

Laboratory Report

Project Name:

Virginia Soil Samples

EAS SDG Number: **221264**

Client Project Manager: Arpad Vass

Prepared For:

105 Carson Lane

Oak Ridge

TN 37830

Project Number: 17652

Sample Event Date: 2/24/21

Received Date: 7/2/2021

Report Date: 9/15/2021

Project Number: None Given

PO Number: None Given

This is the Laboratory Report for the samples in the indicated Sample Delivery Group (SDG). Each sample received in the group is assigned a Laboratory ID number. The combination of the SDG number and the Lab ID number is an unique identifier for the sample.

This Report Contains:

Laboratory Work Order

Project Sample Media

Laboratory Case Narrative and Chain of Custody

Method Description (when applicable)

Quality Control Reports

Analytical Reports

NELAC Certification: Florida E871125

173 Cross Street, San Luis Obispo, CA 93401 (805) 781-3585

Laboratory Work Order

SDG Number: 221264

Client: Arpad Vass

Project Number: 17652

Received: 7/2/2021

SAMPLE DESCRIPTION AND ANALYSIS REQUESTED

Client Sample ID	EAS Lab No.	Analysis Requested	Date Sampled
MEADOW CREEK SAMPLE	221264 1	EPA TO-15 Special List Headspace	2/24/2021
DUMP SITE 4FT	221264 2	EPA TO-15 Special List Headspace	2/24/2021
MEADOW CREEK DOG ALERT	221264 3	EPA TO-15 Special List Headspace	2/24/2021
DUMPSITE 2-3 FT	221264 4	EPA TO-15 Special List Headspace	2/24/2021

Project Sample Media

SDG Number: 221264

The following sample media was used for this Sample Delivery Group (SDG). The Sample Media column identifies the type of media. For canisters, the Sample Media Batch gives the canister number followed by the cleaning batch number, which is a unique identification. The initial pressure of the canister when it is received is recorded. If the canister is not pressurized, the final pressure will be the same as the initial pressure. If the canister is pressurized the final pressure will be recorded, and the canister dilution factor is calculated as the ratio of the final to initial pressure. The results are adjusted for the can dilution factor.

SDG	Lab ID	Client Sample No.	Sample	Batch	Pressure, torr		Can
			Media		Initial	Final	
221264	1	MEADOW CREEK SAMPLE		0			
221264	2	DUMP SITE 4FT		0			
221264	3	MEADOW CREEK DOG ALERT		0			
221264	4	DUMPSITE 2-3 FT		0			

Laboratory Case Narrative

EAS SDG Number: 221264

Project Number: 17652

Client:

The Laboratory Case Narrative for the SDG is below. The Chain of Custody form(s) follow the Laboratory Case Narrative.

Sample Control Narrative

The samples were all received in good condition and with proper preservation.

Analytical Methods

The methods used for sample analysis are listed on the Analytical Report header, and have been modified as described in the EAS Quality Manual.

Case Narrative

QC Narrative

All analyses met EAS method criteria as defined in the Quality Manual, except as noted in the report or QC reports with data qualifiers.

Subcontract Narrative

No sample analysis was subcontracted for this project

Laboratory Certification

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness other than the condition(s) noted above. The Laboratory Report is property of EAS and its client. The entire report has been reviewed and approved.



Date Approved: 9/15/2021

Steven D. Hoyt, Ph.D.
Environmental Analytical Service
Laboratory Director

CHAIN OF CUSTODY RECORD

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Quality Control Report

EAS SDG Number 221264

Project Number: 17652

QC Narrative

Samples were analyzed in a daily analytical batch (DAB) designated by a QC batch number, and were analyzed using EAS standard laboratory QC specified in the EAS Quality Manual which may be different than the referenced agency method. Any deviations from the EAS QC criteria are flagged in the Laboratory Control Reports or in the sample Analytical Reports.

Standard Laboratory QC Report

Unless project specific QC was requested, this Section containing the standard laboratory QC (Level 2) supplied with the Analytical Reports. Each sample is analyzed in a Daily Analytical Batch (DAB) which includes the method blank, a laboratory control spike (LCS) and a laboratory control duplicate (LCD). A Daily Analytical Batch QC report is supplied for each method requested.

Method Blank

The method blank is a laboratory generated sample which assesses the degree to which laboratory operations cause a false positive. The target analytes in the analytical reports for a daily analytical batch are "B" flagged if their concentrations are present in the Method Blank above the RL, unless the result is greater than ten times the blank value..

Laboratory Control Spike

A laboratory control spike is a well characterized matrix similar to the sample which is spiked and run in duplicate with each Daily Analytical Batch. The laboratory control spike results are reported as a percent recovery. The QC Criteria for the control spike is listed in the Laboratory Control Report. Any results outside the control limits are flagged with a "Q" on the Laboratory Control Report. The control spike contains an abbreviated list of compounds in the method, and may contain compounds not on the target list for the specified report.

Laboratory Control Duplicate

The laboratory control duplicate is a duplicate analysis of the laboratory control spike, a standard, or a sample depending on the method. The results are reported as a relative percent difference (RPD). The criteria for the duplicate is in the Laboratory Control Report for the Daily Analytical Batch. Any results outside the control limits are flagged with a "Q" on the Laboratory Control Report.

METHOD BLANK REPORT

ENVIRONMENTAL
Analytical Service, Inc.

EPA Method TO-15 Modified Full Scan GC/MS

Analytical Method: TO-15

SDG: LABQC

Laboratory ID: B09101

File Name: B09101B.D

Description: METHOD BLANK

Canister:

QC_Batch: 091021-MSA

Date Sampled:

Date Analyzed:

09/10/21

Time:

Time: 11:53

Can Dilution Factor:

1.00

Air Volume:

50 ml

CAS#	Compound	MDL PPBV	RL PPBV	Amount PPBV	MDL UG/M3	RL UG/M3	Amount UG/M3	Flag
75-71-8	Dichlorodifluoromethane	3.00	5.04	ND	14.83	24.91	ND	
76-14-2	1,2-Dichlorotetrafluoroethane	2.00	5.04	ND	13.97	35.21	ND	
64-17-5	Ethanol	7.00	15.00	ND	13.19	28.27	ND	
75-69-4	Trichlorofluoromethane	2.00	4.80	ND	11.23	26.96	ND	
67-64-1	Acetone	2.00	6.16	4.15	4.75	14.63	9.86	J
76-13-1	1,1,2-Trichlorotrifluoroethane	1.00	4.78	ND	7.66	36.62	ND	
75-15-0	Carbon disulfide	2.00	4.64	ND	6.22	14.43	ND	
156-60-5	trans-1,2-Dichloroethene	1.00	3.62	ND	3.96	14.34	ND	
78-93-3	2-Butanone (MEK)	2.00	5.10	ND	5.89	15.03	ND	
110-54-3	Hexane	2.00	3.70	ND	7.05	13.04	ND	
156-59-2	cis-1,2-Dichloroethene	1.00	5.36	ND	3.96	21.23	ND	
67-66-3	Chloroform	1.00	5.02	ND	4.90	24.50	ND	
71-43-2	Benzene	1.40	5.08	ND	4.47	16.22	ND	
56-23-5	Carbon tetrachloride	1.00	4.72	ND	6.29	29.68	ND	
142-82-5	n-Heptane	2.00	3.02	ND	8.19	12.37	ND	
79-01-6	Trichloroethene (TCE)	0.50	4.66	ND	2.69	25.03	ND	
108-88-3	Toluene	2.00	5.22	ND	7.53	19.65	ND	
111-65-9	Octane	2.00	2.72	ND	9.34	12.70	ND	
127-18-4	Tetrachloroethene (PCE)	0.50	2.44	ND	3.39	16.54	ND	
100-41-4	Ethylbenzene	2.00	5.28	ND	8.68	22.92	ND	
1330-20-7	m,p-Xylenes	2.00	5.30	ND	8.68	23.01	ND	
111-84-2	Nonane	2.00	2.38	ND	10.49	12.48	ND	
100-42-5	Styrene	2.00	5.18	ND	8.52	22.06	ND	
95-47-6	o-Xylene	2.00	5.16	ND	8.68	22.40	ND	
611-14-3	2-Ethyltoluene	4.00	8.28	ND	19.65	40.69	ND	
124-18-5	Decane	2.00	2.54	ND	11.63	14.78	ND	
91-20-3	Naphthalene	1.00	1.88	ND	5.24	9.85	ND	

Surrogate Recovery		% Rec.	QC LCL	Limits UCL	Flag
2037-26-5	Toluene-d8	77	70	130	

METHOD BLANK REPORT

ENVIRONMENTAL
Analytical Service, Inc.

EPA Method TO-15 Modified Full Scan GC/MS

Analytical Method: TO-15

SDG: LABQC

Laboratory ID: B09101

File Name: B09101B.D
Description: METHOD BLANK
Canister:
QC_Batch: 091021-MA1

Date Sampled:
Date Analyzed: 09/10/21
Can Dilution Factor: 1.00
Air Volume: 50.00 ml
Time:
Time: 11:53

CAS#	Compound	MDL PPBV	RL PPBV	Amount PPBV	MDL UG/M3	RL UG/M3	Amount UG/M3	Flag
463-58-1	Carbonyl Sulfide	2.00	5.00	ND	4.91	12.29	ND	
115-11-7	2-Methylpropene	2.00	5.00	ND	4.59	11.47	ND	
646-04-8	trans-2-Pentene	2.00	5.00	ND	5.73	14.33	ND	
627-20-3	cis-2-Pentene	2.00	5.00	ND	5.73	14.33	ND	
1717-00-6	1,1-Dichloro-1-fluoroethane	2.00	5.00	ND	9.58	23.95	ND	
75-18-3	Dimethylsulfide	2.00	5.00	ND	5.09	12.72	ND	
107-83-5	2-Methylpentane	2.00	5.00	ND	7.06	17.65	ND	
96-14-0	3-Methyl pentane	2.00	5.00	ND	7.06	17.65	ND	
123-72-8	Butanal	2.00	5.00	ND	5.91	14.77	ND	
534-22-5	2-Methyl furan	2.00	5.00	ND	6.72	16.81	ND	
930-27-8	3-Methyl furan	2.00	5.00	ND	6.72	16.81	ND	
590-86-3	3-Methyl butanal	2.00	5.00	ND	7.05	17.64	ND	
1730-97-8	2-Methyl butanal	2.00	5.00	ND	7.05	17.64	ND	
110-62-3	Pentanal	2.00	5.00	ND	7.05	17.64	ND	
624-92-0	Dimethyl Disulfide	2.00	5.00	ND	7.72	19.29	ND	
66-25-1	Hexaldehyde	2.00	5.00	ND	8.20	20.51	ND	
111-71-7	Heptanal	2.00	5.00	ND	9.35	23.38	ND	
3658-80-8	Dimethyl Trisulfide	2.00	5.00	ND	10.34	25.85	ND	
124-13-0	Octanal	2.00	5.00	ND	10.50	26.25	ND	
124-19-6	Nonal	2.00	5.00	ND	11.65	29.13	ND	
1120-21-4	Undecane	2.00	5.00	ND	12.80	32.01	ND	
112-31-2	Decanal	2.00	5.00	ND	12.80	32.00	ND	

Surrogate Recovery				QC	Limits	Flag
				% Rec.	LCL UCL	
2037-26-5	Toluene-d8			94	70 130	

METHOD BLANK REPORT

ENVIRONMENTAL
Analytical Service, Inc.

EPA Method TO-15 Modified Full Scan GC/MS

Analytical Method: TO-15

SDG: LABQC

Laboratory ID: B09101

File Name: B09101B.D

Date Sampled:

Time:

Description: METHOD BLANK

Date Analyzed: 09/10/21

Time: 13:13

Canister:

Can Dilution Factor: 1.00

QC_Batch: 091021-MA1

Air Volume: 50.00 ml

CAS#	Compound	MDL	RL	Amount	MDL	RL	Amount	Flag
		PPBV	PPBV	PPBV	UG/M3	UG/M3	UG/M3	
75-07-0	Acetaldehyde	7.00	20.00	ND	12.61	36.01	ND	

QUALITY CONTROL REPORT

ENVIRONMENTAL
Analytical Service, Inc.

Laboratory Control Spike and Spike Duplicate Report

TO15 Volatile Organic Compounds by GC/MS

QC_Batch: 091021-MA1

Date: 09/10/21

CAS#	Compound	LCS		LCD		Spike Limit		Duplicate		Flag
		Recovery	Flag	Recovery	Flag	LCL	UCL	Duplicate	Limit	
		%		%		%	%	%	%	
75-01-4	Vinyl chloride	79		92		70	130	16	25	
75-35-4	1,1-Dichloroethene	102		106		70	130	4	25	
75-09-2	Dichloromethane	96		91		70	130	5	25	
75-34-3	1,1-Dichloroethane	98		100		70	130	1	25	
67-66-3	Chloroform	109		112		70	130	3	25	
71-55-6	1,1,1-Trichloroethane	117		119		70	130	2	25	
107-06-2	1,2-Dichloroethane	122		124		70	130	2	25	
71-43-2	Benzene	89		96		70	130	8	25	
56-23-5	Carbon tetrachloride	123		123		70	130	0	25	
79-01-6	Trichloroethene	102		107		70	130	4	25	
108-88-3	Toluene	110		104		70	130	5	25	
106-93-4	1,2-Dibromoethane	129		129		70	130	0	25	
127-18-4	Tetrachloroethene	110		112		70	130	2	25	
100-41-4	Ethylbenzene	91		106		70	130	15	25	
1330-20-7	m,p-Xylenes	92		109		70	130	17	25	
95-47-6	o-Xylene	96		110		70	130	13	25	
108-67-8	1,3,5-Trimethylbenzene	103		115		70	130	11	25	
95-63-6	1,2,4-Trimethylbenzene	109		124		70	130	13	25	

LCS - Laboratory Control Spike

LCD - Laboratory Control Duplicate

Flag - Q indicated out of Limits

Analytical Reports

EAS SDG Number 221264

Project Number: 17652

The following pages contain the certified Analytical Reports for the samples submitted in the Sample Delivery Group (SDG) and are in order of the EAS Lab ID number. All of the analytical methods used are modifications of the published methods. Procedural method modifications, QC modifications, QC Criteria modifications, target lists, definitions of detection limits, and flags are all explained in detail in the EAS Quality Manual.

The Analytical Report has columns for the method detection limit (MDL), the reporting limit (RL), and the Amount. The Amount is the concentration of the compound in the sample. The report usually has the results reported with two commonly used units. The MDL, RL, and Amount are adjusted for the canister dilution factor and any dilution caused by sample matrix effects.

NELAC CERTIFICATION

EAS is accredited by the National Environmental Laboratory Accreditation (NELAC) with the Florida Department of Health, one of the NELAC certifying states. EAS is certified for the EPA TO-15, EPA TO-11 and EPA TO-4 methods. A list of accredited compounds is available on request.

DETECTION LIMITS

MDL: The MDL is lowest concentration that can be measured to be statistically above the noise level and is determined using the EPA 2016 method which uses the standard deviation of replicate measurements made over time. The method also incorporates systematic instrumentation blank levels. See Quality Manual for detailed explanation.

RL: The reporting limit (RL) is the lowest concentration that can be reliably reported for each compound that meets the QC Criteria for the method, background levels, or project specific considerations. The QC criteria level for the method blank is to be less than the RL. See Quality Manual for more information.

DATA FLAGS

In the standard report, if a compound is not detected above the method detection limit, a "ND" is in the Amount column. The flag column is used for both the not detect flag and for any data flags.

B - This compound was detected in the batch method blank above the reporting limit and is greater than one tenth the amount in the sample.

E - This compound exceeds the calibration range for this sample volume.

J - The amount reported is estimated because it was below the RL and could be below the lowest calibration point, have higher uncertainty, or could be the result of system background

UNITS

PPBV or PPMV: Parts-per-billion (or million) by volume is a mole (volume) ratio of the moles of analyte divided by the moles of air (gas). This is the primary unit used to report air or gas concentrations and is independent of temperature and pressure.

UG/M3 OR MG/M3: The reported result was calculated based on 1 atm pressure and a temperature of 25C. The conversion from PPBV is: $UG/M3 = PPBV \times MW/24.46$ where 24.46 is the gas constant and MW is the Compounds Molecular Weight (sometimes called Formula Weight)

ANALYTICAL REPORT

ENVIRONMENTAL
Analytical Service, Inc.

EPA Method TO-15 Modified Full Scan GC/MS

Analytical Method: TO-15

SDG: 221264

Laboratory ID: 01

File Name: 2136401A.D

Description: MEADOW CREEK SAMPLE

Canister:

QC_Batch: 091021-MSA

Date Sampled: 02/24/21

Time:

Date Analyzed: 09/10/21

Time: 15:59

Can Dilution Factor: 1.00

Air Volume: 50 ml

CAS#	Compound	MDL PPBV	RL PPBV	Amount PPBV	MDL UG/M3	RL UG/M3	Amount UG/M3	Flag
75-71-8	Dichlorodifluoromethane	3.00	5.04	ND	14.83	24.91	ND	
76-14-2	1,2-Dichlorotetrafluoroethane	2.00	5.04	ND	13.97	35.21	ND	
64-17-5	Ethanol	7.00	15.00	ND	13.19	28.27	ND	
75-69-4	Trichlorofluoromethane	2.00	4.80	ND	11.23	26.96	ND	
67-64-1	Acetone	2.00	6.16	386.76	4.75	14.63	918.60	
76-13-1	1,1,2-Trichlorotrifluoroethane	1.00	4.78	ND	7.66	36.62	ND	
75-15-0	Carbon disulfide	2.00	4.64	43.47	6.22	14.43	135.24	
156-60-5	trans-1,2-Dichloroethene	1.00	3.62	ND	3.96	14.34	ND	
78-93-3	2-Butanone (MEK)	2.00	5.10	ND	5.89	15.03	ND	
110-54-3	Hexane	2.00	3.70	166.91	7.05	13.04	588.17	
156-59-2	cis-1,2-Dichloroethene	1.00	5.36	ND	3.96	21.23	ND	
67-66-3	Chloroform	1.00	5.02	ND	4.90	24.50	ND	
71-43-2	Benzene	1.40	5.08	2.80	4.47	16.22	8.94	J
56-23-5	Carbon tetrachloride	1.00	4.72	25.17	6.29	29.68	158.24	
142-82-5	n-Heptane	2.00	3.02	ND	8.19	12.37	ND	
79-01-6	Trichloroethene (TCE)	0.50	4.66	ND	2.69	25.03	ND	
108-88-3	Toluene	2.00	5.22	17.59	7.53	19.65	66.21	
111-65-9	Octane	2.00	2.72	ND	9.34	12.70	ND	
127-18-4	Tetrachloroethene (PCE)	0.50	2.44	ND	3.39	16.54	ND	
100-41-4	Ethylbenzene	2.00	5.28	ND	8.68	22.92	ND	
1330-20-7	m,p-Xylenes	2.00	5.30	4.14	8.68	23.01	17.98	J
111-84-2	Nonane	2.00	2.38	ND	10.49	12.48	ND	
100-42-5	Styrene	2.00	5.18	ND	8.52	22.06	ND	
95-47-6	o-Xylene	2.00	5.16	ND	8.68	22.40	ND	
611-14-3	2-Ethyltoluene	4.00	8.28	ND	19.65	40.69	ND	
124-18-5	Decane	2.00	2.54	5.16	11.63	14.78	29.99	
91-20-3	Naphthalene	1.00	1.88	ND	5.24	9.85	ND	

Surrogate Recovery		% Rec.	QC LCL	Limits UCL	Flag
2037-26-5	Toluene-d8	89	70	130	

ANALYTICAL REPORT

ENVIRONMENTAL
Analytical Service, Inc.

EPA Method TO-15 Modified Full Scan GC/MS

SDG: 221264

Analytical Method: TO-15

Laboratory ID: 01

File Name: 2136401A.D

Date Sampled: 02/24/21

Time:

Description: MEADOW CREEK SAMPLE

Date Analyzed: 09/10/21

Time: 15:59

Canister:

Can Dilution Factor: 1.00

QC_Batch: 091021-MA1

Air Volume: 50.00 ml

CAS#	Compound	MDL PPBV	RL PPBV	Amount PPBV	MDL UG/M3	RL UG/M3	Amount UG/M3	Flag
463-58-1	Carbonyl Sulfide	2.00	5.00	45.25	4.91	12.29	111.18	
115-11-7	2-Methylpropene	2.00	5.00	ND	4.59	11.47	ND	
646-04-8	trans-2-Pentene	2.00	5.00	ND	5.73	14.33	ND	
627-20-3	cis-2-Pentene	2.00	5.00	ND	5.73	14.33	ND	
1717-00-6	1,1-Dichloro-1-fluoroethane	2.00	5.00	ND	9.58	23.95	ND	
75-18-3	Dimethylsulfide	2.00	5.00	ND	5.09	12.72	ND	
107-83-5	2-Methylpentane	2.00	5.00	25.23	7.06	17.65	89.04	
96-14-0	3-Methyl pentane	2.00	5.00	56.55	7.06	17.65	199.59	
123-72-8	Butanal	2.00	5.00	ND	5.91	14.77	ND	
534-22-5	2-Methyl furan	2.00	5.00	3.07	6.72	16.81	10.34	J
930-27-8	3-Methyl furan	2.00	5.00	ND	6.72	16.81	ND	
590-86-3	3-Methyl butanal	2.00	5.00	ND	7.05	17.64	ND	
1730-97-8	2-Methyl butanal	2.00	5.00	ND	7.05	17.64	ND	
110-62-3	Pentanal	2.00	5.00	ND	7.05	17.64	ND	
624-92-0	Dimethyl Disulfide	2.00	5.00	ND	7.72	19.29	ND	
66-25-1	Hexaldehyde	2.00	5.00	ND	8.20	20.51	ND	
111-71-7	Heptanal	2.00	5.00	ND	9.35	23.38	ND	
3658-80-8	Dimethyl Trisulfide	2.00	5.00	ND	10.34	25.85	ND	
124-13-0	Octanal	2.00	5.00	14.97	10.50	26.25	78.62	
124-19-6	Nonal	2.00	5.00	74.85	11.65	29.13	436.05	
1120-21-4	Undecane	2.00	5.00	ND	12.80	32.01	ND	
112-31-2	Decanal	2.00	5.00	ND	12.80	32.00	ND	

Surrogate Recovery		% Rec.	QC LCL	Limits UCL	Flag
2037-26-5	Toluene-d8	109	70	130	

ANALYTICAL REPORT

ENVIRONMENTAL
Analytical Service, Inc.

EPA Method TO-15 Modified Full Scan GC/MS

Analytical Method: TO-15

SDG: 221264

Laboratory ID: 01

File Name: 2136401A.D

Date Sampled: 02/24/21

Time:

Description: MEADOW CREEK SAMPLE

Date Analyzed: 09/10/21

Time: 15:59

Canister:

Can Dilution Factor: 1.00

QC_Batch: 091021-MA1

Air Volume: 50.00 ml

CAS#	Compound	MDL PPBV	RL PPBV	Amount PPBV	MDL UG/M3	RL UG/M3	Amount UG/M3	Flag
75-07-0	Acetaldehyde	7.00	20.00	81.39	12.61	36.01	146.57	

ANALYTICAL REPORT

ENVIRONMENTAL
Analytical Service, Inc.

EPA Method TO-15 Modified Full Scan GC/MS

Analytical Method: TO-15

SDG: 221264

Laboratory ID: 02

File Name: 2136402A.D

Description: DUMP SITE 4FT

Canister:

QC_Batch: 091021-MSA

Date Sampled: 02/24/21

Time:

Date Analyzed: 09/10/21

Time: 15:59

Can Dilution Factor: 1.00

Air Volume: 50 ml

CAS#	Compound	MDL PPBV	RL PPBV	Amount PPBV	MDL UG/M3	RL UG/M3	Amount UG/M3	Flag
75-71-8	Dichlorodifluoromethane	3.00	5.04	ND	14.83	24.91	ND	
76-14-2	1,2-Dichlorotetrafluoroethane	2.00	5.04	ND	13.97	35.21	ND	
64-17-5	Ethanol	7.00	15.00	ND	13.19	28.27	ND	
75-69-4	Trichlorofluoromethane	2.00	4.80	ND	11.23	26.96	ND	
67-64-1	Acetone	2.00	6.16	518.76	4.75	14.63	1,232.11	
76-13-1	1,1,2-Trichlorotrifluoroethane	1.00	4.78	ND	7.66	36.62	ND	
75-15-0	Carbon disulfide	2.00	4.64	37.05	6.22	14.43	115.28	
156-60-5	trans-1,2-Dichloroethene	1.00	3.62	ND	3.96	14.34	ND	
78-93-3	2-Butanone (MEK)	2.00	5.10	ND	5.89	15.03	ND	
110-54-3	Hexane	2.00	3.70	250.88	7.05	13.04	884.06	
156-59-2	cis-1,2-Dichloroethene	1.00	5.36	ND	3.96	21.23	ND	
67-66-3	Chloroform	1.00	5.02	ND	4.90	24.50	ND	
71-43-2	Benzene	1.40	5.08	3.67	4.47	16.22	11.70	J
56-23-5	Carbon tetrachloride	1.00	4.72	31.32	6.29	29.68	196.89	
142-82-5	n-Heptane	2.00	3.02	ND	8.19	12.37	ND	
79-01-6	Trichloroethene (TCE)	0.50	4.66	ND	2.69	25.03	ND	
108-88-3	Toluene	2.00	5.22	27.84	7.53	19.65	104.83	
111-65-9	Octane	2.00	2.72	ND	9.34	12.70	ND	
127-18-4	Tetrachloroethene (PCE)	0.50	2.44	ND	3.39	16.54	ND	
100-41-4	Ethylbenzene	2.00	5.28	2.11	8.68	22.92	9.17	J
1330-20-7	m,p-Xylenes	2.00	5.30	9.45	8.68	23.01	41.02	
111-84-2	Nonane	2.00	2.38	ND	10.49	12.48	ND	
100-42-5	Styrene	2.00	5.18	ND	8.52	22.06	ND	
95-47-6	o-Xylene	2.00	5.16	3.15	8.68	22.40	13.69	J
611-14-3	2-Ethyltoluene	4.00	8.28	ND	19.65	40.69	ND	
124-18-5	Decane	2.00	2.54	ND	11.63	14.78	ND	
91-20-3	Naphthalene	1.00	1.88	ND	5.24	9.85	ND	

Surrogate Recovery		% Rec.	QC LCL	Limits UCL	Flag
2037-26-5	Toluene-d8	87	70	130	

ANALYTICAL REPORT

ENVIRONMENTAL
Analytical Service, Inc.

EPA Method TO-15 Modified Full Scan GC/MS

SDG: 221264

Analytical Method: TO-15

Laboratory ID: 02

File Name: 2136402A.D

Date Sampled: 02/24/21

Time:

Description: DUMP SITE 4FT

Date Analyzed: 09/10/21

Time: 15:59

Canister:

Can Dilution Factor: 1.00

QC_Batch: 091021-MA1

Air Volume: 50.00 ml

CAS#	Compound	MDL PPBV	RL PPBV	Amount PPBV	MDL UG/M3	RL UG/M3	Amount UG/M3	Flag
463-58-1	Carbonyl Sulfide	2.00	5.00	9.66	4.91	12.29	23.74	
115-11-7	2-Methylpropene	2.00	5.00	13.56	4.59	11.47	31.10	
646-04-8	trans-2-Pentene	2.00	5.00	ND	5.73	14.33	ND	
627-20-3	cis-2-Pentene	2.00	5.00	ND	5.73	14.33	ND	
1717-00-6	1,1-Dichloro-1-fluoroethane	2.00	5.00	ND	9.58	23.95	ND	
75-18-3	Dimethylsulfide	2.00	5.00	ND	5.09	12.72	ND	
107-83-5	2-Methylpentane	2.00	5.00	36.71	7.06	17.65	129.57	
96-14-0	3-Methyl pentane	2.00	5.00	68.74	7.06	17.65	242.60	
123-72-8	Butanal	2.00	5.00	ND	5.91	14.77	ND	
534-22-5	2-Methyl furan	2.00	5.00	ND	6.72	16.81	ND	
930-27-8	3-Methyl furan	2.00	5.00	ND	6.72	16.81	ND	
590-86-3	3-Methyl butanal	2.00	5.00	ND	7.05	17.64	ND	
1730-97-8	2-Methyl butanal	2.00	5.00	16.81	7.05	17.64	59.29	
110-62-3	Pentanal	2.00	5.00	ND	7.05	17.64	ND	
624-92-0	Dimethyl Disulfide	2.00	5.00	ND	7.72	19.29	ND	
66-25-1	Hexaldehyde	2.00	5.00	ND	8.20	20.51	ND	
111-71-7	Heptanal	2.00	5.00	ND	9.35	23.38	ND	
3658-80-8	Dimethyl Trisulfide	2.00	5.00	ND	10.34	25.85	ND	
124-13-0	Octanal	2.00	5.00	ND	10.50	26.25	ND	
124-19-6	Nonal	2.00	5.00	ND	11.65	29.13	ND	
1120-21-4	Undecane	2.00	5.00	ND	12.80	32.01	ND	
112-31-2	Decanal	2.00	5.00	ND	12.80	32.00	ND	

Surrogate Recovery		% Rec.	QC LCL	Limits UCL	Flag
2037-26-5	Toluene-d8	107	70	130	

ANALYTICAL REPORT

ENVIRONMENTAL
Analytical Service, Inc.

EPA Method TO-15 Modified Full Scan GC/MS

Analytical Method: TO-15

SDG: 221264

Laboratory ID: 02

File Name: 2136402A.D

Date Sampled: 02/24/21

Time:

Description: DUMP SITE 4FT

Date Analyzed: 09/10/21

Time: 15:59

Canister:

Can Dilution Factor: 1.00

QC_Batch: 091021-MA1

Air Volume: 50.00 ml

CAS#	Compound	MDL	RL	Amount	MDL	RL	Amount	Flag
		PPBV	PPBV	PPBV	UG/M3	UG/M3	UG/M3	
75-07-0	Acetaldehyde	7.00	20.00	178.02	12.61	36.01	320.56	

ANALYTICAL REPORT

ENVIRONMENTAL
Analytical Service, Inc.

EPA Method TO-15 Modified Full Scan GC/MS

Analytical Method: TO-15

SDG: 221264
Laboratory ID: 03

File Name: 2136403A.D

Description: MEADOW CREEK DOG ALERT

Canister:

QC_Batch: 091021-MSA

Date Sampled: 2/24/2021

Date Analyzed: 9/10/2021

Can Dilution Factor: 1.00

Air Volume: 50 ml

Time:

Time: 17:12

CAS#	Compound	MDL PPBV	RL PPBV	Amount PPBV	MDL UG/M3	RL UG/M3	Amount UG/M3	Flag
75-71-8	Dichlorodifluoromethane	3.00	5.04	ND	14.83	24.91	ND	
76-14-2	1,2-Dichlorotetrafluoroethane	2.00	5.04	ND	13.97	35.21	ND	
64-17-5	Ethanol	7.00	15.00	ND	13.19	28.27	ND	
75-69-4	Trichlorofluoromethane	2.00	4.80	ND	11.23	26.96	ND	
67-64-1	Acetone	2.00	6.16	184.16	4.75	14.63	437.40	
76-13-1	1,1,2-Trichlorotrifluoroethane	1.00	4.78	ND	7.66	36.62	ND	
75-15-0	Carbon disulfide	2.00	4.64	20.60	6.22	14.43	64.08	
156-60-5	trans-1,2-Dichloroethene	1.00	3.62	ND	3.96	14.34	ND	
78-93-3	2-Butanone (MEK)	2.00	5.10	ND	5.89	15.03	ND	
110-54-3	Hexane	2.00	3.70	92.42	7.05	13.04	325.68	
156-59-2	cis-1,2-Dichloroethene	1.00	5.36	ND	3.96	21.23	ND	
67-66-3	Chloroform	1.00	5.02	ND	4.90	24.50	ND	
71-43-2	Benzene	1.40	5.08	7.26	4.47	16.22	23.18	
56-23-5	Carbon tetrachloride	1.00	4.72	51.56	6.29	29.68	324.16	
142-82-5	n-Heptane	2.00	3.02	ND	8.19	12.37	ND	
79-01-6	Trichloroethene (TCE)	0.50	4.66	ND	2.69	25.03	ND	
108-88-3	Toluene	2.00	5.22	46.98	7.53	19.65	176.87	
111-65-9	Octane	2.00	2.72	ND	9.34	12.70	ND	
127-18-4	Tetrachloroethene (PCE)	0.50	2.44	ND	3.39	16.54	ND	
100-41-4	Ethylbenzene	2.00	5.28	ND	8.68	22.92	ND	
1330-20-7	m,p-Xylenes	2.00	5.30	ND	8.68	23.01	ND	
111-84-2	Nonane	2.00	2.38	ND	10.49	12.48	ND	
100-42-5	Styrene	2.00	5.18	ND	8.52	22.06	ND	
95-47-6	o-Xylene	2.00	5.16	ND	8.68	22.40	ND	
611-14-3	2-Ethyltoluene	4.00	8.28	ND	19.65	40.69	ND	
124-18-5	Decane	2.00	2.54	ND	11.63	14.78	ND	
91-20-3	Naphthalene	1.00	1.88	ND	5.24	9.85	ND	

Surrogate Recovery		% Rec.	QC LCL	Limits UCL	Flag
2037-26-5	Toluene-d8	86	70	130	

ANALYTICAL REPORT

ENVIRONMENTAL
Analytical Service, Inc.

EPA Method TO-15 Modified Full Scan GC/MS

Analytical Method: TO-15

SDG: 221264

Laboratory ID: 03

File Name: 2136403A.D

Description: MEADOW CREEK DOG ALERT

Canister:

QC_Batch: 091021-MA1

Date Sampled: 2/24/2021

Time:

Date Analyzed: 9/10/2021

Time: 17:12

Can Dilution Factor: 1.00

Air Volume: 50.00 ml

CAS#	Compound	MDL PPBV	RL PPBV	Amount PPBV	MDL UG/M3	RL UG/M3	Amount UG/M3	Flag
463-58-1	Carbonyl Sulfide	2.00	5.00	4.86	4.91	12.29	11.93	J
115-11-7	2-Methylpropene	2.00	5.00	ND	4.59	11.47	ND	
646-04-8	trans-2-Pentene	2.00	5.00	ND	5.73	14.33	ND	
627-20-3	cis-2-Pentene	2.00	5.00	ND	5.73	14.33	ND	
1717-00-6	1,1-Dichloro-1-fluoroethane	2.00	5.00	ND	9.58	23.95	ND	
75-18-3	Dimethylsulfide	2.00	5.00	ND	5.09	12.72	ND	
107-83-5	2-Methylpentane	2.00	5.00	18.81	7.06	17.65	66.41	
96-14-0	3-Methyl pentane	2.00	5.00	35.34	7.06	17.65	124.74	
123-72-8	Butanal	2.00	5.00	ND	5.91	14.77	ND	
534-22-5	2-Methyl furan	2.00	5.00	2.93	6.72	16.81	9.84	J
930-27-8	3-Methyl furan	2.00	5.00	ND	6.72	16.81	ND	
590-86-3	3-Methyl butanal	2.00	5.00	ND	7.05	17.64	ND	
1730-97-8	2-Methyl butanal	2.00	5.00	ND	7.05	17.64	ND	
110-62-3	Pentanal	2.00	5.00	ND	7.05	17.64	ND	
624-92-0	Dimethyl Disulfide	2.00	5.00	ND	7.72	19.29	ND	
66-25-1	Hexaldehyde	2.00	5.00	ND	8.20	20.51	ND	
111-71-7	Heptanal	2.00	5.00	ND	9.35	23.38	ND	
3658-80-8	Dimethyl Trisulfide	2.00	5.00	ND	10.34	25.85	ND	
124-13-0	Octanal	2.00	5.00	ND	10.50	26.25	ND	
124-19-6	Nonal	2.00	5.00	ND	11.65	29.13	ND	
1120-21-4	Undecane	2.00	5.00	ND	12.80	32.01	ND	
112-31-2	Decanal	2.00	5.00	ND	12.80	32.00	ND	

Surrogate Recovery				QC	Limits	Flag
		% Rec.		LCL	UCL	
2037-26-5	Toluene-d8	105		70	130	

ANALYTICAL REPORT

ENVIRONMENTAL
Analytical Service, Inc.

EPA Method TO-15 Modified Full Scan GC/MS

Analytical Method: TO-15

SDG: 221264

Laboratory ID: 03

File Name: 2136403A.D

Date Sampled: 02/24/21

Time:

Description: MEADOW CREEK DOG ALERT

Date Analyzed: 09/10/21

Time: 17:12

Canister:

Can Dilution Factor: 1.00

QC_Batch: 091021-MA1

Air Volume: 50.00 ml

CAS#	Compound	MDL PPBV	RL PPBV	Amount PPBV	MDL UG/M3	RL UG/M3	Amount UG/M3	Flag
75-07-0	Acetaldehyde	7.00	20.00	22.60	12.61	36.01	40.69	

ANALYTICAL REPORT

ENVIRONMENTAL
Analytical Service, Inc.

EPA Method TO-15 Modified Full Scan GC/MS

Analytical Method: TO-15

SDG: 221264

Laboratory ID: 04

File Name: 2136404A.D

Description: DUMPSITE 2-3 FT

Canister:

QC_Batch: 091021-MSA

Date Sampled: 2/24/2021

Time:

Date Analyzed: 9/10/2021

Time: 17:48

Can Dilution Factor: 1.00

Air Volume: 50 ml

CAS#	Compound	MDL PPBV	RL PPBV	Amount PPBV	MDL UG/M3	RL UG/M3	Amount UG/M3	Flag
75-71-8	Dichlorodifluoromethane	3.00	5.04	ND	14.83	24.91	ND	
76-14-2	1,2-Dichlorotetrafluoroethane	2.00	5.04	ND	13.97	35.21	ND	
64-17-5	Ethanol	7.00	15.00	ND	13.19	28.27	ND	
75-69-4	Trichlorofluoromethane	2.00	4.80	ND	11.23	26.96	ND	
67-64-1	Acetone	2.00	6.16	125.86	4.75	14.63	298.93	
76-13-1	1,1,2-Trichlorotrifluoroethane	1.00	4.78	ND	7.66	36.62	ND	
75-15-0	Carbon disulfide	2.00	4.64	ND	6.22	14.43	ND	
156-60-5	trans-1,2-Dichloroethene	1.00	3.62	ND	3.96	14.34	ND	
78-93-3	2-Butanone (MEK)	2.00	5.10	ND	5.89	15.03	ND	
110-54-3	Hexane	2.00	3.70	8.63	7.05	13.04	30.42	
156-59-2	cis-1,2-Dichloroethene	1.00	5.36	ND	3.96	21.23	ND	
67-66-3	Chloroform	1.00	5.02	ND	4.90	24.50	ND	
71-43-2	Benzene	1.40	5.08	ND	4.47	16.22	ND	
56-23-5	Carbon tetrachloride	1.00	4.72	ND	6.29	29.68	ND	
142-82-5	n-Heptane	2.00	3.02	ND	8.19	12.37	ND	
79-01-6	Trichloroethene (TCE)	0.50	4.66	ND	2.69	25.03	ND	
108-88-3	Toluene	2.00	5.22	ND	7.53	19.65	ND	
111-65-9	Octane	2.00	2.72	7.54	9.34	12.70	35.18	
127-18-4	Tetrachloroethene (PCE)	0.50	2.44	ND	3.39	16.54	ND	
100-41-4	Ethylbenzene	2.00	5.28	ND	8.68	22.92	ND	
1330-20-7	m,p-Xylenes	2.00	5.30	ND	8.68	23.01	ND	
111-84-2	Nonane	2.00	2.38	ND	10.49	12.48	ND	
100-42-5	Styrene	2.00	5.18	ND	8.52	22.06	ND	
95-47-6	o-Xylene	2.00	5.16	ND	8.68	22.40	ND	
611-14-3	2-Ethyltoluene	4.00	8.28	ND	19.65	40.69	ND	
124-18-5	Decane	2.00	2.54	ND	11.63	14.78	ND	
91-20-3	Naphthalene	1.00	1.88	ND	5.24	9.85	ND	

Surrogate Recovery			% Rec.	QC	Limits	Flag
				LCL	UCL	
2037-26-5	Toluene-d8		86	70	130	

ANALYTICAL REPORT

ENVIRONMENTAL
Analytical Service, Inc.

EPA Method TO-15 Modified Full Scan GC/MS

SDG: 221264

Analytical Method: TO-15

Laboratory ID: 04

File Name: 2136404A.D

Date Sampled: 02/24/21

Time:

Description: DUMPSITE 2-3 FT

Date Analyzed: 09/10/21

Time: 17:12

Canister:

Can Dilution Factor: 1.00

QC_Batch: 091021-MA1

Air Volume: 50.00 ml

CAS#	Compound	MDL PPBV	RL PPBV	Amount PPBV	MDL UG/M3	RL UG/M3	Amount UG/M3	Flag
463-58-1	Carbonyl Sulfide	2.00	5.00	ND	4.91	12.29	ND	
115-11-7	2-Methylpropene	2.00	5.00	ND	4.59	11.47	ND	
646-04-8	trans-2-Pentene	2.00	5.00	ND	5.73	14.33	ND	
627-20-3	cis-2-Pentene	2.00	5.00	ND	5.73	14.33	ND	
1717-00-6	1,1-Dichloro-1-fluoroethane	2.00	5.00	ND	9.58	23.95	ND	
75-18-3	Dimethylsulfide	2.00	5.00	32.23	5.09	12.72	82.02	
107-83-5	2-Methylpentane	2.00	5.00	15.33	7.06	17.65	54.10	
96-14-0	3-Methyl pentane	2.00	5.00	ND	7.06	17.65	ND	
123-72-8	Butanal	2.00	5.00	ND	5.91	14.77	ND	
534-22-5	2-Methyl furan	2.00	5.00	5.69	6.72	16.81	19.12	
930-27-8	3-Methyl furan	2.00	5.00	ND	6.72	16.81	ND	
590-86-3	3-Methyl butanal	2.00	5.00	ND	7.05	17.64	ND	
1730-97-8	2-Methyl butanal	2.00	5.00	12.64	7.05	17.64	44.60	
110-62-3	Pentanal	2.00	5.00	ND	7.05	17.64	ND	
624-92-0	Dimethyl Disulfide	2.00	5.00	ND	7.72	19.29	ND	
66-25-1	Hexaldehyde	2.00	5.00	ND	8.20	20.51	ND	
111-71-7	Heptanal	2.00	5.00	ND	9.35	23.38	ND	
3658-80-8	Dimethyl Trisulfide	2.00	5.00	ND	10.34	25.85	ND	
124-13-0	Octanal	2.00	5.00	ND	10.50	26.25	ND	
124-19-6	Nonal	2.00	5.00	19.44	11.65	29.13	113.25	
1120-21-4	Undecane	2.00	5.00	ND	12.80	32.01	ND	
112-31-2	Decanal	2.00	5.00	17.65	12.80	32.00	112.97	

Surrogate Recovery		% Rec.	QC LCL	Limits UCL	Flag
2037-26-5	Toluene-d8	105	70	130	

ANALYTICAL REPORT

ENVIRONMENTAL
Analytical Service, Inc.

EPA Method TO-15 Modified Full Scan GC/MS

Analytical Method: TO-15

SDG: 221264

Laboratory ID: 04

File Name: 2136404A.D

Date Sampled: 02/24/21

Time:

Description: DUMPSITE 2-3 FT

Date Analyzed: 09/10/21

Time: 17:48

Canister:

Can Dilution Factor: 1.00

QC_Batch: 091021-MA1

Air Volume: 50.00 ml

CAS#	Compound	MDL PPBV	RL PPBV	Amount PPBV	MDL UG/M3	RL UG/M3	Amount UG/M3	Flag
75-07-0	Acetaldehyde	7.00	20.00	27.56	12.61	36.01	49.62	
