



ANALYTICAL REPORT

Lab Number:	L2038032
Client:	GEI Consultants 400 Unicorn Park Drive Woburn, MA 01801
ATTN:	Matthew Glunt
Phone:	(781) 721-4000
Project Name:	CM-RIDOT RTE 6/10 DESIGN PHASE
Project Number:	1801485
Report Date:	09/13/20

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Project Name: CM-RIDOT RTE 6/10 DESIGN PHASE
Project Number: 1801485

Lab Number: L2038032
Report Date: 09/13/20

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2038032-01	1801485-SP-01 (GRAB)	SOIL	PROVIDENCE, RI	09/12/20 09:40	09/12/20
L2038032-02	1801485-SP-01 (COMP)	SOIL	PROVIDENCE, RI	09/12/20 09:35	09/12/20
L2038032-03	1801485-SP-02 (GRAB)	SOIL	PROVIDENCE, RI	09/12/20 10:00	09/12/20
L2038032-04	1801485-SP-02 (COMP)	SOIL	PROVIDENCE, RI	09/12/20 09:55	09/12/20
L2038032-05	1801485-SP-03 (GRAB)	SOIL	PROVIDENCE, RI	09/12/20 10:20	09/12/20
L2038032-06	1801485-SP-03 (COMP)	SOIL	PROVIDENCE, RI	09/12/20 10:15	09/12/20
L2038032-07	1801485-SP-04 (GRAB)	SOIL	PROVIDENCE, RI	09/12/20 10:35	09/12/20
L2038032-08	1801485-SP-04 (COMP)	SOIL	PROVIDENCE, RI	09/12/20 10:30	09/12/20
L2038032-09	1801485-SP-05 (GRAB)	SOIL	PROVIDENCE, RI	09/12/20 10:55	09/12/20
L2038032-10	1801485-SP-05 (COMP)	SOIL	PROVIDENCE, RI	09/12/20 10:50	09/12/20
L2038032-11	1801485-SP-06 (GRAB)	SOIL	PROVIDENCE, RI	09/12/20 11:15	09/12/20
L2038032-12	1801485-SP-06 (COMP)	SOIL	PROVIDENCE, RI	09/12/20 11:10	09/12/20

Project Name: CM-RIDOT RTE 6/10 DESIGN PHASE
Project Number: 1801485

Lab Number: L2038032
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Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

HOLD POLICY - For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Alpha Project Manager and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.

Project Name: CM-RIDOT RTE 6/10 DESIGN PHASE
Project Number: 1801485

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Case Narrative (continued)

Petroleum Hydrocarbon Quantitation

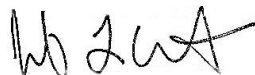
The WG1409256-3 Laboratory Duplicate RPD for TPH (C10-C36) (56%), performed on L2038032-02, is outside the acceptance criteria. The elevated RPD has been attributed to the non-homogeneous nature of the native sample.

Total Metals

The WG1409302-4 Laboratory Duplicate RPDs for copper (32%) and lead (42%), performed on L2038032-02, were outside the acceptance criteria. The elevated RPDs have been attributed to the non-homogeneous nature of the native sample.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:



Jennifer L Clements

Title: Technical Director/Representative

Date: 09/13/20

ORGANICS

VOLATILES

Project Name: CM-RIDOT RTE 6/10 DESIGN PHASE
Project Number: 1801485

Lab Number: L2038032
Report Date: 09/13/20

SAMPLE RESULTS

Lab ID: L2038032-01
 Client ID: 1801485-SP-01 (GRAB)
 Sample Location: PROVIDENCE, RI

Date Collected: 09/12/20 09:40
 Date Received: 09/12/20
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8260C
 Analytical Date: 09/12/20 15:30
 Analyst: KJD
 Percent Solids: 97%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Methylene chloride	ND		ug/kg	4.1	--	1
1,1-Dichloroethane	ND		ug/kg	0.83	--	1
Chloroform	ND		ug/kg	1.2	--	1
Carbon tetrachloride	ND		ug/kg	0.83	--	1
1,2-Dichloropropane	ND		ug/kg	0.83	--	1
Dibromochloromethane	ND		ug/kg	0.83	--	1
1,1,2-Trichloroethane	ND		ug/kg	0.83	--	1
Tetrachloroethene	ND		ug/kg	0.41	--	1
Chlorobenzene	ND		ug/kg	0.41	--	1
Trichlorofluoromethane	ND		ug/kg	3.3	--	1
1,2-Dichloroethane	ND		ug/kg	0.83	--	1
1,1,1-Trichloroethane	ND		ug/kg	0.41	--	1
Bromodichloromethane	ND		ug/kg	0.41	--	1
trans-1,3-Dichloropropene	ND		ug/kg	0.83	--	1
cis-1,3-Dichloropropene	ND		ug/kg	0.41	--	1
1,3-Dichloropropene, Total	ND		ug/kg	0.41	--	1
1,1-Dichloropropene	ND		ug/kg	0.41	--	1
Bromoform	ND		ug/kg	3.3	--	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.41	--	1
Benzene	ND		ug/kg	0.41	--	1
Toluene	ND		ug/kg	0.83	--	1
Ethylbenzene	ND		ug/kg	0.83	--	1
Chloromethane	ND		ug/kg	3.3	--	1
Bromomethane	ND		ug/kg	1.6	--	1
Vinyl chloride	ND		ug/kg	0.83	--	1
Chloroethane	ND		ug/kg	1.6	--	1
1,1-Dichloroethene	ND		ug/kg	0.83	--	1
trans-1,2-Dichloroethene	ND		ug/kg	1.2	--	1

Project Name: CM-RIDOT RTE 6/10 DESIGN PHASE
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Lab Number: L2038032
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SAMPLE RESULTS

Lab ID: L2038032-01
 Client ID: 1801485-SP-01 (GRAB)
 Sample Location: PROVIDENCE, RI

Date Collected: 09/12/20 09:40
 Date Received: 09/12/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Trichloroethene	ND		ug/kg	0.41	--	1
1,2-Dichlorobenzene	ND		ug/kg	1.6	--	1
1,3-Dichlorobenzene	ND		ug/kg	1.6	--	1
1,4-Dichlorobenzene	ND		ug/kg	1.6	--	1
Methyl tert butyl ether	ND		ug/kg	1.6	--	1
p/m-Xylene	ND		ug/kg	1.6	--	1
o-Xylene	ND		ug/kg	0.83	--	1
Xylenes, Total	ND		ug/kg	0.83	--	1
cis-1,2-Dichloroethene	ND		ug/kg	0.83	--	1
1,2-Dichloroethene, Total	ND		ug/kg	0.83	--	1
Dibromomethane	ND		ug/kg	1.6	--	1
1,4-Dichlorobutane	ND		ug/kg	8.3	--	1
1,2,3-Trichloropropane	ND		ug/kg	1.6	--	1
Styrene	ND		ug/kg	0.83	--	1
Dichlorodifluoromethane	ND		ug/kg	8.3	--	1
Acetone	140		ug/kg	21	--	1
Carbon disulfide	ND		ug/kg	8.3	--	1
2-Butanone	ND		ug/kg	8.3	--	1
Vinyl acetate	ND		ug/kg	8.3	--	1
4-Methyl-2-pentanone	ND		ug/kg	8.3	--	1
2-Hexanone	ND		ug/kg	8.3	--	1
Ethyl methacrylate	ND		ug/kg	8.3	--	1
Acrylonitrile	ND		ug/kg	3.3	--	1
Bromochloromethane	ND		ug/kg	1.6	--	1
Tetrahydrofuran	ND		ug/kg	3.3	--	1
2,2-Dichloropropane	ND		ug/kg	1.6	--	1
1,2-Dibromoethane	ND		ug/kg	0.83	--	1
1,3-Dichloropropane	ND		ug/kg	1.6	--	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.41	--	1
Bromobenzene	ND		ug/kg	1.6	--	1
n-Butylbenzene	ND		ug/kg	0.83	--	1
sec-Butylbenzene	ND		ug/kg	0.83	--	1
tert-Butylbenzene	ND		ug/kg	1.6	--	1
o-Chlorotoluene	ND		ug/kg	1.6	--	1
p-Chlorotoluene	ND		ug/kg	1.6	--	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	2.5	--	1
Hexachlorobutadiene	ND		ug/kg	3.3	--	1

Project Name: CM-RIDOT RTE 6/10 DESIGN PHASE
Project Number: 1801485

Lab Number: L2038032
Report Date: 09/13/20

SAMPLE RESULTS

Lab ID: L2038032-01
Client ID: 1801485-SP-01 (GRAB)
Sample Location: PROVIDENCE, RI

Date Collected: 09/12/20 09:40
Date Received: 09/12/20
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Isopropylbenzene	ND		ug/kg	0.83	--	1
p-Isopropyltoluene	ND		ug/kg	0.83	--	1
Naphthalene	ND		ug/kg	3.3	--	1
n-Propylbenzene	ND		ug/kg	0.83	--	1
1,2,3-Trichlorobenzene	ND		ug/kg	1.6	--	1
1,2,4-Trichlorobenzene	ND		ug/kg	1.6	--	1
1,3,5-Trimethylbenzene	ND		ug/kg	1.6	--	1
1,2,4-Trimethylbenzene	ND		ug/kg	1.6	--	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	4.1	--	1
Ethyl ether	ND		ug/kg	1.6	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	104		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	96		70-130
Dibromofluoromethane	104		70-130

Project Name: CM-RIDOT RTE 6/10 DESIGN PHASE
Project Number: 1801485

Lab Number: L2038032
Report Date: 09/13/20

SAMPLE RESULTS

Lab ID: L2038032-03
 Client ID: 1801485-SP-02 (GRAB)
 Sample Location: PROVIDENCE, RI

Date Collected: 09/12/20 10:00
 Date Received: 09/12/20
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8260C
 Analytical Date: 09/12/20 15:51
 Analyst: KJD
 Percent Solids: 96%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Methylene chloride	ND		ug/kg	3.5	--	1
1,1-Dichloroethane	ND		ug/kg	0.70	--	1
Chloroform	ND		ug/kg	1.0	--	1
Carbon tetrachloride	ND		ug/kg	0.70	--	1
1,2-Dichloropropane	ND		ug/kg	0.70	--	1
Dibromochloromethane	ND		ug/kg	0.70	--	1
1,1,2-Trichloroethane	ND		ug/kg	0.70	--	1
Tetrachloroethene	ND		ug/kg	0.35	--	1
Chlorobenzene	ND		ug/kg	0.35	--	1
Trichlorofluoromethane	ND		ug/kg	2.8	--	1
1,2-Dichloroethane	ND		ug/kg	0.70	--	1
1,1,1-Trichloroethane	ND		ug/kg	0.35	--	1
Bromodichloromethane	ND		ug/kg	0.35	--	1
trans-1,3-Dichloropropene	ND		ug/kg	0.70	--	1
cis-1,3-Dichloropropene	ND		ug/kg	0.35	--	1
1,3-Dichloropropene, Total	ND		ug/kg	0.35	--	1
1,1-Dichloropropene	ND		ug/kg	0.35	--	1
Bromoform	ND		ug/kg	2.8	--	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.35	--	1
Benzene	ND		ug/kg	0.35	--	1
Toluene	ND		ug/kg	0.70	--	1
Ethylbenzene	ND		ug/kg	0.70	--	1
Chloromethane	ND		ug/kg	2.8	--	1
Bromomethane	ND		ug/kg	1.4	--	1
Vinyl chloride	ND		ug/kg	0.70	--	1
Chloroethane	ND		ug/kg	1.4	--	1
1,1-Dichloroethene	ND		ug/kg	0.70	--	1
trans-1,2-Dichloroethene	ND		ug/kg	1.0	--	1

Project Name: CM-RIDOT RTE 6/10 DESIGN PHASE
Project Number: 1801485

Lab Number: L2038032
Report Date: 09/13/20

SAMPLE RESULTS

Lab ID: L2038032-03
 Client ID: 1801485-SP-02 (GRAB)
 Sample Location: PROVIDENCE, RI

Date Collected: 09/12/20 10:00
 Date Received: 09/12/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Trichloroethene	ND		ug/kg	0.35	--	1
1,2-Dichlorobenzene	ND		ug/kg	1.4	--	1
1,3-Dichlorobenzene	ND		ug/kg	1.4	--	1
1,4-Dichlorobenzene	ND		ug/kg	1.4	--	1
Methyl tert butyl ether	ND		ug/kg	1.4	--	1
p/m-Xylene	ND		ug/kg	1.4	--	1
o-Xylene	ND		ug/kg	0.70	--	1
Xylenes, Total	ND		ug/kg	0.70	--	1
cis-1,2-Dichloroethene	ND		ug/kg	0.70	--	1
1,2-Dichloroethene, Total	ND		ug/kg	0.70	--	1
Dibromomethane	ND		ug/kg	1.4	--	1
1,4-Dichlorobutane	ND		ug/kg	7.0	--	1
1,2,3-Trichloropropane	ND		ug/kg	1.4	--	1
Styrene	ND		ug/kg	0.70	--	1
Dichlorodifluoromethane	ND		ug/kg	7.0	--	1
Acetone	ND		ug/kg	18	--	1
Carbon disulfide	ND		ug/kg	7.0	--	1
2-Butanone	ND		ug/kg	7.0	--	1
Vinyl acetate	ND		ug/kg	7.0	--	1
4-Methyl-2-pentanone	ND		ug/kg	7.0	--	1
2-Hexanone	ND		ug/kg	7.0	--	1
Ethyl methacrylate	ND		ug/kg	7.0	--	1
Acrylonitrile	ND		ug/kg	2.8	--	1
Bromochloromethane	ND		ug/kg	1.4	--	1
Tetrahydrofuran	ND		ug/kg	2.8	--	1
2,2-Dichloropropane	ND		ug/kg	1.4	--	1
1,2-Dibromoethane	ND		ug/kg	0.70	--	1
1,3-Dichloropropane	ND		ug/kg	1.4	--	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.35	--	1
Bromobenzene	ND		ug/kg	1.4	--	1
n-Butylbenzene	ND		ug/kg	0.70	--	1
sec-Butylbenzene	ND		ug/kg	0.70	--	1
tert-Butylbenzene	ND		ug/kg	1.4	--	1
o-Chlorotoluene	ND		ug/kg	1.4	--	1
p-Chlorotoluene	ND		ug/kg	1.4	--	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	2.1	--	1
Hexachlorobutadiene	ND		ug/kg	2.8	--	1

Project Name: CM-RIDOT RTE 6/10 DESIGN PHASE
Project Number: 1801485

Lab Number: L2038032
Report Date: 09/13/20

SAMPLE RESULTS

Lab ID: L2038032-03
Client ID: 1801485-SP-02 (GRAB)
Sample Location: PROVIDENCE, RI

Date Collected: 09/12/20 10:00
Date Received: 09/12/20
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Isopropylbenzene	ND		ug/kg	0.70	--	1
p-Isopropyltoluene	ND		ug/kg	0.70	--	1
Naphthalene	ND		ug/kg	2.8	--	1
n-Propylbenzene	ND		ug/kg	0.70	--	1
1,2,3-Trichlorobenzene	ND		ug/kg	1.4	--	1
1,2,4-Trichlorobenzene	ND		ug/kg	1.4	--	1
1,3,5-Trimethylbenzene	ND		ug/kg	1.4	--	1
1,2,4-Trimethylbenzene	ND		ug/kg	1.4	--	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	3.5	--	1
Ethyl ether	ND		ug/kg	1.4	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	107		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	102		70-130
Dibromofluoromethane	103		70-130

Project Name: CM-RIDOT RTE 6/10 DESIGN PHASE
Project Number: 1801485

Lab Number: L2038032
Report Date: 09/13/20

SAMPLE RESULTS

Lab ID: L2038032-05
 Client ID: 1801485-SP-03 (GRAB)
 Sample Location: PROVIDENCE, RI

Date Collected: 09/12/20 10:20
 Date Received: 09/12/20
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8260C
 Analytical Date: 09/12/20 16:12
 Analyst: KJD
 Percent Solids: 96%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Methylene chloride	ND		ug/kg	4.5	--	1
1,1-Dichloroethane	ND		ug/kg	0.90	--	1
Chloroform	ND		ug/kg	1.4	--	1
Carbon tetrachloride	ND		ug/kg	0.90	--	1
1,2-Dichloropropane	ND		ug/kg	0.90	--	1
Dibromochloromethane	ND		ug/kg	0.90	--	1
1,1,2-Trichloroethane	ND		ug/kg	0.90	--	1
Tetrachloroethene	ND		ug/kg	0.45	--	1
Chlorobenzene	ND		ug/kg	0.45	--	1
Trichlorofluoromethane	ND		ug/kg	3.6	--	1
1,2-Dichloroethane	ND		ug/kg	0.90	--	1
1,1,1-Trichloroethane	ND		ug/kg	0.45	--	1
Bromodichloromethane	ND		ug/kg	0.45	--	1
trans-1,3-Dichloropropene	ND		ug/kg	0.90	--	1
cis-1,3-Dichloropropene	ND		ug/kg	0.45	--	1
1,3-Dichloropropene, Total	ND		ug/kg	0.45	--	1
1,1-Dichloropropene	ND		ug/kg	0.45	--	1
Bromoform	ND		ug/kg	3.6	--	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.45	--	1
Benzene	ND		ug/kg	0.45	--	1
Toluene	ND		ug/kg	0.90	--	1
Ethylbenzene	ND		ug/kg	0.90	--	1
Chloromethane	ND		ug/kg	3.6	--	1
Bromomethane	ND		ug/kg	1.8	--	1
Vinyl chloride	ND		ug/kg	0.90	--	1
Chloroethane	ND		ug/kg	1.8	--	1
1,1-Dichloroethene	ND		ug/kg	0.90	--	1
trans-1,2-Dichloroethene	ND		ug/kg	1.4	--	1

Project Name: CM-RIDOT RTE 6/10 DESIGN PHASE
Project Number: 1801485

Lab Number: L2038032
Report Date: 09/13/20

SAMPLE RESULTS

Lab ID: L2038032-05
 Client ID: 1801485-SP-03 (GRAB)
 Sample Location: PROVIDENCE, RI

Date Collected: 09/12/20 10:20
 Date Received: 09/12/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Trichloroethene	ND		ug/kg	0.45	--	1
1,2-Dichlorobenzene	ND		ug/kg	1.8	--	1
1,3-Dichlorobenzene	ND		ug/kg	1.8	--	1
1,4-Dichlorobenzene	ND		ug/kg	1.8	--	1
Methyl tert butyl ether	ND		ug/kg	1.8	--	1
p/m-Xylene	ND		ug/kg	1.8	--	1
o-Xylene	ND		ug/kg	0.90	--	1
Xylenes, Total	ND		ug/kg	0.90	--	1
cis-1,2-Dichloroethene	ND		ug/kg	0.90	--	1
1,2-Dichloroethene, Total	ND		ug/kg	0.90	--	1
Dibromomethane	ND		ug/kg	1.8	--	1
1,4-Dichlorobutane	ND		ug/kg	9.0	--	1
1,2,3-Trichloropropane	ND		ug/kg	1.8	--	1
Styrene	ND		ug/kg	0.90	--	1
Dichlorodifluoromethane	ND		ug/kg	9.0	--	1
Acetone	75		ug/kg	22	--	1
Carbon disulfide	ND		ug/kg	9.0	--	1
2-Butanone	ND		ug/kg	9.0	--	1
Vinyl acetate	ND		ug/kg	9.0	--	1
4-Methyl-2-pentanone	ND		ug/kg	9.0	--	1
2-Hexanone	ND		ug/kg	9.0	--	1
Ethyl methacrylate	ND		ug/kg	9.0	--	1
Acrylonitrile	ND		ug/kg	3.6	--	1
Bromochloromethane	ND		ug/kg	1.8	--	1
Tetrahydrofuran	ND		ug/kg	3.6	--	1
2,2-Dichloropropane	ND		ug/kg	1.8	--	1
1,2-Dibromoethane	ND		ug/kg	0.90	--	1
1,3-Dichloropropane	ND		ug/kg	1.8	--	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.45	--	1
Bromobenzene	ND		ug/kg	1.8	--	1
n-Butylbenzene	ND		ug/kg	0.90	--	1
sec-Butylbenzene	ND		ug/kg	0.90	--	1
tert-Butylbenzene	ND		ug/kg	1.8	--	1
o-Chlorotoluene	ND		ug/kg	1.8	--	1
p-Chlorotoluene	ND		ug/kg	1.8	--	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	2.7	--	1
Hexachlorobutadiene	ND		ug/kg	3.6	--	1

Project Name: CM-RIDOT RTE 6/10 DESIGN PHASE
Project Number: 1801485

Lab Number: L2038032
Report Date: 09/13/20

SAMPLE RESULTS

Lab ID: L2038032-05
Client ID: 1801485-SP-03 (GRAB)
Sample Location: PROVIDENCE, RI

Date Collected: 09/12/20 10:20
Date Received: 09/12/20
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Isopropylbenzene	ND		ug/kg	0.90	--	1
p-Isopropyltoluene	ND		ug/kg	0.90	--	1
Naphthalene	ND		ug/kg	3.6	--	1
n-Propylbenzene	ND		ug/kg	0.90	--	1
1,2,3-Trichlorobenzene	ND		ug/kg	1.8	--	1
1,2,4-Trichlorobenzene	ND		ug/kg	1.8	--	1
1,3,5-Trimethylbenzene	ND		ug/kg	1.8	--	1
1,2,4-Trimethylbenzene	ND		ug/kg	1.8	--	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	4.5	--	1
Ethyl ether	ND		ug/kg	1.8	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	105		70-130
Toluene-d8	108		70-130
4-Bromofluorobenzene	113		70-130
Dibromofluoromethane	104		70-130

Project Name: CM-RIDOT RTE 6/10 DESIGN PHASE
Project Number: 1801485

Lab Number: L2038032
Report Date: 09/13/20

SAMPLE RESULTS

Lab ID: L2038032-07
 Client ID: 1801485-SP-04 (GRAB)
 Sample Location: PROVIDENCE, RI

Date Collected: 09/12/20 10:35
 Date Received: 09/12/20
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8260C
 Analytical Date: 09/12/20 16:33
 Analyst: KJD
 Percent Solids: 97%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Methylene chloride	ND		ug/kg	3.9	--	1
1,1-Dichloroethane	ND		ug/kg	0.79	--	1
Chloroform	ND		ug/kg	1.2	--	1
Carbon tetrachloride	ND		ug/kg	0.79	--	1
1,2-Dichloropropane	ND		ug/kg	0.79	--	1
Dibromochloromethane	ND		ug/kg	0.79	--	1
1,1,2-Trichloroethane	ND		ug/kg	0.79	--	1
Tetrachloroethene	ND		ug/kg	0.39	--	1
Chlorobenzene	ND		ug/kg	0.39	--	1
Trichlorofluoromethane	ND		ug/kg	3.2	--	1
1,2-Dichloroethane	ND		ug/kg	0.79	--	1
1,1,1-Trichloroethane	ND		ug/kg	0.39	--	1
Bromodichloromethane	ND		ug/kg	0.39	--	1
trans-1,3-Dichloropropene	ND		ug/kg	0.79	--	1
cis-1,3-Dichloropropene	ND		ug/kg	0.39	--	1
1,3-Dichloropropene, Total	ND		ug/kg	0.39	--	1
1,1-Dichloropropene	ND		ug/kg	0.39	--	1
Bromoform	ND		ug/kg	3.2	--	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.39	--	1
Benzene	ND		ug/kg	0.39	--	1
Toluene	ND		ug/kg	0.79	--	1
Ethylbenzene	ND		ug/kg	0.79	--	1
Chloromethane	ND		ug/kg	3.2	--	1
Bromomethane	ND		ug/kg	1.6	--	1
Vinyl chloride	ND		ug/kg	0.79	--	1
Chloroethane	ND		ug/kg	1.6	--	1
1,1-Dichloroethene	ND		ug/kg	0.79	--	1
trans-1,2-Dichloroethene	ND		ug/kg	1.2	--	1

Project Name: CM-RIDOT RTE 6/10 DESIGN PHASE
Project Number: 1801485

Lab Number: L2038032
Report Date: 09/13/20

SAMPLE RESULTS

Lab ID: L2038032-07
 Client ID: 1801485-SP-04 (GRAB)
 Sample Location: PROVIDENCE, RI

Date Collected: 09/12/20 10:35
 Date Received: 09/12/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatiles Organics by EPA 5035 Low - Westborough Lab						
Trichloroethene	ND		ug/kg	0.39	--	1
1,2-Dichlorobenzene	ND		ug/kg	1.6	--	1
1,3-Dichlorobenzene	ND		ug/kg	1.6	--	1
1,4-Dichlorobenzene	ND		ug/kg	1.6	--	1
Methyl tert butyl ether	ND		ug/kg	1.6	--	1
p/m-Xylene	ND		ug/kg	1.6	--	1
o-Xylene	ND		ug/kg	0.79	--	1
Xylenes, Total	ND		ug/kg	0.79	--	1
cis-1,2-Dichloroethene	ND		ug/kg	0.79	--	1
1,2-Dichloroethene, Total	ND		ug/kg	0.79	--	1
Dibromomethane	ND		ug/kg	1.6	--	1
1,4-Dichlorobutane	ND		ug/kg	7.9	--	1
1,2,3-Trichloropropane	ND		ug/kg	1.6	--	1
Styrene	ND		ug/kg	0.79	--	1
Dichlorodifluoromethane	ND		ug/kg	7.9	--	1
Acetone	ND		ug/kg	20	--	1
Carbon disulfide	ND		ug/kg	7.9	--	1
2-Butanone	ND		ug/kg	7.9	--	1
Vinyl acetate	ND		ug/kg	7.9	--	1
4-Methyl-2-pentanone	ND		ug/kg	7.9	--	1
2-Hexanone	ND		ug/kg	7.9	--	1
Ethyl methacrylate	ND		ug/kg	7.9	--	1
Acrylonitrile	ND		ug/kg	3.2	--	1
Bromochloromethane	ND		ug/kg	1.6	--	1
Tetrahydrofuran	ND		ug/kg	3.2	--	1
2,2-Dichloropropane	ND		ug/kg	1.6	--	1
1,2-Dibromoethane	ND		ug/kg	0.79	--	1
1,3-Dichloropropane	ND		ug/kg	1.6	--	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.39	--	1
Bromobenzene	ND		ug/kg	1.6	--	1
n-Butylbenzene	ND		ug/kg	0.79	--	1
sec-Butylbenzene	ND		ug/kg	0.79	--	1
tert-Butylbenzene	ND		ug/kg	1.6	--	1
o-Chlorotoluene	ND		ug/kg	1.6	--	1
p-Chlorotoluene	ND		ug/kg	1.6	--	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	2.4	--	1
Hexachlorobutadiene	ND		ug/kg	3.2	--	1

Project Name: CM-RIDOT RTE 6/10 DESIGN PHASE
Project Number: 1801485

Lab Number: L2038032
Report Date: 09/13/20

SAMPLE RESULTS

Lab ID: L2038032-07
Client ID: 1801485-SP-04 (GRAB)
Sample Location: PROVIDENCE, RI

Date Collected: 09/12/20 10:35
Date Received: 09/12/20
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Isopropylbenzene	ND		ug/kg	0.79	--	1
p-Isopropyltoluene	ND		ug/kg	0.79	--	1
Naphthalene	ND		ug/kg	3.2	--	1
n-Propylbenzene	ND		ug/kg	0.79	--	1
1,2,3-Trichlorobenzene	ND		ug/kg	1.6	--	1
1,2,4-Trichlorobenzene	ND		ug/kg	1.6	--	1
1,3,5-Trimethylbenzene	ND		ug/kg	1.6	--	1
1,2,4-Trimethylbenzene	ND		ug/kg	1.6	--	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	3.9	--	1
Ethyl ether	ND		ug/kg	1.6	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	105		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	102		70-130
Dibromofluoromethane	101		70-130

Project Name: CM-RIDOT RTE 6/10 DESIGN PHASE
Project Number: 1801485

Lab Number: L2038032
Report Date: 09/13/20

SAMPLE RESULTS

Lab ID: L2038032-09
 Client ID: 1801485-SP-05 (GRAB)
 Sample Location: PROVIDENCE, RI

Date Collected: 09/12/20 10:55
 Date Received: 09/12/20
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8260C
 Analytical Date: 09/12/20 16:55
 Analyst: KJD
 Percent Solids: 95%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Methylene chloride	ND		ug/kg	3.9	--	1
1,1-Dichloroethane	ND		ug/kg	0.79	--	1
Chloroform	ND		ug/kg	1.2	--	1
Carbon tetrachloride	ND		ug/kg	0.79	--	1
1,2-Dichloropropane	ND		ug/kg	0.79	--	1
Dibromochloromethane	ND		ug/kg	0.79	--	1
1,1,2-Trichloroethane	ND		ug/kg	0.79	--	1
Tetrachloroethene	0.62		ug/kg	0.39	--	1
Chlorobenzene	ND		ug/kg	0.39	--	1
Trichlorofluoromethane	ND		ug/kg	3.2	--	1
1,2-Dichloroethane	ND		ug/kg	0.79	--	1
1,1,1-Trichloroethane	ND		ug/kg	0.39	--	1
Bromodichloromethane	ND		ug/kg	0.39	--	1
trans-1,3-Dichloropropene	ND		ug/kg	0.79	--	1
cis-1,3-Dichloropropene	ND		ug/kg	0.39	--	1
1,3-Dichloropropene, Total	ND		ug/kg	0.39	--	1
1,1-Dichloropropene	ND		ug/kg	0.39	--	1
Bromoform	ND		ug/kg	3.2	--	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.39	--	1
Benzene	ND		ug/kg	0.39	--	1
Toluene	ND		ug/kg	0.79	--	1
Ethylbenzene	ND		ug/kg	0.79	--	1
Chloromethane	ND		ug/kg	3.2	--	1
Bromomethane	ND		ug/kg	1.6	--	1
Vinyl chloride	ND		ug/kg	0.79	--	1
Chloroethane	ND		ug/kg	1.6	--	1
1,1-Dichloroethene	ND		ug/kg	0.79	--	1
trans-1,2-Dichloroethene	ND		ug/kg	1.2	--	1

Project Name: CM-RIDOT RTE 6/10 DESIGN PHASE
Project Number: 1801485

Lab Number: L2038032
Report Date: 09/13/20

SAMPLE RESULTS

Lab ID: L2038032-09
 Client ID: 1801485-SP-05 (GRAB)
 Sample Location: PROVIDENCE, RI

Date Collected: 09/12/20 10:55
 Date Received: 09/12/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Trichloroethene	ND		ug/kg	0.39	--	1
1,2-Dichlorobenzene	ND		ug/kg	1.6	--	1
1,3-Dichlorobenzene	ND		ug/kg	1.6	--	1
1,4-Dichlorobenzene	ND		ug/kg	1.6	--	1
Methyl tert butyl ether	ND		ug/kg	1.6	--	1
p/m-Xylene	ND		ug/kg	1.6	--	1
o-Xylene	ND		ug/kg	0.79	--	1
Xylenes, Total	ND		ug/kg	0.79	--	1
cis-1,2-Dichloroethene	ND		ug/kg	0.79	--	1
1,2-Dichloroethene, Total	ND		ug/kg	0.79	--	1
Dibromomethane	ND		ug/kg	1.6	--	1
1,4-Dichlorobutane	ND		ug/kg	7.9	--	1
1,2,3-Trichloropropane	ND		ug/kg	1.6	--	1
Styrene	ND		ug/kg	0.79	--	1
Dichlorodifluoromethane	ND		ug/kg	7.9	--	1
Acetone	32		ug/kg	20	--	1
Carbon disulfide	ND		ug/kg	7.9	--	1
2-Butanone	ND		ug/kg	7.9	--	1
Vinyl acetate	ND		ug/kg	7.9	--	1
4-Methyl-2-pentanone	ND		ug/kg	7.9	--	1
2-Hexanone	ND		ug/kg	7.9	--	1
Ethyl methacrylate	ND		ug/kg	7.9	--	1
Acrylonitrile	ND		ug/kg	3.2	--	1
Bromochloromethane	ND		ug/kg	1.6	--	1
Tetrahydrofuran	ND		ug/kg	3.2	--	1
2,2-Dichloropropane	ND		ug/kg	1.6	--	1
1,2-Dibromoethane	ND		ug/kg	0.79	--	1
1,3-Dichloropropane	ND		ug/kg	1.6	--	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.39	--	1
Bromobenzene	ND		ug/kg	1.6	--	1
n-Butylbenzene	ND		ug/kg	0.79	--	1
sec-Butylbenzene	ND		ug/kg	0.79	--	1
tert-Butylbenzene	ND		ug/kg	1.6	--	1
o-Chlorotoluene	ND		ug/kg	1.6	--	1
p-Chlorotoluene	ND		ug/kg	1.6	--	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	2.4	--	1
Hexachlorobutadiene	ND		ug/kg	3.2	--	1

Project Name: CM-RIDOT RTE 6/10 DESIGN PHASE
Project Number: 1801485

Lab Number: L2038032
Report Date: 09/13/20

SAMPLE RESULTS

Lab ID: L2038032-09
Client ID: 1801485-SP-05 (GRAB)
Sample Location: PROVIDENCE, RI

Date Collected: 09/12/20 10:55
Date Received: 09/12/20
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Isopropylbenzene	ND		ug/kg	0.79	--	1
p-Isopropyltoluene	ND		ug/kg	0.79	--	1
Naphthalene	ND		ug/kg	3.2	--	1
n-Propylbenzene	ND		ug/kg	0.79	--	1
1,2,3-Trichlorobenzene	ND		ug/kg	1.6	--	1
1,2,4-Trichlorobenzene	ND		ug/kg	1.6	--	1
1,3,5-Trimethylbenzene	ND		ug/kg	1.6	--	1
1,2,4-Trimethylbenzene	ND		ug/kg	1.6	--	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	3.9	--	1
Ethyl ether	ND		ug/kg	1.6	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	105		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	100		70-130
Dibromofluoromethane	102		70-130

Project Name: CM-RIDOT RTE 6/10 DESIGN PHASE
Project Number: 1801485

Lab Number: L2038032
Report Date: 09/13/20

SAMPLE RESULTS

Lab ID: L2038032-11
 Client ID: 1801485-SP-06 (GRAB)
 Sample Location: PROVIDENCE, RI

Date Collected: 09/12/20 11:15
 Date Received: 09/12/20
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8260C
 Analytical Date: 09/12/20 17:16
 Analyst: KJD
 Percent Solids: 96%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Methylene chloride	ND		ug/kg	4.0	--	1
1,1-Dichloroethane	ND		ug/kg	0.81	--	1
Chloroform	ND		ug/kg	1.2	--	1
Carbon tetrachloride	ND		ug/kg	0.81	--	1
1,2-Dichloropropane	ND		ug/kg	0.81	--	1
Dibromochloromethane	ND		ug/kg	0.81	--	1
1,1,2-Trichloroethane	ND		ug/kg	0.81	--	1
Tetrachloroethene	ND		ug/kg	0.40	--	1
Chlorobenzene	ND		ug/kg	0.40	--	1
Trichlorofluoromethane	ND		ug/kg	3.2	--	1
1,2-Dichloroethane	ND		ug/kg	0.81	--	1
1,1,1-Trichloroethane	ND		ug/kg	0.40	--	1
Bromodichloromethane	ND		ug/kg	0.40	--	1
trans-1,3-Dichloropropene	ND		ug/kg	0.81	--	1
cis-1,3-Dichloropropene	ND		ug/kg	0.40	--	1
1,3-Dichloropropene, Total	ND		ug/kg	0.40	--	1
1,1-Dichloropropene	ND		ug/kg	0.40	--	1
Bromoform	ND		ug/kg	3.2	--	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.40	--	1
Benzene	ND		ug/kg	0.40	--	1
Toluene	ND		ug/kg	0.81	--	1
Ethylbenzene	ND		ug/kg	0.81	--	1
Chloromethane	ND		ug/kg	3.2	--	1
Bromomethane	ND		ug/kg	1.6	--	1
Vinyl chloride	ND		ug/kg	0.81	--	1
Chloroethane	ND		ug/kg	1.6	--	1
1,1-Dichloroethene	ND		ug/kg	0.81	--	1
trans-1,2-Dichloroethene	ND		ug/kg	1.2	--	1

Project Name: CM-RIDOT RTE 6/10 DESIGN PHASE
Project Number: 1801485

Lab Number: L2038032
Report Date: 09/13/20

SAMPLE RESULTS

Lab ID: L2038032-11
 Client ID: 1801485-SP-06 (GRAB)
 Sample Location: PROVIDENCE, RI

Date Collected: 09/12/20 11:15
 Date Received: 09/12/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Trichloroethene	ND		ug/kg	0.40	--	1
1,2-Dichlorobenzene	ND		ug/kg	1.6	--	1
1,3-Dichlorobenzene	ND		ug/kg	1.6	--	1
1,4-Dichlorobenzene	ND		ug/kg	1.6	--	1
Methyl tert butyl ether	ND		ug/kg	1.6	--	1
p/m-Xylene	ND		ug/kg	1.6	--	1
o-Xylene	ND		ug/kg	0.81	--	1
Xylenes, Total	ND		ug/kg	0.81	--	1
cis-1,2-Dichloroethene	ND		ug/kg	0.81	--	1
1,2-Dichloroethene, Total	ND		ug/kg	0.81	--	1
Dibromomethane	ND		ug/kg	1.6	--	1
1,4-Dichlorobutane	ND		ug/kg	8.1	--	1
1,2,3-Trichloropropane	ND		ug/kg	1.6	--	1
Styrene	ND		ug/kg	0.81	--	1
Dichlorodifluoromethane	ND		ug/kg	8.1	--	1
Acetone	ND		ug/kg	20	--	1
Carbon disulfide	ND		ug/kg	8.1	--	1
2-Butanone	ND		ug/kg	8.1	--	1
Vinyl acetate	ND		ug/kg	8.1	--	1
4-Methyl-2-pentanone	ND		ug/kg	8.1	--	1
2-Hexanone	ND		ug/kg	8.1	--	1
Ethyl methacrylate	ND		ug/kg	8.1	--	1
Acrylonitrile	ND		ug/kg	3.2	--	1
Bromochloromethane	ND		ug/kg	1.6	--	1
Tetrahydrofuran	ND		ug/kg	3.2	--	1
2,2-Dichloropropane	ND		ug/kg	1.6	--	1
1,2-Dibromoethane	ND		ug/kg	0.81	--	1
1,3-Dichloropropane	ND		ug/kg	1.6	--	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.40	--	1
Bromobenzene	ND		ug/kg	1.6	--	1
n-Butylbenzene	ND		ug/kg	0.81	--	1
sec-Butylbenzene	ND		ug/kg	0.81	--	1
tert-Butylbenzene	ND		ug/kg	1.6	--	1
o-Chlorotoluene	ND		ug/kg	1.6	--	1
p-Chlorotoluene	ND		ug/kg	1.6	--	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	2.4	--	1
Hexachlorobutadiene	ND		ug/kg	3.2	--	1

Project Name: CM-RIDOT RTE 6/10 DESIGN PHASE
Project Number: 1801485

Lab Number: L2038032
Report Date: 09/13/20

SAMPLE RESULTS

Lab ID: L2038032-11
Client ID: 1801485-SP-06 (GRAB)
Sample Location: PROVIDENCE, RI

Date Collected: 09/12/20 11:15
Date Received: 09/12/20
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Isopropylbenzene	ND		ug/kg	0.81	--	1
p-Isopropyltoluene	ND		ug/kg	0.81	--	1
Naphthalene	ND		ug/kg	3.2	--	1
n-Propylbenzene	ND		ug/kg	0.81	--	1
1,2,3-Trichlorobenzene	ND		ug/kg	1.6	--	1
1,2,4-Trichlorobenzene	ND		ug/kg	1.6	--	1
1,3,5-Trimethylbenzene	ND		ug/kg	1.6	--	1
1,2,4-Trimethylbenzene	ND		ug/kg	1.6	--	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	4.0	--	1
Ethyl ether	ND		ug/kg	1.6	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	106		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	101		70-130
Dibromofluoromethane	100		70-130

Project Name: CM-RIDOT RTE 6/10 DESIGN PHASE
Project Number: 1801485

Lab Number: L2038032
Report Date: 09/13/20

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 09/12/20 15:09
Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by EPA 5035 Low - Westborough Lab for sample(s): 01,03,05,07,09,11 Batch: WG1409333-5					
Methylene chloride	ND		ug/kg	5.0	--
1,1-Dichloroethane	ND		ug/kg	1.0	--
Chloroform	ND		ug/kg	1.5	--
Carbon tetrachloride	ND		ug/kg	1.0	--
1,2-Dichloropropane	ND		ug/kg	1.0	--
Dibromochloromethane	ND		ug/kg	1.0	--
1,1,2-Trichloroethane	ND		ug/kg	1.0	--
2-Chloroethylvinyl ether	ND		ug/kg	20	--
Tetrachloroethene	ND		ug/kg	0.50	--
Chlorobenzene	ND		ug/kg	0.50	--
Trichlorofluoromethane	ND		ug/kg	4.0	--
1,2-Dichloroethane	ND		ug/kg	1.0	--
1,1,1-Trichloroethane	ND		ug/kg	0.50	--
Bromodichloromethane	ND		ug/kg	0.50	--
trans-1,3-Dichloropropene	ND		ug/kg	1.0	--
cis-1,3-Dichloropropene	ND		ug/kg	0.50	--
1,3-Dichloropropene, Total	ND		ug/kg	0.50	--
1,1-Dichloropropene	ND		ug/kg	0.50	--
Bromoform	ND		ug/kg	4.0	--
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.50	--
Benzene	ND		ug/kg	0.50	--
Toluene	ND		ug/kg	1.0	--
Ethylbenzene	ND		ug/kg	1.0	--
Chloromethane	ND		ug/kg	4.0	--
Bromomethane	ND		ug/kg	2.0	--
Vinyl chloride	ND		ug/kg	1.0	--
Chloroethane	ND		ug/kg	2.0	--
1,1-Dichloroethene	ND		ug/kg	1.0	--
trans-1,2-Dichloroethene	ND		ug/kg	1.5	--

Project Name: CM-RIDOT RTE 6/10 DESIGN PHASE
Project Number: 1801485

Lab Number: L2038032
Report Date: 09/13/20

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 09/12/20 15:09
Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by EPA 5035 Low - Westborough Lab for sample(s): 01,03,05,07,09,11 Batch: WG1409333-5					
Trichloroethene	ND		ug/kg	0.50	--
1,2-Dichlorobenzene	ND		ug/kg	2.0	--
1,3-Dichlorobenzene	ND		ug/kg	2.0	--
1,4-Dichlorobenzene	ND		ug/kg	2.0	--
Methyl tert butyl ether	ND		ug/kg	2.0	--
p/m-Xylene	ND		ug/kg	2.0	--
o-Xylene	ND		ug/kg	1.0	--
Xylenes, Total	ND		ug/kg	1.0	--
cis-1,2-Dichloroethene	ND		ug/kg	1.0	--
1,2-Dichloroethene, Total	ND		ug/kg	1.0	--
Dibromomethane	ND		ug/kg	2.0	--
1,4-Dichlorobutane	ND		ug/kg	10	--
1,2,3-Trichloropropane	ND		ug/kg	2.0	--
Styrene	ND		ug/kg	1.0	--
Dichlorodifluoromethane	ND		ug/kg	10	--
Acetone	ND		ug/kg	25	--
Carbon disulfide	ND		ug/kg	10	--
2-Butanone	ND		ug/kg	10	--
Vinyl acetate	ND		ug/kg	10	--
4-Methyl-2-pentanone	ND		ug/kg	10	--
2-Hexanone	ND		ug/kg	10	--
Ethyl methacrylate	ND		ug/kg	10	--
Acrolein	ND		ug/kg	25	--
Acrylonitrile	ND		ug/kg	4.0	--
Bromochloromethane	ND		ug/kg	2.0	--
Tetrahydrofuran	ND		ug/kg	4.0	--
2,2-Dichloropropane	ND		ug/kg	2.0	--
1,2-Dibromoethane	ND		ug/kg	1.0	--
1,3-Dichloropropane	ND		ug/kg	2.0	--

Project Name: CM-RIDOT RTE 6/10 DESIGN PHASE
Project Number: 1801485

Lab Number: L2038032
Report Date: 09/13/20

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 09/12/20 15:09
Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by EPA 5035 Low - Westborough Lab for sample(s): 01,03,05,07,09,11 Batch: WG1409333-5					
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.50	--
Bromobenzene	ND		ug/kg	2.0	--
n-Butylbenzene	ND		ug/kg	1.0	--
sec-Butylbenzene	ND		ug/kg	1.0	--
tert-Butylbenzene	ND		ug/kg	2.0	--
1,3,5-Trichlorobenzene	ND		ug/kg	2.0	--
o-Chlorotoluene	ND		ug/kg	2.0	--
p-Chlorotoluene	ND		ug/kg	2.0	--
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.0	--
Hexachlorobutadiene	ND		ug/kg	4.0	--
Isopropylbenzene	ND		ug/kg	1.0	--
p-Isopropyltoluene	ND		ug/kg	1.0	--
Naphthalene	ND		ug/kg	4.0	--
n-Propylbenzene	ND		ug/kg	1.0	--
1,2,3-Trichlorobenzene	ND		ug/kg	2.0	--
1,2,4-Trichlorobenzene	ND		ug/kg	2.0	--
1,3,5-Trimethylbenzene	ND		ug/kg	2.0	--
1,2,4-Trimethylbenzene	ND		ug/kg	2.0	--
trans-1,4-Dichloro-2-butene	ND		ug/kg	5.0	--
Ethyl ether	ND		ug/kg	2.0	--
Methyl Acetate	ND		ug/kg	4.0	--
Ethyl Acetate	ND		ug/kg	10	--
Isopropyl Ether	ND		ug/kg	2.0	--
Cyclohexane	ND		ug/kg	10	--
Tert-Butyl Alcohol	ND		ug/kg	20	--
Ethyl-Tert-Butyl-Ether	ND		ug/kg	2.0	--
Tertiary-Amyl Methyl Ether	ND		ug/kg	2.0	--
1,4-Dioxane	ND		ug/kg	80	--
Methyl cyclohexane	ND		ug/kg	4.0	--

Project Name: CM-RIDOT RTE 6/10 DESIGN PHASE
Project Number: 1801485

Lab Number: L2038032
Report Date: 09/13/20

**Method Blank Analysis
Batch Quality Control**

Analytical Method: 1,8260C
Analytical Date: 09/12/20 15:09
Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by EPA 5035 Low - Westborough Lab for sample(s): 01,03,05,07,09,11 Batch: WG1409333-5					
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		ug/kg	4.0	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	106		70-130
Toluene-d8	97		70-130
4-Bromofluorobenzene	95		70-130
Dibromofluoromethane	100		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: CM-RIDOT RTE 6/10 DESIGN PHASE

Lab Number: L2038032

Project Number: 1801485

Report Date: 09/13/20

Parameter	LCS		LCSD		%Recovery		RPD	
	%Recovery	Qual	%Recovery	Qual	Limits	RPD	Qual	Limits
Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 01,03,05,07,09,11 Batch: WG1409333-3 WG1409333-4								
Methylene chloride	95		93		70-130	2		30
1,1-Dichloroethane	94		93		70-130	1		30
Chloroform	89		89		70-130	0		30
Carbon tetrachloride	89		88		70-130	1		30
1,2-Dichloropropane	92		93		70-130	1		30
Dibromochloromethane	89		90		70-130	1		30
1,1,2-Trichloroethane	88		92		70-130	4		30
2-Chloroethylvinyl ether	73		78		70-130	7		30
Tetrachloroethene	93		91		70-130	2		30
Chlorobenzene	92		92		70-130	0		30
Trichlorofluoromethane	94		92		70-139	2		30
1,2-Dichloroethane	88		90		70-130	2		30
1,1,1-Trichloroethane	89		88		70-130	1		30
Bromodichloromethane	87		88		70-130	1		30
trans-1,3-Dichloropropene	87		89		70-130	2		30
cis-1,3-Dichloropropene	89		91		70-130	2		30
1,1-Dichloropropene	94		94		70-130	0		30
Bromoform	73		76		70-130	4		30
1,1,2,2-Tetrachloroethane	89		96		70-130	8		30
Benzene	91		92		70-130	1		30
Toluene	92		90		70-130	2		30
Ethylbenzene	93		92		70-130	1		30
Chloromethane	82		79		52-130	4		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: CM-RIDOT RTE 6/10 DESIGN PHASE

Lab Number: L2038032

Project Number: 1801485

Report Date: 09/13/20

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 01,03,05,07,09,11 Batch: WG1409333-3 WG1409333-4								
Bromomethane	128		122		57-147	5		30
Vinyl chloride	97		93		67-130	4		30
Chloroethane	105		103		50-151	2		30
1,1-Dichloroethene	89		88		65-135	1		30
trans-1,2-Dichloroethene	91		90		70-130	1		30
Trichloroethene	92		93		70-130	1		30
1,2-Dichlorobenzene	91		92		70-130	1		30
1,3-Dichlorobenzene	92		92		70-130	0		30
1,4-Dichlorobenzene	91		92		70-130	1		30
Methyl tert butyl ether	82		87		66-130	6		30
p/m-Xylene	95		92		70-130	3		30
o-Xylene	93		92		70-130	1		30
cis-1,2-Dichloroethene	90		91		70-130	1		30
Dibromomethane	85		87		70-130	2		30
1,4-Dichlorobutane	87		92		70-130	6		30
1,2,3-Trichloropropane	85		92		68-130	8		30
Styrene	94		94		70-130	0		30
Dichlorodifluoromethane	84		81		30-146	4		30
Acetone	90		98		54-140	9		30
Carbon disulfide	94		91		59-130	3		30
2-Butanone	79		85		70-130	7		30
Vinyl acetate	84		87		70-130	4		30
4-Methyl-2-pentanone	87		94		70-130	8		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: CM-RIDOT RTE 6/10 DESIGN PHASE

Lab Number: L2038032

Project Number: 1801485

Report Date: 09/13/20

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 01,03,05,07,09,11 Batch: WG1409333-3 WG1409333-4								
2-Hexanone	78		85		70-130	9		30
Ethyl methacrylate	84		89		70-130	6		30
Acrolein	79		84		70-130	6		30
Acrylonitrile	85		89		70-130	5		30
Bromochloromethane	87		88		70-130	1		30
Tetrahydrofuran	82		87		66-130	6		30
2,2-Dichloropropane	89		87		70-130	2		30
1,2-Dibromoethane	87		90		70-130	3		30
1,3-Dichloropropane	89		92		69-130	3		30
1,1,1,2-Tetrachloroethane	92		92		70-130	0		30
Bromobenzene	87		89		70-130	2		30
n-Butylbenzene	97		95		70-130	2		30
sec-Butylbenzene	94		94		70-130	0		30
tert-Butylbenzene	91		90		70-130	1		30
1,3,5-Trichlorobenzene	91		92		70-139	1		30
o-Chlorotoluene	89		91		70-130	2		30
p-Chlorotoluene	93		92		70-130	1		30
1,2-Dibromo-3-chloropropane	81		86		68-130	6		30
Hexachlorobutadiene	89		89		67-130	0		30
Isopropylbenzene	92		92		70-130	0		30
p-Isopropyltoluene	93		92		70-130	1		30
Naphthalene	79		86		70-130	8		30
n-Propylbenzene	95		94		70-130	1		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: CM-RIDOT RTE 6/10 DESIGN PHASE

Lab Number: L2038032

Project Number: 1801485

Report Date: 09/13/20

Parameter	LCS		LCSD		%Recovery		RPD	
	%Recovery	Qual	%Recovery	Qual	Limits	RPD	Qual	Limits
Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 01,03,05,07,09,11 Batch: WG1409333-3 WG1409333-4								
1,2,3-Trichlorobenzene	86		89		70-130	3		30
1,2,4-Trichlorobenzene	86		87		70-130	1		30
1,3,5-Trimethylbenzene	92		91		70-130	1		30
1,2,4-Trimethylbenzene	93		93		70-130	0		30
trans-1,4-Dichloro-2-butene	87		90		70-130	3		30
Ethyl ether	85		89		67-130	5		30
Methyl Acetate	86		92		65-130	7		30
Ethyl Acetate	82		90		70-130	9		30
Isopropyl Ether	94		96		66-130	2		30
Cyclohexane	93		92		70-130	1		30
Tert-Butyl Alcohol	72		80		70-130	11		30
Ethyl-Tert-Butyl-Ether	89		91		70-130	2		30
Tertiary-Amyl Methyl Ether	85		88		70-130	3		30
1,4-Dioxane	88		105		65-136	18		30
Methyl cyclohexane	91		92		70-130	1		30
1,1,2-Trichloro-1,2,2-Trifluoroethane	90		90		70-130	0		30

Surrogate	LCS		LCSD		Acceptance Criteria
	%Recovery	Qual	%Recovery	Qual	
1,2-Dichloroethane-d4	96		98		70-130
Toluene-d8	100		98		70-130
4-Bromofluorobenzene	99		98		70-130
Dibromofluoromethane	95		97		70-130

SEMIVOLATILES

Project Name: CM-RIDOT RTE 6/10 DESIGN PHASE
Project Number: 1801485

Lab Number: L2038032
Report Date: 09/13/20

SAMPLE RESULTS

Lab ID: L2038032-02
 Client ID: 1801485-SP-01 (COMP)
 Sample Location: PROVIDENCE, RI

Date Collected: 09/12/20 09:35
 Date Received: 09/12/20
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8270D
 Analytical Date: 09/13/20 11:01
 Analyst: ALS
 Percent Solids: 97%

Extraction Method: EPA 3546
 Extraction Date: 09/12/20 14:09

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	140	--	1
Benzidine	ND		ug/kg	560	--	1
1,2,4-Trichlorobenzene	ND		ug/kg	170	--	1
Hexachlorobenzene	ND		ug/kg	100	--	1
Bis(2-chloroethyl)ether	ND		ug/kg	150	--	1
2-Chloronaphthalene	ND		ug/kg	170	--	1
1,2-Dichlorobenzene	ND		ug/kg	170	--	1
1,3-Dichlorobenzene	ND		ug/kg	170	--	1
1,4-Dichlorobenzene	ND		ug/kg	170	--	1
3,3'-Dichlorobenzidine	ND		ug/kg	170	--	1
2,4-Dinitrotoluene	ND		ug/kg	170	--	1
2,6-Dinitrotoluene	ND		ug/kg	170	--	1
Azobenzene	ND		ug/kg	170	--	1
Fluoranthene	210		ug/kg	100	--	1
4-Chlorophenyl phenyl ether	ND		ug/kg	170	--	1
4-Bromophenyl phenyl ether	ND		ug/kg	170	--	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	200	--	1
Bis(2-chloroethoxy)methane	ND		ug/kg	180	--	1
Hexachlorobutadiene	ND		ug/kg	170	--	1
Hexachlorocyclopentadiene	ND		ug/kg	480	--	1
Hexachloroethane	ND		ug/kg	140	--	1
Isophorone	ND		ug/kg	150	--	1
Naphthalene	ND		ug/kg	170	--	1
Nitrobenzene	ND		ug/kg	150	--	1
NDPA/DPA	ND		ug/kg	140	--	1
n-Nitrosodi-n-propylamine	ND		ug/kg	170	--	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	170	--	1
Butyl benzyl phthalate	ND		ug/kg	170	--	1

Project Name: CM-RIDOT RTE 6/10 DESIGN PHASE
Project Number: 1801485

Lab Number: L2038032
Report Date: 09/13/20

SAMPLE RESULTS

Lab ID: L2038032-02
 Client ID: 1801485-SP-01 (COMP)
 Sample Location: PROVIDENCE, RI

Date Collected: 09/12/20 09:35
 Date Received: 09/12/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Di-n-butylphthalate	ND		ug/kg	170	--	1
Di-n-octylphthalate	ND		ug/kg	170	--	1
Diethyl phthalate	ND		ug/kg	170	--	1
Dimethyl phthalate	ND		ug/kg	170	--	1
Benzo(a)anthracene	140		ug/kg	100	--	1
Benzo(a)pyrene	ND		ug/kg	140	--	1
Benzo(b)fluoranthene	200		ug/kg	100	--	1
Benzo(k)fluoranthene	ND		ug/kg	100	--	1
Chrysene	140		ug/kg	100	--	1
Acenaphthylene	ND		ug/kg	140	--	1
Anthracene	ND		ug/kg	100	--	1
Benzo(ghi)perylene	ND		ug/kg	140	--	1
Fluorene	ND		ug/kg	170	--	1
Phenanthrene	ND		ug/kg	100	--	1
Dibenzo(a,h)anthracene	ND		ug/kg	100	--	1
Indeno(1,2,3-cd)pyrene	ND		ug/kg	140	--	1
Pyrene	200		ug/kg	100	--	1
Biphenyl	ND		ug/kg	390	--	1
Aniline	ND		ug/kg	200	--	1
4-Chloroaniline	ND		ug/kg	170	--	1
1-Methylnaphthalene	ND		ug/kg	170	--	1
2-Nitroaniline	ND		ug/kg	170	--	1
3-Nitroaniline	ND		ug/kg	170	--	1
4-Nitroaniline	ND		ug/kg	170	--	1
Dibenzofuran	ND		ug/kg	170	--	1
2-Methylnaphthalene	ND		ug/kg	200	--	1
n-Nitrosodimethylamine	ND		ug/kg	340	--	1
2,4,6-Trichlorophenol	ND		ug/kg	100	--	1
p-Chloro-m-cresol	ND		ug/kg	170	--	1
2-Chlorophenol	ND		ug/kg	170	--	1
2,4-Dichlorophenol	ND		ug/kg	150	--	1
2,4-Dimethylphenol	ND		ug/kg	170	--	1
2-Nitrophenol	ND		ug/kg	370	--	1
4-Nitrophenol	ND		ug/kg	240	--	1
2,4-Dinitrophenol	ND		ug/kg	810	--	1
4,6-Dinitro-o-cresol	ND		ug/kg	440	--	1
Pentachlorophenol	ND		ug/kg	140	--	1

Project Name: CM-RIDOT RTE 6/10 DESIGN PHASE
Project Number: 1801485

Lab Number: L2038032
Report Date: 09/13/20

SAMPLE RESULTS

Lab ID: L2038032-02
 Client ID: 1801485-SP-01 (COMP)
 Sample Location: PROVIDENCE, RI

Date Collected: 09/12/20 09:35
 Date Received: 09/12/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Phenol	ND		ug/kg	170	--	1
2-Methylphenol	ND		ug/kg	170	--	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	240	--	1
2,4,5-Trichlorophenol	ND		ug/kg	170	--	1
Benzoic Acid	ND		ug/kg	550	--	1
Benzyl Alcohol	ND		ug/kg	170	--	1
Carbazole	ND		ug/kg	170	--	1
Pyridine	ND		ug/kg	180	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	73		25-120
Phenol-d6	70		10-120
Nitrobenzene-d5	72		23-120
2-Fluorobiphenyl	73		30-120
2,4,6-Tribromophenol	75		10-136
4-Terphenyl-d14	69		18-120

Project Name: CM-RIDOT RTE 6/10 DESIGN PHASE
Project Number: 1801485

Lab Number: L2038032
Report Date: 09/13/20

SAMPLE RESULTS

Lab ID: L2038032-04
 Client ID: 1801485-SP-02 (COMP)
 Sample Location: PROVIDENCE, RI

Date Collected: 09/12/20 09:55
 Date Received: 09/12/20
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8270D
 Analytical Date: 09/13/20 11:25
 Analyst: ALS
 Percent Solids: 96%

Extraction Method: EPA 3546
 Extraction Date: 09/12/20 14:09

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	140	--	1
Benzidine	ND		ug/kg	570	--	1
1,2,4-Trichlorobenzene	ND		ug/kg	170	--	1
Hexachlorobenzene	ND		ug/kg	100	--	1
Bis(2-chloroethyl)ether	ND		ug/kg	160	--	1
2-Chloronaphthalene	ND		ug/kg	170	--	1
1,2-Dichlorobenzene	ND		ug/kg	170	--	1
1,3-Dichlorobenzene	ND		ug/kg	170	--	1
1,4-Dichlorobenzene	ND		ug/kg	170	--	1
3,3'-Dichlorobenzidine	ND		ug/kg	170	--	1
2,4-Dinitrotoluene	ND		ug/kg	170	--	1
2,6-Dinitrotoluene	ND		ug/kg	170	--	1
Azobenzene	ND		ug/kg	170	--	1
Fluoranthene	370		ug/kg	100	--	1
4-Chlorophenyl phenyl ether	ND		ug/kg	170	--	1
4-Bromophenyl phenyl ether	ND		ug/kg	170	--	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	210	--	1
Bis(2-chloroethoxy)methane	ND		ug/kg	190	--	1
Hexachlorobutadiene	ND		ug/kg	170	--	1
Hexachlorocyclopentadiene	ND		ug/kg	490	--	1
Hexachloroethane	ND		ug/kg	140	--	1
Isophorone	ND		ug/kg	160	--	1
Naphthalene	ND		ug/kg	170	--	1
Nitrobenzene	ND		ug/kg	160	--	1
NDPA/DPA	ND		ug/kg	140	--	1
n-Nitrosodi-n-propylamine	ND		ug/kg	170	--	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	170	--	1
Butyl benzyl phthalate	ND		ug/kg	170	--	1

Project Name: CM-RIDOT RTE 6/10 DESIGN PHASE
Project Number: 1801485

Lab Number: L2038032
Report Date: 09/13/20

SAMPLE RESULTS

Lab ID: L2038032-04
Client ID: 1801485-SP-02 (COMP)
Sample Location: PROVIDENCE, RI

Date Collected: 09/12/20 09:55
Date Received: 09/12/20
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Di-n-butylphthalate	ND		ug/kg	170	--	1
Di-n-octylphthalate	ND		ug/kg	170	--	1
Diethyl phthalate	ND		ug/kg	170	--	1
Dimethyl phthalate	ND		ug/kg	170	--	1
Benzo(a)anthracene	220		ug/kg	100	--	1
Benzo(a)pyrene	200		ug/kg	140	--	1
Benzo(b)fluoranthene	340		ug/kg	100	--	1
Benzo(k)fluoranthene	120		ug/kg	100	--	1
Chrysene	240		ug/kg	100	--	1
Acenaphthylene	ND		ug/kg	140	--	1
Anthracene	ND		ug/kg	100	--	1
Benzo(ghi)perylene	160		ug/kg	140	--	1
Fluorene	ND		ug/kg	170	--	1
Phenanthrene	160		ug/kg	100	--	1
Dibenzo(a,h)anthracene	ND		ug/kg	100	--	1
Indeno(1,2,3-cd)pyrene	170		ug/kg	140	--	1
Pyrene	350		ug/kg	100	--	1
Biphenyl	ND		ug/kg	390	--	1
Aniline	ND		ug/kg	210	--	1
4-Chloroaniline	ND		ug/kg	170	--	1
1-Methylnaphthalene	ND		ug/kg	170	--	1
2-Nitroaniline	ND		ug/kg	170	--	1
3-Nitroaniline	ND		ug/kg	170	--	1
4-Nitroaniline	ND		ug/kg	170	--	1
Dibenzofuran	ND		ug/kg	170	--	1
2-Methylnaphthalene	ND		ug/kg	210	--	1
n-Nitrosodimethylamine	ND		ug/kg	340	--	1
2,4,6-Trichlorophenol	ND		ug/kg	100	--	1
p-Chloro-m-cresol	ND		ug/kg	170	--	1
2-Chlorophenol	ND		ug/kg	170	--	1
2,4-Dichlorophenol	ND		ug/kg	160	--	1
2,4-Dimethylphenol	ND		ug/kg	170	--	1
2-Nitrophenol	ND		ug/kg	370	--	1
4-Nitrophenol	ND		ug/kg	240	--	1
2,4-Dinitrophenol	ND		ug/kg	830	--	1
4,6-Dinitro-o-cresol	ND		ug/kg	450	--	1
Pentachlorophenol	ND		ug/kg	140	--	1

Project Name: CM-RIDOT RTE 6/10 DESIGN PHASE
Project Number: 1801485

Lab Number: L2038032
Report Date: 09/13/20

SAMPLE RESULTS

Lab ID: L2038032-04
 Client ID: 1801485-SP-02 (COMP)
 Sample Location: PROVIDENCE, RI

Date Collected: 09/12/20 09:55
 Date Received: 09/12/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Phenol	ND		ug/kg	170	--	1
2-Methylphenol	ND		ug/kg	170	--	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	250	--	1
2,4,5-Trichlorophenol	ND		ug/kg	170	--	1
Benzoic Acid	ND		ug/kg	560	--	1
Benzyl Alcohol	ND		ug/kg	170	--	1
Carbazole	ND		ug/kg	170	--	1
Pyridine	ND		ug/kg	190	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	68		25-120
Phenol-d6	66		10-120
Nitrobenzene-d5	67		23-120
2-Fluorobiphenyl	66		30-120
2,4,6-Tribromophenol	69		10-136
4-Terphenyl-d14	64		18-120

Project Name: CM-RIDOT RTE 6/10 DESIGN PHASE
Project Number: 1801485

Lab Number: L2038032
Report Date: 09/13/20

SAMPLE RESULTS

Lab ID: L2038032-06
 Client ID: 1801485-SP-03 (COMP)
 Sample Location: PROVIDENCE, RI

Date Collected: 09/12/20 10:15
 Date Received: 09/12/20
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8270D
 Analytical Date: 09/13/20 11:49
 Analyst: ALS
 Percent Solids: 97%

Extraction Method: EPA 3546
 Extraction Date: 09/12/20 14:09

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	140	--	1
Benzidine	ND		ug/kg	560	--	1
1,2,4-Trichlorobenzene	ND		ug/kg	170	--	1
Hexachlorobenzene	ND		ug/kg	100	--	1
Bis(2-chloroethyl)ether	ND		ug/kg	150	--	1
2-Chloronaphthalene	ND		ug/kg	170	--	1
1,2-Dichlorobenzene	ND		ug/kg	170	--	1
1,3-Dichlorobenzene	ND		ug/kg	170	--	1
1,4-Dichlorobenzene	ND		ug/kg	170	--	1
3,3'-Dichlorobenzidine	ND		ug/kg	170	--	1
2,4-Dinitrotoluene	ND		ug/kg	170	--	1
2,6-Dinitrotoluene	ND		ug/kg	170	--	1
Azobenzene	ND		ug/kg	170	--	1
Fluoranthene	4500		ug/kg	100	--	1
4-Chlorophenyl phenyl ether	ND		ug/kg	170	--	1
4-Bromophenyl phenyl ether	ND		ug/kg	170	--	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	200	--	1
Bis(2-chloroethoxy)methane	ND		ug/kg	180	--	1
Hexachlorobutadiene	ND		ug/kg	170	--	1
Hexachlorocyclopentadiene	ND		ug/kg	490	--	1
Hexachloroethane	ND		ug/kg	140	--	1
Isophorone	ND		ug/kg	150	--	1
Naphthalene	280		ug/kg	170	--	1
Nitrobenzene	ND		ug/kg	150	--	1
NDPA/DPA	ND		ug/kg	140	--	1
n-Nitrosodi-n-propylamine	ND		ug/kg	170	--	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	170	--	1
Butyl benzyl phthalate	ND		ug/kg	170	--	1

Project Name: CM-RIDOT RTE 6/10 DESIGN PHASE
Project Number: 1801485

Lab Number: L2038032
Report Date: 09/13/20

SAMPLE RESULTS

Lab ID: L2038032-06
Client ID: 1801485-SP-03 (COMP)
Sample Location: PROVIDENCE, RI

Date Collected: 09/12/20 10:15
Date Received: 09/12/20
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Di-n-butylphthalate	ND		ug/kg	170	--	1
Di-n-octylphthalate	ND		ug/kg	170	--	1
Diethyl phthalate	ND		ug/kg	170	--	1
Dimethyl phthalate	ND		ug/kg	170	--	1
Benzo(a)anthracene	3600		ug/kg	100	--	1
Benzo(a)pyrene	3000		ug/kg	140	--	1
Benzo(b)fluoranthene	6200		ug/kg	100	--	1
Benzo(k)fluoranthene	1500		ug/kg	100	--	1
Chrysene	3600		ug/kg	100	--	1
Acenaphthylene	1200		ug/kg	140	--	1
Anthracene	770		ug/kg	100	--	1
Benzo(ghi)perylene	2200		ug/kg	140	--	1
Fluorene	ND		ug/kg	170	--	1
Phenanthrene	1400		ug/kg	100	--	1
Dibenzo(a,h)anthracene	640		ug/kg	100	--	1
Indeno(1,2,3-cd)pyrene	2500		ug/kg	140	--	1
Pyrene	4800		ug/kg	100	--	1
Biphenyl	ND		ug/kg	390	--	1
Aniline	ND		ug/kg	200	--	1
4-Chloroaniline	ND		ug/kg	170	--	1
1-Methylnaphthalene	ND		ug/kg	170	--	1
2-Nitroaniline	ND		ug/kg	170	--	1
3-Nitroaniline	ND		ug/kg	170	--	1
4-Nitroaniline	ND		ug/kg	170	--	1
Dibenzofuran	ND		ug/kg	170	--	1
2-Methylnaphthalene	ND		ug/kg	200	--	1
n-Nitrosodimethylamine	ND		ug/kg	340	--	1
2,4,6-Trichlorophenol	ND		ug/kg	100	--	1
p-Chloro-m-cresol	ND		ug/kg	170	--	1
2-Chlorophenol	ND		ug/kg	170	--	1
2,4-Dichlorophenol	ND		ug/kg	150	--	1
2,4-Dimethylphenol	ND		ug/kg	170	--	1
2-Nitrophenol	ND		ug/kg	370	--	1
4-Nitrophenol	ND		ug/kg	240	--	1
2,4-Dinitrophenol	ND		ug/kg	820	--	1
4,6-Dinitro-o-cresol	ND		ug/kg	440	--	1
Pentachlorophenol	ND		ug/kg	140	--	1

Project Name: CM-RIDOT RTE 6/10 DESIGN PHASE
Project Number: 1801485

Lab Number: L2038032
Report Date: 09/13/20

SAMPLE RESULTS

Lab ID: L2038032-06
 Client ID: 1801485-SP-03 (COMP)
 Sample Location: PROVIDENCE, RI

Date Collected: 09/12/20 10:15
 Date Received: 09/12/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Phenol	ND		ug/kg	170	--	1
2-Methylphenol	ND		ug/kg	170	--	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	240	--	1
2,4,5-Trichlorophenol	ND		ug/kg	170	--	1
Benzoic Acid	ND		ug/kg	550	--	1
Benzyl Alcohol	ND		ug/kg	170	--	1
Carbazole	210		ug/kg	170	--	1
Pyridine	ND		ug/kg	180	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	72		25-120
Phenol-d6	72		10-120
Nitrobenzene-d5	75		23-120
2-Fluorobiphenyl	73		30-120
2,4,6-Tribromophenol	77		10-136
4-Terphenyl-d14	70		18-120

Project Name: CM-RIDOT RTE 6/10 DESIGN PHASE
Project Number: 1801485

Lab Number: L2038032
Report Date: 09/13/20

SAMPLE RESULTS

Lab ID: L2038032-08
 Client ID: 1801485-SP-04 (COMP)
 Sample Location: PROVIDENCE, RI

Date Collected: 09/12/20 10:30
 Date Received: 09/12/20
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8270D
 Analytical Date: 09/13/20 12:13
 Analyst: ALS
 Percent Solids: 98%

Extraction Method: EPA 3546
 Extraction Date: 09/12/20 14:09

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	130	--	1
Benzidine	ND		ug/kg	550	--	1
1,2,4-Trichlorobenzene	ND		ug/kg	160	--	1
Hexachlorobenzene	ND		ug/kg	100	--	1
Bis(2-chloroethyl)ether	ND		ug/kg	150	--	1
2-Chloronaphthalene	ND		ug/kg	160	--	1
1,2-Dichlorobenzene	ND		ug/kg	160	--	1
1,3-Dichlorobenzene	ND		ug/kg	160	--	1
1,4-Dichlorobenzene	ND		ug/kg	160	--	1
3,3'-Dichlorobenzidine	ND		ug/kg	160	--	1
2,4-Dinitrotoluene	ND		ug/kg	160	--	1
2,6-Dinitrotoluene	ND		ug/kg	160	--	1
Azobenzene	ND		ug/kg	160	--	1
Fluoranthene	1500		ug/kg	100	--	1
4-Chlorophenyl phenyl ether	ND		ug/kg	160	--	1
4-Bromophenyl phenyl ether	ND		ug/kg	160	--	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	200	--	1
Bis(2-chloroethoxy)methane	ND		ug/kg	180	--	1
Hexachlorobutadiene	ND		ug/kg	160	--	1
Hexachlorocyclopentadiene	ND		ug/kg	470	--	1
Hexachloroethane	ND		ug/kg	130	--	1
Isophorone	ND		ug/kg	150	--	1
Naphthalene	ND		ug/kg	160	--	1
Nitrobenzene	ND		ug/kg	150	--	1
NDPA/DPA	ND		ug/kg	130	--	1
n-Nitrosodi-n-propylamine	ND		ug/kg	160	--	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	160	--	1
Butyl benzyl phthalate	ND		ug/kg	160	--	1

Project Name: CM-RIDOT RTE 6/10 DESIGN PHASE
Project Number: 1801485

Lab Number: L2038032
Report Date: 09/13/20

SAMPLE RESULTS

Lab ID: L2038032-08
Client ID: 1801485-SP-04 (COMP)
Sample Location: PROVIDENCE, RI

Date Collected: 09/12/20 10:30
Date Received: 09/12/20
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Di-n-butylphthalate	ND		ug/kg	160	--	1
Di-n-octylphthalate	ND		ug/kg	160	--	1
Diethyl phthalate	ND		ug/kg	160	--	1
Dimethyl phthalate	ND		ug/kg	160	--	1
Benzo(a)anthracene	1000		ug/kg	100	--	1
Benzo(a)pyrene	870		ug/kg	130	--	1
Benzo(b)fluoranthene	1600		ug/kg	100	--	1
Benzo(k)fluoranthene	540		ug/kg	100	--	1
Chrysene	1100		ug/kg	100	--	1
Acenaphthylene	200		ug/kg	130	--	1
Anthracene	220		ug/kg	100	--	1
Benzo(ghi)perylene	660		ug/kg	130	--	1
Fluorene	ND		ug/kg	160	--	1
Phenanthrene	520		ug/kg	100	--	1
Dibenzo(a,h)anthracene	160		ug/kg	100	--	1
Indeno(1,2,3-cd)pyrene	710		ug/kg	130	--	1
Pyrene	1500		ug/kg	100	--	1
Biphenyl	ND		ug/kg	380	--	1
Aniline	ND		ug/kg	200	--	1
4-Chloroaniline	ND		ug/kg	160	--	1
1-Methylnaphthalene	ND		ug/kg	160	--	1
2-Nitroaniline	ND		ug/kg	160	--	1
3-Nitroaniline	ND		ug/kg	160	--	1
4-Nitroaniline	ND		ug/kg	160	--	1
Dibenzofuran	ND		ug/kg	160	--	1
2-Methylnaphthalene	ND		ug/kg	200	--	1
n-Nitrosodimethylamine	ND		ug/kg	330	--	1
2,4,6-Trichlorophenol	ND		ug/kg	100	--	1
p-Chloro-m-cresol	ND		ug/kg	160	--	1
2-Chlorophenol	ND		ug/kg	160	--	1
2,4-Dichlorophenol	ND		ug/kg	150	--	1
2,4-Dimethylphenol	ND		ug/kg	160	--	1
2-Nitrophenol	ND		ug/kg	360	--	1
4-Nitrophenol	ND		ug/kg	230	--	1
2,4-Dinitrophenol	ND		ug/kg	800	--	1
4,6-Dinitro-o-cresol	ND		ug/kg	430	--	1
Pentachlorophenol	ND		ug/kg	130	--	1

Project Name: CM-RIDOT RTE 6/10 DESIGN PHASE
Project Number: 1801485

Lab Number: L2038032
Report Date: 09/13/20

SAMPLE RESULTS

Lab ID: L2038032-08
 Client ID: 1801485-SP-04 (COMP)
 Sample Location: PROVIDENCE, RI

Date Collected: 09/12/20 10:30
 Date Received: 09/12/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Phenol	ND		ug/kg	160	--	1
2-Methylphenol	ND		ug/kg	160	--	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	240	--	1
2,4,5-Trichlorophenol	ND		ug/kg	160	--	1
Benzoic Acid	ND		ug/kg	540	--	1
Benzyl Alcohol	ND		ug/kg	160	--	1
Carbazole	ND		ug/kg	160	--	1
Pyridine	ND		ug/kg	180	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	72		25-120
Phenol-d6	73		10-120
Nitrobenzene-d5	76		23-120
2-Fluorobiphenyl	77		30-120
2,4,6-Tribromophenol	82		10-136
4-Terphenyl-d14	74		18-120

Project Name: CM-RIDOT RTE 6/10 DESIGN PHASE
Project Number: 1801485

Lab Number: L2038032
Report Date: 09/13/20

SAMPLE RESULTS

Lab ID: L2038032-10
 Client ID: 1801485-SP-05 (COMP)
 Sample Location: PROVIDENCE, RI

Date Collected: 09/12/20 10:50
 Date Received: 09/12/20
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8270D
 Analytical Date: 09/13/20 11:59
 Analyst: ALS
 Percent Solids: 96%

Extraction Method: EPA 3546
 Extraction Date: 09/12/20 14:09

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	140	--	1
Benzidine	ND		ug/kg	560	--	1
1,2,4-Trichlorobenzene	ND		ug/kg	170	--	1
Hexachlorobenzene	ND		ug/kg	100	--	1
Bis(2-chloroethyl)ether	ND		ug/kg	150	--	1
2-Chloronaphthalene	ND		ug/kg	170	--	1
1,2-Dichlorobenzene	ND		ug/kg	170	--	1
1,3-Dichlorobenzene	ND		ug/kg	170	--	1
1,4-Dichlorobenzene	ND		ug/kg	170	--	1
3,3'-Dichlorobenzidine	ND		ug/kg	170	--	1
2,4-Dinitrotoluene	ND		ug/kg	170	--	1
2,6-Dinitrotoluene	ND		ug/kg	170	--	1
Azobenzene	ND		ug/kg	170	--	1
Fluoranthene	2800		ug/kg	100	--	1
4-Chlorophenyl phenyl ether	ND		ug/kg	170	--	1
4-Bromophenyl phenyl ether	ND		ug/kg	170	--	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	200	--	1
Bis(2-chloroethoxy)methane	ND		ug/kg	180	--	1
Hexachlorobutadiene	ND		ug/kg	170	--	1
Hexachlorocyclopentadiene	ND		ug/kg	480	--	1
Hexachloroethane	ND		ug/kg	140	--	1
Isophorone	ND		ug/kg	150	--	1
Naphthalene	ND		ug/kg	170	--	1
Nitrobenzene	ND		ug/kg	150	--	1
NDPA/DPA	ND		ug/kg	140	--	1
n-Nitrosodi-n-propylamine	ND		ug/kg	170	--	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	170	--	1
Butyl benzyl phthalate	ND		ug/kg	170	--	1

Project Name: CM-RIDOT RTE 6/10 DESIGN PHASE
Project Number: 1801485

Lab Number: L2038032
Report Date: 09/13/20

SAMPLE RESULTS

Lab ID: L2038032-10
 Client ID: 1801485-SP-05 (COMP)
 Sample Location: PROVIDENCE, RI

Date Collected: 09/12/20 10:50
 Date Received: 09/12/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Di-n-butylphthalate	ND		ug/kg	170	--	1
Di-n-octylphthalate	ND		ug/kg	170	--	1
Diethyl phthalate	ND		ug/kg	170	--	1
Dimethyl phthalate	ND		ug/kg	170	--	1
Benzo(a)anthracene	1700		ug/kg	100	--	1
Benzo(a)pyrene	1300		ug/kg	140	--	1
Benzo(b)fluoranthene	2100		ug/kg	100	--	1
Benzo(k)fluoranthene	480		ug/kg	100	--	1
Chrysene	1600		ug/kg	100	--	1
Acenaphthylene	400		ug/kg	140	--	1
Anthracene	300		ug/kg	100	--	1
Benzo(ghi)perylene	750		ug/kg	140	--	1
Fluorene	ND		ug/kg	170	--	1
Phenanthrene	440		ug/kg	100	--	1
Dibenzo(a,h)anthracene	210		ug/kg	100	--	1
Indeno(1,2,3-cd)pyrene	800		ug/kg	140	--	1
Pyrene	2600		ug/kg	100	--	1
Biphenyl	ND		ug/kg	390	--	1
Aniline	ND		ug/kg	200	--	1
4-Chloroaniline	ND		ug/kg	170	--	1
1-Methylnaphthalene	ND		ug/kg	170	--	1
2-Nitroaniline	ND		ug/kg	170	--	1
3-Nitroaniline	ND		ug/kg	170	--	1
4-Nitroaniline	ND		ug/kg	170	--	1
Dibenzofuran	ND		ug/kg	170	--	1
2-Methylnaphthalene	ND		ug/kg	200	--	1
n-Nitrosodimethylamine	ND		ug/kg	340	--	1
2,4,6-Trichlorophenol	ND		ug/kg	100	--	1
p-Chloro-m-cresol	ND		ug/kg	170	--	1
2-Chlorophenol	ND		ug/kg	170	--	1
2,4-Dichlorophenol	ND		ug/kg	150	--	1
2,4-Dimethylphenol	ND		ug/kg	170	--	1
2-Nitrophenol	ND		ug/kg	370	--	1
4-Nitrophenol	ND		ug/kg	240	--	1
2,4-Dinitrophenol	ND		ug/kg	810	--	1
4,6-Dinitro-o-cresol	ND		ug/kg	440	--	1
Pentachlorophenol	ND		ug/kg	140	--	1

Project Name: CM-RIDOT RTE 6/10 DESIGN PHASE
Project Number: 1801485

Lab Number: L2038032
Report Date: 09/13/20

SAMPLE RESULTS

Lab ID: L2038032-10
 Client ID: 1801485-SP-05 (COMP)
 Sample Location: PROVIDENCE, RI

Date Collected: 09/12/20 10:50
 Date Received: 09/12/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Phenol	ND		ug/kg	170	--	1
2-Methylphenol	ND		ug/kg	170	--	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	240	--	1
2,4,5-Trichlorophenol	ND		ug/kg	170	--	1
Benzoic Acid	ND		ug/kg	550	--	1
Benzyl Alcohol	ND		ug/kg	170	--	1
Carbazole	ND		ug/kg	170	--	1
Pyridine	ND		ug/kg	180	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	72		25-120
Phenol-d6	74		10-120
Nitrobenzene-d5	69		23-120
2-Fluorobiphenyl	71		30-120
2,4,6-Tribromophenol	85		10-136
4-Terphenyl-d14	69		18-120

Project Name: CM-RIDOT RTE 6/10 DESIGN PHASE
Project Number: 1801485

Lab Number: L2038032
Report Date: 09/13/20

SAMPLE RESULTS

Lab ID: L2038032-12
 Client ID: 1801485-SP-06 (COMP)
 Sample Location: PROVIDENCE, RI

Date Collected: 09/12/20 11:10
 Date Received: 09/12/20
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8270D
 Analytical Date: 09/13/20 12:21
 Analyst: ALS
 Percent Solids: 97%

Extraction Method: EPA 3546
 Extraction Date: 09/12/20 14:09

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	130	--	1
Benzidine	ND		ug/kg	560	--	1
1,2,4-Trichlorobenzene	ND		ug/kg	170	--	1
Hexachlorobenzene	ND		ug/kg	100	--	1
Bis(2-chloroethyl)ether	ND		ug/kg	150	--	1
2-Chloronaphthalene	ND		ug/kg	170	--	1
1,2-Dichlorobenzene	ND		ug/kg	170	--	1
1,3-Dichlorobenzene	ND		ug/kg	170	--	1
1,4-Dichlorobenzene	ND		ug/kg	170	--	1
3,3'-Dichlorobenzidine	ND		ug/kg	170	--	1
2,4-Dinitrotoluene	ND		ug/kg	170	--	1
2,6-Dinitrotoluene	ND		ug/kg	170	--	1
Azobenzene	ND		ug/kg	170	--	1
Fluoranthene	890		ug/kg	100	--	1
4-Chlorophenyl phenyl ether	ND		ug/kg	170	--	1
4-Bromophenyl phenyl ether	ND		ug/kg	170	--	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	200	--	1
Bis(2-chloroethoxy)methane	ND		ug/kg	180	--	1
Hexachlorobutadiene	ND		ug/kg	170	--	1
Hexachlorocyclopentadiene	ND		ug/kg	480	--	1
Hexachloroethane	ND		ug/kg	130	--	1
Isophorone	ND		ug/kg	150	--	1
Naphthalene	ND		ug/kg	170	--	1
Nitrobenzene	ND		ug/kg	150	--	1
NDPA/DPA	ND		ug/kg	130	--	1
n-Nitrosodi-n-propylamine	ND		ug/kg	170	--	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	170	--	1
Butyl benzyl phthalate	ND		ug/kg	170	--	1

Project Name: CM-RIDOT RTE 6/10 DESIGN PHASE
Project Number: 1801485

Lab Number: L2038032
Report Date: 09/13/20

SAMPLE RESULTS

Lab ID: L2038032-12
 Client ID: 1801485-SP-06 (COMP)
 Sample Location: PROVIDENCE, RI

Date Collected: 09/12/20 11:10
 Date Received: 09/12/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Di-n-butylphthalate	ND		ug/kg	170	--	1
Di-n-octylphthalate	ND		ug/kg	170	--	1
Diethyl phthalate	ND		ug/kg	170	--	1
Dimethyl phthalate	ND		ug/kg	170	--	1
Benzo(a)anthracene	560		ug/kg	100	--	1
Benzo(a)pyrene	560		ug/kg	130	--	1
Benzo(b)fluoranthene	800		ug/kg	100	--	1
Benzo(k)fluoranthene	250		ug/kg	100	--	1
Chrysene	610		ug/kg	100	--	1
Acenaphthylene	160		ug/kg	130	--	1
Anthracene	150		ug/kg	100	--	1
Benzo(ghi)perylene	380		ug/kg	130	--	1
Fluorene	ND		ug/kg	170	--	1
Phenanthrene	370		ug/kg	100	--	1
Dibenzo(a,h)anthracene	ND		ug/kg	100	--	1
Indeno(1,2,3-cd)pyrene	380		ug/kg	130	--	1
Pyrene	900		ug/kg	100	--	1
Biphenyl	ND		ug/kg	380	--	1
Aniline	ND		ug/kg	200	--	1
4-Chloroaniline	ND		ug/kg	170	--	1
1-Methylnaphthalene	ND		ug/kg	170	--	1
2-Nitroaniline	ND		ug/kg	170	--	1
3-Nitroaniline	ND		ug/kg	170	--	1
4-Nitroaniline	ND		ug/kg	170	--	1
Dibenzofuran	ND		ug/kg	170	--	1
2-Methylnaphthalene	ND		ug/kg	200	--	1
n-Nitrosodimethylamine	ND		ug/kg	340	--	1
2,4,6-Trichlorophenol	ND		ug/kg	100	--	1
p-Chloro-m-cresol	ND		ug/kg	170	--	1
2-Chlorophenol	ND		ug/kg	170	--	1
2,4-Dichlorophenol	ND		ug/kg	150	--	1
2,4-Dimethylphenol	ND		ug/kg	170	--	1
2-Nitrophenol	ND		ug/kg	360	--	1
4-Nitrophenol	ND		ug/kg	240	--	1
2,4-Dinitrophenol	ND		ug/kg	810	--	1
4,6-Dinitro-o-cresol	ND		ug/kg	440	--	1
Pentachlorophenol	ND		ug/kg	130	--	1

Project Name: CM-RIDOT RTE 6/10 DESIGN PHASE
Project Number: 1801485

Lab Number: L2038032
Report Date: 09/13/20

SAMPLE RESULTS

Lab ID: L2038032-12
 Client ID: 1801485-SP-06 (COMP)
 Sample Location: PROVIDENCE, RI

Date Collected: 09/12/20 11:10
 Date Received: 09/12/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Phenol	ND		ug/kg	170	--	1
2-Methylphenol	ND		ug/kg	170	--	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	240	--	1
2,4,5-Trichlorophenol	ND		ug/kg	170	--	1
Benzoic Acid	ND		ug/kg	540	--	1
Benzyl Alcohol	ND		ug/kg	170	--	1
Carbazole	ND		ug/kg	170	--	1
Pyridine	ND		ug/kg	180	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	74		25-120
Phenol-d6	77		10-120
Nitrobenzene-d5	76		23-120
2-Fluorobiphenyl	76		30-120
2,4,6-Tribromophenol	92		10-136
4-Terphenyl-d14	77		18-120

Project Name: CM-RIDOT RTE 6/10 DESIGN PHASE
Project Number: 1801485

Lab Number: L2038032
Report Date: 09/13/20

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 09/13/20 10:07
Analyst: ALS

Extraction Method: EPA 3546
Extraction Date: 09/12/20 14:09

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 02,04,06,08,10,12 Batch: WG1409262-1					
Acenaphthene	ND		ug/kg	130	--
Benzidine	ND		ug/kg	530	--
1,2,4-Trichlorobenzene	ND		ug/kg	160	--
Hexachlorobenzene	ND		ug/kg	97	--
Bis(2-chloroethyl)ether	ND		ug/kg	140	--
2-Chloronaphthalene	ND		ug/kg	160	--
1,2-Dichlorobenzene	ND		ug/kg	160	--
1,3-Dichlorobenzene	ND		ug/kg	160	--
1,4-Dichlorobenzene	ND		ug/kg	160	--
3,3'-Dichlorobenzidine	ND		ug/kg	160	--
2,4-Dinitrotoluene	ND		ug/kg	160	--
2,6-Dinitrotoluene	ND		ug/kg	160	--
Azobenzene	ND		ug/kg	160	--
Fluoranthene	ND		ug/kg	97	--
4-Chlorophenyl phenyl ether	ND		ug/kg	160	--
4-Bromophenyl phenyl ether	ND		ug/kg	160	--
Bis(2-chloroisopropyl)ether	ND		ug/kg	190	--
Bis(2-chloroethoxy)methane	ND		ug/kg	170	--
Hexachlorobutadiene	ND		ug/kg	160	--
Hexachlorocyclopentadiene	ND		ug/kg	460	--
Hexachloroethane	ND		ug/kg	130	--
Isophorone	ND		ug/kg	140	--
Naphthalene	ND		ug/kg	160	--
Nitrobenzene	ND		ug/kg	140	--
NDPA/DPA	ND		ug/kg	130	--
n-Nitrosodi-n-propylamine	ND		ug/kg	160	--
Bis(2-ethylhexyl)phthalate	ND		ug/kg	160	--
Butyl benzyl phthalate	ND		ug/kg	160	--
Di-n-butylphthalate	ND		ug/kg	160	--

Project Name: CM-RIDOT RTE 6/10 DESIGN PHASE
Project Number: 1801485

Lab Number: L2038032
Report Date: 09/13/20

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 09/13/20 10:07
Analyst: ALS

Extraction Method: EPA 3546
Extraction Date: 09/12/20 14:09

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 02,04,06,08,10,12 Batch: WG1409262-1					
Di-n-octylphthalate	ND		ug/kg	160	--
Diethyl phthalate	ND		ug/kg	160	--
Dimethyl phthalate	ND		ug/kg	160	--
Benzo(a)anthracene	ND		ug/kg	97	--
Benzo(a)pyrene	ND		ug/kg	130	--
Benzo(b)fluoranthene	ND		ug/kg	97	--
Benzo(k)fluoranthene	ND		ug/kg	97	--
Chrysene	ND		ug/kg	97	--
Acenaphthylene	ND		ug/kg	130	--
Anthracene	ND		ug/kg	97	--
Benzo(ghi)perylene	ND		ug/kg	130	--
Fluorene	ND		ug/kg	160	--
Phenanthrene	ND		ug/kg	97	--
Dibenzo(a,h)anthracene	ND		ug/kg	97	--
Indeno(1,2,3-cd)pyrene	ND		ug/kg	130	--
Pyrene	ND		ug/kg	97	--
Biphenyl	ND		ug/kg	370	--
Aniline	ND		ug/kg	190	--
4-Chloroaniline	ND		ug/kg	160	--
1-Methylnaphthalene	ND		ug/kg	160	--
2-Nitroaniline	ND		ug/kg	160	--
3-Nitroaniline	ND		ug/kg	160	--
4-Nitroaniline	ND		ug/kg	160	--
Dibenzofuran	ND		ug/kg	160	--
2-Methylnaphthalene	ND		ug/kg	190	--
n-Nitrosodimethylamine	ND		ug/kg	320	--
2,4,6-Trichlorophenol	ND		ug/kg	97	--
p-Chloro-m-cresol	ND		ug/kg	160	--
2-Chlorophenol	ND		ug/kg	160	--

Project Name: CM-RIDOT RTE 6/10 DESIGN PHASE
Project Number: 1801485

Lab Number: L2038032
Report Date: 09/13/20

**Method Blank Analysis
 Batch Quality Control**

Analytical Method: 1,8270D
 Analytical Date: 09/13/20 10:07
 Analyst: ALS

Extraction Method: EPA 3546
 Extraction Date: 09/12/20 14:09

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 02,04,06,08,10,12 Batch: WG1409262-1					
2,4-Dichlorophenol	ND		ug/kg	140	--
2,4-Dimethylphenol	ND		ug/kg	160	--
2-Nitrophenol	ND		ug/kg	350	--
4-Nitrophenol	ND		ug/kg	230	--
2,4-Dinitrophenol	ND		ug/kg	780	--
4,6-Dinitro-o-cresol	ND		ug/kg	420	--
Pentachlorophenol	ND		ug/kg	130	--
Phenol	ND		ug/kg	160	--
2-Methylphenol	ND		ug/kg	160	--
3-Methylphenol/4-Methylphenol	ND		ug/kg	230	--
2,4,5-Trichlorophenol	ND		ug/kg	160	--
Benzoic Acid	ND		ug/kg	520	--
Benzyl Alcohol	ND		ug/kg	160	--
Carbazole	ND		ug/kg	160	--
Pyridine	ND		ug/kg	170	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	73		25-120
Phenol-d6	77		10-120
Nitrobenzene-d5	74		23-120
2-Fluorobiphenyl	74		30-120
2,4,6-Tribromophenol	86		10-136
4-Terphenyl-d14	78		18-120

Lab Control Sample Analysis

Batch Quality Control

Project Name: CM-RIDOT RTE 6/10 DESIGN PHASE

Lab Number: L2038032

Project Number: 1801485

Report Date: 09/13/20

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 02,04,06,08,10,12 Batch: WG1409262-2 WG1409262-3								
Acenaphthene	68		77		31-137	12		50
Benzidine	30		33		10-66	10		50
1,2,4-Trichlorobenzene	62		71		38-107	14		50
Hexachlorobenzene	73		83		40-140	13		50
Bis(2-chloroethyl)ether	68		74		40-140	8		50
2-Chloronaphthalene	68		77		40-140	12		50
1,2-Dichlorobenzene	65		69		40-140	6		50
1,3-Dichlorobenzene	66		71		40-140	7		50
1,4-Dichlorobenzene	65		69		28-104	6		50
3,3'-Dichlorobenzidine	72		86		40-140	18		50
2,4-Dinitrotoluene	69		78		40-132	12		50
2,6-Dinitrotoluene	71		84		40-140	17		50
Azobenzene	71		80		40-140	12		50
Fluoranthene	70		81		40-140	15		50
4-Chlorophenyl phenyl ether	66		76		40-140	14		50
4-Bromophenyl phenyl ether	69		80		40-140	15		50
Bis(2-chloroisopropyl)ether	78		88		40-140	12		50
Bis(2-chloroethoxy)methane	68		78		40-117	14		50
Hexachlorobutadiene	69		78		40-140	12		50
Hexachlorocyclopentadiene	54		65		40-140	18		50
Hexachloroethane	66		71		40-140	7		50
Isophorone	71		83		40-140	16		50
Naphthalene	67		76		40-140	13		50

Lab Control Sample Analysis

Batch Quality Control

Project Name: CM-RIDOT RTE 6/10 DESIGN PHASE

Lab Number: L2038032

Project Number: 1801485

Report Date: 09/13/20

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 02,04,06,08,10,12 Batch: WG1409262-2 WG1409262-3								
Nitrobenzene	66		75		40-140	13		50
NDPA/DPA	68		78		36-157	14		50
n-Nitrosodi-n-propylamine	71		80		32-121	12		50
Bis(2-ethylhexyl)phthalate	77		92		40-140	18		50
Butyl benzyl phthalate	72		91		40-140	23		50
Di-n-butylphthalate	74		92		40-140	22		50
Di-n-octylphthalate	76		92		40-140	19		50
Diethyl phthalate	68		78		40-140	14		50
Dimethyl phthalate	67		82		40-140	20		50
Benzo(a)anthracene	71		80		40-140	12		50
Benzo(a)pyrene	67		74		40-140	10		50
Benzo(b)fluoranthene	72		80		40-140	11		50
Benzo(k)fluoranthene	64		75		40-140	16		50
Chrysene	70		78		40-140	11		50
Acenaphthylene	73		86		40-140	16		50
Anthracene	72		83		40-140	14		50
Benzo(ghi)perylene	72		81		40-140	12		50
Fluorene	67		78		40-140	15		50
Phenanthrene	69		78		40-140	12		50
Dibenzo(a,h)anthracene	71		82		40-140	14		50
Indeno(1,2,3-cd)pyrene	73		78		40-140	7		50
Pyrene	71		84		35-142	17		50
Biphenyl	73		86		37-127	16		50

Lab Control Sample Analysis

Batch Quality Control

Project Name: CM-RIDOT RTE 6/10 DESIGN PHASE

Lab Number: L2038032

Project Number: 1801485

Report Date: 09/13/20

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 02,04,06,08,10,12 Batch: WG1409262-2 WG1409262-3								
Aniline	53		62		40-140	16		50
4-Chloroaniline	52		59		40-140	13		50
1-Methylnaphthalene	62		74		26-130	18		50
2-Nitroaniline	73		84		47-134	14		50
3-Nitroaniline	58		70		26-129	19		50
4-Nitroaniline	59		69		41-125	16		50
Dibenzofuran	67		76		40-140	13		50
2-Methylnaphthalene	66		76		40-140	14		50
n-Nitrosodimethylamine	67		72		22-100	7		50
2,4,6-Trichlorophenol	74		88		30-130	17		50
p-Chloro-m-cresol	73		85		26-103	15		50
2-Chlorophenol	71		80		25-102	12		50
2,4-Dichlorophenol	72		83		30-130	14		50
2,4-Dimethylphenol	74		88		30-130	17		50
2-Nitrophenol	70		77		30-130	10		50
4-Nitrophenol	75		84		11-114	11		50
2,4-Dinitrophenol	64		72		4-130	12		50
4,6-Dinitro-o-cresol	64		77		10-130	18		50
Pentachlorophenol	61		70		17-109	14		50
Phenol	68		75		26-90	10		50
2-Methylphenol	74		85		30-130.	14		50
3-Methylphenol/4-Methylphenol	78		88		30-130	12		50
2,4,5-Trichlorophenol	72		84		30-130	15		50

Lab Control Sample Analysis

Batch Quality Control

Project Name: CM-RIDOT RTE 6/10 DESIGN PHASE

Lab Number: L2038032

Project Number: 1801485

Report Date: 09/13/20

Parameter	LCS		LCSD		%Recovery Limits	RPD	RPD	
	%Recovery	Qual	%Recovery	Qual			Qual	Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 02,04,06,08,10,12 Batch: WG1409262-2 WG1409262-3								
Benzoic Acid	66		75		10-110	13		50
Benzyl Alcohol	74		83		40-140	11		50
Carbazole	73		82		54-128	12		50
Pyridine	49		50		10-93	2		50

Surrogate	LCS		LCSD		Acceptance Criteria
	%Recovery	Qual	%Recovery	Qual	
2-Fluorophenol	73		80		25-120
Phenol-d6	73		83		10-120
Nitrobenzene-d5	70		77		23-120
2-Fluorobiphenyl	68		81		30-120
2,4,6-Tribromophenol	79		93		10-136
4-Terphenyl-d14	71		86		18-120

PETROLEUM HYDROCARBONS

Project Name: CM-RIDOT RTE 6/10 DESIGN PHASE
Project Number: 1801485

Lab Number: L2038032
Report Date: 09/13/20

SAMPLE RESULTS

Lab ID: L2038032-02
 Client ID: 1801485-SP-01 (COMP)
 Sample Location: PROVIDENCE, RI

Date Collected: 09/12/20 09:35
 Date Received: 09/12/20
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8015D(M)
 Analytical Date: 09/12/20 20:16
 Analyst: LL
 Percent Solids: 97%

Extraction Method: EPA 3546
 Extraction Date: 09/12/20 13:56

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Petroleum Hydrocarbon Quantitation - Westborough Lab						
TPH (C10-C36)	47000		ug/kg	34100	--	1
Surrogate			% Recovery	Qualifier	Acceptance Criteria	
o-Terphenyl			73		40-140	

Project Name: CM-RIDOT RTE 6/10 DESIGN PHASE
Project Number: 1801485

Lab Number: L2038032
Report Date: 09/13/20

SAMPLE RESULTS

Lab ID: L2038032-04
 Client ID: 1801485-SP-02 (COMP)
 Sample Location: PROVIDENCE, RI

Date Collected: 09/12/20 09:55
 Date Received: 09/12/20
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8015D(M)
 Analytical Date: 09/12/20 18:32
 Analyst: LL
 Percent Solids: 96%

Extraction Method: EPA 3546
 Extraction Date: 09/12/20 13:56

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Petroleum Hydrocarbon Quantitation - Westborough Lab						
TPH (C10-C36)	57000		ug/kg	34200	--	1
Surrogate			% Recovery	Qualifier	Acceptance Criteria	
o-Terphenyl			64		40-140	

Project Name: CM-RIDOT RTE 6/10 DESIGN PHASE
Project Number: 1801485

Lab Number: L2038032
Report Date: 09/13/20

SAMPLE RESULTS

Lab ID: L2038032-06
 Client ID: 1801485-SP-03 (COMP)
 Sample Location: PROVIDENCE, RI

Date Collected: 09/12/20 10:15
 Date Received: 09/12/20
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8015D(M)
 Analytical Date: 09/12/20 19:07
 Analyst: LL
 Percent Solids: 97%

Extraction Method: EPA 3546
 Extraction Date: 09/12/20 13:56

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Petroleum Hydrocarbon Quantitation - Westborough Lab						
TPH (C10-C36)	252000		ug/kg	32900	--	1
Surrogate			% Recovery	Qualifier	Acceptance Criteria	
o-Terphenyl			78		40-140	

Project Name: CM-RIDOT RTE 6/10 DESIGN PHASE
Project Number: 1801485

Lab Number: L2038032
Report Date: 09/13/20

SAMPLE RESULTS

Lab ID: L2038032-08
 Client ID: 1801485-SP-04 (COMP)
 Sample Location: PROVIDENCE, RI

Date Collected: 09/12/20 10:30
 Date Received: 09/12/20
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8015D(M)
 Analytical Date: 09/12/20 19:41
 Analyst: LL
 Percent Solids: 98%

Extraction Method: EPA 3546
 Extraction Date: 09/12/20 13:56

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Petroleum Hydrocarbon Quantitation - Westborough Lab						
TPH (C10-C36)	96500		ug/kg	33000	--	1
Surrogate			% Recovery	Qualifier	Acceptance Criteria	
o-Terphenyl			79		40-140	

Project Name: CM-RIDOT RTE 6/10 DESIGN PHASE
Project Number: 1801485

Lab Number: L2038032
Report Date: 09/13/20

SAMPLE RESULTS

Lab ID: L2038032-10
 Client ID: 1801485-SP-05 (COMP)
 Sample Location: PROVIDENCE, RI

Date Collected: 09/12/20 10:50
 Date Received: 09/12/20
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8015D(M)
 Analytical Date: 09/12/20 20:16
 Analyst: LL
 Percent Solids: 96%

Extraction Method: EPA 3546
 Extraction Date: 09/12/20 13:56

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Petroleum Hydrocarbon Quantitation - Westborough Lab						
TPH (C10-C36)	117000		ug/kg	34100	--	1
Surrogate			% Recovery	Qualifier	Acceptance Criteria	
o-Terphenyl			72		40-140	

Project Name: CM-RIDOT RTE 6/10 DESIGN PHASE
Project Number: 1801485

Lab Number: L2038032
Report Date: 09/13/20

SAMPLE RESULTS

Lab ID: L2038032-12
 Client ID: 1801485-SP-06 (COMP)
 Sample Location: PROVIDENCE, RI

Date Collected: 09/12/20 11:10
 Date Received: 09/12/20
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8015D(M)
 Analytical Date: 09/12/20 20:51
 Analyst: LL
 Percent Solids: 97%

Extraction Method: EPA 3546
 Extraction Date: 09/12/20 13:56

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Petroleum Hydrocarbon Quantitation - Westborough Lab						
TPH (C10-C36)	85200		ug/kg	33100	--	1
Surrogate			% Recovery	Qualifier	Acceptance Criteria	
o-Terphenyl			71		40-140	

Lab Control Sample Analysis Batch Quality Control

Project Name: CM-RIDOT RTE 6/10 DESIGN PHASE
Project Number: 1801485

Lab Number: L2038032
Report Date: 09/13/20

Parameter	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>%Recovery</i> Limits	<i>RPD</i>	<i>Qual</i>	<i>RPD</i> Limits
Petroleum Hydrocarbon Quantitation - Westborough Lab Associated sample(s): 02,04,06,08,10,12 Batch: WG1409256-2								
TPH (C10-C36)	86		-		40-140	-		40

<i>Surrogate</i>	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>Acceptance</i> Criteria
o-Terphenyl	72				40-140

Lab Duplicate Analysis
Batch Quality Control

Project Name: CM-RIDOT RTE 6/10 DESIGN PHASE

Project Number: 1801485

Lab Number: L2038032

Report Date: 09/13/20

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Petroleum Hydrocarbon Quantitation - Westborough Lab Associated sample(s): 02,04,06,08,10,12 QC Batch ID: WG1409256-3 QC Sample: L2038032-02 Client ID: 1801485-SP-01 (COMP)						
TPH (C10-C36)	47000	83600	ug/kg	56	Q	40

Surrogate	%Recovery	Qualifier	%Recovery	Qualifier	Acceptance Criteria
o-Terphenyl	73		78		40-140



PCBS

Project Name: CM-RIDOT RTE 6/10 DESIGN PHASE
Project Number: 1801485

Lab Number: L2038032
Report Date: 09/13/20

SAMPLE RESULTS

Lab ID: L2038032-02
 Client ID: 1801485-SP-01 (COMP)
 Sample Location: PROVIDENCE, RI

Date Collected: 09/12/20 09:35
 Date Received: 09/12/20
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8082A
 Analytical Date: 09/13/20 08:28
 Analyst: CW
 Percent Solids: 97%

Extraction Method: EPA 3546
 Extraction Date: 09/12/20 14:34
 Cleanup Method: EPA 3665A
 Cleanup Date: 09/12/20
 Cleanup Method: EPA 3660B
 Cleanup Date: 09/12/20

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	32.5	--	1	A
Aroclor 1221	ND		ug/kg	32.5	--	1	A
Aroclor 1232	ND		ug/kg	32.5	--	1	A
Aroclor 1242	ND		ug/kg	32.5	--	1	A
Aroclor 1248	ND		ug/kg	32.5	--	1	A
Aroclor 1254	ND		ug/kg	32.5	--	1	A
Aroclor 1260	ND		ug/kg	32.5	--	1	A
Aroclor 1262	ND		ug/kg	32.5	--	1	A
Aroclor 1268	ND		ug/kg	32.5	--	1	A
PCBs, Total	ND		ug/kg	32.5	--	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	70		30-150	B
Decachlorobiphenyl	69		30-150	B
2,4,5,6-Tetrachloro-m-xylene	65		30-150	A
Decachlorobiphenyl	68		30-150	A

Project Name: CM-RIDOT RTE 6/10 DESIGN PHASE
Project Number: 1801485

Lab Number: L2038032
Report Date: 09/13/20

SAMPLE RESULTS

Lab ID: L2038032-04
 Client ID: 1801485-SP-02 (COMP)
 Sample Location: PROVIDENCE, RI

Date Collected: 09/12/20 09:55
 Date Received: 09/12/20
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8082A
 Analytical Date: 09/13/20 08:21
 Analyst: CW
 Percent Solids: 96%

Extraction Method: EPA 3546
 Extraction Date: 09/12/20 14:34
 Cleanup Method: EPA 3665A
 Cleanup Date: 09/12/20
 Cleanup Method: EPA 3660B
 Cleanup Date: 09/12/20

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	33.4	--	1	A
Aroclor 1221	ND		ug/kg	33.4	--	1	A
Aroclor 1232	ND		ug/kg	33.4	--	1	A
Aroclor 1242	ND		ug/kg	33.4	--	1	A
Aroclor 1248	ND		ug/kg	33.4	--	1	A
Aroclor 1254	ND		ug/kg	33.4	--	1	A
Aroclor 1260	ND		ug/kg	33.4	--	1	A
Aroclor 1262	ND		ug/kg	33.4	--	1	A
Aroclor 1268	ND		ug/kg	33.4	--	1	A
PCBs, Total	ND		ug/kg	33.4	--	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	69		30-150	B
Decachlorobiphenyl	79		30-150	B
2,4,5,6-Tetrachloro-m-xylene	65		30-150	A
Decachlorobiphenyl	72		30-150	A

Project Name: CM-RIDOT RTE 6/10 DESIGN PHASE
Project Number: 1801485

Lab Number: L2038032
Report Date: 09/13/20

SAMPLE RESULTS

Lab ID: L2038032-06
 Client ID: 1801485-SP-03 (COMP)
 Sample Location: PROVIDENCE, RI

Date Collected: 09/12/20 10:15
 Date Received: 09/12/20
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8082A
 Analytical Date: 09/13/20 08:14
 Analyst: CW
 Percent Solids: 97%

Extraction Method: EPA 3546
 Extraction Date: 09/12/20 14:34
 Cleanup Method: EPA 3665A
 Cleanup Date: 09/12/20
 Cleanup Method: EPA 3660B
 Cleanup Date: 09/12/20

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	34.0	--	1	A
Aroclor 1221	ND		ug/kg	34.0	--	1	A
Aroclor 1232	ND		ug/kg	34.0	--	1	A
Aroclor 1242	ND		ug/kg	34.0	--	1	A
Aroclor 1248	ND		ug/kg	34.0	--	1	A
Aroclor 1254	36.6		ug/kg	34.0	--	1	A
Aroclor 1260	36.0		ug/kg	34.0	--	1	A
Aroclor 1262	ND		ug/kg	34.0	--	1	A
Aroclor 1268	ND		ug/kg	34.0	--	1	A
PCBs, Total	72.6		ug/kg	34.0	--	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	72		30-150	B
Decachlorobiphenyl	96		30-150	B
2,4,5,6-Tetrachloro-m-xylene	67		30-150	A
Decachlorobiphenyl	80		30-150	A

Project Name: CM-RIDOT RTE 6/10 DESIGN PHASE
Project Number: 1801485

Lab Number: L2038032
Report Date: 09/13/20

SAMPLE RESULTS

Lab ID: L2038032-08
 Client ID: 1801485-SP-04 (COMP)
 Sample Location: PROVIDENCE, RI

Date Collected: 09/12/20 10:30
 Date Received: 09/12/20
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8082A
 Analytical Date: 09/13/20 08:08
 Analyst: CW
 Percent Solids: 98%

Extraction Method: EPA 3546
 Extraction Date: 09/12/20 14:34
 Cleanup Method: EPA 3665A
 Cleanup Date: 09/12/20
 Cleanup Method: EPA 3660B
 Cleanup Date: 09/12/20

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	33.5	--	1	A
Aroclor 1221	ND		ug/kg	33.5	--	1	A
Aroclor 1232	ND		ug/kg	33.5	--	1	A
Aroclor 1242	ND		ug/kg	33.5	--	1	A
Aroclor 1248	ND		ug/kg	33.5	--	1	A
Aroclor 1254	ND		ug/kg	33.5	--	1	B
Aroclor 1260	ND		ug/kg	33.5	--	1	A
Aroclor 1262	ND		ug/kg	33.5	--	1	A
Aroclor 1268	ND		ug/kg	33.5	--	1	A
PCBs, Total	ND		ug/kg	33.5	--	1	B

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	71		30-150	B
Decachlorobiphenyl	79		30-150	B
2,4,5,6-Tetrachloro-m-xylene	65		30-150	A
Decachlorobiphenyl	65		30-150	A

Project Name: CM-RIDOT RTE 6/10 DESIGN PHASE
Project Number: 1801485

Lab Number: L2038032
Report Date: 09/13/20

SAMPLE RESULTS

Lab ID: L2038032-10
 Client ID: 1801485-SP-05 (COMP)
 Sample Location: PROVIDENCE, RI

Date Collected: 09/12/20 10:50
 Date Received: 09/12/20
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8082A
 Analytical Date: 09/13/20 08:01
 Analyst: CW
 Percent Solids: 96%

Extraction Method: EPA 3546
 Extraction Date: 09/12/20 14:34
 Cleanup Method: EPA 3665A
 Cleanup Date: 09/12/20
 Cleanup Method: EPA 3660B
 Cleanup Date: 09/12/20

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	34.2	--	1	A
Aroclor 1221	ND		ug/kg	34.2	--	1	A
Aroclor 1232	ND		ug/kg	34.2	--	1	A
Aroclor 1242	ND		ug/kg	34.2	--	1	A
Aroclor 1248	ND		ug/kg	34.2	--	1	A
Aroclor 1254	ND		ug/kg	34.2	--	1	A
Aroclor 1260	ND		ug/kg	34.2	--	1	A
Aroclor 1262	ND		ug/kg	34.2	--	1	A
Aroclor 1268	ND		ug/kg	34.2	--	1	A
PCBs, Total	ND		ug/kg	34.2	--	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	71		30-150	B
Decachlorobiphenyl	82		30-150	B
2,4,5,6-Tetrachloro-m-xylene	66		30-150	A
Decachlorobiphenyl	69		30-150	A

Project Name: CM-RIDOT RTE 6/10 DESIGN PHASE
Project Number: 1801485

Lab Number: L2038032
Report Date: 09/13/20

SAMPLE RESULTS

Lab ID: L2038032-12
 Client ID: 1801485-SP-06 (COMP)
 Sample Location: PROVIDENCE, RI

Date Collected: 09/12/20 11:10
 Date Received: 09/12/20
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8082A
 Analytical Date: 09/13/20 07:54
 Analyst: CW
 Percent Solids: 97%

Extraction Method: EPA 3546
 Extraction Date: 09/12/20 14:34
 Cleanup Method: EPA 3665A
 Cleanup Date: 09/12/20
 Cleanup Method: EPA 3660B
 Cleanup Date: 09/12/20

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	33.4	--	1	A
Aroclor 1221	ND		ug/kg	33.4	--	1	A
Aroclor 1232	ND		ug/kg	33.4	--	1	A
Aroclor 1242	ND		ug/kg	33.4	--	1	A
Aroclor 1248	ND		ug/kg	33.4	--	1	A
Aroclor 1254	ND		ug/kg	33.4	--	1	A
Aroclor 1260	ND		ug/kg	33.4	--	1	A
Aroclor 1262	ND		ug/kg	33.4	--	1	A
Aroclor 1268	ND		ug/kg	33.4	--	1	A
PCBs, Total	ND		ug/kg	33.4	--	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	70		30-150	B
Decachlorobiphenyl	78		30-150	B
2,4,5,6-Tetrachloro-m-xylene	64		30-150	A
Decachlorobiphenyl	65		30-150	A

Project Name: CM-RIDOT RTE 6/10 DESIGN PHASE
Project Number: 1801485

Lab Number: L2038032
Report Date: 09/13/20

**Method Blank Analysis
Batch Quality Control**

Analytical Method: 1,8082A
Analytical Date: 09/12/20 09:52
Analyst: CW

Extraction Method: EPA 3546
Extraction Date: 09/11/20 21:09
Cleanup Method: EPA 3665A
Cleanup Date: 09/12/20
Cleanup Method: EPA 3660B
Cleanup Date: 09/12/20

Parameter	Result	Qualifier	Units	RL	MDL	Column
Polychlorinated Biphenyls by GC - Westborough Lab for sample(s): 02,04,06,08,10,12 Batch: WG1409078-1						
Aroclor 1016	ND		ug/kg	31.8	--	A
Aroclor 1221	ND		ug/kg	31.8	--	A
Aroclor 1232	ND		ug/kg	31.8	--	A
Aroclor 1242	ND		ug/kg	31.8	--	A
Aroclor 1248	ND		ug/kg	31.8	--	A
Aroclor 1254	ND		ug/kg	31.8	--	A
Aroclor 1260	ND		ug/kg	31.8	--	A
Aroclor 1262	ND		ug/kg	31.8	--	A
Aroclor 1268	ND		ug/kg	31.8	--	A
PCBs, Total	ND		ug/kg	31.8	--	A

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	69		30-150	B
Decachlorobiphenyl	59		30-150	B
2,4,5,6-Tetrachloro-m-xylene	70		30-150	A
Decachlorobiphenyl	62		30-150	A

Lab Control Sample Analysis Batch Quality Control

Project Name: CM-RIDOT RTE 6/10 DESIGN PHASE
Project Number: 1801485

Lab Number: L2038032
Report Date: 09/13/20

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 02,04,06,08,10,12 Batch: WG1409078-2 WG1409078-3									
Aroclor 1016	67		69		40-140	3		50	A
Aroclor 1260	60		63		40-140	5		50	A

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	69		71		30-150	B
Decachlorobiphenyl	57		60		30-150	B
2,4,5,6-Tetrachloro-m-xylene	69		72		30-150	A
Decachlorobiphenyl	61		63		30-150	A

PESTICIDES

Project Name: CM-RIDOT RTE 6/10 DESIGN PHASE
Project Number: 1801485

Lab Number: L2038032
Report Date: 09/13/20

SAMPLE RESULTS

Lab ID: L2038032-02
 Client ID: 1801485-SP-01 (COMP)
 Sample Location: PROVIDENCE, RI

Date Collected: 09/12/20 09:35
 Date Received: 09/12/20
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8081B
 Analytical Date: 09/13/20 12:21
 Analyst: DGM
 Percent Solids: 97%

Extraction Method: EPA 3546
 Extraction Date: 09/12/20 14:21
 Cleanup Method: EPA 3620B
 Cleanup Date: 09/12/20

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/kg	1.58	--	1	A
Lindane	ND		ug/kg	0.657	--	1	A
Alpha-BHC	ND		ug/kg	0.657	--	1	A
Beta-BHC	ND		ug/kg	1.58	--	1	A
Heptachlor	ND		ug/kg	0.788	--	1	A
Aldrin	ND		ug/kg	1.58	--	1	A
Heptachlor epoxide	ND		ug/kg	2.96	--	1	A
Endrin	ND		ug/kg	0.657	--	1	A
Endrin aldehyde	ND		ug/kg	1.97	--	1	A
Endrin ketone	ND		ug/kg	1.58	--	1	A
Dieldrin	ND		ug/kg	0.986	--	1	A
4,4'-DDE	ND		ug/kg	1.58	--	1	B
4,4'-DDD	ND		ug/kg	1.58	--	1	A
4,4'-DDT	ND		ug/kg	2.96	--	1	B
Endosulfan I	ND		ug/kg	1.58	--	1	A
Endosulfan II	ND		ug/kg	1.58	--	1	A
Endosulfan sulfate	ND		ug/kg	0.657	--	1	A
Methoxychlor	ND		ug/kg	2.96	--	1	A
Toxaphene	ND		ug/kg	29.6	--	1	A
Chlordane	ND		ug/kg	13.1	--	1	A
cis-Chlordane	ND		ug/kg	1.97	--	1	A
trans-Chlordane	ND		ug/kg	1.97	--	1	B

Project Name: CM-RIDOT RTE 6/10 DESIGN PHASE
Project Number: 1801485

Lab Number: L2038032
Report Date: 09/13/20

SAMPLE RESULTS

Lab ID: L2038032-02
 Client ID: 1801485-SP-01 (COMP)
 Sample Location: PROVIDENCE, RI

Date Collected: 09/12/20 09:35
 Date Received: 09/12/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	95		30-150	A
Decachlorobiphenyl	92		30-150	A
2,4,5,6-Tetrachloro-m-xylene	96		30-150	B
Decachlorobiphenyl	91		30-150	B

Project Name: CM-RIDOT RTE 6/10 DESIGN PHASE
Project Number: 1801485

Lab Number: L2038032
Report Date: 09/13/20

SAMPLE RESULTS

Lab ID: L2038032-02
 Client ID: 1801485-SP-01 (COMP)
 Sample Location: PROVIDENCE, RI

Date Collected: 09/12/20 09:35
 Date Received: 09/12/20
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8151A
 Analytical Date: 09/13/20 11:59
 Analyst: DGM
 Percent Solids: 97%
 Methylation Date: 09/12/20 22:08

Extraction Method: EPA 8151A
 Extraction Date: 09/12/20 13:54

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Chlorinated Herbicides by GC - Westborough Lab							
MCPP	ND		ug/kg	3420	--	1	A
MCPA	ND		ug/kg	3420	--	1	A
Dalapon	ND		ug/kg	34.2	--	1	A
Dicamba	ND		ug/kg	34.2	--	1	A
Dichloroprop	ND		ug/kg	34.2	--	1	A
2,4-D	ND		ug/kg	171	--	1	A
2,4-DB	ND		ug/kg	171	--	1	A
2,4,5-T	ND		ug/kg	171	--	1	A
2,4,5-TP (Silvex)	ND		ug/kg	171	--	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	60		30-150	A
DCAA	81		30-150	B

Project Name: CM-RIDOT RTE 6/10 DESIGN PHASE
Project Number: 1801485

Lab Number: L2038032
Report Date: 09/13/20

SAMPLE RESULTS

Lab ID: L2038032-04
 Client ID: 1801485-SP-02 (COMP)
 Sample Location: PROVIDENCE, RI

Date Collected: 09/12/20 09:55
 Date Received: 09/12/20
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8081B
 Analytical Date: 09/13/20 12:30
 Analyst: DGM
 Percent Solids: 96%

Extraction Method: EPA 3546
 Extraction Date: 09/12/20 14:21
 Cleanup Method: EPA 3620B
 Cleanup Date: 09/12/20

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/kg	1.63	--	1	A
Lindane	ND		ug/kg	0.679	--	1	A
Alpha-BHC	ND		ug/kg	0.679	--	1	A
Beta-BHC	ND		ug/kg	1.63	--	1	A
Heptachlor	ND		ug/kg	0.815	--	1	A
Aldrin	ND		ug/kg	1.63	--	1	A
Heptachlor epoxide	ND		ug/kg	3.06	--	1	A
Endrin	ND		ug/kg	0.679	--	1	A
Endrin aldehyde	ND		ug/kg	2.04	--	1	A
Endrin ketone	ND		ug/kg	1.63	--	1	A
Dieldrin	ND		ug/kg	1.02	--	1	A
4,4'-DDE	ND		ug/kg	1.63	--	1	A
4,4'-DDD	ND		ug/kg	1.63	--	1	A
4,4'-DDT	ND		ug/kg	3.06	--	1	B
Endosulfan I	ND		ug/kg	1.63	--	1	A
Endosulfan II	ND		ug/kg	1.63	--	1	A
Endosulfan sulfate	ND		ug/kg	0.679	--	1	A
Methoxychlor	ND		ug/kg	3.06	--	1	A
Toxaphene	ND		ug/kg	30.6	--	1	A
Chlordane	ND		ug/kg	13.6	--	1	A
cis-Chlordane	ND		ug/kg	2.04	--	1	A
trans-Chlordane	ND		ug/kg	2.04	--	1	A

Project Name: CM-RIDOT RTE 6/10 DESIGN PHASE
Project Number: 1801485

Lab Number: L2038032
Report Date: 09/13/20

SAMPLE RESULTS

Lab ID: L2038032-04
 Client ID: 1801485-SP-02 (COMP)
 Sample Location: PROVIDENCE, RI

Date Collected: 09/12/20 09:55
 Date Received: 09/12/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	92		30-150	A
Decachlorobiphenyl	90		30-150	A
2,4,5,6-Tetrachloro-m-xylene	83		30-150	B
Decachlorobiphenyl	77		30-150	B

Project Name: CM-RIDOT RTE 6/10 DESIGN PHASE
Project Number: 1801485

Lab Number: L2038032
Report Date: 09/13/20

SAMPLE RESULTS

Lab ID: L2038032-04
 Client ID: 1801485-SP-02 (COMP)
 Sample Location: PROVIDENCE, RI

Date Collected: 09/12/20 09:55
 Date Received: 09/12/20
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8151A
 Analytical Date: 09/13/20 12:17
 Analyst: DGM
 Percent Solids: 96%
 Methylation Date: 09/12/20 22:08

Extraction Method: EPA 8151A
 Extraction Date: 09/12/20 13:54

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Chlorinated Herbicides by GC - Westborough Lab							
MCPP	ND		ug/kg	3390	--	1	A
MCPA	ND		ug/kg	3390	--	1	A
Dalapon	ND		ug/kg	33.9	--	1	A
Dicamba	ND		ug/kg	33.9	--	1	A
Dichloroprop	ND		ug/kg	33.9	--	1	A
2,4-D	ND		ug/kg	170	--	1	A
2,4-DB	ND		ug/kg	170	--	1	A
2,4,5-T	ND		ug/kg	170	--	1	A
2,4,5-TP (Silvex)	ND		ug/kg	170	--	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	52		30-150	A
DCAA	70		30-150	B

Project Name: CM-RIDOT RTE 6/10 DESIGN PHASE
Project Number: 1801485

Lab Number: L2038032
Report Date: 09/13/20

SAMPLE RESULTS

Lab ID: L2038032-06
 Client ID: 1801485-SP-03 (COMP)
 Sample Location: PROVIDENCE, RI

Date Collected: 09/12/20 10:15
 Date Received: 09/12/20
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8081B
 Analytical Date: 09/13/20 12:40
 Analyst: DGM
 Percent Solids: 97%

Extraction Method: EPA 3546
 Extraction Date: 09/12/20 14:21
 Cleanup Method: EPA 3620B
 Cleanup Date: 09/12/20

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/kg	1.58	--	1	A
Lindane	ND		ug/kg	0.657	--	1	A
Alpha-BHC	ND		ug/kg	0.657	--	1	A
Beta-BHC	ND		ug/kg	1.58	--	1	A
Heptachlor	ND		ug/kg	0.788	--	1	A
Aldrin	ND		ug/kg	1.58	--	1	A
Heptachlor epoxide	ND		ug/kg	2.96	--	1	A
Endrin	ND		ug/kg	0.657	--	1	A
Endrin aldehyde	ND		ug/kg	1.97	--	1	A
Endrin ketone	ND		ug/kg	1.58	--	1	A
Dieldrin	ND		ug/kg	0.985	--	1	A
4,4'-DDE	5.02	P	ug/kg	1.58	--	1	A
4,4'-DDD	ND		ug/kg	1.58	--	1	A
4,4'-DDT	18.8		ug/kg	2.96	--	1	B
Endosulfan I	ND		ug/kg	1.58	--	1	A
Endosulfan II	ND		ug/kg	1.58	--	1	A
Endosulfan sulfate	ND		ug/kg	0.657	--	1	A
Methoxychlor	ND		ug/kg	2.96	--	1	A
Toxaphene	ND		ug/kg	29.6	--	1	A
Chlordane	ND		ug/kg	13.1	--	1	A
cis-Chlordane	ND		ug/kg	1.97	--	1	A
trans-Chlordane	ND		ug/kg	1.97	--	1	A

Project Name: CM-RIDOT RTE 6/10 DESIGN PHASE
Project Number: 1801485

Lab Number: L2038032
Report Date: 09/13/20

SAMPLE RESULTS

Lab ID: L2038032-06
 Client ID: 1801485-SP-03 (COMP)
 Sample Location: PROVIDENCE, RI

Date Collected: 09/12/20 10:15
 Date Received: 09/12/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	90		30-150	A
Decachlorobiphenyl	92		30-150	A
2,4,5,6-Tetrachloro-m-xylene	81		30-150	B
Decachlorobiphenyl	183	Q	30-150	B

Project Name: CM-RIDOT RTE 6/10 DESIGN PHASE
Project Number: 1801485

Lab Number: L2038032
Report Date: 09/13/20

SAMPLE RESULTS

Lab ID: L2038032-06
 Client ID: 1801485-SP-03 (COMP)
 Sample Location: PROVIDENCE, RI

Date Collected: 09/12/20 10:15
 Date Received: 09/12/20
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8151A
 Analytical Date: 09/13/20 12:35
 Analyst: DGM
 Percent Solids: 97%
 Methylation Date: 09/12/20 22:08

Extraction Method: EPA 8151A
 Extraction Date: 09/12/20 13:54

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Chlorinated Herbicides by GC - Westborough Lab							
MCPP	ND		ug/kg	3420	--	1	A
MCPA	ND		ug/kg	3420	--	1	A
Dalapon	ND		ug/kg	34.2	--	1	A
Dicamba	ND		ug/kg	34.2	--	1	A
Dichloroprop	ND		ug/kg	34.2	--	1	A
2,4-D	ND		ug/kg	171	--	1	A
2,4-DB	ND		ug/kg	171	--	1	A
2,4,5-T	ND		ug/kg	171	--	1	A
2,4,5-TP (Silvex)	ND		ug/kg	171	--	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	60		30-150	A
DCAA	72		30-150	B

Project Name: CM-RIDOT RTE 6/10 DESIGN PHASE
Project Number: 1801485

Lab Number: L2038032
Report Date: 09/13/20

SAMPLE RESULTS

Lab ID: L2038032-08
 Client ID: 1801485-SP-04 (COMP)
 Sample Location: PROVIDENCE, RI

Date Collected: 09/12/20 10:30
 Date Received: 09/12/20
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8081B
 Analytical Date: 09/13/20 12:50
 Analyst: DGM
 Percent Solids: 98%

Extraction Method: EPA 3546
 Extraction Date: 09/12/20 14:21
 Cleanup Method: EPA 3620B
 Cleanup Date: 09/12/20

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/kg	1.58	--	1	A
Lindane	ND		ug/kg	0.657	--	1	A
Alpha-BHC	ND		ug/kg	0.657	--	1	A
Beta-BHC	ND		ug/kg	1.58	--	1	A
Heptachlor	ND		ug/kg	0.788	--	1	A
Aldrin	ND		ug/kg	1.58	--	1	A
Heptachlor epoxide	ND		ug/kg	2.96	--	1	A
Endrin	ND		ug/kg	0.657	--	1	A
Endrin aldehyde	ND		ug/kg	1.97	--	1	A
Endrin ketone	ND		ug/kg	1.58	--	1	A
Dieldrin	ND		ug/kg	0.985	--	1	A
4,4'-DDE	1.87	P	ug/kg	1.58	--	1	A
4,4'-DDD	ND		ug/kg	1.58	--	1	A
4,4'-DDT	8.56		ug/kg	2.96	--	1	A
Endosulfan I	ND		ug/kg	1.58	--	1	A
Endosulfan II	ND		ug/kg	1.58	--	1	A
Endosulfan sulfate	ND		ug/kg	0.657	--	1	A
Methoxychlor	ND		ug/kg	2.96	--	1	A
Toxaphene	ND		ug/kg	29.6	--	1	A
Chlordane	ND		ug/kg	13.1	--	1	A
cis-Chlordane	2.47		ug/kg	1.97	--	1	A
trans-Chlordane	ND		ug/kg	1.97	--	1	A

Project Name: CM-RIDOT RTE 6/10 DESIGN PHASE
Project Number: 1801485

Lab Number: L2038032
Report Date: 09/13/20

SAMPLE RESULTS

Lab ID: L2038032-08
 Client ID: 1801485-SP-04 (COMP)
 Sample Location: PROVIDENCE, RI

Date Collected: 09/12/20 10:30
 Date Received: 09/12/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	86		30-150	A
Decachlorobiphenyl	92		30-150	A
2,4,5,6-Tetrachloro-m-xylene	81		30-150	B
Decachlorobiphenyl	100		30-150	B

Project Name: CM-RIDOT RTE 6/10 DESIGN PHASE
Project Number: 1801485

Lab Number: L2038032
Report Date: 09/13/20

SAMPLE RESULTS

Lab ID: L2038032-08
 Client ID: 1801485-SP-04 (COMP)
 Sample Location: PROVIDENCE, RI

Date Collected: 09/12/20 10:30
 Date Received: 09/12/20
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8151A
 Analytical Date: 09/13/20 12:54
 Analyst: DGM
 Percent Solids: 98%
 Methylation Date: 09/12/20 22:08

Extraction Method: EPA 8151A
 Extraction Date: 09/12/20 13:54

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Chlorinated Herbicides by GC - Westborough Lab							
MCPP	ND		ug/kg	3320	--	1	A
MCPA	ND		ug/kg	3320	--	1	A
Dalapon	ND		ug/kg	33.2	--	1	A
Dicamba	ND		ug/kg	33.2	--	1	A
Dichloroprop	ND		ug/kg	33.2	--	1	A
2,4-D	ND		ug/kg	166	--	1	A
2,4-DB	ND		ug/kg	166	--	1	A
2,4,5-T	ND		ug/kg	166	--	1	A
2,4,5-TP (Silvex)	ND		ug/kg	166	--	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	56		30-150	A
DCAA	71		30-150	B

Project Name: CM-RIDOT RTE 6/10 DESIGN PHASE
Project Number: 1801485

Lab Number: L2038032
Report Date: 09/13/20

SAMPLE RESULTS

Lab ID: L2038032-10
 Client ID: 1801485-SP-05 (COMP)
 Sample Location: PROVIDENCE, RI

Date Collected: 09/12/20 10:50
 Date Received: 09/12/20
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8081B
 Analytical Date: 09/13/20 12:59
 Analyst: DGM
 Percent Solids: 96%

Extraction Method: EPA 3546
 Extraction Date: 09/12/20 14:21
 Cleanup Method: EPA 3620B
 Cleanup Date: 09/12/20

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/kg	1.61	--	1	A
Lindane	ND		ug/kg	0.672	--	1	A
Alpha-BHC	ND		ug/kg	0.672	--	1	A
Beta-BHC	ND		ug/kg	1.61	--	1	A
Heptachlor	ND		ug/kg	0.806	--	1	A
Aldrin	ND		ug/kg	1.61	--	1	A
Heptachlor epoxide	ND		ug/kg	3.02	--	1	A
Endrin	ND		ug/kg	0.672	--	1	A
Endrin aldehyde	ND		ug/kg	2.02	--	1	A
Endrin ketone	ND		ug/kg	1.61	--	1	A
Dieldrin	ND		ug/kg	1.01	--	1	A
4,4'-DDE	2.36	P	ug/kg	1.61	--	1	A
4,4'-DDD	ND		ug/kg	1.61	--	1	A
4,4'-DDT	11.6		ug/kg	3.02	--	1	B
Endosulfan I	ND		ug/kg	1.61	--	1	A
Endosulfan II	ND		ug/kg	1.61	--	1	A
Endosulfan sulfate	ND		ug/kg	0.672	--	1	A
Methoxychlor	ND		ug/kg	3.02	--	1	A
Toxaphene	ND		ug/kg	30.2	--	1	A
Chlordane	ND		ug/kg	13.4	--	1	A
cis-Chlordane	ND		ug/kg	2.02	--	1	A
trans-Chlordane	ND		ug/kg	2.02	--	1	A

Project Name: CM-RIDOT RTE 6/10 DESIGN PHASE
Project Number: 1801485

Lab Number: L2038032
Report Date: 09/13/20

SAMPLE RESULTS

Lab ID: L2038032-10
 Client ID: 1801485-SP-05 (COMP)
 Sample Location: PROVIDENCE, RI

Date Collected: 09/12/20 10:50
 Date Received: 09/12/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	86		30-150	A
Decachlorobiphenyl	106		30-150	A
2,4,5,6-Tetrachloro-m-xylene	76		30-150	B
Decachlorobiphenyl	104		30-150	B

Project Name: CM-RIDOT RTE 6/10 DESIGN PHASE
Project Number: 1801485

Lab Number: L2038032
Report Date: 09/13/20

SAMPLE RESULTS

Lab ID: L2038032-10
 Client ID: 1801485-SP-05 (COMP)
 Sample Location: PROVIDENCE, RI

Date Collected: 09/12/20 10:50
 Date Received: 09/12/20
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8151A
 Analytical Date: 09/13/20 13:12
 Analyst: DGM
 Percent Solids: 96%
 Methylation Date: 09/12/20 22:08

Extraction Method: EPA 8151A
 Extraction Date: 09/12/20 13:54

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Chlorinated Herbicides by GC - Westborough Lab							
MCPP	ND		ug/kg	3440	--	1	A
MCPA	ND		ug/kg	3440	--	1	A
Dalapon	ND		ug/kg	34.4	--	1	A
Dicamba	ND		ug/kg	34.4	--	1	A
Dichloroprop	ND		ug/kg	34.4	--	1	A
2,4-D	ND		ug/kg	172	--	1	A
2,4-DB	ND		ug/kg	172	--	1	A
2,4,5-T	ND		ug/kg	172	--	1	A
2,4,5-TP (Silvex)	ND		ug/kg	172	--	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	64		30-150	A
DCAA	76		30-150	B

Project Name: CM-RIDOT RTE 6/10 DESIGN PHASE
Project Number: 1801485

Lab Number: L2038032
Report Date: 09/13/20

SAMPLE RESULTS

Lab ID: L2038032-12
 Client ID: 1801485-SP-06 (COMP)
 Sample Location: PROVIDENCE, RI

Date Collected: 09/12/20 11:10
 Date Received: 09/12/20
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8081B
 Analytical Date: 09/13/20 13:09
 Analyst: DGM
 Percent Solids: 97%

Extraction Method: EPA 3546
 Extraction Date: 09/12/20 14:21
 Cleanup Method: EPA 3620B
 Cleanup Date: 09/12/20

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/kg	1.60	--	1	A
Lindane	ND		ug/kg	0.668	--	1	A
Alpha-BHC	ND		ug/kg	0.668	--	1	A
Beta-BHC	ND		ug/kg	1.60	--	1	A
Heptachlor	ND		ug/kg	0.802	--	1	A
Aldrin	ND		ug/kg	1.60	--	1	A
Heptachlor epoxide	ND		ug/kg	3.01	--	1	A
Endrin	ND		ug/kg	0.668	--	1	A
Endrin aldehyde	ND		ug/kg	2.00	--	1	A
Endrin ketone	ND		ug/kg	1.60	--	1	A
Dieldrin	ND		ug/kg	1.00	--	1	A
4,4'-DDE	ND		ug/kg	1.60	--	1	A
4,4'-DDD	ND		ug/kg	1.60	--	1	A
4,4'-DDT	7.85		ug/kg	3.01	--	1	B
Endosulfan I	ND		ug/kg	1.60	--	1	A
Endosulfan II	ND		ug/kg	1.60	--	1	A
Endosulfan sulfate	ND		ug/kg	0.668	--	1	A
Methoxychlor	ND		ug/kg	3.01	--	1	A
Toxaphene	ND		ug/kg	30.1	--	1	A
Chlordane	ND		ug/kg	13.4	--	1	A
cis-Chlordane	ND		ug/kg	2.00	--	1	A
trans-Chlordane	ND		ug/kg	2.00	--	1	A

Project Name: CM-RIDOT RTE 6/10 DESIGN PHASE
Project Number: 1801485

Lab Number: L2038032
Report Date: 09/13/20

SAMPLE RESULTS

Lab ID: L2038032-12
 Client ID: 1801485-SP-06 (COMP)
 Sample Location: PROVIDENCE, RI

Date Collected: 09/12/20 11:10
 Date Received: 09/12/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	85		30-150	A
Decachlorobiphenyl	101		30-150	A
2,4,5,6-Tetrachloro-m-xylene	85		30-150	B
Decachlorobiphenyl	98		30-150	B

Project Name: CM-RIDOT RTE 6/10 DESIGN PHASE
Project Number: 1801485

Lab Number: L2038032
Report Date: 09/13/20

SAMPLE RESULTS

Lab ID: L2038032-12
 Client ID: 1801485-SP-06 (COMP)
 Sample Location: PROVIDENCE, RI

Date Collected: 09/12/20 11:10
 Date Received: 09/12/20
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8151A
 Analytical Date: 09/13/20 13:30
 Analyst: DGM
 Percent Solids: 97%
 Methylation Date: 09/12/20 22:08

Extraction Method: EPA 8151A
 Extraction Date: 09/12/20 13:54

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Chlorinated Herbicides by GC - Westborough Lab							
MCPP	ND		ug/kg	3360	--	1	A
MCPA	ND		ug/kg	3360	--	1	A
Dalapon	ND		ug/kg	33.6	--	1	A
Dicamba	ND		ug/kg	33.6	--	1	A
Dichloroprop	ND		ug/kg	33.6	--	1	A
2,4-D	ND		ug/kg	168	--	1	A
2,4-DB	ND		ug/kg	168	--	1	A
2,4,5-T	ND		ug/kg	168	--	1	A
2,4,5-TP (Silvex)	ND		ug/kg	168	--	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	59		30-150	A
DCAA	71		30-150	B

Project Name: CM-RIDOT RTE 6/10 DESIGN PHASE
Project Number: 1801485

Lab Number: L2038032
Report Date: 09/13/20

**Method Blank Analysis
 Batch Quality Control**

Analytical Method: 1,8151A
 Analytical Date: 09/13/20 11:04
 Analyst: DGM

Extraction Method: EPA 8151A
 Extraction Date: 09/12/20 13:54

Methylation Date: 09/12/20 22:08

Parameter	Result	Qualifier	Units	RL	MDL	Column
Chlorinated Herbicides by GC - Westborough Lab for sample(s): 02,04,06,08,10,12 Batch: WG1409254-1						
MCPP	ND		ug/kg	3240	--	A
MCPA	ND		ug/kg	3240	--	A
Dalapon	ND		ug/kg	32.4	--	A
Dicamba	ND		ug/kg	32.4	--	A
Dichloroprop	ND		ug/kg	32.4	--	A
2,4-D	ND		ug/kg	162	--	A
2,4-DB	ND		ug/kg	162	--	A
2,4,5-T	ND		ug/kg	162	--	A
2,4,5-TP (Silvex)	ND		ug/kg	162	--	A

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
DCAA	52		30-150	A
DCAA	70		30-150	B

Project Name: CM-RIDOT RTE 6/10 DESIGN PHASE
Project Number: 1801485

Lab Number: L2038032
Report Date: 09/13/20

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8081B
Analytical Date: 09/13/20 11:52
Analyst: DGM

Extraction Method: EPA 3546
Extraction Date: 09/12/20 14:21
Cleanup Method: EPA 3620B
Cleanup Date: 09/12/20

Parameter	Result	Qualifier	Units	RL	MDL	Column
Pesticides by GC - Westborough Lab for sample(s): 02,04,06,08,10,12 Batch: WG1409267-1						
Delta-BHC	ND		ug/kg	1.59	--	A
Lindane	ND		ug/kg	0.661	--	A
Alpha-BHC	ND		ug/kg	0.661	--	A
Beta-BHC	ND		ug/kg	1.59	--	A
Heptachlor	ND		ug/kg	0.794	--	A
Aldrin	ND		ug/kg	1.59	--	A
Heptachlor epoxide	ND		ug/kg	2.98	--	A
Endrin	ND		ug/kg	0.661	--	A
Endrin aldehyde	ND		ug/kg	1.98	--	A
Endrin ketone	ND		ug/kg	1.59	--	A
Dieldrin	ND		ug/kg	0.992	--	A
4,4'-DDE	ND		ug/kg	1.59	--	A
4,4'-DDD	ND		ug/kg	1.59	--	A
4,4'-DDT	ND		ug/kg	2.98	--	A
Endosulfan I	ND		ug/kg	1.59	--	A
Endosulfan II	ND		ug/kg	1.59	--	A
Endosulfan sulfate	ND		ug/kg	0.661	--	A
Methoxychlor	ND		ug/kg	2.98	--	A
Toxaphene	ND		ug/kg	29.8	--	A
Chlordane	ND		ug/kg	13.2	--	A
cis-Chlordane	ND		ug/kg	1.98	--	A
trans-Chlordane	ND		ug/kg	1.98	--	A

Project Name: CM-RIDOT RTE 6/10 DESIGN PHASE
Project Number: 1801485

Lab Number: L2038032
Report Date: 09/13/20

**Method Blank Analysis
 Batch Quality Control**

Analytical Method: 1,8081B
 Analytical Date: 09/13/20 11:52
 Analyst: DGM

Extraction Method: EPA 3546
 Extraction Date: 09/12/20 14:21
 Cleanup Method: EPA 3620B
 Cleanup Date: 09/12/20

Parameter	Result	Qualifier	Units	RL	MDL	Column
Pesticides by GC - Westborough Lab for sample(s): 02,04,06,08,10,12 Batch: WG1409267-1						

Surrogate	%Recovery	Qualifier	Acceptance	
			Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	86		30-150	A
Decachlorobiphenyl	94		30-150	A
2,4,5,6-Tetrachloro-m-xylene	87		30-150	B
Decachlorobiphenyl	87		30-150	B

Lab Control Sample Analysis Batch Quality Control

Project Name: CM-RIDOT RTE 6/10 DESIGN PHASE
Project Number: 1801485

Lab Number: L2038032
Report Date: 09/13/20

Parameter	LCS %Recovery	Qual	LCS %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Chlorinated Herbicides by GC - Westborough Lab Associated sample(s): 02,04,06,08,10,12 Batch: WG1409254-2 WG1409254-3									
MCP	54		57		30-150	5		30	A
MCPA	52		54		30-150	4		30	A
Dalapon	52		56		30-150	7		30	A
Dicamba	56		57		30-150	2		30	A
Dichloroprop	70		75		30-150	7		30	A
2,4-D	74		81		30-150	9		30	A
2,4-DB	51		48		30-150	6		30	A
2,4,5-T	72		76		30-150	5		30	A
2,4,5-TP (Silvex)	79		82		30-150	4		30	A

Surrogate	LCS %Recovery	Qual	LCS %Recovery	Qual	Acceptance Criteria	Column
DCAA	56		57		30-150	A
DCAA	84		87		30-150	B



Lab Control Sample Analysis

Batch Quality Control

Project Name: CM-RIDOT RTE 6/10 DESIGN PHASE

Lab Number: L2038032

Project Number: 1801485

Report Date: 09/13/20

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Pesticides by GC - Westborough Lab Associated sample(s): 02,04,06,08,10,12 Batch: WG1409267-2 WG1409267-3									
Delta-BHC	79		68		30-150	15		30	A
Lindane	75		65		30-150	14		30	A
Alpha-BHC	78		67		30-150	15		30	A
Beta-BHC	73		64		30-150	13		30	A
Heptachlor	82		70		30-150	16		30	A
Aldrin	82		75		30-150	9		30	A
Heptachlor epoxide	76		67		30-150	13		30	A
Endrin	80		70		30-150	13		30	A
Endrin aldehyde	43		40		30-150	7		30	A
Endrin ketone	54		51		30-150	6		30	A
Dieldrin	83		74		30-150	11		30	A
4,4'-DDE	87		75		30-150	15		30	A
4,4'-DDD	87		77		30-150	12		30	A
4,4'-DDT	77		69		30-150	11		30	A
Endosulfan I	74		64		30-150	14		30	A
Endosulfan II	69		64		30-150	8		30	A
Endosulfan sulfate	46		43		30-150	7		30	A
Methoxychlor	61		57		30-150	7		30	A
cis-Chlordane	73		64		30-150	13		30	A
trans-Chlordane	80		69		30-150	15		30	A

Lab Control Sample Analysis

Batch Quality Control

Project Name: CM-RIDOT RTE 6/10 DESIGN PHASE
Project Number: 1801485

Lab Number: L2038032
Report Date: 09/13/20

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
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Pesticides by GC - Westborough Lab Associated sample(s): 02,04,06,08,10,12 Batch: WG1409267-2 WG1409267-3

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	89		76		30-150	A
Decachlorobiphenyl	93		78		30-150	A
2,4,5,6-Tetrachloro-m-xylene	93		75		30-150	B
Decachlorobiphenyl	84		68		30-150	B

METALS

Project Name: CM-RIDOT RTE 6/10 DESIGN PHASE**Lab Number:** L2038032**Project Number:** 1801485**Report Date:** 09/13/20**SAMPLE RESULTS**

Lab ID: L2038032-02

Date Collected: 09/12/20 09:35

Client ID: 1801485-SP-01 (COMP)

Date Received: 09/12/20

Sample Location: PROVIDENCE, RI

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 97%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	2.12		mg/kg	0.393	--	1	09/13/20 06:25	09/13/20 11:56	EPA 3050B	1,6010D	BV
Barium, Total	12.4		mg/kg	0.393	--	1	09/13/20 06:25	09/13/20 11:56	EPA 3050B	1,6010D	BV
Cadmium, Total	ND		mg/kg	0.393	--	1	09/13/20 06:25	09/13/20 11:56	EPA 3050B	1,6010D	BV
Chromium, Total	2.75		mg/kg	0.393	--	1	09/13/20 06:25	09/13/20 11:56	EPA 3050B	1,6010D	BV
Copper, Total	6.95		mg/kg	0.393	--	1	09/13/20 06:25	09/13/20 11:56	EPA 3050B	1,6010D	BV
Lead, Total	13.9		mg/kg	1.97	--	1	09/13/20 06:25	09/13/20 11:56	EPA 3050B	1,6010D	BV
Mercury, Total	ND		mg/kg	0.064	--	1	09/13/20 06:40	09/13/20 11:30	EPA 7471B	1,7471B	BV
Nickel, Total	2.59		mg/kg	0.984	--	1	09/13/20 06:25	09/13/20 11:56	EPA 3050B	1,6010D	BV
Selenium, Total	ND		mg/kg	0.787	--	1	09/13/20 06:25	09/13/20 11:56	EPA 3050B	1,6010D	BV
Silver, Total	ND		mg/kg	0.393	--	1	09/13/20 06:25	09/13/20 11:56	EPA 3050B	1,6010D	BV
Zinc, Total	16.9		mg/kg	1.97	--	1	09/13/20 06:25	09/13/20 11:56	EPA 3050B	1,6010D	BV



Project Name: CM-RIDOT RTE 6/10 DESIGN PHASE**Lab Number:** L2038032**Project Number:** 1801485**Report Date:** 09/13/20**SAMPLE RESULTS**

Lab ID: L2038032-04

Date Collected: 09/12/20 09:55

Client ID: 1801485-SP-02 (COMP)

Date Received: 09/12/20

Sample Location: PROVIDENCE, RI

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 96%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	2.30		mg/kg	0.403	--	1	09/13/20 06:25	09/13/20 12:14	EPA 3050B	1,6010D	BV
Barium, Total	17.1		mg/kg	0.403	--	1	09/13/20 06:25	09/13/20 12:14	EPA 3050B	1,6010D	BV
Cadmium, Total	ND		mg/kg	0.403	--	1	09/13/20 06:25	09/13/20 12:14	EPA 3050B	1,6010D	BV
Chromium, Total	4.31		mg/kg	0.403	--	1	09/13/20 06:25	09/13/20 12:14	EPA 3050B	1,6010D	BV
Copper, Total	10.4		mg/kg	0.403	--	1	09/13/20 06:25	09/13/20 12:14	EPA 3050B	1,6010D	BV
Lead, Total	29.5		mg/kg	2.02	--	1	09/13/20 06:25	09/13/20 12:14	EPA 3050B	1,6010D	BV
Mercury, Total	ND		mg/kg	0.065	--	1	09/13/20 06:40	09/13/20 11:40	EPA 7471B	1,7471B	BV
Nickel, Total	4.21		mg/kg	1.01	--	1	09/13/20 06:25	09/13/20 12:14	EPA 3050B	1,6010D	BV
Selenium, Total	ND		mg/kg	0.806	--	1	09/13/20 06:25	09/13/20 12:14	EPA 3050B	1,6010D	BV
Silver, Total	ND		mg/kg	0.403	--	1	09/13/20 06:25	09/13/20 12:14	EPA 3050B	1,6010D	BV
Zinc, Total	25.1		mg/kg	2.02	--	1	09/13/20 06:25	09/13/20 12:14	EPA 3050B	1,6010D	BV



Project Name: CM-RIDOT RTE 6/10 DESIGN PHASE**Lab Number:** L2038032**Project Number:** 1801485**Report Date:** 09/13/20**SAMPLE RESULTS**

Lab ID: L2038032-06

Date Collected: 09/12/20 10:15

Client ID: 1801485-SP-03 (COMP)

Date Received: 09/12/20

Sample Location: PROVIDENCE, RI

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 97%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	5.50		mg/kg	0.404	--	1	09/13/20 06:25	09/13/20 12:19	EPA 3050B	1,6010D	BV
Barium, Total	66.6		mg/kg	0.404	--	1	09/13/20 06:25	09/13/20 12:19	EPA 3050B	1,6010D	BV
Cadmium, Total	1.12		mg/kg	0.404	--	1	09/13/20 06:25	09/13/20 12:19	EPA 3050B	1,6010D	BV
Chromium, Total	7.91		mg/kg	0.404	--	1	09/13/20 06:25	09/13/20 12:19	EPA 3050B	1,6010D	BV
Copper, Total	49.9		mg/kg	0.404	--	1	09/13/20 06:25	09/13/20 12:19	EPA 3050B	1,6010D	BV
Lead, Total	57.4		mg/kg	2.02	--	1	09/13/20 06:25	09/13/20 12:19	EPA 3050B	1,6010D	BV
Mercury, Total	0.157		mg/kg	0.065	--	1	09/13/20 06:40	09/13/20 11:42	EPA 7471B	1,7471B	BV
Nickel, Total	11.0		mg/kg	1.01	--	1	09/13/20 06:25	09/13/20 12:19	EPA 3050B	1,6010D	BV
Selenium, Total	ND		mg/kg	0.808	--	1	09/13/20 06:25	09/13/20 12:19	EPA 3050B	1,6010D	BV
Silver, Total	ND		mg/kg	0.404	--	1	09/13/20 06:25	09/13/20 12:19	EPA 3050B	1,6010D	BV
Zinc, Total	149		mg/kg	2.02	--	1	09/13/20 06:25	09/13/20 12:19	EPA 3050B	1,6010D	BV



Project Name: CM-RIDOT RTE 6/10 DESIGN PHASE**Lab Number:** L2038032**Project Number:** 1801485**Report Date:** 09/13/20**SAMPLE RESULTS**

Lab ID: L2038032-08

Date Collected: 09/12/20 10:30

Client ID: 1801485-SP-04 (COMP)

Date Received: 09/12/20

Sample Location: PROVIDENCE, RI

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 98%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	3.08		mg/kg	0.402	--	1	09/13/20 06:25	09/13/20 12:37	EPA 3050B	1,6010D	BV
Barium, Total	25.5		mg/kg	0.402	--	1	09/13/20 06:25	09/13/20 12:37	EPA 3050B	1,6010D	BV
Cadmium, Total	ND		mg/kg	0.402	--	1	09/13/20 06:25	09/13/20 12:37	EPA 3050B	1,6010D	BV
Chromium, Total	7.34		mg/kg	0.402	--	1	09/13/20 06:25	09/13/20 12:37	EPA 3050B	1,6010D	BV
Copper, Total	58.8		mg/kg	0.402	--	1	09/13/20 06:25	09/13/20 12:37	EPA 3050B	1,6010D	BV
Lead, Total	87.6		mg/kg	2.01	--	1	09/13/20 06:25	09/13/20 12:37	EPA 3050B	1,6010D	BV
Mercury, Total	0.101		mg/kg	0.064	--	1	09/13/20 06:40	09/13/20 11:44	EPA 7471B	1,7471B	BV
Nickel, Total	6.35		mg/kg	1.00	--	1	09/13/20 06:25	09/13/20 12:37	EPA 3050B	1,6010D	BV
Selenium, Total	ND		mg/kg	0.804	--	1	09/13/20 06:25	09/13/20 12:37	EPA 3050B	1,6010D	BV
Silver, Total	ND		mg/kg	0.402	--	1	09/13/20 06:25	09/13/20 12:37	EPA 3050B	1,6010D	BV
Zinc, Total	47.8		mg/kg	2.01	--	1	09/13/20 06:25	09/13/20 12:37	EPA 3050B	1,6010D	BV



Project Name: CM-RIDOT RTE 6/10 DESIGN PHASE**Lab Number:** L2038032**Project Number:** 1801485**Report Date:** 09/13/20**SAMPLE RESULTS**

Lab ID: L2038032-10

Date Collected: 09/12/20 10:50

Client ID: 1801485-SP-05 (COMP)

Date Received: 09/12/20

Sample Location: PROVIDENCE, RI

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 96%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	2.79		mg/kg	0.410	--	1	09/13/20 06:25	09/13/20 12:42	EPA 3050B	1,6010D	BV
Barium, Total	26.0		mg/kg	0.410	--	1	09/13/20 06:25	09/13/20 12:42	EPA 3050B	1,6010D	BV
Cadmium, Total	ND		mg/kg	0.410	--	1	09/13/20 06:25	09/13/20 12:42	EPA 3050B	1,6010D	BV
Chromium, Total	6.57		mg/kg	0.410	--	1	09/13/20 06:25	09/13/20 12:42	EPA 3050B	1,6010D	BV
Copper, Total	2310		mg/kg	4.10	--	10	09/13/20 06:25	09/13/20 13:03	EPA 3050B	1,6010D	BV
Lead, Total	50.1		mg/kg	2.05	--	1	09/13/20 06:25	09/13/20 12:42	EPA 3050B	1,6010D	BV
Mercury, Total	0.082		mg/kg	0.065	--	1	09/13/20 06:40	09/13/20 11:50	EPA 7471B	1,7471B	BV
Nickel, Total	6.23		mg/kg	1.02	--	1	09/13/20 06:25	09/13/20 12:42	EPA 3050B	1,6010D	BV
Selenium, Total	2.43		mg/kg	0.820	--	1	09/13/20 06:25	09/13/20 12:42	EPA 3050B	1,6010D	BV
Silver, Total	ND		mg/kg	0.410	--	1	09/13/20 06:25	09/13/20 12:42	EPA 3050B	1,6010D	BV
Zinc, Total	38.8		mg/kg	2.05	--	1	09/13/20 06:25	09/13/20 12:42	EPA 3050B	1,6010D	BV



Project Name: CM-RIDOT RTE 6/10 DESIGN PHASE**Lab Number:** L2038032**Project Number:** 1801485**Report Date:** 09/13/20**SAMPLE RESULTS**

Lab ID: L2038032-12

Date Collected: 09/12/20 11:10

Client ID: 1801485-SP-06 (COMP)

Date Received: 09/12/20

Sample Location: PROVIDENCE, RI

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 97%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	3.32		mg/kg	0.400	--	1	09/13/20 06:25	09/13/20 12:46	EPA 3050B	1,6010D	BV
Barium, Total	23.7		mg/kg	0.400	--	1	09/13/20 06:25	09/13/20 12:46	EPA 3050B	1,6010D	BV
Cadmium, Total	ND		mg/kg	0.400	--	1	09/13/20 06:25	09/13/20 12:46	EPA 3050B	1,6010D	BV
Chromium, Total	6.07		mg/kg	0.400	--	1	09/13/20 06:25	09/13/20 12:46	EPA 3050B	1,6010D	BV
Copper, Total	20.2		mg/kg	0.400	--	1	09/13/20 06:25	09/13/20 12:46	EPA 3050B	1,6010D	BV
Lead, Total	38.5		mg/kg	2.00	--	1	09/13/20 06:25	09/13/20 12:46	EPA 3050B	1,6010D	BV
Mercury, Total	ND		mg/kg	0.065	--	1	09/13/20 06:40	09/13/20 11:52	EPA 7471B	1,7471B	BV
Nickel, Total	6.17		mg/kg	1.00	--	1	09/13/20 06:25	09/13/20 12:46	EPA 3050B	1,6010D	BV
Selenium, Total	ND		mg/kg	0.800	--	1	09/13/20 06:25	09/13/20 12:46	EPA 3050B	1,6010D	BV
Silver, Total	ND		mg/kg	0.400	--	1	09/13/20 06:25	09/13/20 12:46	EPA 3050B	1,6010D	BV
Zinc, Total	35.9		mg/kg	2.00	--	1	09/13/20 06:25	09/13/20 12:46	EPA 3050B	1,6010D	BV



Project Name: CM-RIDOT RTE 6/10 DESIGN PHASE
Project Number: 1801485

Lab Number: L2038032
Report Date: 09/13/20

Method Blank Analysis Batch Quality Control

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 02,04,06,08,10,12 Batch: WG1409301-1									
Mercury, Total	ND	mg/kg	0.083	--	1	09/13/20 06:40	09/13/20 11:26	1,7471B	BV

Prep Information

Digestion Method: EPA 7471B

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 02,04,06,08,10,12 Batch: WG1409302-1									
Arsenic, Total	ND	mg/kg	0.400	--	1	09/13/20 06:25	09/13/20 11:47	1,6010D	BV
Barium, Total	ND	mg/kg	0.400	--	1	09/13/20 06:25	09/13/20 11:47	1,6010D	BV
Cadmium, Total	ND	mg/kg	0.400	--	1	09/13/20 06:25	09/13/20 11:47	1,6010D	BV
Chromium, Total	ND	mg/kg	0.400	--	1	09/13/20 06:25	09/13/20 11:47	1,6010D	BV
Copper, Total	ND	mg/kg	0.400	--	1	09/13/20 06:25	09/13/20 11:47	1,6010D	BV
Lead, Total	ND	mg/kg	2.00	--	1	09/13/20 06:25	09/13/20 11:47	1,6010D	BV
Nickel, Total	ND	mg/kg	1.00	--	1	09/13/20 06:25	09/13/20 11:47	1,6010D	BV
Selenium, Total	ND	mg/kg	0.800	--	1	09/13/20 06:25	09/13/20 11:47	1,6010D	BV
Silver, Total	ND	mg/kg	0.400	--	1	09/13/20 06:25	09/13/20 11:47	1,6010D	BV
Zinc, Total	ND	mg/kg	2.00	--	1	09/13/20 06:25	09/13/20 11:47	1,6010D	BV

Prep Information

Digestion Method: EPA 3050B

Lab Control Sample Analysis

Batch Quality Control

Project Name: CM-RIDOT RTE 6/10 DESIGN PHASE

Project Number: 1801485

Lab Number: L2038032

Report Date: 09/13/20

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 02,04,06,08,10,12 Batch: WG1409301-2 SRM Lot Number: D109-540								
Mercury, Total	97		-		60-140	-		
Total Metals - Mansfield Lab Associated sample(s): 02,04,06,08,10,12 Batch: WG1409302-2 SRM Lot Number: D109-540								
Arsenic, Total	91		-		70-130	-		
Barium, Total	90		-		75-125	-		
Cadmium, Total	95		-		75-125	-		
Chromium, Total	88		-		70-130	-		
Copper, Total	89		-		75-125	-		
Lead, Total	85		-		72-128	-		
Nickel, Total	98		-		70-130	-		
Selenium, Total	95		-		68-132	-		
Silver, Total	81		-		68-131	-		
Zinc, Total	85		-		70-130	-		

Matrix Spike Analysis Batch Quality Control

Project Name: CM-RIDOT RTE 6/10 DESIGN PHASE
Project Number: 1801485

Lab Number: L2038032
Report Date: 09/13/20

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Qual	MSD Found	MSD %Recovery	MSD Qual	Recovery Limits	RPD	RPD Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 02,04,06,08,10,12 QC Batch ID: WG1409301-3 QC Sample: L2038032-02 Client ID: 1801485-SP-01 (COMP)												
Mercury, Total	ND	0.129	0.152	118	-	-	-	-	80-120	-	-	20
Total Metals - Mansfield Lab Associated sample(s): 02,04,06,08,10,12 QC Batch ID: WG1409302-3 QC Sample: L2038032-02 Client ID: 1801485-SP-01 (COMP)												
Arsenic, Total	2.12	9.53	10.6	89	-	-	-	-	75-125	-	-	20
Barium, Total	12.4	159	156	90	-	-	-	-	75-125	-	-	20
Cadmium, Total	ND	4.05	3.65	90	-	-	-	-	75-125	-	-	20
Chromium, Total	2.75	15.9	16.5	86	-	-	-	-	75-125	-	-	20
Copper, Total	6.95	19.8	25.2	92	-	-	-	-	75-125	-	-	20
Lead, Total	13.9	40.5	49.1	87	-	-	-	-	75-125	-	-	20
Nickel, Total	2.59	39.7	35.0	82	-	-	-	-	75-125	-	-	20
Selenium, Total	ND	9.53	7.92	83	-	-	-	-	75-125	-	-	20
Silver, Total	ND	23.8	20.7	87	-	-	-	-	75-125	-	-	20
Zinc, Total	16.9	39.7	52.2	89	-	-	-	-	75-125	-	-	20

Lab Duplicate Analysis

Batch Quality Control

Project Name: CM-RIDOT RTE 6/10 DESIGN PHASE

Project Number: 1801485

Lab Number: L2038032

Report Date: 09/13/20

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 02,04,06,08,10,12 QC Batch ID: WG1409301-4 QC Sample: L2038032-02 Client ID: 1801485-SP-01 (COMP)						
Mercury, Total	ND	ND	mg/kg	NC		20
Total Metals - Mansfield Lab Associated sample(s): 02,04,06,08,10,12 QC Batch ID: WG1409302-4 QC Sample: L2038032-02 Client ID: 1801485-SP-01 (COMP)						
Arsenic, Total	2.12	1.94	mg/kg	9		20
Barium, Total	12.4	13.7	mg/kg	10		20
Cadmium, Total	ND	ND	mg/kg	NC		20
Chromium, Total	2.75	3.19	mg/kg	15		20
Copper, Total	6.95	9.60	mg/kg	32	Q	20
Lead, Total	13.9	21.3	mg/kg	42	Q	20
Nickel, Total	2.59	3.08	mg/kg	17		20
Selenium, Total	ND	ND	mg/kg	NC		20
Silver, Total	ND	ND	mg/kg	NC		20
Zinc, Total	16.9	19.4	mg/kg	14		20

INORGANICS & MISCELLANEOUS

Project Name: CM-RIDOT RTE 6/10 DESIGN PHASE**Lab Number:** L2038032**Project Number:** 1801485**Report Date:** 09/13/20**SAMPLE RESULTS**

Lab ID: L2038032-01

Date Collected: 09/12/20 09:40

Client ID: 1801485-SP-01 (GRAB)

Date Received: 09/12/20

Sample Location: PROVIDENCE, RI

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	97.0		%	0.100	NA	1	-	09/12/20 13:45	121,2540G	RI



Project Name: CM-RIDOT RTE 6/10 DESIGN PHASE
Project Number: 1801485

Lab Number: L2038032
Report Date: 09/13/20

SAMPLE RESULTS

Lab ID: L2038032-02
Client ID: 1801485-SP-01 (COMP)
Sample Location: PROVIDENCE, RI

Date Collected: 09/12/20 09:35
Date Received: 09/12/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	97.3		%	0.100	NA	1	-	09/12/20 13:45	121,2540G	RI



Project Name: CM-RIDOT RTE 6/10 DESIGN PHASE
Project Number: 1801485

Lab Number: L2038032
Report Date: 09/13/20

SAMPLE RESULTS

Lab ID: L2038032-03
Client ID: 1801485-SP-02 (GRAB)
Sample Location: PROVIDENCE, RI

Date Collected: 09/12/20 10:00
Date Received: 09/12/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	95.6		%	0.100	NA	1	-	09/12/20 13:45	121,2540G	RI



Project Name: CM-RIDOT RTE 6/10 DESIGN PHASE
Project Number: 1801485

Lab Number: L2038032
Report Date: 09/13/20

SAMPLE RESULTS

Lab ID: L2038032-04
Client ID: 1801485-SP-02 (COMP)
Sample Location: PROVIDENCE, RI

Date Collected: 09/12/20 09:55
Date Received: 09/12/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	96.4		%	0.100	NA	1	-	09/12/20 13:45	121,2540G	RI



Project Name: CM-RIDOT RTE 6/10 DESIGN PHASE
Project Number: 1801485

Lab Number: L2038032
Report Date: 09/13/20

SAMPLE RESULTS

Lab ID: L2038032-05
Client ID: 1801485-SP-03 (GRAB)
Sample Location: PROVIDENCE, RI

Date Collected: 09/12/20 10:20
Date Received: 09/12/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	95.6		%	0.100	NA	1	-	09/12/20 13:45	121,2540G	RI



Project Name: CM-RIDOT RTE 6/10 DESIGN PHASE
Project Number: 1801485

Lab Number: L2038032
Report Date: 09/13/20

SAMPLE RESULTS

Lab ID: L2038032-06
 Client ID: 1801485-SP-03 (COMP)
 Sample Location: PROVIDENCE, RI

Date Collected: 09/12/20 10:15
 Date Received: 09/12/20
 Field Prep: Not Specified

Sample Depth:
 Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	96.6		%	0.100	NA	1	-	09/12/20 13:45	121,2540G	RI



Project Name: CM-RIDOT RTE 6/10 DESIGN PHASE
Project Number: 1801485

Lab Number: L2038032
Report Date: 09/13/20

SAMPLE RESULTS

Lab ID: L2038032-07
Client ID: 1801485-SP-04 (GRAB)
Sample Location: PROVIDENCE, RI

Date Collected: 09/12/20 10:35
Date Received: 09/12/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	96.8		%	0.100	NA	1	-	09/12/20 13:45	121,2540G	RI



Project Name: CM-RIDOT RTE 6/10 DESIGN PHASE
Project Number: 1801485

Lab Number: L2038032
Report Date: 09/13/20

SAMPLE RESULTS

Lab ID: L2038032-08
Client ID: 1801485-SP-04 (COMP)
Sample Location: PROVIDENCE, RI

Date Collected: 09/12/20 10:30
Date Received: 09/12/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	97.6		%	0.100	NA	1	-	09/12/20 13:45	121,2540G	RI



Project Name: CM-RIDOT RTE 6/10 DESIGN PHASE
Project Number: 1801485

Lab Number: L2038032
Report Date: 09/13/20

SAMPLE RESULTS

Lab ID: L2038032-09
Client ID: 1801485-SP-05 (GRAB)
Sample Location: PROVIDENCE, RI

Date Collected: 09/12/20 10:55
Date Received: 09/12/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	94.9		%	0.100	NA	1	-	09/12/20 13:45	121,2540G	RI



Project Name: CM-RIDOT RTE 6/10 DESIGN PHASE
Project Number: 1801485

Lab Number: L2038032
Report Date: 09/13/20

SAMPLE RESULTS

Lab ID: L2038032-10
 Client ID: 1801485-SP-05 (COMP)
 Sample Location: PROVIDENCE, RI

Date Collected: 09/12/20 10:50
 Date Received: 09/12/20
 Field Prep: Not Specified

Sample Depth:
 Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	95.9		%	0.100	NA	1	-	09/12/20 13:45	121,2540G	RI



Project Name: CM-RIDOT RTE 6/10 DESIGN PHASE
Project Number: 1801485

Lab Number: L2038032
Report Date: 09/13/20

SAMPLE RESULTS

Lab ID: L2038032-11
Client ID: 1801485-SP-06 (GRAB)
Sample Location: PROVIDENCE, RI

Date Collected: 09/12/20 11:15
Date Received: 09/12/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	96.3		%	0.100	NA	1	-	09/12/20 13:45	121,2540G	RI



Project Name: CM-RIDOT RTE 6/10 DESIGN PHASE
Project Number: 1801485

Lab Number: L2038032
Report Date: 09/13/20

SAMPLE RESULTS

Lab ID: L2038032-12
Client ID: 1801485-SP-06 (COMP)
Sample Location: PROVIDENCE, RI

Date Collected: 09/12/20 11:10
Date Received: 09/12/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	97.1		%	0.100	NA	1	-	09/12/20 13:45	121,2540G	RI



Lab Duplicate Analysis

Batch Quality Control

Project Name: CM-RIDOT RTE 6/10 DESIGN PHASE

Project Number: 1801485

Lab Number: L2038032

Report Date: 09/13/20

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-12 QC Batch ID: WG1409251-1 QC Sample: L2038032-01 Client ID: 1801485-SP-01 (GRAB)						
Solids, Total	97.0	96.9	%	0		20

Project Name: CM-RIDOT RTE 6/10 DESIGN PHASE

Project Number: 1801485

Serial_No:09132014:57

Lab Number: L2038032

Report Date: 09/13/20

Sample Receipt and Container Information

Were project specific reporting limits specified?

YES

Cooler Information

Cooler **Custody Seal**
A Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2038032-01A	Vial MeOH preserved	A	NA		4.3	Y	Absent		8260HLW(14)
L2038032-01B	Vial water preserved	A	NA		4.3	Y	Absent	12-SEP-20 13:59	8260HLW(14)
L2038032-01C	Vial water preserved	A	NA		4.3	Y	Absent	12-SEP-20 13:59	8260HLW(14)
L2038032-01D	Glass 60mL/2oz unpreserved	A	NA		4.3	Y	Absent		TS(7)
L2038032-02A	Glass 120ml/4oz unpreserved	A	NA		4.3	Y	Absent		BA-TI(180),AS-TI(180),AG-TI(180),NI-TI(180),CR-TI(180),SE-TI(180),CU-TI(180),ZN-TI(180),PB-TI(180),HG-T(28),CD-TI(180)
L2038032-02B	Glass 250ml/8oz unpreserved	A	NA		4.3	Y	Absent		PCB-8082(14),PEST-8081(14),TPH-DRO-D(14),HERB-8151(14)
L2038032-02C	Glass 250ml/8oz unpreserved	A	NA		4.3	Y	Absent		8270TCL(14),TS(7)
L2038032-03A	Vial MeOH preserved	A	NA		4.3	Y	Absent		8260HLW(14)
L2038032-03B	Vial water preserved	A	NA		4.3	Y	Absent	12-SEP-20 13:59	8260HLW(14)
L2038032-03C	Vial water preserved	A	NA		4.3	Y	Absent	12-SEP-20 13:59	8260HLW(14)
L2038032-03D	Glass 60mL/2oz unpreserved	A	NA		4.3	Y	Absent		TS(7)
L2038032-04A	Glass 120ml/4oz unpreserved	A	NA		4.3	Y	Absent		BA-TI(180),AS-TI(180),AG-TI(180),CR-TI(180),NI-TI(180),PB-TI(180),SE-TI(180),ZN-TI(180),CU-TI(180),HG-T(28),CD-TI(180)
L2038032-04B	Glass 250ml/8oz unpreserved	A	NA		4.3	Y	Absent		PCB-8082(14),PEST-8081(14),TPH-DRO-D(14),HERB-8151(14)
L2038032-04C	Glass 250ml/8oz unpreserved	A	NA		4.3	Y	Absent		8270TCL(14),TS(7)
L2038032-05A	Vial MeOH preserved	A	NA		4.3	Y	Absent		8260HLW(14)
L2038032-05B	Vial water preserved	A	NA		4.3	Y	Absent	12-SEP-20 13:59	8260HLW(14)
L2038032-05C	Vial water preserved	A	NA		4.3	Y	Absent	12-SEP-20 13:59	8260HLW(14)
L2038032-05D	Glass 60mL/2oz unpreserved	A	NA		4.3	Y	Absent		TS(7)
L2038032-06A	Glass 120ml/4oz unpreserved	A	NA		4.3	Y	Absent		AS-TI(180),BA-TI(180),AG-TI(180),NI-TI(180),CR-TI(180),ZN-TI(180),SE-TI(180),PB-TI(180),CU-TI(180),HG-T(28),CD-TI(180)

Project Name: CM-RIDOT RTE 6/10 DESIGN PHASE
Project Number: 1801485

Serial_No:09132014:57
Lab Number: L2038032
Report Date: 09/13/20

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2038032-06B	Glass 250ml/8oz unpreserved	A	NA		4.3	Y	Absent		PCB-8082(14),PEST-8081(14),TPH-DRO-D(14),HERB-8151(14)
L2038032-06C	Glass 250ml/8oz unpreserved	A	NA		4.3	Y	Absent		8270TCL(14),TS(7)
L2038032-07A	Vial MeOH preserved	A	NA		4.3	Y	Absent		8260HLW(14)
L2038032-07B	Vial water preserved	A	NA		4.3	Y	Absent	12-SEP-20 13:59	8260HLW(14)
L2038032-07C	Vial water preserved	A	NA		4.3	Y	Absent	12-SEP-20 13:59	8260HLW(14)
L2038032-07D	Glass 60mL/2oz unpreserved	A	NA		4.3	Y	Absent		TS(7)
L2038032-08A	Glass 120ml/4oz unpreserved	A	NA		4.3	Y	Absent		AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),NI-TI(180),SE-TI(180),ZN-TI(180),CU-TI(180),PB-TI(180),HG-T(28),CD-TI(180)
L2038032-08B	Glass 250ml/8oz unpreserved	A	NA		4.3	Y	Absent		PCB-8082(14),PEST-8081(14),TPH-DRO-D(14),HERB-8151(14)
L2038032-08C	Glass 250ml/8oz unpreserved	A	NA		4.3	Y	Absent		8270TCL(14),TS(7)
L2038032-09A	Vial MeOH preserved	A	NA		4.3	Y	Absent		8260HLW(14)
L2038032-09B	Vial water preserved	A	NA		4.3	Y	Absent	12-SEP-20 13:59	8260HLW(14)
L2038032-09C	Vial water preserved	A	NA		4.3	Y	Absent	12-SEP-20 13:59	8260HLW(14)
L2038032-09D	Glass 60mL/2oz unpreserved	A	NA		4.3	Y	Absent		TS(7)
L2038032-10A	Glass 120ml/4oz unpreserved	A	NA		4.3	Y	Absent		BA-TI(180),AS-TI(180),AG-TI(180),NI-TI(180),CR-TI(180),ZN-TI(180),PB-TI(180),SE-TI(180),CU-TI(180),HG-T(28),CD-TI(180)
L2038032-10B	Glass 250ml/8oz unpreserved	A	NA		4.3	Y	Absent		PCB-8082(14),PEST-8081(14),TPH-DRO-D(14),HERB-8151(14)
L2038032-10C	Glass 250ml/8oz unpreserved	A	NA		4.3	Y	Absent		8270TCL(14),TS(7)
L2038032-11A	Vial MeOH preserved	A	NA		4.3	Y	Absent		8260HLW(14)
L2038032-11B	Vial water preserved	A	NA		4.3	Y	Absent	12-SEP-20 13:59	8260HLW(14)
L2038032-11C	Vial water preserved	A	NA		4.3	Y	Absent	12-SEP-20 13:59	8260HLW(14)
L2038032-11D	Glass 60mL/2oz unpreserved	A	NA		4.3	Y	Absent		TS(7)
L2038032-12A	Glass 120ml/4oz unpreserved	A	NA		4.3	Y	Absent		AS-TI(180),BA-TI(180),AG-TI(180),NI-TI(180),CR-TI(180),SE-TI(180),PB-TI(180),CU-TI(180),ZN-TI(180),HG-T(28),CD-TI(180)
L2038032-12B	Glass 250ml/8oz unpreserved	A	NA		4.3	Y	Absent		PCB-8082(14),PEST-8081(14),HERB-8151(14),TPH-DRO-D(14)
L2038032-12C	Glass 250ml/8oz unpreserved	A	NA		4.3	Y	Absent		8270TCL(14),TS(7)

Project Name: CM-RIDOT RTE 6/10 DESIGN PHASE
Project Number: 1801485

Lab Number: L2038032
Report Date: 09/13/20

GLOSSARY

Acronyms

DL	- Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LOD	- Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
LOQ	- Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.) Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Footnotes

Report Format: Data Usability Report



Project Name: CM-RIDOT RTE 6/10 DESIGN PHASE
Project Number: 1801485

Lab Number: L2038032
Report Date: 09/13/20

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. If a 'Total' result is requested, the results of its individual components will also be reported.

The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA, this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

- A** - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- F** - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.
- J** - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- ND** - Not detected at the reporting limit (RL) for the sample.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration

Report Format: Data Usability Report



Project Name: CM-RIDOT RTE 6/10 DESIGN PHASE
Project Number: 1801485

Lab Number: L2038032
Report Date: 09/13/20

Data Qualifiers

Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.

Project Name: CM-RIDOT RTE 6/10 DESIGN PHASE
Project Number: 1801485

Lab Number: L2038032
Report Date: 09/13/20

REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - VI, 2018.
- 121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility

EPA 624/624.1: m/p-xylene, o-xylene, Naphthalene

EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.

EPA 8270D: NPW: Dimethylnaphthalene, 1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene, 1,4-Diphenylhydrazine.

SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO₂, NO₃.

Mansfield Facility

SM 2540D: TSS

EPA 8082A: NPW: PCB: 1, 5, 31, 87, 101, 110, 141, 151, 153, 180, 183, 187.

EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

EPA TO-12 Non-methane organics

EPA 3C Fixed gases

Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water

EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE,**

EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B

EPA 332: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.

Microbiology: SM9215B; SM9223-P/A, SM9223B-Colilert-QT, SM9222D.

Non-Potable Water

SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1:** Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2:** Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300:** Chloride, Sulfate, Nitrate.

EPA 624.1: Volatile Halocarbons & Aromatics,

EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs

EPA 625.1: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045:** PCB-Oil.

Microbiology: SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603.

Mansfield Facility:

Drinking Water

EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.

EPA 522.

Non-Potable Water

EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.

EPA 200.8: Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.

EPA 245.1 Hg.

SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.



CHAIN OF CUSTODY

PAGE 1 OF 2

Date Rec'd in Lab: 9/12/20

ALPHA Job #: L2038032

8 Walkup Drive
Westboro, MA 01581
Tel: 508-898-9220

320 Forbes Blvd
Mansfield, MA 02048
Tel: 508-822-9300

Project Information

Project Name: CME-RIDOT RTE 6/10 Design Phase Support
Project Location: Providence, RI
Project #: 1801485
Project Manager: Matt Glunt
ALPHA Quote #:

Report Information - Data Deliverables

ADEx EMAIL

Billing Information

Same as Client info PO #:

Client Information

Client: GEI
Address: 400 Unicorn park Dr.
Woburn MA
Phone: 781 721 4000
Email: labdata@geiconsulting.com

Regulatory Requirements & Project Information Requirements

Yes No MA MCP Analytical Methods Yes No CT RCP Analytical Methods
 Yes No Matrix Spike Required on this SDG? (Required for MCP Inorganics)
 Yes No GW1 Standards (Info Required for Metals & EPH with Targets)
 Yes No NPDES RGP
 Other State /Fed Program _____ Criteria _____

Turn-Around Time

Standard RUSH (only confirmed if pre-approved!)
Date Due: 24 hr

Additional Project Information:

ANALYSIS		SAMPLE INFO	
VOC: <input checked="" type="checkbox"/> 8260 <input type="checkbox"/> 824 <input type="checkbox"/> 524.2	SVOC: <input type="checkbox"/> ABN <input type="checkbox"/> PAH	Filtration	<input type="checkbox"/> Field
METALS: <input type="checkbox"/> MCP 13 <input type="checkbox"/> MCP 14 <input type="checkbox"/> MCP 15	METALS: <input type="checkbox"/> RCRA5 <input type="checkbox"/> RCRA8 <input type="checkbox"/> PPI3	<input type="checkbox"/> Lab to do	Preservation
EPH: <input type="checkbox"/> Ranges & Targets <input type="checkbox"/> Ranges Only	VPH: <input type="checkbox"/> Ranges & Targets <input type="checkbox"/> Ranges Only	<input type="checkbox"/> Lab to do	
<input type="checkbox"/> PCB	<input type="checkbox"/> PEST		
TPH: <input type="checkbox"/> Quant-Only <input type="checkbox"/> Fingerprint	PAHS		
	RCRA 8 Metals + Zn, Ni, Cu (6010)		
	PCBs (8082)		
	SVOCs (8270)		
	pest (8081)		
	Herb (8151)		
	Sample Comments		

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection		Sample Matrix	Sampler Initials												TOTAL # BOTTLES
		Date	Time														
38032-01	1801485-SR-01 (grab)	9/12/20	940	SO	SMT	X											4
02	1801485-SR-01 (comp)	9/12/20	935	SO	SMT						X	X	X	X	X	X	3
03	1801485-SR-02 (grab)	9/12/20	1000	SO	SMT	X											4
04	1801485-SR-02 (comp)	9/12/20	955	SO	SMT						X	X	X	X	X	X	3
05	1801485-SR-03 (grab)	9/12/20	1020	SO	SMT	X											4
06	1801485-SR-03 (comp)	9/12/20	1015	SO	SMT						X	X	X	X	X	X	3
07	1801485-SR-04 (grab)	9/12/20	1035	SO	SMT	X											4
08	1801485-SR-04 (comp)	9/12/20	1030	SO	SMT						X	X	X	X	X	X	3
09	1801485-SR-05 (grab)	9/12/20	1055	SO	SMT	X											4
10	1801485-SR-05 (comp)	9/12/20	1050	SO	SMT						X	X	X	X	X	X	3

- Container Type**
P= Plastic
A= Amber glass
V= Vial
G= Glass
B= Bacteria cup
C= Cube
O= Other
E= Encore
D= BOD Bottle
- Preservative**
A= None
B= HCl
C= HNO3
D= H2SO4
E= NaOH
F= MeOH
G= NaHSO4
H= Na2S2O3
I= Ascorbic Acid
J= NH4Cl
K= Zn Acetate
O= Other

Container Type	V																
Preservative	F																

Relinquished By:	Date/Time	Received By:	Date/Time
[Signature]	9/12/20 1250	[Signature]	9/12/20 1250

All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.
FORM NO: 01-01 (rev. 12-Mar-2012)

