



→ Corrective Action File
MID 000 724 724
on-site Saginaw Rd.

November 16, 2018

CERTIFIED MAIL
7014 0150 0000 7880 4544



Jack Schinderle, Chief
Waste Management & Radiological Protection Division
Michigan Department of Environmental Quality
P.O. Box 30241
Lansing, MI 48909

RECEIVED

NOV 19 2018

HAZARDOUS WASTE SECTION

cc. Dan Dailey, MDEQ, P.O. Box 30241, Lansing, MI 48909;
Joe Victory, MDEQ, P.O. Box 30241, Lansing, MI 48909; and
Trisha Confer, MDEQ, Saginaw Bay District Office, 401 Ketchum Street, Suite B,
Bay City, MI 48708

SUBJECT: NOTIFICATION OF NEW AREA OF CONCERN
DOW CHEMICAL – MIDLAND PLANT
MID 000 724 724

Pursuant to Condition XI.F.1 of the Act 451 Part 111 Facility Operating License issued to The Dow Chemical Company (Dow), Michigan Operations, Midland Plant, effective September 25, 2015. The attached notification is provided to communicate the identification of a new Area of Concern (AOC) at the Dow Chemical Midland Plant facility.

The location of the new AOC is south of Mark Putnam Road and east of South Saginaw Road extending to the south and east an underdetermined distance. The extent of the impacted area has not been define at this time. The location of the AOC is provided on the topographic map attached as Figure 1.

The new AOC is not a release from any known waste management unit. The nature and extent of the contamination identified has not been fully characterized, however analytical data from initial sampling of the impacted soil encountered during construction activities in the AOC are provided in the attached lab report. Dow has so far been unable to identify any specific process or waste management unit operation associated with this area. A review of aerial photographs suggests that some type of industrial activity took place in the area of the new AOC at some point after 1952 and before 1983. No information is currently available on the specific industrial activity that took place in this area.

The AOC was confirmed on Thursday October 25, 2018 when analytical results were received for a soil sample taken after an odor was detected during the removal of a tree in the area south of Mark Putnam Road and east of South Saginaw Road. Analytical data from the single soil sample collected are summarized in the table below.

Jack Schinderle

NOTIFICATION OF NEW AREA OF CONCERN IDENTIFIED AT DOW CHEMICAL - MIDLAND PLANT -

MID 000 724 724

November 5, 2018

Page 2

South of Mark Putnam Road Soil Testing Results.

Sample Name	Analytical Method	CAS	Compound Name	Result Value	Reporting Limit	Unit
MARK PUTNAM RD SOIL	SM2540B	SOLID	% SOLIDS	85 3	0 1	%
	SW6020	7440-38-2	ARSENIC	1400	1100	ug/kg
	SW6020	7440-39-3	BARIUM	30000	1100	ug/kg
	SW6020	7440-47-3	CHROMIUM, TOTAL	10000	450	ug/kg
	SW6020	7439-92-1	LEAD	11000	230	ug/kg
	SW8260B	120-82-1	1,2,4-TRICHLOROBENZENE	150000	17000	ug/kg
	SW8260B	95-50-1	1,2-DICHLOROBENZENE	55000	17000	ug/kg
	SW8260B	541-73-1	1,3-DICHLOROBENZENE	3500	340	ug/kg
	SW8260B	106-46-7	1,4-DICHLOROBENZENE	28000	17000	ug/kg
	SW8260B	71-43-2	BENZENE	3200	340	ug/kg
	SW8260B	156-59-2	CIS-1,2-DICHLOROETHYLENE	1000	340	ug/kg
	SW8260B	100-41-4	ETHYLBENZENE	1600	340	ug/kg
	SW8260B	127-18-4	TETRACHLOROETHYLENE(PCE)	28000	17000	ug/kg
	SW8260B	108-88-3	TOLUENE	590	340	ug/kg
	SW8260B	79-01-6	TRICHLOROETHYLENE (TCE)	4300	340	ug/kg
	SW8260B	XYLENES	XYLEMES, TOTAL	1900	690	ug/kg
	SW8270C	634-66-2	1,2,3,4-TETRACHLOROBENZENE	260000	7000	ug/kg
	SW8270C	95-94-3	1,2,4,5-TETRACHLOROBENZENE	170000	23000	ug/kg
	SW8270C	92-52-4	BIPHENYL (DIPHENYL)	11000	580	ug/kg
	SW8270C	118-74-1	HEXACHLOROBENZENE	1600	170	ug/kg
	SW8270C	91-20-3	NAPHTHALENE	180	170	ug/kg

The full analytical report is attached along with a map of the identified AOC. All currently available information regarding this AOC is being provided in this notification.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision according to a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations (40 CFR 270.11).

If you have any questions regarding this information, please contact Steve Lucas at 989-638-6012.



Karen Mann
EH&S Responsible Care Leader
Environment, Health and Safety
1790 Building, Washington Street
Midland, MI 48674
(989) 633-2076

Enclosures

aal

Figure I
Mark Putnam
AOC Topographic
Map

AECOM
MICHIGAN - DOW BUSINESS UNIT
25 BUILDING
MIDLAND, MI 48667
(989) 636-0151

Legend



● Sample Location

— Facility Boundary

FILE NAME:
NewAOCTopo.mxd

UPDATED: 10/18/2018
SAJ,J



Attachment 1
Mark Putnam Road Soil Analytical Report

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Canton

4101 Shuffel Street NW

North Canton, OH 44720

Tel: (330)497-9396

TestAmerica Job ID: 240-103056-1

Client Project/Site: Project Savannah Excavation

For:

URS Corporation

Dow Chemical

25 Building, Door 5

Midland, Michigan 48667

Attn: Alyssa Latta

Patrick O'Meara

Authorized for release by:

10/24/2018 4:54:27 PM

Patrick O'Meara, Manager of Project Management

(330)966-5725

patrick.omeara@testamericainc.com

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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: URS Corporation
Project/Site: Project Savannah Excavation

TestAmerica Job ID: 240-103056-1

Job ID: 240-103056-1

Laboratory: TestAmerica Canton

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Narrative

CASE NARRATIVE

Client: URS Corporation

Project: Project Savannah Excavation

Report Number: 240-103056-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

TestAmerica Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

All solid sample results are reported on an "as received" basis unless otherwise indicated by the presence of a % solids value in the method header.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

RECEIPT

The sample was received on 10/19/2018 9:40 AM; the sample arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.5° C.

VOLATILE ORGANIC COMPOUNDS (GCMS)

Sample MARK PUTNAM RD SOIL (240-103056-1) was analyzed for volatile organic compounds (GCMS) in accordance with EPA SW-846 Method 8260B. The sample was prepared on 10/23/2018 and analyzed on 10/23/2018 and 10/24/2018.

The laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 240-351443 and analytical batch 240-351395 recovered outside control limits for the following analytes: 1,2-Dichloropropane and Methyl Acetate. These analytes were biased high in the LCS/LCSD and were not detected in the associated samples; therefore, the data have been reported

1,2-Dichloropropane and Methyl acetate failed the recovery criteria high for the MS/MSD of sample 240-103120-1 in batch 240-351616.

Sample MARK PUTNAM RD SOIL (240-103056-1)[50X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

The methanol preserved terraores were received dry to almost dry and are not usable: MARK PUTNAM RD SOIL (240-103056-1). Sample

Case Narrative

Client: URS Corporation
Project/Site: Project Savannah Excavation

TestAmerica Job ID: 240-103056-1

Job ID: 240-103056-1 (Continued)

Laboratory: TestAmerica Canton (Continued)

analyses were performed using the bulk sample

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

SEMICVOLATILE ORGANIC COMPOUNDS (GCMS)

Sample MARK PUTNAM RD SOIL (240-103056-1) was analyzed for semivolatile organic compounds (GCMS) in accordance with EPA SW-846 Method 8270C. The sample was prepared on 10/22/2018 and analyzed on 10/24/2018.

Surrogates are added during the extraction process prior to dilution. When the sample is diluted, surrogate recoveries are diluted out and no corrective action is required.

2,4,6-Tribromophenol (Surr), 2-Fluorobiphenyl (Surr), 2-Fluorophenol (Surr), Nitrobenzene-d5 (Surr), Phenol-d5 (Surr) and Terphenyl-d14 (Surr) failed the surrogate recovery criteria low for MARK PUTNAM RD SOIL (240-103056-1).

Samples MARK PUTNAM RD SOIL (240-103056-1)[10X] and MARK PUTNAM RD SOIL (240-103056-1)[200X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

The low point of the initial calibration does not support the reporting limit for 1,2,3,4 -Tetrachlorobenzene. The method detection limit (MDL) for this analyte, though, is below the reporting limit. The results have been reported for the following sample: MARK PUTNAM RD SOIL (240-103056-1).

The spiking solution for 1,2,3,4 -Tetrachlorobenzene, 1,2,3,5-Tetrachlorobenzene and 1,3,5-Trichlorobenzene was omitted during the extraction process for the laboratory control sample (LCS) associated with preparation batch 240-351207 because the analytes were requested after the extracts were already prepped. The results have been reported for the following sample: MARK PUTNAM RD SOIL (240-103056-1).

Batch 240-351625 is reported without a matrix spike/matrix spike duplicate (MS/MSD). The batch MS/MSD was performed on another client's sample and this analysis has not been completed at this time; therefore data has been reported without the batch MS/MSD for the following sample: MARK PUTNAM RD SOIL (240-103056-1)

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

TOTAL METALS (ICPMS)

Sample MARK PUTNAM RD SOIL (240-103056-1) was analyzed for total metals (ICPMS) in accordance with EPA SW-846 Method 6020. The sample was prepared on 10/22/2018 and analyzed on 10/23/2018.

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

TOTAL MERCURY

Sample MARK PUTNAM RD SOIL (240-103056-1) was analyzed for total mercury in accordance with EPA SW-846 Method 7471A. The sample was prepared on 10/22/2018 and analyzed on 10/23/2018.

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

PERCENT SOLIDS

Sample MARK PUTNAM RD SOIL (240-103056-1) was analyzed for percent solids in accordance with ASTM Method D2216-80. The sample was analyzed on 10/22/2018.

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

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Definitions/Glossary

Client: URS Corporation
Project/Site: Project Savannah Excavation

TestAmerica Job ID: 240-103056-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
F1	MS and/or MSD Recovery is outside acceptance limits.

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GC/MS Semi VOA

Qualifier	Qualifier Description
X	Surrogate is outside control limits

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)

TestAmerica Canton

Method Summary

Client: URS Corporation

Project/Site: Project Savannah Excavation

TestAmerica Job ID: 240-103056-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL CAN
8270C	Semivolatile Organic Compounds (GC/MS)	SW846	TAL CAN
6020	Metals (ICP/MS)	SW846	TAL CAN
7471A	Mercury (CVAA)	SW846	TAL CAN
Moisture	Percent Moisture	EPA	TAL CAN
3050B	Preparation, Metals	SW846	TAL CAN
3540C	Soxhlet Extraction	SW846	TAL CAN
5035	Closed System Purge and Trap	SW846	TAL CAN
7471A	Preparation, Mercury	SW846	TAL CAN

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Protocol References:

EPA = US Environmental Protection Agency

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

Laboratory References:

TAL CAN = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

TestAmerica Canton

Sample Summary

Client: URS Corporation
Project/Site: Project Savannah Excavation

TestAmerica Job ID: 240-103056-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-103056-1	MARK PUTNAM RD SOIL	Solid	10/18/18 13:30	10/19/18 09:40

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TestAmerica Canton

Detection Summary

Client: URS Corporation

Project/Site: Project Savannah Excavation

TestAmerica Job ID: 240-103056-1

Client Sample ID: MARK PUTNAM RD SOIL

Lab Sample ID: 240-103056-1

Analyte	Result	Qualifier	RL	Unit	Dil	Fac	D	Method	Prep Type
1,2,4-Trichlorobenzene	150000		17000	ug/Kg	50	♂	8260B		Total/NA
1,2-Dichlorobenzene	55000		17000	ug/Kg	50	♂	8260B		Total/NA
1,3-Dichlorobenzene	3500		340	ug/Kg	1	♂	8260B		Total/NA
1,4-Dichlorobenzene	28000		17000	ug/Kg	50	♂	8260B		Total/NA
Benzene	3200		340	ug/Kg	1	♂	8260B		Total/NA
Ethylbenzene	1600		340	ug/Kg	1	♂	8260B		Total/NA
Tetrachloroethene	28000		17000	ug/Kg	50	♂	8260B		Total/NA
Toluene	590		340	ug/Kg	1	♂	8260B		Total/NA
Trichloroethene	4300		340	ug/Kg	1	♂	8260B		Total/NA
Xylenes, Total	1900		690	ug/Kg	1	♂	8260B		Total/NA
1,1'-Biphenyl	11000		580	ug/Kg	10	♂	8270C		Total/NA
Hexachlorobenzene	1600		170	ug/Kg	10	♂	8270C		Total/NA
Naphthalene	180		170	ug/Kg	10	♂	8270C		Total/NA
1,2,3,4 -Tetrachlorobenzene - RA	260000		7000	ug/Kg	200	♂	8270C		Total/NA
1,2,4,5-Tetrachlorobenzene - RA	170000		23000	ug/Kg	200	♂	8270C		Total/NA
Arsenic	1400		1100	ug/Kg	2	♂	6020		Total/NA
Barium	30000		1100	ug/Kg	2	♂	6020		Total/NA
Chromium	10000		450	ug/Kg	2	♂	6020		Total/NA
Lead	11000		230	ug/Kg	2	♂	6020		Total/NA

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This Detection Summary does not include radiochemical test results.

TestAmerica Canton

Client Sample Results

Client: URS Corporation

Project/Site: Project Savannah Excavation

TestAmerica Job ID: 240-103056-1

Client Sample ID: MARK PUTNAM RD SOIL

Date Collected: 10/18/18 13:30

Date Received: 10/19/18 09:40

Lab Sample ID: 240-103056-1

Matrix: Solid

Percent Solids: 85.3

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		340	ug/Kg	⊗	10/23/18 10:32	10/23/18 18:15	1
1,1,2,2-Tetrachloroethane	ND		340	ug/Kg	⊗	10/23/18 10:32	10/23/18 18:15	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		340	ug/Kg	⊗	10/23/18 10:32	10/23/18 18:15	1
1,1,2-Trichloroethane	ND		340	ug/Kg	⊗	10/23/18 10:32	10/23/18 18:15	1
1,1-Dichloroethane	ND		340	ug/Kg	⊗	10/23/18 10:32	10/23/18 18:15	1
1,1-Dichloroethene	ND		340	ug/Kg	⊗	10/23/18 10:32	10/23/18 18:15	1
1,2,4-Trichlorobenzene	150000		17000	ug/Kg	⊗	10/23/18 10:32	10/24/18 11:35	50
1,2-Dibromo-3-Chloropropane	ND		690	ug/Kg	⊗	10/23/18 10:32	10/23/18 18:15	1
1,2-Dichlorobenzene	55000		17000	ug/Kg	⊗	10/23/18 10:32	10/24/18 11:35	50
1,2-Dichloroethane	ND		340	ug/Kg	⊗	10/23/18 10:32	10/23/18 18:15	1
1,2-Dichloropropane	ND *		340	ug/Kg	⊗	10/23/18 10:32	10/23/18 18:15	1
1,3-Dichlorobenzene	3500		340	ug/Kg	⊗	10/23/18 10:32	10/23/18 18:15	1
1,4-Dichlorobenzene	28000		17000	ug/Kg	⊗	10/23/18 10:32	10/24/18 11:35	50
2-Hexanone	ND		1400	ug/Kg	⊗	10/23/18 10:32	10/23/18 18:15	1
4-Methyl-2-pentanone (MIBK)	ND		1400	ug/Kg	⊗	10/23/18 10:32	10/23/18 18:15	1
Acetone	ND		1400	ug/Kg	⊗	10/23/18 10:32	10/23/18 18:15	1
Benzene	3200		340	ug/Kg	⊗	10/23/18 10:32	10/23/18 18:15	1
Bromoform	ND		340	ug/Kg	⊗	10/23/18 10:32	10/23/18 18:15	1
Bromomethane	ND		340	ug/Kg	⊗	10/23/18 10:32	10/23/18 18:15	1
Carbon disulfide	ND		340	ug/Kg	⊗	10/23/18 10:32	10/23/18 18:15	1
Carbon tetrachloride	ND		340	ug/Kg	⊗	10/23/18 10:32	10/23/18 18:15	1
Chlorobenzene	ND		17000	ug/Kg	⊗	10/23/18 10:32	10/24/18 11:35	50
Chlorodibromomethane	ND		340	ug/Kg	⊗	10/23/18 10:32	10/23/18 18:15	1
Chloroethane	ND		340	ug/Kg	⊗	10/23/18 10:32	10/23/18 18:15	1
Chloroform	ND		340	ug/Kg	⊗	10/23/18 10:32	10/23/18 18:15	1
Chloromethane	ND		340	ug/Kg	⊗	10/23/18 10:32	10/23/18 18:15	1
cis-1,2-Dichloroethene	1000		340	ug/Kg	⊗	10/23/18 10:32	10/23/18 18:15	1
cis-1,3-Dichloropropene	ND		340	ug/Kg	⊗	10/23/18 10:32	10/23/18 18:15	1
Cyclohexane	ND		690	ug/Kg	⊗	10/23/18 10:32	10/23/18 18:15	1
Dichlorobromomethane	ND		340	ug/Kg	⊗	10/23/18 10:32	10/23/18 18:15	1
Dichlorodifluoromethane	ND		340	ug/Kg	⊗	10/23/18 10:32	10/23/18 18:15	1
Ethylbenzene	1600		340	ug/Kg	⊗	10/23/18 10:32	10/23/18 18:15	1
Ethylene Dibromide	ND		340	ug/Kg	⊗	10/23/18 10:32	10/23/18 18:15	1
Isopropylbenzene	ND		340	ug/Kg	⊗	10/23/18 10:32	10/23/18 18:15	1
Methyl acetate	ND *		1700	ug/Kg	⊗	10/23/18 10:32	10/23/18 18:15	1
Methyl Ethyl Ketone (2-Butanone)	ND		1400	ug/Kg	⊗	10/23/18 10:32	10/23/18 18:15	1
Methyl tert-butyl ether	ND		340	ug/Kg	⊗	10/23/18 10:32	10/23/18 18:15	1
Methylcyclohexane	ND		690	ug/Kg	⊗	10/23/18 10:32	10/23/18 18:15	1
Methylene Chloride	ND		690	ug/Kg	⊗	10/23/18 10:32	10/23/18 18:15	1
Styrene	ND		340	ug/Kg	⊗	10/23/18 10:32	10/23/18 18:15	1
Tetrachloroethene	28000		17000	ug/Kg	⊗	10/23/18 10:32	10/24/18 11:35	50
Toluene	590		340	ug/Kg	⊗	10/23/18 10:32	10/23/18 18:15	1
trans-1,2-Dichloroethene	ND		340	ug/Kg	⊗	10/23/18 10:32	10/23/18 18:15	1
trans-1,3-Dichloropropene	ND		340	ug/Kg	⊗	10/23/18 10:32	10/23/18 18:15	1
Trichloroethene	4300		340	ug/Kg	⊗	10/23/18 10:32	10/23/18 18:15	1
Trichlorofluoromethane	ND		340	ug/Kg	⊗	10/23/18 10:32	10/23/18 18:15	1
Vinyl chloride	ND		340	ug/Kg	⊗	10/23/18 10:32	10/23/18 18:15	1
Xylenes, Total	1900		690	ug/Kg	⊗	10/23/18 10:32	10/23/18 18:15	1

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TestAmerica Canton

Client Sample Results

Client: URS Corporation

Project/Site: Project Savannah Excavation

TestAmerica Job ID: 240-103056-1

Client Sample ID: MARK PUTNAM RD SOIL

Date Collected: 10/18/18 13:30

Date Received: 10/19/18 09:40

Lab Sample ID: 240-103056-1

Matrix: Solid

Percent Solids: 85.3

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	130		53 - 155	10/23/18 10:32	10/23/18 18:15	1
1,2-Dichloroethane-d4 (Surr)	114		53 - 155	10/23/18 10:32	10/24/18 11:35	50
4-Bromofluorobenzene (Surr)	124		48 - 151	10/23/18 10:32	10/23/18 18:15	1
4-Bromofluorobenzene (Surr)	124		48 - 151	10/23/18 10:32	10/24/18 11:35	50
Dibromofluoromethane (Surr)	107		49 - 138	10/23/18 10:32	10/23/18 18:15	1
Dibromofluoromethane (Surr)	93		49 - 138	10/23/18 10:32	10/24/18 11:35	50
Toluene-d8 (Surr)	127		49 - 147	10/23/18 10:32	10/23/18 18:15	1
Toluene-d8 (Surr)	121		49 - 147	10/23/18 10:32	10/24/18 11:35	50

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	11000		580	ug/Kg	⊖	10/22/18 09:03	10/24/18 11:05	10
1,2,3,5-Tetrachlorobenzene	ND		580	ug/Kg	⊖	10/22/18 09:03	10/24/18 11:05	10
1,3,5-Trichlorobenzene	ND		580	ug/Kg	⊖	10/22/18 09:03	10/24/18 11:05	10
2,4,5-Trichlorophenol	ND		1700	ug/Kg	⊖	10/22/18 09:03	10/24/18 11:05	10
2,4,6-Trichlorophenol	ND		1700	ug/Kg	⊖	10/22/18 09:03	10/24/18 11:05	10
2,4-Dichlorophenol	ND		1700	ug/Kg	⊖	10/22/18 09:03	10/24/18 11:05	10
2,4-Dimethylphenol	ND		1700	ug/Kg	⊖	10/22/18 09:03	10/24/18 11:05	10
2,4-Dinitrophenol	ND		3800	ug/Kg	⊖	10/22/18 09:03	10/24/18 11:05	10
2,4-Dinitrotoluene	ND		2300	ug/Kg	⊖	10/22/18 09:03	10/24/18 11:05	10
2,6-Dinitrotoluene	ND		2300	ug/Kg	⊖	10/22/18 09:03	10/24/18 11:05	10
2-Chloronaphthalene	ND		580	ug/Kg	⊖	10/22/18 09:03	10/24/18 11:05	10
2-Chlorophenol	ND		580	ug/Kg	⊖	10/22/18 09:03	10/24/18 11:05	10
2-Methylnaphthalene	ND		170	ug/Kg	⊖	10/22/18 09:03	10/24/18 11:05	10
2-Methylphenol	ND		2300	ug/Kg	⊖	10/22/18 09:03	10/24/18 11:05	10
2-Nitroaniline	ND		2300	ug/Kg	⊖	10/22/18 09:03	10/24/18 11:05	10
2-Nitrophenol	ND		580	ug/Kg	⊖	10/22/18 09:03	10/24/18 11:05	10
3 & 4 Methylphenol	ND		4600	ug/Kg	⊖	10/22/18 09:03	10/24/18 11:05	10
3,3'-Dichlorobenzidine	ND		1200	ug/Kg	⊖	10/22/18 09:03	10/24/18 11:05	10
3-Nitroaniline	ND		2300	ug/Kg	⊖	10/22/18 09:03	10/24/18 11:05	10
4,6-Dinitro-2-methylphenol	ND		3800	ug/Kg	⊖	10/22/18 09:03	10/24/18 11:05	10
4-Bromophenyl phenyl ether	ND		580	ug/Kg	⊖	10/22/18 09:03	10/24/18 11:05	10
4-Chloro-3-methylphenol	ND		1700	ug/Kg	⊖	10/22/18 09:03	10/24/18 11:05	10
4-Chloroaniline	ND		1700	ug/Kg	⊖	10/22/18 09:03	10/24/18 11:05	10
4-Chlorophenyl phenyl ether	ND		580	ug/Kg	⊖	10/22/18 09:03	10/24/18 11:05	10
4-Nitroaniline	ND		2300	ug/Kg	⊖	10/22/18 09:03	10/24/18 11:05	10
4-Nitrophenol	ND		3800	ug/Kg	⊖	10/22/18 09:03	10/24/18 11:05	10
Acenaphthene	ND		170	ug/Kg	⊖	10/22/18 09:03	10/24/18 11:05	10
Acenaphthylene	ND		170	ug/Kg	⊖	10/22/18 09:03	10/24/18 11:05	10
Acetophenone	ND		1200	ug/Kg	⊖	10/22/18 09:03	10/24/18 11:05	10
Anthracene	ND		170	ug/Kg	⊖	10/22/18 09:03	10/24/18 11:05	10
Atrazine	ND		2300	ug/Kg	⊖	10/22/18 09:03	10/24/18 11:05	10
Benzaldehyde	ND		1200	ug/Kg	⊖	10/22/18 09:03	10/24/18 11:05	10
Benzo[a]anthracene	ND		170	ug/Kg	⊖	10/22/18 09:03	10/24/18 11:05	10
Benzo[a]pyrene	ND		170	ug/Kg	⊖	10/22/18 09:03	10/24/18 11:05	10
Benzo[b]fluoranthene	ND		170	ug/Kg	⊖	10/22/18 09:03	10/24/18 11:05	10
Benzo[g,h,i]perylene	ND		170	ug/Kg	⊖	10/22/18 09:03	10/24/18 11:05	10
Benzo[k]fluoranthene	ND		170	ug/Kg	⊖	10/22/18 09:03	10/24/18 11:05	10
bis (2-chloroisopropyl) ether	ND		1200	ug/Kg	⊖	10/22/18 09:03	10/24/18 11:05	10
Bis(2-chloroethoxy)methane	ND		1200	ug/Kg	⊖	10/22/18 09:03	10/24/18 11:05	10

TestAmerica Canton

Client Sample Results

Client: URS Corporation
 Project/Site: Project Savannah Excavation

TestAmerica Job ID: 240-103056-1

Client Sample ID: MARK PUTNAM RD SOIL

Date Collected: 10/18/18 13:30

Date Received: 10/19/18 09:40

Lab Sample ID: 240-103056-1

Matrix: Solid

Percent Solids: 85.3

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-chloroethyl)ether	ND		1200	ug/Kg	⌚	10/22/18 09:03	10/24/18 11:05	10
Bis(2-ethylhexyl) phthalate	ND		810	ug/Kg	⌚	10/22/18 09:03	10/24/18 11:05	10
Butyl benzyl phthalate	ND		810	ug/Kg	⌚	10/22/18 09:03	10/24/18 11:05	10
Caprolactam	ND		3800	ug/Kg	⌚	10/22/18 09:03	10/24/18 11:05	10
Carbazole	ND		580	ug/Kg	⌚	10/22/18 09:03	10/24/18 11:05	10
Chrysene	ND		170	ug/Kg	⌚	10/22/18 09:03	10/24/18 11:05	10
Dibenz(a,h)anthracene	ND		170	ug/Kg	⌚	10/22/18 09:03	10/24/18 11:05	10
Dibenzofuran	ND		580	ug/Kg	⌚	10/22/18 09:03	10/24/18 11:05	10
Diethyl phthalate	ND		810	ug/Kg	⌚	10/22/18 09:03	10/24/18 11:05	10
Dimethyl phthalate	ND		810	ug/Kg	⌚	10/22/18 09:03	10/24/18 11:05	10
Di-n-butyl phthalate	ND		810	ug/Kg	⌚	10/22/18 09:03	10/24/18 11:05	10
Di-n-octyl phthalate	ND		810	ug/Kg	⌚	10/22/18 09:03	10/24/18 11:05	10
Fluoranthene	ND		170	ug/Kg	⌚	10/22/18 09:03	10/24/18 11:05	10
Fluorene	ND		170	ug/Kg	⌚	10/22/18 09:03	10/24/18 11:05	10
Hexachlorobenzene	1600		170	ug/Kg	⌚	10/22/18 09:03	10/24/18 11:05	10
Hexachlorobutadiene	ND		580	ug/Kg	⌚	10/22/18 09:03	10/24/18 11:05	10
Hexachlorocyclopentadiene	ND		3800	ug/Kg	⌚	10/22/18 09:03	10/24/18 11:05	10
Hexachloroethane	ND		580	ug/Kg	⌚	10/22/18 09:03	10/24/18 11:05	10
Indeno[1,2,3-cd]pyrene	ND		170	ug/Kg	⌚	10/22/18 09:03	10/24/18 11:05	10
Isophorone	ND		580	ug/Kg	⌚	10/22/18 09:03	10/24/18 11:05	10
Naphthalene	180		170	ug/Kg	⌚	10/22/18 09:03	10/24/18 11:05	10
Nitrobenzene	ND		1200	ug/Kg	⌚	10/22/18 09:03	10/24/18 11:05	10
N-Nitrosodi-n-propylamine	ND		580	ug/Kg	⌚	10/22/18 09:03	10/24/18 11:05	10
N-Nitrosodiphenylamine	ND		580	ug/Kg	⌚	10/22/18 09:03	10/24/18 11:05	10
Pentachlorophenol	ND		1700	ug/Kg	⌚	10/22/18 09:03	10/24/18 11:05	10
Phenanthrene	ND		170	ug/Kg	⌚	10/22/18 09:03	10/24/18 11:05	10
Phenol	ND		580	ug/Kg	⌚	10/22/18 09:03	10/24/18 11:05	10
Pyrene	ND		170	ug/Kg	⌚	10/22/18 09:03	10/24/18 11:05	10
Pyridine	ND		1700	ug/Kg	⌚	10/22/18 09:03	10/24/18 11:05	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	95		10 - 120	10/22/18 09:03	10/24/18 11:05	10
2-Fluorobiphenyl (Surr)	94		32 - 120	10/22/18 09:03	10/24/18 11:05	10
2-Fluorophenol (Surr)	68		29 - 120	10/22/18 09:03	10/24/18 11:05	10
Nitrobenzene-d5 (Surr)	88		30 - 120	10/22/18 09:03	10/24/18 11:05	10
Phenol-d5 (Surr)	82		29 - 120	10/22/18 09:03	10/24/18 11:05	10
Terphenyl-d14 (Surr)	97		41 - 120	10/22/18 09:03	10/24/18 11:05	10

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3,4 -Tetrachlorobenzene	260000		7000	ug/Kg	⌚	10/22/18 09:03	10/24/18 11:28	200
1,2,4,5-Tetrachlorobenzene	170000		23000	ug/Kg	⌚	10/22/18 09:03	10/24/18 11:28	200
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac		
2,4,6-Tribromophenol (Surr)	0 X		10 - 120	10/22/18 09:03	10/24/18 11:28	200		
2-Fluorobiphenyl (Surr)	0 X		32 - 120	10/22/18 09:03	10/24/18 11:28	200		
2-Fluorophenol (Surr)	0 X		29 - 120	10/22/18 09:03	10/24/18 11:28	200		
Nitrobenzene-d5 (Surr)	0 X		30 - 120	10/22/18 09:03	10/24/18 11:28	200		
Phenol-d5 (Surr)	0 X		29 - 120	10/22/18 09:03	10/24/18 11:28	200		
Terphenyl-d14 (Surr)	0 X		41 - 120	10/22/18 09:03	10/24/18 11:28	200		

TestAmerica Canton

Client Sample Results

Client: URS Corporation

Project/Site: Project Savannah Excavation

TestAmerica Job ID: 240-103056-1

Client Sample ID: MARK PUTNAM RD SOIL

Date Collected: 10/18/18 13:30

Date Received: 10/19/18 09:40

Lab Sample ID: 240-103056-1

Matrix: Solid

Percent Solids: 85.3

Method: 6020 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	1400		1100	ug/Kg	✉	10/22/18 14:00	10/23/18 18:41	2
Barium	30000		1100	ug/Kg	✉	10/22/18 14:00	10/23/18 18:41	2
Cadmium	ND		230	ug/Kg	✉	10/22/18 14:00	10/23/18 18:41	2
Chromium	10000		450	ug/Kg	✉	10/22/18 14:00	10/23/18 18:41	2
Lead	11000		230	ug/Kg	✉	10/22/18 14:00	10/23/18 18:41	2
Selenium	ND		1100	ug/Kg	✉	10/22/18 14:00	10/23/18 18:41	2
Silver	ND		230	ug/Kg	✉	10/22/18 14:00	10/23/18 18:41	2

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Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		45	ug/Kg	✉	10/22/18 16:00	10/23/18 15:33	1

General Chemistry

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	85.3		0.1	%		10/22/18 16:23		1

TestAmerica Canton

Surrogate Summary

Client: URS Corporation
 Project/Site: Project Savannah Excavation

TestAmerica Job ID: 240-103056-1

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

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (53-155)	BFB (48-151)	DBFM (49-138)	TOL (49-147)
240-103056-1	MARK PUTNAM RD SOIL	130	124	107	127
240-103056-1	MARK PUTNAM RD SOIL	114	124	93	121
240-103120-F-1-C MS	Matrix Spike	104	92	91	99
240-103120-F-1-D MSD	Matrix Spike Duplicate	110	96	94	101
LCS 240-351443/2-A	Lab Control Sample	100	91	84	96
LCSD 240-351443/3-A	Lab Control Sample Dup	102	90	87	94
MB 240-351443/1-A	Method Blank	107	88	84	104

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Surrogate Legend

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

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

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		TBP (10-120)	FBP (32-120)	2FP (29-120)	NBZ (30-120)	PHL (29-120)	TPHL (41-120)
240-103056-1 - RA	MARK PUTNAM RD SOIL	0 X	0 X	0 X	0 X	0 X	0 X
240-103056-1	MARK PUTNAM RD SOIL	95	94	68	88	82	97
LCS 240-351207/23-A	Lab Control Sample	112	97	98	96	99	113
MB 240-351207/22-A	Method Blank	71	83	79	83	81	99

Surrogate Legend

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

TestAmerica Canton

QC Sample Results

Client: URS Corporation

Project/Site: Project Savannah Excavation

TestAmerica Job ID: 240-103056-1

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

Lab Sample ID: MB 240-351443/1-A

Matrix: Solid

Analysis Batch: 351395

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 351443

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		250	ug/Kg	10/23/18 10:32	10/23/18 16:15		1
1,1,2,2-Tetrachloroethane	ND		250	ug/Kg	10/23/18 10:32	10/23/18 16:15		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		250	ug/Kg	10/23/18 10:32	10/23/18 16:15		1
1,1,2-Trichloroethane	ND		250	ug/Kg	10/23/18 10:32	10/23/18 16:15		1
1,1-Dichloroethane	ND		250	ug/Kg	10/23/18 10:32	10/23/18 16:15		1
1,1-Dichloroethene	ND		250	ug/Kg	10/23/18 10:32	10/23/18 16:15		1
1,2,4-Trichlorobenzene	ND		250	ug/Kg	10/23/18 10:32	10/23/18 16:15		1
1,2-Dibromo-3-Chloropropane	ND		500	ug/Kg	10/23/18 10:32	10/23/18 16:15		1
1,2-Dichlorobenzene	ND		250	ug/Kg	10/23/18 10:32	10/23/18 16:15		1
1,2-Dichloroethane	ND		250	ug/Kg	10/23/18 10:32	10/23/18 16:15		1
1,2-Dichloropropane	ND		250	ug/Kg	10/23/18 10:32	10/23/18 16:15		1
1,3-Dichlorobenzene	ND		250	ug/Kg	10/23/18 10:32	10/23/18 16:15		1
1,4-Dichlorobenzene	ND		250	ug/Kg	10/23/18 10:32	10/23/18 16:15		1
2-Hexanone	ND		1000	ug/Kg	10/23/18 10:32	10/23/18 16:15		1
4-Methyl-2-pentanone (MIBK)	ND		1000	ug/Kg	10/23/18 10:32	10/23/18 16:15		1
Acetone	ND		1000	ug/Kg	10/23/18 10:32	10/23/18 16:15		1
Benzene	ND		250	ug/Kg	10/23/18 10:32	10/23/18 16:15		1
Bromoform	ND		250	ug/Kg	10/23/18 10:32	10/23/18 16:15		1
Bromomethane	ND		250	ug/Kg	10/23/18 10:32	10/23/18 16:15		1
Carbon disulfide	ND		250	ug/Kg	10/23/18 10:32	10/23/18 16:15		1
Carbon tetrachloride	ND		250	ug/Kg	10/23/18 10:32	10/23/18 16:15		1
Chlorobenzene	ND		250	ug/Kg	10/23/18 10:32	10/23/18 16:15		1
Chlorodibromomethane	ND		250	ug/Kg	10/23/18 10:32	10/23/18 16:15		1
Chloroethane	ND		250	ug/Kg	10/23/18 10:32	10/23/18 16:15		1
Chloroform	ND		250	ug/Kg	10/23/18 10:32	10/23/18 16:15		1
Chloromethane	ND		250	ug/Kg	10/23/18 10:32	10/23/18 16:15		1
cis-1,2-Dichloroethene	ND		250	ug/Kg	10/23/18 10:32	10/23/18 16:15		1
cis-1,3-Dichloropropene	ND		250	ug/Kg	10/23/18 10:32	10/23/18 16:15		1
Cyclohexane	ND		500	ug/Kg	10/23/18 10:32	10/23/18 16:15		1
Dichlorobromomethane	ND		250	ug/Kg	10/23/18 10:32	10/23/18 16:15		1
Dichlorodifluoromethane	ND		250	ug/Kg	10/23/18 10:32	10/23/18 16:15		1
Ethylbenzene	ND		250	ug/Kg	10/23/18 10:32	10/23/18 16:15		1
Ethylene Dibromide	ND		250	ug/Kg	10/23/18 10:32	10/23/18 16:15		1
Isopropylbenzene	ND		250	ug/Kg	10/23/18 10:32	10/23/18 16:15		1
Methyl acetate	ND		1300	ug/Kg	10/23/18 10:32	10/23/18 16:15		1
Methyl Ethyl Ketone (2-Butanone)	ND		1000	ug/Kg	10/23/18 10:32	10/23/18 16:15		1
Methyl tert-butyl ether	ND		250	ug/Kg	10/23/18 10:32	10/23/18 16:15		1
Methylcyclohexane	ND		500	ug/Kg	10/23/18 10:32	10/23/18 16:15		1
Methylene Chloride	ND		500	ug/Kg	10/23/18 10:32	10/23/18 16:15		1
Styrene	ND		250	ug/Kg	10/23/18 10:32	10/23/18 16:15		1
Tetrachloroethene	ND		250	ug/Kg	10/23/18 10:32	10/23/18 16:15		1
Toluene	ND		250	ug/Kg	10/23/18 10:32	10/23/18 16:15		1
trans-1,2-Dichloroethene	ND		250	ug/Kg	10/23/18 10:32	10/23/18 16:15		1
trans-1,3-Dichloropropene	ND		250	ug/Kg	10/23/18 10:32	10/23/18 16:15		1
Trichloroethene	ND		250	ug/Kg	10/23/18 10:32	10/23/18 16:15		1
Trichlorofluoromethane	ND		250	ug/Kg	10/23/18 10:32	10/23/18 16:15		1
Vinyl chloride	ND		250	ug/Kg	10/23/18 10:32	10/23/18 16:15		1
Xylenes, Total	ND		500	ug/Kg	10/23/18 10:32	10/23/18 16:15		1

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TestAmerica Canton

QC Sample Results

Client: URS Corporation

Project/Site: Project Savannah Excavation

TestAmerica Job ID: 240-103056-1

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
1,2-Dichloroethane-d4 (Surr)	107		53 - 155	10/23/18 10 32	10/23/18 16 15	1
4-Bromofluorobenzene (Surr)	88		48 - 151	10/23/18 10 32	10/23/18 16 15	1
Dibromofluoromethane (Surr)	84		49 - 138	10/23/18 10:32	10/23/18 16 15	1
Toluene-d8 (Surr)	104		49 - 147	10/23/18 10 32	10/23/18 16 15	1

Lab Sample ID: LCS 240-351443/2-A

Matrix: Solid

Analysis Batch: 351395

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
1,1,1-Trichloroethane	1000	982		ug/Kg	98	64 - 135	
1,1,2,2-Tetrachloroethane	1000	1060		ug/Kg	106	68 - 128	
1,1,2-Trichloro-1,2,2-trifluoroethane	1000	1280		ug/Kg	128	56 - 138	
1,1,2-Trichloroethane	1000	1110		ug/Kg	111	78 - 120	
1,1-Dichloroethane	1000	1150		ug/Kg	115	72 - 122	
1,1-Dichloroethene	1000	1170		ug/Kg	117	57 - 139	
1,2,4-Trichlorobenzene	1000	762		ug/Kg	76	54 - 120	
1,2-Dibromo-3-Chloropropane	1000	613		ug/Kg	61	38 - 135	
1,2-Dichlorobenzene	1000	952		ug/Kg	95	73 - 120	
1,2-Dichloroethane	1000	1170		ug/Kg	117	64 - 126	
1,2-Dichloropropane	1000	1250 *		ug/Kg	125	78 - 122	
1,3-Dichlorobenzene	1000	983		ug/Kg	98	70 - 120	
1,4-Dichlorobenzene	1000	995		ug/Kg	99	71 - 120	
2-Hexanone	2000	2360		ug/Kg	118	52 - 145	
4-Methyl-2-pentanone (MIBK)	2000	2530		ug/Kg	126	53 - 139	
Acetone	2000	2340		ug/Kg	117	43 - 159	
Benzene	1000	1120		ug/Kg	112	74 - 123	
Bromoform	1000	682		ug/Kg	68	46 - 137	
Bromomethane	1000	1480		ug/Kg	148	10 - 152	
Carbon disulfide	1000	666		ug/Kg	67	29 - 153	
Carbon tetrachloride	1000	952		ug/Kg	95	56 - 139	
Chlorobenzene	1000	1060		ug/Kg	106	80 - 120	
Chlorodibromomethane	1000	835		ug/Kg	83	58 - 131	
Chloroethane	1000	1520		ug/Kg	152	15 - 155	
Chloroform	1000	1060		ug/Kg	106	72 - 124	
Chloromethane	1000	863		ug/Kg	86	45 - 128	
cis-1,2-Dichloroethene	1000	997		ug/Kg	100	74 - 123	
cis-1,3-Dichloropropene	1000	1060		ug/Kg	106	63 - 137	
Cyclohexane	1000	1190		ug/Kg	119	64 - 130	
Dichlorobromomethane	1000	921		ug/Kg	92	63 - 132	
Dichlorodifluoromethane	1000	786		ug/Kg	79	26 - 138	
Ethylbenzene	1000	1040		ug/Kg	104	76 - 120	
Ethylene Dibromide	1000	1050		ug/Kg	105	76 - 120	
Isopropylbenzene	1000	1030		ug/Kg	103	77 - 124	
Methyl acetate	2000	3150 *		ug/Kg	157	52 - 136	
Methyl Ethyl Ketone	2000	2220		ug/Kg	111	45 - 148	
(2-Butanone)							
Methyl tert-butyl ether	1000	988		ug/Kg	99	66 - 127	
Methylcyclohexane	1000	1050		ug/Kg	105	68 - 127	
Methylene Chloride	1000	1100		ug/Kg	110	62 - 137	
m-Xylene & p-Xylene	1000	1030		ug/Kg	103	77 - 120	
o-Xylene	1000	995		ug/Kg	99	79 - 120	
Styrene	1000	1010		ug/Kg	101	76 - 121	

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Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 351443

%Rec.

QC Sample Results

Client: URS Corporation
 Project/Site: Project Savannah Excavation

TestAmerica Job ID: 240-103056-1

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

Lab Sample ID: LCS 240-351443/2-A

Client Sample ID: Lab Control Sample

Matrix: Solid

Analysis Batch: 351395

Analyte	Spike	LCS	LCS	Unit	D	%Rec	%Rec.
	Added	Result	Qualifier				
Tetrachloroethene	1000	1030		ug/Kg		103	76 - 120
Toluene	1000	1140		ug/Kg		114	76 - 120
trans-1,2-Dichloroethene	1000	938		ug/Kg		94	71 - 133
trans-1,3-Dichloropropene	1000	1000		ug/Kg		100	55 - 121
Trichloroethene	1000	991		ug/Kg		99	73 - 126
Trichlorofluoromethane	1000	1330		ug/Kg		133	47 - 146
Vinyl chloride	1000	814		ug/Kg		81	52 - 130
Xylenes, Total	2000	2030		ug/Kg		101	79 - 120

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Surrogate	LCS	LCS	Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	100		53 - 155
4-Bromofluorobenzene (Surr)	91		48 - 151
Dibromofluoromethane (Surr)	84		49 - 138
Toluene-d8 (Surr)	96		49 - 147

Lab Sample ID: LCSD 240-351443/3-A

Client Sample ID: Lab Control Sample Dup

Matrix: Solid

Analysis Batch: 351395

Prep Type: Total/NA

Prep Batch: 351443

Analyte	Spike	LCSD	LCSD	Unit	D	%Rec	Limits	RPD	Limit
	Added	Result	Qualifier						
1,1,1-Trichloroethane	1000	1010		ug/Kg		101	64 - 135	3	40
1,1,2-Tetrachloroethane	1000	1040		ug/Kg		104	68 - 128	2	40
1,1,2-Trichloro-1,2,2-trifluoroethane	1000	1210		ug/Kg		121	56 - 138	6	40
1,1,2-Trichloroethane	1000	1120		ug/Kg		112	78 - 120	1	40
1,1-Dichloroethane	1000	1170		ug/Kg		117	72 - 122	2	40
1,1-Dichloroethene	1000	1140		ug/Kg		114	57 - 139	3	40
1,2,4-Trichlorobenzene	1000	768		ug/Kg		77	54 - 120	1	40
1,2-Dibromo-3-Chloropropane	1000	604		ug/Kg		60	38 - 135	1	40
1,2-Dichlorobenzene	1000	975		ug/Kg		98	73 - 120	2	40
1,2-Dichloroethane	1000	1190		ug/Kg		119	64 - 126	2	40
1,2-Dichloropropane	1000	1260 *		ug/Kg		126	78 - 122	1	40
1,3-Dichlorobenzene	1000	978		ug/Kg		98	70 - 120	1	40
1,4-Dichlorobenzene	1000	988		ug/Kg		99	71 - 120	1	40
2-Hexanone	2000	2500		ug/Kg		125	52 - 145	6	40
4-Methyl-2-pentanone (MIBK)	2000	2540		ug/Kg		127	53 - 139	1	40
Acetone	2000	2550		ug/Kg		128	43 - 159	9	40
Benzene	1000	1160		ug/Kg		116	74 - 123	3	40
Bromoform	1000	727		ug/Kg		73	46 - 137	6	40
Bromomethane	1000	1270		ug/Kg		127	10 - 152	15	40
Carbon disulfide	1000	601		ug/Kg		60	29 - 153	10	40
Carbon tetrachloride	1000	984		ug/Kg		98	56 - 139	3	40
Chlorobenzene	1000	1060		ug/Kg		106	80 - 120	0	40
Chlorodibromomethane	1000	869		ug/Kg		87	58 - 131	4	40
Chloroethane	1000	1390		ug/Kg		139	15 - 155	9	40
Chloroform	1000	1110		ug/Kg		111	72 - 124	5	40
Chloromethane	1000	943		ug/Kg		94	45 - 128	9	40
cis-1,2-Dichloroethene	1000	1010		ug/Kg		101	74 - 123	1	40

TestAmerica Canton

QC Sample Results

Client: URS Corporation
 Project/Site: Project Savannah Excavation

TestAmerica Job ID: 240-103056-1

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

Lab Sample ID: LCSD 240-351443/3-A

Matrix: Solid

Analysis Batch: 351395

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 351443

%Rec.

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Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
cis-1,3-Dichloropropene	1000	1080		ug/Kg		108	63 - 137	2	40
Cyclohexane	1000	1270		ug/Kg		127	64 - 130	7	40
Dichlorobromomethane	1000	956		ug/Kg		96	63 - 132	4	40
Dichlorodifluoromethane	1000	868		ug/Kg		87	26 - 138	10	40
Ethylbenzene	1000	1030		ug/Kg		103	76 - 120	0	40
Ethylene Dibromide	1000	1030		ug/Kg		103	76 - 120	2	40
Isopropylbenzene	1000	1050		ug/Kg		105	77 - 124	3	40
Methyl acetate	2000	2980 *		ug/Kg		149	52 - 136	5	40
Methyl Ethyl Ketone (2-Butanone)	2000	2230		ug/Kg		112	45 - 148	0	40
Methyl tert-butyl ether	1000	1000		ug/Kg		100	66 - 127	2	40
Methylcyclohexane	1000	1080		ug/Kg		108	68 - 127	3	40
Methylene Chloride	1000	1040		ug/Kg		104	62 - 137	6	40
m-Xylene & p-Xylene	1000	1010		ug/Kg		101	77 - 120	1	40
o-Xylene	1000	995		ug/Kg		99	79 - 120	0	40
Styrene	1000	1010		ug/Kg		101	76 - 121	0	40
Tetrachloroethene	1000	998		ug/Kg		100	76 - 120	4	40
Toluene	1000	1120		ug/Kg		112	76 - 120	2	40
trans-1,2-Dichloroethene	1000	946		ug/Kg		95	71 - 133	1	40
trans-1,3-Dichloropropene	1000	999		ug/Kg		100	55 - 121	0	40
Trichloroethene	1000	1030		ug/Kg		103	73 - 126	3	40
Trichlorofluoromethane	1000	1190		ug/Kg		119	47 - 146	11	40
Vinyl chloride	1000	857		ug/Kg		86	52 - 130	5	40
Xylenes, Total	2000	2010		ug/Kg		100	79 - 120	1	40

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	102		53 - 155
4-Bromofluorobenzene (Surr)	90		48 - 151
Dibromofluoromethane (Surr)	87		49 - 138
Toluene-d8 (Surr)	94		49 - 147

Lab Sample ID: 240-103120-F-1-C MS

Matrix: Solid

Analysis Batch: 351616

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 351443

%Rec.

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
1,1,1-Trichloroethane	ND		1060	1080		ug/Kg	*	102	38 - 143
1,1,2,2-Tetrachloroethane	ND		1060	1220		ug/Kg	*	115	16 - 178
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1060	1320		ug/Kg	*	125	37 - 147
1,1,2-Trichloroethane	ND		1060	1250		ug/Kg	*	118	31 - 151
1,1-Dichloroethane	ND		1060	1230		ug/Kg	*	117	50 - 133
1,1-Dichloroethene	ND		1060	1240		ug/Kg	*	118	36 - 150
1,2,4-Trichlorobenzene	ND		1060	929		ug/Kg	*	88	10 - 120
1,2-Dibromo-3-Chloropropane	ND		1060	792		ug/Kg	*	75	10 - 141
1,2-Dichlorobenzene	ND		1060	1030		ug/Kg	*	98	10 - 130
1,2-Dichloroethane	ND		1060	1250		ug/Kg	*	118	42 - 127
1,2-Dichloropropane	ND * F1		1060	1370	F1	ug/Kg	*	130	51 - 128

TestAmerica Canton

QC Sample Results

Client: URS Corporation
 Project/Site: Project Savannah Excavation

TestAmerica Job ID: 240-103056-1

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

Lab Sample ID: 240-103120-F-1-C MS

Matrix: Solid

Analysis Batch: 351616

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 351443

%Rec.

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
1,3-Dichlorobenzene	ND		1060	1030		ug/Kg	o	98	10 - 131
1,4-Dichlorobenzene	ND		1060	1040		ug/Kg	o	98	10 - 130
2-Hexanone	ND		2110	2880		ug/Kg	o	137	15 - 147
4-Methyl-2-pentanone (MIBK)	ND		2110	2870		ug/Kg	o	136	29 - 143
Acetone	ND		2110	2610		ug/Kg	o	124	10 - 160
Benzene	ND		1060	1220		ug/Kg	o	114	39 - 133
Bromoform	ND		1060	819		ug/Kg	o	78	18 - 120
Bromomethane	ND		1060	1380		ug/Kg	o	131	10 - 159
Carbon disulfide	ND		1060	651		ug/Kg	o	62	16 - 145
Carbon tetrachloride	ND		1060	1040		ug/Kg	o	99	22 - 142
Chlorobenzene	ND		1060	1140		ug/Kg	o	108	21 - 131
Chlorodibromomethane	ND		1060	949		ug/Kg	o	90	27 - 126
Chloroethane	ND		1060	1520		ug/Kg	o	144	17 - 162
Chloroform	ND		1060	1180		ug/Kg	o	111	51 - 130
Chloromethane	ND		1060	908		ug/Kg	o	86	26 - 149
cis-1,2-Dichloroethene	ND		1060	1080		ug/Kg	o	102	50 - 128
cis-1,3-Dichloropropene	ND		1060	1160		ug/Kg	o	109	15 - 132
Cyclohexane	ND		1060	1330		ug/Kg	o	126	34 - 137
Dichlorobromomethane	ND		1060	1000		ug/Kg	o	95	32 - 129
Dichlorodifluoromethane	ND		1060	750		ug/Kg	o	71	15 - 150
Ethylbenzene	ND		1060	1170		ug/Kg	o	106	20 - 135
Ethylene Dibromide	ND		1060	1150		ug/Kg	o	109	36 - 125
Isopropylbenzene	ND		1060	1130		ug/Kg	o	107	20 - 138
Methyl acetate	ND * F1		2110	3470	F1	ug/Kg	o	164	12 - 160
Methyl Ethyl Ketone	ND		2110	2510		ug/Kg	o	119	20 - 148
(2-Butanone)									
Methyl tert-butyl ether	ND		1060	1100		ug/Kg	o	104	48 - 134
Methylcyclohexane	ND		1060	1390		ug/Kg	o	131	23 - 133
Methylene Chloride	1700		1060	2550		ug/Kg	o	82	39 - 145
m-Xylene & p-Xylene	ND		1060	1200		ug/Kg	o	108	16 - 137
o-Xylene	ND		1060	1130		ug/Kg	o	103	21 - 138
Styrene	ND		1060	1100		ug/Kg	o	104	10 - 134
Tetrachloroethene	ND		1060	1100		ug/Kg	o	104	20 - 151
Toluene	ND		1060	1290		ug/Kg	o	122	29 - 141
trans-1,2-Dichloroethene	ND		1060	1040		ug/Kg	o	98	44 - 141
trans-1,3-Dichloropropene	ND		1060	1110		ug/Kg	o	105	15 - 120
Trichloroethene	ND		1060	1080		ug/Kg	o	103	25 - 148
Trichlorofluoromethane	ND		1060	1360		ug/Kg	o	129	38 - 149
Vinyl chloride	ND		1060	789		ug/Kg	o	75	31 - 148
Xylenes, Total	ND		2110	2330		ug/Kg	o	110	19 - 137

MS MS

Surrogate	%Recovery	Qualifier	Limits
1,2-Dichlorethane-d4 (Surr)	104		53 - 155
4-Bromofluorobenzene (Surr)	92		48 - 151
Dibromofluoromethane (Surr)	91		49 - 138
Toluene-d8 (Surr)	99		49 - 147

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TestAmerica Canton

QC Sample Results

Client: URS Corporation
 Project/Site: Project Savannah Excavation

TestAmerica Job ID: 240-103056-1

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

Lab Sample ID: 240-103120-F-1-D MSD

Matrix: Solid

Analysis Batch: 351616

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 351443

%Rec.

RPD

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
1,1,1-Trichloroethane	ND		1070	1150		ug/Kg	⊗	108	38 - 143	7	40
1,1,2,2-Tetrachloroethane	ND		1070	1250		ug/Kg	⊗	118	16 - 178	3	40
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1070	1430		ug/Kg	⊗	134	37 - 147	8	37
1,1,2-Trichloroethane	ND		1070	1300		ug/Kg	⊗	122	31 - 151	4	40
1,1-Dichloroethane	ND		1070	1300		ug/Kg	⊗	122	50 - 133	5	40
1,1-Dichloroethene	ND		1070	1340		ug/Kg	⊗	126	36 - 150	8	40
1,2,4-Trichlorobenzene	ND		1070	984		ug/Kg	⊗	92	10 - 120	6	40
1,2-Dibromo-3-Chloropropane	ND		1070	1190		ug/Kg	⊗	111	10 - 141	40	40
1,2-Dichlorobenzene	ND		1070	1110		ug/Kg	⊗	104	10 - 130	7	40
1,2-Dichloroethane	ND		1070	1340		ug/Kg	⊗	126	42 - 127	7	34
1,2-Dichloropropane	ND * F1		1070	1440	F1	ug/Kg	⊗	135	51 - 128	5	36
1,3-Dichlorobenzene	ND		1070	1100		ug/Kg	⊗	103	10 - 131	6	40
1,4-Dichlorobenzene	ND		1070	1100		ug/Kg	⊗	103	10 - 130	5	40
2-Hexanone	ND		2130	2980		ug/Kg	⊗	140	15 - 147	3	40
4-Methyl-2-pentanone (MIBK)	ND		2130	3040		ug/Kg	⊗	142	29 - 143	6	40
Acetone	ND		2130	2940		ug/Kg	⊗	138	10 - 160	12	39
Benzene	ND		1070	1290		ug/Kg	⊗	119	39 - 133	5	40
Bromoform	ND		1070	863		ug/Kg	⊗	81	18 - 120	5	40
Bromomethane	ND		1070	1450		ug/Kg	⊗	136	10 - 159	5	40
Carbon disulfide	ND		1070	747		ug/Kg	⊗	70	16 - 145	14	40
Carbon tetrachloride	ND		1070	1080		ug/Kg	⊗	102	22 - 142	4	40
Chlorobenzene	ND		1070	1190		ug/Kg	⊗	112	21 - 131	5	40
Chlorodibromomethane	ND		1070	1010		ug/Kg	⊗	95	27 - 126	6	40
Chloroethane	ND		1070	1610		ug/Kg	⊗	151	17 - 162	6	40
Chloroform	ND		1070	1240		ug/Kg	⊗	116	51 - 130	6	32
Chloromethane	ND		1070	974		ug/Kg	⊗	91	26 - 149	7	37
cis-1,2-Dichloroethene	ND		1070	1130		ug/Kg	⊗	106	50 - 128	5	40
cis-1,3-Dichloropropene	ND		1070	1250		ug/Kg	⊗	117	15 - 132	8	40
Cyclohexane	ND		1070	1450		ug/Kg	⊗	135	34 - 137	8	34
Dichlorobromomethane	ND		1070	1060		ug/Kg	⊗	99	32 - 129	5	39
Dichlorodifluoromethane	ND		1070	889		ug/Kg	⊗	83	15 - 150	17	31
Ethylbenzene	ND		1070	1180		ug/Kg	⊗	105	20 - 135	0	40
Ethylene Dibromide	ND		1070	1200		ug/Kg	⊗	113	36 - 125	5	40
Isopropylbenzene	ND		1070	1190		ug/Kg	⊗	112	20 - 138	6	40
Methyl acetate	ND * F1		2130	3590	F1	ug/Kg	⊗	168	12 - 160	3	33
Methyl Ethyl Ketone (2-Butanone)	ND		2130	2560		ug/Kg	⊗	120	20 - 148	2	36
Methyl tert-butyl ether	ND		1070	1210		ug/Kg	⊗	113	48 - 134	9	34
Methylcyclohexane	ND		1070	1380		ug/Kg	⊗	130	23 - 133	0	36
Methylene Chloride	1700		1070	2270		ug/Kg	⊗	55	39 - 145	11	40
m-Xylene & p-Xylene	ND		1070	1220		ug/Kg	⊗	109	16 - 137	2	40
o-Xylene	ND		1070	1190		ug/Kg	⊗	107	21 - 138	5	40
Styrene	ND		1070	1140		ug/Kg	⊗	107	10 - 134	4	40
Tetrachloroethene	ND		1070	1150		ug/Kg	⊗	108	20 - 151	4	40
Toluene	ND		1070	1330		ug/Kg	⊗	124	29 - 141	3	40
trans-1,2-Dichloroethene	ND		1070	1050		ug/Kg	⊗	98	44 - 141	1	40
trans-1,3-Dichloropropene	ND		1070	1150		ug/Kg	⊗	108	15 - 120	3	40

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TestAmerica Canton

QC Sample Results

Client: URS Corporation
 Project/Site: Project Savannah Excavation

TestAmerica Job ID: 240-103056-1

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

Lab Sample ID: 240-103120-F-1-D MSD

Matrix: Solid

Analysis Batch: 351616

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 351443

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	RPD Limit
Trichloroethene	ND		1070	1150		ug/Kg	♂	108	25 - 148	6	40
Trichlorofluoromethane	ND		1070	1410		ug/Kg	♂	132	38 - 149	3	39
Vinyl chloride	ND		1070	840		ug/Kg	♂	79	31 - 148	6	37
Xylenes, Total	ND		2130	2410		ug/Kg	♂	113	19 - 137	3	40
Surrogate	%Recovery	Qualifer		MSD	MSD	Limits					
1,2-Dichloroethane-d4 (Surr)	110			53 - 155							
4-Bromofluorobenzene (Surr)	96			48 - 151							
Dibromofluoromethane (Surr)	94			49 - 138							
Toluene-d8 (Surr)	101			49 - 147							

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

Lab Sample ID: MB 240-351207/22-A

Matrix: Solid

Analysis Batch: 351625

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 351207

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	ND		50	ug/Kg	10/22/18 09:03	10/24/18 10:19		1
1,2,3,4 -Tetrachlorobenzene	ND		30	ug/Kg	10/22/18 09:03	10/24/18 10:19		1
1,2,3,5-Tetrachlorobenzene	ND		50	ug/Kg	10/22/18 09:03	10/24/18 10:19		1
1,2,4,5-Tetrachlorobenzene	ND		100	ug/Kg	10/22/18 09:03	10/24/18 10:19		1
1,3,5-Trichlorobenzene	ND		50	ug/Kg	10/22/18 09:03	10/24/18 10:19		1
2,4,5-Trichlorophenol	ND		150	ug/Kg	10/22/18 09:03	10/24/18 10:19		1
2,4,6-Trichlorophenol	ND		150	ug/Kg	10/22/18 09:03	10/24/18 10:19		1
2,4-Dichlorophenol	ND		150	ug/Kg	10/22/18 09:03	10/24/18 10:19		1
2,4-Dimethylphenol	ND		150	ug/Kg	10/22/18 09:03	10/24/18 10:19		1
2,4-Dinitrophenol	ND		330	ug/Kg	10/22/18 09:03	10/24/18 10:19		1
2,4-Dinitrotoluene	ND		200	ug/Kg	10/22/18 09:03	10/24/18 10:19		1
2,6-Dinitrotoluene	ND		200	ug/Kg	10/22/18 09:03	10/24/18 10:19		1
2-Chloronaphthalene	ND		50	ug/Kg	10/22/18 09:03	10/24/18 10:19		1
2-Chlorophenol	ND		50	ug/Kg	10/22/18 09:03	10/24/18 10:19		1
2-Methylnaphthalene	ND		15	ug/Kg	10/22/18 09:03	10/24/18 10:19		1
2-Methylphenol	ND		200	ug/Kg	10/22/18 09:03	10/24/18 10:19		1
2-Nitroaniline	ND		200	ug/Kg	10/22/18 09:03	10/24/18 10:19		1
2-Nitrophenol	ND		50	ug/Kg	10/22/18 09:03	10/24/18 10:19		1
3 & 4 Methylphenol	ND		400	ug/Kg	10/22/18 09:03	10/24/18 10:19		1
3,3'-Dichlorobenzidine	ND		100	ug/Kg	10/22/18 09:03	10/24/18 10:19		1
3-Nitroaniline	ND		200	ug/Kg	10/22/18 09:03	10/24/18 10:19		1
4,6-Dinitro-2-methylphenol	ND		330	ug/Kg	10/22/18 09:03	10/24/18 10:19		1
4-Bromophenyl phenyl ether	ND		50	ug/Kg	10/22/18 09:03	10/24/18 10:19		1
4-Chloro-3-methylphenol	ND		150	ug/Kg	10/22/18 09:03	10/24/18 10:19		1
4-Chloroaniline	ND		150	ug/Kg	10/22/18 09:03	10/24/18 10:19		1
4-Chlorophenyl phenyl ether	ND		50	ug/Kg	10/22/18 09:03	10/24/18 10:19		1
4-Nitroaniline	ND		200	ug/Kg	10/22/18 09:03	10/24/18 10:19		1
4-Nitrophenol	ND		330	ug/Kg	10/22/18 09:03	10/24/18 10:19		1
Acenaphthene	ND		15	ug/Kg	10/22/18 09:03	10/24/18 10:19		1
Acenaphthylene	ND		15	ug/Kg	10/22/18 09:03	10/24/18 10:19		1

TestAmerica Canton

QC Sample Results

Client: URS Corporation

Project/Site: Project Savannah Excavation

TestAmerica Job ID: 240-103056-1

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

Lab Sample ID: MB 240-351207/22-A

Matrix: Solid

Analysis Batch: 351625

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 351207

Analyte	MB	MB	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Acetophenone	ND	100	ND		ug/Kg	10/22/18 09:03	10/24/18 10:19			1
Anthracene	ND	15	ND		ug/Kg	10/22/18 09:03	10/24/18 10:19			1
Atrazine	ND	200	ND		ug/Kg	10/22/18 09:03	10/24/18 10:19			1
Benzaldehyde	ND	100	ND		ug/Kg	10/22/18 09:03	10/24/18 10:19			1
Benzo[a]anthracene	ND	15	ND		ug/Kg	10/22/18 09:03	10/24/18 10:19			1
Benzo[a]pyrene	ND	15	ND		ug/Kg	10/22/18 09:03	10/24/18 10:19			1
Benzo[b]fluoranthene	ND	15	ND		ug/Kg	10/22/18 09:03	10/24/18 10:19			1
Benzo[g,h,i]perylene	ND	15	ND		ug/Kg	10/22/18 09:03	10/24/18 10:19			1
Benzo[k]fluoranthene	ND	15	ND		ug/Kg	10/22/18 09:03	10/24/18 10:19			1
bis (2-chloroisopropyl) ether	ND	100	ND		ug/Kg	10/22/18 09:03	10/24/18 10:19			1
Bis(2-chloroethoxy)methane	ND	100	ND		ug/Kg	10/22/18 09:03	10/24/18 10:19			1
Bis(2-chloroethyl)ether	ND	100	ND		ug/Kg	10/22/18 09:03	10/24/18 10:19			1
Bis(2-ethylhexyl) phthalate	ND	70	ND		ug/Kg	10/22/18 09:03	10/24/18 10:19			1
Butyl benzyl phthalate	ND	70	ND		ug/Kg	10/22/18 09:03	10/24/18 10:19			1
Caprolactam	ND	330	ND		ug/Kg	10/22/18 09:03	10/24/18 10:19			1
Carbazole	ND	50	ND		ug/Kg	10/22/18 09:03	10/24/18 10:19			1
Chrysene	ND	15	ND		ug/Kg	10/22/18 09:03	10/24/18 10:19			1
Dibenz(a,h)anthracene	ND	15	ND		ug/Kg	10/22/18 09:03	10/24/18 10:19			1
Dibenzofuran	ND	50	ND		ug/Kg	10/22/18 09:03	10/24/18 10:19			1
Diethyl phthalate	ND	70	ND		ug/Kg	10/22/18 09:03	10/24/18 10:19			1
Dimethyl phthalate	ND	70	ND		ug/Kg	10/22/18 09:03	10/24/18 10:19			1
Di-n-butyl phthalate	ND	70	ND		ug/Kg	10/22/18 09:03	10/24/18 10:19			1
Di-n-octyl phthalate	ND	70	ND		ug/Kg	10/22/18 09:03	10/24/18 10:19			1
Fluoranthene	ND	15	ND		ug/Kg	10/22/18 09:03	10/24/18 10:19			1
Fluorene	ND	15	ND		ug/Kg	10/22/18 09:03	10/24/18 10:19			1
Hexachlorobenzene	ND	15	ND		ug/Kg	10/22/18 09:03	10/24/18 10:19			1
Hexachlorobutadiene	ND	50	ND		ug/Kg	10/22/18 09:03	10/24/18 10:19			1
Hexachlorocyclopentadiene	ND	330	ND		ug/Kg	10/22/18 09:03	10/24/18 10:19			1
Hexachloroethane	ND	50	ND		ug/Kg	10/22/18 09:03	10/24/18 10:19			1
Indeno[1,2,3-cd]pyrene	ND	15	ND		ug/Kg	10/22/18 09:03	10/24/18 10:19			1
Isophorone	ND	50	ND		ug/Kg	10/22/18 09:03	10/24/18 10:19			1
Naphthalene	ND	15	ND		ug/Kg	10/22/18 09:03	10/24/18 10:19			1
Nitrobenzene	ND	100	ND		ug/Kg	10/22/18 09:03	10/24/18 10:19			1
N-Nitrosodi-n-propylamine	ND	50	ND		ug/Kg	10/22/18 09:03	10/24/18 10:19			1
N-Nitrosodiphenylamine	ND	50	ND		ug/Kg	10/22/18 09:03	10/24/18 10:19			1
Pentachlorophenol	ND	150	ND		ug/Kg	10/22/18 09:03	10/24/18 10:19			1
Phenanthrene	ND	15	ND		ug/Kg	10/22/18 09:03	10/24/18 10:19			1
Phenol	ND	50	ND		ug/Kg	10/22/18 09:03	10/24/18 10:19			1
Pyrene	ND	15	ND		ug/Kg	10/22/18 09:03	10/24/18 10:19			1
Pyridine	ND	150	ND		ug/Kg	10/22/18 09:03	10/24/18 10:19			1

Surrogate	MB	MB	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	71	10 - 120				10/22/18 09:03	10/24/18 10:19	1
2-Fluorobiphenyl (Surr)	83	32 - 120				10/22/18 09:03	10/24/18 10:19	1
2-Fluorophenol (Surr)	79	29 - 120				10/22/18 09:03	10/24/18 10:19	1
Nitrobenzene-d5 (Surr)	83	30 - 120				10/22/18 09:03	10/24/18 10:19	1
Phenol-d5 (Surr)	81	29 - 120				10/22/18 09:03	10/24/18 10:19	1
Terphenyl-d14 (Surr)	99	41 - 120				10/22/18 09:03	10/24/18 10:19	1

TestAmerica Canton

QC Sample Results

Client: URS Corporation
 Project/Site: Project Savannah Excavation

TestAmerica Job ID: 240-103056-1

Lab Sample ID: LCS 240-351207/23-A
 Matrix: Solid
 Analysis Batch: 351625

Analyte	Spike	LCS	LCS	Unit	D	%Rec	Limits	Client Sample ID: Lab Control Sample
	Added	Result	Qualifier					Prep Type: Total/NA
1,1'-Biphenyl	667	581		ug/Kg		87	48 - 120	
1,2,4,5-Tetrachlorobenzene	667	630		ug/Kg		94	47 - 120	
2,4,5-Trichlorophenol	667	657		ug/Kg		99	34 - 120	
2,4,6-Trichlorophenol	667	646		ug/Kg		97	19 - 120	
2,4-Dichlorophenol	667	616		ug/Kg		92	48 - 120	
2,4-Dimethylphenol	667	535		ug/Kg		80	37 - 120	
2,4-Dinitrophenol	1330	501		ug/Kg		38	10 - 120	
2,4-Dinitrotoluene	667	699		ug/Kg		105	53 - 120	
2,6-Dinitrotoluene	667	648		ug/Kg		97	54 - 120	
2-Chloronaphthalene	667	609		ug/Kg		91	49 - 120	
2-Chlorophenol	667	607		ug/Kg		91	50 - 120	
2-Methylnaphthalene	667	600		ug/Kg		90	49 - 120	
2-Methylphenol	667	585		ug/Kg		88	49 - 120	
2-Nitroaniline	667	648		ug/Kg		97	46 - 120	
2-Nitrophenol	667	633		ug/Kg		95	46 - 120	
3 & 4 Methylphenol	667	600		ug/Kg		90	50 - 120	
3,3'-Dichlorobenzidine	1330	979		ug/Kg		73	40 - 120	
3-Nitroaniline	667	593		ug/Kg		89	48 - 120	
4,6-Dinitro-2-methylphenol	1330	979		ug/Kg		73	18 - 120	
4-Bromophenyl phenyl ether	667	672		ug/Kg		101	51 - 120	
4-Chloro-3-methylphenol	667	623		ug/Kg		93	47 - 120	
4-Chloroaniline	667	410		ug/Kg		62	37 - 120	
4-Chlorophenyl phenyl ether	667	631		ug/Kg		95	49 - 120	
4-Nitroaniline	667	642		ug/Kg		96	49 - 120	
4-Nitrophenol	1330	1360		ug/Kg		102	42 - 120	
Acenaphthene	667	599		ug/Kg		90	48 - 120	
Acenaphthylene	667	673		ug/Kg		101	46 - 120	
Acetophenone	667	578		ug/Kg		87	46 - 120	
Anthracene	667	681		ug/Kg		102	51 - 120	
Atrazine	1330	1450		ug/Kg		109	57 - 120	
Benzaldehyde	1330	1160		ug/Kg		87	48 - 120	
Benzo[a]anthracene	667	702		ug/Kg		105	53 - 120	
Benzo[a]pyrene	667	611		ug/Kg		92	50 - 120	
Benzo[b]fluoranthene	667	607		ug/Kg		91	48 - 120	
Benzo[g,h,i]perylene	667	620		ug/Kg		93	50 - 120	
Benzo[k]fluoranthene	667	692		ug/Kg		104	51 - 120	
bis (2-chloroisopropyl) ether	667	599		ug/Kg		90	37 - 120	
Bis(2-chloroethoxy)methane	667	587		ug/Kg		88	50 - 120	
Bis(2-chloroethyl)ether	667	552		ug/Kg		83	48 - 120	
Bis(2-ethylhexyl) phthalate	667	770		ug/Kg		115	52 - 120	
Butyl benzyl phthalate	667	672		ug/Kg		101	53 - 120	
Caprolactam	1330	1180		ug/Kg		88	59 - 120	
Carbazole	667	664		ug/Kg		100	56 - 120	
Chrysene	667	665		ug/Kg		100	54 - 120	
Dibenz(a,h)anthracene	667	645		ug/Kg		97	48 - 120	
Dibenzofuran	667	616		ug/Kg		92	49 - 120	
Diethyl phthalate	667	680		ug/Kg		102	52 - 120	
Dimethyl phthalate	667	639		ug/Kg		96	53 - 120	
Di-n-butyl phthalate	667	720		ug/Kg		108	56 - 120	
Di-n-octyl phthalate	667	597		ug/Kg		90	42 - 120	

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TestAmerica Canton

QC Sample Results

Client: URS Corporation
 Project/Site: Project Savannah Excavation

TestAmerica Job ID: 240-103056-1

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

Lab Sample ID: LCS 240-351207/23-A

Matrix: Solid

Analysis Batch: 351625

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 351207

%Rec.

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Fluoranthene	667	709		ug/Kg	106	53 - 120	
Fluorene	667	620		ug/Kg	93	50 - 120	
Hexachlorobenzene	667	663		ug/Kg	99	46 - 120	
Hexachlorobutadiene	667	625		ug/Kg	94	44 - 120	
Hexachlorocyclopentadiene	667	567		ug/Kg	85	14 - 120	
Hexachloroethane	667	562		ug/Kg	84	45 - 120	
Indeno[1,2,3-cd]pyrene	667	652		ug/Kg	98	49 - 120	
Isophorone	667	634		ug/Kg	95	47 - 120	
Naphthalene	667	578		ug/Kg	87	48 - 120	
Nitrobenzene	667	595		ug/Kg	89	48 - 120	
N-Nitrosodi-n-propylamine	667	623		ug/Kg	93	49 - 120	
N-Nitrosodiphenylamine	667	645		ug/Kg	97	53 - 120	
Pentachlorophenol	1330	972		ug/Kg	73	14 - 120	
Phenanthrene	667	639		ug/Kg	96	52 - 120	
Phenol	667	632		ug/Kg	95	49 - 120	
Pyrene	667	690		ug/Kg	103	55 - 120	
Pyridine	1330	591		ug/Kg	44	26 - 120	

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2,4,6-Tribromophenol (Surr)	112		10 - 120
2-Fluorobiphenyl (Surr)	97		32 - 120
2-Fluorophenol (Surr)	98		29 - 120
Nitrobenzene-d5 (Surr)	96		30 - 120
Phenol-d5 (Surr)	99		29 - 120
Terphenyl-d14 (Surr)	113		41 - 120

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 240-351232/1-A ^2

Matrix: Solid

Analysis Batch: 351636

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 351232

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		1000	ug/Kg	10/22/18 14:00	10/23/18 16:32		2
Barium	ND		1000	ug/Kg	10/22/18 14:00	10/23/18 16:32		2
Cadmium	ND		200	ug/Kg	10/22/18 14:00	10/23/18 16:32		2
Chromium	ND		400	ug/Kg	10/22/18 14:00	10/23/18 16:32		2
Lead	ND		200	ug/Kg	10/22/18 14:00	10/23/18 16:32		2
Selenium	ND		1000	ug/Kg	10/22/18 14:00	10/23/18 16:32		2
Silver	ND		200	ug/Kg	10/22/18 14:00	10/23/18 16:32		2

Lab Sample ID: LCS 240-351232/2-A ^2

Matrix: Solid

Analysis Batch: 351636

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 351232

%Rec.

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Arsenic	100000	96800		ug/Kg		97	80 - 120
Barium	100000	97200		ug/Kg		97	80 - 120

TestAmerica Canton

QC Sample Results

Client: URS Corporation
 Project/Site: Project Savannah Excavation

TestAmerica Job ID: 240-103056-1

Method: 6020 - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 240-351232/2-A ^2

Matrix: Solid

Analysis Batch: 351636

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 351232

%Rec.

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Cadmium	100000	98100		ug/Kg		98	80 - 120
Chromium	100000	100000		ug/Kg		100	80 - 120
Lead	100000	98500		ug/Kg		99	80 - 120
Selenium	100000	93600		ug/Kg		94	80 - 120
Silver	10000	9910		ug/Kg		99	80 - 120

Lab Sample ID: 240-103067-M-3-B MS ^2

Matrix: Solid

Analysis Batch: 351636

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 351232

%Rec.

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Arsenic	6700		113000	112000		ug/Kg	♂	94	75 - 125
Barium	110000		113000	216000		ug/Kg	♂	90	75 - 125
Cadmium	310		113000	107000		ug/Kg	♂	95	75 - 125
Chromium	16000		113000	128000		ug/Kg	♂	100	75 - 125
Lead	13000		113000	126000		ug/Kg	♂	100	75 - 125
Selenium	ND		113000	99200		ug/Kg	♂	87	75 - 125
Silver	ND		11300	11100		ug/Kg	♂	98	75 - 125

Lab Sample ID: 240-103067-M-3-C MSD ^2

Matrix: Solid

Analysis Batch: 351636

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 351232

%Rec.

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Arsenic	6700		113000	109000		ug/Kg	♂	91	75 - 125	3	20
Barium	110000		113000	214000		ug/Kg	♂	88	75 - 125	1	20
Cadmium	310		113000	104000		ug/Kg	♂	92	75 - 125	3	20
Chromium	16000		113000	124000		ug/Kg	♂	96	75 - 125	3	20
Lead	13000		113000	123000		ug/Kg	♂	97	75 - 125	3	20
Selenium	ND		113000	96900		ug/Kg	♂	85	75 - 125	2	20
Silver	ND		11300	10800		ug/Kg	♂	96	75 - 125	2	20

Method: 7471A - Mercury (CVAA)

Lab Sample ID: MB 240-351243/1-A

Matrix: Solid

Analysis Batch: 351527

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 351243

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		40	ug/Kg		10/22/18 16:00	10/23/18 13:47	1

Lab Sample ID: LCS 240-351243/2-A

Matrix: Solid

Analysis Batch: 351527

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 351243

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Mercury	833	689		ug/Kg		83	80 - 120

TestAmerica Canton

QC Sample Results

Client: URS Corporation
 Project/Site: Project Savannah Excavation

TestAmerica Job ID: 240-103056-1

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

Lab Sample ID: 240-103067-M-3-E MS

Matrix: Solid

Analysis Batch: 351527

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec.	Limits
	Result	Qualifier	Added	Result	Qualifier				
Mercury	ND		240	237		ug/Kg	89	80 - 120	

Lab Sample ID: 240-103067-M-3-F MSD

Matrix: Solid

Analysis Batch: 351527

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec.	Limits	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier						
Mercury	ND		240	233		ug/Kg	88	80 - 120		2	20

Method: Moisture - Percent Moisture

Lab Sample ID: 240-103095-D-1 DU

Matrix: Solid

Analysis Batch: 351316

Analyte	Sample	Sample	Spike	DU	DU	Unit	D	RPD	Limit
	Result	Qualifier	Result	Qualifier	%				
Percent Solids	59.3		59.8		%			0.9	20

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Client Sample ID: Duplicate
 Prep Type: Total/NA

QC Association Summary

Client: URS Corporation
 Project/Site: Project Savannah Excavation

TestAmerica Job ID: 240-103056-1

GC/MS VOA

Analysis Batch: 351395

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-103056-1	MARK PUTNAM RD SOIL	Total/NA	Solid	8260B	351443
MB 240-351443/1-A	Method Blank	Total/NA	Solid	8260B	351443
LCS 240-351443/2-A	Lab Control Sample	Total/NA	Solid	8260B	351443
LCSD 240-351443/3-A	Lab Control Sample Dup	Total/NA	Solid	8260B	351443

Prep Batch: 351443

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-103056-1	MARK PUTNAM RD SOIL	Total/NA	Solid	5035	
MB 240-351443/1-A	Method Blank	Total/NA	Solid	5035	
LCS 240-351443/2-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 240-351443/3-A	Lab Control Sample Dup	Total/NA	Solid	5035	
240-103120-F-1-C MS	Matrix Spike	Total/NA	Solid	5035	
240-103120-F-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 351616

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-103056-1	MARK PUTNAM RD SOIL	Total/NA	Solid	8260B	351443
240-103120-F-1-C MS	Matrix Spike	Total/NA	Solid	8260B	351443
240-103120-F-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8260B	351443

GC/MS Semi VOA

Prep Batch: 351207

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-103056-1	MARK PUTNAM RD SOIL	Total/NA	Solid	3540C	
240-103056-1 - RA	MARK PUTNAM RD SOIL	Total/NA	Solid	3540C	
MB 240-351207/22-A	Method Blank	Total/NA	Solid	3540C	
LCS 240-351207/23-A	Lab Control Sample	Total/NA	Solid	3540C	

Analysis Batch: 351625

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-103056-1	MARK PUTNAM RD SOIL	Total/NA	Solid	8270C	351207
240-103056-1 - RA	MARK PUTNAM RD SOIL	Total/NA	Solid	8270C	351207
MB 240-351207/22-A	Method Blank	Total/NA	Solid	8270C	351207
LCS 240-351207/23-A	Lab Control Sample	Total/NA	Solid	8270C	351207

Metals

Prep Batch: 351232

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-103056-1	MARK PUTNAM RD SOIL	Total/NA	Solid	3050B	
MB 240-351232/1-A ^2	Method Blank	Total/NA	Solid	3050B	
LCS 240-351232/2-A ^2	Lab Control Sample	Total/NA	Solid	3050B	
240-103067-M-3-B MS ^2	Matrix Spike	Total/NA	Solid	3050B	
240-103067-M-3-C MSD ^2	Matrix Spike Duplicate	Total/NA	Solid	3050B	

Prep Batch: 351243

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-103056-1	MARK PUTNAM RD SOIL	Total/NA	Solid	7471A	
MB 240-351243/1-A	Method Blank	Total/NA	Solid	7471A	

TestAmerica Canton

QC Association Summary

Client: URS Corporation

Project/Site: Project Savannah Excavation

TestAmerica Job ID: 240-103056-1

Metals (Continued)

Prep Batch: 351243 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 240-351243/2-A	Lab Control Sample	Total/NA	Solid	7471A	
240-103067-M-3-E MS	Matrix Spike	Total/NA	Solid	7471A	
240-103067-M-3-F MSD	Matrix Spike Duplicate	Total/NA	Solid	7471A	

Analysis Batch: 351527

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-103056-1	MARK PUTNAM RD SOIL	Total/NA	Solid	7471A	351243
MB 240-351243/1-A	Method Blank	Total/NA	Solid	7471A	351243
LCS 240-351243/2-A	Lab Control Sample	Total/NA	Solid	7471A	351243
240-103067-M-3-E MS	Matrix Spike	Total/NA	Solid	7471A	351243
240-103067-M-3-F MSD	Matrix Spike Duplicate	Total/NA	Solid	7471A	351243

Analysis Batch: 351636

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-103056-1	MARK PUTNAM RD SOIL	Total/NA	Solid	6020	351232
MB 240-351232/1-A ^2	Method Blank	Total/NA	Solid	6020	351232
LCS 240-351232/2-A ^2	Lab Control Sample	Total/NA	Solid	6020	351232
240-103067-M-3-B MS ^2	Matrix Spike	Total/NA	Solid	6020	351232
240-103067-M-3-C MSD ^2	Matrix Spike Duplicate	Total/NA	Solid	6020	351232

General Chemistry

Analysis Batch: 351316

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-103056-1	MARK PUTNAM RD SOIL	Total/NA	Solid	Moisture	
240-103095-D-1 DU	Duplicate	Total/NA	Solid	Moisture	

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TestAmerica Canton

Lab Chronicle

Client: URS Corporation
 Project/Site: Project Savannah Excavation

TestAmerica Job ID: 240-103056-1

Client Sample ID: MARK PUTNAM RD SOIL

Date Collected: 10/18/18 13:30

Date Received: 10/19/18 09:40

Lab Sample ID: 240-103056-1

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	351316	10/22/18 16:23	MMM	TAL CAN

Client Sample ID: MARK PUTNAM RD SOIL

Date Collected: 10/18/18 13:30

Date Received: 10/19/18 09:40

Lab Sample ID: 240-103056-1

Matrix: Solid

Percent Solids: 85.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			351443	10/23/18 10:32	LAM	TAL CAN
Total/NA	Analysis	8260B		1	351395	10/23/18 18:15	HMB	TAL CAN
Total/NA	Prep	5035			351443	10/23/18 10:32	LAM	TAL CAN
Total/NA	Analysis	8260B		50	351616	10/24/18 11:35	HMB	TAL CAN
Total/NA	Prep	3540C			351207	10/22/18 09:03	SLD	TAL CAN
Total/NA	Analysis	8270C		10	351625	10/24/18 11:05	JMG	TAL CAN
Total/NA	Prep	3540C	RA		351207	10/22/18 09:03	SLD	TAL CAN
Total/NA	Analysis	8270C	RA	200	351625	10/24/18 11:28	JMG	TAL CAN
Total/NA	Prep	3050B			351232	10/22/18 14:00	DEE	TAL CAN
Total/NA	Analysis	6020		2	351636	10/23/18 18:41	DSH	TAL CAN
Total/NA	Prep	7471A			351243	10/22/18 16:00	DEE	TAL CAN
Total/NA	Analysis	7471A		1	351527	10/23/18 15:33	AJC	TAL CAN

Laboratory References:

TAL CAN = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

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TestAmerica Canton

Accreditation/Certification Summary

Client: URS Corporation

Project/Site: Project Savannah Excavation

TestAmerica Job ID: 240-103056-1

Laboratory: TestAmerica Canton

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
California	State Program	9	2927	02-23-19
Connecticut	State Program	1	PH-0590	12-31-19
Florida	NELAP	4	E87225	06-30-19
Illinois	NELAP	5	200004	07-31-19
Kansas	NELAP	7	E-10336	01-31-19
Kentucky (UST)	State Program	4	58	02-23-19
Kentucky (WW)	State Program	4	98016	12-31-18 *
Minnesota	NELAP	5	039-999-348	12-31-18 *
Minnesota (Petrofund)	State Program	1	3506	07-31-19
Nevada	State Program	9	OH00048	07-31-19
New Jersey	NELAP	2	OH001	06-30-19
New York	NELAP	2	10975	03-31-19
Ohio VAP	State Program	5	CL0024	09-06-19
Oregon	NELAP	10	4062	02-23-19
Pennsylvania	NELAP	3	68-00340	08-31-19 *
Texas	NELAP	6	T104704517-17-9	08-31-19
USDA	Federal		P330-16-00404	12-28-19
Virginia	NELAP	3	460175	09-14-19
Washington	State Program	10	C971	01-12-19
West Virginia DEP	State Program	3	210	12-31-18 *

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* Accreditation/Certification renewal pending - accreditation/certification considered valid.

TestAmerica Canton

1.6 | C2.5

CHAIN OF CUSTODY RECORD

Page 1 Of 1

LAB ADDRESS: Test America N. Canton 4101 Shuffel St NW

CITY/STATE/ZIP.

North Canton, OH, 44720

PHONE/FAX: phone 330-966-5725

PROJECT ID Project Savannah Excavation:	LABORATORY TA North Canton	Project #	RECHARGE ACCOUNT (company code _ plant code _ cost center) Invoice Alyssa Latta	SHIPPING INFORMATION SHIPPER (Check one) / TRACKING NUMBER(S) (if applicable)									
COMPANY AECOM	PHONE 989-636-0151	Date	Fed Ex	UPS	DHL	Courier	Tracking Number						
STREET 25 Building	FAX 989-636-2700	Date	Fed Ex	UPS	DHL	Courier	Tracking Number						
CITY/STATE/ZIP Midland / MI / 48667	SAMPLERS (Print Name(s) and Signature(s)) Anthony Crawford												
RELINQUISHED BY (Print & Signature) Sam Strahl	DATE / TIME 10/18/18 1700	RECEIVED BY (Print & Signature) BP	DATE / TIME 10/19/18 940	RELINQUISHED BY (Print & Signature)	DATE / TIME	RECEIVED BY (Print & Signature)	DATE / TIME						
RELINQUISHED BY (Print & Signature)	DATE / TIME	RECEIVED BY (Print & Signature)	DATE / TIME	RELINQUISHED BY (Print & Signature)	DATE / TIME	RECEIVED BY (Print & Signature)	DATE / TIME						
COMMENTS													
REPORTING TO lmdrlab@dow.com; sstrahl@dow.com; alatta@dow.com				NO. OF CONTAINERS	PRIORITY NUMBER	TCL VOCs	TCL SVOCs and TCCLP	Metals (6020)	ANALYSIS			MATRIX Indicate Soil/Water/Air Sediment/Slu dge Extract	
LINE #	BAR CODE/ LIMS CODE	DATE 10/18/2018	TIME 13320	COMP	GRAB	STATION LOCATION/ SAMPLE DESCRIPTION Mark Putnam Rd Soil		X	X			Filtered	
1												Soil	
2													
3													
4													
5													
6													
7													
8													
9													
10.													
11													
12													
13													
14													
15													
Total # of Containers for Each Analysis ->						2	1						
PRESERVATION: 1: Ice 2:HCl 3:H2SO4 4:HNO3 5:NaOH 6: CH3OH						6	1						
ANALYSIS TURN AROUND TIME: Calendar (C) or Work Days (W) <u>W</u> TAT if different from standard <u>3 days</u>						<input type="checkbox"/> 10 Wk Days <input type="checkbox"/> 2 Wk Days <input type="checkbox"/> 5 Wk Days <input type="checkbox"/> 1 Wk Days <input type="checkbox"/> 10 Wk Days after end of quarter						POSSIBLE HAZARD IDENTIFICATION	
						<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input checked="" type="checkbox"/> Unknown						SAMPLE DISPOSAL	
						<input type="checkbox"/> Return to Client <input type="checkbox"/> Disposal by Lab <input type="checkbox"/> Archive for _____ Months							

240-103056 Chain of Custody



DOW RESTRICTED

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**TestAmerica Canton Sample Receipt Form/Narrative
Canton Facility**

Login # : 103054

Client <u>TestAmerica</u>	Site Name <u>—</u>	Cooler unpacked by: <u>BPR</u>
Cooler Received on <u>10-19-18</u>	Opened on <u>10-19-18</u>	
FedEx: 1 st Grd <u>Exp</u>	UPS FAS Clipper	Client Drop Off TestAmerica Courier Other

Receipt After-hours: Drop-off Date/Time Storage Location

TestAmerica Cooler # <u>TA</u>	Foam Box	Client Cooler	Box	Other
Packing material used. <u>Bubble Wrap</u>	Foam	<u>Plastic Bag</u>	None	Other
COOLANT: <u>Wet Ice</u>	Blue Ice	Dry Ice	Water	None

1. Cooler temperature upon receipt See Multiple Cooler Form
 IR GUN# IR-8 (CF +0.9 °C) Observed Cooler Temp. 1.6 °C Corrected Cooler Temp. 2.5 °C
 IR GUN #36 (CF +0.6°C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 1
 -Were the seals on the outside of the cooler(s) signed & dated?
 -Were tamper/custody seals on the bottle(s) or bottle kits (LL.Hg/MelHg)?
 -Were tamper/custody seals intact and uncompromised?
 3. Shippers' packing slip attached to the cooler(s)?
 4. Did custody papers accompany the sample(s)?
 5. Were the custody papers relinquished & signed in the appropriate place?
 6. Was/were the person(s) who collected the samples clearly identified on the COC?
 7. Did all bottles arrive in good condition (Unbroken)?
 8. Could all bottle labels be reconciled with the COC?
 9. Were correct bottle(s) used for the test(s) indicated?
 10. Sufficient quantity received to perform indicated analyses?
 11. Are these work share samples?
 If yes, Questions 12-16 have been checked at the originating laboratory.

12. Were all preserved sample(s) at the correct pH upon receipt? Yes No NA pH Strip Lot# HC849161
 13. Were VOAs on the COC? Yes No
 14. Were air bubbles >6 mm in any VOA vials? Yes Larger than this
 15. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # _____
 16. Was a LL Hg or Me Hg trip blank present? _____

Tests that are not checked for pH by Receiving:
 VOAs
 Oil and Grease
 TOC

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other

Concerning _____

17. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES

Samples processed by:

JR

18. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.
 Sample(s) _____ were received in a broken container.
 Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

19. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory.
 Time preserved: _____ Preservative(s) added/Lot number(s): _____