Central Vermont Regional Planning Commission

BROWNFIELDS COMMITTEE

Monday, May 20, 2024

Participation via Zoom[1]

https://us02web.zoom.us/j/88055614529?pwd=c2dVaTMvUnc0VU55bUd1TExTWjkzUT09

Dial in via phone: +1 929 436 2866 | Meeting ID: 880 5561 4529| Passcode: 215936

Download the app at least 5 minutes before the meeting starts: https://zoom.us/download.

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AGENDA

6:00[2] Adjustments to the Agenda

6:05 Review and Approval of Draft Minutes from 07/31/2023 Meeting (Action - enclosed)[3]

Public Comment

6:10 Elect Chair and Vice Chair | Appoint Interest Group Representative (Action)[3]

6:20 Program Updates

Staff will provide updates on enrolled properties.

a. 18 South Main Street, Barre City (BRF State Program Award Letter enclosed)
b. 11 North Main Street, Northfield (Phase II and Phase II Supplemental Report and VTDEC funded ECAA Report enclosed)
c. 63 Sawmill Rd, Cabot (Phase I Contract to be approved at Executive Committee Meeting, June 3, 2024)

6:25 New Projects (Action)[3]

Staff will lead conversation on new potential Brownfields project, 300-302 Granger Road, Berlin - Central Vermont Solid Waste Management District Facilities (See attached materials in packet)

6:40 Adjourn

[1] Dial-in telephone numbers are "Toll" numbers. Fees may be charged to the person calling in dependent on their phone service.

[2] All times are approximate unless otherwise advertised

[3] Anticipated Action Item

CENTRAL VERMONT REGIONAL PLANNING COMMISSION
Brownfields Advisory Committee
July 31, 2023 at 4:00 pm
Remote Participation via Zoom & In Person

Draft Minutes

Brownfields Advisory Committee Members

x	Ron Krauth, Middlesex Commissioner	1
x	Peter Carbee, Washington Commissioner (Alternate Seat)	2
x	George H Clain, Barre Town Commissioner	3
x	Paula Emery, Plainfield CVRPC Alternate	4
x	Janet Shatney, Barre City Commissioner	5
x	Melissa Bounty, CVEDC	6
x	Joan Marie Misek, Department of Health	7
	Vacant, Downstreet	8
x	Liz Scharf, Capstone	9
	Vacant, Friend of the Winooski (or similar org)	10
		11

Staff: Clare Rock, Nancy Chartrand
Meeting was held with members of the Executive Committee, additional people present: Jerry D'Amico, Roxbury (CVRPC Board and Executive Committee Chair); Lexi Leacock, Warren (Executive Committee); Michael Gray, Woodbury (Executive Committee); Lee Cattaneo, Orange (Executive Committee)

(Staff and Board Chair in person at CVRPC office, all other participants joined via zoom.)

Chair J Shatney called the meeting to order at 4:02 pm

Adjustments to the Agenda
none

Public Comment
none

Program Updates
Staff summarized the contents of the staff memo as contained within the meeting materials regarding updates on new round of funding from ACCD.

Enrollment and Funding Requests
Consideration of additional or increased funding for already enrolled properties:

a) 18 South Main Street, Barre City

Staff confirmed the Phase I ESA is necessary for due diligence purposes. CVRPC did not fund the initial Phase I, but this sometimes happens to sites which have undergone subsequent assessment work, as the first Phase I expires and needs to be redone or updated.

G Clain made a motion to recommend approval for paying for the Phase I for the Turning Point

Center, seconded by R Krauth. All in favor, motion carried.

b) 11 North Main Street, Northfield

G Clain asked why CVRPC would approve a proposal for $34,614 (as presented in the table on page 2 of the memo) which is higher than the $28,336 (as presented in the paragraph below the table.) Staff responded that the paragraph should have been updated, as this was left over text from when the memo was first drafted, and before all proposals had been received. Based upon a review of all proposals the higher cost proposal was determined to include a more appropriate testing plan which best suits the needs of the project and may create efficiencies as the project progresses.

Staff asked for a 'not-to-exceed approval' as this would help the project proceed without delays if either additional testing might be needed or if the project moved into the Corrective Action Plan phase.

P Carbee made a motion to increase initial funding for the project and recommend funding to not-to-exceed $50,000 for this project. Seconded by L Scharf. Roll call vote as follows:

Ron Krauth – yes
Peter Carbee – yes
George Clain – no
Paula Emery – yes
Janet Shatney – yes
Melissa Bounty – yes
Joan Marie Misek – yes
Liz Scharf - yes

Motion carried.

R. Krauth asked about the possible flood impacts and contamination at brownfield sites. Staff responded that DEC Site Managers have been following up on this. To staff knowledge no recent CVRPC brownfield sites (past or present) sustained significant damage to do not believe this should be an issue. But DEC is monitoring sites incase installed corrective action mitigation steps have been disturbed or if flooding has exacerbated existing or new contamination.

Adjourn

P Carbee made motion to adjourn, seconded by JM Misek. All in favor. Motion carried.

Central Vermont Regional Planning Commission

UPDATED MEMO

Date: May 13, 2024
To: Brownfields Advisory Committee
From: Eli Toohey, Planner
Re: Brownfields Program

Program Update

CVRPC has received another round of funding from ACCD. The available amount is up to $100,000 for FY24. Making the cumulative available amount $200,000 (minus administrative costs of 9%)

- **Available Funding & Program Timeline**
  - **An extension to the grant is available bringing the funding through June 30, 2025**
  - $100,000 is available through June 30, 2024.
  - $50,000 already awarded (in process), and up to $50,000 available only after 75% of the initial award has been spent or encumbered.
  - Status report detailing the anticipated expenditure and encumbrance of the grant funds was submitted January, 2024
  - Remaining portion of funds may be reallocated for use by other RPCS that have requested additional funds.
  - Any unexpended or unencumbered as of June 30, 2024 will be returned to the State.
    - ***This is eligible for an extension through June 30, 2025**
  - Eligible use of funds:
    - to hire Qualified Environmental Professionals (QEPs). CVRPC will contract with QEPs to undertake assessment work, funds will not be granted to the property owner or prospective purchaser to undertake the work.
    - Cap of $50,000 can be used on one site (previous round has no limit.)
    - for administrative services performed by the RPC. The maximum allowable reimbursement for these administrative services is 9% of the award. This is down from 10% during the last round.

Funding Status

Project Name	Date of DEC Approval	Project Type	Funded Project Activity	BRELLA Status	QEP Company	Project Status	QEP Contract Date	QEP Encumbered Amount (proposed/ contracted)
18 South Main Street, Barre City	4/8/2022	Commercial	Phase II	Enrolled	Stone	Contract Fully Disbursed	6/10/2022	$56,591
		Commercial	CAP	Enrolled	Stone	Contract Fully Disbursed	4/13/2023	$24,322
		Commercial	Phase I	Enrolled	TBD	Contract Fully Disbursed	09/05/23	$4,500
11 North Main Street, Northfield	1/9/2023	Residential	Phase II	Enrolled	TBD	Contract Completed	08/01/23	$47,589
							Sub-Total	**$133,002**
		Admin Costs						$11,970
							Total	**$144,972**

*The previous report incorrectly stated that there is $11,970.14 remaining for projects from a disbursed amount that exceeded the invoiced amount that MARC asked us if there were projects it could be used towards rather than returning it. The $11,970.14 is the amount spent on administrative costs.

Funding Requests

☒ **ACTION REQUESTED: That the Commission approve use of State Brownfields Revitalization Grant Assessment funding, not to exceed $50,000 to be used for a Phase II Environmental Assessment of the 300-302 Granger Road property in Berlin, Vermont.**

CVSWMD approached CVRPC Brownfields Program for support with their 300-302 Granger Road Site. This site is currently enrolled in the BRELLA Program (**See attached BRELLA Letter**) and is the anticipated future site of the CVSWMD Administrative Offices, a recycling center, permanent hazardous waste collection facility (identified as a critical need for our region and supported with a grant from the Agency of Natural Resources)

A Phase I ESA was completed by Weston & Sampson Engineers and found a number of actual and potential contaminants (**See attached Executive Summary of Phase I ESA Findings**).

A Phase II ESA Proposal has been drafted with a cost estimate of $22,450 **(See attached Phase II Proposal)** and the request from CVSWMD is to have the CVRPC Brownfields Program fund this. Given the known contaminants the Phase II may require a Supplemental Phase II ESA so the ask is for not more than $50,000 (the per site cap for our funding) be approved for a Phase II ESA.

Sites Update

63 Sawmill Rd, Cabot

On April 9, 2024 the CVRPC Board of Commissioners approved use of State Brownfields Revitalization Grant Assessment funding, not to exceed $20,000 to be used for a Phase I Environmental Assessment of the 63 Sawmill Road property in Cabot, Vermont.

See memo to the Board of Commissioners;

MEMO

Date: April 5, 2024
To: Board of Commissioners
From: Eli Toohey, Community Development Planner
Re: Brownfields, Phase I Assessment, Cabot (Clark's) Sawmill

☒ **ACTION REQUESTED: That the Commission approve use of State Brownfields Revitalization Grant Assessment funding, not to exceed $20,000 to be used for a Phase I Environmental Assessment of the 63 Sawmill Road property in Cabot, Vermont.**

Why this item is before the Commission: It has been a challenge to get a quorum for the CVRPC Brownfields Advisory Committee (BAC). During our last meeting, (1 committee member shy of a quorum), the Cabot Sawmill Phase I project was presented and all present committee members wanted to move forward with funding the Phase I. The BAC Rules of Procedure states that:

> *"New or amended plans, policies, positions or resolutions shall be ratified/approved by the Board of Commissioners. Expenditure of Commission funds as recommended by the Committee may only be authorized by the Executive Committee. The Commission has the ultimate authority over program decisions."*

Project Background: The Clarks Sawmill property at 63 Sawmill Road contains a dam and mostly collapsed sawmill located just west of VT Route 215 (Main Street), north of Sawmill Road and south of the confluence of Jug Brook in Lower Cabot. The property has been repeatedly damaged by flood events and, due to a dam located on the parcel, has seen a great deal of erosion and consequently frequent river bank repair work. The location of the dam also impacts properties upstream and downstream in flooding events. The dam and sawmill are no longer in use with the sawmill falling in and the dam destroyed by the July 2023 flood event with debris spread throughout the property.

A Phase I Environmental Assessment is necessary because there needs to be one for both the BRELLA application and within 6 months of the closing date on the property transfer. The last Phase I was done some time before 2018's Phase II.

The history of the site includes factories, mills and manufacturing. A 2018 Phase II environmental site assessment found soil contamination with hazardous materials and a Vermont Department of Environmental Conservation (DEC) Sites Management Section (SMS) hazardous waste number was issued for the site. The Phase II Site Investigation Report and the Correction to Phase II Site Investigation Report & Additional Site Investigation conducted by ATC Environmental dated June 1, 2018 and September 27, 2018 respectively, found the following:

> *"The ATC SI report presented semi-volatile organic compound (SVC) data in …, which highlighted exceedances of the EPA Regional Screening Levels (RSLs) for Residential an Industrial soils for the compound benzaldehyde. Soil samples SS-1 and SS-4 were presented as Residential RSL exceedances of benzaldehyde, and soil sample SS-2 was presented as an Industrial exceedance. All three of these soil samples were collected on the east side of the Winooski River. Other Residential soil RSL exceedances were reported for benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, dibenzo(a,h)anthracene, and indeno(1,2,3-cd)pyrene, in three soil samples on the west side of the river."*

The town is working to purchase the property and the owner has agreed to quit claim deed the property to the town. The proposed project is to remove the dam to ameliorate the impact of flooding events along the Winooski River upstream and downstream of the dam. The Town is proposing the property be turned into a green space with picnic tables and a possible boat launch for kayaks and canoes.

CVRPC, through the Municipal Technical Assistance Program (MTAP), is currently working on a Brownfields Environmental Liability Limitation Act (BRELLA) application for the site and a Phase I Environmental Assessment is required prior to the submission of the BRELLA application. A Phase I EA estimated cost is $3,500-5,500

A contract for Phase I ESA for 63 Sawmill Rd, Cabot VT was issued to Waite-Heindel on May 7, 2024 with the encumbered amount of $1,750

18 South Main Street, Barre City - (for a definition of terms see the last page of this memo.) A Phase I was done over a 1.5 years ago, they expire after a certain period as environmental conditions may change. An updated Phase I is a due diligence requirement and a requirement of the Turning Point receiving their VCPD grant which will be used to purchase the property. We did an updated Phase I completed in Fall 2023. Stone Environmental requested another updated with an estimated cost of $2,000-4,000 on March 1, 2024. This site has exhausted (and gone over) the $50,000 per site cap so we explained that funding for the Phase I updated update would need to come from a different source.

11 North Main Street, Northfield – At the last meeting the Committee approved spending up to $20,000 on a Phase II. Staff understands this amount was based upon an estimate the applicant had received and based upon the limited amount of remaining funding from the first round (and prior to knowledge of the second round of funding.) CVRPC issued an RFP last month and Proposal are due at noon on Monday July 17, 2023. CVRPC has received one response to date and the amount is $28,336. Staff will share the other proposal estimates at the meeting. **Staff is asking if the Committee might reconsider increasing the original approval amount and**

consider approving funding site assessment work (including a Phase II ESA) with a not-to-exceed $50,000. (The current funding prohibits spending more than $50,000 on one site. Approving general site assessment work instead of approving a specific Phase II provides efficiency if any supplemental test might be needed or to transition straight into Corrective Action planning if deemed necessary.)
The original contract (08/01/23) of $34,614 was amended to include $12,975 for a supplemental Phase II required for a total contract amount of $47,589. This contract was completed in February with the total spent $44,238.26, $3,350.74 under the contracted amount and leaving $5,761.74 before site limit of $50,000 is reached.

Brownfield Assessment Activities		
Acronym	Assessment Activity	Description
Phase I ESA*	Phase I Environmental Site Assessment	-Background information gathering and historical records review -Visual site inspections -Other requirements according to ASTM standards
Phase II ESA	Phase II Environmental Site Assessment	-Subsurface Soil Sampling -Groundwater Sampling -Ecological Assessment (if necessary) -Quality Assurance Project Plan (QAPP) required by EPA
Supplemental Phase II ESA	Supplemental Phase II Environmental Site Assessments	-Subsurface soil sampling and groundwater sampling to determine the extent of contamination found in the initial Phase II ESA
SSQAPP**	Site Specific Quality Assurance Project Plan	- a document that outlines the procedures that those who conduct a monitoring project will take to ensure that the data they collect and analyze meets project requirements. - invaluable planning and operating tool that outlines the project's methods of data collection, storage and analysis
HBM	Hazardous Building Materials Assessment	- Assessments for the hazardous materials that impact building use, renovation or demolition. - Determines if hazardous substances are present and in what quantities, and then develop options and costs for management or removal.
ECAA	Evaluation of Corrective Action Alternatives	- Evaluation of remediation options and associated costs, while balancing environmental protection and site redevelopment goals - Identification of redevelopment scenarios - Identification of remedial alternatives Engineering evaluation of remedial alternatives and selection of preferred alternative - Required by DEC to be included in all DEC approved Corrective Action Plans
CAP	Corrective Action Planning Activities	A plan detailing the specific remedial actions necessary to implement the preferred alternative selected in the ECAA process.
Notes: *Phase I ESAs for current owners of a property may be eligible projects. This would be reviewed by DEC on a project basis as this funding is not intended to benefit potentially liable parties.		

**This is State funding so SSQAPPs are not needed. However, the expense may be eligible if a SSQAPP is needed, such as if state funding is partnered with federal funding for the project. This can be determined on a project basis.

VERMONT

Agency of Commerce and Community Development
Vermont Department of Economic and Development
1 National Life Drive – Davis Bldg, 6th Floor
Montpelier, VT 05620-0501
accd.vermont.gov

October 25, 2023

Robert Purvis
Turning Point Center of Central Vermont
PO Box 887
Barre, VT 05641

VIA E-MAIL

Dear Mr. Purvis,

We are pleased to inform you that your application for the cleanup of the site located at 18 South Main Street, Barre has been approved to receive a grant up to a maximum of $566,443, the full cost of implementing the Corrective Action Plan. Your waiver for match has been approved. Your request for a cash advance agreement has also been approved. The grant agreement between the State of Vermont, Department of Economic Development and Turning Point Center of Central Vermont identifying all grant requirements will be sent under separate cover.

We congratulate you on your organization's award. The remediation of Brownfield sites is crucial for the reuse of these sites and revitalization of Vermont.

If you have any questions about your award please reach out via e-mail, ACCD.BrownfieldsTeam@vermont.gov.

Sincerely,

Joan Goldstein
Commissioner
Vermont Department of Economic Development

Cc: Regional Development Corporation
Regional Planning Commission
DEC – Brownfields Program Manager

Weston & Sampson℠

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Waterbury, VT 05676
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Report

October 16, 2023

11 North Main Street
Northfield, Vermont

Phase II Environmental Site Assessment Report

Prepared for:
Central Vermont Regional Planning Commission

CVRPC
CENTRAL VERMONT REGIONAL PLANNING COMMISSION

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EXECUTIVE SUMMARY

Weston & Sampson Engineers, Inc. (Weston & Sampson) has prepared this Phase II Environmental Site Assessment (ESA) report for the property located at 11 North Main Street in Northfield, Vermont (the Site). The Site is currently vacant but was first developed circa 1812 as a woolen mill prior to use as granite works. Other commercial/industrial Site uses have included a machine shop, auto repair facility, and gasoline filling station. The Site buildings were demolished in 2000 following the closure of the granite works. Portions of the former buildings concrete foundations and structural columns are still present. Findings of the Phase II ESA are as follows:

- Surface soil in the western half of the Site is impacted with polycyclic aromatic hydrocarbons (PAHs) exceeding the urban background Vermont Soil Standard (VSS) and non-residential VSS. PAH impacts appear to be limited to surface soil within previously developed areas of the Site where past industrial practices included granite cutting and processing, operation of a machine shop, and operation of a gasoline filling station and automotive repair shop.

- Lead was identified in soil but does not exceed the current residential VSS. However, the Vermont Department of Environmental Conservation (VTDEC) is expected to lower the lead VSS within the timeframe of proposed Site redevelopment. The proposed VSS applicable to the Site would be an urban background value of 111 milligrams per kilogram (mg/kg). Two discrete shallow soil samples collected from less than 3 feet below grade on the western portion of the Site contained lead concentrations exceeding the proposed urban background VSS for lead.

- No polychlorinated biphenyls (PCBs), semi-volatile organic compounds (SVOCs) other than PAHs, or volatile organic compounds (VOCs) were identified in soil above the laboratory reporting limits.

- No VOCs were detected in groundwater except for low levels of acetone (a common lab contaminant) at one location. Acetone concentrations were below the Vermont Groundwater Enforcement Standard (VGES).

- Soil gas is impacted with the VOCs benzene, ethylbenzene, tetrachloroethylene (PCE), and carbon tetrachloride exceeding the residential Vapor Intrusion Standards for Subslab Soil Gas (VIS-SSG). Benzene also exceeded the non-residential VIS-SSG at one location.

- Remaining data gaps include defining the nature and extent of soil gas impacts and determining if these contaminants pose a risk to indoor air at nearby buildings.

Weston & Sampson recommends performing supplemental soil gas assessment to evaluate the nature and extent of VOCs detected above the residential VIS-SSG.

1.0 SITE BACKGROUND

Weston & Sampson Engineers, Inc. (Weston & Sampson), on behalf of the Central Vermont Regional Planning Commission (CVRPC), has prepared this Phase II Environmental Site Assessment (ESA) for the property located at 11 North Main Street in Northfield, Vermont (the Site; Figure 1).

1.1 Site Location

Street Address: 11 North Main Street, Northfield, VT
Latitude (North): 44.1504430 - 44° 9' 1.59''
Longitude (West): 72.6549170 - 72° 39' 17.70''
Universal Transverse Mercator: Zone 18
UTM X (Meters): 687546.2
UTM Y (Meters): 4891040.0
Elevation: 713 feet above sea level
Site Owner: Cetrangolo Finishing Works, Inc.
Site Occupants: Vacant
County: Washington
Parcel ID: 923023000
Size: 1.30-acres

1.2 Current Use of Property

The Site is currently vacant. A Site map is included as Figure 2.

1.3 Current Use of Adjacent Properties

The Site is in a mixed residential and commercial area of Northfield. Adjoining commercial properties include a Dollar General retail store to the south; a gasoline filling station, convenience store, and hardware store to the west; a former clothing company and a food company warehouse to the northwest; and a visual design/photographer and furniture maker to the north.

1.4 Site History

According to historical records available in a 2022 Phase I ESA completed by Wilcox & Barton, Inc. (Wilcox & Barton), the Site was first developed circa 1812 as a woolen mill. The Site was developed prior to 1897 as the Cross Brothers Granite Works, which processed and finished granite until 1942 and again between 1986 and 1999. The granite works extended onto the current Dollar General property to the south. Site buildings and features apparent on historical Sanborn Fire Insurance maps from 1897 until 1940 include a blacksmith shop, cutting shed, granite sawing & machine shop, carriage shop, painting building, a railroad spur, saddlery, machine shop with printing and repair rooms, a gasoline underground storage tank (UST) along Main Street, a "tank" located centrally on the Site, and a conveyer in the eastern portion of the Site connected to a dust collector. Mr. Nick Cetrangolo, the current Site owner, purchased the Site circa 1956 and redeveloped it to include a machine shop, auto repair facility, and gasoline filling station. These Site uses continued until approximately 1976. As noted above, granite processing/finishing operations resumed from 1986 to 1999. The Site buildings were demolished in 2000 following the closure of the granite works. Portions of the former buildings concrete foundations and structural columns are still present at the Site. Historical Site features are shown on Figure 2.

1.5 Previous Environmental Investigations

Previous environmental investigations have been limited to the 2022 Phase I ESA completed by Wilcox & Barton. Environmental investigations completed at adjoining properties have documented releases of petroleum products and hazardous materials as described below. The Phase I ESA identified the following recognized environmental conditions (RECs) in association with the Site:

1. Historical underground storage and documented release of petroleum at an adjacent property. An undocumented 500-gallon No. 2 fuel oil UST was encountered on the Dollar General property (108 North Main Street) during excavation in October 2012 (see Figure 2). The UST was damaged during excavation and approximately 100 gallons of oily water were released. The VTDEC assigned Spill #2012WMD529 to the release. Spill response actions included removal of the UST, recovery of oily water from the excavation, excavation and offsite disposal of impacted soil, and post-excavation soil sampling and analysis. Post-excavation soil sampling did not identify contaminant concentrations exceeding applicable standards. The damaged UST contents were reported to have impacted groundwater; however, groundwater sampling was not performed. The Spill incident was closed on December 12, 2012.

2. Historical underground storage of petroleum on an adjoining property. The Site is identified as UST Facility ID 4855711 for one 10,000-gallon UST containing No. 2 or No. 4 fuel oil that was removed in 1998. However, at the time of removal, the Site and southerly adjoining parcel (108 North Main Street/General Dollar) were both identified as 11 North Main Street. The former 10,000-gallon UST was located on the 108 North Main Street property south of the Site; however, the exact location of the former 10,000-gallon UST is not documented. A UST closure assessment completed by Griffin International, Inc. indicated that the UST was in very good condition with only minor soil impacts observed around the fill pipe and below the UST. These were attributed to small spills and/or overfills.

3. Documented arsenic contamination at an adjacent property. Elevated concentrations of arsenic were detected in soil at the adjacent 108 North Main Street property (Dollar General) in 2011. VTDEC assigned Site #2012-4284 to the release. Shallow arsenic-impacted soil was buried on-site under five feet of clean fill in accordance with a VTDEC-approved Corrective Action Plan (CAP).

4. Current and historical underground storage and documented petroleum contamination at an adjacent property. The property located at 73 North Main Street and adjoining the Site to the west-southwest is currently operated as a gasoline filling station. Elevated concentrations of petroleum compounds and lead were identified in soil and groundwater in 2011. A Supplemental Site investigation completed by KAS Environmental Science and Engineering (KAS) in October 2022 identified petroleum-related volatile organic compounds (VOCs) at concentrations exceeding non-residential use Vermont Soil Standards (VSS) and Vermont Groundwater Enforcement Standards (VGES) near a former gasoline pump island approximately 100 feet southwest of the Site. The extent of soil and groundwater contamination has not been defined.

5. Historical underground storage and release(s) of petroleum at an adjacent property. A 1989 site assessment identified soil contamination at the adjoining 127 North Main Street property. Available records did not indicate the type of contamination but did indicate soil was excavated and “landfarmed” on the property. The VTDEC issued a Sites Management Activity Completed (SMAC) letter for the release on March 7, 1994. Available records also indicate one 10,000-gallon

fuel oil UST was removed from the property in 1998, and one 12,000-gallon fuel oil UST was removed in 2017. During the 1998 UST removal, petroleum contamination was identified. The release condition was tracked by the VTDEC under Site #90-0619. A letter from the VTDEC, dated October 26, 1998, indicates that impacted soil encountered during UST removal was stockpiled at the property. Closure documents associated with the 2017 UST removal were not reviewed.

6. Historical industrial use and underground storage of petroleum at the subject property. The Site was used for various industrial uses beginning in the late 1800s until at least 1999. Historical property uses included granite processing, automotive repair, gasoline filling, and machining. These industrial operations would have included the use and storage of various types of oil and/or hazardous materials. A historical Sanborn Map from 1919 depicts a buried gasoline tank and an unidentified tank at the property.

1.6 Purpose

A residential development is proposed for the Site. This Phase II ESA is being conducted to evaluate whether previously identified RECs have resulted in a release to the environment and to determine appropriate remediation and/or mitigation measures that may be required during Site redevelopment.

2.0 FIELD ACTIVITIES

2.1 Approach

Field activities included the sampling of soil, groundwater, and soil gas in accordance with the Phase II ESA work plan dated August 18, 2023, and approved by the VTDEC on August 18, 2023. Sample locations are shown on Figure 3. Soil boring logs and groundwater sampling forms are provided as Appendix A. Select Site photos are provided as Appendix B.

2.2 Surficial Soil Assessment

On August 29th, 2023, Weston & Sampson collected surface soil samples from two decision units (DUs) following incremental sampling methodology (ISM). DUs (shown on Figure 3), were based on the proposed Site redevelopment plan, and included:

1. DU1: The western flat area of the Site where the proposed building and parking lot will be constructed. Increments in DU1 were positioned around the former building foundations.

2. DU2: The eastern area of the site between DU1 and the river embankment. The area of soil disturbance associated with the Dollar General truck turn-around was excluded from DU2 since engineered fill was likely imported to construct this feature.

Three ISM replicate samples (labeled with the DU identification followed by -A, -B, and -C) were collected from each of the two DUs, for a total of six ISM replicate samples. Each replicate sample was composed of 30 aliquots collected from 30 relatively equal size grid-based increments within the DUs (Figure 3). Sampling grids were established using a Global Positioning System (GPS) with pin flags placed in the center of each grid square. Samples were collected in the following manner:

- At each increment, three aliquots (one for each replicate sample -A, -B, and -C) were collected from 0.0 – 1.5 feet below ground surface (bgs). Aliquot locations within each increment were chosen by field personnel following a systematic random sampling procedure.
- Hand tools were used to remove vegetation, where present, then used to collect the aliquots. Soil was logged for texture, color, moisture content, and presence/absence of fill materials.
- Each aliquot was approximately 20 grams (g) of soil, as determined by using a field scale, and was placed in separate aluminum trays labeled A, B, or C.
- The sampling procedure was repeated until each tray had aliquots from all 30 increments. Soil was then thoroughly mixed, removing stones and organic matter, and spread to uniform thickness. The soil was then divided into sampling containers. This process was repeated for each ISM replicate.

Duplication is inherent in ISM; therefore, no field duplicates were collected. Sampling was decontaminated prior to use and between DUs, but not between collection increments within a DU.

ISM replicate samples were submitted to Pace Analytical Services of East Longmeadow Massachusetts (Pace) for analysis of polycyclic aromatic hydrocarbons (PAHs) by EPA Method 8270 with selected ion monitoring (SIM), thirteen priority pollutant (PP13) metals and barium by EPA Methods 6010/6020 and 7471 (mercury), and polychlorinated biphenyls (PCBs) by EPA Method 8082 with manual Soxhlet extraction.

2.3 Subsurface Soil Assessment

Five soil borings (SB-1 through SB-5; Figure 3) were advanced to evaluate subsurface soil quality. SB-1 was co-located with a groundwater sampling location (GW-1), to evaluate potential on-Site migration of VOCs. SB-2 was located within the mapped location of a former gasoline UST identified on the 1919 Sanborn fire insurance map. SB-3 was co-located with GW-3 near the former filling station and associated with underground storage tanks. SB-4 was co-located with GW-4 near the footprint of both the historical and proposed site building. SB-4 had to be relocated multiple times due to shallow refusals. SB-5 was in the eastern part of the Site.

Soil borings were advanced using direct push drilling techniques to at least five feet below the observed water table or refusal. Recovered soil was logged for texture, color, moisture content, and visual/olfactory evidence of contamination. Soil was also screened for the presence of VOCs using a calibrated photoionization detector (PID). One soil sample was collected from each boring and analyzed by Pace for:

- VOCs by EPA Method 8260
- SVOCs by EPA Method 8270
- 13 PP Metals and barium by EPA Methods 6010/6020 and 7471
- PCBs by EPA Method 8082 with manual Soxhlet extraction

One additional sample was collected from 0-2 feet bgs from SB-5 for VOC analysis based on a PID screening result of 1.4 parts per million by volume (ppm/v). Sample depths were determined by the field geologist based on visual, olfactory, and/or PID screening evidence of contamination. In the absence of evidence of VOC contamination, the VOC sample was collected from the interface between the vadose and saturated zone. SVOC, metals, and PCB soil samples were collected from depths representative of fill or disturbed soils, except at SB-3 where one sample was collected of undisturbed native soil. One blind field duplicate was collected for each analytical parameter.

Sample Location	Depth (ft)	Parameter	Nature of Soil	Blind Field Duplicate
SB-1	0-2	SVOCs, PCBs, Metals	Fill	No
SB-1	10	VOCs	Native	No
SB-2	0-2	SVOCs, PCBs, Metals	Fill	No
SB-2	15	VOCs	Native	No
SB-3	10-12	SVOCs, PCBs, Metals	Native	No
SB-3	11	VOCs	Native	No
SB-4	0-3	SVOCs, PCBs, Metals	Fill	Yes
SB-4	7	VOCs	Native	Yes
SB-5	1	VOCs	Fill	No

2.4 Groundwater Assessment

Five groundwater samples (GW-1 through GW-5; Figure 3) were collected by temporarily installing screen points positioned to intersect the water table. Soil borings were completed at each location, in the same manner as described above for subsurface soil assessment, to determine what depth to install the screen points. Groundwater samples were collected using a peristaltic pump in general accordance

with the United States Environmental Protection Agency (EPA) Standard Operating Procedure (SOP) for low flow sampling of groundwater monitoring wells except that permanent wells were not installed or developed. One blind field duplicate sample was collected.

2.5 Soil Gas Assessment

Two soil gas samples (SG-1 and SG-3; Figure 3) were collected from within the footprint of the proposed Site building. SG-2, initially intended to be installed near SB-4/GW-4, was relocated to the location of the former filling station, as groundwater was too shallow to collect a soil gas sample.

Soil gas samples were collected from between 2 and 4 feet below grade using the Geoprobe® post-run-tubing (PRT) system. Each location was screened for VOCs with a PID. Dedicated tubing was secured from the PRT system to Summa canisters equipped with flow regulators calibrated to 30-minute sampling periods. One blind field duplicate was collected. Soil gas samples were submitted to Pace for VOC analysis by EPA Method TO-15.

2.6 Standard Operating Procedures

The following Weston & Sampson Standard Operating Procedures (SOPs) were followed during this Phase II ESA. Copies have previously been provided to the VTDEC.

SOP 1	Composite Soil Sampling
SOP-2	Jar Headspace Screening
SOP-3	Sampling Soil from Split Spoon/Direct Push Sampling Device
SOP-5	Pre-Marking Boring Locations
SOP-7	Observing Direct Push Soil Borings
SOP-8	Decontaminating Equipment
SOP-10	Sampling Soil with a Scoop or Hand Auger
SOP-11	Low Flow Groundwater Sampling
SOP-14	Air and Soil Gas Sampling
SOP-22	Soil Gas Monitoring Point Installation

2.7 Investigation Derived Waste

Soil cuttings were used to backfill soil borings. No excess soil was generated. Purged groundwater was discharged to the screen point from which it was generated after sampling was complete.

2.8 Deviations from the Work Plan

Several deviations from the work plan were made, including the following:

- An additional soil sample for VOCs was taken at SB-5 due to encountering a PID reading or 1.3 ppm/v between 0 – 2 feet.
- A soil sample for VOCs was not collected at SB-2 between 0 – 5 feet where a PID reading of 1.4 ppm was encountered because the core sat in the sun for an extended period. No visual or olfactory evidence of contamination was observed. Volatiles were presumed too no longer be present in the recovered soil core. A sample was instead collected from the groundwater interface at 15 feet bgs. We believe that sufficient data was collected to support the conclusions of the report.
- When collecting composite samples for DU1 and DU2 there was not enough volume after mixing the aliquots in the trays to be divided and collected from thirty equally sized grid squares as

planned. Instead, the replicate samples were collected evenly from the composited trays. This does not affect the data quality or usability as the soil was thoroughly mixed before being placed in sample containers.

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3.0 RESULTS

3.1 Screening Criteria

Soil analytical results were compared to the Vermont Soil Standards (VSS) for residential, non-residential, and urban background uses published in the VTDEC *Investigation and Remediation of Contaminated Properties Rule (I-Rule)*, effective July 6, 2019. Soil results were also compared to draft VSS expected to be promulgated in the next year within an update to the I-Rule. In the new update, the lead standard is expected to change from 400 milligrams per kilogram (mg/kg) to 41 mg/kg for residential and non-residential properties and 111 mg/kg for the Urban Background VSS. The Site is in a Designated Urban Soil Zone as defined by the VTDEC and shown on the Agency of Natural Resources (ANR) Atlas and lead concentrations were compared to the urban background VSS.

Groundwater analytical results were compared to the Vermont Groundwater Enforcement Standards (VGES), as listed in Chapter 12: Groundwater Protection Rule and Strategy of the State of Vermont Environmental Protection Rules, adopted July 6, 2019.

Soil gas results were compared to the Vapor Intrusion Standards for Subslab Soil Gas (VIS-SSG) for residential and non-residential use published in the I-Rule.

Applicable soil and soil gas screening criteria are included in the full analytical results tables (Tables 1 through 4). Laboratory analytical reports are provided in Appendix C.

3.2 Surficial Soil

PAHs were detected in all ISM replicate samples. In DU1, PAH concentrations, expressed as benzo(a)pyrene toxic equivalents (B[a]P-TE) for all replicates were above the urban background VSS (0.58 mg/kg) and ranged between 1.08 and 1.56 mg/kg. One replicate (DU-1A) exceeded the non-residential VSS (1.54 mg/kg).

The 95% upper confidence level (UCL) of the mean PAH concentration was calculated using the Chebyshev method. The 95% UCL represents the upper bound of the range within which we are 95% confident that the true mean lies. The 95% UCL for PAHs in DU1 is 2.0 mg/kg, above the non-residential VSS (1.54 mg/kg).

In DU2, PAH concentrations in all replicates were below the urban background VSS, ranging from 0.24 mg/kg and 0.29 mg/kg. The 95% UCL for PAHs in DU2 is 0.30 mg/kg, below the urban background VSS.

No metals were detected at concentrations above their respective residential VSS. No PCBs were detected at concentrations above the laboratory method detection limit. ISM soil sample results are presented in Table 1 and shown on Figure 4.

3.3 Subsurface Soil

PAH concentrations, expressed as B(a)P-TE, exceeded the urban background VSS at 0-2 feet bgs in soil at SB-2. All other PAH concentrations were below the urban background VSS.

No PCBs or VOCs were detected above laboratory reporting limits in subsurface soil samples. No metals were detected at concentrations exceeding the residential VSS. However, the VTDEC is expected to lower the VSS for lead within the timeframe of proposed Site redevelopment. The proposed lead VSS

applicable to the Site would be an urban background value of 111 mg/kg. Lead concentrations in shallow soil at locations SB-1 (160 mg/kg) and SB-4 (350 mg/kg), both on the western half of the Site, exceed the proposed urban background VSS.

Subsurface soil sample results are summarized as Table 2 and shown on Figure 4.

3.4 Groundwater

No VOCs were detected in groundwater samples GW-1 through GW-5, except for GW-3 where acetone was detected. The acetone concentration in GW-3 (64 ug/l) is well below the VGES (950 ug/l). Groundwater sample results are summarized as Table 3.

3.5 Soil Gas

Four VOC compounds were detected in soil gas above the residential VIS-SSG. These include benzene (SG-2, SG-3, and SG-4), carbon tetrachloride (SG-4), ethylbenzene (SG-4), and tetrachloroethene (PCE; SG-2 and SG-3). Soil gas analytical results are summarized as Table 4 and shown on Figure 5.

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4.0 DATA USABILITY

4.1 Data Usability

4.1.1 Laboratory Data Evaluation

Weston & Sampson will perform a Tier I evaluation of the data to identify bias or other interference that could affect the quality of sample results. Quality control (QC) components that will be evaluated include the following:

- Data completeness
- Holding times
- Sample preservation
- Blank results
- Surrogate recoveries
- Laboratory control sample results
- Field duplicates

The following QA/QC Samples were collected:

Parameter	Matrix	Number of Samples	Trip Blanks	Blind Field Duplicates
VOCs	Soil	6	1	1
	Groundwater	5	1	1
	Soil Gas	4	0	1
PAHs	Soil – ISM*	6	0	0
SVOCs	Soil – Boring	4	0	1
PP13 Metals and Barium	Soil – ISM*	6	0	0
	Soil – Boring	4	0	1
PCBs	Soil – ISM*	6	0	0
	Soil – Boring	4	0	1

*Duplication is inherent in ISM; three replicate samples are collected for each decision unit.

4.1.2 PARCCS Evaluation

Weston & Sampson evaluated the data in general accordance with the PARCCS (precision, accuracy, representativeness, completeness, comparability, and sensitivity) parameters outlined in the *U.S. Environmental Protection Agency Guidance on Quality Assurance Project Plans.*

Precision

Precision is a measure of agreement among individual measurements of the same property and is generally expressed as the reproducibility of the analytical result between initial sample and field duplicate as expressed by the relative percent difference (RPD). Precision is a measure of the reproducibility of sampling technique, matrix homogeneity, and analytical method. An RPD value of <50% is considered acceptable for soil and soil gas. An RPD value of <30% is considered acceptable for aqueous samples.

RPD values for the SB-4 original and duplicate soil samples could not be calculated for PCBs, SVOCs, or VOCs as none were detected in either the primary or duplicate samples. RPD values for the SB-4

original and duplicate samples for metals and PAHs ranged between 1% and 64% and 0% and 82% respectively. RPD values outside of the acceptance criteria of 50% for soil is likely due to soil and contaminant heterogeneity. Metals and PAH data is considered suitably precise to support the conclusions of this assessment.

RPD values for the SG-2 original and duplicate soil gas sample were within the acceptance criteria of 50%, ranging between 0% and 4%. RPD values could not be calculated for the GW-4 original and duplicate groundwater sample as no VOCs were detected.

Accuracy

Accuracy is the degree of measurement with an accepted reference or true value. Weston & Sampson evaluated accuracy by reviewing surrogate results, laboratory control sample results, and calibration QC results. For several soil and soil gas analytes, fortified blank/laboratory control sample recovery, continuing calibration verification (CCV), initial calibration verification (ICV), surrogate recoveries or matrix spikes were outside of control limits. The results for these compounds may have been biased low or high. The affected analytes are not considered compounds of concern for the Site or were not detected above reporting limits. Weston & Sampson is of the opinion that the data are suitably accurate to support the conclusions of this report.

Representativeness

Representativeness expresses the degree to which data accurately and precisely represent a characteristic of the population, parameter variation, or environmental condition. Weston & Sampson designed the sampling protocol to ensure representativeness by incorporating factors such as Site history, visual and olfactory observations, physical features, proper sample collection and preservation procedures, appropriate testing methodology, and field screening data. The samples collected at the Site are considered representative based on the known conditions and potential contaminant release mechanisms.

Completeness

Completeness is a measure of whether enough data has been collected to support a regulatory opinion and is expressed as a percentage representing the ratio of valid data to expected data. Data may be considered invalid for reasons such as exceeding the holding time, poor calibration of analytical instruments, and poor surrogate or matrix spike recoveries. Based on a review of the case narratives and lab QA/QC samples, the data collected for this Site are complete.

Comparability

Comparability refers to the level of confidence with the correlation of data collected during separate events or by different persons or analyzed by different methods. This may be measured qualitatively based on a review of sampling and testing procedures or quantitatively by comparison of sample data collected at the same location using the same sampling and testing procedures. All sampling and testing procedures were followed utilizing accepted standards for quality assurance and quality control and are expected to be comparable to any future data collected at the Site.

Sensitivity

Sensitivity is a measure of whether the laboratory method was sufficient to report detected contaminants at concentrations at or below the applicable regulatory criteria. All laboratory reporting limits were below their corresponding VSS, VIS, and VGES.

5.0 CONCEPTUAL SITE MODEL

5.1 Site Description

The Site is in a mixed commercial and residential area of Northfield, Vermont. The Site is currently vacant and anecdotal reports by Town of Northfield employees suggest that it is used by the Town as a snow dump in winter. It has been developed for various industrial and commercial uses since the early 1800s including a woolen mill, granite works, automotive repair shop, gasoline filling station, and machine shop. The Site is accessed from the west by North Main Street by a gravel drive. Concrete foundation and structural support remnants are present in the west-central portion. The eastern approximate two-thirds of the Site is vegetated except for an asphalt drive easement that extends from the Dollar General property and is used as a truck turnaround. Overhead electrical and communication utilities traverse the northern extent of the Site from east to west. Site features are shown on Figure 2.

The Site is situated approximately 713 feet above mean sea level. The eastern portion, defined by the gravel drive and foundation remnants, is relatively flat. The west-central portion is covered with a concrete slab. A pit was observed in the concrete slab adjacent to one of the foundation remnants and was filled with water. Topography slopes steeply downward to the east towards the Dog River, which defines the eastern property boundary. A steep drainage defines the northern Site boundary.

The area is served by municipal water although one private water supply is mapped on the property adjoining the Site to the north. The Site and surrounding area are served by municipal wastewater disposal infrastructure. No wetlands are mapped on the Site or surrounding area.

5.2 Geology

The Site is within a Designated Urban Soil Zone as defined by the VTDEC and shown on the ANR Atlas. Designated Urban Soil Zones are areas where the use of VTDEC urban background concentrations for PAHs, arsenic, and lead may be used when evaluating contaminant concentrations. Soil in the western approximate two-thirds of the Site is mapped as pebbly sand, a glaciolacustrine deposit associated with Glacial Lake Winooski, which extended into Northfield along the current Dog River channel approximately 14,000 – 13,500 years before present during the retreat of the Laurentide ice sheet.

Subsurface soils observed at the Site consisted of 0-7 feet of fill overlying native brown fine sand. Fill soils consisted of light brown and grey medium to coarse sand and some gravel, with glass and granite rubble. The thickest fill soils were observed in the westernmost (SB-2) and easternmost (SB-5) areas of the Site and thinnest fill soils were observed centrally (SB-4). Native soil observed consisted of brown fine sand and was seen from 7 ft bgs to a maximum depth of 20 ft bgs in the southwestern corner of the site. Native soils appeared to be reworked in the north and southwest of the Site from 0-5 feet bgs and consisted of fine to coarse sand and gravel with no bedding structure. The native sandy soil encountered is consistent with the mapped pebbly sand and soil described on the adjoining gas station property (KAS, 2022). Fill soils on the site are consistent with the fill soils described on the property adjoining the Site to the south, which contained wood, pieces of granite, metal, and concrete (ATC, 2012).

Bedrock at the Site is mapped as phyllite and metasiltstone members of the Cram Hill Formation (Ratcliffe et al, 2011). Exposed schist outcrops were present at the north of the site, which is somewhat consistent with the mapped bedrock as schist has undergone higher grade metamorphism compared to phyllite. Refusal on what was presumed to be bedrock was encountered between 8 and 12 feet bgs in the northwest area of the Site (SB-1). Refusal was not encountered at a maximum depth of 20 ft bgs in the southwest corner of the Site (GW-2).

Groundwater was encountered between approximately 2 and 15 ft bgs at the Site and was shallower near the bedrock on the north side of the property. Groundwater elevation was not determined due to the use of temporary screen point wells, which were not surveyed.

Groundwater flow, based on previous investigations (ATC, 2011 and KAS, 2022), is to the south. A groundwater seep was observed from the bedrock outcrop on the north of the Site.

5.3 Contaminants of Concern

Based on the results of the Phase II ESA, the primary contaminants of concern (COC) include the following:

- Surficial Soil: PAHs and lead
- Soil Gas: Benzene, ethylbenzene, tetrachloroethene, and carbon tetrachloride

5.4 Distribution and Potential Sources

5.4.1 Surficial Soil

The 95% UCL for PAHs in surficial soil in DU1 (western half of the Site) is 2.0 mg/kg, above the non-residential VSS (1.54 mg/kg). PAH concentrations appear to decrease with depth, with no subsurface samples exceeding the non-residential VSS. PAHs were not detected in native soils.

The 95% UCL for PAHs in surficial soil in DU2 (eastern half of the Site) is 0.30 mg/kg, below the urban background VSS.

Potential sources of PAHs in surface soil include former industrial uses of the property (granite works, automotive repair shop, machine shop, and woolen mill), use as a snow dump, aerial deposition within an urban setting, and importation of contaminated fill from an unknown location, or a combination of these sources.

Lead is present in shallow soil above the proposed urban background VSS in two locations on the northwest of the site (SB-1 (0-2) and SB-4(0-3)) to a maximum depth of 3 feet bgs. Lead concentrations appear to be present throughout the Site in low levels, with a few locations above the Urban Background VSS likely due to heterogeneity of the contaminant in soil. Lead was not detected above the proposed Urban Background VSS in native soils. Potential sources of lead in shallow soil includes former industrial uses of the property, possible lead paint on historical Site buildings, use as a snow dump, and contaminated fill from an unknown location, or a combination of these sources.

5.4.2 Soil Gas

Benzene and ethylbenzene were identified in soil gas above the residential VIS-SSG, with the highest concentrations on the western side of the Site at SG-4. Benzene concentrations at SG-4 also exceeded the non-residential VIS-SSG. Neither compound was detected in soil or groundwater. Releases due to former Site uses (automotive repair shop, filling station, and machine shop) or a former on-Site gasoline UST from the early 1900s (see Figure 2) are potential sources for these petroleum-related VOCs. Several potential off-Site sources also exist, including two former USTs at the adjacent Dollar General property to the south, two former USTs at the adjoining 127 North Main Street property to the northwest, and petroleum-related VOCs documented in groundwater at 73 North Main Street (SMS #2011-4199), approximately 100 feet southwest of the Site.

Carbon tetrachloride and PCE were also detected in soil gas above their residential VIS-SSGs, with the highest concentration of PCE on the southern edge of the Site at SG-2, and the highest concentration of carbon tetrachloride on the western side of the Site at SG-4. Neither compound was detected in soil or groundwater. Releases related to the use, storage, and disposal of PCE solvents potentially used as a degreaser in automotive maintenance activities in the former filling station are a potential source for these chlorinated VOCs.

The extent of these petroleum-related and chlorinated VOC soil gas exceedances has not been defined.

5.5 Migration Pathway

PAHs and lead are expected to be relatively immobile in soil and do not appear to have leached downwards into subsurface soil. The primary migration pathway for PAHs and lead at the Site is via erosion.

Potential VOC releases associated with past on-Site activities do not appear to have impacted soil or groundwater, though at least one potential off-Site source for petroleum-related VOCs (73 North Main Street) has confirmed petroleum-related VOCs in soil and groundwater.

Whether sourced on-Site of off-Site, once in the subsurface, migration of VOCs in soil gas will occur through advection (bulk movement with the flow of a fluid such as air or groundwater) or diffusion (moving from areas of higher concentration to lower concentration). The remnant building foundation in one portion of the Site may cause VOCs to accumulate below the concrete and may prevent surface water from infiltrating and transporting VOCs to groundwater.

Where VOCs in soil gas are in contact with a building slab or utility spaces, they may impact air quality through vapor intrusion. There is a vapor intrusion risk to indoor air in the future Site building and/or nearby buildings.

5.6 Sensitive Receptors

A Sensitive Receptor Map, generated with the Agency of Natural Resources online Natural Resources Atlas, is provided as Figure 6.

The Site is in a mixed commercial/industrial and residential area of Northfield, Vermont. The area is served by municipal water and no private wells are mapped on or downgradient of the Site. A private water supply is mapped on the adjoining property to the north.

Potential human receptors to PAHs and lead in soil include Site users such as nearby residents and trespassers. Future potential human receptors include construction and utility workers performing subsurface work, or occupants of the future residential development.

Potential human receptors to VOCs in soil gas include future occupants of the proposed residential development and current occupants of nearby buildings that may be at risk of vapor intrusion. Other potential human receptors to VOCs in soil gas include construction and utility workers performing subsurface work.

No wetlands are located on or downgradient of the Site and the Site is in an urban area. Potential ecological receptors are limited to aquatic biota in the Dog River.

5.7 Exposure Pathways

Potential exposure pathways to sensitive receptors include direct contact through ingestion of contaminated soil, dermal contact with contaminated soil, and inhalation due to vapor intrusion into excavations or buildings. The following exposure pathways are considered complete:

- Site Users could encounter surface soil impacted with PAHs and lead.
- Future Site Users completing subsurface work (such as construction or utility workers) could encounter soil gas impacted with benzene, ethylbenzene, PCE, and carbon tetrachloride.
- Future building occupants could encounter benzene, ethylbenzene, PCE, and/or carbon tetrachloride via the vapor intrusion pathway.

The following exposure pathways may be complete, but their status is currently unknown:

- Nearby property users could encounter surface soil impacted with PAHs.
- Nearby property users may encounter benzene, ethylbenzene, tetrachloroethene, and carbon tetrachloride in indoor air if these contaminants are migrating off-Site or are from an off-Site source.

The following table summarizes the potentially impacted media, sensitive receptors, and whether each exposure pathway is considered complete, incomplete, or is currently unknown.

Media	Contaminants of Concern	Sensitive Receptors	Exposure Pathways	Exposure Pathway Complete?
Surface Soil	PAHs, Lead	Site Users	Direct Contact, Ingestion	Complete
Subsurface Soil	PAHs and Lead	Future Site Users (construction/utility workers)	Direct Contact, Ingestion	Incomplete
Groundwater	VOCs	Site Users	Direct Contact, Ingestion	Incomplete
		Future Site Users (construction/utility workers)	Direct Contact, Ingestion	Incomplete
		Nearby Residents	Direct Contact, Ingestion	Incomplete
		Future Off-Site Construction/Utility workers	Direct Contact, Ingestion	Incomplete
Surface Water	PAHs and Lead	Users of Dog River	Direct Contact, Ingestion	Unknown
		Aquatic Biota in Dog River	Direct Contact, Ingestion	Unknown
Indoor Air	Benzene, Ethylbenzene, PCE, Carbon tetrachloride	Site Users – Future Building Occupants	Inhalation	Complete
		Nearby Building Occupants	Inhalation	Unknown

6.0 DISCUSSION AND CONCLUSIONS

Weston & Sampson has completed a Phase II ESA for CVRPC for the property located at 11 North Main Street in Northfield, Vermont (the Site). The findings of the Phase II ESA include the following:

- Surface soil in the western half of the Site is impacted with polycyclic aromatic hydrocarbons (PAHs) exceeding the urban background Vermont Soil Standard (VSS) and non-residential VSS. PAH impacts appear to be limited to surface soil within previously developed areas of the Site where past industrial practices included granite cutting and processing, operation of a machine shop, and operation of a gasoline filling station and automotive repair shop.

- Lead was identified in soil but does not exceed the current residential VSS. However, the Vermont Department of Environmental Conservation (VTDEC) is expected to lower the lead VSS within the timeframe of proposed Site redevelopment. The proposed VSS applicable to the Site would be an urban background value of 111 milligrams per kilogram (mg/kg). Two discrete shallow soil samples collected from less than 3 feet below grade on the western portion of the Site contained lead concentrations exceeding the proposed urban background VSS for lead.

- No polychlorinated biphenyls (PCBs), semi-volatile organic compounds (SVOCs) other than PAHs, or volatile organic compounds (VOCs) were identified in soil above the laboratory reporting limits.

- No VOCs were detected in groundwater except for low levels of acetone (a common lab contaminant) at one location. Acetone concentrations were below the Vermont Groundwater Enforcement Standard (VGES).

- Soil gas is impacted with the VOCs benzene, ethylbenzene, tetrachloroethylene (PCE), and carbon tetrachloride exceeding the residential Vapor Intrusion Standards for Subslab Soil Gas (VIS-SSG). Benzene also exceeded the non-residential VIS-SSG at one location.

6.1 Data Gaps

Remaining data gaps include defining the nature and extent of benzene, ethylbenzene, PCE, and carbon tetrachloride impacts identified in Site soil gas and determining if these contaminants pose a risk to indoor air at nearby buildings.

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7.0 RECOMMENDATIONS

Based on the findings of the Phase II ESA, we recommend performing supplemental soil gas assessment to evaluate the nature and extent of VOCs detected above the resident VIS-SSG.

8.0 SIGNATURE OF ENVIRONMENTAL PROFESSIONAL

This report was prepared by the following individuals:

Daniel Schuckers
Geologist I

I certify under penalty of perjury that I am an environmental professional and that all content contained within this deliverable is to the best of my knowledge true and correct.

Lee Rosberg
Senior Project Manager

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9.0 LIMITATIONS

This Phase II ESA was prepared exclusively for the use of the Central Vermont Regional Planning Commission (CVRPC). The conclusions provided by Weston & Sampson in this report are based solely on the information reported in this document. Future investigations, and/or information that were not available to Weston & Sampson at the time of this investigation may result in a modification of the conclusions stated in this report.

Should additional information become available concerning this Site or neighboring properties that could directly impact the Site in the future; that information should be made available to Weston & Sampson for review so, if necessary, conclusions presented in this report may be modified. The conclusions of this report are based on Site conditions observed by Weston & Sampson personnel at the time of the investigation, information provided by the users and information provided by federal, state, and local agencies. This report has been prepared in general accordance with accepted engineering and environmental assessment practices. No other warranty, expressed or implied, is made.

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FIGURES

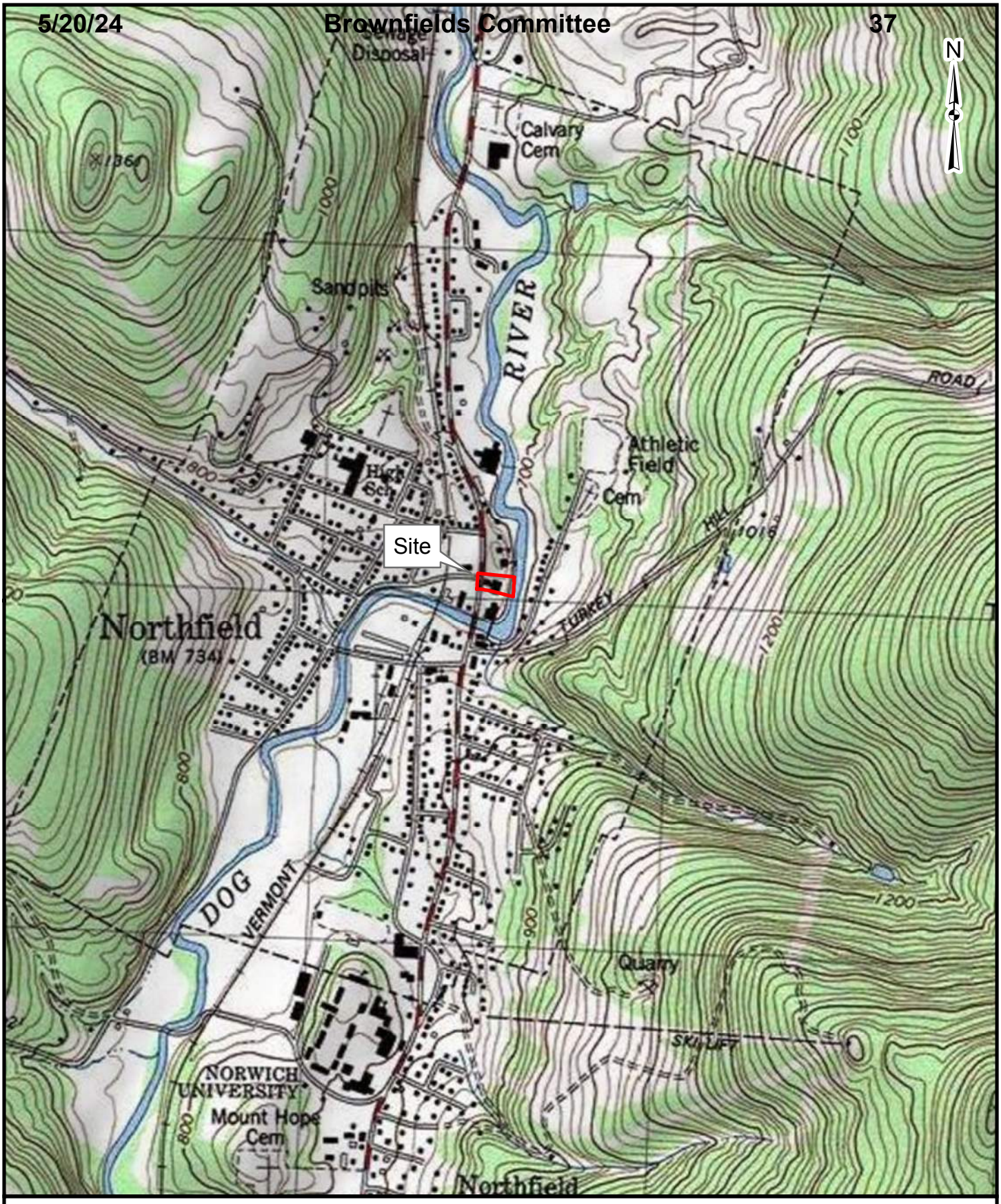

FIGURE 1
LOCUS MAP
11 NORTH MAIN STREET, NORTHFIELD, VT

1 in = 1,250 ft

Weston & Sampson

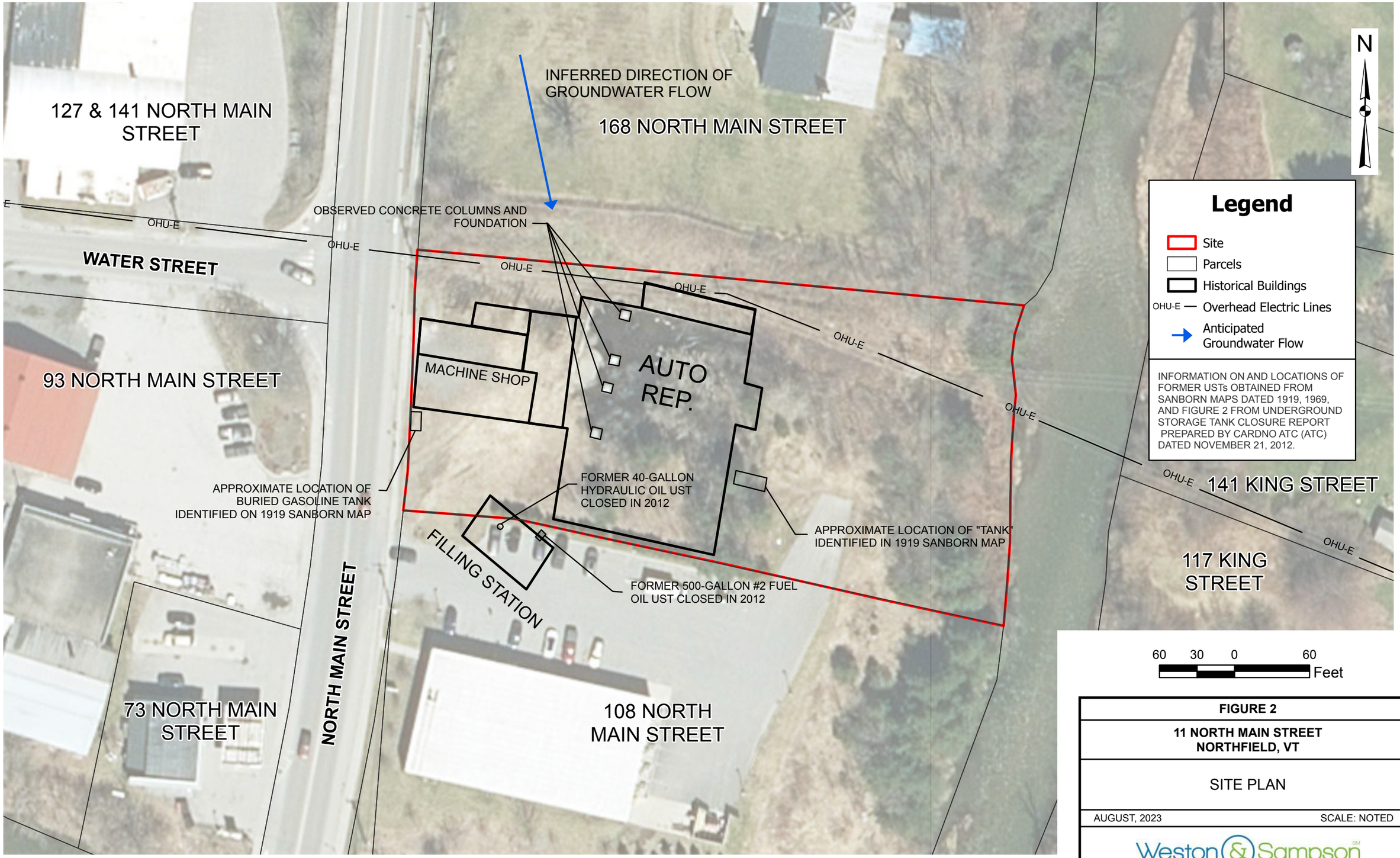

FIGURE 2

11 NORTH MAIN STREET
NORTHFIELD, VT

SITE PLAN

AUGUST, 2023 SCALE: NOTED

Weston & Sampson

INFERRED DIRECTION OF GROUNDWATER FLOW

N

SB-1
GW-1
SG-1
SB-4
SG-4
GW-4
SB-2
GW-2
SG-2
SG-3
SB-3
GW-3
SB-5
GW-5
DU-1
DU-2

Legend

- Site
- Parcels
- Historical Buildings
- Anticipated Groundwater Flow
- Groundwater Monitoring Wells
- Soil Borings
- Soil Gas Point
- Decision Unit 2
- Decision Unit 1

40 20 0 40
Feet

FIGURE 3

11 NORTH MAIN STREET
NORTHFIELD, VT

SITE PLAN AND SAMPLE LOCATIONS

OCTOBER, 2023 SCALE: NOTED

Weston & Sampson

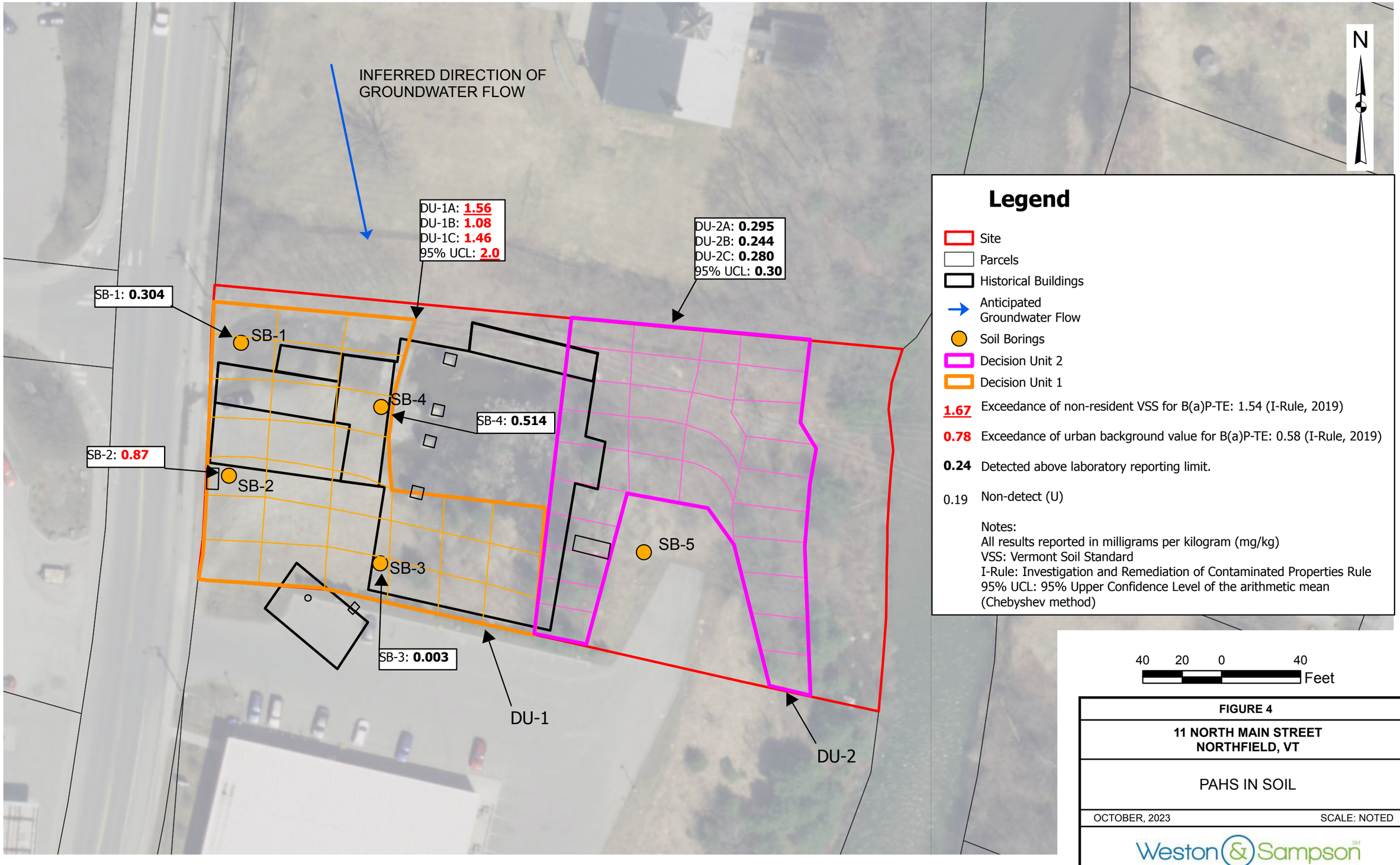

FIGURE 4

11 NORTH MAIN STREET
NORTHFIELD, VT

PAHS IN SOIL

OCTOBER, 2023 SCALE: NOTED

Weston & Sampson

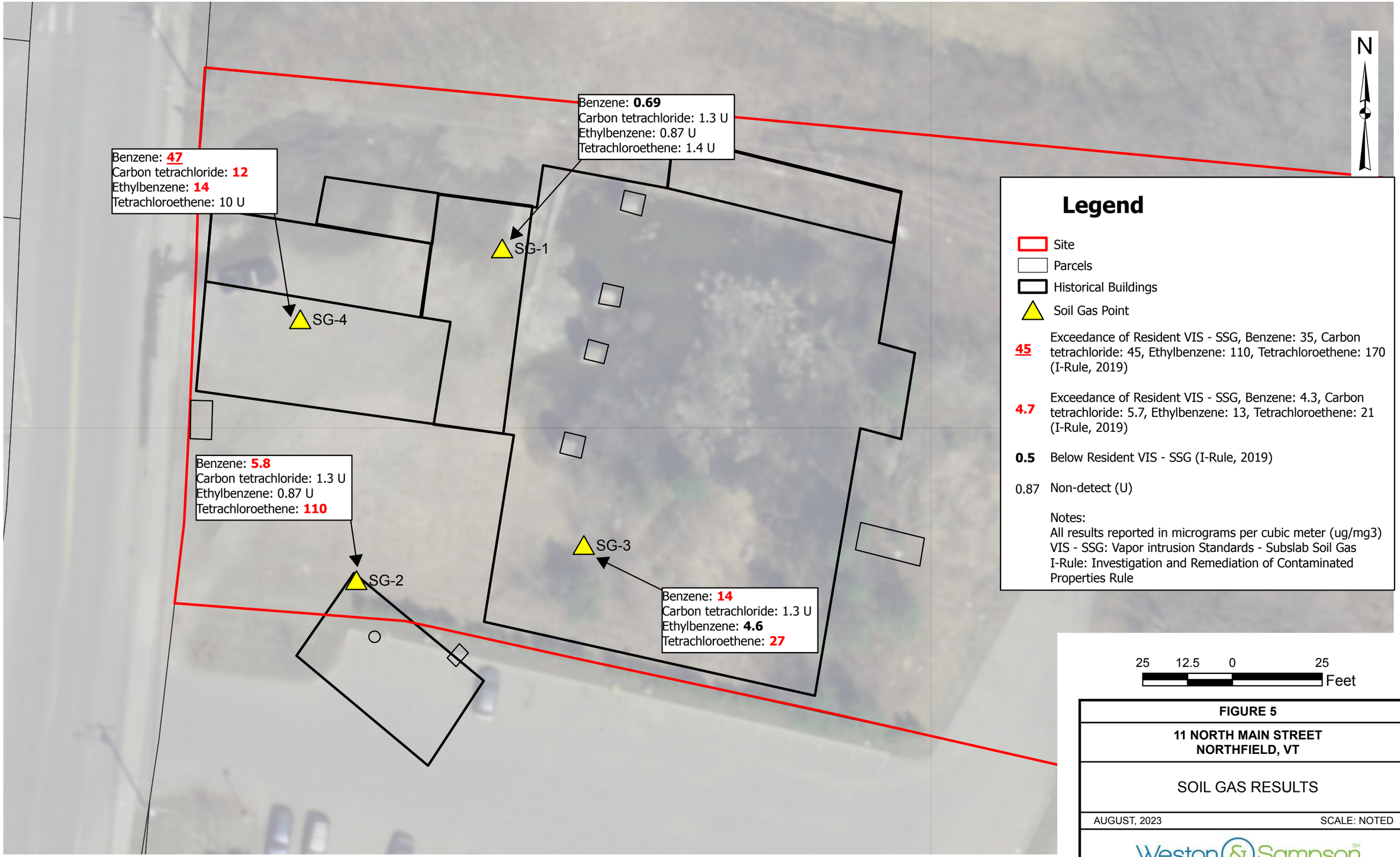

FIGURE 5

11 NORTH MAIN STREET
NORTHFIELD, VT

SOIL GAS RESULTS

AUGUST, 2023 SCALE: NOTED

Weston & Sampson

FIGURE 6

11 NORTH MAIN STREET
NORTHFIELD, VT

SENSITIVE RECEPTORS

AUGUST, 2023 SCALE: NOTED

Weston & Sampson

TABLES

TABLE 1
SURFACE SOIL RESULTS
11 N MAIN STREET
NORTHFIELD, VERMONT

Parameter	Units	RPF	EPA RSL - Resident	EPA RSL - Industrial	VSS Resident	VSS Non-Resident	DU-1A 8/29/2023		DU-1B 8/29/2023		DU-1C 8/29/2023		DU-2A 8/29/2023		DU-2B 8/29/2023		DU-2C 8/29/2023	
							Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
Metals																		
Antimony	mg/kg		31	470	26	319	1.8	U	2	U	1.9	U	2.2	U	2.2	U	2.2	U
Arsenic	mg/kg		0.68	3	16	16	**5.7**		**6.5**		**6.3**		**6.4**		**6.5**		**5.9**	
Barium	mg/kg		15,000	220,000	11,247	127,382	**32**		**38**		**34**		**64**		**68**		**61**	
Beryllium	mg/kg		160	2,300	35	289	0.18	U	**0.23**		0.19	U	**0.24**		**0.25**		**0.24**	
Cadmium	mg/kg		71	980	6.9	87	0.37	U	0.4	U	0.38	U	0.43	U	**0.47**		0.45	U
Chromium	mg/kg				40,223	360,223	**15**		**16**		**15**		**14**		**14**		**15**	
Copper	mg/kg		3,100	47,000	10,407	139,231	**29**		**56**		**31**		**34**		**33**		**38**	
Lead	mg/kg		400	800	400	800	**35**		**44**		**41**		**61**		**59**		**55**	
Mercury	mg/kg		11	46	3.1	3.1	**0.049**		**0.055**		**0.063**		**0.07**		**0.078**		**0.078**	
Nickel	mg/kg		1,500	22,000	940	9,707	**22**		**43**		**22**		**14**		**14**		**14**	
Selenium	mg/kg		390	5,800	366	4,900	3.7	U	4	U	3.8	U	4.3	U	4.3	U	4.5	U
Silver	mg/kg		390	5,800	237	2,483	**1.5**		**1.9**		**1.6**		**2.3**		**2.6**		**2.4**	
Thallium	mg/kg		0.78	12	0.73	196,100	1.8	U	2	U	1.9	U	2.2	U	2.2	U	2.2	U
Zinc	mg/kg		23,000	350,000	21,986	294,150	**61**		**70**		**71**		**99**		**83**		**81**	
Polychlorinated Biphenyls (PCBs)-8082																		
Aroclor-1016	mg/kg		4.1	27			0.092	U	0.098	U	0.095	U	0.11	U	0.11	U	0.11	U
Aroclor-1221	mg/kg		0.2	0.83			0.092	U	0.098	U	0.095	U	0.11	U	0.11	U	0.11	U
Aroclor-1232	mg/kg		0.17	0.72			0.092	U	0.098	U	0.095	U	0.11	U	0.11	U	0.11	U
Aroclor-1242	mg/kg		0.23	0.95			0.092	U	0.098	U	0.095	U	0.11	U	0.11	U	0.11	U
Aroclor-1248	mg/kg		0.23	0.94			0.092	U	0.098	U	0.095	U	0.11	U	0.11	U	0.11	U
Aroclor-1254	mg/kg		0.24	0.97			0.092	U	0.098	U	0.095	U	0.11	U	0.11	U	0.11	U
Aroclor-1260	mg/kg		0.24	0.99			0.092	U	0.098	U	0.095	U	0.11	U	0.11	U	0.11	U
Aroclor-1262	mg/kg						0.092	U	0.098	U	0.095	U	0.11	U	0.11	U	0.11	U
Aroclor-1268	mg/kg						0.092	U	0.098	U	0.095	U	0.11	U	0.11	U	0.11	U
Total PCBs	mg/kg				0.114	0.68	0.092	U, Y	0.098	U, Y	0.095	U, Y	0.11	U, Y	0.11	U, Y	0.11	U, Y
Semi-Volatile Organic Compounds (SVOCs)-8270																		
2-Methylnaphthalene	mg/kg		240	3,000			5.8	U	6.1	U	5.9	U	1.3	U	1.3	U	1.3	U
Acenaphthene	mg/kg		3,600	45,000			1.7	U	1.8	U	1.8	U	0.4	U	0.4	U	0.39	U
Acenaphthylene	mg/kg						1.2	U	1.2	U	1.2	U	0.27	U	0.27	U	0.26	U
Anthracene	mg/kg		18,000	230,000			1.2	U	1.2	U	1.2	U	0.27	U	0.27	U	0.26	U
Benzo(g,h,i)perylene	mg/kg						2.9	U	3.1	U	3	U	0.67	U	0.67	U	0.66	U
Fluoranthene	mg/kg		2,400	30,000	2,301	26,371	2.9	U	3.1	U	3	U	0.67	U	0.67	U	0.66	U
Fluorene	mg/kg		2,400	30,000	2,301	26,371	5.8	U	6.1	U	5.9	U	1.3	U	1.3	U	1.3	U
Naphthalene	mg/kg		2	8.6	2.7	16	5.8	U	6.1	U	5.9	U	1.3	U	1.3	U	1.3	U
Phenanthrene	mg/kg						**0.55**		0.31	U	**0.53**		**0.16**		**0.13**		**0.22**	
Pyrene	mg/kg		1,800	23,000			5.8	U	6.1	U	5.9	U	1.3	U	1.3	U	1.3	U
Benz(a)anthracene	mg/kg	0.1					**0.9**		**0.56**		**0.79**		**0.17**		**0.12**		**0.24**	
Benzo(a)pyrene	mg/kg	1	0.11	2.1	0.58*	1.54	**1.0**		**0.61**		**0.92**		**0.17**		**0.14**		**0.15**	
Benzo(b)fluoranthene	mg/kg	0.1	1.1	21			**1.1**		**0.71**		**1.0**		**0.27**		**0.19**		**0.23**	
Benzo(k)fluoranthene	mg/kg	0.01	11	210			1.2	U	1.2	U	1.2	U	0.27	U	0.27	U	0.26	U
Chrysene	mg/kg	0.001	110	2,100			1.2	U	1.2	U	1.2	U	0.27	U	0.27	U	**0.3**	
Dibenz(a,h)anthracene	mg/kg	1	0.11	2.1			0.58	U	0.61	U	0.59	U	0.13	U	0.13	U	0.13	U
Indeno(1,2,3-cd)pyrene	mg/kg	0.1	1.1	21			**0.68**		0.61	U	**0.63**		**0.14**		0.13	U	**0.16**	
B(a)P-TE	mg/kg		0.11	2.1	0.58*	1.54	**1.5646**	Y	**1.0791**	Y	**1.4636**	Y	**0.2945**	Y	**0.244**	Y	**0.2796**	Y
B(a)P-TE 95% UCL	mg/kg		0.11	2.1	0.58*	1.54	**2.0**						**0.30**					
2540G																		
% Solids	% Weight						**86.9**		**81.7**		**84.2**		**74.6**		**75.2**		**76.1**	

Notes:

VSS	Vermont Soil Standard (July 6, 2019)
EPA RSL	Environmental Protection Agency Regional Screening Level (November 2020)
RPF	Relative potency factor
B(a)P-TE	Benzo(a)pyrene toxic equivalents
*	Urban Background Value for B(a)P-TE
95% UCL	95% Upper Confidence Level of the arithmetic mean (Chebyshev method)
mg/kg	milligrams per kilogram
U	not detected above laboratory reporting limit
Y	calculated value
Bold	Detected above laboratory reporting limit
Bold	Exceedance of EPA RSL - Resident and/or of VSS - Resident/Urban Background
Bold	Exceedance of EPA RSL - Industrial and/or of VSS - Non-Resident

\\wse03.local\WSE\Projects\VT\CVRPC\11 North Main Street Northfield\2. Deliverables\2023 Phase II ESA\Tables\[Northfield ISM.xlsx]Results

TABLE 2
DISCRETE SOIL SAMPLE RESULTS
11 N MAIN STREET
NORTHFIELD, VERMONT

Parameter	Units	RPF	EPA RSL - Resident	EPA RSL - Industrial	VSS Resident	VSS Non-Resident	SB-1 (0-2) 9/6/2023		SB-1 (10) 9/6/2023		SB-2 (0-2) 9/6/2023		SB-2 (15) 9/6/2023		SB-3 (10-12) 9/6/2023		SB-3 (11) 9/6/2023		SB-4 (0-3) 9/6/2023		SB-4 (0-3) (DUP) 9/6/2023		RPD	SB-4 (7) 9/6/2023		SB-4 (7) (DUP-1) 9/6/2023		RPD	SB-5 (1) 9/6/2023	
							Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag		Result	Flag	Result	Flag		Result	Flag
Metals-6010																														
Antimony	mg/kg		31	470	26	319	2	U			1.8	U			2	U			2.1	U	2	U	--							
Arsenic	mg/kg		0.68	3	16	16	**8.2**				**5.4**				**7.2**				**8.7**		**8.6**		1%							
Barium	mg/kg		15,000	220,000	11,247	127,382	**45**				**50**				**30**				**98**		**66**		37%							
Beryllium	mg/kg		160	2,300	35	289	**0.32**				**0.19**				0.2	U			0.21	U	**0.2**		5%							
Cadmium	mg/kg		71	980	6.9	87	0.4	U			0.36	U			0.4	U			0.42	U	0.39	U	--							
Chromium	mg/kg				40,223	360,223	**14**				**18**				**15**				**18**		**31**		64%							
Copper	mg/kg		3,100	47,000	10,407	139,231	**41**				**33**				**32**				**73**		**43**		52%							
Lead	mg/kg		400	800	400	800	**160**				**83**				**8.9**				**350**		**190**		59%							
Mercury	mg/kg		11	46	3.1	3.1	**0.21**				0.028	U			0.029	U			**1.3**		**1.1**		17%							
Nickel	mg/kg		1,500	22,000	940	9,707	**15**				**19**				**23**				**22**		**20**		10%							
Selenium	mg/kg		390	5,800	366	4,900	4	U			3.6	U			4	U			**4.9**		3.9	U	--							
Silver	mg/kg		390	5,800	237	2,483	**1.2**				**1.4**				**0.98**				0.42	U	0.39	U	--							
Thallium	mg/kg		0.78	12	0.73	196,100	2	U			1.8	U			2	U			2.1	U	2	U	--							
Zinc	mg/kg		23,000	350,000	21,986	294,150	**120**				**74**				**43**				**160**		**110**		37%							
Polychlorinated Biphenyls (PCBs)-8082																														
Aroclor-1016	mg/kg		4.1	27			0.097	U			0.087	U			0.095	U			0.11	U	0.097	U	--							
Aroclor-1221	mg/kg		0.2	0.83			0.097	U			0.087	U			0.095	U			0.11	U	0.097	U	--							
Aroclor-1232	mg/kg		0.17	0.72			0.097	U			0.087	U			0.095	U			0.11	U	0.097	U	--							
Aroclor-1242	mg/kg		0.23	0.95			0.097	U			0.087	U			0.095	U			0.11	U	0.097	U	--							
Aroclor-1248	mg/kg		0.23	0.94			0.097	U			0.087	U			0.095	U			0.11	U	0.097	U	--							
Aroclor-1254	mg/kg		0.24	0.97			0.097	U			0.087	U			0.095	U			0.11	U	0.097	U	--							
Aroclor-1260	mg/kg		0.24	0.99			0.097	U			0.087	U			0.095	U			0.11	U	0.097	U	--							
Aroclor-1262	mg/kg						0.097	U			0.087	U			0.095	U			0.11	U	0.097	U	--							
Aroclor-1268	mg/kg						0.097	U			0.087	U			0.095	U			0.11	U	0.097	U	--							
Total PCBs	mg/kg				0.114	0.68	0.097	U, Y			0.087	U, Y			0.095	U, Y			0.11	U, Y	0.097	U, Y	--							
Semi-Volatile Organic Compounds (SVOCs)-8270																														
1,2,4-Trichlorobenzene	mg/kg		24	110			0.41	U			0.37	U	0.42	U	0.41	U			0.45	U	0.41	U	--							
1,2-Dichlorobenzene	mg/kg		1,800	9,300			0.41	U			0.37	U	0.42	U	0.41	U			0.45	U	0.41	U	--							
1,3-Dichlorobenzene	mg/kg						0.41	U			0.37	U	0.42	U	0.41	U			0.45	U	0.41	U	--							
1,4-Dichlorobenzene	mg/kg		2.6	11			0.41	U			0.37	U	0.42	U	0.41	U			0.45	U	0.41	U	--							
1,2,4,5-Tetrachlorobenzene	mg/kg		23	350			0.41	U			0.37	U	0.42	U	0.41	U			0.45	U	0.41	U	--							
1,2-Diphenylhydrazine	mg/kg		0.68	2.9			0.41	U			0.37	U	0.42	U	0.41	U			0.45	U	0.41	U	--							
1-Methylnaphthalene	mg/kg		18	73			0.21	U			0.19	U	0.21	U	0.2	U			0.22	U	0.21	U	--							
2,4,5-Trichlorophenol	mg/kg		6,300	82,000			0.41	U			0.37	U	0.42	U	0.41	U			0.45	U	0.41	U	--							
2,4,6-Trichlorophenol	mg/kg		49	210			0.41	U			0.37	U	0.42	U	0.41	U			0.45	U	0.41	U	--							
2,4-Dichlorophenol	mg/kg		190	2,500			0.41	U			0.37	U	0.42	U	0.41	U			0.45	U	0.41	U	--							
2,4-Dimethylphenol	mg/kg		1,300	16,000			0.41	U			0.37	U	0.42	U	0.41	U			0.45	U	0.41	U	--							
2,4-Dinitrophenol	mg/kg		130	1,600			0.8	U			0.72	U	0.82	U	0.79	U			0.87	U	0.8	U	--							
2,4-Dinitrotoluene	mg/kg		1.7	7.4			0.41	U			0.37	U	0.42	U	0.41	U			0.45	U	0.41	U	--							
2,6-Dinitrotoluene	mg/kg		0.36	1.5			0.41	U			0.37	U	0.42	U	0.41	U			0.45	U	0.41	U	--							
2-Chloronaphthalene	mg/kg		4,800	60,000			0.41	U			0.37	U	0.42	U	0.41	U			0.45	U	0.41	U	--							
2-Chlorophenol	mg/kg		390	5,800			0.41	U			0.37	U	0.42	U	0.41	U			0.45	U	0.41	U	--							
2-Methylphenol	mg/kg		3,200	41,000			0.41	U			0.37	U	0.42	U	0.41	U			0.45	U	0.41	U	--							
2-Nitroaniline	mg/kg		630	8,000			0.41	U			0.37	U	0.42	U	0.41	U			0.45	U	0.41	U	--							
2-Nitrophenol	mg/kg						0.41	U			0.37	U	0.42	U	0.41	U			0.45	U	0.41	U	--							
3,3-Dichlorobenzidine	mg/kg		1.2	5.1			0.21	U			0.19	U	0.21	U	0.2	U			0.22	U	0.21	U	--							
3/4-Methylphenol	mg/kg		3,200	41,000			0.41	U			0.37	U	0.42	U	0.41	U			0.45	U	0.41	U	--							
3-Nitroaniline	mg/kg						0.41	U			0.37	U	0.42	U	0.41	U			0.45	U	0.41	U	--							
4,6-Dinitro-2-methylphenol	mg/kg		5.1	66			0.41	U			0.37	U	0.42	U	0.41	U			0.45	U	0.41	U	--							
4-Bromophenyl phenyl ether	mg/kg						0.41	U			0.37	U	0.42	U	0.41	U			0.45	U	0.41	U	--							
4-Chloro-3-methylphenol	mg/kg		6,300	82,000			0.8	U			0.72	U	0.82	U	0.79	U			0.87	U	0.8	U	--							
4-Chloroaniline	mg/kg		2.7	11			0.8	U			0.72	U	0.82	U	0.79	U			0.87	U	0.8	U	--							
4-Chlorophenyl phenyl ether	mg/kg						0.41	U			0.37	U	0.42	U	0.41	U			0.45	U	0.41	U	--							
4-Nitroaniline	mg/kg		27	110			0.41	U			0.37	U	0.42	U	0.41	U			0.45	U	0.41	U	--							
4-Nitrophenol	mg/kg						0.8	U			0.72	U	0.82	U	0.79	U			0.87	U	0.8	U	--							
Acetophenone	mg/kg		7,800	120,000			0.41	U			0.37	U	0.42	U	0.41	U			0.45	U	0.41	U	--							
Aniline	mg/kg		95	400			0.41	U			0.37	U	0.42	U	0.41	U			0.45	U	0.41	U	--							
Benzidine	mg/kg		0.00053	0.01			0.8	U			0.72	U	0.82	U	0.79	U			0.87	U	0.8	U	--							
Benzoic acid	mg/kg		250,000	3,300,000			1.2	U			1.1	U	1.2	U	1.2	U			1.3	U	1.2	U	--							
bis(2-Chloroethoxy)methane	mg/kg		190	2,500			0.41	U			0.37	U	0.42	U	0.41	U			0.45	U	0.41	U	--							
bis(2-Chloroethyl)ether	mg/kg		0.23	1			0.41	U			0.37	U	0.42	U	0.41	U			0.45	U	0.41	U	--							
bis(2-Chloroisopropyl)ether	mg/kg		3,100	47,000	2,804	36,274	0.41	U			0.37	U	0.42	U	0.41	U			0.45	U	0.41	U	--							
bis(2-Ethylhexyl)phthalate	mg/kg		39	160	20	120	0.41	U			0.37	U	0.42	U	0.41	U			0.45	U	0.41	U	--							
Butyl benzyl phthalate	mg/kg						0.41	U			0.37	U	0.42	U	0.41	U			0.45	U	0.41	U	--							
Carbazole	mg/kg						0.21	U			0.19	U	0.21	U	0.2	U			0.22	U	0.21	U	--							
Dibenzofuran	mg/kg		78	1,200			0.41	U			0.37	U	0.42	U	0.41	U			0.45	U	0.41	U	--							
Diethylphthalate	mg/kg		51,000	660,000			0.41	U			0.37	U	0.42	U	0.41	U			0.45	U	0.41	U	--							
Dimethyl phthalate	mg/kg						0.41	U			0.37	U	0.42	U	0.41	U			0.45	U	0.41	U	--							
Di-n-butyl phthalate	mg/kg						0.41	U			0.37	U	0.42	U	0.41	U			0.45	U	0.41	U	--							
Di-n-octyl phthalate	mg/kg						0.41	U			0.37	U	0.42	U	0.41	U			0.45	U	0.41	U	--							
Hexachlorobenzene	mg/kg		0.21	0.96	0.13	0.69	0.41	U			0.37	U	0.42	U	0.41	U			0.45	U	0.41	U	--							
Hexachlorobutadiene	mg/kg		1.2	5.3			0.41	U			0.37	U	0.42	U	0.41	U			0.45	U	0.41	U	--							
Hexachlorocyclopentadiene	mg/kg		1.8	7.5			0.41	U			0.37	U	0.42	U	0.41	U			0.45	U	0.41	U	--							
Hexachloroethane	mg/kg		1.8	8			0.41	U			0.37	U	0.42	U	0.41	U			0.45	U	0.41	U	--							
Isophorone	mg/kg		570	2,400			0.41	U			0.37	U	0.42	U	0.41	U			0.45	U	0.41	U	--							
Nitrobenzene	mg/kg		5.1	22			0.41	U			0.37	U	0.42	U	0.41	U			0.45	U	0.41	U	--							
N-Nitrosodimethylamine	mg/kg		0.002	0.034			0.41	U			0.37	U	0.42	U	0.41	U			0.45	U	0.41	U	--							
N-Nitrosodi-n-propylamine	mg/kg		0.078	0.33			0.41	U			0.37	U	0.42	U	0.41	U			0.45	U	0.41	U	--							
N-Nitrosodiphenylamine	mg/kg		110	470			0.41	U			0.37	U	0.42	U	0.41	U			0.45	U	0.41	U	--							
Pentachloronitrobenzene	mg/kg		2.7	13			0.41	U			0.37	U	0.42	U	0.41	U			0.45	U	0.41	U	--							
Pentachlorophenol	mg/kg		1	4	0.48	2.9	0.41	U			0.37	U	0.42	U	0.41	U			0.45	U	0.41	U	--							
Phenol	mg/kg		19,000	250,000			0.41	U			0.37	U	0.42	U	0.41	U			0.45	U	0.41	U	--							
Pyridine	mg/kg		78	1,200			0.41	U			0.37	U	0.42	U	0.41	U			0.45	U	0.41	U	--							
Polycyclic Aromatic Hydrocarbons (PAHs)-8270																														
2-Methylnaphthalene	mg/kg		240	3,000			0.04	U			**0.047**		0.21	U	0.039	U			0.044	U	0.04	U	--							
Acenaphthene	mg/kg		3,600	45,000			0.01	U			**0.018**		0.21	U	0.01	U			**0.019**		**0.03**		45%							
Acenaphthylene	mg/kg						**0.041**				**0.25**		0.21	U	0.01	U			**0.13**		**0.13**		0%							
Anthracene	mg/kg		18,000	230,000			**0.042**				**0.13**		0.21	U	0.008	U			**0.1**		**0.12**		18%							
Benzo(g,h,i)perylene	mg/kg						**0.13**				**0.5**		0.21	U	0.019	U			**0.25**		**0.3**		18%							
Fluoranthene	mg/kg		2,400	30,000	2,301	26,371	**0.39**				**0.98**		0.21	U	0.019	U			**0.52**		**0.96**		59%							
Fluorene	mg/kg		2,400	30,000	2,301	26,371	0.04	U			0.036	U	0.21	U	0.039	U			0.044	U	**0.055**		--							
Naphthalene	mg/kg		2	8.6	2.7	16	0.04	U			**0.046**		0.21	U	0.039	U			0.044	U	**0.052**		--							
Phenanthrene	mg/kg						**0.19**				**0.27**		0.21	U	0.01	U			**0.29**		**0.69**		82%							
Pyrene	mg/kg		1,800	23,000			**0.36**				**0.9**		0.21	U	0.039	U			**0.56**		**0.82**		38%							
Benz(a)anthracene	mg/kg	0.1					**0.19**				**0.52**		0.21	U	0.002	U			**0.23**		**0.37**		47%							
Benzo(a)pyrene	mg/kg	1	0.11	2.1	0.58*	1.54	**0.21**				**0.55**		0.21	U	0.002	U			**0.36**		**0.33**		9%							
Benzo(b)fluoranthene	mg/kg	0.1	1.1	21			**0.26**				**0.84**		0.21	U	0.002	U			**0.42**		**0.6**		35%							
Benzo(k)fluoranthene	mg/kg	0.01	11	210			**0.099**				**0.28**		0.21	U	0.008	U			**0.16**		**0.22**		32%							
Chrysene	mg/kg	0.001	110	2,100			**0.22**				**0.67**		0.21	U	0.008	U			**0.35**		**0.53**		41%							
Dibenz(a,h)anthracene	mg/kg	1	0.11	2.1			**0.033**				**0.087**		0.21	U	0.002	U			**0.061**		**0.074**		19%							
Indeno(1,2,3-cd)pyrene	mg/kg	0.1	1.1	21			**0.15**				**0.54**		0.21	U	0.008	U			**0.26**		**0.32**		21%							
B(a)P-TE	mg/kg				0.58*	1.54	**0.304**				**0.87**		**0.2427**		**0.003**				**0.514**		**0.536**		4%							

TABLE 2
DISCRETE SOIL SAMPLE RESULTS
11 N MAIN STREET
NORTHFIELD, VERMONT

Parameter	Units	RPF	EPA RSL - Resident	EPA RSL - Industrial	VSS Resident	VSS Non-Resident	SB-1 (0-2) 9/6/2023		SB-1 (10) 9/6/2023		SB-2 (0-2) 9/6/2023		SB-2 (15) 9/6/2023		SB-3 (10-12) 9/6/2023		SB-3 (11) 9/6/2023		SB-4 (0-3) 9/6/2023		SB-4 (0-3) (DUP) 9/6/2023		RPD	SB-4 (7) 9/6/2023		SB-4 (7) (DUP-1) 9/6/2023		RPD	SB-5 (1) 9/6/2023	
							Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag		Result	Flag	Result	Flag		Result	Flag
Volatile Organic Compounds (VOCs)-8260																														
1,1,1,2-Tetrachloroethane	mg/kg		2	8.8	1.3	8			0.003	U			0.0015	U			0.002	U						0.002	U	0.0018	U	--	0.002	U
1,1,1-Trichloroethane	mg/kg		8,100	36,000					0.003	U			0.0015	U			0.002	U						0.002	U	0.0018	U	--	0.002	U
1,1,2,2-Tetrachloroethane	mg/kg		0.6	2.7					0.001	U			0.0008	U			0.001	U						0.001	U	0.0009	U	--	0.001	U
1,1,2-Trichloro-1,2,2-trifluoroethane	mg/kg		6,700	28,000					0.012	U			0.0077	U			0.011	U						0.011	U	0.0092	U	--	0.012	U
1,1,2-Trichloroethane	mg/kg		1.1	5					0.003	U			0.0015	U			0.002	U						0.002	U	0.0018	U	--	0.002	U
1,1-Dichloroethane	mg/kg		3.6	16	2.1	13			0.003	U			0.0015	U			0.002	U						0.002	U	0.0018	U	--	0.002	U
1,1-Dichloroethene	mg/kg		230	1,000					0.005	U			0.0031	U			0.004	U						0.005	U	0.0037	U	--	0.005	U
1,1-Dichloropropene	mg/kg								0.003	U			0.0015	U			0.002	U						0.002	U	0.0018	U	--	0.002	U
1,2,3-Trichlorobenzene	mg/kg		63	930					0.005	U			0.0031	U			0.004	U						0.005	U	0.0037	U	--	0.005	U
1,2,3-Trichloropropane	mg/kg		0.0051	0.11	0.00311	0.07			0.003	U			0.0015	U			0.002	U						0.002	U	0.0018	U	--	0.002	U
1,2,4-Trichlorobenzene	mg/kg		24	110					0.003	U			0.0015	U			0.002	U						0.002	U	0.0018	U	--	0.002	U
1,2-Dibromoethane	mg/kg		0.036	0.16	0.02	0.14			0.001	U			0.0008	U			0.001	U						0.001	U	0.0009	U	--	0.001	U
1,2-Dichlorobenzene	mg/kg		1,800	9,300					0.003	U			0.0015	U			0.002	U						0.002	U	0.0018	U	--	0.002	U
1,2-Dichloroethane	mg/kg		0.46	2	0.29	1.7			0.003	U			0.0015	U			0.002	U						0.002	U	0.0018	U	--	0.002	U
1,2-Dichloropropane	mg/kg		2.5	11	1.5	9.1			0.003	U			0.0015	U			0.002	U						0.002	U	0.0018	U	--	0.002	U
1,3,5-Trichlorobenzene	mg/kg								0.003	U			0.0015	U			0.002	U						0.002	U	0.0018	U	--	0.002	U
1,3-Dichlorobenzene	mg/kg								0.003	U			0.0015	U			0.002	U						0.002	U	0.0018	U	--	0.002	U
1,3-Dichloropropane	mg/kg		1,600	23,000					0.001	U			0.0008	U			0.001	U						0.001	U	0.0009	U	--	0.001	U
1,4-Dichlorobenzene	mg/kg		2.6	11					0.003	U			0.0015	U			0.002	U						0.002	U	0.0018	U	--	0.002	U
1,4-Dioxane	mg/kg		5.3	24	2.8	17			0.12	U			0.077	U			0.11	U						0.11	U	0.092	U	--	0.12	U
2,2-Dichloropropane	mg/kg								0.003	U			0.0015	U			0.002	U						0.002	U	0.0018	U	--	0.002	U
2-Chlorotoluene	mg/kg		1,600	23,000					0.003	U			0.0015	U			0.002	U						0.002	U	0.0018	U	--	0.002	U
2-Hexanone	mg/kg		200	1,300					0.025	U			0.015	U			0.021	U						0.022	U	0.018	U	--	0.023	U
4-Chlorotoluene	mg/kg		1,600	23,000					0.003	U			0.0015	U			0.002	U						0.002	U	0.0018	U	--	0.002	U
4-Methyl-2-pentanone	mg/kg		33,000	140,000					0.025	U			0.015	U			0.021	U						0.022	U	0.018	U	--	0.023	U
Acetone	mg/kg		61,000	670,000	40,609	100,028			0.12	U			0.077	U			0.11	U						0.11	U	0.092	U	--	0.12	U
Acrylonitrile	mg/kg		0.25	1.1					0.007	U			0.0046	U			0.006	U						0.007	U	0.0055	U	--	0.007	U
Benzene	mg/kg		1.2	5.1	0.7	4.2			0.003	U			0.0015	U			0.002	U						0.002	U	0.0018	U	--	0.002	U
Bromobenzene	mg/kg		290	1,800					0.003	U			0.0015	U			0.002	U						0.002	U	0.0018	U	--	0.002	U
Bromochloromethane	mg/kg		150	630	193	597			0.003	U			0.0015	U			0.002	U						0.002	U	0.0018	U	--	0.002	U
Bromodichloromethane	mg/kg		0.29	1.3					0.003	U			0.0015	U			0.002	U						0.002	U	0.0018	U	--	0.002	U
Bromoform	mg/kg		19	86					0.003	U			0.0015	U			0.002	U						0.002	U	0.0018	U	--	0.002	U
Bromomethane	mg/kg		6.8	30					0.012	U			0.0077	U			0.011	U						0.011	U	0.0092	U	--	0.012	U
Butylbenzene, n-	mg/kg		3,900	58,000	3,504	51,100			0.003	U			0.0015	U			0.002	U						0.002	U	0.0018	U	--	0.002	U
Butylbenzene, sec-	mg/kg		7,800	120,000	7,009	102,200			0.003	U			0.0015	U			0.002	U						0.002	U	0.0018	U	--	0.002	U
Butylbenzene, tert-	mg/kg		7,800	120,000	7,009	102,200			0.003	U			0.0015	U			0.002	U						0.002	U	0.0018	U	--	0.002	U
Carbon disulfide	mg/kg		770	3,500	608	662			0.012	U			0.0077	U			0.011	U						0.011	U	0.0092	U	--	0.012	U
Carbon tetrachloride	mg/kg		0.65	2.9	0.37	2.2			0.003	U			0.0015	U			0.002	U						0.002	U	0.0018	U	--	0.002	U
Chlorobenzene	mg/kg		280	1,300	414	726			0.003	U			0.0015	U			0.002	U						0.002	U	0.0018	U	--	0.002	U
Chloroethane	mg/kg		14,000	57,000					0.025	U			0.015	U			0.021	U						0.022	U	0.018	U	--	0.023	U
Chloroform	mg/kg		0.32	1.4					0.005	U			0.0031	U			0.004	U						0.005	U	0.0037	U	--	0.005	U
Chloromethane	mg/kg		110	460					0.012	U			0.0077	U			0.011	U						0.011	U	0.0092	U	--	0.012	U
cis-1,2-Dichloroethene	mg/kg		160	2,300	140	1,814			0.003	U			0.0015	U			0.002	U						0.002	U	0.0018	U	--	0.002	U
cis-1,3-Dichloropropene	mg/kg		1.8	8.2					0.001	U			0.0008	U			0.001	U						0.001	U	0.0009	U	--	0.001	U
Dibromo(chloro)methane	mg/kg								0.001	U			0.0008	U			0.001	U						0.001	U	0.0009	U	--	0.001	U
Dibromochloropropane	mg/kg		0.0053	0.064	0.01	0.06			0.003	U			0.0015	U			0.002	U						0.002	U	0.0018	U	--	0.002	U
Dibromomethane	mg/kg		24	99					0.003	U			0.0015	U			0.002	U						0.002	U	0.0018	U	--	0.002	U
Dichlorodifluoromethane	mg/kg		87	370					0.025	U			0.015	U			0.021	U						0.022	U	0.018	U	--	0.023	U
Diethyl Ether	mg/kg		16,000	230,000					0.025	U			0.015	U			0.021	U						0.022	U	0.018	U	--	0.023	U
Diisopropyl Ether	mg/kg		2,200	9,400					0.001	U			0.0008	U			0.001	U						0.001	U	0.0009	U	--	0.001	U
Ethylbenzene	mg/kg		5.8	25	3.7	22			0.003	U			0.0015	U			0.002	U						0.002	U	0.0018	U	--	0.002	U
Hexachlorobutadiene	mg/kg		1.2	5.3					0.003	U			0.0015	U			0.002	U						0.002	U	0.0018	U	--	0.002	U
Isopropylbenzene	mg/kg		1,900	9,900	256	264			0.003	U			0.0015	U			0.002	U						0.002	U	0.0018	U	--	0.002	U
Methyl Acetate	mg/kg		78,000	1,200,000					0.003	U			0.0015	U			0.002	U						0.002	U	0.0018	U	--	0.002	U
Methyl ethyl ketone (MEK)	mg/kg		27,000	190,000	16,952	26,991			0.049	U			0.031	U			0.042	U						0.045	U	0.037	U	--	0.047	U
Methyl tert butyl ether (MTBE)	mg/kg		47	210	649	4,464			0.005	U			0.0031	U			0.004	U						0.005	U	0.0037	U	--	0.005	U
Methylcyclohexane	mg/kg								0.003	U			0.0015	U			0.002	U						0.002	U	0.0018	U	--	0.002	U
Methylene chloride	mg/kg		57	1,000					0.025	U			0.015	U			0.021	U						0.022	U	0.018	U	--	0.023	U
Naphthalene	mg/kg		2	8.6	2.7	16			0.012	U			0.0077	U			0.011	U						0.011	U	0.0092	U	--	0.012	U
n-Propyl benzene	mg/kg		3,800	24,000	253	261			0.003	U			0.0015	U			0.002	U						0.002	U	0.0018	U	--	0.002	U
p-Isopropyltoluene	mg/kg								0.003	U			0.0015	U			0.002	U						0.002	U	0.0018	U	--	0.002	U
Styrene	mg/kg		6,000	35,000					0.003	U			0.0015	U			0.002	U						0.002	U	0.0018	U	--	0.002	U
tert-Amyl Methyl Ether (TAME)	mg/kg								0.001	U			0.0008	U			0.001	U						0.001	U	0.0009	U	--	0.001	U
tert-Butyl Alcohol (TBA)	mg/kg								0.12	U			0.077	U			0.11	U						0.11	U	0.092	U	--	0.12	U
tert-Butyl Ethyl Ether	mg/kg								0.001	U			0.0008	U			0.001	U						0.001	U	0.0009	U	--	0.001	U
Tetrachloroethene	mg/kg		24	100	2.4	14			0.003	U			0.0015	U			0.002	U						0.002	U	0.0018	U	--	0.002	U
Tetrahydrofuran	mg/kg		18,000	95,000					0.012	U			0.0077	U			0.011	U						0.011	U	0.0092	U	--	0.012	U
Toluene	mg/kg		4,900	47,000	706	798			0.003	U			0.0015	U			0.002	U						0.002	U	0.0018	U	--	0.002	U
trans-1,2-Dichloroethene	mg/kg		70	300	1,402	18,137			0.003	U			0.0015	U			0.002	U						0.002	U	0.0018	U	--	0.002	U
trans-1,3-Dichloropropene	mg/kg		1.8	8.2					0.001	U			0.0008	U			0.001	U						0.001	U	0.0009	U	--	0.001	U
trans-1,4-Dichloro-2-butene	mg/kg		0.0074	0.032					0.005	U			0.0031	U			0.004	U						0.005	U	0.0037	U	--	0.005	U
Trichloroethene	mg/kg		0.94	6	0.68	6.5			0.003	U			0.0015	U			0.002	U						0.002	U	0.0018	U	--	0.002	U
Trichlorofluoromethane	mg/kg		23,000	350,000					0.012	U			0.0077	U			0.011	U						0.011	U	0.0092	U	--	0.012	U
Trimethylbenzene, 1,2,4-	mg/kg		300	1,800					0.003	U			0.0015	U			0.002	U						0.002	U	0.0018	U	--	0.002	U
Trimethylbenzene, 1,3,5-	mg/kg		270	1,500					0.003	U			0.0015	U			0.002	U						0.002	U	0.0018	U	--	0.002	U
Vinyl Chloride	mg/kg		0.059	1.7	0.1	0.59			0.012	U			0.0077	U			0.011	U						0.011	U	0.0092	U	--	0.012	U
Xylene, m,p-	mg/kg		550	2,400					0.005	U			0.0031	U			0.004	U						0.005	U	0.0037	U	--	0.005	U
Xylene, o-	mg/kg		650	2,800					0.003	U			0.0015	U			0.002	U						0.002	U	0.0018	U	--	0.002	U
2540G																														
% Solids	% Weight						**82.4**		**78.3**		**91.7**		**80.6**		**83.9**		**75.5**		**76.1**		**82.2**		8%	**75**		**80**		6%	**79**	

Notes:

VSS	Vermont Soil Standard (July 6, 2019)
EPA RSL	Environmental Protection Agency Regional Screening Level (November 2020)
RPF	Relative potency factor
B(a)P-TE	Benzo(a)pyrene toxic equivalents
*	Urban Background Value for B(a)P-TE
--	No comparison because analytes were not detected above laboratory reporting limits
RPD	Relative Percent Difference between the sample result and the blind field duplicate result
mg/kg	milligrams per kilogram
U	not detected above laboratory reporting limit
Y	calculated value
Bold	Detected above laboratory reporting limit
Bold	Exceedance of EPA RSL - Resident and/or of VSS - Resident
Bold	Exceedance of EPA RSL - Industrial and/or of VSS - Non-Resident

\\wse03.local\WSE\Projects\VT\CVRPC\11 North Main Street Northfield\2. Deliverables\2023 Phase II ESA\Tables\[Northfield ISM.xlsx]Results

TABLE 3
GROUNDWATER RESULTS
11 N MAIN STREET
NORTHFIELD, VERMONT

Parameter	Units	VGES	GW-1		GW-2		GW-3		GW-4		GW-4 (DUP-2)		RPD	GW-5	
			9/6/2023		9/6/2023		9/6/2023		9/6/2023		9/6/2023			9/6/2023	
			Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag		Result	Flag
Volatile Organic Compounds (VOCs)-8260															
1,1,1,2-Tetrachloroethane	ug/l	70	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	--	1.0	U
1,1,1-Trichloroethane	ug/l	200	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	--	1.0	U
1,1,2,2-Tetrachloroethane	ug/l		0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	--	0.50	U
1,1,2-Trichloro-1,2,2-trifluoroethane	ug/l		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	--	1.0	U
1,1,2-Trichloroethane	ug/l	5	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	--	1.0	U
1,1-Dichloroethane	ug/l	70	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	--	1.0	U
1,1-Dichloroethene	ug/l	7	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	--	1.0	U
1,1-Dichloropropene	ug/l		2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	--	2.0	U
1,2,3-Trichlorobenzene	ug/l	0.9	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	--	5.0	U
1,2,3-Trichloropropane	ug/l	0.02	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	--	2.0	U
1,2,4-Trichlorobenzene	ug/l	70	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	--	1.0	U
1,2-Dibromoethane	ug/l	0.05	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	--	0.50	U
1,2-Dichlorobenzene	ug/l	600	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	--	1.0	U
1,2-Dichloroethane	ug/l	5	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	--	1.0	U
1,2-Dichloropropane	ug/l	5	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	--	1.0	U
1,3,5-Trichlorobenzene	ug/l		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	--	1.0	U
1,3-Dichlorobenzene	ug/l	600	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	--	1.0	U
1,3-Dichloropropane	ug/l		0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	--	0.50	U
1,4-Dichlorobenzene	ug/l	75	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	--	1.0	U
1,4-Dioxane	ug/l	0.3	50	U	50	U	50	U	50	U	50	U	--	50	U
2,2-Dichloropropane	ug/l		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	--	1.0	U
2-Chlorotoluene	ug/l		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	--	1.0	U
2-Hexanone	ug/l		10	U	10	U	10	U	10	U	10	U	--	10	U
4-Chlorotoluene	ug/l		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	--	1.0	U
4-Methyl-2-pentanone	ug/l		10.0	U	10.0	U	10.0	U	10.0	U	10.0	U	--	10.0	U
Acetone	ug/l	950	50	U	50	U	**64**		50	U	50	U	--	50	U
Acrylonitrile	ug/l		5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	--	5.0	U
Benzene	ug/l	5	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	--	1.0	U
Bromobenzene	ug/l		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	--	1.0	U
Bromochloromethane	ug/l	8	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	--	1.0	U
Bromodichloromethane	ug/l		0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	--	0.50	U
Bromoform	ug/l		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	--	1.0	U
Bromomethane	ug/l	5	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	--	2.0	U
Butylbenzene, n-	ug/l		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	--	1.0	U
Butylbenzene, sec-	ug/l		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	--	1.0	U
Butylbenzene, tert-	ug/l		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	--	1.0	U
Carbon disulfide	ug/l		5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	--	5.0	U
Carbon tetrachloride	ug/l	5	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	--	5.0	U
Chlorobenzene	ug/l	100	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	--	1.0	U
Chloroethane	ug/l		2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	--	2.0	U
Chloroform	ug/l		2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	--	2.0	U
Chloromethane	ug/l		2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	--	2.0	U
cis-1,2-Dichloroethene	ug/l	70	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	--	1.0	U
cis-1,3-Dichloropropene	ug/l		0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	--	0.50	U
Dibromo(chloro)methane	ug/l		0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	--	0.50	U
Dibromochloropropane	ug/l	0.2	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	--	5.0	U
Dibromomethane	ug/l		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	--	1.0	U
Dichlorodifluoromethane	ug/l		2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	--	2.0	U
Diethyl Ether	ug/l		2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	--	2.0	U
Diisopropyl Ether	ug/l		0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	--	0.50	U

TABLE 3
GROUNDWATER RESULTS
11 N MAIN STREET
NORTHFIELD, VERMONT

Parameter	Units	VGES	GW-1		GW-2		GW-3		GW-4		GW-4 (DUP-2)		RPD	GW-5	
			9/6/2023		9/6/2023		9/6/2023		9/6/2023		9/6/2023			9/6/2023	
			Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag		Result	Flag
Volatile Organic Compounds (VOCs)-8260															
Ethylbenzene	ug/l	700	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	--	1.0	U
Hexachlorobutadiene	ug/l		0.60	U	0.60	U	0.60	U	0.60	U	0.60	U	--	0.60	U
Isopropylbenzene	ug/l		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	--	1.0	U
Methyl Acetate	ug/l		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	--	1.0	U
Methyl ethyl ketone (MEK)	ug/l	511	20	U	20	U	20	U	20	U	20	U	--	20	U
Methyl tert butyl ether (MTBE)	ug/l	11	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	--	1.0	U
Methylcyclohexane	ug/l		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	--	1.0	U
Methylene chloride	ug/l	5	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	--	5.0	U
Naphthalene	ug/l	0.5	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	--	2.0	U
n-Propyl benzene	ug/l		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	--	1.0	U
p-Isopropyltoluene	ug/l		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	--	1.0	U
Styrene	ug/l	100	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	--	1.0	U
tert-Amyl Methyl Ether (TAME)	ug/l		0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	--	0.50	U
tert-Butyl Alcohol (TBA)	ug/l		20	U	20	U	20	U	20	U	20	U	--	20	U
tert-Butyl Ethyl Ether	ug/l		0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	--	0.50	U
Tetrachloroethene	ug/l	5	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	--	1.0	U
Tetrahydrofuran	ug/l		10	U	10	U	10	U	10	U	10	U	--	10	U
Toluene	ug/l	1,000	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	--	1.0	U
trans-1,2-Dichloroethene	ug/l	100	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	--	1.0	U
trans-1,3-Dichloropropene	ug/l		0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	--	0.50	U
trans-1,4-Dichloro-2-butene	ug/l		2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	--	2.0	U
Trichloroethene	ug/l	5	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	--	1.0	U
Trichlorofluoromethane	ug/l		2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	--	2.0	U
Trimethylbenzene, 1,2,4-	ug/l		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	--	1.0	U
Trimethylbenzene, 1,3,5-	ug/l		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	--	1.0	U
Vinyl Chloride	ug/l	2	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	--	2.0	U
Xylene, m,p-	ug/l		2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	--	2.0	U
Xylene, o-	ug/l		1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	--	1.0	U

NOTES:

VGES	Groundwater: Vermont Groundwater Enforcement Standard (Groundwater Protection Rule; July 6, 2019)
--	No comparison because analytes were not detected above laboratory reporting limits
RPD	Relative Percent Difference between the sample result and the blind field duplicate result
ug/L	micrograms per liter
U	not detected above laboratory reporting limit
Bold	Detected above laboratory reporting limit
Bold	Exceedance of VGES

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SOIL GAS RESULTS
11 NORTH MAIN STREET
NORTHFIELD, VERMONT

Parameter	Units	VIS-SSG - Resident	VIS-SSG - Non-Resident	SG-1		SG-2		SG-2 (DUP-3)		RPD	SG-3		SG-4	
				9/7/2023		9/7/2023		9/7/2023			9/7/2023		9/7/2023	
				Result	Flag	Result	Flag	Result	Flag		Result	Flag	Result	Flag
Volatile Organic Compounds (VOCs) - TO-15														
1,1,1-Trichloroethane	ug/m3			1.1	U	**2.4**		**2.3**		4%	**1.7**		8.2	U
1,1,2,2-Tetrachloroethane	ug/m3			1.4	U	1.4	U	1.4	U	--	1.4	U	10	U
1,1,2-Trichloro-1,2,2-trifluoroethane	ug/m3			6.1	U	6.1	U	6.1	U	--	6.1	U	46	U
1,1,2-Trichloroethane	ug/m3			1.1	U	1.1	U	1.1	U	--	1.1	U	8.2	U
1,1-Dichloroethane	ug/m3	21	170	0.81	U	0.81	U	0.81	U	--	0.81	U	6.1	U
1,1-Dichloroethene	ug/m3	6,700	23,000	0.79	U	0.79	U	0.79	U	--	0.79	U	5.9	U
1,2,4-Trichlorobenzene	ug/m3			1.5	U	1.5	U	1.5	U	--	1.5	U	11	U
1,2-Dibromoethane	ug/m3			1.5	U	1.5	U	1.5	U	--	1.5	U	12	U
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ug/m3			1.4	U	1.4	U	1.4	U	--	1.4	U	10	U
1,2-Dichlorobenzene	ug/m3			1.2	U	1.2	U	1.2	U	--	1.2	U	9	U
1,2-Dichloroethane	ug/m3			0.81	U	0.81	U	0.81	U	--	0.81	U	6.1	U
1,2-Dichloropropane	ug/m3			0.92	U	0.92	U	0.92	U	--	0.92	U	6.9	U
1,3-Butadiene	ug/m3			0.44	U	0.44	U	0.44	U	--	0.44	U	3.3	U
1,3-Dichlorobenzene	ug/m3			1.2	U	1.2	U	1.2	U	--	1.2	U	9	U
1,4-Dichlorobenzene	ug/m3			1.2	U	1.2	U	1.2	U	--	1.2	U	9	U
1,4-Dioxane	ug/m3			7.2	U	7.2	U	7.2	U	--	7.2	U	54	U
2-Hexanone	ug/m3			3.3	U	**5.1**		**4.9**		4%	**3.3**		25	U
4-Ethyltoluene	ug/m3			0.98	U	0.98	U	0.98	U	--	0.98	U	7.4	U
4-Methyl-2-pentanone	ug/m3			0.82	U	0.82	U	0.82	U	--	0.82	U	6.1	U
Acetone	ug/m3			**280**		**900**		**870**		3%	**600**		140	U
Benzene	ug/m3	4.3	35	**0.69**		**5.8**		**5.7**		2%	**14**		**47**	
Benzyl chloride	ug/m3			4.1	U	4.1	U	4.1	U	--	4.1	U	31	U
Bromodichloromethane	ug/m3			1.3	U	1.3	U	1.3	U	--	1.3	U	10	U
Bromoform	ug/m3			2.1	U	2.1	U	2.1	U	--	2.1	U	16	U
Bromomethane	ug/m3			0.78	U	0.78	U	0.78	U	--	0.78	U	5.8	U
Carbon disulfide	ug/m3			6.2	U	6.2	U	6.2	U	--	6.2	U	47	U
Carbon tetrachloride	ug/m3	5.7	45	1.3	U	1.3	U	1.3	U	--	1.3	U	**12**	
Chlorobenzene	ug/m3			0.92	U	0.92	U	0.92	U	--	0.92	U	6.9	U
Chloroethane	ug/m3	330,000	1,200,000	0.53	U	0.53	U	0.53	U	--	0.53	U	4	U
Chloroform	ug/m3	1.3	12	0.98	U	0.98	U	0.98	U	--	0.98	U	7.3	U
Chloromethane	ug/m3			**0.98**		0.83	U	0.83	U	--	**1.0**		6.2	U
cis-1,2-Dichloroethene	ug/m3			0.79	U	0.79	U	0.79	U	--	0.79	U	5.9	U
cis-1,3-Dichloropropene	ug/m3			0.91	U	0.91	U	0.91	U	--	0.91	U	6.8	U
Cyclohexane	ug/m3			0.69	U	0.69	U	0.69	U	--	**24**		5.2	U
Dibromo(chloro)methane	ug/m3			1.7	U	1.7	U	1.7	U	--	1.7	U	13	U
Dichlorodifluoromethane	ug/m3			**2.6**		**5.4**		**5.4**		0%	**3.3**		7.4	U
Ethanol	ug/m3			15	U	15	U	15	U	--	15	U	110	U
Ethyl acetate	ug/m3			7.2	U	7.2	U	7.2	U	--	7.2	U	54	U
Ethylbenzene	ug/m3	13	110	0.87	U	0.87	U	0.87	U	--	**4.6**		**14**	
Heptane	ug/m3			0.82	U	**7.6**		**7.8**		3%	**5.1**		**9,500**	
Hexachlorobutadiene	ug/m3			2.1	U	2.1	U	2.1	U	--	2.1	U	16	U
Hexane	ug/m3			28	U	28	U	28	U	--	28	U	**15,000**	
Isopropanol	ug/m3			20	U	20	U	20	U	--	20	U	150	U
Methyl ethyl ketone (MEK)	ug/m3			**26**		**28**		**29**		4%	24	U	180	U
Methyl tert butyl ether (MTBE)	ug/m3			0.72	U	0.72	U	0.72	U	--	0.72	U	5.4	U
Methylene chloride	ug/m3	2,000	27,000	6.9	U	6.9	U	6.9	U	--	6.9	U	52	U
Naphthalene	ug/m3	1	8	1.0	U	1.0	U	1.0	U	--	1.0	U	7.9	U
Propene	ug/m3			14	U	14	U	14	U	--	14	U	100	U
Styrene	ug/m3			0.85	U	**1.7**		**1.7**		0%	**1.2**		6.4	U
Tetrachloroethene	ug/m3	21	170	1.4	U	**110**		**110**		0%	**27**		10	U
Tetrahydrofuran	ug/m3			5.9	U	5.9	U	5.9	U	--	5.9	U	44	U
Toluene	ug/m3			**0.95**		**3.4**		**3.4**		0%	**30**		**35**	
trans-1,2-Dichloroethene	ug/m3			0.79	U	0.79	U	0.79	U	--	0.79	U	5.9	U
trans-1,3-Dichloropropene	ug/m3			0.91	U	0.91	U	0.91	U	--	0.91	U	6.8	U
Trichloroethene	ug/m3	6.7	23	1.1	U	1.1	U	1.1	U	--	1.1	U	8.1	U
Trichlorofluoromethane	ug/m3			4.5	U	4.5	U	4.5	U	--	4.5	U	34	U
Trimethylbenzene, 1,2,4-	ug/m3			0.98	U	**2.6**		**2.6**		0%	**2.3**		7.4	U
Trimethylbenzene, 1,3,5-	ug/m3			0.98	U	0.98	U	0.98	U	--	0.98	U	7.4	U
Vinyl Acetate	ug/m3			14	U	**18**		**18**		0%	**22**		**5,200**	
Vinyl Chloride	ug/m3	3.7	62	0.51	U	0.51	U	0.51	U	--	0.51	U	3.8	U
Xylene, m,p-	ug/m3			1.7	U	1.7	U	1.7	U	--	**7.8**		13	U
Xylene, o-	ug/m3			0.87	U	0.87	U	0.87	U	--	**7.7**		**6.8**	

NOTES:

VIS - SSG	Vapor Intrusion Standards - Subslab Soil Gas (I-Rule, July 6, 2019)
--	No comparison because analytes were not detected above laboratory reporting limits
RPD	Relative Percent Difference between the sample result and the blind field duplicate result
ug/m3	micrograms per cubic meter
U	not detected above laboratory reporting limit
Bold	Detected above laboratory reporting limit
Bold	Exceedance of VIS - SSG (Resident)
Bold	Exceedance of VIS - SSG (Non-Resident)

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APPENDIX A

Weston & Sampson℠

PROJECT: 11 North Main Street

REPORT OF BORING No.

SHEET 1 OF 6

Project No. ENG23-0862

CHKD BY

BORING Co. Platform Inc.

BORING Co Rep. Mike Jordan

WSE Rep.: DPS & TDS

BORING LOCATION GW-1/SB-1

GROUND SURFACE ELEV. DATUM

DATE START 9/6/23 DATE END 9/6/23

Drill Rig: Geoprobe 7822DT

Sampler:

CASING:

CASING SIZE: 2.25 x 5 in Method Continuous

GROUNDWATER READINGS

DATE	TIME	WATER AT	CASING AT	STABILIZATION TIME

DEPTH (feet)	CASING (lb/ft)	SAMPLE No.	PEN/REC (in)	DEPTH (ft)	BLOWS/6"	PID (ppm)	SAMPLE DESCRIPTION	NOTES	STRATUM DESCRIPTION
0			34.5/60	0-5		0	0-2 in: Grey Gravel, dry 2 in-2.5 ft: Dark Brown medium-course SAND, some gravel, dry		All Fill
						0.1	2.5-5 ft: Light Brown fine SAND, iron mottling, moist		Native
5			51/60	5-10		0.1	5-8 ft: Grey very fine SAND, iron mottling, wet		
						0.0	8-9.5 ft: Grey medium SAND, some gravel, pieces of schist, dry		
10			28/60	10-12.3		0.0	9.5-11.5 ft: Brown fine SAND, iron mottling, wet 11.5-12.3: Weathered Bedrock		
15									
20									
25									
30									

GRANULAR SOILS		COHESIVE SOILS	
BLOWS/FT	DENSITY	BLOWS/FT	DENSITY
0-4	V. LOOSE	0-2	V. SOFT
4-10	LOOSE	2-4	SOFT
10-30	M. DENSE	4-8	M. STIFF
30-50	DENSE	8-15	STIFF
> 50	V. DENSE	15-30	V. STIFF
		> 30	HARD

REMARKS:

Refusal @ 12.3

NOTES:

Sample for SVOCs, PCBs, Metals: SB-1 (0-2) @ 830

Sample for VOCs: SB-1 (10) @ 845

BORING No.

\\wse03.local\WSE\Projects\VT\CVRPC\11 North Main Street Northfield\5. Field Documentation\[Boring Logs.xls]SB-1

Weston & Sampson℠

PROJECT: 11 North Main Street

REPORT OF BORING No.

SHEET 3 OF 6

Project No. ENG23-0862

CHKD BY

BORING Co. Platform Inc.

BORING Co Rep. Mike Jordan

WSE Rep.: DPS & TDS

BORING LOCATION GW-2

GROUND SURFACE ELEV. DATUM

DATE START 9/6/23 DATE END 9/6/23

Drill Rig: Geoprobe 7822DT

Sampler:

CASING:

CASING SIZE: 2.25 x 5 in Method Continuous

GROUNDWATER READINGS

DATE	TIME	WATER AT	CASING AT	STABILIZATION TIME

DEPTH (feet)	CASING (lb/ft)	SAMPLE No.	SAMPLE PEN/REC (in)	SAMPLE DEPTH (ft)	SAMPLE BLOWS/6"	PID (ppm)	SAMPLE DESCRIPTION	NOTES	STRATUM DESCRIPTION
0			29/60	0-5		0.0	0-2.5 ft: Brown fine-course SAND, some gravel, iron mottling, dry		Reworked Native
						0.0	2.5 - 7 ft: Light Brown fine- course SAND, some gravel, dry		
5			45/60	5-10		0.1			
							7-13 ft: Brown fine SAND, moist		Native
10			27/60	10-15		0.0			
							13-15 ft: Brown fine-course SAND, some gravel, crushed stone, wet		
15			20/60	15-20		0.0	15-19 ft: Brown SAND and gravel, rounded river stones, wet		
							19-20 ft: Brown fine SAND, wet		
20									
25									
30									

GRANULAR SOILS		COHESIVE SOILS	
BLOWS/FT	DENSITY	BLOWS/FT	DENSITY
0-4	V. LOOSE	0-2	V. SOFT
4-10	LOOSE	2-4	SOFT
10-30	M. DENSE	4-8	M. STIFF
30-50	DENSE	8-15	STIFF
> 50	V. DENSE	15-30	V. STIFF
		> 30	HARD

REMARKS:

EOB @ 20

NOTES:

BORING No.

Weston & Sampson℠

PROJECT: 11 North Main Street

REPORT OF BORING No.

SHEET 2 OF 6

Project No. ENG23-0862

CHKD BY

BORING Co.	Platform Inc.	BORING LOCATION	SB-2
BORING Co Rep.	Mike Jordan	GROUND SURFACE ELEV.	DATUM
WSE Rep.:	DPS & TDS	DATE START 9/6/23	DATE END 9/6/23

Drill Rig: Geoprobe 7822DT
Sampler:
CASING:
CASING SIZE: 2.25 x 5 in Method Continuous

GROUNDWATER READINGS

DATE	TIME	WATER AT	CASING AT	STABILIZATION TIME

DEPTH (feet)	CASING (lb/ft)	SAMPLE No.	SAMPLE PEN/REC (in)	SAMPLE DEPTH (ft)	SAMPLE BLOWS/6"	PID (ppm)	SAMPLE DESCRIPTION	NOTES	STRATUM DESCRIPTION
0			44/60	0-5		1.4*	0-1 ft: Brown medium-course SAND, some gravel, dry 1-4 ft: Light Brown medium-course SAND, gravel, fractured rock, changes to grey, dry 4-5.5 ft: Dark colored Schist, fractured		Fill
5			36/40	5-10		0.4	5.5-7 ft: Brown medium SAND, fractured schist 7-11 ft: Brown fine SAND, moist		Native
10			39/60	10-15		0.2			
15			33/60	15-20		0.4	11-20 ft: Brown fine SAND, some gravel/fractured rock, wet		
20									
25									
30									

GRANULAR SOILS		COHESIVE SOILS	
BLOWS/FT	DENSITY	BLOWS/FT	DENSITY
0-4	V. LOOSE	0-2	V. SOFT
4-10	LOOSE	2-4	SOFT
10-30	M. DENSE	4-8	M. STIFF
30-50	DENSE	8-15	STIFF
> 50	V. DENSE	15-30	V. STIFF
		> 30	HARD

REMARKS:

EOB @ 20 ft

0.1 Ambient PID

NOTES:

Sample for SVOCs, PCBs, Metals: SB-2 (0-2) @ 950
Sample for VOCs: SB-2 (15) @ 945
* - No Sample taken, shallow core sat in sun, volatiles likely gone

BORING No.

Weston & Sampson℠

PROJECT: 11 North Main Street

REPORT OF BORING No. SB-3

SHEET 4 OF 6

Project No. ENG23-0862

CHKD BY

BORING Co. Platform Inc.

BORING Co Rep. Mike Jordan

WSE Rep.: DPS & TDS

BORING LOCATION GW-3/SB-3

GROUND SURFACE ELEV. DATUM

DATE START 9/6/23 DATE END 9/6/23

Drill Rig: Geoprobe 7822DT

Sampler:

CASING:

CASING SIZE: 2.25 x 5 in Method Continuous

GROUNDWATER READINGS

DATE	TIME	WATER AT	CASING AT	STABILIZATION TIME

DEPTH (feet)	CASING (lb/ft)	SAMPLE No.	SAMPLE PEN/REC (in)	SAMPLE DEPTH (ft)	SAMPLE BLOWS/6"	PID (ppm)	SAMPLE DESCRIPTION	NOTES	STRATUM DESCRIPTION
0			45/60	0-5		0.0	0-4.5 ft: Brown medium sand, iron mottling, color transition to grey @ 3ft, some gravel, dry		Reworked Native
							4.5-5.5 ft: Brown fine to medium SAND		
5			30/60	5-10		0.0	5.5-9 ft: Brown fine to medium SAND, iron mottling, gravel, moist		
10			29/60	10-12.8		0.0	9-12.8 ft: Brown very fine SAND, wet		Native
15									
20									
25									
30									

GRANULAR SOILS		COHESIVE SOILS	
BLOWS/FT	DENSITY	BLOWS/FT	DENSITY
0-4	V. LOOSE	0-2	V. SOFT
4-10	LOOSE	2-4	SOFT
10-30	M. DENSE	4-8	M. STIFF
30-50	DENSE	8-15	STIFF
> 50	V. DENSE	15-30	V. STIFF
		> 30	HARD

REMARKS:

Refusal @ 12.8

NOTES:

Sample for SVOCs, PCBs, Metals: SB-3 (10-12) @ 1145, undisturbed native soils

Sample for VOCs: SB-3 (11) @ 1130

BORING No. SB-3

Weston & Sampson℠

PROJECT	REPORT OF BORING No.	SB-4
11 North Main Street	SHEET 5 OF 6	
	Project No.	ENG23-0862
	CHKD BY	

BORING Co.	Platform Inc.	BORING LOCATION	GW-4/SB-4
BORING Co Rep.	Mike Jordan	GROUND SURFACE ELEV.	DATUM
WSE Rep.:	DPS & TDS	DATE START 9/6/23	DATE END 9/6/23

Drill Rig: Geoprobe 7822DT
Sampler:
CASING:
CASING SIZE: 2.25 x 5 in Method Continuous

GROUNDWATER READINGS

DATE	TIME	WATER AT	CASING AT	STABILIZATION TIME

DEPTH (feet)	CASING (lb/ft)	SAMPLE No.	SAMPLE PEN/REC (in)	SAMPLE DEPTH (ft)	SAMPLE BLOWS/6"	PID (ppm)	SAMPLE DESCRIPTION	NOTES	STRATUM DESCRIPTION
0			40/60	0-5			0-2 ft: Grey course SAND, gravel (0-4 in topsoil), dry 2-3 ft: Dark brown fine SAND, organics, glass and granite pieces		Fill
5			40/60	5-8			3-8 ft: Brown fine SAND some grey, wet		Native
10									
15									
20									
25									
30									

GRANULAR SOILS		COHESIVE SOILS	
BLOWS/FT	DENSITY	BLOWS/FT	DENSITY
0-4	V. LOOSE	0-2	V. SOFT
4-10	LOOSE	2-4	SOFT
10-30	M. DENSE	4-8	M. STIFF
30-50	DENSE	8-15	STIFF
> 50	V. DENSE	15-30	V. STIFF
		> 30	HARD

REMARKS:

Refusal @ 8 ft

NOTES:

Sample for SVOCs, PCBs, Metals: SB-4 (0-3) @ 1310, undisturbed native soils, Dup taken
Sample for VOCs: SB-4 (7) @ 1320, Dup-1 taken
Hit refusal in multiple previous locations @ 2-5 ft no groundwater

BORING No. SB-4

Weston & Sampson℠

PROJECT: 11 North Main Street

REPORT OF BORING No. SB-5

SHEET 6 OF 6

Project No. ENG23-0862

CHKD BY

BORING Co. Platform Inc.

BORING Co Rep. Mike Jordan

WSE Rep.: DPS & TDS

BORING LOCATION GW-5/SB-5

GROUND SURFACE ELEV. DATUM

DATE START 9/6/23 DATE END 9/6/23

Drill Rig: Geoprobe 7822DT

Sampler:

CASING:

CASING SIZE: 2.25 x 5 in Method Continuous

GROUNDWATER READINGS

DATE	TIME	WATER AT	CASING AT	STABILIZATION TIME

DEPTH (feet)	CASING (lb/ft)	SAMPLE No.	SAMPLE PEN/REC (in)	SAMPLE DEPTH (ft)	SAMPLE BLOWS/6"	PID (ppm)	SAMPLE DESCRIPTION	NOTES	STRATUM DESCRIPTION
0			51/60	0-5		3	0-2 ft: Light brown fine SAND/SILT, dry (topsoil 0-2in)		Fill
						1.4	2-4 ft: Brown Fine SAND, some gravel, dry		
5			50/60	5-9		0.8	4-6.5 ft: Grey fine SAND, some silt, granite pieces, dry 6.5-7.5 ft:Brown fine SAND, moist 7.5-9 ft: Grey very fine SAND some silt, wet		Native
10									
15									
20									
25									
30									

GRANULAR SOILS		COHESIVE SOILS	
BLOWS/FT	DENSITY	BLOWS/FT	DENSITY
0-4	V. LOOSE	0-2	V. SOFT
4-10	LOOSE	2-4	SOFT
10-30	M. DENSE	4-8	M. STIFF
30-50	DENSE	8-15	STIFF
> 50	V. DENSE	15-30	V. STIFF
		> 30	HARD

REMARKS:

Refusal @ 9 ft

NOTES:

Additional Sample for VOCs taken due to evidence of contamination (PID hit): SB-4 (1) @ 1420

BORING No. SB-5

Generic Low Flow Purge Report

Record: 207	
Location	northfield
Date and Time On Site	2023-09-06 09:10:38
Total Cost of Equipment/Supplies Used ($)	
Date and Time Off Site	2023-09-06 16:30:05

Well Details	
Well ID	gw-1
Purge Water Final Conditions	clear
Total Purge Volume (include unit of measurement in reading)	2.5
Sample Collection Status	Yes
Sample Collected	vocs
Field Filtered	No
Sample Date and Time	2023-09-06 09:40:05

Purge Details	
Time	09:11:00
Flow	300
ORP	-138.3
Temp	16
SpC	371.8

DO	0.13
pH	6.88

Purge Details	
Time	09:16:00
Flow	200
ORP	-146.9
Temp	16.5
SpC	362.3
DO	0.14
pH	6.80

Purge Details	
Time	09:21:00
Flow	200
ORP	-146.7
Temp	16.4
SpC	360.9
DO	0.13
pH	6.77

Purge Details	
Time	09:26:00
Flow	200
ORP	-147.3
Temp	16.3
SpC	357.3
DO	0.12
pH	6.74

Purge Details	
Time	09:32:00
ORP	-145.4
Temp	16
SpC	351.8
DO	0.13
pH	6.68

Purge Details	
Time	09:37:00
ORP	141.6
Temp	16
SpC	350.1

DO	0.15
pH	6.62

Well Details	
Well ID	gw-2
Purge Water Final Conditions	cloudy
Sample Collection Status	Yes
Sample Collected	11:50
Field Filtered	No
Sample Date and Time	2023-09-06 11:50:43

Purge Details	
Time	11:21:00
Flow	200
ORP	-44.6
Temp	15.3
SpC	735
DO	0.35
pH	6.68

Purge Details	
Time	11:27:00
Flow	200
ORP	-65.5
Temp	15.1
SpC	735
DO	0.07
pH	6.69

Purge Details	
Time	11:37:00
Flow	200
ORP	-77.9
Temp	15.9
SpC	734
DO	0.05
pH	6.69

Purge Details	
Time	11:44:00
ORP	-82.4
Temp	15.9

SpC	732
DO	0.05
pH	6.70

Well Details	
Well ID	gw-3
Sample Collection Status	Yes
Sample Collected	12:30
Field Filtered	No
Sample Date and Time	2023-09-06 12:30:59
Notes	went dry immediately, allowed to recharge and sampled

Purge Details	
Time	12:23:00
ORP	-34.5
Temp	22.2
SpC	807
DO	3.11
pH	6.74

Well Details	
Well ID	gw-4
Purge Water Final Conditions	clear
Total Purge Volume (include unit of measurement in reading)	2 ga
Sample Collection Status	Yes
Sample Collected	vocs
Field Filtered	No
Sample Date and Time	2023-09-06 14:15:13
Notes	dup2 here

Purge Details	
Time	13:35:00
Flow	250
ORP	-135.5
Temp	20.4
SpC	1289
DO	0.31
pH	7.18

Purge Details	
Time	13:41:00
Flow	250
ORP	-143.8
Temp	20.1
SpC	1259
DO	0.14
pH	7.09

Purge Details	
Time	13:51:00
ORP	-140
Temp	19.9
SpC	1227
DO	0.18
pH	7.04

Purge Details	
Time	13:56:00
ORP	.139
Temp	19.6
SpC	1197

DO	0.14
pH	7.01

Purge Details	
Time	13:59:00
ORP	-136.9
Temp	19.5
SpC	1203
DO	0.15
pH	7.0

Purge Details	
Time	14:03:00
ORP	-134.2
Temp	19.2
SpC	1199
DO	0.16
pH	7.0

Well Details	
Well ID	gw-5
Purge Water Final Conditions	clear
Total Purge Volume (include unit of measurement in reading)	2 ga
Sample Collection Status	Yes
Sample Collected	vocs
Field Filtered	No
Sample Date and Time	2023-09-06 15:00:56

Purge Details	
Time	14:38:00
Flow	250
ORP	-45.3
Temp	17.7
SpC	511.6
DO	0.03
pH	6.72

Purge Details	
Time	14:42:00
ORP	-53.7
Temp	16.6

SpC	435.2
DO	0.04
pH	6.62

Purge Details	
Time	14:45:00
ORP	-53.5
Temp	16.3
SpC	420.3
DO	0.03
pH	6.6

Purge Details	
Time	14:48:00
ORP	-53.5
Temp	16.2
SpC	422.2
DO	0.05
pH	6.6

APPENDIX B

SELECTED SITE PHOTOGRAPHS
11 NORTH MAIN STREET
NORTHFIELD, VERMONT

Photo #1 Standing water observed in northern area of Site near foundation remnants.

Photo #2 Steep river embankment in east part of Site.

Photo #3 Compositing DU1 ISM replicate samples.

SELECTED SITE PHOTOGRAPHS
11 NORTH MAIN STREET
NORTHFIELD, VERMONT

Photo #4 Advancing soil boring SB-4 near foundation remnants.

Photo #5 Typical soil core logging and PID screening.

Photo #6 Typical groundwater sampling from screen points.

SELECTED SITE PHOTOGRAPHS
11 NORTH MAIN STREET
NORTHFIELD, VERMONT

Photo #7 Soil gas sampling at SG-3 using the Geoprobe® PRT system.

Photo #8 Apparent pit in former building slab filled with water.

APPENDIX C

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

September 29, 2023

Lee Rosberg
Weston & Sampson - Waterbury, VT
98 South Main Street
Waterbury, VT 05676

Project Location: 11 North Main St., Northfield, VT
Client Job Number:
Project Number: [none]
Laboratory Work Order Number: 23I0150

Enclosed are results of analyses for samples as received by the laboratory on September 1, 2023. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Rebecca Faust
Project Manager

Table of Contents

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

Weston & Sampson - Waterbury, VT
98 South Main Street
Waterbury, VT 05676
ATTN: Lee Rosberg

REPORT DATE: 9/29/2023

PURCHASE ORDER NUMBER:

PROJECT NUMBER: [none]

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 23I0150

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

PROJECT LOCATION: 11 North Main St., Northfield, VT

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
DU-1A	23I0150-01	Soil		SM 2540G	
				SW-846 6010D	
				SW-846 7471B	
				SW-846 8082A	
				SW-846 8270E	
DU-1B	23I0150-02	Soil		SM 2540G	
				SW-846 6010D	
				SW-846 7471B	
				SW-846 8082A	
				SW-846 8270E	
DU-1C	23I0150-03	Soil		SM 2540G	
				SW-846 6010D	
				SW-846 7471B	
				SW-846 8082A	
				SW-846 8270E	
DU-2A	23I0150-04	Soil		SM 2540G	
				SW-846 6010D	
				SW-846 7471B	
				SW-846 8082A	
				SW-846 8270E	
DU-2B	23I0150-05	Soil		SM 2540G	
				SW-846 6010D	
				SW-846 7471B	
				SW-846 8082A	
				SW-846 8270E	
DU-2C	23I0150-06	Soil		SM 2540G	
				SW-846 6010D	
				SW-846 7471B	
				SW-846 8082A	
				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.

REVISED REPORT - 9/29/23 - PAH SIM data units revised.

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

SW-846 6010D

Qualifications:

B

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

Analyte & Samples(s) Qualified:

Copper
23I0150-01[DU-1A], 23I0150-02[DU-1B], 23I0150-03[DU-1C], 23I0150-04[DU-2A], 23I0150-05[DU-2B], 23I0150-06[DU-2C], B351437-BS1, B351437-BSD1

B-07

Data is not affected by elevated level in laboratory blank since sample result is >10x level found in the blank.

Analyte & Samples(s) Qualified:

Copper
23I0150-01[DU-1A], 23I0150-02[DU-1B], 23I0150-03[DU-1C], 23I0150-04[DU-2A], 23I0150-05[DU-2B], 23I0150-06[DU-2C], B351437-BLK1

M-08

The interference check sample was outside of control limits. Data validation is not affected since the sample result is "not detected" and the bias is on the high side.

Analyte & Samples(s) Qualified:

Selenium
23I0150-01[DU-1A], 23I0150-02[DU-1B], 23I0150-03[DU-1C], 23I0150-04[DU-2A], 23I0150-05[DU-2B], 23I0150-06[DU-2C]

SW-846 8270E

Qualifications:

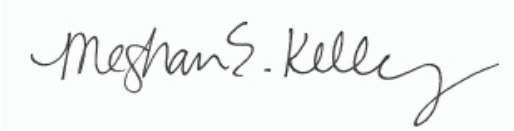
V-06

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

Analyte & Samples(s) Qualified:

p-Terphenyl-d14
23I0150-01[DU-1A], 23I0150-02[DU-1B], 23I0150-03[DU-1C], 23I0150-04[DU-2A], 23I0150-05[DU-2B], 23I0150-06[DU-2C], B351423-BLK1, B351423-BS1, B351423-BSD1, S093392-CCV1

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.



Meghan E. Kelley
Reporting Specialist

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

Project Location: 11 North Main St., Northfield, VT Sample Description: Work Order: 23I0150

Date Received: 9/1/2023

Field Sample #: DU-1A Sampled: 8/29/2023 11:45

Sample ID: 23I0150-01

Sample Matrix: Soil

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene (SIM)	ND	1.7	mg/Kg dry	5		SW-846 8270E	9/3/23	9/12/23 16:42	AYH
Acenaphthylene (SIM)	ND	1.2	mg/Kg dry	5		SW-846 8270E	9/3/23	9/12/23 16:42	AYH
Anthracene (SIM)	ND	1.2	mg/Kg dry	5		SW-846 8270E	9/3/23	9/12/23 16:42	AYH
Benzo(a)anthracene (SIM)	0.90	0.29	mg/Kg dry	5		SW-846 8270E	9/3/23	9/12/23 16:42	AYH
Benzo(a)pyrene (SIM)	1.0	0.58	mg/Kg dry	5		SW-846 8270E	9/3/23	9/12/23 16:42	AYH
Benzo(b)fluoranthene (SIM)	1.1	0.29	mg/Kg dry	5		SW-846 8270E	9/3/23	9/12/23 16:42	AYH
Benzo(g,h,i)perylene (SIM)	ND	2.9	mg/Kg dry	5		SW-846 8270E	9/3/23	9/12/23 16:42	AYH
Benzo(k)fluoranthene (SIM)	ND	1.2	mg/Kg dry	5		SW-846 8270E	9/3/23	9/12/23 16:42	AYH
Chrysene (SIM)	ND	1.2	mg/Kg dry	5		SW-846 8270E	9/3/23	9/12/23 16:42	AYH
Dibenz(a,h)anthracene (SIM)	ND	0.58	mg/Kg dry	5		SW-846 8270E	9/3/23	9/12/23 16:42	AYH
Fluoranthene (SIM)	ND	2.9	mg/Kg dry	5		SW-846 8270E	9/3/23	9/12/23 16:42	AYH
Fluorene (SIM)	ND	5.8	mg/Kg dry	5		SW-846 8270E	9/3/23	9/12/23 16:42	AYH
Indeno(1,2,3-cd)pyrene (SIM)	0.68	0.58	mg/Kg dry	5		SW-846 8270E	9/3/23	9/12/23 16:42	AYH
2-Methylnaphthalene (SIM)	ND	5.8	mg/Kg dry	5		SW-846 8270E	9/3/23	9/12/23 16:42	AYH
Naphthalene (SIM)	ND	5.8	mg/Kg dry	5		SW-846 8270E	9/3/23	9/12/23 16:42	AYH
Phenanthrene (SIM)	0.55	0.29	mg/Kg dry	5		SW-846 8270E	9/3/23	9/12/23 16:42	AYH
Pyrene (SIM)	ND	5.8	mg/Kg dry	5		SW-846 8270E	9/3/23	9/12/23 16:42	AYH

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Nitrobenzene-d5	65.4	30-130		9/12/23 16:42
2-Fluorobiphenyl	77.6	30-130		9/12/23 16:42
p-Terphenyl-d14	82.9	30-130	V-06	9/12/23 16:42

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

Project Location: 11 North Main St., Northfield, VT Sample Description: Work Order: 23I0150

Date Received: 9/1/2023

Field Sample #: DU-1A Sampled: 8/29/2023 11:45

Sample ID: 23I0150-01

Sample Matrix: Soil

Polychlorinated Biphenyls with 3540 Soxhlet Extraction

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.092	mg/Kg dry	4		SW-846 8082A	9/7/23	9/13/23 2:55	TG
Aroclor-1221 [1]	ND	0.092	mg/Kg dry	4		SW-846 8082A	9/7/23	9/13/23 2:55	TG
Aroclor-1232 [1]	ND	0.092	mg/Kg dry	4		SW-846 8082A	9/7/23	9/13/23 2:55	TG
Aroclor-1242 [1]	ND	0.092	mg/Kg dry	4		SW-846 8082A	9/7/23	9/13/23 2:55	TG
Aroclor-1248 [1]	ND	0.092	mg/Kg dry	4		SW-846 8082A	9/7/23	9/13/23 2:55	TG
Aroclor-1254 [1]	ND	0.092	mg/Kg dry	4		SW-846 8082A	9/7/23	9/13/23 2:55	TG
Aroclor-1260 [1]	ND	0.092	mg/Kg dry	4		SW-846 8082A	9/7/23	9/13/23 2:55	TG
Aroclor-1262 [1]	ND	0.092	mg/Kg dry	4		SW-846 8082A	9/7/23	9/13/23 2:55	TG
Aroclor-1268 [1]	ND	0.092	mg/Kg dry	4		SW-846 8082A	9/7/23	9/13/23 2:55	TG

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Decachlorobiphenyl [1]	80.9	30-150		9/13/23 2:55
Decachlorobiphenyl [2]	78.3	30-150		9/13/23 2:55
Tetrachloro-m-xylene [1]	81.1	30-150		9/13/23 2:55
Tetrachloro-m-xylene [2]	78.9	30-150		9/13/23 2:55

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

Project Location: 11 North Main St., Northfield, VT Sample Description: Work Order: 23I0150

Date Received: 9/1/2023

Field Sample #: DU-1A Sampled: 8/29/2023 11:45

Sample ID: 23I0150-01

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Antimony	ND	1.8	mg/Kg dry	1		SW-846 6010D	9/8/23	9/11/23 18:04	ATP
Arsenic	5.7	3.7	mg/Kg dry	1		SW-846 6010D	9/8/23	9/11/23 18:04	ATP
Barium	32	1.8	mg/Kg dry	1		SW-846 6010D	9/8/23	9/11/23 18:04	ATP
Beryllium	ND	0.18	mg/Kg dry	1		SW-846 6010D	9/8/23	9/11/23 18:04	ATP
Cadmium	ND	0.37	mg/Kg dry	1		SW-846 6010D	9/8/23	9/11/23 18:04	ATP
Chromium	15	0.74	mg/Kg dry	1		SW-846 6010D	9/8/23	9/11/23 18:04	ATP
Copper	29	0.74	mg/Kg dry	1	B-07, B	SW-846 6010D	9/8/23	9/11/23 18:04	ATP
Lead	35	0.55	mg/Kg dry	1		SW-846 6010D	9/8/23	9/11/23 18:04	ATP
Mercury	0.049	0.030	mg/Kg dry	1		SW-846 7471B	9/5/23	9/6/23 14:09	AAJ
Nickel	22	0.74	mg/Kg dry	1		SW-846 6010D	9/8/23	9/11/23 18:04	ATP
Selenium	ND	3.7	mg/Kg dry	1	M-08	SW-846 6010D	9/8/23	9/11/23 18:04	ATP
Silver	1.5	0.37	mg/Kg dry	1		SW-846 6010D	9/8/23	9/11/23 18:04	ATP
Thallium	ND	1.8	mg/Kg dry	1		SW-846 6010D	9/8/23	9/11/23 18:04	ATP
Zinc	61	0.74	mg/Kg dry	1		SW-846 6010D	9/8/23	9/11/23 18:04	ATP

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

Project Location: 11 North Main St., Northfield, VT Sample Description: Work Order: 23I0150

Date Received: 9/1/2023

Field Sample #: DU-1A Sampled: 8/29/2023 11:45

Sample ID: 23I0150-01

Sample 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	86.9		% Wt	1		SM 2540G	9/5/23	9/5/23 10:08	JL

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

Project Location: 11 North Main St., Northfield, VT Sample Description: Work Order: 23I0150

Date Received: 9/1/2023

Field Sample #: DU-1B Sampled: 8/29/2023 11:50

Sample ID: 23I0150-02

Sample Matrix: Soil

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene (SIM)	ND	1.8	mg/Kg dry	5		SW-846 8270E	9/3/23	9/12/23 17:11	AYH
Acenaphthylene (SIM)	ND	1.2	mg/Kg dry	5		SW-846 8270E	9/3/23	9/12/23 17:11	AYH
Anthracene (SIM)	ND	1.2	mg/Kg dry	5		SW-846 8270E	9/3/23	9/12/23 17:11	AYH
Benzo(a)anthracene (SIM)	0.56	0.31	mg/Kg dry	5		SW-846 8270E	9/3/23	9/12/23 17:11	AYH
Benzo(a)pyrene (SIM)	0.61	0.61	mg/Kg dry	5		SW-846 8270E	9/3/23	9/12/23 17:11	AYH
Benzo(b)fluoranthene (SIM)	0.71	0.31	mg/Kg dry	5		SW-846 8270E	9/3/23	9/12/23 17:11	AYH
Benzo(g,h,i)perylene (SIM)	ND	3.1	mg/Kg dry	5		SW-846 8270E	9/3/23	9/12/23 17:11	AYH
Benzo(k)fluoranthene (SIM)	ND	1.2	mg/Kg dry	5		SW-846 8270E	9/3/23	9/12/23 17:11	AYH
Chrysene (SIM)	ND	1.2	mg/Kg dry	5		SW-846 8270E	9/3/23	9/12/23 17:11	AYH
Dibenz(a,h)anthracene (SIM)	ND	0.61	mg/Kg dry	5		SW-846 8270E	9/3/23	9/12/23 17:11	AYH
Fluoranthene (SIM)	ND	3.1	mg/Kg dry	5		SW-846 8270E	9/3/23	9/12/23 17:11	AYH
Fluorene (SIM)	ND	6.1	mg/Kg dry	5		SW-846 8270E	9/3/23	9/12/23 17:11	AYH
Indeno(1,2,3-cd)pyrene (SIM)	ND	0.61	mg/Kg dry	5		SW-846 8270E	9/3/23	9/12/23 17:11	AYH
2-Methylnaphthalene (SIM)	ND	6.1	mg/Kg dry	5		SW-846 8270E	9/3/23	9/12/23 17:11	AYH
Naphthalene (SIM)	ND	6.1	mg/Kg dry	5		SW-846 8270E	9/3/23	9/12/23 17:11	AYH
Phenanthrene (SIM)	ND	0.31	mg/Kg dry	5		SW-846 8270E	9/3/23	9/12/23 17:11	AYH
Pyrene (SIM)	ND	6.1	mg/Kg dry	5		SW-846 8270E	9/3/23	9/12/23 17:11	AYH

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Nitrobenzene-d5	60.8	30-130		9/12/23 17:11
2-Fluorobiphenyl	71.5	30-130		9/12/23 17:11
p-Terphenyl-d14	71.9	30-130	V-06	9/12/23 17:11

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

Project Location: 11 North Main St., Northfield, VT Sample Description: Work Order: 23I0150

Date Received: 9/1/2023

Field Sample #: DU-1B Sampled: 8/29/2023 11:50

Sample ID: 23I0150-02

Sample Matrix: Soil

Polychlorinated Biphenyls with 3540 Soxhlet Extraction

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.098	mg/Kg dry	4		SW-846 8082A	9/7/23	9/13/23 3:12	TG
Aroclor-1221 [1]	ND	0.098	mg/Kg dry	4		SW-846 8082A	9/7/23	9/13/23 3:12	TG
Aroclor-1232 [1]	ND	0.098	mg/Kg dry	4		SW-846 8082A	9/7/23	9/13/23 3:12	TG
Aroclor-1242 [1]	ND	0.098	mg/Kg dry	4		SW-846 8082A	9/7/23	9/13/23 3:12	TG
Aroclor-1248 [1]	ND	0.098	mg/Kg dry	4		SW-846 8082A	9/7/23	9/13/23 3:12	TG
Aroclor-1254 [1]	ND	0.098	mg/Kg dry	4		SW-846 8082A	9/7/23	9/13/23 3:12	TG
Aroclor-1260 [1]	ND	0.098	mg/Kg dry	4		SW-846 8082A	9/7/23	9/13/23 3:12	TG
Aroclor-1262 [1]	ND	0.098	mg/Kg dry	4		SW-846 8082A	9/7/23	9/13/23 3:12	TG
Aroclor-1268 [1]	ND	0.098	mg/Kg dry	4		SW-846 8082A	9/7/23	9/13/23 3:12	TG

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Decachlorobiphenyl [1]	86.6	30-150		9/13/23 3:12
Decachlorobiphenyl [2]	84.4	30-150		9/13/23 3:12
Tetrachloro-m-xylene [1]	87.8	30-150		9/13/23 3:12
Tetrachloro-m-xylene [2]	85.4	30-150		9/13/23 3:12

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

Project Location: 11 North Main St., Northfield, VT Sample Description: Work Order: 23I0150

Date Received: 9/1/2023

Field Sample #: DU-1B Sampled: 8/29/2023 11:50

Sample ID: 23I0150-02

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Antimony	ND	2.0	mg/Kg dry	1		SW-846 6010D	9/8/23	9/11/23 18:08	ATP
Arsenic	6.5	4.0	mg/Kg dry	1		SW-846 6010D	9/8/23	9/11/23 18:08	ATP
Barium	38	2.0	mg/Kg dry	1		SW-846 6010D	9/8/23	9/11/23 18:08	ATP
Beryllium	0.23	0.20	mg/Kg dry	1		SW-846 6010D	9/8/23	9/11/23 18:08	ATP
Cadmium	ND	0.40	mg/Kg dry	1		SW-846 6010D	9/8/23	9/11/23 18:08	ATP
Chromium	16	0.80	mg/Kg dry	1		SW-846 6010D	9/8/23	9/11/23 18:08	ATP
Copper	56	0.80	mg/Kg dry	1	B-07, B	SW-846 6010D	9/8/23	9/11/23 18:08	ATP
Lead	44	0.60	mg/Kg dry	1		SW-846 6010D	9/8/23	9/11/23 18:08	ATP
Mercury	0.055	0.030	mg/Kg dry	1		SW-846 7471B	9/5/23	9/7/23 10:33	AAJ
Nickel	43	0.80	mg/Kg dry	1		SW-846 6010D	9/8/23	9/11/23 18:08	ATP
Selenium	ND	4.0	mg/Kg dry	1	M-08	SW-846 6010D	9/8/23	9/11/23 18:08	ATP
Silver	1.9	0.40	mg/Kg dry	1		SW-846 6010D	9/8/23	9/11/23 18:08	ATP
Thallium	ND	2.0	mg/Kg dry	1		SW-846 6010D	9/8/23	9/11/23 18:08	ATP
Zinc	70	0.80	mg/Kg dry	1		SW-846 6010D	9/8/23	9/11/23 18:08	ATP

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

Project Location: 11 North Main St., Northfield, VT Sample Description: Work Order: 23I0150

Date Received: 9/1/2023

Field Sample #: DU-1B Sampled: 8/29/2023 11:50

Sample ID: 23I0150-02

Sample 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	81.7		% Wt	1		SM 2540G	9/5/23	9/5/23 10:08	JL

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

Project Location: 11 North Main St., Northfield, VT Sample Description: Work Order: 23I0150

Date Received: 9/1/2023

Field Sample #: DU-1C Sampled: 8/29/2023 12:00

Sample ID: 23I0150-03

Sample Matrix: Soil

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene (SIM)	ND	1.8	mg/Kg dry	5		SW-846 8270E	9/3/23	9/12/23 17:40	AYH
Acenaphthylene (SIM)	ND	1.2	mg/Kg dry	5		SW-846 8270E	9/3/23	9/12/23 17:40	AYH
Anthracene (SIM)	ND	1.2	mg/Kg dry	5		SW-846 8270E	9/3/23	9/12/23 17:40	AYH
Benzo(a)anthracene (SIM)	0.79	0.30	mg/Kg dry	5		SW-846 8270E	9/3/23	9/12/23 17:40	AYH
Benzo(a)pyrene (SIM)	0.92	0.59	mg/Kg dry	5		SW-846 8270E	9/3/23	9/12/23 17:40	AYH
Benzo(b)fluoranthene (SIM)	1.0	0.30	mg/Kg dry	5		SW-846 8270E	9/3/23	9/12/23 17:40	AYH
Benzo(g,h,i)perylene (SIM)	ND	3.0	mg/Kg dry	5		SW-846 8270E	9/3/23	9/12/23 17:40	AYH
Benzo(k)fluoranthene (SIM)	ND	1.2	mg/Kg dry	5		SW-846 8270E	9/3/23	9/12/23 17:40	AYH
Chrysene (SIM)	ND	1.2	mg/Kg dry	5		SW-846 8270E	9/3/23	9/12/23 17:40	AYH
Dibenz(a,h)anthracene (SIM)	ND	0.59	mg/Kg dry	5		SW-846 8270E	9/3/23	9/12/23 17:40	AYH
Fluoranthene (SIM)	ND	3.0	mg/Kg dry	5		SW-846 8270E	9/3/23	9/12/23 17:40	AYH
Fluorene (SIM)	ND	5.9	mg/Kg dry	5		SW-846 8270E	9/3/23	9/12/23 17:40	AYH
Indeno(1,2,3-cd)pyrene (SIM)	0.63	0.59	mg/Kg dry	5		SW-846 8270E	9/3/23	9/12/23 17:40	AYH
2-Methylnaphthalene (SIM)	ND	5.9	mg/Kg dry	5		SW-846 8270E	9/3/23	9/12/23 17:40	AYH
Naphthalene (SIM)	ND	5.9	mg/Kg dry	5		SW-846 8270E	9/3/23	9/12/23 17:40	AYH
Phenanthrene (SIM)	0.53	0.30	mg/Kg dry	5		SW-846 8270E	9/3/23	9/12/23 17:40	AYH
Pyrene (SIM)	ND	5.9	mg/Kg dry	5		SW-846 8270E	9/3/23	9/12/23 17:40	AYH

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Nitrobenzene-d5	59.5	30-130		9/12/23 17:40
2-Fluorobiphenyl	69.8	30-130		9/12/23 17:40
p-Terphenyl-d14	73.8	30-130	V-06	9/12/23 17:40

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

Project Location: 11 North Main St., Northfield, VT Sample Description: Work Order: 23I0150

Date Received: 9/1/2023

Field Sample #: DU-1C Sampled: 8/29/2023 12:00

Sample ID: 23I0150-03

Sample Matrix: Soil

Polychlorinated Biphenyls with 3540 Soxhlet Extraction

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.095	mg/Kg dry	4		SW-846 8082A	9/7/23	9/13/23 3:29	TG
Aroclor-1221 [1]	ND	0.095	mg/Kg dry	4		SW-846 8082A	9/7/23	9/13/23 3:29	TG
Aroclor-1232 [1]	ND	0.095	mg/Kg dry	4		SW-846 8082A	9/7/23	9/13/23 3:29	TG
Aroclor-1242 [1]	ND	0.095	mg/Kg dry	4		SW-846 8082A	9/7/23	9/13/23 3:29	TG
Aroclor-1248 [1]	ND	0.095	mg/Kg dry	4		SW-846 8082A	9/7/23	9/13/23 3:29	TG
Aroclor-1254 [1]	ND	0.095	mg/Kg dry	4		SW-846 8082A	9/7/23	9/13/23 3:29	TG
Aroclor-1260 [1]	ND	0.095	mg/Kg dry	4		SW-846 8082A	9/7/23	9/13/23 3:29	TG
Aroclor-1262 [1]	ND	0.095	mg/Kg dry	4		SW-846 8082A	9/7/23	9/13/23 3:29	TG
Aroclor-1268 [1]	ND	0.095	mg/Kg dry	4		SW-846 8082A	9/7/23	9/13/23 3:29	TG

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Decachlorobiphenyl [1]	87.9	30-150		9/13/23 3:29
Decachlorobiphenyl [2]	86.1	30-150		9/13/23 3:29
Tetrachloro-m-xylene [1]	90.4	30-150		9/13/23 3:29
Tetrachloro-m-xylene [2]	88.1	30-150		9/13/23 3:29

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

Project Location: 11 North Main St., Northfield, VT Sample Description: Work Order: 23I0150

Date Received: 9/1/2023

Field Sample #: DU-1C Sampled: 8/29/2023 12:00

Sample ID: 23I0150-03

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Antimony	ND	1.9	mg/Kg dry	1		SW-846 6010D	9/8/23	9/11/23 18:15	ATP
Arsenic	6.3	3.8	mg/Kg dry	1		SW-846 6010D	9/8/23	9/11/23 18:15	ATP
Barium	34	1.9	mg/Kg dry	1		SW-846 6010D	9/8/23	9/11/23 18:15	ATP
Beryllium	ND	0.19	mg/Kg dry	1		SW-846 6010D	9/8/23	9/11/23 18:15	ATP
Cadmium	ND	0.38	mg/Kg dry	1		SW-846 6010D	9/8/23	9/11/23 18:15	ATP
Chromium	15	0.76	mg/Kg dry	1		SW-846 6010D	9/8/23	9/11/23 18:15	ATP
Copper	31	0.76	mg/Kg dry	1	B-07, B	SW-846 6010D	9/8/23	9/11/23 18:15	ATP
Lead	41	0.57	mg/Kg dry	1		SW-846 6010D	9/8/23	9/11/23 18:15	ATP
Mercury	0.063	0.029	mg/Kg dry	1		SW-846 7471B	9/5/23	9/6/23 14:12	AAJ
Nickel	22	0.76	mg/Kg dry	1		SW-846 6010D	9/8/23	9/11/23 18:15	ATP
Selenium	ND	3.8	mg/Kg dry	1	M-08	SW-846 6010D	9/8/23	9/11/23 18:15	ATP
Silver	1.6	0.38	mg/Kg dry	1		SW-846 6010D	9/8/23	9/11/23 18:15	ATP
Thallium	ND	1.9	mg/Kg dry	1		SW-846 6010D	9/8/23	9/11/23 18:15	ATP
Zinc	71	0.76	mg/Kg dry	1		SW-846 6010D	9/8/23	9/11/23 18:15	ATP

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

Project Location: 11 North Main St., Northfield, VT Sample Description: Work Order: 23I0150

Date Received: 9/1/2023

Field Sample #: DU-1C Sampled: 8/29/2023 12:00

Sample ID: 23I0150-03

Sample 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	84.2		% Wt	1		SM 2540G	9/5/23	9/5/23 10:08	JL

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

Project Location: 11 North Main St., Northfield, VT Sample Description: Work Order: 23I0150

Date Received: 9/1/2023

Field Sample #: DU-2A Sampled: 8/29/2023 14:30

Sample ID: 23I0150-04

Sample Matrix: Soil

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene (SIM)	ND	0.40	mg/Kg dry	1		SW-846 8270E	9/3/23	9/12/23 18:09	AYH
Acenaphthylene (SIM)	ND	0.27	mg/Kg dry	1		SW-846 8270E	9/3/23	9/12/23 18:09	AYH
Anthracene (SIM)	ND	0.27	mg/Kg dry	1		SW-846 8270E	9/3/23	9/12/23 18:09	AYH
Benzo(a)anthracene (SIM)	0.17	0.067	mg/Kg dry	1		SW-846 8270E	9/3/23	9/12/23 18:09	AYH
Benzo(a)pyrene (SIM)	0.17	0.13	mg/Kg dry	1		SW-846 8270E	9/3/23	9/12/23 18:09	AYH
Benzo(b)fluoranthene (SIM)	0.27	0.067	mg/Kg dry	1		SW-846 8270E	9/3/23	9/12/23 18:09	AYH
Benzo(g,h,i)perylene (SIM)	ND	0.67	mg/Kg dry	1		SW-846 8270E	9/3/23	9/12/23 18:09	AYH
Benzo(k)fluoranthene (SIM)	ND	0.27	mg/Kg dry	1		SW-846 8270E	9/3/23	9/12/23 18:09	AYH
Chrysene (SIM)	ND	0.27	mg/Kg dry	1		SW-846 8270E	9/3/23	9/12/23 18:09	AYH
Dibenz(a,h)anthracene (SIM)	ND	0.13	mg/Kg dry	1		SW-846 8270E	9/3/23	9/12/23 18:09	AYH
Fluoranthene (SIM)	ND	0.67	mg/Kg dry	1		SW-846 8270E	9/3/23	9/12/23 18:09	AYH
Fluorene (SIM)	ND	1.3	mg/Kg dry	1		SW-846 8270E	9/3/23	9/12/23 18:09	AYH
Indeno(1,2,3-cd)pyrene (SIM)	0.14	0.13	mg/Kg dry	1		SW-846 8270E	9/3/23	9/12/23 18:09	AYH
2-Methylnaphthalene (SIM)	ND	1.3	mg/Kg dry	1		SW-846 8270E	9/3/23	9/12/23 18:09	AYH
Naphthalene (SIM)	ND	1.3	mg/Kg dry	1		SW-846 8270E	9/3/23	9/12/23 18:09	AYH
Phenanthrene (SIM)	0.16	0.067	mg/Kg dry	1		SW-846 8270E	9/3/23	9/12/23 18:09	AYH
Pyrene (SIM)	ND	1.3	mg/Kg dry	1		SW-846 8270E	9/3/23	9/12/23 18:09	AYH

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Nitrobenzene-d5	42.9	30-130		9/12/23 18:09
2-Fluorobiphenyl	44.8	30-130		9/12/23 18:09
p-Terphenyl-d14	52.6	30-130	V-06	9/12/23 18:09

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

Project Location: 11 North Main St., Northfield, VT Sample Description: Work Order: 23I0150

Date Received: 9/1/2023

Field Sample #: DU-2A Sampled: 8/29/2023 14:30

Sample ID: 23I0150-04

Sample Matrix: Soil

Polychlorinated Biphenyls with 3540 Soxhlet Extraction

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.11	mg/Kg dry	4		SW-846 8082A	9/7/23	9/13/23 3:46	TG
Aroclor-1221 [1]	ND	0.11	mg/Kg dry	4		SW-846 8082A	9/7/23	9/13/23 3:46	TG
Aroclor-1232 [1]	ND	0.11	mg/Kg dry	4		SW-846 8082A	9/7/23	9/13/23 3:46	TG
Aroclor-1242 [1]	ND	0.11	mg/Kg dry	4		SW-846 8082A	9/7/23	9/13/23 3:46	TG
Aroclor-1248 [1]	ND	0.11	mg/Kg dry	4		SW-846 8082A	9/7/23	9/13/23 3:46	TG
Aroclor-1254 [1]	ND	0.11	mg/Kg dry	4		SW-846 8082A	9/7/23	9/13/23 3:46	TG
Aroclor-1260 [1]	ND	0.11	mg/Kg dry	4		SW-846 8082A	9/7/23	9/13/23 3:46	TG
Aroclor-1262 [1]	ND	0.11	mg/Kg dry	4		SW-846 8082A	9/7/23	9/13/23 3:46	TG
Aroclor-1268 [1]	ND	0.11	mg/Kg dry	4		SW-846 8082A	9/7/23	9/13/23 3:46	TG

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Decachlorobiphenyl [1]	89.9	30-150		9/13/23 3:46
Decachlorobiphenyl [2]	90.5	30-150		9/13/23 3:46
Tetrachloro-m-xylene [1]	89.3	30-150		9/13/23 3:46
Tetrachloro-m-xylene [2]	87.9	30-150		9/13/23 3:46

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Project Location: 11 North Main St., Northfield, VT Sample Description: Work Order: 23I0150

Date Received: 9/1/2023

Field Sample #: DU-2A Sampled: 8/29/2023 14:30

Sample ID: 23I0150-04

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Antimony	ND	2.2	mg/Kg dry	1		SW-846 6010D	9/8/23	9/11/23 18:32	ATP
Arsenic	6.4	4.3	mg/Kg dry	1		SW-846 6010D	9/8/23	9/11/23 18:32	ATP
Barium	64	2.2	mg/Kg dry	1		SW-846 6010D	9/8/23	9/11/23 18:32	ATP
Beryllium	0.24	0.22	mg/Kg dry	1		SW-846 6010D	9/8/23	9/11/23 18:32	ATP
Cadmium	ND	0.43	mg/Kg dry	1		SW-846 6010D	9/8/23	9/11/23 18:32	ATP
Chromium	14	0.86	mg/Kg dry	1		SW-846 6010D	9/8/23	9/11/23 18:32	ATP
Copper	34	0.86	mg/Kg dry	1	B-07, B	SW-846 6010D	9/8/23	9/11/23 18:32	ATP
Lead	61	0.65	mg/Kg dry	1		SW-846 6010D	9/8/23	9/11/23 18:32	ATP
Mercury	0.070	0.033	mg/Kg dry	1		SW-846 7471B	9/5/23	9/6/23 14:14	AAJ
Nickel	14	0.86	mg/Kg dry	1		SW-846 6010D	9/8/23	9/11/23 18:32	ATP
Selenium	ND	4.3	mg/Kg dry	1	M-08	SW-846 6010D	9/8/23	9/11/23 18:32	ATP
Silver	2.3	0.43	mg/Kg dry	1		SW-846 6010D	9/8/23	9/11/23 18:32	ATP
Thallium	ND	2.2	mg/Kg dry	1		SW-846 6010D	9/8/23	9/11/23 18:32	ATP
Zinc	99	0.86	mg/Kg dry	1		SW-846 6010D	9/8/23	9/11/23 18:32	ATP

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Project Location: 11 North Main St., Northfield, VT Sample Description: Work Order: 23I0150

Date Received: 9/1/2023

Field Sample #: DU-2A Sampled: 8/29/2023 14:30

Sample ID: 23I0150-04

Sample 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	74.6		% Wt	1		SM 2540G	9/5/23	9/5/23 10:08	JL

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

Project Location: 11 North Main St., Northfield, VT Sample Description: Work Order: 23I0150

Date Received: 9/1/2023

Field Sample #: DU-2B Sampled: 8/29/2023 14:35

Sample ID: 23I0150-05

Sample Matrix: Soil

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene (SIM)	ND	0.40	mg/Kg dry	1		SW-846 8270E	9/3/23	9/12/23 18:38	AYH
Acenaphthylene (SIM)	ND	0.27	mg/Kg dry	1		SW-846 8270E	9/3/23	9/12/23 18:38	AYH
Anthracene (SIM)	ND	0.27	mg/Kg dry	1		SW-846 8270E	9/3/23	9/12/23 18:38	AYH
Benzo(a)anthracene (SIM)	0.12	0.067	mg/Kg dry	1		SW-846 8270E	9/3/23	9/12/23 18:38	AYH
Benzo(a)pyrene (SIM)	0.14	0.13	mg/Kg dry	1		SW-846 8270E	9/3/23	9/12/23 18:38	AYH
Benzo(b)fluoranthene (SIM)	0.19	0.067	mg/Kg dry	1		SW-846 8270E	9/3/23	9/12/23 18:38	AYH
Benzo(g,h,i)perylene (SIM)	ND	0.67	mg/Kg dry	1		SW-846 8270E	9/3/23	9/12/23 18:38	AYH
Benzo(k)fluoranthene (SIM)	ND	0.27	mg/Kg dry	1		SW-846 8270E	9/3/23	9/12/23 18:38	AYH
Chrysene (SIM)	ND	0.27	mg/Kg dry	1		SW-846 8270E	9/3/23	9/12/23 18:38	AYH
Dibenz(a,h)anthracene (SIM)	ND	0.13	mg/Kg dry	1		SW-846 8270E	9/3/23	9/12/23 18:38	AYH
Fluoranthene (SIM)	ND	0.67	mg/Kg dry	1		SW-846 8270E	9/3/23	9/12/23 18:38	AYH
Fluorene (SIM)	ND	1.3	mg/Kg dry	1		SW-846 8270E	9/3/23	9/12/23 18:38	AYH
Indeno(1,2,3-cd)pyrene (SIM)	ND	0.13	mg/Kg dry	1		SW-846 8270E	9/3/23	9/12/23 18:38	AYH
2-Methylnaphthalene (SIM)	ND	1.3	mg/Kg dry	1		SW-846 8270E	9/3/23	9/12/23 18:38	AYH
Naphthalene (SIM)	ND	1.3	mg/Kg dry	1		SW-846 8270E	9/3/23	9/12/23 18:38	AYH
Phenanthrene (SIM)	0.13	0.067	mg/Kg dry	1		SW-846 8270E	9/3/23	9/12/23 18:38	AYH
Pyrene (SIM)	ND	1.3	mg/Kg dry	1		SW-846 8270E	9/3/23	9/12/23 18:38	AYH

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Nitrobenzene-d5	39.1	30-130		9/12/23 18:38
2-Fluorobiphenyl	43.9	30-130		9/12/23 18:38
p-Terphenyl-d14	49.2	30-130	V-06	9/12/23 18:38

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Project Location: 11 North Main St., Northfield, VT Sample Description: Work Order: 23I0150

Date Received: 9/1/2023

Field Sample #: DU-2B Sampled: 8/29/2023 14:35

Sample ID: 23I0150-05

Sample Matrix: Soil

Polychlorinated Biphenyls with 3540 Soxhlet Extraction

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.11	mg/Kg dry	4		SW-846 8082A	9/7/23	9/13/23 4:04	TG
Aroclor-1221 [1]	ND	0.11	mg/Kg dry	4		SW-846 8082A	9/7/23	9/13/23 4:04	TG
Aroclor-1232 [1]	ND	0.11	mg/Kg dry	4		SW-846 8082A	9/7/23	9/13/23 4:04	TG
Aroclor-1242 [1]	ND	0.11	mg/Kg dry	4		SW-846 8082A	9/7/23	9/13/23 4:04	TG
Aroclor-1248 [1]	ND	0.11	mg/Kg dry	4		SW-846 8082A	9/7/23	9/13/23 4:04	TG
Aroclor-1254 [1]	ND	0.11	mg/Kg dry	4		SW-846 8082A	9/7/23	9/13/23 4:04	TG
Aroclor-1260 [1]	ND	0.11	mg/Kg dry	4		SW-846 8082A	9/7/23	9/13/23 4:04	TG
Aroclor-1262 [1]	ND	0.11	mg/Kg dry	4		SW-846 8082A	9/7/23	9/13/23 4:04	TG
Aroclor-1268 [1]	ND	0.11	mg/Kg dry	4		SW-846 8082A	9/7/23	9/13/23 4:04	TG

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Decachlorobiphenyl [1]	82.2	30-150		9/13/23 4:04
Decachlorobiphenyl [2]	80.8	30-150		9/13/23 4:04
Tetrachloro-m-xylene [1]	82.3	30-150		9/13/23 4:04
Tetrachloro-m-xylene [2]	79.5	30-150		9/13/23 4:04

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Project Location: 11 North Main St., Northfield, VT Sample Description: Work Order: 23I0150

Date Received: 9/1/2023

Field Sample #: DU-2B Sampled: 8/29/2023 14:35

Sample ID: 23I0150-05

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Antimony	ND	2.2	mg/Kg dry	1		SW-846 6010D	9/8/23	9/11/23 18:36	ATP
Arsenic	6.5	4.3	mg/Kg dry	1		SW-846 6010D	9/8/23	9/11/23 18:36	ATP
Barium	68	2.2	mg/Kg dry	1		SW-846 6010D	9/8/23	9/11/23 18:36	ATP
Beryllium	0.25	0.22	mg/Kg dry	1		SW-846 6010D	9/8/23	9/11/23 18:36	ATP
Cadmium	0.47	0.43	mg/Kg dry	1		SW-846 6010D	9/8/23	9/11/23 18:36	ATP
Chromium	14	0.87	mg/Kg dry	1		SW-846 6010D	9/8/23	9/11/23 18:36	ATP
Copper	33	0.87	mg/Kg dry	1	B-07, B	SW-846 6010D	9/8/23	9/11/23 18:36	ATP
Lead	59	0.65	mg/Kg dry	1		SW-846 6010D	9/8/23	9/11/23 18:36	ATP
Mercury	0.078	0.034	mg/Kg dry	1		SW-846 7471B	9/5/23	9/6/23 14:16	AAJ
Nickel	14	0.87	mg/Kg dry	1		SW-846 6010D	9/8/23	9/11/23 18:36	ATP
Selenium	ND	4.3	mg/Kg dry	1	M-08	SW-846 6010D	9/8/23	9/11/23 18:36	ATP
Silver	2.6	0.43	mg/Kg dry	1		SW-846 6010D	9/8/23	9/11/23 18:36	ATP
Thallium	ND	2.2	mg/Kg dry	1		SW-846 6010D	9/8/23	9/11/23 18:36	ATP
Zinc	83	0.87	mg/Kg dry	1		SW-846 6010D	9/8/23	9/11/23 18:36	ATP

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Project Location: 11 North Main St., Northfield, VT Sample Description: Work Order: 23I0150

Date Received: 9/1/2023

Field Sample #: DU-2B Sampled: 8/29/2023 14:35

Sample ID: 23I0150-05

Sample 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	75.2		% Wt	1		SM 2540G	9/5/23	9/5/23 10:08	JL

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

Project Location: 11 North Main St., Northfield, VT Sample Description: Work Order: 23I0150

Date Received: 9/1/2023

Field Sample #: DU-2C Sampled: 8/29/2023 14:40

Sample ID: 23I0150-06

Sample Matrix: Soil

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene (SIM)	ND	0.39	mg/Kg dry	1		SW-846 8270E	9/3/23	9/12/23 19:06	AYH
Acenaphthylene (SIM)	ND	0.26	mg/Kg dry	1		SW-846 8270E	9/3/23	9/12/23 19:06	AYH
Anthracene (SIM)	ND	0.26	mg/Kg dry	1		SW-846 8270E	9/3/23	9/12/23 19:06	AYH
Benzo(a)anthracene (SIM)	0.24	0.066	mg/Kg dry	1		SW-846 8270E	9/3/23	9/12/23 19:06	AYH
Benzo(a)pyrene (SIM)	0.15	0.13	mg/Kg dry	1		SW-846 8270E	9/3/23	9/12/23 19:06	AYH
Benzo(b)fluoranthene (SIM)	0.23	0.066	mg/Kg dry	1		SW-846 8270E	9/3/23	9/12/23 19:06	AYH
Benzo(g,h,i)perylene (SIM)	ND	0.66	mg/Kg dry	1		SW-846 8270E	9/3/23	9/12/23 19:06	AYH
Benzo(k)fluoranthene (SIM)	ND	0.26	mg/Kg dry	1		SW-846 8270E	9/3/23	9/12/23 19:06	AYH
Chrysene (SIM)	0.30	0.26	mg/Kg dry	1		SW-846 8270E	9/3/23	9/12/23 19:06	AYH
Dibenz(a,h)anthracene (SIM)	ND	0.13	mg/Kg dry	1		SW-846 8270E	9/3/23	9/12/23 19:06	AYH
Fluoranthene (SIM)	ND	0.66	mg/Kg dry	1		SW-846 8270E	9/3/23	9/12/23 19:06	AYH
Fluorene (SIM)	ND	1.3	mg/Kg dry	1		SW-846 8270E	9/3/23	9/12/23 19:06	AYH
Indeno(1,2,3-cd)pyrene (SIM)	0.16	0.13	mg/Kg dry	1		SW-846 8270E	9/3/23	9/12/23 19:06	AYH
2-Methylnaphthalene (SIM)	ND	1.3	mg/Kg dry	1		SW-846 8270E	9/3/23	9/12/23 19:06	AYH
Naphthalene (SIM)	ND	1.3	mg/Kg dry	1		SW-846 8270E	9/3/23	9/12/23 19:06	AYH
Phenanthrene (SIM)	0.22	0.066	mg/Kg dry	1		SW-846 8270E	9/3/23	9/12/23 19:06	AYH
Pyrene (SIM)	ND	1.3	mg/Kg dry	1		SW-846 8270E	9/3/23	9/12/23 19:06	AYH

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Nitrobenzene-d5	50.8	30-130		9/12/23 19:06
2-Fluorobiphenyl	54.3	30-130		9/12/23 19:06
p-Terphenyl-d14	64.1	30-130	V-06	9/12/23 19:06

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Project Location: 11 North Main St., Northfield, VT Sample Description: Work Order: 23I0150

Date Received: 9/1/2023

Field Sample #: DU-2C Sampled: 8/29/2023 14:40

Sample ID: 23I0150-06

Sample Matrix: Soil

Polychlorinated Biphenyls with 3540 Soxhlet Extraction

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.11	mg/Kg dry	4		SW-846 8082A	9/7/23	9/13/23 4:21	TG
Aroclor-1221 [1]	ND	0.11	mg/Kg dry	4		SW-846 8082A	9/7/23	9/13/23 4:21	TG
Aroclor-1232 [1]	ND	0.11	mg/Kg dry	4		SW-846 8082A	9/7/23	9/13/23 4:21	TG
Aroclor-1242 [1]	ND	0.11	mg/Kg dry	4		SW-846 8082A	9/7/23	9/13/23 4:21	TG
Aroclor-1248 [1]	ND	0.11	mg/Kg dry	4		SW-846 8082A	9/7/23	9/13/23 4:21	TG
Aroclor-1254 [1]	ND	0.11	mg/Kg dry	4		SW-846 8082A	9/7/23	9/13/23 4:21	TG
Aroclor-1260 [1]	ND	0.11	mg/Kg dry	4		SW-846 8082A	9/7/23	9/13/23 4:21	TG
Aroclor-1262 [1]	ND	0.11	mg/Kg dry	4		SW-846 8082A	9/7/23	9/13/23 4:21	TG
Aroclor-1268 [1]	ND	0.11	mg/Kg dry	4		SW-846 8082A	9/7/23	9/13/23 4:21	TG

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Decachlorobiphenyl [1]	85.8	30-150		9/13/23 4:21
Decachlorobiphenyl [2]	84.9	30-150		9/13/23 4:21
Tetrachloro-m-xylene [1]	83.0	30-150		9/13/23 4:21
Tetrachloro-m-xylene [2]	83.8	30-150		9/13/23 4:21

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Project Location: 11 North Main St., Northfield, VT Sample Description: Work Order: 23I0150

Date Received: 9/1/2023

Field Sample #: DU-2C Sampled: 8/29/2023 14:40

Sample ID: 23I0150-06

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Antimony	ND	2.2	mg/Kg dry	1		SW-846 6010D	9/8/23	9/11/23 18:41	ATP
Arsenic	5.9	4.5	mg/Kg dry	1		SW-846 6010D	9/8/23	9/11/23 18:41	ATP
Barium	61	2.2	mg/Kg dry	1		SW-846 6010D	9/8/23	9/11/23 18:41	ATP
Beryllium	0.24	0.22	mg/Kg dry	1		SW-846 6010D	9/8/23	9/11/23 18:41	ATP
Cadmium	ND	0.45	mg/Kg dry	1		SW-846 6010D	9/8/23	9/11/23 18:41	ATP
Chromium	15	0.89	mg/Kg dry	1		SW-846 6010D	9/8/23	9/11/23 18:41	ATP
Copper	38	0.89	mg/Kg dry	1	B-07, B	SW-846 6010D	9/8/23	9/11/23 18:41	ATP
Lead	55	0.67	mg/Kg dry	1		SW-846 6010D	9/8/23	9/11/23 18:41	ATP
Mercury	0.078	0.033	mg/Kg dry	1		SW-846 7471B	9/5/23	9/6/23 14:18	AAJ
Nickel	14	0.89	mg/Kg dry	1		SW-846 6010D	9/8/23	9/11/23 18:41	ATP
Selenium	ND	4.5	mg/Kg dry	1	M-08	SW-846 6010D	9/8/23	9/11/23 18:41	ATP
Silver	2.4	0.45	mg/Kg dry	1		SW-846 6010D	9/8/23	9/11/23 18:41	ATP
Thallium	ND	2.2	mg/Kg dry	1		SW-846 6010D	9/8/23	9/11/23 18:41	ATP
Zinc	81	0.89	mg/Kg dry	1		SW-846 6010D	9/8/23	9/11/23 18:41	ATP

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

Project Location: 11 North Main St., Northfield, VT Sample Description: Work Order: 23I0150

Date Received: 9/1/2023

Field Sample #: DU-2C Sampled: 8/29/2023 14:40

Sample ID: 23I0150-06

Sample 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	76.1		% Wt	1		SM 2540G	9/5/23	9/5/23 10:08	JL

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
23I0150-01 [DU-1A]	B351013	09/05/23
23I0150-02 [DU-1B]	B351013	09/05/23
23I0150-03 [DU-1C]	B351013	09/05/23
23I0150-04 [DU-2A]	B351013	09/05/23
23I0150-05 [DU-2B]	B351013	09/05/23
23I0150-06 [DU-2C]	B351013	09/05/23

Prep Method:SW-846 3050B **Analytical Method:SW-846 6010D**

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
23I0150-01 [DU-1A]	B351437	1.56	50.0	09/08/23
23I0150-02 [DU-1B]	B351437	1.53	50.0	09/08/23
23I0150-03 [DU-1C]	B351437	1.57	50.0	09/08/23
23I0150-04 [DU-2A]	B351437	1.55	50.0	09/08/23
23I0150-05 [DU-2B]	B351437	1.53	50.0	09/08/23
23I0150-06 [DU-2C]	B351437	1.47	50.0	09/08/23

Prep Method:SW-846 7471 **Analytical Method:SW-846 7471B**

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
23I0150-01 [DU-1A]	B350975	0.580	50.0	09/05/23
23I0150-02 [DU-1B]	B350975	0.604	50.0	09/05/23
23I0150-03 [DU-1C]	B350975	0.608	50.0	09/05/23
23I0150-04 [DU-2A]	B350975	0.606	50.0	09/05/23
23I0150-05 [DU-2B]	B350975	0.588	50.0	09/05/23
23I0150-06 [DU-2C]	B350975	0.589	50.0	09/05/23

Prep Method:SW-846 3540C **Analytical Method:SW-846 8082A**

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
23I0150-01 [DU-1A]	B351351	10.0	10.0	09/07/23
23I0150-02 [DU-1B]	B351351	10.0	10.0	09/07/23
23I0150-03 [DU-1C]	B351351	10.0	10.0	09/07/23
23I0150-04 [DU-2A]	B351351	10.0	10.0	09/07/23
23I0150-05 [DU-2B]	B351351	10.0	10.0	09/07/23
23I0150-06 [DU-2C]	B351351	10.0	10.0	09/07/23

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

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
23I0150-01 [DU-1A]	B351423	30.0	1.00	09/03/23
23I0150-02 [DU-1B]	B351423	30.0	1.00	09/03/23
23I0150-03 [DU-1C]	B351423	30.0	1.00	09/03/23
23I0150-04 [DU-2A]	B351423	30.0	1.00	09/03/23
23I0150-05 [DU-2B]	B351423	30.0	1.00	09/03/23
23I0150-06 [DU-2C]	B351423	30.0	1.00	09/03/23

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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 B351423 - SW-846 3546										
Blank (B351423-BLK1)				Prepared: 09/03/23 Analyzed: 09/12/23						
Acenaphthene (SIM)	ND	0.30	mg/Kg wet							
Acenaphthylene (SIM)	ND	0.20	mg/Kg wet							
Anthracene (SIM)	ND	0.20	mg/Kg wet							
Benzo(a)anthracene (SIM)	ND	0.050	mg/Kg wet							
Benzo(a)pyrene (SIM)	ND	0.10	mg/Kg wet							
Benzo(b)fluoranthene (SIM)	ND	0.050	mg/Kg wet							
Benzo(g,h,i)perylene (SIM)	ND	0.50	mg/Kg wet							
Benzo(k)fluoranthene (SIM)	ND	0.20	mg/Kg wet							
Chrysene (SIM)	ND	0.20	mg/Kg wet							
Dibenz(a,h)anthracene (SIM)	ND	0.10	mg/Kg wet							
Fluoranthene (SIM)	ND	0.50	mg/Kg wet							
Fluorene (SIM)	ND	1.0	mg/Kg wet							
Indeno(1,2,3-cd)pyrene (SIM)	ND	0.10	mg/Kg wet							
2-Methylnaphthalene (SIM)	ND	1.0	mg/Kg wet							
Naphthalene (SIM)	ND	1.0	mg/Kg wet							
Phenanthrene (SIM)	ND	0.050	mg/Kg wet							
Pyrene (SIM)	ND	1.0	mg/Kg wet							
Surrogate: Nitrobenzene-d5	*2.40*		mg/Kg wet	3.33		71.9	30-130			
Surrogate: 2-Fluorobiphenyl	*2.63*		mg/Kg wet	3.33		78.9	30-130			
Surrogate: p-Terphenyl-d14	*3.28*		mg/Kg wet	3.33		98.4	30-130			V-06
LCS (B351423-BS1)				Prepared: 09/03/23 Analyzed: 09/12/23						
Acenaphthene (SIM)	1.25	6.0	mg/Kg wet	1.67		75.2	40-140			
Acenaphthylene (SIM)	1.31	4.0	mg/Kg wet	1.67		78.5	40-140			
Anthracene (SIM)	1.31	4.0	mg/Kg wet	1.67		78.7	40-140			
Benzo(a)anthracene (SIM)	1.33	1.0	mg/Kg wet	1.67		79.9	40-140			
Benzo(a)pyrene (SIM)	1.35	2.0	mg/Kg wet	1.67		81.2	40-140			
Benzo(b)fluoranthene (SIM)	1.43	1.0	mg/Kg wet	1.67		85.9	40-140			
Benzo(g,h,i)perylene (SIM)	1.37	10	mg/Kg wet	1.67		82.0	40-140			
Benzo(k)fluoranthene (SIM)	1.49	4.0	mg/Kg wet	1.67		89.6	40-140			
Chrysene (SIM)	1.37	4.0	mg/Kg wet	1.67		82.1	40-140			
Dibenz(a,h)anthracene (SIM)	1.39	2.0	mg/Kg wet	1.67		83.3	40-140			
Fluoranthene (SIM)	1.29	10	mg/Kg wet	1.67		77.4	40-140			
Fluorene (SIM)	1.28	20	mg/Kg wet	1.67		76.6	40-140			
Indeno(1,2,3-cd)pyrene (SIM)	1.42	2.0	mg/Kg wet	1.67		85.2	40-140			
2-Methylnaphthalene (SIM)	1.34	20	mg/Kg wet	1.67		80.6	40-140			
Naphthalene (SIM)	1.21		mg/Kg wet	1.67		72.4	40-140			
Phenanthrene (SIM)	1.28	1.0	mg/Kg wet	1.67		76.7	40-140			
Pyrene (SIM)	1.34	20	mg/Kg wet	1.67		80.1	40-140			
Surrogate: Nitrobenzene-d5	*2.31*		mg/Kg wet	3.33		69.4	30-130			
Surrogate: 2-Fluorobiphenyl	*2.96*		mg/Kg wet	3.33		88.9	30-130			
Surrogate: p-Terphenyl-d14	*3.08*		mg/Kg wet	3.33		92.3	30-130			V-06

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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 B351423 - SW-846 3546										
LCS Dup (B351423-BSD1)				Prepared: 09/03/23 Analyzed: 09/12/23						
Acenaphthene (SIM)	1.35	6.0	mg/Kg wet	1.67		80.8	40-140	7.18	20	
Acenaphthylene (SIM)	1.40	4.0	mg/Kg wet	1.67		84.3	40-140	7.13	20	
Anthracene (SIM)	1.36	4.0	mg/Kg wet	1.67		81.7	40-140	3.79	20	
Benzo(a)anthracene (SIM)	1.35	1.0	mg/Kg wet	1.67		81.0	40-140	1.29	20	
Benzo(a)pyrene (SIM)	1.38	2.0	mg/Kg wet	1.67		82.6	40-140	1.66	20	
Benzo(b)fluoranthene (SIM)	1.45	1.0	mg/Kg wet	1.67		87.0	40-140	1.30	20	
Benzo(g,h,i)perylene (SIM)	1.39	10	mg/Kg wet	1.67		83.6	40-140	1.93	20	
Benzo(k)fluoranthene (SIM)	1.54	4.0	mg/Kg wet	1.67		92.2	40-140	2.86	20	
Chrysene (SIM)	1.38	4.0	mg/Kg wet	1.67		83.0	40-140	1.07	20	
Dibenz(a,h)anthracene (SIM)	1.42	2.0	mg/Kg wet	1.67		85.2	40-140	2.28	20	
Fluoranthene (SIM)	1.33	10	mg/Kg wet	1.67		80.0	40-140	3.25	20	
Fluorene (SIM)	1.37	20	mg/Kg wet	1.67		82.1	40-140	6.96	20	
Indeno(1,2,3-cd)pyrene (SIM)	1.43	2.0	mg/Kg wet	1.67		85.9	40-140	0.889	20	
2-Methylnaphthalene (SIM)	1.43	20	mg/Kg wet	1.67		86.0	40-140	6.48	20	
Naphthalene (SIM)	1.29		mg/Kg wet	1.67		77.5	40-140	6.78	20	
Phenanthrene (SIM)	1.33	1.0	mg/Kg wet	1.67		79.6	40-140	3.79	20	
Pyrene (SIM)	1.37	20	mg/Kg wet	1.67		81.9	40-140	2.22	20	
Surrogate: Nitrobenzene-d5	*2.28*		mg/Kg wet	3.33		68.5	30-130			
Surrogate: 2-Fluorobiphenyl	*3.10*		mg/Kg wet	3.33		93.0	30-130			
Surrogate: p-Terphenyl-d14	*3.11*		mg/Kg wet	3.33		93.2	30-130			V-06

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QUALITY CONTROL

Polychlorinated Biphenyls with 3540 Soxhlet Extraction - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B351351 - SW-846 3540C										
Blank (B351351-BLK1)				Prepared: 09/07/23 Analyzed: 09/13/23						
Aroclor-1016	ND	0.020	mg/Kg wet							
Aroclor-1016 [2C]	ND	0.020	mg/Kg wet							
Aroclor-1221	ND	0.020	mg/Kg wet							
Aroclor-1221 [2C]	ND	0.020	mg/Kg wet							
Aroclor-1232	ND	0.020	mg/Kg wet							
Aroclor-1232 [2C]	ND	0.020	mg/Kg wet							
Aroclor-1242	ND	0.020	mg/Kg wet							
Aroclor-1242 [2C]	ND	0.020	mg/Kg wet							
Aroclor-1248	ND	0.020	mg/Kg wet							
Aroclor-1248 [2C]	ND	0.020	mg/Kg wet							
Aroclor-1254	ND	0.020	mg/Kg wet							
Aroclor-1254 [2C]	ND	0.020	mg/Kg wet							
Aroclor-1260	ND	0.020	mg/Kg wet							
Aroclor-1260 [2C]	ND	0.020	mg/Kg wet							
Aroclor-1262	ND	0.020	mg/Kg wet							
Aroclor-1262 [2C]	ND	0.020	mg/Kg wet							
Aroclor-1268	ND	0.020	mg/Kg wet							
Aroclor-1268 [2C]	ND	0.020	mg/Kg wet							
Surrogate: Decachlorobiphenyl	*0.192*		mg/Kg wet	0.200		96.0	30-150			
Surrogate: Decachlorobiphenyl [2C]	*0.187*		mg/Kg wet	0.200		93.7	30-150			
Surrogate: Tetrachloro-m-xylene	*0.179*		mg/Kg wet	0.200		89.4	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*0.184*		mg/Kg wet	0.200		92.2	30-150			
LCS (B351351-BS1)				Prepared: 09/07/23 Analyzed: 09/13/23						
Aroclor-1016	0.15	0.020	mg/Kg wet	0.200		75.0	40-140			
Aroclor-1016 [2C]	0.15	0.020	mg/Kg wet	0.200		77.3	40-140			
Aroclor-1260	0.14	0.020	mg/Kg wet	0.200		71.7	40-140			
Aroclor-1260 [2C]	0.14	0.020	mg/Kg wet	0.200		71.6	40-140			
Surrogate: Decachlorobiphenyl	*0.179*		mg/Kg wet	0.200		89.7	30-150			
Surrogate: Decachlorobiphenyl [2C]	*0.175*		mg/Kg wet	0.200		87.4	30-150			
Surrogate: Tetrachloro-m-xylene	*0.158*		mg/Kg wet	0.200		78.8	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*0.161*		mg/Kg wet	0.200		80.3	30-150			
LCS Dup (B351351-BSD1)				Prepared: 09/07/23 Analyzed: 09/13/23						
Aroclor-1016	0.16	0.020	mg/Kg wet	0.200		78.8	40-140	4.93	30	
Aroclor-1016 [2C]	0.16	0.020	mg/Kg wet	0.200		79.8	40-140	3.15	30	
Aroclor-1260	0.14	0.020	mg/Kg wet	0.200		72.3	40-140	0.852	30	
Aroclor-1260 [2C]	0.14	0.020	mg/Kg wet	0.200		72.1	40-140	0.696	30	
Surrogate: Decachlorobiphenyl	*0.186*		mg/Kg wet	0.200		93.0	30-150			
Surrogate: Decachlorobiphenyl [2C]	*0.183*		mg/Kg wet	0.200		91.3	30-150			
Surrogate: Tetrachloro-m-xylene	*0.179*		mg/Kg wet	0.200		89.5	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*0.182*		mg/Kg wet	0.200		90.9	30-150			

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QUALITY CONTROL

Metals Analyses (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B350975 - SW-846 7471										
Blank (B350975-BLK1)				Prepared: 09/05/23 Analyzed: 09/06/23						
Mercury	ND	0.026	mg/Kg wet							
LCS (B350975-BS1)				Prepared: 09/05/23 Analyzed: 09/06/23						
Mercury	23.4	3.7	mg/Kg wet	25.6		91.5	67.2-132.8			
LCS Dup (B350975-BSD1)				Prepared: 09/05/23 Analyzed: 09/06/23						
Mercury	21.2	3.7	mg/Kg wet	25.6		82.8	67.2-132.8	10.0	20	
Batch B351437 - SW-846 3050B										
Blank (B351437-BLK1)				Prepared: 09/08/23 Analyzed: 09/11/23						
Antimony	ND	1.7	mg/Kg wet							
Arsenic	ND	3.4	mg/Kg wet							
Barium	ND	1.7	mg/Kg wet							
Beryllium	ND	0.17	mg/Kg wet							
Cadmium	ND	0.34	mg/Kg wet							
Chromium	ND	0.68	mg/Kg wet							
Copper	1.9	0.68	mg/Kg wet							B-07
Lead	ND	0.51	mg/Kg wet							
Nickel	ND	0.68	mg/Kg wet							
Selenium	ND	3.4	mg/Kg wet							
Silver	ND	0.34	mg/Kg wet							
Thallium	ND	1.7	mg/Kg wet							
Zinc	ND	0.68	mg/Kg wet							
LCS (B351437-BS1)				Prepared: 09/08/23 Analyzed: 09/11/23						
Antimony	108	5.1	mg/Kg wet	144		74.7	6.3-193.8			
Arsenic	158	10	mg/Kg wet	180		87.6	81.1-119.4			
Barium	339	5.1	mg/Kg wet	354		95.9	81.6-118.1			
Beryllium	145	0.51	mg/Kg wet	152		95.4	82.9-117.8			
Cadmium	96.6	1.0	mg/Kg wet	105		92.0	82.8-118.1			
Chromium	219	2.0	mg/Kg wet	232		94.5	81.5-118.5			
Copper	127	2.0	mg/Kg wet	124		103	83.1-116.9			B
Lead	133	1.5	mg/Kg wet	145		91.6	82.1-117.9			
Nickel	102	2.0	mg/Kg wet	108		94.3	85.2-117.6			
Selenium	89.8	10	mg/Kg wet	96.3		93.3	78.8-121.5			
Silver	52.4	1.0	mg/Kg wet	47.3		111	79.5-120.5			
Thallium	154	5.1	mg/Kg wet	172		89.3	80.8-118.6			
Zinc	337	2.0	mg/Kg wet	369		91.4	80.2-120.1			
LCS Dup (B351437-BSD1)				Prepared: 09/08/23 Analyzed: 09/11/23						
Antimony	110	5.0	mg/Kg wet	144		76.2	6.3-193.8	1.95	30	
Arsenic	157	10	mg/Kg wet	180		87.5	81.1-119.4	0.0986	30	
Barium	354	5.0	mg/Kg wet	354		99.9	81.6-118.1	4.14	20	
Beryllium	150	0.50	mg/Kg wet	152		98.4	82.9-117.8	3.08	30	
Cadmium	98.9	1.0	mg/Kg wet	105		94.1	82.8-118.1	2.33	20	
Chromium	224	2.0	mg/Kg wet	232		96.6	81.5-118.5	2.21	30	
Copper	128	2.0	mg/Kg wet	124		103	83.1-116.9	0.774	30	B
Lead	132	1.5	mg/Kg wet	145		91.2	82.1-117.9	0.375	30	
Nickel	103	2.0	mg/Kg wet	108		95.2	85.2-117.6	0.963	30	
Selenium	89.9	10	mg/Kg wet	96.3		93.4	78.8-121.5	0.0964	30	
Silver	52.2	1.0	mg/Kg wet	47.3		110	79.5-120.5	0.442	30	
Thallium	155	5.0	mg/Kg wet	172		90.2	80.8-118.6	1.05	30	
Zinc	338	2.0	mg/Kg wet	369		91.7	80.2-120.1	0.414	30	

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QUALITY CONTROL

Metals Analyses (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B351437 - SW-846 3050B										
Reference (B351437-SRM1) MRL CHECK				Prepared: 09/08/23 Analyzed: 09/11/23						
Lead	0.458	0.48	mg/Kg wet	0.482		95.0	80-120			

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IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

SW-846 8082A

LCS

Lab Sample ID: B351351-BS1 Date(s) Analyzed: 09/13/2023 09/13/2023

Instrument ID (1): ECD11 Instrument ID (2): ECD11

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%RPD
			FROM	TO		
Aroclor-1016	1	0.000	-0.030	0.030	0.15	
	2	0.000	-0.030	0.030	0.15	0.0
Aroclor-1260	1	0.000	-0.030	0.030	0.14	
	2	0.000	-0.030	0.030	0.14	0.0

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IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

SW-846 8082A

LCS Dup

Lab Sample ID: B351351-BSD1 Date(s) Analyzed: 09/13/2023 09/13/2023

Instrument ID (1): ECD11 Instrument ID (2): ECD11

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%RPD
			FROM	TO		
Aroclor-1016	1	0.000	-0.030	0.030	0.16	
	2	0.000	-0.030	0.030	0.16	0.0
Aroclor-1260	1	0.000	-0.030	0.030	0.14	
	2	0.000	-0.030	0.030	0.14	6.9

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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-07	Data is not affected by elevated level in laboratory blank since sample result is >10x level found in the blank.
M-08	The interference check sample was outside of control limits. Data validation is not affected since the sample result is "not detected" and the bias is on the high side.
V-06	Continuing calibration verification (CCV) did not meet method specifications and was biased on the high side for this compound.

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CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
SW-846 6010D in Product/Solid	
Antimony	CT,NH,NY,ME,VA,NC
Arsenic	CT,NH,NY,ME,VA,NC
Barium	CT,NH,NY,ME,VA,NC
Beryllium	CT,NH,NY,ME,VA,NC
Cadmium	CT,NH,NY,ME,VA,NC
Chromium	CT,NH,NY,ME,VA,NC
Copper	CT,NH,NY,ME,VA,NC
Lead	CT,NH,NY,ME,VA,NC
Nickel	CT,NH,NY,ME,VA,NC
Selenium	CT,NH,NY,ME,VA,NC
Silver	CT,NH,NY,ME,VA,NC
Thallium	CT,NH,NY,ME,VA,NC
Zinc	CT,NH,NY,ME,VA,NC
SW-846 6010D in Soil	
Antimony	CT,NH,NY,ME,VA,NC
Arsenic	CT,NH,NY,ME,VA,NC
Barium	CT,NH,NY,ME,VA,NC
Beryllium	CT,NH,NY,ME,VA,NC
Cadmium	CT,NH,NY,ME,VA,NC
Chromium	CT,NH,NY,ME,VA,NC
Copper	CT,NH,NY,ME,VA,NC
Lead	CT,NH,NY,AIHA,ME,VA,NC
Nickel	CT,NH,NY,ME,VA,NC
Selenium	CT,NH,NY,ME,VA,NC
Silver	CT,NH,NY,ME,VA,NC
Thallium	CT,NH,NY,ME,VA,NC
Zinc	CT,NH,NY,ME,VA,NC
SW-846 6010D in Water	
Antimony	CT,NH,NY,ME,VA,NC
Arsenic	CT,NH,NY,ME,VA,RI,NC
Barium	CT,NH,NY,ME,VA,NC
Beryllium	CT,NH,NY,ME,VA,NC
Cadmium	CT,NH,NY,ME,VA,NC
Chromium	CT,NH,NY,ME,VA,NC
Copper	CT,NH,NY,ME,VA,NC
Lead	CT,NH,NY,ME,VA,NC
Nickel	CT,NH,NY,ME,VA,NC
Selenium	CT,NH,NY,ME,VA,NC
Silver	CT,NH,NY,ME,VA,NC
Thallium	CT,NH,NY,VA,NC
Zinc	CT,NH,NY,ME,VA,NC
SW-846 7471B in Soil	
Mercury	CT,NH,NY,NC,ME,VA
SW-846 8082A in Soil	
Aroclor-1016	CT,NH,NY,ME,NC,VA,PA

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

CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
SW-846 8082A in Soil	
Aroclor-1016 [2C]	CT,NH,NY,ME,NC,VA,PA
Aroclor-1221	CT,NH,NY,ME,NC,VA,PA
Aroclor-1221 [2C]	CT,NH,NY,ME,NC,VA,PA
Aroclor-1232	CT,NH,NY,ME,NC,VA,PA
Aroclor-1232 [2C]	CT,NH,NY,ME,NC,VA,PA
Aroclor-1242	CT,NH,NY,ME,NC,VA,PA
Aroclor-1242 [2C]	CT,NH,NY,ME,NC,VA,PA
Aroclor-1248	CT,NH,NY,ME,NC,VA,PA
Aroclor-1248 [2C]	CT,NH,NY,ME,NC,VA,PA
Aroclor-1254	CT,NH,NY,ME,NC,VA,PA
Aroclor-1254 [2C]	CT,NH,NY,ME,NC,VA,PA
Aroclor-1260	CT,NH,NY,ME,NC,VA,PA
Aroclor-1260 [2C]	CT,NH,NY,ME,NC,VA,PA
Aroclor-1262	NY,NC,VA,PA
Aroclor-1262 [2C]	NY,NC,VA,PA
Aroclor-1268	NY,NC,VA,PA
Aroclor-1268 [2C]	NY,NC,VA,PA

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

Code	Description	Number	Expires
AIHA	AIHA-LAP, LLC - ISO 17025:2017	100033	03/1/2024
CT	Connecticut Department of Public Health	PH-0821	12/31/2024
NY	New York State Department of Health	10899 NELAP	04/1/2024
NH	New Hampshire Environmental Lab	2516 NELAP	02/5/2024
RI	Rhode Island Department of Health	LAO00373	12/30/2023
NC	North Carolina Div. of Water Quality	652	12/31/2023
ME	State of Maine	MA00100	06/9/2025
VA	Commonwealth of Virginia	460217	12/14/2023
PA	Commonwealth of Pennsylvania DEP	68-05812	06/30/2024

23T0150 TF

Pace Analytical

Phone: 413-525-2332
Fax: 413-525-6405
Access COC's and Support Requests

http://www.pacelabs.com

CHAIN OF CUSTODY RECORD

39 Spruce Street
East Longmeadow, MA D1028

Doc # 381 Rev 5_07/13/2021

Page 1 of 1

Company Name:	Weston & Sampson
Address:	98 South Main St. Suite2 Waterbury, VT
Phone:	802 244 5051
Project Name:	11 N Main St
Project Location:	11 N Main St, Northfield VT
Project Number:	
Project Manager:	Lee Rosberg
Pace Quote Name/Number:	00142205
Invoice Recipient:	Lee Rosberg
Sampled By:	Daniel Schneiders

Requested Turnaround Time			
7-Day	X	1D-Day	
PFAS 10-Day (std)		Due Date:	

Rush-Approval Required			
1-Day		3-Day	
2-Day		4-Day	

Dissolved Metals Samples	
	Field Filtered
	Lab to Filter

Orthophosphate Samples	
	Field Filtered
	Lab to Filter

Data Delivery	
Format:	PDF X EXCEL X
Other:	Envirodata 8
CLP Like Data Pkg Required:	
Email To:	rosberg.lee@wsinc.com
Fax To #:	

PCB ONLY
SOXHLET X
NON SOXHLET

ANALYSIS REQUESTED

Pace Work Order#	Client Sample ID / Description	Beginning Date/Time	Ending Date/Time	COMP/GRAB	[1]Matrix Code	Conc Code	VIALS	GLASS	PLASTIC	BACTERIA	ENCORE	PAHs 8270 SIM	PP13 metals + Barium	PCBs 8082 Soxhlet
1	DU-1A	8/29/23	11:45	comp	S	V		3				X	X	X
2	DU-1B	8/29/23	11:50	comp	S	V		3				X	X	X
3	DU-1C	8/29/23	12:00	comp	S	V		3				X	X	X
4	DU-2A	8/29/23	14:30	comp	S	V		3				X	X	X
5	DU-2B	8/29/23	14:35	comp	S	V		3				X	X	X
6	DU-2C	8/29/23	14:40	comp	S	V		3				X	X	X

[2] Preservation Code
Courier Use Only
Total Number Of:
VIALS
GLASS
PLASTIC
BACTERIA
ENCORE

Glassware in the fridge? Y / N
Glassware in freezer? Y / N
Prepackaged Cooler? Y
*Pace Analytical is not responsible for missing samp from prepacked coolers

[1] Matrix Codes:
GW = Ground Water
WW = Waste Water
DW = Drinking Water
A = Air
S = Soil
SL = Sludge
SOL = Solid
O = Other (please define)

[2] Preservation Codes:
I = Iced
H = HCL
M = Methanol
N = Nitric Acid
S = Sulfuric Acid
B = Sodium Bisulfate
X = Sodium Hydroxide
T = Sodium Thiosulfate
O = Other (please define)

	Date/Time:
Relinquished by: (signature)	8/31 13:00
Received by: (signature) RVS VOS	8/1/23
Relinquished by: (signature) RVS VOS	9/1/23 10:40
Received by: (signature) Sam Sabaie	9/01/23 10:40
Relinquished by: (signature) Sam Sabaie	9/01/23 14:25
Received by: (signature)	9/1/23 1425
Relinquished by: (signature)	5.1
Received by: (signature)	

Client Comments:

Detection Limit Requirements	
MA	
CT	
Other:	

Special Requirements	
	MA MCP Required
	MCP Certification Form Required
	CT RCP Required
	RCP Certification Form Required
	MA State DW Required
PWSID #	

Please use the following codes to indicate possible sample concentration within the Conc Code column above:
H - High; M - Medium; L - Low; C - Clean; U - Unknown

NELAC and AIHA-LAP, LLC Accredited

Project Entity

Government		Municipality		MWRA		WRTA	
Federal		21 J		School			
City		Brownfield		MBTA			

Other
Chromatogram
AIHA-LAP,LLC

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.

Pace ANALYTICAL SERVICES	DC#_Title: ENV-FRM-ELON-0001 v07_Sample Receiving Checklist
	Effective Date: 07/13/2023

Log In Back-Sheet

Client Weston and Sampson

Project 11 N Main St, Northfield VT

MCP/RCP Required N/A

Deliverable Package Requirement N/A

Location 11 N Main St, Northfield VT

PWSID# (When Applicable) N/A

Arrival Method:

Courier ☒ Fed Ex ☐ Walk In ☐ Other ☐

Received By / Date / Time STM 9/1/23 1425

Back-Sheet By / Date / Time STM 9/1/23 1611

Temperature Method Gun # 5

Temp ☒ < 6° C Actual Temperature 3.1

Rush Samples: Yes / (No) Notify

Short Hold: Yes / (No) Notify

Notes regarding Samples/COC outside of SOP:

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

	True	False
Received on Ice	☒	☐
Received in Cooler	☒	☐
Custody Seal: DATE TIME	☐	☒
COC Relinquished	☒	☐
COC/Samples Labels Agree	☒	☐
All Samples in Good Condition	☒	☐
Samples Received within Holding Time	☒	☐
Is there enough Volume	☒	☐
Proper Media/Container Used	☒	☐
Splitting Samples Required	☐	☒
MS/MSD	☐	☒
Trip Blanks	☐	☒
Lab to Filters	☐	☒
COC Legible	☒	☐

COC Included: (Check all included)

Client ☒ Analysis ☒ Sampler Name ☒

Project ☒ IDs ☒ Collection Date/Time ☒

All Samples Proper pH: (N/A) ☐ ☐

Additional Container Notes

Note: West Virginia requires all samples to have their temperature taken. Note any outliers.

Qualtrax ID: 120836

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Qualtrax ID: 120836

Sample	Soils Jars (Circle Amb/Clear)				Ambers						Plastics												VOA Vials						Other / Fill in					
	16oz Amb/Clear	8oz Amb/Clear	4oz Amb/Clear	2oz Amb/Clear	1 Liter			250mL		100mL	1 Liter			500mL		250mL																		
					Unpreserved	HCL	Sulfuric	Sulfuric	Phosphoric	HCl	Unpreserved	Unpreserved	Sulfuric	Unpreserved	Sulfuric	Unpreserved	Trizma	Sulfuric	Nitric	NaOH	Ammonium Acetate	NaOH/Zinc	Unpreserved	HCl	MeOH	D.I. Water	Bisulfate	Col/Bact						
1		3																																
2		3																																
3		3																																
4		3																																
5		3																																
6		3																																
7																																		
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18																																		
19																																		
20																																		

Pace ANALYTICAL SERVICES	DC#_Title: ENV-FRM-ELON-0001 v07_Sample Receiving Checklist
	Effective Date: 07/13/2023

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

October 3, 2023

Lee Rosberg
Weston & Sampson - Waterbury, VT
98 South Main Street
Waterbury, VT 05676

Project Location: 11 N. Main St., Northfield, VT.
Client Job Number:
Project Number: 00142205 - 11 N Main Street
Laboratory Work Order Number: 23I0963

Enclosed are results of analyses for samples as received by the laboratory on September 8, 2023. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Rebecca Faust
Project Manager

Table of Contents

Table of Contents (continued)

CON-TEST A Pace Analytical® Laboratory
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Weston & Sampson - Waterbury, VT
98 South Main Street
Waterbury, VT 05676
ATTN: Lee Rosberg

REPORT DATE: 10/3/2023

PURCHASE ORDER NUMBER:

PROJECT NUMBER: 00142205 - 11 N Main Street

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 23I0963

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

PROJECT LOCATION: 11 N. Main St., Northfield, VT.

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
SB-1 (0-2)	23I0963-01	Soil		SM 2540G	
				SW-846 6010D	
				SW-846 7471B	
				SW-846 8082A	
				SW-846 8270E	
SB-1 (10)	23I0963-02	Soil		SM 2540G	
				SW-846 8260D	
SB-2 (0-2)	23I0963-03	Soil		SM 2540G	
				SW-846 6010D	
				SW-846 7471B	
				SW-846 8082A	
				SW-846 8270E	
SB-2 (15)	23I0963-04	Soil		SM 2540G	
				SW-846 8260D	
				SW-846 8270E	
SB-3 (10-12)	23I0963-05	Soil		SM 2540G	
				SW-846 6010D	
				SW-846 7471B	
				SW-846 8082A	
				SW-846 8270E	
SB-3 (11)	23I0963-06	Soil		SM 2540G	
				SW-846 8260D	
SB-4 (0-3)	23I0963-07	Soil		SM 2540G	
				SW-846 6010D	
				SW-846 7471B	
				SW-846 8082A	
				SW-846 8270E	
SB-4 (7)	23I0963-08	Soil		SM 2540G	
				SW-846 8260D	
SB-5 (1)	23I0963-09	Soil		SM 2540G	
				SW-846 8260D	
DUP-1	23I0963-10	Soil		SM 2540G	
				SW-846 8260D	
DUP	23I0963-11	Soil		SM 2540G	
				SW-846 6010D	
				SW-846 7471B	
				SW-846 8082A	
				SW-846 8270E	
GW-1	23I0963-12	Ground Water		SW-846 8260D	
GW-2	23I0963-13	Ground Water		SW-846 8260D	
GW-3	23I0963-14	Ground Water		SW-846 8260D	

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

Weston & Sampson - Waterbury, VT
98 South Main Street
Waterbury, VT 05676
ATTN: Lee Rosberg

REPORT DATE: 10/3/2023

PURCHASE ORDER NUMBER:

PROJECT NUMBER: 00142205 - 11 N Main Street

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 23I0963

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

PROJECT LOCATION: 11 N. Main St., Northfield, VT.

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
GW-4	23I0963-15	Ground Water		SW-846 8260D	
GW-5	23I0963-16	Ground Water		SW-846 8260D	
DUP-2	23I0963-17	Ground Water		SW-846 8260D	
TRIP BLANK	23I0963-18	Trip Blank Water		SW-846 8260D	

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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.

REVISED REPORT: 8270 Standard requested for -01, -03, -04, -07, -11. 9/27/23

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

SM 2540G

Qualifications:

H-06

Sample was extracted past the recommended holding time.

Analyte & Samples(s) Qualified:

% Solids

23I0963-01[SB-1 (0-2)], 23I0963-02[SB-1 (10)], 23I0963-03[SB-2 (0-2)], 23I0963-04[SB-2 (15)], 23I0963-05[SB-3 (10-12)], 23I0963-06[SB-3 (11)], 23I0963-07[SB-4 (0-3)], 23I0963-08[SB-4 (7)], 23I0963-09[SB-5 (1)], 23I0963-10[DUP-1], 23I0963- 11[DUP]

SW-846 8260D

Qualifications:

L-07

Either laboratory fortified blank/laboratory control sample or duplicate recovery is outside of control limits, but the other is within limits. RPD between the two LFB/LCS results is within method specified criteria.

Analyte & Samples(s) Qualified:

Acetone

B351707-BSD1

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:

Acetone

23I0963-02[SB-1 (10)], 23I0963-04[SB-2 (15)], 23I0963-06[SB-3 (11)], 23I0963-08[SB-4 (7)], 23I0963-09[SB-5 (1)], 23I0963-10[DUP-1], B351707-BLK1, B351707-BS1, B351707-BSD1, S093285-CCV1

Tetrahydrofuran

23I0963-12[GW-1], 23I0963-13[GW-2], 23I0963-14[GW-3], 23I0963-15[GW-4], 23I0963-16[GW-5], 23I0963-17[DUP-2], 23I0963-18[TRIP BLANK], B351660-BLK1, B351660-BS1, B351660-BSD1, S093333-CCV1

Trichlorofluoromethane (Freon 11)

23I0963-02[SB-1 (10)], 23I0963-04[SB-2 (15)], 23I0963-06[SB-3 (11)], 23I0963-08[SB-4 (7)], 23I0963-09[SB-5 (1)], 23I0963-10[DUP-1], B351707-BLK1, B351707-BS1, B351707-BSD1, S093285-CCV1

V-34

Initial calibration verification (ICV) did not meet method specifications and was biased on the low side for this compound. Reported result is estimated.

Analyte & Samples(s) Qualified:

Bromomethane

23I0963-02[SB-1 (10)], 23I0963-04[SB-2 (15)], 23I0963-06[SB-3 (11)], 23I0963-08[SB-4 (7)], 23I0963-09[SB-5 (1)], 23I0963-10[DUP-1], B351707-BLK1, B351707-BS1, B351707-BSD1, S093285-CCV1

V-35

Initial calibration verification (ICV) did not meet method specifications and was biased on the high side for this compound. Reported result is estimated.

Analyte & Samples(s) Qualified:

Acetone

B351707-BS1, B351707-BSD1, S093285-CCV1

SW-846 8270E

Qualifications:

H-06

Sample was extracted past the recommended holding time.

Analyte & Samples(s) Qualified:

23I0963-01[SB-1 (0-2)], 23I0963-03[SB-2 (0-2)], 23I0963-04[SB-2 (15)], 23I0963-05[SB-3 (10-12)], 23I0963-07[SB-4 (0-3)], 23I0963-11[DUP]

MS-07A

Matrix spike and spike duplicate recovery is outside of control limits. Analysis is in control based on laboratory fortified blank recovery. Possibility of matrix effects that lead to low bias or non-homogeneous sample aliquot cannot be eliminated.

Analyte & Samples(s) Qualified:

Bis(2-chloroisopropyl)ether

B353275-MSD1

Hexachlorocyclopentadiene

B353275-MS1

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

V-04

Initial calibration did not meet method specifications. Compound was calibrated using a response factor where %RSD is outside of method specified criteria. Reported result is estimated.

Analyte & Samples(s) Qualified:

Benzidine

23I0963-01[SB-1 (0-2)], 23I0963-03[SB-2 (0-2)], 23I0963-04[SB-2 (15)], 23I0963-05[SB-3 (10-12)], 23I0963-07[SB-4 (0-3)], 23I0963- 11[DUP], B353275-BLK1, B353275-BS1, B353275-BSD1, B353275-MS1, B353275-MSD1, S094203-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:

Benzidine

23I0963-01[SB-1 (0-2)], 23I0963-03[SB-2 (0-2)], 23I0963-04[SB-2 (15)], 23I0963-05[SB-3 (10-12)], 23I0963-07[SB-4 (0-3)], 23I0963- 11[DUP], B353275-BLK1, B353275-BS1, B353275-BSD1, B353275-MS1, B353275-MSD1, S094203-CCV1

Hexachlorocyclopentadiene

23I0963-01[SB-1 (0-2)], 23I0963-03[SB-2 (0-2)], 23I0963-04[SB-2 (15)], 23I0963-05[SB-3 (10-12)], 23I0963-07[SB-4 (0-3)], 23I0963- 11[DUP], B353275-BLK1, B353275-BS1, B353275-BSD1, B353275-MS1, B353275-MSD1, S094203-CCV1

V-06

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

Analyte & Samples(s) Qualified:

Bis(2-chloroethyl)ether

23I0963-01[SB-1 (0-2)], 23I0963-03[SB-2 (0-2)], 23I0963-04[SB-2 (15)], 23I0963-05[SB-3 (10-12)], 23I0963-07[SB-4 (0-3)], 23I0963- 11[DUP], B353275-BLK1, B353275-BS1, B353275-BSD1, B353275-MS1, B353275-MSD1, S094203-CCV1

Bis(2-chloroisopropyl)ether

23I0963-01[SB-1 (0-2)], 23I0963-03[SB-2 (0-2)], 23I0963-04[SB-2 (15)], 23I0963-05[SB-3 (10-12)], 23I0963-07[SB-4 (0-3)], 23I0963- 11[DUP], B353275-BLK1, B353275-BS1, B353275-BSD1, B353275-MS1, B353275-MSD1, S094203-CCV1

Bis(2-Ethylhexyl)phthalate

23I0963-01[SB-1 (0-2)], 23I0963-03[SB-2 (0-2)], 23I0963-04[SB-2 (15)], 23I0963-05[SB-3 (10-12)], 23I0963-07[SB-4 (0-3)], 23I0963- 11[DUP], B353275-BLK1, B353275-BS1, B353275-BSD1, B353275-MS1, B353275-MSD1, S094203-CCV1

Di-n-octylphthalate

23I0963-01[SB-1 (0-2)], 23I0963-03[SB-2 (0-2)], 23I0963-04[SB-2 (15)], 23I0963-05[SB-3 (10-12)], 23I0963-07[SB-4 (0-3)], 23I0963- 11[DUP], B353275-BLK1, B353275-BS1, B353275-BSD1, B353275-MS1, B353275-MSD1, S094203-CCV1

V-34

Initial calibration verification (ICV) did not meet method specifications and was biased on the low side for this compound. Reported result is estimated.

Analyte & Samples(s) Qualified:

Aniline

S093746-ICV1

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: 11 N. Main St., Northfield, VT. Sample Description: Work Order: 23I0963

Date Received: 9/8/2023

Field Sample #: SB-1 (0-2) Sampled: 9/6/2023 08:30

Sample ID: 23I0963-01

Sample Matrix: Soil

Sample Flags: H-06

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene	ND	0.21	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 18:42	AR2
Acenaphthylene	ND	0.21	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 18:42	AR2
Acetophenone	ND	0.41	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 18:42	AR2
Aniline	ND	0.41	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 18:42	AR2
Anthracene	ND	0.21	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 18:42	AR2
Benzidine	ND	0.80	mg/Kg dry	1	V-04, V-05	SW-846 8270E	9/27/23	9/30/23 18:42	AR2
Benzo(a)anthracene	ND	0.21	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 18:42	AR2
Benzo(a)pyrene	ND	0.21	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 18:42	AR2
Benzo(b)fluoranthene	ND	0.21	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 18:42	AR2
Benzo(g,h,i)perylene	ND	0.21	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 18:42	AR2
Benzo(k)fluoranthene	ND	0.21	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 18:42	AR2
Benzoic Acid	ND	1.2	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 18:42	AR2
Bis(2-chloroethoxy)methane	ND	0.41	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 18:42	AR2
Bis(2-chloroethyl)ether	ND	0.41	mg/Kg dry	1	V-06	SW-846 8270E	9/27/23	9/30/23 18:42	AR2
Bis(2-chloroisopropyl)ether	ND	0.41	mg/Kg dry	1	V-06	SW-846 8270E	9/27/23	9/30/23 18:42	AR2
Bis(2-Ethylhexyl)phthalate	ND	0.41	mg/Kg dry	1	V-06	SW-846 8270E	9/27/23	9/30/23 18:42	AR2
4-Bromophenylphenylether	ND	0.41	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 18:42	AR2
Butylbenzylphthalate	ND	0.41	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 18:42	AR2
Carbazole	ND	0.21	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 18:42	AR2
4-Chloroaniline	ND	0.80	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 18:42	AR2
4-Chloro-3-methylphenol	ND	0.80	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 18:42	AR2
2-Chloronaphthalene	ND	0.41	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 18:42	AR2
2-Chlorophenol	ND	0.41	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 18:42	AR2
4-Chlorophenylphenylether	ND	0.41	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 18:42	AR2
Chrysene	ND	0.21	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 18:42	AR2
Dibenz(a,h)anthracene	ND	0.21	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 18:42	AR2
Dibenzofuran	ND	0.41	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 18:42	AR2
Di-n-butylphthalate	ND	0.41	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 18:42	AR2
1,2-Dichlorobenzene	ND	0.41	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 18:42	AR2
1,3-Dichlorobenzene	ND	0.41	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 18:42	AR2
1,4-Dichlorobenzene	ND	0.41	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 18:42	AR2
3,3-Dichlorobenzidine	ND	0.21	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 18:42	AR2
2,4-Dichlorophenol	ND	0.41	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 18:42	AR2
Diethylphthalate	ND	0.41	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 18:42	AR2
2,4-Dimethylphenol	ND	0.41	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 18:42	AR2
Dimethylphthalate	ND	0.41	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 18:42	AR2
4,6-Dinitro-2-methylphenol	ND	0.41	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 18:42	AR2
2,4-Dinitrophenol	ND	0.80	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 18:42	AR2
2,4-Dinitrotoluene	ND	0.41	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 18:42	AR2
2,6-Dinitrotoluene	ND	0.41	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 18:42	AR2
Di-n-octylphthalate	ND	0.41	mg/Kg dry	1	V-06	SW-846 8270E	9/27/23	9/30/23 18:42	AR2
1,2-Diphenylhydrazine/Azobenzene	ND	0.41	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 18:42	AR2
Fluoranthene	0.33	0.21	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 18:42	AR2
Fluorene	ND	0.21	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 18:42	AR2

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Project Location: 11 N. Main St., Northfield, VT. Sample Description: Work Order: 23I0963

Date Received: 9/8/2023

Field Sample #: SB-1 (0-2) Sampled: 9/6/2023 08:30

Sample ID: 23I0963-01

Sample Matrix: Soil

Sample Flags: H-06

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Hexachlorobenzene	ND	0.41	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 18:42	AR2
Hexachlorobutadiene	ND	0.41	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 18:42	AR2
Hexachlorocyclopentadiene	ND	0.41	mg/Kg dry	1	V-05	SW-846 8270E	9/27/23	9/30/23 18:42	AR2
Hexachloroethane	ND	0.41	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 18:42	AR2
Indeno(1,2,3-cd)pyrene	ND	0.21	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 18:42	AR2
Isophorone	ND	0.41	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 18:42	AR2
1-Methylnaphthalene	ND	0.21	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 18:42	AR2
2-Methylnaphthalene	ND	0.21	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 18:42	AR2
2-Methylphenol	ND	0.41	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 18:42	AR2
3/4-Methylphenol	ND	0.41	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 18:42	AR2
Naphthalene	ND	0.21	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 18:42	AR2
2-Nitroaniline	ND	0.41	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 18:42	AR2
3-Nitroaniline	ND	0.41	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 18:42	AR2
4-Nitroaniline	ND	0.41	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 18:42	AR2
Nitrobenzene	ND	0.41	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 18:42	AR2
2-Nitrophenol	ND	0.41	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 18:42	AR2
4-Nitrophenol	ND	0.80	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 18:42	AR2
N-Nitrosodimethylamine	ND	0.41	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 18:42	AR2
N-Nitrosodiphenylamine/Diphenylamine	ND	0.41	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 18:42	AR2
N-Nitrosodi-n-propylamine	ND	0.41	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 18:42	AR2
Pentachloronitrobenzene	ND	0.41	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 18:42	AR2
Pentachlorophenol	ND	0.41	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 18:42	AR2
Phenanthrene	ND	0.21	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 18:42	AR2
Phenol	ND	0.41	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 18:42	AR2
Pyrene	0.30	0.21	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 18:42	AR2
Pyridine	ND	0.41	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 18:42	AR2
1,2,4,5-Tetrachlorobenzene	ND	0.41	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 18:42	AR2
1,2,4-Trichlorobenzene	ND	0.41	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 18:42	AR2
2,4,5-Trichlorophenol	ND	0.41	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 18:42	AR2
2,4,6-Trichlorophenol	ND	0.41	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 18:42	AR2

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
2-Fluorophenol	59.7	30-130		9/30/23 18:42
Phenol-d6	68.8	30-130		9/30/23 18:42
Nitrobenzene-d5	64.9	30-130		9/30/23 18:42
2-Fluorobiphenyl	70.1	30-130		9/30/23 18:42
2,4,6-Tribromophenol	53.6	30-130		9/30/23 18:42
p-Terphenyl-d14	74.2	30-130		9/30/23 18:42

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Project Location: 11 N. Main St., Northfield, VT. Sample Description: Work Order: 23I0963

Date Received: 9/8/2023

Field Sample #: SB-1 (0-2) Sampled: 9/6/2023 08:30

Sample ID: 23I0963-01

Sample Matrix: Soil

Polychlorinated Biphenyls with 3540 Soxhlet Extraction

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.097	mg/Kg dry	4		SW-846 8082A	9/14/23	9/19/23 12:16	TG
Aroclor-1221 [1]	ND	0.097	mg/Kg dry	4		SW-846 8082A	9/14/23	9/19/23 12:16	TG
Aroclor-1232 [1]	ND	0.097	mg/Kg dry	4		SW-846 8082A	9/14/23	9/19/23 12:16	TG
Aroclor-1242 [1]	ND	0.097	mg/Kg dry	4		SW-846 8082A	9/14/23	9/19/23 12:16	TG
Aroclor-1248 [1]	ND	0.097	mg/Kg dry	4		SW-846 8082A	9/14/23	9/19/23 12:16	TG
Aroclor-1254 [1]	ND	0.097	mg/Kg dry	4		SW-846 8082A	9/14/23	9/19/23 12:16	TG
Aroclor-1260 [1]	ND	0.097	mg/Kg dry	4		SW-846 8082A	9/14/23	9/19/23 12:16	TG
Aroclor-1262 [1]	ND	0.097	mg/Kg dry	4		SW-846 8082A	9/14/23	9/19/23 12:16	TG
Aroclor-1268 [1]	ND	0.097	mg/Kg dry	4		SW-846 8082A	9/14/23	9/19/23 12:16	TG

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Decachlorobiphenyl [1]	91.5	30-150		9/19/23 12:16
Decachlorobiphenyl [2]	85.8	30-150		9/19/23 12:16
Tetrachloro-m-xylene [1]	93.6	30-150		9/19/23 12:16
Tetrachloro-m-xylene [2]	89.8	30-150		9/19/23 12:16

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Project Location: 11 N. Main St., Northfield, VT. Sample Description: Work Order: 23I0963

Date Received: 9/8/2023

Field Sample #: SB-1 (0-2) Sampled: 9/6/2023 08:30

Sample ID: 23I0963-01

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Antimony	ND	2.0	mg/Kg dry	1		SW-846 6010D	9/15/23	9/19/23 19:13	ATP
Arsenic	8.2	4.0	mg/Kg dry	1		SW-846 6010D	9/15/23	9/19/23 19:13	ATP
Barium	45	2.0	mg/Kg dry	1		SW-846 6010D	9/15/23	9/19/23 19:13	ATP
Beryllium	0.32	0.20	mg/Kg dry	1		SW-846 6010D	9/15/23	9/19/23 19:13	ATP
Cadmium	ND	0.40	mg/Kg dry	1		SW-846 6010D	9/15/23	9/19/23 19:13	ATP
Chromium	14	0.79	mg/Kg dry	1		SW-846 6010D	9/15/23	9/19/23 19:13	ATP
Copper	41	0.79	mg/Kg dry	1		SW-846 6010D	9/15/23	9/19/23 19:13	ATP
Lead	160	0.59	mg/Kg dry	1		SW-846 6010D	9/15/23	9/19/23 19:13	ATP
Mercury	0.21	0.031	mg/Kg dry	1		SW-846 7471B	9/18/23	9/19/23 13:59	AAJ
Nickel	15	0.79	mg/Kg dry	1		SW-846 6010D	9/15/23	9/19/23 19:13	ATP
Selenium	ND	4.0	mg/Kg dry	1		SW-846 6010D	9/15/23	9/20/23 23:13	ATP
Silver	1.2	0.40	mg/Kg dry	1		SW-846 6010D	9/15/23	9/19/23 19:13	ATP
Thallium	ND	2.0	mg/Kg dry	1		SW-846 6010D	9/15/23	9/19/23 19:13	ATP
Zinc	120	0.79	mg/Kg dry	1		SW-846 6010D	9/15/23	9/19/23 19:13	ATP

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Project Location: 11 N. Main St., Northfield, VT. Sample Description: Work Order: 23I0963

Date Received: 9/8/2023

Field Sample #: SB-1 (0-2) Sampled: 9/6/2023 08:30

Sample ID: 23I0963-01

Sample 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	82.4		% Wt	1	H-06	SM 2540G	9/14/23	9/14/23 16:11	AV

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Project Location: 11 N. Main St., Northfield, VT. Sample Description: Work Order: 23I0963

Date Received: 9/8/2023

Field Sample #: SB-1 (10) Sampled: 9/6/2023 08:45

Sample ID: 23I0963-02

Sample Matrix: Soil

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	0.12	mg/Kg dry	1	V-05	SW-846 8260D	9/12/23	9/12/23 11:03	MFF
Acrylonitrile	ND	0.0074	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:03	MFF
tert-Amyl Methyl Ether (TAME)	ND	0.0012	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:03	MFF
Benzene	ND	0.0025	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:03	MFF
Bromobenzene	ND	0.0025	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:03	MFF
Bromochloromethane	ND	0.0025	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:03	MFF
Bromodichloromethane	ND	0.0025	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:03	MFF
Bromoform	ND	0.0025	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:03	MFF
Bromomethane	ND	0.012	mg/Kg dry	1	V-34	SW-846 8260D	9/12/23	9/12/23 11:03	MFF
2-Butanone (MEK)	ND	0.049	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:03	MFF
tert-Butyl Alcohol (TBA)	ND	0.12	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:03	MFF
n-Butylbenzene	ND	0.0025	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:03	MFF
sec-Butylbenzene	ND	0.0025	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:03	MFF
tert-Butylbenzene	ND	0.0025	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:03	MFF
tert-Butyl Ethyl Ether (TBEE)	ND	0.0012	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:03	MFF
Carbon Disulfide	ND	0.012	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:03	MFF
Carbon Tetrachloride	ND	0.0025	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:03	MFF
Chlorobenzene	ND	0.0025	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:03	MFF
Chlorodibromomethane	ND	0.0012	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:03	MFF
Chloroethane	ND	0.025	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:03	MFF
Chloroform	ND	0.0049	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:03	MFF
Chloromethane	ND	0.012	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:03	MFF
2-Chlorotoluene	ND	0.0025	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:03	MFF
4-Chlorotoluene	ND	0.0025	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:03	MFF
1,2-Dibromo-3-chloropropane (DBCP)	ND	0.0025	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:03	MFF
1,2-Dibromoethane (EDB)	ND	0.0012	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:03	MFF
Dibromomethane	ND	0.0025	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:03	MFF
1,2-Dichlorobenzene	ND	0.0025	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:03	MFF
1,3-Dichlorobenzene	ND	0.0025	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:03	MFF
1,4-Dichlorobenzene	ND	0.0025	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:03	MFF
trans-1,4-Dichloro-2-butene	ND	0.0049	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:03	MFF
Dichlorodifluoromethane (Freon 12)	ND	0.025	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:03	MFF
1,1-Dichloroethane	ND	0.0025	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:03	MFF
1,2-Dichloroethane	ND	0.0025	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:03	MFF
1,1-Dichloroethylene	ND	0.0049	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:03	MFF
cis-1,2-Dichloroethylene	ND	0.0025	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:03	MFF
trans-1,2-Dichloroethylene	ND	0.0025	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:03	MFF
1,2-Dichloropropane	ND	0.0025	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:03	MFF
1,3-Dichloropropane	ND	0.0012	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:03	MFF
2,2-Dichloropropane	ND	0.0025	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:03	MFF
1,1-Dichloropropene	ND	0.0025	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:03	MFF
cis-1,3-Dichloropropene	ND	0.0012	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:03	MFF
trans-1,3-Dichloropropene	ND	0.0012	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:03	MFF
Diethyl Ether	ND	0.025	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:03	MFF

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Project Location: 11 N. Main St., Northfield, VT. Sample Description: Work Order: 23I0963

Date Received: 9/8/2023

Field Sample #: SB-1 (10) Sampled: 9/6/2023 08:45

Sample ID: 23I0963-02

Sample Matrix: Soil

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Diisopropyl Ether (DIPE)	ND	0.0012	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:03	MFF
1,4-Dioxane	ND	0.12	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:03	MFF
Ethylbenzene	ND	0.0025	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:03	MFF
Hexachlorobutadiene	ND	0.0025	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:03	MFF
2-Hexanone (MBK)	ND	0.025	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:03	MFF
Isopropylbenzene (Cumene)	ND	0.0025	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:03	MFF
p-Isopropyltoluene (p-Cymene)	ND	0.0025	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:03	MFF
Methyl Acetate	ND	0.0025	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:03	MFF
Methyl tert-Butyl Ether (MTBE)	ND	0.0049	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:03	MFF
Methyl Cyclohexane	ND	0.0025	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:03	MFF
Methylene Chloride	ND	0.025	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:03	MFF
4-Methyl-2-pentanone (MIBK)	ND	0.025	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:03	MFF
Naphthalene	ND	0.012	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:03	MFF
n-Propylbenzene	ND	0.0025	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:03	MFF
Styrene	ND	0.0025	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:03	MFF
1,1,1,2-Tetrachloroethane	ND	0.0025	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:03	MFF
1,1,2,2-Tetrachloroethane	ND	0.0012	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:03	MFF
Tetrachloroethylene	ND	0.0025	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:03	MFF
Tetrahydrofuran	ND	0.012	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:03	MFF
Toluene	ND	0.0025	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:03	MFF
1,2,3-Trichlorobenzene	ND	0.0049	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:03	MFF
1,2,4-Trichlorobenzene	ND	0.0025	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:03	MFF
1,3,5-Trichlorobenzene	ND	0.0025	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:03	MFF
1,1,1-Trichloroethane	ND	0.0025	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:03	MFF
1,1,2-Trichloroethane	ND	0.0025	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:03	MFF
Trichloroethylene	ND	0.0025	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:03	MFF
Trichlorofluoromethane (Freon 11)	ND	0.012	mg/Kg dry	1	V-05	SW-846 8260D	9/12/23	9/12/23 11:03	MFF
1,2,3-Trichloropropane	ND	0.0025	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:03	MFF
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.012	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:03	MFF
1,2,4-Trimethylbenzene	ND	0.0025	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:03	MFF
1,3,5-Trimethylbenzene	ND	0.0025	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:03	MFF
Vinyl Chloride	ND	0.012	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:03	MFF
m+p Xylene	ND	0.0049	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:03	MFF
o-Xylene	ND	0.0025	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:03	MFF

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1,2-Dichloroethane-d4	94.9	70-130		9/12/23 11:03
Toluene-d8	94.7	70-130		9/12/23 11:03
4-Bromofluorobenzene	90.8	70-130		9/12/23 11:03

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Project Location: 11 N. Main St., Northfield, VT. Sample Description: Work Order: 23I0963

Date Received: 9/8/2023

Field Sample #: SB-1 (10) Sampled: 9/6/2023 08:45

Sample ID: 23I0963-02

Sample 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	78.3		% Wt	1	H-06	SM 2540G	9/14/23	9/14/23 16:11	AV

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Project Location: 11 N. Main St., Northfield, VT. Sample Description: Work Order: 23I0963

Date Received: 9/8/2023

Field Sample #: SB-2 (0-2) Sampled: 9/6/2023 09:50

Sample ID: 23I0963-03

Sample Matrix: Soil

Sample Flags: H-06

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene	ND	0.19	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:03	AR2
Acenaphthylene	ND	0.19	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:03	AR2
Acetophenone	ND	0.37	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:03	AR2
Aniline	ND	0.37	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:03	AR2
Anthracene	ND	0.19	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:03	AR2
Benzidine	ND	0.72	mg/Kg dry	1	V-04, V-05	SW-846 8270E	9/27/23	9/30/23 19:03	AR2
Benzo(a)anthracene	0.46	0.19	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:03	AR2
Benzo(a)pyrene	0.59	0.19	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:03	AR2
Benzo(b)fluoranthene	0.81	0.19	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:03	AR2
Benzo(g,h,i)perylene	0.51	0.19	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:03	AR2
Benzo(k)fluoranthene	0.32	0.19	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:03	AR2
Benzoic Acid	ND	1.1	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:03	AR2
Bis(2-chloroethoxy)methane	ND	0.37	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:03	AR2
Bis(2-chloroethyl)ether	ND	0.37	mg/Kg dry	1	V-06	SW-846 8270E	9/27/23	9/30/23 19:03	AR2
Bis(2-chloroisopropyl)ether	ND	0.37	mg/Kg dry	1	V-06	SW-846 8270E	9/27/23	9/30/23 19:03	AR2
Bis(2-Ethylhexyl)phthalate	ND	0.37	mg/Kg dry	1	V-06	SW-846 8270E	9/27/23	9/30/23 19:03	AR2
4-Bromophenylphenylether	ND	0.37	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:03	AR2
Butylbenzylphthalate	ND	0.37	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:03	AR2
Carbazole	ND	0.19	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:03	AR2
4-Chloroaniline	ND	0.72	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:03	AR2
4-Chloro-3-methylphenol	ND	0.72	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:03	AR2
2-Chloronaphthalene	ND	0.37	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:03	AR2
2-Chlorophenol	ND	0.37	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:03	AR2
4-Chlorophenylphenylether	ND	0.37	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:03	AR2
Chrysene	0.57	0.19	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:03	AR2
Dibenz(a,h)anthracene	ND	0.19	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:03	AR2
Dibenzofuran	ND	0.37	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:03	AR2
Di-n-butylphthalate	ND	0.37	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:03	AR2
1,2-Dichlorobenzene	ND	0.37	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:03	AR2
1,3-Dichlorobenzene	ND	0.37	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:03	AR2
1,4-Dichlorobenzene	ND	0.37	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:03	AR2
3,3-Dichlorobenzidine	ND	0.19	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:03	AR2
2,4-Dichlorophenol	ND	0.37	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:03	AR2
Diethylphthalate	ND	0.37	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:03	AR2
2,4-Dimethylphenol	ND	0.37	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:03	AR2
Dimethylphthalate	ND	0.37	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:03	AR2
4,6-Dinitro-2-methylphenol	ND	0.37	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:03	AR2
2,4-Dinitrophenol	ND	0.72	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:03	AR2
2,4-Dinitrotoluene	ND	0.37	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:03	AR2
2,6-Dinitrotoluene	ND	0.37	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:03	AR2
Di-n-octylphthalate	ND	0.37	mg/Kg dry	1	V-06	SW-846 8270E	9/27/23	9/30/23 19:03	AR2
1,2-Diphenylhydrazine/Azobenzene	ND	0.37	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:03	AR2
Fluoranthene	0.85	0.19	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:03	AR2
Fluorene	ND	0.19	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:03	AR2

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Project Location: 11 N. Main St., Northfield, VT. Sample Description: Work Order: 23I0963

Date Received: 9/8/2023

Field Sample #: SB-2 (0-2) Sampled: 9/6/2023 09:50

Sample ID: 23I0963-03

Sample Matrix: Soil

Sample Flags: H-06

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Hexachlorobenzene	ND	0.37	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:03	AR2
Hexachlorobutadiene	ND	0.37	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:03	AR2
Hexachlorocyclopentadiene	ND	0.37	mg/Kg dry	1	V-05	SW-846 8270E	9/27/23	9/30/23 19:03	AR2
Hexachloroethane	ND	0.37	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:03	AR2
Indeno(1,2,3-cd)pyrene	0.50	0.19	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:03	AR2
Isophorone	ND	0.37	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:03	AR2
1-Methylnaphthalene	ND	0.19	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:03	AR2
2-Methylnaphthalene	ND	0.19	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:03	AR2
2-Methylphenol	ND	0.37	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:03	AR2
3/4-Methylphenol	ND	0.37	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:03	AR2
Naphthalene	ND	0.19	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:03	AR2
2-Nitroaniline	ND	0.37	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:03	AR2
3-Nitroaniline	ND	0.37	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:03	AR2
4-Nitroaniline	ND	0.37	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:03	AR2
Nitrobenzene	ND	0.37	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:03	AR2
2-Nitrophenol	ND	0.37	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:03	AR2
4-Nitrophenol	ND	0.72	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:03	AR2
N-Nitrosodimethylamine	ND	0.37	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:03	AR2
N-Nitrosodiphenylamine/Diphenylamine	ND	0.37	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:03	AR2
N-Nitrosodi-n-propylamine	ND	0.37	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:03	AR2
Pentachloronitrobenzene	ND	0.37	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:03	AR2
Pentachlorophenol	ND	0.37	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:03	AR2
Phenanthrene	0.27	0.19	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:03	AR2
Phenol	ND	0.37	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:03	AR2
Pyrene	0.88	0.19	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:03	AR2
Pyridine	ND	0.37	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:03	AR2
1,2,4,5-Tetrachlorobenzene	ND	0.37	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:03	AR2
1,2,4-Trichlorobenzene	ND	0.37	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:03	AR2
2,4,5-Trichlorophenol	ND	0.37	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:03	AR2
2,4,6-Trichlorophenol	ND	0.37	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:03	AR2

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
2-Fluorophenol	65.7	30-130		9/30/23 19:03
Phenol-d6	75.5	30-130		9/30/23 19:03
Nitrobenzene-d5	78.6	30-130		9/30/23 19:03
2-Fluorobiphenyl	84.3	30-130		9/30/23 19:03
2,4,6-Tribromophenol	47.7	30-130		9/30/23 19:03
p-Terphenyl-d14	87.3	30-130		9/30/23 19:03

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Project Location: 11 N. Main St., Northfield, VT. Sample Description: Work Order: 23I0963

Date Received: 9/8/2023

Field Sample #: SB-2 (0-2) Sampled: 9/6/2023 09:50

Sample ID: 23I0963-03

Sample Matrix: Soil

Polychlorinated Biphenyls with 3540 Soxhlet Extraction

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.087	mg/Kg dry	4		SW-846 8082A	9/14/23	9/19/23 12:33	TG
Aroclor-1221 [1]	ND	0.087	mg/Kg dry	4		SW-846 8082A	9/14/23	9/19/23 12:33	TG
Aroclor-1232 [1]	ND	0.087	mg/Kg dry	4		SW-846 8082A	9/14/23	9/19/23 12:33	TG
Aroclor-1242 [1]	ND	0.087	mg/Kg dry	4		SW-846 8082A	9/14/23	9/19/23 12:33	TG
Aroclor-1248 [1]	ND	0.087	mg/Kg dry	4		SW-846 8082A	9/14/23	9/19/23 12:33	TG
Aroclor-1254 [1]	ND	0.087	mg/Kg dry	4		SW-846 8082A	9/14/23	9/19/23 12:33	TG
Aroclor-1260 [1]	ND	0.087	mg/Kg dry	4		SW-846 8082A	9/14/23	9/19/23 12:33	TG
Aroclor-1262 [1]	ND	0.087	mg/Kg dry	4		SW-846 8082A	9/14/23	9/19/23 12:33	TG
Aroclor-1268 [1]	ND	0.087	mg/Kg dry	4		SW-846 8082A	9/14/23	9/19/23 12:33	TG

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Decachlorobiphenyl [1]	95.6	30-150		9/19/23 12:33
Decachlorobiphenyl [2]	91.6	30-150		9/19/23 12:33
Tetrachloro-m-xylene [1]	94.8	30-150		9/19/23 12:33
Tetrachloro-m-xylene [2]	90.9	30-150		9/19/23 12:33

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Project Location: 11 N. Main St., Northfield, VT. Sample Description: Work Order: 23I0963

Date Received: 9/8/2023

Field Sample #: SB-2 (0-2) Sampled: 9/6/2023 09:50

Sample ID: 23I0963-03

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Antimony	ND	1.8	mg/Kg dry	1		SW-846 6010D	9/15/23	9/19/23 19:18	ATP
Arsenic	5.4	3.6	mg/Kg dry	1		SW-846 6010D	9/15/23	9/19/23 19:18	ATP
Barium	50	1.8	mg/Kg dry	1		SW-846 6010D	9/15/23	9/19/23 19:18	ATP
Beryllium	0.19	0.18	mg/Kg dry	1		SW-846 6010D	9/15/23	9/19/23 19:18	ATP
Cadmium	ND	0.36	mg/Kg dry	1		SW-846 6010D	9/15/23	9/19/23 19:18	ATP
Chromium	16	0.72	mg/Kg dry	1		SW-846 6010D	9/15/23	9/19/23 19:18	ATP
Copper	33	0.72	mg/Kg dry	1		SW-846 6010D	9/15/23	9/19/23 19:18	ATP
Lead	83	0.54	mg/Kg dry	1		SW-846 6010D	9/15/23	9/19/23 19:18	ATP
Mercury	ND	0.028	mg/Kg dry	1		SW-846 7471B	9/14/23	9/18/23 17:08	AAJ
Nickel	19	0.72	mg/Kg dry	1		SW-846 6010D	9/15/23	9/19/23 19:18	ATP
Selenium	ND	3.6	mg/Kg dry	1		SW-846 6010D	9/15/23	9/20/23 23:20	ATP
Silver	1.4	0.36	mg/Kg dry	1		SW-846 6010D	9/15/23	9/19/23 19:18	ATP
Thallium	ND	1.8	mg/Kg dry	1		SW-846 6010D	9/15/23	9/19/23 19:18	ATP
Zinc	74	0.72	mg/Kg dry	1		SW-846 6010D	9/15/23	9/19/23 19:18	ATP

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Project Location: 11 N. Main St., Northfield, VT. Sample Description: Work Order: 23I0963

Date Received: 9/8/2023

Field Sample #: SB-2 (0-2) Sampled: 9/6/2023 09:50

Sample ID: 23I0963-03

Sample 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	91.7		% Wt	1	H-06	SM 2540G	9/14/23	9/14/23 16:11	AV

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Project Location: 11 N. Main St., Northfield, VT. Sample Description: Work Order: 23I0963

Date Received: 9/8/2023

Field Sample #: SB-2 (15) Sampled: 9/6/2023 09:45

Sample ID: 23I0963-04

Sample Matrix: Soil

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	0.077	mg/Kg dry	1	V-05	SW-846 8260D	9/12/23	9/12/23 11:28	MFF
Acrylonitrile	ND	0.0046	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:28	MFF
tert-Amyl Methyl Ether (TAME)	ND	0.00077	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:28	MFF
Benzene	ND	0.0015	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:28	MFF
Bromobenzene	ND	0.0015	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:28	MFF
Bromochloromethane	ND	0.0015	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:28	MFF
Bromodichloromethane	ND	0.0015	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:28	MFF
Bromoform	ND	0.0015	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:28	MFF
Bromomethane	ND	0.0077	mg/Kg dry	1	V-34	SW-846 8260D	9/12/23	9/12/23 11:28	MFF
2-Butanone (MEK)	ND	0.031	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:28	MFF
tert-Butyl Alcohol (TBA)	ND	0.077	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:28	MFF
n-Butylbenzene	ND	0.0015	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:28	MFF
sec-Butylbenzene	ND	0.0015	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:28	MFF
tert-Butylbenzene	ND	0.0015	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:28	MFF
tert-Butyl Ethyl Ether (TBEE)	ND	0.00077	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:28	MFF
Carbon Disulfide	ND	0.0077	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:28	MFF
Carbon Tetrachloride	ND	0.0015	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:28	MFF
Chlorobenzene	ND	0.0015	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:28	MFF
Chlorodibromomethane	ND	0.00077	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:28	MFF
Chloroethane	ND	0.015	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:28	MFF
Chloroform	ND	0.0031	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:28	MFF
Chloromethane	ND	0.0077	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:28	MFF
2-Chlorotoluene	ND	0.0015	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:28	MFF
4-Chlorotoluene	ND	0.0015	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:28	MFF
1,2-Dibromo-3-chloropropane (DBCP)	ND	0.0015	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:28	MFF
1,2-Dibromoethane (EDB)	ND	0.00077	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:28	MFF
Dibromomethane	ND	0.0015	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:28	MFF
1,2-Dichlorobenzene	ND	0.0015	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:28	MFF
1,3-Dichlorobenzene	ND	0.0015	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:28	MFF
1,4-Dichlorobenzene	ND	0.0015	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:28	MFF
trans-1,4-Dichloro-2-butene	ND	0.0031	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:28	MFF
Dichlorodifluoromethane (Freon 12)	ND	0.015	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:28	MFF
1,1-Dichloroethane	ND	0.0015	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:28	MFF
1,2-Dichloroethane	ND	0.0015	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:28	MFF
1,1-Dichloroethylene	ND	0.0031	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:28	MFF
cis-1,2-Dichloroethylene	ND	0.0015	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:28	MFF
trans-1,2-Dichloroethylene	ND	0.0015	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:28	MFF
1,2-Dichloropropane	ND	0.0015	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:28	MFF
1,3-Dichloropropane	ND	0.00077	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:28	MFF
2,2-Dichloropropane	ND	0.0015	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:28	MFF
1,1-Dichloropropene	ND	0.0015	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:28	MFF
cis-1,3-Dichloropropene	ND	0.00077	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:28	MFF
trans-1,3-Dichloropropene	ND	0.00077	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:28	MFF
Diethyl Ether	ND	0.015	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:28	MFF

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

Project Location: 11 N. Main St., Northfield, VT. Sample Description: Work Order: 23I0963

Date Received: 9/8/2023

Field Sample #: SB-2 (15) Sampled: 9/6/2023 09:45

Sample ID: 23I0963-04

Sample Matrix: Soil

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Diisopropyl Ether (DIPE)	ND	0.00077	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:28	MFF
1,4-Dioxane	ND	0.077	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:28	MFF
Ethylbenzene	ND	0.0015	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:28	MFF
Hexachlorobutadiene	ND	0.0015	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:28	MFF
2-Hexanone (MBK)	ND	0.015	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:28	MFF
Isopropylbenzene (Cumene)	ND	0.0015	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:28	MFF
p-Isopropyltoluene (p-Cymene)	ND	0.0015	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:28	MFF
Methyl Acetate	ND	0.0015	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:28	MFF
Methyl tert-Butyl Ether (MTBE)	ND	0.0031	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:28	MFF
Methyl Cyclohexane	ND	0.0015	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:28	MFF
Methylene Chloride	ND	0.015	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:28	MFF
4-Methyl-2-pentanone (MIBK)	ND	0.015	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:28	MFF
Naphthalene	ND	0.0077	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:28	MFF
n-Propylbenzene	ND	0.0015	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:28	MFF
Styrene	ND	0.0015	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:28	MFF
1,1,1,2-Tetrachloroethane	ND	0.0015	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:28	MFF
1,1,2,2-Tetrachloroethane	ND	0.00077	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:28	MFF
Tetrachloroethylene	ND	0.0015	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:28	MFF
Tetrahydrofuran	ND	0.0077	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:28	MFF
Toluene	ND	0.0015	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:28	MFF
1,2,3-Trichlorobenzene	ND	0.0031	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:28	MFF
1,2,4-Trichlorobenzene	ND	0.0015	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:28	MFF
1,3,5-Trichlorobenzene	ND	0.0015	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:28	MFF
1,1,1-Trichloroethane	ND	0.0015	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:28	MFF
1,1,2-Trichloroethane	ND	0.0015	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:28	MFF
Trichloroethylene	ND	0.0015	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:28	MFF
Trichlorofluoromethane (Freon 11)	ND	0.0077	mg/Kg dry	1	V-05	SW-846 8260D	9/12/23	9/12/23 11:28	MFF
1,2,3-Trichloropropane	ND	0.0015	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:28	MFF
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.0077	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:28	MFF
1,2,4-Trimethylbenzene	ND	0.0015	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:28	MFF
1,3,5-Trimethylbenzene	ND	0.0015	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:28	MFF
Vinyl Chloride	ND	0.0077	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:28	MFF
m+p Xylene	ND	0.0031	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:28	MFF
o-Xylene	ND	0.0015	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:28	MFF

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1,2-Dichloroethane-d4	95.9	70-130		9/12/23 11:28
Toluene-d8	95.6	70-130		9/12/23 11:28
4-Bromofluorobenzene	91.4	70-130		9/12/23 11:28

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

Project Location: 11 N. Main St., Northfield, VT. Sample Description: Work Order: 23I0963

Date Received: 9/8/2023

Field Sample #: SB-2 (15) Sampled: 9/6/2023 09:45

Sample ID: 23I0963-04

Sample Matrix: Soil

Sample Flags: H-06

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene	ND	0.21	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:23	AR2
Acenaphthylene	ND	0.21	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:23	AR2
Acetophenone	ND	0.42	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:23	AR2
Aniline	ND	0.42	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:23	AR2
Anthracene	ND	0.21	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:23	AR2
Benzidine	ND	0.82	mg/Kg dry	1	V-04, V-05	SW-846 8270E	9/27/23	9/30/23 19:23	AR2
Benzo(a)anthracene	ND	0.21	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:23	AR2
Benzo(a)pyrene	ND	0.21	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:23	AR2
Benzo(b)fluoranthene	ND	0.21	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:23	AR2
Benzo(g,h,i)perylene	ND	0.21	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:23	AR2
Benzo(k)fluoranthene	ND	0.21	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:23	AR2
Benzoic Acid	ND	1.2	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:23	AR2
Bis(2-chloroethoxy)methane	ND	0.42	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:23	AR2
Bis(2-chloroethyl)ether	ND	0.42	mg/Kg dry	1	V-06	SW-846 8270E	9/27/23	9/30/23 19:23	AR2
Bis(2-chloroisopropyl)ether	ND	0.42	mg/Kg dry	1	V-06	SW-846 8270E	9/27/23	9/30/23 19:23	AR2
Bis(2-Ethylhexyl)phthalate	ND	0.42	mg/Kg dry	1	V-06	SW-846 8270E	9/27/23	9/30/23 19:23	AR2
4-Bromophenylphenylether	ND	0.42	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:23	AR2
Butylbenzylphthalate	ND	0.42	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:23	AR2
Carbazole	ND	0.21	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:23	AR2
4-Chloroaniline	ND	0.82	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:23	AR2
4-Chloro-3-methylphenol	ND	0.82	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:23	AR2
2-Chloronaphthalene	ND	0.42	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:23	AR2
2-Chlorophenol	ND	0.42	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:23	AR2
4-Chlorophenylphenylether	ND	0.42	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:23	AR2
Chrysene	ND	0.21	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:23	AR2
Dibenz(a,h)anthracene	ND	0.21	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:23	AR2
Dibenzofuran	ND	0.42	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:23	AR2
Di-n-butylphthalate	ND	0.42	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:23	AR2
1,2-Dichlorobenzene	ND	0.42	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:23	AR2
1,3-Dichlorobenzene	ND	0.42	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:23	AR2
1,4-Dichlorobenzene	ND	0.42	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:23	AR2
3,3-Dichlorobenzidine	ND	0.21	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:23	AR2
2,4-Dichlorophenol	ND	0.42	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:23	AR2
Diethylphthalate	ND	0.42	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:23	AR2
2,4-Dimethylphenol	ND	0.42	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:23	AR2
Dimethylphthalate	ND	0.42	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:23	AR2
4,6-Dinitro-2-methylphenol	ND	0.42	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:23	AR2
2,4-Dinitrophenol	ND	0.82	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:23	AR2
2,4-Dinitrotoluene	ND	0.42	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:23	AR2
2,6-Dinitrotoluene	ND	0.42	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:23	AR2
Di-n-octylphthalate	ND	0.42	mg/Kg dry	1	V-06	SW-846 8270E	9/27/23	9/30/23 19:23	AR2
1,2-Diphenylhydrazine/Azobenzene	ND	0.42	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:23	AR2
Fluoranthene	ND	0.21	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:23	AR2
Fluorene	ND	0.21	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:23	AR2

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

Project Location: 11 N. Main St., Northfield, VT. Sample Description: Work Order: 23I0963

Date Received: 9/8/2023

Field Sample #: SB-2 (15) Sampled: 9/6/2023 09:45

Sample ID: 23I0963-04

Sample Matrix: Soil

Sample Flags: H-06

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Hexachlorobenzene	ND	0.42	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:23	AR2
Hexachlorobutadiene	ND	0.42	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:23	AR2
Hexachlorocyclopentadiene	ND	0.42	mg/Kg dry	1	V-05	SW-846 8270E	9/27/23	9/30/23 19:23	AR2
Hexachloroethane	ND	0.42	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:23	AR2
Indeno(1,2,3-cd)pyrene	ND	0.21	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:23	AR2
Isophorone	ND	0.42	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:23	AR2
1-Methylnaphthalene	ND	0.21	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:23	AR2
2-Methylnaphthalene	ND	0.21	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:23	AR2
2-Methylphenol	ND	0.42	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:23	AR2
3/4-Methylphenol	ND	0.42	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:23	AR2
Naphthalene	ND	0.21	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:23	AR2
2-Nitroaniline	ND	0.42	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:23	AR2
3-Nitroaniline	ND	0.42	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:23	AR2
4-Nitroaniline	ND	0.42	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:23	AR2
Nitrobenzene	ND	0.42	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:23	AR2
2-Nitrophenol	ND	0.42	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:23	AR2
4-Nitrophenol	ND	0.82	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:23	AR2
N-Nitrosodimethylamine	ND	0.42	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:23	AR2
N-Nitrosodiphenylamine/Diphenylamine	ND	0.42	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:23	AR2
N-Nitrosodi-n-propylamine	ND	0.42	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:23	AR2
Pentachloronitrobenzene	ND	0.42	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:23	AR2
Pentachlorophenol	ND	0.42	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:23	AR2
Phenanthrene	ND	0.21	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:23	AR2
Phenol	ND	0.42	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:23	AR2
Pyrene	ND	0.21	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:23	AR2
Pyridine	ND	0.42	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:23	AR2
1,2,4,5-Tetrachlorobenzene	ND	0.42	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:23	AR2
1,2,4-Trichlorobenzene	ND	0.42	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:23	AR2
2,4,5-Trichlorophenol	ND	0.42	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:23	AR2
2,4,6-Trichlorophenol	ND	0.42	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:23	AR2

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
2-Fluorophenol	74.8	30-130		9/30/23 19:23
Phenol-d6	80.9	30-130		9/30/23 19:23
Nitrobenzene-d5	74.9	30-130		9/30/23 19:23
2-Fluorobiphenyl	78.4	30-130		9/30/23 19:23
2,4,6-Tribromophenol	65.2	30-130		9/30/23 19:23
p-Terphenyl-d14	84.4	30-130		9/30/23 19:23

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Project Location: 11 N. Main St., Northfield, VT. Sample Description: Work Order: 23I0963

Date Received: 9/8/2023

Field Sample #: SB-2 (15) Sampled: 9/6/2023 09:45

Sample ID: 23I0963-04

Sample 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	80.6		% Wt	1	H-06	SM 2540G	9/14/23	9/14/23 16:11	AV

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Project Location: 11 N. Main St., Northfield, VT. Sample Description: Work Order: 23I0963

Date Received: 9/8/2023

Field Sample #: SB-3 (10-12) Sampled: 9/6/2023 11:45

Sample ID: 23I0963-05

Sample Matrix: Soil

Sample Flags: H-06

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene	ND	0.20	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:44	AR2
Acenaphthylene	ND	0.20	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:44	AR2
Acetophenone	ND	0.41	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:44	AR2
Aniline	ND	0.41	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:44	AR2
Anthracene	ND	0.20	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:44	AR2
Benzidine	ND	0.79	mg/Kg dry	1	V-04, V-05	SW-846 8270E	9/27/23	9/30/23 19:44	AR2
Benzo(a)anthracene	ND	0.20	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:44	AR2
Benzo(a)pyrene	ND	0.20	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:44	AR2
Benzo(b)fluoranthene	ND	0.20	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:44	AR2
Benzo(g,h,i)perylene	ND	0.20	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:44	AR2
Benzo(k)fluoranthene	ND	0.20	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:44	AR2
Benzoic Acid	ND	1.2	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:44	AR2
Bis(2-chloroethoxy)methane	ND	0.41	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:44	AR2
Bis(2-chloroethyl)ether	ND	0.41	mg/Kg dry	1	V-06	SW-846 8270E	9/27/23	9/30/23 19:44	AR2
Bis(2-chloroisopropyl)ether	ND	0.41	mg/Kg dry	1	V-06	SW-846 8270E	9/27/23	9/30/23 19:44	AR2
Bis(2-Ethylhexyl)phthalate	ND	0.41	mg/Kg dry	1	V-06	SW-846 8270E	9/27/23	9/30/23 19:44	AR2
4-Bromophenylphenylether	ND	0.41	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:44	AR2
Butylbenzylphthalate	ND	0.41	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:44	AR2
Carbazole	ND	0.20	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:44	AR2
4-Chloroaniline	ND	0.79	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:44	AR2
4-Chloro-3-methylphenol	ND	0.79	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:44	AR2
2-Chloronaphthalene	ND	0.41	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:44	AR2
2-Chlorophenol	ND	0.41	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:44	AR2
4-Chlorophenylphenylether	ND	0.41	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:44	AR2
Chrysene	ND	0.20	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:44	AR2
Dibenz(a,h)anthracene	ND	0.20	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:44	AR2
Dibenzofuran	ND	0.41	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:44	AR2
Di-n-butylphthalate	ND	0.41	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:44	AR2
1,2-Dichlorobenzene	ND	0.41	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:44	AR2
1,3-Dichlorobenzene	ND	0.41	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:44	AR2
1,4-Dichlorobenzene	ND	0.41	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:44	AR2
3,3-Dichlorobenzidine	ND	0.20	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:44	AR2
2,4-Dichlorophenol	ND	0.41	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:44	AR2
Diethylphthalate	ND	0.41	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:44	AR2
2,4-Dimethylphenol	ND	0.41	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:44	AR2
Dimethylphthalate	ND	0.41	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:44	AR2
4,6-Dinitro-2-methylphenol	ND	0.41	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:44	AR2
2,4-Dinitrophenol	ND	0.79	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:44	AR2
2,4-Dinitrotoluene	ND	0.41	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:44	AR2
2,6-Dinitrotoluene	ND	0.41	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:44	AR2
Di-n-octylphthalate	ND	0.41	mg/Kg dry	1	V-06	SW-846 8270E	9/27/23	9/30/23 19:44	AR2
1,2-Diphenylhydrazine/Azobenzene	ND	0.41	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:44	AR2
Fluoranthene	ND	0.20	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:44	AR2
Fluorene	ND	0.20	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:44	AR2

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Project Location: 11 N. Main St., Northfield, VT. Sample Description: Work Order: 23I0963

Date Received: 9/8/2023

Field Sample #: SB-3 (10-12) Sampled: 9/6/2023 11:45

Sample ID: 23I0963-05

Sample Matrix: Soil

Sample Flags: H-06

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Hexachlorobenzene	ND	0.41	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:44	AR2
Hexachlorobutadiene	ND	0.41	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:44	AR2
Hexachlorocyclopentadiene	ND	0.41	mg/Kg dry	1	V-05	SW-846 8270E	9/27/23	9/30/23 19:44	AR2
Hexachloroethane	ND	0.41	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:44	AR2
Indeno(1,2,3-cd)pyrene	ND	0.20	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:44	AR2
Isophorone	ND	0.41	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:44	AR2
1-Methylnaphthalene	ND	0.20	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:44	AR2
2-Methylnaphthalene	ND	0.20	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:44	AR2
2-Methylphenol	ND	0.41	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:44	AR2
3/4-Methylphenol	ND	0.41	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:44	AR2
Naphthalene	ND	0.20	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:44	AR2
2-Nitroaniline	ND	0.41	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:44	AR2
3-Nitroaniline	ND	0.41	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:44	AR2
4-Nitroaniline	ND	0.41	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:44	AR2
Nitrobenzene	ND	0.41	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:44	AR2
2-Nitrophenol	ND	0.41	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:44	AR2
4-Nitrophenol	ND	0.79	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:44	AR2
N-Nitrosodimethylamine	ND	0.41	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:44	AR2
N-Nitrosodiphenylamine/Diphenylamine	ND	0.41	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:44	AR2
N-Nitrosodi-n-propylamine	ND	0.41	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:44	AR2
Pentachloronitrobenzene	ND	0.41	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:44	AR2
Pentachlorophenol	ND	0.41	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:44	AR2
Phenanthrene	ND	0.20	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:44	AR2
Phenol	ND	0.41	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:44	AR2
Pyrene	ND	0.20	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:44	AR2
Pyridine	ND	0.41	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:44	AR2
1,2,4,5-Tetrachlorobenzene	ND	0.41	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:44	AR2
1,2,4-Trichlorobenzene	ND	0.41	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:44	AR2
2,4,5-Trichlorophenol	ND	0.41	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:44	AR2
2,4,6-Trichlorophenol	ND	0.41	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 19:44	AR2

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
2-Fluorophenol	77.4	30-130		9/30/23 19:44
Phenol-d6	82.5	30-130		9/30/23 19:44
Nitrobenzene-d5	77.2	30-130		9/30/23 19:44
2-Fluorobiphenyl	80.5	30-130		9/30/23 19:44
2,4,6-Tribromophenol	66.7	30-130		9/30/23 19:44
p-Terphenyl-d14	86.2	30-130		9/30/23 19:44

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Project Location: 11 N. Main St., Northfield, VT. Sample Description: Work Order: 23I0963

Date Received: 9/8/2023

Field Sample #: SB-3 (10-12) Sampled: 9/6/2023 11:45

Sample ID: 23I0963-05

Sample Matrix: Soil

Polychlorinated Biphenyls with 3540 Soxhlet Extraction

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.095	mg/Kg dry	4		SW-846 8082A	9/14/23	9/19/23 12:45	TG
Aroclor-1221 [1]	ND	0.095	mg/Kg dry	4		SW-846 8082A	9/14/23	9/19/23 12:45	TG
Aroclor-1232 [1]	ND	0.095	mg/Kg dry	4		SW-846 8082A	9/14/23	9/19/23 12:45	TG
Aroclor-1242 [1]	ND	0.095	mg/Kg dry	4		SW-846 8082A	9/14/23	9/19/23 12:45	TG
Aroclor-1248 [1]	ND	0.095	mg/Kg dry	4		SW-846 8082A	9/14/23	9/19/23 12:45	TG
Aroclor-1254 [1]	ND	0.095	mg/Kg dry	4		SW-846 8082A	9/14/23	9/19/23 12:45	TG
Aroclor-1260 [1]	ND	0.095	mg/Kg dry	4		SW-846 8082A	9/14/23	9/19/23 12:45	TG
Aroclor-1262 [1]	ND	0.095	mg/Kg dry	4		SW-846 8082A	9/14/23	9/19/23 12:45	TG
Aroclor-1268 [1]	ND	0.095	mg/Kg dry	4		SW-846 8082A	9/14/23	9/19/23 12:45	TG

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Decachlorobiphenyl [1]	92.4	30-150		9/19/23 12:45
Decachlorobiphenyl [2]	86.0	30-150		9/19/23 12:45
Tetrachloro-m-xylene [1]	88.9	30-150		9/19/23 12:45
Tetrachloro-m-xylene [2]	83.0	30-150		9/19/23 12:45

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Project Location: 11 N. Main St., Northfield, VT. Sample Description: Work Order: 23I0963

Date Received: 9/8/2023

Field Sample #: SB-3 (10-12) Sampled: 9/6/2023 11:45

Sample ID: 23I0963-05

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Antimony	ND	2.0	mg/Kg dry	1		SW-846 6010D	9/15/23	9/19/23 19:23	ATP
Arsenic	7.2	4.0	mg/Kg dry	1		SW-846 6010D	9/15/23	9/19/23 19:23	ATP
Barium	30	2.0	mg/Kg dry	1		SW-846 6010D	9/15/23	9/19/23 19:23	ATP
Beryllium	ND	0.20	mg/Kg dry	1		SW-846 6010D	9/15/23	9/19/23 19:23	ATP
Cadmium	ND	0.40	mg/Kg dry	1		SW-846 6010D	9/15/23	9/19/23 19:23	ATP
Chromium	15	0.79	mg/Kg dry	1		SW-846 6010D	9/15/23	9/19/23 19:23	ATP
Copper	32	0.79	mg/Kg dry	1		SW-846 6010D	9/15/23	9/19/23 19:23	ATP
Lead	8.9	0.59	mg/Kg dry	1		SW-846 6010D	9/15/23	9/19/23 19:23	ATP
Mercury	ND	0.029	mg/Kg dry	1		SW-846 7471B	9/14/23	9/18/23 17:09	AAJ
Nickel	23	0.79	mg/Kg dry	1		SW-846 6010D	9/15/23	9/19/23 19:23	ATP
Selenium	ND	4.0	mg/Kg dry	1		SW-846 6010D	9/15/23	9/20/23 23:26	ATP
Silver	0.96	0.40	mg/Kg dry	1		SW-846 6010D	9/15/23	9/19/23 19:23	ATP
Thallium	ND	2.0	mg/Kg dry	1		SW-846 6010D	9/15/23	9/19/23 19:23	ATP
Zinc	43	0.79	mg/Kg dry	1		SW-846 6010D	9/15/23	9/19/23 19:23	ATP

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Project Location: 11 N. Main St., Northfield, VT. Sample Description: Work Order: 23I0963

Date Received: 9/8/2023

Field Sample #: SB-3 (10-12) Sampled: 9/6/2023 11:45

Sample ID: 23I0963-05

Sample 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	83.9		% Wt	1	H-06	SM 2540G	9/14/23	9/14/23 16:11	AV

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Project Location: 11 N. Main St., Northfield, VT. Sample Description: Work Order: 23I0963

Date Received: 9/8/2023

Field Sample #: SB-3 (11) Sampled: 9/6/2023 11:30

Sample ID: 23I0963-06

Sample Matrix: Soil

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	0.11	mg/Kg dry	1	V-05	SW-846 8260D	9/12/23	9/12/23 11:54	MFF
Acrylonitrile	ND	0.0063	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:54	MFF
tert-Amyl Methyl Ether (TAME)	ND	0.0011	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:54	MFF
Benzene	ND	0.0021	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:54	MFF
Bromobenzene	ND	0.0021	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:54	MFF
Bromochloromethane	ND	0.0021	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:54	MFF
Bromodichloromethane	ND	0.0021	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:54	MFF
Bromoform	ND	0.0021	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:54	MFF
Bromomethane	ND	0.011	mg/Kg dry	1	V-34	SW-846 8260D	9/12/23	9/12/23 11:54	MFF
2-Butanone (MEK)	ND	0.042	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:54	MFF
tert-Butyl Alcohol (TBA)	ND	0.11	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:54	MFF
n-Butylbenzene	ND	0.0021	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:54	MFF
sec-Butylbenzene	ND	0.0021	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:54	MFF
tert-Butylbenzene	ND	0.0021	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:54	MFF
tert-Butyl Ethyl Ether (TBEE)	ND	0.0011	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:54	MFF
Carbon Disulfide	ND	0.011	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:54	MFF
Carbon Tetrachloride	ND	0.0021	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:54	MFF
Chlorobenzene	ND	0.0021	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:54	MFF
Chlorodibromomethane	ND	0.0011	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:54	MFF
Chloroethane	ND	0.021	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:54	MFF
Chloroform	ND	0.0042	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:54	MFF
Chloromethane	ND	0.011	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:54	MFF
2-Chlorotoluene	ND	0.0021	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:54	MFF
4-Chlorotoluene	ND	0.0021	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:54	MFF
1,2-Dibromo-3-chloropropane (DBCP)	ND	0.0021	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:54	MFF
1,2-Dibromoethane (EDB)	ND	0.0011	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:54	MFF
Dibromomethane	ND	0.0021	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:54	MFF
1,2-Dichlorobenzene	ND	0.0021	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:54	MFF
1,3-Dichlorobenzene	ND	0.0021	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:54	MFF
1,4-Dichlorobenzene	ND	0.0021	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:54	MFF
trans-1,4-Dichloro-2-butene	ND	0.0042	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:54	MFF
Dichlorodifluoromethane (Freon 12)	ND	0.021	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:54	MFF
1,1-Dichloroethane	ND	0.0021	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:54	MFF
1,2-Dichloroethane	ND	0.0021	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:54	MFF
1,1-Dichloroethylene	ND	0.0042	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:54	MFF
cis-1,2-Dichloroethylene	ND	0.0021	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:54	MFF
trans-1,2-Dichloroethylene	ND	0.0021	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:54	MFF
1,2-Dichloropropane	ND	0.0021	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:54	MFF
1,3-Dichloropropane	ND	0.0011	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:54	MFF
2,2-Dichloropropane	ND	0.0021	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:54	MFF
1,1-Dichloropropene	ND	0.0021	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:54	MFF
cis-1,3-Dichloropropene	ND	0.0011	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:54	MFF
trans-1,3-Dichloropropene	ND	0.0011	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:54	MFF
Diethyl Ether	ND	0.021	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:54	MFF

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Project Location: 11 N. Main St., Northfield, VT. Sample Description: Work Order: 23I0963

Date Received: 9/8/2023

Field Sample #: SB-3 (11) Sampled: 9/6/2023 11:30

Sample ID: 23I0963-06

Sample Matrix: Soil

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Diisopropyl Ether (DIPE)	ND	0.0011	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:54	MFF
1,4-Dioxane	ND	0.11	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:54	MFF
Ethylbenzene	ND	0.0021	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:54	MFF
Hexachlorobutadiene	ND	0.0021	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:54	MFF
2-Hexanone (MBK)	ND	0.021	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:54	MFF
Isopropylbenzene (Cumene)	ND	0.0021	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:54	MFF
p-Isopropyltoluene (p-Cymene)	ND	0.0021	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:54	MFF
Methyl Acetate	ND	0.0021	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:54	MFF
Methyl tert-Butyl Ether (MTBE)	ND	0.0042	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:54	MFF
Methyl Cyclohexane	ND	0.0021	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:54	MFF
Methylene Chloride	ND	0.021	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:54	MFF
4-Methyl-2-pentanone (MIBK)	ND	0.021	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:54	MFF
Naphthalene	ND	0.011	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:54	MFF
n-Propylbenzene	ND	0.0021	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:54	MFF
Styrene	ND	0.0021	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:54	MFF
1,1,1,2-Tetrachloroethane	ND	0.0021	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:54	MFF
1,1,2,2-Tetrachloroethane	ND	0.0011	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:54	MFF
Tetrachloroethylene	ND	0.0021	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:54	MFF
Tetrahydrofuran	ND	0.011	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:54	MFF
Toluene	ND	0.0021	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:54	MFF
1,2,3-Trichlorobenzene	ND	0.0042	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:54	MFF
1,2,4-Trichlorobenzene	ND	0.0021	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:54	MFF
1,3,5-Trichlorobenzene	ND	0.0021	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:54	MFF
1,1,1-Trichloroethane	ND	0.0021	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:54	MFF
1,1,2-Trichloroethane	ND	0.0021	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:54	MFF
Trichloroethylene	ND	0.0021	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:54	MFF
Trichlorofluoromethane (Freon 11)	ND	0.011	mg/Kg dry	1	V-05	SW-846 8260D	9/12/23	9/12/23 11:54	MFF
1,2,3-Trichloropropane	ND	0.0021	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:54	MFF
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.011	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:54	MFF
1,2,4-Trimethylbenzene	ND	0.0021	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:54	MFF
1,3,5-Trimethylbenzene	ND	0.0021	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:54	MFF
Vinyl Chloride	ND	0.011	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:54	MFF
m+p Xylene	ND	0.0042	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:54	MFF
o-Xylene	ND	0.0021	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 11:54	MFF

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1,2-Dichloroethane-d4	98.0	70-130		9/12/23 11:54
Toluene-d8	95.1	70-130		9/12/23 11:54
4-Bromofluorobenzene	93.8	70-130		9/12/23 11:54

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Project Location: 11 N. Main St., Northfield, VT. Sample Description: Work Order: 23I0963

Date Received: 9/8/2023

Field Sample #: SB-3 (11) Sampled: 9/6/2023 11:30

Sample ID: 23I0963-06

Sample 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	75.5		% Wt	1	H-06	SM 2540G	9/14/23	9/14/23 16:11	AV

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Project Location: 11 N. Main St., Northfield, VT. Sample Description: Work Order: 23I0963

Date Received: 9/8/2023

Field Sample #: SB-4 (0-3) Sampled: 9/6/2023 13:10

Sample ID: 23I0963-07

Sample Matrix: Soil

Sample Flags: H-06

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene	ND	0.22	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 20:04	AR2
Acenaphthylene	ND	0.22	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 20:04	AR2
Acetophenone	ND	0.45	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 20:04	AR2
Aniline	ND	0.45	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 20:04	AR2
Anthracene	ND	0.22	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 20:04	AR2
Benzidine	ND	0.87	mg/Kg dry	1	V-04, V-05	SW-846 8270E	9/27/23	9/30/23 20:04	AR2
Benzo(a)anthracene	ND	0.22	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 20:04	AR2
Benzo(a)pyrene	0.23	0.22	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 20:04	AR2
Benzo(b)fluoranthene	0.35	0.22	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 20:04	AR2
Benzo(g,h,i)perylene	ND	0.22	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 20:04	AR2
Benzo(k)fluoranthene	ND	0.22	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 20:04	AR2
Benzoic Acid	ND	1.3	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 20:04	AR2
Bis(2-chloroethoxy)methane	ND	0.45	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 20:04	AR2
Bis(2-chloroethyl)ether	ND	0.45	mg/Kg dry	1	V-06	SW-846 8270E	9/27/23	9/30/23 20:04	AR2
Bis(2-chloroisopropyl)ether	ND	0.45	mg/Kg dry	1	V-06	SW-846 8270E	9/27/23	9/30/23 20:04	AR2
Bis(2-Ethylhexyl)phthalate	ND	0.45	mg/Kg dry	1	V-06	SW-846 8270E	9/27/23	9/30/23 20:04	AR2
4-Bromophenylphenylether	ND	0.45	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 20:04	AR2
Butylbenzylphthalate	ND	0.45	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 20:04	AR2
Carbazole	ND	0.22	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 20:04	AR2
4-Chloroaniline	ND	0.87	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 20:04	AR2
4-Chloro-3-methylphenol	ND	0.87	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 20:04	AR2
2-Chloronaphthalene	ND	0.45	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 20:04	AR2
2-Chlorophenol	ND	0.45	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 20:04	AR2
4-Chlorophenylphenylether	ND	0.45	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 20:04	AR2
Chrysene	0.28	0.22	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 20:04	AR2
Dibenz(a,h)anthracene	ND	0.22	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 20:04	AR2
Dibenzofuran	ND	0.45	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 20:04	AR2
Di-n-butylphthalate	ND	0.45	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 20:04	AR2
1,2-Dichlorobenzene	ND	0.45	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 20:04	AR2
1,3-Dichlorobenzene	ND	0.45	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 20:04	AR2
1,4-Dichlorobenzene	ND	0.45	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 20:04	AR2
3,3-Dichlorobenzidine	ND	0.22	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 20:04	AR2
2,4-Dichlorophenol	ND	0.45	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 20:04	AR2
Diethylphthalate	ND	0.45	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 20:04	AR2
2,4-Dimethylphenol	ND	0.45	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 20:04	AR2
Dimethylphthalate	ND	0.45	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 20:04	AR2
4,6-Dinitro-2-methylphenol	ND	0.45	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 20:04	AR2
2,4-Dinitrophenol	ND	0.87	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 20:04	AR2
2,4-Dinitrotoluene	ND	0.45	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 20:04	AR2
2,6-Dinitrotoluene	ND	0.45	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 20:04	AR2
Di-n-octylphthalate	ND	0.45	mg/Kg dry	1	V-06	SW-846 8270E	9/27/23	9/30/23 20:04	AR2
1,2-Diphenylhydrazine/Azobenzene	ND	0.45	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 20:04	AR2
Fluoranthene	0.55	0.22	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 20:04	AR2
Fluorene	ND	0.22	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 20:04	AR2

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Project Location: 11 N. Main St., Northfield, VT. Sample Description: Work Order: 23I0963

Date Received: 9/8/2023

Field Sample #: SB-4 (0-3) Sampled: 9/6/2023 13:10

Sample ID: 23I0963-07

Sample Matrix: Soil

Sample Flags: H-06

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Hexachlorobenzene	ND	0.45	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 20:04	AR2
Hexachlorobutadiene	ND	0.45	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 20:04	AR2
Hexachlorocyclopentadiene	ND	0.45	mg/Kg dry	1	V-05	SW-846 8270E	9/27/23	9/30/23 20:04	AR2
Hexachloroethane	ND	0.45	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 20:04	AR2
Indeno(1,2,3-cd)pyrene	ND	0.22	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 20:04	AR2
Isophorone	ND	0.45	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 20:04	AR2
1-Methylnaphthalene	ND	0.22	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 20:04	AR2
2-Methylnaphthalene	ND	0.22	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 20:04	AR2
2-Methylphenol	ND	0.45	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 20:04	AR2
3/4-Methylphenol	ND	0.45	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 20:04	AR2
Naphthalene	ND	0.22	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 20:04	AR2
2-Nitroaniline	ND	0.45	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 20:04	AR2
3-Nitroaniline	ND	0.45	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 20:04	AR2
4-Nitroaniline	ND	0.45	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 20:04	AR2
Nitrobenzene	ND	0.45	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 20:04	AR2
2-Nitrophenol	ND	0.45	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 20:04	AR2
4-Nitrophenol	ND	0.87	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 20:04	AR2
N-Nitrosodimethylamine	ND	0.45	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 20:04	AR2
N-Nitrosodiphenylamine/Diphenylamine	ND	0.45	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 20:04	AR2
N-Nitrosodi-n-propylamine	ND	0.45	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 20:04	AR2
Pentachloronitrobenzene	ND	0.45	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 20:04	AR2
Pentachlorophenol	ND	0.45	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 20:04	AR2
Phenanthrene	0.44	0.22	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 20:04	AR2
Phenol	ND	0.45	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 20:04	AR2
Pyrene	0.51	0.22	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 20:04	AR2
Pyridine	ND	0.45	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 20:04	AR2
1,2,4,5-Tetrachlorobenzene	ND	0.45	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 20:04	AR2
1,2,4-Trichlorobenzene	ND	0.45	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 20:04	AR2
2,4,5-Trichlorophenol	ND	0.45	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 20:04	AR2
2,4,6-Trichlorophenol	ND	0.45	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 20:04	AR2

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
2-Fluorophenol	68.3	30-130		9/30/23 20:04
Phenol-d6	75.1	30-130		9/30/23 20:04
Nitrobenzene-d5	70.6	30-130		9/30/23 20:04
2-Fluorobiphenyl	72.5	30-130		9/30/23 20:04
2,4,6-Tribromophenol	50.7	30-130		9/30/23 20:04
p-Terphenyl-d14	74.5	30-130		9/30/23 20:04

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Project Location: 11 N. Main St., Northfield, VT. Sample Description: Work Order: 23I0963

Date Received: 9/8/2023

Field Sample #: SB-4 (0-3) Sampled: 9/6/2023 13:10

Sample ID: 23I0963-07

Sample Matrix: Soil

Polychlorinated Biphenyls with 3540 Soxhlet Extraction

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.11	mg/Kg dry	4		SW-846 8082A	9/14/23	9/19/23 12:57	TG
Aroclor-1221 [1]	ND	0.11	mg/Kg dry	4		SW-846 8082A	9/14/23	9/19/23 12:57	TG
Aroclor-1232 [1]	ND	0.11	mg/Kg dry	4		SW-846 8082A	9/14/23	9/19/23 12:57	TG
Aroclor-1242 [1]	ND	0.11	mg/Kg dry	4		SW-846 8082A	9/14/23	9/19/23 12:57	TG
Aroclor-1248 [1]	ND	0.11	mg/Kg dry	4		SW-846 8082A	9/14/23	9/19/23 12:57	TG
Aroclor-1254 [1]	ND	0.11	mg/Kg dry	4		SW-846 8082A	9/14/23	9/19/23 12:57	TG
Aroclor-1260 [1]	ND	0.11	mg/Kg dry	4		SW-846 8082A	9/14/23	9/19/23 12:57	TG
Aroclor-1262 [1]	ND	0.11	mg/Kg dry	4		SW-846 8082A	9/14/23	9/19/23 12:57	TG
Aroclor-1268 [1]	ND	0.11	mg/Kg dry	4		SW-846 8082A	9/14/23	9/19/23 12:57	TG

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Decachlorobiphenyl [1]	87.9	30-150		9/19/23 12:57
Decachlorobiphenyl [2]	83.8	30-150		9/19/23 12:57
Tetrachloro-m-xylene [1]	90.2	30-150		9/19/23 12:57
Tetrachloro-m-xylene [2]	84.4	30-150		9/19/23 12:57

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Project Location: 11 N. Main St., Northfield, VT. Sample Description: Work Order: 23I0963

Date Received: 9/8/2023

Field Sample #: SB-4 (0-3) Sampled: 9/6/2023 13:10

Sample ID: 23I0963-07

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Antimony	ND	2.1	mg/Kg dry	1		SW-846 6010D	9/15/23	9/20/23 23:33	ATP
Arsenic	8.7	4.2	mg/Kg dry	1		SW-846 6010D	9/15/23	9/19/23 19:39	ATP
Barium	96	2.1	mg/Kg dry	1		SW-846 6010D	9/15/23	9/19/23 19:39	ATP
Beryllium	ND	0.21	mg/Kg dry	1		SW-846 6010D	9/15/23	9/19/23 19:39	ATP
Cadmium	ND	0.42	mg/Kg dry	1		SW-846 6010D	9/15/23	9/19/23 19:39	ATP
Chromium	16	0.84	mg/Kg dry	1		SW-846 6010D	9/15/23	9/19/23 19:39	ATP
Copper	73	0.84	mg/Kg dry	1		SW-846 6010D	9/15/23	9/19/23 19:39	ATP
Lead	350	0.63	mg/Kg dry	1		SW-846 6010D	9/15/23	9/19/23 19:39	ATP
Mercury	1.3	0.064	mg/Kg dry	2		SW-846 7471B	9/14/23	9/18/23 17:42	AAJ
Nickel	22	0.84	mg/Kg dry	1		SW-846 6010D	9/15/23	9/19/23 19:39	ATP
Selenium	4.9	4.2	mg/Kg dry	1		SW-846 6010D	9/15/23	9/21/23 19:25	ATP
Silver	ND	0.42	mg/Kg dry	1		SW-846 6010D	9/15/23	9/21/23 19:25	ATP
Thallium	ND	2.1	mg/Kg dry	1		SW-846 6010D	9/15/23	9/19/23 19:39	ATP
Zinc	160	0.84	mg/Kg dry	1		SW-846 6010D	9/15/23	9/19/23 19:39	ATP

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Project Location: 11 N. Main St., Northfield, VT. Sample Description: Work Order: 23I0963

Date Received: 9/8/2023

Field Sample #: SB-4 (0-3) Sampled: 9/6/2023 13:10

Sample ID: 23I0963-07

Sample 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	76.1		% Wt	1	H-06	SM 2540G	9/14/23	9/14/23 16:11	AV

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Project Location: 11 N. Main St., Northfield, VT. Sample Description: Work Order: 23I0963

Date Received: 9/8/2023

Field Sample #: SB-4 (7) Sampled: 9/6/2023 13:20

Sample ID: 23I0963-08

Sample Matrix: Soil

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	0.11	mg/Kg dry	1	V-05	SW-846 8260D	9/12/23	9/12/23 12:19	MFF
Acrylonitrile	ND	0.0067	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 12:19	MFF
tert-Amyl Methyl Ether (TAME)	ND	0.0011	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 12:19	MFF
Benzene	ND	0.0022	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 12:19	MFF
Bromobenzene	ND	0.0022	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 12:19	MFF
Bromochloromethane	ND	0.0022	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 12:19	MFF
Bromodichloromethane	ND	0.0022	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 12:19	MFF
Bromoform	ND	0.0022	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 12:19	MFF
Bromomethane	ND	0.011	mg/Kg dry	1	V-34	SW-846 8260D	9/12/23	9/12/23 12:19	MFF
2-Butanone (MEK)	ND	0.045	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 12:19	MFF
tert-Butyl Alcohol (TBA)	ND	0.11	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 12:19	MFF
n-Butylbenzene	ND	0.0022	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 12:19	MFF
sec-Butylbenzene	ND	0.0022	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 12:19	MFF
tert-Butylbenzene	ND	0.0022	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 12:19	MFF
tert-Butyl Ethyl Ether (TBEE)	ND	0.0011	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 12:19	MFF
Carbon Disulfide	ND	0.011	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 12:19	MFF
Carbon Tetrachloride	ND	0.0022	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 12:19	MFF
Chlorobenzene	ND	0.0022	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 12:19	MFF
Chlorodibromomethane	ND	0.0011	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 12:19	MFF
Chloroethane	ND	0.022	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 12:19	MFF
Chloroform	ND	0.0045	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 12:19	MFF
Chloromethane	ND	0.011	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 12:19	MFF
2-Chlorotoluene	ND	0.0022	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 12:19	MFF
4-Chlorotoluene	ND	0.0022	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 12:19	MFF
1,2-Dibromo-3-chloropropane (DBCP)	ND	0.0022	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 12:19	MFF
1,2-Dibromoethane (EDB)	ND	0.0011	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 12:19	MFF
Dibromomethane	ND	0.0022	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 12:19	MFF
1,2-Dichlorobenzene	ND	0.0022	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 12:19	MFF
1,3-Dichlorobenzene	ND	0.0022	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 12:19	MFF
1,4-Dichlorobenzene	ND	0.0022	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 12:19	MFF
trans-1,4-Dichloro-2-butene	ND	0.0045	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 12:19	MFF
Dichlorodifluoromethane (Freon 12)	ND	0.022	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 12:19	MFF
1,1-Dichloroethane	ND	0.0022	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 12:19	MFF
1,2-Dichloroethane	ND	0.0022	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 12:19	MFF
1,1-Dichloroethylene	ND	0.0045	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 12:19	MFF
cis-1,2-Dichloroethylene	ND	0.0022	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 12:19	MFF
trans-1,2-Dichloroethylene	ND	0.0022	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 12:19	MFF
1,2-Dichloropropane	ND	0.0022	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 12:19	MFF
1,3-Dichloropropane	ND	0.0011	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 12:19	MFF
2,2-Dichloropropane	ND	0.0022	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 12:19	MFF
1,1-Dichloropropene	ND	0.0022	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 12:19	MFF
cis-1,3-Dichloropropene	ND	0.0011	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 12:19	MFF
trans-1,3-Dichloropropene	ND	0.0011	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 12:19	MFF
Diethyl Ether	ND	0.022	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 12:19	MFF

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Project Location: 11 N. Main St., Northfield, VT. Sample Description: Work Order: 23I0963

Date Received: 9/8/2023

Field Sample #: SB-4 (7) Sampled: 9/6/2023 13:20

Sample ID: 23I0963-08

Sample Matrix: Soil

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Diisopropyl Ether (DIPE)	ND	0.0011	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 12:19	MFF
1,4-Dioxane	ND	0.11	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 12:19	MFF
Ethylbenzene	ND	0.0022	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 12:19	MFF
Hexachlorobutadiene	ND	0.0022	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 12:19	MFF
2-Hexanone (MBK)	ND	0.022	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 12:19	MFF
Isopropylbenzene (Cumene)	ND	0.0022	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 12:19	MFF
p-Isopropyltoluene (p-Cymene)	ND	0.0022	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 12:19	MFF
Methyl Acetate	ND	0.0022	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 12:19	MFF
Methyl tert-Butyl Ether (MTBE)	ND	0.0045	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 12:19	MFF
Methyl Cyclohexane	ND	0.0022	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 12:19	MFF
Methylene Chloride	ND	0.022	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 12:19	MFF
4-Methyl-2-pentanone (MIBK)	ND	0.022	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 12:19	MFF
Naphthalene	ND	0.011	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 12:19	MFF
n-Propylbenzene	ND	0.0022	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 12:19	MFF
Styrene	ND	0.0022	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 12:19	MFF
1,1,1,2-Tetrachloroethane	ND	0.0022	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 12:19	MFF
1,1,2,2-Tetrachloroethane	ND	0.0011	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 12:19	MFF
Tetrachloroethylene	ND	0.0022	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 12:19	MFF
Tetrahydrofuran	ND	0.011	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 12:19	MFF
Toluene	ND	0.0022	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 12:19	MFF
1,2,3-Trichlorobenzene	ND	0.0045	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 12:19	MFF
1,2,4-Trichlorobenzene	ND	0.0022	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 12:19	MFF
1,3,5-Trichlorobenzene	ND	0.0022	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 12:19	MFF
1,1,1-Trichloroethane	ND	0.0022	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 12:19	MFF
1,1,2-Trichloroethane	ND	0.0022	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 12:19	MFF
Trichloroethylene	ND	0.0022	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 12:19	MFF
Trichlorofluoromethane (Freon 11)	ND	0.011	mg/Kg dry	1	V-05	SW-846 8260D	9/12/23	9/12/23 12:19	MFF
1,2,3-Trichloropropane	ND	0.0022	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 12:19	MFF
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.011	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 12:19	MFF
1,2,4-Trimethylbenzene	ND	0.0022	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 12:19	MFF
1,3,5-Trimethylbenzene	ND	0.0022	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 12:19	MFF
Vinyl Chloride	ND	0.011	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 12:19	MFF
m+p Xylene	ND	0.0045	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 12:19	MFF
o-Xylene	ND	0.0022	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 12:19	MFF

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1,2-Dichloroethane-d4	96.9	70-130		9/12/23 12:19
Toluene-d8	95.4	70-130		9/12/23 12:19
4-Bromofluorobenzene	93.1	70-130		9/12/23 12:19

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Project Location: 11 N. Main St., Northfield, VT. Sample Description: Work Order: 23I0963

Date Received: 9/8/2023

Field Sample #: SB-4 (7) Sampled: 9/6/2023 13:20

Sample ID: 23I0963-08

Sample 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	75.0		% Wt	1	H-06	SM 2540G	9/14/23	9/14/23 16:11	AV

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Project Location: 11 N. Main St., Northfield, VT. Sample Description: Work Order: 23I0963

Date Received: 9/8/2023

Field Sample #: SB-5 (1) Sampled: 9/6/2023 14:20

Sample ID: 23I0963-09

Sample Matrix: Soil

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	0.12	mg/Kg dry	1	V-05	SW-846 8260D	9/12/23	9/12/23 12:45	MFF
Acrylonitrile	ND	0.0070	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 12:45	MFF
tert-Amyl Methyl Ether (TAME)	ND	0.0012	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 12:45	MFF
Benzene	ND	0.0023	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 12:45	MFF
Bromobenzene	ND	0.0023	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 12:45	MFF
Bromochloromethane	ND	0.0023	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 12:45	MFF
Bromodichloromethane	ND	0.0023	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 12:45	MFF
Bromoform	ND	0.0023	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 12:45	MFF
Bromomethane	ND	0.012	mg/Kg dry	1	V-34	SW-846 8260D	9/12/23	9/12/23 12:45	MFF
2-Butanone (MEK)	ND	0.047	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 12:45	MFF
tert-Butyl Alcohol (TBA)	ND	0.12	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 12:45	MFF
n-Butylbenzene	ND	0.0023	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 12:45	MFF
sec-Butylbenzene	ND	0.0023	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 12:45	MFF
tert-Butylbenzene	ND	0.0023	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 12:45	MFF
tert-Butyl Ethyl Ether (TBEE)	ND	0.0012	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 12:45	MFF
Carbon Disulfide	ND	0.012	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 12:45	MFF
Carbon Tetrachloride	ND	0.0023	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 12:45	MFF
Chlorobenzene	ND	0.0023	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 12:45	MFF
Chlorodibromomethane	ND	0.0012	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 12:45	MFF
Chloroethane	ND	0.023	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 12:45	MFF
Chloroform	ND	0.0047	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 12:45	MFF
Chloromethane	ND	0.012	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 12:45	MFF
2-Chlorotoluene	ND	0.0023	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 12:45	MFF
4-Chlorotoluene	ND	0.0023	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 12:45	MFF
1,2-Dibromo-3-chloropropane (DBCP)	ND	0.0023	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 12:45	MFF
1,2-Dibromoethane (EDB)	ND	0.0012	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 12:45	MFF
Dibromomethane	ND	0.0023	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 12:45	MFF
1,2-Dichlorobenzene	ND	0.0023	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 12:45	MFF
1,3-Dichlorobenzene	ND	0.0023	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 12:45	MFF
1,4-Dichlorobenzene	ND	0.0023	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 12:45	MFF
trans-1,4-Dichloro-2-butene	ND	0.0047	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 12:45	MFF
Dichlorodifluoromethane (Freon 12)	ND	0.023	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 12:45	MFF
1,1-Dichloroethane	ND	0.0023	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 12:45	MFF
1,2-Dichloroethane	ND	0.0023	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 12:45	MFF
1,1-Dichloroethylene	ND	0.0047	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 12:45	MFF
cis-1,2-Dichloroethylene	ND	0.0023	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 12:45	MFF
trans-1,2-Dichloroethylene	ND	0.0023	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 12:45	MFF
1,2-Dichloropropane	ND	0.0023	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 12:45	MFF
1,3-Dichloropropane	ND	0.0012	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 12:45	MFF
2,2-Dichloropropane	ND	0.0023	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 12:45	MFF
1,1-Dichloropropene	ND	0.0023	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 12:45	MFF
cis-1,3-Dichloropropene	ND	0.0012	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 12:45	MFF
trans-1,3-Dichloropropene	ND	0.0012	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 12:45	MFF
Diethyl Ether	ND	0.023	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 12:45	MFF

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Project Location: 11 N. Main St., Northfield, VT. Sample Description: Work Order: 23I0963

Date Received: 9/8/2023

Field Sample #: SB-5 (1) Sampled: 9/6/2023 14:20

Sample ID: 23I0963-09

Sample Matrix: Soil

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Diisopropyl Ether (DIPE)	ND	0.0012	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 12:45	MFF
1,4-Dioxane	ND	0.12	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 12:45	MFF
Ethylbenzene	ND	0.0023	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 12:45	MFF
Hexachlorobutadiene	ND	0.0023	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 12:45	MFF
2-Hexanone (MBK)	ND	0.023	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 12:45	MFF
Isopropylbenzene (Cumene)	ND	0.0023	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 12:45	MFF
p-Isopropyltoluene (p-Cymene)	ND	0.0023	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 12:45	MFF
Methyl Acetate	ND	0.0023	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 12:45	MFF
Methyl tert-Butyl Ether (MTBE)	ND	0.0047	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 12:45	MFF
Methyl Cyclohexane	ND	0.0023	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 12:45	MFF
Methylene Chloride	ND	0.023	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 12:45	MFF
4-Methyl-2-pentanone (MIBK)	ND	0.023	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 12:45	MFF
Naphthalene	ND	0.012	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 12:45	MFF
n-Propylbenzene	ND	0.0023	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 12:45	MFF
Styrene	ND	0.0023	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 12:45	MFF
1,1,1,2-Tetrachloroethane	ND	0.0023	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 12:45	MFF
1,1,2,2-Tetrachloroethane	ND	0.0012	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 12:45	MFF
Tetrachloroethylene	ND	0.0023	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 12:45	MFF
Tetrahydrofuran	ND	0.012	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 12:45	MFF
Toluene	ND	0.0023	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 12:45	MFF
1,2,3-Trichlorobenzene	ND	0.0047	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 12:45	MFF
1,2,4-Trichlorobenzene	ND	0.0023	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 12:45	MFF
1,3,5-Trichlorobenzene	ND	0.0023	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 12:45	MFF
1,1,1-Trichloroethane	ND	0.0023	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 12:45	MFF
1,1,2-Trichloroethane	ND	0.0023	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 12:45	MFF
Trichloroethylene	ND	0.0023	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 12:45	MFF
Trichlorofluoromethane (Freon 11)	ND	0.012	mg/Kg dry	1	V-05	SW-846 8260D	9/12/23	9/12/23 12:45	MFF
1,2,3-Trichloropropane	ND	0.0023	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 12:45	MFF
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.012	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 12:45	MFF
1,2,4-Trimethylbenzene	ND	0.0023	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 12:45	MFF
1,3,5-Trimethylbenzene	ND	0.0023	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 12:45	MFF
Vinyl Chloride	ND	0.012	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 12:45	MFF
m+p Xylene	ND	0.0047	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 12:45	MFF
o-Xylene	ND	0.0023	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 12:45	MFF

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1,2-Dichloroethane-d4	94.6	70-130		9/12/23 12:45
Toluene-d8	95.4	70-130		9/12/23 12:45
4-Bromofluorobenzene	93.2	70-130		9/12/23 12:45

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

Project Location: 11 N. Main St., Northfield, VT. Sample Description: Work Order: 23I0963

Date Received: 9/8/2023

Field Sample #: SB-5 (1) Sampled: 9/6/2023 14:20

Sample ID: 23I0963-09

Sample 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	79.0		% Wt	1	H-06	SM 2540G	9/14/23	9/14/23 16:11	AV

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

Project Location: 11 N. Main St., Northfield, VT. Sample Description: Work Order: 23I0963

Date Received: 9/8/2023

Field Sample #: DUP-1 Sampled: 9/6/2023 00:00

Sample ID: 23I0963-10

Sample Matrix: Soil

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	0.092	mg/Kg dry	1	V-05	SW-846 8260D	9/12/23	9/12/23 13:10	MFF
Acrylonitrile	ND	0.0055	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 13:10	MFF
tert-Amyl Methyl Ether (TAME)	ND	0.00092	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 13:10	MFF
Benzene	ND	0.0018	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 13:10	MFF
Bromobenzene	ND	0.0018	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 13:10	MFF
Bromochloromethane	ND	0.0018	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 13:10	MFF
Bromodichloromethane	ND	0.0018	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 13:10	MFF
Bromoform	ND	0.0018	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 13:10	MFF
Bromomethane	ND	0.0092	mg/Kg dry	1	V-34	SW-846 8260D	9/12/23	9/12/23 13:10	MFF
2-Butanone (MEK)	ND	0.037	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 13:10	MFF
tert-Butyl Alcohol (TBA)	ND	0.092	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 13:10	MFF
n-Butylbenzene	ND	0.0018	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 13:10	MFF
sec-Butylbenzene	ND	0.0018	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 13:10	MFF
tert-Butylbenzene	ND	0.0018	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 13:10	MFF
tert-Butyl Ethyl Ether (TBEE)	ND	0.00092	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 13:10	MFF
Carbon Disulfide	ND	0.0092	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 13:10	MFF
Carbon Tetrachloride	ND	0.0018	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 13:10	MFF
Chlorobenzene	ND	0.0018	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 13:10	MFF
Chlorodibromomethane	ND	0.00092	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 13:10	MFF
Chloroethane	ND	0.018	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 13:10	MFF
Chloroform	ND	0.0037	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 13:10	MFF
Chloromethane	ND	0.0092	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 13:10	MFF
2-Chlorotoluene	ND	0.0018	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 13:10	MFF
4-Chlorotoluene	ND	0.0018	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 13:10	MFF
1,2-Dibromo-3-chloropropane (DBCP)	ND	0.0018	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 13:10	MFF
1,2-Dibromoethane (EDB)	ND	0.00092	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 13:10	MFF
Dibromomethane	ND	0.0018	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 13:10	MFF
1,2-Dichlorobenzene	ND	0.0018	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 13:10	MFF
1,3-Dichlorobenzene	ND	0.0018	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 13:10	MFF
1,4-Dichlorobenzene	ND	0.0018	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 13:10	MFF
trans-1,4-Dichloro-2-butene	ND	0.0037	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 13:10	MFF
Dichlorodifluoromethane (Freon 12)	ND	0.018	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 13:10	MFF
1,1-Dichloroethane	ND	0.0018	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 13:10	MFF
1,2-Dichloroethane	ND	0.0018	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 13:10	MFF
1,1-Dichloroethylene	ND	0.0037	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 13:10	MFF
cis-1,2-Dichloroethylene	ND	0.0018	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 13:10	MFF
trans-1,2-Dichloroethylene	ND	0.0018	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 13:10	MFF
1,2-Dichloropropane	ND	0.0018	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 13:10	MFF
1,3-Dichloropropane	ND	0.00092	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 13:10	MFF
2,2-Dichloropropane	ND	0.0018	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 13:10	MFF
1,1-Dichloropropene	ND	0.0018	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 13:10	MFF
cis-1,3-Dichloropropene	ND	0.00092	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 13:10	MFF
trans-1,3-Dichloropropene	ND	0.00092	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 13:10	MFF
Diethyl Ether	ND	0.018	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 13:10	MFF

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

Project Location: 11 N. Main St., Northfield, VT. Sample Description: Work Order: 23I0963

Date Received: 9/8/2023

Field Sample #: DUP-1 Sampled: 9/6/2023 00:00

Sample ID: 23I0963-10

Sample Matrix: Soil

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Diisopropyl Ether (DIPE)	ND	0.00092	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 13:10	MFF
1,4-Dioxane	ND	0.092	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 13:10	MFF
Ethylbenzene	ND	0.0018	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 13:10	MFF
Hexachlorobutadiene	ND	0.0018	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 13:10	MFF
2-Hexanone (MBK)	ND	0.018	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 13:10	MFF
Isopropylbenzene (Cumene)	ND	0.0018	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 13:10	MFF
p-Isopropyltoluene (p-Cymene)	ND	0.0018	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 13:10	MFF
Methyl Acetate	ND	0.0018	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 13:10	MFF
Methyl tert-Butyl Ether (MTBE)	ND	0.0037	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 13:10	MFF
Methyl Cyclohexane	ND	0.0018	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 13:10	MFF
Methylene Chloride	ND	0.018	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 13:10	MFF
4-Methyl-2-pentanone (MIBK)	ND	0.018	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 13:10	MFF
Naphthalene	ND	0.0092	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 13:10	MFF
n-Propylbenzene	ND	0.0018	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 13:10	MFF
Styrene	ND	0.0018	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 13:10	MFF
1,1,1,2-Tetrachloroethane	ND	0.0018	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 13:10	MFF
1,1,2,2-Tetrachloroethane	ND	0.00092	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 13:10	MFF
Tetrachloroethylene	ND	0.0018	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 13:10	MFF
Tetrahydrofuran	ND	0.0092	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 13:10	MFF
Toluene	ND	0.0018	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 13:10	MFF
1,2,3-Trichlorobenzene	ND	0.0037	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 13:10	MFF
1,2,4-Trichlorobenzene	ND	0.0018	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 13:10	MFF
1,3,5-Trichlorobenzene	ND	0.0018	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 13:10	MFF
1,1,1-Trichloroethane	ND	0.0018	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 13:10	MFF
1,1,2-Trichloroethane	ND	0.0018	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 13:10	MFF
Trichloroethylene	ND	0.0018	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 13:10	MFF
Trichlorofluoromethane (Freon 11)	ND	0.0092	mg/Kg dry	1	V-05	SW-846 8260D	9/12/23	9/12/23 13:10	MFF
1,2,3-Trichloropropane	ND	0.0018	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 13:10	MFF
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.0092	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 13:10	MFF
1,2,4-Trimethylbenzene	ND	0.0018	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 13:10	MFF
1,3,5-Trimethylbenzene	ND	0.0018	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 13:10	MFF
Vinyl Chloride	ND	0.0092	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 13:10	MFF
m+p Xylene	ND	0.0037	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 13:10	MFF
o-Xylene	ND	0.0018	mg/Kg dry	1		SW-846 8260D	9/12/23	9/12/23 13:10	MFF

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1,2-Dichloroethane-d4	95.8	70-130		9/12/23 13:10
Toluene-d8	94.5	70-130		9/12/23 13:10
4-Bromofluorobenzene	93.1	70-130		9/12/23 13:10

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

Project Location: 11 N. Main St., Northfield, VT. Sample Description: Work Order: 23I0963

Date Received: 9/8/2023

Field Sample #: DUP-1 Sampled: 9/6/2023 00:00

Sample ID: 23I0963-10

Sample 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	80.0		% Wt	1	H-06	SM 2540G	9/14/23	9/14/23 16:11	AV

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

Project Location: 11 N. Main St., Northfield, VT. Sample Description: Work Order: 23I0963

Date Received: 9/8/2023

Field Sample #: DUP Sampled: 9/6/2023 00:00

Sample ID: 23I0963-11

Sample Matrix: Soil

Sample Flags: H-06

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene	ND	0.21	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 20:25	AR2
Acenaphthylene	ND	0.21	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 20:25	AR2
Acetophenone	ND	0.41	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 20:25	AR2
Aniline	ND	0.41	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 20:25	AR2
Anthracene	ND	0.21	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 20:25	AR2
Benzidine	ND	0.80	mg/Kg dry	1	V-04, V-05	SW-846 8270E	9/27/23	9/30/23 20:25	AR2
Benzo(a)anthracene	ND	0.21	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 20:25	AR2
Benzo(a)pyrene	0.25	0.21	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 20:25	AR2
Benzo(b)fluoranthene	0.36	0.21	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 20:25	AR2
Benzo(g,h,i)perylene	0.21	0.21	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 20:25	AR2
Benzo(k)fluoranthene	ND	0.21	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 20:25	AR2
Benzoic Acid	ND	1.2	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 20:25	AR2
Bis(2-chloroethoxy)methane	ND	0.41	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 20:25	AR2
Bis(2-chloroethyl)ether	ND	0.41	mg/Kg dry	1	V-06	SW-846 8270E	9/27/23	9/30/23 20:25	AR2
Bis(2-chloroisopropyl)ether	ND	0.41	mg/Kg dry	1	V-06	SW-846 8270E	9/27/23	9/30/23 20:25	AR2
Bis(2-Ethylhexyl)phthalate	ND	0.41	mg/Kg dry	1	V-06	SW-846 8270E	9/27/23	9/30/23 20:25	AR2
4-Bromophenylphenylether	ND	0.41	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 20:25	AR2
Butylbenzylphthalate	ND	0.41	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 20:25	AR2
Carbazole	ND	0.21	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 20:25	AR2
4-Chloroaniline	ND	0.80	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 20:25	AR2
4-Chloro-3-methylphenol	ND	0.80	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 20:25	AR2
2-Chloronaphthalene	ND	0.41	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 20:25	AR2
2-Chlorophenol	ND	0.41	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 20:25	AR2
4-Chlorophenylphenylether	ND	0.41	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 20:25	AR2
Chrysene	0.32	0.21	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 20:25	AR2
Dibenz(a,h)anthracene	ND	0.21	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 20:25	AR2
Dibenzofuran	ND	0.41	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 20:25	AR2
Di-n-butylphthalate	ND	0.41	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 20:25	AR2
1,2-Dichlorobenzene	ND	0.41	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 20:25	AR2
1,3-Dichlorobenzene	ND	0.41	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 20:25	AR2
1,4-Dichlorobenzene	ND	0.41	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 20:25	AR2
3,3-Dichlorobenzidine	ND	0.21	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 20:25	AR2
2,4-Dichlorophenol	ND	0.41	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 20:25	AR2
Diethylphthalate	ND	0.41	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 20:25	AR2
2,4-Dimethylphenol	ND	0.41	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 20:25	AR2
Dimethylphthalate	ND	0.41	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 20:25	AR2
4,6-Dinitro-2-methylphenol	ND	0.41	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 20:25	AR2
2,4-Dinitrophenol	ND	0.80	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 20:25	AR2
2,4-Dinitrotoluene	ND	0.41	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 20:25	AR2
2,6-Dinitrotoluene	ND	0.41	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 20:25	AR2
Di-n-octylphthalate	ND	0.41	mg/Kg dry	1	V-06	SW-846 8270E	9/27/23	9/30/23 20:25	AR2
1,2-Diphenylhydrazine/Azobenzene	ND	0.41	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 20:25	AR2
Fluoranthene	0.58	0.21	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 20:25	AR2
Fluorene	ND	0.21	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 20:25	AR2

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

Project Location: 11 N. Main St., Northfield, VT. Sample Description: Work Order: 23I0963

Date Received: 9/8/2023

Field Sample #: DUP Sampled: 9/6/2023 00:00

Sample ID: 23I0963-11

Sample Matrix: Soil

Sample Flags: H-06

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Hexachlorobenzene	ND	0.41	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 20:25	AR2
Hexachlorobutadiene	ND	0.41	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 20:25	AR2
Hexachlorocyclopentadiene	ND	0.41	mg/Kg dry	1	V-05	SW-846 8270E	9/27/23	9/30/23 20:25	AR2
Hexachloroethane	ND	0.41	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 20:25	AR2
Indeno(1,2,3-cd)pyrene	0.21	0.21	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 20:25	AR2
Isophorone	ND	0.41	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 20:25	AR2
1-Methylnaphthalene	ND	0.21	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 20:25	AR2
2-Methylnaphthalene	ND	0.21	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 20:25	AR2
2-Methylphenol	ND	0.41	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 20:25	AR2
3/4-Methylphenol	ND	0.41	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 20:25	AR2
Naphthalene	ND	0.21	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 20:25	AR2
2-Nitroaniline	ND	0.41	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 20:25	AR2
3-Nitroaniline	ND	0.41	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 20:25	AR2
4-Nitroaniline	ND	0.41	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 20:25	AR2
Nitrobenzene	ND	0.41	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 20:25	AR2
2-Nitrophenol	ND	0.41	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 20:25	AR2
4-Nitrophenol	ND	0.80	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 20:25	AR2
N-Nitrosodimethylamine	ND	0.41	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 20:25	AR2
N-Nitrosodiphenylamine/Diphenylamine	ND	0.41	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 20:25	AR2
N-Nitrosodi-n-propylamine	ND	0.41	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 20:25	AR2
Pentachloronitrobenzene	ND	0.41	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 20:25	AR2
Pentachlorophenol	ND	0.41	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 20:25	AR2
Phenanthrene	0.45	0.21	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 20:25	AR2
Phenol	ND	0.41	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 20:25	AR2
Pyrene	0.55	0.21	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 20:25	AR2
Pyridine	ND	0.41	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 20:25	AR2
1,2,4,5-Tetrachlorobenzene	ND	0.41	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 20:25	AR2
1,2,4-Trichlorobenzene	ND	0.41	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 20:25	AR2
2,4,5-Trichlorophenol	ND	0.41	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 20:25	AR2
2,4,6-Trichlorophenol	ND	0.41	mg/Kg dry	1		SW-846 8270E	9/27/23	9/30/23 20:25	AR2

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
2-Fluorophenol	70.3	30-130		9/30/23 20:25
Phenol-d6	77.6	30-130		9/30/23 20:25
Nitrobenzene-d5	73.2	30-130		9/30/23 20:25
2-Fluorobiphenyl	74.8	30-130		9/30/23 20:25
2,4,6-Tribromophenol	52.1	30-130		9/30/23 20:25
p-Terphenyl-d14	79.5	30-130		9/30/23 20:25

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

Project Location: 11 N. Main St., Northfield, VT. Sample Description: Work Order: 23I0963

Date Received: 9/8/2023

Field Sample #: DUP Sampled: 9/6/2023 00:00

Sample ID: 23I0963-11

Sample Matrix: Soil

Polychlorinated Biphenyls with 3540 Soxhlet Extraction

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.097	mg/Kg dry	4		SW-846 8082A	9/14/23	9/19/23 13:09	TG
Aroclor-1221 [1]	ND	0.097	mg/Kg dry	4		SW-846 8082A	9/14/23	9/19/23 13:09	TG
Aroclor-1232 [1]	ND	0.097	mg/Kg dry	4		SW-846 8082A	9/14/23	9/19/23 13:09	TG
Aroclor-1242 [1]	ND	0.097	mg/Kg dry	4		SW-846 8082A	9/14/23	9/19/23 13:09	TG
Aroclor-1248 [1]	ND	0.097	mg/Kg dry	4		SW-846 8082A	9/14/23	9/19/23 13:09	TG
Aroclor-1254 [1]	ND	0.097	mg/Kg dry	4		SW-846 8082A	9/14/23	9/19/23 13:09	TG
Aroclor-1260 [1]	ND	0.097	mg/Kg dry	4		SW-846 8082A	9/14/23	9/19/23 13:09	TG
Aroclor-1262 [1]	ND	0.097	mg/Kg dry	4		SW-846 8082A	9/14/23	9/19/23 13:09	TG
Aroclor-1268 [1]	ND	0.097	mg/Kg dry	4		SW-846 8082A	9/14/23	9/19/23 13:09	TG

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Decachlorobiphenyl [1]	89.8	30-150		9/19/23 13:09
Decachlorobiphenyl [2]	89.2	30-150		9/19/23 13:09
Tetrachloro-m-xylene [1]	97.3	30-150		9/19/23 13:09
Tetrachloro-m-xylene [2]	92.9	30-150		9/19/23 13:09

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

Project Location: 11 N. Main St., Northfield, VT. Sample Description: Work Order: 23I0963

Date Received: 9/8/2023

Field Sample #: DUP Sampled: 9/6/2023 00:00

Sample ID: 23I0963-11

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Antimony	ND	2.0	mg/Kg dry	1		SW-846 6010D	9/15/23	9/19/23 19:46	ATP
Arsenic	8.6	3.9	mg/Kg dry	1		SW-846 6010D	9/15/23	9/19/23 19:46	ATP
Barium	66	2.0	mg/Kg dry	1		SW-846 6010D	9/15/23	9/19/23 19:46	ATP
Beryllium	0.20	0.20	mg/Kg dry	1		SW-846 6010D	9/15/23	9/19/23 19:46	ATP
Cadmium	ND	0.39	mg/Kg dry	1		SW-846 6010D	9/15/23	9/19/23 19:46	ATP
Chromium	31	0.78	mg/Kg dry	1		SW-846 6010D	9/15/23	9/19/23 19:46	ATP
Copper	43	0.78	mg/Kg dry	1		SW-846 6010D	9/15/23	9/19/23 19:46	ATP
Lead	190	0.59	mg/Kg dry	1		SW-846 6010D	9/15/23	9/19/23 19:46	ATP
Mercury	1.1	0.062	mg/Kg dry	2		SW-846 7471B	9/14/23	9/18/23 17:44	AAJ
Nickel	20	0.78	mg/Kg dry	1		SW-846 6010D	9/15/23	9/19/23 19:46	ATP
Selenium	ND	3.9	mg/Kg dry	1		SW-846 6010D	9/15/23	9/20/23 23:40	ATP
Silver	ND	0.39	mg/Kg dry	1		SW-846 6010D	9/15/23	9/21/23 19:30	ATP
Thallium	ND	2.0	mg/Kg dry	1		SW-846 6010D	9/15/23	9/19/23 19:46	ATP
Zinc	110	0.78	mg/Kg dry	1		SW-846 6010D	9/15/23	9/19/23 19:46	ATP

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

Project Location: 11 N. Main St., Northfield, VT. Sample Description: Work Order: 23I0963

Date Received: 9/8/2023

Field Sample #: DUP Sampled: 9/6/2023 00:00

Sample ID: 23I0963-11

Sample 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	82.2		% Wt	1	H-06	SM 2540G	9/14/23	9/14/23 16:11	AV

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Project Location: 11 N. Main St., Northfield, VT. Sample Description: Work Order: 23I0963

Date Received: 9/8/2023

Field Sample #: GW-1 Sampled: 9/6/2023 09:40

Sample ID: 23I0963-12

Sample Matrix: Ground Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	50	µg/L	1		SW-846 8260D	9/12/23	9/12/23 12:49	LBD
Acrylonitrile	ND	5.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 12:49	LBD
tert-Amyl Methyl Ether (TAME)	ND	0.50	µg/L	1		SW-846 8260D	9/12/23	9/12/23 12:49	LBD
Benzene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 12:49	LBD
Bromobenzene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 12:49	LBD
Bromochloromethane	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 12:49	LBD
Bromodichloromethane	ND	0.50	µg/L	1		SW-846 8260D	9/12/23	9/12/23 12:49	LBD
Bromoform	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 12:49	LBD
Bromomethane	ND	2.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 12:49	LBD
2-Butanone (MEK)	ND	20	µg/L	1		SW-846 8260D	9/12/23	9/12/23 12:49	LBD
tert-Butyl Alcohol (TBA)	ND	20	µg/L	1		SW-846 8260D	9/12/23	9/12/23 12:49	LBD
n-Butylbenzene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 12:49	LBD
sec-Butylbenzene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 12:49	LBD
tert-Butylbenzene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 12:49	LBD
tert-Butyl Ethyl Ether (TBEE)	ND	0.50	µg/L	1		SW-846 8260D	9/12/23	9/12/23 12:49	LBD
Carbon Disulfide	ND	5.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 12:49	LBD
Carbon Tetrachloride	ND	5.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 12:49	LBD
Chlorobenzene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 12:49	LBD
Chlorodibromomethane	ND	0.50	µg/L	1		SW-846 8260D	9/12/23	9/12/23 12:49	LBD
Chloroethane	ND	2.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 12:49	LBD
Chloroform	ND	2.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 12:49	LBD
Chloromethane	ND	2.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 12:49	LBD
2-Chlorotoluene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 12:49	LBD
4-Chlorotoluene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 12:49	LBD
1,2-Dibromo-3-chloropropane (DBCP)	ND	5.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 12:49	LBD
1,2-Dibromoethane (EDB)	ND	0.50	µg/L	1		SW-846 8260D	9/12/23	9/12/23 12:49	LBD
Dibromomethane	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 12:49	LBD
1,2-Dichlorobenzene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 12:49	LBD
1,3-Dichlorobenzene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 12:49	LBD
1,4-Dichlorobenzene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 12:49	LBD
trans-1,4-Dichloro-2-butene	ND	2.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 12:49	LBD
Dichlorodifluoromethane (Freon 12)	ND	2.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 12:49	LBD
1,1-Dichloroethane	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 12:49	LBD
1,2-Dichloroethane	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 12:49	LBD
1,1-Dichloroethylene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 12:49	LBD
cis-1,2-Dichloroethylene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 12:49	LBD
trans-1,2-Dichloroethylene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 12:49	LBD
1,2-Dichloropropane	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 12:49	LBD
1,3-Dichloropropane	ND	0.50	µg/L	1		SW-846 8260D	9/12/23	9/12/23 12:49	LBD
2,2-Dichloropropane	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 12:49	LBD
1,1-Dichloropropene	ND	2.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 12:49	LBD
cis-1,3-Dichloropropene	ND	0.50	µg/L	1		SW-846 8260D	9/12/23	9/12/23 12:49	LBD
trans-1,3-Dichloropropene	ND	0.50	µg/L	1		SW-846 8260D	9/12/23	9/12/23 12:49	LBD
Diethyl Ether	ND	2.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 12:49	LBD

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

Project Location: 11 N. Main St., Northfield, VT. Sample Description: Work Order: 23I0963

Date Received: 9/8/2023

Field Sample #: GW-1 Sampled: 9/6/2023 09:40

Sample ID: 23I0963-12

Sample Matrix: Ground Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Diisopropyl Ether (DIPE)	ND	0.50	µg/L	1		SW-846 8260D	9/12/23	9/12/23 12:49	LBD
1,4-Dioxane	ND	50	µg/L	1		SW-846 8260D	9/12/23	9/12/23 12:49	LBD
Ethylbenzene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 12:49	LBD
Hexachlorobutadiene	ND	0.60	µg/L	1		SW-846 8260D	9/12/23	9/12/23 12:49	LBD
2-Hexanone (MBK)	ND	10	µg/L	1		SW-846 8260D	9/12/23	9/12/23 12:49	LBD
Isopropylbenzene (Cumene)	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 12:49	LBD
p-Isopropyltoluene (p-Cymene)	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 12:49	LBD
Methyl Acetate	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 12:49	LBD
Methyl tert-Butyl Ether (MTBE)	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 12:49	LBD
Methyl Cyclohexane	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 12:49	LBD
Methylene Chloride	ND	5.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 12:49	LBD
4-Methyl-2-pentanone (MIBK)	ND	10	µg/L	1		SW-846 8260D	9/12/23	9/12/23 12:49	LBD
Naphthalene	ND	2.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 12:49	LBD
n-Propylbenzene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 12:49	LBD
Styrene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 12:49	LBD
1,1,1,2-Tetrachloroethane	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 12:49	LBD
1,1,2,2-Tetrachloroethane	ND	0.50	µg/L	1		SW-846 8260D	9/12/23	9/12/23 12:49	LBD
Tetrachloroethylene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 12:49	LBD
Tetrahydrofuran	ND	10	µg/L	1	V-05	SW-846 8260D	9/12/23	9/12/23 12:49	LBD
Toluene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 12:49	LBD
1,2,3-Trichlorobenzene	ND	5.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 12:49	LBD
1,2,4-Trichlorobenzene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 12:49	LBD
1,3,5-Trichlorobenzene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 12:49	LBD
1,1,1-Trichloroethane	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 12:49	LBD
1,1,2-Trichloroethane	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 12:49	LBD
Trichloroethylene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 12:49	LBD
Trichlorofluoromethane (Freon 11)	ND	2.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 12:49	LBD
1,2,3-Trichloropropane	ND	2.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 12:49	LBD
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 12:49	LBD
1,2,4-Trimethylbenzene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 12:49	LBD
1,3,5-Trimethylbenzene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 12:49	LBD
Vinyl Chloride	ND	2.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 12:49	LBD
m+p Xylene	ND	2.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 12:49	LBD
o-Xylene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 12:49	LBD

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1,2-Dichloroethane-d4	97.0	70-130		9/12/23 12:49
Toluene-d8	99.7	70-130		9/12/23 12:49
4-Bromofluorobenzene	98.8	70-130		9/12/23 12:49

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

Project Location: 11 N. Main St., Northfield, VT. Sample Description: Work Order: 23I0963

Date Received: 9/8/2023

Field Sample #: GW-2 Sampled: 9/6/2023 11:50

Sample ID: 23I0963-13

Sample Matrix: Ground Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	50	µg/L	1		SW-846 8260D	9/12/23	9/12/23 13:15	LBD
Acrylonitrile	ND	5.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 13:15	LBD
tert-Amyl Methyl Ether (TAME)	ND	0.50	µg/L	1		SW-846 8260D	9/12/23	9/12/23 13:15	LBD
Benzene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 13:15	LBD
Bromobenzene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 13:15	LBD
Bromochloromethane	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 13:15	LBD
Bromodichloromethane	ND	0.50	µg/L	1		SW-846 8260D	9/12/23	9/12/23 13:15	LBD
Bromoform	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 13:15	LBD
Bromomethane	ND	2.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 13:15	LBD
2-Butanone (MEK)	ND	20	µg/L	1		SW-846 8260D	9/12/23	9/12/23 13:15	LBD
tert-Butyl Alcohol (TBA)	ND	20	µg/L	1		SW-846 8260D	9/12/23	9/12/23 13:15	LBD
n-Butylbenzene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 13:15	LBD
sec-Butylbenzene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 13:15	LBD
tert-Butylbenzene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 13:15	LBD
tert-Butyl Ethyl Ether (TBEE)	ND	0.50	µg/L	1		SW-846 8260D	9/12/23	9/12/23 13:15	LBD
Carbon Disulfide	ND	5.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 13:15	LBD
Carbon Tetrachloride	ND	5.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 13:15	LBD
Chlorobenzene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 13:15	LBD
Chlorodibromomethane	ND	0.50	µg/L	1		SW-846 8260D	9/12/23	9/12/23 13:15	LBD
Chloroethane	ND	2.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 13:15	LBD
Chloroform	ND	2.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 13:15	LBD
Chloromethane	ND	2.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 13:15	LBD
2-Chlorotoluene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 13:15	LBD
4-Chlorotoluene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 13:15	LBD
1,2-Dibromo-3-chloropropane (DBCP)	ND	5.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 13:15	LBD
1,2-Dibromoethane (EDB)	ND	0.50	µg/L	1		SW-846 8260D	9/12/23	9/12/23 13:15	LBD
Dibromomethane	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 13:15	LBD
1,2-Dichlorobenzene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 13:15	LBD
1,3-Dichlorobenzene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 13:15	LBD
1,4-Dichlorobenzene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 13:15	LBD
trans-1,4-Dichloro-2-butene	ND	2.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 13:15	LBD
Dichlorodifluoromethane (Freon 12)	ND	2.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 13:15	LBD
1,1-Dichloroethane	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 13:15	LBD
1,2-Dichloroethane	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 13:15	LBD
1,1-Dichloroethylene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 13:15	LBD
cis-1,2-Dichloroethylene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 13:15	LBD
trans-1,2-Dichloroethylene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 13:15	LBD
1,2-Dichloropropane	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 13:15	LBD
1,3-Dichloropropane	ND	0.50	µg/L	1		SW-846 8260D	9/12/23	9/12/23 13:15	LBD
2,2-Dichloropropane	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 13:15	LBD
1,1-Dichloropropene	ND	2.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 13:15	LBD
cis-1,3-Dichloropropene	ND	0.50	µg/L	1		SW-846 8260D	9/12/23	9/12/23 13:15	LBD
trans-1,3-Dichloropropene	ND	0.50	µg/L	1		SW-846 8260D	9/12/23	9/12/23 13:15	LBD
Diethyl Ether	ND	2.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 13:15	LBD

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

Project Location: 11 N. Main St., Northfield, VT. Sample Description: Work Order: 23I0963

Date Received: 9/8/2023

Field Sample #: GW-2 Sampled: 9/6/2023 11:50

Sample ID: 23I0963-13

Sample Matrix: Ground Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Diisopropyl Ether (DIPE)	ND	0.50	µg/L	1		SW-846 8260D	9/12/23	9/12/23 13:15	LBD
1,4-Dioxane	ND	50	µg/L	1		SW-846 8260D	9/12/23	9/12/23 13:15	LBD
Ethylbenzene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 13:15	LBD
Hexachlorobutadiene	ND	0.60	µg/L	1		SW-846 8260D	9/12/23	9/12/23 13:15	LBD
2-Hexanone (MBK)	ND	10	µg/L	1		SW-846 8260D	9/12/23	9/12/23 13:15	LBD
Isopropylbenzene (Cumene)	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 13:15	LBD
p-Isopropyltoluene (p-Cymene)	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 13:15	LBD
Methyl Acetate	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 13:15	LBD
Methyl tert-Butyl Ether (MTBE)	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 13:15	LBD
Methyl Cyclohexane	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 13:15	LBD
Methylene Chloride	ND	5.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 13:15	LBD
4-Methyl-2-pentanone (MIBK)	ND	10	µg/L	1		SW-846 8260D	9/12/23	9/12/23 13:15	LBD
Naphthalene	ND	2.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 13:15	LBD
n-Propylbenzene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 13:15	LBD
Styrene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 13:15	LBD
1,1,1,2-Tetrachloroethane	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 13:15	LBD
1,1,2,2-Tetrachloroethane	ND	0.50	µg/L	1		SW-846 8260D	9/12/23	9/12/23 13:15	LBD
Tetrachloroethylene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 13:15	LBD
Tetrahydrofuran	ND	10	µg/L	1	V-05	SW-846 8260D	9/12/23	9/12/23 13:15	LBD
Toluene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 13:15	LBD
1,2,3-Trichlorobenzene	ND	5.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 13:15	LBD
1,2,4-Trichlorobenzene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 13:15	LBD
1,3,5-Trichlorobenzene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 13:15	LBD
1,1,1-Trichloroethane	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 13:15	LBD
1,1,2-Trichloroethane	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 13:15	LBD
Trichloroethylene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 13:15	LBD
Trichlorofluoromethane (Freon 11)	ND	2.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 13:15	LBD
1,2,3-Trichloropropane	ND	2.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 13:15	LBD
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 13:15	LBD
1,2,4-Trimethylbenzene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 13:15	LBD
1,3,5-Trimethylbenzene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 13:15	LBD
Vinyl Chloride	ND	2.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 13:15	LBD
m+p Xylene	ND	2.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 13:15	LBD
o-Xylene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 13:15	LBD

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1,2-Dichloroethane-d4	98.4	70-130		9/12/23 13:15
Toluene-d8	96.6	70-130		9/12/23 13:15
4-Bromofluorobenzene	99.0	70-130		9/12/23 13:15

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

Project Location: 11 N. Main St., Northfield, VT. Sample Description: Work Order: 23I0963

Date Received: 9/8/2023

Field Sample #: GW-3 Sampled: 9/6/2023 12:30

Sample ID: 23I0963-14

Sample Matrix: Ground Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	64	50	µg/L	1		SW-846 8260D	9/12/23	9/12/23 13:41	LBD
Acrylonitrile	ND	5.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 13:41	LBD
tert-Amyl Methyl Ether (TAME)	ND	0.50	µg/L	1		SW-846 8260D	9/12/23	9/12/23 13:41	LBD
Benzene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 13:41	LBD
Bromobenzene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 13:41	LBD
Bromochloromethane	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 13:41	LBD
Bromodichloromethane	ND	0.50	µg/L	1		SW-846 8260D	9/12/23	9/12/23 13:41	LBD
Bromoform	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 13:41	LBD
Bromomethane	ND	2.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 13:41	LBD
2-Butanone (MEK)	ND	20	µg/L	1		SW-846 8260D	9/12/23	9/12/23 13:41	LBD
tert-Butyl Alcohol (TBA)	ND	20	µg/L	1		SW-846 8260D	9/12/23	9/12/23 13:41	LBD
n-Butylbenzene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 13:41	LBD
sec-Butylbenzene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 13:41	LBD
tert-Butylbenzene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 13:41	LBD
tert-Butyl Ethyl Ether (TBEE)	ND	0.50	µg/L	1		SW-846 8260D	9/12/23	9/12/23 13:41	LBD
Carbon Disulfide	ND	5.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 13:41	LBD
Carbon Tetrachloride	ND	5.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 13:41	LBD
Chlorobenzene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 13:41	LBD
Chlorodibromomethane	ND	0.50	µg/L	1		SW-846 8260D	9/12/23	9/12/23 13:41	LBD
Chloroethane	ND	2.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 13:41	LBD
Chloroform	ND	2.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 13:41	LBD
Chloromethane	ND	2.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 13:41	LBD
2-Chlorotoluene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 13:41	LBD
4-Chlorotoluene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 13:41	LBD
1,2-Dibromo-3-chloropropane (DBCP)	ND	5.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 13:41	LBD
1,2-Dibromoethane (EDB)	ND	0.50	µg/L	1		SW-846 8260D	9/12/23	9/12/23 13:41	LBD
Dibromomethane	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 13:41	LBD
1,2-Dichlorobenzene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 13:41	LBD
1,3-Dichlorobenzene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 13:41	LBD
1,4-Dichlorobenzene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 13:41	LBD
trans-1,4-Dichloro-2-butene	ND	2.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 13:41	LBD
Dichlorodifluoromethane (Freon 12)	ND	2.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 13:41	LBD
1,1-Dichloroethane	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 13:41	LBD
1,2-Dichloroethane	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 13:41	LBD
1,1-Dichloroethylene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 13:41	LBD
cis-1,2-Dichloroethylene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 13:41	LBD
trans-1,2-Dichloroethylene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 13:41	LBD
1,2-Dichloropropane	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 13:41	LBD
1,3-Dichloropropane	ND	0.50	µg/L	1		SW-846 8260D	9/12/23	9/12/23 13:41	LBD
2,2-Dichloropropane	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 13:41	LBD
1,1-Dichloropropene	ND	2.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 13:41	LBD
cis-1,3-Dichloropropene	ND	0.50	µg/L	1		SW-846 8260D	9/12/23	9/12/23 13:41	LBD
trans-1,3-Dichloropropene	ND	0.50	µg/L	1		SW-846 8260D	9/12/23	9/12/23 13:41	LBD
Diethyl Ether	ND	2.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 13:41	LBD

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

Project Location: 11 N. Main St., Northfield, VT. Sample Description: Work Order: 23I0963

Date Received: 9/8/2023

Field Sample #: GW-3 Sampled: 9/6/2023 12:30

Sample ID: 23I0963-14

Sample Matrix: Ground Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Diisopropyl Ether (DIPE)	ND	0.50	µg/L	1		SW-846 8260D	9/12/23	9/12/23 13:41	LBD
1,4-Dioxane	ND	50	µg/L	1		SW-846 8260D	9/12/23	9/12/23 13:41	LBD
Ethylbenzene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 13:41	LBD
Hexachlorobutadiene	ND	0.60	µg/L	1		SW-846 8260D	9/12/23	9/12/23 13:41	LBD
2-Hexanone (MBK)	ND	10	µg/L	1		SW-846 8260D	9/12/23	9/12/23 13:41	LBD
Isopropylbenzene (Cumene)	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 13:41	LBD
p-Isopropyltoluene (p-Cymene)	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 13:41	LBD
Methyl Acetate	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 13:41	LBD
Methyl tert-Butyl Ether (MTBE)	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 13:41	LBD
Methyl Cyclohexane	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 13:41	LBD
Methylene Chloride	ND	5.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 13:41	LBD
4-Methyl-2-pentanone (MIBK)	ND	10	µg/L	1		SW-846 8260D	9/12/23	9/12/23 13:41	LBD
Naphthalene	ND	2.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 13:41	LBD
n-Propylbenzene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 13:41	LBD
Styrene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 13:41	LBD
1,1,1,2-Tetrachloroethane	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 13:41	LBD
1,1,2,2-Tetrachloroethane	ND	0.50	µg/L	1		SW-846 8260D	9/12/23	9/12/23 13:41	LBD
Tetrachloroethylene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 13:41	LBD
Tetrahydrofuran	ND	10	µg/L	1	V-05	SW-846 8260D	9/12/23	9/12/23 13:41	LBD
Toluene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 13:41	LBD
1,2,3-Trichlorobenzene	ND	5.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 13:41	LBD
1,2,4-Trichlorobenzene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 13:41	LBD
1,3,5-Trichlorobenzene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 13:41	LBD
1,1,1-Trichloroethane	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 13:41	LBD
1,1,2-Trichloroethane	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 13:41	LBD
Trichloroethylene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 13:41	LBD
Trichlorofluoromethane (Freon 11)	ND	2.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 13:41	LBD
1,2,3-Trichloropropane	ND	2.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 13:41	LBD
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 13:41	LBD
1,2,4-Trimethylbenzene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 13:41	LBD
1,3,5-Trimethylbenzene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 13:41	LBD
Vinyl Chloride	ND	2.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 13:41	LBD
m+p Xylene	ND	2.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 13:41	LBD
o-Xylene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 13:41	LBD

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1,2-Dichloroethane-d4	98.2	70-130		9/12/23 13:41
Toluene-d8	99.5	70-130		9/12/23 13:41
4-Bromofluorobenzene	98.9	70-130		9/12/23 13:41

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

Project Location: 11 N. Main St., Northfield, VT. Sample Description: Work Order: 23I0963

Date Received: 9/8/2023

Field Sample #: GW-4 Sampled: 9/6/2023 14:15

Sample ID: 23I0963-15

Sample Matrix: Ground Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	50	µg/L	1		SW-846 8260D	9/12/23	9/12/23 14:08	LBD
Acrylonitrile	ND	5.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 14:08	LBD
tert-Amyl Methyl Ether (TAME)	ND	0.50	µg/L	1		SW-846 8260D	9/12/23	9/12/23 14:08	LBD
Benzene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 14:08	LBD
Bromobenzene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 14:08	LBD
Bromochloromethane	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 14:08	LBD
Bromodichloromethane	ND	0.50	µg/L	1		SW-846 8260D	9/12/23	9/12/23 14:08	LBD
Bromoform	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 14:08	LBD
Bromomethane	ND	2.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 14:08	LBD
2-Butanone (MEK)	ND	20	µg/L	1		SW-846 8260D	9/12/23	9/12/23 14:08	LBD
tert-Butyl Alcohol (TBA)	ND	20	µg/L	1		SW-846 8260D	9/12/23	9/12/23 14:08	LBD
n-Butylbenzene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 14:08	LBD
sec-Butylbenzene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 14:08	LBD
tert-Butylbenzene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 14:08	LBD
tert-Butyl Ethyl Ether (TBEE)	ND	0.50	µg/L	1		SW-846 8260D	9/12/23	9/12/23 14:08	LBD
Carbon Disulfide	ND	5.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 14:08	LBD
Carbon Tetrachloride	ND	5.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 14:08	LBD
Chlorobenzene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 14:08	LBD
Chlorodibromomethane	ND	0.50	µg/L	1		SW-846 8260D	9/12/23	9/12/23 14:08	LBD
Chloroethane	ND	2.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 14:08	LBD
Chloroform	ND	2.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 14:08	LBD
Chloromethane	ND	2.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 14:08	LBD
2-Chlorotoluene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 14:08	LBD
4-Chlorotoluene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 14:08	LBD
1,2-Dibromo-3-chloropropane (DBCP)	ND	5.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 14:08	LBD
1,2-Dibromoethane (EDB)	ND	0.50	µg/L	1		SW-846 8260D	9/12/23	9/12/23 14:08	LBD
Dibromomethane	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 14:08	LBD
1,2-Dichlorobenzene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 14:08	LBD
1,3-Dichlorobenzene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 14:08	LBD
1,4-Dichlorobenzene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 14:08	LBD
trans-1,4-Dichloro-2-butene	ND	2.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 14:08	LBD
Dichlorodifluoromethane (Freon 12)	ND	2.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 14:08	LBD
1,1-Dichloroethane	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 14:08	LBD
1,2-Dichloroethane	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 14:08	LBD
1,1-Dichloroethylene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 14:08	LBD
cis-1,2-Dichloroethylene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 14:08	LBD
trans-1,2-Dichloroethylene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 14:08	LBD
1,2-Dichloropropane	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 14:08	LBD
1,3-Dichloropropane	ND	0.50	µg/L	1		SW-846 8260D	9/12/23	9/12/23 14:08	LBD
2,2-Dichloropropane	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 14:08	LBD
1,1-Dichloropropene	ND	2.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 14:08	LBD
cis-1,3-Dichloropropene	ND	0.50	µg/L	1		SW-846 8260D	9/12/23	9/12/23 14:08	LBD
trans-1,3-Dichloropropene	ND	0.50	µg/L	1		SW-846 8260D	9/12/23	9/12/23 14:08	LBD
Diethyl Ether	ND	2.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 14:08	LBD

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

Project Location: 11 N. Main St., Northfield, VT. Sample Description: Work Order: 23I0963

Date Received: 9/8/2023

Field Sample #: GW-4 Sampled: 9/6/2023 14:15

Sample ID: 23I0963-15

Sample Matrix: Ground Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Diisopropyl Ether (DIPE)	ND	0.50	µg/L	1		SW-846 8260D	9/12/23	9/12/23 14:08	LBD
1,4-Dioxane	ND	50	µg/L	1		SW-846 8260D	9/12/23	9/12/23 14:08	LBD
Ethylbenzene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 14:08	LBD
Hexachlorobutadiene	ND	0.60	µg/L	1		SW-846 8260D	9/12/23	9/12/23 14:08	LBD
2-Hexanone (MBK)	ND	10	µg/L	1		SW-846 8260D	9/12/23	9/12/23 14:08	LBD
Isopropylbenzene (Cumene)	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 14:08	LBD
p-Isopropyltoluene (p-Cymene)	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 14:08	LBD
Methyl Acetate	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 14:08	LBD
Methyl tert-Butyl Ether (MTBE)	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 14:08	LBD
Methyl Cyclohexane	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 14:08	LBD
Methylene Chloride	ND	5.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 14:08	LBD
4-Methyl-2-pentanone (MIBK)	ND	10	µg/L	1		SW-846 8260D	9/12/23	9/12/23 14:08	LBD
Naphthalene	ND	2.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 14:08	LBD
n-Propylbenzene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 14:08	LBD
Styrene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 14:08	LBD
1,1,1,2-Tetrachloroethane	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 14:08	LBD
1,1,2,2-Tetrachloroethane	ND	0.50	µg/L	1		SW-846 8260D	9/12/23	9/12/23 14:08	LBD
Tetrachloroethylene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 14:08	LBD
Tetrahydrofuran	ND	10	µg/L	1	V-05	SW-846 8260D	9/12/23	9/12/23 14:08	LBD
Toluene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 14:08	LBD
1,2,3-Trichlorobenzene	ND	5.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 14:08	LBD
1,2,4-Trichlorobenzene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 14:08	LBD
1,3,5-Trichlorobenzene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 14:08	LBD
1,1,1-Trichloroethane	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 14:08	LBD
1,1,2-Trichloroethane	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 14:08	LBD
Trichloroethylene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 14:08	LBD
Trichlorofluoromethane (Freon 11)	ND	2.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 14:08	LBD
1,2,3-Trichloropropane	ND	2.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 14:08	LBD
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 14:08	LBD
1,2,4-Trimethylbenzene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 14:08	LBD
1,3,5-Trimethylbenzene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 14:08	LBD
Vinyl Chloride	ND	2.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 14:08	LBD
m+p Xylene	ND	2.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 14:08	LBD
o-Xylene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 14:08	LBD

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1,2-Dichloroethane-d4	95.8	70-130		9/12/23 14:08
Toluene-d8	98.5	70-130		9/12/23 14:08
4-Bromofluorobenzene	97.9	70-130		9/12/23 14:08

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

Project Location: 11 N. Main St., Northfield, VT. Sample Description: Work Order: 23I0963

Date Received: 9/8/2023

Field Sample #: GW-5 Sampled: 9/6/2023 15:00

Sample ID: 23I0963-16

Sample Matrix: Ground Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	50	µg/L	1		SW-846 8260D	9/12/23	9/12/23 14:34	LBD
Acrylonitrile	ND	5.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 14:34	LBD
tert-Amyl Methyl Ether (TAME)	ND	0.50	µg/L	1		SW-846 8260D	9/12/23	9/12/23 14:34	LBD
Benzene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 14:34	LBD
Bromobenzene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 14:34	LBD
Bromochloromethane	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 14:34	LBD
Bromodichloromethane	ND	0.50	µg/L	1		SW-846 8260D	9/12/23	9/12/23 14:34	LBD
Bromoform	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 14:34	LBD
Bromomethane	ND	2.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 14:34	LBD
2-Butanone (MEK)	ND	20	µg/L	1		SW-846 8260D	9/12/23	9/12/23 14:34	LBD
tert-Butyl Alcohol (TBA)	ND	20	µg/L	1		SW-846 8260D	9/12/23	9/12/23 14:34	LBD
n-Butylbenzene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 14:34	LBD
sec-Butylbenzene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 14:34	LBD
tert-Butylbenzene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 14:34	LBD
tert-Butyl Ethyl Ether (TBEE)	ND	0.50	µg/L	1		SW-846 8260D	9/12/23	9/12/23 14:34	LBD
Carbon Disulfide	ND	5.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 14:34	LBD
Carbon Tetrachloride	ND	5.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 14:34	LBD
Chlorobenzene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 14:34	LBD
Chlorodibromomethane	ND	0.50	µg/L	1		SW-846 8260D	9/12/23	9/12/23 14:34	LBD
Chloroethane	ND	2.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 14:34	LBD
Chloroform	ND	2.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 14:34	LBD
Chloromethane	ND	2.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 14:34	LBD
2-Chlorotoluene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 14:34	LBD
4-Chlorotoluene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 14:34	LBD
1,2-Dibromo-3-chloropropane (DBCP)	ND	5.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 14:34	LBD
1,2-Dibromoethane (EDB)	ND	0.50	µg/L	1		SW-846 8260D	9/12/23	9/12/23 14:34	LBD
Dibromomethane	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 14:34	LBD
1,2-Dichlorobenzene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 14:34	LBD
1,3-Dichlorobenzene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 14:34	LBD
1,4-Dichlorobenzene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 14:34	LBD
trans-1,4-Dichloro-2-butene	ND	2.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 14:34	LBD
Dichlorodifluoromethane (Freon 12)	ND	2.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 14:34	LBD
1,1-Dichloroethane	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 14:34	LBD
1,2-Dichloroethane	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 14:34	LBD
1,1-Dichloroethylene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 14:34	LBD
cis-1,2-Dichloroethylene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 14:34	LBD
trans-1,2-Dichloroethylene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 14:34	LBD
1,2-Dichloropropane	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 14:34	LBD
1,3-Dichloropropane	ND	0.50	µg/L	1		SW-846 8260D	9/12/23	9/12/23 14:34	LBD
2,2-Dichloropropane	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 14:34	LBD
1,1-Dichloropropene	ND	2.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 14:34	LBD
cis-1,3-Dichloropropene	ND	0.50	µg/L	1		SW-846 8260D	9/12/23	9/12/23 14:34	LBD
trans-1,3-Dichloropropene	ND	0.50	µg/L	1		SW-846 8260D	9/12/23	9/12/23 14:34	LBD
Diethyl Ether	ND	2.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 14:34	LBD

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

Project Location: 11 N. Main St., Northfield, VT. Sample Description: Work Order: 23I0963

Date Received: 9/8/2023

Field Sample #: GW-5 Sampled: 9/6/2023 15:00

Sample ID: 23I0963-16

Sample Matrix: Ground Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Diisopropyl Ether (DIPE)	ND	0.50	µg/L	1		SW-846 8260D	9/12/23	9/12/23 14:34	LBD
1,4-Dioxane	ND	50	µg/L	1		SW-846 8260D	9/12/23	9/12/23 14:34	LBD
Ethylbenzene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 14:34	LBD
Hexachlorobutadiene	ND	0.60	µg/L	1		SW-846 8260D	9/12/23	9/12/23 14:34	LBD
2-Hexanone (MBK)	ND	10	µg/L	1		SW-846 8260D	9/12/23	9/12/23 14:34	LBD
Isopropylbenzene (Cumene)	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 14:34	LBD
p-Isopropyltoluene (p-Cymene)	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 14:34	LBD
Methyl Acetate	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 14:34	LBD
Methyl tert-Butyl Ether (MTBE)	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 14:34	LBD
Methyl Cyclohexane	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 14:34	LBD
Methylene Chloride	ND	5.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 14:34	LBD
4-Methyl-2-pentanone (MIBK)	ND	10	µg/L	1		SW-846 8260D	9/12/23	9/12/23 14:34	LBD
Naphthalene	ND	2.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 14:34	LBD
n-Propylbenzene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 14:34	LBD
Styrene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 14:34	LBD
1,1,1,2-Tetrachloroethane	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 14:34	LBD
1,1,2,2-Tetrachloroethane	ND	0.50	µg/L	1		SW-846 8260D	9/12/23	9/12/23 14:34	LBD
Tetrachloroethylene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 14:34	LBD
Tetrahydrofuran	ND	10	µg/L	1	V-05	SW-846 8260D	9/12/23	9/12/23 14:34	LBD
Toluene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 14:34	LBD
1,2,3-Trichlorobenzene	ND	5.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 14:34	LBD
1,2,4-Trichlorobenzene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 14:34	LBD
1,3,5-Trichlorobenzene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 14:34	LBD
1,1,1-Trichloroethane	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 14:34	LBD
1,1,2-Trichloroethane	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 14:34	LBD
Trichloroethylene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 14:34	LBD
Trichlorofluoromethane (Freon 11)	ND	2.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 14:34	LBD
1,2,3-Trichloropropane	ND	2.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 14:34	LBD
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 14:34	LBD
1,2,4-Trimethylbenzene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 14:34	LBD
1,3,5-Trimethylbenzene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 14:34	LBD
Vinyl Chloride	ND	2.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 14:34	LBD
m+p Xylene	ND	2.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 14:34	LBD
o-Xylene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 14:34	LBD

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1,2-Dichloroethane-d4	98.5	70-130		9/12/23 14:34
Toluene-d8	100	70-130		9/12/23 14:34
4-Bromofluorobenzene	99.1	70-130		9/12/23 14:34

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

Project Location: 11 N. Main St., Northfield, VT. Sample Description: Work Order: 23I0963

Date Received: 9/8/2023

Field Sample #: DUP-2 Sampled: 9/6/2023 00:00

Sample ID: 23I0963-17

Sample Matrix: Ground Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	50	µg/L	1		SW-846 8260D	9/12/23	9/12/23 15:00	LBD
Acrylonitrile	ND	5.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 15:00	LBD
tert-Amyl Methyl Ether (TAME)	ND	0.50	µg/L	1		SW-846 8260D	9/12/23	9/12/23 15:00	LBD
Benzene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 15:00	LBD
Bromobenzene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 15:00	LBD
Bromochloromethane	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 15:00	LBD
Bromodichloromethane	ND	0.50	µg/L	1		SW-846 8260D	9/12/23	9/12/23 15:00	LBD
Bromoform	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 15:00	LBD
Bromomethane	ND	2.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 15:00	LBD
2-Butanone (MEK)	ND	20	µg/L	1		SW-846 8260D	9/12/23	9/12/23 15:00	LBD
tert-Butyl Alcohol (TBA)	ND	20	µg/L	1		SW-846 8260D	9/12/23	9/12/23 15:00	LBD
n-Butylbenzene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 15:00	LBD
sec-Butylbenzene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 15:00	LBD
tert-Butylbenzene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 15:00	LBD
tert-Butyl Ethyl Ether (TBEE)	ND	0.50	µg/L	1		SW-846 8260D	9/12/23	9/12/23 15:00	LBD
Carbon Disulfide	ND	5.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 15:00	LBD
Carbon Tetrachloride	ND	5.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 15:00	LBD
Chlorobenzene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 15:00	LBD
Chlorodibromomethane	ND	0.50	µg/L	1		SW-846 8260D	9/12/23	9/12/23 15:00	LBD
Chloroethane	ND	2.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 15:00	LBD
Chloroform	ND	2.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 15:00	LBD
Chloromethane	ND	2.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 15:00	LBD
2-Chlorotoluene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 15:00	LBD
4-Chlorotoluene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 15:00	LBD
1,2-Dibromo-3-chloropropane (DBCP)	ND	5.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 15:00	LBD
1,2-Dibromoethane (EDB)	ND	0.50	µg/L	1		SW-846 8260D	9/12/23	9/12/23 15:00	LBD
Dibromomethane	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 15:00	LBD
1,2-Dichlorobenzene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 15:00	LBD
1,3-Dichlorobenzene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 15:00	LBD
1,4-Dichlorobenzene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 15:00	LBD
trans-1,4-Dichloro-2-butene	ND	2.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 15:00	LBD
Dichlorodifluoromethane (Freon 12)	ND	2.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 15:00	LBD
1,1-Dichloroethane	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 15:00	LBD
1,2-Dichloroethane	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 15:00	LBD
1,1-Dichloroethylene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 15:00	LBD
cis-1,2-Dichloroethylene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 15:00	LBD
trans-1,2-Dichloroethylene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 15:00	LBD
1,2-Dichloropropane	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 15:00	LBD
1,3-Dichloropropane	ND	0.50	µg/L	1		SW-846 8260D	9/12/23	9/12/23 15:00	LBD
2,2-Dichloropropane	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 15:00	LBD
1,1-Dichloropropene	ND	2.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 15:00	LBD
cis-1,3-Dichloropropene	ND	0.50	µg/L	1		SW-846 8260D	9/12/23	9/12/23 15:00	LBD
trans-1,3-Dichloropropene	ND	0.50	µg/L	1		SW-846 8260D	9/12/23	9/12/23 15:00	LBD
Diethyl Ether	ND	2.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 15:00	LBD

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

Project Location: 11 N. Main St., Northfield, VT. Sample Description: Work Order: 23I0963

Date Received: 9/8/2023

Field Sample #: DUP-2 Sampled: 9/6/2023 00:00

Sample ID: 23I0963-17

Sample Matrix: Ground Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Diisopropyl Ether (DIPE)	ND	0.50	µg/L	1		SW-846 8260D	9/12/23	9/12/23 15:00	LBD
1,4-Dioxane	ND	50	µg/L	1		SW-846 8260D	9/12/23	9/12/23 15:00	LBD
Ethylbenzene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 15:00	LBD
Hexachlorobutadiene	ND	0.60	µg/L	1		SW-846 8260D	9/12/23	9/12/23 15:00	LBD
2-Hexanone (MBK)	ND	10	µg/L	1		SW-846 8260D	9/12/23	9/12/23 15:00	LBD
Isopropylbenzene (Cumene)	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 15:00	LBD
p-Isopropyltoluene (p-Cymene)	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 15:00	LBD
Methyl Acetate	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 15:00	LBD
Methyl tert-Butyl Ether (MTBE)	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 15:00	LBD
Methyl Cyclohexane	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 15:00	LBD
Methylene Chloride	ND	5.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 15:00	LBD
4-Methyl-2-pentanone (MIBK)	ND	10	µg/L	1		SW-846 8260D	9/12/23	9/12/23 15:00	LBD
Naphthalene	ND	2.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 15:00	LBD
n-Propylbenzene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 15:00	LBD
Styrene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 15:00	LBD
1,1,1,2-Tetrachloroethane	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 15:00	LBD
1,1,2,2-Tetrachloroethane	ND	0.50	µg/L	1		SW-846 8260D	9/12/23	9/12/23 15:00	LBD
Tetrachloroethylene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 15:00	LBD
Tetrahydrofuran	ND	10	µg/L	1	V-05	SW-846 8260D	9/12/23	9/12/23 15:00	LBD
Toluene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 15:00	LBD
1,2,3-Trichlorobenzene	ND	5.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 15:00	LBD
1,2,4-Trichlorobenzene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 15:00	LBD
1,3,5-Trichlorobenzene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 15:00	LBD
1,1,1-Trichloroethane	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 15:00	LBD
1,1,2-Trichloroethane	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 15:00	LBD
Trichloroethylene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 15:00	LBD
Trichlorofluoromethane (Freon 11)	ND	2.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 15:00	LBD
1,2,3-Trichloropropane	ND	2.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 15:00	LBD
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 15:00	LBD
1,2,4-Trimethylbenzene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 15:00	LBD
1,3,5-Trimethylbenzene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 15:00	LBD
Vinyl Chloride	ND	2.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 15:00	LBD
m+p Xylene	ND	2.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 15:00	LBD
o-Xylene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 15:00	LBD

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1,2-Dichloroethane-d4	98.6	70-130		9/12/23 15:00
Toluene-d8	98.9	70-130		9/12/23 15:00
4-Bromofluorobenzene	98.0	70-130		9/12/23 15:00

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

Project Location: 11 N. Main St., Northfield, VT. Sample Description: Work Order: 23I0963

Date Received: 9/8/2023

Field Sample #: TRIP BLANK Sampled: 8/22/2023 00:00

Sample ID: 23I0963-18

Sample Matrix: Trip Blank Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	50	µg/L	1		SW-846 8260D	9/12/23	9/12/23 11:31	LBD
Acrylonitrile	ND	5.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 11:31	LBD
tert-Amyl Methyl Ether (TAME)	ND	0.50	µg/L	1		SW-846 8260D	9/12/23	9/12/23 11:31	LBD
Benzene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 11:31	LBD
Bromobenzene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 11:31	LBD
Bromochloromethane	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 11:31	LBD
Bromodichloromethane	ND	0.50	µg/L	1		SW-846 8260D	9/12/23	9/12/23 11:31	LBD
Bromoform	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 11:31	LBD
Bromomethane	ND	2.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 11:31	LBD
2-Butanone (MEK)	ND	20	µg/L	1		SW-846 8260D	9/12/23	9/12/23 11:31	LBD
tert-Butyl Alcohol (TBA)	ND	20	µg/L	1		SW-846 8260D	9/12/23	9/12/23 11:31	LBD
n-Butylbenzene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 11:31	LBD
sec-Butylbenzene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 11:31	LBD
tert-Butylbenzene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 11:31	LBD
tert-Butyl Ethyl Ether (TBEE)	ND	0.50	µg/L	1		SW-846 8260D	9/12/23	9/12/23 11:31	LBD
Carbon Disulfide	ND	5.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 11:31	LBD
Carbon Tetrachloride	ND	5.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 11:31	LBD
Chlorobenzene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 11:31	LBD
Chlorodibromomethane	ND	0.50	µg/L	1		SW-846 8260D	9/12/23	9/12/23 11:31	LBD
Chloroethane	ND	2.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 11:31	LBD
Chloroform	ND	2.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 11:31	LBD
Chloromethane	ND	2.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 11:31	LBD
2-Chlorotoluene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 11:31	LBD
4-Chlorotoluene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 11:31	LBD
1,2-Dibromo-3-chloropropane (DBCP)	ND	5.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 11:31	LBD
1,2-Dibromoethane (EDB)	ND	0.50	µg/L	1		SW-846 8260D	9/12/23	9/12/23 11:31	LBD
Dibromomethane	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 11:31	LBD
1,2-Dichlorobenzene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 11:31	LBD
1,3-Dichlorobenzene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 11:31	LBD
1,4-Dichlorobenzene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 11:31	LBD
trans-1,4-Dichloro-2-butene	ND	2.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 11:31	LBD
Dichlorodifluoromethane (Freon 12)	ND	2.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 11:31	LBD
1,1-Dichloroethane	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 11:31	LBD
1,2-Dichloroethane	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 11:31	LBD
1,1-Dichloroethylene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 11:31	LBD
cis-1,2-Dichloroethylene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 11:31	LBD
trans-1,2-Dichloroethylene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 11:31	LBD
1,2-Dichloropropane	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 11:31	LBD
1,3-Dichloropropane	ND	0.50	µg/L	1		SW-846 8260D	9/12/23	9/12/23 11:31	LBD
2,2-Dichloropropane	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 11:31	LBD
1,1-Dichloropropene	ND	2.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 11:31	LBD
cis-1,3-Dichloropropene	ND	0.50	µg/L	1		SW-846 8260D	9/12/23	9/12/23 11:31	LBD
trans-1,3-Dichloropropene	ND	0.50	µg/L	1		SW-846 8260D	9/12/23	9/12/23 11:31	LBD
Diethyl Ether	ND	2.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 11:31	LBD

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

Project Location: 11 N. Main St., Northfield, VT. Sample Description: Work Order: 23I0963

Date Received: 9/8/2023

Field Sample #: TRIP BLANK Sampled: 8/22/2023 00:00

Sample ID: 23I0963-18

Sample Matrix: Trip Blank Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Diisopropyl Ether (DIPE)	ND	0.50	µg/L	1		SW-846 8260D	9/12/23	9/12/23 11:31	LBD
1,4-Dioxane	ND	50	µg/L	1		SW-846 8260D	9/12/23	9/12/23 11:31	LBD
Ethylbenzene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 11:31	LBD
Hexachlorobutadiene	ND	0.60	µg/L	1		SW-846 8260D	9/12/23	9/12/23 11:31	LBD
2-Hexanone (MBK)	ND	10	µg/L	1		SW-846 8260D	9/12/23	9/12/23 11:31	LBD
Isopropylbenzene (Cumene)	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 11:31	LBD
p-Isopropyltoluene (p-Cymene)	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 11:31	LBD
Methyl Acetate	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 11:31	LBD
Methyl tert-Butyl Ether (MTBE)	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 11:31	LBD
Methyl Cyclohexane	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 11:31	LBD
Methylene Chloride	ND	5.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 11:31	LBD
4-Methyl-2-pentanone (MIBK)	ND	10	µg/L	1		SW-846 8260D	9/12/23	9/12/23 11:31	LBD
Naphthalene	ND	2.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 11:31	LBD
n-Propylbenzene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 11:31	LBD
Styrene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 11:31	LBD
1,1,1,2-Tetrachloroethane	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 11:31	LBD
1,1,2,2-Tetrachloroethane	ND	0.50	µg/L	1		SW-846 8260D	9/12/23	9/12/23 11:31	LBD
Tetrachloroethylene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 11:31	LBD
Tetrahydrofuran	ND	10	µg/L	1	V-05	SW-846 8260D	9/12/23	9/12/23 11:31	LBD
Toluene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 11:31	LBD
1,2,3-Trichlorobenzene	ND	5.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 11:31	LBD
1,2,4-Trichlorobenzene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 11:31	LBD
1,3,5-Trichlorobenzene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 11:31	LBD
1,1,1-Trichloroethane	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 11:31	LBD
1,1,2-Trichloroethane	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 11:31	LBD
Trichloroethylene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 11:31	LBD
Trichlorofluoromethane (Freon 11)	ND	2.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 11:31	LBD
1,2,3-Trichloropropane	ND	2.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 11:31	LBD
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 11:31	LBD
1,2,4-Trimethylbenzene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 11:31	LBD
1,3,5-Trimethylbenzene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 11:31	LBD
Vinyl Chloride	ND	2.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 11:31	LBD
m+p Xylene	ND	2.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 11:31	LBD
o-Xylene	ND	1.0	µg/L	1		SW-846 8260D	9/12/23	9/12/23 11:31	LBD

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1,2-Dichloroethane-d4	95.0	70-130		9/12/23 11:31
Toluene-d8	98.0	70-130		9/12/23 11:31
4-Bromofluorobenzene	99.9	70-130		9/12/23 11:31

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Sample Extraction Data

Prep Method:% Solids **Analytical Method:SM 2540G**

Lab Number [Field ID]	Batch	Date
23I0963-01 [SB-1 (0-2)]	B351990	09/14/23
23I0963-02 [SB-1 (10)]	B351990	09/14/23
23I0963-03 [SB-2 (0-2)]	B351990	09/14/23
23I0963-04 [SB-2 (15)]	B351990	09/14/23
23I0963-05 [SB-3 (10-12)]	B351990	09/14/23
23I0963-06 [SB-3 (11)]	B351990	09/14/23
23I0963-07 [SB-4 (0-3)]	B351990	09/14/23
23I0963-08 [SB-4 (7)]	B351990	09/14/23
23I0963-09 [SB-5 (1)]	B351990	09/14/23
23I0963-10 [DUP-1]	B351990	09/14/23
23I0963-11 [DUP]	B351990	09/14/23

Prep Method:SW-846 3050B **Analytical Method:SW-846 6010D**

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
23I0963-01 [SB-1 (0-2)]	B352500	1.54	50.0	09/15/23
23I0963-03 [SB-2 (0-2)]	B352500	1.51	50.0	09/15/23
23I0963-05 [SB-3 (10-12)]	B352500	1.50	50.0	09/15/23
23I0963-07 [SB-4 (0-3)]	B352500	1.57	50.0	09/15/23
23I0963-11 [DUP]	B352500	1.55	50.0	09/15/23

Prep Method:SW-846 7471 **Analytical Method:SW-846 7471B**

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
23I0963-03 [SB-2 (0-2)]	B351913	0.592	50.0	09/14/23
23I0963-05 [SB-3 (10-12)]	B351913	0.613	50.0	09/14/23
23I0963-07 [SB-4 (0-3)]	B351913	0.613	50.0	09/14/23
23I0963-11 [DUP]	B351913	0.589	50.0	09/14/23

Prep Method:SW-846 7471 **Analytical Method:SW-846 7471B**

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
23I0963-01 [SB-1 (0-2)]	B352185	0.593	50.0	09/18/23

Prep Method:SW-846 3540C **Analytical Method:SW-846 8082A**

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
23I0963-01 [SB-1 (0-2)]	B351933	10.0	10.0	09/14/23
23I0963-03 [SB-2 (0-2)]	B351933	10.0	10.0	09/14/23
23I0963-05 [SB-3 (10-12)]	B351933	10.0	10.0	09/14/23
23I0963-07 [SB-4 (0-3)]	B351933	10.0	10.0	09/14/23
23I0963-11 [DUP]	B351933	10.0	10.0	09/14/23

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

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
23I0963-02 [SB-1 (10)]	B351707	5.21	10.0	09/12/23
23I0963-04 [SB-2 (15)]	B351707	8.10	10.0	09/12/23
23I0963-06 [SB-3 (11)]	B351707	6.27	10.0	09/12/23

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Sample Extraction Data

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

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
23I0963-08 [SB-4 (7)]	B351707	5.96	10.0	09/12/23
23I0963-09 [SB-5 (1)]	B351707	5.42	10.0	09/12/23
23I0963-10 [DUP-1]	B351707	6.77	10.0	09/12/23

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

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
23I0963-12 [GW-1]	B351660	5	5.00	09/12/23
23I0963-13 [GW-2]	B351660	5	5.00	09/12/23
23I0963-14 [GW-3]	B351660	5	5.00	09/12/23
23I0963-15 [GW-4]	B351660	5	5.00	09/12/23
23I0963-16 [GW-5]	B351660	5	5.00	09/12/23
23I0963-17 [DUP-2]	B351660	5	5.00	09/12/23
23I0963-18 [TRIP BLANK]	B351660	5	5.00	09/12/23

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

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
23I0963-01 [SB-1 (0-2)]	B353275	30.0	1.00	09/27/23
23I0963-03 [SB-2 (0-2)]	B353275	30.0	1.00	09/27/23
23I0963-04 [SB-2 (15)]	B353275	30.0	1.00	09/27/23
23I0963-05 [SB-3 (10-12)]	B353275	30.0	1.00	09/27/23
23I0963-07 [SB-4 (0-3)]	B353275	30.0	1.00	09/27/23
23I0963-11 [DUP]	B353275	30.0	1.00	09/27/23

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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 B351660 - SW-846 5030B										
Blank (B351660-BLK1)				Prepared & Analyzed: 09/12/23						
Acetone	ND	50	µg/L							
Acrylonitrile	ND	5.0	µg/L							
tert-Amyl Methyl Ether (TAME)	ND	0.50	µg/L							
Benzene	ND	1.0	µg/L							
Bromobenzene	ND	1.0	µg/L							
Bromochloromethane	ND	1.0	µg/L							
Bromodichloromethane	ND	0.50	µg/L							
Bromoform	ND	1.0	µg/L							
Bromomethane	ND	2.0	µg/L							
2-Butanone (MEK)	ND	20	µg/L							
tert-Butyl Alcohol (TBA)	ND	20	µg/L							
n-Butylbenzene	ND	1.0	µg/L							
sec-Butylbenzene	ND	1.0	µg/L							
tert-Butylbenzene	ND	1.0	µg/L							
tert-Butyl Ethyl Ether (TBEE)	ND	0.50	µg/L							
Carbon Disulfide	ND	5.0	µg/L							
Carbon Tetrachloride	ND	5.0	µg/L							
Chlorobenzene	ND	1.0	µg/L							
Chlorodibromomethane	ND	0.50	µg/L							
Chloroethane	ND	2.0	µg/L							
Chloroform	ND	2.0	µg/L							
Chloromethane	ND	2.0	µg/L							
2-Chlorotoluene	ND	1.0	µg/L							
4-Chlorotoluene	ND	1.0	µg/L							
1,2-Dibromo-3-chloropropane (DBCP)	ND	5.0	µg/L							
1,2-Dibromoethane (EDB)	ND	0.50	µg/L							
Dibromomethane	ND	1.0	µg/L							
1,2-Dichlorobenzene	ND	1.0	µg/L							
1,3-Dichlorobenzene	ND	1.0	µg/L							
1,4-Dichlorobenzene	ND	1.0	µg/L							
trans-1,4-Dichloro-2-butene	ND	2.0	µg/L							
Dichlorodifluoromethane (Freon 12)	ND	2.0	µg/L							
1,1-Dichloroethane	ND	1.0	µg/L							
1,2-Dichloroethane	ND	1.0	µg/L							
1,1-Dichloroethylene	ND	1.0	µg/L							
cis-1,2-Dichloroethylene	ND	1.0	µg/L							
trans-1,2-Dichloroethylene	ND	1.0	µg/L							
1,2-Dichloropropane	ND	1.0	µg/L							
1,3-Dichloropropane	ND	0.50	µg/L							
2,2-Dichloropropane	ND	1.0	µg/L							
1,1-Dichloropropene	ND	2.0	µg/L							
cis-1,3-Dichloropropene	ND	0.50	µg/L							
trans-1,3-Dichloropropene	ND	0.50	µg/L							
Diethyl Ether	ND	2.0	µg/L							
Diisopropyl Ether (DIPE)	ND	0.50	µg/L							
1,4-Dioxane	ND	50	µg/L							
Ethylbenzene	ND	1.0	µg/L							
Hexachlorobutadiene	ND	0.60	µg/L							
2-Hexanone (MBK)	ND	10	µg/L							
Isopropylbenzene (Cumene)	ND	1.0	µg/L							
p-Isopropyltoluene (p-Cymene)	ND	1.0	µg/L							
Methyl Acetate	ND	1.0	µg/L							

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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 B351660 - SW-846 5030B										
Blank (B351660-BLK1)				Prepared & Analyzed: 09/12/23						
Methyl tert-Butyl Ether (MTBE)	ND	1.0	µg/L							
Methyl Cyclohexane	ND	1.0	µg/L							
Methylene Chloride	ND	5.0	µg/L							
4-Methyl-2-pentanone (MIBK)	ND	10	µg/L							
Naphthalene	ND	2.0	µg/L							
n-Propylbenzene	ND	1.0	µg/L							
Styrene	ND	1.0	µg/L							
1,1,1,2-Tetrachloroethane	ND	1.0	µg/L							
1,1,2,2-Tetrachloroethane	ND	0.50	µg/L							
Tetrachloroethylene	ND	1.0	µg/L							
Tetrahydrofuran	ND	10	µg/L							V-05
Toluene	ND	1.0	µg/L							
1,2,3-Trichlorobenzene	ND	5.0	µg/L							
1,2,4-Trichlorobenzene	ND	1.0	µg/L							
1,3,5-Trichlorobenzene	ND	1.0	µg/L							
1,1,1-Trichloroethane	ND	1.0	µg/L							
1,1,2-Trichloroethane	ND	1.0	µg/L							
Trichloroethylene	ND	1.0	µg/L							
Trichlorofluoromethane (Freon 11)	ND	2.0	µg/L							
1,2,3-Trichloropropane	ND	2.0	µg/L							
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	1.0	µg/L							
1,2,4-Trimethylbenzene	ND	1.0	µg/L							
1,3,5-Trimethylbenzene	ND	1.0	µg/L							
Vinyl Chloride	ND	2.0	µg/L							
m+p Xylene	ND	2.0	µg/L							
o-Xylene	ND	1.0	µg/L							
Surrogate: 1,2-Dichloroethane-d4	*24.1*		µg/L	25.0		96.4	70-130			
Surrogate: Toluene-d8	*24.5*		µg/L	25.0		98.1	70-130			
Surrogate: 4-Bromofluorobenzene	*24.4*		µg/L	25.0		97.7	70-130			
LCS (B351660-BS1)				Prepared & Analyzed: 09/12/23						
Acetone	98.1	50	µg/L	100		98.1	70-160			†
Acrylonitrile	9.30	5.0	µg/L	10.0		93.0	70-130			
tert-Amyl Methyl Ether (TAME)	9.05	0.50	µg/L	10.0		90.5	70-130			
Benzene	9.19	1.0	µg/L	10.0		91.9	70-130			
Bromobenzene	9.86	1.0	µg/L	10.0		98.6	70-130			
Bromochloromethane	9.86	1.0	µg/L	10.0		98.6	70-130			
Bromodichloromethane	10.4	0.50	µg/L	10.0		104	70-130			
Bromoform	10.2	1.0	µg/L	10.0		102	70-130			
Bromomethane	9.07	2.0	µg/L	10.0		90.7	40-160			†
2-Butanone (MEK)	93.0	20	µg/L	100		93.0	40-160			†
tert-Butyl Alcohol (TBA)	91.2	20	µg/L	100		91.2	40-160			†
n-Butylbenzene	9.34	1.0	µg/L	10.0		93.4	70-130			
sec-Butylbenzene	9.24	1.0	µg/L	10.0		92.4	70-130			
tert-Butylbenzene	9.43	1.0	µg/L	10.0		94.3	70-130			
tert-Butyl Ethyl Ether (TBEE)	9.36	0.50	µg/L	10.0		93.6	70-130			
Carbon Disulfide	112	5.0	µg/L	100		112	70-130			
Carbon Tetrachloride	9.37	5.0	µg/L	10.0		93.7	70-130			
Chlorobenzene	10.2	1.0	µg/L	10.0		102	70-130			
Chlorodibromomethane	10.5	0.50	µg/L	10.0		105	70-130			
Chloroethane	11.0	2.0	µg/L	10.0		110	70-130			
Chloroform	9.69	2.0	µg/L	10.0		96.9	70-130			

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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 B351660 - SW-846 5030B										
LCS (B351660-BS1)				Prepared & Analyzed: 09/12/23						
Chloromethane	9.42	2.0	µg/L	10.0		94.2	40-160			†
2-Chlorotoluene	9.61	1.0	µg/L	10.0		96.1	70-130			
4-Chlorotoluene	9.60	1.0	µg/L	10.0		96.0	70-130			
1,2-Dibromo-3-chloropropane (DBCP)	10.1	5.0	µg/L	10.0		101	70-130			
1,2-Dibromoethane (EDB)	10.8	0.50	µg/L	10.0		108	70-130			
Dibromomethane	11.3	1.0	µg/L	10.0		113	70-130			
1,2-Dichlorobenzene	10.7	1.0	µg/L	10.0		107	70-130			
1,3-Dichlorobenzene	10.2	1.0	µg/L	10.0		102	70-130			
1,4-Dichlorobenzene	10.3	1.0	µg/L	10.0		103	70-130			
trans-1,4-Dichloro-2-butene	8.60	2.0	µg/L	10.0		86.0	70-130			
Dichlorodifluoromethane (Freon 12)	11.2	2.0	µg/L	10.0		112	40-160			†
1,1-Dichloroethane	9.46	1.0	µg/L	10.0		94.6	70-130			
1,2-Dichloroethane	11.5	1.0	µg/L	10.0		115	70-130			
1,1-Dichloroethylene	10.4	1.0	µg/L	10.0		104	70-130			
cis-1,2-Dichloroethylene	9.43	1.0	µg/L	10.0		94.3	70-130			
trans-1,2-Dichloroethylene	9.62	1.0	µg/L	10.0		96.2	70-130			
1,2-Dichloropropane	10.0	1.0	µg/L	10.0		100	70-130			
1,3-Dichloropropane	10.3	0.50	µg/L	10.0		103	70-130			
2,2-Dichloropropane	10.4	1.0	µg/L	10.0		104	40-130			†
1,1-Dichloropropene	10.0	2.0	µg/L	10.0		100	70-130			
cis-1,3-Dichloropropene	10.0	0.50	µg/L	10.0		100	70-130			
trans-1,3-Dichloropropene	9.99	0.50	µg/L	10.0		99.9	70-130			
Diethyl Ether	9.92	2.0	µg/L	10.0		99.2	70-130			
Diisopropyl Ether (DIPE)	9.08	0.50	µg/L	10.0		90.8	70-130			
1,4-Dioxane	94.9	50	µg/L	100		94.9	40-130			†
Ethylbenzene	10.4	1.0	µg/L	10.0		104	70-130			
Hexachlorobutadiene	9.39	0.60	µg/L	10.0		93.9	70-130			
2-Hexanone (MBK)	100	10	µg/L	100		100	70-160			†
Isopropylbenzene (Cumene)	9.75	1.0	µg/L	10.0		97.5	70-130			
p-Isopropyltoluene (p-Cymene)	9.19	1.0	µg/L	10.0		91.9	70-130			
Methyl Acetate	9.40	1.0	µg/L	10.0		94.0	70-130			
Methyl tert-Butyl Ether (MTBE)	9.53	1.0	µg/L	10.0		95.3	70-130			
Methyl Cyclohexane	10.5	1.0	µg/L	10.0		105	70-130			
Methylene Chloride	9.09	5.0	µg/L	10.0		90.9	70-130			
4-Methyl-2-pentanone (MIBK)	103	10	µg/L	100		103	70-160			†
Naphthalene	9.75	2.0	µg/L	10.0		97.5	40-130			†
n-Propylbenzene	9.76	1.0	µg/L	10.0		97.6	70-130			
Styrene	9.93	1.0	µg/L	10.0		99.3	70-130			
1,1,1,2-Tetrachloroethane	10.8	1.0	µg/L	10.0		108	70-130			
1,1,2,2-Tetrachloroethane	10.8	0.50	µg/L	10.0		108	70-130			
Tetrachloroethylene	11.4	1.0	µg/L	10.0		114	70-130			
Tetrahydrofuran	8.35	10	µg/L	10.0		83.5	70-130			V-05
Toluene	10.4	1.0	µg/L	10.0		104	70-130			
1,2,3-Trichlorobenzene	10.5	5.0	µg/L	10.0		105	70-130			
1,2,4-Trichlorobenzene	10.5	1.0	µg/L	10.0		105	70-130			
1,3,5-Trichlorobenzene	10.2	1.0	µg/L	10.0		102	70-130			
1,1,1-Trichloroethane	10.1	1.0	µg/L	10.0		101	70-130			
1,1,2-Trichloroethane	10.6	1.0	µg/L	10.0		106	70-130			
Trichloroethylene	10.8	1.0	µg/L	10.0		108	70-130			
Trichlorofluoromethane (Freon 11)	11.3	2.0	µg/L	10.0		113	70-130			
1,2,3-Trichloropropane	11.0	2.0	µg/L	10.0		110	70-130			

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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 B351660 - SW-846 5030B										
LCS (B351660-BS1)				Prepared & Analyzed: 09/12/23						
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	11.5	1.0	µg/L	10.0		115	70-130			
1,2,4-Trimethylbenzene	9.79	1.0	µg/L	10.0		97.9	70-130			
1,3,5-Trimethylbenzene	9.82	1.0	µg/L	10.0		98.2	70-130			
Vinyl Chloride	10.7	2.0	µg/L	10.0		107	40-160			†
m+p Xylene	20.2	2.0	µg/L	20.0		101	70-130			
o-Xylene	10.1	1.0	µg/L	10.0		101	70-130			
Surrogate: 1,2-Dichloroethane-d4	*24.7*		µg/L	25.0		98.7	70-130			
Surrogate: Toluene-d8	*24.8*		µg/L	25.0		99.4	70-130			
Surrogate: 4-Bromofluorobenzene	*25.0*		µg/L	25.0		100	70-130			
LCS Dup (B351660-BSD1)				Prepared & Analyzed: 09/12/23						
Acetone	97.4	50	µg/L	100		97.4	70-160	0.736	25	†
Acrylonitrile	9.07	5.0	µg/L	10.0		90.7	70-130	2.50	25	
tert-Amyl Methyl Ether (TAME)	8.93	0.50	µg/L	10.0		89.3	70-130	1.33	25	
Benzene	9.31	1.0	µg/L	10.0		93.1	70-130	1.30	25	
Bromobenzene	9.97	1.0	µg/L	10.0		99.7	70-130	1.11	25	
Bromochloromethane	9.76	1.0	µg/L	10.0		97.6	70-130	1.02	25	
Bromodichloromethane	10.7	0.50	µg/L	10.0		107	70-130	3.13	25	
Bromoform	10.4	1.0	µg/L	10.0		104	70-130	2.04	25	
Bromomethane	9.59	2.0	µg/L	10.0		95.9	40-160	5.57	25	†
2-Butanone (MEK)	94.2	20	µg/L	100		94.2	40-160	1.25	25	†
tert-Butyl Alcohol (TBA)	90.4	20	µg/L	100		90.4	40-160	0.826	25	†
n-Butylbenzene	9.21	1.0	µg/L	10.0		92.1	70-130	1.40	25	
sec-Butylbenzene	9.21	1.0	µg/L	10.0		92.1	70-130	0.325	25	
tert-Butylbenzene	9.33	1.0	µg/L	10.0		93.3	70-130	1.07	25	
tert-Butyl Ethyl Ether (TBEE)	9.20	0.50	µg/L	10.0		92.0	70-130	1.72	25	
Carbon Disulfide	110	5.0	µg/L	100		110	70-130	1.74	25	
Carbon Tetrachloride	9.44	5.0	µg/L	10.0		94.4	70-130	0.744	25	
Chlorobenzene	10.1	1.0	µg/L	10.0		101	70-130	1.38	25	
Chlorodibromomethane	10.5	0.50	µg/L	10.0		105	70-130	0.286	25	
Chloroethane	10.5	2.0	µg/L	10.0		105	70-130	5.20	25	
Chloroform	9.48	2.0	µg/L	10.0		94.8	70-130	2.19	25	
Chloromethane	9.03	2.0	µg/L	10.0		90.3	40-160	4.23	25	†
2-Chlorotoluene	9.61	1.0	µg/L	10.0		96.1	70-130	0.00	25	
4-Chlorotoluene	9.81	1.0	µg/L	10.0		98.1	70-130	2.16	25	
1,2-Dibromo-3-chloropropane (DBCP)	10.1	5.0	µg/L	10.0		101	70-130	0.198	25	
1,2-Dibromoethane (EDB)	10.9	0.50	µg/L	10.0		109	70-130	0.922	25	
Dibromomethane	11.1	1.0	µg/L	10.0		111	70-130	1.52	25	
1,2-Dichlorobenzene	10.4	1.0	µg/L	10.0		104	70-130	2.66	25	
1,3-Dichlorobenzene	10.2	1.0	µg/L	10.0		102	70-130	0.491	25	
1,4-Dichlorobenzene	10.2	1.0	µg/L	10.0		102	70-130	0.875	25	
trans-1,4-Dichloro-2-butene	9.06	2.0	µg/L	10.0		90.6	70-130	5.21	25	
Dichlorodifluoromethane (Freon 12)	11.0	2.0	µg/L	10.0		110	40-160	1.89	25	†
1,1-Dichloroethane	9.12	1.0	µg/L	10.0		91.2	70-130	3.66	25	
1,2-Dichloroethane	11.4	1.0	µg/L	10.0		114	70-130	1.05	25	
1,1-Dichloroethylene	10.3	1.0	µg/L	10.0		103	70-130	1.15	25	
cis-1,2-Dichloroethylene	9.46	1.0	µg/L	10.0		94.6	70-130	0.318	25	
trans-1,2-Dichloroethylene	9.82	1.0	µg/L	10.0		98.2	70-130	2.06	25	
1,2-Dichloropropane	10.2	1.0	µg/L	10.0		102	70-130	1.48	25	
1,3-Dichloropropane	10.4	0.50	µg/L	10.0		104	70-130	1.26	25	
2,2-Dichloropropane	10.3	1.0	µg/L	10.0		103	40-130	1.06	25	†
1,1-Dichloropropene	9.43	2.0	µg/L	10.0		94.3	70-130	6.17	25	

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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 B351660 - SW-846 5030B										
LCS Dup (B351660-BSD1)				Prepared & Analyzed: 09/12/23						
cis-1,3-Dichloropropene	10.0	0.50	µg/L	10.0		100	70-130	0.399	25	
trans-1,3-Dichloropropene	9.79	0.50	µg/L	10.0		97.9	70-130	2.02	25	
Diethyl Ether	9.82	2.0	µg/L	10.0		98.2	70-130	1.01	25	
Diisopropyl Ether (DIPE)	9.10	0.50	µg/L	10.0		91.0	70-130	0.220	25	
1,4-Dioxane	90.2	50	µg/L	100		90.2	40-130	5.11	50	† ‡
Ethylbenzene	10.4	1.0	µg/L	10.0		104	70-130	0.0965	25	
Hexachlorobutadiene	9.58	0.60	µg/L	10.0		95.8	70-130	2.00	25	
2-Hexanone (MBK)	103	10	µg/L	100		103	70-160	2.26	25	†
Isopropylbenzene (Cumene)	9.93	1.0	µg/L	10.0		99.3	70-130	1.83	25	
p-Isopropyltoluene (p-Cymene)	9.31	1.0	µg/L	10.0		93.1	70-130	1.30	25	
Methyl Acetate	8.99	1.0	µg/L	10.0		89.9	70-130	4.46	25	
Methyl tert-Butyl Ether (MTBE)	9.29	1.0	µg/L	10.0		92.9	70-130	2.55	25	
Methyl Cyclohexane	10.2	1.0	µg/L	10.0		102	70-130	2.70	25	
Methylene Chloride	8.89	5.0	µg/L	10.0		88.9	70-130	2.22	25	
4-Methyl-2-pentanone (MIBK)	104	10	µg/L	100		104	70-160	0.834	25	†
Naphthalene	9.88	2.0	µg/L	10.0		98.8	40-130	1.32	25	†
n-Propylbenzene	9.80	1.0	µg/L	10.0		98.0	70-130	0.409	25	
Styrene	10.1	1.0	µg/L	10.0		101	70-130	1.90	25	
1,1,1,2-Tetrachloroethane	10.8	1.0	µg/L	10.0		108	70-130	0.278	25	
1,1,2,2-Tetrachloroethane	10.9	0.50	µg/L	10.0		109	70-130	1.48	25	
Tetrachloroethylene	11.2	1.0	µg/L	10.0		112	70-130	2.13	25	
Tetrahydrofuran	8.31	10	µg/L	10.0		83.1	70-130	0.480	25	V-05
Toluene	10.2	1.0	µg/L	10.0		102	70-130	1.55	25	
1,2,3-Trichlorobenzene	10.6	5.0	µg/L	10.0		106	70-130	1.04	25	
1,2,4-Trichlorobenzene	10.4	1.0	µg/L	10.0		104	70-130	1.25	25	
1,3,5-Trichlorobenzene	9.98	1.0	µg/L	10.0		99.8	70-130	1.89	25	
1,1,1-Trichloroethane	9.85	1.0	µg/L	10.0		98.5	70-130	2.11	25	
1,1,2-Trichloroethane	10.7	1.0	µg/L	10.0		107	70-130	0.562	25	
Trichloroethylene	10.6	1.0	µg/L	10.0		106	70-130	1.86	25	
Trichlorofluoromethane (Freon 11)	11.6	2.0	µg/L	10.0		116	70-130	2.10	25	
1,2,3-Trichloropropane	10.6	2.0	µg/L	10.0		106	70-130	3.06	25	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	11.2	1.0	µg/L	10.0		112	70-130	2.74	25	
1,2,4-Trimethylbenzene	9.77	1.0	µg/L	10.0		97.7	70-130	0.204	25	
1,3,5-Trimethylbenzene	9.87	1.0	µg/L	10.0		98.7	70-130	0.508	25	
Vinyl Chloride	10.2	2.0	µg/L	10.0		102	40-160	4.77	25	†
m+p Xylene	20.2	2.0	µg/L	20.0		101	70-130	0.0495	25	
o-Xylene	10.2	1.0	µg/L	10.0		102	70-130	1.67	25	
Surrogate: 1,2-Dichloroethane-d4	*23.4*		µg/L	25.0		93.6	70-130			
Surrogate: Toluene-d8	*25.0*		µg/L	25.0		99.9	70-130			
Surrogate: 4-Bromofluorobenzene	*25.3*		µg/L	25.0		101	70-130			
Batch B351707 - SW-846 5035										
Blank (B351707-BLK1)				Prepared & Analyzed: 09/12/23						
Acetone	ND	0.10	mg/Kg wet							V-05
Acrylonitrile	ND	0.0060	mg/Kg wet							
tert-Amyl Methyl Ether (TAME)	ND	0.0010	mg/Kg wet							
Benzene	ND	0.0020	mg/Kg wet							
Bromobenzene	ND	0.0020	mg/Kg wet							
Bromochloromethane	ND	0.0020	mg/Kg wet							
Bromodichloromethane	ND	0.0020	mg/Kg wet							
Bromoform	ND	0.0020	mg/Kg wet							

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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 B351707 - SW-846 5035										
Blank (B351707-BLK1)				Prepared & Analyzed: 09/12/23						
Bromomethane	ND	0.010	mg/Kg wet							V-34
2-Butanone (MEK)	ND	0.040	mg/Kg wet							
tert-Butyl Alcohol (TBA)	ND	0.10	mg/Kg wet							
n-Butylbenzene	ND	0.0020	mg/Kg wet							
sec-Butylbenzene	ND	0.0020	mg/Kg wet							
tert-Butylbenzene	ND	0.0020	mg/Kg wet							
tert-Butyl Ethyl Ether (TBEE)	ND	0.0010	mg/Kg wet							
Carbon Disulfide	ND	0.010	mg/Kg wet							
Carbon Tetrachloride	ND	0.0020	mg/Kg wet							
Chlorobenzene	ND	0.0020	mg/Kg wet							
Chlorodibromomethane	ND	0.0010	mg/Kg wet							
Chloroethane	ND	0.020	mg/Kg wet							
Chloroform	ND	0.0040	mg/Kg wet							
Chloromethane	ND	0.010	mg/Kg wet							
2-Chlorotoluene	ND	0.0020	mg/Kg wet							
4-Chlorotoluene	ND	0.0020	mg/Kg wet							
1,2-Dibromo-3-chloropropane (DBCP)	ND	0.0020	mg/Kg wet							
1,2-Dibromoethane (EDB)	ND	0.0010	mg/Kg wet							
Dibromomethane	ND	0.0020	mg/Kg wet							
1,2-Dichlorobenzene	ND	0.0020	mg/Kg wet							
1,3-Dichlorobenzene	ND	0.0020	mg/Kg wet							
1,4-Dichlorobenzene	ND	0.0020	mg/Kg wet							
trans-1,4-Dichloro-2-butene	ND	0.0040	mg/Kg wet							
Dichlorodifluoromethane (Freon 12)	ND	0.020	mg/Kg wet							
1,1-Dichloroethane	ND	0.0020	mg/Kg wet							
1,2-Dichloroethane	ND	0.0020	mg/Kg wet							
1,1-Dichloroethylene	ND	0.0040	mg/Kg wet							
cis-1,2-Dichloroethylene	ND	0.0020	mg/Kg wet							
trans-1,2-Dichloroethylene	ND	0.0020	mg/Kg wet							
1,2-Dichloropropane	ND	0.0020	mg/Kg wet							
1,3-Dichloropropane	ND	0.0010	mg/Kg wet							
2,2-Dichloropropane	ND	0.0020	mg/Kg wet							
1,1-Dichloropropene	ND	0.0020	mg/Kg wet							
cis-1,3-Dichloropropene	ND	0.0010	mg/Kg wet							
trans-1,3-Dichloropropene	ND	0.0010	mg/Kg wet							
Diethyl Ether	ND	0.020	mg/Kg wet							
Diisopropyl Ether (DIPE)	ND	0.0010	mg/Kg wet							
1,4-Dioxane	ND	0.10	mg/Kg wet							
Ethylbenzene	ND	0.0020	mg/Kg wet							
Hexachlorobutadiene	ND	0.0020	mg/Kg wet							
2-Hexanone (MBK)	ND	0.020	mg/Kg wet							
Isopropylbenzene (Cumene)	ND	0.0020	mg/Kg wet							
p-Isopropyltoluene (p-Cymene)	ND	0.0020	mg/Kg wet							
Methyl Acetate	ND	0.0020	mg/Kg wet							
Methyl tert-Butyl Ether (MTBE)	ND	0.0040	mg/Kg wet							
Methyl Cyclohexane	ND	0.0020	mg/Kg wet							
Methylene Chloride	ND	0.020	mg/Kg wet							
4-Methyl-2-pentanone (MIBK)	ND	0.020	mg/Kg wet							
Naphthalene	ND	0.010	mg/Kg wet							
n-Propylbenzene	ND	0.0020	mg/Kg wet							
Styrene	ND	0.0020	mg/Kg wet							
1,1,1,2-Tetrachloroethane	ND	0.0020	mg/Kg wet							

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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 B351707 - SW-846 5035											
Blank (B351707-BLK1)				Prepared & Analyzed: 09/12/23							
1,1,2,2-Tetrachloroethane	ND	0.0010	mg/Kg wet								
Tetrachloroethylene	ND	0.0020	mg/Kg wet								
Tetrahydrofuran	ND	0.010	mg/Kg wet								
Toluene	ND	0.0020	mg/Kg wet								
1,2,3-Trichlorobenzene	ND	0.0040	mg/Kg wet								
1,2,4-Trichlorobenzene	ND	0.0020	mg/Kg wet								
1,3,5-Trichlorobenzene	ND	0.0020	mg/Kg wet								
1,1,1-Trichloroethane	ND	0.0020	mg/Kg wet								
1,1,2-Trichloroethane	ND	0.0020	mg/Kg wet								
Trichloroethylene	ND	0.0020	mg/Kg wet								
Trichlorofluoromethane (Freon 11)	ND	0.010	mg/Kg wet							V-05	
1,2,3-Trichloropropane	ND	0.0020	mg/Kg wet								
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.010	mg/Kg wet								
1,2,4-Trimethylbenzene	ND	0.0020	mg/Kg wet								
1,3,5-Trimethylbenzene	ND	0.0020	mg/Kg wet								
Vinyl Chloride	ND	0.010	mg/Kg wet								
m+p Xylene	ND	0.0040	mg/Kg wet								
o-Xylene	ND	0.0020	mg/Kg wet								
Surrogate: 1,2-Dichloroethane-d4	*0.0460*		mg/Kg wet	0.0500		92.0	70-130				
Surrogate: Toluene-d8	*0.0471*		mg/Kg wet	0.0500		94.2	70-130				
Surrogate: 4-Bromofluorobenzene	*0.0460*		mg/Kg wet	0.0500		92.0	70-130				
LCS (B351707-BS1)				Prepared & Analyzed: 09/12/23							
Acetone	0.142	0.10	mg/Kg wet	0.200		71.0	70-160			V-05, V-35	†
Acrylonitrile	0.0181	0.0060	mg/Kg wet	0.0200		90.7	70-130				
tert-Amyl Methyl Ether (TAME)	0.0190	0.0010	mg/Kg wet	0.0200		95.0	70-130				
Benzene	0.0199	0.0020	mg/Kg wet	0.0200		99.3	70-130				
Bromobenzene	0.0180	0.0020	mg/Kg wet	0.0200		90.0	70-130				
Bromochloromethane	0.0185	0.0020	mg/Kg wet	0.0200		92.3	70-130				
Bromodichloromethane	0.0180	0.0020	mg/Kg wet	0.0200		89.9	70-130				
Bromoform	0.0172	0.0020	mg/Kg wet	0.0200		86.0	70-130				
Bromomethane	0.0170	0.010	mg/Kg wet	0.0200		85.1	40-130			V-34	†
2-Butanone (MEK)	0.173	0.040	mg/Kg wet	0.200		86.6	70-160				†
tert-Butyl Alcohol (TBA)	0.171	0.10	mg/Kg wet	0.200		85.3	40-130				†
n-Butylbenzene	0.0201	0.0020	mg/Kg wet	0.0200		100	70-130				
sec-Butylbenzene	0.0186	0.0020	mg/Kg wet	0.0200		93.1	70-130				
tert-Butylbenzene	0.0191	0.0020	mg/Kg wet	0.0200		95.5	70-160				†
tert-Butyl Ethyl Ether (TBEE)	0.0189	0.0010	mg/Kg wet	0.0200		94.3	70-130				
Carbon Disulfide	0.183	0.010	mg/Kg wet	0.200		91.6	70-130				
Carbon Tetrachloride	0.0182	0.0020	mg/Kg wet	0.0200		91.0	70-130				
Chlorobenzene	0.0187	0.0020	mg/Kg wet	0.0200		93.6	70-130				
Chlorodibromomethane	0.0173	0.0010	mg/Kg wet	0.0200		86.6	70-130				
Chloroethane	0.0170	0.020	mg/Kg wet	0.0200		85.1	70-130				
Chloroform	0.0191	0.0040	mg/Kg wet	0.0200		95.4	70-130				
Chloromethane	0.0161	0.010	mg/Kg wet	0.0200		80.6	70-130				
2-Chlorotoluene	0.0185	0.0020	mg/Kg wet	0.0200		92.5	70-130				
4-Chlorotoluene	0.0190	0.0020	mg/Kg wet	0.0200		95.2	70-130				
1,2-Dibromo-3-chloropropane (DBCP)	0.0195	0.0020	mg/Kg wet	0.0200		97.5	70-130				
1,2-Dibromoethane (EDB)	0.0186	0.0010	mg/Kg wet	0.0200		93.0	70-130				
Dibromomethane	0.0180	0.0020	mg/Kg wet	0.0200		89.8	70-130				
1,2-Dichlorobenzene	0.0186	0.0020	mg/Kg wet	0.0200		93.0	70-130				
1,3-Dichlorobenzene	0.0187	0.0020	mg/Kg wet	0.0200		93.4	70-130				

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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 B351707 - SW-846 5035											
LCS (B351707-BS1)				Prepared & Analyzed: 09/12/23							
1,4-Dichlorobenzene	0.0185	0.0020	mg/Kg wet	0.0200		92.6	70-130				
trans-1,4-Dichloro-2-butene	0.0191	0.0040	mg/Kg wet	0.0200		95.3	70-130				
Dichlorodifluoromethane (Freon 12)	0.0165	0.020	mg/Kg wet	0.0200		82.7	40-160				†
1,1-Dichloroethane	0.0192	0.0020	mg/Kg wet	0.0200		95.9	70-130				
1,2-Dichloroethane	0.0178	0.0020	mg/Kg wet	0.0200		89.2	70-130				
1,1-Dichloroethylene	0.0165	0.0040	mg/Kg wet	0.0200		82.6	70-130				
cis-1,2-Dichloroethylene	0.0191	0.0020	mg/Kg wet	0.0200		95.3	70-130				
trans-1,2-Dichloroethylene	0.0179	0.0020	mg/Kg wet	0.0200		89.6	70-130				
1,2-Dichloropropane	0.0189	0.0020	mg/Kg wet	0.0200		94.5	70-130				
1,3-Dichloropropane	0.0182	0.0010	mg/Kg wet	0.0200		91.0	70-130				
2,2-Dichloropropane	0.0177	0.0020	mg/Kg wet	0.0200		88.5	70-130				
1,1-Dichloropropene	0.0197	0.0020	mg/Kg wet	0.0200		98.7	70-130				
cis-1,3-Dichloropropene	0.0193	0.0010	mg/Kg wet	0.0200		96.5	70-130				
trans-1,3-Dichloropropene	0.0178	0.0010	mg/Kg wet	0.0200		89.2	70-130				
Diethyl Ether	0.0172	0.020	mg/Kg wet	0.0200		85.9	70-130				
Diisopropyl Ether (DIPE)	0.0193	0.0010	mg/Kg wet	0.0200		96.3	70-130				
1,4-Dioxane	0.182	0.10	mg/Kg wet	0.200		91.0	40-160				†
Ethylbenzene	0.0194	0.0020	mg/Kg wet	0.0200		96.8	70-130				
Hexachlorobutadiene	0.0173	0.0020	mg/Kg wet	0.0200		86.5	70-160				
2-Hexanone (MBK)	0.181	0.020	mg/Kg wet	0.200		90.4	70-160				†
Isopropylbenzene (Cumene)	0.0199	0.0020	mg/Kg wet	0.0200		99.5	70-130				
p-Isopropyltoluene (p-Cymene)	0.0195	0.0020	mg/Kg wet	0.0200		97.4	70-130				
Methyl Acetate	0.0183	0.0020	mg/Kg wet	0.0200		91.4	70-130				
Methyl tert-Butyl Ether (MTBE)	0.0177	0.0040	mg/Kg wet	0.0200		88.6	70-130				
Methyl Cyclohexane	0.0204	0.0020	mg/Kg wet	0.0200		102	70-130				
Methylene Chloride	0.0170	0.020	mg/Kg wet	0.0200		84.8	40-160				†
4-Methyl-2-pentanone (MIBK)	0.178	0.020	mg/Kg wet	0.200		89.2	70-160				†
Naphthalene	0.0197	0.010	mg/Kg wet	0.0200		98.5	40-130				†
n-Propylbenzene	0.0201	0.0020	mg/Kg wet	0.0200		100	70-130				
Styrene	0.0192	0.0020	mg/Kg wet	0.0200		96.0	70-130				
1,1,1,2-Tetrachloroethane	0.0179	0.0020	mg/Kg wet	0.0200		89.4	70-130				
1,1,2,2-Tetrachloroethane	0.0194	0.0010	mg/Kg wet	0.0200		96.9	70-130				
Tetrachloroethylene	0.0188	0.0020	mg/Kg wet	0.0200		93.8	70-130				
Tetrahydrofuran	0.0212	0.010	mg/Kg wet	0.0200		106	70-130				
Toluene	0.0193	0.0020	mg/Kg wet	0.0200		96.4	70-130				
1,2,3-Trichlorobenzene	0.0179	0.0040	mg/Kg wet	0.0200		89.4	70-130				
1,2,4-Trichlorobenzene	0.0185	0.0020	mg/Kg wet	0.0200		92.6	70-130				
1,3,5-Trichlorobenzene	0.0184	0.0020	mg/Kg wet	0.0200		92.2	70-130				
1,1,1-Trichloroethane	0.0192	0.0020	mg/Kg wet	0.0200		96.0	70-130				
1,1,2-Trichloroethane	0.0191	0.0020	mg/Kg wet	0.0200		95.4	70-130				
Trichloroethylene	0.0186	0.0020	mg/Kg wet	0.0200		92.9	70-130				
Trichlorofluoromethane (Freon 11)	0.0155	0.010	mg/Kg wet	0.0200		77.4	70-130			V-05	
1,2,3-Trichloropropane	0.0184	0.0020	mg/Kg wet	0.0200		92.1	70-130				
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	0.0182	0.010	mg/Kg wet	0.0200		91.2	70-130				
1,2,4-Trimethylbenzene	0.0201	0.0020	mg/Kg wet	0.0200		100	70-130				
1,3,5-Trimethylbenzene	0.0193	0.0020	mg/Kg wet	0.0200		96.7	70-130				
Vinyl Chloride	0.0192	0.010	mg/Kg wet	0.0200		95.9	40-130				†
m+p Xylene	0.0383	0.0040	mg/Kg wet	0.0400		95.8	70-130				
o-Xylene	0.0190	0.0020	mg/Kg wet	0.0200		94.9	70-130				
Surrogate: 1,2-Dichloroethane-d4	*0.0456*		mg/Kg wet	0.0500		91.2	70-130				
Surrogate: Toluene-d8	*0.0465*		mg/Kg wet	0.0500		93.0	70-130				

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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 B351707 - SW-846 5035												
LCS (B351707-BS1)				Prepared & Analyzed: 09/12/23								
Surrogate: 4-Bromofluorobenzene	*0.0464*		mg/Kg wet	0.0500		92.8		70-130				
LCS Dup (B351707-BSD1)				Prepared & Analyzed: 09/12/23								
Acetone	0.139	0.10	mg/Kg wet	0.200		**69.7**	*	70-160	1.89	25	L-07, V-05, V-35	†
Acrylonitrile	0.0191	0.0060	mg/Kg wet	0.0200		95.4		70-130	5.05	25		
tert-Amyl Methyl Ether (TAME)	0.0188	0.0010	mg/Kg wet	0.0200		93.9		70-130	1.16	25		
Benzene	0.0195	0.0020	mg/Kg wet	0.0200		97.4		70-130	1.93	25		
Bromobenzene	0.0178	0.0020	mg/Kg wet	0.0200		89.1		70-130	1.01	25		
Bromochloromethane	0.0187	0.0020	mg/Kg wet	0.0200		93.6		70-130	1.40	25		
Bromodichloromethane	0.0177	0.0020	mg/Kg wet	0.0200		88.6		70-130	1.46	25		
Bromoform	0.0172	0.0020	mg/Kg wet	0.0200		86.1		70-130	0.116	25		
Bromomethane	0.0170	0.010	mg/Kg wet	0.0200		84.8		40-130	0.353	25	V-34	†
2-Butanone (MEK)	0.171	0.040	mg/Kg wet	0.200		85.6		70-160	1.11	25		†
tert-Butyl Alcohol (TBA)	0.168	0.10	mg/Kg wet	0.200		84.1		40-130	1.42	25		†
n-Butylbenzene	0.0190	0.0020	mg/Kg wet	0.0200		95.2		70-130	5.22	25		
sec-Butylbenzene	0.0183	0.0020	mg/Kg wet	0.0200		91.3		70-130	1.95	25		
tert-Butylbenzene	0.0184	0.0020	mg/Kg wet	0.0200		92.2		70-160	3.52	25		†
tert-Butyl Ethyl Ether (TBEE)	0.0187	0.0010	mg/Kg wet	0.0200		93.6		70-130	0.745	25		
Carbon Disulfide	0.176	0.010	mg/Kg wet	0.200		87.8		70-130	4.18	25		
Carbon Tetrachloride	0.0177	0.0020	mg/Kg wet	0.0200		88.4		70-130	2.90	25		
Chlorobenzene	0.0187	0.0020	mg/Kg wet	0.0200		93.4		70-130	0.214	25		
Chlorodibromomethane	0.0171	0.0010	mg/Kg wet	0.0200		85.6		70-130	1.16	25		
Chloroethane	0.0171	0.020	mg/Kg wet	0.0200		85.4		70-130	0.352	25		
Chloroform	0.0187	0.0040	mg/Kg wet	0.0200		93.6		70-130	1.90	25		
Chloromethane	0.0151	0.010	mg/Kg wet	0.0200		75.6		70-130	6.40	25		
2-Chlorotoluene	0.0182	0.0020	mg/Kg wet	0.0200		91.2		70-130	1.42	25		
4-Chlorotoluene	0.0184	0.0020	mg/Kg wet	0.0200		92.0		70-130	3.42	25		
1,2-Dibromo-3-chloropropane (DBCP)	0.0200	0.0020	mg/Kg wet	0.0200		100		70-130	2.63	25		
1,2-Dibromoethane (EDB)	0.0180	0.0010	mg/Kg wet	0.0200		90.0		70-130	3.28	25		
Dibromomethane	0.0184	0.0020	mg/Kg wet	0.0200		92.0		70-130	2.42	25		
1,2-Dichlorobenzene	0.0180	0.0020	mg/Kg wet	0.0200		90.2		70-130	3.06	25		
1,3-Dichlorobenzene	0.0178	0.0020	mg/Kg wet	0.0200		88.8		70-130	5.05	25		
1,4-Dichlorobenzene	0.0182	0.0020	mg/Kg wet	0.0200		90.8		70-130	1.96	25		
trans-1,4-Dichloro-2-butene	0.0187	0.0040	mg/Kg wet	0.0200		93.4		70-130	2.01	25		
Dichlorodifluoromethane (Freon 12)	0.0154	0.020	mg/Kg wet	0.0200		76.8		40-160	7.40	25		†
1,1-Dichloroethane	0.0186	0.0020	mg/Kg wet	0.0200		93.1		70-130	2.96	25		
1,2-Dichloroethane	0.0178	0.0020	mg/Kg wet	0.0200		88.8		70-130	0.449	25		
1,1-Dichloroethylene	0.0165	0.0040	mg/Kg wet	0.0200		82.6		70-130	0.00	25		
cis-1,2-Dichloroethylene	0.0185	0.0020	mg/Kg wet	0.0200		92.6		70-130	2.87	25		
trans-1,2-Dichloroethylene	0.0174	0.0020	mg/Kg wet	0.0200		87.1		70-130	2.83	25		
1,2-Dichloropropane	0.0190	0.0020	mg/Kg wet	0.0200		94.8		70-130	0.317	25		
1,3-Dichloropropane	0.0189	0.0010	mg/Kg wet	0.0200		94.3		70-130	3.56	25		
2,2-Dichloropropane	0.0168	0.0020	mg/Kg wet	0.0200		84.0		70-130	5.22	25		
1,1-Dichloropropene	0.0199	0.0020	mg/Kg wet	0.0200		99.3		70-130	0.606	25		
cis-1,3-Dichloropropene	0.0187	0.0010	mg/Kg wet	0.0200		93.6		70-130	3.05	25		
trans-1,3-Dichloropropene	0.0177	0.0010	mg/Kg wet	0.0200		88.5		70-130	0.788	25		
Diethyl Ether	0.0148	0.020	mg/Kg wet	0.0200		74.0		70-130	14.9	25		
Diisopropyl Ether (DIPE)	0.0190	0.0010	mg/Kg wet	0.0200		95.0		70-130	1.36	25		
1,4-Dioxane	0.195	0.10	mg/Kg wet	0.200		97.5		40-160	6.94	50		† ‡
Ethylbenzene	0.0186	0.0020	mg/Kg wet	0.0200		92.9		70-130	4.11	25		
Hexachlorobutadiene	0.0174	0.0020	mg/Kg wet	0.0200		87.2		70-160	0.806	25		
2-Hexanone (MBK)	0.186	0.020	mg/Kg wet	0.200		93.2		70-160	3.11	25		†

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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 B351707 - SW-846 5035											
LCS Dup (B351707-BSD1)				Prepared & Analyzed: 09/12/23							
Isopropylbenzene (Cumene)	0.0188	0.0020	mg/Kg wet	0.0200		94.2	70-130	5.47	25		
p-Isopropyltoluene (p-Cymene)	0.0189	0.0020	mg/Kg wet	0.0200		94.3	70-130	3.23	25		
Methyl Acetate	0.0190	0.0020	mg/Kg wet	0.0200		95.2	70-130	4.07	25		
Methyl tert-Butyl Ether (MTBE)	0.0175	0.0040	mg/Kg wet	0.0200		87.7	70-130	1.02	25		
Methyl Cyclohexane	0.0201	0.0020	mg/Kg wet	0.0200		101	70-130	1.48	25		
Methylene Chloride	0.0165	0.020	mg/Kg wet	0.0200		82.7	40-160	2.51	25		†
4-Methyl-2-pentanone (MIBK)	0.182	0.020	mg/Kg wet	0.200		91.0	70-160	2.04	25		†
Naphthalene	0.0191	0.010	mg/Kg wet	0.0200		95.7	40-130	2.88	25		†
n-Propylbenzene	0.0192	0.0020	mg/Kg wet	0.0200		96.2	70-130	4.27	25		
Styrene	0.0191	0.0020	mg/Kg wet	0.0200		95.3	70-130	0.732	25		
1,1,1,2-Tetrachloroethane	0.0177	0.0020	mg/Kg wet	0.0200		88.5	70-130	1.01	25		
1,1,2,2-Tetrachloroethane	0.0183	0.0010	mg/Kg wet	0.0200		91.7	70-130	5.51	25		
Tetrachloroethylene	0.0187	0.0020	mg/Kg wet	0.0200		93.3	70-130	0.534	25		
Tetrahydrofuran	0.0204	0.010	mg/Kg wet	0.0200		102	70-130	3.94	25		
Toluene	0.0194	0.0020	mg/Kg wet	0.0200		97.1	70-130	0.724	25		
1,2,3-Trichlorobenzene	0.0176	0.0040	mg/Kg wet	0.0200		88.2	70-130	1.35	25		
1,2,4-Trichlorobenzene	0.0173	0.0020	mg/Kg wet	0.0200		86.7	70-130	6.58	25		
1,3,5-Trichlorobenzene	0.0172	0.0020	mg/Kg wet	0.0200		86.1	70-130	6.84	25		
1,1,1-Trichloroethane	0.0186	0.0020	mg/Kg wet	0.0200		93.0	70-130	3.17	25		
1,1,2-Trichloroethane	0.0192	0.0020	mg/Kg wet	0.0200		96.1	70-130	0.731	25		
Trichloroethylene	0.0186	0.0020	mg/Kg wet	0.0200		93.2	70-130	0.322	25		
Trichlorofluoromethane (Freon 11)	0.0144	0.010	mg/Kg wet	0.0200		72.2	70-130	6.95	25	V-05	
1,2,3-Trichloropropane	0.0174	0.0020	mg/Kg wet	0.0200		86.8	70-130	5.93	25		
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	0.0175	0.010	mg/Kg wet	0.0200		87.7	70-130	3.91	25		
1,2,4-Trimethylbenzene	0.0191	0.0020	mg/Kg wet	0.0200		95.7	70-130	4.69	25		
1,3,5-Trimethylbenzene	0.0189	0.0020	mg/Kg wet	0.0200		94.7	70-130	2.09	25		
Vinyl Chloride	0.0183	0.010	mg/Kg wet	0.0200		91.4	40-130	4.81	25		†
m+p Xylene	0.0373	0.0040	mg/Kg wet	0.0400		93.3	70-130	2.70	25		
o-Xylene	0.0189	0.0020	mg/Kg wet	0.0200		94.3	70-130	0.634	25		
Surrogate: 1,2-Dichloroethane-d4	*0.0459*		mg/Kg wet	0.0500		91.9	70-130				
Surrogate: Toluene-d8	*0.0472*		mg/Kg wet	0.0500		94.4	70-130				
Surrogate: 4-Bromofluorobenzene	*0.0465*		mg/Kg wet	0.0500		93.0	70-130				

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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 B353275 - SW-846 3546										
Blank (B353275-BLK1)				Prepared: 09/27/23 Analyzed: 09/30/23						
Acenaphthene	ND	0.17	mg/Kg wet							
Acenaphthylene	ND	0.17	mg/Kg wet							
Acetophenone	ND	0.34	mg/Kg wet							
Aniline	ND	0.34	mg/Kg wet							
Anthracene	ND	0.17	mg/Kg wet							
Benzidine	ND	0.66	mg/Kg wet							V-04, V-05
Benzo(a)anthracene	ND	0.17	mg/Kg wet							
Benzo(a)pyrene	ND	0.17	mg/Kg wet							
Benzo(b)fluoranthene	ND	0.17	mg/Kg wet							
Benzo(g,h,i)perylene	ND	0.17	mg/Kg wet							
Benzo(k)fluoranthene	ND	0.17	mg/Kg wet							
Benzoic Acid	ND	1.0	mg/Kg wet							
Bis(2-chloroethoxy)methane	ND	0.34	mg/Kg wet							
Bis(2-chloroethyl)ether	ND	0.34	mg/Kg wet							V-06
Bis(2-chloroisopropyl)ether	ND	0.34	mg/Kg wet							V-06
Bis(2-Ethylhexyl)phthalate	ND	0.34	mg/Kg wet							V-06
4-Bromophenylphenylether	ND	0.34	mg/Kg wet							
Butylbenzylphthalate	ND	0.34	mg/Kg wet							
Carbazole	ND	0.17	mg/Kg wet							
4-Chloroaniline	ND	0.66	mg/Kg wet							
4-Chloro-3-methylphenol	ND	0.66	mg/Kg wet							
2-Chloronaphthalene	ND	0.34	mg/Kg wet							
2-Chlorophenol	ND	0.34	mg/Kg wet							
4-Chlorophenylphenylether	ND	0.34	mg/Kg wet							
Chrysene	ND	0.17	mg/Kg wet							
Dibenz(a,h)anthracene	ND	0.17	mg/Kg wet							
Dibenzofuran	ND	0.34	mg/Kg wet							
Di-n-butylphthalate	ND	0.34	mg/Kg wet							
1,2-Dichlorobenzene	ND	0.34	mg/Kg wet							
1,3-Dichlorobenzene	ND	0.34	mg/Kg wet							
1,4-Dichlorobenzene	ND	0.34	mg/Kg wet							
3,3-Dichlorobenzidine	ND	0.17	mg/Kg wet							
2,4-Dichlorophenol	ND	0.34	mg/Kg wet							
Diethylphthalate	ND	0.34	mg/Kg wet							
2,4-Dimethylphenol	ND	0.34	mg/Kg wet							
Dimethylphthalate	ND	0.34	mg/Kg wet							
4,6-Dinitro-2-methylphenol	ND	0.34	mg/Kg wet							
2,4-Dinitrophenol	ND	0.66	mg/Kg wet							
2,4-Dinitrotoluene	ND	0.34	mg/Kg wet							
2,6-Dinitrotoluene	ND	0.34	mg/Kg wet							
Di-n-octylphthalate	ND	0.34	mg/Kg wet							V-06
1,2-Diphenylhydrazine/Azobenzene	ND	0.34	mg/Kg wet							
Fluoranthene	ND	0.17	mg/Kg wet							
Fluorene	ND	0.17	mg/Kg wet							
Hexachlorobenzene	ND	0.34	mg/Kg wet							
Hexachlorobutadiene	ND	0.34	mg/Kg wet							
Hexachlorocyclopentadiene	ND	0.34	mg/Kg wet							V-05
Hexachloroethane	ND	0.34	mg/Kg wet							
Indeno(1,2,3-cd)pyrene	ND	0.17	mg/Kg wet							
Isophorone	ND	0.34	mg/Kg wet							
1-Methylnaphthalene	ND	0.17	mg/Kg wet							
2-Methylnaphthalene	ND	0.17	mg/Kg wet							

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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 B353275 - SW-846 3546										
Blank (B353275-BLK1)				Prepared: 09/27/23 Analyzed: 09/30/23						
2-Methylphenol	ND	0.34	mg/Kg wet							
3/4-Methylphenol	ND	0.34	mg/Kg wet							
Naphthalene	ND	0.17	mg/Kg wet							
2-Nitroaniline	ND	0.34	mg/Kg wet							
3-Nitroaniline	ND	0.34	mg/Kg wet							
4-Nitroaniline	ND	0.34	mg/Kg wet							
Nitrobenzene	ND	0.34	mg/Kg wet							
2-Nitrophenol	ND	0.34	mg/Kg wet							
4-Nitrophenol	ND	0.66	mg/Kg wet							
N-Nitrosodimethylamine	ND	0.34	mg/Kg wet							
N-Nitrosodiphenylamine/Diphenylamine	ND	0.34	mg/Kg wet							
N-Nitrosodi-n-propylamine	ND	0.34	mg/Kg wet							
Pentachloronitrobenzene	ND	0.34	mg/Kg wet							
Pentachlorophenol	ND	0.34	mg/Kg wet							
Phenanthrene	ND	0.17	mg/Kg wet							
Phenol	ND	0.34	mg/Kg wet							
Pyrene	ND	0.17	mg/Kg wet							
Pyridine	ND	0.34	mg/Kg wet							
1,2,4,5-Tetrachlorobenzene	ND	0.34	mg/Kg wet							
1,2,4-Trichlorobenzene	ND	0.34	mg/Kg wet							
2,4,5-Trichlorophenol	ND	0.34	mg/Kg wet							
2,4,6-Trichlorophenol	ND	0.34	mg/Kg wet							
Surrogate: 2-Fluorophenol	*5.48*		mg/Kg wet	6.67		82.2	30-130			
Surrogate: Phenol-d6	*5.91*		mg/Kg wet	6.67		88.6	30-130			
Surrogate: Nitrobenzene-d5	*2.79*		mg/Kg wet	3.33		83.6	30-130			
Surrogate: 2-Fluorobiphenyl	*2.83*		mg/Kg wet	3.33		85.0	30-130			
Surrogate: 2,4,6-Tribromophenol	*4.59*		mg/Kg wet	6.67		68.9	30-130			
Surrogate: p-Terphenyl-d14	*3.02*		mg/Kg wet	3.33		90.5	30-130			
LCS (B353275-BS1)				Prepared: 09/27/23 Analyzed: 09/30/23						
Acenaphthene	1.35	0.17	mg/Kg wet	1.67		81.0	40-140			
Acenaphthylene	1.36	0.17	mg/Kg wet	1.67		81.3	40-140			
Acetophenone	1.34	0.34	mg/Kg wet	1.67		80.6	40-140			
Aniline	0.995	0.34	mg/Kg wet	1.67		59.7	10-140			†
Anthracene	1.45	0.17	mg/Kg wet	1.67		86.8	40-140			
Benzidine	0.761	0.66	mg/Kg wet	1.67		45.6	40-140			V-04, V-05
Benzo(a)anthracene	1.39	0.17	mg/Kg wet	1.67		83.2	40-140			
Benzo(a)pyrene	1.41	0.17	mg/Kg wet	1.67		84.4	40-140			
Benzo(b)fluoranthene	1.41	0.17	mg/Kg wet	1.67		84.4	40-140			
Benzo(g,h,i)perylene	1.34	0.17	mg/Kg wet	1.67		80.3	40-140			
Benzo(k)fluoranthene	1.49	0.17	mg/Kg wet	1.67		89.5	40-140			
Benzoic Acid	1.32	1.0	mg/Kg wet	1.67		79.3	30-130			
Bis(2-chloroethoxy)methane	1.40	0.34	mg/Kg wet	1.67		83.8	40-140			
Bis(2-chloroethyl)ether	1.52	0.34	mg/Kg wet	1.67		91.0	40-140			V-06
Bis(2-chloroisopropyl)ether	2.06	0.34	mg/Kg wet	1.67		123	40-140			V-06
Bis(2-Ethylhexyl)phthalate	1.65	0.34	mg/Kg wet	1.67		99.0	40-140			V-06
4-Bromophenylphenylether	1.36	0.34	mg/Kg wet	1.67		81.4	40-140			
Butylbenzylphthalate	1.45	0.34	mg/Kg wet	1.67		87.1	40-140			
Carbazole	1.46	0.17	mg/Kg wet	1.67		87.3	40-140			
4-Chloroaniline	1.02	0.66	mg/Kg wet	1.67		61.1	10-140			†
4-Chloro-3-methylphenol	1.35	0.66	mg/Kg wet	1.67		81.2	30-130			
2-Chloronaphthalene	1.20	0.34	mg/Kg wet	1.67		71.8	40-140			

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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 B353275 - SW-846 3546											
LCS (B353275-BS1)				Prepared: 09/27/23 Analyzed: 09/30/23							
2-Chlorophenol	1.27	0.34	mg/Kg wet	1.67		75.9	30-130				
4-Chlorophenylphenylether	1.25	0.34	mg/Kg wet	1.67		74.8	40-140				
Chrysene	1.39	0.17	mg/Kg wet	1.67		83.6	40-140				
Dibenz(a,h)anthracene	1.38	0.17	mg/Kg wet	1.67		82.8	40-140				
Dibenzofuran	1.36	0.34	mg/Kg wet	1.67		81.6	40-140				
Di-n-butylphthalate	1.54	0.34	mg/Kg wet	1.67		92.2	40-140				
1,2-Dichlorobenzene	1.15	0.34	mg/Kg wet	1.67		69.2	40-140				
1,3-Dichlorobenzene	1.10	0.34	mg/Kg wet	1.67		65.9	40-140				
1,4-Dichlorobenzene	1.12	0.34	mg/Kg wet	1.67		67.0	40-140				
3,3-Dichlorobenzidine	1.24	0.17	mg/Kg wet	1.67		74.6	20-140				†
2,4-Dichlorophenol	1.29	0.34	mg/Kg wet	1.67		77.6	30-130				
Diethylphthalate	1.22	0.34	mg/Kg wet	1.67		73.0	40-140				
2,4-Dimethylphenol	1.22	0.34	mg/Kg wet	1.67		73.0	30-130				
Dimethylphthalate	1.26	0.34	mg/Kg wet	1.67		75.7	40-140				
4,6-Dinitro-2-methylphenol	1.57	0.34	mg/Kg wet	1.67		94.3	30-130				
2,4-Dinitrophenol	1.10	0.66	mg/Kg wet	1.67		66.0	30-130				
2,4-Dinitrotoluene	1.23	0.34	mg/Kg wet	1.67		73.7	40-140				
2,6-Dinitrotoluene	1.32	0.34	mg/Kg wet	1.67		79.5	40-140				
Di-n-octylphthalate	1.63	0.34	mg/Kg wet	1.67		97.8	40-140			V-06	
1,2-Diphenylhydrazine/Azobenzene	1.62	0.34	mg/Kg wet	1.67		97.0	40-140				
Fluoranthene	1.47	0.17	mg/Kg wet	1.67		88.0	40-140				
Fluorene	1.27	0.17	mg/Kg wet	1.67		76.3	40-140				
Hexachlorobenzene	1.32	0.34	mg/Kg wet	1.67		79.3	40-140				
Hexachlorobutadiene	1.14	0.34	mg/Kg wet	1.67		68.5	40-140				
Hexachlorocyclopentadiene	0.728	0.34	mg/Kg wet	1.67		43.7	40-140			V-05	
Hexachloroethane	1.13	0.34	mg/Kg wet	1.67		67.8	40-140				
Indeno(1,2,3-cd)pyrene	1.62	0.17	mg/Kg wet	1.67		97.4	40-140				
Isophorone	1.45	0.34	mg/Kg wet	1.67		87.2	40-140				
1-Methylnaphthalene	1.28	0.17	mg/Kg wet	1.67		76.7	40-140				
2-Methylnaphthalene	1.33	0.17	mg/Kg wet	1.67		79.6	40-140				
2-Methylphenol	1.37	0.34	mg/Kg wet	1.67		82.1	30-130				
3/4-Methylphenol	1.45	0.34	mg/Kg wet	1.67		86.8	30-130				
Naphthalene	1.28	0.17	mg/Kg wet	1.67		76.8	40-140				
2-Nitroaniline	1.42	0.34	mg/Kg wet	1.67		85.2	40-140				
3-Nitroaniline	1.14	0.34	mg/Kg wet	1.67		68.5	30-140				†
4-Nitroaniline	1.18	0.34	mg/Kg wet	1.67		71.0	40-140				
Nitrobenzene	1.26	0.34	mg/Kg wet	1.67		75.7	40-140				
2-Nitrophenol	1.27	0.34	mg/Kg wet	1.67		76.5	30-130				
4-Nitrophenol	1.10	0.66	mg/Kg wet	1.67		65.8	30-130				
N-Nitrosodimethylamine	1.19	0.34	mg/Kg wet	1.67		71.5	40-140				
N-Nitrosodiphenylamine/Diphenylamine	1.62	0.34	mg/Kg wet	1.67		97.1	40-140				
N-Nitrosodi-n-propylamine	1.47	0.34	mg/Kg wet	1.67		88.3	40-140				
Pentachloronitrobenzene	1.38	0.34	mg/Kg wet	1.67		83.0	40-140				
Pentachlorophenol	1.22	0.34	mg/Kg wet	1.67		73.4	30-130				
Phenanthrene	1.43	0.17	mg/Kg wet	1.67		86.1	40-140				
Phenol	1.25	0.34	mg/Kg wet	1.67		74.9	30-130				
Pyrene	1.44	0.17	mg/Kg wet	1.67		86.3	40-140				
Pyridine	0.811	0.34	mg/Kg wet	1.67		48.7	30-140				†
1,2,4,5-Tetrachlorobenzene	1.22	0.34	mg/Kg wet	1.67		73.5	40-140				
1,2,4-Trichlorobenzene	1.17	0.34	mg/Kg wet	1.67		70.3	40-140				
2,4,5-Trichlorophenol	1.28	0.34	mg/Kg wet	1.67		77.0	30-130				
2,4,6-Trichlorophenol	1.30	0.34	mg/Kg wet	1.67		77.9	30-130				

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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 B353275 - SW-846 3546											
LCS (B353275-BS1)				Prepared: 09/27/23 Analyzed: 09/30/23							
Surrogate: 2-Fluorophenol	*5.39*		mg/Kg wet	6.67		80.9	30-130				
Surrogate: Phenol-d6	*5.90*		mg/Kg wet	6.67		88.4	30-130				
Surrogate: Nitrobenzene-d5	*2.60*		mg/Kg wet	3.33		78.1	30-130				
Surrogate: 2-Fluorobiphenyl	*2.89*		mg/Kg wet	3.33		86.6	30-130				
Surrogate: 2,4,6-Tribromophenol	*4.71*		mg/Kg wet	6.67		70.6	30-130				
Surrogate: p-Terphenyl-d14	*2.85*		mg/Kg wet	3.33		85.6	30-130				
LCS Dup (B353275-BSD1)				Prepared: 09/27/23 Analyzed: 09/30/23							
Acenaphthene	1.31	0.17	mg/Kg wet	1.67		78.8	40-140	2.68	30		
Acenaphthylene	1.30	0.17	mg/Kg wet	1.67		78.2	40-140	3.89	30		
Acetophenone	1.36	0.34	mg/Kg wet	1.67		81.6	40-140	1.23	30		
Aniline	1.07	0.34	mg/Kg wet	1.67		64.3	10-140	7.39	50		† ‡
Anthracene	1.39	0.17	mg/Kg wet	1.67		83.4	40-140	3.93	30		
Benzidine	0.882	0.66	mg/Kg wet	1.67		52.9	40-140	14.8	30	V-04, V-05	
Benzo(a)anthracene	1.32	0.17	mg/Kg wet	1.67		79.0	40-140	5.08	30		
Benzo(a)pyrene	1.34	0.17	mg/Kg wet	1.67		80.4	40-140	4.90	30		
Benzo(b)fluoranthene	1.36	0.17	mg/Kg wet	1.67		81.4	40-140	3.72	30		
Benzo(g,h,i)perylene	1.29	0.17	mg/Kg wet	1.67		77.6	40-140	3.40	30		
Benzo(k)fluoranthene	1.42	0.17	mg/Kg wet	1.67		85.4	40-140	4.71	30		
Benzoic Acid	1.29	1.0	mg/Kg wet	1.67		77.2	30-130	2.74	50		‡
Bis(2-chloroethoxy)methane	1.45	0.34	mg/Kg wet	1.67		87.2	40-140	4.05	30		
Bis(2-chloroethyl)ether	1.62	0.34	mg/Kg wet	1.67		97.5	40-140	6.94	30	V-06	
Bis(2-chloroisopropyl)ether	2.24	0.34	mg/Kg wet	1.67		135	40-140	8.57	30	V-06	
Bis(2-Ethylhexyl)phthalate	1.61	0.34	mg/Kg wet	1.67		96.8	40-140	2.29	30	V-06	
4-Bromophenylphenylether	1.28	0.34	mg/Kg wet	1.67		76.8	40-140	5.82	30		
Butylbenzylphthalate	1.41	0.34	mg/Kg wet	1.67		84.5	40-140	3.03	30		
Carbazole	1.41	0.17	mg/Kg wet	1.67		84.5	40-140	3.31	30		
4-Chloroaniline	1.01	0.66	mg/Kg wet	1.67		60.9	10-140	0.328	30		†
4-Chloro-3-methylphenol	1.33	0.66	mg/Kg wet	1.67		80.0	30-130	1.39	30		
2-Chloronaphthalene	1.19	0.34	mg/Kg wet	1.67		71.2	40-140	0.727	30		
2-Chlorophenol	1.27	0.34	mg/Kg wet	1.67		76.2	30-130	0.316	30		
4-Chlorophenylphenylether	1.18	0.34	mg/Kg wet	1.67		70.8	40-140	5.47	30		
Chrysene	1.33	0.17	mg/Kg wet	1.67		79.5	40-140	4.93	30		
Dibenz(a,h)anthracene	1.34	0.17	mg/Kg wet	1.67		80.1	40-140	3.34	30		
Dibenzofuran	1.30	0.34	mg/Kg wet	1.67		78.1	40-140	4.36	30		
Di-n-butylphthalate	1.51	0.34	mg/Kg wet	1.67		90.7	40-140	1.62	30		
1,2-Dichlorobenzene	1.17	0.34	mg/Kg wet	1.67		70.2	40-140	1.46	30		
1,3-Dichlorobenzene	1.12	0.34	mg/Kg wet	1.67		67.0	40-140	1.72	30		
1,4-Dichlorobenzene	1.13	0.34	mg/Kg wet	1.67		67.6	40-140	0.951	30		
3,3-Dichlorobenzidine	1.18	0.17	mg/Kg wet	1.67		71.0	20-140	5.03	50		† ‡
2,4-Dichlorophenol	1.26	0.34	mg/Kg wet	1.67		75.5	30-130	2.77	30		
Diethylphthalate	1.18	0.34	mg/Kg wet	1.67		70.9	40-140	2.89	30		
2,4-Dimethylphenol	1.21	0.34	mg/Kg wet	1.67		72.5	30-130	0.770	30		
Dimethylphthalate	1.22	0.34	mg/Kg wet	1.67		73.3	40-140	3.11	30		
4,6-Dinitro-2-methylphenol	1.51	0.34	mg/Kg wet	1.67		90.7	30-130	3.93	30		
2,4-Dinitrophenol	1.04	0.66	mg/Kg wet	1.67		62.6	30-130	5.26	30		
2,4-Dinitrotoluene	1.19	0.34	mg/Kg wet	1.67		71.4	40-140	3.09	30		
2,6-Dinitrotoluene	1.26	0.34	mg/Kg wet	1.67		75.4	40-140	5.19	30		
Di-n-octylphthalate	1.59	0.34	mg/Kg wet	1.67		95.3	40-140	2.63	30	V-06	
1,2-Diphenylhydrazine/Azobenzene	1.66	0.34	mg/Kg wet	1.67		99.8	40-140	2.91	30		
Fluoranthene	1.40	0.17	mg/Kg wet	1.67		83.9	40-140	4.86	30		
Fluorene	1.21	0.17	mg/Kg wet	1.67		72.7	40-140	4.78	30		

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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 B353275 - SW-846 3546										
LCS Dup (B353275-BSD1)				Prepared: 09/27/23 Analyzed: 09/30/23						
Hexachlorobenzene	1.24	0.34	mg/Kg wet	1.67		74.4	40-140	6.33	30	
Hexachlorobutadiene	1.13	0.34	mg/Kg wet	1.67		67.5	40-140	1.41	30	
Hexachlorocyclopentadiene	0.717	0.34	mg/Kg wet	1.67		43.0	40-140	1.61	30	V-05
Hexachloroethane	1.16	0.34	mg/Kg wet	1.67		69.5	40-140	2.48	30	
Indeno(1,2,3-cd)pyrene	1.58	0.17	mg/Kg wet	1.67		94.5	40-140	3.06	30	
Isophorone	1.47	0.34	mg/Kg wet	1.67		88.2	40-140	1.23	30	
1-Methylnaphthalene	1.25	0.17	mg/Kg wet	1.67		75.0	40-140	2.19	30	
2-Methylnaphthalene	1.30	0.17	mg/Kg wet	1.67		78.1	40-140	1.85	30	
2-Methylphenol	1.37	0.34	mg/Kg wet	1.67		82.2	30-130	0.122	30	
3/4-Methylphenol	1.45	0.34	mg/Kg wet	1.67		87.1	30-130	0.437	30	
Naphthalene	1.27	0.17	mg/Kg wet	1.67		76.3	40-140	0.627	30	
2-Nitroaniline	1.44	0.34	mg/Kg wet	1.67		86.4	40-140	1.42	30	
3-Nitroaniline	1.11	0.34	mg/Kg wet	1.67		66.7	30-140	2.57	30	†
4-Nitroaniline	1.18	0.34	mg/Kg wet	1.67		70.9	40-140	0.113	30	
Nitrobenzene	1.31	0.34	mg/Kg wet	1.67		78.8	40-140	3.99	30	
2-Nitrophenol	1.26	0.34	mg/Kg wet	1.67		75.7	30-130	1.05	30	
4-Nitrophenol	1.08	0.66	mg/Kg wet	1.67		65.1	30-130	1.04	50	‡
N-Nitrosodimethylamine	1.28	0.34	mg/Kg wet	1.67		76.8	40-140	7.12	30	
N-Nitrosodiphenylamine/Diphenylamine	1.58	0.34	mg/Kg wet	1.67		94.7	40-140	2.46	30	
N-Nitrosodi-n-propylamine	1.52	0.34	mg/Kg wet	1.67		91.4	40-140	3.52	30	
Pentachloronitrobenzene	1.25	0.34	mg/Kg wet	1.67		75.0	40-140	10.2	30	
Pentachlorophenol	1.10	0.34	mg/Kg wet	1.67		65.9	30-130	10.7	30	
Phenanthrene	1.38	0.17	mg/Kg wet	1.67		82.8	40-140	3.91	30	
Phenol	1.25	0.34	mg/Kg wet	1.67		74.8	30-130	0.187	30	
Pyrene	1.37	0.17	mg/Kg wet	1.67		82.5	40-140	4.55	30	
Pyridine	0.806	0.34	mg/Kg wet	1.67		48.4	30-140	0.618	30	†
1,2,4,5-Tetrachlorobenzene	1.18	0.34	mg/Kg wet	1.67		70.5	40-140	4.17	30	
1,2,4-Trichlorobenzene	1.14	0.34	mg/Kg wet	1.67		68.5	40-140	2.59	30	
2,4,5-Trichlorophenol	1.23	0.34	mg/Kg wet	1.67		74.0	30-130	3.97	30	
2,4,6-Trichlorophenol	1.23	0.34	mg/Kg wet	1.67		73.8	30-130	5.38	30	
Surrogate: 2-Fluorophenol	*5.36*		mg/Kg wet	6.67		80.4	30-130			
Surrogate: Phenol-d6	*5.85*		mg/Kg wet	6.67		87.7	30-130			
Surrogate: Nitrobenzene-d5	*2.64*		mg/Kg wet	3.33		79.3	30-130			
Surrogate: 2-Fluorobiphenyl	*2.75*		mg/Kg wet	3.33		82.5	30-130			
Surrogate: 2,4,6-Tribromophenol	*4.24*		mg/Kg wet	6.67		63.7	30-130			
Surrogate: p-Terphenyl-d14	*2.64*		mg/Kg wet	3.33		79.3	30-130			
Matrix Spike (B353275-MS1)		**Source: 23I0963-04**		Prepared: 09/27/23 Analyzed: 09/30/23						
Acenaphthene	1.67	0.21	mg/Kg dry	2.07	ND	80.6	40-140			
Acenaphthylene	1.67	0.21	mg/Kg dry	2.07	ND	80.6	40-140			
Acetophenone	1.69	0.42	mg/Kg dry	2.07	ND	81.9	40-140			
Aniline	1.27	0.42	mg/Kg dry	2.07	ND	61.4	40-140			
Anthracene	1.74	0.21	mg/Kg dry	2.07	ND	84.0	40-140			
Benzidine	1.16	0.82	mg/Kg dry	2.07	ND	56.0	40-140			V-04, V-05
Benzo(a)anthracene	1.66	0.21	mg/Kg dry	2.07	ND	80.2	40-140			
Benzo(a)pyrene	1.69	0.21	mg/Kg dry	2.07	ND	81.6	40-140			
Benzo(b)fluoranthene	1.61	0.21	mg/Kg dry	2.07	ND	77.8	40-140			
Benzo(g,h,i)perylene	1.77	0.21	mg/Kg dry	2.07	ND	85.5	40-140			
Benzo(k)fluoranthene	1.89	0.21	mg/Kg dry	2.07	ND	91.4	40-140			
Benzoic Acid	1.76	1.2	mg/Kg dry	2.07	ND	85.2	40-140			
Bis(2-chloroethoxy)methane	1.78	0.42	mg/Kg dry	2.07	ND	86.1	40-140			
Bis(2-chloroethyl)ether	1.96	0.42	mg/Kg dry	2.07	ND	94.9	40-140			V-06

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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 B353275 - SW-846 3546											
Matrix Spike (B353275-MS1)	**Source: 23I0963-04**			Prepared: 09/27/23 Analyzed: 09/30/23							
Bis(2-chloroisopropyl)ether	2.65	0.42	mg/Kg dry	2.07	ND	128		40-140			V-06
Bis(2-Ethylhexyl)phthalate	2.09	0.42	mg/Kg dry	2.07	ND	101		40-140			V-06
4-Bromophenylphenylether	1.59	0.42	mg/Kg dry	2.07	ND	76.7		40-140			
Butylbenzylphthalate	1.83	0.42	mg/Kg dry	2.07	ND	88.5		40-140			
Carbazole	1.81	0.21	mg/Kg dry	2.07	ND	87.5		40-140			
4-Chloroaniline	1.26	0.82	mg/Kg dry	2.07	ND	60.9		40-140			
4-Chloro-3-methylphenol	1.63	0.82	mg/Kg dry	2.07	ND	78.8		30-130			
2-Chloronaphthalene	1.37	0.42	mg/Kg dry	2.07	ND	66.2		40-140			
2-Chlorophenol	1.57	0.42	mg/Kg dry	2.07	ND	76.2		30-130			
4-Chlorophenylphenylether	1.50	0.42	mg/Kg dry	2.07	ND	72.7		40-140			
Chrysene	1.66	0.21	mg/Kg dry	2.07	ND	80.5		40-140			
Dibenz(a,h)anthracene	1.75	0.21	mg/Kg dry	2.07	ND	84.9		40-140			
Dibenzofuran	1.65	0.42	mg/Kg dry	2.07	ND	79.9		40-140			
Di-n-butylphthalate	1.91	0.42	mg/Kg dry	2.07	ND	92.5		40-140			
1,2-Dichlorobenzene	1.52	0.42	mg/Kg dry	2.07	ND	73.8		40-140			
1,3-Dichlorobenzene	1.46	0.42	mg/Kg dry	2.07	ND	70.9		40-140			
1,4-Dichlorobenzene	1.47	0.42	mg/Kg dry	2.07	ND	71.3		40-140			
3,3-Dichlorobenzidine	1.46	0.21	mg/Kg dry	2.07	ND	70.6		40-140			
2,4-Dichlorophenol	1.60	0.42	mg/Kg dry	2.07	ND	77.5		30-130			
Diethylphthalate	1.48	0.42	mg/Kg dry	2.07	ND	71.8		40-140			
2,4-Dimethylphenol	1.52	0.42	mg/Kg dry	2.07	ND	73.6		30-130			
Dimethylphthalate	1.55	0.42	mg/Kg dry	2.07	ND	75.2		40-140			
4,6-Dinitro-2-methylphenol	1.87	0.42	mg/Kg dry	2.07	ND	90.7		30-130			
2,4-Dinitrophenol	1.45	0.82	mg/Kg dry	2.07	ND	70.1		30-130			
2,4-Dinitrotoluene	1.52	0.42	mg/Kg dry	2.07	ND	73.6		40-140			
2,6-Dinitrotoluene	1.60	0.42	mg/Kg dry	2.07	ND	77.6		40-140			
Di-n-octylphthalate	2.56	0.42	mg/Kg dry	2.07	ND	124		40-140			V-06
1,2-Diphenylhydrazine/Azobenzene	1.92	0.42	mg/Kg dry	2.07	ND	93.0		40-140			
Fluoranthene	1.84	0.21	mg/Kg dry	2.07	ND	89.1		40-140			
Fluorene	1.55	0.21	mg/Kg dry	2.07	ND	74.8		40-140			
Hexachlorobenzene	1.58	0.42	mg/Kg dry	2.07	ND	76.4		40-140			
Hexachlorobutadiene	1.52	0.42	mg/Kg dry	2.07	ND	73.3		40-140			
Hexachlorocyclopentadiene	0.603	0.42	mg/Kg dry	2.07	ND	**29.2**	*	30-130			MS-07A, V-05
Hexachloroethane	1.45	0.42	mg/Kg dry	2.07	ND	70.4		40-140			
Indeno(1,2,3-cd)pyrene	2.07	0.21	mg/Kg dry	2.07	ND	100		40-140			
Isophorone	1.85	0.42	mg/Kg dry	2.07	ND	89.3		40-140			
1-Methylnaphthalene	1.58	0.21	mg/Kg dry	2.07	ND	76.6		40-140			
2-Methylnaphthalene	1.66	0.21	mg/Kg dry	2.07	ND	80.5		40-140			
2-Methylphenol	1.66	0.42	mg/Kg dry	2.07	ND	80.3		30-130			
3/4-Methylphenol	1.78	0.42	mg/Kg dry	2.07	ND	86.3		30-130			
Naphthalene	1.65	0.21	mg/Kg dry	2.07	ND	79.7		40-140			
2-Nitroaniline	1.75	0.42	mg/Kg dry	2.07	ND	84.8		40-140			
3-Nitroaniline	1.45	0.42	mg/Kg dry	2.07	ND	70.1		40-140			
4-Nitroaniline	1.49	0.42	mg/Kg dry	2.07	ND	72.2		40-140			
Nitrobenzene	1.64	0.42	mg/Kg dry	2.07	ND	79.3		40-140			
2-Nitrophenol	1.61	0.42	mg/Kg dry	2.07	ND	78.0		30-130			
4-Nitrophenol	1.43	0.82	mg/Kg dry	2.07	ND	69.3		30-130			
N-Nitrosodimethylamine	1.60	0.42	mg/Kg dry	2.07	ND	77.5		40-140			
N-Nitrosodiphenylamine/Diphenylamine	1.91	0.42	mg/Kg dry	2.07	ND	92.6		40-140			
N-Nitrosodi-n-propylamine	1.82	0.42	mg/Kg dry	2.07	ND	87.8		40-140			
Pentachloronitrobenzene	1.60	0.42	mg/Kg dry	2.07	ND	77.6		40-140			
Pentachlorophenol	1.55	0.42	mg/Kg dry	2.07	ND	75.2		30-130			

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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 B353275 - SW-846 3546											
Matrix Spike (B353275-MS1)	**Source: 23I0963-04**			Prepared: 09/27/23 Analyzed: 09/30/23							
Phenanthrene	1.73	0.21	mg/Kg dry	2.07	ND	83.9		40-140			
Phenol	1.52	0.42	mg/Kg dry	2.07	ND	73.5		30-130			
Pyrene	1.83	0.21	mg/Kg dry	2.07	ND	88.5		40-140			
Pyridine	1.09	0.42	mg/Kg dry	2.07	ND	52.8		40-140			
1,2,4,5-Tetrachlorobenzene	1.54	0.42	mg/Kg dry	2.07	ND	74.3		40-140			
1,2,4-Trichlorobenzene	1.52	0.42	mg/Kg dry	2.07	ND	73.7		40-140			
2,4,5-Trichlorophenol	1.57	0.42	mg/Kg dry	2.07	ND	76.1		30-130			
2,4,6-Trichlorophenol	1.61	0.42	mg/Kg dry	2.07	ND	77.9		30-130			
Surrogate: 2-Fluorophenol	*6.79*		mg/Kg dry	8.27		82.1		30-130			
Surrogate: Phenol-d6	*7.19*		mg/Kg dry	8.27		87.0		30-130			
Surrogate: Nitrobenzene-d5	*3.34*		mg/Kg dry	4.13		80.8		30-130			
Surrogate: 2-Fluorobiphenyl	*3.52*		mg/Kg dry	4.13		85.2		30-130			
Surrogate: 2,4,6-Tribromophenol	*5.68*		mg/Kg dry	8.27		68.7		30-130			
Surrogate: p-Terphenyl-d14	*3.57*		mg/Kg dry	4.13		86.4		30-130			
Matrix Spike Dup (B353275-MSD1)	**Source: 23I0963-04**			Prepared: 09/27/23 Analyzed: 09/30/23							
Acenaphthene	1.73	0.21	mg/Kg dry	2.07	ND	83.7		40-140	3.75	30	
Acenaphthylene	1.73	0.21	mg/Kg dry	2.07	ND	83.6		40-140	3.68	30	
Acetophenone	1.77	0.42	mg/Kg dry	2.07	ND	85.5		40-140	4.35	30	
Aniline	1.47	0.42	mg/Kg dry	2.07	ND	71.2		40-140	14.7	30	
Anthracene	1.81	0.21	mg/Kg dry	2.07	ND	87.3		40-140	3.92	30	
Benzidine	1.25	0.82	mg/Kg dry	2.07	ND	60.3		40-140	7.46	30	V-04, V-05
Benzo(a)anthracene	1.71	0.21	mg/Kg dry	2.07	ND	82.5		40-140	2.80	30	
Benzo(a)pyrene	1.74	0.21	mg/Kg dry	2.07	ND	84.3		40-140	3.28	30	
Benzo(b)fluoranthene	1.85	0.21	mg/Kg dry	2.07	ND	89.6		40-140	14.1	30	
Benzo(g,h,i)perylene	1.75	0.21	mg/Kg dry	2.07	ND	84.8		40-140	0.822	30	
Benzo(k)fluoranthene	1.97	0.21	mg/Kg dry	2.07	ND	95.2		40-140	4.09	30	
Benzoic Acid	1.76	1.2	mg/Kg dry	2.07	ND	85.0		40-140	0.235	30	
Bis(2-chloroethoxy)methane	1.89	0.42	mg/Kg dry	2.07	ND	91.7		40-140	6.30	30	
Bis(2-chloroethyl)ether	2.14	0.42	mg/Kg dry	2.07	ND	104		40-140	8.73	30	V-06
Bis(2-chloroisopropyl)ether	2.95	0.42	mg/Kg dry	2.07	ND	**143**	*	40-140	10.7	30	MS-07A, V-06
Bis(2-Ethylhexyl)phthalate	2.21	0.42	mg/Kg dry	2.07	ND	107		40-140	5.64	30	V-06
4-Bromophenylphenylether	1.61	0.42	mg/Kg dry	2.07	ND	78.0		40-140	1.63	30	
Butylbenzylphthalate	1.92	0.42	mg/Kg dry	2.07	ND	93.1		40-140	5.13	30	
Carbazole	1.86	0.21	mg/Kg dry	2.07	ND	90.0		40-140	2.82	30	
4-Chloroaniline	1.36	0.82	mg/Kg dry	2.07	ND	65.9		40-140	7.85	30	
4-Chloro-3-methylphenol	1.73	0.82	mg/Kg dry	2.07	ND	83.7		30-130	6.03	30	
2-Chloronaphthalene	1.42	0.42	mg/Kg dry	2.07	ND	68.9		40-140	4.09	30	
2-Chlorophenol	1.65	0.42	mg/Kg dry	2.07	ND	80.0		30-130	4.97	30	
4-Chlorophenylphenylether	1.54	0.42	mg/Kg dry	2.07	ND	74.4		40-140	2.31	30	
Chrysene	1.72	0.21	mg/Kg dry	2.07	ND	83.3		40-140	3.42	30	
Dibenz(a,h)anthracene	1.75	0.21	mg/Kg dry	2.07	ND	84.6		40-140	0.401	30	
Dibenzofuran	1.71	0.42	mg/Kg dry	2.07	ND	82.6		40-140	3.37	30	
Di-n-butylphthalate	1.99	0.42	mg/Kg dry	2.07	ND	96.1		40-140	3.73	30	
1,2-Dichlorobenzene	1.57	0.42	mg/Kg dry	2.07	ND	76.2		40-140	3.25	30	
1,3-Dichlorobenzene	1.54	0.42	mg/Kg dry	2.07	ND	74.3		40-140	4.74	30	
1,4-Dichlorobenzene	1.53	0.42	mg/Kg dry	2.07	ND	74.0		40-140	3.77	30	
3,3-Dichlorobenzidine	1.62	0.21	mg/Kg dry	2.07	ND	78.5		40-140	10.6	30	
2,4-Dichlorophenol	1.62	0.42	mg/Kg dry	2.07	ND	78.3		30-130	0.950	30	
Diethylphthalate	1.57	0.42	mg/Kg dry	2.07	ND	75.8		40-140	5.39	30	
2,4-Dimethylphenol	1.56	0.42	mg/Kg dry	2.07	ND	75.4		30-130	2.36	30	
Dimethylphthalate	1.64	0.42	mg/Kg dry	2.07	ND	79.4		40-140	5.33	30	

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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 B353275 - SW-846 3546										
Matrix Spike Dup (B353275-MSD1)	**Source: 23I0963-04**			Prepared: 09/27/23 Analyzed: 09/30/23						
4,6-Dinitro-2-methylphenol	1.94	0.42	mg/Kg dry	2.07	ND	94.0	30-130	3.57	30	
2,4-Dinitrophenol	1.39	0.82	mg/Kg dry	2.07	ND	67.5	30-130	3.87	30	
2,4-Dinitrotoluene	1.58	0.42	mg/Kg dry	2.07	ND	76.4	40-140	3.74	30	
2,6-Dinitrotoluene	1.69	0.42	mg/Kg dry	2.07	ND	81.9	40-140	5.39	30	
Di-n-octylphthalate	2.69	0.42	mg/Kg dry	2.07	ND	130	40-140	4.96	30	V-06
1,2-Diphenylhydrazine/Azobenzene	2.10	0.42	mg/Kg dry	2.07	ND	102	40-140	9.07	30	
Fluoranthene	1.89	0.21	mg/Kg dry	2.07	ND	91.4	40-140	2.48	30	
Fluorene	1.62	0.21	mg/Kg dry	2.07	ND	78.2	40-140	4.42	30	
Hexachlorobenzene	1.59	0.42	mg/Kg dry	2.07	ND	77.1	40-140	0.860	30	
Hexachlorobutadiene	1.51	0.42	mg/Kg dry	2.07	ND	72.8	40-140	0.684	30	
Hexachlorocyclopentadiene	0.641	0.42	mg/Kg dry	2.07	ND	31.0	30-130	6.12	30	V-05
Hexachloroethane	1.54	0.42	mg/Kg dry	2.07	ND	74.6	40-140	5.90	30	
Indeno(1,2,3-cd)pyrene	2.05	0.21	mg/Kg dry	2.07	ND	99.1	40-140	1.12	30	
Isophorone	1.94	0.42	mg/Kg dry	2.07	ND	93.9	40-140	5.00	30	
1-Methylnaphthalene	1.62	0.21	mg/Kg dry	2.07	ND	78.6	40-140	2.50	30	
2-Methylnaphthalene	1.71	0.21	mg/Kg dry	2.07	ND	83.0	40-140	3.08	30	
2-Methylphenol	1.74	0.42	mg/Kg dry	2.07	ND	84.3	30-130	4.86	30	
3/4-Methylphenol	1.83	0.42	mg/Kg dry	2.07	ND	88.4	30-130	2.31	30	
Naphthalene	1.70	0.21	mg/Kg dry	2.07	ND	82.5	40-140	3.38	30	
2-Nitroaniline	1.94	0.42	mg/Kg dry	2.07	ND	93.9	40-140	10.1	30	
3-Nitroaniline	1.58	0.42	mg/Kg dry	2.07	ND	76.6	40-140	8.86	30	
4-Nitroaniline	1.60	0.42	mg/Kg dry	2.07	ND	77.5	40-140	7.08	30	
Nitrobenzene	1.76	0.42	mg/Kg dry	2.07	ND	85.3	40-140	7.22	30	
2-Nitrophenol	1.66	0.42	mg/Kg dry	2.07	ND	80.3	30-130	2.98	30	
4-Nitrophenol	1.52	0.82	mg/Kg dry	2.07	ND	73.7	30-130	6.15	30	
N-Nitrosodimethylamine	1.77	0.42	mg/Kg dry	2.07	ND	85.7	40-140	10.0	30	
N-Nitrosodiphenylamine/Diphenylamine	2.01	0.42	mg/Kg dry	2.07	ND	97.0	40-140	4.62	30	
N-Nitrosodi-n-propylamine	1.97	0.42	mg/Kg dry	2.07	ND	95.3	40-140	8.15	30	
Pentachloronitrobenzene	1.61	0.42	mg/Kg dry	2.07	ND	78.0	40-140	0.540	30	
Pentachlorophenol	1.55	0.42	mg/Kg dry	2.07	ND	75.1	30-130	0.133	30	
Phenanthrene	1.79	0.21	mg/Kg dry	2.07	ND	86.7	40-140	3.31	30	
Phenol	1.62	0.42	mg/Kg dry	2.07	ND	78.3	30-130	6.40	30	
Pyrene	1.87	0.21	mg/Kg dry	2.07	ND	90.7	40-140	2.41	30	
Pyridine	1.14	0.42	mg/Kg dry	2.07	ND	55.3	40-140	4.59	30	
1,2,4,5-Tetrachlorobenzene	1.58	0.42	mg/Kg dry	2.07	ND	76.4	40-140	2.76	30	
1,2,4-Trichlorobenzene	1.54	0.42	mg/Kg dry	2.07	ND	74.5	40-140	1.16	30	
2,4,5-Trichlorophenol	1.64	0.42	mg/Kg dry	2.07	ND	79.3	30-130	4.09	30	
2,4,6-Trichlorophenol	1.65	0.42	mg/Kg dry	2.07	ND	79.6	30-130	2.21	30	
Surrogate: 2-Fluorophenol	*7.06*		mg/Kg dry	8.27		85.4	30-130			
Surrogate: Phenol-d6	*7.55*		mg/Kg dry	8.27		91.3	30-130			
Surrogate: Nitrobenzene-d5	*3.55*		mg/Kg dry	4.13		86.0	30-130			
Surrogate: 2-Fluorobiphenyl	*3.60*		mg/Kg dry	4.13		87.2	30-130			
Surrogate: 2,4,6-Tribromophenol	*5.78*		mg/Kg dry	8.27		69.9	30-130			
Surrogate: p-Terphenyl-d14	*3.62*		mg/Kg dry	4.13		87.5	30-130			

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QUALITY CONTROL

Polychlorinated Biphenyls with 3540 Soxhlet Extraction - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B351933 - SW-846 3540C										
Blank (B351933-BLK1)				Prepared: 09/14/23 Analyzed: 09/19/23						
Aroclor-1016	ND	0.020	mg/Kg wet							
Aroclor-1016 [2C]	ND	0.020	mg/Kg wet							
Aroclor-1221	ND	0.020	mg/Kg wet							
Aroclor-1221 [2C]	ND	0.020	mg/Kg wet							
Aroclor-1232	ND	0.020	mg/Kg wet							
Aroclor-1232 [2C]	ND	0.020	mg/Kg wet							
Aroclor-1242	ND	0.020	mg/Kg wet							
Aroclor-1242 [2C]	ND	0.020	mg/Kg wet							
Aroclor-1248	ND	0.020	mg/Kg wet							
Aroclor-1248 [2C]	ND	0.020	mg/Kg wet							
Aroclor-1254	ND	0.020	mg/Kg wet							
Aroclor-1254 [2C]	ND	0.020	mg/Kg wet							
Aroclor-1260	ND	0.020	mg/Kg wet							
Aroclor-1260 [2C]	ND	0.020	mg/Kg wet							
Aroclor-1262	ND	0.020	mg/Kg wet							
Aroclor-1262 [2C]	ND	0.020	mg/Kg wet							
Aroclor-1268	ND	0.020	mg/Kg wet							
Aroclor-1268 [2C]	ND	0.020	mg/Kg wet							
Surrogate: Decachlorobiphenyl	*0.190*		mg/Kg wet	0.200		95.0	30-150			
Surrogate: Decachlorobiphenyl [2C]	*0.174*		mg/Kg wet	0.200		87.2	30-150			
Surrogate: Tetrachloro-m-xylene	*0.178*		mg/Kg wet	0.200		89.0	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*0.168*		mg/Kg wet	0.200		84.2	30-150			
LCS (B351933-BS1)				Prepared: 09/14/23 Analyzed: 09/19/23						
Aroclor-1016	0.17	0.020	mg/Kg wet	0.200		83.7	40-140			
Aroclor-1016 [2C]	0.17	0.020	mg/Kg wet	0.200		84.2	40-140			
Aroclor-1260	0.16	0.020	mg/Kg wet	0.200		79.4	40-140			
Aroclor-1260 [2C]	0.15	0.020	mg/Kg wet	0.200		75.1	40-140			
Surrogate: Decachlorobiphenyl	*0.186*		mg/Kg wet	0.200		92.8	30-150			
Surrogate: Decachlorobiphenyl [2C]	*0.176*		mg/Kg wet	0.200		87.9	30-150			
Surrogate: Tetrachloro-m-xylene	*0.182*		mg/Kg wet	0.200		90.8	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*0.179*		mg/Kg wet	0.200		89.6	30-150			
LCS Dup (B351933-BSD1)				Prepared: 09/14/23 Analyzed: 09/19/23						
Aroclor-1016	0.17	0.020	mg/Kg wet	0.200		84.6	40-140	1.06	30	
Aroclor-1016 [2C]	0.17	0.020	mg/Kg wet	0.200		86.5	40-140	2.64	30	
Aroclor-1260	0.17	0.020	mg/Kg wet	0.200		84.8	40-140	6.53	30	
Aroclor-1260 [2C]	0.16	0.020	mg/Kg wet	0.200		79.9	40-140	6.20	30	
Surrogate: Decachlorobiphenyl	*0.188*		mg/Kg wet	0.200		94.0	30-150			
Surrogate: Decachlorobiphenyl [2C]	*0.182*		mg/Kg wet	0.200		91.0	30-150			
Surrogate: Tetrachloro-m-xylene	*0.189*		mg/Kg wet	0.200		94.5	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*0.186*		mg/Kg wet	0.200		93.2	30-150			

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QUALITY CONTROL

Metals Analyses (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B351913 - SW-846 7471										
Blank (B351913-BLK1)				Prepared: 09/14/23 Analyzed: 09/18/23						
Mercury	ND	0.023	mg/Kg wet							
LCS (B351913-BS1)				Prepared: 09/14/23 Analyzed: 09/18/23						
Mercury	24.9	3.7	mg/Kg wet	25.6		97.1	67.2-132.8			
LCS Dup (B351913-BSD1)				Prepared: 09/14/23 Analyzed: 09/18/23						
Mercury	22.0	3.7	mg/Kg wet	25.6		86.1	67.2-132.8	12.0	20	
Batch B352185 - SW-846 7471										
Blank (B352185-BLK1)				Prepared: 09/18/23 Analyzed: 09/19/23						
Mercury	ND	0.024	mg/Kg wet							
LCS (B352185-BS1)				Prepared: 09/18/23 Analyzed: 09/19/23						
Mercury	25.4	3.7	mg/Kg wet	25.6		99.2	67.2-132.8			
LCS Dup (B352185-BSD1)				Prepared: 09/18/23 Analyzed: 09/19/23						
Mercury	28.2	3.7	mg/Kg wet	25.6		110	67.2-132.8	10.4	20	
Batch B352500 - SW-846 3050B										
Blank (B352500-BLK1)				Prepared: 09/15/23 Analyzed: 09/19/23						
Antimony	ND	1.6	mg/Kg wet							
Arsenic	ND	3.2	mg/Kg wet							
Barium	ND	1.6	mg/Kg wet							
Beryllium	ND	0.16	mg/Kg wet							
Cadmium	ND	0.32	mg/Kg wet							
Chromium	ND	0.65	mg/Kg wet							
Copper	ND	0.65	mg/Kg wet							
Lead	ND	0.49	mg/Kg wet							
Nickel	ND	0.65	mg/Kg wet							
Silver	ND	0.32	mg/Kg wet							
Thallium	ND	1.6	mg/Kg wet							
Zinc	ND	0.65	mg/Kg wet							
Blank (B352500-BLK2)				Prepared: 09/15/23 Analyzed: 09/20/23						
Selenium	ND	3.2	mg/Kg wet							
LCS (B352500-BS1)				Prepared: 09/15/23 Analyzed: 09/19/23						
Antimony	105	4.7	mg/Kg wet	144		73.0	6.3-193.8			
Arsenic	179	9.4	mg/Kg wet	180		99.2	81.1-119.4			
Barium	373	4.7	mg/Kg wet	354		105	81.6-118.1			
Beryllium	159	0.47	mg/Kg wet	152		105	82.9-117.8			
Cadmium	113	0.94	mg/Kg wet	105		108	82.8-118.1			
Chromium	251	1.9	mg/Kg wet	232		108	81.5-118.5			
Copper	138	1.9	mg/Kg wet	124		111	83.1-116.9			
Lead	150	1.4	mg/Kg wet	145		104	82.1-117.9			
Nickel	116	1.9	mg/Kg wet	108		108	85.2-117.6			
Silver	56.4	0.94	mg/Kg wet	47.3		119	79.5-120.5			
Thallium	180	4.7	mg/Kg wet	172		105	80.8-118.6			
Zinc	386	1.9	mg/Kg wet	369		105	80.2-120.1			

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QUALITY CONTROL

Metals Analyses (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B352500 - SW-846 3050B										
LCS (B352500-BS2)				Prepared: 09/15/23 Analyzed: 09/20/23						
Selenium	91.7	9.4	mg/Kg wet	96.3		95.3	78.8-121.5			
LCS Dup (B352500-BSD1)				Prepared: 09/15/23 Analyzed: 09/19/23						
Antimony	104	4.9	mg/Kg wet	144		72.0	6.3-193.8	1.44	30	
Arsenic	172	9.8	mg/Kg wet	180		95.8	81.1-119.4	3.48	30	
Barium	372	4.9	mg/Kg wet	354		105	81.6-118.1	0.237	20	
Beryllium	159	0.49	mg/Kg wet	152		104	82.9-117.8	0.422	30	
Cadmium	110	0.98	mg/Kg wet	105		105	82.8-118.1	2.84	20	
Chromium	246	2.0	mg/Kg wet	232		106	81.5-118.5	2.02	30	
Copper	136	2.0	mg/Kg wet	124		110	83.1-116.9	1.11	30	
Lead	146	1.5	mg/Kg wet	145		100	82.1-117.9	3.01	30	
Nickel	114	2.0	mg/Kg wet	108		105	85.2-117.6	2.42	30	
Silver	55.5	0.98	mg/Kg wet	47.3		117	79.5-120.5	1.72	30	
Thallium	173	4.9	mg/Kg wet	172		101	80.8-118.6	3.92	30	
Zinc	379	2.0	mg/Kg wet	369		103	80.2-120.1	1.78	30	
LCS Dup (B352500-BSD2)				Prepared: 09/15/23 Analyzed: 09/20/23						
Selenium	88.5	9.8	mg/Kg wet	96.3		91.9	78.8-121.5	3.63	30	
Reference (B352500-SRM1) MRL Check				Prepared: 09/15/23 Analyzed: 09/19/23						
Lead	0.547	0.48	mg/Kg wet	0.480		114	80-120			

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IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

SW-846 8082A

LCS

Lab Sample ID: B351933-BS1 Date(s) Analyzed: 09/19/2023 09/19/2023

Instrument ID (1): ECD11 Instrument ID (2): ECD11

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%RPD
			FROM	TO		
Aroclor-1016	1	0.000	-0.030	0.030	0.17	
	2	0.000	-0.030	0.030	0.17	0.0
Aroclor-1260	1	0.000	-0.030	0.030	0.16	
	2	0.000	-0.030	0.030	0.15	6.5

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IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

SW-846 8082A

LCS Dup

Lab Sample ID: B351933-BSD1 Date(s) Analyzed: 09/19/2023 09/19/2023

Instrument ID (1): ECD11 Instrument ID (2): ECD11

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%RPD
			FROM	TO		
Aroclor-1016	1	0.000	-0.030	0.030	0.17	
	2	0.000	-0.030	0.030	0.17	0.0
Aroclor-1260	1	0.000	-0.030	0.030	0.17	
	2	0.000	-0.030	0.030	0.16	6.1

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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.
H-06	Sample was extracted past the recommended holding time.
L-07	Either laboratory fortified blank/laboratory control sample or duplicate recovery is outside of control limits, but the other is within limits. RPD between the two LFB/LCS results is within method specified criteria.
MS-07A	Matrix spike and spike duplicate recovery is outside of control limits. Analysis is in control based on laboratory fortified blank recovery. Possibility of matrix effects that lead to low bias or non-homogeneous sample aliquot cannot be eliminated.
V-04	Initial calibration did not meet method specifications. Compound was calibrated using a response factor where %RSD is outside of method specified criteria. Reported result is estimated.
V-05	Continuing calibration verification (CCV) did not meet method specifications and was biased on the low side for this compound.
V-06	Continuing calibration verification (CCV) did not meet method specifications and was biased on the high side for this compound.
V-34	Initial calibration verification (ICV) did not meet method specifications and was biased on the low side for this compound. Reported result is estimated.
V-35	Initial calibration verification (ICV) did not meet method specifications and was biased on the high side for this compound. Reported result is estimated.

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CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
SW-846 6010D in Soil	
Antimony	CT,NH,NY,ME,VA,NC
Arsenic	CT,NH,NY,ME,VA,NC
Barium	CT,NH,NY,ME,VA,NC
Beryllium	CT,NH,NY,ME,VA,NC
Cadmium	CT,NH,NY,ME,VA,NC
Chromium	CT,NH,NY,ME,VA,NC
Copper	CT,NH,NY,ME,VA,NC
Lead	CT,NH,NY,AIHA,ME,VA,NC
Nickel	CT,NH,NY,ME,VA,NC
Selenium	CT,NH,NY,ME,VA,NC
Silver	CT,NH,NY,ME,VA,NC
Thallium	CT,NH,NY,ME,VA,NC
Zinc	CT,NH,NY,ME,VA,NC
SW-846 6010D in Water	
Antimony	CT,NH,NY,ME,VA,NC
Arsenic	CT,NH,NY,ME,VA,RI,NC
Barium	CT,NH,NY,ME,VA,NC
Beryllium	CT,NH,NY,ME,VA,NC
Cadmium	CT,NH,NY,ME,VA,NC
Chromium	CT,NH,NY,ME,VA,NC
Copper	CT,NH,NY,ME,VA,NC
Lead	CT,NH,NY,ME,VA,NC
Nickel	CT,NH,NY,ME,VA,NC
Selenium	CT,NH,NY,ME,VA,NC
Silver	CT,NH,NY,ME,VA,NC
Thallium	CT,NH,NY,VA,NC
Zinc	CT,NH,NY,ME,VA,NC
SW-846 7471B in Soil	
Mercury	CT,NH,NY,NC,ME,VA
SW-846 8082A in Soil	
Aroclor-1016	CT,NH,NY,ME,NC,VA,PA
Aroclor-1016 [2C]	CT,NH,NY,ME,NC,VA,PA
Aroclor-1221	CT,NH,NY,ME,NC,VA,PA
Aroclor-1221 [2C]	CT,NH,NY,ME,NC,VA,PA
Aroclor-1232	CT,NH,NY,ME,NC,VA,PA
Aroclor-1232 [2C]	CT,NH,NY,ME,NC,VA,PA
Aroclor-1242	CT,NH,NY,ME,NC,VA,PA
Aroclor-1242 [2C]	CT,NH,NY,ME,NC,VA,PA
Aroclor-1248	CT,NH,NY,ME,NC,VA,PA
Aroclor-1248 [2C]	CT,NH,NY,ME,NC,VA,PA
Aroclor-1254	CT,NH,NY,ME,NC,VA,PA
Aroclor-1254 [2C]	CT,NH,NY,ME,NC,VA,PA
Aroclor-1260	CT,NH,NY,ME,NC,VA,PA
Aroclor-1260 [2C]	CT,NH,NY,ME,NC,VA,PA
Aroclor-1262	NY,NC,VA,PA
Aroclor-1262 [2C]	NY,NC,VA,PA

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CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
SW-846 8082A in Soil	
Aroclor-1268	NY,NC,VA,PA
Aroclor-1268 [2C]	NY,NC,VA,PA
SW-846 8260D in Soil	
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
1,4-Dioxane	NY,ME

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CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
SW-846 8260D in Soil	
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
SW-846 8260D in Water	
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
Bromochloromethane	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
tert-Butyl Ethyl Ether (TBEE)	ME,NH,VA,NY

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CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
SW-846 8260D in Water	
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
Tetrachloroethylene	CT,ME,NH,VA,NY

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CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
SW-846 8260D in Water	
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
SW-846 8270E in Soil	
Acenaphthene	CT,NY,NH,ME,NC,VA
Acenaphthylene	CT,NY,NH,ME,NC,VA
Acetophenone	NY,NH,ME,NC,VA
Aniline	NY,NH,ME,NC,VA
Anthracene	CT,NY,NH,ME,NC,VA
Benzidine	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
Benzoic Acid	NY,NH,ME,NC,VA
Bis(2-chloroethoxy)methane	CT,NY,NH,ME,NC,VA
Bis(2-chloroethyl)ether	CT,NY,NH,ME,NC,VA
Bis(2-chloroisopropyl)ether	CT,NY,NH,ME,NC,VA
Bis(2-Ethylhexyl)phthalate	CT,NY,NH,ME,NC,VA
4-Bromophenylphenylether	CT,NY,NH,ME,NC,VA
Butylbenzylphthalate	CT,NY,NH,ME,NC,VA
Carbazole	NC
4-Chloroaniline	CT,NY,NH,ME,NC,VA
4-Chloro-3-methylphenol	CT,NY,NH,ME,NC,VA
2-Chloronaphthalene	CT,NY,NH,NC,VA
2-Chlorophenol	CT,NY,NH,ME,NC,VA
4-Chlorophenylphenylether	CT,NY,NH,ME,NC,VA
Chrysene	CT,NY,NH,ME,NC,VA
Dibenz(a,h)anthracene	CT,NY,NH,ME,NC,VA
Dibenzofuran	CT,NY,NH,ME,NC,VA
Di-n-butylphthalate	CT,NY,NH,ME,NC,VA
1,2-Dichlorobenzene	NY,NH,ME,NC,VA
1,3-Dichlorobenzene	NY,NH,ME,NC,VA

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CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
SW-846 8270E in Soil	
1,4-Dichlorobenzene	NY,NH,ME,NC,VA
3,3-Dichlorobenzidine	CT,NY,NH,ME,NC,VA
2,4-Dichlorophenol	CT,NY,NH,ME,NC,VA
Diethylphthalate	CT,NY,NH,ME,NC,VA
2,4-Dimethylphenol	CT,NY,NH,ME,NC,VA
Dimethylphthalate	CT,NY,NH,ME,NC,VA
4,6-Dinitro-2-methylphenol	CT,NY,NH,ME,NC,VA
2,4-Dinitrophenol	CT,NY,NH,ME,NC,VA
2,4-Dinitrotoluene	CT,NY,NH,ME,NC,VA
2,6-Dinitrotoluene	CT,NY,NH,ME,NC,VA
Di-n-octylphthalate	CT,NY,NH,ME,NC,VA
1,2-Diphenylhydrazine/Azobenzene	NY,NH,ME,NC,VA
Fluoranthene	CT,NY,NH,ME,NC,VA
Fluorene	NY,NH,ME,NC,VA
Hexachlorobenzene	CT,NY,NH,ME,NC,VA
Hexachlorobutadiene	CT,NY,NH,ME,NC,VA
Hexachlorocyclopentadiene	CT,NY,NH,ME,NC,VA
Hexachloroethane	CT,NY,NH,ME,NC,VA
Indeno(1,2,3-cd)pyrene	CT,NY,NH,ME,NC,VA
Isophorone	CT,NY,NH,ME,NC,VA
1-Methylnaphthalene	NC
2-Methylnaphthalene	CT,NY,NH,ME,NC,VA
2-Methylphenol	CT,NY,NH,ME,NC,VA
3/4-Methylphenol	CT,NY,NH,ME,NC,VA
Naphthalene	CT,NY,NH,ME,NC,VA
2-Nitroaniline	CT,NY,NH,ME,NC,VA
3-Nitroaniline	CT,NY,NH,ME,NC,VA
4-Nitroaniline	CT,NY,NH,ME,NC,VA
Nitrobenzene	CT,NY,NH,ME,NC,VA
2-Nitrophenol	CT,NY,NH,ME,NC,VA
4-Nitrophenol	CT,NY,NH,ME,NC,VA
N-Nitrosodimethylamine	CT,NY,NH,ME,NC,VA
N-Nitrosodiphenylamine/Diphenylamine	NY
N-Nitrosodi-n-propylamine	CT,NY,NH,ME,NC,VA
Pentachloronitrobenzene	NY,NC
Pentachlorophenol	CT,NY,NH,ME,NC,VA
Phenanthrene	CT,NY,NH,ME,NC,VA
Phenol	CT,NY,NH,ME,NC,VA
Pyrene	CT,NY,NH,ME,NC,VA
Pyridine	CT,NY,NH,ME,NC,VA
1,2,4,5-Tetrachlorobenzene	NY,NC
1,2,4-Trichlorobenzene	CT,NY,NH,ME,NC,VA
2,4,5-Trichlorophenol	CT,NY,NH,ME,NC,VA
2,4,6-Trichlorophenol	CT,NY,NH,ME,NC,VA
2-Fluorophenol	NC
SW-846 8270E in Water	

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CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
SW-846 8270E in Water	
Acenaphthene	CT,NY,NC,ME,NH,VA
Acenaphthylene	CT,NY,NC,ME,NH,VA
Acetophenone	NY,NC
Aniline	CT,NY,NC,ME,VA
Anthracene	CT,NY,NC,ME,NH,VA
Benzidine	CT,NY,NC,ME,NH,VA
Benzo(a)anthracene	CT,NY,NC,ME,NH,VA
Benzo(a)pyrene	CT,NY,NC,ME,NH,VA
Benzo(b)fluoranthene	CT,NY,NC,ME,NH,VA
Benzo(g,h,i)perylene	CT,NY,NC,ME,NH,VA
Benzo(k)fluoranthene	CT,NY,NC,ME,NH,VA
Benzoic Acid	NY,NC,ME,NH,VA
Bis(2-chloroethoxy)methane	CT,NY,NC,ME,NH,VA
Bis(2-chloroethyl)ether	CT,NY,NC,ME,NH,VA
Bis(2-chloroisopropyl)ether	CT,NY,NC,ME,NH,VA
Bis(2-Ethylhexyl)phthalate	CT,NY,NC,ME,NH,VA
4-Bromophenylphenylether	CT,NY,NC,ME,NH,VA
Butylbenzylphthalate	CT,NY,NC,ME,NH,VA
Carbazole	NC
4-Chloroaniline	CT,NY,NC,ME,NH,VA
4-Chloro-3-methylphenol	CT,NY,NC,ME,NH,VA
2-Chloronaphthalene	CT,NY,NC,ME,NH,VA
2-Chlorophenol	CT,NY,NC,ME,NH,VA
4-Chlorophenylphenylether	CT,NY,NC,ME,NH,VA
Chrysene	CT,NY,NC,ME,NH,VA
Dibenz(a,h)anthracene	CT,NY,NC,ME,NH,VA
Dibenzofuran	CT,NY,NC,ME,NH,VA
Di-n-butylphthalate	CT,NY,NC,ME,NH,VA
1,2-Dichlorobenzene	CT,NY,NC,ME,NH,VA
1,3-Dichlorobenzene	CT,NY,NC,ME,NH,VA
1,4-Dichlorobenzene	CT,NY,NC,ME,NH,VA
3,3-Dichlorobenzidine	CT,NY,NC,ME,NH,VA
2,4-Dichlorophenol	CT,NY,NC,ME,NH,VA
Diethylphthalate	CT,NY,NC,ME,NH,VA
2,4-Dimethylphenol	CT,NY,NC,ME,NH,VA
Dimethylphthalate	CT,NY,NC,ME,NH,VA
4,6-Dinitro-2-methylphenol	CT,NY,NC,ME,NH,VA
2,4-Dinitrophenol	CT,NY,NC,ME,NH,VA
2,4-Dinitrotoluene	CT,NY,NC,ME,NH,VA
2,6-Dinitrotoluene	CT,NY,NC,ME,NH,VA
Di-n-octylphthalate	CT,NY,NC,ME,NH,VA
1,2-Diphenylhydrazine/Azobenzene	NY,NC
Fluoranthene	CT,NY,NC,ME,NH,VA
Fluorene	NY,NC,ME,NH,VA
Hexachlorobenzene	CT,NY,NC,ME,NH,VA
Hexachlorobutadiene	CT,NY,NC,ME,NH,VA
Hexachlorocyclopentadiene	CT,NY,NC,ME,NH,VA

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

CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
SW-846 8270E in Water	
Hexachloroethane	CT,NY,NC,ME,NH,VA
Indeno(1,2,3-cd)pyrene	CT,NY,NC,ME,NH,VA
Isophorone	CT,NY,NC,ME,NH,VA
1-Methylnaphthalene	NC
2-Methylnaphthalene	CT,NY,NC,ME,NH,VA
2-Methylphenol	CT,NY,NC,NH,VA
3/4-Methylphenol	CT,NY,NC,NH,VA
Naphthalene	CT,NY,NC,ME,NH,VA
2-Nitroaniline	CT,NY,NC,ME,NH,VA
3-Nitroaniline	CT,NY,NC,ME,NH,VA
4-Nitroaniline	CT,NY,NC,ME,NH,VA
Nitrobenzene	CT,NY,NC,ME,NH,VA
2-Nitrophenol	CT,NY,NC,ME,NH,VA
4-Nitrophenol	CT,NY,NC,ME,NH,VA
N-Nitrosodimethylamine	CT,NY,NC,ME,NH,VA
N-Nitrosodiphenylamine/Diphenylamine	NY
N-Nitrosodi-n-propylamine	CT,NY,NC,ME,NH,VA
Pentachloronitrobenzene	NC
Pentachlorophenol	CT,NY,NC,ME,NH,VA
Phenanthrene	CT,NY,NC,ME,NH,VA
Phenol	CT,NY,NC,ME,NH,VA
Pyrene	CT,NY,NC,ME,NH,VA
Pyridine	CT,NY,NC,ME,NH,VA
1,2,4,5-Tetrachlorobenzene	NY,NC
1,2,4-Trichlorobenzene	CT,NY,NC,ME,NH,VA
2,4,5-Trichlorophenol	CT,NY,NC,ME,NH,VA
2,4,6-Trichlorophenol	CT,NY,NC,ME,NH,VA
2-Fluorophenol	NC

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

Code	Description	Number	Expires
AIHA	AIHA-LAP, LLC - ISO 17025:2017	100033	03/1/2024
CT	Connecticut Department of Public Health	PH-0821	12/31/2024
NY	New York State Department of Health	10899 NELAP	04/1/2024
NH	New Hampshire Environmental Lab	2516 NELAP	02/5/2024
RI	Rhode Island Department of Health	LAO00373	12/30/2023
NC	North Carolina Div. of Water Quality	652	12/31/2023
ME	State of Maine	MA00100	06/9/2025
VA	Commonwealth of Virginia	460217	12/14/2023
PA	Commonwealth of Pennsylvania DEP	68-05812	06/30/2024

'23I0463 RF

Pace Analytical

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Fax: 413-525-6405
Access COC's and Support Requests

http://www.pacelabs.com

CHAIN OF CUSTODY RECORD

39 Spruce Street
East Longmeadow, MA 01028

Doc # 381 Rev 5_07/13/2021

Page 1 of 2

Company Name: Weston & Sampson
Address: 98 South Main St. Suite 2, Waterbury VT 05602
Phone:
Project Name: 11 N Main St
Project Location: Northfield VT
Project Number:
Project Manager: Lee Rosberg
Pace Quote Name/Number:
Invoice Recipient: Lee Rosberg
Sampled By: Daniel Schuckers

Requested Turnaround Time			
7-Day	☒	10-Day	☐
PFAS 10-Day (std)	☐	Due Date:	
Rush-Approval Required			
1-Day	☐	3-Day	☐
2-Day	☐	4-Day	☐
Data Delivery			
Format:	PDF ☒	EXCEL ☒	
Other:	EnviroData 8		
CLP Like Data Pkg Required:	☐		
Email To:	Rosberg.Lee@wsinc.com		
Fax To #:			

Dissolved Metals Samples	
○	Field Filtered
○	Lab to Filter
Orthophosphate Samples	
○	Field Filtered
○	Lab to Filter
PCB ONLY	
SOXHLET	☒
NON SOXHLET	☐

ANALYSIS REQUESTED

Pace Work Order#	Client Sample ID / Description	Beginning Date/Time	Ending Date/Time	COMP/GRAB	[1]Matrix Code	Conc Code	VIALS	GLASS	PLASTIC	BACTERIA	ENCORE	8260 VOCs	8082 PCBs Soxhlet	PP13 Metals +Barium	SVOCs 8270 SIM
1	SB-1 (0-2)	9/6/23	8:30	Grab	S			3				X	X	X	X
2	SB-1 (10)		8:45				3	1				X			
3	SB-2 (0-2)		9:50					3					X	X	X
4	SB-2 (15)		9:46				3	1				X			
5	SB-3 (10-12)		11:45					3					X	X	X
6	SB-3 (11)		11:30				3	1				X			
7	SB-4 (0-3)		13:10					3					X	X	X
8	SB-4 (7)		13:20				3	1				X			
9	SB-5 (1)		14:20				3	1				X			
10	DUP-1						3	1				X			

Relinquished by: (signature)		Date/Time: 9/7/23 13:00
Received by: (signature)	VDS CY	Date/Time: 9/7/23 13:06
Relinquished by: (signature)	VDS	Date/Time: 9-8-23
Received by: (signature)	Sam Sabaie	Date/Time: 9/08/23 10:50
Relinquished by: (signature)	Sam Sabaie	Date/Time: 9/08/23 13:10
Received by: (signature)		Date/Time: 9/8/23 13:10
Relinquished by: (signature)		Date/Time:
Received by: (signature)		Date/Time:

Client Comments:

Lab Comments:

Detection Limit Requirements	
MA	
CT	
Other:	

Special Requirements	
☐	MA MCP Required
	MCP Certification Form Required
☐	CT RCP Required
	RCP Certification Form Required
☐	MA State DW Required
PWSID #	

Please use the following codes to indicate possible sample concentration within the Conc Code column above:
H - High; M - Medium; L - Low; C - Clean; U - Unknown

NELAC and AIHA-LAP, LLC Accredited

Project Entity

Government	☐	Municipality	☐	MWRA	☐	WRTA	☐
Federal	☐	21 J	☐	School	☐		
City	☐	Brownfield	☐	MBTA	☐		

Other
☐ Chromatogram
☐ *AIHA-LAP,LLC*

[2] Preservation Code
Courier Use Only
Total Number Of:
VIALS
GLASS
PLASTIC
BACTERIA
ENCORE

Glassware in the fridge? Y / N
Glassware in freezer? Y / N
Prepackaged Cooler? Y
*Pace Analytical is not responsible for missing samples from prepackaged coolers

[1] Matrix Codes:
GW = Ground Water
WW = Waste Water
DW = Drinking Water
A = Air
S = Soil
SL = Sludge
SOL = Solid
O = Other (please define)

[2] Preservation Codes:
I = Iced
H = HCL
M = Methanol
N = Nitric Acid
S = Sulfuric Acid
B = Sodium Bisulfate
X = Sodium Hydroxide
T = Sodium Thiosulfate
O = Other (please define)

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.

5/20/24 Brownfields Committee 216

Table of Contents

Pace Analytical

Phone: 413-525-2332
Fax: 413-525-6405
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CHAIN OF CUSTODY RECORD

39 Spruce Street
East Longmeadow, MA 01028

Doc # 381 Rev 5_07/13/2021

Page 2 of 2

Company Name: Weston & Sampson
Address: 98 South Main St. Suite 2, Waterbury VT 05602
Phone:
Project Name: 11 N Main St.
Project Location: Northfield VT
Project Number:
Project Manager: Lee Rosbery
Pace Quote Name/Number:
Invoice Recipient: Lee Rosbery
Sampled By: Daniel Schudders

Requested Turnaround Time			
7-Day	☒	10-Day	☐
PFAS 10-Day (std)	☐	Due Date:	

Rush-Approval Required			
1-Day	☐	3-Day	☐
2-Day	☐	4-Day	☐

Data Delivery			
Format:	PDF ☒	EXCEL	☒
Other:	EnviroData 8		
CLP Like Data Pkg Required:	☐		
Email To:	Rosbery.Lee@wsein.com		
Fax To #:			

Dissolved Metals Samples	
○	Field Filtered
○	Lab to Filter

Orthophosphate Samples	
○	Field Filtered
○	Lab to Filter

PCB ONLY
SOXHLET ☒
NON SOXHLET ☐

ANALYSIS REQUESTED

Pace Work Order#	Client Sample ID / Description	Beginning Date/Time	Ending Date/Time	COMP/GRAB	[1]Matrix Code	Conc Code	VIALS	GLASS	PLASTIC	BACTERIA	ENCORE	8260 VOCs	8082 PCBs Soxhlet	PP13 Metals +Barium	SVOCs 8270 SIM
11	DUP	9/6/23		Grab	S			3					X	X	X
12	GW-1		9:40		GW		2					X			
13	GW-2		11:50		GW		2					X			
14	GW-3		12:30		GW		2					X			
15	GW-4		14:15		GW		2					X			
16	GW-5		1500		GW		2					X			
17	DUP-2				GW		2					X			
18	Trip Blank	8/22/23					1								

Relinquished by: (signature)	Date/Time:
	9/7/23 13:06
Received by: (signature) VOS CY	Date/Time: 9/7/23 13:06
Relinquished by: (signature) RB—VOS	Date/Time: 9-8-23
Received by: (signature) Dan Salaw	Date/Time: 9/8/23 10:50
Relinquished by: (signature) Dan Salaw	Date/Time: 9/8/23 13:10
Received by: (signature)	Date/Time: 2-4
Relinquished by: (signature) 9/6/23 1310	Date/Time:
Received by: (signature)	Date/Time:

Client Comments:

Detection Limit Requirements	
MA	
CT	
Other:	

Special Requirements	
☐	MA MCP Required
	MCP Certification Form Required
☐	CT RCP Required
	RCP Certification Form Required
☐	MA State DW Required
PWSID #	

Please use the following codes to indicate possible sample concentration within the Conc Code column above:
H - High; M - Medium; L - Low; C - Clean; U - Unknown

NELAC and AIHA-LAP, LLC Accredited

Project Entity

Government	☐	Municipality	☐	MWRA	☐	WRTA	☐
Federal	☐	21 J	☐	School	☐		
City	☐	Brownfield	☐	MBTA	☐		

Other
☐ Chromatogram
☐ *AIHA-LAP,LLC*

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.

[2] Preservation Code
Courier Use Only
Total Number Of:
VIALS_____
GLASS_____
PLASTIC_____
BACTERIA_____
ENCORE_____

Glassware in the fridge? Y / N
Glassware in freezer? Y / N
Prepackaged Cooler? Y / N
*Pace Analytical is not responsible for missing samples from prepackaged coolers

[1] Matrix Codes:
GW = Ground Water
WW = Waste Water
DW = Drinking Water
A = Air
S = Soil
SL = Sludge
SOL = Solid
O = Other (please define)

[2] Preservation Codes:
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M = Methanol
N = Nitric Acid
S = Sulfuric Acid
B = Sodium Bisulfate
X = Sodium Hydroxide
T = Sodium Thiosulfate
O = Other (please define)

5/20/24 Brownfields Committee

Pace ANALYTICAL SERVICES	DC#_Title: ENV-FRM-ELON-0001 v07_Sample Receiving Checklist
	Effective Date: 07/13/2023

Log In Back-Sheet

Client W+S

Project 11 N. Main St.

MCP/RCP Required N/A

Deliverable Package Requirement N/A

Location Northfield, VT

PWSID# (When Applicable) N/A

Arrival Method:

Courier ☒ Fed Ex ☐ Walk In ☐ Other ☐

Received By / Date / Time STM 9/8 1310

Back-Sheet By / Date / Time DWW 9/8 1710

Temperature Method GUN # 4

Temp X < 6° C Actual Temperature 2.4

Rush Samples: Yes (No) Notify

Short Hold: Yes (No) Notify

Notes regarding Samples/COC outside of SOP:

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

	True	False
Received on Ice	☒	☐
Received in Cooler	☒	☐
Custody Seal: DATE TIME	☐	☒
COC Relinquished	☒	☐
COC/Samples Labels Agree	☒	☐
All Samples in Good Condition	☒	☐
Samples Received within Holding Time	☒	☐
Is there enough Volume	☒	☐
Proper Media/Container Used	☒	☐
Splitting Samples Required	☐	☒
MS/MSD	☐	☒
Trip Blanks	☒	☐
Lab to Filters	☐	☒
COC Legible	☒	☐

COC Included: (Check all included)

Client ☒ Analysis ☒ Sampler Name ☒

Project ☒ IDs ☒ Collection Date/Time ☒

All Samples Proper pH: (N/A) ☐ ☐

Additional Container Notes

Note: West Virginia requires all samples to have their temperature taken. Note any outliers.

Qualtrax ID: 120836

Page 2 of 2

Qualtrax ID: 120836

Pace ANALYTICAL SERVICES	DC#_Title: ENV-FRM-ELON-0001 v07_Sample Receiving Checklist	Effective Date: 07/13/2023

Sample	Soils Jars (Circle Amb/Clear)				Ambers					Plastics												VOA Vials					Other / Fill in				
	16oz Amb/Clear	8oz Amb/Clear	4oz Amb/Clear	2oz Amb/Clear	1 Liter				250mL	100mL	1 Liter			500mL		250mL															
					Unpreserved	HCL	Sulfuric	Sulfuric	Phosphoric	HCl	Unpreserved	Unpreserved	Sulfuric	Unpreserved	Sulfuric	Unpreserved	Trizma	Sulfuric	Nitric	NaOH	Ammonium Acetate	NaOH/Zinc	Unpreserved	HCl	MeOH	D.I. Water	Bisulfate	Col/Bact				
1	3																														
2				1																				1	2						
3	3																														
4				1																				1	2						
5	3																														
6				1																				1	2						
7	3																														
8				1																				1	2						
9	1																							1	2						
10				1																				1	2						
11	3																							1	2						
12																								2							
13																								1							
14																								→							
15																															
16																															
17																									2						
18																									1						
19																															
20																															

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

September 18, 2023

Lee Rosberg
Weston & Sampson - Waterbury, VT
98 South Main Street
Waterbury, VT 05676

Project Location: Northfield, VT
Client Job Number:
Project Number: 00142205 - 11 N Main Street
Laboratory Work Order Number: 23I1186

Enclosed are results of analyses for samples as received by the laboratory on September 8, 2023. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Rebecca Faust
Project Manager

Table of Contents

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

Weston & Sampson - Waterbury, VT
98 South Main Street
Waterbury, VT 05676
ATTN: Lee Rosberg

REPORT DATE: 9/18/2023

PURCHASE ORDER NUMBER:

PROJECT NUMBER: 00142205 - 11 N Main Street

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 23I1186

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

PROJECT LOCATION: Northfield, VT

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
SG-1	23I1186-01	Soil Gas		- EPA TO-15	
SG-2	23I1186-02	Soil Gas		- EPA TO-15	
SG-3	23I1186-03	Soil Gas		- EPA TO-15	
SG-4	23I1186-04	Soil Gas		- EPA TO-15	
DUP-3	23I1186-05	Soil Gas		- EPA TO-15	

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CASE NARRATIVE SUMMARY

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

EPA TO-15

Qualifications:

B

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

Analyte & Samples(s) Qualified:

1,2-Dibromoethane (EDB)
B352252-BLK1

L-01

Laboratory fortified blank/laboratory control sample recovery outside of control limits. Data validation is not affected since all results are "not detected" for all samples in this batch for this compound and bias is on the high side.

Analyte & Samples(s) Qualified:

Hexachlorobutadiene
B352252-BS1

L-05

Laboratory fortified blank/laboratory control sample recovery is outside of control limits. Reported value for this compound is likely to be biased on the high side.

Analyte & Samples(s) Qualified:

Naphthalene
B352252-BS1

RL-11

Elevated reporting limit due to high concentration of target compounds.

Analyte & Samples(s) Qualified:

23I1186-04[SG-4]

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:

1,3-Dichlorobenzene
B352252-BS1, S093501-CCV1

Hexachlorobutadiene
B352252-BS1, S093501-CCV1

Z-01

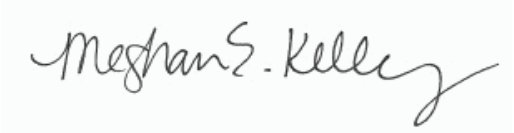
Calibrations RSD for this compound is >30% but <40%.

Analyte & Samples(s) Qualified:

Naphthalene
23I1186-01[SG-1], 23I1186-02[SG-2], 23I1186-03[SG-3], 23I1186-04[SG-4], 23I1186-05[DUP-3], B352252-BLK1, B352252-BS1, S093501-CCV1

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

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.



Meghan E. Kelley
Reporting Specialist

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

ANALYTICAL RESULTS

Project Location: Northfield, VT
Date Received: 9/8/2023
Field Sample #: SG-1
Sample ID: 23I1186-01
Sample Matrix: Soil Gas
Sampled: 9/7/2023 09:12

Sample Description/Location:
Sub Description/Location:
Canister ID: 1967
Canister Size: 6 liter
Flow Controller ID: 4090
Sample Type: 30 min

Work Order: 23I1186
Initial Vacuum(in Hg): -29
Final Vacuum(in Hg): -4
Receipt Vacuum(in Hg): -5.8
Flow Controller Type: Fixed-Orifice
Flow Controller Calibration
RPD Pre and Post-Sampling:

EPA TO-15

	ppbv			ug/m3			Date/Time	
Analyte	**Results**	**RL**	**Flag/Qual**	**Results**	**RL**	**Dilution**	**Analyzed**	**Analyst**
Acetone	120	8.0		280	19	4	9/13/23 0:19	CMR
Benzene	0.22	0.20		0.69	0.64	4	9/13/23 0:19	CMR
Benzyl chloride	ND	0.80		ND	4.1	4	9/13/23 0:19	CMR
Bromodichloromethane	ND	0.20		ND	1.3	4	9/13/23 0:19	CMR
Bromoform	ND	0.20		ND	2.1	4	9/13/23 0:19	CMR
Bromomethane	ND	0.20		ND	0.78	4	9/13/23 0:19	CMR
1,3-Butadiene	ND	0.20		ND	0.44	4	9/13/23 0:19	CMR
2-Butanone (MEK)	8.9	8.0		26	24	4	9/13/23 0:19	CMR
Carbon Disulfide	ND	2.0		ND	6.2	4	9/13/23 0:19	CMR
Carbon Tetrachloride	ND	0.20		ND	1.3	4	9/13/23 0:19	CMR
Chlorobenzene	ND	0.20		ND	0.92	4	9/13/23 0:19	CMR
Chloroethane	ND	0.20		ND	0.53	4	9/13/23 0:19	CMR
Chloroform	ND	0.20		ND	0.98	4	9/13/23 0:19	CMR
Chloromethane	0.48	0.40		0.98	0.83	4	9/13/23 0:19	CMR
Cyclohexane	ND	0.20		ND	0.69	4	9/13/23 0:19	CMR
Dibromochloromethane	ND	0.20		ND	1.7	4	9/13/23 0:19	CMR
1,2-Dibromoethane (EDB)	ND	0.20		ND	1.5	4	9/13/23 0:19	CMR
1,2-Dichlorobenzene	ND	0.20		ND	1.2	4	9/13/23 0:19	CMR
1,3-Dichlorobenzene	ND	0.20		ND	1.2	4	9/13/23 0:19	CMR
1,4-Dichlorobenzene	ND	0.20		ND	1.2	4	9/13/23 0:19	CMR
Dichlorodifluoromethane (Freon 12)	0.52	0.20		2.6	0.99	4	9/13/23 0:19	CMR
1,1-Dichloroethane	ND	0.20		ND	0.81	4	9/13/23 0:19	CMR
1,2-Dichloroethane	ND	0.20		ND	0.81	4	9/13/23 0:19	CMR
1,1-Dichloroethylene	ND	0.20		ND	0.79	4	9/13/23 0:19	CMR
cis-1,2-Dichloroethylene	ND	0.20		ND	0.79	4	9/13/23 0:19	CMR
trans-1,2-Dichloroethylene	ND	0.20		ND	0.79	4	9/13/23 0:19	CMR
1,2-Dichloropropane	ND	0.20		ND	0.92	4	9/13/23 0:19	CMR
cis-1,3-Dichloropropene	ND	0.20		ND	0.91	4	9/13/23 0:19	CMR
trans-1,3-Dichloropropene	ND	0.20		ND	0.91	4	9/13/23 0:19	CMR
1,2-Dichloro-1,1,2,2-tetrafluoroethane (Freon 114)	ND	0.20		ND	1.4	4	9/13/23 0:19	CMR
1,4-Dioxane	ND	2.0		ND	7.2	4	9/13/23 0:19	CMR
Ethanol	ND	8.0		ND	15	4	9/13/23 0:19	CMR
Ethyl Acetate	ND	2.0		ND	7.2	4	9/13/23 0:19	CMR
Ethylbenzene	ND	0.20		ND	0.87	4	9/13/23 0:19	CMR
4-Ethyltoluene	ND	0.20		ND	0.98	4	9/13/23 0:19	CMR
Heptane	ND	0.20		ND	0.82	4	9/13/23 0:19	CMR
Hexachlorobutadiene	ND	0.20		ND	2.1	4	9/13/23 0:19	CMR

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ANALYTICAL RESULTS

Project Location: Northfield, VT
Date Received: 9/8/2023
Field Sample #: SG-1
Sample ID: 23I1186-01
Sample Matrix: Soil Gas
Sampled: 9/7/2023 09:12

Sample Description/Location:
Sub Description/Location:
Canister ID: 1967
Canister Size: 6 liter
Flow Controller ID: 4090
Sample Type: 30 min

Work Order: 23I1186
Initial Vacuum(in Hg): -29
Final Vacuum(in Hg): -4
Receipt Vacuum(in Hg): -5.8
Flow Controller Type: Fixed-Orifice
Flow Controller Calibration
RPD Pre and Post-Sampling:

EPA TO-15

	ppbv			ug/m3			Date/Time	
Analyte	**Results**	**RL**	**Flag/Qual**	**Results**	**RL**	**Dilution**	**Analyzed**	**Analyst**
Hexane	ND	8.0		ND	28	4	9/13/23 0:19	CMR
2-Hexanone (MBK)	ND	0.80		ND	3.3	4	9/13/23 0:19	CMR
Isopropanol	ND	8.0		ND	20	4	9/13/23 0:19	CMR
Methyl tert-Butyl Ether (MTBE)	ND	0.20		ND	0.72	4	9/13/23 0:19	CMR
Methylene Chloride	ND	2.0		ND	6.9	4	9/13/23 0:19	CMR
4-Methyl-2-pentanone (MIBK)	ND	0.20		ND	0.82	4	9/13/23 0:19	CMR
Naphthalene	ND	0.20	Z-01	ND	1.0	4	9/13/23 0:19	CMR
Propene	ND	8.0		ND	14	4	9/13/23 0:19	CMR
Styrene	ND	0.20		ND	0.85	4	9/13/23 0:19	CMR
1,1,2,2-Tetrachloroethane	ND	0.20		ND	1.4	4	9/13/23 0:19	CMR
Tetrachloroethylene	ND	0.20		ND	1.4	4	9/13/23 0:19	CMR
Tetrahydrofuran	ND	2.0		ND	5.9	4	9/13/23 0:19	CMR
Toluene	0.25	0.20		0.95	0.75	4	9/13/23 0:19	CMR
1,2,4-Trichlorobenzene	ND	0.20		ND	1.5	4	9/13/23 0:19	CMR
1,1,1-Trichloroethane	ND	0.20		ND	1.1	4	9/13/23 0:19	CMR
1,1,2-Trichloroethane	ND	0.20		ND	1.1	4	9/13/23 0:19	CMR
Trichloroethylene	ND	0.20		ND	1.1	4	9/13/23 0:19	CMR
Trichlorofluoromethane (Freon 11)	ND	0.80		ND	4.5	4	9/13/23 0:19	CMR
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.80		ND	6.1	4	9/13/23 0:19	CMR
1,2,4-Trimethylbenzene	ND	0.20		ND	0.98	4	9/13/23 0:19	CMR
1,3,5-Trimethylbenzene	ND	0.20		ND	0.98	4	9/13/23 0:19	CMR
Vinyl Acetate	ND	4.0		ND	14	4	9/13/23 0:19	CMR
Vinyl Chloride	ND	0.20		ND	0.51	4	9/13/23 0:19	CMR
m&p-Xylene	ND	0.40		ND	1.7	4	9/13/23 0:19	CMR
o-Xylene	ND	0.20		ND	0.87	4	9/13/23 0:19	CMR

Surrogates	% Recovery	% REC Limits	
4-Bromofluorobenzene (1)	93.3	70-130	9/13/23 0:19

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ANALYTICAL RESULTS

Project Location: Northfield, VT
Date Received: 9/8/2023
Field Sample #: SG-2
Sample ID: 23I1186-02
Sample Matrix: Soil Gas
Sampled: 9/7/2023 11:24

Sample Description/Location:
Sub Description/Location:
Canister ID: 1104
Canister Size: 6 liter
Flow Controller ID: 4280
Sample Type: 1 hr

Work Order: 23I1186
Initial Vacuum(in Hg): -27.5
Final Vacuum(in Hg): -5
Receipt Vacuum(in Hg): -7.2
Flow Controller Type: Fixed-Orifice
Flow Controller Calibration
RPD Pre and Post-Sampling:

EPA TO-15

	ppbv			ug/m3			Date/Time	
Analyte	**Results**	**RL**	**Flag/Qual**	**Results**	**RL**	**Dilution**	**Analyzed**	**Analyst**
Acetone	380	60		900	140	30	9/12/23 16:56	CMR
Benzene	1.8	0.20		5.8	0.64	4	9/13/23 0:43	CMR
Benzyl chloride	ND	0.80		ND	4.1	4	9/13/23 0:43	CMR
Bromodichloromethane	ND	0.20		ND	1.3	4	9/13/23 0:43	CMR
Bromoform	ND	0.20		ND	2.1	4	9/13/23 0:43	CMR
Bromomethane	ND	0.20		ND	0.78	4	9/13/23 0:43	CMR
1,3-Butadiene	ND	0.20		ND	0.44	4	9/13/23 0:43	CMR
2-Butanone (MEK)	9.7	8.0		28	24	4	9/13/23 0:43	CMR
Carbon Disulfide	ND	2.0		ND	6.2	4	9/13/23 0:43	CMR
Carbon Tetrachloride	ND	0.20		ND	1.3	4	9/13/23 0:43	CMR
Chlorobenzene	ND	0.20		ND	0.92	4	9/13/23 0:43	CMR
Chloroethane	ND	0.20		ND	0.53	4	9/13/23 0:43	CMR
Chloroform	ND	0.20		ND	0.98	4	9/13/23 0:43	CMR
Chloromethane	ND	0.40		ND	0.83	4	9/13/23 0:43	CMR
Cyclohexane	ND	0.20		ND	0.69	4	9/13/23 0:43	CMR
Dibromochloromethane	ND	0.20		ND	1.7	4	9/13/23 0:43	CMR
1,2-Dibromoethane (EDB)	ND	0.20		ND	1.5	4	9/13/23 0:43	CMR
1,2-Dichlorobenzene	ND	0.20		ND	1.2	4	9/13/23 0:43	CMR
1,3-Dichlorobenzene	ND	0.20		ND	1.2	4	9/13/23 0:43	CMR
1,4-Dichlorobenzene	ND	0.20		ND	1.2	4	9/13/23 0:43	CMR
Dichlorodifluoromethane (Freon 12)	1.1	0.20		5.4	0.99	4	9/13/23 0:43	CMR
1,1-Dichloroethane	ND	0.20		ND	0.81	4	9/13/23 0:43	CMR
1,2-Dichloroethane	ND	0.20		ND	0.81	4	9/13/23 0:43	CMR
1,1-Dichloroethylene	ND	0.20		ND	0.79	4	9/13/23 0:43	CMR
cis-1,2-Dichloroethylene	ND	0.20		ND	0.79	4	9/13/23 0:43	CMR
trans-1,2-Dichloroethylene	ND	0.20		ND	0.79	4	9/13/23 0:43	CMR
1,2-Dichloropropane	ND	0.20		ND	0.92	4	9/13/23 0:43	CMR
cis-1,3-Dichloropropene	ND	0.20		ND	0.91	4	9/13/23 0:43	CMR
trans-1,3-Dichloropropene	ND	0.20		ND	0.91	4	9/13/23 0:43	CMR
1,2-Dichloro-1,1,2,2-tetrafluoroethane (Freon 114)	ND	0.20		ND	1.4	4	9/13/23 0:43	CMR
1,4-Dioxane	ND	2.0		ND	7.2	4	9/13/23 0:43	CMR
Ethanol	ND	8.0		ND	15	4	9/13/23 0:43	CMR
Ethyl Acetate	ND	2.0		ND	7.2	4	9/13/23 0:43	CMR
Ethylbenzene	ND	0.20		ND	0.87	4	9/13/23 0:43	CMR
4-Ethyltoluene	ND	0.20		ND	0.98	4	9/13/23 0:43	CMR
Heptane	1.8	0.20		7.6	0.82	4	9/13/23 0:43	CMR
Hexachlorobutadiene	ND	0.20		ND	2.1	4	9/13/23 0:43	CMR

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ANALYTICAL RESULTS

Project Location: Northfield, VT
Date Received: 9/8/2023
Field Sample #: SG-2
Sample ID: 23I1186-02
Sample Matrix: Soil Gas
Sampled: 9/7/2023 11:24

Sample Description/Location:
Sub Description/Location:
Canister ID: 1104
Canister Size: 6 liter
Flow Controller ID: 4280
Sample Type: 1 hr

Work Order: 23I1186
Initial Vacuum(in Hg): -27.5
Final Vacuum(in Hg): -5
Receipt Vacuum(in Hg): -7.2
Flow Controller Type: Fixed-Orifice
Flow Controller Calibration
RPD Pre and Post-Sampling:

EPA TO-15

	ppbv			ug/m3			Date/Time	
Analyte	**Results**	**RL**	**Flag/Qual**	**Results**	**RL**	**Dilution**	**Analyzed**	**Analyst**
Hexane	ND	8.0		ND	28	4	9/13/23 0:43	CMR
2-Hexanone (MBK)	1.2	0.80		5.1	3.3	4	9/13/23 0:43	CMR
Isopropanol	ND	8.0		ND	20	4	9/13/23 0:43	CMR
Methyl tert-Butyl Ether (MTBE)	ND	0.20		ND	0.72	4	9/13/23 0:43	CMR
Methylene Chloride	ND	2.0		ND	6.9	4	9/13/23 0:43	CMR
4-Methyl-2-pentanone (MIBK)	ND	0.20		ND	0.82	4	9/13/23 0:43	CMR
Naphthalene	ND	0.20	Z-01	ND	1.0	4	9/13/23 0:43	CMR
Propene	ND	8.0		ND	14	4	9/13/23 0:43	CMR
Styrene	0.40	0.20		1.7	0.85	4	9/13/23 0:43	CMR
1,1,2,2-Tetrachloroethane	ND	0.20		ND	1.4	4	9/13/23 0:43	CMR
Tetrachloroethylene	16	0.20		110	1.4	4	9/13/23 0:43	CMR
Tetrahydrofuran	ND	2.0		ND	5.9	4	9/13/23 0:43	CMR
Toluene	0.90	0.20		3.4	0.75	4	9/13/23 0:43	CMR
1,2,4-Trichlorobenzene	ND	0.20		ND	1.5	4	9/13/23 0:43	CMR
1,1,1-Trichloroethane	0.44	0.20		2.4	1.1	4	9/13/23 0:43	CMR
1,1,2-Trichloroethane	ND	0.20		ND	1.1	4	9/13/23 0:43	CMR
Trichloroethylene	ND	0.20		ND	1.1	4	9/13/23 0:43	CMR
Trichlorofluoromethane (Freon 11)	ND	0.80		ND	4.5	4	9/13/23 0:43	CMR
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.80		ND	6.1	4	9/13/23 0:43	CMR
1,2,4-Trimethylbenzene	0.53	0.20		2.6	0.98	4	9/13/23 0:43	CMR
1,3,5-Trimethylbenzene	ND	0.20		ND	0.98	4	9/13/23 0:43	CMR
Vinyl Acetate	5.0	4.0		18	14	4	9/13/23 0:43	CMR
Vinyl Chloride	ND	0.20		ND	0.51	4	9/13/23 0:43	CMR
m&p-Xylene	ND	0.40		ND	1.7	4	9/13/23 0:43	CMR
o-Xylene	ND	0.20		ND	0.87	4	9/13/23 0:43	CMR

Surrogates	% Recovery	% REC Limits	
4-Bromofluorobenzene (1)	91.6	70-130	9/12/23 16:56
4-Bromofluorobenzene (1)	93.7	70-130	9/13/23 0:43

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ANALYTICAL RESULTS

Project Location: Northfield, VT
Date Received: 9/8/2023
Field Sample #: SG-3
Sample ID: 23I1186-03
Sample Matrix: Soil Gas
Sampled: 9/7/2023 10:59

Sample Description/Location:
Sub Description/Location:
Canister ID: 2483
Canister Size: 6 liter
Flow Controller ID: 4213
Sample Type: 30 min

Work Order: 23I1186
Initial Vacuum(in Hg): -27
Final Vacuum(in Hg): -4
Receipt Vacuum(in Hg): -6.0
Flow Controller Type: Fixed-Orifice
Flow Controller Calibration
RPD Pre and Post-Sampling:

EPA TO-15

	ppbv			ug/m3			Date/Time	
Analyte	**Results**	**RL**	**Flag/Qual**	**Results**	**RL**	**Dilution**	**Analyzed**	**Analyst**
Acetone	250	60		600	140	30	9/12/23 17:20	CMR
Benzene	4.3	0.20		14	0.64	4	9/13/23 1:08	CMR
Benzyl chloride	ND	0.80		ND	4.1	4	9/13/23 1:08	CMR
Bromodichloromethane	ND	0.20		ND	1.3	4	9/13/23 1:08	CMR
Bromoform	ND	0.20		ND	2.1	4	9/13/23 1:08	CMR
Bromomethane	ND	0.20		ND	0.78	4	9/13/23 1:08	CMR
1,3-Butadiene	ND	0.20		ND	0.44	4	9/13/23 1:08	CMR
2-Butanone (MEK)	ND	8.0		ND	24	4	9/13/23 1:08	CMR
Carbon Disulfide	ND	2.0		ND	6.2	4	9/13/23 1:08	CMR
Carbon Tetrachloride	ND	0.20		ND	1.3	4	9/13/23 1:08	CMR
Chlorobenzene	ND	0.20		ND	0.92	4	9/13/23 1:08	CMR
Chloroethane	ND	0.20		ND	0.53	4	9/13/23 1:08	CMR
Chloroform	ND	0.20		ND	0.98	4	9/13/23 1:08	CMR
Chloromethane	0.50	0.40		1.0	0.83	4	9/13/23 1:08	CMR
Cyclohexane	6.8	0.20		24	0.69	4	9/13/23 1:08	CMR
Dibromochloromethane	ND	0.20		ND	1.7	4	9/13/23 1:08	CMR
1,2-Dibromoethane (EDB)	ND	0.20		ND	1.5	4	9/13/23 1:08	CMR
1,2-Dichlorobenzene	ND	0.20		ND	1.2	4	9/13/23 1:08	CMR
1,3-Dichlorobenzene	ND	0.20		ND	1.2	4	9/13/23 1:08	CMR
1,4-Dichlorobenzene	ND	0.20		ND	1.2	4	9/13/23 1:08	CMR
Dichlorodifluoromethane (Freon 12)	0.67	0.20		3.3	0.99	4	9/13/23 1:08	CMR
1,1-Dichloroethane	ND	0.20		ND	0.81	4	9/13/23 1:08	CMR
1,2-Dichloroethane	ND	0.20		ND	0.81	4	9/13/23 1:08	CMR
1,1-Dichloroethylene	ND	0.20		ND	0.79	4	9/13/23 1:08	CMR
cis-1,2-Dichloroethylene	ND	0.20		ND	0.79	4	9/13/23 1:08	CMR
trans-1,2-Dichloroethylene	ND	0.20		ND	0.79	4	9/13/23 1:08	CMR
1,2-Dichloropropane	ND	0.20		ND	0.92	4	9/13/23 1:08	CMR
cis-1,3-Dichloropropene	ND	0.20		ND	0.91	4	9/13/23 1:08	CMR
trans-1,3-Dichloropropene	ND	0.20		ND	0.91	4	9/13/23 1:08	CMR
1,2-Dichloro-1,1,2,2-tetrafluoroethane (Freon 114)	ND	0.20		ND	1.4	4	9/13/23 1:08	CMR
1,4-Dioxane	ND	2.0		ND	7.2	4	9/13/23 1:08	CMR
Ethanol	ND	8.0		ND	15	4	9/13/23 1:08	CMR
Ethyl Acetate	ND	2.0		ND	7.2	4	9/13/23 1:08	CMR
Ethylbenzene	1.1	0.20		4.6	0.87	4	9/13/23 1:08	CMR
4-Ethyltoluene	ND	0.20		ND	0.98	4	9/13/23 1:08	CMR
Heptane	1.2	0.20		5.1	0.82	4	9/13/23 1:08	CMR
Hexachlorobutadiene	ND	0.20		ND	2.1	4	9/13/23 1:08	CMR

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ANALYTICAL RESULTS

Project Location: Northfield, VT
Date Received: 9/8/2023
Field Sample #: SG-3
Sample ID: 23I1186-03
Sample Matrix: Soil Gas
Sampled: 9/7/2023 10:59

Sample Description/Location:
Sub Description/Location:
Canister ID: 2483
Canister Size: 6 liter
Flow Controller ID: 4213
Sample Type: 30 min

Work Order: 23I1186
Initial Vacuum(in Hg): -27
Final Vacuum(in Hg): -4
Receipt Vacuum(in Hg): -6.0
Flow Controller Type: Fixed-Orifice
Flow Controller Calibration
RPD Pre and Post-Sampling:

EPA TO-15

	ppbv			ug/m3			Date/Time	
Analyte	**Results**	**RL**	**Flag/Qual**	**Results**	**RL**	**Dilution**	**Analyzed**	**Analyst**
Hexane	ND	8.0		ND	28	4	9/13/23 1:08	CMR
2-Hexanone (MBK)	0.82	0.80		3.3	3.3	4	9/13/23 1:08	CMR
Isopropanol	ND	8.0		ND	20	4	9/13/23 1:08	CMR
Methyl tert-Butyl Ether (MTBE)	ND	0.20		ND	0.72	4	9/13/23 1:08	CMR
Methylene Chloride	ND	2.0		ND	6.9	4	9/13/23 1:08	CMR
4-Methyl-2-pentanone (MIBK)	ND	0.20		ND	0.82	4	9/13/23 1:08	CMR
Naphthalene	ND	0.20	Z-01	ND	1.0	4	9/13/23 1:08	CMR
Propene	ND	8.0		ND	14	4	9/13/23 1:08	CMR
Styrene	0.29	0.20		1.2	0.85	4	9/13/23 1:08	CMR
1,1,2,2-Tetrachloroethane	ND	0.20		ND	1.4	4	9/13/23 1:08	CMR
Tetrachloroethylene	4.0	0.20		27	1.4	4	9/13/23 1:08	CMR
Tetrahydrofuran	ND	2.0		ND	5.9	4	9/13/23 1:08	CMR
Toluene	8.1	0.20		30	0.75	4	9/13/23 1:08	CMR
1,2,4-Trichlorobenzene	ND	0.20		ND	1.5	4	9/13/23 1:08	CMR
1,1,1-Trichloroethane	0.31	0.20		1.7	1.1	4	9/13/23 1:08	CMR
1,1,2-Trichloroethane	ND	0.20		ND	1.1	4	9/13/23 1:08	CMR
Trichloroethylene	ND	0.20		ND	1.1	4	9/13/23 1:08	CMR
Trichlorofluoromethane (Freon 11)	ND	0.80		ND	4.5	4	9/13/23 1:08	CMR
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.80		ND	6.1	4	9/13/23 1:08	CMR
1,2,4-Trimethylbenzene	0.46	0.20		2.3	0.98	4	9/13/23 1:08	CMR
1,3,5-Trimethylbenzene	ND	0.20		ND	0.98	4	9/13/23 1:08	CMR
Vinyl Acetate	6.3	4.0		22	14	4	9/13/23 1:08	CMR
Vinyl Chloride	ND	0.20		ND	0.51	4	9/13/23 1:08	CMR
m&p-Xylene	1.8	0.40		7.8	1.7	4	9/13/23 1:08	CMR
o-Xylene	1.8	0.20		7.7	0.87	4	9/13/23 1:08	CMR

Surrogates	% Recovery	% REC Limits	
4-Bromofluorobenzene (1)	85.3	70-130	9/12/23 17:20
4-Bromofluorobenzene (1)	92.3	70-130	9/13/23 1:08

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ANALYTICAL RESULTS

Project Location: Northfield, VT
Date Received: 9/8/2023
Field Sample #: SG-4
Sample ID: 23I1186-04
Sample Matrix: Soil Gas
Sampled: 9/7/2023 08:37

Sample Description/Location:
Sub Description/Location:
Canister ID: 1810
Canister Size: 6 liter
Flow Controller ID: 4074
Sample Type: 30 min

Work Order: 23I1186
Initial Vacuum(in Hg): -26
Final Vacuum(in Hg): -4
Receipt Vacuum(in Hg): -7.0
Flow Controller Type: Fixed-Orifice
Flow Controller Calibration
RPD Pre and Post-Sampling:

EPA TO-15

Sample Flags: RL-11

Analyte	ppbv Results	ppbv RL	Flag/Qual	ug/m3 Results	ug/m3 RL	Dilution	Date/Time Analyzed	Analyst
Acetone	ND	60		ND	140	30	9/12/23 17:45	CMR
Benzene	15	1.5		47	4.8	30	9/12/23 17:45	CMR
Benzyl chloride	ND	6.0		ND	31	30	9/12/23 17:45	CMR
Bromodichloromethane	ND	1.5		ND	10	30	9/12/23 17:45	CMR
Bromoform	ND	1.5		ND	16	30	9/12/23 17:45	CMR
Bromomethane	ND	1.5		ND	5.8	30	9/12/23 17:45	CMR
1,3-Butadiene	ND	1.5		ND	3.3	30	9/12/23 17:45	CMR
2-Butanone (MEK)	ND	60		ND	180	30	9/12/23 17:45	CMR
Carbon Disulfide	ND	15		ND	47	30	9/12/23 17:45	CMR
Carbon Tetrachloride	1.8	1.5		12	9.4	30	9/12/23 17:45	CMR
Chlorobenzene	ND	1.5		ND	6.9	30	9/12/23 17:45	CMR
Chloroethane	ND	1.5		ND	4.0	30	9/12/23 17:45	CMR
Chloroform	ND	1.5		ND	7.3	30	9/12/23 17:45	CMR
Chloromethane	ND	3.0		ND	6.2	30	9/12/23 17:45	CMR
Cyclohexane	ND	1.5		ND	5.2	30	9/12/23 17:45	CMR
Dibromochloromethane	ND	1.5		ND	13	30	9/12/23 17:45	CMR
1,2-Dibromoethane (EDB)	ND	1.5		ND	12	30	9/12/23 17:45	CMR
1,2-Dichlorobenzene	ND	1.5		ND	9.0	30	9/12/23 17:45	CMR
1,3-Dichlorobenzene	ND	1.5		ND	9.0	30	9/12/23 17:45	CMR
1,4-Dichlorobenzene	ND	1.5		ND	9.0	30	9/12/23 17:45	CMR
Dichlorodifluoromethane (Freon 12)	ND	1.5		ND	7.4	30	9/12/23 17:45	CMR
1,1-Dichloroethane	ND	1.5		ND	6.1	30	9/12/23 17:45	CMR
1,2-Dichloroethane	ND	1.5		ND	6.1	30	9/12/23 17:45	CMR
1,1-Dichloroethylene	ND	1.5		ND	5.9	30	9/12/23 17:45	CMR
cis-1,2-Dichloroethylene	ND	1.5		ND	5.9	30	9/12/23 17:45	CMR
trans-1,2-Dichloroethylene	ND	1.5		ND	5.9	30	9/12/23 17:45	CMR
1,2-Dichloropropane	ND	1.5		ND	6.9	30	9/12/23 17:45	CMR
cis-1,3-Dichloropropene	ND	1.5		ND	6.8	30	9/12/23 17:45	CMR
trans-1,3-Dichloropropene	ND	1.5		ND	6.8	30	9/12/23 17:45	CMR
1,2-Dichloro-1,1,2,2-tetrafluoroethane (Freon 114)	ND	1.5		ND	10	30	9/12/23 17:45	CMR
1,4-Dioxane	ND	15		ND	54	30	9/12/23 17:45	CMR
Ethanol	ND	60		ND	110	30	9/12/23 17:45	CMR
Ethyl Acetate	ND	15		ND	54	30	9/12/23 17:45	CMR
Ethylbenzene	3.2	1.5		14	6.5	30	9/12/23 17:45	CMR
4-Ethyltoluene	ND	1.5		ND	7.4	30	9/12/23 17:45	CMR
Heptane	2300	15		9500	61	300	9/13/23 2:00	CMR
Hexachlorobutadiene	ND	1.5		ND	16	30	9/12/23 17:45	CMR

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ANALYTICAL RESULTS

Project Location: Northfield, VT
Date Received: 9/8/2023
Field Sample #: SG-4
Sample ID: 23I1186-04
Sample Matrix: Soil Gas
Sampled: 9/7/2023 08:37

Sample Description/Location:
Sub Description/Location:
Canister ID: 1810
Canister Size: 6 liter
Flow Controller ID: 4074
Sample Type: 30 min

Work Order: 23I1186
Initial Vacuum(in Hg): -26
Final Vacuum(in Hg): -4
Receipt Vacuum(in Hg): -7.0
Flow Controller Type: Fixed-Orifice
Flow Controller Calibration
RPD Pre and Post-Sampling:

EPA TO-15

	ppbv			ug/m3			Date/Time	
Analyte	**Results**	**RL**	**Flag/Qual**	**Results**	**RL**	**Dilution**	**Analyzed**	**Analyst**
Hexane	4200	600		15000	2100	300	9/13/23 2:00	CMR
2-Hexanone (MBK)	ND	6.0		ND	25	30	9/12/23 17:45	CMR
Isopropanol	ND	60		ND	150	30	9/12/23 17:45	CMR
Methyl tert-Butyl Ether (MTBE)	ND	1.5		ND	5.4	30	9/12/23 17:45	CMR
Methylene Chloride	ND	15		ND	52	30	9/12/23 17:45	CMR
4-Methyl-2-pentanone (MIBK)	ND	1.5		ND	6.1	30	9/12/23 17:45	CMR
Naphthalene	ND	1.5	Z-01	ND	7.9	30	9/12/23 17:45	CMR
Propene	ND	60		ND	100	30	9/12/23 17:45	CMR
Styrene	ND	1.5		ND	6.4	30	9/12/23 17:45	CMR
1,1,2,2-Tetrachloroethane	ND	1.5		ND	10	30	9/12/23 17:45	CMR
Tetrachloroethylene	ND	1.5		ND	10	30	9/12/23 17:45	CMR
Tetrahydrofuran	ND	15		ND	44	30	9/12/23 17:45	CMR
Toluene	9.4	1.5		35	5.7	30	9/12/23 17:45	CMR
1,2,4-Trichlorobenzene	ND	1.5		ND	11	30	9/12/23 17:45	CMR
1,1,1-Trichloroethane	ND	1.5		ND	8.2	30	9/12/23 17:45	CMR
1,1,2-Trichloroethane	ND	1.5		ND	8.2	30	9/12/23 17:45	CMR
Trichloroethylene	ND	1.5		ND	8.1	30	9/12/23 17:45	CMR
Trichlorofluoromethane (Freon 11)	ND	6.0		ND	34	30	9/12/23 17:45	CMR
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	6.0		ND	46	30	9/12/23 17:45	CMR
1,2,4-Trimethylbenzene	ND	1.5		ND	7.4	30	9/12/23 17:45	CMR
1,3,5-Trimethylbenzene	ND	1.5		ND	7.4	30	9/12/23 17:45	CMR
Vinyl Acetate	1500	300		5200	1100	300	9/13/23 2:00	CMR
Vinyl Chloride	ND	1.5		ND	3.8	30	9/12/23 17:45	CMR
m&p-Xylene	ND	3.0		ND	13	30	9/12/23 17:45	CMR
o-Xylene	1.6	1.5		6.8	6.5	30	9/12/23 17:45	CMR

Surrogates	% Recovery	% REC Limits	
4-Bromofluorobenzene (1)	92.7	70-130	9/13/23 2:00
4-Bromofluorobenzene (1)	96.1	70-130	9/12/23 17:45

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ANALYTICAL RESULTS

Project Location: Northfield, VT
Date Received: 9/8/2023
Field Sample #: DUP-3
Sample ID: 23I1186-05
Sample Matrix: Soil Gas
Sampled: 9/7/2023 11:24

Sample Description/Location:
Sub Description/Location:
Canister ID: 2058
Canister Size: 6 liter
Flow Controller ID: 4280
Sample Type: 1 hr

Work Order: 23I1186
Initial Vacuum(in Hg): -27.5
Final Vacuum(in Hg): -5
Receipt Vacuum(in Hg): -6.8
Flow Controller Type: Fixed-Orifice
Flow Controller Calibration
RPD Pre and Post-Sampling:

EPA TO-15

	ppbv			ug/m3			Date/Time	
Analyte	**Results**	**RL**	**Flag/Qual**	**Results**	**RL**	**Dilution**	**Analyzed**	**Analyst**
Acetone	370	60		870	140	30	9/12/23 18:09	CMR
Benzene	1.8	0.20		5.7	0.64	4	9/13/23 1:33	CMR
Benzyl chloride	ND	0.80		ND	4.1	4	9/13/23 1:33	CMR
Bromodichloromethane	ND	0.20		ND	1.3	4	9/13/23 1:33	CMR
Bromoform	ND	0.20		ND	2.1	4	9/13/23 1:33	CMR
Bromomethane	ND	0.20		ND	0.78	4	9/13/23 1:33	CMR
1,3-Butadiene	ND	0.20		ND	0.44	4	9/13/23 1:33	CMR
2-Butanone (MEK)	9.9	8.0		29	24	4	9/13/23 1:33	CMR
Carbon Disulfide	ND	2.0		ND	6.2	4	9/13/23 1:33	CMR
Carbon Tetrachloride	ND	0.20		ND	1.3	4	9/13/23 1:33	CMR
Chlorobenzene	ND	0.20		ND	0.92	4	9/13/23 1:33	CMR
Chloroethane	ND	0.20		ND	0.53	4	9/13/23 1:33	CMR
Chloroform	ND	0.20		ND	0.98	4	9/13/23 1:33	CMR
Chloromethane	ND	0.40		ND	0.83	4	9/13/23 1:33	CMR
Cyclohexane	ND	0.20		ND	0.69	4	9/13/23 1:33	CMR
Dibromochloromethane	ND	0.20		ND	1.7	4	9/13/23 1:33	CMR
1,2-Dibromoethane (EDB)	ND	0.20		ND	1.5	4	9/13/23 1:33	CMR
1,2-Dichlorobenzene	ND	0.20		ND	1.2	4	9/13/23 1:33	CMR
1,3-Dichlorobenzene	ND	0.20		ND	1.2	4	9/13/23 1:33	CMR
1,4-Dichlorobenzene	ND	0.20		ND	1.2	4	9/13/23 1:33	CMR
Dichlorodifluoromethane (Freon 12)	1.1	0.20		5.4	0.99	4	9/13/23 1:33	CMR
1,1-Dichloroethane	ND	0.20		ND	0.81	4	9/13/23 1:33	CMR
1,2-Dichloroethane	ND	0.20		ND	0.81	4	9/13/23 1:33	CMR
1,1-Dichloroethylene	ND	0.20		ND	0.79	4	9/13/23 1:33	CMR
cis-1,2-Dichloroethylene	ND	0.20		ND	0.79	4	9/13/23 1:33	CMR
trans-1,2-Dichloroethylene	ND	0.20		ND	0.79	4	9/13/23 1:33	CMR
1,2-Dichloropropane	ND	0.20		ND	0.92	4	9/13/23 1:33	CMR
cis-1,3-Dichloropropene	ND	0.20		ND	0.91	4	9/13/23 1:33	CMR
trans-1,3-Dichloropropene	ND	0.20		ND	0.91	4	9/13/23 1:33	CMR
1,2-Dichloro-1,1,2,2-tetrafluoroethane (Freon 114)	ND	0.20		ND	1.4	4	9/13/23 1:33	CMR
1,4-Dioxane	ND	2.0		ND	7.2	4	9/13/23 1:33	CMR
Ethanol	ND	8.0		ND	15	4	9/13/23 1:33	CMR
Ethyl Acetate	ND	2.0		ND	7.2	4	9/13/23 1:33	CMR
Ethylbenzene	ND	0.20		ND	0.87	4	9/13/23 1:33	CMR
4-Ethyltoluene	ND	0.20		ND	0.98	4	9/13/23 1:33	CMR
Heptane	1.9	0.20		7.8	0.82	4	9/13/23 1:33	CMR
Hexachlorobutadiene	ND	0.20		ND	2.1	4	9/13/23 1:33	CMR

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ANALYTICAL RESULTS

Project Location: Northfield, VT
Date Received: 9/8/2023
Field Sample #: DUP-3
Sample ID: 23I1186-05
Sample Matrix: Soil Gas
Sampled: 9/7/2023 11:24

Sample Description/Location:
Sub Description/Location:
Canister ID: 2058
Canister Size: 6 liter
Flow Controller ID: 4280
Sample Type: 1 hr

Work Order: 23I1186
Initial Vacuum(in Hg): -27.5
Final Vacuum(in Hg): -5
Receipt Vacuum(in Hg): -6.8
Flow Controller Type: Fixed-Orifice
Flow Controller Calibration
RPD Pre and Post-Sampling:

EPA TO-15

	ppbv			ug/m3			Date/Time	
Analyte	**Results**	**RL**	**Flag/Qual**	**Results**	**RL**	**Dilution**	**Analyzed**	**Analyst**
Hexane	ND	8.0		ND	28	4	9/13/23 1:33	CMR
2-Hexanone (MBK)	1.2	0.80		4.9	3.3	4	9/13/23 1:33	CMR
Isopropanol	ND	8.0		ND	20	4	9/13/23 1:33	CMR
Methyl tert-Butyl Ether (MTBE)	ND	0.20		ND	0.72	4	9/13/23 1:33	CMR
Methylene Chloride	ND	2.0		ND	6.9	4	9/13/23 1:33	CMR
4-Methyl-2-pentanone (MIBK)	ND	0.20		ND	0.82	4	9/13/23 1:33	CMR
Naphthalene	ND	0.20	Z-01	ND	1.0	4	9/13/23 1:33	CMR
Propene	ND	8.0		ND	14	4	9/13/23 1:33	CMR
Styrene	0.40	0.20		1.7	0.85	4	9/13/23 1:33	CMR
1,1,2,2-Tetrachloroethane	ND	0.20		ND	1.4	4	9/13/23 1:33	CMR
Tetrachloroethylene	16	0.20		110	1.4	4	9/13/23 1:33	CMR
Tetrahydrofuran	ND	2.0		ND	5.9	4	9/13/23 1:33	CMR
Toluene	0.91	0.20		3.4	0.75	4	9/13/23 1:33	CMR
1,2,4-Trichlorobenzene	ND	0.20		ND	1.5	4	9/13/23 1:33	CMR
1,1,1-Trichloroethane	0.42	0.20		2.3	1.1	4	9/13/23 1:33	CMR
1,1,2-Trichloroethane	ND	0.20		ND	1.1	4	9/13/23 1:33	CMR
Trichloroethylene	ND	0.20		ND	1.1	4	9/13/23 1:33	CMR
Trichlorofluoromethane (Freon 11)	ND	0.80		ND	4.5	4	9/13/23 1:33	CMR
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.80		ND	6.1	4	9/13/23 1:33	CMR
1,2,4-Trimethylbenzene	0.53	0.20		2.6	0.98	4	9/13/23 1:33	CMR
1,3,5-Trimethylbenzene	ND	0.20		ND	0.98	4	9/13/23 1:33	CMR
Vinyl Acetate	5.2	4.0		18	14	4	9/13/23 1:33	CMR
Vinyl Chloride	ND	0.20		ND	0.51	4	9/13/23 1:33	CMR
m&p-Xylene	ND	0.40		ND	1.7	4	9/13/23 1:33	CMR
o-Xylene	ND	0.20		ND	0.87	4	9/13/23 1:33	CMR

Surrogates	% Recovery	% REC Limits	
4-Bromofluorobenzene (1)	92.9	70-130	9/13/23 1:33
4-Bromofluorobenzene (1)	88.5	70-130	9/12/23 18:09

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Sample Extraction Data

Prep Method:TO-15 Prep **Analytical Method:EPA TO-15**

Lab Number [Field ID]	Batch	Pressure Dilution	Pre Dilution	Pre-Dil Initial mL	Pre-Dil Final mL	Default Injection mL	Actual Injection mL	Date
23I1186-01 [SG-1]	B352252	1.5	1	N/A	1000	200	75	09/12/23
23I1186-02 [SG-2]	B352252	1.5	1	N/A	1000	200	75	09/12/23
23I1186-02RE1 [SG-2]	B352252	1.5	1	N/A	1000	200	10	09/12/23
23I1186-03 [SG-3]	B352252	1.5	1	N/A	1000	200	75	09/12/23
23I1186-03RE1 [SG-3]	B352252	1.5	1	N/A	1000	200	10	09/12/23
23I1186-04 [SG-4]	B352252	1.5	1	N/A	1000	200	10	09/12/23
23I1186-04RE1 [SG-4]	B352252	1.5	200	5	1000	200	200	09/12/23
23I1186-05 [DUP-3]	B352252	1.5	1	N/A	1000	200	75	09/12/23
23I1186-05RE1 [DUP-3]	B352252	1.5	1	N/A	1000	200	10	09/12/23

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QUALITY CONTROL

Air Toxics by EPA Compendium Methods - Quality Control

Analyte	ppbv Results	ppbv RL	ug/m3 Results	ug/m3 RL	Spike Level ppbv	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag/Qual
Batch B352252 - TO-15 Prep											
Blank (B352252-BLK1)					Prepared & Analyzed: 09/12/23						
Acetone	ND	0.80									
Benzene	ND	0.020									
Benzyl chloride	ND	0.080									
Bromodichloromethane	ND	0.020									
Bromoform	ND	0.020									
Bromomethane	ND	0.020									
1,3-Butadiene	ND	0.020									
2-Butanone (MEK)	ND	0.80									
Carbon Disulfide	ND	0.20									
Carbon Tetrachloride	ND	0.020									
Chlorobenzene	ND	0.020									
Chloroethane	ND	0.020									
Chloroform	ND	0.020									
Chloromethane	ND	0.040									
Cyclohexane	ND	0.020									
Dibromochloromethane	ND	0.020									
1,2-Dibromoethane (EDB)	ND	0.020									B
1,2-Dichlorobenzene	ND	0.020									
1,3-Dichlorobenzene	ND	0.020									
1,4-Dichlorobenzene	ND	0.020									
Dichlorodifluoromethane (Freon 12)	ND	0.020									
1,1-Dichloroethane	ND	0.020									
1,2-Dichloroethane	ND	0.020									
1,1-Dichloroethylene	ND	0.020									
cis-1,2-Dichloroethylene	ND	0.020									
trans-1,2-Dichloroethylene	ND	0.020									
1,2-Dichloropropane	ND	0.020									
cis-1,3-Dichloropropene	ND	0.020									
trans-1,3-Dichloropropene	ND	0.020									
1,2-Dichloro-1,1,2,2-tetrafluoroethane (Freon 114)	ND	0.020									
1,4-Dioxane	ND	0.20									
Ethanol	ND	0.80									
Ethyl Acetate	ND	0.20									
Ethylbenzene	ND	0.020									
4-Ethyltoluene	ND	0.020									
Heptane	ND	0.020									
Hexachlorobutadiene	ND	0.020									
Hexane	ND	0.80									
2-Hexanone (MBK)	ND	0.080									
Isopropanol	ND	0.80									
Methyl tert-Butyl Ether (MTBE)	ND	0.020									
Methylene Chloride	ND	0.20									
4-Methyl-2-pentanone (MIBK)	ND	0.020									
Naphthalene	ND	0.020									Z-01
Propene	ND	0.80									
Styrene	ND	0.020									

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QUALITY CONTROL

Air Toxics by EPA Compendium Methods - Quality Control

Analyte	ppbv Results	ppbv RL	ug/m3 Results	ug/m3 RL	Spike Level ppbv	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag/Qual
Batch B352252 - TO-15 Prep											
Blank (B352252-BLK1)					Prepared & Analyzed: 09/12/23						
1,1,2,2-Tetrachloroethane	ND	0.020									
Tetrachloroethylene	ND	0.020									
Tetrahydrofuran	ND	0.20									
Toluene	ND	0.020									
1,2,4-Trichlorobenzene	ND	0.020									
1,1,1-Trichloroethane	ND	0.020									
1,1,2-Trichloroethane	ND	0.020									
Trichloroethylene	ND	0.020									
Trichlorofluoromethane (Freon 11)	ND	0.080									
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.080									
1,2,4-Trimethylbenzene	ND	0.020									
1,3,5-Trimethylbenzene	ND	0.020									
Vinyl Acetate	ND	0.40									
Vinyl Chloride	ND	0.020									
m&p-Xylene	ND	0.040									
o-Xylene	ND	0.020									
Surrogate: 4-Bromofluorobenzene (1)	*7.71*				*8.00*		*96.4*	*70-130*			
LCS (B352252-BS1)					Prepared & Analyzed: 09/12/23						
Acetone	4.39				5.00		87.9	70-130			
Benzene	4.84				5.00		96.9	70-130			
Benzyl chloride	4.93				5.00		98.5	70-130			
Bromodichloromethane	4.94				5.00		98.7	70-130			
Bromoform	5.98				5.00		120	70-130			
Bromomethane	4.99				5.00		99.8	70-130			
1,3-Butadiene	5.40				5.00		108	70-130			
2-Butanone (MEK)	5.06				5.00		101	70-130			
Carbon Disulfide	5.36				5.00		107	70-130			
Carbon Tetrachloride	5.65				5.00		113	70-130			
Chlorobenzene	5.05				5.00		101	70-130			
Chloroethane	5.19				5.00		104	70-130			
Chloroform	5.17				5.00		103	70-130			
Chloromethane	4.44				5.00		88.8	70-130			
Cyclohexane	5.04				5.00		101	70-130			
Dibromochloromethane	6.00				5.00		120	70-130			
1,2-Dibromoethane (EDB)	5.43				5.00		109	70-130			
1,2-Dichlorobenzene	5.79				5.00		116	70-130			
1,3-Dichlorobenzene	6.08				5.00		122	70-130			V-20
1,4-Dichlorobenzene	5.63				5.00		113	70-130			
Dichlorodifluoromethane (Freon 12)	5.46				5.00		109	70-130			
1,1-Dichloroethane	5.22				5.00		104	70-130			
1,2-Dichloroethane	4.93				5.00		98.7	70-130			
1,1-Dichloroethylene	5.04				5.00		101	70-130			
cis-1,2-Dichloroethylene	5.00				5.00		99.9	70-130			
trans-1,2-Dichloroethylene	5.29				5.00		106	70-130			
1,2-Dichloropropane	5.01				5.00		100	70-130			

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QUALITY CONTROL

Air Toxics by EPA Compendium Methods - Quality Control

Analyte	ppbv Results	ppbv RL	ug/m3 Results	ug/m3 RL	Spike Level ppbv	Source Result	%REC		%REC Limits	RPD	RPD Limit	Flag/Qual
Batch B352252 - TO-15 Prep												
LCS (B352252-BS1)					Prepared & Analyzed: 09/12/23							
cis-1,3-Dichloropropene	5.31				5.00		106		70-130			
trans-1,3-Dichloropropene	6.00				5.00		120		70-130			
1,2-Dichloro-1,1,2,2-tetrafluoroethane (Freon 114)	4.53				5.00		90.5		70-130			
1,4-Dioxane	4.88				5.00		97.5		70-130			
Ethanol	5.45				5.00		109		70-130			
Ethyl Acetate	5.06				5.00		101		70-130			
Ethylbenzene	5.02				5.00		100		70-130			
4-Ethyltoluene	5.38				5.00		108		70-130			
Heptane	5.64				5.00		113		70-130			
Hexachlorobutadiene	7.28				4.25		**171**	*	70-130			L-01, V-20
Hexane	4.87				5.00		97.5		70-130			
2-Hexanone (MBK)	4.94				5.00		98.9		70-130			
Isopropanol	3.92				5.00		78.5		70-130			
Methyl tert-Butyl Ether (MTBE)	5.18				5.00		104		70-130			
Methylene Chloride	4.56				5.00		91.2		70-130			
4-Methyl-2-pentanone (MIBK)	5.66				5.00		113		70-130			
Naphthalene	5.25				3.68		**143**	*	70-130			L-05, Z-01
Propene	6.00				5.00		120		70-130			
Styrene	5.39				5.00		108		70-130			
1,1,2,2-Tetrachloroethane	5.30				5.00		106		70-130			
Tetrachloroethylene	4.96				5.00		99.3		70-130			
Tetrahydrofuran	5.36				5.00		107		70-130			
Toluene	5.19				5.00		104		70-130			
1,2,4-Trichlorobenzene	5.03				3.90		129		70-130			
1,1,1-Trichloroethane	5.16				5.00		103		70-130			
1,1,2-Trichloroethane	5.44				5.00		109		70-130			
Trichloroethylene	5.09				5.00		102		70-130			
Trichlorofluoromethane (Freon 11)	5.04				5.00		101		70-130			
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	4.90				5.00		98.0		70-130			
1,2,4-Trimethylbenzene	5.60				5.00		112		70-130			
1,3,5-Trimethylbenzene	5.98				5.00		120		70-130			
Vinyl Acetate	5.74				5.00		115		70-130			
Vinyl Chloride	5.26				5.00		105		70-130			
m&p-Xylene	11.5				10.0		115		70-130			
o-Xylene	5.64				5.00		113		70-130			
Surrogate: 4-Bromofluorobenzene (1)	*8.13*				*8.00*		*102*		*70-130*			

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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.
L-01	Laboratory fortified blank/laboratory control sample recovery outside of control limits. Data validation is not affected since all results are "not detected" for all samples in this batch for this compound and bias is on the high side.
L-05	Laboratory fortified blank/laboratory control sample recovery is outside of control limits. Reported value for this compound is likely to be biased on the high side.
RL-11	Elevated reporting limit due to high concentration of target compounds.
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	Calibrations RSD for this compound is >30% but <40%.

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INTERNAL STANDARD AREA AND RT SUMMARY

EPA TO-15

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Initial Cal Check (S085380-ICV1)			Lab File ID: J23A090036.D			Analyzed: 04/01/23 05:53			
Bromochloromethane (1)	298104	2.788	289065	2.788	103	60 - 140	0.0000	+/-0.50	
1,4-Difluorobenzene (1)	850179	3.418	804638	3.418	106	60 - 140	0.0000	+/-0.50	
Chlorobenzene-d5 (1)	747035	5.036	717694	5.036	104	60 - 140	0.0000	+/-0.50	

INTERNAL STANDARD AREA AND RT SUMMARY

EPA TO-15

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Calibration Check (S093501-CCV1)			Lab File ID: J23A255004.D			Analyzed: 09/12/23 10:17			
Bromochloromethane (1)	294241	2.805				60 - 140		+/-0.50	
1,4-Difluorobenzene (1)	826904	3.433				60 - 140		+/-0.50	
Chlorobenzene-d5 (1)	718595	5.039				60 - 140		+/-0.50	
LCS (B352252-BS1)			Lab File ID: J23A255005.D			Analyzed: 09/12/23 10:42			
Bromochloromethane (1)	302274	2.805	294241	2.805	103	60 - 140	0.0000	+/-0.50	
1,4-Difluorobenzene (1)	836385	3.433	826904	3.433	101	60 - 140	0.0000	+/-0.50	
Chlorobenzene-d5 (1)	728072	5.04	718595	5.039	101	60 - 140	0.0010	+/-0.50	
Blank (B352252-BLK1)			Lab File ID: J23A255008.D			Analyzed: 09/12/23 12:34			
Bromochloromethane (1)	303583	2.784	294241	2.805	103	60 - 140	-0.0210	+/-0.50	
1,4-Difluorobenzene (1)	663422	3.417	826904	3.433	80	60 - 140	-0.0160	+/-0.50	
Chlorobenzene-d5 (1)	587977	5.035	718595	5.039	82	60 - 140	-0.0040	+/-0.50	
SG-2 (23I1186-02RE1)			Lab File ID: J23A255018.D			Analyzed: 09/12/23 16:56			
Bromochloromethane (1)	285290	2.8	294241	2.805	97	60 - 140	-0.0050	+/-0.50	
1,4-Difluorobenzene (1)	612353	3.428	826904	3.433	74	60 - 140	-0.0050	+/-0.50	
Chlorobenzene-d5 (1)	555590	5.037	718595	5.039	77	60 - 140	-0.0020	+/-0.50	
SG-3 (23I1186-03RE1)			Lab File ID: J23A255019.D			Analyzed: 09/12/23 17:20			
Bromochloromethane (1)	287345	2.79	294241	2.805	98	60 - 140	-0.0150	+/-0.50	
1,4-Difluorobenzene (1)	596797	3.427	826904	3.433	72	60 - 140	-0.0060	+/-0.50	
Chlorobenzene-d5 (1)	561509	5.038	718595	5.039	78	60 - 140	-0.0010	+/-0.50	
SG-4 (23I1186-04)			Lab File ID: J23A255020.D			Analyzed: 09/12/23 17:45			
Bromochloromethane (1)	311282	2.8	294241	2.805	106	60 - 140	-0.0050	+/-0.50	
1,4-Difluorobenzene (1)	807896	3.429	826904	3.433	98	60 - 140	-0.0040	+/-0.50	
Chlorobenzene-d5 (1)	744337	5.037	718595	5.039	104	60 - 140	-0.0020	+/-0.50	
DUP-3 (23I1186-05RE1)			Lab File ID: J23A255021.D			Analyzed: 09/12/23 18:09			
Bromochloromethane (1)	310389	2.795	294241	2.805	105	60 - 140	-0.0100	+/-0.50	
1,4-Difluorobenzene (1)	667302	3.428	826904	3.433	81	60 - 140	-0.0050	+/-0.50	
Chlorobenzene-d5 (1)	607448	5.038	718595	5.039	85	60 - 140	-0.0010	+/-0.50	

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INTERNAL STANDARD AREA AND RT SUMMARY

EPA TO-15

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
SG-1 (23I1186-01)			Lab File ID: J23A255034.D			Analyzed: 09/13/23 00:19			
Bromochloromethane (1)	314027	2.79	294241	2.805	107	60 - 140	-0.0150	+/-0.50	
1,4-Difluorobenzene (1)	714679	3.417	826904	3.433	86	60 - 140	-0.0160	+/-0.50	
Chlorobenzene-d5 (1)	649872	5.038	718595	5.039	90	60 - 140	-0.0010	+/-0.50	
SG-2 (23I1186-02)			Lab File ID: J23A255035.D			Analyzed: 09/13/23 00:43			
Bromochloromethane (1)	326848	2.8	294241	2.805	111	60 - 140	-0.0050	+/-0.50	
1,4-Difluorobenzene (1)	764731	3.428	826904	3.433	92	60 - 140	-0.0050	+/-0.50	
Chlorobenzene-d5 (1)	696994	5.04	718595	5.039	97	60 - 140	0.0010	+/-0.50	
SG-3 (23I1186-03)			Lab File ID: J23A255036.D			Analyzed: 09/13/23 01:08			
Bromochloromethane (1)	327360	2.8	294241	2.805	111	60 - 140	-0.0050	+/-0.50	
1,4-Difluorobenzene (1)	792940	3.429	826904	3.433	96	60 - 140	-0.0040	+/-0.50	
Chlorobenzene-d5 (1)	702945	5.036	718595	5.039	98	60 - 140	-0.0030	+/-0.50	
DUP-3 (23I1186-05)			Lab File ID: J23A255037.D			Analyzed: 09/13/23 01:33			
Bromochloromethane (1)	328620	2.8	294241	2.805	112	60 - 140	-0.0050	+/-0.50	
1,4-Difluorobenzene (1)	780648	3.429	826904	3.433	94	60 - 140	-0.0040	+/-0.50	
SG-4 (23I1186-04RE1)			Lab File ID: J23A255038.D			Analyzed: 09/13/23 02:00			
Bromochloromethane (1)	320019	2.785	294241	2.805	109	60 - 140	-0.0200	+/-0.50	
1,4-Difluorobenzene (1)	779136	3.418	826904	3.433	94	60 - 140	-0.0150	+/-0.50	
Chlorobenzene-d5 (1)	745229	5.035	718595	5.039	104	60 - 140	-0.0040	+/-0.50	

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CONTINUING CALIBRATION CHECK

EPA TO-15

S093501-CCV1

COMPOUND	TYPE	CONC. (ppbv)		RESPONSE FACTOR			% DIFF / DRIFT	
		STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
Acetone	A	5.00	4.57	1.034114	0.9458424		-8.5	30
Benzene	A	5.00	4.94	0.8123645	0.802707		-1.2	30
Benzyl chloride	L	5.00	5.33	0.5056852	0.8129775		6.5	30
Bromodichloromethane	A	5.00	5.33	0.6094342	0.649927		6.6	30
Bromoform	A	5.00	6.06	0.4573839	0.554364		21.2	30
Bromomethane	A	5.00	5.24	0.6761959	0.7081161		4.7	30
1,3-Butadiene	A	5.00	5.66	0.5092257	0.5759469		13.1	30
2-Butanone (MEK)	A	5.00	5.08	1.148647	1.167261		1.6	30
Carbon Disulfide	A	5.00	5.35	2.001154	2.140449		7.0	30
Carbon Tetrachloride	A	5.00	5.85	0.5037067	0.589147		17.0	30
Chlorobenzene	A	5.00	5.37	0.7622773	0.8187176		7.4	30
Chloroethane	A	5.00	5.25	0.4202137	0.4414232		5.0	30
Chloroform	A	5.00	5.40	1.577837	1.705062		8.1	30
Chloromethane	A	5.00	5.00	0.5966374	0.5965233		-0.02	30
Cyclohexane	A	5.00	4.98	0.3246406	0.3235413		-0.3	30
Dibromochloromethane	A	5.00	6.17	0.5189836	0.6400913		23.3	30
1,2-Dibromoethane (EDB)	A	5.00	5.82	0.4960864	0.5772776		16.4	30
1,2-Dichlorobenzene	A	5.00	6.28	0.4911951	0.6171465		25.6	30
1,3-Dichlorobenzene	A	5.00	6.59	0.5456808	0.719553		31.9	30 *
1,4-Dichlorobenzene	A	5.00	6.12	0.5309926	0.6505183		22.5	30
Dichlorodifluoromethane (Freon 12)	A	5.00	5.80	1.809285	2.096877		15.9	30
1,1-Dichloroethane	A	5.00	5.44	1.317427	1.433486		8.8	30
1,2-Dichloroethane	A	5.00	5.06	0.9730911	0.9851625		1.2	30
1,1-Dichloroethylene	A	5.00	5.30	1.146845	1.21607		6.0	30
cis-1,2-Dichloroethylene	A	5.00	5.27	0.9524103	1.004515		5.5	30
trans-1,2-Dichloroethylene	A	5.00	5.33	1.02979	1.096973		6.5	30
1,2-Dichloropropane	A	5.00	5.27	0.3033695	0.3196328		5.4	30
cis-1,3-Dichloropropene	A	5.00	5.67	0.4042769	0.4581833		13.3	30
trans-1,3-Dichloropropene	A	5.00	6.19	0.3279415	0.4060892		23.8	30
1,2-Dichloro-1,1,2,2-tetrafluoroethane (Freon 1	A	5.00	5.18	1.964888	2.034833		3.6	30
1,4-Dioxane	A	5.00	4.81	0.1624784	0.1563712		-3.8	30
Ethanol	A	5.00	5.05	0.1724202	0.1742354		1.1	30
Ethyl Acetate	A	5.00	5.62	0.2040016	0.2291129		12.3	30
Ethylbenzene	A	5.00	5.30	1.293794	1.371623		6.0	30
4-Ethyltoluene	A	5.00	5.63	1.173601	1.322182		12.7	30
Heptane	A	5.00	5.58	0.2390228	0.2665248		11.5	30
Hexachlorobutadiene	A	5.00	8.05	0.2261563	0.3641217		61.0	30 *
Hexane	L	5.00	4.82	0.6738496	0.6534888		-3.5	30

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CONTINUING CALIBRATION CHECK

EPA TO-15

S093501-CCV1

COMPOUND	TYPE	CONC. (ppbv)		RESPONSE FACTOR			% DIFF / DRIFT		
		STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)	
2-Hexanone (MBK)	A	5.00	5.20	0.4320676	0.4492099		4.0	30	
Isopropanol	A	5.00	4.67	1.163166	1.086532		-6.6	30	
Methyl tert-Butyl Ether (MTBE)	A	5.00	5.28	1.752887	1.852185		5.7	30	
Methylene Chloride	A	5.00	4.88	0.8161184	0.7969032		-2.4	30	
4-Methyl-2-pentanone (MIBK)	A	5.00	5.88	0.1991676	0.2343856		17.7	30	
Naphthalene	A	5.00	6.28	0.4140914	0.5205246		25.7	30	
Propene	A	5.00	6.17	0.3783566	0.4667031		23.4	30	
Styrene	A	5.00	5.90	0.6193387	0.7303007		17.9	30	
1,1,2,2-Tetrachloroethane	A	5.00	5.73	0.7875453	0.9020358		14.5	30	
Tetrachloroethylene	A	5.00	5.34	0.4061033	0.4332922		6.7	30	
Tetrahydrofuran	A	5.00	5.17	0.5602263	0.5794814		3.4	30	
Toluene	A	5.00	5.40	0.9952737	1.075851		8.1	30	
1,2,4-Trichlorobenzene	A	5.00	5.76	0.1951236	0.2248365		15.2	30	
1,1,1-Trichloroethane	A	5.00	5.54	0.5148362	0.570117		10.7	30	
1,1,2-Trichloroethane	A	5.00	5.60	0.3494055	0.3913659		12.0	30	
Trichloroethylene	A	5.00	5.34	0.3469588	0.3704594		6.8	30	
Trichlorofluoromethane (Freon 11)	A	5.00	5.45	1.832227	1.998617		9.1	30	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113	A	5.00	5.32	1.363757	1.451686		6.4	30	
1,2,4-Trimethylbenzene	A	5.00	6.20	0.9035781	1.120055		24.0	30	
1,3,5-Trimethylbenzene	A	5.00	6.58	0.9651619	1.269738		31.6	30	*
Vinyl Acetate	A	5.00	4.83	1.160867	1.121432		-3.4	30	
Vinyl Chloride	A	5.00	5.56	0.7330867	0.815348		11.2	30	
m&p-Xylene	A	10.0	12.2	1.010218	1.236619		22.4	30	
o-Xylene	A	5.00	6.05	0.9862305	1.193707		21.0	30	

Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

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CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
EPA TO-15 in Air	
Acetone	AIHA,NY,ME,NH
Benzene	AIHA,FL,NJ,NY,ME,NH,VA
Benzyl chloride	AIHA,FL,NJ,NY,ME,NH,VA
Bromodichloromethane	AIHA,NJ,NY,ME,NH,VA
Bromoform	AIHA,NJ,NY,ME,NH,VA
Bromomethane	AIHA,FL,NJ,NY,ME,NH
1,3-Butadiene	AIHA,NJ,NY,ME,NH,VA
2-Butanone (MEK)	AIHA,FL,NJ,NY,ME,NH,VA
Carbon Disulfide	AIHA,NJ,NY,ME,NH,VA
Carbon Tetrachloride	AIHA,FL,NJ,NY,ME,NH,VA
Chlorobenzene	AIHA,FL,NJ,NY,ME,NH,VA
Chloroethane	AIHA,FL,NJ,NY,ME,NH,VA
Chloroform	AIHA,FL,NJ,NY,ME,NH,VA
Chloromethane	AIHA,FL,NJ,NY,ME,NH,VA
Cyclohexane	AIHA,NJ,NY,ME,NH,VA
Dibromochloromethane	AIHA,NY,ME,NH
1,2-Dibromoethane (EDB)	AIHA,NJ,NY,ME,NH
1,2-Dichlorobenzene	AIHA,FL,NJ,NY,ME,NH,VA
1,3-Dichlorobenzene	AIHA,NJ,NY,ME,NH
1,4-Dichlorobenzene	AIHA,FL,NJ,NY,ME,NH,VA
Dichlorodifluoromethane (Freon 12)	AIHA,NY,ME,NH
1,1-Dichloroethane	AIHA,FL,NJ,NY,ME,NH,VA
1,2-Dichloroethane	AIHA,FL,NJ,NY,ME,NH,VA
1,1-Dichloroethylene	AIHA,FL,NJ,NY,ME,NH,VA
cis-1,2-Dichloroethylene	AIHA,FL,NY,ME,NH,VA
trans-1,2-Dichloroethylene	AIHA,NJ,NY,ME,NH,VA
1,2-Dichloropropane	AIHA,FL,NJ,NY,ME,NH,VA
cis-1,3-Dichloropropene	AIHA,FL,NJ,NY,ME,NH,VA
trans-1,3-Dichloropropene	AIHA,NY,ME,NH
1,2-Dichloro-1,1,2,2-tetrafluoroethane (Freon 114)	AIHA,NJ,NY,ME,NH,VA
1,4-Dioxane	AIHA,NJ,NY,ME,NH,VA
Ethanol	AIHA
Ethyl Acetate	AIHA
Ethylbenzene	AIHA,FL,NJ,NY,ME,NH,VA
4-Ethyltoluene	AIHA
Heptane	AIHA,NJ,NY,ME,NH,VA
Hexachlorobutadiene	AIHA,NJ,NY,ME,NH,VA
Hexane	AIHA,FL,NJ,NY,ME,NH,VA
2-Hexanone (MBK)	AIHA
Isopropanol	AIHA,NY,ME,NH
Methyl tert-Butyl Ether (MTBE)	AIHA,FL,NJ,NY,ME,NH,VA
Methylene Chloride	AIHA,FL,NJ,NY,ME,NH,VA
4-Methyl-2-pentanone (MIBK)	AIHA,FL,NJ,NY,ME,NH
Naphthalene	NY,ME,NH
Propene	AIHA
Styrene	AIHA,FL,NJ,NY,ME,NH,VA
1,1,2,2-Tetrachloroethane	AIHA,FL,NJ,NY,ME,NH,VA

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CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
EPA TO-15 in Air	
Tetrachloroethylene	AIHA,FL,NJ,NY,ME,NH,VA
Tetrahydrofuran	AIHA
Toluene	AIHA,FL,NJ,NY,ME,NH,VA
1,2,4-Trichlorobenzene	AIHA,NJ,NY,ME,NH,VA
1,1,1-Trichloroethane	AIHA,FL,NJ,NY,ME,NH,VA
1,1,2-Trichloroethane	AIHA,FL,NJ,NY,ME,NH,VA
Trichloroethylene	AIHA,FL,NJ,NY,ME,NH,VA
Trichlorofluoromethane (Freon 11)	AIHA,NY,ME,NH
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	AIHA,NJ,NY,ME,NH,VA
1,2,4-Trimethylbenzene	AIHA,NJ,NY,ME,NH
1,3,5-Trimethylbenzene	AIHA,NJ,NY,ME,NH
Vinyl Acetate	AIHA,FL,NJ,NY,ME,NH,VA
Vinyl Chloride	AIHA,FL,NJ,NY,ME,NH,VA
m&p-Xylene	AIHA,FL,NJ,NY,ME,NH,VA
o-Xylene	AIHA,FL,NJ,NY,ME,NH,VA

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

Code	Description	Number	Expires
AIHA	AIHA-LAP, LLC - ISO 17025:2017	100033	03/1/2024
NY	New York State Department of Health	10899 NELAP	04/1/2024
NH	New Hampshire Environmental Lab	2516 NELAP	02/5/2024
NJ	New Jersey DEP	MA007 NELAP	06/30/2024
FL	Florida Department of Health	E871027 NELAP	06/30/2024
ME	State of Maine	MA00100	06/9/2025
VA	Commonwealth of Virginia	460217	12/14/2023

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CHAIN OF CUSTODY RECORD (AIR)

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East Longmeadow, MA 01028

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23I1186

Company Name: Weston & Sampson
Address: 985 Main St Suite 2, Waterbury VT 05676
Phone: 802 244 5051
Project Name: 11 N Main St
Project Location: Northfield VT
Project Number:
Project Manager: Lee Rosberg
Pace Quote Name/Number: 00142205
Invoice Recipient: Lee Rosberg
Sampled By: Daniel Schuckels

Requested Turnaround Time
7-Day [X] 10-Day [ ]
Due Date:

Rush-Approval Required
1-Day [ ] 3-Day [ ]
2-Day [ ] 4-Day [ ]

Data Delivery
Format: PDF [X] EXCEL [X]
Other: EnviData 8
CLP Like Data Pkg Required: [ ]
Email To: Rosberg.Lee@wseinc.com
Fax To #:

ANALYSIS REQUESTED

Lab Use	Client Use	Collection Data		Duration	Flow Rate	Matrix	Volume	ANALYSIS REQUESTED				" Hg			Please fill out completely, sign, date and retain the yellow copy for your records	
Pace Work Order#	Client Sample ID / Description	Beginning Date/Time	Ending Date/Time	Total Minutes Sampled	[X] m³/min [ ] L/min	Code	[X] Liters [ ] m³	Vac To -15				Initial Pressure	Final Pressure	Lab Receipt Pressure	Summa Can ID	Flow Controller ID
01	SG-1	9/7/23 8:42	9:12	30	0.2	SG	6	X				29	4	-5.8	BL1967	4090
02	SG-2	9/7/23 10:23	11:24	31	0.19	SG	6	X				29.5	5	-3.2	BL1104	4280 DUP
03	SG-3	9/7/23 10:28	10:59	31	0.19	SG	6	X				27	4	-6.0	BL2483	4213
04	SG-4	9/7/23 8:06	9/7/23 8:37	31	0.19	SG	6	X				26	4	-2.0	BL1810	4074
05	DUP-3	9/7/23 10:23	11:24	31	0.19	SG	6	X				27.5	5	-6.8	BL2058	4280 DUP

Summa canisters and flow controllers must be returned within 15 days of receipt or rental fees will apply

For summa canister and flow controller information please refer to Con-Test's Air Media Agreement

Comments:

Please use the following codes to indicate possible sample concentration within the Conc Code column above:
H - High; M - Medium; L - Low; C - Clean; U - Unknown

Matrix Codes:
SG = SOIL GAS
IA = INDOOR AIR
AMB = AMBIENT
SS = SUB SLAB
D = DUP
BL = BLANK
O = Other_____

Relinquished by: (signature)	Date/Time:
Daniel Schuckels	9/7/23 2:00
Received by: (signature)	Date/Time:
Ryan Cowan	9/8/23 1311
Relinquished by: (signature)	Date/Time:
Received by: (signature)	Date/Time:
Relinquished by: (signature)	Date/Time:
Received by: (signature)	Date/Time:

Detection Limit Requirements
MA
CT
Other

Special Requirements
[ ] MA MCP Required
[ ] MCP Certification Form Required
[ ] CT RCP Required
[ ] RCP Certification Form Required
[ ] Other

Pace Analytical®
NELAC and AIHA-LAP, LLC Accredited

Project Entity
[ ] Government [ ] Municipality [ ] MWRA [ ] WRTA
[ ] Federal [ ] 21 J [ ] School
[ ] City [ ] Brownfield [ ] MBTA

Other
[ ] Chromatogram
[ ] AIHA-LAP,LLC

PCB ONLY
[ ] Soxhlet
[ ] Non Soxhlet

FedEx Sign Up or Log In

FedEx® Tracking

Summary Tracking Results

TRACKING ID	SHIP DATE	SHIPPER CITY, STATE	RECIPIENT CITY, STATE	STATUS	DELIVERY DATE	SCHEDULED DELIVERY DATE	SERVICE
773161237995	9/7/23	WATERBURY, VT	East Longmeadow, MA	Delivered	9/8/23 1:11 PM		FedEx Ground
773161237686	9/7/23	WATERBURY, VT	East Longmeadow, MA	Delivered	9/8/23 1:11 PM		FedEx Ground

OBTAIN PROOF OF DELIVERY

Pace ANALYTICAL SERVICES	DC#_Title: ENV-FRM-ELON-0009 v04_Air Sample Receiving Checklist
	Effective Date: 07/13/2023

Log In Back-Sheet

Client Weston + Sampson

Project 11 N Main St

MCP/RCP Required

Deliverable Package Requirement

Location Northfield, VT

PWSID# (When Applicable)

Arrival Method FedEx 7731 6123 7995

Received By / Date / Time KMC 9/8/23 1311

Back-Sheet By / Date / Time KMC 9/11/23 1115

Temperature ~~Method~~ # ☐

Temp ≤ 6° C Actual Temperature

Rush Samples: Yes / (No) Notify

Short Hold: Yes / (No) Notify

Notes regarding Samples/COC outside of SOP:

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

	True	False
Received on Ice	☐	☒
Received in Cooler	☐	☒
Custody Seal: DATE TIME	☐	☒
COC Relinquished	☒	☐
COC/Samples Labels Agree	☒	☐
All Samples in Good Condition	☒	☐
Samples Received within Holding Time	☒	☐
Is there enough Volume	☒	☐
Proper Media/Container Used	☒	☐
Individually Certified Cans	☐	☒
Trip Blanks	☐	☒
COC Legible	☒	☐

COC Included: (Check all included)

Client ☒ Analysis ☒ Sampler Name ☒

Project ☒ IDs ☒ Collection Date/Time ☒

Container	#	Size	Regulator	Duration	Accessories			
Summa Cans	5	6L	5	30min, 1hr	Nut/Ferrule	4	IC Train	
Tedlar Bags					Tubing			
TO-17 Tubes					T-Connector	1	Shipping Charges	
Radiello					Syringe			
Pufs/ TO-11					Tedlar			

Can #'s															
1	1967	5	2058	10		15		Regs #'s		5	4280	10		15	
2	1104	6		11		16		1	4090	6		11		16	
3	2483	7		12		17		2	4280	7		12		17	
4	1810	8		13		18		3	4213	8		13		18	
Unused Media		9		14		19		4	4074	9		14		19	
1		4		9		14		Pufs/TO-17's		5		10		15	
2		5		10		15		1		6		11		16	
3		6		11		16		2		7		12		17	
4		7		12		17		3		8		13		18	
		8		13		18		4		9		14		19	

Qualtrax ID: 127034

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Weston & Sampson

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REPORT

February 26, 2024

Evaluation of Corrective Action Alternatives

11 North Main Street
Northfield, Vermont
SMS#2023-5224

Prepared for:
Northfield Development Main, LLC

and

Vermont Department of Environmental Conservation

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EXECUTIVE SUMMARY

Weston & Sampson Engineers, Inc. (Weston & Sampson) has prepared this Evaluation of Corrective Action Alternatives (ECAA) on behalf of) Northfield Development Main, LLC to present recommended corrective actions for the property located at 11 North Main Street in Northfield, Vermont (the Site). Funding for this ECAA was provided by the Vermont Department of Environmental Conservation (VTDEC). Northfield Development Main, LLC, is enrolled in the Vermont Brownfields Reuse and Environmental Liability Limitation Program (BRELLA) as a prospective purchaser. Site redevelopment plans include construction of a multi-unit residential structure, parking, and greenspace.

Several environmental investigations have been conducted, and Site assessment activities have identified the following contaminants of concern (COCs) in soil and soil gas:

- Surficial Soil: PAHs and lead
- Soil Gas: Benzene, ethylbenzene, tetrachloroethene, and carbon tetrachloride

The Site is in a Designated Urban Soil Zone as defined by the VTDEC. Surface soil in the western approximate half of the Site is impacted with PAHs at concentrations above the Vermont Soil Standards (VSS) for urban background. Lead is present in surface and shallow soil at concentrations above the urban background VSS.

The volatile organic compounds (VOCs) benzene, ethylbenzene, carbon tetrachloride, and tetrachloroethylene (PCE) are present in Site soil gas at concentrations above the VTDEC Vapor Intrusion Standards for Subslab Soil Gas (VIS-SSG) for residential use. This condition presents a risk of vapor intrusion into the proposed residential building.

Several corrective action alternatives are evaluated to prevent exposure of current and future Site Users to contaminated soil and vapor intrusion. Based on the results of this evaluation, the preferred corrective actions include limited soil excavation and off-Site disposal, installation of engineered barriers, and installation of a vapor barrier and passive ventilation system beneath future Site buildings. Institutional controls will be placed on the Site to require ongoing maintenance and monitoring of the engineered barriers and passive ventilation system and will require notification of the VTDEC prior to any planned Site renovations which would include, penetration of the vapor barrier, changes to the passive ventilation piping, or subsurface work that penetrates the engineered barriers.

With ECAA approval by the VTDEC, a Corrective Action Plan (CAP) will be developed for the Site which will provide the design for the engineered barriers, vapor barrier, and passive ventilation system.

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1.0 INTRODUCTION

Weston & Sampson Engineers, Inc. (Weston & Sampson) has prepared this Evaluation of Corrective Action Alternatives (ECAA) on behalf of the Central Vermont Regional Planning Commission (CVRPC), and Northfield Development Main, LLC to evaluate recommended corrective action alternatives for the property located at 11 North Main Street in Northfield, Vermont (the Site, Figure 1). Funding for this ECAA was provided by the Vermont Department of Environmental Conservation (VTDEC), which has assigned the Site with Site Management Section (SMS) #2023-5224.

1.1 Site Location

Street Address: 11 North Main Street, Northfield, VT
Latitude (North): 44.1504430 - 44° 9' 1.59''
Longitude (West): 72.6549170 - 72° 39' 17.70''
Universal Transverse Mercator: Zone 18
UTM X (Meters): 687546.2
UTM Y (Meters): 4891040.0
Elevation: 713 feet above sea level
Site Owner: Cetrangolo Finishing Works, Inc.
Site Occupants: Vacant
County: Washington
Parcel ID: 923023000
Size: 1.30-acres

1.2 Current Use of Property

The Site is currently vacant. A Site map is included as Figure 2.

1.3 Current Use of Adjacent Properties

The Site is in a mixed residential and commercial area of Northfield. Adjoining commercial properties (Figure 2) include a Dollar General retail store to the south (108 South Main Street); a gasoline filling station and convenience store (73 North Main Street), and hardware store to the west (93 North Main Street); a former clothing company and a food company warehouse to the northwest (127 & 141 North Main Street); and a visual design/photographer and furniture maker to the north (168 North Main Street).

1.4 Site History

According to historical records available in a 2022 Phase I ESA completed by Wilcox & Barton, Inc. (Wilcox & Barton), the Site was first developed circa 1812 as a woolen mill. The Site was developed prior to 1897 as the Cross Brothers Granite Works, which processed and finished granite until 1942 and again between 1986 and 1999. The granite works extended onto the current 108 North Main Street (Dollar General) property to the south. Site buildings and features apparent on historical Sanborn Fire Insurance maps from 1897 until 1940 include a blacksmith shop, cutting shed, granite sawing & machine shop, carriage shop, painting building, a railroad spur, saddlery, machine shop with printing and repair rooms, a gasoline underground storage tank (UST) along Main Street, a "tank" located centrally on the Site, and a conveyer in the eastern portion of the Site connected to a dust collector. Mr. Nick Cetrangolo purchased the Site circa 1956 and redeveloped it to include a machine shop, auto repair facility, and gasoline filling station. These Site uses continued until approximately 1976. As noted above, granite

processing/finishing operations resumed from 1986 to 1999. The Site buildings were demolished in 2000 following the closure of the granite works. Mr. Portions of the former buildings concrete foundations and structural columns are still present at the Site. Historical Site features are shown on Figure 2.

1.5 Previous Environmental Investigations

Wilcox & Barton completed a Phase I ESA in 2022. Environmental investigations completed at adjoining properties have documented releases of petroleum products and hazardous materials as described below. The Phase I ESA identified the following recognized environmental conditions (RECs) in association with the Site:

1. Historical underground storage and documented release of petroleum at an adjacent property. An undocumented 500-gallon No. 2 fuel oil UST was encountered on the Dollar General property (108 North Main Street) during excavation in October 2012 (see Figure 2). The UST was damaged during excavation and approximately 100 gallons of oily water were released. The VTDEC assigned Spill #2012WMD529 to the release. Spill response actions included removal of the UST, recovery of oily water from the excavation, excavation and offsite disposal of impacted soil, and post-excavation soil sampling and analysis. Post-excavation soil sampling did not identify contaminant concentrations exceeding applicable standards. The damaged UST contents were reported to have impacted groundwater; however, groundwater sampling was not performed. The Spill incident was closed on December 12, 2012.

2. Historical underground storage of petroleum on an adjoining property. The Site is identified as UST Facility ID 4855711 for one 10,000-gallon UST containing No. 2 or No. 4 fuel oil that was removed in 1998. However, at the time of removal, the Site and southerly adjoining parcel (108 North Main Street/General Dollar) were both identified as 11 North Main Street. The former 10,000-gallon UST was located on the 108 North Main Street property south of the Site; however, the exact location of the former 10,000-gallon UST is not documented. A UST closure assessment completed by Griffin International, Inc. indicated that the UST was in very good condition with only minor soil impacts observed around the fill pipe and below the UST. These were attributed to small spills and/or overfills.

3. Documented arsenic contamination at an adjacent property. Elevated concentrations of arsenic were detected in soil at the adjacent 108 North Main Street property (Dollar General) in 2011. VTDEC assigned Site #2012-4284 to the release. Shallow arsenic-impacted soil was buried on-site under five feet of clean fill in accordance with a VTDEC-approved Corrective Action Plan (CAP).

4. Current and historical underground storage and documented petroleum contamination at an adjacent property. The property located at 73 North Main Street and adjoining the Site to the west-southwest is currently operated as a gasoline filling station. Elevated concentrations of petroleum compounds and lead were identified in soil and groundwater in 2011. A Supplemental Site investigation completed by KAS Environmental Science and Engineering (KAS) in October 2022 identified petroleum-related volatile organic compounds (VOCs) at concentrations exceeding non-residential use Vermont Soil Standards (VSS) and Vermont Groundwater Enforcement Standards (VGES) near a former gasoline pump island approximately 100 feet southwest of the Site. The extent of soil and groundwater contamination has not been defined.

5. Historical underground storage and release(s) of petroleum at an adjacent property. A 1989 site assessment identified soil contamination at the adjoining 127 North Main Street property. Available records did not indicate the type of contamination but did indicate soil was excavated and "landfarmed" on the property. The VTDEC issued a Sites Management Activity Completed (SMAC) letter for the release on March 7, 1994. Available records also indicate one 10,000-gallon fuel oil UST was removed from the property in 1998, and one 12,000-gallon fuel oil UST was removed in 2017. During the 1998 UST removal, petroleum contamination was identified. The release condition was tracked by the VTDEC under Site #90-0619. A letter from the VTDEC, dated October 26, 1998, indicates that impacted soil encountered during UST removal was stockpiled at the property. Closure documents associated with the 2017 UST removal were not reviewed.

6. Historical industrial use and underground storage of petroleum at the subject property. The Site was used for various industrial uses beginning in the late 1800s until at least 1999. Historical property uses included granite processing, automotive repair, gasoline filling, and machining. These industrial operations would have included the use and storage of various types of oil and/or hazardous materials. A historical Sanborn Map from 1919 depicts a buried gasoline tank and an unidentified tank at the property.

Weston & Sampson completed a Phase II ESA in October 2023 to evaluate whether previously identified RECs have resulted in a release to the environment and to determine appropriate remediation and/or mitigation measures that may be required during Site redevelopment. Field activities included a surface soil assessment using incremental sampling methodology (ISM) within two decision units (DUs), a subsurface soil assessment by advancing five soil borings, collection of five groundwater samples, and collection of four soil gas samples. Sample locations are shown on Figure 3.

The Phase II ESA findings included the following:

- Surface soil in the western half of the Site is impacted with polycyclic aromatic hydrocarbons (PAHs) exceeding the urban background Vermont Soil Standard (VSS) and non-residential VSS. PAH impacts appear to be limited to surface soil within previously developed areas of the Site where past industrial practices included granite cutting and processing, operation of a machine shop, and operation of a gasoline filling station and automotive repair shop. PAH soil results are shown on Figure 4.

- Lead was identified in soil above the urban background value of 111 milligrams per kilogram (mg/kg). Two discrete shallow soil samples collected from less than 3 feet below grade on the western portion of the Site contained lead concentrations exceeding the urban background VSS for lead.

- No polychlorinated biphenyls (PCBs), semi-volatile organic compounds (SVOCs) other than PAHs, or VOCs were identified in soil above the laboratory reporting limits.

- No VOCs were detected in groundwater except for low levels of acetone (a common lab contaminant) at one location. Acetone concentrations were below the Vermont Groundwater Enforcement Standard (VGES).

- Soil gas is impacted with the VOCs benzene, ethylbenzene, tetrachloroethylene (PCE), and carbon tetrachloride exceeding the residential Vapor Intrusion Standards for Subslab Soil Gas (VIS-SSG). Benzene also exceeded the non-residential VIS-SSG at one location.

Weston & Sampson completed a Supplemental Phase II ESA in December 2023 to further evaluate the nature and extent of VOCs detected in soil gas above the residential VIS-SSG. The extent of VOCs in soil gas above the residential VIS-SSG were defined to the west, limited to the east by the Dog River which abuts the Site, and limited to the north by shallow/exposed bedrock and shallow groundwater. Benzene and PCE were not defined south of the Site near the 108 North Main Street (Dollar General) property. However, this property, and all other nearby properties, are in non-residential use and are not expected to be at risk for vapor intrusion at levels exceeding the indoor air standards (IAS) for non-residential use. Benzene, ethylbenzene, carbon tetrachloride, and PCE soil gas results are shown on Figure 5.

1.6 Intended Future Site Reuse/Redevelopment

Site redevelopment plans include construction of a multi-unit residential structure, parking, and greenspace. The prospective purchaser, Northfield Development Main, LLC, is enrolled in the Vermont Brownfields Reuse and Environmental Liability Limitation Program (BRELLA).

1.7 Cleanup Criteria

The Site is in a Designated Urban Soil Zone as defined by the VTDEC and shown on the Agency of Natural Resources (ANR) Atlas. The chosen cleanup criteria for PAHs in soil is the Vermont Soil Standards (VSS) for urban background published in the VTDEC Investigation and Remediation of Contaminated Properties Rule (I-Rule), effective February 23, 2024. The cleanup criteria for lead in soil will be the Urban background VSS for lead of 111 mg/kg.

The following table presents the cleanup criteria for PAHs, expressed as benzo(a)pyrene toxic equivalents (B[a]P-TE), and lead and the maximum concentrations detected in Site soil.

Compound	Cleanup Criteria (mg/kg)	Max. Concentration (mg/kg)
Soil		
B(a)P-TE	0.58	2.0
Lead	111	350

The chosen cleanup criteria for VOCs in soil gas is the Vapor Intrusion Standards for Subslab Soil Gas (VIS-SSG) and Indoor Air (VIS-IAS) for residential use published in the I-Rule. The following table presents the cleanup criteria for benzene, ethylbenzene, carbon tetrachloride, and PCE and the maximum concentrations detected in Site soil gas.

Compound	Cleanup Criteria ($\mu g/m^3$)	Max. Concentration ($\mu g/m^3$)

	VIS-SSG	VIS-IAS	
Soil Gas			
Benzene	4.3	0.13	47
Ethylbenzene	13	0.40	14
Carbon Tetrachloride	5.7	0.17	12
Tetrachloroethylene (PCE)	21	0.63	110

1.8 Climate Change Impacts

The local area of the Site is subject to current and forecasted climate change conditions that can impact the local environment and necessitate careful consideration of proposed cleanup action alternatives. While climate data is not collected specifically for Rutland, pertinent changing climate conditions in Vermont are described in the following subsections.

1.8.1 Increased Temperatures

Vermont has experienced a temperature increase of approximately 3°F since the early 1900s, with the most recent 11-year period (2010–2020) being the warmest on record (Runkle et al., 2022). This is consistent with global climate change patterns. The winter temperatures have warmed more aggressively, 2.5 times the average annual temperature since 1960 (Galford et al., 2021). Projections indicate a continued increase in average temperatures, leading to warmer seasons and potential implications for ecosystem dynamics, including flora and fauna distributions.

1.8.2 Increased Precipitation

Annual average rainfall is increasing and has risen almost 6 inches since the 1960s (Runkle et al., 2022) and by 7.5 inches since 1900 (Galford et al., 2021). Forecasts suggest winter and spring precipitation will increase throughout this century. Warming will increase the proportion of the precipitation falling as rain.

1.8.3 Extreme Weather Events

Flood events have become more common, with recent examples including 2011 Tropical Storm Irene, where 3-7 inches of rainfall occurred in less than 18 hours (Runkle et al., 2022) and the recent Great Vermont Flood of July 2023, where 3-9 inches of rainfall occurred in less than 48 hours (NOAA, 2023). In general, Vermont has 2.4 more days of heavy precipitation since the 1960s (Galford et al., 2021). Predictions indicate an increased frequency and intensity of such events, posing risks of heightened flooding and related damages to infrastructure.

1.8.4 Site-Specific Climate Change Risk Factors

Given the projected climate impacts described above, and the location of the Site in an urban area and adjacent to the Dog River, site-specific risk factors that the corrective action must address include infrastructure vulnerability due to increased precipitation, flooding, and more extreme weather events and heat-island effects due to increased temperature. The selected corrective action must be designed with limiting vulnerability due to flooding, increased precipitation and extreme weather events and must address the potential for exacerbating heat island effects. If any portion of the selected corrective action includes or depends on vegetation, that vegetation must be selected among species expected to be climate resilient and able to thrive in projected conditions.

2.0 CONCEPTUAL SITE MODEL

2.1 Site Description

The Site is in a mixed commercial and residential area of Northfield, Vermont. The Site is currently vacant and anecdotal reports by Town of Northfield employees suggest that it is used by the Town as a snow dump in winter. It has been developed for various industrial and commercial uses since the early 1800s including a woolen mill, granite works, automotive repair shop, gasoline filling station, and machine shop. The Site is accessed from the west by North Main Street by a gravel drive. Concrete foundation and structural support remnants are present in the west-central portion. The eastern approximate two-thirds of the Site is vegetated except for an asphalt drive easement that extends from the Dollar General (108 North Main Street) property and is used as a truck turnaround. Overhead electrical and communication utilities traverse the northern extent of the Site from east to west. Site features are shown on Figure 2.

The Site is situated approximately 713 feet above mean sea level. The eastern portion, defined by the gravel drive and foundation remnants, is relatively flat. The west-central portion is covered with a concrete slab. A pit was observed in the concrete slab adjacent to one of the foundation remnants and was filled with water. Topography slopes steeply downward to the east towards the Dog River, which defines the eastern property boundary. A steep drainage defines the northern Site boundary.

The area is served by municipal water although one private water supply is mapped on the property adjoining the Site to the north. The Site and surrounding area are served by municipal wastewater disposal infrastructure. No wetlands are mapped on the Site or surrounding area.

2.2 Geology

The Site is within a Designated Urban Soil Zone as defined by the VTDEC and shown on the ANR Atlas. Designated Urban Soil Zones are areas where the use of VTDEC urban background concentrations for PAHs, arsenic, and lead may be used when evaluating contaminant concentrations. Soil in the western approximate two-thirds of the Site is mapped as pebbly sand, a glaciolacustrine deposit associated with Glacial Lake Winooski, which extended into Northfield along the current Dog River channel approximately 14,000 – 13,500 years before present during the retreat of the Laurentide ice sheet.

Subsurface soils observed at the Site consist of 0-7 feet of fill overlying native brown fine sand. Fill soils consist of light brown and grey medium to coarse sand and some gravel, with glass and granite rubble. The thickest fill soils were observed in the westernmost (SB-2) and easternmost (SB-5) areas of the Site and thinnest fill soils were observed centrally (SB-4). Native soil consists of brown fine sand and was observed from 7 ft bgs to a maximum depth of 20 ft bgs in the southwestern corner of the site. Native soils appeared to be reworked in the north and southwest of the Site from 0-5 feet bgs and consisted of fine to coarse sand and gravel with no bedding structure. The native sandy soil encountered is consistent with the mapped pebbly sand and soil described on the adjoining gas station property (KAS, 2022). Fill soils on the Site are consistent with the fill soils described on the property adjoining the Site to the south, which contained wood, pieces of granite, metal, and concrete (ATC, 2012).

Bedrock at the Site is mapped as a phyllite and metasiltstone members of the Cram Hill Formation (Ratcliffe et al, 2011). Exposed schist outcrops were present at the north of the site, which is somewhat consistent with the mapped bedrock as schist has undergone higher grade metamorphism compared

to phyllite. Refusal on what was presumed to be bedrock was encountered between 8 and 12 feet bgs in the northwest area of the Site (SB-1). Refusal was not encountered at a maximum depth of 20 ft bgs in the southwest corner of the Site (GW-2).

Groundwater was encountered between approximately 2 and 15 ft bgs at the Site and was shallower near the bedrock on the north side of the property. Groundwater elevation was not determined due to the use of temporary screen point wells, which were not surveyed.

Groundwater flow, based on previous investigations (ATC, 2011 and KAS, 2022), is to the south. A groundwater seep was observed from the bedrock outcrop on the north of the Site.

2.3 Contaminants of Concern

Based on the results of the Phase II ESA, the primary contaminants of concern (COC) include the following:

- Surficial Soil: PAHs and lead
- Soil Gas: Benzene, ethylbenzene, tetrachloroethene, and carbon tetrachloride

2.4 Distribution and Potential Sources

2.4.1 Surficial Soil

The 95% upper confidence limit (UCL) for PAHs in surficial soil in DU1 (western half of the Site) is 2.0 mg/kg, above the non-residential VSS (1.54 mg/kg). PAH concentrations appear to decrease with depth, with no subsurface samples exceeding the non-residential VSS. PAHs were not detected in native soils.

The 95% UCL for PAHs in surficial soil in DU2 (eastern half of the Site) is 0.30 mg/kg, below the urban background VSS.

Potential sources of PAHs in surface soil include former industrial uses of the property (granite works, automotive repair shop, machine shop, and woolen mill), use as a snow dump, aerial deposition within an urban setting, and importation of contaminated fill from an unknown location, or a combination of these sources.

Lead is present in shallow soil above the proposed urban background VSS in two locations on the northwest of the site (SB-1 (0-2) and SB-4(0-3)) to a maximum depth of 3 feet bgs. Lead concentrations appear to be present throughout the Site in low levels, with a few locations above the Urban Background VSS likely due to heterogeneity of the contaminant in soil. Lead was not detected above the proposed Urban Background VSS in native soils. Potential sources of lead in shallow soil includes former industrial uses of the property, possible lead paint on historical Site buildings, use as a snow dump, and contaminated fill from an unknown location, or a combination of these sources.

2.4.2 Soil Gas

Benzene and ethylbenzene were identified in soil gas above the residential VIS-SSG, with the highest concentrations on the western side of the Site at SG-4. Benzene concentrations at SG-4 also exceeded the non-residential VIS-SSG. The extent of ethylbenzene soil gas contamination appears to be limited to the western area of the Site near SG-4. Steep topography, exposed bedrock, and shallow groundwater

likely limits benzene and ethylbenzene migration to the north of the Site near SG-4. The extent of benzene soil gas contamination is more widespread in the western and southern portions of the Site where concentrations above the residential VIS-SSG extend off-Site within Main Street to the area immediately west of Dollar General (108 North Main Street; SG-9). No VOCs were detected in soil or groundwater. Shallow surface releases due to former Site uses (automotive repair shop, filling station, and machine shop) or a former on-Site gasoline UST from the early 1900s (see Figure 2) are likely sources for these petroleum-related VOCs. Several potential off-Site sources also exist, including two former USTs at the adjacent Dollar General (108 North Main Street) property to the south, two former USTs at the adjoining 127 North Main Street property to the northwest, and petroleum-related VOCs documented in groundwater at 73 North Main Street (SMS #2011-4199), approximately 100 feet southwest of the Site. Benzene and ethylbenzene could migrate from these potential off-Site sources onto the Site through coarse backfill materials with utility corridors, such as the water and sewer utilities that are located in North Main Street and serve the adjoining properties.

Carbon tetrachloride and PCE were also detected in soil gas above their residential VIS-SSGs, with the highest concentration of PCE on the southern edge of the Site at SG-2, and the highest concentration of carbon tetrachloride on the western side of the Site at SG-4. Neither compound was detected in soil or groundwater. Steep topography, exposed bedrock, and shallow groundwater likely limits carbon tetrachloride migration to the north of the Site near SG-4. Releases related to the use, storage, and disposal of PCE solvents potentially used as a degreaser in automotive maintenance activities in the former filling station and machine shop are potential sources for these chlorinated VOCs. Chlorinated VOCs were not detected in soil gas samples collected from the Main Street right-of-way.

2.5 Migration Pathway

PAHs and lead are expected to be relatively immobile in soil and do not appear to have leached downwards into subsurface soil. The primary migration pathway for PAHs and lead at the Site is via erosion. Elevated PAHs and lead are only present in surface soil in the western half of the Site where topography is generally flat. Based on topography and distance from the Dog River, surface water and sediment in the Dog River is unlikely to be impacted by erosion of PAH and lead contaminated soils from the Site.

Potential VOC releases associated with past on-Site activities do not appear to have impacted soil or groundwater, though at least one potential off-Site source for petroleum-related VOCs (73 North Main Street) has confirmed petroleum-related VOCs in soil and groundwater.

Whether sourced on-Site or off-Site, once in the subsurface, migration of VOCs in soil gas will occur through advection (bulk movement with the flow of a fluid such as air or groundwater) or diffusion (moving from areas of higher concentration to lower concentration). The former buildings concrete foundations of the Site may cause VOCs to accumulate below the concrete and may prevent surface water from infiltrating and transporting VOCs to groundwater.

Where VOCs in soil gas are in contact with a building slab or utility spaces, they may impact air quality through vapor intrusion. There is a vapor intrusion risk to indoor air in the future Site building. There does not appear to be a risk to indoor air in nearby non-residential use buildings from Site-related VOC soil gas contamination.

2.6 Sensitive Receptors

A Sensitive Receptor Map, generated with the Agency of Natural Resources online Natural Resources Atlas, is provided as Figure 6.

The Site is in a mixed commercial/industrial and residential area of Northfield, Vermont. The area is served by municipal water and no private wells are mapped on or downgradient of the Site. A private water supply is mapped on the adjoining property to the north.

Potential human receptors to PAHs and lead in soil include Site users such as nearby residents and trespassers. Future potential human receptors include construction and utility workers performing subsurface work, or occupants of the future residential development.

Potential human receptors to VOCs in soil gas include future occupants of the proposed residential development. Other potential human receptors to VOCs in soil gas include construction and utility workers performing subsurface work.

No wetlands are located on or downgradient of the Site and the Site is in an urban area. Potential ecological receptors are limited to aquatic biota in the Dog River.

2.7 Exposure Pathways

Potential exposure pathways to sensitive receptors include direct contact through ingestion of contaminated soil, dermal contact with contaminated soil, and inhalation due to vapor intrusion into excavations or buildings. The following exposure pathways are considered complete:

- Site Users could encounter surface soil impacted with PAHs and lead.
- Future Site Users completing subsurface work (such as construction or utility workers) could encounter soil gas impacted with benzene, ethylbenzene, PCE, and carbon tetrachloride.
- Future building occupants could encounter benzene, ethylbenzene, PCE, and/or carbon tetrachloride via the vapor intrusion pathway.

The following exposure pathways may be complete, but their status is currently unknown:

- Future off-Site Users completing subsurface work (such as construction or utility workers) could encounter soil gas impacted with benzene, ethylbenzene, PCE, and carbon tetrachloride on the 108 North Main Street property or within the North Main Street right-of-way adjacent and south of the Site. Benzene, carbon tetrachloride, and ethylbenzene may also be encountered north of the Site, however, migration of soil gas to the north is likely limited by topography, bedrock, and shallow groundwater.

The following table summarizes the potentially impacted media, sensitive receptors, and whether each exposure pathway is considered complete, incomplete, or is currently unknown.

Media	Contaminants of Concern	Sensitive Receptors	Exposure Pathways	Exposure Pathway Complete?
Surface Soil	PAHs, Lead	Site Users	Direct Contact, Ingestion	Complete

Media	Contaminants of Concern	Sensitive Receptors	Exposure Pathways	Exposure Pathway Complete?
Subsurface Soil	PAHs and Lead	Future Site Users (construction/utility workers)	Direct Contact, Ingestion	Incomplete
Groundwater	VOCs	Site Users	Direct Contact, Ingestion	Incomplete
		Future Site Users (construction/utility workers)	Direct Contact, Ingestion	Incomplete
		Nearby Residents	Direct Contact, Ingestion	Incomplete
		Future Off-Site Construction/Utility workers	Direct Contact, Ingestion	Incomplete
Surface Water	PAHs and Lead	Users of Dog River	Direct Contact, Ingestion	Incomplete
		Aquatic Biota in Dog River	Direct Contact, Ingestion	Incomplete
Indoor Air	Benzene, Ethylbenzene, PCE, Carbon tetrachloride	Site Users – Future Building Occupants	Inhalation	Complete
		Nearby Building Occupants	Inhalation	Incomplete

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3.0 EVALUATION OF CORRECTIVE ACTION ALTERNATIVES

Proposed corrective actions for PAHs and lead in soil and VOCs in soil gas are summarized in the table below and described in the following sections. Weston and Sampson evaluated corrective action alternatives based on the following factors:

- compliance with legal requirements
- protection of human health and environment
- long-term effectiveness and permanence
- reduction of toxicity, mobility, or volume of contaminants
- short-term effectiveness
- technical feasibility
- cost
- environmental impact and sustainability
- community acceptance
- climate resiliency

Preliminary assessment tables of potential corrective actions are provided in Appendix A. Those options considered to be implementable at the Site are evaluated in greater depth, below.

Appendix	Matrix	COCs	Corrective Action Alternatives
A-1	Soil	PAHs and lead	1. No Action 2. Removal and Off-Site Disposal 3. Engineered Barrier 4. Limited Soil Excavation/Disposal & Engineered Barrier
A-2	Soil Gas	VOCs – benzene, ethylbenzene, carbon tetrachloride, and PCE	1. No Action 2. Vapor Barrier and Passive Ventilation 3. Subslab Depressurization System 4. Soil Vapor Extraction System

3.1 Soil Alternative #1: No Action

Taking No Action is not an acceptable alternative. PAHs and lead are present in surface soil above residential VSS, posing a direct contact risk to Site users. Taking no action is not compliant with cleanup criteria and would result in an economic loss for the Site as the proposed redevelopment could not occur.

3.2 Soil Alternative #2: Removal and Off-Site Disposal

Under this alternative, disturbed native and fill soils within the western approximate half of the Site would be excavated for off-Site disposal at a facility permitted to accept PAHs and lead contaminated soil. We

expect the average excavation depth to be four (4) feet below grade within a 27,500 square foot area based on soil borings completed during the Phase II ESA. This would generate approximately 5,100 cubic yards of soil weighing approximately 7,650 tons. Based on previous project experience with similar contaminants of concern and concentrations, soil would require disposal as alternative daily cover at a Subtitle D landfill. The Waste USA landfill in Coventry, Vermont would likely be the closest and most cost effective facility permitted to accept Site soil.

Cleanup verification sampling would be required following removal to ensure underlying soils contain PAHs and lead at concentrations less than their respective cleanup criteria. Clean imported fill would be used to backfill the excavation. If PAHs and lead are removed to concentrations below cleanup criteria, there would be no ongoing monitoring or maintenance obligations.

Advantages to this alternative include elimination of risk of exposure to contaminated soil, permanence, reduction of contaminant mass, and no requirement for long-term monitoring. Disadvantages include difficulty in implementation due to the varying depth of fill soils that may contain lead above the cleanup criteria and high environmental impact involved with trucking and landfill disposal.

This alternative is expected to cost approximately $1,417,000 (Appendix B).

3.3 Soil Alternative #3: Engineered Barrier

Alternative #3 would include capping remaining impacted soil with an engineered barrier and placing a land-use restriction on the Site.

Installation of an engineered barrier would mitigate the risk of direct exposure to contaminated soils. To be effective, engineered soil barriers must be a minimum of 18-inches thick, if not covered by an impervious surface. If covered by an impervious surface, the barrier can be reduced to 6-inches of fill or sub-base material under the impervious surface. An indicator layer would be installed between underlying contaminated soil and overlying clean fill.

Since impacted soil would be left on Site, a land-use restriction (contained in the Certificate of Completion) would be placed on the Site. Placing a land use restriction on the Site would include a map of remaining soil contamination and would require notification of the VTDEC prior to any subsurface work in the vicinity.

Engineered barriers are easy to construct and are effective in mitigating the risk of direct exposure to contaminated soil. The proposed building slab, parking lot, and greenspaces can be designed as impervious and soil barriers. This alternative has a lower environmental impact than Alternative #2 and is also less costly.

Disadvantages of this method include ongoing maintenance over the lifespan of the engineered barriers and the requirement of institutional controls. Raising grades to accommodate the engineered barrier may not be compatible with the site design.

Installation of engineered barriers is estimated to cost approximately $47,000 (Appendix B). Long-term monitoring and maintenance will be performed by the property owner.

3.4 Soil Alternative #4: Limited Soil Excavation/Disposal & Engineered Barrier

Under this alternative, a limited volume of soil would be excavated for off-Site disposal as described for alternative #2 followed by installation of engineered barriers as described for alternative #3. The volume of soil excavated for off-Site disposal will be based on cut/fill volumes and determined by the Site civil engineer.

Should the Site civil design have a net fill condition, soil disposal will not be required. However, this alternative allows flexibility to manage cut soils that cannot be spoiled on-Site while minimizing off-Site disposal costs. Advantages and disadvantages of the engineered barrier are the same as described for alternative #2.

For the purposes of estimating soil disposal costs, we assumed that a total of 300 cubic yards will be generated to allow installation of engineered fill around sewer and water connections and the proposed building foundation. Costs will need to be refined based on the Site civil design. Limited soil excavation and disposal and installation of engineered barriers is estimated to cost approximately $105,000 (Appendix B). Actual soil costs will be based on cut/fill conditions to be determined by a civil engineer.

3.5 Soil Gas Alternative #1: No Action

Taking No Action is not a compatible alternative with the redevelopment plan. Construction of the proposed residential structure requires vapor intrusion mitigation or remediation to ensure that there is no unacceptable exposure to contaminated indoor air. Taking no action would result in the Site remaining vacant.

3.6 Soil Gas Alternative #2: Vapor Barrier and Passive Ventilation

Alternative #2 would include the placement of a vapor barrier and ventilation piping below the proposed building. This would provide both a physical barrier to vapor intrusion and alternative pathway for vapors other than into the building. To be effective, a vapor barrier must seal around all slab penetrations and must be resistant to future wear and penetration. The vapor barrier would be protected by the building's concrete slab. The vapor barrier could be constructed as a vapor-proof membrane or a spray-applied vapor barrier such as Liquid Boot® placed below the building slab.

The advantage to a vapor barrier is that it prevents vapor intrusion passively. However, a vapor barrier is generally not recommended as a sole remedy. Passive ventilation would include the installation of slotted piping within four to six inches of coarse engineered fill materials below the vapor barrier. The venting piping is plumbed through the roof and a tee or turbine ventilator attached. The "chimney" effect created by the vertical pipe will passively result in collection of vapors below the vapor barrier.

As this is a passive system there would be no long-term equipment maintenance, electric costs or noise associated with the remedy. This alternative also provides two methods of vapor intrusion protection and is easy to implement with new construction. As an enrollee in BRELLA, the site owner would be eligible for a Certificate of Completion with the installation of a passive vapor intrusion mitigation system and completion of corrective actions related to soil.

The primary disadvantage of this alternative is the special planning and implementation for future renovations that could impact the system effectiveness. Any fasteners installed into the floor must be completed in a manner that re-seals the vapor barrier. Significant restrictions on methods of building

use and repair of damage will be necessary. An institutional control will require that regular inspections and reporting of conditions to ensure the remedy is functioning as designed.

Installation of a vapor barrier and passive ventilation system is estimated to cost approximately $49,000 (Appendix B).

3.7 Soil Gas Alternative #3: Subslab Depressurization System

Subslab depressurization systems (SSDS) mitigate vapor intrusion by depressurizing the soil pore space beneath the building slab relative to indoor air. This removes the driving force for soil gas transport through the building slab. For new construction, the SSDS would be constructed in the same manner as the passive ventilation described for alternative #2 except an electric blower would be installed in-line with the ventilation piping to provide a mechanical means of soil gas depressurization and ventilation.

The advantage to an SSDS is that it is an effective solution that is acceptable as a sole remedy. The installation would be easy to implement with new construction and depressurization of the soil pore space beneath the building is achievable. The primary disadvantages of an SSDS are the noise, electric cost, and maintenance required to run the electric blower continuously.

The SSDS would operate on a continuous basis and be monitored throughout its operation. This alternative is expected to cost approximately $66,000 for installation, startup, and startup monitoring. Annual monitoring, electrical usage, air sampling and operation costs after the first year are expected to be approximately $5,000. The total cost over 20 years would be anticipated to be $166,000 (2024 dollars).

3.8 Soil Gas Alternative #4: Soil Vapor Extraction

Alternative #4 is to install a soil vapor extraction (SVE) system. With an SVE system, a high vacuum is applied to the subsurface with the goal of removing volatile contaminant mass from the vadose zone. If necessary, the recovered soil gas is treated before discharging to the atmosphere. To remove volatile contaminant mass an overlapping negative pressure field would need to be created with a negative differential pressure of at least –1.0 in. wc.

The primary advantage to an SVE system is that active mass removal of contaminants typically allows the system to be turned off in the future. Typical systems operate between 1 and 3 years. The disadvantage to these systems is that they are not effective at mass removal at sites with minimal remaining source mass, such as the Site. An SVE system would be difficult to implement at the Site due to shallow groundwater. SVE systems are also more appropriate where subsurface materials are relatively permeable, allowing greater air flow and a high radius of influence. Permeability testing would be required to determine required air flow and radius of influence. These systems are more likely to require treatment of extracted vapors, significantly increasing operational costs. Installation and operation of the SVE system may not be compatible with redevelopment plans.

Estimated system installation and operations costs would be 2 to 3 times that of the SSDS option above.

4.0 PREFERRED CORRECTIVE ACTIONS

Based upon the evaluation presented in Section 3.0, the following corrective action is recommended.

To address PAHs and lead in soil, engineering controls will include limited soil excavation and disposal and installation of engineered barriers (Soil Alternative #4). This alternative is easily implemented, provides a durable barrier between contaminated soil and site users, and minimizes environmental impact by limiting the amount of soil disposal. It also provides flexibility to only install engineered barriers if no excess soil is generated during construction. Monitoring and maintenance of the engineered barriers will be required. This alternative is expected to cost approximately $105,000 (Appendix B).

Installation of a vapor barrier and passive ventilation (Soil Gas Alternative #2) is the recommended engineering control to address potential vapor intrusion of benzene, ethylbenzene, carbon tetrachloride, and tetrachloroethylene. This will include collection piping installed within engineered fill vented to the atmosphere and a continuous vapor barrier between the collection piping and building slab. Monitoring and maintenance of the collection piping will be required. This alternative is expected to cost approximately $49,000 (Appendix B).

Institutional controls will be placed on the Site to require ongoing maintenance and monitoring of engineering controls and require notification of the VTDEC prior to any subsurface work that could impact the effectiveness of the engineered barriers or vapor barrier and passive ventilation system.

5.0 LIMITATIONS

This ECAA was prepared exclusively for the use of the Central Vermont Regional Planning Commission, and Northfield Development Main, LLC. The conclusions provided by Weston & Sampson in this report are based solely on the information reported in this document. Future investigations, and/or information that were not available to Weston & Sampson at the time of this investigation may result in a modification of the conclusions stated in this report.

Should additional information become available concerning this Site or neighboring properties that could directly impact the Site in the future; that information should be made available to Weston & Sampson for review so, if necessary, conclusions presented in this report may be modified. The conclusions of this report are based on Site conditions observed by Weston & Sampson personnel at the time of the investigation, information provided by the users and information provided by federal, state and local agencies. This report has been prepared in general accordance with accepted engineering and environmental assessment practices. No other warranty, expressed or implied, is made.

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6.0 SIGNATURE OF ENVIRONMENTAL PROFESSIONAL

This report was prepared by the following individuals:

I certify under penalty of perjury that I am an environmental professional and that all content contained within this deliverable is to the best of my knowledge true and correct.

Lee Rosberg
Senior Project Manager

Steven LaRosa
Senior Technical Leader

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FIGURES

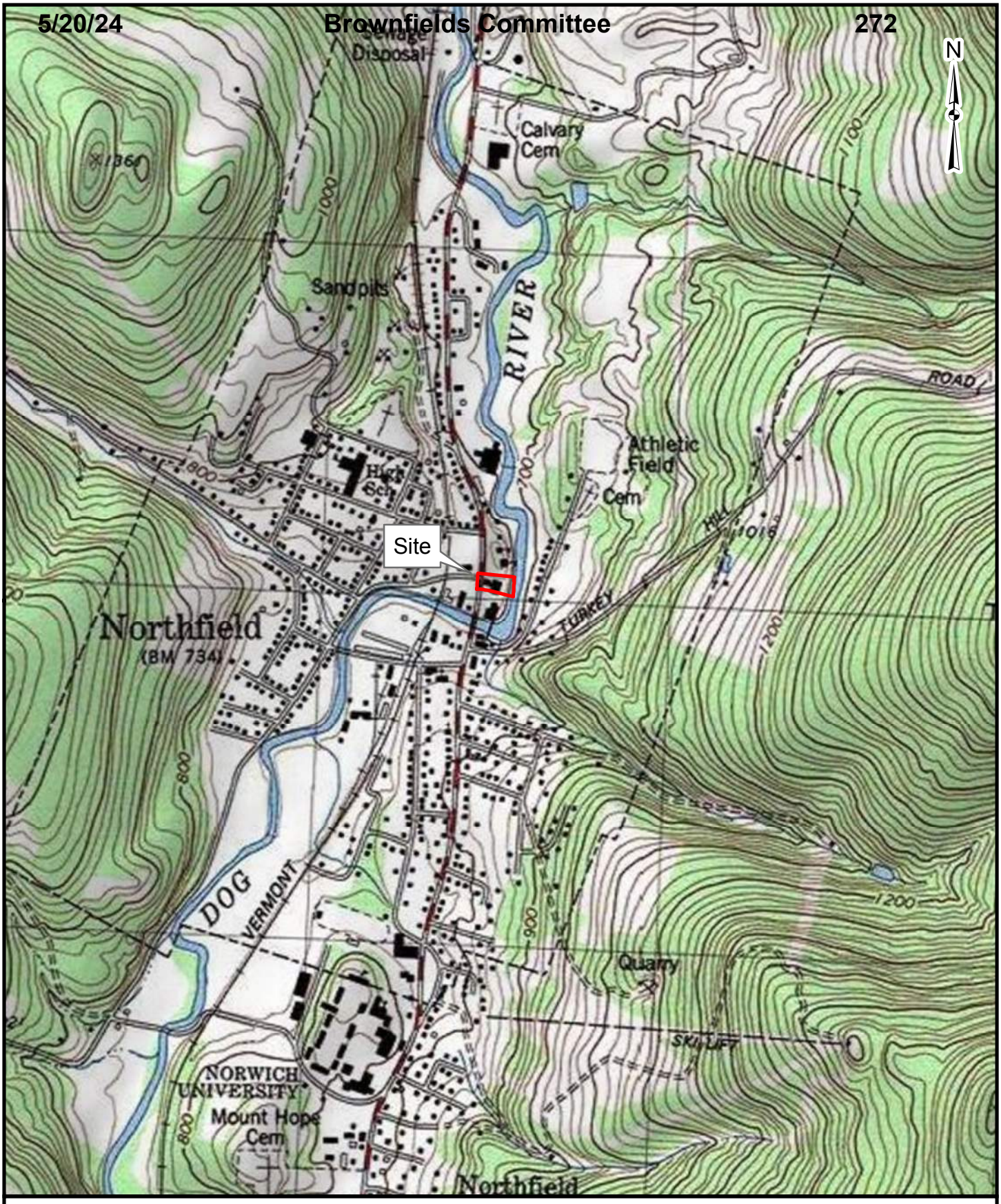

FIGURE 1
LOCUS MAP
11 NORTH MAIN STREET, NORTHFIELD, VT

1 in = 1,250 ft

Weston & Sampson

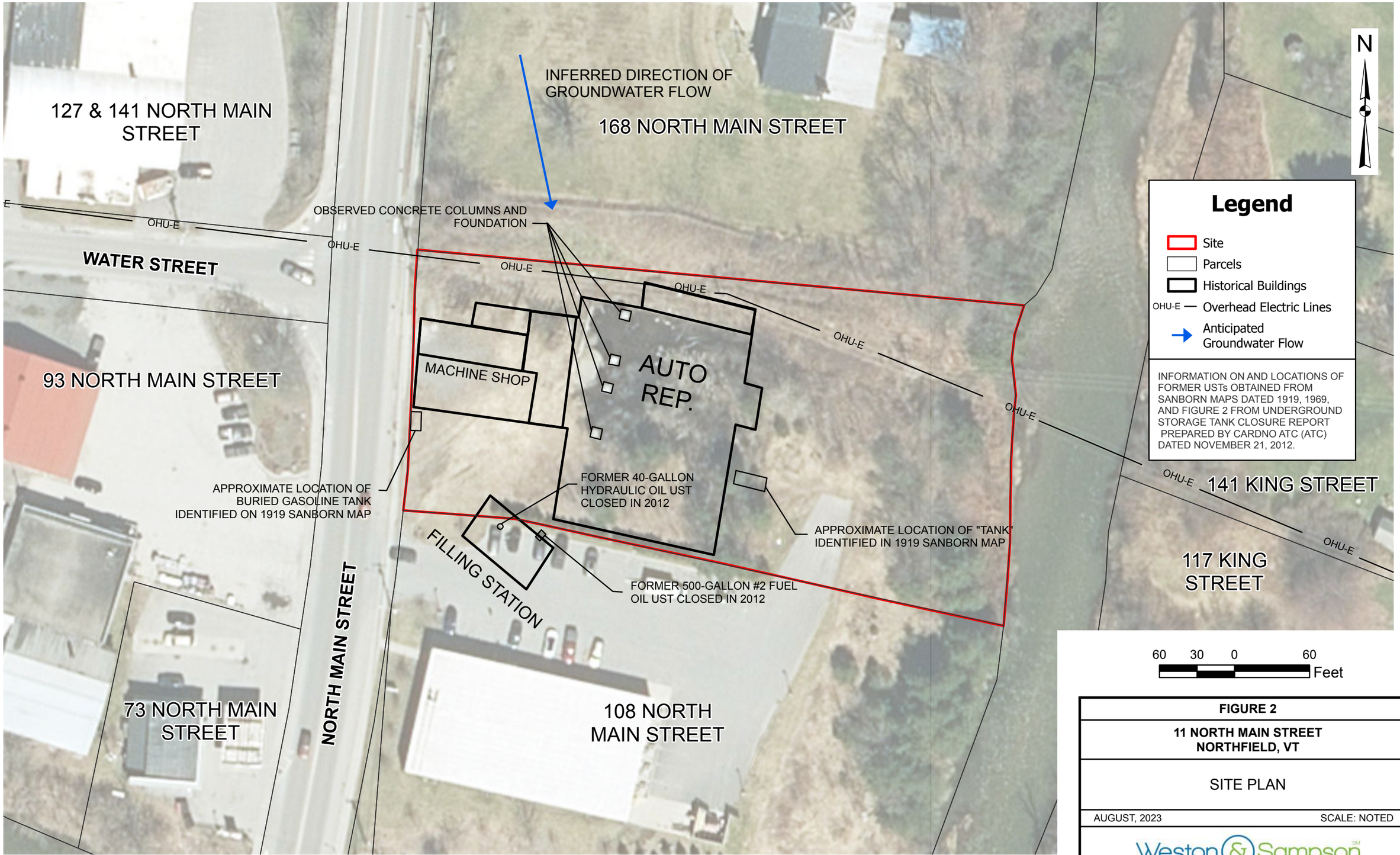

FIGURE 2

11 NORTH MAIN STREET
NORTHFIELD, VT

SITE PLAN

AUGUST, 2023 SCALE: NOTED

Weston & Sampson

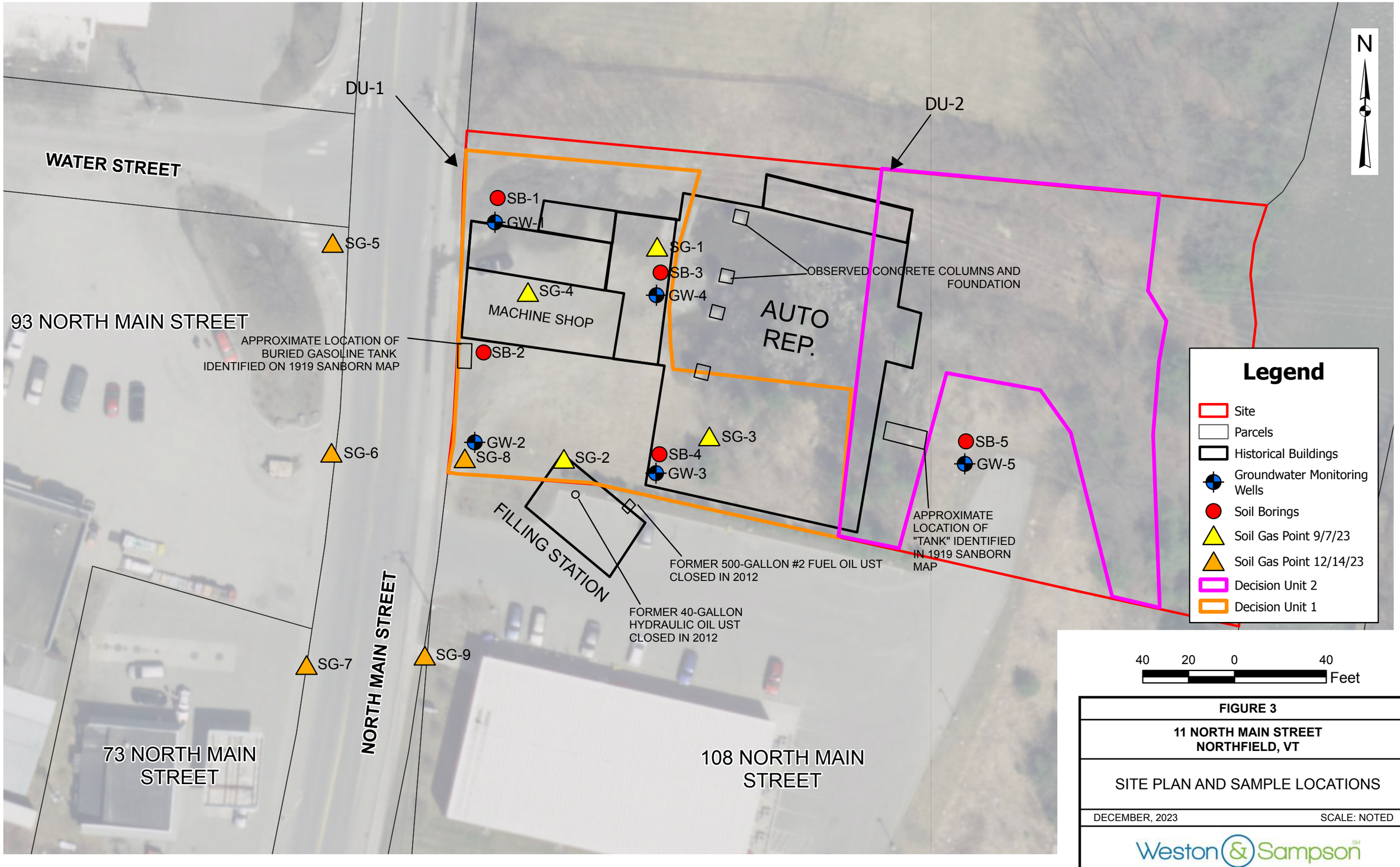

FIGURE 3

11 NORTH MAIN STREET
NORTHFIELD, VT

SITE PLAN AND SAMPLE LOCATIONS

DECEMBER, 2023 SCALE: NOTED

Weston & Sampson

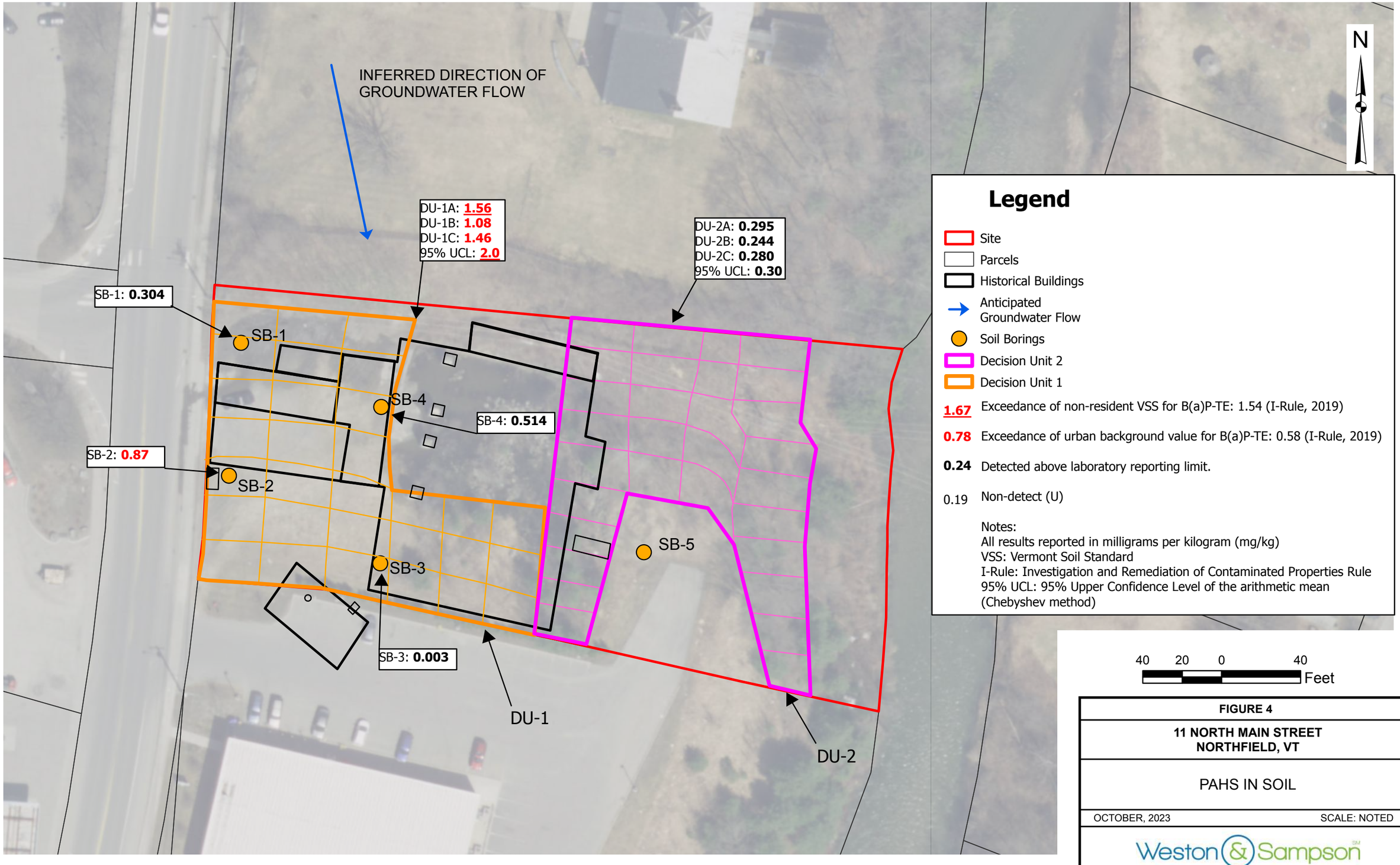

FIGURE 4

11 NORTH MAIN STREET
NORTHFIELD, VT

PAHS IN SOIL

OCTOBER, 2023 SCALE: NOTED

Weston & Sampson

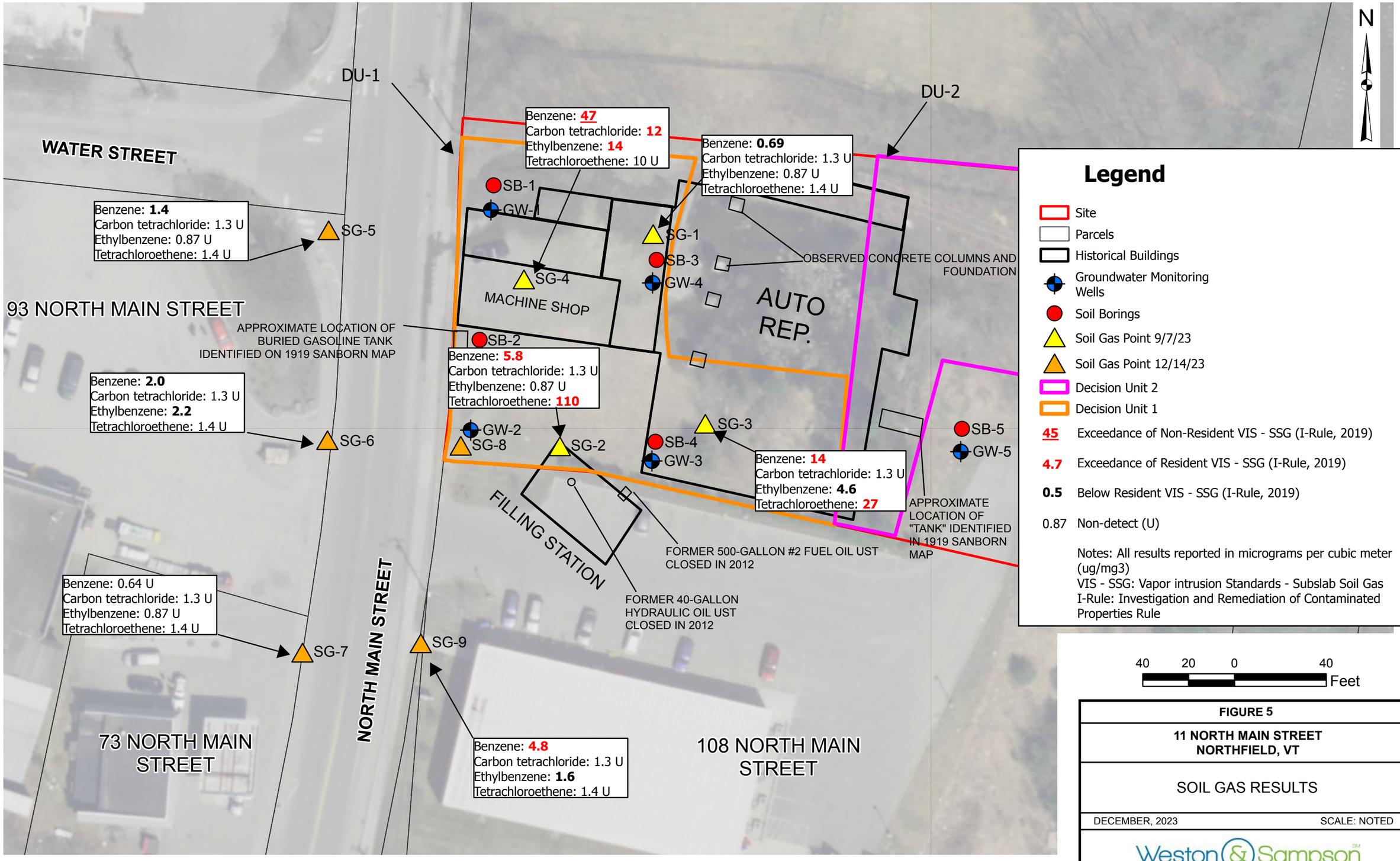

FIGURE 5

11 NORTH MAIN STREET
NORTHFIELD, VT

SOIL GAS RESULTS

DECEMBER, 2023 SCALE: NOTED

Weston & Sampson

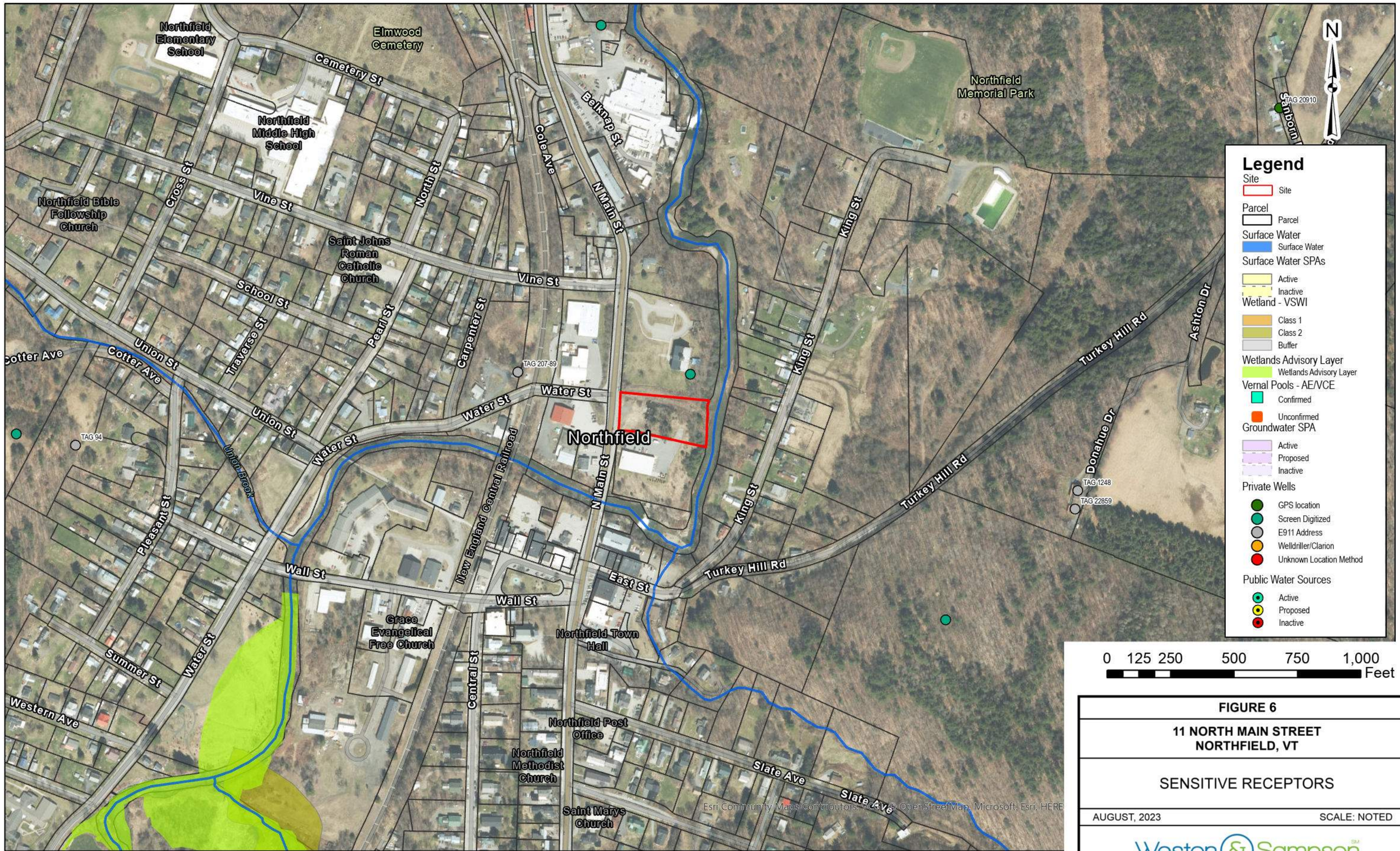

FIGURE 6

11 NORTH MAIN STREET
NORTHFIELD, VT

SENSITIVE RECEPTORS

AUGUST, 2023 SCALE: NOTED

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APPENDIX A

APPENDIX A-1
EVALUATION OF CORRECTIVE ACTION ALTERNATIVES - SOIL
11 NORTH MAIN STREET
NORTHFIELD, VERMONT

Technology	Description	Advantages	Disadvantages	Compliant with Legal Requirements?	Protective of Human Health and Environment?
No Action	Do nothing.	No cost associated with this alternative.	Method does not provide a means of assessing risk over time associated with contaminants of concern that exceed applicable soil cleanup criteria. The proposed residential redevelopment could not proceed and the property would remain vacant.	No	No
Removal and Off-Site Disposal	PAH and lead contaminated soil would be excavated and transported for disposal at a Subtitle D landfill.	No institutional controls or long-term maintenance required. No VTDEC notification required for future work that disturbs soil.	Most costly alternative. Higher environmenal impact than other alternatives. Excavation and cleanup verification sampling are technically difficult to implement.	Yes	Yes
Engineered Barrier	Install an engineered barrier/cap atop the impacted materials to mitigate the risk of direct exposure to contaminated soils.	Easy to implement with standard construction materials and practices.	Would require institutional control and notification to VTDEC of any future work that would disturb soils. Any such work would need to be completed in accordance with a VTDEC approved Corrective Action Plan. Requires ongoing maintenance over the lifespan of the barrier.	Yes	Yes
Limited Soil Excavation/Disposal & Engineered Barrier	A limited volume of PAH and lead contaminated soil would be excavated and transported for disposal at a Subtitle D landfill. The soil volume for off-Site dispsoal would be determined based on the civil engineer cut/fill calculation for the proposed redevelopment. An engineered barrier/cap is installed atop remaining impacted materials to mitigate the risk of direct exposure to contaminated soils.	Easy to implement with standard construction materials and practices. Allows flexibility for soil mangement plan.	Would require institutional control and notification to VTDEC of any future work that would disturb soils. Any such work would need to be completed in accordance with a VTDEC approved Corrective Action Plan. Requires ongoing maintenance over the lifespan of the barrier.	Yes	Yes

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APPENDIX A-1
EVALUATION OF CORRECTIVE ACTION ALTERNATIVES - SOIL
11 NORTH MAIN STREET
NORTHFIELD, VERMONT

Technology	Achieves a Permanent or Temporary Solution?	Reduction of Toxicity, Mobility, or Volume of Contaminants?	Technically Feasible?	(If Yes) Economically Feasible?	Environmental Impact and Sustainability	Community Acceptance?	Climate Resiliency	Retain for Detailed Evaluation?
No Action	No	No	Yes	Yes	Contamination would continue to pose a risk to human health and environment.	No	With no action, contaminated soil is at a greater risk of off-Site stransport via erosion from expected increased precipitation and extreme weather events.	No
Removal and Off-Site Disposal	Yes	Yes - reduces volume of PAHs and lead in soil	Yes	No	Would require highest energy input of all alternatives to transport soil to disposal facility.	Yes	The landfill cover would prevent erosion of contaminated soil from expected increased precipitation and extreme weather events.	Yes
Engineered Barrier	Yes	Yes - reduces mobility of PAHs and lead in soil	Yes	Yes	Could be implemented with relatively low energy input.	Yes	Engineered barriers, if maintained, would prevent erosion of contaminated soil from expected increased precipitation and extreme weather events.	Yes
Limited Soil Excavation/Disposal & Engineered Barrier	Yes	Yes - reduces volume and mobility of PAHs and lead in soil	Yes	Yes	Higher environmental impacts than engineered barriers but less than removal/disposal of all contaminated soil.	Yes	A combination of the landfill cover and engineered barrier would prevent erosion of contaminated soil as described above for Alternatives #2 and #3.	Yes

APPENDIX A-2
EVALUATION OF CORRECTIVE ACTION ALTERNATIVES
11 NORTH MAIN STREET
NORTHFIELD, VERMONT

Technology	Description	Advantages	Disadvantages	Compliant with Legal Requirements?	Protective of Human Health and Environment?	Achieves a Permanent or Temporary Solution?
No Action	Do nothing	No cost associated with this alternative.	Method does not provide a means of assessing risk over time associated with contaminants of concern that exceed applicable soil gas cleanup criteria. The proposed residential redevelopment could not proceed and the property would remain vacant.	No	No	No
Vapor Barrier & Passive Ventilation						
Vapor Barrier (vapor-proof membrane)	Impermeable and chemical resistant vapor-proof membrane placed beneath building.	Prevents vapor intrusion passively. Easy to install. No long-term equipment maintenance, electric costs, or noise associated with an electric blower. Can easily be retrofitted with an electric blower if additional sub-slab depressurization is required. Can be combined with vented floor.	Not recommended as a sole mitigation method.	Yes	Yes	Yes
Vapor Barrier (spray-applied)	Rubberized asphalt emulsion for sealing vapor entry points.			Yes	Yes	Yes
Vapor Barrier (Passive Vented Floor)	Passively vented stone layer below proposed building slab. A vent is connected to the end of a vapor collection system to passively dissipate vapors collected under the building slab discharges to the atmosphere.	Prevents vapor intrusion passively. Can be combined with vapor-proof membrane or spray-applied vapor barrier.	Not recommended as a sole mitigation method.	Yes	Yes	Yes
Subslab Depressurization System (SSDS)	A centrifugal fan is driven by an electric motor and connected inline with a vapor collection system to create a vacuum that is applied under the building slab	Acceptable as a sole remedy. Provides a conservative approach when coupled with a vapor barrier and concrete slab.	Expensive to install and operate. Requires frequent inspection and maintenance of electric blower. Noise associated with electric blower can be a nuisance to Site occupants.	Yes	Yes	Yes
Soil Vapor Extraction (SVE) System	A vacuum is applied to the subsurface, removing volatile contaminants from the soil. If necessary, the recovered soil gas can then be treated before discharging to the atmosphere.	System could be turned off at some point in the future. Typical systems generally operate between 1 and 3 years.	Generally more appropriate where subsurface materials are relatively permeable, contaminant mass is significant, and groundwater is deeper than oberved at the Site. Are more likely to require treatment for atmospheric discharge of extracted vapors.	Yes	Yes	Yes

APPENDIX A-2
EVALUATION OF CORRECTIVE ACTION ALTERNATIVES
11 NORTH MAIN STREET
NORTHFIELD, VERMONT

Technology	Reduction of Toxicity, Mobility, or Volume of Contaminants?	Technically Feasible?	(If Yes) Economically Feasible?	Environmental Impact and Sustainability	Community Acceptance?	Climate Resiliency	Retain for Detailed Evaluation?
No Action	No	No	Yes	Contamination would continue to pose a risk to human health and environment.	No	Expected increased infiltration of precipitation could result in transportation of soil gas, possibly resulting in groundwater impacts.	No
Vapor Barrier & Passive Ventilation							
Vapor Barrier (vapor-proof membrane)	Reduces mobility into building.	Yes	Yes	Membrane placement and/or passive vapor intrusion mitigation would not require ongoing energy consumption	Yes	Vapor barriers are installed in new construction to prevent infiltration of water vapors. All of the vapor barriers presented here are expected to withstand the effects of climate change.	Yes
Vapor Barrier (spray-applied)	Reduces mobility into building.	Yes	Yes		Yes		Yes
Vapor Barrier (Passive Vented Floor)	Reduces mobility into building.	Yes	Yes		Yes		Yes
Subslab Depressurization System (SSDS)	Reduces mobility into building.	Yes	Yes	SSDS systems would require significant ongoging electrical consumption in perpetuity	Yes	Shallow groundwater elevations at the Site are expected to fluctuate with increased precipitation and extreme waether events and may make the operation of SSDS and SVE systems difficult	Yes
Soil Vapor Extraction (SVE) System	Reduces mobility into building and reduces volume of contaminants.	No	N/A	An SVE system would require significant electrical consumption until remdial action objects are achieved (1-3 years)	Yes		No

APPENDIX B

ESTIMATED CORRECTIVE ACTION COSTS - REMOVAL AND OFF-SITE DISPOSAL
11 NORTH MAIN STREET
NORTHFIELD, VERMONT

Description	Unit	Unit Price	Quantity	Total Amount
Construction Services				
Contractor Mobilization/Demobilization	LS	$ 2,000	1	$ 2,000
Site Preparation	LS	$ 2,000	1	$ 2,000
Erosion Control	LS	$ 3,000	1	$ 3,000
Fencing/Site Security	LS	$ 2,000	1	$ 2,000
Soil Excavation/Loading	Cu. Yds.	$ 30	5100	$ 153,000
Transportation & Disposal	Ton	$ 80	7700	$ 616,000
Backfill	Cu. Yds.	$ 50	5100	$ 255,000
Removal and Off-Site Disposal Subtotal				$ 1,033,000
Environmental Professional Services				
Project Coordination	LS	$ 25,000	1	$ 25,000
Waste Characterization Sampling/Analysis	EA	$ 2,250	16	$ 36,000
Environmental Professional Oversight	Day	$ 1,100	20	$ 22,000
Cleanup Verification Sampling	LS	$ 13,400	1	$ 13,400
Corrective Action Construction Completion Report	LS	$ 4,000	1	$ 4,000
Environmental Professional Service Subtotal				$ 100,400
Project Subtotal				$ 1,133,400
Contingency (25%)				$ 283,350
Removal and Off-Site Disposal Cost				***$ 1,417,000***

Notes:

Total costs are rounded up to the closest $1,000

Costs prepared 2/16/2024. Future costs should be escalated appropriately.

Mobilization, site preparation, erosion control, and security costs based on professional experience

Estimated transport and disposal fee is $80/ton

Sixteen waste characterization samples are required for special waste profile

Approximately 40 cleanup verification samples required for PAH and lead analyses

ESTIMATED CORRECTIVE ACTION COSTS - ENGINEERED BARRIER INSTALLATION
11 NORTH MAIN STREET
NORTHFIELD, VERMONT

Description	Unit	Unit Price	Quantity	Total Amount
Construction Services				
Gravel Fill for Engineered Barrier	Cu. Yds.	$ 35	370	$ 12,963
Topsoil for Engineered Barrier	Cu. Yds.	$ 46	50	$ 2,300
Non-Woven Geotextile Indicator Layer	SY	$ 1.35	1100	$ 1,484
Contractor Labor/Equipment	Cu. Yds.	$ 18	420	$ 7,567
Engineered Barrier Installation Subtotal				*$ 24,314*
Environmental Professional Services				
Project Coordination	LS	$ 4,000	1	$ 4,000
Environmental Professional Oversight	Day	$ 1,100	5	$ 5,500
Corrective Action Construction Completion Report	LS	$ 3,500	1	$ 3,500
Environmental Professional Services Subtotal				*$ 13,000*
Engineered Barrier Subtotal				*$ 37,314*
Contingency (25%)				*$ 9,328*
Equipment, System Installation Cost				***$ 47,000***

Notes:

Total costs are rounded up to the closest $1,000

Costs prepared 2/16/2024. Future costs should be escalated appropriately.

Five inspections by environmental professional throughout engineered barrier construction

No additional costs for 8,000 square foot building slab to serve as an engineered barrier

ESTIMATED CORRECTIVE ACTION COSTS - LIMTIED SOIL EXCAVATION/DISPOSAL ENGINEERED BARRIER INSTALLATION
11 NORTH MAIN STREET
NORTHFIELD, VERMONT

Description	Unit	Unit Price	Quantity	Total Amount
Construction Services				
Soil Excavation/Loading	Cu. Yds.	$ 30	300	$ 9,000
Transportation & Disposal	Ton	$ 80	410	$ 32,800
Gravel Fill for Engineered Barrier	Cu. Yds.	$ 35	370	$ 12,963
Topsoil for Engineered Barrier	Cu. Yds.	$ 46	50	$ 2,300
Non-Woven Geotextile Indicator Layer	SY	$ 1.35	1100	$ 1,484
Contractor Labor/Equipment	Cu. Yds.	$ 18	420	$ 7,567
Engineered Barrier Installation Subtotal				*$ 66,114*
Environmental Professional Services				
Project Coordination	LS	$ 5,000	1	$ 5,000
Environmental Professional Oversight	Day	$ 1,100	8	$ 8,800
Corrective Action Construction Completion Report	LS	$ 4,000	1	$ 4,000
Environmental Professional Services Subtotal				*$ 17,800*
Engineered Barrier Subtotal				*$ 83,914*
Contingency (25%)				*$ 20,978*
Equipment, System Installation Cost				***$ 105,000***

Notes:

Total costs are rounded up to the closest $1,000

Costs prepared 2/16/2024. Future costs should be escalated appropriately.

Eight inspections by environmental professional during soil excavation and engineered barrier construction

No additional costs for 8,000 square foot building slab to serve as an engineered barrier

ESTIMATED CORRECTIVE ACTION COSTS - VAPOR BARRIER AND PASSIVE VENTILATION
11 NORTH MAIN STREET
NORTHFIELD, VERMONT

Description	Unit	Unit Price	Quantity	Total Amount
Construction Services				
Ventilation Layer Labor/Eqipment	day	$ 3,850	3	$ 11,550
4-inch Ventilation Layer Gravel	cy	$ 50	100	$ 5,000
2-inch ventilation pipe and fittings	LS	$ 2,500	1	$ 2,500
20-mil vapor barrier Installation labor	day	$ 1,500	3	$ 4,500
20-mil vapor barrier	LS	$ 4,500.00	1	$ 4,500
			Construction Subtotal	*$ 28,050*
Environmental Professional Services				
Project Coordination	LS	$ 2,500	1	$ 2,500
Construction Oversight	day	$ 1,100	3	$ 3,300
Smoke Test Vapor Barrier	LS	$ 1,500	1	$ 1,500
Corrective Action Construction Completion Report	LS	$ 3,500	1	$ 3,500
			System Installation Subtotal	*$ 10,800*
			Equipment, System Installation, and Monitoring Subtotal	*$ 38,850*
			Contingency (25%)	*$ 9,713*
			Equipment, System Installation Cost	***$ 49,000***

Notes:

Total costs are rounded up to the closest $1,000

Costs prepared 2/16/2024. Future costs should be escalated appropriately.

ESTIMATED CORRECTIVE ACTION COSTS - SSDS
11 NORTH MAIN STREET
NORTHFIELD, VERMONT

Description	Unit	Unit Price	Quantity	Total Amount
Construction Services				
Ventilation Layer Labor/Eqipment	day	$ 3,850	3	$ 11,550
4-inch Ventilation Layer Gravel	cy	$ 50	100	$ 5,000
2-inch ventilation pipe and fittings	LS	$ 2,500	1	$ 2,500
20-mil vapor barrier Installation labor	day	$ 1,500	3	$ 4,500
20-mil vapor barrier	LS	$ 4,500.00	1	$ 4,500
Electric Blower (RadonAway GP501)	Ea	$ 200	1	$ 200
Electical Service Installation	LS	$ 750.00	1	$ 750
Monitoring Ports	EA	$65	4	$ 260
			Construction Subtotal	*$ 29,260*
Environmental Professional Services				
Project Coordination	LS	$ 3,000	1	$ 3,000
Construction Oversight	day	$ 1,100	4	$ 4,400
Smoke Test Vapor Barrier	LS	$ 1,500	1	$ 1,500
Startup/Quarterly Monitoring (4 Events)	day	$ 1,500	4	$ 6,000
Startup/Quarterly Monitoring Reporting (4 Events)	LS	$ 2,000	2	$ 4,000
Initial Effluent Analysis	Sample	$ 450	1	$ 450
Corrective Action Construction Completion Report	LS	$ 3,500	1	$ 3,500
			System Installation Subtotal	*$ 22,850*
			Equipment, System Installation, and Monitoring Subtotal	*$ 52,110*
			Contingency (25%)	*$ 13,028*
			Equipment, System Installation Cost	***$ 66,000***

Notes:

Total costs are rounded up to the closest $1,000

Costs prepared 2/16/2024. Future costs should be escalated appropriately.

300 Granger Rd

300 Granger Rd

Building

Directions | Save | Nearby | Send to phone | Share

300 Granger Rd, Barre, VT 05641

Suggest an edit on 300 Granger Rd

Add a missing place

Add your business

Add a label

Your Maps activity

undertake assessment work, funds will not be granted to the property owner or

VERMONT

AGENCY OF NATURAL RESOURCES

State of Vermont
Department of Environmental Conservation
Waste Management & Prevention Division
1 National Life Drive – Davis 1
Montpelier, VT 05620-3704
(802) 249-5562
lynda.provencher@vermont.gov

May 8, 2024

Central Vermont Solid Waste Management District
Attn: Theron Lay-Sleeper
137 Barre Street
Montpelier, VT 05602

RE: Site Name; 300-302 Granger Road; **SMS Site #2024-5431**

BROWNFIELDS REUSE AND LIABILITY LIMITATION ACT DETERMINATION OF ELIGIBILITY

Dear Mr. Lay-Sleeper:

The Vermont Department of Environmental Conservation (DEC) has determined that the Central Vermont Solid Waste Management District (CVSWMD) is eligible to participate in the Brownfields Reuse and Environmental Liability Limitation Act (BRELLA) Program as a prospective purchaser of the above referenced property. This determination is based on the application submitted on April 29, 2024 and supporting documentation submitted on May 8, 2024.

BRELLA provides participants with DEC staff assistance in the review and oversight of activities to investigate, abate, remediate and monitor, when necessary, a brownfields site. A Certificate of Completion is issued upon performance of all actions required to attain cleanup levels established in the corrective action plan developed for the property. Statutory liability protections become effective upon issuance of the Certificate of Completion. Forbearance from state enforcement action is in effect during BRELLA participation provided that all required activities are being implemented in good faith.

Submittal and approval of a site investigation and corrective action plan will likely be required to adequately protect human health and the environment at this property. The above referenced SMS Site number should be included in all correspondence. A final redevelopment plan that shows the type and location of buildings and improvements, and describes their intended use, must be submitted with the proposed corrective action plan. BRELLA requires that the public be provided with an opportunity to comment on the proposed corrective action plan prior to approval. Experience has shown that early involvement of, and continued communication with the public is integral to ultimate project success. Please keep me involved in all site related activities that may inform corrective action at the site. Periodically we will hold technical review meetings with BRELLA participants to ensure successful completion of each project.

As a participant in BRELLA you are required to follow the statutory provisions for this program that are codified at 10 V.S.A. §6641-§6656. Specifically, under *§ 6644 - General Obligations*, any person participating in the program shall do all the following:

> (1) Not provide any information required under this subchapter by fraud, intentional misrepresentation, failure to disclose material information, or providing false certification.

(2) Not engage in any activity that is inconsistent or interferes with monitoring, investigation, abatement, removal, or remediation activities or the conditions or restrictions in a certificate of completion.

(3) Provide access to and cooperate with the secretary and any person liable pursuant to section 6615 of this title acting subject to the approval of the secretary for investigation, abatement, removal, remediation, or monitoring activities at the property. The grant of access and all other provisions that the secretary determines necessary may be memorialized in the form of an interest in real property that runs with the land and is binding against successors and assigns.

(4) Comply with all rules and procedures required by the secretary and obtain all necessary permits, certifications, and other required authorizations prior to beginning any site investigation or corrective action plan activities.

(5) If an innocent current owner, pay any additional costs of the secretary's review and oversight of the site investigation or corrective action plan, or both.

(6) Provide the secretary with all documents and information relating to the performance of the investigation, abatement, removal, remediation, and monitoring activities.

(7) Defend, indemnify, save, and hold harmless the state from all claims and causes of action related to, or arising from, acts or omissions of the applicant in performing the site investigation and corrective action plan except in the case of either of the following:

(A) Reimbursement of fees or costs improperly required by and paid to the secretary by the eligible person or successor.

(B) A cause of action related to the state's liability pursuant to subsection 6615(a) of this title.

Failure to adhere to the requirements dictated in the BRELLA statute may result in removal from the BRELLA program and all liability protection.

Please contact me if I can be of any assistance. I can be reached at lynda.provencher@vermont.gov and (802)249-5562.

Sincerely,

Lynda Provencher Environmental Analyst
Sites Management Section
Waste Management and Prevention Division

cc: Sarah Bartlett, VTDEC (electronically)
Kristie Farnham, ACCD (electronically)
Eli Toohey, CVRPC (electronically)
Lee Rosberg, Weston & Sampson (electronically)

EXECUTIVE SUMMARY

Weston & Sampson Engineers, Inc. (Weston & Sampson), on behalf of the Central Vermont Solid Waste Management District (CVSWMD), has prepared this Phase I Environmental Site Assessment (ESA) for an 8.22-acre commercial property located at 300-302 Granger Road in Berlin, Vermont (the Subject Property). Findings of the Phase I ESA are as follows:

- The earliest identified development of the Subject Property was as a truck stop and restaurant in 1985. Lague, Inc., an earthwork contractor and the the current Subject Property owner, purchased the Subject Property in 1993 and redeveloped the former restaurant as office space. The truck maintenance garage has been used as a maintenance shop by Lague, Inc., since 1993. The former restaurant has been rented to various occupants as an office space but is currently vacant. An addition was constructed onto the maintenance shop circa 2008 and has been used by Hutch Crane Services for the maintenance of their crane fleet. The Subject Property is currently and has historically been used for automotive repair activities. Historical operations associated with automotive repair could have resulted in releases to environmental media and represent a REC.

- Pike Industries, which adjoins the Subject Property to the southwest, is a producer of hot mix asphalt and construction aggregates. Numerous spill events have been documented on this property. While these documented releases have been addressed to the satisfaction of the applicable regulatory authority (Vermont Department of Environmental Conservation, VTDEC), this industrial use has likely led to undocumented releases. In addition to these historical releases, this adjoining property is also listed as the recorded location of a former (abandoned) gravel and sand mine. Historical sand and gravel mines are known to present a variety of environmental impacts, and are considered a high-risk historical use. As this property adjoins the Subject Property, residual impacts related to Pike Industries have the potential to impact environmental media at the Subject Property, and represent a REC.

- Contamination associated with former Underground Storage Tanks (USTs) is present on the Subject Property. Impacted soils were reportedly thinspread throughout the Subject Property. The VTDEC indicated that the nature and extent of impacts related to these USTs was not defined. Soil and groundwater contamination may also impact soil gas, which could pose a risk of vapor intrusion to the structures located on the Subject Property. The potential presence of residual impacts to soil, groundwater, and soil gas on the Subject Property represents a REC.

- An unsecured 55-gallon drum associated with crane maintenance activities was observed during field reconnaissance. Petroleum and/or hazardous materials potentially stored in this container presents a material threat of a release to the ground surface and represents a REC.

- Floor drains were observed during field reconnaissance. It is not known where these drains discharge and floor drains have the potential to serve as conduits to the subsurface. The presence of floor drains with unknown discharge location in areas used for vehicle maintenance represents a REC.

- A potential PCB (polychlorinated biphenyl) -containing transformer was observed during field reconnaissance. No evidence of release was noted in the vicinity of the transformer, however, the transformer is noted in poor condition. Potential PCB-containing oil may have been released to the ground surface at the Subject Property and represents a REC.

It is Weston & Sampson's opinion that additional investigation is appropriate to evaluate the RECs identified in this Phase I ESA.

98 South Main Street, Suite 2, Waterbury, VT 05676
Tel: 802.244.5051

April 1, 2024

Theron Lay-Sleeper
Assistant General Manager
Central Vermont Solid Waste Management District (CVSWMD)
137 Barre Street
Montpelier, VT 05602

Re: Proposal – Phase II Environmental Site Assessment (ESA), 300-302 Granger Road, Berlin, Vermont

Dear Theron:

We are pleased to provide this proposal for the completion of a Phase II ESA at the property located at 300-302 Granger Road in Berlin, Vermont (the Site). The objective is to evaluate whether recognized environmental conditions (RECs) identified during a March 2024 Phase I ESA, have resulted in a release of petroleum and/or hazardous materials. The Phase II ESA is also being completed to satisfy grant requirements and the Standard Practice for Environmental Site Assessments: Phase II Environmental Site Assessment Process (ASTM Standard Practice E1903-19).

Identified RECs include:

1. The Site is currently and has historically been used for automotive repair activities. Historical operations associated with automotive repair could have resulted in releases to environmental media and represent a REC.

2. Numerous spill events have been documented on the Pike Industries property, which adjoins the Site to the southwest. The Pike Industries property is also listed as the recorded location of a former (abandoned) gravel and sand mine, which are known to present a variety of environmental impacts and are considered a high-risk historical use. Residual impacts related to Pike Industries have the potential to impact environmental media at the Site, and represent a REC.

3. Contamination associated with former Underground Storage Tanks (USTs) is present on the Site. Impacted soils were reportedly thinspread throughout the Site. The Vermont Department of Environmental Conservation (VTDEC) indicated that the nature and extent of impacts related to these USTs was not defined. Soil and groundwater contamination may also impact soil gas, which could pose a risk of vapor intrusion to the structures located on the Site. The potential presence of residual impacts to soil, groundwater, and soil gas on the Site represents a REC.

4. An unsecured 55-gallon drum associated with crane maintenance activities was observed during field reconnaissance. Petroleum and/or hazardous materials potentially stored in this container presents a material threat of a release to the ground surface and represents a REC.

5. Floor drains were observed during field reconnaissance. It is not known where these drains discharge and floor drains have the potential to serve as conduits to the subsurface. The presence of floor drains with unknown discharge location in areas used for vehicle maintenance represents a REC.

6. A potential PCB (polychlorinated biphenyl) -containing transformer was observed during field reconnaissance. No evidence of release was noted in the vicinity of the transformer; however, the transformer is noted in poor condition. Potential PCB-containing oil may have been released to the ground surface at the Site and represents a REC.

Scope of Services:

Task 1 – Project Management and Work Scope Generation: This task includes coordination with stakeholders, regulatory agencies, and subcontractors throughout the project. We understand that CVSWMD is considering enrolling in the VTDEC's Brownfields Reuse and Environmental Liability Limitation Program (BRELLA) and may seek funding assistance to complete the Phase II ESA. Should CVSWMD receive funding, a detailed work plan will be required that complies with the Investigation and Remediation of Contaminated Properties Rule (I-Rule). Depending on the funding source, the work plan will require VTDEC and potentially the United States Environmental protection Agency (EPA) review and approval. We have included a contingency to prepare a detailed I-Rule compliant work plan if necessary. We will provide a client draft for review prior to submitting for regulatory review.

Task 2 – Field Activities: This task includes the following field activities:

- Mark-out of proposed investigation locations for DigSafe notification.
- Advancing up to eight (8) soil borings with Direct Push drilling methodologies including:
    - Two (2) soil borings to evaluate residual impacts associated with the former UST (RECs #3). One soil sample will be collected per boring for volatile organic compound (VOC) analysis.
    - One (1) soil boring to evaluate soil quality near an unsecure 55-gallon drum (RECs #1 and #4). This soil boring will also serve to evaluate soil quality within the proposed Additional Recyclables Collection Center (ARCC) facility footprint. One soil sample will be collected for VOC, semi-volatile organic compound (SVOC), and Resource Conservation Recovery ACT (RCRA) 8 metals analyses.
    - One (1) soil boring to evaluate potential releases from the floor drain system (RECs #1 and #5). This boring will be located immediately west of the existing garage building and within the concrete pad that is expected to be removed. One soil sample will be collected for VOC, SVOC, and RCRA 8 metals analyses.
    - One (1) soil boring to evaluate soil quality in the trailer storage area where future facility expansions have been discussed (REC #1). One soil sample will be collected for VOC, SVOC, and RCRA 8 metals analyses.
    - Three (3) shallow (10-feet) soil borings within the alignment of the proposed water main (RECs #1 and #2). One soil sample will be collected for VOC, SVOC, and RCRA 8 metals analyses.
    - Quality assurance/quality control samples will include one duplicate per analysis and one trip blank for VOCs only.
- Collection of three soil gas samples to evaluate potential vapor intrusion into Site buildings. One sub-slab soil gas sample will be collected from the existing office (REC #3), one sample will be collected from below the existing garage (RECs #1, 3, and 5), and one sample will be collected from the footprint of the proposed ARCC facility (RECs #1, 3, 4, and 5). One duplicate will be collected. Soil gas samples will be analyzed for VOCs.
- One surface soil sample and duplicate will be collected from below the pole-mounted transformer for PCB analysis (REC #6).

Preliminary proposed sample locations are shown on the attached figure.

Task 3: Reporting: We will prepare a Phase II ESA report in accordance with the I-Rule. The report will document Site activities, include a summary of analytical results, provide an evaluation of the data, present a conceptual Site model, identify data gaps, and offer conclusions and recommendations. We will provide a draft report and host a stakeholder meeting to discuss the findings. The Phase II ESA Report will be finalized based on input received during the stakeholder meeting.

COST ESTIMATE & SCHEDULE

The estimated cost for this work is **$18,750**, to be billed using the rates established in prior authorizations (see attached rate sheet) on a not-to-exceed basis without prior authorization. The contingent I-Rule compliant work plan would cost an additional **$3,700**. Our Level of Effort and Cost Table (**Table 1**) provides a breakdown of anticipated work and associated costs.

The proposed timeline for this project is detailed in the table below and assumes that an I-Rule compliant work plan is not required. The schedule will be revised if an I-Rule complaint work plan is required. Shaded cells indicate weeks of expected work. Field work schedule is subject to drilling subcontractor availability.

Task No.	Task Description	Weeks from Approval to Proceed									
		1	2	3	4	5	6	7	8	9	10
1	Project Management										
	Draft Work Scope										
2	DigSafe										
	Field Work										
	Laboratory Analysis										
3	Client Draft Phase II ESA Report										
	Stakeholder Meeting										
	Final Phase II ESA Report										

If you have any questions, please contact me at rosberg.lee@wseinc.com or 802-613-4106.

Sincerely,

Sincerely,

WESTON & SAMPSON ENGINEERS, INC.

Lee Rosberg
Senior Project Manager

Steven D. Shaw
Regional Manager

ACCEPTED FOR: Central Vermont Solid Waste Management District

By: _____ Date: 4/17/2024

Enclosures: Table 1: Level of Effort and Cost Table
2024 Hourly Rate Chart

Level of Effort and Cost Table

Weston & Sampson

CVSWMD / Phase II ESA

4/1/2024

TASK NO.	TASK DESCRIPTION	Person-Hours: S Shaw PIC	S Mullen PM	R Goetze ENG	D Schuckers SCI	J R Power ADMIN	L Rosberg SCI PM	TOTAL HOURS	Billing Costs: EXPENSES	SUB-CONSULT.	TOTAL COST
1	Project Management	1				1	12	14			$2,137.80
	Work Scope Development				2		4	6			$800.00
	DigSafe				2			2	$23.45		$223.45
2	Field Activities										
	Soil Gas Sampling				8		1	9	$138.45		$1,088.45
	Soil Gas Analysis (3 + 1 FD=4 total)									$1,254.96	$1,254.96
	Environmental Drilling - 1 day				10		2	12	$125.46	$3,780.00	$5,205.46
	VOC Soil Analysis (8 + 1FD + 1 TB =10 total)									$891.00	$891.00
	SVOC Soil Analysis (6 + 1 FD=7 total)									$1,360.80	$1,360.80
	RCRA 8 Metals Soil Analysis (6 +1 FD=7 total)									$665.28	$665.28
	Transformer Soil Sample				1			1			$100.00
	PCB Analysis (1 + 1 FD=2 total)									$172.80	$172.80
3	Reporting										
	Draft Phase II ESA	2		6	8		12	28			$3,700.00
	Results Presentation		1				2	3			$450.00
	Final Phase II ESA				4		2	6			$700.00
TOTALS - NO CONTINGENCIES		**3**	**1**	**6**	**35**	**1**	**35**	**81**	**$287**	**$8,125**	**$18,750**
LABOR BILLINGS PER STAFF MEMBER		**$750**	**$150**	**$600**	**$3,500**	**$88**	**$5,250**				
	Contingencies										
	I-Rule Compliant Work Plan/SSQAPP	2			20		8	30			$3,700.00
CONTINGENCIES TOTALS		**2**			**20**		**8**	**30**			**$3,700**
LABOR BILLINGS PER STAFF MEMBER		**$500**			**$2,000**		**$1,200**				
TOTALS INCLUDING CONTINGENCIES		**5**	**1**	**6**	**55**	**1**	**43**	**111**	**$287.36**	**$8,124.84**	**$22,450.00**
LABOR BILLINGS PER STAFF MEMBER		**$1,250**	**$150**	**$600**	**$5,500**	**$88**	**$6,450**				

Hourly Rates & Reimbursable Expenses	
Staff Level	**Hourly Rate**
Principal-in-Charge/Senior Technical Review	$250
Senior Scientist/Team Leader	$200
Principal Architect / Design Director	$160
Project Manager – Civil	$150
Senior Project Manager – Architecture	$140
Project Manager – Architecture	$130
Project Engineer	$130
Engineer III	$115
Engineer I/CAD/Scientist	$100
Architecture Design Staff	$105
Administrative Assistant	$ 70-75
Expenses	
Mileage	$0.655 per mile *
Subcontracted Services	Cost + 8%

** Mileage rate shown is current. Mileage reimbursement rate will vary to match the Federal Mileage Reimbursement Rate.*

Hourly rates will ~~increase on or near January 1. Rate increase varies year to year depending on market conditions.~~ remain the same through 2024. DBC