38	1
Nickel	19		0.59	0.17	mg/Kg	☼	11/10/17 17:37	11/11/17 19:38	1
Selenium	2.3		0.59	0.35	mg/Kg	☼	11/10/17 17:37	11/11/17 19:38	1
Silver	<0.29		0.29	0.076	mg/Kg	☼	11/10/17 17:37	11/11/17 19:38	1
Thallium	<0.59		0.59	0.29	mg/Kg	☼	11/10/17 17:37	11/11/17 19:38	1
Vanadium	13		0.29	0.070	mg/Kg	☼	11/10/17 17:37	11/11/17 19:38	1
Zinc	45		1.2	0.52	mg/Kg	☼	11/10/17 17:37	11/11/17 19:38	1
Potassium	1500		29	10	mg/Kg	☼	11/10/17 17:37	11/11/17 19:38	1
Sodium	300		59	8.7	mg/Kg	☼	11/10/17 17:37	11/11/17 19:38	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.050		0.050	0.010	mg/L		11/14/17 08:55	11/14/17 15:54	1
Barium	0.25	J	0.50	0.050	mg/L		11/14/17 08:55	11/14/17 15:54	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		11/14/17 08:55	11/14/17 15:54	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		11/14/17 08:55	11/14/17 15:54	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136991-3

Client Sample ID: 2696V-71-B01 (5-8)

Lab Sample ID: 500-136991-7

Date Collected: 11/08/17 09:35

Matrix: Solid

Date Received: 11/08/17 16:30

Percent Solids: 78.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	430		5.0	0.50	mg/L		11/14/17 08:55	11/14/17 15:54	1
Chromium	<0.025		0.025	0.010	mg/L		11/14/17 08:55	11/14/17 15:54	1
Cobalt	<0.025		0.025	0.010	mg/L		11/14/17 08:55	11/14/17 15:54	1
Copper	0.017	J	0.025	0.010	mg/L		11/14/17 08:55	11/14/17 15:54	1
Iron	<0.40		0.40	0.20	mg/L		11/14/17 08:55	11/14/17 15:54	1
Lead	<0.0075		0.0075	0.0075	mg/L		11/14/17 08:55	11/14/17 15:54	1
Magnesium	120		2.5	0.50	mg/L		11/14/17 08:55	11/14/17 15:54	1
Manganese	0.83		0.025	0.010	mg/L		11/14/17 08:55	11/14/17 15:54	1
Nickel	0.010	J	0.025	0.010	mg/L		11/14/17 08:55	11/14/17 15:54	1
Potassium	1.5	J	2.5	0.50	mg/L		11/14/17 08:55	11/14/17 15:54	1
Selenium	<0.050		0.050	0.020	mg/L		11/14/17 08:55	11/14/17 15:54	1
Silver	<0.025		0.025	0.010	mg/L		11/14/17 08:55	11/14/17 15:54	1
Vanadium	<0.025		0.025	0.010	mg/L		11/14/17 08:55	11/14/17 15:54	1
Zinc	0.031	J	0.50	0.020	mg/L		11/14/17 08:55	11/14/17 15:54	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		11/14/17 14:25	11/15/17 20:12	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		11/14/17 08:55	11/15/17 13:07	1
Thallium	<0.0020		0.0020	0.0020	mg/L		11/14/17 08:55	11/15/17 13:07	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		11/14/17 15:15	11/16/17 13:16	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.013	J	0.020	0.0068	mg/Kg	☼	11/13/17 13:20	11/16/17 15:01	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.62		0.62	0.21	mg/Kg	☼	11/18/17 09:00	11/18/17 12:45	1
pH	8.9		0.20	0.20	SU			11/15/17 12:27	1

Client Sample Results

Client: Terracon Consulting Eng & Scientists
Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136991-3

Client Sample ID: 2696V-71-B02 (0-5)

Lab Sample ID: 500-136991-8

Date Collected: 11/08/17 09:50

Matrix: Solid

Date Received: 11/08/17 16:30

Percent Solids: 78.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	0.020		0.019	0.0081	mg/Kg	☼	11/09/17 07:40	11/14/17 20:21	1
Benzene	<0.0019		0.0019	0.00047	mg/Kg	☼	11/09/17 07:40	11/14/17 20:21	1
Bromodichloromethane	<0.0019		0.0019	0.00038	mg/Kg	☼	11/09/17 07:40	11/14/17 20:21	1
Bromoform	<0.0019		0.0019	0.00054	mg/Kg	☼	11/09/17 07:40	11/14/17 20:21	1
Bromomethane	<0.0046		0.0046	0.0018	mg/Kg	☼	11/09/17 07:40	11/14/17 20:21	1
2-Butanone (MEK)	<0.0046		0.0046	0.0021	mg/Kg	☼	11/09/17 07:40	11/14/17 20:21	1
Carbon disulfide	<0.0046		0.0046	0.00096	mg/Kg	☼	11/09/17 07:40	11/14/17 20:21	1
Carbon tetrachloride	<0.0019		0.0019	0.00054	mg/Kg	☼	11/09/17 07:40	11/14/17 20:21	1
Chlorobenzene	<0.0019		0.0019	0.00068	mg/Kg	☼	11/09/17 07:40	11/14/17 20:21	1
Chloroethane	<0.0046		0.0046	0.0014	mg/Kg	☼	11/09/17 07:40	11/14/17 20:21	1
Chloroform	<0.0019		0.0019	0.00064	mg/Kg	☼	11/09/17 07:40	11/14/17 20:21	1
Chloromethane	<0.0046		0.0046	0.0019	mg/Kg	☼	11/09/17 07:40	11/14/17 20:21	1
cis-1,2-Dichloroethene	<0.0019		0.0019	0.00052	mg/Kg	☼	11/09/17 07:40	11/14/17 20:21	1
cis-1,3-Dichloropropene	<0.0019		0.0019	0.00056	mg/Kg	☼	11/09/17 07:40	11/14/17 20:21	1
Dibromochloromethane	<0.0019		0.0019	0.00061	mg/Kg	☼	11/09/17 07:40	11/14/17 20:21	1
1,1-Dichloroethane	<0.0019		0.0019	0.00063	mg/Kg	☼	11/09/17 07:40	11/14/17 20:21	1
1,2-Dichloroethane	<0.0046		0.0046	0.0014	mg/Kg	☼	11/09/17 07:40	11/14/17 20:21	1
1,1-Dichloroethene	<0.0019		0.0019	0.00064	mg/Kg	☼	11/09/17 07:40	11/14/17 20:21	1
1,2-Dichloropropane	<0.0019		0.0019	0.00048	mg/Kg	☼	11/09/17 07:40	11/14/17 20:21	1
1,3-Dichloropropane, Total	<0.0019		0.0019	0.00065	mg/Kg	☼	11/09/17 07:40	11/14/17 20:21	1
Ethylbenzene	<0.0019		0.0019	0.00089	mg/Kg	☼	11/09/17 07:40	11/14/17 20:21	1
2-Hexanone	<0.0046		0.0046	0.0014	mg/Kg	☼	11/09/17 07:40	11/14/17 20:21	1
Methylene Chloride	<0.0046		0.0046	0.0018	mg/Kg	☼	11/09/17 07:40	11/14/17 20:21	1
4-Methyl-2-pentanone (MIBK)	<0.0046		0.0046	0.0014	mg/Kg	☼	11/09/17 07:40	11/14/17 20:21	1
Methyl tert-butyl ether	<0.0019		0.0019	0.00054	mg/Kg	☼	11/09/17 07:40	11/14/17 20:21	1
Styrene	<0.0019		0.0019	0.00056	mg/Kg	☼	11/09/17 07:40	11/14/17 20:21	1
1,1,2,2-Tetrachloroethane	<0.0019		0.0019	0.00059	mg/Kg	☼	11/09/17 07:40	11/14/17 20:21	1
Tetrachloroethene	<0.0019		0.0019	0.00063	mg/Kg	☼	11/09/17 07:40	11/14/17 20:21	1
Toluene	<0.0019		0.0019	0.00047	mg/Kg	☼	11/09/17 07:40	11/14/17 20:21	1
trans-1,2-Dichloroethene	<0.0019		0.0019	0.00082	mg/Kg	☼	11/09/17 07:40	11/14/17 20:21	1
trans-1,3-Dichloropropene	<0.0019		0.0019	0.00065	mg/Kg	☼	11/09/17 07:40	11/14/17 20:21	1
1,1,1-Trichloroethane	<0.0019		0.0019	0.00062	mg/Kg	☼	11/09/17 07:40	11/14/17 20:21	1
1,1,2-Trichloroethane	<0.0019		0.0019	0.00080	mg/Kg	☼	11/09/17 07:40	11/14/17 20:21	1
Trichloroethene	<0.0019		0.0019	0.00063	mg/Kg	☼	11/09/17 07:40	11/14/17 20:21	1
Vinyl acetate	<0.0046		0.0046	0.0016	mg/Kg	☼	11/09/17 07:40	11/14/17 20:21	1
Vinyl chloride	<0.0019		0.0019	0.00082	mg/Kg	☼	11/09/17 07:40	11/14/17 20:21	1
Xylenes, Total	<0.0037		0.0037	0.00059	mg/Kg	☼	11/09/17 07:40	11/14/17 20:21	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	90		75 - 131	11/09/17 07:40	11/14/17 20:21	1
Dibromofluoromethane	104		75 - 126	11/09/17 07:40	11/14/17 20:21	1
1,2-Dichloroethane-d4 (Surr)	102		70 - 134	11/09/17 07:40	11/14/17 20:21	1
Toluene-d8 (Surr)	95		75 - 124	11/09/17 07:40	11/14/17 20:21	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.041		0.041	0.0075	mg/Kg	☼	11/15/17 08:50	11/16/17 15:42	1
Acenaphthylene	<0.041		0.041	0.0055	mg/Kg	☼	11/15/17 08:50	11/16/17 15:42	1
Anthracene	<0.041		0.041	0.0070	mg/Kg	☼	11/15/17 08:50	11/16/17 15:42	1
Benzo[a]anthracene	<0.041		0.041	0.0056	mg/Kg	☼	11/15/17 08:50	11/16/17 15:42	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136991-3

Client Sample ID: 2696V-71-B02 (0-5)

Lab Sample ID: 500-136991-8

Date Collected: 11/08/17 09:50

Matrix: Solid

Date Received: 11/08/17 16:30

Percent Solids: 78.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	0.037	J	0.041	0.0081	mg/Kg	☼	11/15/17 08:50	11/16/17 15:42	1
Benzo[b]fluoranthene	0.049		0.041	0.0090	mg/Kg	☼	11/15/17 08:50	11/16/17 15:42	1
Benzo[g,h,i]perylene	0.037	J	0.041	0.013	mg/Kg	☼	11/15/17 08:50	11/16/17 15:42	1
Benzo[k]fluoranthene	<0.041		0.041	0.012	mg/Kg	☼	11/15/17 08:50	11/16/17 15:42	1
Bis(2-chloroethoxy)methane	<0.21		0.21	0.043	mg/Kg	☼	11/15/17 08:50	11/16/17 15:42	1
Bis(2-chloroethyl)ether	<0.21		0.21	0.063	mg/Kg	☼	11/15/17 08:50	11/16/17 15:42	1
Bis(2-ethylhexyl) phthalate	<0.21		0.21	0.076	mg/Kg	☼	11/15/17 08:50	11/16/17 15:42	1
4-Bromophenyl phenyl ether	<0.21		0.21	0.055	mg/Kg	☼	11/15/17 08:50	11/16/17 15:42	1
Butyl benzyl phthalate	<0.21		0.21	0.079	mg/Kg	☼	11/15/17 08:50	11/16/17 15:42	1
Carbazole	<0.21		0.21	0.10	mg/Kg	☼	11/15/17 08:50	11/16/17 15:42	1
4-Chloroaniline	<0.84		0.84	0.20	mg/Kg	☼	11/15/17 08:50	11/16/17 15:42	1
4-Chloro-3-methylphenol	<0.41		0.41	0.14	mg/Kg	☼	11/15/17 08:50	11/16/17 15:42	1
2-Chloronaphthalene	<0.21		0.21	0.046	mg/Kg	☼	11/15/17 08:50	11/16/17 15:42	1
2-Chlorophenol	<0.21		0.21	0.071	mg/Kg	☼	11/15/17 08:50	11/16/17 15:42	1
4-Chlorophenyl phenyl ether	<0.21		0.21	0.049	mg/Kg	☼	11/15/17 08:50	11/16/17 15:42	1
Chrysene	0.011	J	0.041	0.011	mg/Kg	☼	11/15/17 08:50	11/16/17 15:42	1
Dibenz(a,h)anthracene	<0.041		0.041	0.0081	mg/Kg	☼	11/15/17 08:50	11/16/17 15:42	1
Dibenzofuran	<0.21		0.21	0.049	mg/Kg	☼	11/15/17 08:50	11/16/17 15:42	1
1,2-Dichlorobenzene	<0.21		0.21	0.050	mg/Kg	☼	11/15/17 08:50	11/16/17 15:42	1
1,3-Dichlorobenzene	<0.21		0.21	0.047	mg/Kg	☼	11/15/17 08:50	11/16/17 15:42	1
1,4-Dichlorobenzene	<0.21		0.21	0.054	mg/Kg	☼	11/15/17 08:50	11/16/17 15:42	1
3,3'-Dichlorobenzidine	<0.21		0.21	0.058	mg/Kg	☼	11/15/17 08:50	11/16/17 15:42	1
2,4-Dichlorophenol	<0.41		0.41	0.099	mg/Kg	☼	11/15/17 08:50	11/16/17 15:42	1
Diethyl phthalate	<0.21		0.21	0.071	mg/Kg	☼	11/15/17 08:50	11/16/17 15:42	1
2,4-Dimethylphenol	<0.41		0.41	0.16	mg/Kg	☼	11/15/17 08:50	11/16/17 15:42	1
Dimethyl phthalate	<0.21		0.21	0.055	mg/Kg	☼	11/15/17 08:50	11/16/17 15:42	1
Di-n-butyl phthalate	<0.21		0.21	0.064	mg/Kg	☼	11/15/17 08:50	11/16/17 15:42	1
4,6-Dinitro-2-methylphenol	<0.84		0.84	0.34	mg/Kg	☼	11/15/17 08:50	11/16/17 15:42	1
2,4-Dinitrophenol	<0.84		0.84	0.73	mg/Kg	☼	11/15/17 08:50	11/16/17 15:42	1
2,4-Dinitrotoluene	<0.21		0.21	0.066	mg/Kg	☼	11/15/17 08:50	11/16/17 15:42	1
2,6-Dinitrotoluene	<0.21		0.21	0.082	mg/Kg	☼	11/15/17 08:50	11/16/17 15:42	1
Di-n-octyl phthalate	<0.21		0.21	0.068	mg/Kg	☼	11/15/17 08:50	11/16/17 15:42	1
Fluoranthene	0.011	J	0.041	0.0077	mg/Kg	☼	11/15/17 08:50	11/16/17 15:42	1
Fluorene	<0.041		0.041	0.0059	mg/Kg	☼	11/15/17 08:50	11/16/17 15:42	1
Hexachlorobenzene	<0.084		0.084	0.0097	mg/Kg	☼	11/15/17 08:50	11/16/17 15:42	1
Hexachlorobutadiene	<0.21		0.21	0.066	mg/Kg	☼	11/15/17 08:50	11/16/17 15:42	1
Hexachlorocyclopentadiene	<0.84		0.84	0.24	mg/Kg	☼	11/15/17 08:50	11/16/17 15:42	1
Hexachloroethane	<0.21		0.21	0.063	mg/Kg	☼	11/15/17 08:50	11/16/17 15:42	1
Indeno[1,2,3-cd]pyrene	<0.041		0.041	0.011	mg/Kg	☼	11/15/17 08:50	11/16/17 15:42	1
Isophorone	<0.21		0.21	0.047	mg/Kg	☼	11/15/17 08:50	11/16/17 15:42	1
2-Methylnaphthalene	<0.084		0.084	0.0077	mg/Kg	☼	11/15/17 08:50	11/16/17 15:42	1
2-Methylphenol	<0.21		0.21	0.067	mg/Kg	☼	11/15/17 08:50	11/16/17 15:42	1
3 & 4 Methylphenol	<0.21		0.21	0.070	mg/Kg	☼	11/15/17 08:50	11/16/17 15:42	1
Naphthalene	<0.041		0.041	0.0064	mg/Kg	☼	11/15/17 08:50	11/16/17 15:42	1
2-Nitroaniline	<0.21		0.21	0.056	mg/Kg	☼	11/15/17 08:50	11/16/17 15:42	1
3-Nitroaniline	<0.41		0.41	0.13	mg/Kg	☼	11/15/17 08:50	11/16/17 15:42	1
4-Nitroaniline	<0.41		0.41	0.17	mg/Kg	☼	11/15/17 08:50	11/16/17 15:42	1
Nitrobenzene	<0.041		0.041	0.010	mg/Kg	☼	11/15/17 08:50	11/16/17 15:42	1
2-Nitrophenol	<0.41		0.41	0.099	mg/Kg	☼	11/15/17 08:50	11/16/17 15:42	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136991-3

Client Sample ID: 2696V-71-B02 (0-5)

Lab Sample ID: 500-136991-8

Date Collected: 11/08/17 09:50

Matrix: Solid

Date Received: 11/08/17 16:30

Percent Solids: 78.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Nitrophenol	<0.84		0.84	0.40	mg/Kg	☼	11/15/17 08:50	11/16/17 15:42	1
N-Nitrosodi-n-propylamine	<0.084		0.084	0.051	mg/Kg	☼	11/15/17 08:50	11/16/17 15:42	1
N-Nitrosodiphenylamine	<0.21		0.21	0.049	mg/Kg	☼	11/15/17 08:50	11/16/17 15:42	1
2,2'-oxybis[1-chloropropane]	<0.21		0.21	0.048	mg/Kg	☼	11/15/17 08:50	11/16/17 15:42	1
Pentachlorophenol	<0.84		0.84	0.67	mg/Kg	☼	11/15/17 08:50	11/16/17 15:42	1
Phenanthrene	0.0071	J	0.041	0.0058	mg/Kg	☼	11/15/17 08:50	11/16/17 15:42	1
Phenol	<0.21		0.21	0.093	mg/Kg	☼	11/15/17 08:50	11/16/17 15:42	1
Pyrene	<0.041		0.041	0.0083	mg/Kg	☼	11/15/17 08:50	11/16/17 15:42	1
1,2,4-Trichlorobenzene	<0.21		0.21	0.045	mg/Kg	☼	11/15/17 08:50	11/16/17 15:42	1
2,4,5-Trichlorophenol	<0.41		0.41	0.095	mg/Kg	☼	11/15/17 08:50	11/16/17 15:42	1
2,4,6-Trichlorophenol	<0.41		0.41	0.14	mg/Kg	☼	11/15/17 08:50	11/16/17 15:42	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	88		44 - 121	11/15/17 08:50	11/16/17 15:42	1
2-Fluorophenol	103		46 - 133	11/15/17 08:50	11/16/17 15:42	1
Nitrobenzene-d5	93		41 - 120	11/15/17 08:50	11/16/17 15:42	1
Phenol-d5	102		46 - 125	11/15/17 08:50	11/16/17 15:42	1
Terphenyl-d14	85		35 - 160	11/15/17 08:50	11/16/17 15:42	1
2,4,6-Tribromophenol	71		25 - 139	11/15/17 08:50	11/16/17 15:42	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.2		1.2	0.23	mg/Kg	☼	11/10/17 17:37	11/11/17 19:42	1
Arsenic	8.1		0.59	0.20	mg/Kg	☼	11/10/17 17:37	11/11/17 19:42	1
Barium	57		0.59	0.067	mg/Kg	☼	11/10/17 17:37	11/11/17 19:42	1
Beryllium	0.65		0.24	0.055	mg/Kg	☼	11/10/17 17:37	11/11/17 19:42	1
Cadmium	0.19	B	0.12	0.021	mg/Kg	☼	11/10/17 17:37	11/11/17 19:42	1
Chromium	18		0.59	0.29	mg/Kg	☼	11/10/17 17:37	11/11/17 19:42	1
Cobalt	13		0.30	0.077	mg/Kg	☼	11/10/17 17:37	11/11/17 19:42	1
Copper	23		0.59	0.17	mg/Kg	☼	11/10/17 17:37	11/11/17 19:42	1
Iron	20000		12	6.1	mg/Kg	☼	11/10/17 17:37	11/11/17 19:42	1
Lead	33		0.30	0.14	mg/Kg	☼	11/10/17 17:37	11/11/17 19:42	1
Magnesium	6400		5.9	2.9	mg/Kg	☼	11/10/17 17:37	11/11/17 19:42	1
Calcium	7200	B	12	2.0	mg/Kg	☼	11/10/17 17:37	11/11/17 19:42	1
Manganese	240		0.59	0.086	mg/Kg	☼	11/10/17 17:37	11/11/17 19:42	1
Nickel	31		0.59	0.17	mg/Kg	☼	11/10/17 17:37	11/11/17 19:42	1
Selenium	0.41	J	0.59	0.35	mg/Kg	☼	11/10/17 17:37	11/11/17 19:42	1
Silver	<0.30		0.30	0.076	mg/Kg	☼	11/10/17 17:37	11/11/17 19:42	1
Thallium	<0.59		0.59	0.29	mg/Kg	☼	11/10/17 17:37	11/11/17 19:42	1
Vanadium	20		0.30	0.070	mg/Kg	☼	11/10/17 17:37	11/11/17 19:42	1
Zinc	76		1.2	0.52	mg/Kg	☼	11/10/17 17:37	11/11/17 19:42	1
Potassium	2000		30	10	mg/Kg	☼	11/10/17 17:37	11/11/17 19:42	1
Sodium	2000		59	8.7	mg/Kg	☼	11/10/17 17:37	11/11/17 19:42	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.050		0.050	0.010	mg/L		11/14/17 08:55	11/14/17 15:58	1
Barium	0.48	J	0.50	0.050	mg/L		11/14/17 08:55	11/14/17 15:58	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		11/14/17 08:55	11/14/17 15:58	1
Cadmium	0.0020	J	0.0050	0.0020	mg/L		11/14/17 08:55	11/14/17 15:58	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136991-3

Client Sample ID: 2696V-71-B02 (0-5)

Lab Sample ID: 500-136991-8

Date Collected: 11/08/17 09:50

Matrix: Solid

Date Received: 11/08/17 16:30

Percent Solids: 78.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	270		5.0	0.50	mg/L		11/14/17 08:55	11/14/17 15:58	1
Chromium	<0.025		0.025	0.010	mg/L		11/14/17 08:55	11/14/17 15:58	1
Cobalt	<0.025		0.025	0.010	mg/L		11/14/17 08:55	11/14/17 15:58	1
Copper	0.037		0.025	0.010	mg/L		11/14/17 08:55	11/14/17 15:58	1
Iron	<0.40		0.40	0.20	mg/L		11/14/17 08:55	11/14/17 15:58	1
Lead	<0.0075		0.0075	0.0075	mg/L		11/14/17 08:55	11/14/17 15:58	1
Magnesium	110		2.5	0.50	mg/L		11/14/17 08:55	11/14/17 15:58	1
Manganese	3.0		0.025	0.010	mg/L		11/14/17 08:55	11/14/17 15:58	1
Nickel	0.015	J	0.025	0.010	mg/L		11/14/17 08:55	11/14/17 15:58	1
Potassium	2.6		2.5	0.50	mg/L		11/14/17 08:55	11/14/17 15:58	1
Selenium	<0.050		0.050	0.020	mg/L		11/14/17 08:55	11/14/17 15:58	1
Silver	<0.025		0.025	0.010	mg/L		11/14/17 08:55	11/14/17 15:58	1
Vanadium	<0.025		0.025	0.010	mg/L		11/14/17 08:55	11/14/17 15:58	1
Zinc	0.067	J	0.50	0.020	mg/L		11/14/17 08:55	11/14/17 15:58	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		11/14/17 14:25	11/15/17 20:15	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		11/14/17 08:55	11/15/17 13:08	1
Thallium	<0.0020		0.0020	0.0020	mg/L		11/14/17 08:55	11/15/17 13:08	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		11/14/17 15:15	11/16/17 13:17	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.036		0.019	0.0063	mg/Kg	☼	11/13/17 13:20	11/16/17 15:03	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.59		0.59	0.20	mg/Kg	☼	11/18/17 09:00	11/18/17 12:47	1
pH	8.2		0.20	0.20	SU			11/15/17 12:29	1

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136991-3

Client Sample ID: 2696V-71-B02 (5-8)

Lab Sample ID: 500-136991-9

Date Collected: 11/08/17 09:55

Matrix: Solid

Date Received: 11/08/17 16:30

Percent Solids: 83.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	0.050		0.017	0.0073	mg/Kg	☼	11/09/17 07:40	11/14/17 20:47	1
Benzene	<0.0017		0.0017	0.00042	mg/Kg	☼	11/09/17 07:40	11/14/17 20:47	1
Bromodichloromethane	<0.0017		0.0017	0.00034	mg/Kg	☼	11/09/17 07:40	11/14/17 20:47	1
Bromoform	<0.0017		0.0017	0.00049	mg/Kg	☼	11/09/17 07:40	11/14/17 20:47	1
Bromomethane	<0.0042		0.0042	0.0016	mg/Kg	☼	11/09/17 07:40	11/14/17 20:47	1
2-Butanone (MEK)	<0.0042		0.0042	0.0018	mg/Kg	☼	11/09/17 07:40	11/14/17 20:47	1
Carbon disulfide	<0.0042		0.0042	0.00087	mg/Kg	☼	11/09/17 07:40	11/14/17 20:47	1
Carbon tetrachloride	<0.0017		0.0017	0.00048	mg/Kg	☼	11/09/17 07:40	11/14/17 20:47	1
Chlorobenzene	<0.0017		0.0017	0.00061	mg/Kg	☼	11/09/17 07:40	11/14/17 20:47	1
Chloroethane	<0.0042		0.0042	0.0012	mg/Kg	☼	11/09/17 07:40	11/14/17 20:47	1
Chloroform	<0.0017		0.0017	0.00058	mg/Kg	☼	11/09/17 07:40	11/14/17 20:47	1
Chloromethane	<0.0042		0.0042	0.0017	mg/Kg	☼	11/09/17 07:40	11/14/17 20:47	1
cis-1,2-Dichloroethene	<0.0017		0.0017	0.00047	mg/Kg	☼	11/09/17 07:40	11/14/17 20:47	1
cis-1,3-Dichloropropene	<0.0017		0.0017	0.00050	mg/Kg	☼	11/09/17 07:40	11/14/17 20:47	1
Dibromochloromethane	<0.0017		0.0017	0.00054	mg/Kg	☼	11/09/17 07:40	11/14/17 20:47	1
1,1-Dichloroethane	<0.0017		0.0017	0.00057	mg/Kg	☼	11/09/17 07:40	11/14/17 20:47	1
1,2-Dichloroethane	<0.0042		0.0042	0.0013	mg/Kg	☼	11/09/17 07:40	11/14/17 20:47	1
1,1-Dichloroethene	<0.0017		0.0017	0.00057	mg/Kg	☼	11/09/17 07:40	11/14/17 20:47	1
1,2-Dichloropropane	<0.0017		0.0017	0.00043	mg/Kg	☼	11/09/17 07:40	11/14/17 20:47	1
1,3-Dichloropropane, Total	<0.0017		0.0017	0.00058	mg/Kg	☼	11/09/17 07:40	11/14/17 20:47	1
Ethylbenzene	<0.0017		0.0017	0.00080	mg/Kg	☼	11/09/17 07:40	11/14/17 20:47	1
2-Hexanone	<0.0042		0.0042	0.0013	mg/Kg	☼	11/09/17 07:40	11/14/17 20:47	1
Methylene Chloride	<0.0042		0.0042	0.0016	mg/Kg	☼	11/09/17 07:40	11/14/17 20:47	1
4-Methyl-2-pentanone (MIBK)	<0.0042		0.0042	0.0012	mg/Kg	☼	11/09/17 07:40	11/14/17 20:47	1
Methyl tert-butyl ether	<0.0017		0.0017	0.00049	mg/Kg	☼	11/09/17 07:40	11/14/17 20:47	1
Styrene	<0.0017		0.0017	0.00050	mg/Kg	☼	11/09/17 07:40	11/14/17 20:47	1
1,1,2,2-Tetrachloroethane	<0.0017		0.0017	0.00053	mg/Kg	☼	11/09/17 07:40	11/14/17 20:47	1
Tetrachloroethene	<0.0017		0.0017	0.00057	mg/Kg	☼	11/09/17 07:40	11/14/17 20:47	1
Toluene	<0.0017		0.0017	0.00042	mg/Kg	☼	11/09/17 07:40	11/14/17 20:47	1
trans-1,2-Dichloroethene	<0.0017		0.0017	0.00074	mg/Kg	☼	11/09/17 07:40	11/14/17 20:47	1
trans-1,3-Dichloropropene	<0.0017		0.0017	0.00058	mg/Kg	☼	11/09/17 07:40	11/14/17 20:47	1
1,1,1-Trichloroethane	<0.0017		0.0017	0.00056	mg/Kg	☼	11/09/17 07:40	11/14/17 20:47	1
1,1,2-Trichloroethane	<0.0017		0.0017	0.00071	mg/Kg	☼	11/09/17 07:40	11/14/17 20:47	1
Trichloroethene	<0.0017		0.0017	0.00056	mg/Kg	☼	11/09/17 07:40	11/14/17 20:47	1
Vinyl acetate	<0.0042		0.0042	0.0014	mg/Kg	☼	11/09/17 07:40	11/14/17 20:47	1
Vinyl chloride	<0.0017		0.0017	0.00074	mg/Kg	☼	11/09/17 07:40	11/14/17 20:47	1
Xylenes, Total	<0.0033		0.0033	0.00053	mg/Kg	☼	11/09/17 07:40	11/14/17 20:47	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	89		75 - 131	11/09/17 07:40	11/14/17 20:47	1
Dibromofluoromethane	110		75 - 126	11/09/17 07:40	11/14/17 20:47	1
1,2-Dichloroethane-d4 (Surr)	115		70 - 134	11/09/17 07:40	11/14/17 20:47	1
Toluene-d8 (Surr)	96		75 - 124	11/09/17 07:40	11/14/17 20:47	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.038		0.038	0.0069	mg/Kg	☼	11/15/17 08:50	11/16/17 16:10	1
Acenaphthylene	<0.038		0.038	0.0050	mg/Kg	☼	11/15/17 08:50	11/16/17 16:10	1
Anthracene	<0.038		0.038	0.0064	mg/Kg	☼	11/15/17 08:50	11/16/17 16:10	1
Benzo[a]anthracene	<0.038		0.038	0.0051	mg/Kg	☼	11/15/17 08:50	11/16/17 16:10	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136991-3

Client Sample ID: 2696V-71-B02 (5-8)

Lab Sample ID: 500-136991-9

Date Collected: 11/08/17 09:55

Matrix: Solid

Date Received: 11/08/17 16:30

Percent Solids: 83.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	<0.038		0.038	0.0074	mg/Kg	☼	11/15/17 08:50	11/16/17 16:10	1
Benzo[b]fluoranthene	0.043		0.038	0.0082	mg/Kg	☼	11/15/17 08:50	11/16/17 16:10	1
Benzo[g,h,i]perylene	0.039		0.038	0.012	mg/Kg	☼	11/15/17 08:50	11/16/17 16:10	1
Benzo[k]fluoranthene	<0.038		0.038	0.011	mg/Kg	☼	11/15/17 08:50	11/16/17 16:10	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.039	mg/Kg	☼	11/15/17 08:50	11/16/17 16:10	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.057	mg/Kg	☼	11/15/17 08:50	11/16/17 16:10	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.070	mg/Kg	☼	11/15/17 08:50	11/16/17 16:10	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.050	mg/Kg	☼	11/15/17 08:50	11/16/17 16:10	1
Butyl benzyl phthalate	<0.19		0.19	0.073	mg/Kg	☼	11/15/17 08:50	11/16/17 16:10	1
Carbazole	<0.19		0.19	0.095	mg/Kg	☼	11/15/17 08:50	11/16/17 16:10	1
4-Chloroaniline	<0.77		0.77	0.18	mg/Kg	☼	11/15/17 08:50	11/16/17 16:10	1
4-Chloro-3-methylphenol	<0.38		0.38	0.13	mg/Kg	☼	11/15/17 08:50	11/16/17 16:10	1
2-Chloronaphthalene	<0.19		0.19	0.042	mg/Kg	☼	11/15/17 08:50	11/16/17 16:10	1
2-Chlorophenol	<0.19		0.19	0.065	mg/Kg	☼	11/15/17 08:50	11/16/17 16:10	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.045	mg/Kg	☼	11/15/17 08:50	11/16/17 16:10	1
Chrysene	0.017 J		0.038	0.010	mg/Kg	☼	11/15/17 08:50	11/16/17 16:10	1
Dibenz(a,h)anthracene	<0.038		0.038	0.0074	mg/Kg	☼	11/15/17 08:50	11/16/17 16:10	1
Dibenzofuran	<0.19		0.19	0.045	mg/Kg	☼	11/15/17 08:50	11/16/17 16:10	1
1,2-Dichlorobenzene	<0.19		0.19	0.046	mg/Kg	☼	11/15/17 08:50	11/16/17 16:10	1
1,3-Dichlorobenzene	<0.19		0.19	0.043	mg/Kg	☼	11/15/17 08:50	11/16/17 16:10	1
1,4-Dichlorobenzene	<0.19		0.19	0.049	mg/Kg	☼	11/15/17 08:50	11/16/17 16:10	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.053	mg/Kg	☼	11/15/17 08:50	11/16/17 16:10	1
2,4-Dichlorophenol	<0.38		0.38	0.091	mg/Kg	☼	11/15/17 08:50	11/16/17 16:10	1
Diethyl phthalate	<0.19		0.19	0.065	mg/Kg	☼	11/15/17 08:50	11/16/17 16:10	1
2,4-Dimethylphenol	<0.38		0.38	0.14	mg/Kg	☼	11/15/17 08:50	11/16/17 16:10	1
Dimethyl phthalate	<0.19		0.19	0.050	mg/Kg	☼	11/15/17 08:50	11/16/17 16:10	1
Di-n-butyl phthalate	<0.19		0.19	0.058	mg/Kg	☼	11/15/17 08:50	11/16/17 16:10	1
4,6-Dinitro-2-methylphenol	<0.77		0.77	0.31	mg/Kg	☼	11/15/17 08:50	11/16/17 16:10	1
2,4-Dinitrophenol	<0.77		0.77	0.67	mg/Kg	☼	11/15/17 08:50	11/16/17 16:10	1
2,4-Dinitrotoluene	<0.19		0.19	0.061	mg/Kg	☼	11/15/17 08:50	11/16/17 16:10	1
2,6-Dinitrotoluene	<0.19		0.19	0.075	mg/Kg	☼	11/15/17 08:50	11/16/17 16:10	1
Di-n-octyl phthalate	<0.19		0.19	0.062	mg/Kg	☼	11/15/17 08:50	11/16/17 16:10	1
Fluoranthene	<0.038		0.038	0.0071	mg/Kg	☼	11/15/17 08:50	11/16/17 16:10	1
Fluorene	<0.038		0.038	0.0054	mg/Kg	☼	11/15/17 08:50	11/16/17 16:10	1
Hexachlorobenzene	<0.077		0.077	0.0088	mg/Kg	☼	11/15/17 08:50	11/16/17 16:10	1
Hexachlorobutadiene	<0.19		0.19	0.060	mg/Kg	☼	11/15/17 08:50	11/16/17 16:10	1
Hexachlorocyclopentadiene	<0.77		0.77	0.22	mg/Kg	☼	11/15/17 08:50	11/16/17 16:10	1
Hexachloroethane	<0.19		0.19	0.058	mg/Kg	☼	11/15/17 08:50	11/16/17 16:10	1
Indeno[1,2,3-cd]pyrene	<0.038		0.038	0.0099	mg/Kg	☼	11/15/17 08:50	11/16/17 16:10	1
Isophorone	<0.19		0.19	0.043	mg/Kg	☼	11/15/17 08:50	11/16/17 16:10	1
2-Methylnaphthalene	<0.077		0.077	0.0070	mg/Kg	☼	11/15/17 08:50	11/16/17 16:10	1
2-Methylphenol	<0.19		0.19	0.061	mg/Kg	☼	11/15/17 08:50	11/16/17 16:10	1
3 & 4 Methylphenol	<0.19		0.19	0.064	mg/Kg	☼	11/15/17 08:50	11/16/17 16:10	1
Naphthalene	<0.038		0.038	0.0059	mg/Kg	☼	11/15/17 08:50	11/16/17 16:10	1
2-Nitroaniline	<0.19		0.19	0.051	mg/Kg	☼	11/15/17 08:50	11/16/17 16:10	1
3-Nitroaniline	<0.38		0.38	0.12	mg/Kg	☼	11/15/17 08:50	11/16/17 16:10	1
4-Nitroaniline	<0.38		0.38	0.16	mg/Kg	☼	11/15/17 08:50	11/16/17 16:10	1
Nitrobenzene	<0.038		0.038	0.0095	mg/Kg	☼	11/15/17 08:50	11/16/17 16:10	1
2-Nitrophenol	<0.38		0.38	0.090	mg/Kg	☼	11/15/17 08:50	11/16/17 16:10	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136991-3

Client Sample ID: 2696V-71-B02 (5-8)

Lab Sample ID: 500-136991-9

Date Collected: 11/08/17 09:55

Matrix: Solid

Date Received: 11/08/17 16:30

Percent Solids: 83.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Nitrophenol	<0.77		0.77	0.36	mg/Kg	☼	11/15/17 08:50	11/16/17 16:10	1
N-Nitrosodi-n-propylamine	<0.077		0.077	0.047	mg/Kg	☼	11/15/17 08:50	11/16/17 16:10	1
N-Nitrosodiphenylamine	<0.19		0.19	0.045	mg/Kg	☼	11/15/17 08:50	11/16/17 16:10	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.044	mg/Kg	☼	11/15/17 08:50	11/16/17 16:10	1
Pentachlorophenol	<0.77		0.77	0.61	mg/Kg	☼	11/15/17 08:50	11/16/17 16:10	1
Phenanthrene	<0.038		0.038	0.0053	mg/Kg	☼	11/15/17 08:50	11/16/17 16:10	1
Phenol	<0.19		0.19	0.085	mg/Kg	☼	11/15/17 08:50	11/16/17 16:10	1
Pyrene	<0.038		0.038	0.0076	mg/Kg	☼	11/15/17 08:50	11/16/17 16:10	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.041	mg/Kg	☼	11/15/17 08:50	11/16/17 16:10	1
2,4,5-Trichlorophenol	<0.38		0.38	0.087	mg/Kg	☼	11/15/17 08:50	11/16/17 16:10	1
2,4,6-Trichlorophenol	<0.38		0.38	0.13	mg/Kg	☼	11/15/17 08:50	11/16/17 16:10	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	83		44 - 121	11/15/17 08:50	11/16/17 16:10	1
2-Fluorophenol	97		46 - 133	11/15/17 08:50	11/16/17 16:10	1
Nitrobenzene-d5	87		41 - 120	11/15/17 08:50	11/16/17 16:10	1
Phenol-d5	93		46 - 125	11/15/17 08:50	11/16/17 16:10	1
Terphenyl-d14	79		35 - 160	11/15/17 08:50	11/16/17 16:10	1
2,4,6-Tribromophenol	64		25 - 139	11/15/17 08:50	11/16/17 16:10	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.2		1.2	0.23	mg/Kg	☼	11/10/17 17:37	11/11/17 19:45	1
Arsenic	8.6		0.58	0.20	mg/Kg	☼	11/10/17 17:37	11/11/17 19:45	1
Barium	53		0.58	0.066	mg/Kg	☼	11/10/17 17:37	11/11/17 19:45	1
Beryllium	0.66		0.23	0.054	mg/Kg	☼	11/10/17 17:37	11/11/17 19:45	1
Cadmium	0.074	J B	0.12	0.021	mg/Kg	☼	11/10/17 17:37	11/11/17 19:45	1
Chromium	17		0.58	0.29	mg/Kg	☼	11/10/17 17:37	11/11/17 19:45	1
Cobalt	22		0.29	0.076	mg/Kg	☼	11/10/17 17:37	11/11/17 19:45	1
Copper	19		0.58	0.16	mg/Kg	☼	11/10/17 17:37	11/11/17 19:45	1
Iron	21000		12	6.0	mg/Kg	☼	11/10/17 17:37	11/11/17 19:45	1
Lead	12		0.29	0.13	mg/Kg	☼	11/10/17 17:37	11/11/17 19:45	1
Magnesium	21000		5.8	2.9	mg/Kg	☼	11/10/17 17:37	11/11/17 19:45	1
Calcium	58000	B	120	20	mg/Kg	☼	11/10/17 17:37	11/13/17 13:23	10
Manganese	730		0.58	0.084	mg/Kg	☼	11/10/17 17:37	11/11/17 19:45	1
Nickel	50		0.58	0.17	mg/Kg	☼	11/10/17 17:37	11/11/17 19:45	1
Selenium	0.42	J	0.58	0.34	mg/Kg	☼	11/10/17 17:37	11/11/17 19:45	1
Silver	<0.29		0.29	0.075	mg/Kg	☼	11/10/17 17:37	11/11/17 19:45	1
Thallium	0.47	J	0.58	0.29	mg/Kg	☼	11/10/17 17:37	11/11/17 19:45	1
Vanadium	19		0.29	0.068	mg/Kg	☼	11/10/17 17:37	11/11/17 19:45	1
Zinc	55		1.2	0.51	mg/Kg	☼	11/10/17 17:37	11/11/17 19:45	1
Potassium	2600		29	10	mg/Kg	☼	11/10/17 17:37	11/11/17 19:45	1
Sodium	390		58	8.6	mg/Kg	☼	11/10/17 17:37	11/11/17 19:45	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.050		0.050	0.010	mg/L		11/14/17 08:55	11/14/17 16:11	1
Barium	0.39	J	0.50	0.050	mg/L		11/14/17 08:55	11/14/17 16:11	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		11/14/17 08:55	11/14/17 16:11	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		11/14/17 08:55	11/14/17 16:11	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136991-3

Client Sample ID: 2696V-71-B02 (5-8)

Lab Sample ID: 500-136991-9

Date Collected: 11/08/17 09:55

Matrix: Solid

Date Received: 11/08/17 16:30

Percent Solids: 83.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	570		5.0	0.50	mg/L		11/14/17 08:55	11/14/17 16:11	1
Chromium	<0.025		0.025	0.010	mg/L		11/14/17 08:55	11/14/17 16:11	1
Cobalt	<0.025		0.025	0.010	mg/L		11/14/17 08:55	11/14/17 16:11	1
Copper	0.025		0.025	0.010	mg/L		11/14/17 08:55	11/14/17 16:11	1
Iron	<0.40		0.40	0.20	mg/L		11/14/17 08:55	11/14/17 16:11	1
Lead	<0.0075		0.0075	0.0075	mg/L		11/14/17 08:55	11/14/17 16:11	1
Magnesium	37		2.5	0.50	mg/L		11/14/17 08:55	11/14/17 16:11	1
Manganese	0.74		0.025	0.010	mg/L		11/14/17 08:55	11/14/17 16:11	1
Nickel	<0.025		0.025	0.010	mg/L		11/14/17 08:55	11/14/17 16:11	1
Potassium	3.4		2.5	0.50	mg/L		11/14/17 08:55	11/14/17 16:11	1
Selenium	<0.050		0.050	0.020	mg/L		11/14/17 08:55	11/14/17 16:11	1
Silver	<0.025		0.025	0.010	mg/L		11/14/17 08:55	11/14/17 16:11	1
Vanadium	<0.025		0.025	0.010	mg/L		11/14/17 08:55	11/14/17 16:11	1
Zinc	0.057 J		0.50	0.020	mg/L		11/14/17 08:55	11/14/17 16:11	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.47		0.025	0.010	mg/L		11/14/17 14:25	11/15/17 20:19	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		11/14/17 08:55	11/15/17 13:12	1
Thallium	<0.0020		0.0020	0.0020	mg/L		11/14/17 08:55	11/15/17 13:12	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		11/14/17 15:15	11/16/17 13:19	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.024		0.017	0.0057	mg/Kg	☼	11/13/17 13:20	11/16/17 15:11	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.50		0.50	0.17	mg/Kg	☼	11/18/17 09:00	11/18/17 12:47	1
pH	8.1		0.20	0.20	SU			11/15/17 12:32	1

Definitions/Glossary

Client: Terracon Consulting Eng & Scientists
Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136991-3

Qualifiers

GC/MS Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
B	Compound was found in the blank and sample.

Glossary

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

Accreditation/Certification Summary

Client: Terracon Consulting Eng & Scientists
Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136991-3

Laboratory: TestAmerica Chicago

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

Authority	Program	EPA Region	Identification Number	Expiration Date
Illinois	NELAP	5	100201	04-30-18

The following analytes are included in this report, but accreditation/certification is not offered by the governing authority:

Analysis Method	Prep Method	Matrix	Analyte
6020A	3010A	Solid	Antimony
6020A	3010A	Solid	Thallium
8260B	5035	Solid	1,3-Dichloropropene, Total
9045D		Solid	pH
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

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

Report To (optional) MATT WEISS Bill To (optional) _____
 Contact: TERRACON Contact: _____
 Company: TERRACON Company: _____
 Address: _____ Address: _____
 Address: NAREVILLE IL Address: _____
 Phone: _____ Phone: _____
 Fax: _____ Fax: _____
 E-Mail: matt.weiss@terracon.com PO#/Reference# _____

Chain of Custody Record

Lab Job #: 500-136991
 Chain of Custody Number: _____
 Page _____ of _____
 Temperature °C of Cooler: 24.29

Client		Client Project #		Preservative		Parameter		Sample Disposal		Comments			
TERRACON		1177029M											
Project Name		Project Location/State		Lab Project #		Lab PM							
WORK ORDER #37		MARKHAM IL				RYAN J PETERSON							
Lab ID	MS/MSD	Sample ID	Sampling		# of Containers	Matrix	NOCS	Subcs	TOTAL TAL-23 Emergency's	PH	TCLP TAL-23 Emergency's	SPLP TAL-23 Emergency's	Preservative Key
			Date	Time									
6		2696V-71-B01(0-5)	11/8	930	5	S	K	K	K	K	K	K	
7		2696V-71-B01(5-8)		935									
8		2696V-71-B01(0-5)		930									
9		2696V-71-B01(5-8)		935									

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: <u>[Signature]</u> Company: <u>TERRACON</u> Date: <u>11/8/17</u> Time: <u>1600</u>	Received By: <u>K Neal</u> Company: <u>TA</u> Date: <u>11/8/17</u> Time: <u>1600</u>
Relinquished By: <u>P. Neal</u> Company: <u>TA</u> Date: <u>11/8/17</u> Time: <u>1630</u>	Received By: <u>[Signature]</u> Company: <u>TA-CHE</u> Date: <u>11/9/17</u> Time: <u>0715</u>
Relinquished By: _____ Company: _____ Date: _____ Time: _____	Received By: _____ Company: _____ Date: _____ Time: _____

Lab Courier: TA
 Shipped: _____
 Hand Delivered: _____

- Matrix Key
- WW - Wastewater
 - 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:
- No AL in TAL Analysis
- Hold SPLP, pending approval

Lab Comments:

Login Sample Receipt Checklist

Client: Terracon Consulting Eng & Scientists

Job Number: 500-136991-3

Login Number: 136991

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	2.4,2.9
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	False	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	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 351-US Rte 6 at Pulaski/Crawford & Kedzie Office Phone Number, if available: _____

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

Crawford Ave (Southbound) IDOT STA 53+19 to 56+00 (ISGS Site 2696V-72)

City: Oak Forest/Markham State: IL Zip Code: 60428

County: Cook Township: Bremen

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

Latitude: 41.60367 Longitude: -87.71682
(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: 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 Phone: 847-705-4122

Zip Code: 60196 Phone: 847-705-4122

Contact: Paul Nickles

Contact: Paul Nickles

Email, if available: paul.nickles@illinois.gov

Email, if available: paul.nickles@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 351-US Rte 6 at Pulaski/Crawford & Kedzie

Latitude: 41.60367 Longitude: -87.71682

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)]:

Soil from borings B01 and B02 were sampled adjacent to ISGS Site No 2696V-72. See Exhibits 4, 4C, and Table 105 of the Preliminary Site Investigation Report prepared by Terracon.

- 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]:

TestAmerica Lab Report No J136991-4
Also see Preliminary Site Investigation Report prepared by Terracon. CCDD/USFO facility in MSA County (excluding Chicago).

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

I, Matt Weiss (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.

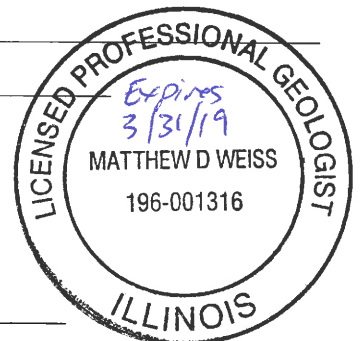
Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))

Company Name: Terracon Consultants, Inc
 Street Address: 135 Ambassador Drive
 City: Naperville State: IL Zip Code: 60540
 Phone: 630-717-4263

Matt Weiss
 Printed Name:

[Signature]
 Licensed Professional Engineer or
 Licensed Professional Geologist Signature:

7/24/18
 Date:



Detected Constituents to MACs-PTB 174-009;Work Order:037A
Preliminary Site Investigation
FAP 351-US Rte 6 at S. Pulaski/Crawford + Kedzie (PESA #2696V-72)
Oak Forest/Markham, Cook County, IL
Terracon Project No. 11177029M
Page 1 of 2

Analyte	Units	Background		Maximum Allowed Concentration	Sample Identification	2696V-72-B01 (0-1)	2696V-72-B02 (0-1)
				CCDD	Sample Depth (feet)	(0-1)	(0-1)
		Chicago	MSAs	mg/kg pH 6.25-9.0	Date Collected	11/08/2017	11/08/2017
Volatile Organic Analytical Parameters							
Acetone	mg/kg	---	---	25		0.03	<0.018
Semivolatile Organic Analytical Parameters							
Acenaphthene	mg/kg	0.09	0.13	570		<0.039	0.017
Acenaphthylene	mg/kg	0.03	0.07	85		0.0083	0.33
Anthracene	mg/kg	0.25	0.4	12000		0.028	0.29
Benzo(a)anthracene	mg/kg	1.1	1.8	0.9		0.2	0.84
Benzo(a)pyrene	mg/kg	1.3	2.1	0.09		0.35	1.1
Benzo(b)fluoranthene	mg/kg	1.5	2.1	0.9		0.46	1.7
Benzo(g,h,i)perylene	mg/kg	0.68	1.7	2300		0.19	0.54
Benzo(k)fluoranthene	mg/kg	0.99	1.7	9		0.17	0.57
Chrysene	mg/kg	1.2	2.7	88		0.26	0.93
Dibenzo(a,h)anthracene	mg/kg	0.2	0.42	0.09		0.076	0.18
Fluoranthene	mg/kg	2.7	4.1	3100		0.47	2.2
Fluorene	mg/kg	0.1	0.18	560		0.0064	0.073
Indeno(1,2,3-c,d)pyrene	mg/kg	0.86	1.6	0.9		0.18	0.56
Naphthalene	mg/kg	0.04	0.2	1.8		0.0062	0.031
Phenanthrene	mg/kg	1.3	2.5	210		0.13	1.3
Pyrene	mg/kg	1.9	3.0	2300		0.3	1.4
Carbazole	mg/kg	---	---	0.6		<0.20	0.34
Dibenzofuran	mg/kg	---	---	---		<0.20	0.047
2-Methylnaphthalene	mg/kg	---	0.14	---		<0.079	0.014
Inorganic Analytical Parameters							
Arsenic	mg/kg	---	13	11.3		8.1	7.5
Barium	mg/kg	---	110	1500		52	67
Cadmium	mg/kg	---	0.6	5.2		0.43	0.27
Chromium, total	mg/kg	---	16.2	21		13	16
Lead	mg/kg	---	36	107		60	70
Mercury	mg/kg	---	0.06	0.1		0.039	0.059
Selenium	mg/kg	---	0.48	1.3		<0.59	0.39
Silver	mg/kg	---	0.55	4.4		<0.29	<0.28
Antimony	mg/kg	---	4.0	5		0.55	0.32
Beryllium	mg/kg	---	0.59	22		0.45	0.61
Calcium	mg/kg	---	9,300	---		22000	25000
Cobalt	mg/kg	---	8.9	20		8.1	9.9
Copper	mg/kg	---	19.6	2900		25	24
Cyanide	mg/kg	---	0.51	---		<0.56	<0.52
Iron	mg/kg	---	15,900	15000		17000	17000
Magnesium	mg/kg	---	4,820	325000		12000	14000
Manganese	mg/kg	---	636	630		580	320
Nickel	mg/kg	---	18	100		19	24
Potassium	mg/kg	---	1,268	---		970	1400
Sodium	mg/kg	---	130	---		190	150
Thallium	mg/kg	---	0.32	2.6		<0.59	<0.55
Vanadium	mg/kg	---	25.2	550		16	19
Zinc	mg/kg	---	95	5100		100	100
pH			6.25	9		8.3	8.2

Detected Constituents to MACs-PTB 174-009;Work Order:037A
Preliminary Site Investigation
FAP 351-US Rte 6 at S. Pulaski/Crawford + Kedzie (PESA #2696V-72)
Oak Forest/Markham, Cook County, IL
Terracon Project No. 11177029M
Page 2 of 2

Analyte	Units	Background		Maximum Allowed Concentration	Sample Identification	2696V-72-B01 (0-1)	2696V-72-B02 (0-1)
				CCDD	Sample Depth (feet)	(0-1)	(0-1)
		Chicago	MSAs	mg/kg pH 6.25-9.0	Date Collected	11/08/2017	11/08/2017
Inorganic Analytical Parameters (SPLP)							
Antimony,SPLP	mg/L	---	---	---		--	--
Arsenic,SPLP	mg/L	---	---	---		--	--
Barium,SPLP	mg/L	---	---	---		--	--
Beryllium,SPLP	mg/L	---	---	---		--	--
Cadmium,SPLP	mg/L	---	---	---		--	--
Calcium,SPLP	mg/L	---	---	---		--	--
Chromium,SPLP	mg/L	---	---	---		--	--
Cobalt,SPLP	mg/L	---	---	---		--	--
Copper,SPLP	mg/L	---	---	---		--	--
Iron,SPLP	mg/L	---	---	---		--	--
Lead,SPLP	mg/L	---	---	---		--	--
Magnesium,SPLP	mg/L	---	---	---		--	--
Manganese,SPLP	mg/L	---	---	---		0.21	--
Mercury,SPLP	mg/L	---	---	---		--	--
Nickel,SPLP	mg/L	---	---	---		--	--
Potassium,SPLP	mg/L	---	---	---		--	--
Selenium,SPLP	mg/L	---	---	---		--	--
Silver,SPLP	mg/L	---	---	---		--	--
Sodium,SPLP	mg/L	---	---	---		--	--
Thallium,SPLP	mg/L	---	---	---		--	--
Vanadium,SPLP	mg/L	---	---	---		--	--
Zinc,SPLP	mg/L	---	---	---		--	--
Cyanide,SPLP	mg/L	---	---	---		--	--
Inorganic Analytical Parameters (TCLP)							
Arsenic,TCLP	mg/L	---	---	---		<0.050	<0.050
Barium,TCLP	mg/L	---	---	---		0.48	0.52
Cadmium,TCLP	mg/L	---	---	---		0.0029	<0.0050
Chromium,TCLP	mg/L	---	---	---		<0.025	<0.025
Lead,TCLP	mg/L	---	---	---		<0.0075	<0.0075
Mercury,TCLP	mg/L	---	---	---		<0.00020	<0.00020
Selenium,TCLP	mg/L	---	---	---		<0.050	<0.050
Silver,TCLP	mg/L	---	---	---		<0.025	<0.025
Antimony,TCLP	mg/L	---	---	---		<0.0060	<0.0060
Beryllium,TCLP	mg/L	---	---	---		<0.0040	<0.0040
Calcium,TCLP	mg/L	---	---	---		260	450
Cobalt,TCLP	mg/L	---	---	---		<0.025	<0.025
Copper,TCLP	mg/L	---	---	---		0.042	0.046
Cyanide,TCLP	mg/L	---	---	---		----	----
Iron,TCLP	mg/L	---	---	---		<0.40	<0.40
Magnesium,TCLP	mg/L	---	---	---		130	85
Manganese,TCLP	mg/L	---	---	---		0.32	0.049
Nickel,TCLP	mg/L	---	---	---		<0.025	<0.025
Potassium,TCLP	mg/L	---	---	---		4	2.1
Sodium,TCLP	mg/L	---	---	---		----	----
Thallium,TCLP	mg/L	---	---	---		<0.0020	<0.0020
Vanadium,TCLP	mg/L	---	---	---		<0.025	<0.025
Zinc,TCLP	mg/L	---	---	---		0.14	0.052

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: 500-136991-4

Client Project/Site: IDOT - Oak Forest/Markham - WO37

For:

Terracon Consulting Eng & Scientists

135 Ambassador Drive

Naperville, Illinois 60540

Attn: Mr. Matthew Weiss

Jodie Bracken

Authorized for release by:

11/20/2017 5:25:59 PM

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Designee for

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LINKS

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

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

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

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Case Narrative

Client: Terracon Consulting Eng & Scientists
Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136991-4

Job ID: 500-136991-4

Laboratory: TestAmerica Chicago

Narrative

**Job Narrative
500-136991-4**

Receipt

The samples were received on 11/8/2017 4:30 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 2.4° C and 2.9° C.

GC/MS VOA

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

GC/MS Semi VOA

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

Metals

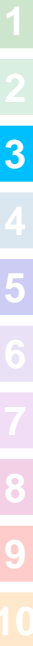
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

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: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136991-4

Client Sample ID: 2696V-72-B01 (0-1)

Lab Sample ID: 500-136991-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	0.030		0.020	0.0089	mg/Kg	1	☼	8260B	Total/NA
Acenaphthylene	0.0083	J	0.039	0.0052	mg/Kg	1	☼	8270D	Total/NA
Anthracene	0.028	J	0.039	0.0065	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.20		0.039	0.0053	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.35		0.039	0.0076	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.46		0.039	0.0084	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.19		0.039	0.013	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.17		0.039	0.012	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.26		0.039	0.011	mg/Kg	1	☼	8270D	Total/NA
Dibenz(a,h)anthracene	0.076		0.039	0.0076	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.47		0.039	0.0073	mg/Kg	1	☼	8270D	Total/NA
Fluorene	0.0064	J	0.039	0.0055	mg/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.18		0.039	0.010	mg/Kg	1	☼	8270D	Total/NA
Naphthalene	0.0062	J	0.039	0.0060	mg/Kg	1	☼	8270D	Total/NA
Phenanthrene	0.13		0.039	0.0054	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.30		0.039	0.0078	mg/Kg	1	☼	8270D	Total/NA
Antimony	0.55	J	1.2	0.23	mg/Kg	1	☼	6010B	Total/NA
Arsenic	8.1		0.59	0.20	mg/Kg	1	☼	6010B	Total/NA
Barium	52		0.59	0.067	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.45		0.24	0.055	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.43	B	0.12	0.021	mg/Kg	1	☼	6010B	Total/NA
Chromium	13		0.59	0.29	mg/Kg	1	☼	6010B	Total/NA
Cobalt	8.1		0.29	0.077	mg/Kg	1	☼	6010B	Total/NA
Copper	25		0.59	0.16	mg/Kg	1	☼	6010B	Total/NA
Iron	17000		12	6.1	mg/Kg	1	☼	6010B	Total/NA
Lead	60		0.29	0.14	mg/Kg	1	☼	6010B	Total/NA
Magnesium	12000		5.9	2.9	mg/Kg	1	☼	6010B	Total/NA
Calcium	22000	B	12	2.0	mg/Kg	1	☼	6010B	Total/NA
Manganese	580		0.59	0.085	mg/Kg	1	☼	6010B	Total/NA
Nickel	19		0.59	0.17	mg/Kg	1	☼	6010B	Total/NA
Vanadium	16		0.29	0.069	mg/Kg	1	☼	6010B	Total/NA
Zinc	100		1.2	0.52	mg/Kg	1	☼	6010B	Total/NA
Potassium	970		29	10	mg/Kg	1	☼	6010B	Total/NA
Sodium	190		59	8.7	mg/Kg	1	☼	6010B	Total/NA
Barium	0.48	J	0.50	0.050	mg/L	1		6010B	TCLP
Cadmium	0.0029	J	0.0050	0.0020	mg/L	1		6010B	TCLP
Calcium	260		5.0	0.50	mg/L	1		6010B	TCLP
Copper	0.042		0.025	0.010	mg/L	1		6010B	TCLP
Magnesium	130		2.5	0.50	mg/L	1		6010B	TCLP
Manganese	0.32		0.025	0.010	mg/L	1		6010B	TCLP
Potassium	4.0		2.5	0.50	mg/L	1		6010B	TCLP
Zinc	0.14	J	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.21		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.039		0.019	0.0064	mg/Kg	1	☼	7471B	Total/NA
pH	8.3		0.20	0.20	SU	1		9045D	Total/NA

Client Sample ID: 2696V-72-B02 (0-1)

Lab Sample ID: 500-136991-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acenaphthene	0.017	J	0.039	0.0070	mg/Kg	1	☼	8270D	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136991-4

Client Sample ID: 2696V-72-B02 (0-1) (Continued)

Lab Sample ID: 500-136991-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Acenaphthylene	0.33		0.039	0.0052	mg/Kg	1	*	*	8270D	Total/NA
Anthracene	0.29		0.039	0.0065	mg/Kg	1	*	*	8270D	Total/NA
Benzo[a]anthracene	0.84		0.039	0.0053	mg/Kg	1	*	*	8270D	Total/NA
Benzo[a]pyrene	1.1		0.039	0.0076	mg/Kg	1	*	*	8270D	Total/NA
Benzo[b]fluoranthene	1.7		0.039	0.0085	mg/Kg	1	*	*	8270D	Total/NA
Benzo[g,h,i]perylene	0.54		0.039	0.013	mg/Kg	1	*	*	8270D	Total/NA
Benzo[k]fluoranthene	0.57		0.039	0.012	mg/Kg	1	*	*	8270D	Total/NA
Carbazole	0.34		0.20	0.098	mg/Kg	1	*	*	8270D	Total/NA
Chrysene	0.93		0.039	0.011	mg/Kg	1	*	*	8270D	Total/NA
Dibenz(a,h)anthracene	0.18		0.039	0.0076	mg/Kg	1	*	*	8270D	Total/NA
Dibenzofuran	0.047	J	0.20	0.046	mg/Kg	1	*	*	8270D	Total/NA
Fluoranthene	2.2		0.039	0.0073	mg/Kg	1	*	*	8270D	Total/NA
Fluorene	0.073		0.039	0.0055	mg/Kg	1	*	*	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.56		0.039	0.010	mg/Kg	1	*	*	8270D	Total/NA
2-Methylnaphthalene	0.014	J	0.079	0.0072	mg/Kg	1	*	*	8270D	Total/NA
Naphthalene	0.031	J	0.039	0.0060	mg/Kg	1	*	*	8270D	Total/NA
Phenanthrene	1.3		0.039	0.0055	mg/Kg	1	*	*	8270D	Total/NA
Pyrene	1.4		0.039	0.0078	mg/Kg	1	*	*	8270D	Total/NA
Antimony	0.32	J	1.1	0.21	mg/Kg	1	*	*	6010B	Total/NA
Arsenic	7.5		0.55	0.19	mg/Kg	1	*	*	6010B	Total/NA
Barium	67		0.55	0.063	mg/Kg	1	*	*	6010B	Total/NA
Beryllium	0.61		0.22	0.051	mg/Kg	1	*	*	6010B	Total/NA
Cadmium	0.27	B	0.11	0.020	mg/Kg	1	*	*	6010B	Total/NA
Chromium	16		0.55	0.27	mg/Kg	1	*	*	6010B	Total/NA
Cobalt	9.9		0.28	0.072	mg/Kg	1	*	*	6010B	Total/NA
Copper	24		0.55	0.15	mg/Kg	1	*	*	6010B	Total/NA
Iron	17000		11	5.7	mg/Kg	1	*	*	6010B	Total/NA
Lead	70		0.28	0.13	mg/Kg	1	*	*	6010B	Total/NA
Magnesium	14000		5.5	2.7	mg/Kg	1	*	*	6010B	Total/NA
Calcium	25000	B	11	1.9	mg/Kg	1	*	*	6010B	Total/NA
Manganese	320		0.55	0.080	mg/Kg	1	*	*	6010B	Total/NA
Nickel	24		0.55	0.16	mg/Kg	1	*	*	6010B	Total/NA
Selenium	0.39	J	0.55	0.32	mg/Kg	1	*	*	6010B	Total/NA
Vanadium	19		0.28	0.065	mg/Kg	1	*	*	6010B	Total/NA
Zinc	100		1.1	0.48	mg/Kg	1	*	*	6010B	Total/NA
Potassium	1400		28	9.7	mg/Kg	1	*	*	6010B	Total/NA
Sodium	150		55	8.1	mg/Kg	1	*	*	6010B	Total/NA
Barium	0.52		0.50	0.050	mg/L	1		*	6010B	TCLP
Calcium	450		5.0	0.50	mg/L	1		*	6010B	TCLP
Copper	0.046		0.025	0.010	mg/L	1		*	6010B	TCLP
Magnesium	85		2.5	0.50	mg/L	1		*	6010B	TCLP
Manganese	0.049		0.025	0.010	mg/L	1		*	6010B	TCLP
Potassium	2.1	J	2.5	0.50	mg/L	1		*	6010B	TCLP
Zinc	0.052	J	0.50	0.020	mg/L	1		*	6010B	TCLP
Mercury	0.059		0.019	0.0062	mg/Kg	1	*	*	7471B	Total/NA
pH	8.2		0.20	0.20	SU	1		*	9045D	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Sample Summary

Client: Terracon Consulting Eng & Scientists
Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136991-4

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-136991-10	2696V-72-B01 (0-1)	Solid	11/08/17 15:10	11/08/17 16:30
500-136991-11	2696V-72-B02 (0-1)	Solid	11/08/17 15:00	11/08/17 16:30

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Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136991-4

Client Sample ID: 2696V-72-B01 (0-1)

Lab Sample ID: 500-136991-10

Date Collected: 11/08/17 15:10

Matrix: Solid

Date Received: 11/08/17 16:30

Percent Solids: 82.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	0.030		0.020	0.0089	mg/Kg	☼	11/09/17 07:40	11/14/17 21:12	1
Benzene	<0.0020		0.0020	0.00052	mg/Kg	☼	11/09/17 07:40	11/14/17 21:12	1
Bromodichloromethane	<0.0020		0.0020	0.00042	mg/Kg	☼	11/09/17 07:40	11/14/17 21:12	1
Bromoform	<0.0020		0.0020	0.00060	mg/Kg	☼	11/09/17 07:40	11/14/17 21:12	1
Bromomethane	<0.0051		0.0051	0.0019	mg/Kg	☼	11/09/17 07:40	11/14/17 21:12	1
2-Butanone (MEK)	<0.0051		0.0051	0.0023	mg/Kg	☼	11/09/17 07:40	11/14/17 21:12	1
Carbon disulfide	<0.0051		0.0051	0.0011	mg/Kg	☼	11/09/17 07:40	11/14/17 21:12	1
Carbon tetrachloride	<0.0020		0.0020	0.00059	mg/Kg	☼	11/09/17 07:40	11/14/17 21:12	1
Chlorobenzene	<0.0020		0.0020	0.00075	mg/Kg	☼	11/09/17 07:40	11/14/17 21:12	1
Chloroethane	<0.0051		0.0051	0.0015	mg/Kg	☼	11/09/17 07:40	11/14/17 21:12	1
Chloroform	<0.0020		0.0020	0.00071	mg/Kg	☼	11/09/17 07:40	11/14/17 21:12	1
Chloromethane	<0.0051		0.0051	0.0021	mg/Kg	☼	11/09/17 07:40	11/14/17 21:12	1
cis-1,2-Dichloroethene	<0.0020		0.0020	0.00057	mg/Kg	☼	11/09/17 07:40	11/14/17 21:12	1
cis-1,3-Dichloropropene	<0.0020		0.0020	0.00062	mg/Kg	☼	11/09/17 07:40	11/14/17 21:12	1
Dibromochloromethane	<0.0020		0.0020	0.00067	mg/Kg	☼	11/09/17 07:40	11/14/17 21:12	1
1,1-Dichloroethane	<0.0020		0.0020	0.00070	mg/Kg	☼	11/09/17 07:40	11/14/17 21:12	1
1,2-Dichloroethane	<0.0051		0.0051	0.0016	mg/Kg	☼	11/09/17 07:40	11/14/17 21:12	1
1,1-Dichloroethene	<0.0020		0.0020	0.00070	mg/Kg	☼	11/09/17 07:40	11/14/17 21:12	1
1,2-Dichloropropane	<0.0020		0.0020	0.00053	mg/Kg	☼	11/09/17 07:40	11/14/17 21:12	1
1,3-Dichloropropane, Total	<0.0020		0.0020	0.00072	mg/Kg	☼	11/09/17 07:40	11/14/17 21:12	1
Ethylbenzene	<0.0020		0.0020	0.00098	mg/Kg	☼	11/09/17 07:40	11/14/17 21:12	1
2-Hexanone	<0.0051		0.0051	0.0016	mg/Kg	☼	11/09/17 07:40	11/14/17 21:12	1
Methylene Chloride	<0.0051		0.0051	0.0020	mg/Kg	☼	11/09/17 07:40	11/14/17 21:12	1
4-Methyl-2-pentanone (MIBK)	<0.0051		0.0051	0.0015	mg/Kg	☼	11/09/17 07:40	11/14/17 21:12	1
Methyl tert-butyl ether	<0.0020		0.0020	0.00060	mg/Kg	☼	11/09/17 07:40	11/14/17 21:12	1
Styrene	<0.0020		0.0020	0.00062	mg/Kg	☼	11/09/17 07:40	11/14/17 21:12	1
1,1,2,2-Tetrachloroethane	<0.0020		0.0020	0.00065	mg/Kg	☼	11/09/17 07:40	11/14/17 21:12	1
Tetrachloroethene	<0.0020		0.0020	0.00070	mg/Kg	☼	11/09/17 07:40	11/14/17 21:12	1
Toluene	<0.0020		0.0020	0.00052	mg/Kg	☼	11/09/17 07:40	11/14/17 21:12	1
trans-1,2-Dichloroethene	<0.0020		0.0020	0.00091	mg/Kg	☼	11/09/17 07:40	11/14/17 21:12	1
trans-1,3-Dichloropropene	<0.0020		0.0020	0.00072	mg/Kg	☼	11/09/17 07:40	11/14/17 21:12	1
1,1,1-Trichloroethane	<0.0020		0.0020	0.00069	mg/Kg	☼	11/09/17 07:40	11/14/17 21:12	1
1,1,2-Trichloroethane	<0.0020		0.0020	0.00088	mg/Kg	☼	11/09/17 07:40	11/14/17 21:12	1
Trichloroethene	<0.0020		0.0020	0.00069	mg/Kg	☼	11/09/17 07:40	11/14/17 21:12	1
Vinyl acetate	<0.0051		0.0051	0.0018	mg/Kg	☼	11/09/17 07:40	11/14/17 21:12	1
Vinyl chloride	<0.0020		0.0020	0.00090	mg/Kg	☼	11/09/17 07:40	11/14/17 21:12	1
Xylenes, Total	<0.0041		0.0041	0.00065	mg/Kg	☼	11/09/17 07:40	11/14/17 21:12	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	90		75 - 131	11/09/17 07:40	11/14/17 21:12	1
Dibromofluoromethane	111		75 - 126	11/09/17 07:40	11/14/17 21:12	1
1,2-Dichloroethane-d4 (Surr)	100		70 - 134	11/09/17 07:40	11/14/17 21:12	1
Toluene-d8 (Surr)	96		75 - 124	11/09/17 07:40	11/14/17 21:12	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.039		0.039	0.0070	mg/Kg	☼	11/15/17 08:50	11/16/17 16:37	1
Acenaphthylene	0.0083	J	0.039	0.0052	mg/Kg	☼	11/15/17 08:50	11/16/17 16:37	1
Anthracene	0.028	J	0.039	0.0065	mg/Kg	☼	11/15/17 08:50	11/16/17 16:37	1
Benzo[a]anthracene	0.20		0.039	0.0053	mg/Kg	☼	11/15/17 08:50	11/16/17 16:37	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136991-4

Client Sample ID: 2696V-72-B01 (0-1)

Lab Sample ID: 500-136991-10

Date Collected: 11/08/17 15:10

Matrix: Solid

Date Received: 11/08/17 16:30

Percent Solids: 82.5

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	0.35		0.039	0.0076	mg/Kg	☼	11/15/17 08:50	11/16/17 16:37	1
Benzo[b]fluoranthene	0.46		0.039	0.0084	mg/Kg	☼	11/15/17 08:50	11/16/17 16:37	1
Benzo[g,h,i]perylene	0.19		0.039	0.013	mg/Kg	☼	11/15/17 08:50	11/16/17 16:37	1
Benzo[k]fluoranthene	0.17		0.039	0.012	mg/Kg	☼	11/15/17 08:50	11/16/17 16:37	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.040	mg/Kg	☼	11/15/17 08:50	11/16/17 16:37	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.059	mg/Kg	☼	11/15/17 08:50	11/16/17 16:37	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.071	mg/Kg	☼	11/15/17 08:50	11/16/17 16:37	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.052	mg/Kg	☼	11/15/17 08:50	11/16/17 16:37	1
Butyl benzyl phthalate	<0.20		0.20	0.074	mg/Kg	☼	11/15/17 08:50	11/16/17 16:37	1
Carbazole	<0.20		0.20	0.098	mg/Kg	☼	11/15/17 08:50	11/16/17 16:37	1
4-Chloroaniline	<0.79		0.79	0.18	mg/Kg	☼	11/15/17 08:50	11/16/17 16:37	1
4-Chloro-3-methylphenol	<0.39		0.39	0.13	mg/Kg	☼	11/15/17 08:50	11/16/17 16:37	1
2-Chloronaphthalene	<0.20		0.20	0.043	mg/Kg	☼	11/15/17 08:50	11/16/17 16:37	1
2-Chlorophenol	<0.20		0.20	0.067	mg/Kg	☼	11/15/17 08:50	11/16/17 16:37	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.046	mg/Kg	☼	11/15/17 08:50	11/16/17 16:37	1
Chrysene	0.26		0.039	0.011	mg/Kg	☼	11/15/17 08:50	11/16/17 16:37	1
Dibenz(a,h)anthracene	0.076		0.039	0.0076	mg/Kg	☼	11/15/17 08:50	11/16/17 16:37	1
Dibenzofuran	<0.20		0.20	0.046	mg/Kg	☼	11/15/17 08:50	11/16/17 16:37	1
1,2-Dichlorobenzene	<0.20		0.20	0.047	mg/Kg	☼	11/15/17 08:50	11/16/17 16:37	1
1,3-Dichlorobenzene	<0.20		0.20	0.044	mg/Kg	☼	11/15/17 08:50	11/16/17 16:37	1
1,4-Dichlorobenzene	<0.20		0.20	0.050	mg/Kg	☼	11/15/17 08:50	11/16/17 16:37	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.055	mg/Kg	☼	11/15/17 08:50	11/16/17 16:37	1
2,4-Dichlorophenol	<0.39		0.39	0.093	mg/Kg	☼	11/15/17 08:50	11/16/17 16:37	1
Diethyl phthalate	<0.20		0.20	0.066	mg/Kg	☼	11/15/17 08:50	11/16/17 16:37	1
2,4-Dimethylphenol	<0.39		0.39	0.15	mg/Kg	☼	11/15/17 08:50	11/16/17 16:37	1
Dimethyl phthalate	<0.20		0.20	0.051	mg/Kg	☼	11/15/17 08:50	11/16/17 16:37	1
Di-n-butyl phthalate	<0.20		0.20	0.060	mg/Kg	☼	11/15/17 08:50	11/16/17 16:37	1
4,6-Dinitro-2-methylphenol	<0.79		0.79	0.31	mg/Kg	☼	11/15/17 08:50	11/16/17 16:37	1
2,4-Dinitrophenol	<0.79		0.79	0.69	mg/Kg	☼	11/15/17 08:50	11/16/17 16:37	1
2,4-Dinitrotoluene	<0.20		0.20	0.062	mg/Kg	☼	11/15/17 08:50	11/16/17 16:37	1
2,6-Dinitrotoluene	<0.20		0.20	0.077	mg/Kg	☼	11/15/17 08:50	11/16/17 16:37	1
Di-n-octyl phthalate	<0.20		0.20	0.064	mg/Kg	☼	11/15/17 08:50	11/16/17 16:37	1
Fluoranthene	0.47		0.039	0.0073	mg/Kg	☼	11/15/17 08:50	11/16/17 16:37	1
Fluorene	0.0064 J		0.039	0.0055	mg/Kg	☼	11/15/17 08:50	11/16/17 16:37	1
Hexachlorobenzene	<0.079		0.079	0.0091	mg/Kg	☼	11/15/17 08:50	11/16/17 16:37	1
Hexachlorobutadiene	<0.20		0.20	0.061	mg/Kg	☼	11/15/17 08:50	11/16/17 16:37	1
Hexachlorocyclopentadiene	<0.79		0.79	0.22	mg/Kg	☼	11/15/17 08:50	11/16/17 16:37	1
Hexachloroethane	<0.20		0.20	0.059	mg/Kg	☼	11/15/17 08:50	11/16/17 16:37	1
Indeno[1,2,3-cd]pyrene	0.18		0.039	0.010	mg/Kg	☼	11/15/17 08:50	11/16/17 16:37	1
Isophorone	<0.20		0.20	0.044	mg/Kg	☼	11/15/17 08:50	11/16/17 16:37	1
2-Methylnaphthalene	<0.079		0.079	0.0072	mg/Kg	☼	11/15/17 08:50	11/16/17 16:37	1
2-Methylphenol	<0.20		0.20	0.063	mg/Kg	☼	11/15/17 08:50	11/16/17 16:37	1
3 & 4 Methylphenol	<0.20		0.20	0.065	mg/Kg	☼	11/15/17 08:50	11/16/17 16:37	1
Naphthalene	0.0062 J		0.039	0.0060	mg/Kg	☼	11/15/17 08:50	11/16/17 16:37	1
2-Nitroaniline	<0.20		0.20	0.053	mg/Kg	☼	11/15/17 08:50	11/16/17 16:37	1
3-Nitroaniline	<0.39		0.39	0.12	mg/Kg	☼	11/15/17 08:50	11/16/17 16:37	1
4-Nitroaniline	<0.39		0.39	0.16	mg/Kg	☼	11/15/17 08:50	11/16/17 16:37	1
Nitrobenzene	<0.039		0.039	0.0098	mg/Kg	☼	11/15/17 08:50	11/16/17 16:37	1
2-Nitrophenol	<0.39		0.39	0.092	mg/Kg	☼	11/15/17 08:50	11/16/17 16:37	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136991-4

Client Sample ID: 2696V-72-B01 (0-1)

Lab Sample ID: 500-136991-10

Date Collected: 11/08/17 15:10

Matrix: Solid

Date Received: 11/08/17 16:30

Percent Solids: 82.5

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Nitrophenol	<0.79		0.79	0.37	mg/Kg	☼	11/15/17 08:50	11/16/17 16:37	1
N-Nitrosodi-n-propylamine	<0.079		0.079	0.048	mg/Kg	☼	11/15/17 08:50	11/16/17 16:37	1
N-Nitrosodiphenylamine	<0.20		0.20	0.046	mg/Kg	☼	11/15/17 08:50	11/16/17 16:37	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.045	mg/Kg	☼	11/15/17 08:50	11/16/17 16:37	1
Pentachlorophenol	<0.79		0.79	0.63	mg/Kg	☼	11/15/17 08:50	11/16/17 16:37	1
Phenanthrene	0.13		0.039	0.0054	mg/Kg	☼	11/15/17 08:50	11/16/17 16:37	1
Phenol	<0.20		0.20	0.087	mg/Kg	☼	11/15/17 08:50	11/16/17 16:37	1
Pyrene	0.30		0.039	0.0078	mg/Kg	☼	11/15/17 08:50	11/16/17 16:37	1
1,2,4-Trichlorobenzene	<0.20		0.20	0.042	mg/Kg	☼	11/15/17 08:50	11/16/17 16:37	1
2,4,5-Trichlorophenol	<0.39		0.39	0.089	mg/Kg	☼	11/15/17 08:50	11/16/17 16:37	1
2,4,6-Trichlorophenol	<0.39		0.39	0.13	mg/Kg	☼	11/15/17 08:50	11/16/17 16:37	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	80		44 - 121	11/15/17 08:50	11/16/17 16:37	1
2-Fluorophenol	93		46 - 133	11/15/17 08:50	11/16/17 16:37	1
Nitrobenzene-d5	82		41 - 120	11/15/17 08:50	11/16/17 16:37	1
Phenol-d5	89		46 - 125	11/15/17 08:50	11/16/17 16:37	1
Terphenyl-d14	77		35 - 160	11/15/17 08:50	11/16/17 16:37	1
2,4,6-Tribromophenol	73		25 - 139	11/15/17 08:50	11/16/17 16:37	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.55	J	1.2	0.23	mg/Kg	☼	11/10/17 17:37	11/11/17 19:49	1
Arsenic	8.1		0.59	0.20	mg/Kg	☼	11/10/17 17:37	11/11/17 19:49	1
Barium	52		0.59	0.067	mg/Kg	☼	11/10/17 17:37	11/11/17 19:49	1
Beryllium	0.45		0.24	0.055	mg/Kg	☼	11/10/17 17:37	11/11/17 19:49	1
Cadmium	0.43	B	0.12	0.021	mg/Kg	☼	11/10/17 17:37	11/11/17 19:49	1
Chromium	13		0.59	0.29	mg/Kg	☼	11/10/17 17:37	11/11/17 19:49	1
Cobalt	8.1		0.29	0.077	mg/Kg	☼	11/10/17 17:37	11/11/17 19:49	1
Copper	25		0.59	0.16	mg/Kg	☼	11/10/17 17:37	11/11/17 19:49	1
Iron	17000		12	6.1	mg/Kg	☼	11/10/17 17:37	11/11/17 19:49	1
Lead	60		0.29	0.14	mg/Kg	☼	11/10/17 17:37	11/11/17 19:49	1
Magnesium	12000		5.9	2.9	mg/Kg	☼	11/10/17 17:37	11/11/17 19:49	1
Calcium	22000	B	12	2.0	mg/Kg	☼	11/10/17 17:37	11/11/17 19:49	1
Manganese	580		0.59	0.085	mg/Kg	☼	11/10/17 17:37	11/11/17 19:49	1
Nickel	19		0.59	0.17	mg/Kg	☼	11/10/17 17:37	11/11/17 19:49	1
Selenium	<0.59		0.59	0.35	mg/Kg	☼	11/10/17 17:37	11/11/17 19:49	1
Silver	<0.29		0.29	0.076	mg/Kg	☼	11/10/17 17:37	11/11/17 19:49	1
Thallium	<0.59		0.59	0.29	mg/Kg	☼	11/10/17 17:37	11/11/17 19:49	1
Vanadium	16		0.29	0.069	mg/Kg	☼	11/10/17 17:37	11/11/17 19:49	1
Zinc	100		1.2	0.52	mg/Kg	☼	11/10/17 17:37	11/11/17 19:49	1
Potassium	970		29	10	mg/Kg	☼	11/10/17 17:37	11/11/17 19:49	1
Sodium	190		59	8.7	mg/Kg	☼	11/10/17 17:37	11/11/17 19:49	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.050		0.050	0.010	mg/L		11/14/17 08:55	11/14/17 16:16	1
Barium	0.48	J	0.50	0.050	mg/L		11/14/17 08:55	11/14/17 16:16	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		11/14/17 08:55	11/14/17 16:16	1
Cadmium	0.0029	J	0.0050	0.0020	mg/L		11/14/17 08:55	11/14/17 16:16	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136991-4

Client Sample ID: 2696V-72-B01 (0-1)

Lab Sample ID: 500-136991-10

Date Collected: 11/08/17 15:10

Matrix: Solid

Date Received: 11/08/17 16:30

Percent Solids: 82.5

Method: 6010B - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	260		5.0	0.50	mg/L		11/14/17 08:55	11/14/17 16:16	1
Chromium	<0.025		0.025	0.010	mg/L		11/14/17 08:55	11/14/17 16:16	1
Cobalt	<0.025		0.025	0.010	mg/L		11/14/17 08:55	11/14/17 16:16	1
Copper	0.042		0.025	0.010	mg/L		11/14/17 08:55	11/14/17 16:16	1
Iron	<0.40		0.40	0.20	mg/L		11/14/17 08:55	11/14/17 16:16	1
Lead	<0.0075		0.0075	0.0075	mg/L		11/14/17 08:55	11/14/17 16:16	1
Magnesium	130		2.5	0.50	mg/L		11/14/17 08:55	11/14/17 16:16	1
Manganese	0.32		0.025	0.010	mg/L		11/14/17 08:55	11/14/17 16:16	1
Nickel	<0.025		0.025	0.010	mg/L		11/14/17 08:55	11/14/17 16:16	1
Potassium	4.0		2.5	0.50	mg/L		11/14/17 08:55	11/14/17 16:16	1
Selenium	<0.050		0.050	0.020	mg/L		11/14/17 08:55	11/14/17 16:16	1
Silver	<0.025		0.025	0.010	mg/L		11/14/17 08:55	11/14/17 16:16	1
Vanadium	<0.025		0.025	0.010	mg/L		11/14/17 08:55	11/14/17 16:16	1
Zinc	0.14 J		0.50	0.020	mg/L		11/14/17 08:55	11/14/17 16:16	1

Method: 6010B - Metals (ICP) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.21		0.025	0.010	mg/L		11/14/17 14:25	11/15/17 20:23	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		11/14/17 08:55	11/15/17 13:13	1
Thallium	<0.0020		0.0020	0.0020	mg/L		11/14/17 08:55	11/15/17 13:13	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		11/14/17 15:15	11/16/17 13:24	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.039		0.019	0.0064	mg/Kg	☼	11/13/17 13:20	11/16/17 15:14	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.56		0.56	0.19	mg/Kg	☼	11/18/17 09:00	11/18/17 12:48	1
pH	8.3		0.20	0.20	SU			11/15/17 12:34	1

Client Sample Results

Client: Terracon Consulting Eng & Scientists
Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136991-4

Client Sample ID: 2696V-72-B02 (0-1)

Lab Sample ID: 500-136991-11

Date Collected: 11/08/17 15:00

Matrix: Solid

Date Received: 11/08/17 16:30

Percent Solids: 82.7

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.018		0.018	0.0080	mg/Kg	☼	11/09/17 07:40	11/14/17 21:37	1
Benzene	<0.0018		0.0018	0.00047	mg/Kg	☼	11/09/17 07:40	11/14/17 21:37	1
Bromodichloromethane	<0.0018		0.0018	0.00037	mg/Kg	☼	11/09/17 07:40	11/14/17 21:37	1
Bromoform	<0.0018		0.0018	0.00054	mg/Kg	☼	11/09/17 07:40	11/14/17 21:37	1
Bromomethane	<0.0046		0.0046	0.0017	mg/Kg	☼	11/09/17 07:40	11/14/17 21:37	1
2-Butanone (MEK)	<0.0046		0.0046	0.0020	mg/Kg	☼	11/09/17 07:40	11/14/17 21:37	1
Carbon disulfide	<0.0046		0.0046	0.00096	mg/Kg	☼	11/09/17 07:40	11/14/17 21:37	1
Carbon tetrachloride	<0.0018		0.0018	0.00053	mg/Kg	☼	11/09/17 07:40	11/14/17 21:37	1
Chlorobenzene	<0.0018		0.0018	0.00068	mg/Kg	☼	11/09/17 07:40	11/14/17 21:37	1
Chloroethane	<0.0046		0.0046	0.0014	mg/Kg	☼	11/09/17 07:40	11/14/17 21:37	1
Chloroform	<0.0018		0.0018	0.00064	mg/Kg	☼	11/09/17 07:40	11/14/17 21:37	1
Chloromethane	<0.0046		0.0046	0.0018	mg/Kg	☼	11/09/17 07:40	11/14/17 21:37	1
cis-1,2-Dichloroethene	<0.0018		0.0018	0.00051	mg/Kg	☼	11/09/17 07:40	11/14/17 21:37	1
cis-1,3-Dichloropropene	<0.0018		0.0018	0.00055	mg/Kg	☼	11/09/17 07:40	11/14/17 21:37	1
Dibromochloromethane	<0.0018		0.0018	0.00060	mg/Kg	☼	11/09/17 07:40	11/14/17 21:37	1
1,1-Dichloroethane	<0.0018		0.0018	0.00063	mg/Kg	☼	11/09/17 07:40	11/14/17 21:37	1
1,2-Dichloroethane	<0.0046		0.0046	0.0014	mg/Kg	☼	11/09/17 07:40	11/14/17 21:37	1
1,1-Dichloroethene	<0.0018		0.0018	0.00063	mg/Kg	☼	11/09/17 07:40	11/14/17 21:37	1
1,2-Dichloropropane	<0.0018		0.0018	0.00048	mg/Kg	☼	11/09/17 07:40	11/14/17 21:37	1
1,3-Dichloropropane, Total	<0.0018		0.0018	0.00065	mg/Kg	☼	11/09/17 07:40	11/14/17 21:37	1
Ethylbenzene	<0.0018		0.0018	0.00088	mg/Kg	☼	11/09/17 07:40	11/14/17 21:37	1
2-Hexanone	<0.0046		0.0046	0.0014	mg/Kg	☼	11/09/17 07:40	11/14/17 21:37	1
Methylene Chloride	<0.0046		0.0046	0.0018	mg/Kg	☼	11/09/17 07:40	11/14/17 21:37	1
4-Methyl-2-pentanone (MIBK)	<0.0046		0.0046	0.0014	mg/Kg	☼	11/09/17 07:40	11/14/17 21:37	1
Methyl tert-butyl ether	<0.0018		0.0018	0.00054	mg/Kg	☼	11/09/17 07:40	11/14/17 21:37	1
Styrene	<0.0018		0.0018	0.00056	mg/Kg	☼	11/09/17 07:40	11/14/17 21:37	1
1,1,2,2-Tetrachloroethane	<0.0018		0.0018	0.00059	mg/Kg	☼	11/09/17 07:40	11/14/17 21:37	1
Tetrachloroethene	<0.0018		0.0018	0.00063	mg/Kg	☼	11/09/17 07:40	11/14/17 21:37	1
Toluene	<0.0018		0.0018	0.00046	mg/Kg	☼	11/09/17 07:40	11/14/17 21:37	1
trans-1,2-Dichloroethene	<0.0018		0.0018	0.00081	mg/Kg	☼	11/09/17 07:40	11/14/17 21:37	1
trans-1,3-Dichloropropene	<0.0018		0.0018	0.00065	mg/Kg	☼	11/09/17 07:40	11/14/17 21:37	1
1,1,1-Trichloroethane	<0.0018		0.0018	0.00062	mg/Kg	☼	11/09/17 07:40	11/14/17 21:37	1
1,1,2-Trichloroethane	<0.0018		0.0018	0.00079	mg/Kg	☼	11/09/17 07:40	11/14/17 21:37	1
Trichloroethene	<0.0018		0.0018	0.00062	mg/Kg	☼	11/09/17 07:40	11/14/17 21:37	1
Vinyl acetate	<0.0046		0.0046	0.0016	mg/Kg	☼	11/09/17 07:40	11/14/17 21:37	1
Vinyl chloride	<0.0018		0.0018	0.00081	mg/Kg	☼	11/09/17 07:40	11/14/17 21:37	1
Xylenes, Total	<0.0037		0.0037	0.00059	mg/Kg	☼	11/09/17 07:40	11/14/17 21:37	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	91		75 - 131	11/09/17 07:40	11/14/17 21:37	1
Dibromofluoromethane	108		75 - 126	11/09/17 07:40	11/14/17 21:37	1
1,2-Dichloroethane-d4 (Surr)	116		70 - 134	11/09/17 07:40	11/14/17 21:37	1
Toluene-d8 (Surr)	91		75 - 124	11/09/17 07:40	11/14/17 21:37	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.017	J	0.039	0.0070	mg/Kg	☼	11/15/17 08:50	11/16/17 17:05	1
Acenaphthylene	0.33		0.039	0.0052	mg/Kg	☼	11/15/17 08:50	11/16/17 17:05	1
Anthracene	0.29		0.039	0.0065	mg/Kg	☼	11/15/17 08:50	11/16/17 17:05	1
Benzo[a]anthracene	0.84		0.039	0.0053	mg/Kg	☼	11/15/17 08:50	11/16/17 17:05	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136991-4

Client Sample ID: 2696V-72-B02 (0-1)

Lab Sample ID: 500-136991-11

Date Collected: 11/08/17 15:00

Matrix: Solid

Date Received: 11/08/17 16:30

Percent Solids: 82.7

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	1.1		0.039	0.0076	mg/Kg	☼	11/15/17 08:50	11/16/17 17:05	1
Benzo[b]fluoranthene	1.7		0.039	0.0085	mg/Kg	☼	11/15/17 08:50	11/16/17 17:05	1
Benzo[g,h,i]perylene	0.54		0.039	0.013	mg/Kg	☼	11/15/17 08:50	11/16/17 17:05	1
Benzo[k]fluoranthene	0.57		0.039	0.012	mg/Kg	☼	11/15/17 08:50	11/16/17 17:05	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.040	mg/Kg	☼	11/15/17 08:50	11/16/17 17:05	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.059	mg/Kg	☼	11/15/17 08:50	11/16/17 17:05	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.072	mg/Kg	☼	11/15/17 08:50	11/16/17 17:05	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.052	mg/Kg	☼	11/15/17 08:50	11/16/17 17:05	1
Butyl benzyl phthalate	<0.20		0.20	0.075	mg/Kg	☼	11/15/17 08:50	11/16/17 17:05	1
Carbazole	0.34		0.20	0.098	mg/Kg	☼	11/15/17 08:50	11/16/17 17:05	1
4-Chloroaniline	<0.79		0.79	0.18	mg/Kg	☼	11/15/17 08:50	11/16/17 17:05	1
4-Chloro-3-methylphenol	<0.39		0.39	0.13	mg/Kg	☼	11/15/17 08:50	11/16/17 17:05	1
2-Chloronaphthalene	<0.20		0.20	0.043	mg/Kg	☼	11/15/17 08:50	11/16/17 17:05	1
2-Chlorophenol	<0.20		0.20	0.067	mg/Kg	☼	11/15/17 08:50	11/16/17 17:05	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.046	mg/Kg	☼	11/15/17 08:50	11/16/17 17:05	1
Chrysene	0.93		0.039	0.011	mg/Kg	☼	11/15/17 08:50	11/16/17 17:05	1
Dibenz(a,h)anthracene	0.18		0.039	0.0076	mg/Kg	☼	11/15/17 08:50	11/16/17 17:05	1
Dibenzofuran	0.047	J	0.20	0.046	mg/Kg	☼	11/15/17 08:50	11/16/17 17:05	1
1,2-Dichlorobenzene	<0.20		0.20	0.047	mg/Kg	☼	11/15/17 08:50	11/16/17 17:05	1
1,3-Dichlorobenzene	<0.20		0.20	0.044	mg/Kg	☼	11/15/17 08:50	11/16/17 17:05	1
1,4-Dichlorobenzene	<0.20		0.20	0.050	mg/Kg	☼	11/15/17 08:50	11/16/17 17:05	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.055	mg/Kg	☼	11/15/17 08:50	11/16/17 17:05	1
2,4-Dichlorophenol	<0.39		0.39	0.093	mg/Kg	☼	11/15/17 08:50	11/16/17 17:05	1
Diethyl phthalate	<0.20		0.20	0.066	mg/Kg	☼	11/15/17 08:50	11/16/17 17:05	1
2,4-Dimethylphenol	<0.39		0.39	0.15	mg/Kg	☼	11/15/17 08:50	11/16/17 17:05	1
Dimethyl phthalate	<0.20		0.20	0.051	mg/Kg	☼	11/15/17 08:50	11/16/17 17:05	1
Di-n-butyl phthalate	<0.20		0.20	0.060	mg/Kg	☼	11/15/17 08:50	11/16/17 17:05	1
4,6-Dinitro-2-methylphenol	<0.79		0.79	0.31	mg/Kg	☼	11/15/17 08:50	11/16/17 17:05	1
2,4-Dinitrophenol	<0.79		0.79	0.69	mg/Kg	☼	11/15/17 08:50	11/16/17 17:05	1
2,4-Dinitrotoluene	<0.20		0.20	0.062	mg/Kg	☼	11/15/17 08:50	11/16/17 17:05	1
2,6-Dinitrotoluene	<0.20		0.20	0.077	mg/Kg	☼	11/15/17 08:50	11/16/17 17:05	1
Di-n-octyl phthalate	<0.20		0.20	0.064	mg/Kg	☼	11/15/17 08:50	11/16/17 17:05	1
Fluoranthene	2.2		0.039	0.0073	mg/Kg	☼	11/15/17 08:50	11/16/17 17:05	1
Fluorene	0.073		0.039	0.0055	mg/Kg	☼	11/15/17 08:50	11/16/17 17:05	1
Hexachlorobenzene	<0.079		0.079	0.0091	mg/Kg	☼	11/15/17 08:50	11/16/17 17:05	1
Hexachlorobutadiene	<0.20		0.20	0.062	mg/Kg	☼	11/15/17 08:50	11/16/17 17:05	1
Hexachlorocyclopentadiene	<0.79		0.79	0.23	mg/Kg	☼	11/15/17 08:50	11/16/17 17:05	1
Hexachloroethane	<0.20		0.20	0.060	mg/Kg	☼	11/15/17 08:50	11/16/17 17:05	1
Indeno[1,2,3-cd]pyrene	0.56		0.039	0.010	mg/Kg	☼	11/15/17 08:50	11/16/17 17:05	1
Isophorone	<0.20		0.20	0.044	mg/Kg	☼	11/15/17 08:50	11/16/17 17:05	1
2-Methylnaphthalene	0.014	J	0.079	0.0072	mg/Kg	☼	11/15/17 08:50	11/16/17 17:05	1
2-Methylphenol	<0.20		0.20	0.063	mg/Kg	☼	11/15/17 08:50	11/16/17 17:05	1
3 & 4 Methylphenol	<0.20		0.20	0.065	mg/Kg	☼	11/15/17 08:50	11/16/17 17:05	1
Naphthalene	0.031	J	0.039	0.0060	mg/Kg	☼	11/15/17 08:50	11/16/17 17:05	1
2-Nitroaniline	<0.20		0.20	0.053	mg/Kg	☼	11/15/17 08:50	11/16/17 17:05	1
3-Nitroaniline	<0.39		0.39	0.12	mg/Kg	☼	11/15/17 08:50	11/16/17 17:05	1
4-Nitroaniline	<0.39		0.39	0.16	mg/Kg	☼	11/15/17 08:50	11/16/17 17:05	1
Nitrobenzene	<0.039		0.039	0.0098	mg/Kg	☼	11/15/17 08:50	11/16/17 17:05	1
2-Nitrophenol	<0.39		0.39	0.093	mg/Kg	☼	11/15/17 08:50	11/16/17 17:05	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136991-4

Client Sample ID: 2696V-72-B02 (0-1)

Lab Sample ID: 500-136991-11

Date Collected: 11/08/17 15:00

Matrix: Solid

Date Received: 11/08/17 16:30

Percent Solids: 82.7

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Nitrophenol	<0.79		0.79	0.37	mg/Kg	☼	11/15/17 08:50	11/16/17 17:05	1
N-Nitrosodi-n-propylamine	<0.079		0.079	0.048	mg/Kg	☼	11/15/17 08:50	11/16/17 17:05	1
N-Nitrosodiphenylamine	<0.20		0.20	0.046	mg/Kg	☼	11/15/17 08:50	11/16/17 17:05	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.045	mg/Kg	☼	11/15/17 08:50	11/16/17 17:05	1
Pentachlorophenol	<0.79		0.79	0.63	mg/Kg	☼	11/15/17 08:50	11/16/17 17:05	1
Phenanthrene	1.3		0.039	0.0055	mg/Kg	☼	11/15/17 08:50	11/16/17 17:05	1
Phenol	<0.20		0.20	0.087	mg/Kg	☼	11/15/17 08:50	11/16/17 17:05	1
Pyrene	1.4		0.039	0.0078	mg/Kg	☼	11/15/17 08:50	11/16/17 17:05	1
1,2,4-Trichlorobenzene	<0.20		0.20	0.042	mg/Kg	☼	11/15/17 08:50	11/16/17 17:05	1
2,4,5-Trichlorophenol	<0.39		0.39	0.089	mg/Kg	☼	11/15/17 08:50	11/16/17 17:05	1
2,4,6-Trichlorophenol	<0.39		0.39	0.13	mg/Kg	☼	11/15/17 08:50	11/16/17 17:05	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	83		44 - 121	11/15/17 08:50	11/16/17 17:05	1
2-Fluorophenol	101		46 - 133	11/15/17 08:50	11/16/17 17:05	1
Nitrobenzene-d5	92		41 - 120	11/15/17 08:50	11/16/17 17:05	1
Phenol-d5	98		46 - 125	11/15/17 08:50	11/16/17 17:05	1
Terphenyl-d14	80		35 - 160	11/15/17 08:50	11/16/17 17:05	1
2,4,6-Tribromophenol	73		25 - 139	11/15/17 08:50	11/16/17 17:05	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.32	J	1.1	0.21	mg/Kg	☼	11/10/17 17:37	11/11/17 19:53	1
Arsenic	7.5		0.55	0.19	mg/Kg	☼	11/10/17 17:37	11/11/17 19:53	1
Barium	67		0.55	0.063	mg/Kg	☼	11/10/17 17:37	11/11/17 19:53	1
Beryllium	0.61		0.22	0.051	mg/Kg	☼	11/10/17 17:37	11/11/17 19:53	1
Cadmium	0.27	B	0.11	0.020	mg/Kg	☼	11/10/17 17:37	11/11/17 19:53	1
Chromium	16		0.55	0.27	mg/Kg	☼	11/10/17 17:37	11/11/17 19:53	1
Cobalt	9.9		0.28	0.072	mg/Kg	☼	11/10/17 17:37	11/11/17 19:53	1
Copper	24		0.55	0.15	mg/Kg	☼	11/10/17 17:37	11/11/17 19:53	1
Iron	17000		11	5.7	mg/Kg	☼	11/10/17 17:37	11/11/17 19:53	1
Lead	70		0.28	0.13	mg/Kg	☼	11/10/17 17:37	11/11/17 19:53	1
Magnesium	14000		5.5	2.7	mg/Kg	☼	11/10/17 17:37	11/11/17 19:53	1
Calcium	25000	B	11	1.9	mg/Kg	☼	11/10/17 17:37	11/11/17 19:53	1
Manganese	320		0.55	0.080	mg/Kg	☼	11/10/17 17:37	11/11/17 19:53	1
Nickel	24		0.55	0.16	mg/Kg	☼	11/10/17 17:37	11/11/17 19:53	1
Selenium	0.39	J	0.55	0.32	mg/Kg	☼	11/10/17 17:37	11/11/17 19:53	1
Silver	<0.28		0.28	0.071	mg/Kg	☼	11/10/17 17:37	11/11/17 19:53	1
Thallium	<0.55		0.55	0.27	mg/Kg	☼	11/10/17 17:37	11/11/17 19:53	1
Vanadium	19		0.28	0.065	mg/Kg	☼	11/10/17 17:37	11/11/17 19:53	1
Zinc	100		1.1	0.48	mg/Kg	☼	11/10/17 17:37	11/11/17 19:53	1
Potassium	1400		28	9.7	mg/Kg	☼	11/10/17 17:37	11/11/17 19:53	1
Sodium	150		55	8.1	mg/Kg	☼	11/10/17 17:37	11/11/17 19:53	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.050		0.050	0.010	mg/L		11/14/17 08:55	11/14/17 16:20	1
Barium	0.52		0.50	0.050	mg/L		11/14/17 08:55	11/14/17 16:20	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		11/14/17 08:55	11/14/17 16:20	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		11/14/17 08:55	11/14/17 16:20	1

TestAmerica Chicago

Client Sample Results

Client: Terracon Consulting Eng & Scientists
 Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136991-4

Client Sample ID: 2696V-72-B02 (0-1)

Lab Sample ID: 500-136991-11

Date Collected: 11/08/17 15:00

Matrix: Solid

Date Received: 11/08/17 16:30

Percent Solids: 82.7

Method: 6010B - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	450		5.0	0.50	mg/L		11/14/17 08:55	11/14/17 16:20	1
Chromium	<0.025		0.025	0.010	mg/L		11/14/17 08:55	11/14/17 16:20	1
Cobalt	<0.025		0.025	0.010	mg/L		11/14/17 08:55	11/14/17 16:20	1
Copper	0.046		0.025	0.010	mg/L		11/14/17 08:55	11/14/17 16:20	1
Iron	<0.40		0.40	0.20	mg/L		11/14/17 08:55	11/14/17 16:20	1
Lead	<0.0075		0.0075	0.0075	mg/L		11/14/17 08:55	11/14/17 16:20	1
Magnesium	85		2.5	0.50	mg/L		11/14/17 08:55	11/14/17 16:20	1
Manganese	0.049		0.025	0.010	mg/L		11/14/17 08:55	11/14/17 16:20	1
Nickel	<0.025		0.025	0.010	mg/L		11/14/17 08:55	11/14/17 16:20	1
Potassium	2.1 J		2.5	0.50	mg/L		11/14/17 08:55	11/14/17 16:20	1
Selenium	<0.050		0.050	0.020	mg/L		11/14/17 08:55	11/14/17 16:20	1
Silver	<0.025		0.025	0.010	mg/L		11/14/17 08:55	11/14/17 16:20	1
Vanadium	<0.025		0.025	0.010	mg/L		11/14/17 08:55	11/14/17 16:20	1
Zinc	0.052 J		0.50	0.020	mg/L		11/14/17 08:55	11/14/17 16:20	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		11/14/17 08:55	11/15/17 13:14	1
Thallium	<0.0020		0.0020	0.0020	mg/L		11/14/17 08:55	11/15/17 13:14	1

Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		11/14/17 15:15	11/16/17 13:25	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.059		0.019	0.0062	mg/Kg	☼	11/13/17 13:20	11/16/17 15:16	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.52		0.52	0.18	mg/Kg	☼	11/18/17 09:00	11/18/17 12:48	1
pH	8.2		0.20	0.20	SU			11/15/17 12:36	1

Definitions/Glossary

Client: Terracon Consulting Eng & Scientists
Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136991-4

Qualifiers

GC/MS Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
B	Compound was found in the blank and sample.
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Accreditation/Certification Summary

Client: Terracon Consulting Eng & Scientists
Project/Site: IDOT - Oak Forest/Markham - WO37

TestAmerica Job ID: 500-136991-4

Laboratory: TestAmerica Chicago

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	EPA Region	Identification Number	Expiration Date
Illinois	NELAP	5	100201	04-30-18

The following analytes are included in this report, but accreditation/certification is not offered by the governing authority:

Analysis Method	Prep Method	Matrix	Analyte
6020A	3010A	Solid	Antimony
6020A	3010A	Solid	Thallium
8260B	5035	Solid	1,3-Dichloropropene, Total
9045D		Solid	pH
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

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Report To (optional) MATT WEISS
 Contact: MATT WEISS
 Company: TERRACON
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NAPERVILLE IL
 Address:
 Phone:
 Fax:
 E-Mail: matt.weiss@terracon.com

Bill To (optional)
 Contact:
 Company:
 Address:
 Address:
 Phone:
 Fax:
 PO#/Reference#

Chain of Custody Record

Lab Job #: 500-136991
 Chain of Custody Number: _____
 Page _____ of _____
 Temperature °C of Cooler: 24.29

Client		Client Project #		Preservative		Parameter												Preservative Key	
TERRACON		1172029 M																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		Containers		Matrix										Comments	
WORK ORDER #37				Date Time		# of Containers		Matrix											
Project Location/State		Lab Project #																	
MAKEHAM IL																			
Sample		Lab PM																	
KYAN J PETERS																			
Lab ID	MS/MSD	Sample ID	Date	Time	# of Containers	Matrix													
10		Z696V-72-B01(O-1)	11/8	1510	5	S	X	X	X	X	X	X	X						
11		Z696V-72-B02(O-1)	11/8	1500	5	S	X	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>TERRACON</u> Date: <u>11/8/17</u> Time: <u>1600</u>	Received By: <u>P. Neal</u> Company: <u>TA</u> Date: <u>11/8/17</u> Time: <u>1600</u>
Relinquished By: <u>P. Neal</u> Company: <u>TA</u> Date: <u>11/8/17</u> Time: <u>1630</u>	Received By: <u>[Signature]</u> Company: <u>TA-CHT</u> Date: <u>11/9/17</u> Time: <u>0715</u>
Relinquished By: _____ Company: _____ Date: _____ Time: _____	Received By: _____ Company: _____ Date: _____ Time: _____

Lab Courier: TA
 Shipped: _____
 Hand Delivered: _____

Matrix Key
 WW - Wastewater SE - Sediment
 W - Water SO - Soil
 S - Soil L - Leachate
 SL - Sludge WI - Wipe
 MS - Miscellaneous DW - Drinking Water
 OL - Oil O - Other
 A - Air

Client Comments

Lab Comments:

Login Sample Receipt Checklist

Client: Terracon Consulting Eng & Scientists

Job Number: 500-136991-4

Login Number: 136991

List Source: TestAmerica Chicago

List Number: 1

Creator: Scott, Sherri L

Question	Answer	Comment
Radioactivity wasn't checked or is <=/ background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.4,2.9
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	False	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

