



NHDES Waste Management Division
29 Hazen Drive; PO Box 95
Concord, NH 03302-0095



UNDERGROUND STORAGE TANK CLOSURE REPORT

Turn Key Lumber
162 (179) Route 12 North
Fitzwilliam, New Hampshire 03447

NHDES Site #198905021
UST Facility ID #0112678

Prepared For:
Fitzwilliam LLC
305 Leominster Shirley Road
Lunenberg, Massachusetts 01462
Phone Number: (978) 490-6691
RP Contact Name: Mike Rossi
RP Contact Email: mike@turnkeylumber.com

Prepared By:
Wilcox & Barton, Inc.
#1B Commons Drive, Unit 12B
Londonerry, New Hampshire 03053
Phone Number: (603) 369-4190 x502
Contact Name: Mr. Russel W. Barton
Contact Email: rbarton@wilcoxandbarton.com

April 7, 2022

Wilcox & Barton Project #GAFT0165



CIVIL • ENVIRONMENTAL • GEOTECHNICAL

UNDERGROUND STORAGE TANK CLOSURE REPORT

**TURN KEY LUMBER
162 (179) ROUTE 12 NORTH
FITZWILLIAM, NEW HAMPSHIRE**

**NHDES SITE #198905021
FACILITY ID #0112678**

Prepared for:
Fitzwilliam LLC
305 Leominster Shirley Road
Lunenberg, Massachusetts 01462
Contact: Mike Rossi, (978) 490-6691

Prepared by:
Wilcox & Barton, Inc.
#1B Commons Drive, Unit 12B
Londonerry, New Hampshire 03053
Contact: Mr. Russell W. Barton, (603) 369-4190 x502

April 7, 2022

Wilcox & Barton, Inc. Project #GAFT0165

CERTIFICATION

The following personnel have prepared and/or reviewed this report for accuracy, content, and quality of presentation.

Document: Underground Storage Tank Closure Report
Turn Key Lumber
162 (179) Route 12 North, Fitzwilliam, New Hampshire
NHDES Site #198905021, Facility #0112678

Date/Version: April 7, 2022


Devin Perry
Staff Geologist


Russell W. Barton
Principal Geologist

TABLE OF CONTENTS

1.0	INTRODUCTION.....	1
2.0	SITE DESCRIPTION.....	1
3.0	CLOSURE OF UST AND PIPING	1
3.1	UST System Removal.....	1
3.2	Field Screening	2
3.3	Soil and Groundwater Sampling and Analysis	2
3.4	Waste Disposal.....	3
4.0	CONCLUSIONS AND RECOMMENDATIONS.....	3

Tables

- Table 1 Soil Samples – Summary of Analytical Results
Table 2 Groundwater Samples – Summary of Analytical Results

Figures

- Figure 1 Site Location Map
Figure 2 UST Closure Plan

Appendices

- Appendix A Photographs
Appendix B UST Closure Notification
Appendix C Wilcox & Barton, Inc. Standard Operating Procedures
Appendix D Laboratory Results
Appendix E Waste Disposal

1.0 INTRODUCTION

Wilcox & Barton, Inc. performed a closure assessment during removal of one double-walled steel underground storage tank (UST) and associated piping from the Turn Key Lumber facility located at 162 (179) Route 12 North in Fitzwilliam, New Hampshire (the site). Tank removal was completed by Gaftek, Inc. (Gaftek) of Epsom, New Hampshire, in general accordance with the June 2014 New Hampshire Department of Environmental Services (NHDES) guidance entitled *Requirements for Underground and Aboveground Storage Tank System and System Component Closure Sampling and Reporting* and New Hampshire Code of Administrative Rules Env-Or 400, *Underground Storage Tank Facilities*.

2.0 SITE DESCRIPTION

The site is situated on a 19.5-acre parcel in a rural section of Fitzwilliam, New Hampshire, and is identified by the Town of Fitzwilliam Assessor's Department as Tax Map 15, Lot 29. The UST was located near the northeast corner of the building.

The property is bound by a commercial property to the north, Route 12 to the east, a wooded residential area to the South, and a forested area to the west. Topography at the site is generally flat. The nearest surface water is an unnamed pond approximately 4,500 feet to the northeast.

The location of the site is presented on Figure 1 – *Site Location Map* and site details are depicted on Figure 2 – *UST Closure Plan*. Photographs documenting closure activities are provided in Appendix A.

3.0 CLOSURE OF UST AND PIPING

According to NHDES records, the property is listed as NHDES Site #198905021 and registered as UST Facility #0112678. The subject UST is identified as Tank 4 within the NHDES database and is utilized for the storage of #2 heating oil. The tank is listed as composite, was installed in November 1998 and is 10,000 gallons in capacity. The UST Closure Notification Form was submitted on November 7, 2022, a copy of the *UST Closure Notification* is provided in Appendix B. Mr. John Ziembra (ICC No. 8035335-U2) of Gaftek provided *International Code Council (ICC) Certification* inspection during removal of the USTs and piping. Removal activities were observed by Wilcox & Barton, Inc.

3.1 UST System Removal

On February 23, 2022, Gaftek removed the #2 heating oil UST and all associated product piping. Prior to removal of the tank, Gaftek rinsed the tank, NRC East Environmental Services, Inc transported the residual fuel and rinse water to the NRC Environmental of Maine, Inc. facility located in South Portland, Maine, see Section 3.4 for additional documentation. Wilcox & Barton, Inc. oversaw all tank and piping removal and performed a closure assessment.

Gaftek removed the soil covering the top of the tank, which was encountered at approximately 2 feet below ground surface (bgs). The excavated soil was temporarily stockpiled directly north of

the UST. Once removed, the UST was observed to be in good condition with no visible evidence of holes or other evidence of failure. The #2 heating oil UST measured approximately 8 feet in diameter by 27 feet in length. The tank sumps, piping, and ducting were also removed and observed to be in good condition. Soil observed at the base and sidewalls of the excavation was primarily fine to medium sand. The excavation measured approximately 20 feet in width by 40 feet in length and 10 feet in depth. A separate section for piping excavation measured 20 feet in width by 26 feet in length and three feet in depth.

During the closure assessment, no olfactory evidence of petroleum contamination was observed in soil around or under the UST and piping. Excavation was guided by visual, olfactory, and field screening data. The extent of the excavation and soil analytical sample locations, and soil PID data are presented on Figure 2 - *UST Closure Plan*.

3.2 Field Screening

Wilcox & Barton, Inc. collected soil samples from beneath the USTs and associated piping. Samples were screened with a MiniRae Lite photoionization detector (PID) in accordance with the Wilcox & Barton, Inc. Standard Operating Procedure (SOP) presented in Appendix C. The PID was calibrated with isobutylene for the measurement of organic vapors on a part-per-million by volume (ppmv) basis. PID readings ranged from 0.2 ppmv to 0.4 ppmv.

Groundwater was encountered in the excavation at approximately 3.5 ft bgs.

3.3 Soil and Groundwater Sampling and Analysis

On February 23, 2022, two soil samples (S-1 and S-2) and one groundwater sample (GW-1) were collected from the excavation following removal of the UST and piping. The samples were collected in accordance with the SOPs in Appendix C and submitted under standard chain-of-custody to Pace Analytical Laboratory (Pace) in East Longmeadow, Massachusetts.

Soil sample S-1 was collected from the west end of the 10,000-gallon UST. The soil sample was submitted for laboratory analysis of the NHDES Full List of Analytes for volatile organic compounds (VOCs) by U.S. Environmental Protection Agency (EPA) Method 8260, polycyclic aromatic hydrocarbons (PAHs) by EPA Method 8270, and total petroleum hydrocarbons for diesel range organics (TPH-DRO) by EPA Method Modified 8015. Soil sample S-2 was collected from the east end of the UST. The soil sample was submitted for laboratory analysis of VOCs by EPA Method 8260, PAHs by EPA Method 8270, and TPH-DRO by EPA Method Modified 8015.

Neither VOCs, or PAHs were detected above the laboratory detection limits. TPH-DRO was not detected above NHDES Soil Remediation Standards in either sample. Analytical results are summarized in Table 1 – *Soil Samples – Summary of Analytical Results*, and a copy of the laboratory report is provided in Appendix D.

One groundwater sample was collected from the UST excavation (GW-1). The groundwater sample was submitted for laboratory analysis of VOCs by EPA Method 8260 and PAHs by EPA Method 8270.

Several PAH compounds were detected, with benzofluoranthene and indenopyrene concentrations exceeding NHDES Ambient Groundwater Quality Standards (AGQS). No VOCs were detected at concentrations exceeding AGQS. Analytical results are summarized in Table 2 – *Groundwater Samples – Summary of Analytical Results*, and a copy of the laboratory report is provided in Appendix D.

3.4 Waste Disposal

A total of 203 gallons of residual #2 fuel oil were removed from the UST and were transported by NRC East Environmental Services, Inc. to their NRC Environmental of Maine, Inc facility located in South Portland, Maine. The UST was taken to Scrap It, Inc. in Marlborough, New Hampshire, for disposal. Copies of the waste and UST disposal documents are provided in Appendix E.

4.0 CONCLUSIONS AND RECOMMENDATIONS

On February 23, 2022, Gaftek removed the UST and associated piping from the Turnkey Lumber Facility located at 162 (179) Route 12 North in Fitzwilliam, New Hampshire. The UST and piping were observed to be in good condition with no obvious evidence of failure or breaches of integrity. The excavation was backfilled after completion of the closure assessment.

During removal of the tank and piping, no significant olfactory evidence of petroleum-impacted soil was observed; organic vapor readings ranged up to 0.4 ppmv. Groundwater was encountered at a depth of approximately 3.5 feet bgs within the excavation.

Laboratory analyses of two soil samples from the UST excavation revealed no constituents at concentrations exceeding SRS. Laboratory analysis of one groundwater sample revealed several constituents exceeding AGQS. The two PAH compounds exceeding the NHDES AGQS, benzofluoranthene and indenopyrene, are not expected to be associated with a release of #2 fuel oil

As such, closure requirements for the UST system have been met. Wilcox & Barton, Inc. recommends maintenance of this closure record by the property owner for the operating life of the facility in accordance with the requirements of New Hampshire Code of Administrative Rules Env-Or 304.06.

TABLES

TABLE 1
Soil Samples - Summary of Analytical Results

Turn Key Lumber
 162 (179) Route 12 North, Fitzwilliam, New Hampshire
 NHDES Site #198905021

Sample Identification Sample Date Depth (feet) / PID (ppmv)	NHDES Soil Remediation Standards (SRS) *	S-1 2/23/2022 6 / 0.1	S-2 2/23/2022 6 / 0.2
Polycyclic Aromatic Hydrocarbons (PAHs) by EPA Method 8270			
Acenaphthene	340	0.22 U	0.20 U
Acenaphthylene	490	0.22 U	0.20 U
Anthracene	1,000	0.22 U	0.20 U
Benzo(a)anthracene	1	0.22 U	0.20 U
Benzo(a)pyrene	0.7	0.22 U	0.20 U
Benzo(b)fluoranthene	1	0.22 U	0.20 U
Benzo(g,h,i)perylene	NS	0.22 U	0.20 U
Benzo(k)fluoranthene	12	0.22 U	0.20 U
Chrysene	120	0.22 U	0.20 U
Dibenz(a,h)anthracene	0.7	0.22 U	0.20 U
Fluoranthene	960	0.22 U	0.20 U
Fluorene	77	0.22 U	0.20 U
Indeno(1,2,3-cd)pyrene	1	0.22 U	0.20 U
2-Methylnaphthalene	96	0.22 U	0.20 U
Naphthalene**	28	0.22 U	0.20 U
Phenanthrene	NS	0.22 U	0.20 U
Pyrene	720	0.22 U	0.20 U
Volatile Organic Compounds (VOCs) by EPA Method 8260			
Acetone	75	0.11 U	0.11 U
Benzene	0.3	0.0023 U	0.0022 U
n-Butylbenzene	110	0.0023 U	0.0022 U
sec-Butylbenzene	130	0.0023 U	0.0022 U
tert-Butylbenzene	100	0.0023 U	0.0022 U
Ethylbenzene	120	0.0023 U	0.0022 U
Isopropylbenzene (Cumene)	330	0.0023 U	0.0022 U
Methyl tert-Butyl Ether (MTBE)	0.2	0.0046 U	0.0045 U
Naphthalene**	28	0.0046 U	0.0045 U
n-Propylbenzene	85	0.0023 U	0.0022 U
Toluene	100	0.0023 U	0.0022 U
1,2,4-Trimethylbenzene	130	0.0023 U	0.0022 U
1,3,5-Trimethylbenzene	96	0.0023 U	0.0022 U
Total Xylenes	500	0.0069 U	0.0067 U
Total Petroleum Hydrocarbons (TPH) by EPA Method 8015			
TPH (as Diesel)	10,000	3.7 J	3.8 J

All detected and selected other analytes listed; all others were not detected.

Results in milligrams per kilogram (mg/kg) unless otherwise noted.

PID Photoionization Detector. Results in parts per million by volume (ppmv).

U Not detected at or above the indicated laboratory reporting limit.

J Estimated concentration.

NS No standard established.

-- Sample not collected/analyzed for this compound.

bold Detected concentration exceeds SRS.

bold italics Not detected; laboratory reporting limit exceeds SRS.

* Env-Or 606.19, Table 600-2, SRS, effective June 1, 2015.

** Standard per Risk Characterization and Management Policy Table B-2, revised September 2018.

TABLE 2
Groundwater Samples - Summary of Analytical Results

Turn Key Lumber
 162 (179) Route 12 North, Fitzwilliam, New Hampshire
 NHDES Site #199805021

Sample Identification Sample Date	Ambient Groundwater Quality Standards (AGQS) †	GW-1 2/23/22
Polycyclic Aromatic Hydrocarbons (PAHs) by EPA Method 8270		
Acenaphthene	420	0.033 J
Acenaphthylene	420	0.19 U
Anthracene	2,100	0.19 U
Benzo(a)anthracene	0.1	0.079
Benzo(a)pyrene	0.2	0.15
Benzo(b)fluoranthene	0.1	0.21
Benzo(g,h,i)perylene	210	0.15 J
Benzo(k)fluoranthene	0.5	0.079 J
Chrysene	5	0.12 J
Dibenz(a,h)anthracene	0.1	0.025 J
Fluoranthene	280	0.13 J
Fluorene	280	0.96 U
Indeno(1,2,3-cd)pyrene	0.1	0.14
2-Methylnaphthalene	280	0.96 UB
Naphthalene	100	0.96 UB
Phenanthrene	210	0.028 J
Pyrene	210	0.12 J
Volatile Organic Compounds (VOCs) by EPA Method 8260		
Acetone	6,000	8.8 J
Benzene	5	1.0 U
n-Butylbenzene	260	1.0 U
sec-Butylbenzene	260	0.34 J
tert-Butylbenzene	260	1.0 U
Ethylbenzene	700	1.0 U
Isopropylbenzene (Cumene)	800	0.31 J
Methyl tert-Butyl Ether (MTBE)	13	1.0 U
Naphthalene	100	2.0 U
n-Propylbenzene	260	0.32 J
Toluene	1,000	1.0 U
1,2,4-Trimethylbenzene	330	0.42 J
1,3,5-Trimethylbenzene	330	1.0 U
Total Xylenes	10,000	3.0 U

Detected and selected other analytes listed; all others were not detected.

Results in micrograms per liter ($\mu\text{g/L}$) unless otherwise noted.

U Not detected at or above the listed laboratory reporting limit.

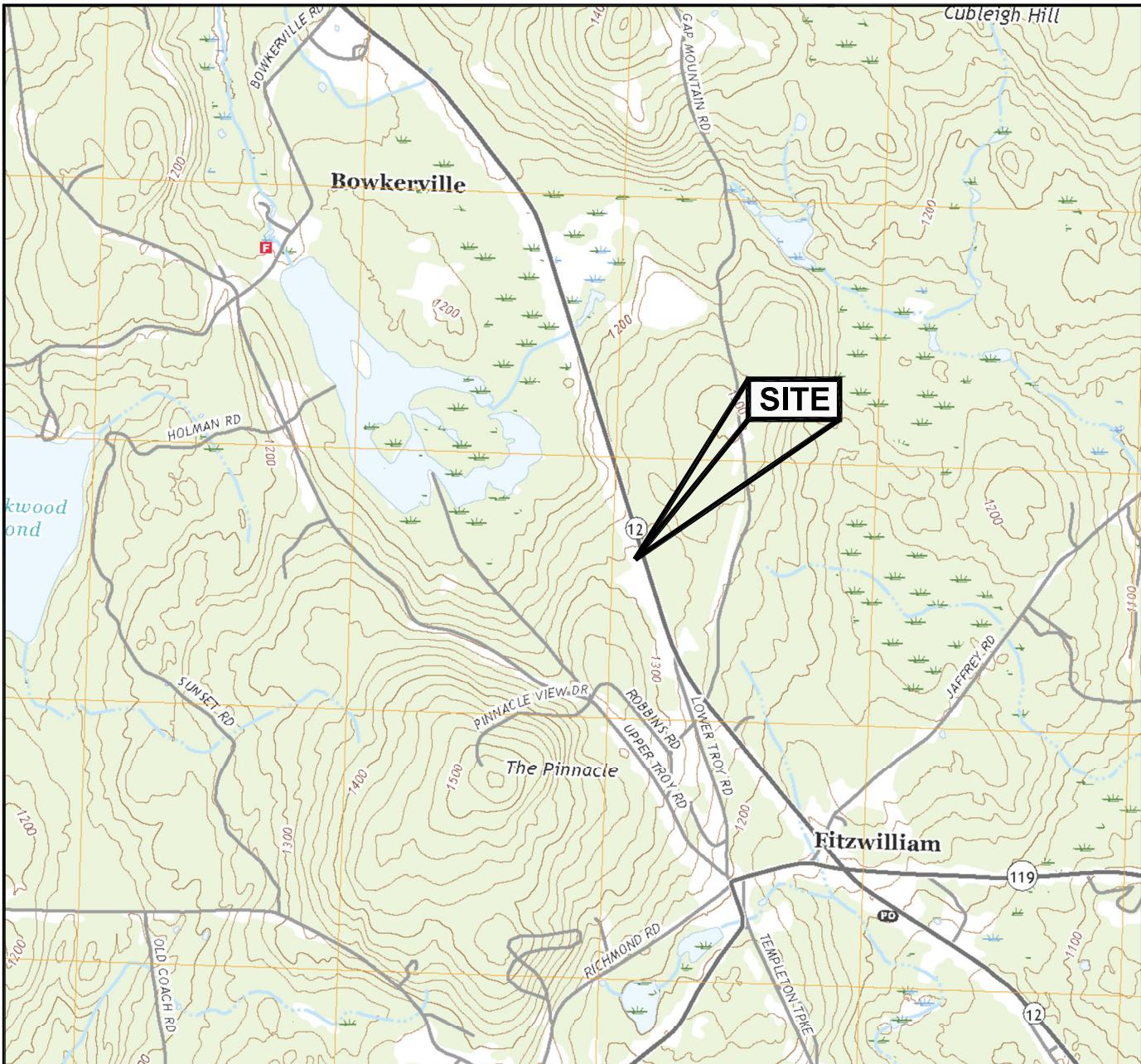
J Estimated concentration.

bold Detected concentration exceeds AGQS.

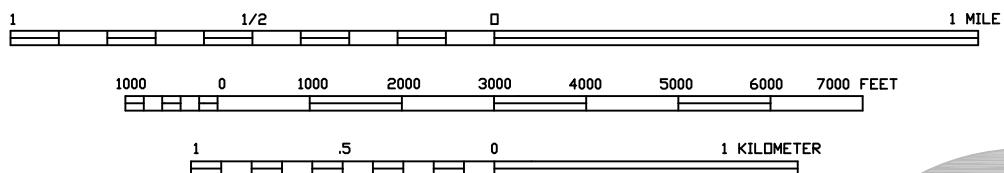
bold italics Not detected; laboratory reporting limit exceeds AGQS.

† Table 600-1 of Part Env-Or 603.03, AGQS, effective January 1, 2021.

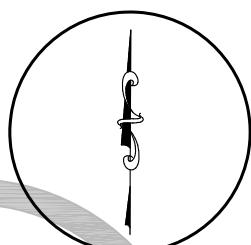
FIGURES



SCALE: 1:24,000



CONTOUR INTERVAL 20 FEET
NORTH AMERICAN VERTICAL DATUM OF 1988



DATE	SCALE	FILE
February 28, 2022	As shown	GAFT0165_Site Location Map
APPROVED BY	DRAWN BY	REVISED
RWB	MMN	
CLIENT	JOB NUMBER	
Gaftek, Inc.	GAFT0165	
LOCATION	MAP SOURCE	
Turn Key Lumber 162 (179) Route 12 North Fitzwilliam, New Hampshire NHDES Site #198905021 Facility #0112678	Troy, NH USGS QUAD 2018	

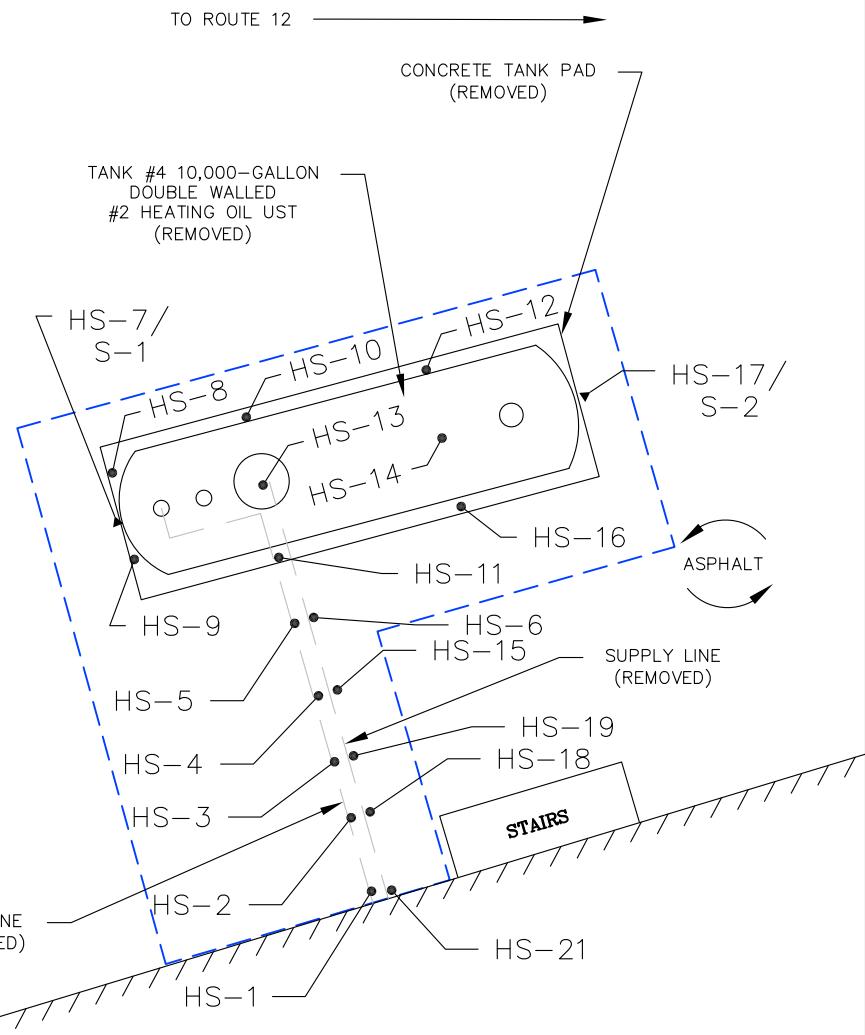
Wilcox & Barton INC.

CIVIL - ENVIRONMENTAL - GEOTECHNICAL

SITE LOCATION MAP

Figure 1

Headspace Screening Results (Parts per Million by Volume)		
SAMPLE	DEPTH (feet)	RESULT
HS-1	1.5	0.2
HS-2	1.5	0.2
HS-3	1.5	0.2
HS-4	2.0	0.2
HS-5	2.5	0.2
HS-6	2.5	0.3
HS-7/S-1	6.0	0.1
HS-8	6.0	0.1
HS-9	6.0	0.2
HS-10	6.0	0.3
HS-11	6.0	0.3
HS-12	6.0	0.2
HS-13	9.0	0.1
HS-14	9.0	0.2
HS-15	3.0	0.2
HS-16	6.0	0.1
HS-17/S-2	6.0	0.2
HS-18	3.0	0.2
HS-19	3.0	0.2
HS-20	3.0	0.4
HS-21	3.0	0.1

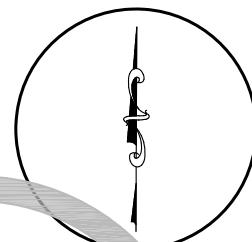


LEGEND

- APPROXIMATE EXTENT OF EXCAVATION
- UST UNDERGROUND STORAGE TANK
- HS-1 HEADSPACE SCREENING (HS) SOIL SAMPLE
- ▼ HS-7/S-1 HS AND LABORATORY SOIL SAMPLE

NOTES:

1. ALL LOCATIONS AND DIMENSIONS ARE APPROXIMATE.
2. PLAN BASED ON WILCOX & BARTON, INC. SITE VISITS AND AERIAL IMAGERY.
3. THIS PLAN IS NOT A PROFESSIONAL BOUNDARY SURVEY AND IS NOT INTENDED FOR SURVEY PURPOSES.



Wilcox & Barton INC.
CIVIL - ENVIRONMENTAL - GEOTECHNICAL

DATE	SCALE	FILE
February 28, 2022	NOT TO SCALE	GAFT0165_Site Plan
APPROVED BY	DRAWN BY	REVISED
RWB	MMN	
CLIENT	JOB NUMBER	
Gaftek, Inc.	GAFT0165	
LOCATION		
Turn Key Lumber 162 (179) Route 12 North Fitzwilliam, New Hampshire NHDES Site #198905021 Facility ID #0112678	Figure 2	UST Closure Plan

APPENDIX A

Photographs

Attachment A - Photographs
Turn Key Lumber
162 Route 12, Fitzwilliam, New Hampshire
NHDES Site #19890502



Photo 1: 10,000-gallon UST prior to removal.
(2/23/2022)

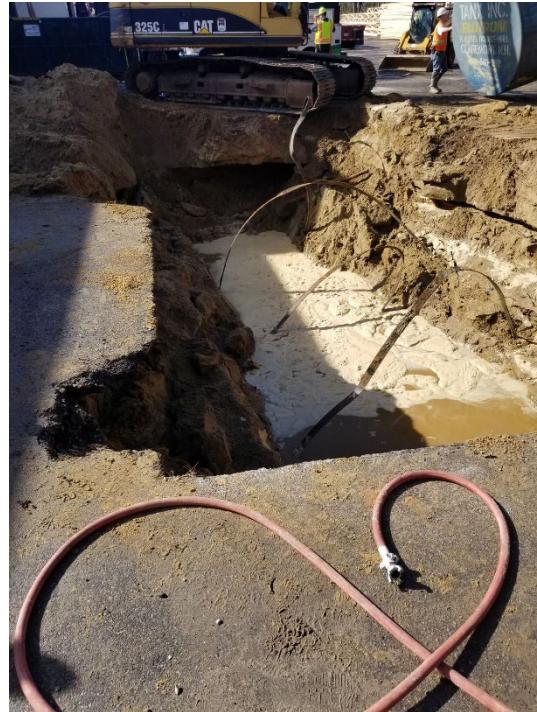


Photo 2: Excavation after UST removal.
(2/23/2022)



Photo 3: Removal of 10,000-gallon UST.
(2/23/2022)



Photo 4: 10-gallon UST post-removal.
(2/23/2022)

Attachment A - Photographs
Turn Key Lumber
162 Route 12, Fitzwilliam, New Hampshire
NHDES Site #19890502



Photo 5: Fuel line piping area and excavation.
(2/23/2022)



Photo 6: Fuel line casing prior to removal
(2/23/2022).



Photo 7: Fuel line casing after removal to
building wall. (2/23/2022)



Photo 8: Product and vapor line excavation,
prior to backfill. (2/23/2022)

APPENDIX B

UST Closure Notification



Underground Storage Tank/Aboveground Storage Tank Closure Notification



1. Person Making Notification		Initial: _____		
Name: <u>Michael Rossi</u>		Date: _____		
Street: <u>179 RTE 12 North</u>		Telephone: <u>978-490-6691</u>		
City/Town: <u>Fitzwilliam NH</u>		Email: <u>mike@turnkeylumber.com</u>		
2. DES Site # <u>198905021</u> Facility ID # <u>0112678</u>		Telephone: <u>978 490 6691</u>		
Name: <u>Fitzwilliam LLC Michael Rossi</u>		Telephone: <u>978 490 6691</u>		
Street: <u>179 RTE 12 North</u>				
City/Town: <u>Fitzwilliam NH</u>				
3. Owner Name				
Name: <u>Fitzwilliam LLC Mike Rossi</u>		Telephone: <u>978 490 6691</u>		
Street: <u>305 Leominster Shirley Rd</u>				
City/Town: <u>Lunenburg MA 01462</u>				
4. Tank Removal Information (Select All That Apply)				
** L = Leaker Suspected R = Removed F = Filled in Place P = Piping Only Closed **				
<input type="checkbox"/> L <input type="checkbox"/> R <input type="checkbox"/> F <input type="checkbox"/> P <input type="checkbox"/> Tank # <u>4</u> Size <u>10,000 gal</u> Product <u>Oil</u> Will tank/piping be replaced underground? Yes <input checked="" type="radio"/> No <input type="radio"/>	<input type="checkbox"/> L <input type="checkbox"/> R <input type="checkbox"/> F <input type="checkbox"/> P <input type="checkbox"/> Tank # _____ Size _____ Product _____ Will tank/piping be replaced underground? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	<input type="checkbox"/> L <input type="checkbox"/> R <input type="checkbox"/> F <input type="checkbox"/> P <input type="checkbox"/> Tank # _____ Size _____ Product _____ Will tank/piping be replaced underground? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	<input type="checkbox"/> L <input type="checkbox"/> R <input type="checkbox"/> F <input type="checkbox"/> P <input type="checkbox"/> Tank # _____ Size _____ Product _____ Will tank/piping be replaced underground? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	<input type="checkbox"/> L <input type="checkbox"/> R <input type="checkbox"/> F <input type="checkbox"/> P <input type="checkbox"/> Tank # _____ Size _____ Product _____ Will tank/piping be replaced underground? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
5. Consultant/Contractor: <u>Graftek</u>		ICC-U2 Certificate: _____		
6. Local Fire Dept. Notified:				

Town: FitzwilliamScheduled Closure Date: 11-7-19

Mailed: _____

Contact email orcbl.wmd@des.nh.gov and phone (603) 271-3899

PO Box 95, Concord, NH 03302-0095

www.des.nh.gov

APPENDIX C

Wilcox & Barton, Inc. Standard Operating Procedures

STANDARD OPERATING PROCEDURE

Title:	PID / Jar-Headspace Screening Protocol for Organic Vapors in Soil	No:	FP-01
Approved:	R. Rooks	Original Date:	10/15/13

Purpose:

To screen environmental media in the field for organic vapors via analysis of headspace.

Introduction:

A photoionization detector (PID) is a portable field meter used to detect the presence of volatile organic compounds in air. The meter responds to compounds that have ionization potentials equal to or less than the energy of the ionization source (lamp). The meter does not differentiate between compounds, and the meter response varies for different compounds. The meter readings are provided in parts-per-million by volume (ppmv) and are quantitative but non-specific.

A PID may be used to assess contamination in environmental media via measurement of organic vapors that volatilize (evaporate) from the sample into the headspace of the container holding the sample. This screening procedure does not provide a true determination of compound concentration. However, the PID is useful for screening to determine the presence or absence and relative degree of contamination by volatile organic compounds. The PID is calibrated to an isobutylene standard (100 ppmv) and a response factor (RF) is applied during calibration to equate the meter response to the contaminant of interest. For petroleum sites, the RF for benzene is used. For non-petroleum sites, the RF for the primary contaminant of concern is used.

Equipment/Materials:

1. Thermo Environmental Instruments, Inc. Model 580B OVM/Datalogger, 10.2 electron-Volt (eV) or 11.8 eV lamp, or
2. Mini Rae 2000 equipped with a 10.6 eV lamp.
3. Other PID as approved by the Project Manager or Technical Lead
4. Isobutylene calibration gas and connecting tubing and valve
5. Glass jars (250 ml to 500 ml)
6. Aluminum foil
7. Polyethylene Whirl-Pak bags (18 oz)

Procedure:

The following procedure is used to screen media for the presence of organic vapors with a PID using the jar-headspace method:

1. The meter is calibrated to an isobutylene standard using the manufacturer's RF for the contaminant of concern prior to screening.
2. A clean glass jar is half filled with the sample to be screened. The top of the jar is covered with a sheet of aluminum foil and the cap is screwed on.
3. Alternatively, a Whirl-Pak™ bag (or equivalent) is half filled with the sample to be screened. The bag is closed and flipped over three times and the closure tabs are twisted together to ensure a tight seal.

4. Headspace gasses over the sample are allowed to equilibrate for approximately 10 minutes at ambient air temperature. If ambient temperature is below freezing, headspace development can be performed inside a heated vehicle or space.
5. The jar or bag is vigorously shaken for 15 seconds at the beginning and the end of the equilibration period.
6. Jars: The screw cap is carefully removed and the probe of the PID meter is inserted through the foil. Bags: The bag is punctured with the probe of the PID meter.
7. The maximum meter reading is recorded. Maximum response should occur between 2 and 5 seconds. Erratic meter response may occur at high organic vapor concentrations or conditions of elevated headspace moisture. Erratic meter response should be noted in the field logs.

Additional Considerations:

For soil screening at sites in Massachusetts, MassDEP Interim Remediation Waste Management Policy for Petroleum Contaminated Sites, #WSC-94-400, specifies the use of jars, but the MCP allows alternate procedures when technically justified (see 310 CMR 40.0017). It is the position of Wilcox & Barton, Inc. that the use of a polyethylene bag is an acceptable alternative to a glass jar. This position is supported by EPA (see EPA 510-B-97-0001 Chapter VI - Field Methods for the Analysis of Petroleum Hydrocarbons) and various other states. Field personnel must consult with both the Project Manager and the LSP before using the bag technique at any Massachusetts site. Further, the user should be aware that alternate techniques may affect data usability and that additional justification for use of a polyethylene bag may be requested by MassDEP. For identifying reportable conditions in Massachusetts, the jar technique must be used.

STANDARD OPERATING PROCEDURE

Title:	Grab and Composite Soil Sampling	No:	FP-02
Approved:	R. Rooks	Original Date:	3/30/2017

Purpose:

To ensure data quality by collecting representative soil samples for laboratory analysis.

Equipment/Materials:

1. Sample containers, preserved and handled as required for the specific media and analyses
2. Analytical chain-of-custody form(s), sample label(s), and sample custody seal
3. Coolers or other containers for transporting samples
4. Packing materials and ice
5. Appropriate clothing/PPE as specified in the health and safety plan
6. Site plan
7. Field log book or field data form
8. Stainless steel or polyethylene scoop/trowel
9. Stainless steel or polyethylene mixing bowl (for composites)
10. Sample collection equipment (hand auger, split-spoon, shovel, etc.)

Procedure:

1. Before sampling, confer with the laboratory performing the analyses to make sure the required data quality objectives and reporting requirements will be met.
2. Obtain appropriate sample containers from the laboratory.
3. Wear dedicated nitrile gloves for each discrete sample collected. Change gloves between sample locations.

Grab Samples – Grab samples are samples collected from a discrete location. Soil samples may be collected using dedicated or reusable equipment. All reusable sample equipment must be decontaminated between sample locations in accordance with **SOP# FP-06**.

1. Using the appropriate soil collection method and equipment based on site conditions and the contaminants of concern, collect the appropriate volume of soil.
2. Carefully place the appropriate volume of soil into the appropriate sample container in accordance with the laboratory quality systems manual and/or laboratory method SOPs. Clean threads of sample container before placing lid back on sample container to ensure tight seal. Secure lid tightly and complete sample label with ID, date, time, required analysis, etc.
3. Record the location, depth, and characteristics of the grab soil sample in the log book. Soil characteristics should be classified in accordance with **W&B SOP# FP-14**.
4. Complete the chain-of-custody record in accordance with **W&B SOP# FP-04**, ensuring that holding time and temperature preservation requirements are maintained.

Composite Samples – Composite samples are grab samples collected from pre-determined locations that are mixed in a container until uniform and placed into containers for submittal to the laboratory. The number of subsamples used to create a composite will be determined during work planning and based upon the volume of soil to be represented and the data quality objectives of the project; values can range from a minimum of 8 for small stockpile characterization up to 50 subsamples when a multi-increment sampling approach is employed.

Due to potential contaminant volatilization during mixing, this method is appropriate ONLY for samples submitted for non-volatile analyses. Soil samples may be collected using dedicated or reusable equipment. All reusable sample equipment must be decontaminated between sample locations in accordance with **W&B SOP# FP-06**.

1. Using the appropriate soil collection method and equipment based on the contaminants of concern, collect an equal grab sample from each area to be composited. Place each grab sample into a mixing container that is appropriate based on the contaminants of concern.
2. Gently mix the sample using a cone-and-quartering method until thoroughly homogenized. Multiple iterations should be performed until homogeneity can be visualized by grain size, color, moisture content, and cohesiveness.
3. Carefully place the appropriate volume of homogenized soil into the appropriate sample container in accordance with the laboratory quality systems manual and/or laboratory method SOPs. Clean the threads of the sample container before placing lid back on sample container to ensure tight seal. Secure lid tightly and complete sample label with ID, date, time, required analysis, etc.
4. Record the number, locations, and depths of the composited grab samples in the log book. Include a sketch of the sample area and location of the grab samples that comprise the composite.
5. Complete the chain-of-custody record in accordance with **W&B SOP# FP-04**, ensuring that holding time and temperature preservation requirements are maintained.

APPENDIX D
Laboratory Results



39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

March 7, 2022

Russell Barton
Wilcox & Barton
1115 Route 100B, Suite 200
Moretown, VT 05660

Project Location: 162 Hwy 12, Fitzwilliam, NH

Client Job Number:

Project Number: GAFT0165

Laboratory Work Order Number: 22B1647

Enclosed are results of analyses for samples as received by the laboratory on February 28, 2022. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read "SCOTT C. BASAL".

Scott C. Basal
Project Manager

Table of Contents

Sample Summary	3
Case Narrative	4
Sample Results	7
22B1647-01	7
22B1647-02	12
22B1647-03	17
Sample Preparation Information	20
QC Data	21
Volatile Organic Compounds by GC/MS	21
B302163	21
B302171	25
Semivolatile Organic Compounds by GC/MS	31
B302155	31
B302397	32
Petroleum Hydrocarbons Analyses	34
B302154	34
Flag/Qualifier Summary	35
Certifications	36
Chain of Custody/Sample Receipt	41



39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Wilcox & Barton
1115 Route 100B, Suite 200
Moretown, VT 05660
ATTN: Russell Barton

REPORT DATE: 3/7/2022

PURCHASE ORDER NUMBER:

PROJECT NUMBER: GAFT0165

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 22B1647

The results of analyses performed on the following samples submitted to CON-TEST, a Pace Analytical Laboratory, are found in this report.

PROJECT LOCATION: 162 Hwy 12, Fitzwilliam, NH

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
S-1	22B1647-01	Soil		SM 2540G SW-846 8015C SW-846 8260D SW-846 8270E	
S-2	22B1647-02	Soil		SM 2540G SW-846 8015C SW-846 8260D SW-846 8270E	
GW-1	22B1647-03	Ground Water		SW-846 8260D SW-846 8270E	



39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

CASE NARRATIVE SUMMARY

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

For method 8270E, only PAHs were requested and reported.



39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

SW-846 8260D

Qualifications:

PR-06

pH of sample (pH 3) is outside of method specified preservation criteria.

Analyte & Samples(s) Qualified:

22B1647-03[GW-1]

R-05

Laboratory fortified blank duplicate RPD is outside of control limits. Reduced precision is anticipated for any reported value for this compound.

Analyte & Samples(s) Qualified:

Bromomethane

22B1647-03[GW-1], B302171-BLK1, B302171-BS1, B302171-BSD1, S068730-CCV1

V-05

Continuing calibration verification (CCV) did not meet method specifications and was biased on the low side for this compound.

Analyte & Samples(s) Qualified:

Bromomethane

22B1647-03[GW-1], B302171-BLK1, B302171-BS1, B302171-BSD1, S068730-CCV1

Dichlorodifluoromethane (Freon 1)

22B1647-01[S-1], 22B1647-02[S-2], B302163-BLK1, B302163-BS1, B302163-BSD1, S068726-CCV1

V-20

Continuing calibration verification (CCV) did not meet method specifications and was biased on the high side. Data validation is not affected since sample result was "not detected" for this compound.

Analyte & Samples(s) Qualified:

1,1,2-Trichloro-1,2,2-trifluoroethan

B302163-BS1, B302163-BSD1, S068726-CCV1

Z-01

Sample poured off into another vial with headspace due to sediment present in sample vial.

Analyte & Samples(s) Qualified:

22B1647-03[GW-1]

SW-846 8270E

Qualifications:

B

Analyte is found in the associated laboratory blank as well as in the sample.

Analyte & Samples(s) Qualified:

2-Methylnaphthalene (SIM)

22B1647-03[GW-1], B302397-BLK1

Naphthalene (SIM)

22B1647-03[GW-1], B302397-BLK1

B-05

Data is not affected by elevated level in laboratory blank since sample(s) result is "Not Detected".

Analyte & Samples(s) Qualified:

Acenaphthylene (SIM)

B302397-BLK1

S-07

One associated surrogate standard recovery is outside of control limits but the other(s) is/are within limits. All recoveries are > 10%.

Analyte & Samples(s) Qualified:

p-Terphenyl-d14

B302397-BLK1



39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

SW-846 8015C

Diesel Range Organics (C10-C28) is quantitated against a calibration made with a #2 fuel oil standard.

The results of analyses reported only relate to samples submitted to Con-Test, a Pace Analytical Laboratory, for testing.
I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

Lisa A. Worthington
Technical Representative

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 162 Hwy 12, Fitzwilliam, NH

Sample Description:

Work Order: 22B1647

Date Received: 2/28/2022

Sampled: 2/23/2022 13:00

Field Sample #: S-1**Sample ID:** 22B1647-01Sample Matrix: Soil**Volatile Organic Compounds by GC/MS**

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	0.11	0.010	mg/Kg dry	1	U	SW-846 8260D	3/1/22	3/1/22 6:29	MFF
Acrylonitrile	ND	0.0069	0.0011	mg/Kg dry	1	U	SW-846 8260D	3/1/22	3/1/22 6:29	MFF
tert-Amyl Methyl Ether (TAME)	ND	0.0011	0.00042	mg/Kg dry	1	U	SW-846 8260D	3/1/22	3/1/22 6:29	MFF
Benzene	ND	0.0023	0.00063	mg/Kg dry	1	U	SW-846 8260D	3/1/22	3/1/22 6:29	MFF
Bromobenzene	ND	0.0023	0.00042	mg/Kg dry	1	U	SW-846 8260D	3/1/22	3/1/22 6:29	MFF
Bromochloromethane	ND	0.0023	0.0010	mg/Kg dry	1	U	SW-846 8260D	3/1/22	3/1/22 6:29	MFF
Bromodichloromethane	ND	0.0023	0.00056	mg/Kg dry	1	U	SW-846 8260D	3/1/22	3/1/22 6:29	MFF
Bromoform	ND	0.0023	0.00071	mg/Kg dry	1	U	SW-846 8260D	3/1/22	3/1/22 6:29	MFF
Bromomethane	ND	0.011	0.0019	mg/Kg dry	1	U	SW-846 8260D	3/1/22	3/1/22 6:29	MFF
2-Butanone (MEK)	ND	0.046	0.0065	mg/Kg dry	1	U	SW-846 8260D	3/1/22	3/1/22 6:29	MFF
tert-Butyl Alcohol (TBA)	ND	0.11	0.053	mg/Kg dry	1	U	SW-846 8260D	3/1/22	3/1/22 6:29	MFF
n-Butylbenzene	ND	0.0023	0.00067	mg/Kg dry	1	U	SW-846 8260D	3/1/22	3/1/22 6:29	MFF
sec-Butylbenzene	ND	0.0023	0.0011	mg/Kg dry	1	U	SW-846 8260D	3/1/22	3/1/22 6:29	MFF
tert-Butylbenzene	ND	0.0023	0.00089	mg/Kg dry	1	U	SW-846 8260D	3/1/22	3/1/22 6:29	MFF
tert-Butyl Ethyl Ether (TBEE)	ND	0.0011	0.00056	mg/Kg dry	1	U	SW-846 8260D	3/1/22	3/1/22 6:29	MFF
Carbon Disulfide	ND	0.011	0.0080	mg/Kg dry	1	U	SW-846 8260D	3/1/22	3/1/22 6:29	MFF
Carbon Tetrachloride	ND	0.0023	0.0010	mg/Kg dry	1	U	SW-846 8260D	3/1/22	3/1/22 6:29	MFF
Chlorobenzene	ND	0.0023	0.00067	mg/Kg dry	1	U	SW-846 8260D	3/1/22	3/1/22 6:29	MFF
Chlorodibromomethane	ND	0.0011	0.00066	mg/Kg dry	1	U	SW-846 8260D	3/1/22	3/1/22 6:29	MFF
Chloroethane	ND	0.023	0.0014	mg/Kg dry	1	U	SW-846 8260D	3/1/22	3/1/22 6:29	MFF
Chloroform	ND	0.0046	0.00067	mg/Kg dry	1	U	SW-846 8260D	3/1/22	3/1/22 6:29	MFF
Chloromethane	ND	0.011	0.0012	mg/Kg dry	1	U	SW-846 8260D	3/1/22	3/1/22 6:29	MFF
2-Chlorotoluene	ND	0.0023	0.00057	mg/Kg dry	1	U	SW-846 8260D	3/1/22	3/1/22 6:29	MFF
4-Chlorotoluene	ND	0.0023	0.00047	mg/Kg dry	1	U	SW-846 8260D	3/1/22	3/1/22 6:29	MFF
1,2-Dibromo-3-chloropropane (DBCP)	ND	0.0023	0.0010	mg/Kg dry	1	U	SW-846 8260D	3/1/22	3/1/22 6:29	MFF
1,2-Dibromoethane (EDB)	ND	0.0011	0.00077	mg/Kg dry	1	U	SW-846 8260D	3/1/22	3/1/22 6:29	MFF
Dibromomethane	ND	0.0023	0.00084	mg/Kg dry	1	U	SW-846 8260D	3/1/22	3/1/22 6:29	MFF
1,2-Dichlorobenzene	ND	0.0023	0.00050	mg/Kg dry	1	U	SW-846 8260D	3/1/22	3/1/22 6:29	MFF
1,3-Dichlorobenzene	ND	0.0023	0.00057	mg/Kg dry	1	U	SW-846 8260D	3/1/22	3/1/22 6:29	MFF
1,4-Dichlorobenzene	ND	0.0023	0.00061	mg/Kg dry	1	U	SW-846 8260D	3/1/22	3/1/22 6:29	MFF
trans-1,4-Dichloro-2-butene	ND	0.0046	0.00083	mg/Kg dry	1	U	SW-846 8260D	3/1/22	3/1/22 6:29	MFF
Dichlorodifluoromethane (Freon 12)	ND	0.023	0.0012	mg/Kg dry	1	V-05, U	SW-846 8260D	3/1/22	3/1/22 6:29	MFF
1,1-Dichloroethane	ND	0.0023	0.00079	mg/Kg dry	1	U	SW-846 8260D	3/1/22	3/1/22 6:29	MFF
1,2-Dichloroethane	ND	0.0023	0.00075	mg/Kg dry	1	U	SW-846 8260D	3/1/22	3/1/22 6:29	MFF
1,1-Dichloroethylene	ND	0.0046	0.00081	mg/Kg dry	1	U	SW-846 8260D	3/1/22	3/1/22 6:29	MFF
cis-1,2-Dichloroethylene	ND	0.0023	0.00064	mg/Kg dry	1	U	SW-846 8260D	3/1/22	3/1/22 6:29	MFF
trans-1,2-Dichloroethylene	ND	0.0023	0.00077	mg/Kg dry	1	U	SW-846 8260D	3/1/22	3/1/22 6:29	MFF
1,2-Dichloropropane	ND	0.0023	0.00065	mg/Kg dry	1	U	SW-846 8260D	3/1/22	3/1/22 6:29	MFF
1,3-Dichloropropane	ND	0.0011	0.00059	mg/Kg dry	1	U	SW-846 8260D	3/1/22	3/1/22 6:29	MFF
2,2-Dichloropropane	ND	0.0023	0.00094	mg/Kg dry	1	U	SW-846 8260D	3/1/22	3/1/22 6:29	MFF
1,1-Dichloropropene	ND	0.0023	0.0011	mg/Kg dry	1	U	SW-846 8260D	3/1/22	3/1/22 6:29	MFF
cis-1,3-Dichloropropene	ND	0.0011	0.00058	mg/Kg dry	1	U	SW-846 8260D	3/1/22	3/1/22 6:29	MFF
trans-1,3-Dichloropropene	ND	0.0011	0.00057	mg/Kg dry	1	U	SW-846 8260D	3/1/22	3/1/22 6:29	MFF
Diethyl Ether	ND	0.023	0.00082	mg/Kg dry	1	U	SW-846 8260D	3/1/22	3/1/22 6:29	MFF

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 162 Hwy 12, Fitzwilliam, NH

Sample Description:

Work Order: 22B1647

Date Received: 2/28/2022

Sampled: 2/23/2022 13:00

Field Sample #: S-1**Sample ID:** 22B1647-01**Sample Matrix:** Soil**Volatile Organic Compounds by GC/MS**

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Diisopropyl Ether (DIPE)	ND	0.0011	0.00065	mg/Kg dry	1	U	SW-846 8260D	3/1/22	3/1/22 6:29	MFF
1,4-Dioxane	ND	0.11	0.041	mg/Kg dry	1	U	SW-846 8260D	3/1/22	3/1/22 6:29	MFF
Ethylbenzene	ND	0.0023	0.00062	mg/Kg dry	1	U	SW-846 8260D	3/1/22	3/1/22 6:29	MFF
Hexachlorobutadiene	ND	0.0023	0.00085	mg/Kg dry	1	U	SW-846 8260D	3/1/22	3/1/22 6:29	MFF
2-Hexanone (MBK)	ND	0.023	0.0065	mg/Kg dry	1	U	SW-846 8260D	3/1/22	3/1/22 6:29	MFF
Isopropylbenzene (Cumene)	ND	0.0023	0.00081	mg/Kg dry	1	U	SW-846 8260D	3/1/22	3/1/22 6:29	MFF
p-Isopropyltoluene (p-Cymene)	ND	0.0023	0.00064	mg/Kg dry	1	U	SW-846 8260D	3/1/22	3/1/22 6:29	MFF
Methyl Acetate	ND	0.0023	0.0017	mg/Kg dry	1	U	SW-846 8260D	3/1/22	3/1/22 6:29	MFF
Methyl tert-Butyl Ether (MTBE)	ND	0.0046	0.00041	mg/Kg dry	1	U	SW-846 8260D	3/1/22	3/1/22 6:29	MFF
Methyl Cyclohexane	ND	0.0023	0.00086	mg/Kg dry	1	U	SW-846 8260D	3/1/22	3/1/22 6:29	MFF
Methylene Chloride	ND	0.023	0.0017	mg/Kg dry	1	U	SW-846 8260D	3/1/22	3/1/22 6:29	MFF
4-Methyl-2-pentanone (MIBK)	ND	0.023	0.0048	mg/Kg dry	1	U	SW-846 8260D	3/1/22	3/1/22 6:29	MFF
Naphthalene	ND	0.0046	0.00062	mg/Kg dry	1	U	SW-846 8260D	3/1/22	3/1/22 6:29	MFF
n-Propylbenzene	ND	0.0023	0.00055	mg/Kg dry	1	U	SW-846 8260D	3/1/22	3/1/22 6:29	MFF
Styrene	ND	0.0023	0.00047	mg/Kg dry	1	U	SW-846 8260D	3/1/22	3/1/22 6:29	MFF
1,1,1,2-Tetrachloroethane	ND	0.0023	0.00064	mg/Kg dry	1	U	SW-846 8260D	3/1/22	3/1/22 6:29	MFF
1,1,2,2-Tetrachloroethane	ND	0.0011	0.00059	mg/Kg dry	1	U	SW-846 8260D	3/1/22	3/1/22 6:29	MFF
Tetrachloroethylene	ND	0.0023	0.00076	mg/Kg dry	1	U	SW-846 8260D	3/1/22	3/1/22 6:29	MFF
Tetrahydrofuran	ND	0.011	0.0039	mg/Kg dry	1	U	SW-846 8260D	3/1/22	3/1/22 6:29	MFF
Toluene	ND	0.0023	0.00059	mg/Kg dry	1	U	SW-846 8260D	3/1/22	3/1/22 6:29	MFF
1,2,3-Trichlorobenzene	ND	0.0023	0.00062	mg/Kg dry	1	U	SW-846 8260D	3/1/22	3/1/22 6:29	MFF
1,2,4-Trichlorobenzene	ND	0.0023	0.00055	mg/Kg dry	1	U	SW-846 8260D	3/1/22	3/1/22 6:29	MFF
1,3,5-Trichlorobenzene	ND	0.0023	0.00057	mg/Kg dry	1	U	SW-846 8260D	3/1/22	3/1/22 6:29	MFF
1,1,1-Trichloroethane	ND	0.0023	0.00091	mg/Kg dry	1	U	SW-846 8260D	3/1/22	3/1/22 6:29	MFF
1,1,2-Trichloroethane	ND	0.0023	0.00052	mg/Kg dry	1	U	SW-846 8260D	3/1/22	3/1/22 6:29	MFF
Trichloroethylene	ND	0.0023	0.00075	mg/Kg dry	1	U	SW-846 8260D	3/1/22	3/1/22 6:29	MFF
Trichlorofluoromethane (Freon 11)	ND	0.011	0.00055	mg/Kg dry	1	U	SW-846 8260D	3/1/22	3/1/22 6:29	MFF
1,2,3-Trichloropropane	ND	0.0023	0.0012	mg/Kg dry	1	U	SW-846 8260D	3/1/22	3/1/22 6:29	MFF
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.011	0.00075	mg/Kg dry	1	U	SW-846 8260D	3/1/22	3/1/22 6:29	MFF
1,2,4-Trimethylbenzene	ND	0.0023	0.00076	mg/Kg dry	1	U	SW-846 8260D	3/1/22	3/1/22 6:29	MFF
1,3,5-Trimethylbenzene	ND	0.0023	0.00060	mg/Kg dry	1	U	SW-846 8260D	3/1/22	3/1/22 6:29	MFF
Vinyl Chloride	ND	0.011	0.00073	mg/Kg dry	1	U	SW-846 8260D	3/1/22	3/1/22 6:29	MFF
m+p Xylene	ND	0.0046	0.0015	mg/Kg dry	1	U	SW-846 8260D	3/1/22	3/1/22 6:29	MFF
o-Xylene	ND	0.0023	0.00049	mg/Kg dry	1	U	SW-846 8260D	3/1/22	3/1/22 6:29	MFF
Surrogates	% Recovery	Recovery Limits		Flag/Qual						
1,2-Dichloroethane-d4	122	70-130								3/1/22 6:29
Toluene-d8	100	70-130								3/1/22 6:29
4-Bromofluorobenzene	95.3	70-130								3/1/22 6:29

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 162 Hwy 12, Fitzwilliam, NH

Sample Description:

Work Order: 22B1647

Date Received: 2/28/2022

Field Sample #: S-1

Sampled: 2/23/2022 13:00

Sample ID: 22B1647-01

Sample Matrix: Soil

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene	ND	0.22	0.068	mg/Kg dry	1	U	SW-846 8270E	3/1/22	3/2/22 16:45	BGL
Acenaphthylene	ND	0.22	0.066	mg/Kg dry	1	U	SW-846 8270E	3/1/22	3/2/22 16:45	BGL
Anthracene	ND	0.22	0.071	mg/Kg dry	1	U	SW-846 8270E	3/1/22	3/2/22 16:45	BGL
Benzo(a)anthracene	ND	0.22	0.060	mg/Kg dry	1	U	SW-846 8270E	3/1/22	3/2/22 16:45	BGL
Benzo(a)pyrene	ND	0.22	0.066	mg/Kg dry	1	U	SW-846 8270E	3/1/22	3/2/22 16:45	BGL
Benzo(b)fluoranthene	ND	0.22	0.065	mg/Kg dry	1	U	SW-846 8270E	3/1/22	3/2/22 16:45	BGL
Benzo(g,h,i)perylene	ND	0.22	0.091	mg/Kg dry	1	U	SW-846 8270E	3/1/22	3/2/22 16:45	BGL
Benzo(k)fluoranthene	ND	0.22	0.059	mg/Kg dry	1	U	SW-846 8270E	3/1/22	3/2/22 16:45	BGL
Chrysene	ND	0.22	0.063	mg/Kg dry	1	U	SW-846 8270E	3/1/22	3/2/22 16:45	BGL
Dibenz(a,h)anthracene	ND	0.22	0.088	mg/Kg dry	1	U	SW-846 8270E	3/1/22	3/2/22 16:45	BGL
Fluoranthene	ND	0.22	0.069	mg/Kg dry	1	U	SW-846 8270E	3/1/22	3/2/22 16:45	BGL
Fluorene	ND	0.22	0.073	mg/Kg dry	1	U	SW-846 8270E	3/1/22	3/2/22 16:45	BGL
Indeno(1,2,3-cd)pyrene	ND	0.22	0.098	mg/Kg dry	1	U	SW-846 8270E	3/1/22	3/2/22 16:45	BGL
2-Methylnaphthalene	ND	0.22	0.068	mg/Kg dry	1	U	SW-846 8270E	3/1/22	3/2/22 16:45	BGL
Naphthalene	ND	0.22	0.059	mg/Kg dry	1	U	SW-846 8270E	3/1/22	3/2/22 16:45	BGL
Phenanthrene	ND	0.22	0.068	mg/Kg dry	1	U	SW-846 8270E	3/1/22	3/2/22 16:45	BGL
Pyrene	ND	0.22	0.069	mg/Kg dry	1	U	SW-846 8270E	3/1/22	3/2/22 16:45	BGL
Surrogates	% Recovery	Recovery Limits		Flag/Qual						
Nitrobenzene-d5	65.8	30-130								3/2/22 16:45
2-Fluorobiphenyl	72.4	30-130								3/2/22 16:45
p-Terphenyl-d14	76.6	30-130								3/2/22 16:45



 39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 162 Hwy 12, Fitzwilliam, NH

Sample Description:

Work Order: 22B1647

Date Received: 2/28/2022

Sampled: 2/23/2022 13:00

Field Sample #: S-1**Sample ID:** 22B1647-01Sample Matrix: Soil

Petroleum Hydrocarbons Analyses

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Diesel Range Organics	3.7	11	3.5	mg/Kg dry	1	J	SW-846 8015C	3/1/22	3/3/22 19:02	SFM
Surrogates		% Recovery		Recovery Limits		Flag/Qual				
2-Fluorobiphenyl		72.2		40-140					3/3/22 19:02	



 39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 162 Hwy 12, Fitzwilliam, NH

Sample Description:

Work Order: 22B1647

Date Received: 2/28/2022

Field Sample #: S-1

Sampled: 2/23/2022 13:00

Sample ID: 22B1647-01Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	78.5		% Wt	1		SM 2540G	3/2/22	3/2/22 15:56	WAT

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 162 Hwy 12, Fitzwilliam, NH

Sample Description:

Work Order: 22B1647

Date Received: 2/28/2022

Field Sample #: S-2

Sampled: 2/23/2022 14:00

Sample ID: 22B1647-02

Sample Matrix: Soil

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	0.11	0.010	mg/Kg dry	1	U	SW-846 8260D	3/1/22	3/1/22 6:55	MFF
Acrylonitrile	ND	0.0067	0.0011	mg/Kg dry	1	U	SW-846 8260D	3/1/22	3/1/22 6:55	MFF
tert-Amyl Methyl Ether (TAME)	ND	0.0011	0.00041	mg/Kg dry	1	U	SW-846 8260D	3/1/22	3/1/22 6:55	MFF
Benzene	ND	0.0022	0.00062	mg/Kg dry	1	U	SW-846 8260D	3/1/22	3/1/22 6:55	MFF
Bromobenzene	ND	0.0022	0.00041	mg/Kg dry	1	U	SW-846 8260D	3/1/22	3/1/22 6:55	MFF
Bromochloromethane	ND	0.0022	0.00098	mg/Kg dry	1	U	SW-846 8260D	3/1/22	3/1/22 6:55	MFF
Bromodichloromethane	ND	0.0022	0.00055	mg/Kg dry	1	U	SW-846 8260D	3/1/22	3/1/22 6:55	MFF
Bromoform	ND	0.0022	0.00069	mg/Kg dry	1	U	SW-846 8260D	3/1/22	3/1/22 6:55	MFF
Bromomethane	ND	0.011	0.0018	mg/Kg dry	1	U	SW-846 8260D	3/1/22	3/1/22 6:55	MFF
2-Butanone (MEK)	ND	0.045	0.0064	mg/Kg dry	1	U	SW-846 8260D	3/1/22	3/1/22 6:55	MFF
tert-Butyl Alcohol (TBA)	ND	0.11	0.052	mg/Kg dry	1	U	SW-846 8260D	3/1/22	3/1/22 6:55	MFF
n-Butylbenzene	ND	0.0022	0.00066	mg/Kg dry	1	U	SW-846 8260D	3/1/22	3/1/22 6:55	MFF
sec-Butylbenzene	ND	0.0022	0.0011	mg/Kg dry	1	U	SW-846 8260D	3/1/22	3/1/22 6:55	MFF
tert-Butylbenzene	ND	0.0022	0.00087	mg/Kg dry	1	U	SW-846 8260D	3/1/22	3/1/22 6:55	MFF
tert-Butyl Ethyl Ether (TBEE)	ND	0.0011	0.00055	mg/Kg dry	1	U	SW-846 8260D	3/1/22	3/1/22 6:55	MFF
Carbon Disulfide	ND	0.011	0.0079	mg/Kg dry	1	U	SW-846 8260D	3/1/22	3/1/22 6:55	MFF
Carbon Tetrachloride	ND	0.0022	0.00098	mg/Kg dry	1	U	SW-846 8260D	3/1/22	3/1/22 6:55	MFF
Chlorobenzene	ND	0.0022	0.00066	mg/Kg dry	1	U	SW-846 8260D	3/1/22	3/1/22 6:55	MFF
Chlorodibromomethane	ND	0.0011	0.00064	mg/Kg dry	1	U	SW-846 8260D	3/1/22	3/1/22 6:55	MFF
Chloroethane	ND	0.022	0.0014	mg/Kg dry	1	U	SW-846 8260D	3/1/22	3/1/22 6:55	MFF
Chloroform	ND	0.0045	0.00066	mg/Kg dry	1	U	SW-846 8260D	3/1/22	3/1/22 6:55	MFF
Chloromethane	ND	0.011	0.0011	mg/Kg dry	1	U	SW-846 8260D	3/1/22	3/1/22 6:55	MFF
2-Chlorotoluene	ND	0.0022	0.00056	mg/Kg dry	1	U	SW-846 8260D	3/1/22	3/1/22 6:55	MFF
4-Chlorotoluene	ND	0.0022	0.00046	mg/Kg dry	1	U	SW-846 8260D	3/1/22	3/1/22 6:55	MFF
1,2-Dibromo-3-chloropropane (DBCP)	ND	0.0022	0.00098	mg/Kg dry	1	U	SW-846 8260D	3/1/22	3/1/22 6:55	MFF
1,2-Dibromoethane (EDB)	ND	0.0011	0.00075	mg/Kg dry	1	U	SW-846 8260D	3/1/22	3/1/22 6:55	MFF
Dibromomethane	ND	0.0022	0.00082	mg/Kg dry	1	U	SW-846 8260D	3/1/22	3/1/22 6:55	MFF
1,2-Dichlorobenzene	ND	0.0022	0.00049	mg/Kg dry	1	U	SW-846 8260D	3/1/22	3/1/22 6:55	MFF
1,3-Dichlorobenzene	ND	0.0022	0.00056	mg/Kg dry	1	U	SW-846 8260D	3/1/22	3/1/22 6:55	MFF
1,4-Dichlorobenzene	ND	0.0022	0.00060	mg/Kg dry	1	U	SW-846 8260D	3/1/22	3/1/22 6:55	MFF
trans-1,4-Dichloro-2-butene	ND	0.0045	0.00082	mg/Kg dry	1	U	SW-846 8260D	3/1/22	3/1/22 6:55	MFF
Dichlorodifluoromethane (Freon 12)	ND	0.022	0.0012	mg/Kg dry	1	V-05, U	SW-846 8260D	3/1/22	3/1/22 6:55	MFF
1,1-Dichloroethane	ND	0.0022	0.00078	mg/Kg dry	1	U	SW-846 8260D	3/1/22	3/1/22 6:55	MFF
1,2-Dichloroethane	ND	0.0022	0.00074	mg/Kg dry	1	U	SW-846 8260D	3/1/22	3/1/22 6:55	MFF
1,1-Dichloroethylene	ND	0.0045	0.00080	mg/Kg dry	1	U	SW-846 8260D	3/1/22	3/1/22 6:55	MFF
cis-1,2-Dichloroethylene	ND	0.0022	0.00063	mg/Kg dry	1	U	SW-846 8260D	3/1/22	3/1/22 6:55	MFF
trans-1,2-Dichloroethylene	ND	0.0022	0.00075	mg/Kg dry	1	U	SW-846 8260D	3/1/22	3/1/22 6:55	MFF
1,2-Dichloropropane	ND	0.0022	0.00064	mg/Kg dry	1	U	SW-846 8260D	3/1/22	3/1/22 6:55	MFF
1,3-Dichloropropane	ND	0.0011	0.00058	mg/Kg dry	1	U	SW-846 8260D	3/1/22	3/1/22 6:55	MFF
2,2-Dichloropropane	ND	0.0022	0.00093	mg/Kg dry	1	U	SW-846 8260D	3/1/22	3/1/22 6:55	MFF
1,1-Dichloropropene	ND	0.0022	0.0011	mg/Kg dry	1	U	SW-846 8260D	3/1/22	3/1/22 6:55	MFF
cis-1,3-Dichloropropene	ND	0.0011	0.00057	mg/Kg dry	1	U	SW-846 8260D	3/1/22	3/1/22 6:55	MFF
trans-1,3-Dichloropropene	ND	0.0011	0.00056	mg/Kg dry	1	U	SW-846 8260D	3/1/22	3/1/22 6:55	MFF
Diethyl Ether	ND	0.022	0.00080	mg/Kg dry	1	U	SW-846 8260D	3/1/22	3/1/22 6:55	MFF

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 162 Hwy 12, Fitzwilliam, NH

Sample Description:

Work Order: 22B1647

Date Received: 2/28/2022

Field Sample #: S-2

Sampled: 2/23/2022 14:00

Sample ID: 22B1647-02Sample Matrix: Soil**Volatile Organic Compounds by GC/MS**

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Diisopropyl Ether (DIPE)	ND	0.0011	0.00064	mg/Kg dry	1	U	SW-846 8260D	3/1/22	3/1/22 6:55	MFF
1,4-Dioxane	ND	0.11	0.040	mg/Kg dry	1	U	SW-846 8260D	3/1/22	3/1/22 6:55	MFF
Ethylbenzene	ND	0.0022	0.00061	mg/Kg dry	1	U	SW-846 8260D	3/1/22	3/1/22 6:55	MFF
Hexachlorobutadiene	ND	0.0022	0.00083	mg/Kg dry	1	U	SW-846 8260D	3/1/22	3/1/22 6:55	MFF
2-Hexanone (MBK)	ND	0.022	0.0064	mg/Kg dry	1	U	SW-846 8260D	3/1/22	3/1/22 6:55	MFF
Isopropylbenzene (Cumene)	ND	0.0022	0.00079	mg/Kg dry	1	U	SW-846 8260D	3/1/22	3/1/22 6:55	MFF
p-Isopropyltoluene (p-Cymene)	ND	0.0022	0.00063	mg/Kg dry	1	U	SW-846 8260D	3/1/22	3/1/22 6:55	MFF
Methyl Acetate	ND	0.0022	0.0017	mg/Kg dry	1	U	SW-846 8260D	3/1/22	3/1/22 6:55	MFF
Methyl tert-Butyl Ether (MTBE)	ND	0.0045	0.00040	mg/Kg dry	1	U	SW-846 8260D	3/1/22	3/1/22 6:55	MFF
Methyl Cyclohexane	ND	0.0022	0.00084	mg/Kg dry	1	U	SW-846 8260D	3/1/22	3/1/22 6:55	MFF
Methylene Chloride	ND	0.022	0.0017	mg/Kg dry	1	U	SW-846 8260D	3/1/22	3/1/22 6:55	MFF
4-Methyl-2-pentanone (MIBK)	ND	0.022	0.0047	mg/Kg dry	1	U	SW-846 8260D	3/1/22	3/1/22 6:55	MFF
Naphthalene	ND	0.0045	0.00061	mg/Kg dry	1	U	SW-846 8260D	3/1/22	3/1/22 6:55	MFF
n-Propylbenzene	ND	0.0022	0.00054	mg/Kg dry	1	U	SW-846 8260D	3/1/22	3/1/22 6:55	MFF
Styrene	ND	0.0022	0.00046	mg/Kg dry	1	U	SW-846 8260D	3/1/22	3/1/22 6:55	MFF
1,1,1,2-Tetrachloroethane	ND	0.0022	0.00063	mg/Kg dry	1	U	SW-846 8260D	3/1/22	3/1/22 6:55	MFF
1,1,2,2-Tetrachloroethane	ND	0.0011	0.00058	mg/Kg dry	1	U	SW-846 8260D	3/1/22	3/1/22 6:55	MFF
Tetrachloroethylene	ND	0.0022	0.00075	mg/Kg dry	1	U	SW-846 8260D	3/1/22	3/1/22 6:55	MFF
Tetrahydrofuran	ND	0.011	0.0038	mg/Kg dry	1	U	SW-846 8260D	3/1/22	3/1/22 6:55	MFF
Toluene	ND	0.0022	0.00058	mg/Kg dry	1	U	SW-846 8260D	3/1/22	3/1/22 6:55	MFF
1,2,3-Trichlorobenzene	ND	0.0022	0.00060	mg/Kg dry	1	U	SW-846 8260D	3/1/22	3/1/22 6:55	MFF
1,2,4-Trichlorobenzene	ND	0.0022	0.00054	mg/Kg dry	1	U	SW-846 8260D	3/1/22	3/1/22 6:55	MFF
1,3,5-Trichlorobenzene	ND	0.0022	0.00056	mg/Kg dry	1	U	SW-846 8260D	3/1/22	3/1/22 6:55	MFF
1,1,1-Trichloroethane	ND	0.0022	0.00089	mg/Kg dry	1	U	SW-846 8260D	3/1/22	3/1/22 6:55	MFF
1,1,2-Trichloroethane	ND	0.0022	0.00051	mg/Kg dry	1	U	SW-846 8260D	3/1/22	3/1/22 6:55	MFF
Trichloroethylene	ND	0.0022	0.00074	mg/Kg dry	1	U	SW-846 8260D	3/1/22	3/1/22 6:55	MFF
Trichlorofluoromethane (Freon 11)	ND	0.011	0.00054	mg/Kg dry	1	U	SW-846 8260D	3/1/22	3/1/22 6:55	MFF
1,2,3-Trichloropropane	ND	0.0022	0.0012	mg/Kg dry	1	U	SW-846 8260D	3/1/22	3/1/22 6:55	MFF
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.011	0.00074	mg/Kg dry	1	U	SW-846 8260D	3/1/22	3/1/22 6:55	MFF
1,2,4-Trimethylbenzene	ND	0.0022	0.00075	mg/Kg dry	1	U	SW-846 8260D	3/1/22	3/1/22 6:55	MFF
1,3,5-Trimethylbenzene	ND	0.0022	0.00059	mg/Kg dry	1	U	SW-846 8260D	3/1/22	3/1/22 6:55	MFF
Vinyl Chloride	ND	0.011	0.00072	mg/Kg dry	1	U	SW-846 8260D	3/1/22	3/1/22 6:55	MFF
m+p Xylene	ND	0.0045	0.0015	mg/Kg dry	1	U	SW-846 8260D	3/1/22	3/1/22 6:55	MFF
o-Xylene	ND	0.0022	0.00049	mg/Kg dry	1	U	SW-846 8260D	3/1/22	3/1/22 6:55	MFF
Surrogates	% Recovery	Recovery Limits		Flag/Qual						
1,2-Dichloroethane-d4	124	70-130								3/1/22 6:55
Toluene-d8	99.0	70-130								3/1/22 6:55
4-Bromofluorobenzene	99.8	70-130								3/1/22 6:55

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 162 Hwy 12, Fitzwilliam, NH

Sample Description:

Work Order: 22B1647

Date Received: 2/28/2022

Field Sample #: S-2

Sampled: 2/23/2022 14:00

Sample ID: 22B1647-02

Sample Matrix: Soil

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene	ND	0.20	0.063	mg/Kg dry	1	U	SW-846 8270E	3/1/22	3/2/22 17:11	BGL
Acenaphthylene	ND	0.20	0.062	mg/Kg dry	1	U	SW-846 8270E	3/1/22	3/2/22 17:11	BGL
Anthracene	ND	0.20	0.066	mg/Kg dry	1	U	SW-846 8270E	3/1/22	3/2/22 17:11	BGL
Benzo(a)anthracene	ND	0.20	0.056	mg/Kg dry	1	U	SW-846 8270E	3/1/22	3/2/22 17:11	BGL
Benzo(a)pyrene	ND	0.20	0.062	mg/Kg dry	1	U	SW-846 8270E	3/1/22	3/2/22 17:11	BGL
Benzo(b)fluoranthene	ND	0.20	0.061	mg/Kg dry	1	U	SW-846 8270E	3/1/22	3/2/22 17:11	BGL
Benzo(g,h,i)perylene	ND	0.20	0.085	mg/Kg dry	1	U	SW-846 8270E	3/1/22	3/2/22 17:11	BGL
Benzo(k)fluoranthene	ND	0.20	0.055	mg/Kg dry	1	U	SW-846 8270E	3/1/22	3/2/22 17:11	BGL
Chrysene	ND	0.20	0.058	mg/Kg dry	1	U	SW-846 8270E	3/1/22	3/2/22 17:11	BGL
Dibenz(a,h)anthracene	ND	0.20	0.082	mg/Kg dry	1	U	SW-846 8270E	3/1/22	3/2/22 17:11	BGL
Fluoranthene	ND	0.20	0.064	mg/Kg dry	1	U	SW-846 8270E	3/1/22	3/2/22 17:11	BGL
Fluorene	ND	0.20	0.068	mg/Kg dry	1	U	SW-846 8270E	3/1/22	3/2/22 17:11	BGL
Indeno(1,2,3-cd)pyrene	ND	0.20	0.092	mg/Kg dry	1	U	SW-846 8270E	3/1/22	3/2/22 17:11	BGL
2-Methylnaphthalene	ND	0.20	0.064	mg/Kg dry	1	U	SW-846 8270E	3/1/22	3/2/22 17:11	BGL
Naphthalene	ND	0.20	0.055	mg/Kg dry	1	U	SW-846 8270E	3/1/22	3/2/22 17:11	BGL
Phenanthrene	ND	0.20	0.064	mg/Kg dry	1	U	SW-846 8270E	3/1/22	3/2/22 17:11	BGL
Pyrene	ND	0.20	0.064	mg/Kg dry	1	U	SW-846 8270E	3/1/22	3/2/22 17:11	BGL
Surrogates	% Recovery	Recovery Limits		Flag/Qual						
Nitrobenzene-d5	69.1	30-130								3/2/22 17:11
2-Fluorobiphenyl	75.1	30-130								3/2/22 17:11
p-Terphenyl-d14	78.0	30-130								3/2/22 17:11



 39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 162 Hwy 12, Fitzwilliam, NH

Sample Description:

Work Order: 22B1647

Date Received: 2/28/2022

Field Sample #: S-2

Sampled: 2/23/2022 14:00

Sample ID: 22B1647-02

Sample Matrix: Soil

Petroleum Hydrocarbons Analyses

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Diesel Range Organics	3.8	9.9	3.3	mg/Kg dry	1	J	SW-846 8015C	3/1/22	3/3/22 19:33	SFM
Surrogates	% Recovery		Recovery Limits		Flag/Qual					
2-Fluorobiphenyl		71.9		40-140					3/3/22 19:33	



 39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 162 Hwy 12, Fitzwilliam, NH

Sample Description:

Work Order: 22B1647

Date Received: 2/28/2022

Field Sample #: S-2

Sampled: 2/23/2022 14:00

Sample ID: 22B1647-02Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	84.1		% Wt	1		SM 2540G	3/2/22	3/2/22 15:56	WAT

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 162 Hwy 12, Fitzwilliam, NH

Sample Description:

Work Order: 22B1647

Date Received: 2/28/2022

Sampled: 2/23/2022 14:15

Field Sample #: GW-1**Sample ID:** 22B1647-03Sample Matrix: Ground Water

Sample Flags: PR-06, Z-01

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	8.8	50	2.0	µg/L	1	J	SW-846 8260D	3/1/22	3/1/22 20:02	EEH
Acrylonitrile	ND	5.0	0.55	µg/L	1	U	SW-846 8260D	3/1/22	3/1/22 20:02	EEH
tert-Amyl Methyl Ether (TAME)	ND	0.50	0.14	µg/L	1	U	SW-846 8260D	3/1/22	3/1/22 20:02	EEH
Benzene	ND	1.0	0.20	µg/L	1	U	SW-846 8260D	3/1/22	3/1/22 20:02	EEH
Bromobenzene	ND	1.0	0.15	µg/L	1	U	SW-846 8260D	3/1/22	3/1/22 20:02	EEH
Bromochloromethane	ND	1.0	0.31	µg/L	1	U	SW-846 8260D	3/1/22	3/1/22 20:02	EEH
Bromodichloromethane	ND	0.50	0.18	µg/L	1	U	SW-846 8260D	3/1/22	3/1/22 20:02	EEH
Bromoform	ND	1.0	0.38	µg/L	1	U	SW-846 8260D	3/1/22	3/1/22 20:02	EEH
Bromomethane	ND	2.0	1.5	µg/L	1	R-05, V-05, U	SW-846 8260D	3/1/22	3/1/22 20:02	EEH
2-Butanone (MEK)	ND	20	1.6	µg/L	1	U	SW-846 8260D	3/1/22	3/1/22 20:02	EEH
tert-Butyl Alcohol (TBA)	ND	20	4.7	µg/L	1	U	SW-846 8260D	3/1/22	3/1/22 20:02	EEH
n-Butylbenzene	ND	1.0	0.15	µg/L	1	U	SW-846 8260D	3/1/22	3/1/22 20:02	EEH
sec-Butylbenzene	0.34	1.0	0.11	µg/L	1	J	SW-846 8260D	3/1/22	3/1/22 20:02	EEH
tert-Butylbenzene	ND	1.0	0.13	µg/L	1	U	SW-846 8260D	3/1/22	3/1/22 20:02	EEH
tert-Butyl Ethyl Ether (TBEE)	ND	0.50	0.15	µg/L	1	U	SW-846 8260D	3/1/22	3/1/22 20:02	EEH
Carbon Disulfide	ND	5.0	1.4	µg/L	1	U	SW-846 8260D	3/1/22	3/1/22 20:02	EEH
Carbon Tetrachloride	ND	5.0	0.16	µg/L	1	U	SW-846 8260D	3/1/22	3/1/22 20:02	EEH
Chlorobenzene	ND	1.0	0.11	µg/L	1	U	SW-846 8260D	3/1/22	3/1/22 20:02	EEH
Chlorodibromomethane	ND	0.50	0.22	µg/L	1	U	SW-846 8260D	3/1/22	3/1/22 20:02	EEH
Chloroethane	ND	2.0	0.32	µg/L	1	U	SW-846 8260D	3/1/22	3/1/22 20:02	EEH
Chloroform	ND	2.0	0.17	µg/L	1	U	SW-846 8260D	3/1/22	3/1/22 20:02	EEH
Chloromethane	ND	2.0	0.52	µg/L	1	U	SW-846 8260D	3/1/22	3/1/22 20:02	EEH
2-Chlorotoluene	ND	1.0	0.11	µg/L	1	U	SW-846 8260D	3/1/22	3/1/22 20:02	EEH
4-Chlorotoluene	ND	1.0	0.12	µg/L	1	U	SW-846 8260D	3/1/22	3/1/22 20:02	EEH
1,2-Dibromo-3-chloropropane (DBCP)	ND	5.0	0.80	µg/L	1	U	SW-846 8260D	3/1/22	3/1/22 20:02	EEH
1,2-Dibromoethane (EDB)	ND	0.50	0.17	µg/L	1	U	SW-846 8260D	3/1/22	3/1/22 20:02	EEH
Dibromomethane	ND	1.0	0.35	µg/L	1	U	SW-846 8260D	3/1/22	3/1/22 20:02	EEH
1,2-Dichlorobenzene	ND	1.0	0.12	µg/L	1	U	SW-846 8260D	3/1/22	3/1/22 20:02	EEH
1,3-Dichlorobenzene	ND	1.0	0.12	µg/L	1	U	SW-846 8260D	3/1/22	3/1/22 20:02	EEH
1,4-Dichlorobenzene	ND	1.0	0.13	µg/L	1	U	SW-846 8260D	3/1/22	3/1/22 20:02	EEH
trans-1,4-Dichloro-2-butene	ND	2.0	1.6	µg/L	1	U	SW-846 8260D	3/1/22	3/1/22 20:02	EEH
Dichlorodifluoromethane (Freon 12)	ND	2.0	0.19	µg/L	1	U	SW-846 8260D	3/1/22	3/1/22 20:02	EEH
1,1-Dichloroethane	ND	1.0	0.14	µg/L	1	U	SW-846 8260D	3/1/22	3/1/22 20:02	EEH
1,2-Dichloroethane	ND	1.0	0.31	µg/L	1	U	SW-846 8260D	3/1/22	3/1/22 20:02	EEH
1,1-Dichloroethylene	ND	1.0	0.14	µg/L	1	U	SW-846 8260D	3/1/22	3/1/22 20:02	EEH
cis-1,2-Dichloroethylene	ND	1.0	0.15	µg/L	1	U	SW-846 8260D	3/1/22	3/1/22 20:02	EEH
trans-1,2-Dichloroethylene	ND	1.0	0.17	µg/L	1	U	SW-846 8260D	3/1/22	3/1/22 20:02	EEH
1,2-Dichloropropane	ND	1.0	0.18	µg/L	1	U	SW-846 8260D	3/1/22	3/1/22 20:02	EEH
1,3-Dichloropropane	ND	0.50	0.13	µg/L	1	U	SW-846 8260D	3/1/22	3/1/22 20:02	EEH
2,2-Dichloropropane	ND	1.0	0.33	µg/L	1	U	SW-846 8260D	3/1/22	3/1/22 20:02	EEH
1,1-Dichloropropene	ND	2.0	0.15	µg/L	1	U	SW-846 8260D	3/1/22	3/1/22 20:02	EEH
cis-1,3-Dichloropropene	ND	0.50	0.16	µg/L	1	U	SW-846 8260D	3/1/22	3/1/22 20:02	EEH
trans-1,3-Dichloropropene	ND	0.50	0.17	µg/L	1	U	SW-846 8260D	3/1/22	3/1/22 20:02	EEH
Diethyl Ether	ND	2.0	0.18	µg/L	1	U	SW-846 8260D	3/1/22	3/1/22 20:02	EEH

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 162 Hwy 12, Fitzwilliam, NH

Sample Description:

Work Order: 22B1647

Date Received: 2/28/2022

Field Sample #: GW-1

Sampled: 2/23/2022 14:15

Sample ID: 22B1647-03**Sample Matrix:** Ground Water

Sample Flags: PR-06, Z-01

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Diisopropyl Ether (DIPE)	ND	0.50	0.13	µg/L	1	U	SW-846 8260D	3/1/22	3/1/22 20:02	EEH
1,4-Dioxane	ND	50	21	µg/L	1	U	SW-846 8260D	3/1/22	3/1/22 20:02	EEH
Ethylbenzene	ND	1.0	0.21	µg/L	1	U	SW-846 8260D	3/1/22	3/1/22 20:02	EEH
Hexachlorobutadiene	ND	0.60	0.46	µg/L	1	U	SW-846 8260D	3/1/22	3/1/22 20:02	EEH
2-Hexanone (MBK)	ND	10	1.1	µg/L	1	U	SW-846 8260D	3/1/22	3/1/22 20:02	EEH
Isopropylbenzene (Cumene)	0.31	1.0	0.11	µg/L	1	J	SW-846 8260D	3/1/22	3/1/22 20:02	EEH
p-Isopropyltoluene (p-Cymene)	ND	1.0	0.097	µg/L	1	U	SW-846 8260D	3/1/22	3/1/22 20:02	EEH
Methyl Acetate	ND	1.0	0.45	µg/L	1	U	SW-846 8260D	3/1/22	3/1/22 20:02	EEH
Methyl tert-Butyl Ether (MTBE)	ND	1.0	0.17	µg/L	1	U	SW-846 8260D	3/1/22	3/1/22 20:02	EEH
Methyl Cyclohexane	ND	1.0	0.24	µg/L	1	U	SW-846 8260D	3/1/22	3/1/22 20:02	EEH
Methylene Chloride	ND	5.0	0.23	µg/L	1	U	SW-846 8260D	3/1/22	3/1/22 20:02	EEH
4-Methyl-2-pentanone (MIBK)	ND	10	1.3	µg/L	1	U	SW-846 8260D	3/1/22	3/1/22 20:02	EEH
Naphthalene	ND	2.0	0.24	µg/L	1	U	SW-846 8260D	3/1/22	3/1/22 20:02	EEH
n-Propylbenzene	0.32	1.0	0.086	µg/L	1	J	SW-846 8260D	3/1/22	3/1/22 20:02	EEH
Styrene	ND	1.0	0.11	µg/L	1	U	SW-846 8260D	3/1/22	3/1/22 20:02	EEH
1,1,1,2-Tetrachloroethane	ND	1.0	0.18	µg/L	1	U	SW-846 8260D	3/1/22	3/1/22 20:02	EEH
1,1,2,2-Tetrachloroethane	ND	0.50	0.13	µg/L	1	U	SW-846 8260D	3/1/22	3/1/22 20:02	EEH
Tetrachloroethylene	ND	1.0	0.19	µg/L	1	U	SW-846 8260D	3/1/22	3/1/22 20:02	EEH
Tetrahydrofuran	ND	10	0.49	µg/L	1	U	SW-846 8260D	3/1/22	3/1/22 20:02	EEH
Toluene	ND	1.0	0.22	µg/L	1	U	SW-846 8260D	3/1/22	3/1/22 20:02	EEH
1,2,3-Trichlorobenzene	ND	5.0	0.30	µg/L	1	U	SW-846 8260D	3/1/22	3/1/22 20:02	EEH
1,2,4-Trichlorobenzene	ND	1.0	0.25	µg/L	1	U	SW-846 8260D	3/1/22	3/1/22 20:02	EEH
1,3,5-Trichlorobenzene	ND	1.0	0.21	µg/L	1	U	SW-846 8260D	3/1/22	3/1/22 20:02	EEH
1,1,1-Trichloroethane	ND	1.0	0.17	µg/L	1	U	SW-846 8260D	3/1/22	3/1/22 20:02	EEH
1,1,2-Trichloroethane	ND	1.0	0.18	µg/L	1	U	SW-846 8260D	3/1/22	3/1/22 20:02	EEH
Trichloroethylene	ND	1.0	0.19	µg/L	1	U	SW-846 8260D	3/1/22	3/1/22 20:02	EEH
Trichlorofluoromethane (Freon 11)	ND	2.0	0.18	µg/L	1	U	SW-846 8260D	3/1/22	3/1/22 20:02	EEH
1,2,3-Trichloropropane	ND	2.0	0.28	µg/L	1	U	SW-846 8260D	3/1/22	3/1/22 20:02	EEH
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	1.0	0.23	µg/L	1	U	SW-846 8260D	3/1/22	3/1/22 20:02	EEH
1,2,4-Trimethylbenzene	0.42	1.0	0.20	µg/L	1	J	SW-846 8260D	3/1/22	3/1/22 20:02	EEH
1,3,5-Trimethylbenzene	ND	1.0	0.11	µg/L	1	U	SW-846 8260D	3/1/22	3/1/22 20:02	EEH
Vinyl Chloride	ND	2.0	0.21	µg/L	1	U	SW-846 8260D	3/1/22	3/1/22 20:02	EEH
m+p Xylene	ND	2.0	0.46	µg/L	1	U	SW-846 8260D	3/1/22	3/1/22 20:02	EEH
o-Xylene	ND	1.0	0.23	µg/L	1	U	SW-846 8260D	3/1/22	3/1/22 20:02	EEH
Surrogates	% Recovery	Recovery Limits		Flag/Qual						
1,2-Dichloroethane-d4	93.9	70-130								3/1/22 20:02
Toluene-d8	97.9	70-130								3/1/22 20:02
4-Bromofluorobenzene	99.4	70-130								3/1/22 20:02

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 162 Hwy 12, Fitzwilliam, NH

Sample Description:

Work Order: 22B1647

Date Received: 2/28/2022

Sampled: 2/23/2022 14:15

Field Sample #: GW-1**Sample ID:** 22B1647-03

Sample Matrix: Ground Water

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene (SIM)	0.033	0.29	0.019	µg/L	1	J	SW-846 8270E	3/1/22	3/4/22 7:15	IMR
Acenaphthylene (SIM)	ND	0.19	0.015	µg/L	1	U	SW-846 8270E	3/1/22	3/4/22 7:15	IMR
Anthracene (SIM)	ND	0.19	0.012	µg/L	1	U	SW-846 8270E	3/1/22	3/4/22 7:15	IMR
Benzo(a)anthracene (SIM)	0.079	0.048	0.014	µg/L	1		SW-846 8270E	3/1/22	3/4/22 7:15	IMR
Benzo(a)pyrene (SIM)	0.15	0.096	0.014	µg/L	1		SW-846 8270E	3/1/22	3/4/22 7:15	IMR
Benzo(b)fluoranthene (SIM)	0.21	0.048	0.015	µg/L	1		SW-846 8270E	3/1/22	3/4/22 7:15	IMR
Benzo(g,h,i)perylene (SIM)	0.15	0.48	0.017	µg/L	1	J	SW-846 8270E	3/1/22	3/4/22 7:15	IMR
Benzo(k)fluoranthene (SIM)	0.079	0.19	0.011	µg/L	1	J	SW-846 8270E	3/1/22	3/4/22 7:15	IMR
Chrysene (SIM)	0.12	0.19	0.012	µg/L	1	J	SW-846 8270E	3/1/22	3/4/22 7:15	IMR
Dibenz(a,h)anthracene (SIM)	0.025	0.096	0.018	µg/L	1	J	SW-846 8270E	3/1/22	3/4/22 7:15	IMR
Fluoranthene (SIM)	0.13	0.48	0.013	µg/L	1	J	SW-846 8270E	3/1/22	3/4/22 7:15	IMR
Fluorene (SIM)	ND	0.96	0.016	µg/L	1	U	SW-846 8270E	3/1/22	3/4/22 7:15	IMR
Indeno(1,2,3-cd)pyrene (SIM)	0.14	0.096	0.017	µg/L	1		SW-846 8270E	3/1/22	3/4/22 7:15	IMR
2-Methylnaphthalene (SIM)	0.13	0.96	0.035	µg/L	1	B, J	SW-846 8270E	3/1/22	3/4/22 7:15	IMR
Naphthalene (SIM)	0.26	0.96	0.025	µg/L	1	B, J	SW-846 8270E	3/1/22	3/4/22 7:15	IMR
Phenanthrene (SIM)	0.028	0.048	0.015	µg/L	1	J	SW-846 8270E	3/1/22	3/4/22 7:15	IMR
Pyrene (SIM)	0.12	0.96	0.014	µg/L	1	J	SW-846 8270E	3/1/22	3/4/22 7:15	IMR
Surrogates	% Recovery	Recovery Limits		Flag/Qual						
Nitrobenzene-d5	95.0	30-130								3/4/22 7:15
2-Fluorobiphenyl	74.4	30-130								3/4/22 7:15
p-Terphenyl-d14	116	30-130								3/4/22 7:15



39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Sample Extraction Data

Prep Method: % Solids Analytical Method: SM 2540G

Lab Number [Field ID]	Batch	Date
22B1647-01 [S-1]	B302284	03/02/22
22B1647-02 [S-2]	B302284	03/02/22

Prep Method: SW-846 3546 Analytical Method: SW-846 8015C

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
22B1647-01 [S-1]	B302154	30.0	1.00	03/01/22
22B1647-02 [S-2]	B302154	30.0	1.00	03/01/22

Prep Method: SW-846 5035 Analytical Method: SW-846 8260D

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
22B1647-01 [S-1]	B302163	5.57	10.0	03/01/22
22B1647-02 [S-2]	B302163	5.29	10.0	03/01/22

Prep Method: SW-846 5030B Analytical Method: SW-846 8260D

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
22B1647-03 [GW-1]	B302171	5	5.00	03/01/22

Prep Method: SW-846 3546 Analytical Method: SW-846 8270E

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
22B1647-01 [S-1]	B302155	30.0	1.00	03/01/22
22B1647-02 [S-2]	B302155	30.0	1.00	03/01/22

Prep Method: SW-846 3510C Analytical Method: SW-846 8270E

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
22B1647-03 [GW-1]	B302397	1040	1.00	03/01/22

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

QUALITY CONTROL**Volatile Organic Compounds by GC/MS - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	---------	-----------	-------

Batch B302163 - SW-846 5035

Blank (B302163-BLK1)	Prepared & Analyzed: 03/01/22									
Acetone	ND	0.10	mg/Kg wet							U
Acrylonitrile	ND	0.0060	mg/Kg wet							U
tert-Amyl Methyl Ether (TAME)	ND	0.0010	mg/Kg wet							U
Benzene	ND	0.0020	mg/Kg wet							U
Bromobenzene	ND	0.0020	mg/Kg wet							U
Bromoform	ND	0.0020	mg/Kg wet							U
Bromomethane	ND	0.010	mg/Kg wet							U
2-Butanone (MEK)	ND	0.040	mg/Kg wet							U
tert-Butyl Alcohol (TBA)	ND	0.10	mg/Kg wet							U
n-Butylbenzene	ND	0.0020	mg/Kg wet							U
sec-Butylbenzene	ND	0.0020	mg/Kg wet							U
tert-Butylbenzene	ND	0.0020	mg/Kg wet							U
tert-Butyl Ethyl Ether (TBEE)	ND	0.0010	mg/Kg wet							U
Carbon Disulfide	ND	0.010	mg/Kg wet							U
Carbon Tetrachloride	ND	0.0020	mg/Kg wet							U
Chlorobenzene	ND	0.0020	mg/Kg wet							U
Chlorodibromomethane	ND	0.0010	mg/Kg wet							U
Chloroethane	ND	0.020	mg/Kg wet							U
Chloroform	ND	0.0040	mg/Kg wet							U
Chloromethane	ND	0.010	mg/Kg wet							U
2-Chlorotoluene	ND	0.0020	mg/Kg wet							U
4-Chlorotoluene	ND	0.0020	mg/Kg wet							U
1,2-Dibromo-3-chloropropane (DBCP)	ND	0.0020	mg/Kg wet							U
1,2-Dibromoethane (EDB)	ND	0.0010	mg/Kg wet							U
Dibromomethane	ND	0.0020	mg/Kg wet							U
1,2-Dichlorobenzene	ND	0.0020	mg/Kg wet							U
1,3-Dichlorobenzene	ND	0.0020	mg/Kg wet							U
1,4-Dichlorobenzene	ND	0.0020	mg/Kg wet							U
trans-1,4-Dichloro-2-butene	ND	0.0040	mg/Kg wet							U
Dichlorodifluoromethane (Freon 12)	ND	0.020	mg/Kg wet							V-05, U
1,1-Dichloroethane	ND	0.0020	mg/Kg wet							U
1,2-Dichloroethane	ND	0.0020	mg/Kg wet							U
1,1-Dichloroethylene	ND	0.0040	mg/Kg wet							U
cis-1,2-Dichloroethylene	ND	0.0020	mg/Kg wet							U
trans-1,2-Dichloroethylene	ND	0.0020	mg/Kg wet							U
1,2-Dichloropropane	ND	0.0020	mg/Kg wet							U
1,3-Dichloropropane	ND	0.0010	mg/Kg wet							U
2,2-Dichloropropane	ND	0.0020	mg/Kg wet							U
1,1-Dichloropropene	ND	0.0020	mg/Kg wet							U
cis-1,3-Dichloropropene	ND	0.0010	mg/Kg wet							U
trans-1,3-Dichloropropene	ND	0.0010	mg/Kg wet							U
Diethyl Ether	ND	0.020	mg/Kg wet							U
Diisopropyl Ether (DIPE)	ND	0.0010	mg/Kg wet							U
1,4-Dioxane	ND	0.10	mg/Kg wet							U
Ethylbenzene	ND	0.0020	mg/Kg wet							U
Hexachlorobutadiene	ND	0.0020	mg/Kg wet							U
2-Hexanone (MBK)	ND	0.020	mg/Kg wet							U
Isopropylbenzene (Cumene)	ND	0.0020	mg/Kg wet							U
p-Isopropyltoluene (p-Cymene)	ND	0.0020	mg/Kg wet							U
Methyl Acetate	ND	0.0020	mg/Kg wet							U

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

QUALITY CONTROL**Volatile Organic Compounds by GC/MS - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	---------	-----------	-------

Batch B302163 - SW-846 5035

Blank (B302163-BLK1)	Prepared & Analyzed: 03/01/22							
Methyl tert-Butyl Ether (MTBE)	ND	0.0040	mg/Kg wet					U
Methyl Cyclohexane	ND	0.0020	mg/Kg wet					U
Methylene Chloride	ND	0.020	mg/Kg wet					U
4-Methyl-2-pentanone (MIBK)	ND	0.020	mg/Kg wet					U
Naphthalene	ND	0.0040	mg/Kg wet					U
n-Propylbenzene	ND	0.0020	mg/Kg wet					U
Styrene	ND	0.0020	mg/Kg wet					U
1,1,1,2-Tetrachloroethane	ND	0.0020	mg/Kg wet					U
1,1,2,2-Tetrachloroethane	ND	0.0010	mg/Kg wet					U
Tetrachloroethylene	ND	0.0020	mg/Kg wet					U
Tetrahydrofuran	ND	0.010	mg/Kg wet					U
Toluene	ND	0.0020	mg/Kg wet					U
1,2,3-Trichlorobenzene	ND	0.0020	mg/Kg wet					U
1,2,4-Trichlorobenzene	ND	0.0020	mg/Kg wet					U
1,3,5-Trichlorobenzene	ND	0.0020	mg/Kg wet					U
1,1,1-Trichloroethane	ND	0.0020	mg/Kg wet					U
1,1,2-Trichloroethane	ND	0.0020	mg/Kg wet					U
Trichloroethylene	ND	0.0020	mg/Kg wet					U
Trichlorofluoromethane (Freon 11)	ND	0.010	mg/Kg wet					U
1,2,3-Trichloropropane	ND	0.0020	mg/Kg wet					U
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.010	mg/Kg wet					U
1,2,4-Trimethylbenzene	ND	0.0020	mg/Kg wet					U
1,3,5-Trimethylbenzene	ND	0.0020	mg/Kg wet					U
Vinyl Chloride	ND	0.010	mg/Kg wet					U
m+p Xylene	ND	0.0040	mg/Kg wet					U
o-Xylene	ND	0.0020	mg/Kg wet					U
Surrogate: 1,2-Dichloroethane-d4	0.0585		mg/Kg wet	0.0500	117	70-130		
Surrogate: Toluene-d8	0.0512		mg/Kg wet	0.0500	102	70-130		
Surrogate: 4-Bromofluorobenzene	0.0482		mg/Kg wet	0.0500	96.5	70-130		

LCS (B302163-BS1)	Prepared & Analyzed: 03/01/22						
Acetone	0.246	0.10	mg/Kg wet	0.200	123	70-160	†
Acrylonitrile	0.0233	0.0060	mg/Kg wet	0.0200	117	70-130	
tert-Amyl Methyl Ether (TAME)	0.0216	0.0010	mg/Kg wet	0.0200	108	70-130	
Benzene	0.0189	0.0020	mg/Kg wet	0.0200	94.7	70-130	
Bromobenzene	0.0178	0.0020	mg/Kg wet	0.0200	89.0	70-130	
Bromoform	0.0185	0.0020	mg/Kg wet	0.0200	92.6	70-130	
Bromochloromethane	0.0197	0.0020	mg/Kg wet	0.0200	98.4	70-130	
Bromodichloromethane	0.0189	0.0020	mg/Kg wet	0.0200	94.5	70-130	
Bromomethane	0.0209	0.010	mg/Kg wet	0.0200	104	40-130	†
2-Butanone (MEK)	0.200	0.040	mg/Kg wet	0.200	100	70-160	†
tert-Butyl Alcohol (TBA)	0.206	0.10	mg/Kg wet	0.200	103	40-130	†
n-Butylbenzene	0.0180	0.0020	mg/Kg wet	0.0200	90.2	70-130	
sec-Butylbenzene	0.0186	0.0020	mg/Kg wet	0.0200	93.0	70-130	
tert-Butylbenzene	0.0182	0.0020	mg/Kg wet	0.0200	91.0	70-160	†
tert-Butyl Ethyl Ether (TBEE)	0.0212	0.0010	mg/Kg wet	0.0200	106	70-130	
Carbon Disulfide	0.176	0.010	mg/Kg wet	0.200	87.8	70-130	
Carbon Tetrachloride	0.0196	0.0020	mg/Kg wet	0.0200	98.0	70-130	
Chlorobenzene	0.0183	0.0020	mg/Kg wet	0.0200	91.3	70-130	
Chlorodibromomethane	0.0192	0.0010	mg/Kg wet	0.0200	95.9	70-130	
Chloroethane	0.0212	0.020	mg/Kg wet	0.0200	106	70-130	
Chloroform	0.0200	0.0040	mg/Kg wet	0.0200	99.9	70-130	

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

QUALITY CONTROL**Volatile Organic Compounds by GC/MS - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD	RPD Limit	Notes
Batch B302163 - SW-846 5035										
LCS (B302163-BS1)										
Prepared & Analyzed: 03/01/22										
Chloromethane	0.0197	0.010	mg/Kg wet	0.0200	98.7	70-130				
2-Chlorotoluene	0.0184	0.0020	mg/Kg wet	0.0200	92.1	70-130				
4-Chlorotoluene	0.0189	0.0020	mg/Kg wet	0.0200	94.5	70-130				
1,2-Dibromo-3-chloropropane (DBCP)	0.0171	0.0020	mg/Kg wet	0.0200	85.5	70-130				
1,2-Dibromoethane (EDB)	0.0196	0.0010	mg/Kg wet	0.0200	97.8	70-130				
Dibromomethane	0.0197	0.0020	mg/Kg wet	0.0200	98.3	70-130				
1,2-Dichlorobenzene	0.0186	0.0020	mg/Kg wet	0.0200	92.9	70-130				
1,3-Dichlorobenzene	0.0194	0.0020	mg/Kg wet	0.0200	97.2	70-130				
1,4-Dichlorobenzene	0.0172	0.0020	mg/Kg wet	0.0200	85.9	70-130				
trans-1,4-Dichloro-2-butene	0.0215	0.0040	mg/Kg wet	0.0200	107	70-130				
Dichlorodifluoromethane (Freon 12)	0.0133	0.020	mg/Kg wet	0.0200	66.3	40-160				V-05, J †
1,1-Dichloroethane	0.0194	0.0020	mg/Kg wet	0.0200	97.0	70-130				
1,2-Dichloroethane	0.0218	0.0020	mg/Kg wet	0.0200	109	70-130				
1,1-Dichloroethylene	0.0218	0.0040	mg/Kg wet	0.0200	109	70-130				
cis-1,2-Dichloroethylene	0.0198	0.0020	mg/Kg wet	0.0200	99.2	70-130				
trans-1,2-Dichloroethylene	0.0191	0.0020	mg/Kg wet	0.0200	95.3	70-130				
1,2-Dichloropropane	0.0179	0.0020	mg/Kg wet	0.0200	89.6	70-130				
1,3-Dichloropropane	0.0207	0.0010	mg/Kg wet	0.0200	103	70-130				
2,2-Dichloropropane	0.0195	0.0020	mg/Kg wet	0.0200	97.7	70-130				
1,1-Dichloropropene	0.0180	0.0020	mg/Kg wet	0.0200	89.8	70-130				
cis-1,3-Dichloropropene	0.0194	0.0010	mg/Kg wet	0.0200	97.1	70-130				
trans-1,3-Dichloropropene	0.0204	0.0010	mg/Kg wet	0.0200	102	70-130				
Diethyl Ether	0.0213	0.020	mg/Kg wet	0.0200	107	70-130				
Diisopropyl Ether (DIPE)	0.0211	0.0010	mg/Kg wet	0.0200	106	70-130				
1,4-Dioxane	0.222	0.10	mg/Kg wet	0.200	111	40-160				†
Ethylbenzene	0.0182	0.0020	mg/Kg wet	0.0200	91.2	70-130				
Hexachlorobutadiene	0.0193	0.0020	mg/Kg wet	0.0200	96.3	70-160				
2-Hexanone (MBK)	0.191	0.020	mg/Kg wet	0.200	95.5	70-160				†
Isopropylbenzene (Cumene)	0.0164	0.0020	mg/Kg wet	0.0200	82.0	70-130				
p-Isopropyltoluene (p-Cymene)	0.0175	0.0020	mg/Kg wet	0.0200	87.6	70-130				
Methyl Acetate	0.0200	0.0020	mg/Kg wet	0.0200	99.8	70-130				
Methyl tert-Butyl Ether (MTBE)	0.0223	0.0040	mg/Kg wet	0.0200	111	70-130				
Methyl Cyclohexane	0.0182	0.0020	mg/Kg wet	0.0200	91.1	70-130				
Methylene Chloride	0.0192	0.020	mg/Kg wet	0.0200	95.9	40-160			J	†
4-Methyl-2-pentanone (MIBK)	0.187	0.020	mg/Kg wet	0.200	93.3	70-160				†
Naphthalene	0.0158	0.0040	mg/Kg wet	0.0200	79.0	40-130				†
n-Propylbenzene	0.0189	0.0020	mg/Kg wet	0.0200	94.3	70-130				
Styrene	0.0184	0.0020	mg/Kg wet	0.0200	91.8	70-130				
1,1,1,2-Tetrachloroethane	0.0197	0.0020	mg/Kg wet	0.0200	98.5	70-130				
1,1,2,2-Tetrachloroethane	0.0176	0.0010	mg/Kg wet	0.0200	88.0	70-130				
Tetrachloroethylene	0.0204	0.0020	mg/Kg wet	0.0200	102	70-130				
Tetrahydrofuran	0.0234	0.010	mg/Kg wet	0.0200	117	70-130				
Toluene	0.0179	0.0020	mg/Kg wet	0.0200	89.6	70-130				
1,2,3-Trichlorobenzene	0.0171	0.0020	mg/Kg wet	0.0200	85.7	70-130				
1,2,4-Trichlorobenzene	0.0166	0.0020	mg/Kg wet	0.0200	82.8	70-130				
1,3,5-Trichlorobenzene	0.0182	0.0020	mg/Kg wet	0.0200	91.2	70-130				
1,1,1-Trichloroethane	0.0204	0.0020	mg/Kg wet	0.0200	102	70-130				
1,1,2-Trichloroethane	0.0193	0.0020	mg/Kg wet	0.0200	96.7	70-130				
Trichloroethylene	0.0188	0.0020	mg/Kg wet	0.0200	93.9	70-130				
Trichlorofluoromethane (Freon 11)	0.0209	0.010	mg/Kg wet	0.0200	104	70-130				
1,2,3-Trichloropropane	0.0185	0.0020	mg/Kg wet	0.0200	92.7	70-130				

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

QUALITY CONTROL**Volatile Organic Compounds by GC/MS - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD	Limit Notes
Batch B302163 - SW-846 5035									
LCS (B302163-BS1)									
Prepared & Analyzed: 03/01/22									
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	0.0242	0.010	mg/Kg wet	0.0200	121	70-130			V-20
1,2,4-Trimethylbenzene	0.0187	0.0020	mg/Kg wet	0.0200	93.4	70-130			
1,3,5-Trimethylbenzene	0.0189	0.0020	mg/Kg wet	0.0200	94.6	70-130			
Vinyl Chloride	0.0174	0.010	mg/Kg wet	0.0200	86.8	40-130			†
m+p Xylene	0.0365	0.0040	mg/Kg wet	0.0400	91.3	70-130			
o-Xylene	0.0185	0.0020	mg/Kg wet	0.0200	92.4	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0587		mg/Kg wet	0.0500	117	70-130			
Surrogate: Toluene-d8	0.0514		mg/Kg wet	0.0500	103	70-130			
Surrogate: 4-Bromofluorobenzene	0.0503		mg/Kg wet	0.0500	101	70-130			
LCS Dup (B302163-BSD1)									
Prepared & Analyzed: 03/01/22									
Acetone	0.251	0.10	mg/Kg wet	0.200	125	70-160	1.85	25	†
Acrylonitrile	0.0223	0.0060	mg/Kg wet	0.0200	111	70-130	4.56	25	
tert-Amyl Methyl Ether (TAME)	0.0220	0.0010	mg/Kg wet	0.0200	110	70-130	1.65	25	
Benzene	0.0189	0.0020	mg/Kg wet	0.0200	94.3	70-130	0.423	25	
Bromobenzene	0.0183	0.0020	mg/Kg wet	0.0200	91.7	70-130	2.99	25	
Bromoform	0.0180	0.0020	mg/Kg wet	0.0200	89.8	70-130	3.07	25	
Bromodichloromethane	0.0211	0.0020	mg/Kg wet	0.0200	105	70-130	6.87	25	
Bromoform	0.0188	0.0020	mg/Kg wet	0.0200	94.0	70-130	0.531	25	
Bromomethane	0.0216	0.010	mg/Kg wet	0.0200	108	40-130	3.57	25	†
2-Butanone (MEK)	0.211	0.040	mg/Kg wet	0.200	105	70-160	4.92	25	†
tert-Butyl Alcohol (TBA)	0.212	0.10	mg/Kg wet	0.200	106	40-130	2.81	25	†
n-Butylbenzene	0.0167	0.0020	mg/Kg wet	0.0200	83.7	70-130	7.48	25	
sec-Butylbenzene	0.0164	0.0020	mg/Kg wet	0.0200	82.0	70-130	12.6	25	
tert-Butylbenzene	0.0181	0.0020	mg/Kg wet	0.0200	90.4	70-160	0.662	25	†
tert-Butyl Ethyl Ether (TBEE)	0.0205	0.0010	mg/Kg wet	0.0200	103	70-130	3.35	25	
Carbon Disulfide	0.171	0.010	mg/Kg wet	0.200	85.3	70-130	2.93	25	
Carbon Tetrachloride	0.0195	0.0020	mg/Kg wet	0.0200	97.3	70-130	0.717	25	
Chlorobenzene	0.0177	0.0020	mg/Kg wet	0.0200	88.6	70-130	3.00	25	
Chlorodibromomethane	0.0208	0.0010	mg/Kg wet	0.0200	104	70-130	8.01	25	
Chloroethane	0.0208	0.020	mg/Kg wet	0.0200	104	70-130	1.90	25	
Chloroform	0.0198	0.0040	mg/Kg wet	0.0200	98.8	70-130	1.11	25	
Chloromethane	0.0191	0.010	mg/Kg wet	0.0200	95.5	70-130	3.30	25	
2-Chlorotoluene	0.0174	0.0020	mg/Kg wet	0.0200	87.1	70-130	5.58	25	
4-Chlorotoluene	0.0182	0.0020	mg/Kg wet	0.0200	91.1	70-130	3.66	25	
1,2-Dibromo-3-chloropropane (DBCP)	0.0199	0.0020	mg/Kg wet	0.0200	99.7	70-130	15.3	25	
1,2-Dibromoethane (EDB)	0.0208	0.0010	mg/Kg wet	0.0200	104	70-130	6.14	25	
Dibromomethane	0.0207	0.0020	mg/Kg wet	0.0200	103	70-130	4.96	25	
1,2-Dichlorobenzene	0.0182	0.0020	mg/Kg wet	0.0200	90.8	70-130	2.29	25	
1,3-Dichlorobenzene	0.0186	0.0020	mg/Kg wet	0.0200	93.2	70-130	4.20	25	
1,4-Dichlorobenzene	0.0178	0.0020	mg/Kg wet	0.0200	89.1	70-130	3.66	25	
trans-1,4-Dichloro-2-butene	0.0217	0.0040	mg/Kg wet	0.0200	108	70-130	1.02	25	
Dichlorodifluoromethane (Freon 12)	0.0134	0.020	mg/Kg wet	0.0200	66.9	40-160	0.901	25	V-05, J †
1,1-Dichloroethane	0.0193	0.0020	mg/Kg wet	0.0200	96.7	70-130	0.310	25	
1,2-Dichloroethane	0.0212	0.0020	mg/Kg wet	0.0200	106	70-130	2.79	25	
1,1-Dichloroethylene	0.0210	0.0040	mg/Kg wet	0.0200	105	70-130	3.55	25	
cis-1,2-Dichloroethylene	0.0201	0.0020	mg/Kg wet	0.0200	100	70-130	1.20	25	
trans-1,2-Dichloroethylene	0.0181	0.0020	mg/Kg wet	0.0200	90.5	70-130	5.17	25	
1,2-Dichloropropane	0.0177	0.0020	mg/Kg wet	0.0200	88.6	70-130	1.12	25	
1,3-Dichloropropane	0.0202	0.0010	mg/Kg wet	0.0200	101	70-130	2.55	25	
2,2-Dichloropropane	0.0190	0.0020	mg/Kg wet	0.0200	95.2	70-130	2.59	25	
1,1-Dichloropropene	0.0185	0.0020	mg/Kg wet	0.0200	92.5	70-130	2.96	25	

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

QUALITY CONTROL**Volatile Organic Compounds by GC/MS - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	---------	-----------	-------

Batch B302163 - SW-846 5035

LCS Dup (B302163-BSD1)	Prepared & Analyzed: 03/01/22								
cis-1,3-Dichloropropene	0.0193	0.0010	mg/Kg wet	0.0200	96.6	70-130	0.516	25	
trans-1,3-Dichloropropene	0.0213	0.0010	mg/Kg wet	0.0200	107	70-130	4.61	25	
Diethyl Ether	0.0228	0.020	mg/Kg wet	0.0200	114	70-130	6.80	25	
Diisopropyl Ether (DIPE)	0.0206	0.0010	mg/Kg wet	0.0200	103	70-130	2.40	25	
1,4-Dioxane	0.230	0.10	mg/Kg wet	0.200	115	40-160	3.43	50	† ‡
Ethylbenzene	0.0178	0.0020	mg/Kg wet	0.0200	88.8	70-130	2.67	25	
Hexachlorobutadiene	0.0178	0.0020	mg/Kg wet	0.0200	89.0	70-160	7.88	25	
2-Hexanone (MBK)	0.192	0.020	mg/Kg wet	0.200	95.8	70-160	0.314	25	†
Isopropylbenzene (Cumene)	0.0166	0.0020	mg/Kg wet	0.0200	82.9	70-130	1.09	25	
p-Isopropyltoluene (p-Cymene)	0.0178	0.0020	mg/Kg wet	0.0200	89.2	70-130	1.81	25	
Methyl Acetate	0.0201	0.0020	mg/Kg wet	0.0200	100	70-130	0.699	25	
Methyl tert-Butyl Ether (MTBE)	0.0213	0.0040	mg/Kg wet	0.0200	106	70-130	4.69	25	
Methyl Cyclohexane	0.0179	0.0020	mg/Kg wet	0.0200	89.5	70-130	1.77	25	
Methylene Chloride	0.0193	0.020	mg/Kg wet	0.0200	96.5	40-160	0.624	25	J †
4-Methyl-2-pentanone (MIBK)	0.188	0.020	mg/Kg wet	0.200	94.2	70-160	0.875	25	†
Naphthalene	0.0172	0.0040	mg/Kg wet	0.0200	86.0	40-130	8.48	25	†
n-Propylbenzene	0.0176	0.0020	mg/Kg wet	0.0200	88.0	70-130	6.91	25	
Styrene	0.0174	0.0020	mg/Kg wet	0.0200	87.0	70-130	5.37	25	
1,1,1,2-Tetrachloroethane	0.0189	0.0020	mg/Kg wet	0.0200	94.7	70-130	3.93	25	
1,1,2,2-Tetrachloroethane	0.0177	0.0010	mg/Kg wet	0.0200	88.4	70-130	0.454	25	
Tetrachloroethylene	0.0180	0.0020	mg/Kg wet	0.0200	89.9	70-130	12.7	25	
Tetrahydrofuran	0.0256	0.010	mg/Kg wet	0.0200	128	70-130	8.74	25	
Toluene	0.0181	0.0020	mg/Kg wet	0.0200	90.6	70-130	1.11	25	
1,2,3-Trichlorobenzene	0.0175	0.0020	mg/Kg wet	0.0200	87.5	70-130	2.08	25	
1,2,4-Trichlorobenzene	0.0159	0.0020	mg/Kg wet	0.0200	79.3	70-130	4.32	25	
1,3,5-Trichlorobenzene	0.0171	0.0020	mg/Kg wet	0.0200	85.4	70-130	6.57	25	
1,1,1-Trichloroethane	0.0206	0.0020	mg/Kg wet	0.0200	103	70-130	0.781	25	
1,1,2-Trichloroethane	0.0181	0.0020	mg/Kg wet	0.0200	90.4	70-130	6.73	25	
Trichloroethylene	0.0180	0.0020	mg/Kg wet	0.0200	90.2	70-130	4.02	25	
Trichlorofluoromethane (Freon 11)	0.0214	0.010	mg/Kg wet	0.0200	107	70-130	2.55	25	
1,2,3-Trichloropropane	0.0203	0.0020	mg/Kg wet	0.0200	101	70-130	8.87	25	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	0.0241	0.010	mg/Kg wet	0.0200	120	70-130	0.331	25	V-20
1,2,4-Trimethylbenzene	0.0179	0.0020	mg/Kg wet	0.0200	89.3	70-130	4.49	25	
1,3,5-Trimethylbenzene	0.0184	0.0020	mg/Kg wet	0.0200	91.8	70-130	3.00	25	
Vinyl Chloride	0.0182	0.010	mg/Kg wet	0.0200	91.1	40-130	4.83	25	†
m+p Xylene	0.0358	0.0040	mg/Kg wet	0.0400	89.4	70-130	2.10	25	
o-Xylene	0.0174	0.0020	mg/Kg wet	0.0200	87.2	70-130	5.79	25	
Surrogate: 1,2-Dichloroethane-d4	0.0569		mg/Kg wet	0.0500	114	70-130			
Surrogate: Toluene-d8	0.0518		mg/Kg wet	0.0500	104	70-130			
Surrogate: 4-Bromofluorobenzene	0.0494		mg/Kg wet	0.0500	98.7	70-130			

Batch B302171 - SW-846 5030B

Blank (B302171-BLK1)	Prepared & Analyzed: 03/01/22							
Acetone	ND	50	µg/L					U
Acrylonitrile	ND	5.0	µg/L					U
tert-Amyl Methyl Ether (TAME)	ND	0.50	µg/L					U
Benzene	ND	1.0	µg/L					U
Bromobenzene	ND	1.0	µg/L					U
Bromochloromethane	ND	1.0	µg/L					U
Bromodichloromethane	ND	0.50	µg/L					U
Bromoform	ND	1.0	µg/L					U

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

QUALITY CONTROL**Volatile Organic Compounds by GC/MS - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD	Limit Notes
Batch B302171 - SW-846 5030B									
Blank (B302171-BLK1)									
Prepared & Analyzed: 03/01/22									
Bromomethane	ND	2.0	µg/L						R-05, V-05, U
2-Butanone (MEK)	ND	20	µg/L						U
tert-Butyl Alcohol (TBA)	ND	20	µg/L						U
n-Butylbenzene	ND	1.0	µg/L						U
sec-Butylbenzene	ND	1.0	µg/L						U
tert-Butylbenzene	ND	1.0	µg/L						U
tert-Butyl Ethyl Ether (TBEE)	ND	0.50	µg/L						U
Carbon Disulfide	ND	5.0	µg/L						U
Carbon Tetrachloride	ND	5.0	µg/L						U
Chlorobenzene	ND	1.0	µg/L						U
Chlorodibromomethane	ND	0.50	µg/L						U
Chloroethane	ND	2.0	µg/L						U
Chloroform	ND	2.0	µg/L						U
Chloromethane	ND	2.0	µg/L						U
2-Chlorotoluene	ND	1.0	µg/L						U
4-Chlorotoluene	ND	1.0	µg/L						U
1,2-Dibromo-3-chloropropane (DBCP)	ND	5.0	µg/L						U
1,2-Dibromoethane (EDB)	ND	0.50	µg/L						U
Dibromomethane	ND	1.0	µg/L						U
1,2-Dichlorobenzene	ND	1.0	µg/L						U
1,3-Dichlorobenzene	ND	1.0	µg/L						U
1,4-Dichlorobenzene	ND	1.0	µg/L						U
trans-1,4-Dichloro-2-butene	ND	2.0	µg/L						U
Dichlorodifluoromethane (Freon 12)	ND	2.0	µg/L						U
1,1-Dichloroethane	ND	1.0	µg/L						U
1,2-Dichloroethane	ND	1.0	µg/L						U
1,1-Dichloroethylene	ND	1.0	µg/L						U
cis-1,2-Dichloroethylene	ND	1.0	µg/L						U
trans-1,2-Dichloroethylene	ND	1.0	µg/L						U
1,2-Dichloropropane	ND	1.0	µg/L						U
1,3-Dichloropropane	ND	0.50	µg/L						U
2,2-Dichloropropane	ND	1.0	µg/L						U
1,1-Dichloropropene	ND	2.0	µg/L						U
cis-1,3-Dichloropropene	ND	0.50	µg/L						U
trans-1,3-Dichloropropene	ND	0.50	µg/L						U
Diethyl Ether	ND	2.0	µg/L						U
Diisopropyl Ether (DIPE)	ND	0.50	µg/L						U
1,4-Dioxane	ND	50	µg/L						U
Ethylbenzene	ND	1.0	µg/L						U
Hexachlorobutadiene	ND	0.60	µg/L						U
2-Hexanone (MBK)	ND	10	µg/L						U
Isopropylbenzene (Cumene)	ND	1.0	µg/L						U
p-Isopropyltoluene (p-Cymene)	ND	1.0	µg/L						U
Methyl Acetate	ND	1.0	µg/L						U
Methyl tert-Butyl Ether (MTBE)	ND	1.0	µg/L						U
Methyl Cyclohexane	ND	1.0	µg/L						U
Methylene Chloride	ND	5.0	µg/L						U
4-Methyl-2-pentanone (MIBK)	ND	10	µg/L						U
Naphthalene	ND	2.0	µg/L						U
n-Propylbenzene	ND	1.0	µg/L						U
Styrene	ND	1.0	µg/L						U
1,1,1,2-Tetrachloroethane	ND	1.0	µg/L						U

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

QUALITY CONTROL**Volatile Organic Compounds by GC/MS - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	---------	-----------	-------

Batch B302171 - SW-846 5030B

Blank (B302171-BLK1)							Prepared & Analyzed: 03/01/22
1,1,2,2-Tetrachloroethane	ND	0.50	µg/L				U
Tetrachloroethylene	ND	1.0	µg/L				U
Tetrahydrofuran	ND	10	µg/L				U
Toluene	ND	1.0	µg/L				U
1,2,3-Trichlorobenzene	ND	5.0	µg/L				U
1,2,4-Trichlorobenzene	ND	1.0	µg/L				U
1,3,5-Trichlorobenzene	ND	1.0	µg/L				U
1,1,1-Trichloroethane	ND	1.0	µg/L				U
1,1,2-Trichloroethane	ND	1.0	µg/L				U
Trichloroethylene	ND	1.0	µg/L				U
Trichlorofluoromethane (Freon 11)	ND	2.0	µg/L				U
1,2,3-Trichloropropane	ND	2.0	µg/L				U
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	1.0	µg/L				U
1,2,4-Trimethylbenzene	ND	1.0	µg/L				U
1,3,5-Trimethylbenzene	ND	1.0	µg/L				U
Vinyl Chloride	ND	2.0	µg/L				U
m+p Xylene	ND	2.0	µg/L				U
o-Xylene	ND	1.0	µg/L				U
Surrogate: 1,2-Dichloroethane-d4	23.7		µg/L	25.0	95.0	70-130	
Surrogate: Toluene-d8	24.7		µg/L	25.0	98.7	70-130	
Surrogate: 4-Bromofluorobenzene	24.6		µg/L	25.0	98.4	70-130	

LCS (B302171-BS1)							Prepared & Analyzed: 03/01/22
Acetone	93.8	50	µg/L	100	93.8	70-160	†
Acrylonitrile	9.53	5.0	µg/L	10.0	95.3	70-130	
tert-Amyl Methyl Ether (TAME)	9.31	0.50	µg/L	10.0	93.1	70-130	
Benzene	9.35	1.0	µg/L	10.0	93.5	70-130	
Bromobenzene	10.7	1.0	µg/L	10.0	107	70-130	
Bromochloromethane	9.65	1.0	µg/L	10.0	96.5	70-130	
Bromodichloromethane	9.66	0.50	µg/L	10.0	96.6	70-130	
Bromoform	11.4	1.0	µg/L	10.0	114	70-130	
Bromomethane	8.81	2.0	µg/L	10.0	88.1	40-160	R-05, V-05 †
2-Butanone (MEK)	91.9	20	µg/L	100	91.9	40-160	†
tert-Butyl Alcohol (TBA)	102	20	µg/L	100	102	40-160	†
n-Butylbenzene	10.8	1.0	µg/L	10.0	108	70-130	
sec-Butylbenzene	11.0	1.0	µg/L	10.0	110	70-130	
tert-Butylbenzene	11.2	1.0	µg/L	10.0	112	70-130	
tert-Butyl Ethyl Ether (TBEE)	9.38	0.50	µg/L	10.0	93.8	70-130	
Carbon Disulfide	107	5.0	µg/L	100	107	70-130	
Carbon Tetrachloride	10.0	5.0	µg/L	10.0	100	70-130	
Chlorobenzene	11.1	1.0	µg/L	10.0	111	70-130	
Chlorodibromomethane	10.0	0.50	µg/L	10.0	100	70-130	
Chloroethane	10.1	2.0	µg/L	10.0	101	70-130	
Chloroform	9.76	2.0	µg/L	10.0	97.6	70-130	
Chloromethane	9.59	2.0	µg/L	10.0	95.9	40-160	†
2-Chlorotoluene	10.4	1.0	µg/L	10.0	104	70-130	
4-Chlorotoluene	10.9	1.0	µg/L	10.0	109	70-130	
1,2-Dibromo-3-chloropropane (DBCP)	9.17	5.0	µg/L	10.0	91.7	70-130	
1,2-Dibromoethane (EDB)	10.1	0.50	µg/L	10.0	101	70-130	
Dibromomethane	9.60	1.0	µg/L	10.0	96.0	70-130	
1,2-Dichlorobenzene	11.0	1.0	µg/L	10.0	110	70-130	
1,3-Dichlorobenzene	11.0	1.0	µg/L	10.0	110	70-130	

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

QUALITY CONTROL**Volatile Organic Compounds by GC/MS - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD	Limit Notes
Batch B302171 - SW-846 5030B									
LCS (B302171-BS1)									
Prepared & Analyzed: 03/01/22									
1,4-Dichlorobenzene	10.9	1.0	µg/L	10.0	109	70-130			
trans-1,4-Dichloro-2-butene	8.81	2.0	µg/L	10.0	88.1	70-130			
Dichlorodifluoromethane (Freon 12)	9.44	2.0	µg/L	10.0	94.4	40-160			†
1,1-Dichloroethane	9.74	1.0	µg/L	10.0	97.4	70-130			
1,2-Dichloroethane	9.01	1.0	µg/L	10.0	90.1	70-130			
1,1-Dichloroethylene	10.2	1.0	µg/L	10.0	102	70-130			
cis-1,2-Dichloroethylene	9.61	1.0	µg/L	10.0	96.1	70-130			
trans-1,2-Dichloroethylene	9.64	1.0	µg/L	10.0	96.4	70-130			
1,2-Dichloropropane	10.0	1.0	µg/L	10.0	100	70-130			
1,3-Dichloropropane	9.83	0.50	µg/L	10.0	98.3	70-130			
2,2-Dichloropropane	9.91	1.0	µg/L	10.0	99.1	40-130			†
1,1-Dichloropropene	9.95	2.0	µg/L	10.0	99.5	70-130			
cis-1,3-Dichloropropene	9.23	0.50	µg/L	10.0	92.3	70-130			
trans-1,3-Dichloropropene	9.05	0.50	µg/L	10.0	90.5	70-130			
Diethyl Ether	9.78	2.0	µg/L	10.0	97.8	70-130			
Diisopropyl Ether (DIPE)	9.42	0.50	µg/L	10.0	94.2	70-130			
1,4-Dioxane	89.1	50	µg/L	100	89.1	40-130			†
Ethylbenzene	11.1	1.0	µg/L	10.0	111	70-130			
Hexachlorobutadiene	11.6	0.60	µg/L	10.0	116	70-130			
2-Hexanone (MBK)	94.2	10	µg/L	100	94.2	70-160			†
Isopropylbenzene (Cumene)	11.2	1.0	µg/L	10.0	112	70-130			
p-Isopropyltoluene (p-Cymene)	11.1	1.0	µg/L	10.0	111	70-130			
Methyl Acetate	9.13	1.0	µg/L	10.0	91.3	70-130			
Methyl tert-Butyl Ether (MTBE)	9.53	1.0	µg/L	10.0	95.3	70-130			
Methyl Cyclohexane	10.3	1.0	µg/L	10.0	103	70-130			
Methylene Chloride	9.39	5.0	µg/L	10.0	93.9	70-130			
4-Methyl-2-pentanone (MIBK)	96.1	10	µg/L	100	96.1	70-160			†
Naphthalene	10.4	2.0	µg/L	10.0	104	40-130			†
n-Propylbenzene	11.2	1.0	µg/L	10.0	112	70-130			
Styrene	11.4	1.0	µg/L	10.0	114	70-130			
1,1,1,2-Tetrachloroethane	10.9	1.0	µg/L	10.0	109	70-130			
1,1,2,2-Tetrachloroethane	10.8	0.50	µg/L	10.0	108	70-130			
Tetrachloroethylene	10.7	1.0	µg/L	10.0	107	70-130			
Tetrahydrofuran	9.00	10	µg/L	10.0	90.0	70-130			J
Toluene	10.2	1.0	µg/L	10.0	102	70-130			
1,2,3-Trichlorobenzene	10.8	5.0	µg/L	10.0	108	70-130			
1,2,4-Trichlorobenzene	10.8	1.0	µg/L	10.0	108	70-130			
1,3,5-Trichlorobenzene	11.1	1.0	µg/L	10.0	111	70-130			
1,1,1-Trichloroethane	10.2	1.0	µg/L	10.0	102	70-130			
1,1,2-Trichloroethane	10.2	1.0	µg/L	10.0	102	70-130			
Trichloroethylene	10.5	1.0	µg/L	10.0	105	70-130			
Trichlorofluoromethane (Freon 11)	9.96	2.0	µg/L	10.0	99.6	70-130			
1,2,3-Trichloropropane	10.7	2.0	µg/L	10.0	107	70-130			
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	10.6	1.0	µg/L	10.0	106	70-130			
1,2,4-Trimethylbenzene	10.9	1.0	µg/L	10.0	109	70-130			
1,3,5-Trimethylbenzene	11.5	1.0	µg/L	10.0	115	70-130			
Vinyl Chloride	8.53	2.0	µg/L	10.0	85.3	40-160			†
m+p Xylene	22.0	2.0	µg/L	20.0	110	70-130			
o-Xylene	11.0	1.0	µg/L	10.0	110	70-130			
Surrogate: 1,2-Dichloroethane-d4	23.7		µg/L	25.0	94.8	70-130			
Surrogate: Toluene-d8	24.5		µg/L	25.0	98.1	70-130			

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

QUALITY CONTROL**Volatile Organic Compounds by GC/MS - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD	RPD Limit	Notes
Batch B302171 - SW-846 5030B										
LCS (B302171-BS1)										
Surrogate: 4-Bromofluorobenzene										
Prepared & Analyzed: 03/01/22										
LCS Dup (B302171-BS1)										
Prepared & Analyzed: 03/01/22										
Acetone	102	50	µg/L	100	102	70-160	8.13	25		†
Acrylonitrile	9.92	5.0	µg/L	10.0	99.2	70-130	4.01	25		
tert-Amyl Methyl Ether (TAME)	9.69	0.50	µg/L	10.0	96.9	70-130	4.00	25		
Benzene	9.27	1.0	µg/L	10.0	92.7	70-130	0.859	25		
Bromobenzene	10.8	1.0	µg/L	10.0	108	70-130	0.743	25		
Bromoform	9.92	1.0	µg/L	10.0	99.2	70-130	2.76	25		
Bromodichloromethane	9.69	0.50	µg/L	10.0	96.9	70-130	0.310	25		
Bromoform	11.9	1.0	µg/L	10.0	119	70-130	3.61	25		
Bromomethane	11.7	2.0	µg/L	10.0	117	40-160	27.8 *	25	R-05, V-05	†
2-Butanone (MEK)	99.2	20	µg/L	100	99.2	40-160	7.67	25		†
tert-Butyl Alcohol (TBA)	109	20	µg/L	100	109	40-160	6.84	25		†
n-Butylbenzene	10.6	1.0	µg/L	10.0	106	70-130	1.86	25		
sec-Butylbenzene	10.8	1.0	µg/L	10.0	108	70-130	2.30	25		
tert-Butylbenzene	10.9	1.0	µg/L	10.0	109	70-130	2.89	25		
tert-Butyl Ethyl Ether (TBEE)	9.75	0.50	µg/L	10.0	97.5	70-130	3.87	25		
Carbon Disulfide	104	5.0	µg/L	100	104	70-130	2.28	25		
Carbon Tetrachloride	9.85	5.0	µg/L	10.0	98.5	70-130	1.51	25		
Chlorobenzene	11.0	1.0	µg/L	10.0	110	70-130	0.543	25		
Chlorodibromomethane	9.93	0.50	µg/L	10.0	99.3	70-130	0.702	25		
Chloroethane	10.3	2.0	µg/L	10.0	103	70-130	1.57	25		
Chloroform	9.55	2.0	µg/L	10.0	95.5	70-130	2.18	25		
Chloromethane	10.1	2.0	µg/L	10.0	101	40-160	4.78	25		†
2-Chlorotoluene	10.7	1.0	µg/L	10.0	107	70-130	3.04	25		
4-Chlorotoluene	10.8	1.0	µg/L	10.0	108	70-130	0.830	25		
1,2-Dibromo-3-chloropropane (DBCP)	10.5	5.0	µg/L	10.0	105	70-130	13.1	25		
1,2-Dibromoethane (EDB)	10.5	0.50	µg/L	10.0	105	70-130	3.59	25		
Dibromomethane	9.95	1.0	µg/L	10.0	99.5	70-130	3.58	25		
1,2-Dichlorobenzene	10.8	1.0	µg/L	10.0	108	70-130	1.47	25		
1,3-Dichlorobenzene	11.0	1.0	µg/L	10.0	110	70-130	0.182	25		
1,4-Dichlorobenzene	10.8	1.0	µg/L	10.0	108	70-130	1.29	25		
trans-1,4-Dichloro-2-butene	9.69	2.0	µg/L	10.0	96.9	70-130	9.51	25		
Dichlorodifluoromethane (Freon 12)	9.05	2.0	µg/L	10.0	90.5	40-160	4.22	25		†
1,1-Dichloroethane	9.55	1.0	µg/L	10.0	95.5	70-130	1.97	25		
1,2-Dichloroethane	9.09	1.0	µg/L	10.0	90.9	70-130	0.884	25		
1,1-Dichloroethylene	9.79	1.0	µg/L	10.0	97.9	70-130	3.71	25		
cis-1,2-Dichloroethylene	9.54	1.0	µg/L	10.0	95.4	70-130	0.731	25		
trans-1,2-Dichloroethylene	9.36	1.0	µg/L	10.0	93.6	70-130	2.95	25		
1,2-Dichloropropane	9.77	1.0	µg/L	10.0	97.7	70-130	2.53	25		
1,3-Dichloropropane	10.2	0.50	µg/L	10.0	102	70-130	3.40	25		
2,2-Dichloropropane	9.80	1.0	µg/L	10.0	98.0	40-130	1.12	25		†
1,1-Dichloropropene	9.84	2.0	µg/L	10.0	98.4	70-130	1.11	25		
cis-1,3-Dichloropropene	9.34	0.50	µg/L	10.0	93.4	70-130	1.18	25		
trans-1,3-Dichloropropene	9.17	0.50	µg/L	10.0	91.7	70-130	1.32	25		
Diethyl Ether	9.87	2.0	µg/L	10.0	98.7	70-130	0.916	25		
Diisopropyl Ether (DIPE)	9.42	0.50	µg/L	10.0	94.2	70-130	0.00	25		
1,4-Dioxane	97.2	50	µg/L	100	97.2	40-130	8.70	50		†
Ethylbenzene	11.0	1.0	µg/L	10.0	110	70-130	0.993	25		
Hexachlorobutadiene	11.2	0.60	µg/L	10.0	112	70-130	3.76	25		
2-Hexanone (MBK)	105	10	µg/L	100	105	70-160	10.5	25		†

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

QUALITY CONTROL**Volatile Organic Compounds by GC/MS - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD	RPD Limit	Notes
Batch B302171 - SW-846 5030B										
LCS Dup (B302171-BSD1)										
Prepared & Analyzed: 03/01/22										
Isopropylbenzene (Cumene)	11.1	1.0	µg/L	10.0	111	70-130	0.449	25		
p-Isopropyltoluene (p-Cymene)	11.0	1.0	µg/L	10.0	110	70-130	0.995	25		
Methyl Acetate	9.87	1.0	µg/L	10.0	98.7	70-130	7.79	25		
Methyl tert-Butyl Ether (MTBE)	9.75	1.0	µg/L	10.0	97.5	70-130	2.28	25		
Methyl Cyclohexane	10.3	1.0	µg/L	10.0	103	70-130	0.0970	25		
Methylene Chloride	9.71	5.0	µg/L	10.0	97.1	70-130	3.35	25		
4-Methyl-2-pentanone (MIBK)	102	10	µg/L	100	102	70-160	5.79	25		†
Naphthalene	11.5	2.0	µg/L	10.0	115	40-130	10.2	25		†
n-Propylbenzene	10.8	1.0	µg/L	10.0	108	70-130	3.45	25		
Styrene	11.4	1.0	µg/L	10.0	114	70-130	0.176	25		
1,1,1,2-Tetrachloroethane	11.0	1.0	µg/L	10.0	110	70-130	0.825	25		
1,1,2,2-Tetrachloroethane	11.3	0.50	µg/L	10.0	113	70-130	4.71	25		
Tetrachloroethylene	10.5	1.0	µg/L	10.0	105	70-130	2.55	25		
Tetrahydrofuran	9.45	10	µg/L	10.0	94.5	70-130	4.88	25		J
Toluene	9.99	1.0	µg/L	10.0	99.9	70-130	1.69	25		
1,2,3-Trichlorobenzene	11.7	5.0	µg/L	10.0	117	70-130	7.84	25		
1,2,4-Trichlorobenzene	11.1	1.0	µg/L	10.0	111	70-130	2.01	25		
1,3,5-Trichlorobenzene	11.0	1.0	µg/L	10.0	110	70-130	0.813	25		
1,1,1-Trichloroethane	10.3	1.0	µg/L	10.0	103	70-130	0.195	25		
1,1,2-Trichloroethane	10.5	1.0	µg/L	10.0	105	70-130	3.18	25		
Trichloroethylene	10.4	1.0	µg/L	10.0	104	70-130	1.53	25		
Trichlorofluoromethane (Freon 11)	9.73	2.0	µg/L	10.0	97.3	70-130	2.34	25		
1,2,3-Trichloropropane	11.2	2.0	µg/L	10.0	112	70-130	4.47	25		
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	10.3	1.0	µg/L	10.0	103	70-130	2.01	25		
1,2,4-Trimethylbenzene	10.8	1.0	µg/L	10.0	108	70-130	0.829	25		
1,3,5-Trimethylbenzene	11.4	1.0	µg/L	10.0	114	70-130	1.13	25		
Vinyl Chloride	8.37	2.0	µg/L	10.0	83.7	40-160	1.89	25		†
m+p Xylene	21.7	2.0	µg/L	20.0	109	70-130	1.10	25		
o-Xylene	10.9	1.0	µg/L	10.0	109	70-130	0.548	25		
Surrogate: 1,2-Dichloroethane-d4	23.6		µg/L	25.0	94.6	70-130				
Surrogate: Toluene-d8	24.2		µg/L	25.0	97.0	70-130				
Surrogate: 4-Bromofluorobenzene	24.8		µg/L	25.0	99.4	70-130				

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

QUALITY CONTROL**Semivolatile Organic Compounds by GC/MS - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD	Limit Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	---------	-------------

Batch B302155 - SW-846 3546

Blank (B302155-BLK1)	Prepared: 03/01/22 Analyzed: 03/02/22					
Acenaphthene	ND	0.17	mg/Kg wet			U
Acenaphthylene	ND	0.17	mg/Kg wet			U
Anthracene	ND	0.17	mg/Kg wet			U
Benzo(a)anthracene	ND	0.17	mg/Kg wet			U
Benzo(a)pyrene	ND	0.17	mg/Kg wet			U
Benzo(b)fluoranthene	ND	0.17	mg/Kg wet			U
Benzo(g,h,i)perylene	ND	0.17	mg/Kg wet			U
Benzo(k)fluoranthene	ND	0.17	mg/Kg wet			U
Chrysene	ND	0.17	mg/Kg wet			U
Dibenz(a,h)anthracene	ND	0.17	mg/Kg wet			U
Fluoranthene	ND	0.17	mg/Kg wet			U
Fluorene	ND	0.17	mg/Kg wet			U
Indeno(1,2,3-cd)pyrene	ND	0.17	mg/Kg wet			U
2-Methylnaphthalene	ND	0.17	mg/Kg wet			U
Naphthalene	ND	0.17	mg/Kg wet			U
Phenanthrene	ND	0.17	mg/Kg wet			U
Pyrene	ND	0.17	mg/Kg wet			U
Surrogate: Nitrobenzene-d5	2.39		mg/Kg wet	3.33	71.7	30-130
Surrogate: 2-Fluorobiphenyl	2.62		mg/Kg wet	3.33	78.7	30-130
Surrogate: p-Terphenyl-d14	2.75		mg/Kg wet	3.33	82.6	30-130
LCS (B302155-BS1)	Prepared: 03/01/22 Analyzed: 03/02/22					
Acenaphthene	1.14	0.17	mg/Kg wet	1.67	68.3	40-140
Acenaphthylene	1.24	0.17	mg/Kg wet	1.67	74.5	40-140
Anthracene	1.21	0.17	mg/Kg wet	1.67	72.9	40-140
Benzo(a)anthracene	1.23	0.17	mg/Kg wet	1.67	73.9	40-140
Benzo(a)pyrene	1.37	0.17	mg/Kg wet	1.67	82.3	40-140
Benzo(b)fluoranthene	1.25	0.17	mg/Kg wet	1.67	75.3	40-140
Benzo(g,h,i)perylene	1.22	0.17	mg/Kg wet	1.67	73.0	40-140
Benzo(k)fluoranthene	1.27	0.17	mg/Kg wet	1.67	76.1	40-140
Chrysene	1.16	0.17	mg/Kg wet	1.67	69.4	40-140
Dibenz(a,h)anthracene	1.33	0.17	mg/Kg wet	1.67	80.0	40-140
Fluoranthene	1.33	0.17	mg/Kg wet	1.67	80.0	40-140
Fluorene	1.28	0.17	mg/Kg wet	1.67	77.1	40-140
Indeno(1,2,3-cd)pyrene	1.35	0.17	mg/Kg wet	1.67	81.2	40-140
2-Methylnaphthalene	1.33	0.17	mg/Kg wet	1.67	79.9	40-140
Naphthalene	1.08	0.17	mg/Kg wet	1.67	64.9	40-140
Phenanthrene	1.21	0.17	mg/Kg wet	1.67	72.8	40-140
Pyrene	1.10	0.17	mg/Kg wet	1.67	66.1	40-140
Surrogate: Nitrobenzene-d5	2.11		mg/Kg wet	3.33	63.4	30-130
Surrogate: 2-Fluorobiphenyl	2.45		mg/Kg wet	3.33	73.5	30-130
Surrogate: p-Terphenyl-d14	2.58		mg/Kg wet	3.33	77.5	30-130

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

QUALITY CONTROL**Semivolatile Organic Compounds by GC/MS - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD	Limit Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	---------	-------------

Batch B302155 - SW-846 3546

LCS Dup (B302155-BSD1)									
Prepared: 03/01/22 Analyzed: 03/02/22									
Acenaphthene	1.10	0.17	mg/Kg wet	1.67	66.2	40-140	3.21	30	
Acenaphthylene	1.19	0.17	mg/Kg wet	1.67	71.3	40-140	4.31	30	
Anthracene	1.19	0.17	mg/Kg wet	1.67	71.4	40-140	2.11	30	
Benzo(a)anthracene	1.19	0.17	mg/Kg wet	1.67	71.1	40-140	3.86	30	
Benzo(a)pyrene	1.29	0.17	mg/Kg wet	1.67	77.3	40-140	6.31	30	
Benzo(b)fluoranthene	1.19	0.17	mg/Kg wet	1.67	71.6	40-140	4.96	30	
Benzo(g,h,i)perylene	1.15	0.17	mg/Kg wet	1.67	68.8	40-140	5.92	30	
Benzo(k)fluoranthene	1.20	0.17	mg/Kg wet	1.67	72.0	40-140	5.48	30	
Chrysene	1.12	0.17	mg/Kg wet	1.67	67.5	40-140	2.78	30	
Dibenz(a,h)anthracene	1.27	0.17	mg/Kg wet	1.67	76.3	40-140	4.81	30	
Fluoranthene	1.35	0.17	mg/Kg wet	1.67	81.1	40-140	1.32	30	
Fluorene	1.27	0.17	mg/Kg wet	1.67	76.4	40-140	0.886	30	
Indeno(1,2,3-cd)pyrene	1.28	0.17	mg/Kg wet	1.67	76.9	40-140	5.41	30	
2-Methylnaphthalene	1.29	0.17	mg/Kg wet	1.67	77.3	40-140	3.28	30	
Naphthalene	1.05	0.17	mg/Kg wet	1.67	62.8	40-140	3.38	30	
Phenanthrene	1.15	0.17	mg/Kg wet	1.67	68.9	40-140	5.56	30	
Pyrene	1.09	0.17	mg/Kg wet	1.67	65.1	40-140	1.49	30	
Surrogate: Nitrobenzene-d5	2.09		mg/Kg wet	3.33	62.7	30-130			
Surrogate: 2-Fluorobiphenyl	2.28		mg/Kg wet	3.33	68.5	30-130			
Surrogate: p-Terphenyl-d14	2.46		mg/Kg wet	3.33	73.8	30-130			

Batch B302397 - SW-846 3510C

Blank (B302397-BLK1)									
Prepared: 03/01/22 Analyzed: 03/03/22									
Acenaphthene (SIM)	ND	0.30	µg/L						U
Acenaphthylene (SIM)	0.020	0.20	µg/L						B-05, J
Anthracene (SIM)	ND	0.20	µg/L						U
Benzo(a)anthracene (SIM)	ND	0.050	µg/L						U
Benzo(a)pyrene (SIM)	ND	0.10	µg/L						U
Benzo(b)fluoranthene (SIM)	ND	0.050	µg/L						U
Benzo(g,h,i)perylene (SIM)	ND	0.50	µg/L						U
Benzo(k)fluoranthene (SIM)	ND	0.20	µg/L						U
Chrysene (SIM)	ND	0.20	µg/L						U
Dibenz(a,h)anthracene (SIM)	ND	0.10	µg/L						U
Fluoranthene (SIM)	ND	0.50	µg/L						U
Fluorene (SIM)	ND	1.0	µg/L						U
Indeno(1,2,3-cd)pyrene (SIM)	ND	0.10	µg/L						U
2-Methylnaphthalene (SIM)	0.082	1.0	µg/L						B, J
Naphthalene (SIM)	0.11	1.0	µg/L						B, J
Phenanthrene (SIM)	ND	0.050	µg/L						U
Pyrene (SIM)	ND	1.0	µg/L						U
Surrogate: Nitrobenzene-d5	92.1		µg/L	100	92.1	30-130			
Surrogate: 2-Fluorobiphenyl	86.6		µg/L	100	86.6	30-130			
Surrogate: p-Terphenyl-d14	141		µg/L	100	141 *	30-130			S-07

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

QUALITY CONTROL**Semivolatile Organic Compounds by GC/MS - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD	Limit Notes
Batch B302397 - SW-846 3510C									
LCS (B302397-BS1)									
Prepared: 03/01/22 Analyzed: 03/03/22									
Acenaphthene (SIM)	38.9	6.0	µg/L	50.0	77.9	40-140			
Acenaphthylene (SIM)	41.2	4.0	µg/L	50.0	82.4	40-140			
Anthracene (SIM)	42.9	4.0	µg/L	50.0	85.7	40-140			
Benzo(a)anthracene (SIM)	43.8	1.0	µg/L	50.0	87.5	40-140			
Benzo(a)pyrene (SIM)	43.6	2.0	µg/L	50.0	87.3	40-140			
Benzo(b)fluoranthene (SIM)	43.2	1.0	µg/L	50.0	86.5	40-140			
Benzo(g,h,i)perylene (SIM)	40.5	10	µg/L	50.0	81.0	40-140			
Benzo(k)fluoranthene (SIM)	45.8	4.0	µg/L	50.0	91.6	40-140			
Chrysene (SIM)	39.0	4.0	µg/L	50.0	78.0	40-140			
Dibenz(a,h)anthracene (SIM)	42.0	2.0	µg/L	50.0	84.0	40-140			
Fluoranthene (SIM)	42.7	10	µg/L	50.0	85.4	40-140			
Fluorene (SIM)	42.8	20	µg/L	50.0	85.5	40-140			
Indeno(1,2,3-cd)pyrene (SIM)	40.9	2.0	µg/L	50.0	81.8	40-140			
2-Methylnaphthalene (SIM)	40.0	20	µg/L	50.0	80.0	40-140			
Naphthalene (SIM)	33.8	20	µg/L	50.0	67.6	40-140			
Phenanthrene (SIM)	40.0	1.0	µg/L	50.0	80.0	40-140			
Pyrene (SIM)	36.0	20	µg/L	50.0	72.0	40-140			
Surrogate: Nitrobenzene-d5	80.3		µg/L	100	80.3	30-130			
Surrogate: 2-Fluorobiphenyl	81.3		µg/L	100	81.3	30-130			
Surrogate: p-Terphenyl-d14	94.4		µg/L	100	94.4	30-130			
LCS Dup (B302397-BSD1)									
Prepared: 03/01/22 Analyzed: 03/03/22									
Acenaphthene (SIM)	39.4	6.0	µg/L	50.0	78.8	40-140	1.23	20	
Acenaphthylene (SIM)	41.7	4.0	µg/L	50.0	83.4	40-140	1.16	20	
Anthracene (SIM)	44.2	4.0	µg/L	50.0	88.4	40-140	3.03	20	
Benzo(a)anthracene (SIM)	44.6	1.0	µg/L	50.0	89.3	40-140	1.99	20	
Benzo(a)pyrene (SIM)	45.0	2.0	µg/L	50.0	89.9	40-140	2.98	20	
Benzo(b)fluoranthene (SIM)	46.1	1.0	µg/L	50.0	92.2	40-140	6.45	20	
Benzo(g,h,i)perylene (SIM)	41.9	10	µg/L	50.0	83.8	40-140	3.35	20	
Benzo(k)fluoranthene (SIM)	49.1	4.0	µg/L	50.0	98.2	40-140	7.00	20	
Chrysene (SIM)	40.1	4.0	µg/L	50.0	80.2	40-140	2.78	20	
Dibenz(a,h)anthracene (SIM)	42.9	2.0	µg/L	50.0	85.8	40-140	2.03	20	
Fluoranthene (SIM)	40.8	10	µg/L	50.0	81.6	40-140	4.50	20	
Fluorene (SIM)	42.5	20	µg/L	50.0	85.0	40-140	0.563	20	
Indeno(1,2,3-cd)pyrene (SIM)	41.4	2.0	µg/L	50.0	82.8	40-140	1.22	20	
2-Methylnaphthalene (SIM)	38.4	20	µg/L	50.0	76.7	40-140	4.24	20	
Naphthalene (SIM)	32.4	20	µg/L	50.0	64.8	40-140	4.23	20	
Phenanthrene (SIM)	41.1	1.0	µg/L	50.0	82.2	40-140	2.81	20	
Pyrene (SIM)	40.6	20	µg/L	50.0	81.2	40-140	12.0	20	
Surrogate: Nitrobenzene-d5	80.6		µg/L	100	80.6	30-130			
Surrogate: 2-Fluorobiphenyl	73.2		µg/L	100	73.2	30-130			
Surrogate: p-Terphenyl-d14	98.0		µg/L	100	98.0	30-130			

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

QUALITY CONTROL**Petroleum Hydrocarbons Analyses - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	---------	-----------	-------

Batch B302154 - SW-846 3546

Blank (B302154-BLK1)	Prepared: 03/01/22 Analyzed: 03/02/22							
Diesel Range Organics	ND	8.3	mg/Kg wet					U
Surrogate: 2-Fluorobiphenyl	2.56		mg/Kg wet	3.33		76.8	40-140	
LCS (B302154-BS1)	Prepared: 03/01/22 Analyzed: 03/02/22							
Diesel Range Organics	27.8	8.3	mg/Kg wet	33.3		83.3	40-140	
Surrogate: 2-Fluorobiphenyl	2.73		mg/Kg wet	3.33		81.9	40-140	
LCS Dup (B302154-BSD1)	Prepared: 03/01/22 Analyzed: 03/02/22							
Diesel Range Organics	26.4	8.3	mg/Kg wet	33.3		79.1	40-140	5.12
Surrogate: 2-Fluorobiphenyl	2.59		mg/Kg wet	3.33		77.7	40-140	30

FLAG/QUALIFIER SUMMARY

*	QC result is outside of established limits.
†	Wide recovery limits established for difficult compound.
‡	Wide RPD limits established for difficult compound.
#	Data exceeded client recommended or regulatory level
ND	Not Detected
RL	Reporting Limit is at the level of quantitation (LOQ)
DL	Detection Limit is the lower limit of detection determined by the MDL study
MCL	Maximum Contaminant Level
	Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.
	No results have been blank subtracted unless specified in the case narrative section.
B	Analyte is found in the associated laboratory blank as well as in the sample.
B-05	Data is not affected by elevated level in laboratory blank since sample(s) result is "Not Detected".
J	Detected but below the Reporting Limit (lowest calibration standard); therefore, result is an estimated concentration (CLP J-Flag).
PR-06	pH of sample (pH 3) is outside of method specified preservation criteria.
R-05	Laboratory fortified blank duplicate RPD is outside of control limits. Reduced precision is anticipated for any reported value for this compound.
S-07	One associated surrogate standard recovery is outside of control limits but the other(s) is/are within limits. All recoveries are > 10%.
U	Analyte included in the analysis, but not detected
V-05	Continuing calibration verification (CCV) did not meet method specifications and was biased on the low side for this compound.
V-20	Continuing calibration verification (CCV) did not meet method specifications and was biased on the high side. Data validation is not affected since sample result was "not detected" for this compound.
Z-01	Sample poured off into another vial with headspace due to sediment present in sample vial.

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

CERTIFICATIONS**Certified Analyses included in this Report**

Analyte	Certifications
<i>SW-846 8015C in Soil</i>	
Diesel Range Organics	NY,VA,NH,NC
<i>SW-846 8015C in Water</i>	
Diesel Range Organics	NY,VA,NH,NC
<i>SW-846 8260D in Soil</i>	
Acetone	CT,NH,NY,ME,VA
Acrylonitrile	CT,NH,NY,ME,VA
Benzene	CT,NH,NY,ME,VA
Bromobenzene	NH,NY,ME,VA
Bromochloromethane	NH,NY,ME,VA
Bromodichloromethane	CT,NH,NY,ME,VA
Bromoform	CT,NH,NY,ME,VA
Bromomethane	CT,NH,NY,ME,VA
2-Butanone (MEK)	CT,NH,NY,ME,VA
tert-Butyl Alcohol (TBA)	NY,ME
n-Butylbenzene	CT,NH,NY,ME,VA
sec-Butylbenzene	CT,NH,NY,ME,VA
tert-Butylbenzene	CT,NH,NY,ME,VA
Carbon Disulfide	CT,NH,NY,ME,VA
Carbon Tetrachloride	CT,NH,NY,ME,VA
Chlorobenzene	CT,NH,NY,ME,VA
Chlorodibromomethane	CT,NH,NY,ME,VA
Chloroethane	CT,NH,NY,ME,VA
Chloroform	CT,NH,NY,ME,VA
Chloromethane	CT,NH,NY,ME,VA
2-Chlorotoluene	CT,NH,NY,ME,VA
4-Chlorotoluene	CT,NH,NY,ME,VA
1,2-Dibromo-3-chloropropane (DBCP)	NY,ME
1,2-Dibromoethane (EDB)	NH,NY
Dibromomethane	NH,NY,ME,VA
1,2-Dichlorobenzene	CT,NH,NY,ME,VA
1,3-Dichlorobenzene	CT,NH,NY,ME,VA
1,4-Dichlorobenzene	CT,NH,NY,ME,VA
trans-1,4-Dichloro-2-butene	NY,ME
Dichlorodifluoromethane (Freon 12)	NH,NY,ME,VA
1,1-Dichloroethane	CT,NH,NY,ME,VA
1,2-Dichloroethane	CT,NH,NY,ME,VA
1,1-Dichloroethylene	CT,NH,NY,ME,VA
cis-1,2-Dichloroethylene	CT,NH,NY,ME,VA
trans-1,2-Dichloroethylene	CT,NH,NY,ME,VA
1,2-Dichloropropane	CT,NH,NY,ME,VA
1,3-Dichloropropane	NH,NY,ME,VA
2,2-Dichloropropane	NH,NY,ME,VA
1,1-Dichloropropene	NH,NY,ME,VA
cis-1,3-Dichloropropene	CT,NH,NY,ME,VA
trans-1,3-Dichloropropene	CT,NH,NY,ME,VA
Diethyl Ether	ME

 39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332
CERTIFICATIONS**Certified Analyses included in this Report**

Analyte	Certifications
<i>SW-846 8260D in Soil</i>	
1,4-Dioxane	NY,ME
Ethylbenzene	CT,NH,NY,ME,VA
Hexachlorobutadiene	NH,NY,ME,VA
2-Hexanone (MBK)	CT,NH,NY,ME,VA
Isopropylbenzene (Cumene)	CT,NH,NY,ME,VA
p-Isopropyltoluene (p-Cymene)	NH,NY
Methyl Acetate	NY,ME
Methyl tert-Butyl Ether (MTBE)	NY,ME,VA
Methyl Cyclohexane	NY
Methylene Chloride	CT,NH,NY,ME,VA
4-Methyl-2-pentanone (MIBK)	CT,NH,NY,ME,VA
Naphthalene	NH,NY,ME,VA
n-Propylbenzene	NH,NY,ME
Styrene	CT,NH,NY,ME,VA
1,1,1,2-Tetrachloroethane	CT,NH,NY,ME,VA
1,1,2,2-Tetrachloroethane	CT,NH,NY,ME,VA
Tetrachloroethylene	CT,NH,NY,ME,VA
Toluene	CT,NH,NY,ME,VA
1,2,3-Trichlorobenzene	NY,ME
1,2,4-Trichlorobenzene	NH,NY,ME,VA
1,3,5-Trichlorobenzene	ME
1,1,1-Trichloroethane	CT,NH,NY,ME,VA
1,1,2-Trichloroethane	CT,NH,NY,ME,VA
Trichloroethylene	CT,NH,NY,ME,VA
Trichlorofluoromethane (Freon 11)	CT,NH,NY,ME,VA
1,2,3-Trichloropropane	NH,NY,ME,VA
1,2,4-Trimethylbenzene	CT,NH,NY,ME,VA
1,3,5-Trimethylbenzene	CT,NH,NY,ME,VA
Vinyl Chloride	CT,NH,NY,ME,VA
m+p Xylene	CT,NH,NY,ME,VA
o-Xylene	CT,NH,NY,ME,VA
<i>SW-846 8260D in Water</i>	
Acetone	CT,ME,NH,VA,NY
Acrylonitrile	CT,ME,NH,VA,NY
tert-Amyl Methyl Ether (TAME)	ME,NH,VA,NY
Benzene	CT,ME,NH,VA,NY
Bromobenzene	ME,NY
Bromoform	ME,NH,VA,NY
Bromochloromethane	CT,ME,NH,VA,NY
Bromodichloromethane	CT,ME,NH,VA,NY
Bromoform	CT,ME,NH,VA,NY
Bromomethane	CT,ME,NH,VA,NY
2-Butanone (MEK)	CT,ME,NH,VA,NY
tert-Butyl Alcohol (TBA)	ME,NH,VA,NY
n-Butylbenzene	ME,VA,NY
sec-Butylbenzene	ME,VA,NY
tert-Butylbenzene	ME,VA,NY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
<i>SW-846 8260D in Water</i>	
tert-Butyl Ethyl Ether (TBEE)	ME,NH,VA,NY
Carbon Disulfide	CT,ME,NH,VA,NY
Carbon Tetrachloride	CT,ME,NH,VA,NY
Chlorobenzene	CT,ME,NH,VA,NY
Chlorodibromomethane	CT,ME,NH,VA,NY
Chloroethane	CT,ME,NH,VA,NY
Chloroform	CT,ME,NH,VA,NY
Chloromethane	CT,ME,NH,VA,NY
2-Chlorotoluene	ME,NH,VA,NY
4-Chlorotoluene	ME,NH,VA,NY
1,2-Dibromo-3-chloropropane (DBCP)	ME,NY
1,2-Dibromoethane (EDB)	ME,NY
Dibromomethane	ME,NH,VA,NY
1,2-Dichlorobenzene	CT,ME,NH,VA,NY
1,3-Dichlorobenzene	CT,ME,NH,VA,NY
1,4-Dichlorobenzene	CT,ME,NH,VA,NY
trans-1,4-Dichloro-2-butene	ME,NH,VA,NY
Dichlorodifluoromethane (Freon 12)	ME,NH,VA,NY
1,1-Dichloroethane	CT,ME,NH,VA,NY
1,2-Dichloroethane	CT,ME,NH,VA,NY
1,1-Dichloroethylene	CT,ME,NH,VA,NY
cis-1,2-Dichloroethylene	ME,NY
trans-1,2-Dichloroethylene	CT,ME,NH,VA,NY
1,2-Dichloropropane	CT,ME,NH,VA,NY
1,3-Dichloropropane	ME,VA,NY
2,2-Dichloropropane	ME,NH,VA,NY
1,1-Dichloropropene	ME,NH,VA,NY
cis-1,3-Dichloropropene	CT,ME,NH,VA,NY
trans-1,3-Dichloropropene	CT,ME,NH,VA,NY
Diethyl Ether	ME,NY
Diisopropyl Ether (DIPE)	ME,NH,VA,NY
1,4-Dioxane	ME,NY
Ethylbenzene	CT,ME,NH,VA,NY
Hexachlorobutadiene	CT,ME,NH,VA,NY
2-Hexanone (MBK)	CT,ME,NH,VA,NY
Isopropylbenzene (Cumene)	ME,VA,NY
p-Isopropyltoluene (p-Cymene)	CT,ME,NH,VA,NY
Methyl Acetate	ME,NY
Methyl tert-Butyl Ether (MTBE)	CT,ME,NH,VA,NY
Methyl Cyclohexane	NY
Methylene Chloride	CT,ME,NH,VA,NY
4-Methyl-2-pentanone (MIBK)	CT,ME,NH,VA,NY
Naphthalene	ME,NH,VA,NY
n-Propylbenzene	CT,ME,NH,VA,NY
Styrene	CT,ME,NH,VA,NY
1,1,1,2-Tetrachloroethane	CT,ME,NH,VA,NY
1,1,2,2-Tetrachloroethane	CT,ME,NH,VA,NY

 39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

CERTIFICATIONS
Certified Analyses included in this Report

Analyte	Certifications
<i>SW-846 8260D in Water</i>	
Tetrachloroethylene	CT,ME,NH,VA,NY
Toluene	CT,ME,NH,VA,NY
1,2,3-Trichlorobenzene	ME,NH,VA,NY
1,2,4-Trichlorobenzene	CT,ME,NH,VA,NY
1,3,5-Trichlorobenzene	ME
1,1,1-Trichloroethane	CT,ME,NH,VA,NY
1,1,2-Trichloroethane	CT,ME,NH,VA,NY
Trichloroethylene	CT,ME,NH,VA,NY
Trichlorofluoromethane (Freon 11)	CT,ME,NH,VA,NY
1,2,3-Trichloropropane	ME,NH,VA,NY
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	VA,NY
1,2,4-Trimethylbenzene	ME,VA,NY
1,3,5-Trimethylbenzene	ME,VA,NY
Vinyl Chloride	CT,ME,NH,VA,NY
m+p Xylene	CT,ME,NH,VA,NY
o-Xylene	CT,ME,NH,VA,NY
<i>SW-846 8270E in Soil</i>	
Acenaphthene	CT,NY,NH,ME,NC,VA
Acenaphthylene	CT,NY,NH,ME,NC,VA
Anthracene	CT,NY,NH,ME,NC,VA
Benzo(a)anthracene	CT,NY,NH,ME,NC,VA
Benzo(a)pyrene	CT,NY,NH,ME,NC,VA
Benzo(b)fluoranthene	CT,NY,NH,ME,NC,VA
Benzo(g,h,i)perylene	CT,NY,NH,ME,NC,VA
Benzo(k)fluoranthene	CT,NY,NH,ME,NC,VA
Chrysene	CT,NY,NH,ME,NC,VA
Dibenz(a,h)anthracene	CT,NY,NH,ME,NC,VA
Fluoranthene	CT,NY,NH,ME,NC,VA
Fluorene	CT,NY,NH,ME,NC,VA
Indeno(1,2,3-cd)pyrene	CT,NY,NH,ME,NC,VA
2-Methylnaphthalene	CT,NY,NH,ME,NC,VA
Naphthalene	CT,NY,NH,ME,NC,VA
Phenanthrene	CT,NY,NH,ME,NC,VA
Pyrene	CT,NY,NH,ME,NC,VA



39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Con-Test, a Pace Environmental Laboratory, operates under the following certifications and accreditations:

Code	Description	Number	Expires
AIHA	AIHA-LAP, LLC - ISO17025:2017	100033	03/1/2024
MA	Massachusetts DEP	M-MA100	06/30/2022
CT	Connecticut Department of Public Health	PH-0165	12/31/2022
NY	New York State Department of Health	10899 NELAP	04/1/2022
NH-S	New Hampshire Environmental Lab	2516 NELAP	02/5/2023
RI	Rhode Island Department of Health	LAO00373	12/30/2022
NC	North Carolina Div. of Water Quality	652	12/31/2022
NJ	New Jersey DEP	MA007 NELAP	06/30/2022
FL	Florida Department of Health	E871027 NELAP	06/30/2022
VT	Vermont Department of Health Lead Laboratory	LL720741	07/30/2022
ME	State of Maine	MA00100	06/9/2023
VA	Commonwealth of Virginia	460217	12/14/2022
NH-P	New Hampshire Environmental Lab	2557 NELAP	09/6/2022
VT-DW	Vermont Department of Health Drinking Water	VT-255716	06/12/2022
NC-DW	North Carolina Department of Health	25703	07/31/2022
PA	Commonwealth of Pennsylvania DEP	68-05812	06/30/2022
MI	Dept. of Env, Great Lakes, and Energy	9100	09/6/2022

22B1647

Pace Analytical®

Phone: 413-525-2332
Fax: 413-525-6405

Access COC's and Support Requests

Company Name: Wilcox & Burton, Inc.
 Address: #1B Commons Dr Unit 12, Londonderry, NH
 Phone: 603 369 4190
 Project Name: GAFT0165
 Project Location: 162 Hwy 12, Fitzwilliam, NH
 Project Number: GAFT0165
 Project Manager: R Burton
 Pace Quote Name/Number:
 Invoice Recipient:
 Sampled By: DR

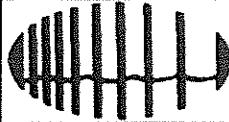
<http://www.pacelabs.com>

Doc # 381 Rev 5_07/13/2021

Page 1 of 1

CHAIN OF CUSTODY RECORD										ANALYSIS REQUESTED									
Requested Analysis Type:					Delivery Method:					Preservation Code:									
7-Day		10-Day		<input type="radio"/>	Field Filtered		Courier Use Only		Total Number Of:										
PFAS 10-Day (std)		Due Date: S-Ary		<input type="radio"/>	Lab to Filter		VIALS		GLASS										
Rush Approval Required:					orthophosphate Samples					PLASTIC									
1-Day		3-Day		<input type="radio"/>	Field Filtered		BACTERIA												
2-Day		4-Day		<input type="radio"/>	Lab to Filter		ENCORE												
Data Delivery:										Glassware in the fridge? Y / N									
Format: PDF <input checked="" type="checkbox"/> EXCEL <input checked="" type="checkbox"/>					PCB ONLY														
Other:					SOXHLET <input type="checkbox"/>														
CLP Like Data Pkg Required: <input type="checkbox"/>					NON SOXHLET <input type="checkbox"/>														
Email To:																			
Fax To #:																			
Pace Work Order#	Client Sample ID / Description		Beginning Date/Time	Ending Date/Time	COMP/GRAB	Matrix Code	Conc Code	VIALS	GLASS	PLASTIC	BACTERIA	ENCORE	T PH - DRQ	PA HS 8270	VOCS 8260				
1	S-1		2-23-22	1300	GRAB	S	U	3	2				X	X					
2	S-2			1400		S	L	3	2				X	X	X				
3	GW-1			1415	↓	GW	↓	3	2				X	X					
Relinquished by: (signature)	Date/Time: 0900		Client Comments: (B)										Glassware in freezer? Y / N						
Received by: (signature)	Date/Time: 2-24-22												Prepackaged Cooler? Y / N						
Relinquished by: (signature)	Date/Time: 2/28/22 1000		Sample Concentration:					Special Requirements:					*Pace Analytical is not responsible for missing samples from prepacked coolers						
Received by: (signature)	Date/Time: 2/28/22 1800		MA MCP Required					MA MCP Required											
Relinquished by: (signature)	Date/Time: 2/28/22 1800							MCP Certification Form Required					Please use the following codes to indicate possible sample concentration within the Conc Code column above:						
Received by: (signature)	Date/Time: 2/28/22 1800							CT RCP Required					H - High; M - Medium; L - Low; C - Clean; U - Unknown						
Relinquished by: (signature)	Date/Time:							RCP Certification Form Required											
Received by: (signature)	Date/Time:							MA State DW Required					NELAC and AIHA-LAP, LLC Accredited						
Relinquished by: (signature)	Date/Time:		Project Entity										Other						
Received by: (signature)	Date/Time:		Government		Municipality			MWRA		WRTA		<input type="checkbox"/> Chromatogram							
			<input type="checkbox"/>		<input type="checkbox"/>			<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/> AIHA-LAP, LLC							
			<input type="checkbox"/>		<input type="checkbox"/>			<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>							
			<input type="checkbox"/>		<input type="checkbox"/>			<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>							
Lab Comments:										Disclaimer: Pace Analytical is not responsible for any omitted information on the Chain of Custody. The Chain of Custody is a legal document that must be complete and accurate and is used to determine what analyses the laboratory will perform. Any missing information is not the laboratory's responsibility. Pace Analytical values your partnership on each project and will try to assist with missing information, but will not be held accountable.									

I Have Not Confirmed Sample Container
Numbers With Lab Staff Before Relinquishing
Over Samples _____



con-test®
ANALYTICAL LABORATORY

Doc# 277 Rev 5 2017

Login Sample Receipt Checklist - (Rejection Criteria Listing - Using Acceptance Policy) Any False Statement will be brought to the attention of the Client - State True or False

Client W&B

Received By ME

Date 2/28/22

Time 1800

How were the samples received?

In Cooler T

No Cooler _____

On Ice T

No Ice _____

Direct from Sampling _____

Ambient _____

Melted Ice _____

Were samples within Temperature? 2-6°C T

By Gun # S

Actual Temp - 2.0

By Blank # _____

Actual Temp - _____

Was Custody Seal Intact? n/a

Were Samples Tampered with? n/a

Was COC Relinquished? T

Does Chain Agree With Samples? T

Are there broken/leaking/loose caps on any samples? F

Is COC in ink/ Legible? T

Were samples received within holding time? T

Did COC include all pertinent Information? T

Client T
Project T

Analysis ID's T

Sampler Name T
Collection Dates/Times T

Are Sample labels filled out and legible? T

Are there Lab to Filters? F

Who was notified? _____

Are there Rushes? F

Who was notified? _____

Are there Short Holds? F

Who was notified? _____

Is there enough Volume? T

Is there Headspace where applicable? AT T

MS/MSD? F

Proper Media/Containers Used? 100%

Is splitting samples required? F

Were trip blanks received? F

On COC? F

Do all samples have the proper pH?

Acid

n/a

Base

n/a

Vials	#	Containers:	#	#	#
Unp-		1 Liter Amb.	<u>2</u>	1 Liter Plastic	16 oz Amb.
HCL-	<u>3</u>	500 mL Amb.		500 mL Plastic	8oz Amb/Clear
Meoh-	<u>2</u>	250 mL Amb.		250 mL Plastic	4oz Amb/Clear
Bisulfate-	<u>4</u>	Flashpoint		Col./Bacteria	2oz Amb/Clear
DI-		Other Glass		Other Plastic	Encore
Thiosulfate-		SOC Kit		Plastic Bag	Frozen:
Sulfuric-		Perchlorate		Ziplock	

Unused Media

Vials	#	Containers:	#	#	#
Unp-		1 Liter Amb.		1 Liter Plastic	16 oz Amb.
HCL-		500 mL Amb.		500 mL Plastic	8oz Amb/Clear
Meoh-		250 mL Amb.		250 mL Plastic	4oz Amb/Clear
Bisulfate-		Col./Bacteria		Flashpoint	2oz Amb/Clear
DI-		Other Plastic		Other Glass	Encore
Thiosulfate-		SOC Kit		Plastic Bag	Frozen:
Sulfuric-		Perchlorate		Ziplock	

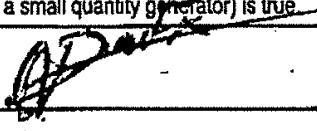
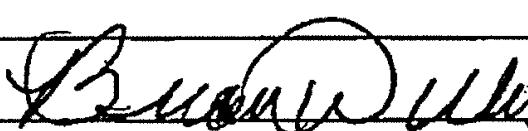
Comments:

APPENDIX E

Waste Disposal

Please print or type.

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator ID Number N H D 5 1 0 0 5 0 9 8 2	2. Page 1 of 1	3. Emergency Response Phone 800-255-3924	4. Manifest Tracking Number 006366813 GBF
5. Generator's Name and Mailing Address Turnkey Lumber Corp. 305 Leominster-Shirley Line Lunenburg MA 01462 Generator's Phone: 978-798-1370 Generator's Site Address (if different than mailing address) Fitzwilliam LLC 179 NH Route 12N Fitzwilliam NH 03447					
6. Transporter 1 Company Name Gaffek Inc. U.S. EPA ID Number M E R 0 0 0 5 1 2 0 3 8					
7. Transporter 2 Company Name U.S. EPA ID Number					
8. Designated Facility Name and Site Address U.S. EPA ID Number NRC Environmental of Maine, Inc. 106 Main street South Portland ME 04106 Facility's Phone: 207-799-0850 M E D 0 1 0 0 5 1 0 6 0					
9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))		10. Containers No. Type	11. Total Quantity	12. Unit Wt/Vol.
					13. Waste Codes
1.	Non-regulated material		1	IT 203 6	NH-XI
2.					
3.					
4.					
14. Special Handling Instructions and Additional Information 1)(L) diesel fuel mixture going for recycle PO583672 279573 MIS5112744					
15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent. I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.					
Generator/Offeror's Printed/Typed Name Armando Pala Fox			Signature  Month 10 Day 17 Year 19		
16. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S. Port of entry/exit: _____ Transporter signature (for exports only): _____ Date leaving U.S.: _____					
17. Transporter Acknowledgment of Receipt of Materials Transporter 1 Printed/Typed Name BRIAN WILSON Signature  Month 11 Day 17 Year 19 Transporter 2 Printed/Typed Name _____ Signature _____ Month _____ Day _____ Year _____					
18. Discrepancy 18a. Discrepancy Indication Space <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection Manifest Reference Number: _____					
18b. Alternate Facility (or Generator) U.S. EPA ID Number Facility's Phone: _____					
18c. Signature of Alternate Facility (or Generator) Month 10 Day 17 Year 19					
19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)					
1.	2.	3.	4.		
20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a Printed/Typed Name _____ Signature _____ Month 10 Day 17 Year 19					



Phone: 888-485-5731

160 Perry Rd, Bangor, ME 04401

2083 Dover Rd, Epsom, NH 03234

75 Scott Drive, Westbrook, ME 04092

155 Memorial Dr, Shrewsbury, MA 01545

INVOICE

DATE

11/8/2019

INVOICE #

0000218096

BILL TO:

Turnkey Lumber Corporation
305 Leominster-Shirley Road
Lunenburg MA 01462

SERVICE LOCATION:

Fitzwilliam LLC
179 NH Route 12 North
Fitzwilliam NH 03447

P.O. NUMBER		TERMS	TECHNICIAN	DISPATCH #	B. CLERK
COD CCD call in		NET 30	2350	279573	2710
QUAN	PART ID	DESCRIPTION		PRICE EACH	AMOUNT
Environmental					
SCOPE OF WORK: Sting diesel UST of remaining product to less than 1 inch					
11/07/19 BW- PUMP RESIDUAL OIL FROM DIESEL UST AND STP SUMP					
2.00		3000 GALLON VACUUM TRUCK/HR		60.00	120.00
2.00		VAC TRUCK OPERATOR		65.00	130.00
203.00		DISPOSAL OF 203 GALLON OF DIESEL FUEL & WATER		0.55	111.65
1.00		EPA E-MANIFEST UPLOAD FEE		24.00	24.00
203.00		NON HAZARDOUS WASTE TRANSPORTER FEE		0.02	4.06
TOTAL					
\$389.71					
Visa XXXXXXXXXXXX5401					
\$389.71					
Auth 776200					
BALANCE					
\$0.00					

Mail Payments to: 160 Perry Road, Bangor, ME 04401

We Accept MasterCard/Visa.

All overdue charges are subject to a 1.5% monthly fee.

Technician work orders are available upon request.

Thank you for your business!



Y ***Three Hundr