540 SMITH STREET FARMINGDALE, NEW YORK BLOCK 400, LOTS 8005 & 208 NYSDEC SITE NO. 1-52-147

SOIL INVESTIGATION OF HISTORICAL SOURCE AREA REPORT

SUBMITTED TO:



New York State Department of Environmental Conservation Division of Environmental Remediation Remedial Bureau A 625 Broadway, 12th Floor Albany, New York 12233-7020

PREPARED FOR:

Minmilt Realty Corp. 352 Carnation Drive Farmingdale, New York 11735

PREPARED BY:



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PWGC Project Number: MIN2002

JULY 2020



P.W. GROSSER CONSULTING, INC. PROJECT No. MIN2001

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SOIL INVESTIGATION OF HISTORICAL SOURCE AREA REPORT THE MINMILT REALTY SITE NYSDEC SITE NO: 1-52-147

TABI	LE OF C	ONTENTS	PAGE				
1.0	INTR	RODUCTION					
2.0	SITE	DESCRIPTION AND HISTORY					
	2.1	Site Description					
	2.2	Regional Geology/Hydrogeology					
	2.3	Site Geology/Hydrogeology					
	2.4	2.4 Site History					
		2.4.1 Previous Environmental Reports/Remedial History Timeline	5				
3.0	STAN	NDARDS, CRITERIA, AND GUIDANCE (SCGS)					
4.0	SUBS	SUBSURFACE INVESTIGATION WORK ACTIVITIES					
	4.1	Geophysical Survey					
		4.1.1 Geophysical Survey Protocol					
		4.1.2 Geophysical Survey Results	10				
	4.2	Soil Characterization					
		4.2.1 Soil Characterization Protocol	11				
		4.2.2 Soil Characterization Results					
	4.3	Waste Management and Disposal					
	4.4	Site Restoration and Demobilization					
5.0	QUAI	QUALITY ASSURANCE/QUALITY CONTROL					
6.0	MON	ITROING, HEALTH AND SAFETY					
7.0	CON	CLUSIONS AND RECOMMENDATIONS					
8.0	REFE	ERENCES					

FIGURES

Figure 1	Vicinity Map
Figure 2	Site Plan
Figure 3	Groundwater Contour Map
Figure 4	GPR Survey Results
Figure 5	Geologic Cross Section and Tetrachloroethene (PERC) Concentrations in Soil

TABLES

Table 1

Vertical Profile Soil Sample Analytical Data Summary – Volatile Organic Compounds

APPENDICES

Appendix A	Soil Boring Logs
Appendix B	Soil Characterization Analytical Data
Appendix C	Waste Characterization Analytical Data
Appendix D	Data Usability Summary Report

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ACRONYM	DEFINITION
ASP	Analytical Services Protocol
bls	Below Land Surface
CAMP	Community Air Monitoring Plan
CFR	Code of Federal Regulations
DER	Division of Environmental Remediation
DER-10	Technical Guidance for Site Investigation and Remediation
DUSR	Data Usability Summary Report
EDD	Electronic Data Delivery
EIMS	Environmental Information Management System
ELAP	Environmental Laboratory Accreditation Program
EM	Electromagnetic
ESA	Environmental Site Assessment
GPR	Ground Penetrating Radar
HASP	Health and Safety Plan
HSM	Health and Safety Manager
IDW	Investigative Derived Waste
IRM	Interim Remedial Measure
LDC	Laboratory Data Consultants
MDL	Method Detection Limit
mg/kg	milligram per kilogram
МКА	Middleton, Kontokosta Associates
mL	milliliter
msl	mean seal level
MS/MSD	Matrix Spike / Matrix Spike Duplicate
NYCRR	New York Codes, Rules, and Regulations
NYSDEC	New York State Department of Environmental Conservation
NYSDOH	New York State Department of Health
OM&M	Operation Monitoring and Maintenance
PCE	Tetrachloroethylene
PID	Photo-ionization Detector
PM-10	10 micrometers in size
PPE	Personal Protective Equipment
ppb	parts per billion
ppm	parts per million
PWGC	P.W. Grosser Consulting, Inc.
QAPP	Quality Assurance Project Plan
QA/QC	Quality Assurance / Quality Control
QEP	Qualified Environmental Professional
RI	Remedial Investigation
RL	Reporting Limit
SCDHS	Suffolk County Department of Health Services
SCG	Standards, Criteria, and Guidance
SCO	Soil Cleanup Objective
SOP	Standard Operating Procedure
SVE	Soil Vapor Extraction
SVOC	Semi-volatile Organic Compound

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ug/l	Micrograms per liter
USEPA	United States Environmental Protection Agency
UST	Underground Storage Tank
VOC	Volatile Organic Compound



CERTIFICATION

I, <u>Martin Meriwether, PG</u>, certify that I am currently a Qualified Environmental Professional (QEP) as defined in 6 New York Codes, Rules, and Regulations (NYCRR) Part 375 and that this soil investigation work plan was prepared in accordance with applicable statutes and regulations and in substantial conformance with the New York State Department of Environmental Conservation's (NYSDEC's) Division of Environmental Remediation's (DER's) Technical Guidance for Site Investigation and Remediation (DER-10).

I certify that the information and statements in this certification are true. I understand that a false statement made herein is punishable as Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

Martin B. Meast

Signature

7/14/20

Date

It is a violation of Article 145 of New York State Education Law for any person to alter this document in any way without the express written verification of adoption by any New York State licensed engineer in accordance with Section 7209(2), Article 145, New York State Education Law.



1.0 INTRODUCTION

P.W. Grosser Consulting, Inc. (PWGC) has prepared this report to document activities and results associated with a subsurface investigation at 540 Smith Street, Farmingdale, New York (Block 400, Lots 8005 & 208), referred to herein as "the Minmilt Realty Site" or "the site". The investigation was performed in accordance with the NYSDEC-approved *Soil Investigation of Historical Source Area Work Plan* (PWGC, March 2020) for the Minmilt Realty site, referred to herein as the "Work Plan."

An onsite leaching pool was previously reported to have received periodic discharges of tetrachloroethylene (PCE) as the result of historical operations at the Minmilt Realty Site. A soil and groundwater investigation performed in 1994 identified significant PCE contamination in subsurface soils on the east side of the building, in the vicinity of the leaching pool. As further described in **Section 2.4**, remedial measures to address this source area and associated groundwater contamination have been ongoing since the mid-late 1990s, and as a result, detected groundwater impact is limited to the onsite recovery wells. The soil investigation documented herein was intended to verify remediation of the historical PCE source area in support of site closure.



2.0 SITE DESCRIPTION AND HISTORY

2.1 Site Description

The Minmilt Realty Site is a 2.28-acre industrial property located at 540 Smith Street, East Farmingdale, New York; and is identified as Tax Map 100 Section 6, Block 1 and Lot 25 on the Town of Babylon Tax Map. The site is bounded by Smith Street to the north, a commercial building (50 Engineers Lane, formerly Cantor Brothers) to the south, a commercial building (550 Smith Street, formerly Great Neck Saw) to the east, and to the west by commercial buildings. The site consists of a 47,103.6 square-foot building and parking area; and the entire site is paved. The current building tenant undertakes light manufacturing.

A Vicinity Map is included as Figure 1. A Site Plan is included as Figure 2.

2.2 Regional Geology/Hydrogeology

The geologic setting of Long Island is well documented and consists of crystalline bedrock composed of schist and gneiss overlain by layers of unconsolidated deposits. Immediately overlying the bedrock is the Raritan Formation, consisting of the Lloyd sand confined by the Raritan Clay Member. The Lloyd sand is an aquifer and consists of discontinuous layers of gravel, sand, sandy and silty clay, and solid clay. The Raritan Clay is a solid and silty clay with few lenses of sand and gravel, abundant lignite and pyrite, and is gray, red, or white in color.

Above the Raritan Clay lies the Magothy Formation. The Magothy Aquifer consists of layers of fine to coarse sand of moderate to high permeability, with interbedded lenses of silt and clay of low permeability resulting in areas of preferential horizontal flow; therefore, this aquifer generally becomes more confined with depth. The Magothy Aquifer is overlain by the Upper Glacial Aquifer. The Upper Glacial Aquifer is the water-table aquifer at this location and is comprised of medium to coarse sand and gravel with occasional thin lenses of fine sand and brown clay. This aquifer extends from the land surface to the top of the Magothy Aquifer; therefore, is hydraulically connected to the Magothy Aquifer. These aquifers are considered Sole Source Aquifers for Long Island.

2.3 Site Geology/Hydrogeology

Based upon drilling and geologic logging performed during previous investigations of the Minmilt Realty Site, Upper Glacial deposits are approximately 105 feet thick beneath the site. These sand deposits extend from land surface (approximately 100 feet above mean sea level [msl]) to a depth of approximately 105 feet (-5 feet msl), where the Magothy Aquifer is encountered. The Magothy Formation is several hundred



feet thick and includes the Magothy Brown Clay unit. Beneath the Site, the first Magothy deposits encountered consist predominantly of fine to medium sands approximately 80 feet thick (-5 to -85 feet msl) with a discontinuous layer of very fine sand, silt and clay present from approximately -55 to -60 feet msl. The Magothy Brown Clay unit is present from approximately -85 to -95 feet msl and is mapped as a continuous layer beneath the site. The Brown Clay is a low permeability layer and considered an aquitard, effectively prohibiting the vertical flow of groundwater through this unit. Beneath the Brown Clay unit, the Magothy consists of fine sands and clays.

The depth to groundwater is approximately 38 to 40 feet below land surface (bls). The general groundwater flow direction is toward the south-southeast. A groundwater contour map is shown in **Figure 3**. The estimated groundwater velocity/flow rate of the Upper Glacial aquifer is approximately 0.93 feet per day. The underlying Magothy aquifer consists of very fine sands with an estimated groundwater velocity/flow rate of 0.49 feet per day (NYSDEC, March 2002).

2.4 Site History

The site was used for agricultural purposes prior to 1965. The onsite building, currently owned by Minmilt Realty, was constructed in 1965 and the property was subsequently occupied by Hygrade Metal Moldings (Hygrade). Hygrade manufactured metal mouldings from strip metals used in construction of windows and other finish products. Prior to 1983, Hygrade used a vapor degreaser, which included a PCE component, to clean metal parts. The use of this vapor degreaser was terminated in 1983.

An Order on Consent (No. IW-91-0021) was issued to Minmilt Realty by the Suffolk County Department of Health Services (SCDHS) in January 1992. SCDHS alleged that Minmilt Realty caused or permitted the discharge of toxic or hazardous material to an onsite leaching pool in violation of Section 760-1205 of Article 12 of the Suffolk County Sanitary Code. The referenced leaching pool has been reported to have received periodic discharges from the vapor degreaser, which contained PCE.

In response to the SCDHS Order on Consent, a soil and groundwater investigation was conducted by PWGC under subcontract to Middleton, Kontokosta Associates (MKA) in 1994. The objective of the investigation was to identify on-site contamination and associated source areas resulting from the alleged discharges. The soil and groundwater investigation identified significant soil contamination present in the subsurface on the east side of the building. The contamination was primarily PCE and was detected at concentrations high enough to classify some of the soil material as hazardous. PCE concentrations were found to increase with depth towards the water table. At the time, it was estimated that approximately 5,500 cubic yards of



soil had been impacted. In addition, PCE was detected in the groundwater beneath the site in excess of permissible NYSDEC standards. Contaminated soils were suspected to be the primary source of PCE in the groundwater. The PCE plume was determined to extend down-gradient to at least the southern property line of Hygrade and vertically to at least 80 feet below grade (40 feet below the water table). The soil and groundwater investigation also determined that background and upgradient groundwater quality in the vicinity of the site was also degraded, indicating the presence of other upgradient sources of contamination.

In 1995, under the oversight of the NYSDEC, a RI was performed. No additional sources of PCE were identified by the remedial investigation at the Site. The vertical extent of the groundwater plume was determined to exist into the Magothy Aquifer to a depth of approximately 185 feet below grade, where it is contained by a clay layer. In addition, on-site monitoring well MW-3 was found to contain a mixture of fuel oil and PCE in a non-aqueous state.

To expedite the clean-up of the site and minimize further degradation of groundwater quality, an interim remedial measure (IRM) was proposed consisting of a soil vapor extraction (SVE) and groundwater remedial combination system to remove the contamination. Construction of the IRM was initiated in August 1996 and completed in February 1997. Subsequently, the Final Offsite RI was completed, and the Record of Decision (ROD) signed, accepting the IRM as the final remedy. The ROD identified three site goals:

- Goal No. 1 Eliminate, to the extent practicable, off-site migration of groundwater that does not attain NYSDEC Class GA Ambient Water Quality Criteria;
- Goal No. 2 Eliminate, to the extent practicable, exposures to on-site contamination through the remediation of volatile organic compounds (VOCs) in subsurface soils; and
- Goal No. 3 Eliminate, to the extent practicable, the migration of site contamination into the groundwater.

PWGC prepared a modified Operation Monitoring and Maintenance (OM&M) plan based upon the offsite RI and the ROD. Minmilt Realty Corp. signed a new Order on Consent on October 24, 2003 addressing the continuing groundwater and soil monitoring at the site.

To further assess the nature of the remaining impacts at the site, PWGC conducted a vertical profile investigation south of MW-3 during 2009. This investigation identified PCE at concentrations up to 84,000 ug/L. High concentrations were primarily observed in the Magothy Aquifer between 120 feet and 130 feet below grade and were rather limited to this area, with concentrations rapidly dropping off in each of the



surrounding step-out borings conducted by PWGC. The results of the vertical profile investigation documented that the greatest groundwater impacts were located within the Magothy Aquifer, just south of MW-3.

PWGC oversaw installation of a new Magothy well (Magothy Extraction Well No. 4) onsite and south of MW-3 during the first quarter of 2012 to target the contamination identified in the 2009 vertical profile investigation. The well was installed with 6" diameter casing, screened from 103 to 163 feet below grade. PWGC subsequently determined that Magothy Extraction Well No. 4 had replaced Magothy Extraction Well No. 2 in remedial capacity, rendering Magothy Extraction Well No. 2 unnecessary. After receiving permission from the NYSDEC, original Magothy Extraction Well No. 2 was placed out of operation during the first half of 2014. During June/July 2015, a new onsite Upper Glacial well (Upper Glacial Extraction Well No. 3) was installed and placed into operation. This well was designed with 30 feet of screen set from 68.5 to 98.5. feet below grade. This depth coincides with, and targets, the highest remaining impacts in the Upper Glacial aquifer, based upon the results of PWGC's 2014 vertical profile investigation. System mass removal rates increased to the highest since 2008 indicating that the new extraction wells (Upper Glacial Extraction Well No. 3 and Magothy Extraction Well No. 4) are effectively treating the remaining groundwater impact. In March 2015, both off-Site extraction wells (Upper Glacial Extraction Well No. 1 and Magothy Extraction Well No. 2) were decommissioned and abandoned. Due to a drop in the PCE removal rate, the onsite SVE system was put on a pulsed pumping schedule (i.e., 2 weeks on, 2 weeks off) in 2016.

2.4.1 Previous Environmental Reports/Remedial History Timeline

The following narrative provides a remedial history timeline and brief summary of the available project records to document key investigative remedial milestones for the Minmilt Realty Site. Full titles for each of the reports referenced below are provided in **Section 10.0**.

- 1992: Order on Consent No. IW-91-0021 issued to Minmilt Realty by SCDHS.
- 1994: The Site was listed as a class 2 Site in March 1994.

PWGC, under contract to MKA, conducts an on-Site soil and groundwater investigation. A preliminary report was generated entitled *Investigation Report for Hygrade Metals* (PWGC, 1994).

1995: Remedial Investigation performed under NYSDEC oversight. PCE in groundwater extends vertically into the Magothy aquifer down to the Magothy Brown Clay (~185 feet below



grade). Non-aqueous phase liquid containing a mixture of fuel oil and PCE was present in MW-3. No additional PCE sources were identified at Site (*Remedial Investigation Report,* PWGC, October 1995, revised February 1996).

- 1996: Two Interim Remedial Measures (IRMs) were implemented: 1) a groundwater extraction and treatment system and 2) a soil vapor extraction system (*Interim Remedial Measure to be Conducted at the Hygrade Metal Moulding Facility, East Farmingdale, New York - An Evaluation of Alternatives and Design,* PWGC, January 1994, revised December 1995 and April 1996).
- 1997: IRM construction completed in February (*Construction Completion Report for the Interim Measure at Minmilt Remedial Site, East Farmingdale, New York,* PWGC, July 1997). Upper Glacial Extraction Well No. 1 and Magothy Extraction Well No. 2 begin pumping. PWGC submits the revised version of *Operation and Maintenance Program for the Interim Remedial Measure at Minmilt Realty, East Farmingdale, New York, October 1996, revised March 1997.* Quarterly SVE system sampling and monitoring well sampling begins.
- 1999: NYSDEC approves removal of the Granular Activated Carbon (GAC) treatment from the SVE system since the SVE air effluent is consistently below NYSDEC discharge limits. SVE effluent is routed directly to atmosphere on April 16.
- 2001: Minmilt Realty completed the offsite remedial investigation (*Offsite Remedial Investigation and Feasibility Study*, PWGC, October 2001).
- 2002: The Hygrade Metals Moulding (Minmilt Realty) Record of Decision (ROD) was published in March 2002 accepting the IRM as the final remedy (NYSDEC, March 2002).
- 2002 to Present: Operation, Maintenance and Monitoring (OM&M) of the treatment systems continues. NYSDEC approves removal of GAC treatment from the air stripper tower air effluent since the groundwater influent is consistently below NYSDEC discharge limits that GAC treatment of the vapor was no longer required. Air stripper effluent is routed directly to atmosphere on April 17, 2002.
- 2003: Minmilt Realty signs new Order on Consent on October 24, 2003.
- 2004: NYSDEC approves suspension of system SVOC sampling, a reduction in the number of monitoring wells sampled quarterly from 23 to 13, and streamlining the quarterly report.



- 2005: January 31, 2005, NYSDEC approves the *Operation, Maintenance and Monitoring (OM&M) Program for the Minmilt Realty Site* (PWGC, January 2005), replacing the *Operation and Maintenance Program* (PWGC, 1997).
- 2006: PWGC completes four quarters of indoor air monitoring (540 & 550 Smith Street) and reports that PCE concentrations have been non-detect or near non-detect ($<5 \mu g/m^3$) since September 28, 2005, more than an order of magnitude below the New York State Department of Health (NYSDOH) Guidance Value of 100 $\mu g/m^3$ for PCE (PWGC, June 2006).
- 2007: NYSDEC submits minor changes to the Minmilt Realty ROD to remove the requirements for 1) existing use and development restrictions on groundwater use and 2) deed restrictions to restrict the further use of the Site for industrial use only. Other than standing town ordinances and SCDHS typical requirements, the only ICs in place for the Site are that all ECs must be operated and maintained as specified in the OM&M Plan, and that all ECs must be inspected in a manner and at a frequency specified in the OM&M Plan. These changes are accepted, and the Site Classification changed from 2 to 4 (NYSDEC, May 10, 2007 and November 9, 2007; NYSDOH, March 22, 2005).
- 2009: PWGC conducts a vertical profile investigation south of MW-3 and delineates high concentrations of PCE in the Magothy aquifer from 120-130 feet below grade.
- 2012: Magothy Extraction Well No. 4 installed on Site south of MW-3 in 2011 (screened from 103-163 feet below grade) goes into operation to target high concentrations of PCE.
- 2013: Report to NYSDEC after 16 years of O&M indicates that an estimated 33,600 pounds of total volatile organic compounds (TVOCs) have been removed by the groundwater treatment system and an additional 5,300 pounds of TVOCs have been removed by the SVE system (2013 Remedial Status Report, PWGC, September 2013). Magothy Extraction Well No. 2 was recommended for shutdown and removed from service during the fourth quarter of 2013 (January September 2015 Minmilt Groundwater Sampling Report, PWGC, 2015).
- 2014: OM&M is modified to reduce groundwater sampling of monitoring wells from quarterly to every fifth quarter. Quarterly sampling of groundwater remedial system influent and SVE system influent to continue; monthly monitoring well gauging and groundwater system influent and effluent sampling to continue.



- 2015: Upper Glacial Extraction Well No. 3 was installed with the screened depth (68.5-98.5 feet below grade) designed to coincide with the highest PCE concentrations remaining in the Upper Glacial aquifer. The well was placed into operation in July 2015. System mass removal rates increased to the highest since 2008 indicating that the new extraction wells (Upper Glacial Extraction Well No. 3 and Magothy Extraction Well No. 4) are located within the area of greatest groundwater impacts. In March 2015, both off-Site extraction wells (Upper Glacial Extraction Well No. 1 and Magothy Extraction Well No. 2) were decommissioned and abandoned (*January September 2015 Minmilt Groundwater Sampling Report*, PWGC, 2015).
- 2016: SVE system put on a pulsed pumping schedule (2 weeks on, 2 weeks off) due to drop in PCE removal rate.
- 2018: NYSDEC approves eliminating quarterly reporting requirement. O&M activities, system repairs, monitoring well gauging and treatment system review and trending will be detailed in the Periodic Review Report (PRR)

NYSDEC begins converting the OM&M Plan into a Site Maintenance Plan (SMP).

2019: NYSDEC approves amending monthly groundwater level gauging frequency requirement from monthly to quarterly, and SVE sampling requirement from quarterly to biannually (twice annually).

PWGC submitted a draft of the SMP on February 5^{th} , 2020.



3.0 STANDARDS, CRITERIA, AND GUIDANCE (SCGs)

As detailed above in **Section 2.4**, the primary contaminants of concern at the Minmilt Realty Site are PCE and associated breakdown compounds. To confirm that soil remediation goals specified in the ROD have been achieved, soil sample results were compared to the initial concentrations of PCE and associated breakdown compounds in site soils, in addition to the Restricted Use soil cleanup objectives (SCOs) for Protection of Groundwater provided in NYSDEC 6 NYCRR Part 375.

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4.0 SUBSURFACE INVESTIGATION WORK ACTIVITIES

The subsurface investigation work activities were performed between May 18, 2020 and May 21, 2020. The primary objective of the subsurface investigation was to collect the information and field data necessary to verify remediation of the PCE source area in support of site closure. The scope of work included a geophysical survey and the characterization of soil in the PCE source area located in the driveway and parking area east and southeast of the onsite building. The geophysical survey and drilling contractor, Aquifer Drilling & Testing, Inc. (ADT), and PWGC mobilized to the Minmilt Realty Site on May 18, 2020. Site workers were briefed on the procedures and policies specified in the project-specific Health and Safety Plan (HASP), Community Air Monitoring Plan (CAMP) and Work Plan.

4.1 Geophysical Survey

4.1.1 Geophysical Survey Protocol

A ground-penetrating radar (GPR) survey was performed on May 18, 2020 to ensure proposed soil boring locations were clear of buried utilities, including those associated with onsite remedial systems. Results of the GPR survey were also used to confirm the locations of previously noted leaching structures within the original PCE source area.

The GPR method is based upon the transmission of repetitive, radio-frequency electromagnetic (EM) pulses into the subsurface. When the transmitted energy of down-going wave contacts an interface of dissimilar electrical character, part of the energy is returned to the surface in the form of a reflected signal. This reflected signal is detected by a receiving transducer and is displayed on the screen of the GPR unit as well as being recorded on the internal hard drive.

The received GPR response remains constant if the electrical contrast between media is present and constant. Lateral or vertical changes in the electrical properties of the subsurface result in equivalent changes in the GPR responses. The system records a continuous image of the subsurface by plotting two-way travel time of the reflected EM pulse versus distance traveled along the ground surface. Two-way travel time values are then converted to depth using known soil velocity functions. Each radar profile will be examined for characteristic GPR signatures that may indicate the presence of buried targets.

4.1.2 Geophysical Survey Results

Results of the GPR survey indicated the presence of several underground utilities in the vicinity of the proposed soil boring locations. These included: a water line associated with the fire service manhole at the



north end of the driveway; electrical service running north/south along the eastern side of the driveway; the SVE line; and piping associated with the North and South Manholes. No previously unknown subsurface structures were identified by the GPR survey. The results of the GPR survey are illustrated on **Figure 4**.

4.2 Soil Characterization

4.2.1 Soil Characterization Protocol

Three soil borings, DB01 through DB03, were installed in the historical PCE source area in the driveway and parking area east and southeast of the onsite building (see **Figure 2**) between May 18, 2020 and May 21, 2020. Soil borings were installed using sonic drilling technology, which is a rotary vibratory drilling method capable of high drilling speeds and continuous coring. Soils were collected continuously from ground surface to 170 feet below grade at DB01 and DB02, and from ground surface to 180 feet below grade at DB03. Soils were classified in accordance with the Unified Soil Classification System and field screened for the presence of volatile organic vapors using a photoionization detector (PID). Discrete soil samples (i.e., non-composite and non-homogenous) were collected in tera-core sampling devices from intervals exhibiting the greatest signs of contamination based on field observations and PID screening results; and from intervals where the highest contaminant concentrations were detected during the 1994 soil investigation, as documented in the *Investigation Report for Hygrade Metals* (PWGC, 1994). Soil sample intervals were also be selected based on changes in lithology with depth, as observed in the field. A total of forty-five discrete soil samples were collected and analyzed for PCE and associated breakdown compounds by United States Environmental Protection Agency (USEPA) Method 8260: nine soil samples from DB01, fifteen soils samples from DB002, and twelve soil samples from DB03. Soil sampling was performed in accordance with DER-10. Analysis was performed by Alpha Analytical New York State Department of Health (NYSDOH) Environmental Laboratory Approval Program (ELAP) certified laboratory.

4.2.2 Soil Characterization Results

Field Characterization Results

Geologic logging for the three soil borings was mostly consistent with logging performed during previous investigations at the Minmilt Realty Site. With the exception of silt with gravel or interbedded sand, silt and clay encountered from land surface to approximately 8 feet bls (likely non-native material), sand deposits with small lenses of silt and gravel (i.e., DB01: 40-43 feet bls and 48-50 feet bls) extend to a minimum depth of 80 feet bls. Clay lenses ranging from 2 to 6 feet in thickness were encountered in DB01 between 80 and 97 feet bls, and a 1-foot thick clay lenses was encountered from 94 to 95 feet bls at DB03. Clay was not

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encountered at depths of less than 100 feet bls in DB02. Fine to medium sands with multiple thin layers (i.e., 1 to 9 feet thick) of clay were encountered from 100 feet bls to the terminal depths (i.e., 170 to 180 feet bls) in each of the three soil borings. The water table was encountered at approximately 40 feet bls at each of the three soil boring locations. A geologic cross section is provided in **Figure 5**. Soil boring logs are provided in **Appendix A**.

PID screening results ranged from 0 parts per million (ppm) to greater than the upper detection limit for the PID (i.e., greater than 9,999 ppm) in all three soil borings. In DB01, the highest PID screening results were noted from 80 to 95 feet bls (7,196 ppm to greater than 9,999 ppm), which coincides with intervals where clay was encountered. PID screening results exceeded 1,000 ppm at several intervals in DB02, including 5 to 15 feel bls (1,843 ppm to 2,498 ppm), 60 to 70 feet bls (1,280 ppm) 85 to 90 feet bls (4,849 ppm) and 100 to 115 bls (2,975 ppm to greater than 9,999 ppm). The interval at DB02 with the highest PID screening results (i.e., 110-115 feet bls) coincide with a clay layer encountered at approximately 113 to 115 feet bls and the overlying fine to medium sands encountered at 100 to 113 feet bls. PID screening results at DB03 exceeded 1,000 ppm at approximately 80 to 90 feet bls (3,738 ppm) and approximately 119 to 129 feet bls (2,273 to greater than 9,999 ppm). The interval at DB03 with the highest PID screening results (i.e., 119-129 bls) coincide with a silty clay layer encountered at approximately 119 to 128 feet bls. PID screening results are included in the soil boring logs, which are provided in **Appendix A**.

Analysis Results

Analytical results for discrete soil samples collected from the three soil borings indicate that PCE was the only VOC detected in exceedance of its associated Restricted Use SCO for Protection of Groundwater (i.e., 1,300 parts per billion [ppb]. Concentrations of cis-1,2-Dichloroethene, trans-1,2-Dichloroethene, Trichloroethene and Vinyl chloride were below their respective Restricted Use SCO for Protection of Groundwater in all analyzed soil samples. Analytical results are summarized in **Table 1**, and PCE concentrations throughout the three soil borings are illustrated on **Figure 5**. Laboratory data packages are provided in **Appendix B**.

In DB01, which was located adjacent to the leaching pool that reportedly received periodic PCE-containing discharges (i.e., UIC001), PCE was detected at concentrations of 55,500 ppb (80-85 feet bls), 4,700,000 ppb (85-90 feet bls), 8,100 ppb (90-95 feet bls) and 3,700 ppb (158-160 feet bls). Only a minor concentration



(1.6 ppb) of PCE was detected in the 20 to 22-foot bls sample interval at DB01, which correlates to the location where significant PCE contamination was detected during the 1994 investigation; and PCE was not detected in the sample interval that corresponds with the terminal depth of SB01 (168-170 feet bls).

In DB02, which was located in the previous vicinity of a concrete underground storage tank (UST) that received discharge from floor drains inside the onsite building, PCE was detected at concentrations of 220,000 ppb (85-90 feet bls), 10,000 ppb (120-125 feet bls) and 3,700 ppb (135-140 bls). PCE was not detected above the Restricted Use SCO for Protection of Groundwater in the three soil samples collected from above the water table (7-10 feet bls: 620 ppb, 10-15 feet bls: 280 ppb and 15-20 feet bls: 31 ppb), where significant PCE contamination was detected during the 1994 investigation. PCE was not detected in the sample interval that corresponds with the terminal depth of SB02 (165-170 feet bls).

DB03 was located adjacent to MW-3, where non-aqueous phase liquid containing a mixture of fuel oil and PCE was detected during the 1995 Remedial Investigation. PCE was detected in DB03 at concentrations of 6,500 ppb (80-85 feet bls), 24,000 ppb (85-90 feet bls), 4,500 ppb (115-120 feet bls) and 28,000 ppb (120-125 feet bls). PCE was not detected and depths shallower than 70 feet bls, and only a minor concentration of PCE (1.5 ppb) was detected in the sample interval that correspond with the terminal depth of SB03 (175-180 feet bls).

Results Summary

As illustrated on **Figure 5**, significant PCE contamination was detected from approximately 80 to 90 feet bls in all three soil borings. This interval is just above, or coincides with, clay lenses detected at the base of the Upper Glacier Aquifer. The highest concentration of PCE (4,700,000 ppb) was detected at 85-90 feet bls in DB01, which was located adjacent to the leaching pool that reportedly received periodic PCEcontaining discharges (i.e., UIC001). PCE concentrations in soil samples collected from these depths decreased significantly at soil boring locations further downgradient from UIC001: 220,000 ppb at 85-80 feet bls in SB02 and 24,000 ppb at 85-90 feet bls in SB03. A second, less significant, zone of PCE contamination was detected at depth of 120-125 feet bls in SB02 (10,000 ppb) and SB03 (28,000 ppb), where thin layers of clay were encountered in the upper Magothy Formation. PCE and associated breakdown compounds were not detected above Restricted Use SCOs for Protection of Groundwater in soil



samples collected above the water table (i.e., less than 40 feet bls), or in samples collected from the terminal depths of each of the three soil borings (i.e., 170-180 feet bls).

4.3 Waste Management and Disposal

Eight 55-gallon drums, five drums of soil cuttings and three drums of liquid, were generated during drilling activities. The drums were properly labeled and staged inside the locked remediation system fence. Waste characterization samples representative of the drum contents were collected and submitted to Alpha Analytical. Analytical results indicated that the soil cuttings should be disposed of as hazardous waste.

The liquids were treated onsite by pumping the contents of the three drums through filter socks and then through the groundwater treatment system. The associated filter socks were placed inside the soil cutting drums for offsite disposal as hazardous waste.

The five drums of soil cuttings will be disposed of as hazardous waste by Innovative Recycling Technologies (IRT) of Lindenhurst, NY. Waste characterization data is provided in **Appendix C**. The signed waste manifests will be provided to the NYSDEC once they are made available by the associated disposal facility.

4.4 Site Restoration and Demobilization

Upon completion of each soil boring, the associated borehole was filled with grout and the associated area of the driveway/parking lot was repaired with asphalt patch, which was tamped to grade. Work areas were swept clean of any debris, and as discussed in **Section 4.3**, soil cuttings and liquid generated during drilling activities were placed into 55-gallon drums that were subsequently staged inside the locked remediation system fence. At the completion of the subsurface investigation, all equipment was dismantled and removed from the Minmilt Realty Site.



5.0 QUALITY ASSURANCE/QUALITY CONTROL

Subsurface investigation work activities were performed in accordance with the quality assurance/quality control (QA/QC) requirements specified in the Quality Assurance Project Plan (QAPP), which was included as part of the project Work Plan. This included the collection of QA/QC samples at the following specified frequencies:

- Blind Duplicates one per 20 environmental samples for each matrix sampled
- Matrix Spike/Matrix Spike Duplicate (MS/MSD) one per 20 environmental samples for each matrix sampled
- Equipment Blank one per day for soil sampling activities
- Trip Blank one per day for soil sampling activities

Soil samples and QA/QC samples were assigned the appropriate sample identifications, controlled under chain-of-custody, and packaged and shipped in accordance with the QAPP.

Independent third-party data validation was performed by Laboratory Data Consultants of Carlsbad, California (LDC) in accordance with the QAPP. The data usability evaluation for the data collected during the subsurface investigation is documented in LDC's data usability summary report (DUSR), which is provided in **Appendix D**. All data were deemed usable by LDC with minor qualifications due to sample matrix.

Non-dedicated sampling equipment was decontaminated to prevent cross-contamination, and monitoring equipment was routinely calibrated and/or response-checked in accordance with the manufacturers recommended schedules and standard operating procedures.

Subsurface investigation work activities were appropriately documented in the field logbook.



6.0 MONITROING, HEALTH AND SAFETY

Real-time air monitoring for VOCs, the use of PPE and other health and safety protocols were followed during the subsurface investigation in accordance with the project HASP and CAMP. In addition, appropriate measures, including the use of face masks and physical distancing, were taken to reduce exposure relative to the COVID-19 pandemic. Monitoring results for VOCs were below the specified action levels and the subsurface investigation was completed without any incidents relative to health and safety.



7.0 CONCLUSIONS AND RECOMMENDATIONS

The subsurface investigation of the historical source area at the Minmilt Realty Site was completed between May 18, 2020 and May 21, 2020. The investigation included a GPR survey and the installation of three soil borings. Soils were collected continuously from ground surface to 170 feet below grade at DB01 and DB02, and from ground surface to 180 feet below grade at DB03.

Results of the GPR survey indicated the presence of several underground utilities in the vicinity of the proposed soil boring locations. These included: a water line associated with the fire service manhole at the north end of the driveway; electrical service running north/south along the eastern side of the driveway; the SVE line; and piping associated with the North and South Manholes. The GPR survey did not indicate the presence of any previously unknown subsurface structures or utilities.

PCE and associated breakdown compounds were not detected above Restricted Use SCOs for Protection of Groundwater in soil samples collected above the water table (i.e., less than 40 feet bls). Significant PCE contamination was detected from approximately 80 to 90 feet bls in all three soil borings. This interval is just above, or coincides with, clay lenses detected at the base of the Upper Glacier Aquifer. The highest concentration of PCE (4,700,000 ppb) was detected at 85-90 feet bls in DB01, which was located adjacent to the leaching pool that reportedly received periodic PCE-containing discharges (i.e., UIC001). PCE concentrations in soil samples collected from these depths decreased significantly at soil boring locations further downgradient from UIC001: 220,000 ppb at 85-80 feet bls in SB02 and 24,000 ppb at 85-90 feet bls in SB03. A second, less significant, zone of PCE contamination was detected at depth of 120-125 feet bls in SB02 (10,000 ppb) and SB03 (28,000 ppb), where thin layers of clay were encountered in the upper Magothy Formation.

Analytical results for soil samples collected above the water table indicate that the significant PCE contamination detected in shallow soils during the 1994 investigation has been effectively remediated by the onsite SVE system. The two zones of soil contamination (i.e., 80 to 90 feet bls and 120-125 feet bls) correlate to the depths at which significant PCE contamination in groundwater (54,000 to 84,000 ppb) was delineated during the 2009 vertical profile investigation. These results, as well as the data reported annually in the Periodic Review Reports, indicate that the onsite groundwater extraction wells are located within the contaminant source area and the residual source of contamination is being effectively contained



and removed by the groundwater remediation system. PWGC may evaluate additional remedial measures to address residual soil and groundwater contamination in an effort to expedite site closure.



8.0 REFERENCES

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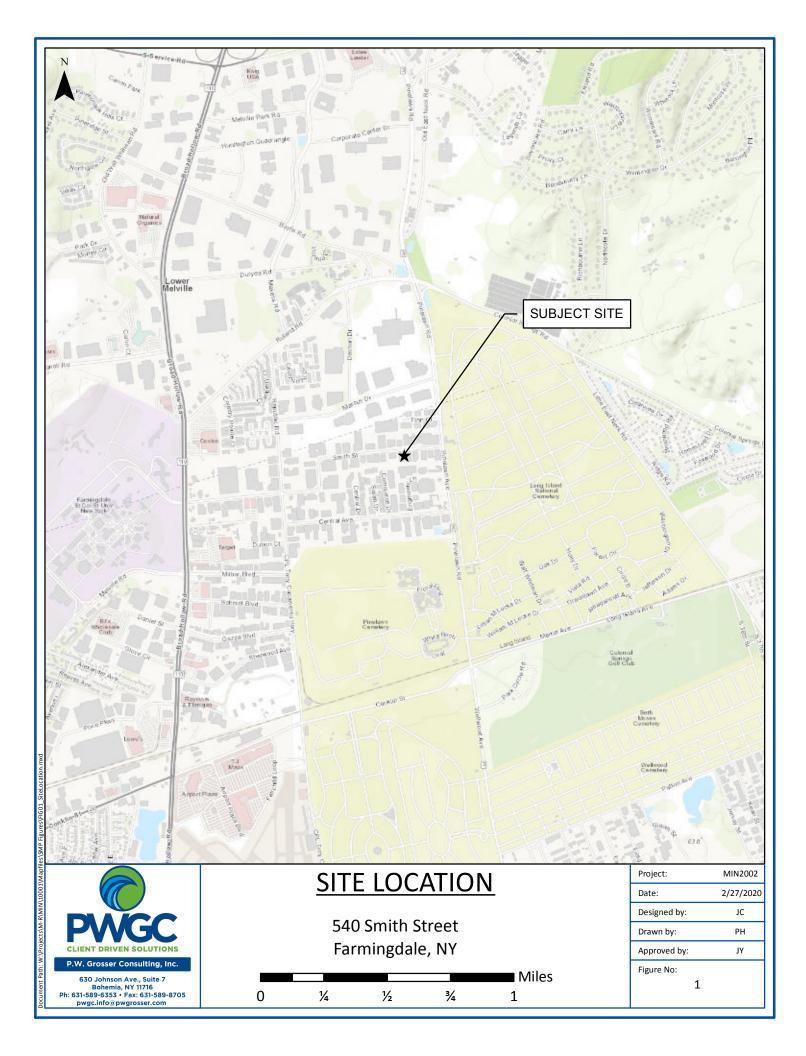
PWGC, September 2013. 2013 Remedial Status Report.

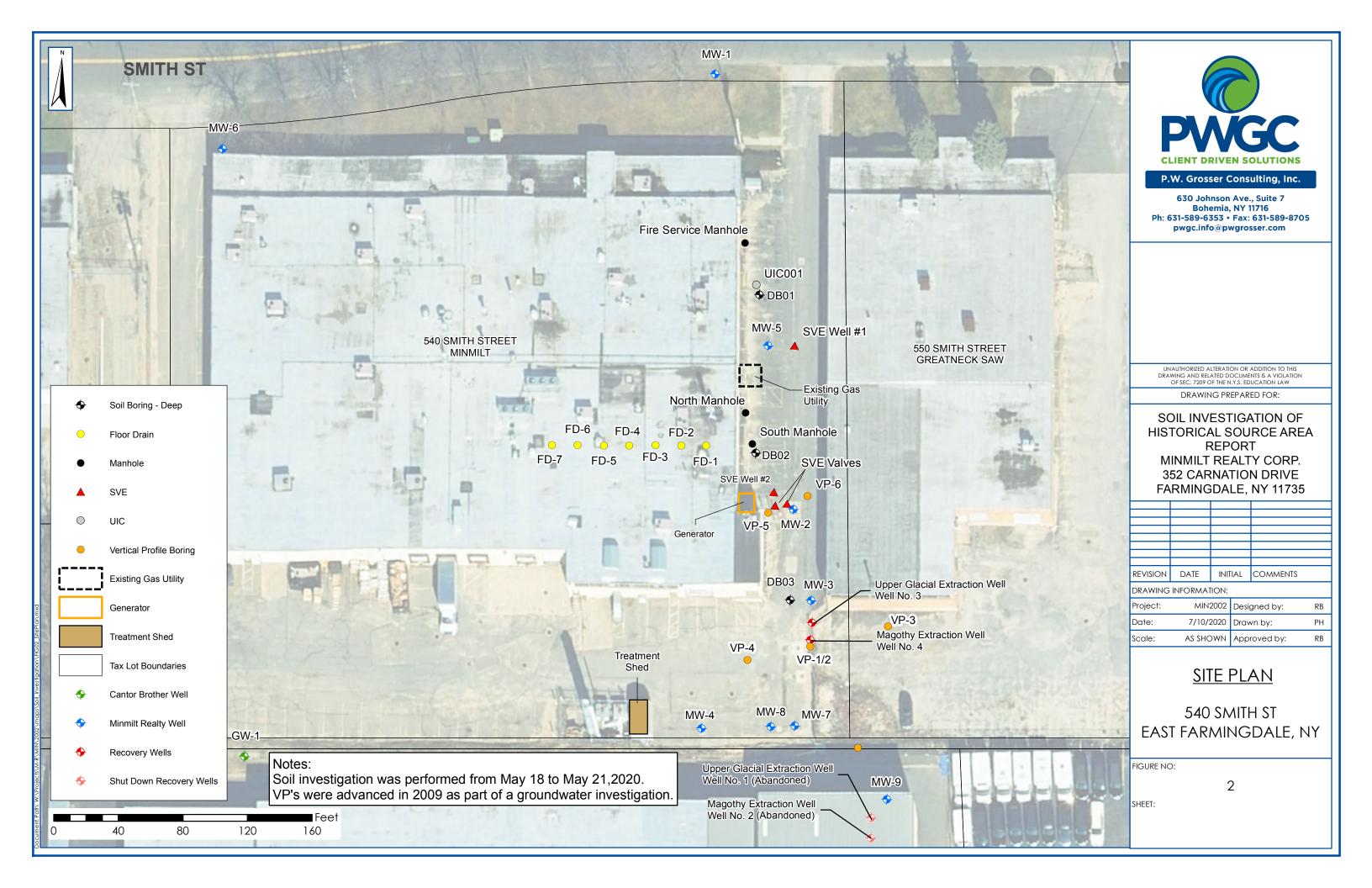
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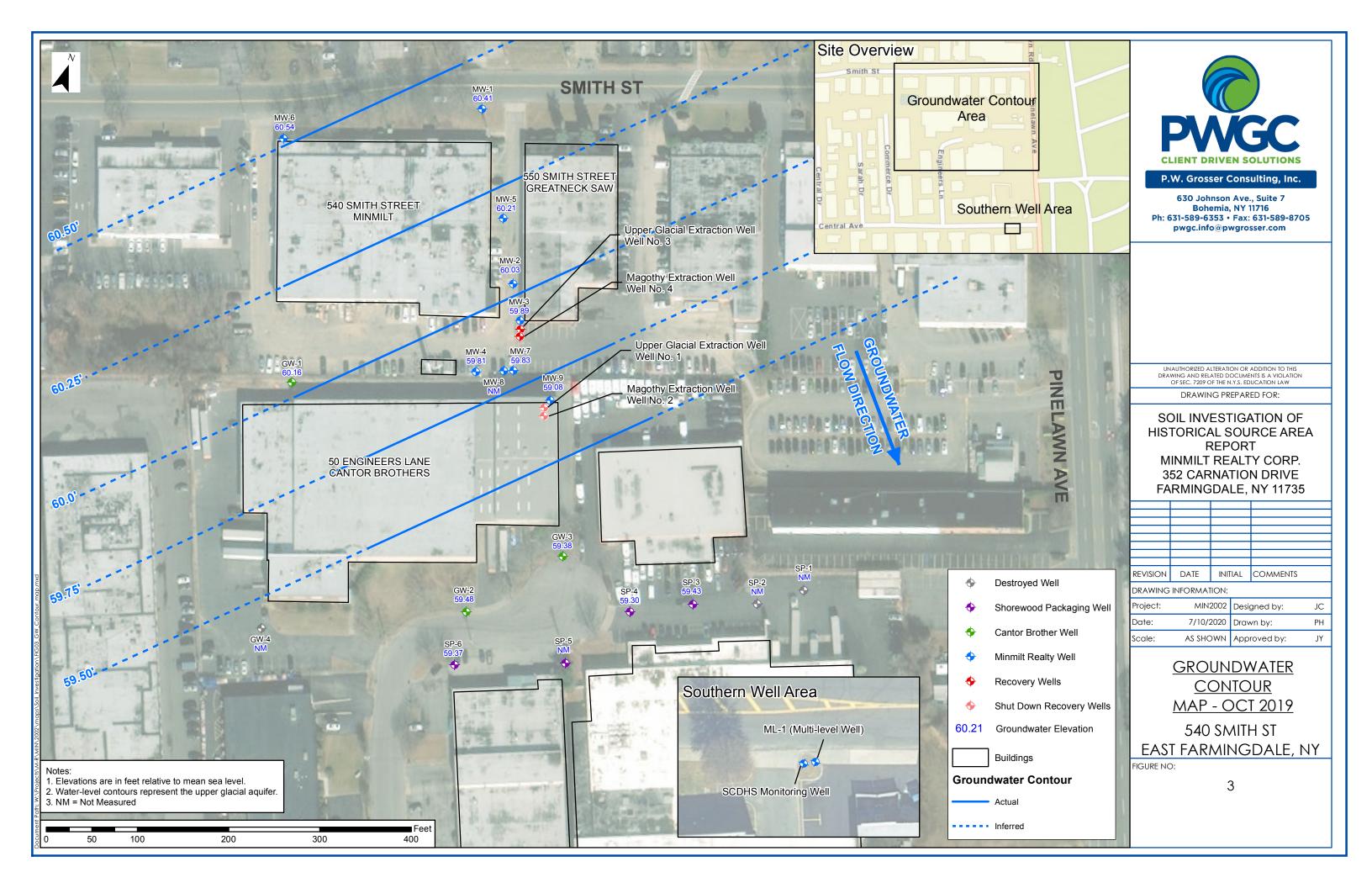


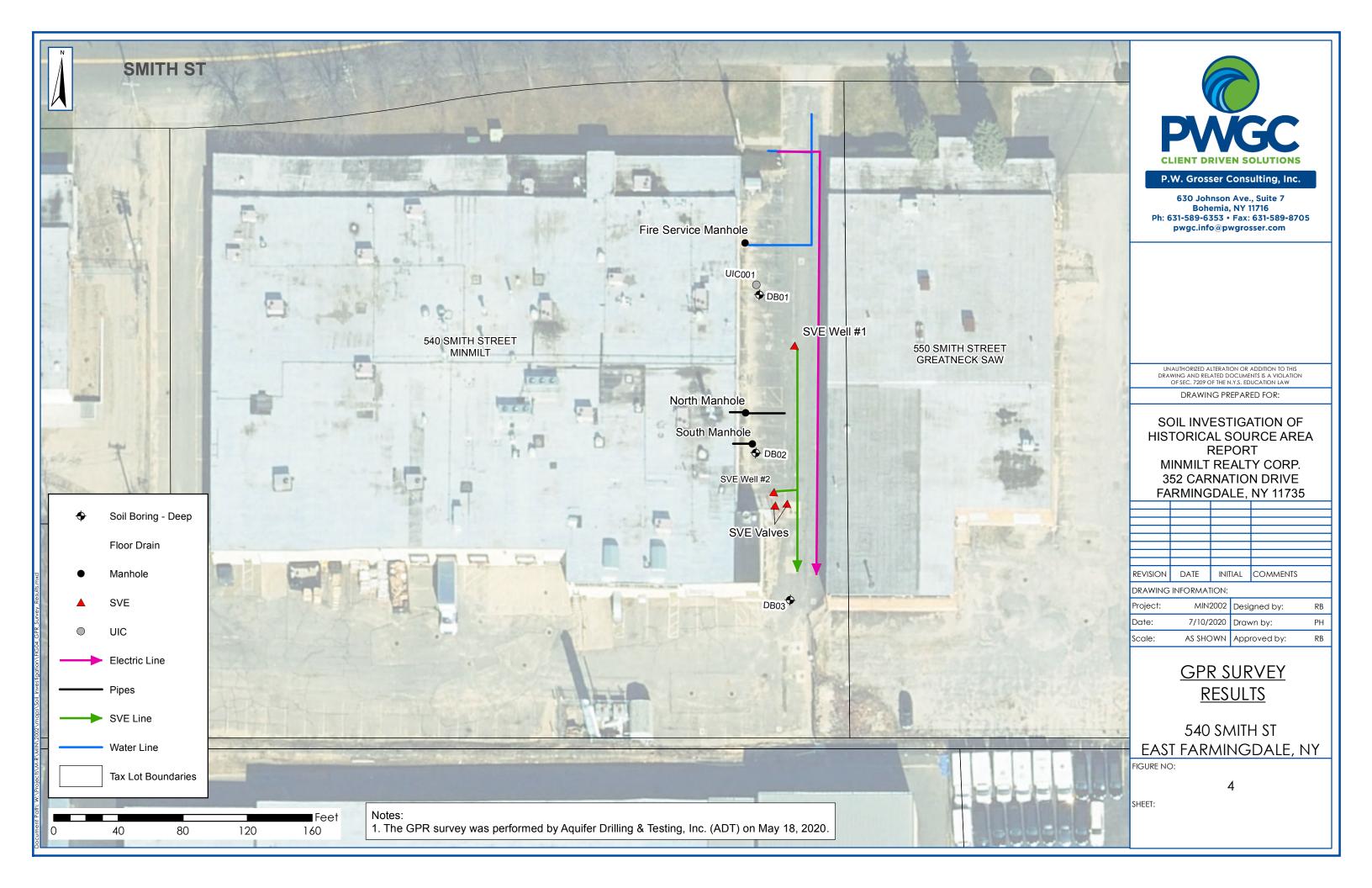
FIGURES

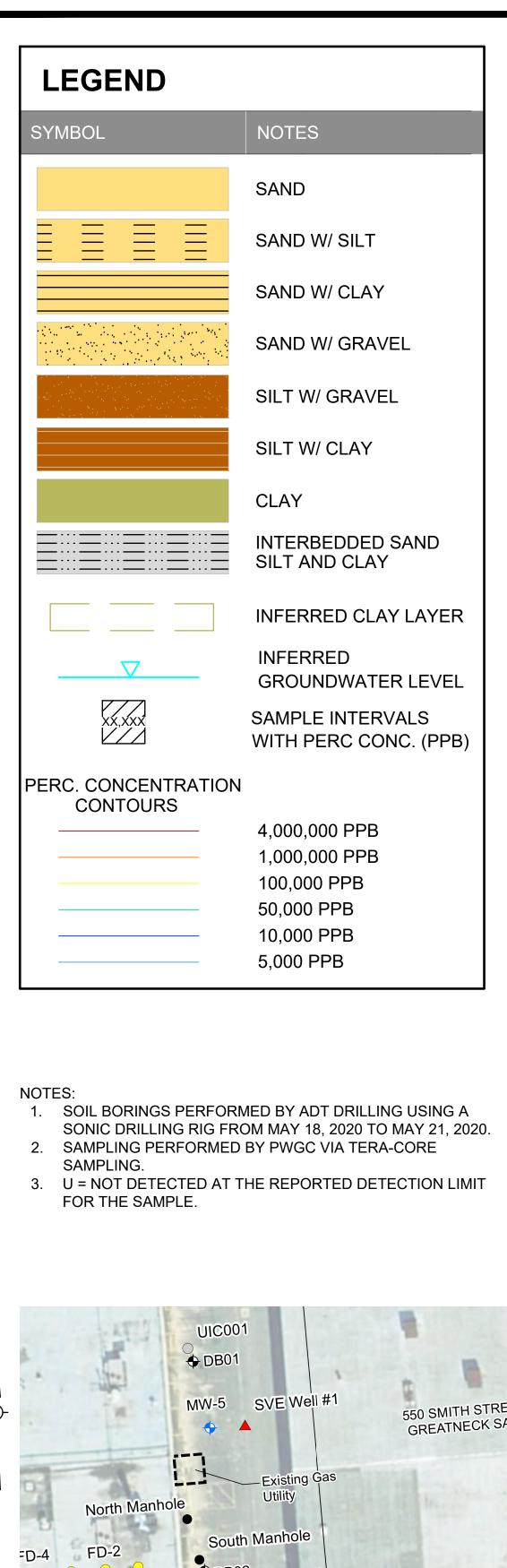
P.W. GROSSER CONSULTING, INC. P.W. GROSSER CONSULTING ENGINEER & HYDROGEOLOGIST, P.C. LONG ISLAND • MANHATTAN • SARATOGA SPRINGS • SYRACUSE • SEATTLE • SHELTON

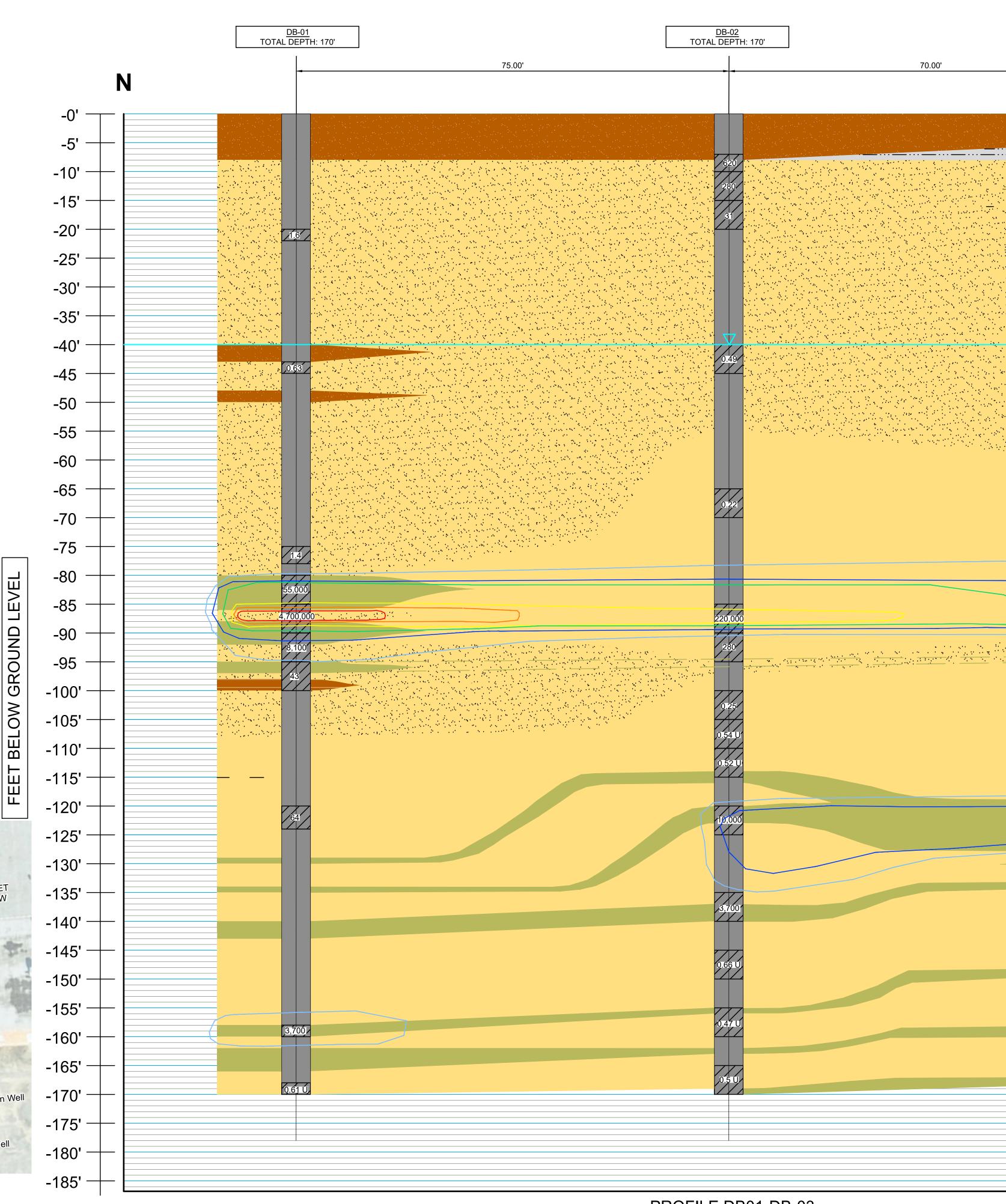


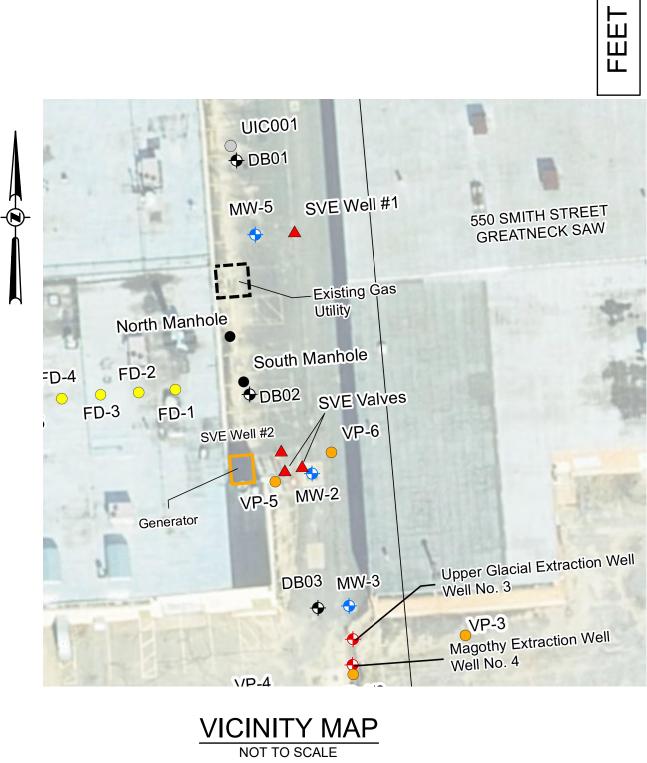












BELOW

TOTAL	<u>DB-03</u> _ DEPTH: 180'	S CLI	ENT DRIVEN SOL	
	0.55 U		OSSER CONSULTING AND HYDROGEOLOG 630 Johnson Avenue. • Suit Bohemia • NY • 11716-261 one: (631) 589-6353 • Fax: (631)	GIST, P.C. te 7 18
		CONSULT	E-mail: INFO@PWGROSSER.	
	35			
	135			
	8.3			
	6,500			
	24,000 57			
	8.8	7 6 5 4 3 2 1 1		
	4,500	Number Revision Designed By Drawn By Drawn By Client:	Implementation Date Submitted HS Date Created HS Scale	Revision Date 6/19/2020 6/17/2020 AS SHOWN
	28,000	MINMILT 352 CARI FARMINO Project:	REALTY CORP. NATION DRIVE SDALE, NEW YORK 11	
	240	OF H	IISTORICA RCE AREA	L
	24	EAST FA		
		Title of Drawing:	FIGURE 5	
	1.5		Sheet	of
		to this drawing is a violation	PWGC Project Number and related documents on of Section 7209 rk State Education Law	1 min2002



APPENDIX A SOIL BORING LOGS

P.W. GROSSER CONSULTING, INC.
P.W. GROSSER CONSULTING ENGINEER & HYDROGEOLOGIST, P.C.PHONE: 631.589.6353
PWGROSSER.COM630 JOHNSON AVENUE, STE 7
BOHEMIA, NY 11716LONG ISLAND • MANHATTAN • SARATOGA SPRINGS • SYRACUSE • SEATTLE • SHELTON

PROJE	CT #:			MIN2002		NGC	•
SITE A	DDRE	SS:		540 Smith Street, Farmingdale, NY			
BORIN	BORING ID: DB001			DB001	BORING DEPTH (FT): 170	CORE LE	NGTH (FT):
WELL I	BORING DIAMETER (IN): WELL D				WELL DI	AMETER (IN):	
			стор		4 DATE STARTED:	2 DATE FIN	
				ADT Drilling	05/18/2020 TIME STARTED:	05/19/2 TIME FIN	
DRILLI	NG ME	THOD	:	Sonic Drilling	09:40	09:10 LONGITU	
DRILLI	NG EQ	DIPME	ENT:	Sonic Drill Rig	latitude: N/A	N/A	
Sampl	ING M	IETHO		Tera-core Sampling	PROJECT MANAGER: Regina Bykov	LOGGED Kaitlyr	BY: Crosby
DEPTH (feet)	SAMPLE INTERVAL	USCS KEY	RECOVERY (feet)	DESCRI NAME (USCS): colo gravel,	r, moist, plasticity,		PID Reading (ppm)
0			5	Hand Digging, grave	I-sand-silt mixtures		
_			5	SILTY GRAVELS (GM): Yellowish	Orange, gravel-sand-silt mixtures		0
				WELL GRADED SAND (SW): Greer	ish gray, medium sand with grave	el	0
10—			5	WELL GRADED SAND (SW): Yellowi	sh Orange, coarse sand with grav	/el	0
20—				POORLY GRADED SAND (SP): Yellowish (Drange, gravely sands with little to	o no fines	15
-			5	- WELL GRADED SAND (SW): Yellowi	sh Orange, coarse sand with grav	/el	0
30—			5				
40—				- WELL GRADED SAND (SW): Yellowish Or	ange, medium to coarse sand wit	h gravel	0
			5	SILTY GRAVELS (GM): Yellowish	Orange, gravel-sand-silt mixtures		0
_				WELL GRADED SAND (SW): Dark Brov	vn, medium to coarse sand with g	ravel	0
50		ϕ		SILTY GRAVELS (GM): Dark Br	own, gravel-sand-silt mixtures		0
	ng Id:		001	End of Boring Depth (feet): 170	Water Table Symbol: 🔽		Page 1 of 3

DEPTH (feet)	SAMPLE	USCS KEY	RECOVERY (feet)	DESCRIPTION NAME (USCS): color, moist, plasticity, gravel, odor	PID Reading (ppm)
50			5	WELL GRADED SAND (SW): Yellowish Orange, medium sand with gravel	0
60—			7		0
70—					0
-			7	POORLY GRADED SAND (SP): Light Brown, gravely sands with little to no fines	64
00			-	WELL GRADED SAND (SW): Yellowish Orange, medium sand with gravel	0
80			8	LEAN CLAY (CL): Light Gray, inorganic clays with low to medium plasticity	7196
			-	POORLY GRADED SAND (SP): Yellowish Orange, gravely sands with little to no fines	8877
90—				LEAN CLAY (CL): Light Gray, inorganic clays with low to medium plasticity	9999
			8	POORLY GRADED SAND (SP): Yellowish Orange, gravely sands with little to no fines	472 643
_				LEAN CLAY (CL): Light Gray, inorganic clays with low to medium plasticity	212
				POORLY GRADED SAND (SP): Yellowish Orange, gravely sands with little to no fines	175
00—			7	Inorganic Silts (ML): Light Gray, silty or clayey fine sands POORLY GRADED SAND (SP): Light Brown to Dark Red, gravely sands with little to no fines	101
10—				POORLY GRADED SAND (SP): Light Gray, fine sand no gravel present	30
			7	POORLY GRADED SAND (SP): Light Gray, medium sand no gravel present	0
- Borii	ng Id:	DB	001	End of Boring Depth (feet): 170 Water Table Symbol:	Page 2 of 3

DEPTH (feet)	SAMPLE	USCS KEY	RECOVERY (feet)	DESCRIPTION NAME (USCS): color, moist, plasticity, gravel, odor	PID Reading (ppm)
				Silty Sands (SM): Light gray, sand and silt mixtures	\ 18
-					70
			6	POORLY GRADED SAND (SP): Light Gray, medium sand no gravel present	27
30—				LEAN CLAY (CL): Light Gray, inorganic clays with low to medium plasticity	6
50			7	POORLY GRADED SAND (SP):Yellowish Orange, medium sand no gravel present	0
_			ŕ	LEAN CLAY (CL): Yellowish Orange, inorganic clays with low to medium plasticity	0
					0
10				POORLY GRADED SAND (SP): Yellowish Orange, medium sand no gravel present	0
40—				LEAN CLAY (CL): Yellowish Orange, inorganic clays with low to medium plasticity	0
				LEAN CLAY (CL): Light Gray, inorganic clays with low to medium plasticity	0
- 50—				POORLY GRADED SAND (SP): Yellowish Orange to Dark Gray, medium sand no gravel present	0
- 00			9	POORLY GRADED SAND (SP): Yellowish Orange, medium sand no gravel present	0
8		////		LEAN CLAY (CL): Light Gray, inorganic clays with sand and low to medium plasticity	30
50—				LEAN CLAY (CL): Light Gray, inorganic clays with low to medium plasticity	289
				POORLY GRADED SAND (SP): Light Brown, medium sand no gravel present	0
				LEAN CLAY (CL): Yellowish Orange, inorganic silty clays with low to medium plasticity	0
			8	LEAN CLAY (CL): Light Gray, inorganic clays with low to medium plasticity	0
		<u>///</u>		LEAN CLAY (CL): Light Gray, inorganic silty clays with low to medium plasticity	0
				POORLY GRADED SAND (SP): Light Brown, medium sand no gravel present	0

PROJECT #:			MIN2002			•		
SITE ADDR	RESS:		540 Smith Street, Farmingdale, NY					
BORING ID	:		DB002	BORING DEPTH (FT): 170				
WELL ID:			N/A	BORING DIAMETER (IN):	BORING DIAMETER (IN): WELL DIA			
DRILLING (CONTRA		ADT Drilling	4 DATE STARTED:	DATE FI			
				05/19/2020 TIME STARTED:	05/18/ TIME FIN			
			Sonic Drilling	12:20 LATITUDE:	13:20 LONGITU			
DRILLING E	QUIPME	ENT:	Sonic Drill Rig	N/A	N/A LOGGED			
SAMPLING	METHO		Tera-core Sampling	PROJECT MANAGER: Regina Bykov	Kaitlyr	Crosby		
DEPTH (feet) SAMPLE INTEDVAL	USCS	RECOVERY (feet)	DESCRI NAME (USCS): colo gravel,	r, moist, plasticity,		PID Reading (ppm)		
0		5	Hand Digging, grave	I-sand-silt mixtures		80		
1			SILTY GRAVELS (GM): Olivo	Gray gravel-sand-silt mixtures		2175		
		4	SILTY GRAVELS (GM): Olive Gray, gravel-sand-silt mixtures					
10			WELL GRADED SAND (SW): Yellowish Orange, medium sand with gravel					
		4	WELL GRADED GRAVELS (GW): Olive Gray, well-graded gravels with silty clay					
20			WELL GRADED SAND (SW): Yellowis	sh Orange, medium sand with gra	vel	378		
30-		2	WELL GRADED SAND (SW): Yellowish Or	ango, modium to coarso sand wit	h gravel	36		
-		2		ange, medium to coarse sand wit	n graver	12		
40-		3	WELL GRADED SAND (SW): Light Brown, coarse sand with gravel			516		
			WELL GRADED SAND (SW): Light	Brown, medium sand with gravel		860		
50						80		
Boring le	d: DR	002	End of Boring Depth (feet): 170	Water Table Symbol: 🔽		Page 1 of 3		

DEPTH (feet)	SAMPLE	USCS KEY	RECOVERY (feet)	DESCRIPTION NAME (USCS): color, moist, plasticity, gravel, odor	PID Reading (ppm)		
50			7	WELL GRADED SAND (SW): Light Brown, medium to coarse sand with gravel	0		
60—				POORLY GRADED SAND (SP): Yellowish Orange, medium sand no gravel present	0		
			9	POORLY GRADED SAND (SP): Yellowish Orange, fine to medium sand no gravel present	1280		
70			8	POORLY GRADED SAND (SP): Light Brown, medium sand no gravel present	172		
80—				POORLY GRADED SAND (SP): Yellowish Orange, fine sand no gravel present	0		
00	80-		8	POORLY GRADED SAND (SP): Light Brown, fine sand no gravel present	135		
				POORLY GRADED SAND (SP): Yellowish Orange,medium sand no gravel present	4849		
90—				POORLY GRADED SAND (SP): Light Brown, fine to medium sand no gravel present	46		
			10	WELL GRADED SAND (SW): Yellowish Orange, medium to coarse sand with gravel	12		
100-					0		
		10				POORLY GRADED SAND (SP): Light Brown, fine to medium sand no gravel present	9999
110—				POORLY GRADED SAND (SP): Yellowish Orange, medium sand no gravel present	3261		
			10	LEAN CLAY (CL): Yellowish Orange, inorganic silty clays with low to medium plasticity	2975		
Borin	g ld:	DB	002	End of Boring Depth (feet): 170 Water Table Symbol: ▼	Page 2 of 3		

DEPTH (feet)	SAMPLE INTERVAL	USCS KEY	RECOVERY (feet)	DESCRIPTION NAME (USCS): color, moist, plasticity, gravel, odor	PID Reading (ppm)
				LEAN CLAY (CL): Light Brown, inorganic silty clays with low to medium plasticity	116
				POORLY GRADED SAND (SP): Yellowish Orange, medium sand no gravel present	116
120—				LEAN CLAY (CL): Light Brown to Red, inorganic silty clays with low to medium plasticity	587
- 130—			10	POORLY GRADED SAND (SP): Light Brown, medium to coarse sand no gravel present	140
_			10		86
				LEAN CLAY (CL): Yellowish Orange, inorganic silty clays with low to medium plasticity	367
140				LEAN CLAY (CL): Light Gray, inorganic silty clays with low to medium plasticity	367
140—			10	POORLY GRADED SAND (SP): Yellowish Orange, medium sand no gravel present	101
150—				POORLY GRADED SAND (SP): Light Brown, medium to coarse sand no gravel present	123
				POORLY GRADED SAND (SP): Yellowish Orange, medium sand no gravel present	80
_			10	LEAN CLAY (CL): Light Gray, inorganic silty clays with high plasticity	58
				POORLY GRADED SAND (SP): Yellowis Orange to Light Brown, medium to coarse sand no gravel present	74
160—				POORLY GRADED SAND (SP): Dark Brown, medium sand no gravel present	183
				LEAN CLAY (CL): Dark Brown, inorganic silty clays with low to medium plasticity	135
_			10	POORLY GRADED SAND (SP): Dark Brown, medium sand no gravel present	135
170				LEAN CLAY (CL): Dark Brown, inorganic silty clays with low to medium plasticity	52
170				LEAN CEAT (CE). Dark brown, inorganic sity days with low to medium plasticity	
Boriı	ng Id:	DB	002	End of Boring Depth (feet): 170 Water Table Symbol: V	Page 3 of 3

PROJEC				MIN2002		WGC			
SITE AD	DRES	SS:		540 Smith Street, Farmingdale, NY					
BORING	G ID:			DB003	BORING DEPTH (FT): 180				
VELL IC	D:			N/A	BORING DIAMETER (IN): 4	BORING DIAMETER (IN): WELL DIA			
RILLIN	IG CO	NTRAC		ADT Drilling	DATE STARTED:	DATE FIN			
RILLIN					05/19/2020 TIME STARTED:	05/18/2 TIME FIN			
	_			Sonic Drilling	11:00 LATITUDE:	12:10 LONGITU	IDE:		
DRILLIN	IG EQ	UIPME	NT:	Sonic Drill Rig	N/A PROJECT MANAGER:	N/A LOGGED			
SAMPLI	NG M			Tera-core Sampling	Regina Bykov	Kaitlyn	Crosby		
DEPTH (feet)	SAMPLE INTERVAL	USCS KEY	RECOVERY (feet)	DESCRI NAME (USCS): colo gravel,	or, moist, plasticity,		PID Reading (ppm)		
0			5	Hand Digging, grave	el-sand-silt mixtures		164		
			3	Inorganic Silts to Very Fine Sands (ML): Yell clayey silts with		e sands or	103		
10							529		
10	5			WELL GRADED SAND (SW): Yellowish Orange, medium sand with gravel					
_				Silty Sands (SM): Yellowish O	range, sand and silt mixtures		28		
				WELL GRADED SAND (SW): Yellowi	sh Orange, medium sand with gr	avel	46		
20—			5	WELL GRADED GRAVELS (GW): Yellowish (coarse	a b b	medium to	0		
	- - - - - - - - - - - - - - - - - - -			POORLY GRADED SAND (SP): Yellowish	Orange, medium sand no grave	l present	0		
30-			3	WELL GRADED GRAVELS (GW): Light Brown, well-graded gravels with medium to coarse sand					
40—				POORLY GRADED SAND (SP): Light E	Brown, medium sand no gravel p	resent	0		
-			3	WELL GRADED GRAVELS (GW): Light Brown, well-graded gravels with medium to coarse sand			12		
50				WELL GRADED SAND (SW): Ligh	t Brown, medium sand with grave	el	15		
Boring	a Id·	DB(203	End of Boring Depth (feet): 180	Water Table Symbol: 🔽		Page 1 of 3		

DEPTH (feet)	SAMPLE INTERVAL	USCS KEY	RECOVERY (feet)	DESCRIPTION NAME (USCS): color, moist, plasticity, gravel, odor	PID Reading (ppm)
50			7	WELL GRADED GRAVELS (GW): Light Brown, well-graded gravels with medium to coarse sand	427
40				WELL GRADED SAND (SW): Light Brown, medium sand with gravel	406
60-			9	DOODLY CRADED SAND (SD): Light Prown, modium cand no gravel present	363
70-			9	POORLY GRADED SAND (SP): Light Brown, medium sand no gravel present	870
80—			9	POORLY GRADED SAND (SP): Light Brown, fine to medium sand no gravel present	3738
90—				POORLY GRADED SAND (SP): Light Brown, medium sand with some gravel present	198
_		777	9	LEAN CLAY (CL): Light Brown, inorganic silty clays with low to medium plasticity	18
				POORLY GRADED SAND (SP): Light Brown, fine to medium sand no gravel present	0
-00			8	POORLY GRADED SAND (SP): Light Brown, medium sand no gravel present	12
10				POORLY GRADED SAND (SP): Red Brown, fine to medium sand no gravel present	270
-110			7	POORLY GRADED SAND (SP): Yellowish Orange, medium sand no gravel present	461
3ori	ng Id	: DB	003	End of Boring Depth (feet): 180 Water Table Symbol: ▼	Page 2 of 3

DEPTH (feet)	SAMPLE INTERVAL	USCS KEY	RECOVERY (feet)	DESCRIPTION NAME (USCS): color, moist, plasticity, gravel, odor	PID Reading (ppm)
20—				LEAN CLAY (CL): Olive Gray, inorganic silty clays with low plasticity	2356
_			10	LEAN CLAY (CL): Light Gray to Yellowish Orange, inorganic silty clays with low plasticity	9999
		/// ////		POORLY GRADED SAND (SP): Light Gray, medium sand no gravel present LEAN CLAY (CL): Light Gray, inorganic silty clays with low plasticity	2273 83
30—				LEAN CLAY (CL): Light Gray, inorganic silty clays with low to medium plasticity	70
				POORLY GRADED SAND (SP): Light Gray, medium sand no gravel present	46
		///		LEAN CLAY (CL): Light Gray, inorganic silty clays with low to medium plasticity	46
40-			10	POORLY GRADED SAND (SP): Light Gray, fine to medium sand no gravel present	24
			9	POORLY GRADED SAND (SP): Light Gray, medium sand no gravel present	104
				LEAN CLAY (CL): Yellowish Orange, inorganic silty clays with low plasticity POORLY GRADED SAND (SP):Yellowish Orange, medium sand no gravel present	9
_			8	POORLY GRADED SAND (SP): Light Gray, fine sand no gravel present	178
(0)				LEAN CLAY (CL): Light Gray, inorganic silty clays with low to medium plasticity	0
60—			8	POORLY GRADED SAND (SP):Yellowish Orange, medium sand no gravel present	0
		////		LEAN CLAY (CL): Light Gray, inorganic silty clays with low to medium plasticity	0
				POORLY GRADED SAND (SP): Light Gray, fine to medium sand no gravel present	6
70			7	POORLY GRADED SAND (SP): Light Brown, fine to medium sand no gravel present	12
80				LEAN CLAY (CL): Yellowish Orange, inorganic silty clays with low plasticity	27
	ng Id:	: DB	003	End of Boring Depth (feet): 180 Water Table Symbol: V	Page 3 of 3



APPENDIX B SOIL CHARATIZATION ANALYTICAL DATA

P.W. GROSSER CONSULTING, INC.
P.W. GROSSER CONSULTING ENGINEER & HYDROGEOLOGIST, P.C.PHONE: 631.589.6353
PWGROSSER.COM630 JOHNSON AVENUE, STE 7
BOHEMIA, NY 11716LONG ISLAND • MANHATTAN • SARATOGA SPRINGS • SYRACUSE • SEATTLE • SHELTON



ANALYTICAL REPORT

Lab Number:	L2020621
Client:	P. W. Grosser
	630 Johnson Avenue
	Suite 7
	Bohemia, NY 11716
ATTN:	Regina Bykov
Phone:	(631) 589-6353
Project Name:	MINMILT
Project Number:	MIN2001
Report Date:	05/27/20

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Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-17-00196).

Eight Walkup Drive, Westborough, MA 01581-1019 508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com



Project Name:	MINMILT
Project Number:	MIN2001

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2020621-01	DB001 (20-22)	SOIL	540 SMITH ST, FARMINGDALE, NY	05/18/20 10:30	05/19/20
L2020621-02	DB001 (43-45)	SOIL	540 SMITH ST, FARMINGDALE, NY	05/18/20 11:00	05/19/20
L2020621-03	DB001 (75-78)	SOIL	540 SMITH ST, FARMINGDALE, NY	05/18/20 11:50	05/19/20
L2020621-04	DB001 (80-85)	SOIL	540 SMITH ST, FARMINGDALE, NY	05/18/20 12:20	05/19/20
L2020621-05	DB001 (85-90)	SOIL	540 SMITH ST, FARMINGDALE, NY	05/18/20 12:45	05/19/20
L2020621-06	DB001 (90-95)	SOIL	540 SMITH ST, FARMINGDALE, NY	05/18/20 13:00	05/19/20
L2020621-07	DB001 (95-100)	SOIL	540 SMITH ST, FARMINGDALE, NY	05/18/20 13:05	05/19/20
L2020621-08	DB001 (120-124)	SOIL	540 SMITH ST, FARMINGDALE, NY	05/18/20 14:30	05/19/20
L2020621-09	EB001	EQUIPMENT BLANK	540 SMITH ST, FARMINGDALE, NY	05/18/20 15:35	05/19/20
L2020621-10	TB001	TRIP BLANK (AQUEOUS)	540 SMITH ST, FARMINGDALE, NY	05/18/20 00:00	05/19/20



Case Narrative

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

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

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

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

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

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



Project Name:

Project Number:

MINMILT

MIN2001

Project Name:MINMILTProject Number:MIN2001

 Lab Number:
 L2020621

 Report Date:
 05/27/20

Case Narrative (continued)

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Volatile Organics

L2020621-07: The sample was analyzed as a High Level Methanol in order to quantitate results within the calibration range. The result should be considered estimated, and is qualified with an E flag, for any compound that exceeded the calibration on the initial Low Level analysis. The results of both analyses are reported. Differences were noted between the results of the Volatile Organics by EPA Method 5035/8260 High and the Low level analyses which have been attributed to vial discrepancies.

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

Melissa Sturgis Melissa Sturgis

Authorized Signature:

Title: Technical Director/Representative

Date: 05/27/20



ORGANICS



VOLATILES



		Serial_No	o:05272011:26
Project Name:	MINMILT	Lab Number:	L2020621
Project Number:	MIN2001	Report Date:	05/27/20
	SAMPLE RESULTS		
Lab ID: Client ID: Sample Location:	L2020621-01 DB001 (20-22) 540 SMITH ST, FARMINGDALE, NY	Date Collected: Date Received: Field Prep:	05/18/20 10:30 05/19/20 Not Specified
Sample Depth: Matrix: Analytical Method: Analytical Date: Analyst: Percent Solids:	Soil 1,8260C 05/21/20 17:54 JC 80%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor			
Volatile Organics by EPA 5035 Low - Westborough Lab									
Tetrachloroethene	1.6		ug/kg	0.56	0.22	1			
Vinyl chloride	ND		ug/kg	1.1	0.38	1			
trans-1,2-Dichloroethene	ND		ug/kg	1.7	0.15	1			
Trichloroethene	ND		ug/kg	0.56	0.15	1			
cis-1,2-Dichloroethene	ND		ug/kg	1.1	0.20	1			
1,2-Dichloroethene, Total	ND		ug/kg	1.1	0.15	1			

Surrogate	% Recovery	Acceptance Qualifier Criteria	
1,2-Dichloroethane-d4	104	70-130	
Toluene-d8	100	70-130	
4-Bromofluorobenzene	106	70-130	
Dibromofluoromethane	103	70-130	



		Serial_N	o:05272011:26
Project Name:	MINMILT	Lab Number:	L2020621
Project Number:	MIN2001	Report Date:	05/27/20
	SAMPLE RESULTS		
Lab ID: Client ID: Sample Location:	L2020621-02 DB001 (43-45) 540 SMITH ST, FARMINGDALE, NY	Date Collected: Date Received: Field Prep:	05/18/20 11:00 05/19/20 Not Specified
Sample Depth: Matrix: Analytical Method: Analytical Date: Analyst: Percent Solids:	Soil 1,8260C 05/21/20 18:15 JC 92%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor		
Volatile Organics by EPA 5035 Low - Westborough Lab								
Tetrachloroethene	0.63		ug/kg	0.55	0.21	1		
Vinyl chloride	ND		ug/kg	1.1	0.37	1		
trans-1,2-Dichloroethene	ND		ug/kg	1.6	0.15	1		
Trichloroethene	ND		ug/kg	0.55	0.15	1		
cis-1,2-Dichloroethene	ND		ug/kg	1.1	0.19	1		
1,2-Dichloroethene, Total	ND		ug/kg	1.1	0.15	1		

Surrogate	% Recovery	Acceptance Qualifier Criteria	
1,2-Dichloroethane-d4	110	70-130	
Toluene-d8	98	70-130	
4-Bromofluorobenzene	107	70-130	
Dibromofluoromethane	108	70-130	



		Serial_N	p:05272011:26
Project Name:	MINMILT	Lab Number:	L2020621
Project Number:	MIN2001	Report Date:	05/27/20
	SAMPLE RESULTS		
Lab ID: Client ID: Sample Location:	L2020621-03 DB001 (75-78) 540 SMITH ST, FARMINGDALE, NY	Date Collected: Date Received: Field Prep:	05/18/20 11:50 05/19/20 Not Specified
Sample Depth: Matrix: Analytical Method: Analytical Date: Analyst: Percent Solids:	Soil 1,8260C 05/21/20 18:36 JC 85%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor		
Volatile Organics by EPA 5035 Low - Westborough Lab								
Tetrachloroethene	1.4		ug/kg	0.59	0.23	1		
Vinyl chloride	ND		ug/kg	1.2	0.39	1		
trans-1,2-Dichloroethene	ND		ug/kg	1.8	0.16	1		
Trichloroethene	ND		ug/kg	0.59	0.16	1		
cis-1,2-Dichloroethene	ND		ug/kg	1.2	0.21	1		
1,2-Dichloroethene, Total	ND		ug/kg	1.2	0.16	1		

Surrogate	% Recovery	Acceptance Qualifier Criteria	
1,2-Dichloroethane-d4	106	70-130	
Toluene-d8	97	70-130	
4-Bromofluorobenzene	104	70-130	
Dibromofluoromethane	106	70-130	



			Serial_N	0:05272011:26
Project Name:	MINMILT		Lab Number:	L2020621
Project Number:	MIN2001		Report Date:	05/27/20
		SAMPLE RESULTS		
Lab ID: Client ID: Sample Location:	L2020621-04 DB001 (80-85) 540 SMITH ST, FA	D2 RMINGDALE, NY	Date Collected: Date Received: Field Prep:	05/18/20 12:20 05/19/20 Not Specified
Sample Depth: Matrix: Analytical Method: Analytical Date: Analyst:	Soil 1,8260C 05/22/20 10:22 MV			

87%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor		
Volatile Organics by EPA 5035 High - Westborough Lab								
Tetrachloroethene	49000	E	ug/kg	66	26.	2.5		
Vinyl chloride	ND		ug/kg	130	44.	2.5		
trans-1,2-Dichloroethene	ND		ug/kg	200	18.	2.5		
Trichloroethene	45	J	ug/kg	66	18.	2.5		
cis-1,2-Dichloroethene	ND		ug/kg	130	23.	2.5		
1,2-Dichloroethene, Total	ND		ug/kg	130	18.	2.5		

Surrogate	% Recovery	Acceptance Qualifier Criteria	
1,2-Dichloroethane-d4	92	70-130	
Toluene-d8	100	70-130	
4-Bromofluorobenzene	103	70-130	
Dibromofluoromethane	92	70-130	



			Serial_N	0:05272011:26
Project Name:	MINMILT		Lab Number:	L2020621
Project Number:	MIN2001		Report Date:	05/27/20
		SAMPLE RESULTS		
Lab ID:	L2020621-04	D	Date Collected:	05/18/20 12:20
Client ID:	DB001 (80-85)		Date Received:	05/19/20
Sample Location:	540 SMITH ST, FA	ARMINGDALE, NY	Field Prep:	Not Specified
Sample Depth:				
Matrix:	Soil			
Analytical Method:	1,8260C			
Analytical Date:	05/21/20 21:46			
Analyst:	JC			

87%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor		
Volatile Organics by EPA 5035 High - Westborough Lab								
Tetrachloroethene	55000		ug/kg	130	52.	5		
Surrogate			% Recovery	Qualifier		ptance iteria		
1,2-Dichloroethane-d4			98		7	70-130		
Toluene-d8			100		7	70-130		
4-Bromofluorobenzene			102		7	70-130		
Dibromofluoromethane			95		7	70-130		



			Serial_No	0:05272011:26
Project Name:	MINMILT		Lab Number:	L2020621
Project Number:	MIN2001		Report Date:	05/27/20
		SAMPLE RESULTS		
Lab ID: Client ID: Sample Location:	L2020621-05 D2 DB001 (85-90) 540 SMITH ST, FARMII	_	Date Collected: Date Received: Field Prep:	05/18/20 12:45 05/19/20 Not Specified
Sample Depth:				
Matrix:	Soil			
Analytical Method:	1,8260C			
Analytical Date: Analyst:	05/22/20 11:05 MV			

88%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Hig	h - Westborough Lab					
Tetrachloroethene	4600000	E	ug/kg	6200	2400	250
Vinyl chloride	ND		ug/kg	12000	4100	250
trans-1,2-Dichloroethene	ND		ug/kg	18000	1700	250
Trichloroethene	4300	J	ug/kg	6200	1700	250
cis-1,2-Dichloroethene	ND		ug/kg	12000	2200	250
1,2-Dichloroethene, Total	ND		ug/kg	12000	1700	250

Surrogate	% Recovery	Acceptance Qualifier Criteria	
1,2-Dichloroethane-d4	96	70-130	
Toluene-d8	99	70-130	
4-Bromofluorobenzene	106	70-130	
Dibromofluoromethane	95	70-130	



		Serial_No:05272011:26
Project Name:	MINMILT	Lab Number: L2020621
Project Number:	MIN2001	Report Date: 05/27/20
	SAMPLE RESULTS	
Lab ID: Client ID: Sample Location:	L2020621-05 D DB001 (85-90) 540 SMITH ST, FARMINGDALE, NY	Date Collected:05/18/20 12:45Date Received:05/19/20Field Prep:Not Specified
Sample Depth: Matrix: Analytical Method: Analytical Date: Analyst:	Soil 1,8260C 05/21/20 22:07 JC	

88%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	
Volatile Organics by EPA 5035 High - Westborough Lab							
Tetrachloroethene	4700000		ug/kg	12000	4800	500	
Surrogate			% Recovery	Qualifier		eptance iteria	
1,2-Dichloroethane-d4			97		7	70-130	
Toluene-d8			100		7	70-130	
4-Bromofluorobenzene			104		7	70-130	
Dibromofluoromethane			98		7	70-130	



		Serial_N	o:05272011:26
Project Name:	MINMILT	Lab Number:	L2020621
Project Number:	MIN2001	Report Date:	05/27/20
	SAMPLE RESULTS		
Lab ID: Client ID: Sample Location:	L2020621-06 DB001 (90-95) 540 SMITH ST, FARMINGDALE, NY	Date Collected: Date Received: Field Prep:	05/18/20 13:00 05/19/20 Not Specified
Sample Depth: Matrix: Analytical Method: Analytical Date: Analyst: Percent Solids:	Soil 1,8260C 05/21/20 21:04 JC 82%		

Result	Qualifier	Units	RL	MDL	Dilution Factor
stborough Lab					
8100		ug/kg	31	12.	1
ND		ug/kg	62	21.	1
ND		ug/kg	93	8.5	1
ND		ug/kg	31	8.5	1
ND		ug/kg	62	11.	1
ND		ug/kg	62	8.5	1
	8100 ND ND ND ND ND ND	Stborough Lab 8100 ND ND ND ND ND	8100 ug/kg ND ug/kg ND ug/kg ND ug/kg ND ug/kg ND ug/kg ND ug/kg	Stborough Lab ug/kg 31 ND ug/kg 62 ND ug/kg 93 ND ug/kg 31 ND ug/kg 62 ND ug/kg 62	Stborough Lab ug/kg 31 12. ND ug/kg 62 21. ND ug/kg 93 8.5 ND ug/kg 31 8.5 ND ug/kg 31 8.5 ND ug/kg 62 11.

Surrogate	% Recovery	Acceptance Qualifier Criteria	
1,2-Dichloroethane-d4	104	70-130	
Toluene-d8	96	70-130	
4-Bromofluorobenzene	103	70-130	
Dibromofluoromethane	98	70-130	



		Serial_No	p:05272011:26
Project Name:	MINMILT	Lab Number:	L2020621
Project Number:	MIN2001	Report Date:	05/27/20
	SAMPLE RESULTS		
Lab ID: Client ID: Sample Location: Sample Depth: Matrix: Analytical Method: Analytical Date: Analyst:	L2020621-07 DB001 (95-100) 540 SMITH ST, FARMINGDALE, NY Soil 1,8260C 05/21/20 21:25 JC	Date Collected: Date Received: Field Prep:	05/18/20 13:05 05/19/20 Not Specified
Percent Solids:	83%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 High - West	orough Lab					
Tetrachloroethene	43		ug/kg	32	13.	1
Vinyl chloride	ND		ug/kg	65	22.	1
trans-1,2-Dichloroethene	ND		ug/kg	98	8.9	1
Trichloroethene	ND		ug/kg	32	8.9	1
cis-1,2-Dichloroethene	ND		ug/kg	65	11.	1
1,2-Dichloroethene, Total	ND		ug/kg	65	8.9	1

Surrogate	% Recovery	Acceptance Qualifier Criteria	
1,2-Dichloroethane-d4	108	70-130	
Toluene-d8	96	70-130	
4-Bromofluorobenzene	103	70-130	
Dibromofluoromethane	105	70-130	



		Serial_N	0:05272011:26
Project Name:	MINMILT	Lab Number:	L2020621
Project Number:	MIN2001	Report Date:	05/27/20
	SAMPLE RESULTS		
Lab ID:	L2020621-07	Date Collected:	05/18/20 13:05
Client ID:	DB001 (95-100)	Date Received:	05/19/20
Sample Location:	540 SMITH ST, FARMINGDALE, NY	Field Prep:	Not Specified
Sample Depth: Matrix: Analytical Method: Analytical Date: Analyst: Percent Solids:	Soil 1,8260C 05/22/20 10:01 MV 83%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor		
Volatile Organics by EPA 5035 Low - Westborough Lab								
Tetrachloroethene	380	E	ug/kg	0.55	0.22	1		
Vinyl chloride	ND		ug/kg	1.1	0.37	1		
trans-1,2-Dichloroethene	ND		ug/kg	1.6	0.15	1		
Trichloroethene	0.58		ug/kg	0.55	0.15	1		
cis-1,2-Dichloroethene	ND		ug/kg	1.1	0.19	1		
1,2-Dichloroethene, Total	ND		ug/kg	1.1	0.15	1		

Surrogate	% Recovery	Acceptance Qualifier Criteria)
1,2-Dichloroethane-d4	99	70-130	
Toluene-d8	98	70-130	
4-Bromofluorobenzene	104	70-130	
Dibromofluoromethane	95	70-130	



		Serial_N	o:05272011:26
Project Name:	MINMILT	Lab Number:	L2020621
Project Number:	MIN2001	Report Date:	05/27/20
	SAMPLE RESULTS		
Lab ID: Client ID: Sample Location:	L2020621-08 DB001 (120-124) 540 SMITH ST, FARMINGDALE, NY	Date Collected: Date Received: Field Prep:	05/18/20 14:30 05/19/20 Not Specified
Sample Depth: Matrix: Analytical Method: Analytical Date: Analyst: Percent Solids:	Soil 1,8260C 05/21/20 18:58 JC 85%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Tetrachloroethene	64		ug/kg	0.50	0.20	1
Vinyl chloride	ND		ug/kg	1.0	0.34	1
trans-1,2-Dichloroethene	ND		ug/kg	1.5	0.14	1
Trichloroethene	0.21	J	ug/kg	0.50	0.14	1
cis-1,2-Dichloroethene	ND		ug/kg	1.0	0.18	1
1,2-Dichloroethene, Total	ND		ug/kg	1.0	0.14	1

Surrogate	% Recovery	Acceptance Qualifier Criteria	
1,2-Dichloroethane-d4	106	70-130	
Toluene-d8	99	70-130	
4-Bromofluorobenzene	105	70-130	
Dibromofluoromethane	102	70-130	



		Serial_No	0:05272011:26
Project Name:	MINMILT	Lab Number:	L2020621
Project Number:	MIN2001	Report Date:	05/27/20
	SAMPLE RESULTS		
Lab ID: Client ID: Sample Location:	L2020621-09 EB001 540 SMITH ST, FARMINGDALE, NY	Date Collected: Date Received: Field Prep:	05/18/20 15:35 05/19/20 Not Specified
Sample Depth: Matrix: Analytical Method: Analytical Date: Analyst:	Equipment Blank 1,8260C 05/21/20 15:52 MKS		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborou	gh Lab					
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	ND		ug/l	0.50	0.18	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Acceptance Qualifier Criteria	
1,2-Dichloroethane-d4	107	70-130	
Toluene-d8	99	70-130	
4-Bromofluorobenzene	86	70-130	
Dibromofluoromethane	111	70-130	



		Serial_N	p:05272011:26
Project Name:	MINMILT	Lab Number:	L2020621
Project Number:	MIN2001	Report Date:	05/27/20
	SAMPLE RESULTS		
Lab ID: Client ID:	L2020621-10 TB001	Date Collected: Date Received:	05/18/20 00:00 05/19/20
Sample Location:	540 SMITH ST, FARMINGDALE, NY	Field Prep:	Not Specified
Sample Depth:			
Matrix:	Trip Blank (Aqueous)		
Analytical Method:	1,8260C		
Analytical Date:	05/21/20 16:17		
Analyst:	MKS		

Result	Qualifier	Units	RL	MDL	Dilution Factor
ugh Lab					
ND		ug/l	0.50	0.18	1
ND		ug/l	1.0	0.07	1
ND		ug/l	2.5	0.70	1
ND		ug/l	0.50	0.18	1
ND		ug/l	2.5	0.70	1
ND		ug/l	2.5	0.70	1
	ugh Lab ND ND ND ND ND	ugh Lab ND ND ND ND ND ND	ND ug/l ND ug/l ND ug/l ND ug/l ND ug/l ND ug/l	ND ug/l 0.50 ND ug/l 1.0 ND ug/l 2.5 ND ug/l 0.50 ND ug/l 2.5 ND ug/l 0.50 ND ug/l 2.5	ND ug/l 0.50 0.18 ND ug/l 1.0 0.07 ND ug/l 2.5 0.70 ND ug/l 0.50 0.18 ND ug/l 2.5 0.70 ND ug/l 0.50 0.18 ND ug/l 0.50 0.18

Surrogate	% Recovery	Acceptance Qualifier Criteria	
1,2-Dichloroethane-d4	106	70-130	
Toluene-d8	97	70-130	
4-Bromofluorobenzene	84	70-130	
Dibromofluoromethane	114	70-130	



Project Name: MINMILT Project Number: MIN2001

Method Blank Analysis Batch Quality Control

Analytical Method:1,8260CAnalytical Date:05/21/20 08:02Analyst:PD

Parameter	Result	Qualifier Unit	s RL	MDL	
/olatile Organics by GC/MS - West	borough Lab	for sample(s):	09-10 Batch	: WG1373375-5	
Tetrachloroethene	ND	ug/	1 0.50	0.18	
Vinyl chloride	ND	ug	1.0	0.07	
trans-1,2-Dichloroethene	ND	ug	1 2.5	0.70	
Trichloroethene	ND	ug	1 0.50	0.18	
cis-1,2-Dichloroethene	ND	ug/	1 2.5	0.70	
1,2-Dichloroethene, Total	ND	ug	1 2.5	0.70	

			Acceptance
Surrogate	%Recovery	Qualifier	Criteria
1,2-Dichloroethane-d4	89		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	88		70-130
Dibromofluoromethane	108		70-130



Project Name: MINMILT Project Number: MIN2001

Method Blank Analysis Batch Quality Control

Analytical Method:1,8260CAnalytical Date:05/21/20 16:08Analyst:AD

Parameter	Result	Qualifier	Units	RL	MDL	
/olatile Organics by EPA 5035 Low	- Westbord	ough Lab fo	r sample(s):	01-03,08	Batch:	WG1373393-5
Tetrachloroethene	ND		ug/kg	0.50	0.20	
Vinyl chloride	ND		ug/kg	1.0	0.34	
trans-1,2-Dichloroethene	ND		ug/kg	1.5	0.14	
Trichloroethene	ND		ug/kg	0.50	0.14	
cis-1,2-Dichloroethene	ND		ug/kg	1.0	0.18	
1,2-Dichloroethene, Total	ND		ug/kg	1.0	0.14	

		Acceptance			
Surrogate	%Recovery	Qualifier Criter	ria		
1.2-Dichloroethane-d4	110	70-130	1		
Toluene-d8	99	70-130			
4-Bromofluorobenzene	104	70-130)		
Dibromofluoromethane	102	70-130)		



Project Name: MINMILT Project Number: MIN2001

Method Blank Analysis Batch Quality Control

Analytical Method:1,8260CAnalytical Date:05/22/20 09:40Analyst:MV

Parameter	Result	Qualifier	Units	RL	MDL
/olatile Organics by EPA 5035 High	- Westbord	ough Lab fo	or sample(s):	04-05	Batch: WG1373612-12
Tetrachloroethene	ND		ug/kg	25	9.8
Vinyl chloride	ND		ug/kg	50	17.
trans-1,2-Dichloroethene	ND		ug/kg	75	6.8
Trichloroethene	ND		ug/kg	25	6.8
cis-1,2-Dichloroethene	ND		ug/kg	50	8.8
1,2-Dichloroethene, Total	ND		ug/kg	50	6.8

%Recovery	Qualifier	Criteria	
4.07		70.400	
107		70-130	
99		70-130	
101		70-130	
102		70-130	
	107 99 101	99 101	



Project Name: MINMILT Project Number: MIN2001

Method Blank Analysis Batch Quality Control

Analytical Method:1,8260CAnalytical Date:05/21/20 16:08Analyst:AD

Parameter	Result	Qualifier	Units	RL	MDL
olatile Organics by EPA 5035 High	- Westbord	ough Lab fo	r sample(s):	04-07	Batch: WG1373612-5
Tetrachloroethene	ND		ug/kg	25	9.8
Vinyl chloride	ND		ug/kg	50	17.
trans-1,2-Dichloroethene	ND		ug/kg	75	6.8
Trichloroethene	ND		ug/kg	25	6.8
cis-1,2-Dichloroethene	ND		ug/kg	50	8.8
1,2-Dichloroethene, Total	ND		ug/kg	50	6.8

Surrogate	%Recovery	Qualifier	Criteria		
1,2-Dichloroethane-d4	110		70-130		
Toluene-d8	99		70-130		
4-Bromofluorobenzene	104		70-130		
Dibromofluoromethane	102		70-130		



Project Name: MINMILT Project Number: MIN2001

> Method Blank Analysis Batch Quality Control

Analytical Method:1,8260CAnalytical Date:05/22/20 09:40Analyst:MV

arameter	Result	Qualifier	Units	RL		MDL
olatile Organics by EPA 5035 Lo	w - Westbor	ough Lab fo	r sample(s):	07	Batch:	WG1373689-5
Tetrachloroethene	ND		ug/kg	0.50		0.20
Vinyl chloride	ND		ug/kg	1.0		0.34
trans-1,2-Dichloroethene	ND		ug/kg	1.5		0.14
Trichloroethene	ND		ug/kg	0.50		0.14
cis-1,2-Dichloroethene	ND		ug/kg	1.0		0.18
1,2-Dichloroethene, Total	ND		ug/kg	1.0		0.14

Surrogate	%Recovery	Qualifier	Criteria	
1,2-Dichloroethane-d4	107		70-130	
Toluene-d8	99		70-130	
4-Bromofluorobenzene	101		70-130	
Dibromofluoromethane	102		70-130	



Project Name:MINMILTProject Number:MIN2001

 Lab Number:
 L2020621

 Report Date:
 05/27/20

LCS LCSD RPD %Recovery %Recovery Parameter %Recovery Qual Qual Limits RPD Qual Limits Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 09-10 Batch: WG1373375-3 WG1373375-4 100 Tetrachloroethene 100 70-130 0 20 83 Vinyl chloride 85 55-140 2 20 trans-1,2-Dichloroethene 110 110 70-130 0 20 Trichloroethene 96 96 70-130 0 20 cis-1,2-Dichloroethene 96 96 70-130 0 20

	LCS	LCSD	Acceptance
Surrogate	%Recovery Qua	al %Recovery Qual	Criteria
1,2-Dichloroethane-d4	85	85	70-130
Toluene-d8	102	101	70-130
4-Bromofluorobenzene	87	88	70-130
Dibromofluoromethane	105	105	70-130



Lab Number: L2020621 Report Date: 05/27/20

arameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
/olatile Organics by EPA 5035 Low - We	estborough Lab Asso	ciated sample	(s): 01-03,08	Batch:	WG1373393-3	WG1373393-4		
Tetrachloroethene	90		84		70-130	7		30
Vinyl chloride	107		103		67-130	4		30
trans-1,2-Dichloroethene	102		97		70-130	5		30
Trichloroethene	98		95		70-130	3		30
cis-1,2-Dichloroethene	101		98		70-130	3		30

	LCS	LCSD	Acceptance
Surrogate	%Recovery Qua	al %Recovery Qua	ol Criteria
1,2-Dichloroethane-d4	100	97	70-130
Toluene-d8	102	101	70-130
4-Bromofluorobenzene	105	110	70-130
Dibromofluoromethane	97	97	70-130



Project Name:

Project Number:

MINMILT

MIN2001

Project Name: MINMILT Project Number: MIN2001

Lab Number: L2020621 Report Date: 05/27/20

	LCS		LCSD		%Recovery			RPD	
Parameter	%Recovery	Qual	%Recovery	Qual	Limits	RPD	Qual	Limits	
Volatile Organics by EPA 5035 High - Westh	orough Lab Ass	ociated sample	(s): 04-05	Batch: WG1	1373612-10 WC	G1373612-11			
Tetrachloroethene	92		84		70-130	9		30	
Vinyl chloride	108		98		67-130	10		30	
trans-1,2-Dichloroethene	101		91		70-130	10		30	
Trichloroethene	99		92		70-130	7		30	
cis-1,2-Dichloroethene	101		93		70-130	8		30	

	LCS	LCSD	Acceptance
Surrogate	%Recovery Qua	al %Recovery Qual	Criteria
1,2-Dichloroethane-d4	97	98	70-130
Toluene-d8	101	101	70-130
4-Bromofluorobenzene	106	107	70-130
Dibromofluoromethane	100	97	70-130



L2020621

Lab Control Sample Analysis Batch Quality Control

Project Name:MINMILTProject Number:MIN2001

Lab Number:

Report Date: 05/27/20

	LCS		LCSD		%Recovery			RPD	
Parameter	%Recovery	Qual	%Recovery	Qual	Limits	RPD	Qual	Limits	
Volatile Organics by EPA 5035 High - Westh	orough Lab Ass	ociated sampl	e(s): 04-07 B	atch: WG1	373612-3 WG137	3612-4			
Tetrachloroethene	90		84		70-130	7		30	
Vinyl chloride	107		103		67-130	4		30	
trans-1,2-Dichloroethene	102		97		70-130	5		30	
Trichloroethene	98		95		70-130	3		30	
cis-1,2-Dichloroethene	101		98		70-130	3		30	

	LCS	LCSD	Acceptance
Surrogate	%Recovery Qu	al %Recovery Qua	l Criteria
1,2-Dichloroethane-d4	100	97	70-130
Toluene-d8	102	101	70-130
4-Bromofluorobenzene	105	110	70-130
Dibromofluoromethane	97	98	70-130



Project Name:MINMILTProject Number:MIN2001

Lab Number: L2020621

Report Date: 05/27/20

	LCS		LCSD		%Recovery			RPD	
Parameter	%Recovery	Qual	%Recovery	Qual	Limits	RPD	Qual	Limits	
Volatile Organics by EPA 5035 Low - Westbo	rough Lab Asso	ociated sample	e(s): 07 Bato	h: WG1373	3689-3 WG137368	9-4			
Tetrachloroethene	92		84		70-130	9		30	
Vinyl chloride	108		98		67-130	10		30	
trans-1,2-Dichloroethene	101		91		70-130	10		30	
Trichloroethene	99		92		70-130	7		30	
cis-1,2-Dichloroethene	101		93		70-130	8		30	

	LCS	LCSD	Acceptance
Surrogate	%Recovery Qua	l %Recovery Qual	Criteria
1,2-Dichloroethane-d4	97	98	70-130
Toluene-d8	101	101	70-130
4-Bromofluorobenzene	106	107	70-130
Dibromofluoromethane	100	97	70-130



Matrix Spike Analysis

Project Name:	MINMILT	Batch Quality Control	Lab Number:	L2020621
Project Number:	MIN2001		Report Date:	05/27/20

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Qual Found	MSD %Recovery		ecovery Limits	RPD	RPD Qual Limits	
Volatile Organics by EPA 503 Client ID: DB001 (90-95)	35 High - Westl	oorough Lab	Associated	sample(s): 04-07	QC Batch ID: V	VG1373612-6	WG13736	12-7 QC	Sample	e: L2020621-06	
Tetrachloroethene	8100	6200	14000	102	12000	64	Q	70-130	17	30	
Vinyl chloride	ND	6200	5400	86	4900	79		67-130	9	30	
trans-1,2-Dichloroethene	ND	6200	7100	114	6700	108		70-130	6	30	
Trichloroethene	ND	6200	7100	114	6500	104		70-130	9	30	
cis-1,2-Dichloroethene	ND	6200	6900	111	6600	106		70-130	5	30	

	MS	MSD	Acceptance
Surrogate	% Recovery Qualifier	% Recovery Qualifier	Criteria
1,2-Dichloroethane-d4	99	100	70-130
4-Bromofluorobenzene	108	107	70-130
Dibromofluoromethane	99	97	70-130
Toluene-d8	99	100	70-130



INORGANICS & MISCELLANEOUS



Serial No:05272011:26

Project Name: MINMILT Project Number: MIN2001

Lab ID: Client ID: Sample Location:	L2020621-01 DB001 (20-22 540 SMITH ST	,	INGDA	LE, NY				Received:	05/18/20 10:30 05/19/20 Not Specified)
Sample Depth: Matrix:	Soil									
Parameter	Result G	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - We	stborough Lab									
Solids, Total	80.2		%	0.100	NA	1	-	05/20/20 11:52	2 121,2540G	RI



Serial No:05272011:26

Project Name: MINMILT Project Number: MIN2001

Lab ID: Client ID: Sample Location:	L2020621-02 DB001 (43-4 540 SMITH S	5)	MINGDAL	.E, NY				Received: 0	05/18/20 11:00 05/19/20 Not Specified	
Sample Depth: Matrix:	Soil						_			
Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - We	stborough Lab									
Solids, Total	91.8		%	0.100	NA	1	-	05/20/20 11:52	121,2540G	RI



Serial No:05272011:26

Project Name: MINMILT Project Number: MIN2001

Lab ID: Client ID: Sample Location:	L2020621-0 DB001 (75-7 540 SMITH	78)	MINGDAL	.E, NY				Received: 0)5/18/20 11:50)5/19/20 Not Specified	
Sample Depth: Matrix:	Soil						- /			
Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Wes	stborough Lat)								
Solids, Total	84.9		%	0.100	NA	1	-	05/20/20 11:52	121,2540G	RI



Serial No:05272011:26

Project Name: MINMILT Project Number: MIN2001

Lab ID: Client ID: Sample Location:	L2020621-04 DB001 (80-85) 540 SMITH ST, F/	ARMINGDA	LE, NY				Received:	05/18/20 12:20 05/19/20 Not Specified)
Sample Depth: Matrix:	Soil								
Parameter	Result Quali	ier Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - We	stborough Lab								
Solids, Total	87.2	%	0.100	NA	1	-	05/20/20 11:52	2 121,2540G	RI



Serial No:05272011:26

Project Name: MINMILT Project Number: MIN2001

Lab ID: Client ID: Sample Location:	L2020621-0 DB001 (85-9 540 SMITH	90)	MINGDAI	_E, NY				Received: 0	95/18/20 12:45 95/19/20 Not Specified	
Sample Depth: Matrix:	Soil						- /			
Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - We	stborough Lat)								
Solids, Total	88.4		%	0.100	NA	1	-	05/20/20 11:52	121,2540G	RI



Serial No:05272011:26

Project Name: MINMILT Project Number: MIN2001

Lab ID: Client ID: Sample Location:	L2020621-06 DB001 (90-95) 540 SMITH ST, F/	ARMINGDA	LE, NY				Received:	05/18/20 13:00 05/19/20 Not Specified)
Sample Depth: Matrix:	Soil								
Parameter	Result Quali	ier Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - We	stborough Lab								
Solids, Total	81.6	%	0.100	NA	1	-	05/20/20 11:52	2 121,2540G	RI



Serial No:05272011:26

Project Name: MINMILT Project Number: MIN2001

Lab ID: Client ID: Sample Location:	L2020621-0 DB001 (95- ⁻ 540 SMITH	100)	MINGDAL	.E, NY				Received: 0	05/18/20 13:05 05/19/20 Not Specified	
Sample Depth: Matrix:	Soil					5 4 <i>4</i>	- /			
Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Wes	stborough Lat)								
Solids, Total	82.7		%	0.100	NA	1	-	05/20/20 11:52	121,2540G	RI



Serial No:05272011:26

Project Name: MINMILT Project Number: MIN2001

Lab ID: Client ID: Sample Location:	L2020621-0 DB001 (120 540 SMITH	-124)	MINGDAL	_E, NY				Received: (05/18/20 14:30 05/19/20 Not Specified	
Sample Depth: Matrix:	Soil						- /			
Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Wes	stborough Lab)								
Solids, Total	84.8		%	0.100	NA	1	-	05/20/20 11:52	121,2540G	RI



Project Name: Project Number:	MINMILT MIN2001			Lab Duplicate Analy Batch Quality Control			b Numbe port Date	
Parameter		Nat	ive Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits

General Chemistry - Westborough Lab	Associated sample(s): 01-08	QC Batch ID: WG1372619-1	QC Sample: L20	20621-06	Client ID: DB001 (90-95)
Solids, Total	81.6	81.8	%	0	20



Project Name:MINMILTProject Number:MIN2001

Serial_No:05272011:26 *Lab Number:* L2020621 *Report Date:* 05/27/20

Sample Receipt and Container Information

Were project specific reporting limits specified?

YES

Cooler Information

Cooler	Custody Seal
A	Absent

Container Info	ormation		Initial	Final	Temp			Frozen	
Container ID	Container Type	Cooler	рН	pН	deg C	Pres	Seal	Date/Time	Analysis(*)
L2020621-01A	Vial MeOH preserved	А	NA		2.9	Y	Absent		NYTCL-8260HLW(14)
L2020621-01B	Vial water preserved	А	NA		2.9	Y	Absent	20-MAY-20 01:29	NYTCL-8260HLW(14)
L2020621-01C	Vial water preserved	А	NA		2.9	Y	Absent	20-MAY-20 01:29	NYTCL-8260HLW(14)
L2020621-01D	Plastic 2oz unpreserved for TS	А	NA		2.9	Y	Absent		TS(7)
L2020621-02A	Vial MeOH preserved	А	NA		2.9	Y	Absent		NYTCL-8260HLW(14)
L2020621-02B	Vial water preserved	А	NA		2.9	Y	Absent	20-MAY-20 01:29	NYTCL-8260HLW(14)
L2020621-02C	Vial water preserved	А	NA		2.9	Y	Absent	20-MAY-20 01:29	NYTCL-8260HLW(14)
L2020621-02D	Plastic 2oz unpreserved for TS	А	NA		2.9	Y	Absent		TS(7)
L2020621-03A	Vial MeOH preserved	А	NA		2.9	Y	Absent		NYTCL-8260HLW(14)
L2020621-03B	Vial water preserved	А	NA		2.9	Y	Absent	20-MAY-20 01:29	NYTCL-8260HLW(14)
L2020621-03C	Vial water preserved	А	NA		2.9	Y	Absent	20-MAY-20 01:29	NYTCL-8260HLW(14)
L2020621-03D	Plastic 2oz unpreserved for TS	А	NA		2.9	Y	Absent		TS(7)
L2020621-04A	Vial MeOH preserved	А	NA		2.9	Y	Absent		NYTCL-8260HLW(14)
L2020621-04B	Vial water preserved	А	NA		2.9	Y	Absent	20-MAY-20 01:29	NYTCL-8260HLW(14)
L2020621-04C	Vial water preserved	А	NA		2.9	Y	Absent	20-MAY-20 01:29	NYTCL-8260HLW(14)
L2020621-04D	Plastic 2oz unpreserved for TS	А	NA		2.9	Y	Absent		TS(7)
L2020621-05A	Vial MeOH preserved	А	NA		2.9	Y	Absent		NYTCL-8260HLW(14)
L2020621-05B	Vial water preserved	А	NA		2.9	Y	Absent	20-MAY-20 01:29	NYTCL-8260HLW(14)
L2020621-05C	Vial water preserved	А	NA		2.9	Y	Absent	20-MAY-20 01:29	NYTCL-8260HLW(14)
L2020621-05D	Plastic 2oz unpreserved for TS	А	NA		2.9	Y	Absent		TS(7)
L2020621-06A	Vial MeOH preserved	А	NA		2.9	Y	Absent		NYTCL-8260HLW(14)
L2020621-06A1	Vial MeOH preserved	А	NA		2.9	Y	Absent		NYTCL-8260HLW(14)
L2020621-06A2	Vial MeOH preserved	А	NA		2.9	Y	Absent		NYTCL-8260HLW(14)



Project Name: MINMILT Project Number: MIN2001

Serial_No:05272011:26 *Lab Number:* L2020621 *Report Date:* 05/27/20

Container Info	ormation		Initial	Final	Temp			Frozen	
Container ID	Container Type	Cooler	рН	pН	deg C	Pres	Seal	Date/Time	Analysis(*)
L2020621-06B	Vial water preserved	А	NA		2.9	Y	Absent	20-MAY-20 01:29	NYTCL-8260HLW(14)
L2020621-06B1	Vial water preserved	А	NA		2.9	Y	Absent	20-MAY-20 01:29	NYTCL-8260HLW(14)
L2020621-06B2	Vial water preserved	А	NA		2.9	Y	Absent	20-MAY-20 01:29	NYTCL-8260HLW(14)
L2020621-06C	Vial water preserved	А	NA		2.9	Υ	Absent	20-MAY-20 01:29	NYTCL-8260HLW(14)
L2020621-06C1	Vial water preserved	А	NA		2.9	Υ	Absent	20-MAY-20 01:29	NYTCL-8260HLW(14)
L2020621-06C2	Vial water preserved	А	NA		2.9	Y	Absent	20-MAY-20 01:29	NYTCL-8260HLW(14)
L2020621-06D	Plastic 2oz unpreserved for TS	А	NA		2.9	Y	Absent		TS(7)
L2020621-06D1	Plastic 2oz unpreserved for TS	А	NA		2.9	Y	Absent		TS(7)
L2020621-06D2	Plastic 2oz unpreserved for TS	А	NA		2.9	Y	Absent		TS(7)
L2020621-07A	Vial MeOH preserved	А	NA		2.9	Y	Absent		NYTCL-8260H(14),NYTCL-8260HLW(14)
L2020621-07B	Vial water preserved	А	NA		2.9	Y	Absent	20-MAY-20 01:29	NYTCL-8260H(14),NYTCL-8260HLW(14)
L2020621-07C	Vial water preserved	А	NA		2.9	Y	Absent	20-MAY-20 01:29	NYTCL-8260H(14),NYTCL-8260HLW(14)
L2020621-07D	Plastic 2oz unpreserved for TS	А	NA		2.9	Y	Absent		TS(7)
L2020621-08A	Vial MeOH preserved	А	NA		2.9	Y	Absent		NYTCL-8260HLW(14)
L2020621-08B	Vial water preserved	А	NA		2.9	Y	Absent	20-MAY-20 01:29	NYTCL-8260HLW(14)
L2020621-08C	Vial water preserved	А	NA		2.9	Y	Absent	20-MAY-20 01:29	NYTCL-8260HLW(14)
L2020621-08D	Plastic 2oz unpreserved for TS	А	NA		2.9	Υ	Absent		TS(7)
L2020621-09A	Vial HCI preserved	А	NA		2.9	Y	Absent		NYTCL-8260(14)
L2020621-09B	Vial HCI preserved	А	NA		2.9	Y	Absent		NYTCL-8260(14)
L2020621-09C	Vial HCI preserved	А	NA		2.9	Y	Absent		NYTCL-8260(14)
L2020621-10A	Vial HCI preserved	А	NA		2.9	Y	Absent		NYTCL-8260(14)
L2020621-10B	Vial HCl preserved	А	NA		2.9	Υ	Absent		NYTCL-8260(14)



Serial_No:05272011:26

Project Name: MINMILT

Project Number: MIN2001

Lab Number: L2020621

Report Date: 05/27/20

GLOSSARY

Acronyms

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

Report Format: DU Report with 'J' Qualifiers



Project Name:	MINMILT	Lab Number:	L2020621
Project Number:	MIN2001	Report Date:	05/27/20

1

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

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum. Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

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

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Waterpreserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'. Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

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

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

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

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

Data Qualifiers

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

Report Format: DU Report with 'J' Qualifiers



Serial_No:05272011:26

Project Name:	MINMILT	Lab Number:	L2020621
Project Number:	MIN2001	Report Date:	05/27/20

Data Qualifiers

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

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



Project Name: MINMILT
Project Number: MIN2001

 Lab Number:
 L2020621

 Report Date:
 05/27/20

REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.
- 121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.

LIMITATION OF LIABILITIES

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

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



Certification Information

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

Westborough Facility

EPA 624/624.1: m/p-xylene, o-xylene, Naphthalene
EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D: NPW: Dimethylnaphthalene, 1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene, 1,4-Diphenylhydrazine.
SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO2, NO3.
Mansfield Facility
SM 2540D: TSS
EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 1-Methylnaphthalene.
SPA 3C Fixed gases
Biological Tissue Matrix: EPA 3050B

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

Westborough Facility:

Drinking Water

EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; EPA 353.2: Nitrate-N, Nitrite-N; SM4500NO3-F: Nitrate-N, Nitrite-N; SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B EPA 332: Perchlorate; EPA 524.2: THMs and VOCs; EPA 504.1: EDB, DBCP. Microbiology: SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D.

Non-Potable Water

SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, EPA 350.1: Ammonia-N, LACHAT 10-107-06-1-B: Ammonia-N, EPA 351.1, SM4500NO3-F, EPA 353.2: Nitrate-N, SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate. EPA 624.1: Volatile Halocarbons & Aromatics,

EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs **EPA 625.1**: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.

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

Mansfield Facility:

Drinking Water

EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. EPA 200.8: Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. EPA 245.1 Hg. EPA 522.

Non-Potable Water

EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn. **EPA 200.8:** Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn. **EPA 245.1** Hg. **SM2340B**

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

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REPORT STYLE: Data Usability Report
JOB: L2020812
0010: Alpha Analytical Report Cover Page - OK
0015: Sample Cross Reference Summary - OK
0060: Case Narrative - OK
0100: Volatiles Cover Page - OK
0110: Volatiles Sample Results - OK
0120: Volatiles Method Blank Report - OK
0130: Volatiles LCS Report - OK
1180: Inorganics Cover Page - OK
1200: Wet Chemistry Sample Results - OK
1250: Wet Chemistry Duplicate Report - OK
5100: Sample Receipt & Container Information Report - OK
5200: Glossary - OK
5400: References - OK
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ANALYTICAL REPORT

Lab Number:	L2020812
Client:	P. W. Grosser
	630 Johnson Avenue
	Suite 7
	Bohemia, NY 11716
ATTN:	Regina Bykov
Phone:	(631) 589-6353
Project Name:	MINMILT
Project Number:	MIN2002
Report Date:	05/28/20

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Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-17-00196).

Eight Walkup Drive, Westborough, MA 01581-1019 508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com



Project Name:	MINMILT
Project Number:	MIN2002

Lab Number:	L2020812
Report Date:	05/28/20

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2020812-01	DB001 (158-160)	SOIL	540 SMITH STREET, FARMINGDALE	05/19/20 08:20	05/20/20
L2020812-02	DB001 (168-170)	SOIL	540 SMITH STREET, FARMINGDALE	05/19/20 09:15	05/20/20
L2020812-03	DB002 (7-10)	SOIL	540 SMITH STREET, FARMINGDALE	05/19/20 12:15	05/20/20
L2020812-04	DB002 (10-15)	SOIL	540 SMITH STREET, FARMINGDALE	05/19/20 12:40	05/20/20
L2020812-05	DB002 (15-20)	SOIL	540 SMITH STREET, FARMINGDALE	05/19/20 12:50	05/20/20
L2020812-06	DB002 (39-41)	SOIL	540 SMITH STREET, FARMINGDALE	05/19/20 13:15	05/20/20
L2020812-07	DB002 (40-45)	SOIL	540 SMITH STREET, FARMINGDALE	05/19/20 13:40	05/20/20
L2020812-08	DB002 (65-70)	SOIL	540 SMITH STREET, FARMINGDALE	05/19/20 14:10	05/20/20
L2020812-09	DB002 (85-90)	SOIL	540 SMITH STREET, FARMINGDALE	05/19/20 15:15	05/20/20
L2020812-10	DUP001	SOIL	540 SMITH STREET, FARMINGDALE	05/19/20 00:00	05/20/20
L2020812-11	FB002	WATER	540 SMITH STREET, FARMINGDALE	05/19/20 09:30	05/20/20
L2020812-12	TB002	WATER	540 SMITH STREET, FARMINGDALE	05/19/20 00:00	05/20/20



Project Name: MINMILT Project Number: MIN2002

 Lab Number:
 L2020812

 Report Date:
 05/28/20

Case Narrative

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

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

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

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

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

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



Project Name: MINMILT Project Number: MIN2002

 Lab Number:
 L2020812

 Report Date:
 05/28/20

Case Narrative (continued)

Report Submission

May 28, 2020: This is a preliminary report.

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Volatile Organics

L2020812-04: The sample was analyzed as a Low Level in an effort to meet criteria. The results of both analyses are reported. Differences were noted between the results of the analyses which have been attributed to vial discrepancies.

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

Authorized Signature:

Jufani Morrissey - Tiffani Morrissey

Title: Technical Director/Representative

Date: 05/28/20



ORGANICS



VOLATILES



		Serial_No:05282014:27			
Project Name:	MINMILT	Lab Number:	L2020812		
Project Number:	MIN2002	Report Date:	05/28/20		
	SAMPLE RESULTS				
Lab ID: Client ID: Sample Location:	L2020812-01 DB001 (158-160) 540 SMITH STREET, FARMINGDALE	Date Collected: Date Received: Field Prep:	05/19/20 08:20 05/20/20 Not Specified		
Sample Depth: Matrix: Analytical Method: Analytical Date: Analyst: Percent Solids:	Soil 1,8260C 05/22/20 16:22 MKS _{83%}				

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor				
Volatile Organics by EPA 5035 High - Westborough Lab										
Tetrachloroethene	3700		ug/kg	30	12.	1				
Vinyl chloride	ND		ug/kg	60	20.	1				
trans-1,2-Dichloroethene	ND		ug/kg	91	8.3	1				
Trichloroethene	ND		ug/kg	30	8.3	1				
cis-1,2-Dichloroethene	ND		ug/kg	60	11.	1				
1,2-Dichloroethene, Total	ND		ug/kg	60	8.3	1				

Surrogate	% Recovery	Acceptance Qualifier Criteria	
1,2-Dichloroethane-d4	105	70-130	
Toluene-d8	99	70-130	
4-Bromofluorobenzene	107	70-130	
Dibromofluoromethane	101	70-130	



		Serial_No	0:05282014:27
Project Name:	MINMILT	Lab Number:	L2020812
Project Number:	MIN2002	Report Date:	05/28/20
	SAMPLE RESULTS		
Lab ID: Client ID: Sample Location:	L2020812-02 DB001 (168-170) 540 SMITH STREET, FARMINGDALE	Date Collected: Date Received: Field Prep:	05/19/20 09:15 05/20/20 Not Specified
Sample Depth: Matrix: Analytical Method: Analytical Date: Analyst: Percent Solids:	Soil 1,8260C 05/22/20 13:12 MKS 82%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Tetrachloroethene	ND		ug/kg	0.61	0.24	1
Vinyl chloride	ND		ug/kg	1.2	0.41	1
trans-1,2-Dichloroethene	ND		ug/kg	1.8	0.17	1
Trichloroethene	ND		ug/kg	0.61	0.17	1
cis-1,2-Dichloroethene	ND		ug/kg	1.2	0.21	1
1,2-Dichloroethene, Total	ND		ug/kg	1.2	0.17	1

Surrogate	% Recovery	Acceptance Qualifier Criteria	
1,2-Dichloroethane-d4	106	70-130	
Toluene-d8	98	70-130	
4-Bromofluorobenzene	102	70-130	
Dibromofluoromethane	109	70-130	



		Serial_No	0:05282014:27
Project Name:	MINMILT	Lab Number:	L2020812
Project Number:	MIN2002	Report Date:	05/28/20
	SAMPLE RESULTS		
Lab ID: Client ID: Sample Location:	L2020812-03 DB002 (7-10) 540 SMITH STREET, FARMINGDALE	Date Collected: Date Received: Field Prep:	05/19/20 12:15 05/20/20 Not Specified
Sample Depth: Matrix: Analytical Method: Analytical Date: Analyst:	Soil 1,8260C 05/28/20 12:46 JC		

92%

Percent Solids:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	
Volatile Organics by EPA 5035 High - Westborough Lab							
Tetrachloroethene	630		ug/kg	25	9.9	1	
Vinyl chloride	ND		ug/kg	51	17.	1	
trans-1,2-Dichloroethene	ND		ug/kg	76	6.9	1	
Trichloroethene	ND		ug/kg	25	6.9	1	
cis-1,2-Dichloroethene	ND		ug/kg	51	8.9	1	
1,2-Dichloroethene, Total	ND		ug/kg	51	6.9	1	

Surrogate	% Recovery	Acceptance Qualifier Criteria	
1,2-Dichloroethane-d4	91	70-130	
Toluene-d8	103	70-130	
4-Bromofluorobenzene	117	70-130	
Dibromofluoromethane	104	70-130	



		Serial_No	p:05282014:27
Project Name:	MINMILT	Lab Number:	L2020812
Project Number:	MIN2002	Report Date:	05/28/20
	SAMPLE RESULTS		
Lab ID:	L2020812-04	Date Collected:	05/19/20 12:40
Client ID:	DB002 (10-15)	Date Received:	05/20/20
Sample Location:	540 SMITH STREET, FARMINGDALE	Field Prep:	Not Specified
Sample Depth:			
Matrix:	Soil		
Analytical Method:	1,8260C		
Analytical Date:	05/22/20 16:43		
Analyst:	MKS		
Percent Solids:	93%		

estborough Lab	1				
280		ug/kg	25	9.7	1
ND		ug/kg	50	17.	1
ND		ug/kg	74	6.8	1
12	J	ug/kg	25	6.8	1
73		ug/kg	50	8.7	1
73		ug/kg	50	6.8	1
	ND ND 12 73	ND ND 12 J 73	ND ug/kg ND ug/kg 12 J ug/kg 73 ug/kg	ND ug/kg 50 ND ug/kg 74 12 J ug/kg 25 73 ug/kg 50	ND ug/kg 50 17. ND ug/kg 74 6.8 12 J ug/kg 50 8.7 73 ug/kg 50 8.7

Surrogate	% Recovery	Acceptance Qualifier Criteria	
1,2-Dichloroethane-d4	108	70-130	
Toluene-d8	96	70-130	
4-Bromofluorobenzene	109	70-130	
Dibromofluoromethane	101	70-130	



		Serial_No	p:05282014:27
Project Name:	MINMILT	Lab Number:	L2020812
Project Number:	MIN2002	Report Date:	05/28/20
	SAMPLE RESULTS		
Lab ID:	L2020812-04	Date Collected:	05/19/20 12:40
Client ID:	DB002 (10-15)	Date Received:	05/20/20
Sample Location:	540 SMITH STREET, FARMINGDALE	Field Prep:	Not Specified
Sample Depth:			
Matrix:	Soil		
Analytical Method:	1,8260C		
Analytical Date:	05/24/20 19:41		
Analyst:	JC		
Percent Solids:	93%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Tetrachloroethene	17		ug/kg	0.43	0.17	1
Vinyl chloride	ND		ug/kg	0.86	0.29	1
trans-1,2-Dichloroethene	ND		ug/kg	1.3	0.12	1
Trichloroethene	1.7		ug/kg	0.43	0.12	1
cis-1,2-Dichloroethene	11		ug/kg	0.86	0.15	1
1,2-Dichloroethene, Total	11		ug/kg	0.86	0.12	1

Surrogate	% Recovery	Acceptance Qualifier Criteria	
1,2-Dichloroethane-d4	99	70-130	
Toluene-d8	97	70-130	
4-Bromofluorobenzene	102	70-130	
Dibromofluoromethane	98	70-130	



		Serial_N	0:05282014:27
Project Name:	MINMILT	Lab Number:	L2020812
Project Number:	MIN2002	Report Date:	05/28/20
	SAMPLE RESULTS		
Lab ID:	L2020812-05	Date Collected:	05/19/20 12:50
Client ID:	DB002 (15-20)	Date Received:	05/20/20
Sample Location:	540 SMITH STREET, FARMINGDALE	Field Prep:	Not Specified
Sample Depth:			
Matrix:	Soil		
Analytical Method:	1,8260C		
Analytical Date:	05/22/20 13:33		
Analyst:	MKS		
Percent Solids:	95%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Tetrachloroethene	31		ug/kg	0.51	0.20	1
Vinyl chloride	ND		ug/kg	1.0	0.34	1
trans-1,2-Dichloroethene	ND		ug/kg	1.5	0.14	1
Trichloroethene	0.71		ug/kg	0.51	0.14	1
cis-1,2-Dichloroethene	3.1		ug/kg	1.0	0.18	1
1,2-Dichloroethene, Total	3.1		ug/kg	1.0	0.14	1

Surrogate	% Recovery	Acceptance Qualifier Criteria	
1,2-Dichloroethane-d4	106	70-130	
Toluene-d8	98	70-130	
4-Bromofluorobenzene	115	70-130	
Dibromofluoromethane	102	70-130	



		Serial_No	0:05282014:27
Project Name:	MINMILT	Lab Number:	L2020812
Project Number:	MIN2002	Report Date:	05/28/20
	SAMPLE RESULTS		
Lab ID:	L2020812-07	Date Collected:	05/19/20 13:40
Client ID:	DB002 (40-45)	Date Received:	05/20/20
Sample Location:	540 SMITH STREET, FARMINGDALE	Field Prep:	Not Specified
Sample Depth:			
Matrix:	Soil		
Analytical Method:	1,8260C		
Analytical Date:	05/22/20 13:54		
Analyst:	MKS		
Percent Solids:	84%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	
Volatile Organics by EPA 5035 Low - Westborough Lab							
Tetrachloroethene	0.49	J	ug/kg	0.58	0.23	1	
Vinyl chloride	ND		ug/kg	1.2	0.39	1	
trans-1,2-Dichloroethene	ND		ug/kg	1.7	0.16	1	
Trichloroethene	ND		ug/kg	0.58	0.16	1	
cis-1,2-Dichloroethene	ND		ug/kg	1.2	0.20	1	
1,2-Dichloroethene, Total	ND		ug/kg	1.2	0.16	1	

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	133	Q	70-130
Toluene-d8	97		70-130
4-Bromofluorobenzene	111		70-130
Dibromofluoromethane	135	Q	70-130



		Serial_N	p:05282014:27
Project Name:	MINMILT	Lab Number:	L2020812
Project Number:	MIN2002	Report Date:	05/28/20
	SAMPLE RESULTS		
Lab ID:	L2020812-08	Date Collected:	05/19/20 14:10
Client ID: Sample Location:	DB002 (65-70) 540 SMITH STREET, FARMINGDALE	Date Received: Field Prep:	05/20/20 Not Specified
Sample Location.	540 SMITH STREET, FARMINGDALE	rieid Fiep.	Not Specified
Sample Depth:			
Matrix:	Soil		
Analytical Method:	1,8260C		
Analytical Date:	05/22/20 14:36		
Analyst:	MKS		
Percent Solids:	88%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	
Volatile Organics by EPA 5035 Low - Westborough Lab							
Tetrachloroethene	0.22	J	ug/kg	0.54	0.21	1	
Vinyl chloride	ND		ug/kg	1.1	0.36	1	
trans-1,2-Dichloroethene	ND		ug/kg	1.6	0.15	1	
Trichloroethene	ND		ug/kg	0.54	0.15	1	
cis-1,2-Dichloroethene	ND		ug/kg	1.1	0.19	1	
1,2-Dichloroethene, Total	ND		ug/kg	1.1	0.15	1	

Surrogate	% Recovery	Qualifier	Acceptance Criteria	
1,2-Dichloroethane-d4	132	Q	70-130	
Toluene-d8	97		70-130	
4-Bromofluorobenzene	273	Q	70-130	
Dibromofluoromethane	136	Q	70-130	



		Serial_N	p:05282014:27
Project Name:	MINMILT	Lab Number:	L2020812
Project Number:	MIN2002	Report Date:	05/28/20
	SAMPLE RESULTS		
Lab ID: Client ID: Sample Location:	L2020812-09 DB002 (85-90) 540 SMITH STREET, FARMINGDALE	Date Collected: Date Received: Field Prep:	05/19/20 15:15 05/20/20 Not Specified
Sample Depth:		ricia ricp.	Not Specified
Matrix: Analytical Method:	Soil 1,8260C		
Analytical Date:	05/24/20 19:15 JC		
Analyst: Percent Solids:	85%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	
Volatile Organics by EPA 5035 High - Westborough Lab							
Tetrachloroethene	270000	E	ug/kg	180	70.	5	
Vinyl chloride	ND		ug/kg	360	120	5	
trans-1,2-Dichloroethene	ND		ug/kg	540	49.	5	
Trichloroethene	ND		ug/kg	180	49.	5	
cis-1,2-Dichloroethene	ND		ug/kg	360	63.	5	
1,2-Dichloroethene, Total	ND		ug/kg	360	49.	5	

Surrogate	% Recovery	Acceptance Qualifier Criteria	
1,2-Dichloroethane-d4	98	70-130	
Toluene-d8	95	70-130	
4-Bromofluorobenzene	103	70-130	
Dibromofluoromethane	98	70-130	



		Serial_No:05282014:27		
Project Name:	MINMILT	Lab Number:	L2020812	
Project Number:	MIN2002	Report Date:	05/28/20	
	SAMPLE RESULTS			
Lab ID: Client ID: Sample Location:	L2020812-09 D DB002 (85-90) 540 SMITH STREET, FARMINGDALE	Date Collected: Date Received: Field Prep:	05/19/20 15:15 05/20/20 Not Specified	
Sample Depth:				
Matrix:	Soil			
Analytical Method:	1,8260C			
Analytical Date: Analyst:	05/22/20 15:39 MKS			

85%

Percent Solids:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 High - \	Vestborough Lab					
Tetrachloroethene	220000		ug/kg	720	280	20
Surrogate			% Recovery	Qualifier		ptance iteria
1,2-Dichloroethane-d4			98		7	0-130
Toluene-d8			96		7	0-130
4-Bromofluorobenzene			113		7	0-130
Dibromofluoromethane			97		7	0-130



		Serial_No:05282014:27		
Project Name:	MINMILT	Lab Number:	L2020812	
Project Number:	MIN2002	Report Date:	05/28/20	
	SAMPLE RESULTS			
Lab ID:	L2020812-10	Date Collected:	05/19/20 00:00	
Client ID:	DUP001	Date Received:	05/20/20	
Sample Location:	540 SMITH STREET, FARMINGDALE	Field Prep:	Not Specified	
Sample Depth:				
Matrix:	Soil			
Analytical Method:	1,8260C			
Analytical Date:	05/22/20 14:57			
Analyst:	MKS			
Percent Solids:	81%			

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westb	orough Lab					
Tetrachloroethene	ND		ug/kg	0.60	0.23	1
Vinyl chloride	ND		ug/kg	1.2	0.40	1
trans-1,2-Dichloroethene	ND		ug/kg	1.8	0.16	1
Trichloroethene	ND		ug/kg	0.60	0.16	1
cis-1,2-Dichloroethene	ND		ug/kg	1.2	0.21	1
1,2-Dichloroethene, Total	ND		ug/kg	1.2	0.16	1

Surrogate	% Recovery	Acceptance Qualifier Criteria	
1,2-Dichloroethane-d4	113	70-130	
Toluene-d8	95	70-130	
4-Bromofluorobenzene	109	70-130	
Dibromofluoromethane	109	70-130	



		Serial_No:05282014:27		
Project Name:	MINMILT	Lab Number:	L2020812	
Project Number:	MIN2002	Report Date:	05/28/20	
	SAMPLE RESULTS			
Lab ID: Client ID:	L2020812-11 FB002	Date Collected: Date Received:	05/19/20 09:30 05/20/20	
Sample Location:	540 SMITH STREET, FARMINGDALE	Field Prep:	Not Specified	
Sample Depth:				
Matrix:	Water			
Analytical Method:	1,8260C			
Analytical Date:	05/22/20 10:42			
Analyst:	NLK			

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westbo	rough Lab					
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	ND		ug/l	0.50	0.18	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Acceptance Qualifier Criteria	
1,2-Dichloroethane-d4	107	70-130	
Toluene-d8	99	70-130	
4-Bromofluorobenzene	102	70-130	
Dibromofluoromethane	105	70-130	



		Serial_No:05282014:27			
Project Name:	MINMILT	Lab Number:	L2020812		
Project Number:	MIN2002	Report Date:	05/28/20		
	SAMPLE RESULTS				
Lab ID: Client ID: Sample Location:	L2020812-12 TB002 540 SMITH STREET, FARMINGDALE	Date Collected: Date Received: Field Prep:	05/19/20 00:00 05/20/20 Not Specified		
Sample Depth: Matrix: Analytical Method: Analytical Date: Analyst:	Water 1,8260C 05/22/20 11:04 NLK				

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough	Lab					
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	ND		ug/l	0.50	0.18	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Acceptance Qualifier Criteria	
1,2-Dichloroethane-d4	110	70-130	
Toluene-d8	99	70-130	
4-Bromofluorobenzene	99	70-130	
Dibromofluoromethane	105	70-130	



Project Name: MINMILT Project Number: MIN2002

Method Blank Analysis Batch Quality Control

Analytical Method:1,8260CAnalytical Date:05/22/20 08:07Analyst:PD

arameter	Result Qu	alifier Units	RL	MDL
olatile Organics by GC/MS - W	estborough Lab for	sample(s): 11-1	2 Batch:	WG1373640-5
Tetrachloroethene	ND	ug/l	0.50	0.18
Vinyl chloride	ND	ug/l	1.0	0.07
trans-1,2-Dichloroethene	ND	ug/l	2.5	0.70
Trichloroethene	ND	ug/l	0.50	0.18
cis-1,2-Dichloroethene	ND	ug/l	2.5	0.70
1,2-Dichloroethene, Total	ND	ug/l	2.5	0.70

		Acceptance
Surrogate	%Recovery C	Qualifier Criteria
1,2-Dichloroethane-d4	104	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	100	70-130
Dibromofluoromethane	106	70-130



Project Name:MINMILTProject Number:MIN2002

Method Blank Analysis Batch Quality Control

Analytical Method:	1,8260C
Analytical Date:	05/22/20 09:40
Analyst:	MV

Parameter	Result	Qualifier	Units	RL	MDL	
Volatile Organics by EPA 5035 Low WG1373689-5	- Westbord	ough Lab fo	r sample(s):	02,05,07	-08,10 Batch:	
Tetrachloroethene	ND		ug/kg	0.50	0.20	
Vinyl chloride	ND		ug/kg	1.0	0.34	
trans-1,2-Dichloroethene	ND		ug/kg	1.5	0.14	
Trichloroethene	ND		ug/kg	0.50	0.14	
cis-1,2-Dichloroethene	ND		ug/kg	1.0	0.18	
1,2-Dichloroethene, Total	ND		ug/kg	1.0	0.14	

	Acceptance
%Recovery Qua	alifier Criteria
107	70-130
-	70-130
	70-130
102	70-130
	%Recovery Qua 107 99 101 102



Project Name: MINMILT Project Number: MIN2002

Method Blank Analysis Batch Quality Control

Analytical Method:1,8260CAnalytical Date:05/22/20 09:40Analyst:MV

arameter	Result	Qualifier	Units	RL	MDL	
olatile Organics by EPA 5035	i High - Westbord	ough Lab fo	or sample(s):	01,04,09	Batch:	WG1374132-5
Tetrachloroethene	ND		ug/kg	25	9.8	
Vinyl chloride	ND		ug/kg	50	17.	
trans-1,2-Dichloroethene	ND		ug/kg	75	6.8	
Trichloroethene	ND		ug/kg	25	6.8	
cis-1,2-Dichloroethene	ND		ug/kg	50	8.8	
1,2-Dichloroethene, Total	ND		ug/kg	50	6.8	

			Acceptance
Surrogate	%Recovery	Qualifier	Criteria
1,2-Dichloroethane-d4	107		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	101		70-130
Dibromofluoromethane	102		70-130



Lab Number: L2020812 **Report Date:** 05/28/20

Project Name: MINMILT **Project Number:** MIN2002

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C Analytical Date: 05/24/20 11:05 Analyst: KJD

Parameter	Result	Qualifier	Units	RL		MDL
olatile Organics by EPA 5035 Hig	h - Westbor	ough Lab fo	or sample(s):	09	Batch:	WG1374391-5
Tetrachloroethene	ND		ug/kg	25		9.8
Vinyl chloride	ND		ug/kg	50		17.
trans-1,2-Dichloroethene	ND		ug/kg	75		6.8
Trichloroethene	ND		ug/kg	25		6.8
cis-1,2-Dichloroethene	ND		ug/kg	50		8.8
1.2-Dichloroethene. Total	ND		ug/kg	50		6.8

			Acceptance
Surrogate	%Recovery	Qualifier	Criteria
1,2-Dichloroethane-d4	97		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	97		70-130
Dibromofluoromethane	96		70-130



Lab Number: L2020812 **Report Date:** 05/28/20

Project Name: MINMILT **Project Number:** MIN2002

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C Analytical Date: 05/24/20 11:05 Analyst: KJD

Parameter	Result	Qualifier	Units	RL		MDL
olatile Organics by EPA 5035	_ow - Westbord	ough Lab fo	r sample(s):	04	Batch:	WG1374392-5
Tetrachloroethene	ND		ug/kg	0.50		0.20
Vinyl chloride	ND		ug/kg	1.0		0.34
trans-1,2-Dichloroethene	ND		ug/kg	1.5		0.14
Trichloroethene	ND		ug/kg	0.50		0.14
cis-1,2-Dichloroethene	ND		ug/kg	1.0		0.18
1,2-Dichloroethene, Total	ND		ug/kg	1.0		0.14

			Acceptance
Surrogate	%Recovery	Qualifier	Criteria
1,2-Dichloroethane-d4	97		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	97		70-130
Dibromofluoromethane	96		70-130



Project Name: MINMILT Project Number: MIN2002

Method Blank Analysis Batch Quality Control

Analytical Method:1,8260CAnalytical Date:05/28/20 08:11Analyst:MV

Parameter	Result	Qualifier	Units	RL		MDL
olatile Organics by EPA 5035 High	- Westbord	ough Lab fo	r sample(s):	03	Batch:	WG1375317-5
Tetrachloroethene	ND		ug/kg	25		9.8
Vinyl chloride	ND		ug/kg	50		17.
trans-1,2-Dichloroethene	ND		ug/kg	75		6.8
Trichloroethene	ND		ug/kg	25		6.8
cis-1,2-Dichloroethene	ND		ug/kg	50		8.8
1,2-Dichloroethene, Total	ND		ug/kg	50		6.8

			Acceptance
Surrogate	%Recovery	Qualifier	Criteria
1,2-Dichloroethane-d4	103		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	102		70-130
Dibromofluoromethane	106		70-130



Lab Control Sample Analysis Batch Quality Control

Project Name:MINMILTProject Number:MIN2002

Lab Number: L2020812

Report Date: 05/28/20

	LCS		LCSD		%Recovery			RPD	
Parameter	%Recovery	Qual	%Recovery	' Qual	Limits	RPD	Qual	Limits	
Volatile Organics by GC/MS - Westborough La	ab Associated	sample(s):	11-12 Batch:	WG1373640-3	WG1373640-4				
Tetrachloroethene	90		90		70-130	0		20	
Vinyl chloride	97		94		55-140	3		20	
trans-1,2-Dichloroethene	100		100		70-130	0		20	
Trichloroethene	110		110		70-130	0		20	
cis-1,2-Dichloroethene	110		100		70-130	10		20	

	LCS	LCSD	Acceptance
Surrogate	%Recovery Qua	al %Recovery Qual	Criteria
1,2-Dichloroethane-d4	96	98	70-130
Toluene-d8	100	100	70-130
4-Bromofluorobenzene	103	103	70-130
Dibromofluoromethane	100	100	70-130



Lab Control Sample Analysis Batch Quality Control

	LCS		LCSD		%Recovery			RPD
Parameter	%Recovery	Qual	%Recovery	Qual	Limits	RPD	Qual	Limits
Volatile Organics by EPA 5035 Low - Westbo	brough Lab Asso	ociated sample(s	s): 02,05,07-0	8,10 Batch:	WG1373689-3	WG137368	9-4	
Tetrachloroethene	92		84		70-130	9		30
Vinyl chloride	108		98		67-130	10		30
trans-1,2-Dichloroethene	101		91		70-130	10		30
Trichloroethene	99		92		70-130	7		30
cis-1,2-Dichloroethene	101		93		70-130	8		30

	LCS	LCSD	Acceptance
Surrogate	%Recovery Q	ual %Recovery Q	ual Criteria
1,2-Dichloroethane-d4	97	98	70-130
Toluene-d8	101	101	70-130
4-Bromofluorobenzene	106	107	70-130
Dibromofluoromethane	100	97	70-130



Project Name:

Project Number:

MINMILT

MIN2002

Lab Control Sample Analysis

Batch Quality Control

Lab Number: L2020812 Report Date: 05/28/20

Project Name:MINMILTProject Number:MIN2002

LCS LCSD RPD %Recovery %Recovery %Recovery Parameter Qual Qual Limits RPD Qual Limits Volatile Organics by EPA 5035 High - Westborough Lab Associated sample(s): 01,04,09 Batch: WG1374132-3 WG1374132-4 Tetrachloroethene 92 84 70-130 9 30 108 98 67-130 Vinyl chloride 10 30 trans-1,2-Dichloroethene 101 91 70-130 10 30 Trichloroethene 99 92 70-130 7 30 cis-1,2-Dichloroethene 101 93 70-130 8 30

	LCS	LCSD	Acceptance
Surrogate	%Recovery Qua	l %Recovery Qual	Criteria
1,2-Dichloroethane-d4	97	98	70-130
Toluene-d8	101	101	70-130
4-Bromofluorobenzene	106	107	70-130
Dibromofluoromethane	100	97	70-130



Lab Control Sample Analysis Batch Quality Control

MINMILT

Project Number: MIN2002

Project Name:

 Lab Number:
 L2020812

 Report Date:
 05/28/20

	LCS LCSD			%Recovery		RPD		
Parameter	%Recovery	Qual	%Recovery	Qual	Limits	RPD	Qual Limits	
Volatile Organics by EPA 5035 High - West	borough Lab Asso	ociated sample	e(s): 09 Batch	WG1374	391-3 WG13743	91-4		
Tetrachloroethene	113		109		70-130	4	30	
Vinyl chloride	103		97		67-130	6	30	
trans-1,2-Dichloroethene	112		106		70-130	6	30	
Trichloroethene	108		106		70-130	2	30	
cis-1,2-Dichloroethene	109		106		70-130	3	30	

	LCS	LCSD	Acceptance
Surrogate	%Recovery Qu	al %Recovery Qual	Criteria
1,2-Dichloroethane-d4	99	99	70-130
Toluene-d8	100	99	70-130
4-Bromofluorobenzene	101	100	70-130
Dibromofluoromethane	103	102	70-130



Lab Control Sample Analysis Batch Quality Control

Project Name:MINMILTProject Number:MIN2002

Lab Number: L2020812

Report Date: 05/28/20

	LCS	LCSD			%Recovery			RPD		
Parameter	%Recovery	Qual	%Recovery	Qual	Limits	RPD	Qual	Limits		
Volatile Organics by EPA 5035 Low - Westbo	orough Lab Asso	ciated sample	e(s): 04 Batch:	WG13743	392-3 WG137439	2-4				
Tetrachloroethene	113		109		70-130	4		30		
Vinyl chloride	103		97		67-130	6		30		
trans-1,2-Dichloroethene	112		106		70-130	6		30		
Trichloroethene	108		106		70-130	2		30		
cis-1,2-Dichloroethene	109		106		70-130	3		30		

	LCS	LCSD	Acceptance
Surrogate	%Recovery Qu	ual %Recovery Qual	Criteria
1,2-Dichloroethane-d4	99	99	70-130
Toluene-d8	100	99	70-130
4-Bromofluorobenzene	101	100	70-130
Dibromofluoromethane	103	103	70-130



L2020812

Lab Control Sample Analysis Batch Quality Control

Project Name: MINMILT Project Number: MIN2002 Lab Number:

Report Date: 05/28/20

	LCS LCSI		LCSD	%	Recovery		RPD		
Parameter	%Recovery	Qual	%Recovery	Qual	Limits	RPD	Qual	Limits	
Volatile Organics by EPA 5035 High - Westbo	rough Lab Asso	ociated sample	e(s): 03 Batch	: WG1375317	-3 WG137531	17-4			
Tetrachloroethene	116		113		70-130	3		30	
Vinyl chloride	84		85		67-130	1		30	
trans-1,2-Dichloroethene	117		117		70-130	0		30	
Trichloroethene	113		112		70-130	1		30	
cis-1,2-Dichloroethene	108		107		70-130	1		30	

	LCS	LCSD	Acceptance
Surrogate	%Recovery Qua	al %Recovery Qual	Criteria
1,2-Dichloroethane-d4	97	97	70-130
Toluene-d8	103	103	70-130
4-Bromofluorobenzene	97	96	70-130
Dibromofluoromethane	102	102	70-130



INORGANICS & MISCELLANEOUS



Project Name: Project Number:	MINMILT MIN2002							lumber: rt Date:	L2020812 05/28/20	
				SAMPLE	RESUL	rs				
Lab ID:	L2020812-0	1					Date (Collected:	05/19/20 08:20)
Client ID:	DB001 (158	-160)					Date I	Received:	05/20/20	
Sample Location:	540 SMITH	STREET,	FARMI	NGDALE			Field I	Prep:	Not Specified	
Sample Depth:										
Matrix:	Soil									
Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Wes	stborough Lat)								
Solids, Total	83.4		%	0.100	NA	1	-	05/21/20 14:4	8 121,2540G	RI



Serial_No:05282014:27

								Serial_No:05		
Project Name:	MINMILT						Lab N	lumber:	L2020812	
Project Number:	MIN2002						Repo	rt Date:	05/28/20	
				SAMPLE I	RESUL	TS				
Lab ID:	L2020812-0	2					Date (Collected:	05/19/20 09:15	
Client ID:	DB001 (168	-170)					Date I	Received:	05/20/20	
Sample Location:	540 SMITH	STREET,	FARMI	NGDALE			Field	Prep:	Not Specified	
Sample Depth: Matrix:	Soil									
Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - We	stborough Lat)								
Solids, Total	82.1		%	0.100	NA	1	-	05/21/20 14:4	8 121,2540G	RI



							Serial_No:05282014:27			
Project Name:	MINMILT						Lab N	lumber:	L2020812	
Project Number:	MIN2002						Repo	rt Date:	05/28/20	
				SAMPLE I	RESUL	TS				
Lab ID:	L2020812-0)3					Date	Collected:	05/19/20 12:15	;
Client ID:	DB002 (7-10	0)					Date	Received:	05/20/20	
Sample Location:	540 SMITH	STREET,	FARMI	NGDALE			Field	Prep:	Not Specified	
Sample Depth: Matrix:	Soil									
Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
eneral Chemistry - We	estborough Lal	b								
olids, Total	91.8		%	0.100	NA	1	-	05/21/20 14:4	8 121,2540G	RI



								Serial_No:05	No:05282014:27		
Project Name:	MINMILT						Lab N	lumber:	L2020812		
Project Number:	MIN2002						Repo	rt Date:	05/28/20		
				SAMPLE	RESUL	TS					
Lab ID:	L2020812-0	4					Date (Collected:	05/19/20 12:40		
Client ID:	DB002 (10-1	15)					Date I	Received:	05/20/20		
Sample Location:	,	,	FARMI	NGDALE			Field	Prep:	Not Specified		
Sample Depth: Matrix:	Soil										
Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst	
General Chemistry - We	stborough Lat)									
Solids, Total	93.2		%	0.100	NA	1	-	05/21/20 14:4	8 121,2540G	RI	



								Serial_No:05282014:27		
Project Name:	MINMILT						Lab N	lumber:	L2020812	
Project Number:	MIN2002						Repo	rt Date:	05/28/20	
				SAMPLE I	RESUL	TS				
Lab ID:	L2020812-0)5					Date (Collected:	05/19/20 12:50	J
Client ID:	DB002 (15-2	20)					Date I	Received: (05/20/20	
Sample Location:	•		FARMI	NGDALE			Field I	Prep:	Not Specified	
Sample Depth: Matrix:	Soil									
Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
eneral Chemistry - We	estborough Lal	b								
olids, Total	95.3		%	0.100	NA	1	-	05/21/20 14:48	8 121,2540G	RI



								282014:27		
Project Name:	MINMILT						Lab N	lumber:	L2020812	
Project Number:	MIN2002						Repo	rt Date:	05/28/20	
				SAMPLE	RESUL	TS				
Lab ID:	L2020812-0)7					Date	Collected:	05/19/20 13:40)
Client ID:	DB002 (40-4	45)					Date	Received:	05/20/20	
Sample Location:	•		, FARMI	NGDALE			Field	Prep:	Not Specified	
Sample Depth: Matrix:	Soil									
Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
eneral Chemistry - We	estborough Lat	D								
olids, Total	83.6		%	0.100	NA	1	-	05/21/20 14:4	8 121,2540G	RI



								Serial_No:05	282014:27	
Project Name:	MINMILT						Lab N	lumber:	L2020812	
Project Number:	MIN2002						Repo	rt Date:	05/28/20	
				SAMPLE	RESUL	TS				
Lab ID:	L2020812-0	8					Date	Collected:	05/19/20 14:10)
Client ID:	DB002 (65-7	70)					Date	Received:	05/20/20	
Sample Location:	540 SMITH	STREET,	FARMI	NGDALE			Field	Prep:	Not Specified	
Sample Depth:										
Matrix:	Soil									
Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
eneral Chemistry - We	stborough Lat)								
olids, Total	87.5		%	0.100	NA	1	-	05/21/20 14:48	8 121,2540G	RI



							Serial_No:05282014:27			
Project Name:	MINMILT						Lab N	lumber:	L2020812	
Project Number:	MIN2002						Repo	rt Date:	05/28/20	
				SAMPLE I	RESUL	TS				
Lab ID:	L2020812-0	9					Date (Collected:	05/19/20 15:15	
Client ID:	DB002 (85-9	90)					Date I	Received:	05/20/20	
Sample Location:	540 SMITH	STREET,	FARMI	NGDALE			Field	Prep:	Not Specified	
Sample Depth:										
Matrix:	Soil									
Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
eneral Chemistry - We	stborough Lat)								
olids, Total	84.9		%	0.100	NA	1	-	05/21/20 14:4	8 121,2540G	RI



								Serial_No:05	282014:27	
Project Name:	MINMILT						Lab N	lumber:	L2020812	
Project Number:	MIN2002						Repo	rt Date:	05/28/20	
				SAMPLE	RESUL	TS				
Lab ID:	L2020812-1	0					Date (Collected:	05/19/20 00:00	
Client ID:	DUP001						Date I	Received:	05/20/20	
Sample Location:	540 SMITH	STREET,	FARMI	NGDALE			Field	Prep:	Not Specified	
Sample Depth:										
Matrix:	Soil									
Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Wes	stborough Lab)								
Solids, Total	81.4		%	0.100	NA	1	-	05/21/20 14:4	8 121,2540G	RI



Project Name: Project Number:	MINMILT MIN2002			ate Analys ality Control	IS	_	ab Numt eport Da		L2020812 05/28/20
Parameter		Native Sample	e Duplica	te Sample	Units	RPD	Qual	RPD	Limits
General Chemistry - Wes (158-160)	stborough Lab	Associated sample(s): 01-05,07-	10 QC Batch ID:	WG1373235-1	QC Sample:	L20208	812-01 C	Client ID:	DB001
Solids, Total		83.4	8	32.3	%	1			20

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Project Name:MINMILTProject Number:MIN2002

Serial_No:05282014:27 *Lab Number:* L2020812 *Report Date:* 05/28/20

Sample Receipt and Container Information

Were project specific reporting limits specified?

YES

Cooler Information

Cooler	Custody Seal
A	Absent

Container Info	ormation		Initial	Final	Temp			Frozen	
Container ID	Container Type	Cooler	рН	pН	deg C	Pres	Seal	Date/Time	Analysis(*)
L2020812-01A	Vial MeOH preserved	А	NA		2.0	Y	Absent		NYTCL-8260HLW(14)
L2020812-01B	Vial water preserved	А	NA		2.0	Y	Absent	21-MAY-20 01:55	NYTCL-8260HLW(14)
L2020812-01C	Vial water preserved	А	NA		2.0	Y	Absent	21-MAY-20 01:55	NYTCL-8260HLW(14)
L2020812-01D	Plastic 2oz unpreserved for TS	А	NA		2.0	Y	Absent		TS(7)
L2020812-02A	Vial MeOH preserved	А	NA		2.0	Y	Absent		NYTCL-8260HLW(14)
L2020812-02B	Vial water preserved	А	NA		2.0	Y	Absent	21-MAY-20 01:55	NYTCL-8260HLW(14)
L2020812-02C	Vial water preserved	А	NA		2.0	Y	Absent	21-MAY-20 01:55	NYTCL-8260HLW(14)
L2020812-02D	Plastic 2oz unpreserved for TS	А	NA		2.0	Y	Absent		TS(7)
L2020812-03A	Vial MeOH preserved	А	NA		2.0	Y	Absent		NYTCL-8260HLW(14)
L2020812-03B	Vial water preserved	А	NA		2.0	Y	Absent	21-MAY-20 01:55	NYTCL-8260HLW(14)
L2020812-03C	Vial water preserved	А	NA		2.0	Y	Absent	21-MAY-20 01:55	NYTCL-8260HLW(14)
L2020812-03D	Plastic 2oz unpreserved for TS	А	NA		2.0	Y	Absent		TS(7)
L2020812-04A	Vial MeOH preserved	А	NA		2.0	Y	Absent		NYTCL-8260HLW(14),NYTCL-8260H(14)
L2020812-04B	Vial water preserved	А	NA		2.0	Y	Absent	21-MAY-20 01:55	NYTCL-8260HLW(14),NYTCL-8260H(14)
L2020812-04C	Vial water preserved	А	NA		2.0	Y	Absent	21-MAY-20 01:55	NYTCL-8260HLW(14),NYTCL-8260H(14)
L2020812-04D	Plastic 2oz unpreserved for TS	А	NA		2.0	Y	Absent		TS(7)
L2020812-05A	Vial MeOH preserved	А	NA		2.0	Y	Absent		NYTCL-8260HLW(14)
L2020812-05B	Vial water preserved	А	NA		2.0	Y	Absent	21-MAY-20 01:55	NYTCL-8260HLW(14)
L2020812-05C	Vial water preserved	А	NA		2.0	Y	Absent	21-MAY-20 01:55	NYTCL-8260HLW(14)
L2020812-05D	Plastic 2oz unpreserved for TS	А	NA		2.0	Y	Absent		TS(7)
L2020812-06A	Vial MeOH preserved	А	NA		2.0	Y	Absent		HOLD-8260HLW(14)
L2020812-06B	Vial water preserved	А	NA		2.0	Y	Absent	21-MAY-20 01:55	HOLD-8260HLW(14)
L2020812-06C	Vial water preserved	А	NA		2.0	Y	Absent	21-MAY-20 01:55	HOLD-8260HLW(14)



Project Name: MINMILT Project Number: MIN2002

Serial_No:05282014:27 *Lab Number:* L2020812 *Report Date:* 05/28/20

Container Info	ormation		Initial	Final	Temp			Frozen	
Container ID	Container Type	Cooler	рН	pН	deg C	Pres	Seal	Date/Time	Analysis(*)
L2020812-06D	Plastic 2oz unpreserved for TS	A	NA		2.0	Y	Absent		HOLD-WETCHEM()
L2020812-07A	Vial MeOH preserved	А	NA		2.0	Y	Absent		NYTCL-8260HLW(14)
L2020812-07B	Vial water preserved	А	NA		2.0	Y	Absent	21-MAY-20 01:55	NYTCL-8260HLW(14)
L2020812-07C	Vial water preserved	А	NA		2.0	Y	Absent	21-MAY-20 01:55	NYTCL-8260HLW(14)
L2020812-07D	Plastic 2oz unpreserved for TS	А	NA		2.0	Y	Absent		TS(7)
L2020812-08A	Vial MeOH preserved	А	NA		2.0	Y	Absent		NYTCL-8260HLW(14)
L2020812-08B	Vial water preserved	А	NA		2.0	Y	Absent	21-MAY-20 01:55	NYTCL-8260HLW(14)
L2020812-08C	Vial water preserved	А	NA		2.0	Y	Absent	21-MAY-20 01:55	NYTCL-8260HLW(14)
L2020812-08D	Plastic 2oz unpreserved for TS	А	NA		2.0	Y	Absent		TS(7)
L2020812-09A	Vial MeOH preserved	А	NA		2.0	Y	Absent		NYTCL-8260HLW(14)
L2020812-09B	Vial water preserved	А	NA		2.0	Y	Absent	21-MAY-20 01:55	NYTCL-8260HLW(14)
L2020812-09C	Vial water preserved	А	NA		2.0	Y	Absent	21-MAY-20 01:55	NYTCL-8260HLW(14)
L2020812-09D	Plastic 2oz unpreserved for TS	А	NA		2.0	Y	Absent		TS(7)
L2020812-10A	Vial MeOH preserved	А	NA		2.0	Y	Absent		NYTCL-8260HLW(14)
L2020812-10B	Vial water preserved	А	NA		2.0	Y	Absent	21-MAY-20 01:55	NYTCL-8260HLW(14)
L2020812-10C	Vial water preserved	А	NA		2.0	Y	Absent	21-MAY-20 01:55	NYTCL-8260HLW(14)
L2020812-10D	Plastic 2oz unpreserved for TS	А	NA		2.0	Y	Absent		TS(7)
L2020812-11A	Vial HCI preserved	А	NA		2.0	Y	Absent		NYTCL-8260(14)
L2020812-11B	Vial HCI preserved	А	NA		2.0	Y	Absent		NYTCL-8260(14)
L2020812-11C	Vial HCI preserved	А	NA		2.0	Y	Absent		NYTCL-8260(14)
L2020812-12A	Vial HCI preserved	А	NA		2.0	Y	Absent		NYTCL-8260(14)
L2020812-12B	Vial HCI preserved	А	NA		2.0	Y	Absent		NYTCL-8260(14)



Serial_No:05282014:27

Project Name: MINMILT

Project Number: MIN2002

Lab Number: L2020812

Report Date: 05/28/20

GLOSSARY

Acronyms

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

Report Format: DU Report with 'J' Qualifiers



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Project Name:	MINMILT	Lab Number:	L202081
Project Number:	MIN2002	Report Date:	05/28/20

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

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum. Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

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

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Waterpreserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'. Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

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

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

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

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

Data Qualifiers

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

Report Format: DU Report with 'J' Qualifiers



Serial_No:05282014:27

Project Name:	MINMILT	Lab Number:	L2020812
Project Number:	MIN2002	Report Date:	05/28/20

Data Qualifiers

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

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



Project Name: MINMILT Project Number: MIN2002

 Lab Number:
 L2020812

 Report Date:
 05/28/20

REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.
- 121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.

LIMITATION OF LIABILITIES

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

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



Certification Information

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

Westborough Facility

EPA 624/624.1: m/p-xylene, o-xylene, Naphthalene
EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D: NPW: Dimethylnaphthalene, 1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene, 1,4-Diphenylhydrazine.
SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO2, NO3.
Mansfield Facility
SM 2540D: TSS
EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 1-Methylnaphthalene.
SPA 3C Fixed gases
Biological Tissue Matrix: EPA 3050B

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

Westborough Facility:

Drinking Water

EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; EPA 353.2: Nitrate-N, Nitrite-N; SM4500NO3-F: Nitrate-N, Nitrite-N; SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B EPA 332: Perchlorate; EPA 524.2: THMs and VOCs; EPA 504.1: EDB, DBCP. Microbiology: SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D.

Non-Potable Water

SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, EPA 350.1: Ammonia-N, LACHAT 10-107-06-1-B: Ammonia-N, EPA 351.1, SM4500NO3-F, EPA 353.2: Nitrate-N, SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate. EPA 624.1: Volatile Halocarbons & Aromatics,

EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs **EPA 625.1**: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.

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

Mansfield Facility:

Drinking Water

EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. EPA 200.8: Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. EPA 245.1 Hg. EPA 522.

Non-Potable Water

EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn. **EPA 200.8:** Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn. **EPA 245.1** Hg. **SM2340B**

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

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Serial_No:05282014:27

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JOB: L2021006
                REPORT STYLE: Data Usability Report
0010: Alpha Analytical Report Cover Page - OK
0015: Sample Cross Reference Summary - OK
0060: Case Narrative - OK
0100: Volatiles Cover Page - OK
0110: Volatiles Sample Results - OK
0120: Volatiles Method Blank Report - OK
0130: Volatiles LCS Report - OK
0150: Volatiles Matrix Spike Report - OK
1180: Inorganics Cover Page - OK
1200: Wet Chemistry Sample Results - OK
1250: Wet Chemistry Duplicate Report - OK
5100: Sample Receipt & Container Information Report - OK
5200: Glossary - OK
5400: References - OK
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ANALYTICAL REPORT

Lab Number:	L2021006
Client:	P. W. Grosser
	630 Johnson Avenue
	Suite 7
	Bohemia, NY 11716
ATTN:	Regina Bykov
Phone:	(631) 589-8705
Project Name:	MINMILT
Project Number:	MIN2002
Report Date:	05/29/20

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-17-00196).

Eight Walkup Drive, Westborough, MA 01581-1019 508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com



Project Name:	MINMILT
Project Number:	MIN2002

Lab Number:	L2021006
Report Date:	05/29/20

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2021006-01	DB002 (90-95)	SOIL	540 SMITH STREET, FARMINGDALE	05/20/20 07:45	05/21/20
L2021006-02	DB002 (100-105)	SOIL	540 SMITH STREET, FARMINGDALE	05/20/20 09:35	05/21/20
L2021006-03	DB002 (105-110)	SOIL	540 SMITH STREET, FARMINGDALE	05/20/20 09:45	05/21/20
L2021006-04	DB002 (110-115)	SOIL	540 SMITH STREET, FARMINGDALE	05/20/20 10:40	05/21/20
L2021006-05	DB002 (115-120)	SOIL	540 SMITH STREET, FARMINGDALE	05/20/20 10:50	05/21/20
L2021006-06	DB002 (120-125)	SOIL	540 SMITH STREET, FARMINGDALE	05/20/20 11:00	05/21/20
L2021006-07	DB002 (125-130)	SOIL	540 SMITH STREET, FARMINGDALE	05/20/20 11:05	05/21/20
L2021006-08	DB002 (135-140)	SOIL	540 SMITH STREET, FARMINGDALE	05/20/20 11:30	05/21/20
L2021006-09	DB002 (145-150)	SOIL	540 SMITH STREET, FARMINGDALE	05/20/20 11:45	05/21/20
L2021006-10	DB002 (150-155)	SOIL	540 SMITH STREET, FARMINGDALE	05/20/20 12:25	05/21/20
L2021006-11	DB002 (155-160)	SOIL	540 SMITH STREET, FARMINGDALE	05/20/20 12:30	05/21/20
L2021006-12	DB002 (160-165)	SOIL	540 SMITH STREET, FARMINGDALE	05/20/20 12:35	05/21/20
L2021006-13	DB002 (165-170)	SOIL	540 SMITH STREET, FARMINGDALE	05/20/20 12:40	05/21/20
L2021006-14	EB003	WATER	540 SMITH STREET, FARMINGDALE	05/20/20 13:30	05/21/20
L2021006-15	TB003	TRIP BLANK (AQUEOUS)	540 SMITH STREET, FARMINGDALE	05/14/20 00:00	05/21/20
L2021006-16	DB003 (5-10)	SOIL	540 SMITH STREET, FARMINGDALE	05/20/20 15:00	05/21/20



Project Name:MINMILTProject Number:MIN2002

 Lab Number:
 L2021006

 Report Date:
 05/29/20

Case Narrative

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

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

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

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

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

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



Project Name: MINMILT Project Number: MIN2002

 Lab Number:
 L2021006

 Report Date:
 05/29/20

Case Narrative (continued)

Report Submission

May 29, 2020: This is a preliminary report.

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Sample Receipt

L2021006-08: The collection date and time on the chain of custody was 20-MAY-20 11:30; however, the collection date and time on the container label was 19-MAY-20 11:30. The collection date and time is reported as 20-MAY-20 11:30.

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

Authorized Signature:

Jufani Morrissey - Tiffani Morrissey

Title: Technical Director/Representative

Date: 05/29/20



ORGANICS



VOLATILES



		Serial_N	p:05292016:11
Project Name:	MINMILT	Lab Number:	L2021006
Project Number:	MIN2002	Report Date:	05/29/20
	SAMPLE RESULTS		
Lab ID: Client ID: Sample Location:	L2021006-01 DB002 (90-95) 540 SMITH STREET, FARMINGDALE	Date Collected: Date Received: Field Prep:	05/20/20 07:45 05/21/20 Not Specified
Sample Depth: Matrix: Analytical Method: Analytical Date: Analyst: Percent Solids:	Soil 1,8260C 05/27/20 21:37 JC 88%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	
Volatile Organics by EPA 5035 Low - Westborough Lab							
Tetrachloroethene	280		ug/kg	0.48	0.19	1	
Vinyl chloride	ND		ug/kg	0.97	0.32	1	
trans-1,2-Dichloroethene	ND		ug/kg	1.4	0.13	1	
Trichloroethene	0.90		ug/kg	0.48	0.13	1	
cis-1,2-Dichloroethene	ND		ug/kg	0.97	0.17	1	
1,2-Dichloroethene, Total	ND		ug/kg	0.97	0.13	1	

Surrogate	% Recovery	Acceptance Qualifier Criteria	
1,2-Dichloroethane-d4	108	70-130	
Toluene-d8	96	70-130	
4-Bromofluorobenzene	113	70-130	
Dibromofluoromethane	102	70-130	



		Serial_N	o:05292016:11
Project Name:	MINMILT	Lab Number:	L2021006
Project Number:	MIN2002	Report Date:	05/29/20
	SAMPLE RESULTS		
Lab ID: Client ID: Sample Location:	L2021006-02 DB002 (100-105) 540 SMITH STREET, FARMINGDALE	Date Collected: Date Received: Field Prep:	05/20/20 09:35 05/21/20 Not Specified
Sample Depth: Matrix: Analytical Method: Analytical Date: Analyst: Percent Solids:	Soil 1,8260C 05/28/20 16:26 MKS 84%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor		
Volatile Organics by EPA 5035 Low - Westborough Lab								
Tetrachloroethene	0.25	J	ug/kg	0.51	0.20	1		
Vinyl chloride	ND		ug/kg	1.0	0.34	1		
trans-1,2-Dichloroethene	ND		ug/kg	1.5	0.14	1		
Trichloroethene	ND		ug/kg	0.51	0.14	1		
cis-1,2-Dichloroethene	ND		ug/kg	1.0	0.18	1		
1,2-Dichloroethene, Total	ND		ug/kg	1.0	0.14	1		

Surrogate	% Recovery	Acceptance Qualifier Criteria	
1,2-Dichloroethane-d4	92	70-130	
Toluene-d8	101	70-130	
4-Bromofluorobenzene	105	70-130	
Dibromofluoromethane	103	70-130	



		Serial_N	p:05292016:11
Project Name:	MINMILT	Lab Number:	L2021006
Project Number:	MIN2002	Report Date:	05/29/20
	SAMPLE RESULTS		
Lab ID: Client ID: Sample Location: Sample Depth: Matrix:	L2021006-03 DB002 (105-110) 540 SMITH STREET, FARMINGDALE Soil	Date Collected: Date Received: Field Prep:	05/20/20 09:45 05/21/20 Not Specified
Analytical Method: Analytical Date: Analyst: Percent Solids:	1,8260C 05/27/20 22:28 JC 90%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor		
Volatile Organics by EPA 5035 Low - Westborough Lab								
Tetrachloroethene	ND		ug/kg	0.54	0.21	1		
Vinyl chloride	ND		ug/kg	1.1	0.36	1		
trans-1,2-Dichloroethene	ND		ug/kg	1.6	0.15	1		
Trichloroethene	ND		ug/kg	0.54	0.15	1		
cis-1,2-Dichloroethene	ND		ug/kg	1.1	0.19	1		
1,2-Dichloroethene, Total	ND		ug/kg	1.1	0.15	1		

Surrogate	% Recovery	Acceptance Qualifier Criteria	
1,2-Dichloroethane-d4	105	70-130	
Toluene-d8	99	70-130	
4-Bromofluorobenzene	112	70-130	
Dibromofluoromethane	102	70-130	



		Serial_N	o:05292016:11
Project Name:	MINMILT	Lab Number:	L2021006
Project Number:	MIN2002	Report Date:	05/29/20
	SAMPLE RESULTS		
Lab ID: Client ID: Sample Location: Sample Depth: Matrix: Analytical Method:	L2021006-04 DB002 (110-115) 540 SMITH STREET, FARMINGDALE Soil 1,8260C	Date Collected: Date Received: Field Prep:	05/20/20 10:40 05/21/20 Not Specified
Analytical Date: Analyst: Percent Solids:	05/27/20 22:53 JC 86%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	
Volatile Organics by EPA 5035 Low - Westborough Lab							
Tetrachloroethene	ND		ug/kg	0.52	0.20	1	
Vinyl chloride	ND		ug/kg	1.0	0.35	1	
trans-1,2-Dichloroethene	ND		ug/kg	1.6	0.14	1	
Trichloroethene	ND		ug/kg	0.52	0.14	1	
cis-1,2-Dichloroethene	ND		ug/kg	1.0	0.18	1	
1,2-Dichloroethene, Total	ND		ug/kg	1.0	0.14	1	

Surrogate	% Recovery	Acceptance Qualifier Criteria	
1,2-Dichloroethane-d4	106	70-130	
Toluene-d8	96	70-130	
4-Bromofluorobenzene	111	70-130	
Dibromofluoromethane	101	70-130	



		Serial_No	o:05292016:11
Project Name:	MINMILT	Lab Number:	L2021006
Project Number:	MIN2002	Report Date:	05/29/20
	SAMPLE RESULTS		
Lab ID: Client ID: Sample Location:	L2021006-06 DB002 (120-125) 540 SMITH STREET, FARMINGDALE	Date Collected: Date Received: Field Prep:	05/20/20 11:00 05/21/20 Not Specified
Sample Depth: Matrix: Analytical Method: Analytical Date: Analyst: Percent Solids:	Soil 1,8260C 05/28/20 02:13 JC 82%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	
Volatile Organics by EPA 5035 High - Westborough Lab							
Tetrachloroethene	10000		ug/kg	35	14.	1	
Vinyl chloride	ND		ug/kg	70	23.	1	
trans-1,2-Dichloroethene	ND		ug/kg	100	9.5	1	
Trichloroethene	14	J	ug/kg	35	9.5	1	
cis-1,2-Dichloroethene	ND		ug/kg	70	12.	1	
1,2-Dichloroethene, Total	ND		ug/kg	70	9.5	1	

Surrogate	% Recovery	Acceptance Qualifier Criteria	
1,2-Dichloroethane-d4	101	70-130	
Toluene-d8	98	70-130	
4-Bromofluorobenzene	109	70-130	
Dibromofluoromethane	99	70-130	



		Serial_N	p:05292016:11
Project Name:	MINMILT	Lab Number:	L2021006
Project Number:	MIN2002	Report Date:	05/29/20
	SAMPLE RESULTS		
Lab ID:	L2021006-08	Date Collected:	05/20/20 11:30
Client ID:	DB002 (135-140)	Date Received:	05/21/20
Sample Location:	540 SMITH STREET, FARMINGDALE	Field Prep:	Not Specified
Sample Depth:			
Matrix:	Soil		
Analytical Method:	1,8260C		
Analytical Date:	05/28/20 02:38		
Analyst:	JC		
Percent Solids:	86%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 High - Wes	stborough Lab					
Tetrachloroethene	3700		ug/kg	29	11.	1
Vinyl chloride	ND		ug/kg	57	19.	1
trans-1,2-Dichloroethene	ND		ug/kg	86	7.8	1
Trichloroethene	ND		ug/kg	29	7.8	1
cis-1,2-Dichloroethene	ND		ug/kg	57	10.	1
1,2-Dichloroethene, Total	ND		ug/kg	57	7.8	1

Surrogate	% Recovery	Acceptance Qualifier Criteria	
1,2-Dichloroethane-d4	101	70-130	
Toluene-d8	95	70-130	
4-Bromofluorobenzene	104	70-130	
Dibromofluoromethane	99	70-130	



		Serial_N	p:05292016:11
Project Name:	MINMILT	Lab Number:	L2021006
Project Number:	MIN2002	Report Date:	05/29/20
	SAMPLE RESULTS		
Lab ID:	L2021006-09	Date Collected:	05/20/20 11:45
Client ID:	DB002 (145-150)	Date Received:	05/21/20
Sample Location:	540 SMITH STREET, FARMINGDALE	Field Prep:	Not Specified
Sample Depth:			
Matrix:	Soil		
Analytical Method:	1,8260C		
Analytical Date:	05/27/20 23:18		
Analyst:	JC		
Percent Solids:	86%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	
Volatile Organics by EPA 5035 Low - Westborough Lab							
Tetrachloroethene	ND		ug/kg	0.66	0.26	1	
Vinyl chloride	ND		ug/kg	1.3	0.44	1	
trans-1,2-Dichloroethene	ND		ug/kg	2.0	0.18	1	
Trichloroethene	ND		ug/kg	0.66	0.18	1	
cis-1,2-Dichloroethene	ND		ug/kg	1.3	0.23	1	
1,2-Dichloroethene, Total	ND		ug/kg	1.3	0.18	1	

Surrogate	% Recovery	Acceptance Qualifier Criteria	
1,2-Dichloroethane-d4	107	70-130	
Toluene-d8	97	70-130	
4-Bromofluorobenzene	108	70-130	
Dibromofluoromethane	98	70-130	



		Serial_N	p:05292016:11
Project Name:	MINMILT	Lab Number:	L2021006
Project Number:	MIN2002	Report Date:	05/29/20
	SAMPLE RESULTS		
Lab ID: Client ID: Sample Location:	L2021006-11 DB002 (155-160) 540 SMITH STREET, FARMINGDALE	Date Collected: Date Received: Field Prep:	05/20/20 12:30 05/21/20 Not Specified
Sample Depth: Matrix: Analytical Method: Analytical Date: Analyst: Percent Solids:	Soil 1,8260C 05/28/20 00:08 JC 87%		

Result	Qualifier	Units	RL	MDL	Dilution Factor
tborough Lab					
ND		ug/kg	0.47	0.18	1
ND		ug/kg	0.94	0.31	1
ND		ug/kg	1.4	0.13	1
ND		ug/kg	0.47	0.13	1
ND		ug/kg	0.94	0.16	1
ND		ug/kg	0.94	0.13	1
	tborough Lab ND ND ND ND ND ND	tborough Lab ND ND ND ND ND ND	tborough Lab ND ug/kg ND ug/kg ND ug/kg ND ug/kg ND ug/kg ND ug/kg ND ug/kg	ND ug/kg 0.47 ND ug/kg 0.94 ND ug/kg 1.4 ND ug/kg 0.47 ND ug/kg 1.4 ND ug/kg 0.47	ND ug/kg 0.47 0.18 ND ug/kg 0.94 0.31 ND ug/kg 1.4 0.13 ND ug/kg 0.47 0.13 ND ug/kg 0.47 0.13 ND ug/kg 0.47 0.13 ND ug/kg 0.47 0.13

Surrogate	% Recovery	Acceptance Qualifier Criteria	
1,2-Dichloroethane-d4	109	70-130	
Toluene-d8	97	70-130	
4-Bromofluorobenzene	106	70-130	
Dibromofluoromethane	105	70-130	



		Serial_N	o:05292016:11
Project Name:	MINMILT	Lab Number:	L2021006
Project Number:	MIN2002	Report Date:	05/29/20
	SAMPLE RESULTS		
Lab ID: Client ID: Sample Location:	L2021006-13 DB002 (165-170) 540 SMITH STREET, FARMINGDALE	Date Collected: Date Received: Field Prep:	05/20/20 12:40 05/21/20 Not Specified
Sample Depth: Matrix: Analytical Method: Analytical Date: Analyst: Percent Solids:	Soil 1,8260C 05/28/20 00:33 JC 87%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westb	orough Lab					
Tetrachloroethene	ND		ug/kg	0.50	0.20	1
Vinyl chloride	ND		ug/kg	1.0	0.34	1
trans-1,2-Dichloroethene	ND		ug/kg	1.5	0.14	1
Trichloroethene	0.32	J	ug/kg	0.50	0.14	1
cis-1,2-Dichloroethene	ND		ug/kg	1.0	0.18	1
1,2-Dichloroethene, Total	ND		ug/kg	1.0	0.14	1

Surrogate	% Recovery	Acceptance Qualifier Criteria	
1,2-Dichloroethane-d4	104	70-130	
Toluene-d8	99	70-130	
4-Bromofluorobenzene	106	70-130	
Dibromofluoromethane	99	70-130	



		Serial_No	p:05292016:11
Project Name:	MINMILT	Lab Number:	L2021006
Project Number:	MIN2002	Report Date:	05/29/20
	SAMPLE RESULTS		
Lab ID: Client ID: Sample Location:	L2021006-14 EB003 540 SMITH STREET, FARMINGDALE	Date Collected: Date Received: Field Prep:	05/20/20 13:30 05/21/20 Not Specified
Sample Depth: Matrix: Analytical Method: Analytical Date: Analyst:	Water 1,8260C 05/27/20 11:34 NLK		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westboroug	gh Lab					
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	ND		ug/l	0.50	0.18	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Acceptance Qualifier Criteria	
1,2-Dichloroethane-d4	109	70-130	
Toluene-d8	97	70-130	
4-Bromofluorobenzene	99	70-130	
Dibromofluoromethane	105	70-130	



	Serial_No	0:05292016:11
MINMILT	Lab Number:	L2021006
MIN2002	Report Date:	05/29/20
SAMPLE RESULTS		
L2021006-15	Date Collected:	05/14/20 00:00
TB003	Date Received:	05/21/20
540 SMITH STREET, FARMINGDALE	Field Prep:	Not Specified
Trip Blank (Aqueous)		
1,8260C		
05/27/20 11:56		
NLK		
	MIN2002 SAMPLE RESULTS L2021006-15 TB003 540 SMITH STREET, FARMINGDALE Trip Blank (Aqueous) 1,8260C 05/27/20 11:56	MINMILT Lab Number: MIN2002 Report Date: L2021006-15 Date Collected: TB003 Date Received: 540 SMITH STREET, FARMINGDALE Field Prep: Trip Blank (Aqueous) 1,8260C 05/27/20 11:56

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westboro	ugh Lab					
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	ND		ug/l	0.50	0.18	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Acceptance Qualifier Criteria	
1,2-Dichloroethane-d4	107	70-130	
Toluene-d8	96	70-130	
4-Bromofluorobenzene	93	70-130	
Dibromofluoromethane	109	70-130	



		Serial_No	p:05292016:11
Project Name:	MINMILT	Lab Number:	L2021006
Project Number:	MIN2002	Report Date:	05/29/20
	SAMPLE RESULTS		
Lab ID:	L2021006-16	Date Collected:	05/20/20 15:00
Client ID:	DB003 (5-10)	Date Received:	05/21/20
Sample Location:	540 SMITH STREET, FARMINGDALE	Field Prep:	Not Specified
Sample Depth:			
Matrix:	Soil		
Analytical Method:	1,8260C		
Analytical Date:	05/28/20 00:58		
Analyst:	JC		
Percent Solids:	98%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
/olatile Organics by EPA 5035 Low - Westborough Lab						
Tetrachloroethene	ND		ug/kg	0.55	0.22	1
Vinyl chloride	ND		ug/kg	1.1	0.37	1
trans-1,2-Dichloroethene	ND		ug/kg	1.6	0.15	1
Trichloroethene	ND		ug/kg	0.55	0.15	1
cis-1,2-Dichloroethene	ND		ug/kg	1.1	0.19	1
1,2-Dichloroethene, Total	ND		ug/kg	1.1	0.15	1

Surrogate	% Recovery	Acceptance Qualifier Criteria	
1,2-Dichloroethane-d4	105	70-130	
Toluene-d8	94	70-130	
4-Bromofluorobenzene	107	70-130	
Dibromofluoromethane	97	70-130	



Project Name: MINMILT Project Number: MIN2002

Method Blank Analysis Batch Quality Control

Analytical Method:1,8260CAnalytical Date:05/27/20 08:17Analyst:PD

Parameter	Result Qu	alifier Units	RL	MDL
olatile Organics by GC/MS - Wes	stborough Lab for	sample(s): 14-1	5 Batch:	WG1374846-5
Tetrachloroethene	ND	ug/l	0.50	0.18
Vinyl chloride	ND	ug/l	1.0	0.07
trans-1,2-Dichloroethene	ND	ug/l	2.5	0.70
Trichloroethene	ND	ug/l	0.50	0.18
cis-1,2-Dichloroethene	ND	ug/l	2.5	0.70
1,2-Dichloroethene, Total	ND	ug/l	2.5	0.70

			Acceptance
Surrogate	%Recovery	Qualifier	Criteria
1,2-Dichloroethane-d4	109		70-130
Toluene-d8	97		70-130
4-Bromofluorobenzene	97		70-130
Dibromofluoromethane	106		70-130



Project Name: MINMILT Project Number: MIN2002

Method Blank Analysis Batch Quality Control

Analytical Method:1,8260CAnalytical Date:05/28/20 08:11Analyst:MV

arameter	Result Qua	alifier Units	RL	MDL
olatile Organics by GC/MS - Wes	tborough Lab for	sample(s): 02	Batch:	WG1375231-5
Tetrachloroethene	ND	ug/kg	0.50	0.20
Vinyl chloride	ND	ug/kg	1.0	0.34
trans-1,2-Dichloroethene	ND	ug/kg	1.5	0.14
Trichloroethene	ND	ug/kg	0.50	0.14
cis-1,2-Dichloroethene	ND	ug/kg	1.0	0.18
1.2-Dichloroethene. Total	ND	ug/kg	1.0	0.14

			Acceptance
Surrogate	%Recovery	Qualifier	Criteria
1,2-Dichloroethane-d4	103		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	102		70-130
Dibromofluoromethane	106		70-130



Project Name: MINMILT Project Number: MIN2002

> Method Blank Analysis Batch Quality Control

Analytical Method:1,8260CAnalytical Date:05/27/20 18:33Analyst:JC

Parameter	Result	Qualifier	Units	RL	MDL	
olatile Organics by EPA 5035 I	High - Westbord	ough Lab fo	or sample(s):	06,08	Batch: WG1375251	I-5
Tetrachloroethene	ND		ug/kg	25	9.8	
Vinyl chloride	ND		ug/kg	50	17.	
trans-1,2-Dichloroethene	ND		ug/kg	75	6.8	
Trichloroethene	ND		ug/kg	25	6.8	
cis-1,2-Dichloroethene	ND		ug/kg	50	8.8	
1,2-Dichloroethene, Total	ND		ug/kg	50	6.8	

			Acceptance
Surrogate	%Recovery	Qualifier	Criteria
1,2-Dichloroethane-d4	102		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	105		70-130
Dibromofluoromethane	102		70-130



Project Name: MINMILT

Project Number: MIN2002

Method Blank Analysis Batch Quality Control

Analytical Method:	1,8260C
Analytical Date:	05/27/20 18:08
Analyst:	AD

Parameter	Result	Qualifier	Units	RL	MDL	
Volatile Organics by EPA 5035 WG1375252-5	Low - Westbore	ough Lab fo	or sample(s):	01,03-04	4,09,11,13,16	Batch:
Tetrachloroethene	ND		ug/kg	0.50	0.20	
Vinyl chloride	ND		ug/kg	1.0	0.34	
trans-1,2-Dichloroethene	ND		ug/kg	1.5	0.14	
Trichloroethene	ND		ug/kg	0.50	0.14	
cis-1,2-Dichloroethene	ND		ug/kg	1.0	0.18	
1,2-Dichloroethene, Total	ND		ug/kg	1.0	0.14	

		Acceptance		
Surrogate	%Recovery	Qualifier	Criteria	
1.2-Dichloroethane-d4	102		70-130	
Toluene-d8	98		70-130	
4-Bromofluorobenzene	104		70-130	
Dibromofluoromethane	102		70-130	



Project Name:MINMILTProject Number:MIN2002

Lab Number: L2021006

Report Date: 05/29/20

	LCS			.CSD		%Recovery			RPD	
Parameter	%Recovery	Qual	%Re	ecovery	Qual	Limits	RPD	Qual	Limits	
Volatile Organics by GC/MS - Westborough	Lab Associated	sample(s):	14-15	Batch:	WG1374846-3	WG1374846-4				
Tetrachloroethene	94			96		70-130	2		20	
Vinyl chloride	100			110		55-140	10		20	
trans-1,2-Dichloroethene	110			110		70-130	0		20	
Trichloroethene	110			120		70-130	9		20	
cis-1,2-Dichloroethene	110			110		70-130	0		20	

	LCS	LCSD	Acceptance
Surrogate	%Recovery Qu	al %Recovery Qual	Criteria
1,2-Dichloroethane-d4	97	100	70-130
Toluene-d8	98	97	70-130
4-Bromofluorobenzene	97	97	70-130
Dibromofluoromethane	103	105	70-130



Project Name:MINMILTProject Number:MIN2002

Lab Number: L2021006

Report Date: 05/29/20

	LCS		LCSD		%Recovery			RPD	
Parameter	%Recovery	Qual	%Recovery	′ Qual	Limits	RPD	Qual	Limits	
Volatile Organics by GC/MS - Westborough L	ab Associated	sample(s): (02 Batch: W	G1375231-3	WG1375231-4				
Tetrachloroethene	116		113		70-130	3		30	
Vinyl chloride	84		85		67-130	1		30	
trans-1,2-Dichloroethene	117		117		70-130	0		30	
Trichloroethene	113		112		70-130	1		30	
cis-1,2-Dichloroethene	108		107		70-130	1		30	

	LCS	LCSD	Acceptance
Surrogate	%Recovery Qua	I %Recovery Qual	Criteria
1,2-Dichloroethane-d4	97	97	70-130
Toluene-d8	103	103	70-130
4-Bromofluorobenzene	97	96	70-130
Dibromofluoromethane	102	102	70-130



Project Name: MINMILT Project Number: MIN2002 Lab Number: L2021006 Report Date: 05/29/20

Perometer	LCS	Qual	LCSD %Recovery		%Recovery Limits	000	Qual	RPD Limits
Parameter	%Recovery	Qual	//////	Qual	LIIIIIIS	RPD	Qual	LIIIIIIS
Volatile Organics by EPA 5035 High - Westb	orough Lab Ass	ociated sample	e(s): 06,08 B	atch: WG13	375251-3 WG137	75251-4		
Tetrachloroethene	112		102		70-130	9		30
Vinyl chloride	119		110		67-130	8		30
trans-1,2-Dichloroethene	109		104		70-130	5		30
Trichloroethene	113		108		70-130	5		30
cis-1,2-Dichloroethene	108		101		70-130	7		30

	LCS	LCSD	Acceptance
Surrogate	%Recovery Qua	al %Recovery Qual	Criteria
1,2-Dichloroethane-d4	104	102	70-130
Toluene-d8	96	95	70-130
4-Bromofluorobenzene	95	95	70-130
Dibromofluoromethane	102	102	70-130



Project Name: MINMILT Project Number: MIN2002 Lab Number: L2021006 Report Date: 05/29/20

Parameter	LCS %Recovery	Qual %	LCSD &Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by EPA 5035 Low - Westbo	orough Lab Ass	ociated sample(s)	: 01,03-04,0	09,11,13,16	Batch: WG1375	252-3 WG13	375252-4	
Tetrachloroethene	112		102		70-130	9		30
Vinyl chloride	119		110		67-130	8		30
trans-1,2-Dichloroethene	109		104		70-130	5		30
Trichloroethene	113		108		70-130	5		30
cis-1,2-Dichloroethene	108		101		70-130	7		30

	LCS	LCSD	Acceptance
Surrogate	%Recovery Qua	%Recovery Qual	Criteria
1,2-Dichloroethane-d4	104	102	70-130
Toluene-d8	96	95	70-130
4-Bromofluorobenzene	95	95	70-130
Dibromofluoromethane	102	102	70-130



Matrix Spike Analysis

Project Name:	MINMILT	Batch Quality Control	Lab Number:	L2021006
Project Number:	MIN2002		Report Date:	05/29/20

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Recovery Qual Limits	RPD	-	RPD _imits
Volatile Organics by EPA 5 L2021006-13 Client ID: E	035 Low - Westb 0B002 (165-170)		Associated s	sample(s): 01,0	3-04,09,1	1,13,16	QC Batch ID: V	VG1375252-6 WG1	37525	2-7 QC S	ample:
Tetrachloroethene	ND	106	70	66	Q	100	90	70-130	37	Q	30
Vinyl chloride	ND	106	130	121		150	130	67-130	14		30
trans-1,2-Dichloroethene	ND	106	100	98		130	114	70-130	21		30
Trichloroethene	0.32J	106	95	89		120	109	70-130	27		30
cis-1,2-Dichloroethene	ND	106	110	101		130	113	70-130	18		30

	MS	MSD	Acceptance
Surrogate	% Recovery Qualifier	% Recovery Qualifier	Criteria
1,2-Dichloroethane-d4	102	102	70-130
4-Bromofluorobenzene	96	95	70-130
Dibromofluoromethane	100	102	70-130
Toluene-d8	95	95	70-130



INORGANICS & MISCELLANEOUS



							Serial_No:05292016:11					
Project Name:	MINMILT						Lab N	lumber:	L2021006			
Project Number:	MIN2002						Repo	rt Date:	05/29/20			
				SAMPLE I	RESUL	TS						
Lab ID:	L2021006-0 ⁻	1					Date (Collected:	05/20/20 07:45			
Client ID:	DB002 (90-9	95)					Date F	Received:	05/21/20			
Sample Location:	540 SMITH	,	FARMI	NGDALE			Field I	Prep:	Not Specified			
Sample Depth:												
Matrix:	Soil											
Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst		
General Chemistry - Wes	stborough Lab)										
Solids, Total	88.4		%	0.100	NA	1	-	05/22/20 10:5	9 121,2540G	RI		



						Serial_No:05292016:11					
MINMILT						Lab N	lumber: լ	_2021006			
MIN2002						Repo	rt Date:)5/29/20			
			SAMPLE F	RESUL	TS						
L2021006-0	2					Date (Collected: ()5/20/20 09:35			
DB002 (100-	-105)					Date I	Received: ()5/21/20			
540 SMITH	STREET,	FARMI	NGDALE			Field	Prep: I	Not Specified			
Soil											
Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst		
stborough Lat	ט										
83.8		%	0.100	NA	1	-	05/22/20 10:59) 121,2540G	RI		
	MIN2002 L2021006-0 DB002 (100 540 SMITH Soil Result	MIN2002 L2021006-02 DB002 (100-105) 540 SMITH STREET, Soil Result Qualifier	MIN2002 L2021006-02 DB002 (100-105) 540 SMITH STREET, FARMI Soil <u>Result Qualifier Units</u>	MIN2002 SAMPLE F L2021006-02 DB002 (100-105) 540 SMITH STREET, FARMINGDALE Soil Result Qualifier Units RL	MIN2002 SAMPLE RESULT L2021006-02 DB002 (100-105) 540 SMITH STREET, FARMINGDALE Soil Result Qualifier Units RL MDL	MIN2002 SAMPLE RESULTS L2021006-02 DB002 (100-105) 540 SMITH STREET, FARMINGDALE Soil Result Qualifier Units RL MDL Dilution Factor Stborough Lab	MINMILT Lab N MIN2002 Lab SAMPLE RESULTS L2021006-02 Date Date 0 DB002 (100-105) 540 SMITH STREET, FARMINGDALE Date Field Soil Result Qualifier Units RL MDL Dilution Date Prepared	MINMILT MIN2002 L2021006-02 DB002 (100-105) 540 SMITH STREET, FARMINGDALE Soil Result Qualifier Units RL MDL Dilution Date Analyzed Dilution Prepared Date Analyzed	MINMILT MIN2002 L2021006-02 DB002 (100-105) 540 SMITH STREET, FARMINGDALE L2021006-D2 Soll Result Qualifier Units RL MDL Dilution Prepared Date Analyzed Analytical Method MDL Date Collected: 05/20/20 09:35 Date Received: 05/21/20 Field Prep: Not Specified Analytical Method MDL		



Project Name: Project Number:	MINMILT MIN2002							lumber: rt Date:	L2021006 05/29/20	
				SAMPLE I	RESUL	rs				
Lab ID:	L2021006-0	3					Date (Collected:	05/20/20 09:45	5
Client ID:	DB002 (105	-110)					Date I	Received:	05/21/20	
Sample Location:	540 SMITH	STREET,	FARMI	NGDALE			Field I	Prep:	Not Specified	
Sample Depth:										
Matrix:	Soil									
Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Wes	stborough Lat)								
Solids, Total	90.1		%	0.100	NA	1	-	05/22/20 10:5	59 121,2540G	RI



Serial_No:05292016:11

								Serial_No:052	292016:11		
Project Name:	MINMILT						Lab N	lumber: l	L2021006		
Project Number:	MIN2002				Repo	rt Date:	05/29/20				
				SAMPLE	RESUL	TS					
Lab ID:	L2021006-0	4					Date (Collected: (05/20/20 10:40		
Client ID:	DB002 (110	-115)					Date I	Received: (05/21/20		
Sample Location:	540 SMITH	STREET,	FARMI	NGDALE			Field	Prep: I	Not Specified		
Sample Depth:	Q e il										
Matrix:	Soil										
Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst	
eneral Chemistry - Wes	stborough Lat	2									
olids, Total	86.4		%	0.100	NA	1	_	05/22/20 10:59	9 121,2540G	RI	



							Serial_No:05292016:11					
Project Name:	MINMILT						Lab N	lumber:	L2021006			
Project Number:	MIN2002				Repo	rt Date:	05/29/20					
				SAMPLE	RESUL	TS						
Lab ID:	L2021006-0	6					Date	Collected:	05/20/20 11:00	l		
Client ID:	DB002 (120	-125)				Date	Received:	05/21/20				
Sample Location:	•	,	, FARMI	NGDALE			Field	Prep:	Not Specified			
Sample Depth: Matrix:	Soil											
Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analys		
eneral Chemistry - We	stborough Lat	D										
olids, Total	82.0		%	0.100	NA	1	-	05/22/20 10:59	9 121,2540G	RI		



				Serial_No:0529201									
Project Name:	MINMILT						Lab N	lumber:	L2021006				
Project Number:	MIN2002			Repo	rt Date:	05/29/20							
				SAMPLE	RESUL	TS							
Lab ID:	L2021006-0	8					Date	Collected:	05/20/20 11:30)			
Client ID:	DB002 (135	-140)				Date	Received:	05/21/20					
Sample Location:	•	,	FARMI	NGDALE			Field	Prep:	Not Specified				
Sample Depth: Matrix:	Soil												
Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analys			
eneral Chemistry - We	stborough Lat	C											
olids, Total	86.0		%	0.100	NA	1	-	05/22/20 10:59	9 121,2540G	RI			



				292016:11						
Project Name:	MINMILT						Lab N	lumber:	L2021006	
Project Number:	MIN2002			Repo	rt Date:	05/29/20				
				SAMPLE	RESUL	TS				
Lab ID:	L2021006-0	9					Date	Collected:	05/20/20 11:45	
Client ID:	DB002 (145	-150)					Date	Received:	05/21/20	
Sample Location:	540 SMÌTH	STREET,	FARMI	NGDALE			Field	Prep:	Not Specified	
Sample Depth: Matrix:	Soil									
Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - We	stborough Lat)								
Solids, Total	85.5		%	0.100	NA	1	-	05/22/20 10:5	9 121,2540G	RI



								Serial_No:05	292016:11	
Project Name:	MINMILT						Lab N	lumber:	L2021006	
Project Number:	MIN2002						Repo	rt Date:	05/29/20	
				SAMPLE	RESUL	TS				
Lab ID:	L2021006-1	1					Date	Collected:	05/20/20 12:30)
Client ID:	DB002 (155	-160)					Date	Received:	05/21/20	
Sample Location:	540 SMITH	STREET,	FARMI	NGDALE			Field	Prep:	Not Specified	
Sample Depth:										
Matrix:	Soil									
Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - We	stborough Lat)								
Solids, Total	87.0		%	0.100	NA	1	-	05/22/20 10:5	9 121,2540G	RI



								Serial_No:05	292016:11	
Project Name:	MINMILT						Lab N	lumber:	L2021006	
Project Number:	MIN2002						Repo	rt Date:	05/29/20	
				SAMPLE	RESUL	TS				
Lab ID:	L2021006-1	3					Date	Collected:	05/20/20 12:40	J
Client ID:	DB002 (165	-170)					Date	Received:	05/21/20	
Sample Location:	540 SMITH	STREET,	FARMI	NGDALE			Field	Prep:	Not Specified	
Sample Depth: Matrix:	Soil									
Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
eneral Chemistry - We	estborough Lat	2								
olids, Total	86.7		%	0.100	NA	1	-	05/22/20 10:5	9 121,2540G	RI



								Serial_No:05	292016:11	
Project Name:	MINMILT						Lab N	lumber:	L2021006	
Project Number:	MIN2002						Repo	rt Date:	05/29/20	
				SAMPLE	RESUL	TS				
Lab ID:	L2021006-1	6					Date	Collected:	05/20/20 15:00	J
Client ID:	DB003 (5-10	0)					Date	Received:	05/21/20	
Sample Location:	540 SMITH	STREET,	FARMI	NGDALE			Field	Prep:	Not Specified	
Sample Depth: Matrix:	Soil									
Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
eneral Chemistry - We	estborough Lal	b								
olids, Total	98.4		%	0.100	NA	1	-	05/22/20 10:5	9 121,2540G	RI



Project Name: Project Number:	MINMILT MIN2002	La	b Duplicate Analy Batch Quality Control	sis		ab Number: eport Date:	E2021000
Parameter		Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - We (165-170)	stborough Lab	Associated sample(s): 01-09,11-13,16	QC Batch ID: WG13736	36-1 QC S	ample: L202	21006-13 C	lient ID: DB002
Solids, Total		86.7	87.0	%	0		20



Project Name:MINMILTProject Number:MIN2002

Serial_No:05292016:11 *Lab Number:* L2021006 *Report Date:* 05/29/20

Sample Receipt and Container Information

Were project specific reporting limits specified?

YES

Cooler Information

Cooler	Custody Seal
A	Absent

Container Info	ormation		Initial	Final	Temp			Frozen	
Container ID	Container Type	Cooler	рН	pН	deg C	Pres	Seal	Date/Time	Analysis(*)
L2021006-01A	Vial MeOH preserved	А	NA		2.1	Y	Absent		NYTCL-8260HLW(14)
L2021006-01B	Vial water preserved	А	NA		2.1	Y	Absent	22-MAY-20 00:48	NYTCL-8260HLW(14)
L2021006-01C	Vial water preserved	А	NA		2.1	Y	Absent	22-MAY-20 00:48	NYTCL-8260HLW(14)
L2021006-01D	Plastic 2oz unpreserved for TS	А	NA		2.1	Y	Absent		TS(7)
L2021006-02A	Vial MeOH preserved	А	NA		2.1	Y	Absent		NYTCL-8260HLW(14)
L2021006-02B	Vial water preserved	А	NA		2.1	Y	Absent	22-MAY-20 00:48	NYTCL-8260HLW(14)
L2021006-02C	Vial water preserved	А	NA		2.1	Υ	Absent	22-MAY-20 00:48	NYTCL-8260HLW(14)
L2021006-02D	Plastic 2oz unpreserved for TS	А	NA		2.1	Y	Absent		TS(7)
L2021006-03A	Vial MeOH preserved	А	NA		2.1	Y	Absent		NYTCL-8260HLW(14)
L2021006-03B	Vial water preserved	А	NA		2.1	Y	Absent	22-MAY-20 00:48	NYTCL-8260HLW(14)
L2021006-03C	Vial water preserved	А	NA		2.1	Y	Absent	22-MAY-20 00:48	NYTCL-8260HLW(14)
L2021006-03D	Plastic 2oz unpreserved for TS	А	NA		2.1	Υ	Absent		TS(7)
L2021006-04A	Vial MeOH preserved	А	NA		2.1	Υ	Absent		NYTCL-8260HLW(14)
L2021006-04B	Vial water preserved	А	NA		2.1	Υ	Absent	22-MAY-20 00:48	NYTCL-8260HLW(14)
L2021006-04C	Vial water preserved	А	NA		2.1	Υ	Absent	22-MAY-20 00:48	NYTCL-8260HLW(14)
L2021006-04D	Plastic 2oz unpreserved for TS	А	NA		2.1	Υ	Absent		TS(7)
L2021006-05A	Vial MeOH preserved	А	NA		2.1	Υ	Absent		HOLD-8260HLW(14)
L2021006-05B	Vial water preserved	А	NA		2.1	Υ	Absent	22-MAY-20 00:48	HOLD-8260HLW(14)
L2021006-05C	Vial water preserved	А	NA		2.1	Υ	Absent	22-MAY-20 00:48	HOLD-8260HLW(14)
L2021006-05D	Plastic 2oz unpreserved for TS	А	NA		2.1	Υ	Absent		HOLD-WETCHEM()
L2021006-06A	Vial MeOH preserved	А	NA		2.1	Y	Absent		NYTCL-8260HLW(14)
L2021006-06B	Vial water preserved	А	NA		2.1	Y	Absent	22-MAY-20 00:48	NYTCL-8260HLW(14)
L2021006-06C	Vial water preserved	А	NA		2.1	Y	Absent	22-MAY-20 00:48	NYTCL-8260HLW(14)



Project Name: MINMILT Project Number: MIN2002

Container Info	ormation		Initial	Final	Temp			Frozen	
Container ID	Container Type	Cooler	рН	pН		Pres	Seal	Date/Time	Analysis(*)
L2021006-06D	Plastic 2oz unpreserved for TS	A	NA		2.1	Y	Absent		TS(7)
L2021006-07A	Vial MeOH preserved	А	NA		2.1	Y	Absent		HOLD-8260HLW(14)
L2021006-07B	Vial water preserved	А	NA		2.1	Y	Absent	22-MAY-20 00:48	HOLD-8260HLW(14)
L2021006-07C	Vial water preserved	А	NA		2.1	Y	Absent	22-MAY-20 00:48	HOLD-8260HLW(14)
L2021006-07D	Plastic 2oz unpreserved for TS	А	NA		2.1	Y	Absent		HOLD-WETCHEM()
L2021006-08A	Vial MeOH preserved	А	NA		2.1	Y	Absent		NYTCL-8260HLW(14)
L2021006-08B	Vial water preserved	А	NA		2.1	Y	Absent	22-MAY-20 00:48	NYTCL-8260HLW(14)
L2021006-08C	Vial water preserved	А	NA		2.1	Y	Absent	22-MAY-20 00:48	NYTCL-8260HLW(14)
L2021006-08D	Plastic 2oz unpreserved for TS	А	NA		2.1	Y	Absent		TS(7)
L2021006-09A	Vial MeOH preserved	А	NA		2.1	Y	Absent		NYTCL-8260HLW(14)
L2021006-09B	Vial water preserved	А	NA		2.1	Y	Absent	22-MAY-20 00:48	NYTCL-8260HLW(14)
L2021006-09C	Vial water preserved	А	NA		2.1	Y	Absent	22-MAY-20 00:48	NYTCL-8260HLW(14)
L2021006-09D	Plastic 2oz unpreserved for TS	А	NA		2.1	Y	Absent		TS(7)
L2021006-10A	Vial MeOH preserved	А	NA		2.1	Y	Absent		HOLD-8260HLW(14)
L2021006-10B	Vial water preserved	А	NA		2.1	Y	Absent	22-MAY-20 00:48	HOLD-8260HLW(14)
L2021006-10C	Vial water preserved	А	NA		2.1	Y	Absent	22-MAY-20 00:48	HOLD-8260HLW(14)
L2021006-10D	Plastic 2oz unpreserved for TS	А	NA		2.1	Y	Absent		HOLD-WETCHEM()
L2021006-11A	Vial MeOH preserved	А	NA		2.1	Y	Absent		NYTCL-8260HLW(14)
L2021006-11B	Vial water preserved	А	NA		2.1	Y	Absent	22-MAY-20 00:48	NYTCL-8260HLW(14)
L2021006-11C	Vial water preserved	А	NA		2.1	Y	Absent	22-MAY-20 00:48	NYTCL-8260HLW(14)
L2021006-11D	Plastic 2oz unpreserved for TS	А	NA		2.1	Y	Absent		TS(7)
L2021006-12A	Vial MeOH preserved	А	NA		2.1	Y	Absent		HOLD-8260HLW(14)
L2021006-12B	Vial water preserved	А	NA		2.1	Y	Absent	22-MAY-20 00:48	HOLD-8260HLW(14)
L2021006-12C	Vial water preserved	А	NA		2.1	Y	Absent	22-MAY-20 00:48	HOLD-8260HLW(14)
L2021006-12D	Plastic 2oz unpreserved for TS	А	NA		2.1	Y	Absent		HOLD-WETCHEM()
L2021006-13A	Vial MeOH preserved	А	NA		2.1	Y	Absent		NYTCL-8260HLW(14)
L2021006-13A1	Vial MeOH preserved	А	NA		2.1	Y	Absent		NYTCL-8260HLW(14)
L2021006-13A2	Vial MeOH preserved	А	NA		2.1	Y	Absent		NYTCL-8260HLW(14)



Project Name: MINMILT Project Number: MIN2002

Serial_No:05292016:11 *Lab Number:* L2021006 *Report Date:* 05/29/20

Container Info	rmation		Initial	Final	Temp			Frozen	
Container ID	Container Type	Cooler	рН	pН	deg C	Pres	Seal	Date/Time	Analysis(*)
L2021006-13B	Vial water preserved	А	NA		2.1	Y	Absent	22-MAY-20 00:48	NYTCL-8260HLW(14)
L2021006-13B1	Vial water preserved	А	NA		2.1	Y	Absent	22-MAY-20 00:48	NYTCL-8260HLW(14)
L2021006-13B2	Vial water preserved	А	NA		2.1	Y	Absent	22-MAY-20 00:48	NYTCL-8260HLW(14)
L2021006-13C	Vial water preserved	А	NA		2.1	Y	Absent	22-MAY-20 00:48	NYTCL-8260HLW(14)
L2021006-13C1	Vial water preserved	А	NA		2.1	Y	Absent	22-MAY-20 00:48	NYTCL-8260HLW(14)
L2021006-13C2	Vial water preserved	А	NA		2.1	Y	Absent	22-MAY-20 00:48	NYTCL-8260HLW(14)
L2021006-13D	Plastic 2oz unpreserved for TS	А	NA		2.1	Y	Absent		TS(7)
L2021006-13D1	Plastic 2oz unpreserved for TS	А	NA		2.1	Y	Absent		TS(7)
L2021006-13D2	Plastic 2oz unpreserved for TS	А	NA		2.1	Y	Absent		TS(7)
L2021006-14A	Vial HCI preserved	А	NA		2.1	Y	Absent		NYTCL-8260(14)
L2021006-14B	Vial HCI preserved	А	NA		2.1	Y	Absent		NYTCL-8260(14)
L2021006-14C	Vial HCI preserved	А	NA		2.1	Y	Absent		NYTCL-8260(14)
L2021006-15A	Vial HCI preserved	А	NA		2.1	Y	Absent		NYTCL-8260(14)
L2021006-15B	Vial HCI preserved	А	NA		2.1	Y	Absent		NYTCL-8260(14)
L2021006-16A	Vial MeOH preserved	А	NA		2.1	Y	Absent		NYTCL-8260HLW(14)
L2021006-16B	Vial water preserved	А	NA		2.1	Y	Absent	22-MAY-20 00:48	NYTCL-8260HLW(14)
L2021006-16C	Vial water preserved	А	NA		2.1	Y	Absent	22-MAY-20 00:48	NYTCL-8260HLW(14)
L2021006-16D	Plastic 2oz unpreserved for TS	А	NA		2.1	Y	Absent		TS(7)



Serial_No:05292016:11

Project Name: MINMILT

Project Number: MIN2002

Lab Number: L2021006

Report Date: 05/29/20

GLOSSARY

Acronyms

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

Report Format: DU Report with 'J' Qualifiers



Project Name:	MINMILT	Lab Number:	L2021006
Project Number:	MIN2002	Report Date:	05/29/20

1

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

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum. Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

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

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Waterpreserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'. Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

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

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

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

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

Data Qualifiers

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

Report Format: DU Report with 'J' Qualifiers



Serial_No:05292016:11

Project Name:	MINMILT	Lab Number:	L2021006
Project Number:	MIN2002	Report Date:	05/29/20

Data Qualifiers

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

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



Project Name: MINMILT Project Number: MIN2002

 Lab Number:
 L2021006

 Report Date:
 05/29/20

REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.
- 121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.

LIMITATION OF LIABILITIES

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

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



Certification Information

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

Westborough Facility

EPA 624/624.1: m/p-xylene, o-xylene, Naphthalene
EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D: NPW: Dimethylnaphthalene, 1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene, 1,4-Diphenylhydrazine.
SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO2, NO3.
Mansfield Facility
SM 2540D: TSS
EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 1-Methylnaphthalene.
SPA 3C Fixed gases
Biological Tissue Matrix: EPA 3050B

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

Westborough Facility:

Drinking Water

EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; EPA 353.2: Nitrate-N, Nitrite-N; SM4500NO3-F: Nitrate-N, Nitrite-N; SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B EPA 332: Perchlorate; EPA 524.2: THMs and VOCs; EPA 504.1: EDB, DBCP. Microbiology: SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D.

Non-Potable Water

SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, EPA 350.1: Ammonia-N, LACHAT 10-107-06-1-B: Ammonia-N, EPA 351.1, SM4500NO3-F, EPA 353.2: Nitrate-N, SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate. EPA 624.1: Volatile Halocarbons & Aromatics,

EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs **EPA 625.1**: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.

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

Mansfield Facility:

Drinking Water

EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. EPA 200.8: Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. EPA 245.1 Hg. EPA 522.

Non-Potable Water

EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn. **EPA 200.8:** Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn. **EPA 245.1** Hg. **SM2340B**

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

Serial_No:05292016:11

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Serial_No:05292016:11

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8 Walkup Dr. TEL: 508-898-9220 FAX: 508-898-9193	TEL: 508-822-9300 FAX: 508-822-3288	Project Name: Min/ Project Location: 540	Smiths	Street, Fa	arminge	lele	-	ASP-/	1	le)		-B IS (4 File)	Same as Client Info	
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JOB: L2021318
                REPORT STYLE: Data Usability Report
0010: Alpha Analytical Report Cover Page - OK
0015: Sample Cross Reference Summary - OK
0060: Case Narrative - OK
0100: Volatiles Cover Page - OK
0110: Volatiles Sample Results - OK
0120: Volatiles Method Blank Report - OK
0130: Volatiles LCS Report - OK
0150: Volatiles Matrix Spike Report - OK
1180: Inorganics Cover Page - OK
1200: Wet Chemistry Sample Results - OK
1250: Wet Chemistry Duplicate Report - OK
5100: Sample Receipt & Container Information Report - OK
5200: Glossary - OK
5400: References - OK
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ANALYTICAL REPORT

Lab N	lumber:	L2021318
Client	:	P. W. Grosser
		630 Johnson Avenue
		Suite 7
		Bohemia, NY 11716
ATTN	l:	Regina Bykov
Phone	e:	(631) 589-8705
Proje	ct Name:	MINMILT
Proje	ct Number:	MIN2002
Repo	rt Date:	06/01/20

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Eight Walkup Drive, Westborough, MA 01581-1019 508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com



Project Name:	MINMILT
Project Number:	MIN2002

Lab Number:	L2021318
Report Date:	06/01/20

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2021318-01	DB003 (55-60)	SOIL	540 SMITH STREET, FARMINGDALE	05/21/20 11:15	05/22/20
L2021318-02	DB003 (60-65)	SOIL	540 SMITH STREET, FARMINGDALE	05/21/20 11:30	05/22/20
L2021318-03	DB003 (70-75)	SOIL	540 SMITH STREET, FARMINGDALE	05/21/20 11:40	05/22/20
L2021318-04	DB003 (75-80)	SOIL	540 SMITH STREET, FARMINGDALE	05/21/20 11:50	05/22/20
L2021318-05	DB003 (80-85)	SOIL	540 SMITH STREET, FARMINGDALE	05/21/20 12:30	05/22/20
L2021318-06	DB003 (85-90)	SOIL	540 SMITH STREET, FARMINGDALE	05/21/20 12:40	05/22/20
L2021318-07	DB003 (90-95)	SOIL	540 SMITH STREET, FARMINGDALE	05/21/20 13:00	05/22/20
L2021318-08	DB003 (105-110)	SOIL	540 SMITH STREET, FARMINGDALE	05/21/20 14:35	05/22/20
L2021318-09	DB003 (115-120)	SOIL	540 SMITH STREET, FARMINGDALE	05/21/20 15:30	05/22/20
L2021318-10	DB003 (120-125)	SOIL	540 SMITH STREET, FARMINGDALE	05/21/20 16:00	05/22/20
L2021318-11	DB003 (130-135)	SOIL	540 SMITH STREET, FARMINGDALE	05/21/20 16:15	05/22/20
L2021318-12	DB003 (140-145)	SOIL	540 SMITH STREET, FARMINGDALE	05/21/20 16:30	05/22/20
L2021318-13	DB003 (150-155)	SOIL	540 SMITH STREET, FARMINGDALE	05/21/20 16:50	05/22/20
L2021318-14	DB003 (165-170)	SOIL	540 SMITH STREET, FARMINGDALE	05/21/20 17:15	05/22/20
L2021318-15	DB003 (175-180)	SOIL	540 SMITH STREET, FARMINGDALE	05/21/20 17:30	05/22/20
L2021318-16	DUP002	SOIL	540 SMITH STREET, FARMINGDALE	05/21/20 00:00	05/22/20
L2021318-17	DUP003	SOIL	540 SMITH STREET, FARMINGDALE	05/21/20 00:00	05/22/20
L2021318-18	EB004	EQUIPMENT BLANK	540 SMITH STREET, FARMINGDALE	05/21/20 09:00	05/22/20
L2021318-19	TB004	TRIP BLANK (AQUEOUS)	540 SMITH STREET, FARMINGDALE	05/21/20 00:00	05/22/20



Project Name:MINMILTProject Number:MIN2002

 Lab Number:
 L2021318

 Report Date:
 06/01/20

Case Narrative

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

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

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

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

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

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



Project Name:MINMILTProject Number:MIN2002

 Lab Number:
 L2021318

 Report Date:
 06/01/20

Case Narrative (continued)

Report Submission

June 01, 2020: This is a preliminary report.

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

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

Auchelle M. Uning Michelle M. Morris

Authorized Signature:

Title: Technical Director/Representative

Date: 06/01/20



ORGANICS



VOLATILES



		Serial_No:06012013:14			
Project Name:	MINMILT	Lab Number:	L2021318		
Project Number:	MIN2002	Report Date:	06/01/20		
	SAMPLE RESULTS				
Lab ID:	L2021318-01	Date Collected:	05/21/20 11:15		
Client ID:	DB003 (55-60)	Date Received:	05/22/20		
Sample Location:	540 SMITH STREET, FARMINGDALE	Field Prep:	Not Specified		
Sample Depth:					
Matrix:	Soil				
Analytical Method:	1,8260C				
Analytical Date:	05/30/20 13:27				
Analyst:	MV				

83%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor		
Volatile Organics by EPA 5035 Low - Westborough Lab								
Tetrachloroethene	0.35	J	ug/kg	0.61	0.24	1		
Vinyl chloride	ND		ug/kg	1.2	0.41	1		
trans-1,2-Dichloroethene	ND		ug/kg	1.8	0.17	1		
Trichloroethene	ND		ug/kg	0.61	0.17	1		
cis-1,2-Dichloroethene	ND		ug/kg	1.2	0.22	1		
1,2-Dichloroethene, Total	ND		ug/kg	1.2	0.17	1		

Surrogate	% Recovery	Acceptance Qualifier Criteria	
1,2-Dichloroethane-d4	86	70-130	
Toluene-d8	102	70-130	
4-Bromofluorobenzene	101	70-130	
Dibromofluoromethane	102	70-130	



		Serial_No:06012013:14			
Project Name:	MINMILT	Lab Number:	L2021318		
Project Number:	MIN2002	Report Date:	06/01/20		
	SAMPLE RESULTS				
Lab ID:	L2021318-03	Date Collected:	05/21/20 11:40		
Client ID:	DB003 (70-75)	Date Received:	05/22/20		
Sample Location:	540 SMITH STREET, FARMINGDALE	Field Prep:	Not Specified		
Sample Depth:					
Matrix:	Soil				
Analytical Method:	1,8260C				
Analytical Date:	05/30/20 13:55				
Analyst:	MV				
Percent Solids:	84%				

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor			
Volatile Organics by EPA 5035 Low - Westborough Lab									
Tetrachloroethene	8.3		ug/kg	0.66	0.26	1			
Vinyl chloride	ND		ug/kg	1.3	0.44	1			
trans-1,2-Dichloroethene	ND		ug/kg	2.0	0.18	1			
Trichloroethene	0.97		ug/kg	0.66	0.18	1			
cis-1,2-Dichloroethene	ND		ug/kg	1.3	0.23	1			
1,2-Dichloroethene, Total	ND		ug/kg	1.3	0.18	1			

Surrogate	% Recovery	Acceptance Qualifier Criteria	
1,2-Dichloroethane-d4	84	70-130	
Toluene-d8	101	70-130	
4-Bromofluorobenzene	128	70-130	
Dibromofluoromethane	100	70-130	



		Serial_No:06012013:14			
Project Name:	MINMILT	Lab Number:	L2021318		
Project Number:	MIN2002	Report Date:	06/01/20		
	SAMPLE RESULTS				
Lab ID:	L2021318-05	Date Collected:	05/21/20 12:30		
Client ID:	DB003 (80-85)	Date Received:	05/22/20		
Sample Location:	540 SMITH STREET, FARMINGDALE	Field Prep:	Not Specified		
Sample Depth:					
Matrix:	Soil				
Analytical Method:	1,8260C				
Analytical Date:	05/30/20 17:35				
Analyst:	MV				
Percent Solids:	82%				

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor			
Volatile Organics by EPA 5035 High - Westborough Lab									
Tetrachloroethene	6500		ug/kg	31	12.	1			
Vinyl chloride	ND		ug/kg	62	21.	1			
trans-1,2-Dichloroethene	ND		ug/kg	93	8.5	1			
Trichloroethene	ND		ug/kg	31	8.5	1			
cis-1,2-Dichloroethene	ND		ug/kg	62	11.	1			
1,2-Dichloroethene, Total	ND		ug/kg	62	8.5	1			

Surrogate	% Recovery	Acceptance Qualifier Criteria	
1,2-Dichloroethane-d4	86	70-130	
Toluene-d8	102	70-130	
4-Bromofluorobenzene	100	70-130	
Dibromofluoromethane	99	70-130	



		Serial_N	p:06012013:14
Project Name:	MINMILT	Lab Number:	L2021318
Project Number:	MIN2002	Report Date:	06/01/20
	SAMPLE RESULTS		
Lab ID:	L2021318-06	Date Collected:	05/21/20 12:40
Client ID:	DB003 (85-90)	Date Received:	05/22/20
Sample Location:	540 SMITH STREET, FARMINGDALE	Field Prep:	Not Specified
Sample Depth:			
Matrix:	Soil		
Analytical Method:	1,8260C		
Analytical Date:	05/31/20 11:18		
Analyst:	AD		
Percent Solids:	87%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor		
Volatile Organics by EPA 5035 High - Westborough Lab								
Tetrachloroethene	24000	Е	ug/kg	30	12.	1		
Vinyl chloride	ND		ug/kg	59	20.	1		
trans-1,2-Dichloroethene	ND		ug/kg	89	8.1	1		
Trichloroethene	ND		ug/kg	30	8.1	1		
cis-1,2-Dichloroethene	ND		ug/kg	59	10.	1		
1,2-Dichloroethene, Total	ND		ug/kg	59	8.1	1		

Surrogate	% Recovery	Acceptance Qualifier Criteria	
1,2-Dichloroethane-d4	98	70-130	
Toluene-d8	91	70-130	
4-Bromofluorobenzene	97	70-130	
Dibromofluoromethane	99	70-130	



		Serial_No	0:06012013:14
Project Name:	MINMILT	Lab Number:	L2021318
Project Number:	MIN2002	Report Date:	06/01/20
	SAMPLE RESULTS		
Lab ID: Client ID: Sample Location:	L2021318-06 D DB003 (85-90) 540 SMITH STREET, FARMINGDALE	Date Collected: Date Received: Field Prep:	05/21/20 12:40 05/22/20 Not Specified
Sample Depth:			
Matrix: Analytical Method: Analytical Date: Analyst:	Soil 1,8260C 05/30/20 18:03 MV		

87%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor		
Volatile Organics by EPA 5035 High - Westborough Lab								
Tetrachloroethene	28000		ug/kg	120	46.	4		
Surrogate			% Recovery	Qualifier		eptance riteria		
1,2-Dichloroethane-d4			87		-	70-130		
Toluene-d8			98		-	70-130		
4-Bromofluorobenzene			103		-	70-130		
Dibromofluoromethane			102		-	70-130		



		Serial_No	p:06012013:14
Project Name:	MINMILT	Lab Number:	L2021318
Project Number:	MIN2002	Report Date:	06/01/20
	SAMPLE RESULTS		
Lab ID:	L2021318-07	Date Collected:	05/21/20 13:00
Client ID:	DB003 (90-95)	Date Received:	05/22/20
Sample Location:	540 SMITH STREET, FARMINGDALE	Field Prep:	Not Specified
Sample Depth:			
Matrix:	Soil		
Analytical Method:	1,8260C		
Analytical Date:	05/30/20 14:22		
Analyst:	MV		
Percent Solids:	77%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor			
Volatile Organics by EPA 5035 Low - Westborough Lab									
Tetrachloroethene	57		ug/kg	0.56	0.22	1			
Vinyl chloride	ND		ug/kg	1.1	0.37	1			
trans-1,2-Dichloroethene	ND		ug/kg	1.7	0.15	1			
Trichloroethene	ND		ug/kg	0.56	0.15	1			
cis-1,2-Dichloroethene	ND		ug/kg	1.1	0.20	1			
1,2-Dichloroethene, Total	ND		ug/kg	1.1	0.15	1			

Surrogate	% Recovery	Acceptance Qualifier Criteria	
1,2-Dichloroethane-d4	90	70-130	
Toluene-d8	102	70-130	
4-Bromofluorobenzene	100	70-130	
Dibromofluoromethane	103	70-130	



		Serial_N	o:06012013:14
Project Name:	MINMILT	Lab Number:	L2021318
Project Number:	MIN2002	Report Date:	06/01/20
	SAMPLE RESULTS		
Lab ID: Client ID: Sample Location:	L2021318-08 DB003 (105-110) 540 SMITH STREET, FARMINGDALE	Date Collected: Date Received: Field Prep:	05/21/20 14:35 05/22/20 Not Specified
Sample Depth: Matrix: Analytical Method: Analytical Date: Analyst: Percent Solids:	Soil 1,8260C 05/30/20 14:50 MV 86%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor		
Volatile Organics by EPA 5035 Low - Westborough Lab								
Tetrachloroethene	8.8		ug/kg	0.54	0.21	1		
Vinyl chloride	ND		ug/kg	1.1	0.36	1		
trans-1,2-Dichloroethene	ND		ug/kg	1.6	0.15	1		
Trichloroethene	ND		ug/kg	0.54	0.15	1		
cis-1,2-Dichloroethene	ND		ug/kg	1.1	0.19	1		
1,2-Dichloroethene, Total	ND		ug/kg	1.1	0.15	1		

Surrogate	% Recovery	Acceptance Qualifier Criteria	
1,2-Dichloroethane-d4	89	70-130	
Toluene-d8	103	70-130	
4-Bromofluorobenzene	108	70-130	
Dibromofluoromethane	100	70-130	



		Serial_No:06012013:14			
Project Name:	MINMILT	Lab Number:	L2021318		
Project Number:	MIN2002	Report Date:	06/01/20		
	SAMPLE RESULTS				
Lab ID:	L2021318-09	Date Collected:	05/21/20 15:30		
Client ID:	DB003 (115-120)	Date Received:	05/22/20		
Sample Location:	540 SMITH STREET, FARMINGDALE	Field Prep:	Not Specified		
Sample Depth:					
Matrix:	Soil				
Analytical Method:	1,8260C				
Analytical Date:	05/30/20 18:30				
Analyst:	MV				
Percent Solids:	83%				

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor		
Volatile Organics by EPA 5035 High - Westborough Lab								
Tetrachloroethene	4500		ug/kg	28	11.	1		
Vinyl chloride	ND		ug/kg	57	19.	1		
trans-1,2-Dichloroethene	ND		ug/kg	85	7.8	1		
Trichloroethene	ND		ug/kg	28	7.8	1		
cis-1,2-Dichloroethene	ND		ug/kg	57	9.9	1		
1,2-Dichloroethene, Total	ND		ug/kg	57	7.8	1		

Surrogate	% Recovery	Acceptance Qualifier Criteria	
1,2-Dichloroethane-d4	86	70-130	
Toluene-d8	97	70-130	
4-Bromofluorobenzene	104	70-130	
Dibromofluoromethane	101	70-130	



	Serial_No:06012013: ⁻				
Project Name:	MINMILT	Lab Number:	L2021318		
Project Number:	MIN2002	Report Date:	06/01/20		
	SAMPLE RESULTS				
Lab ID: Client ID: Sample Location:	L2021318-10 DB003 (120-125) 540 SMITH STREET, FARMINGDALE	Date Collected: Date Received: Field Prep:	05/21/20 16:00 05/22/20 Not Specified		
Sample Depth: Matrix: Analytical Method: Analytical Date: Analyst: Percent Solids:	Soil 1,8260C 05/31/20 11:44 AD 81%				

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	
Volatile Organics by EPA 5035 High - Westborough Lab							
Tetrachloroethene	28000	E	ug/kg	33	13.	1	
Vinyl chloride	ND		ug/kg	66	22.	1	
trans-1,2-Dichloroethene	ND		ug/kg	98	9.0	1	
Trichloroethene	17	J	ug/kg	33	9.0	1	
cis-1,2-Dichloroethene	ND		ug/kg	66	11.	1	
1,2-Dichloroethene, Total	ND		ug/kg	66	9.0	1	

Surrogate	% Recovery	cceptance Criteria	
1,2-Dichloroethane-d4	101	70-130	
Toluene-d8	91	70-130	
4-Bromofluorobenzene	97	70-130	
Dibromofluoromethane	100	70-130	



		Serial_N	0:06012013:14
Project Name:	MINMILT	Lab Number:	L2021318
Project Number:	MIN2002	Report Date:	06/01/20
	SAMPLE RESULTS		
Lab ID:	L2021318-10 D	Date Collected:	05/21/20 16:00
Client ID:	DB003 (120-125)	Date Received:	05/22/20
Sample Location:	540 SMITH STREET, FARMINGDALE	Field Prep:	Not Specified
Sample Depth:			
Matrix:	Soil		
Analytical Method:	1,8260C		
Analytical Date:	05/30/20 18:58		
Analyst:	MV		
Percent Solids:	81%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor		
olatile Organics by EPA 5035 High - Westborough Lab								
Tetrachloroethene	30000		ug/kg	66	26.	2		
Surrogate			% Recovery	Qualifier		eptance iteria		
1,2-Dichloroethane-d4			86		7	70-130		
Toluene-d8			101		7	70-130		
4-Bromofluorobenzene			100		7	70-130		
Dibromofluoromethane			99		7	70-130		



		Serial_N	p:06012013:14
Project Name:	MINMILT	Lab Number:	L2021318
Project Number:	MIN2002	Report Date:	06/01/20
	SAMPLE RESULTS		
Lab ID:	L2021318-11	Date Collected:	05/21/20 16:15
Client ID:	DB003 (130-135)	Date Received:	05/22/20
Sample Location:	540 SMITH STREET, FARMINGDALE	Field Prep:	Not Specified
Sample Depth:			
Matrix:	Soil		
Analytical Method:	1,8260C		
Analytical Date:	05/31/20 10:26		
Analyst:	AD		
Percent Solids:	73%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor		
Volatile Organics by EPA 5035 Low - Westborough Lab								
Tetrachloroethene	240		ug/kg	0.51	0.20	1		
Vinyl chloride	ND		ug/kg	1.0	0.34	1		
trans-1,2-Dichloroethene	ND		ug/kg	1.5	0.14	1		
Trichloroethene	0.31	J	ug/kg	0.51	0.14	1		
cis-1,2-Dichloroethene	ND		ug/kg	1.0	0.18	1		
1,2-Dichloroethene, Total	ND		ug/kg	1.0	0.14	1		

Surrogate	% Recovery	Qualifier	Acceptance Criteria	
1,2-Dichloroethane-d4	92		70-130	
Toluene-d8	94		70-130	
4-Bromofluorobenzene	97		70-130	
Dibromofluoromethane	98		70-130	



		Serial_No:06012013:14		
Project Name:	MINMILT	Lab Number:	L2021318	
Project Number:	MIN2002	Report Date:	06/01/20	
	SAMPLE RESULTS			
Lab ID: Client ID: Sample Location:	L2021318-13 DB003 (150-155) 540 SMITH STREET, FARMINGDALE	Date Collected: Date Received: Field Prep:	05/21/20 16:50 05/22/20 Not Specified	
Sample Depth: Matrix: Analytical Method: Analytical Date: Analyst: Percent Solids:	Soil 1,8260C 05/30/20 15:17 MV 80%			

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	
/olatile Organics by EPA 5035 Low - Westborough Lab							
Tetrachloroethene	24		ug/kg	0.58	0.23	1	
Vinyl chloride	ND		ug/kg	1.2	0.39	1	
trans-1,2-Dichloroethene	ND		ug/kg	1.8	0.16	1	
Trichloroethene	ND		ug/kg	0.58	0.16	1	
cis-1,2-Dichloroethene	ND		ug/kg	1.2	0.20	1	
1,2-Dichloroethene, Total	ND		ug/kg	1.2	0.16	1	

Surrogate	% Recovery	Acceptance Qualifier Criteria	
1,2-Dichloroethane-d4	90	70-130	
Toluene-d8	101	70-130	
4-Bromofluorobenzene	103	70-130	
Dibromofluoromethane	101	70-130	



		Serial_No:06012013:14		
Project Name:	MINMILT	Lab Number:	L2021318	
Project Number:	MIN2002	Report Date:	06/01/20	
	SAMPLE RESULTS			
Lab ID: Client ID: Sample Location:	L2021318-15 DB003 (175-180) 540 SMITH STREET, FARMINGDALE	Date Collected: Date Received: Field Prep:	05/21/20 17:30 05/22/20 Not Specified	
Sample Depth: Matrix: Analytical Method: Analytical Date: Analyst: Percent Solids:	Soil 1,8260C 05/30/20 15:45 MV 84%			

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	
Volatile Organics by EPA 5035 Low - Westborough Lab							
Tetrachloroethene	1.5		ug/kg	0.45	0.18	1	
Vinyl chloride	ND		ug/kg	0.90	0.30	1	
trans-1,2-Dichloroethene	ND		ug/kg	1.3	0.12	1	
Trichloroethene	13		ug/kg	0.45	0.12	1	
cis-1,2-Dichloroethene	0.24	J	ug/kg	0.90	0.16	1	
1,2-Dichloroethene, Total	0.24	J	ug/kg	0.90	0.12	1	

Surrogate	% Recovery	Acceptance Qualifier Criteria	
1,2-Dichloroethane-d4	90	70-130	
Toluene-d8	103	70-130	
4-Bromofluorobenzene	101	70-130	
Dibromofluoromethane	103	70-130	



		Serial_No	0:06012013:14
Project Name:	MINMILT	Lab Number:	L2021318
Project Number:	MIN2002	Report Date:	06/01/20
	SAMPLE RESULTS		
Lab ID: Client ID: Sample Location:	L2021318-16 DUP002 540 SMITH STREET, FARMINGDALE	Date Collected: Date Received: Field Prep:	05/21/20 00:00 05/22/20 Not Specified
Sample Depth: Matrix: Analytical Method: Analytical Date: Analyst: Percent Solids:	Soil 1,8260C 05/30/20 16:12 MV 80%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	
Volatile Organics by EPA 5035 Low - Westborough Lab							
Tetrachloroethene	ND		ug/kg	0.58	0.23	1	
Vinyl chloride	ND		ug/kg	1.2	0.39	1	
trans-1,2-Dichloroethene	ND		ug/kg	1.8	0.16	1	
Trichloroethene	ND		ug/kg	0.58	0.16	1	
cis-1,2-Dichloroethene	ND		ug/kg	1.2	0.20	1	
1,2-Dichloroethene, Total	ND		ug/kg	1.2	0.16	1	

Surrogate	% Recovery	Acceptance Qualifier Criteria	
1,2-Dichloroethane-d4	90	70-130	
Toluene-d8	102	70-130	
4-Bromofluorobenzene	102	70-130	
Dibromofluoromethane	104	70-130	



		Serial_No:06012013:14		
Project Name:	MINMILT	Lab Number:	L2021318	
Project Number:	MIN2002	Report Date:	06/01/20	
	SAMPLE RESULTS			
Lab ID:	L2021318-17	Date Collected:	05/21/20 00:00	
Client ID:	DUP003	Date Received:	05/22/20	
Sample Location:	540 SMITH STREET, FARMINGDALE	Field Prep:	Not Specified	
Sample Depth:				
Matrix:	Soil			
Analytical Method:	1,8260C			
Analytical Date:	05/30/20 16:40			
Analyst:	MV			
Percent Solids:	84%			

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	
Volatile Organics by EPA 5035 Low - Westborough Lab							
Tetrachloroethene	1.8		ug/kg	0.52	0.20	1	
Vinyl chloride	ND		ug/kg	1.0	0.35	1	
trans-1,2-Dichloroethene	ND		ug/kg	1.6	0.14	1	
Trichloroethene	19		ug/kg	0.52	0.14	1	
cis-1,2-Dichloroethene	0.29	J	ug/kg	1.0	0.18	1	
1,2-Dichloroethene, Total	0.29	J	ug/kg	1.0	0.14	1	

Surrogate	% Recovery	Acceptance Qualifier Criteria	
1,2-Dichloroethane-d4	93	70-130	
Toluene-d8	102	70-130	
4-Bromofluorobenzene	106	70-130	
Dibromofluoromethane	102	70-130	



		Serial_No:06012013:14		
Project Name:	MINMILT	Lab Number:	L2021318	
Project Number:	MIN2002	Report Date:	06/01/20	
	SAMPLE RESULTS			
Lab ID:	L2021318-18	Date Collected:	05/21/20 09:00	
Client ID:	EB004	Date Received:	05/22/20	
Sample Location:	540 SMITH STREET, FARMINGDALE	Field Prep:	Not Specified	
Sample Depth:				
Matrix:	Equipment Blank			
Analytical Method:	1,8260C			
Analytical Date:	05/28/20 15:38			
Analyst:	AJK			

Parameter	Result	Result Qualifier Units RL MDL Dilution		Dilution Factor			
Volatile Organics by GC/MS - Westborough Lab							
Tetrachloroethene	ND		ug/l	0.50	0.18	1	
Vinyl chloride	ND		ug/l	1.0	0.07	1	
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1	
Trichloroethene	ND		ug/l	0.50	0.18	1	
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1	
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1	

Surrogate	% Recovery	Acceptance Qualifier Criteria	
1,2-Dichloroethane-d4	116	70-130	
Toluene-d8	94	70-130	
4-Bromofluorobenzene	92	70-130	
Dibromofluoromethane	118	70-130	



		Serial_No	p:06012013:14
Project Name:	MINMILT	Lab Number:	L2021318
Project Number:	MIN2002	Report Date:	06/01/20
	SAMPLE RESULTS		
Lab ID:	L2021318-19	Date Collected:	05/21/20 00:00
Client ID:	TB004	Date Received:	05/22/20
Sample Location:	540 SMITH STREET, FARMINGDALE	Field Prep:	Not Specified
Sample Depth:			
Matrix:	Trip Blank (Aqueous)		
Analytical Method:	1,8260C		
Analytical Date:	05/28/20 16:00		
Analyst:	AJK		

Parameter	Result	Result Qualifier Units RL MDL Dilution		Dilution Factor			
Volatile Organics by GC/MS - Westborough Lab							
Tetrachloroethene	ND		ug/l	0.50	0.18	1	
Vinyl chloride	ND		ug/l	1.0	0.07	1	
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1	
Trichloroethene	ND		ug/l	0.50	0.18	1	
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1	
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1	

Surrogate	% Recovery	Acceptance Qualifier Criteria	
1,2-Dichloroethane-d4	117	70-130	
Toluene-d8	94	70-130	
4-Bromofluorobenzene	93	70-130	
Dibromofluoromethane	124	70-130	



Project Name: MINMILT Project Number: MIN2002

Method Blank Analysis Batch Quality Control

Analytical Method:1,8260CAnalytical Date:05/28/20 08:21Analyst:PD

Parameter	Result	Qualifier Units	s RL	MDL	
olatile Organics by GC/MS - West	orough Lab f	or sample(s):	18-19 Batch:	WG1375197-5	
Tetrachloroethene	ND	ug/l	0.50	0.18	
Vinyl chloride	ND	ug/l	1.0	0.07	
trans-1,2-Dichloroethene	ND	ug/l	2.5	0.70	
Trichloroethene	ND	ug/l	0.50	0.18	
cis-1,2-Dichloroethene	ND	ug/l	2.5	0.70	
1,2-Dichloroethene, Total	ND	ug/l	2.5	0.70	

		Α			
Surrogate	%Recovery	Qualifier	Criteria		
	107		70.400		
1,2-Dichloroethane-d4	107		70-130		
Toluene-d8	97		70-130		
4-Bromofluorobenzene	96		70-130		
Dibromofluoromethane	112		70-130		



Project Name: MINMILT

Project Number: MIN2002

Method Blank Analysis Batch Quality Control

Analytical Method:	1,8260C
Analytical Date:	05/30/20 12:59
Analyst:	MKS

Parameter	Result	Qualifier	Units	RL	MDL	
Volatile Organics by EPA 5035 Low WG1376189-5	- Westboro	ugh Lab fo	r sample(s):	01,03,07-08	,13,15-17	Batch:
Tetrachloroethene	ND		ug/kg	0.50	0.20	
Vinyl chloride	ND		ug/kg	1.0	0.34	
trans-1,2-Dichloroethene	ND		ug/kg	1.5	0.14	
Trichloroethene	ND		ug/kg	0.50	0.14	
cis-1,2-Dichloroethene	ND		ug/kg	1.0	0.18	
1,2-Dichloroethene, Total	ND		ug/kg	1.0	0.14	

		Acceptanc			
Surrogate	%Recovery	Qualifier Cri	iteria		
1.2-Dichloroethane-d4	84	70-	130		
Toluene-d8	101	-	130		
4-Bromofluorobenzene	97	-	130		
Dibromofluoromethane	99	70-	130		



Project Name: MINMILT

Project Number: MIN2002

Method Blank Analysis Batch Quality Control

Analytical Method:1,8260CAnalytical Date:05/30/20 12:59Analyst:MKS

Parameter	Result	Qualifier	Units	RL	MDL	
Volatile Organics by EPA 5035 High 5	- Westbord	ough Lab fo	or sample(s):	05-06,09-10	Batch:	WG1376190-
Tetrachloroethene	ND		ug/kg	25	9.8	
Vinyl chloride	ND		ug/kg	50	17.	
trans-1,2-Dichloroethene	ND		ug/kg	75	6.8	
Trichloroethene	ND		ug/kg	25	6.8	
cis-1,2-Dichloroethene	ND		ug/kg	50	8.8	
1,2-Dichloroethene, Total	ND		ug/kg	50	6.8	

		Acceptance			
Surrogate	%Recovery	Qualifier	Criteria		
1.2-Dichloroethane-d4	84		70-130		
Toluene-d8	101		70-130		
4-Bromofluorobenzene	97		70-130		
Dibromofluoromethane	99		70-130		



Project Name: MINMILT Project Number: MIN2002

Method Blank Analysis Batch Quality Control

Analytical Method:1,8260CAnalytical Date:05/31/20 10:00Analyst:AD

Parameter	Result	Qualifier	Units	RL		MDL
olatile Organics by EPA 5035 Low	- Westbord	ough Lab fo	r sample(s):	11	Batch:	WG1376312-5
Tetrachloroethene	ND		ug/kg	0.50		0.20
Vinyl chloride	ND		ug/kg	1.0		0.34
trans-1,2-Dichloroethene	ND		ug/kg	1.5		0.14
Trichloroethene	ND		ug/kg	0.50		0.14
cis-1,2-Dichloroethene	ND		ug/kg	1.0		0.18
1,2-Dichloroethene, Total	ND		ug/kg	1.0		0.14

			Acceptance			
Surrogate	%Recovery	Qualifier	Criteria			
1,2-Dichloroethane-d4	97		70-130			
Toluene-d8	94		70-130			
4-Bromofluorobenzene	96		70-130			
Dibromofluoromethane	99		70-130			



Project Name: MINMILT Project Number: MIN2002

Method Blank Analysis Batch Quality Control

Analytical Method:1,8260CAnalytical Date:05/31/20 10:00Analyst:AD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by EPA 5035 High	- Westbord	ough Lab fo	or sample(s):	06,10	Batch: WG1376313-5
Tetrachloroethene	ND		ug/kg	25	9.8
Vinyl chloride	ND		ug/kg	50	17.
trans-1,2-Dichloroethene	ND		ug/kg	75	6.8
Trichloroethene	ND		ug/kg	25	6.8
cis-1,2-Dichloroethene	ND		ug/kg	50	8.8
1,2-Dichloroethene, Total	ND		ug/kg	50	6.8

	Accepta					
Surrogate	%Recovery	Qualifier	Criteria			
1,2-Dichloroethane-d4	97		70-130			
Toluene-d8	94		70-130			
4-Bromofluorobenzene	96		70-130			
Dibromofluoromethane	99		70-130			



Lab Control Sample Analysis Batch Quality Control

Project Name:MINMILTProject Number:MIN2002

Lab Number: L2021318

Report Date: 06/01/20

	LCS		LCSD		%Recovery			RPD	
Parameter	%Recovery	Qual	%Recovery	' Qual	Limits	RPD	Qual	Limits	
Volatile Organics by GC/MS - Westborough La	ab Associated	sample(s):	18-19 Batch:	WG1375197-3	WG1375197-4				
Tetrachloroethene	91		92		70-130	1		20	
Vinyl chloride	100		100		55-140	0		20	
trans-1,2-Dichloroethene	100		100		70-130	0		20	
Trichloroethene	110		110		70-130	0		20	
cis-1,2-Dichloroethene	110		110		70-130	0		20	

	LCS	LCSD	Acceptance
Surrogate	%Recovery Qu	al %Recovery Qual	Criteria
1,2-Dichloroethane-d4	100	100	70-130
Toluene-d8	95	98	70-130
4-Bromofluorobenzene	96	96	70-130
Dibromofluoromethane	102	104	70-130



Lab Control Sample Analysis

Batch Quality Control

Project Name:MINMILTProject Number:MIN2002

Lab Number: L2021318 Report Date: 06/01/20

LCS LCSD RPD %Recovery %Recovery %Recovery Parameter Qual Qual Limits RPD Qual Limits Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 01,03,07-08,13,15-17 Batch: WG1376189-3 WG1376189-4 114 Tetrachloroethene 117 70-130 3 30 81 78 Vinyl chloride 67-130 30 4 trans-1,2-Dichloroethene 114 112 70-130 2 30 Trichloroethene 108 108 70-130 0 30 cis-1,2-Dichloroethene 98 99 70-130 30 1

	LCS	LCSD	Acceptance
Surrogate	%Recovery Qua	I %Recovery Qual	Criteria
1,2-Dichloroethane-d4	79	80	70-130
Toluene-d8	107	105	70-130
4-Bromofluorobenzene	97	96	70-130
Dibromofluoromethane	97	97	70-130



Lab Control Sample Analysis Batch Quality Control

Project Name: MINMILT Project Number: MIN2002 Lab Number: L2021318 Report Date: 06/01/20

	LCS		LCSD		%Recovery			RPD
Parameter	%Recovery	Qual %	Recovery	Qual	Limits	RPD	Qual	Limits
/olatile Organics by EPA 5035 High - Westb	orough Lab Ass	ociated sample(s):	: 05-06,09-10	Batch:	WG1376190-3	WG1376190-4		
Tetrachloroethene	117		114		70-130	3		30
Vinyl chloride	81		78		67-130	4		30
trans-1,2-Dichloroethene	114		112		70-130	2		30
Trichloroethene	108		108		70-130	0		30
cis-1,2-Dichloroethene	98		99		70-130	1		30

	LCS	LCSD	Acceptance
Surrogate	%Recovery Qua	I %Recovery Qual	Criteria
1,2-Dichloroethane-d4	80	80	70-130
Toluene-d8	107	105	70-130
4-Bromofluorobenzene	97	96	70-130
Dibromofluoromethane	97	97	70-130



Lab Control Sample Analysis Batch Quality Control

Project Name: MINMILT Project Number: MIN2002 Lab Number: L2021318 Report Date: 06/01/20

	LCS		LCSD		%Recovery			RPD
Parameter	%Recovery	Qual	%Recovery	Qual	Limits	RPD	Qual	Limits
Volatile Organics by EPA 5035 Low - Westb	orough Lab Asso	ciated sample	e(s): 11 Batch:	WG1376	312-3 WG137631	2-4		
Tetrachloroethene	119		112		70-130	6		30
Vinyl chloride	103		92		67-130	11		30
trans-1,2-Dichloroethene	118		110		70-130	7		30
Trichloroethene	117		111		70-130	5		30
cis-1,2-Dichloroethene	117		110		70-130	6		30

	LCS	LCSD	Acceptance
Surrogate	%Recovery Qua	l %Recovery Qual	Criteria
1,2-Dichloroethane-d4	98	97	70-130
Toluene-d8	97	96	70-130
4-Bromofluorobenzene	98	99	70-130
Dibromofluoromethane	106	104	70-130



Lab Control Sample Analysis

Batch Quality Control

 Lab Number:
 L2021318

 Report Date:
 06/01/20

Project Name:MINMILTProject Number:MIN2002

LCS LCSD RPD %Recovery %Recovery %Recovery Parameter Qual Qual Limits RPD Qual Limits Volatile Organics by EPA 5035 High - Westborough Lab Associated sample(s): 06,10 Batch: WG1376313-3 WG1376313-4 112 Tetrachloroethene 119 70-130 6 30 103 92 11 Vinyl chloride 67-130 30 trans-1,2-Dichloroethene 118 110 70-130 7 30 Trichloroethene 117 111 70-130 5 30 cis-1,2-Dichloroethene 117 110 70-130 6 30

	LCS	LCSD	Acceptance
Surrogate	%Recovery Qu	ual %Recovery Qual	Criteria
1,2-Dichloroethane-d4	98	97	70-130
Toluene-d8	97	96	70-130
4-Bromofluorobenzene	98	99	70-130
Dibromofluoromethane	106	104	70-130



Matrix Spike Analysis

Project Name:	MINMILT	Batch Quality Control	Lab Number:	L2021318
r roject Name.				L2021310
Project Number:	MIN2002		Report Date:	06/01/20

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Qual Found	MSD %Recovery	Recovery Qual Limits	RPD	Qual	RPD Limits
Volatile Organics by EPA 5 L2021318-15 Client ID: I	6035 Low - Westb DB003 (175-180)	•	Associated s	sample(s): 01,0	3,07-08,13,15-17	QC Batch ID:	WG1376189-6 WG1	37618	9-7 QC	Sample:
Tetrachloroethene	1.5	96	91	93	140	117	70-130	44	Q	30
Vinyl chloride	ND	96	76	79	100	86	67-130	31	Q	30
trans-1,2-Dichloroethene	ND	96	100	106	150	120	70-130	35	Q	30
Trichloroethene	13	96	110	99	170	128	70-130	43	Q	30
cis-1,2-Dichloroethene	0.24J	96	86	89	130	104	70-130	38	Q	30

	MS	MSD	Acceptance
Surrogate	% Recovery Qualifier	% Recovery Qualifier	Criteria
1,2-Dichloroethane-d4	85	85	70-130
4-Bromofluorobenzene	95	96	70-130
Dibromofluoromethane	99	100	70-130
Toluene-d8	102	103	70-130



Matrix Spike Analysis

Project Name:	MINMILT	Batch Quality Control	Lab Number:	L2021318
Project Number:	MIN2002		Report Date:	06/01/20

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery		Recovery Limits	RPD	RPD Qual Limits
Volatile Organics by EPA 5 Client ID: DB003 (80-85)	035 High - West	borough Lab	Associated	sample(s): 05-0	06,09-10	QC Batch	n ID: WG13761	90-6 V	/G1376190-	7 QC	Sample: L2021318-05
Tetrachloroethene	6500	6200	13000	103		14000	119		70-130	7	30
Vinyl chloride	ND	6200	4800	77		5300	86		67-130	11	30
trans-1,2-Dichloroethene	ND	6200	7300	118		8300	134	Q	70-130	13	30
Trichloroethene	ND	6200	6900	111		7800	126		70-130	12	30
cis-1,2-Dichloroethene	ND	6200	6600	106		7300	117		70-130	10	30

	MS	MSD	Acceptance
Surrogate	% Recovery Qualifier	% Recovery Qualifier	Criteria
1,2-Dichloroethane-d4	81	83	70-130
4-Bromofluorobenzene	95	96	70-130
Dibromofluoromethane	96	98	70-130
Toluene-d8	103	102	70-130



INORGANICS & MISCELLANEOUS



								Serial_No:06	012013:14	
Project Name:	MINMILT						Lab N	lumber:	L2021318	
Project Number:	MIN2002						Repo	rt Date:	06/01/20	
				SAMPLE I	RESUL	ГS				
Lab ID:	L2021318-0	1					Date (Collected:	05/21/20 11:15	
Client ID:	DB003 (55-6	60)					Date I	Received:	05/22/20	
Sample Location:	540 SMITH	STREET,	FARMI	NGDALE			Field	Prep:	Not Specified	
Sample Depth:										
Matrix:	Soil									
Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
eneral Chemistry - Wes	stborough Lat)								
olids, Total	83.2		%	0.100	NA	1	-	05/23/20 08:5	5 121,2540G	RI



								Serial_No:06	012013:14	
Project Name:	MINMILT						Lab N	lumber:	L2021318	
Project Number:	MIN2002						Repo	rt Date:	06/01/20	
				SAMPLE	RESUL	TS				
Lab ID:	L2021318-0	3					Date (Collected:	05/21/20 11:40	
Client ID:	DB003 (70-7	75)					Date I	Received:	05/22/20	
Sample Location:	540 SMITH	STREET,	FARMI	NGDALE			Field	Prep:	Not Specified	
Sample Depth: Matrix:	Soil									
Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analys
eneral Chemistry - We	stborough Lat)								
olids, Total	84.1		%	0.100	NA	1	-	05/23/20 08:5	5 121,2540G	RI



								Serial_No:06	012013:14	
Project Name:	MINMILT						Lab N	lumber:	L2021318	
Project Number:	MIN2002						Repo	rt Date:	06/01/20	
				SAMPLE I	RESUL	TS				
Lab ID:	L2021318-0	5					Date (Collected:	05/21/20 12:30	I
Client ID:	DB003 (80-8	35)					Date I	Received:	05/22/20	
Sample Location:	540 SMITH	STREET,	FARMI	NGDALE			Field	Prep:	Not Specified	
Sample Depth:										
Matrix:	Soil									
Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - We	stborough Lab)								
Solids, Total	81.5		%	0.100	NA	1	-	05/23/20 08:5	5 121,2540G	RI



								Serial_No:06	012013:14	
Project Name:	MINMILT						Lab N	lumber:	L2021318	
Project Number:	MIN2002						Repo	rt Date:	06/01/20	
				SAMPLE I	RESUL	TS				
Lab ID:	L2021318-0	6					Date (Collected:	05/21/20 12:40	J
Client ID:	DB003 (85-9	90)					Date I	Received:	05/22/20	
Sample Location:	540 SMITH	STREET,	FARMI	NGDALE			Field	Prep:	Not Specified	
Sample Depth:										
Matrix:	Soil									
Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
eneral Chemistry - We	stborough Lat)								
olids, Total	87.0		%	0.100	NA	1	-	05/23/20 08:5	5 121,2540G	RI



								Serial_No:06	012013:14	
Project Name:	MINMILT						Lab N	lumber:	L2021318	
Project Number:	MIN2002						Repo	rt Date:	06/01/20	
				SAMPLE I	RESUL	TS				
Lab ID:	L2021318-0	7					Date (Collected:	05/21/20 13:00)
Client ID:	DB003 (90-9	95)					Date I	Received:	05/22/20	
Sample Location:	540 SMITH	STREET,	FARMI	NGDALE			Field	Prep:	Not Specified	
Sample Depth:										
Matrix:	Soil									
Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Wes	stborough Lab)								
Solids, Total	76.8		%	0.100	NA	1	-	05/23/20 08:5	5 121,2540G	RI



								Serial_No:06	012013:14	
Project Name:	MINMILT						Lab N	lumber:	L2021318	
Project Number:	MIN2002						Repo	rt Date:	06/01/20	
				SAMPLE I	RESUL	TS				
Lab ID:	L2021318-0	8					Date (Collected:	05/21/20 14:35	
Client ID:	DB003 (105	-110)					Date I	Received:	05/22/20	
Sample Location:	540 SMITH	STREET,	FARMI	NGDALE			Field	Prep:	Not Specified	
Sample Depth:										
Matrix:	Soil									
Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
eneral Chemistry - We	stborough Lat)								
olids, Total	85.7		%	0.100	NA	1	-	05/23/20 08:5	5 121,2540G	RI



								Serial_No:06	012013:14	
Project Name:	MINMILT						Lab N	lumber:	L2021318	
Project Number:	MIN2002						Repo	rt Date:	06/01/20	
				SAMPLE I	RESUL	TS				
Lab ID:	L2021318-0)9					Date	Collected:	05/21/20 15:30)
Client ID:	DB003 (115	5-120)					Date	Received:	05/22/20	
Sample Location:	540 SMITH	STREET,	FARMI	NGDALE			Field	Prep:	Not Specified	
Sample Depth: Matrix:	Soil									
Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
eneral Chemistry - We	estborough Lal	b								
olids, Total	82.7		%	0.100	NA	1	-	05/23/20 08:5	5 121,2540G	RI



								Serial_No:06	012013:14	
Project Name:	MINMILT						Lab N	lumber:	L2021318	
Project Number:	MIN2002						Repo	rt Date:	06/01/20	
				SAMPLE	RESUL	TS				
Lab ID:	L2021318-1	0					Date (Collected:	05/21/20 16:00)
Client ID:	DB003 (120	-125)					Date I	Received:	05/22/20	
Sample Location:	540 SMITH	STREET,	FARMI	NGDALE			Field	Prep:	Not Specified	
Sample Depth: Matrix:	Soil									
Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analys
eneral Chemistry - We	stborough Lat	D								
olids, Total	80.7		%	0.100	NA	1	-	05/23/20 08:5	5 121,2540G	RI



								Serial_No:06	012013:14	
Project Name:	MINMILT						Lab N	lumber:	L2021318	
Project Number:	MIN2002						Repo	rt Date:	06/01/20	
				SAMPLE I	RESUL	TS				
Lab ID:	L2021318-1	1					Date (Collected:	05/21/20 16:15	
Client ID:	DB003 (130	-135)					Date I	Received:	05/22/20	
Sample Location:	540 SMITH	STREET,	FARMI	NGDALE			Field	Prep:	Not Specified	
Sample Depth:										
Matrix:	Soil									
Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
eneral Chemistry - We	stborough Lat)								
olids, Total	72.7		%	0.100	NA	1	-	05/23/20 08:5	5 121,2540G	RI



								Serial_No:06	012013:14	
Project Name:	MINMILT						Lab N	lumber:	L2021318	
Project Number:	MIN2002						Repo	rt Date:	06/01/20	
				SAMPLE I	RESUL	TS				
Lab ID:	L2021318-1	3					Date	Collected:	05/21/20 16:50)
Client ID:	DB003 (150	-155)					Date	Received:	05/22/20	
Sample Location:	540 SMITH	STREET,	FARMI	NGDALE			Field	Prep:	Not Specified	
Sample Depth: Matrix:	Soil									
Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
eneral Chemistry - We	stborough Lat))								
olids, Total	79.8		%	0.100	NA	1	-	05/23/20 08:5	5 121,2540G	RI



								Serial_No:06	012013:14	
Project Name:	MINMILT						Lab N	lumber:	L2021318	
Project Number:	MIN2002						Repo	rt Date:	06/01/20	
				SAMPLE	RESUL	TS				
Lab ID:	L2021318-1	5					Date	Collected:	05/21/20 17:30)
Client ID:	DB003 (175	-180)					Date	Received:	05/22/20	
Sample Location:	540 SMITH	STREET,	FARMI	NGDALE			Field	Prep:	Not Specified	
Sample Depth: Matrix:	Soil									
Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analys
eneral Chemistry - We	estborough Lat	D								
olids, Total	83.5		%	0.100	NA	1	-	05/23/20 08:5	5 121,2540G	RI



								Serial_No:06	012013:14	
Project Name:	MINMILT						Lab N	lumber:	L2021318	
Project Number:	MIN2002						Repo	rt Date:	06/01/20	
				SAMPLE I	RESUL	TS				
Lab ID:	L2021318-1	6					Date (Collected:	05/21/20 00:00	
Client ID:	DUP002						Date I	Received:	05/22/20	
Sample Location:	540 SMITH	STREET,	FARMI	NGDALE			Field I	Prep:	Not Specified	
Sample Depth:										
Matrix:	Soil									
Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Wes	stborough Lab)								
Solids, Total	79.6		%	0.100	NA	1	-	05/23/20 08:5	5 121,2540G	RI



							:	Serial_No:06	012013:14	
Project Name:	MINMILT						Lab N	lumber:	L2021318	
Project Number:	MIN2002						Repo	rt Date:	06/01/20	
				SAMPLE I	RESUL	TS				
Lab ID:	L2021318-1	7					Date (Collected:	05/21/20 00:00	
Client ID:	DUP003						Date F	Received:	05/22/20	
Sample Location:	540 SMITH	STREET,	FARMI	NGDALE			Field I	Prep:	Not Specified	
Sample Depth:										
Matrix:	Soil									
Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Wes	stborough Lab)								
Solids, Total	84.4		%	0.100	NA	1	-	05/23/20 08:5	5 121,2540G	RI



Project Name: Project Number:	MINMILT MIN2002		Duplicate Anal Batch Quality Contro			b Number: eport Date:	L2021318 06/01/20
Parameter		Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - We DB003 (80-85)	stborough Lab	Associated sample(s): 01,03,05-11,13,15-	17 QC Batch ID: W	G1373939-1	QC Sample	: L2021318	-05 Client ID:
Solids, Total		81.5	81.4	%	0		20



Project Name:MINMILTProject Number:MIN2002

Serial_No:06012013:14 *Lab Number:* L2021318 *Report Date:* 06/01/20

Sample Receipt and Container Information

Were project specific reporting limits specified?

YES

Cooler Information

Cooler	Custody Seal
A	Absent

Container Info	Container Information			Final	Temp			Frozen	
Container ID	Container Type	Cooler	Initial pH	pН	deg C	Pres	Seal	Date/Time	Analysis(*)
L2021318-01A	Vial MeOH preserved	А	NA		2.7	Y	Absent		NYTCL-8260HLW(14)
L2021318-01B	Vial water preserved	А	NA		2.7	Y	Absent	23-MAY-20 01:57	NYTCL-8260HLW(14)
L2021318-01C	Vial water preserved	А	NA		2.7	Y	Absent	23-MAY-20 01:57	NYTCL-8260HLW(14)
L2021318-01D	Plastic 2oz unpreserved for TS	А	NA		2.7	Y	Absent		TS(7)
L2021318-02A	Vial MeOH preserved	А	NA		2.7	Y	Absent		HOLD-8260HLW(14)
L2021318-02B	Vial water preserved	А	NA		2.7	Y	Absent	23-MAY-20 01:57	HOLD-8260HLW(14)
L2021318-02C	Vial water preserved	А	NA		2.7	Y	Absent	23-MAY-20 01:57	HOLD-8260HLW(14)
L2021318-02D	Plastic 2oz unpreserved for TS	А	NA		2.7	Y	Absent		HOLD-WETCHEM()
L2021318-03A	Vial MeOH preserved	А	NA		2.7	Y	Absent		NYTCL-8260HLW(14)
L2021318-03B	Vial water preserved	А	NA		2.7	Y	Absent	23-MAY-20 01:57	NYTCL-8260HLW(14)
L2021318-03C	Vial water preserved	А	NA		2.7	Y	Absent	23-MAY-20 01:57	NYTCL-8260HLW(14)
L2021318-03D	Plastic 2oz unpreserved for TS	А	NA		2.7	Y	Absent		TS(7)
L2021318-04A	Vial MeOH preserved	А	NA		2.7	Y	Absent		HOLD-8260HLW(14)
L2021318-04B	Vial water preserved	А	NA		2.7	Y	Absent	23-MAY-20 01:57	HOLD-8260HLW(14)
L2021318-04C	Vial water preserved	А	NA		2.7	Y	Absent	23-MAY-20 01:57	HOLD-8260HLW(14)
L2021318-04D	Plastic 2oz unpreserved for TS	А	NA		2.7	Y	Absent		HOLD-WETCHEM()
L2021318-05A	Vial MeOH preserved	А	NA		2.7	Y	Absent		NYTCL-8260HLW(14)
L2021318-05A1	Vial MeOH preserved	А	NA		2.7	Y	Absent		NYTCL-8260HLW(14)
L2021318-05A2	Vial MeOH preserved	А	NA		2.7	Y	Absent		NYTCL-8260HLW(14)
L2021318-05B	Vial water preserved	А	NA		2.7	Y	Absent	23-MAY-20 01:57	NYTCL-8260HLW(14)
L2021318-05B1	Vial water preserved	А	NA		2.7	Y	Absent	23-MAY-20 01:57	NYTCL-8260HLW(14)
L2021318-05B2	Vial water preserved	А	NA		2.7	Y	Absent	23-MAY-20 01:57	NYTCL-8260HLW(14)
L2021318-05C	Vial water preserved	А	NA		2.7	Y	Absent	23-MAY-20 01:57	NYTCL-8260HLW(14)



Project Name: MINMILT Project Number: MIN2002

Serial_No:06012013:14 *Lab Number:* L2021318 *Report Date:* 06/01/20

Container Info	Container Information		Initial	Final	Temp			Frozen	
Container ID	Container Type	Cooler	рН	рН		Pres	Seal	Date/Time	Analysis(*)
L2021318-05C1	Vial water preserved	A	NA		2.7	Y	Absent	23-MAY-20 01:57	NYTCL-8260HLW(14)
L2021318-05C2	Vial water preserved	А	NA		2.7	Y	Absent	23-MAY-20 01:57	NYTCL-8260HLW(14)
L2021318-05D	Plastic 2oz unpreserved for TS	А	NA		2.7	Y	Absent		TS(7)
L2021318-05D1	Plastic 2oz unpreserved for TS	А	NA		2.7	Y	Absent		TS(7)
L2021318-05D2	Plastic 2oz unpreserved for TS	А	NA		2.7	Y	Absent		TS(7)
L2021318-06A	Vial MeOH preserved	А	NA		2.7	Y	Absent		NYTCL-8260HLW(14)
L2021318-06B	Vial water preserved	А	NA		2.7	Y	Absent	23-MAY-20 01:57	NYTCL-8260HLW(14)
L2021318-06C	Vial water preserved	А	NA		2.7	Υ	Absent	23-MAY-20 01:57	NYTCL-8260HLW(14)
L2021318-06D	Plastic 2oz unpreserved for TS	А	NA		2.7	Y	Absent		TS(7)
L2021318-07A	Vial MeOH preserved	А	NA		2.7	Y	Absent		NYTCL-8260HLW(14)
L2021318-07B	Vial water preserved	А	NA		2.7	Υ	Absent	23-MAY-20 01:57	NYTCL-8260HLW(14)
L2021318-07C	Vial water preserved	А	NA		2.7	Υ	Absent	23-MAY-20 01:57	NYTCL-8260HLW(14)
L2021318-07D	Plastic 2oz unpreserved for TS	А	NA		2.7	Y	Absent		TS(7)
L2021318-08A	Vial MeOH preserved	А	NA		2.7	Υ	Absent		NYTCL-8260HLW(14)
L2021318-08B	Vial water preserved	А	NA		2.7	Y	Absent	23-MAY-20 01:57	NYTCL-8260HLW(14)
L2021318-08C	Vial water preserved	А	NA		2.7	Y	Absent	23-MAY-20 01:57	NYTCL-8260HLW(14)
L2021318-08D	Plastic 2oz unpreserved for TS	А	NA		2.7	Y	Absent		TS(7)
L2021318-09A	Vial MeOH preserved	А	NA		2.7	Y	Absent		NYTCL-8260HLW(14)
L2021318-09B	Vial water preserved	А	NA		2.7	Y	Absent	23-MAY-20 01:57	NYTCL-8260HLW(14)
L2021318-09C	Vial water preserved	А	NA		2.7	Y	Absent	23-MAY-20 01:57	NYTCL-8260HLW(14)
L2021318-09D	Plastic 2oz unpreserved for TS	А	NA		2.7	Y	Absent		TS(7)
L2021318-10A	Vial MeOH preserved	А	NA		2.7	Y	Absent		NYTCL-8260HLW(14)
L2021318-10B	Vial water preserved	А	NA		2.7	Y	Absent	23-MAY-20 01:57	NYTCL-8260HLW(14)
L2021318-10C	Vial water preserved	А	NA		2.7	Y	Absent	23-MAY-20 01:57	NYTCL-8260HLW(14)
L2021318-10D	Plastic 2oz unpreserved for TS	А	NA		2.7	Y	Absent		TS(7)
L2021318-11A	Vial MeOH preserved	А	NA		2.7	Y	Absent		NYTCL-8260HLW(14)
L2021318-11B	Vial water preserved	А	NA		2.7	Y	Absent	23-MAY-20 01:57	NYTCL-8260HLW(14)
L2021318-11C	Vial water preserved	А	NA		2.7	Y	Absent	23-MAY-20 01:57	NYTCL-8260HLW(14)



Project Name: MINMILT Project Number: MIN2002

Container Information			Initial	Final	Temp			Frozen	
Container ID	Container Type	Cooler	рН	pН		Pres	Seal	Date/Time	Analysis(*)
L2021318-11D	Plastic 2oz unpreserved for TS	А	NA		2.7	Y	Absent		TS(7)
L2021318-12A	Vial MeOH preserved	А	NA		2.7	Y	Absent		HOLD-8260HLW(14)
L2021318-12B	Vial water preserved	А	NA		2.7	Y	Absent	23-MAY-20 01:57	HOLD-8260HLW(14)
L2021318-12C	Vial water preserved	А	NA		2.7	Y	Absent	23-MAY-20 01:57	HOLD-8260HLW(14)
L2021318-12D	Plastic 2oz unpreserved for TS	А	NA		2.7	Y	Absent		HOLD-WETCHEM()
L2021318-13A	Vial MeOH preserved	А	NA		2.7	Y	Absent		NYTCL-8260HLW(14)
L2021318-13B	Vial water preserved	А	NA		2.7	Y	Absent	23-MAY-20 01:57	NYTCL-8260HLW(14)
L2021318-13C	Vial water preserved	А	NA		2.7	Y	Absent	23-MAY-20 01:57	NYTCL-8260HLW(14)
L2021318-13D	Plastic 2oz unpreserved for TS	А	NA		2.7	Y	Absent		TS(7)
L2021318-14A	Vial MeOH preserved	А	NA		2.7	Y	Absent		HOLD-8260HLW(14)
L2021318-14B	Vial water preserved	А	NA		2.7	Y	Absent	23-MAY-20 01:57	HOLD-8260HLW(14)
L2021318-14C	Vial water preserved	А	NA		2.7	Y	Absent	23-MAY-20 01:57	HOLD-8260HLW(14)
L2021318-14D	Plastic 2oz unpreserved for TS	А	NA		2.7	Y	Absent		HOLD-WETCHEM()
L2021318-15A	Vial MeOH preserved	А	NA		2.7	Y	Absent		NYTCL-8260HLW(14)
L2021318-15A1	Vial MeOH preserved	А	NA		2.7	Y	Absent		NYTCL-8260HLW(14)
L2021318-15A2	Vial MeOH preserved	А	NA		2.7	Y	Absent		NYTCL-8260HLW(14)
L2021318-15B	Vial water preserved	А	NA		2.7	Y	Absent	23-MAY-20 01:57	NYTCL-8260HLW(14)
L2021318-15B1	Vial water preserved	А	NA		2.7	Y	Absent	23-MAY-20 01:57	NYTCL-8260HLW(14)
L2021318-15B2	Vial water preserved	А	NA		2.7	Y	Absent	23-MAY-20 01:57	NYTCL-8260HLW(14)
L2021318-15C	Vial water preserved	А	NA		2.7	Y	Absent	23-MAY-20 01:57	NYTCL-8260HLW(14)
L2021318-15C1	Vial water preserved	А	NA		2.7	Y	Absent	23-MAY-20 01:57	NYTCL-8260HLW(14)
L2021318-15C2	Vial water preserved	А	NA		2.7	Y	Absent	23-MAY-20 01:57	NYTCL-8260HLW(14)
L2021318-15D	Plastic 2oz unpreserved for TS	А	NA		2.7	Y	Absent		TS(7)
L2021318-15D1	Plastic 2oz unpreserved for TS	А	NA		2.7	Y	Absent		TS(7)
L2021318-15D2	Plastic 2oz unpreserved for TS	А	NA		2.7	Y	Absent		TS(7)
L2021318-16A	Vial MeOH preserved	А	NA		2.7	Y	Absent		NYTCL-8260HLW(14)
L2021318-16B	Vial water preserved	А	NA		2.7	Y	Absent	22-MAY-20 23:45	NYTCL-8260HLW(14)
L2021318-16C	Vial water preserved	А	NA		2.7	Y	Absent	22-MAY-20 23:45	NYTCL-8260HLW(14)



Project Name: MINMILT Project Number: MIN2002

Serial_No:06012013:14 *Lab Number:* L2021318 *Report Date:* 06/01/20

Container Info	rmation		Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time		
Container ID	Container Type	Cooler							Analysis(*)	
L2021318-16D	Plastic 2oz unpreserved for TS	А	NA		2.7	Y	Absent		TS(7)	
L2021318-17A	Vial MeOH preserved	А	NA		2.7	Y	Absent		NYTCL-8260HLW(14)	
L2021318-17A1	Vial MeOH preserved split	А	NA		2.7	Y	Absent		NYTCL-8260HLW(14)	
L2021318-17B	Vial water preserved	А	NA		2.7	Y	Absent	22-MAY-20 23:45	NYTCL-8260HLW(14)	
L2021318-17C	Vial water preserved	А	NA		2.7	Y	Absent	22-MAY-20 23:45	NYTCL-8260HLW(14)	
L2021318-17D	Plastic 2oz unpreserved for TS	А	NA		2.7	Y	Absent		TS(7)	
L2021318-18A	Vial HCl preserved	А	NA		2.7	Y	Absent		NYTCL-8260(14)	
L2021318-18B	Vial HCl preserved	А	NA		2.7	Y	Absent		NYTCL-8260(14)	
L2021318-18C	Vial HCl preserved	А	NA		2.7	Y	Absent		NYTCL-8260(14)	
L2021318-19A	Vial HCl preserved	А	NA		2.7	Y	Absent		NYTCL-8260(14)	
L2021318-19B	Vial HCI preserved	А	NA		2.7	Y	Absent		NYTCL-8260(14)	



Serial_No:06012013:14

Project Name: MINMILT

Project Number: MIN2002

Lab Number: L2021318

Report Date: 06/01/20

GLOSSARY

Acronyms

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

Report Format: DU Report with 'J' Qualifiers



Project Name:	MINMILT	Lab Number:	L2021318
Project Number:	MIN2002	Report Date:	06/01/20

1

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

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum. Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

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

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Waterpreserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'. Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

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

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

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

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

Data Qualifiers

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

Report Format: DU Report with 'J' Qualifiers



Serial_No:06012013:14

Project Name:	MINMILT	Lab Number:	L2021318
Project Number:	MIN2002	Report Date:	06/01/20

Data Qualifiers

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

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

Report Format: DU Report with 'J' Qualifiers



Project Name: MINMILT Project Number: MIN2002

 Lab Number:
 L2021318

 Report Date:
 06/01/20

REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.
- 121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.

LIMITATION OF LIABILITIES

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

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



Certification Information

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

Westborough Facility

EPA 624/624.1: m/p-xylene, o-xylene, Naphthalene
EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D: NPW: Dimethylnaphthalene, 1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene, 1,4-Diphenylhydrazine.
SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO2, NO3.
Mansfield Facility
SM 2540D: TSS
EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 1-Methylnaphthalene.
SM 450: Non-methane organics
EPA 3C Fixed gases
Biological Tissue Matrix: EPA 3050B

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

Westborough Facility:

Drinking Water

EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; EPA 353.2: Nitrate-N, Nitrite-N; SM4500NO3-F: Nitrate-N, Nitrite-N; SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B EPA 332: Perchlorate; EPA 524.2: THMs and VOCs; EPA 504.1: EDB, DBCP. Microbiology: SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D.

Non-Potable Water

SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, EPA 350.1: Ammonia-N, LACHAT 10-107-06-1-B: Ammonia-N, EPA 351.1, SM4500NO3-F, EPA 353.2: Nitrate-N, SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate. EPA 624.1: Volatile Halocarbons & Aromatics,

EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs **EPA 625.1**: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.

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

Mansfield Facility:

Drinking Water

EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. EPA 200.8: Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. EPA 245.1 Hg. EPA 522.

Non-Potable Water

EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn. **EPA 200.8:** Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn. **EPA 245.1** Hg. **SM2340B**

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

Serial_No:06012013:14

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APPENDIX C WASTE CHARATIZATION ANALYTICAL DATA

P.W. GROSSER CONSULTING, INC.
P.W. GROSSER CONSULTING ENGINEER & HYDROGEOLOGIST, P.C.PHONE: 631.589.6353
PWGROSSER.COM630 JOHNSON AVENUE, STE 7
BOHEMIA, NY 11716LONG ISLAND • MANHATTAN • SARATOGA SPRINGS • SYRACUSE • SEATTLE • SHELTON



ANALYTICAL REPORT

Lab Number:	L2025985
Client:	P. W. Grosser
	630 Johnson Avenue
	Suite 7
	Bohemia, NY 11716
ATTN:	Regina Bykov
Phone:	(631) 589-8705
Project Name:	MINMILT
Project Number:	MIN2002
Report Date:	06/26/20

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-17-00196).

Eight Walkup Drive, Westborough, MA 01581-1019 508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com



Serial_No:06262013:37

Project Name:MINMILTProject Number:MIN2002

 Lab Number:
 L2025985

 Report Date:
 06/26/20

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2025985-01	WC0001 (S)	SOIL	540 SMITH STREET, FARMINGDALE, NY	06/19/20 14:00	06/19/20
L2025985-02	WC0001 (L)	WATER	540 SMITH STREET, FARMINGDALE, NY	06/19/20 14:15	06/19/20



Project Name:MINMILTProject Number:MIN2002

 Lab Number:
 L2025985

 Report Date:
 06/26/20

Case Narrative

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

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

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

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

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

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



 Lab Number:
 L2025985

 Report Date:
 06/26/20

Project Name:MINMILTProject Number:MIN2002

Case Narrative (continued)

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Volatile Organics

The WG1385834-5 Method Blank, associated with L2025985-01D2, has a concentration above the reporting limit for Naphthalene. Since the sample was non-detect to the RL for this target analyte, no further actions were taken. The results of the original analysis are reported.

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

Authorized Signature:

Jufani Morrissey - Tiffani Morrissey

Title: Technical Director/Representative

Date: 06/26/20



ORGANICS



VOLATILES



		Serial_No:06262013:37
Project Name:	MINMILT	Lab Number: L2025985
Project Number:	MIN2002	Report Date: 06/26/20
	SAMPLE RESULTS	
Lab ID: Client ID: Sample Location:	L2025985-01 D2 WC0001 (S) 540 SMITH STREET, FARMINGDALE, NY	Date Collected:06/19/20 14:00Date Received:06/19/20Field Prep:Not Specified
Sample Depth: Matrix:	Soil	
Analytical Method: Analytical Date: Analyst:	1,8260C 06/25/20 11:33 KJD	

KJD 90%

Percent Solids:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 H	ligh - Westborough Lab					
Methylene chloride	ND		ug/kg	5900	2700	20
1,1-Dichloroethane	ND		ug/kg	1200	170	20
Chloroform	ND		ug/kg	1800	160	20
Carbon tetrachloride	ND		ug/kg	1200	270	20
1,2-Dichloropropane	ND		ug/kg	1200	150	20
Dibromochloromethane	ND		ug/kg	1200	160	20
1,1,2-Trichloroethane	ND		ug/kg	1200	320	20
Tetrachloroethene	490000	Е	ug/kg	590	230	20
Chlorobenzene	ND		ug/kg	590	150	20
Trichlorofluoromethane	ND		ug/kg	4700	820	20
1,2-Dichloroethane	ND		ug/kg	1200	300	20
1,1,1-Trichloroethane	ND		ug/kg	590	200	20
Bromodichloromethane	ND		ug/kg	590	130	20
trans-1,3-Dichloropropene	ND		ug/kg	1200	320	20
cis-1,3-Dichloropropene	ND		ug/kg	590	190	20
1,3-Dichloropropene, Total	ND		ug/kg	590	190	20
1,1-Dichloropropene	ND		ug/kg	590	190	20
Bromoform	ND		ug/kg	4700	290	20
1,1,2,2-Tetrachloroethane	ND		ug/kg	590	200	20
Benzene	ND		ug/kg	590	200	20
Toluene	ND		ug/kg	1200	640	20
Ethylbenzene	ND		ug/kg	1200	170	20
Chloromethane	ND		ug/kg	4700	1100	20
Bromomethane	ND		ug/kg	2400	690	20
Vinyl chloride	ND		ug/kg	1200	400	20
Chloroethane	ND		ug/kg	2400	530	20
1,1-Dichloroethene	ND		ug/kg	1200	280	20
trans-1,2-Dichloroethene	ND		ug/kg	1800	160	20



Project Name: MINMILT Lab Number: L2025985 Project Number: MIN2002 Report Date: 06/26/20 SAMPLE RESULTS Date Collected: 06/19/20 14:00				Serial_No	0:06262013:37
SAMPLE RESULTS	Project Name:	MINMILT		Lab Number:	L2025985
	Project Number:	MIN2002		Report Date:	06/26/20
Lab ID: L 2025985-01 D2 Date Collected: 06/19/20 1/:00			SAMPLE RESULTS		
	Lab ID:	L2025985-01	D2	Date Collected:	06/19/20 14:00
Client ID: WC0001 (S) Date Received: 06/19/20	Client ID:	WC0001 (S)		Date Received:	06/19/20
Sample Location: 540 SMITH STREET, FARMINGDALE, NY Field Prep: Not Specified	Sample Location:	540 SMITH STRE	ET, FARMINGDALE, NY	Field Prep:	Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 High - West	borough Lab)				
Trichloroethene	280	J	ug/kg	590	160	20
1,2-Dichlorobenzene	ND		ug/kg	2400	170	20
1,3-Dichlorobenzene	ND		ug/kg	2400	180	20
1,4-Dichlorobenzene	ND		ug/kg	2400	200	20
Methyl tert butyl ether	ND		ug/kg	2400	240	20
p/m-Xylene	ND		ug/kg	2400	660	20
o-Xylene	ND		ug/kg	1200	340	20
Xylenes, Total	ND		ug/kg	1200	340	20
cis-1,2-Dichloroethene	ND		ug/kg	1200	210	20
1,2-Dichloroethene, Total	ND		ug/kg	1200	160	20
Dibromomethane	ND		ug/kg	2400	280	20
Styrene	ND		ug/kg	1200	230	20
Dichlorodifluoromethane	ND		ug/kg	12000	1100	20
Acetone	ND		ug/kg	12000	5700	20
Carbon disulfide	ND		ug/kg	12000	5400	20
2-Butanone	ND		ug/kg	12000	2600	20
Vinyl acetate	ND		ug/kg	12000	2500	20
4-Methyl-2-pentanone	ND		ug/kg	12000	1500	20
1,2,3-Trichloropropane	ND		ug/kg	2400	150	20
2-Hexanone	ND		ug/kg	12000	1400	20
Bromochloromethane	ND		ug/kg	2400	240	20
2,2-Dichloropropane	ND		ug/kg	2400	240	20
1,2-Dibromoethane	ND		ug/kg	1200	330	20
1,3-Dichloropropane	ND		ug/kg	2400	200	20
1,1,1,2-Tetrachloroethane	ND		ug/kg	590	160	20
Bromobenzene	ND		ug/kg	2400	170	20
n-Butylbenzene	ND		ug/kg	1200	200	20
sec-Butylbenzene	ND		ug/kg	1200	170	20
tert-Butylbenzene	ND		ug/kg	2400	140	20
o-Chlorotoluene	ND		ug/kg	2400	220	20
p-Chlorotoluene	ND		ug/kg	2400	130	20
1,2-Dibromo-3-chloropropane	ND		ug/kg	3500	1200	20
Hexachlorobutadiene	ND		ug/kg	4700	200	20
Isopropylbenzene	ND		ug/kg	1200	130	20
p-Isopropyltoluene	ND		ug/kg	1200	130	20
Naphthalene	ND		ug/kg	4700	770	20



			Serial_No	0:06262013:37
Project Name:	MINMILT		Lab Number:	L2025985
Project Number:	MIN2002		Report Date:	06/26/20
		SAMPLE RESULTS		
Lab ID: Client ID: Sample Location:	L2025985-01 WC0001 (S) 540 SMITH STREE	D2 ET, FARMINGDALE, NY	Date Collected: Date Received: Field Prep:	06/19/20 14:00 06/19/20 Not Specified

Sample Depth:

Result	Qualifier	Units	RL	MDL	Dilution Factor
stborough Lab	I				
ND		ug/kg	1200	200	20
ND		ug/kg	2400	380	20
ND		ug/kg	2400	320	20
ND		ug/kg	2400	230	20
ND		ug/kg	2400	400	20
ND		ug/kg	95000	42000	20
ND		ug/kg	2400	210	20
ND		ug/kg	2400	450	20
ND		ug/kg	2400	220	20
ND		ug/kg	2400	400	20
ND		ug/kg	5900	1700	20
	stborough Lab ND ND ND ND ND ND ND ND ND ND ND ND ND	stborough Lab ND ND ND ND ND ND ND ND ND ND	NDug/kgNDug/kgNDug/kgNDug/kgNDug/kgNDug/kgNDug/kgNDug/kgNDug/kgNDug/kgNDug/kgNDug/kgNDug/kgNDug/kgNDug/kg	ND ug/kg 1200 ND ug/kg 2400 ND ug/kg 2400	ND ug/kg 1200 200 ND ug/kg 2400 380 ND ug/kg 2400 320 ND ug/kg 2400 320 ND ug/kg 2400 230 ND ug/kg 2400 230 ND ug/kg 2400 400 ND ug/kg 2400 400 ND ug/kg 2400 42000 ND ug/kg 2400 210 ND ug/kg 2400 450 ND ug/kg 2400 220 ND ug/kg 2400 450 ND ug/kg 2400 450

Surrogate	% Recovery	Acceptance Qualifier Criteria	
1,2-Dichloroethane-d4	98	70-130	
Toluene-d8	104	70-130	
4-Bromofluorobenzene	100	70-130	
Dibromofluoromethane	95	70-130	



		Serial_No:06262013:37
Project Name:	MINMILT	Lab Number: L2025985
Project Number:	MIN2002	Report Date: 06/26/20
	SAMPLE RESULTS	
Lab ID:	L2025985-01 D	Date Collected: 06/19/20 14:00
Client ID:	WC0001 (S)	Date Received: 06/19/20
Sample Location:	540 SMITH STREET, FARMINGDALE, NY	Field Prep: Not Specified
Sample Depth:		
Matrix:	Soil	
Analytical Method:	1,8260C	
Analytical Date:	06/25/20 01:55	
Analyst:	JC	

90%

Percent Solids:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 High - We	stborough Lab					
Tetrachloroethene	500000		ug/kg	5900	2300	200
Surrogate			% Recovery	Qualifier		ptance iteria
1,2-Dichloroethane-d4			95		7	0-130
Toluene-d8			90		7	0-130
4-Bromofluorobenzene			84		7	0-130
Dibromofluoromethane			106		7	0-130



		Serial_No	0:06262013:37
Project Name:	MINMILT	Lab Number:	L2025985
Project Number:	MIN2002	Report Date:	06/26/20
	SAMPLE RESULTS		
Lab ID: Client ID: Sample Location:	L2025985-02 WC0001 (L) 540 SMITH STREET, FARMINGDALE, NY	Date Collected: Date Received: Field Prep:	06/19/20 14:15 06/19/20 Not Specified
Sample Depth: Matrix: Analytical Method: Analytical Date: Analyst:	Water 1,8260C 06/24/20 12:58 NLK		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor		
Volatile Organics by GC/MS - We	Volatile Organics by GC/MS - Westborough Lab							
Methylene chloride	ND		ug/l	2.5	0.70	1		
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1		
Chloroform	ND		ug/l	2.5	0.70	1		
Carbon tetrachloride	ND		ug/l	0.50	0.13	1		
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1		
Dibromochloromethane	ND		ug/l	0.50	0.15	1		
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1		
Tetrachloroethene	150		ug/l	0.50	0.18	1		
Chlorobenzene	ND		ug/l	2.5	0.70	1		
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1		
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1		
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1		
Bromodichloromethane	ND		ug/l	0.50	0.19	1		
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1		
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1		
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1		
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1		
Bromoform	ND		ug/l	2.0	0.65	1		
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1		
Benzene	ND		ug/l	0.50	0.16	1		
Toluene	ND		ug/l	2.5	0.70	1		
Ethylbenzene	ND		ug/l	2.5	0.70	1		
Chloromethane	ND		ug/l	2.5	0.70	1		
Bromomethane	ND		ug/l	2.5	0.70	1		
Vinyl chloride	ND		ug/l	1.0	0.07	1		
Chloroethane	ND		ug/l	2.5	0.70	1		
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1		
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1		



		Serial_No:06262013:37	
Project Name:	MINMILT	Lab Number: L2025985	
Project Number:	MIN2002	Report Date: 06/26/20	
	SAMPLE RESULTS		
Lab ID:	L2025985-02	Date Collected: 06/19/20 14:15	
Client ID:	WC0001 (L)	Date Received: 06/19/20	
Sample Location:	540 SMITH STREET, FARMINGDALE, NY	Field Prep: Not Specified	

Sample Depth:

1.2 Dichlorobenzene ND ugn 2.5 0.70 1 1.3 Dichlorobenzene ND ugn 2.5 0.70 1 1.4 Dichlorobenzene ND ugn 2.5 0.70 1 Wehy ter buyl ether ND ugn 2.5 0.70 1 Sylene ND ugn 2.5 0.70 1 Sylenoremethane ND ugn 5.0 1.0 1 Sylenordifuromethane ND ugn 5.0 1.0 1 Sylenordifuromethane ND ugn 5.0 1.0 1 Sylenordifuromethane N	Parameter	Result	Qualifier Ur	nits RL	MDL	Dilution Factor
1,2-DichlorobenzeneNDugn2.50.7011,3-DichlorobenzeneNDugn2.50.7011,4-DichlorobenzeneNDugn2.50.701Wehyl tot buly olterNDugn2.50.701xim-XyleneNDugn2.50.701xim-XyleneNDugn2.50.701xim-XyleneNDugn2.50.701xin-XyleneNDugn2.50.7011.2-DichloroetheneNDugn2.50.7011.2-Dichloroethene, TotalNDugn2.50.7011.2-Ja-TichloroetheneNDugn2.50.7012.4-YolonthiNDugn2.50.7012.5-YolonthiNDugn5.01.012.6-YolonthiNDugn5.01.012.7-YolonthiNDugn5.01.012.8-YolonthiNDugn5.01.012.8-YolonthiNDugn5.01.012.8-YolonthiNDugn5.01.012.8-YolonthiNDugn5.01.012.8-YolonthiNDugn5.01.012.8-YolonthiNDugn2.50.7012.9-YolonthineNDugn2.50.7012.9-YolonthineNDugn2.5 </td <td>Volatile Organics by GC/MS - West</td> <td>tborough Lab</td> <td></td> <td></td> <td></td> <td></td>	Volatile Organics by GC/MS - West	tborough Lab				
ND ugn 2.5 0.70 1 1,4-Dichtorberzene ND ugn 2.5 0.70 1 Mehry tert buyl etter ND ugn 2.5 0.70 1 mir-Sylene ND ugn 2.5 0.70 1 s-Sylene ND ugn 2.5 0.70 1 s-Sylene ND ugn 2.5 0.70 1 Sie 1.2 Dichtorethene ND ugn 2.5 0.70 1 1.2.3 Trichtoropropane ND ugn 2.5 0.70 1 1.2.3 Trichtoropropane ND ugn 5.0 1.6 1 1.2.3 Ex	Trichloroethene	1.4	U	g/l 0.50	0.18	1
1.4-DichlorobenzeneNDug12.50.701Werby terb tuxyt etherNDug12.50.701SylwneNDug12.50.701SylwneNDug12.50.701SylwneNDug12.50.701SylwneNDug12.50.701SylwneNDug12.50.701SylwneNDug12.50.701SylwneNDug12.50.701SylwneNDug12.50.701SylwneNDug12.50.701SylwneNDug15.01.51SylwneNDug15.01.51SylwneNDug15.01.01SylwneNDug15.01.01SylwneNDug15.01.01SylwneNDug15.01.01SylwneNDug15.01.01SylwneNDug15.01.01SylwneNDug12.50.701SylwneNDug12.50.701SylwneNDug12.50.701SylwneNDug12.50.701SylwneNDug12.50.701SylwneNDug12.5	1,2-Dichlorobenzene	ND	U	g/l 2.5	0.70	1
Mark ND ug1 2.5 0.70 1 xim-Xylene ND ug1 2.5 0.70 1 xim-Xylene ND ug1 2.5 0.70 1 xixylenes, Total ND ug1 2.5 0.70 1 1.2.Dichloroethene ND ug1 2.5 0.70 1 1.2.Dichloroethene, Total ND ug1 2.5 0.70 1 1.2.3.Trichloroethene, Total ND ug1 2.5 0.70 1 1.2.3.Trichloroethene ND ug1 2.5 0.70 1 1.2.3.Trichloroethene ND ug1 2.5 0.70 1 2.3.Trichloroethene ND ug1 5.0 1.0 1 2.4.2.4.2.4.2.4 ND ug1 5.0 1.0 1 2.4.2.4.2.4 ND ug1 5.0 1.0 1 2.4.2.4.2.4.2.4 ND ug1 5.0 1.0 1	1,3-Dichlorobenzene	ND	u	g/l 2.5	0.70	1
ND ug1 2.5 0.70 1 >Xylene ND ug1 2.5 0.70 1 Sylene ND ug1 2.5 0.70 1 Sylene ND ug1 2.5 0.70 1 Sia-1,2-Dichoroethene ND ug1 2.5 0.70 1 Johromethane ND ug1 5.0 1.0 1 Jack-Trichkoropropane ND ug1 5.0 1.5 1 Syrene ND ug1 5.0 1.5 1 Syrene ND ug1 5.0 1.0 1 Chorodtfloromethane ND ug1 5.0 1.0 1 Chorodtala ND ug1 <td< td=""><td>1,4-Dichlorobenzene</td><td>ND</td><td>u</td><td>g/l 2.5</td><td>0.70</td><td>1</td></td<>	1,4-Dichlorobenzene	ND	u	g/l 2.5	0.70	1
Np/ene ND ug/ 2.5 0.70 1 kylenes, Total ND ug/l 2.5 0.70 1 isi-1,2-Dichloroethene, Total ND ug/l 2.5 0.70 1 1,2-Dichloroethene, Total ND ug/l 6.0 1.0 1 1,2-Dichloroethene ND ug/l 6.0 1.5 1 1,2-Dichloroethene ND ug/l 6.0 1.0 1 Acytonitile ND ug/l 6.0 1.0 1	Methyl tert butyl ether	ND	u	g/l 2.5	0.70	1
ND ug1 2.5 0.70 1 isi-1,2-Dichloroethene ND ug1 2.5 0.70 1 1,2-Dichloroethene, Total ND ug1 2.5 0.70 1 1,2-Dichloroethene, Total ND ug1 2.5 0.70 1 1,2-Dichloroethene, Total ND ug1 5.0 1.0 1 1,2-Dichloroethene, Total ND ug1 5.0 7.0 1 1,2-Dichloroethene ND ug1 5.0 1.0 1 Dichloroethene ND ug1 5.0 1.0 1 Dichloroethene ND ug1 5.0 1.0 1 Labelanone ND ug1 5.0 7.0 1 <t< td=""><td>p/m-Xylene</td><td>ND</td><td>u</td><td>g/l 2.5</td><td>0.70</td><td>1</td></t<>	p/m-Xylene	ND	u	g/l 2.5	0.70	1
ND ug1 2.5 0.70 1 1,2-Dichloroethene, Total ND ug1 2.5 0.70 1 1,2-Dichloroethene, Total ND ug1 2.5 0.70 1 1,2-Ja-Trichloropropane ND ug1 5.0 1.0 1 1,2-Ja-Trichloropropane ND ug1 5.0 1.5 1 Syrene ND ug1 5.0 1.0 1 Carbon disulfide ND ug1 5.0 1.0 1 Carbon disulfide ND ug1 5.0 1.0 1 Viryl acetate ND ug1 2.5 0.70 1 Lacetone ND <td>o-Xylene</td> <td>ND</td> <td>u</td> <td>g/l 2.5</td> <td>0.70</td> <td>1</td>	o-Xylene	ND	u	g/l 2.5	0.70	1
np np< np np<	Xylenes, Total	ND	u	g/l 2.5	0.70	1
Dicromomethane ND ug/l 5.0 1.0 1 1,2,3-Trichloropropane ND ug/l 5.0 1.5 1 Acrylonitrile ND ug/l 5.0 1.5 1 Styrene ND ug/l 5.0 1.0 1 Dichlorodfluoromethane ND ug/l 5.0 1.0 1 Acetone ND ug/l 5.0 1.0 1 Carbon disulfide ND ug/l 5.0 1.0 1 Acetone ND ug/l 2.5 0.70 1 Acetone ND ug/l	cis-1,2-Dichloroethene	ND	u	g/l 2.5	0.70	1
1,2,3-Trichloropropane ND ug/l 2.5 0.70 1 Acrylonitrile ND ug/l 5.0 1.5 1 Shyrene ND ug/l 5.0 1.0 1 Dichlorodifluoromethane ND ug/l 5.0 1.0 1 Acetone ND ug/l 5.0 1.0 1 Carbon disulfide ND ug/l 5.0 1.0 1 Patter ND ug/l 5.0 1.0 1 Acetone ND ug/l 5.0 1.0 1 Patter ND ug/l 5.0 1.0 1 Acetone ND ug/l 5.0 1.0 1 Patter ND ug/l 5.0 1.0 1 Patter ND ug/l 2.5 0.70 1 Patter ND ug/l 2.5 0.70 1 Patter ND ug/l 2.5 0.70 1 Patter ND ug/l 2.5 0.	1,2-Dichloroethene, Total	ND	U	g/l 2.5	0.70	1
Acyonitrie ND ug/l 5.0 1.5 1 Styrene ND ug/l 2.5 0.70 1 Dichlorodfluoromethane ND ug/l 5.0 1.0 1 Acetone ND ug/l 5.0 1.5 1 Carbon disulfide ND ug/l 5.0 1.0 1 2-Butanone ND ug/l 5.0 1.0 1 2-Butanone ND ug/l 5.0 1.0 1 4-Methyl-2-pentanone ND ug/l 5.0 1.0 1 2-Hexanone ND ug/l 5.0 1.0 1 2-Pethoromethane ND ug/l 2.5 0.70 1 2.2-Dichloropropane ND ug/l 2.5 0.70 1 1.1.2-Tetrachloroethane ND ug/l 2.5 0.70 1 1.1.1.2-Tetrachloroethane ND ug/l 2.5 0.70 1 1.1	Dibromomethane	ND	U	g/l 5.0	1.0	1
ND ug/l 2.5 0.70 1 Dichlorodifluoromethane ND ug/l 5.0 1.0 1 Acetone ND ug/l 5.0 1.5 1 Carbon disulfide ND ug/l 5.0 1.0 1 2-Butanone ND ug/l 5.0 1.9 1 Vinyl acetate ND ug/l 5.0 1.0 1 4-Methyl-2-pentanone ND ug/l 5.0 1.0 1 2-Hexanone ND ug/l 5.0 1.0 1 3romochloromethane ND ug/l 2.5 0.70 1 2-Dichloropropane ND ug/l 2.5 0.70 1 1,2-Dichloropropane ND ug/l 2.5 0.70 1 1,1,1_2-Tetrachloroethane ND ug/l 2.5 0.70 1 1,1_1_2-Tetrachloroethane ND ug/l 2.5 0.70 1 1,1_1_2-Tetr	1,2,3-Trichloropropane	ND	U	g/l 2.5	0.70	1
ND ug/l 5.0 1.0 1 Acetone ND ug/l 5.0 1.5 1 Carbon disulfide ND ug/l 5.0 1.0 1 2-Butanone ND ug/l 5.0 1.0 1 4-Methyl-2-pentanone ND ug/l 5.0 1.0 1 4-Methyl-2-pentanone ND ug/l 5.0 1.0 1 2-Hexanone ND ug/l 5.0 1.0 1 2-Hexanone ND ug/l 5.0 1.0 1 2-Hexanone ND ug/l 2.5 0.70 1 2-Dichloropropane ND ug/l 2.5 0.70 1 1,2-Dichloropropane ND ug/l 2.5 0.70 1 1,1,1-2-Tetrachloroethane ND ug/l 2.5 0.70 1 1,1,1-2-Tetrachloroethane ND ug/l 2.5 0.70 1 -Butylbenzene	Acrylonitrile	ND	u	g/l 5.0	1.5	1
Accord of sulfide ND ug/l 5.0 1.5 1 Carbon disulfide ND ug/l 5.0 1.0 1 2-Butanone ND ug/l 5.0 1.0 1 4-Methyl-2-pentanone ND ug/l 5.0 1.0 1 4-Methyl-2-pentanone ND ug/l 5.0 1.0 1 2-Hexanone ND ug/l 5.0 1.0 1 2-Hexanone ND ug/l 2.5 0.70 1 2-Dichloropropane ND ug/l 2.5 0.70 1 1,2-Dichloropropane ND ug/l 2.5 0.70 1 1,2-Dichloropropane ND ug/l 2.5 0.70 1 1,1,1-2-Tetrachloroethane ND ug/l 2.5 0.70 1 1,1-1-2-Tetrachloroethane ND ug/l 2.5 0.70 1 1,1-1-2-Tetrachloroethane ND ug/l 2.5 0.70 1	Styrene	ND	U	g/l 2.5	0.70	1
Action disulfide ND ug/ 5.0 1.0 1 2-Butanone ND ug/l 5.0 1.9 1 2-Butanone ND ug/l 5.0 1.0 1 4-Methyl-2-pentanone ND ug/l 5.0 1.0 1 2-Hexanone ND ug/l 5.0 1.0 1 2-Hexanone ND ug/l 5.0 1.0 1 2-Hexanone ND ug/l 2.5 0.70 1 2-Dichloropropane ND ug/l 2.5 0.70 1 1,2-Dibromoethane ND ug/l 2.5 0.70 1 1,1.2-Tetrachloroethane ND ug/l 2.5 0.70 1 1,1.1.2-Tetrachloroethane ND ug/l 2.5 0.70 1 1.1.2-Tetrachloroethane ND ug/l 2.5 0.70 1 1.1.2-Tetrachloroethane ND ug/l 2.5 0.70 1	Dichlorodifluoromethane	ND	u	g/l 5.0	1.0	1
2-Butanone ND ug/l 5.0 1.9 1 Viryl acetate ND ug/l 5.0 1.0 1 4-Methyl-2-pentanone ND ug/l 5.0 1.0 1 2-Hexanone ND ug/l 5.0 1.0 1 2-Hexanone ND ug/l 5.0 1.0 1 2-Dichloropropane ND ug/l 2.5 0.70 1 2.2-Dichloropropane ND ug/l 2.5 0.70 1 1.3-Dichloropropane ND ug/l 2.5 0.70 1 1.1.2-Tetrachloroethane ND ug/l 2.5 0.70 1 1.1.1.2-Tetrachloroethane ND ug/l 2.5 0.70 1 1.1.1.2-Tetrachloroethane ND ug/l 2.5 0.70 1 1.1.1.2-Tetrachloroethane ND ug/l 2.5 0.70 1 1.1.2-Dibromo-3-chloroptouene ND ug/l 2.5 0.70	Acetone	ND	u	g/l 5.0	1.5	1
ND ug/l 5.0 1.0 1 4-Methyl-2-pentanone ND ug/l 5.0 1.0 1 2-Hexanone ND ug/l 5.0 1.0 1 3romochloromethane ND ug/l 2.5 0.70 1 2.2-Dichloropropane ND ug/l 2.5 0.70 1 1.2-Dibromoethane ND ug/l 2.5 0.70 1 1.2-Dibromoethane ND ug/l 2.5 0.70 1 1.2-Dibromoethane ND ug/l 2.5 0.70 1 1.3-Dichloropropane ND ug/l 2.5 0.70 1 1.1.1.2-Tetrachloroethane ND ug/l 2.5 0.70 1 <	Carbon disulfide	ND	u	g/l 5.0	1.0	1
A-Methyl-2-pentanone ND ug/l 5.0 1.0 1 2-Hexanone ND ug/l 5.0 1.0 1 3romochloromethane ND ug/l 2.5 0.70 1 2,2-Dichloropropane ND ug/l 2.5 0.70 1 2,2-Dichloropropane ND ug/l 2.5 0.70 1 1,2-Dibromoethane ND ug/l 2.5 0.70 1 1,3-Dichloropropane ND ug/l 2.5 0.70 1 1,1,1,2-Tetrachloroethane ND ug/l 2.5 0.70 1 3romobenzene ND ug/l 2.5 0.70 1 1,1,1,2-Tetrachloroethane ND ug/l 2.5 0.70 1 Stomobenzene ND ug/l 2.5 0.70 1 Neutylbenzene ND ug/l 2.5 0.70 1 Chlorotoluene ND ug/l 2.5 0.70 1 <td>2-Butanone</td> <td>ND</td> <td>u</td> <td>g/l 5.0</td> <td>1.9</td> <td>1</td>	2-Butanone	ND	u	g/l 5.0	1.9	1
ND ug/l 5.0 1.0 1 Bromochloromethane ND ug/l 2.5 0.70 1 2,2-Dichloropropane ND ug/l 2.5 0.70 1 2,2-Dichloropropane ND ug/l 2.5 0.70 1 1,2-Dibromoethane ND ug/l 2.5 0.70 1 1,3-Dichloropropane ND ug/l 2.5 0.70 1 1,1,1_2-Tetrachloroethane ND ug/l 2.5 0.70 1 Bromobenzene ND ug/l 2.5 0.70 1 n-Butylbenzene ND ug/l 2.5 0.70 1 sec-Butylbenzene ND ug/l 2.5 0.70 1 se	Vinyl acetate	ND	u	g/l 5.0	1.0	1
ND ug/l 2.5 0.70 1 2,2-Dichloropropane ND ug/l 2.5 0.70 1 1,2-Dibromoethane ND ug/l 2.0 0.65 1 1,3-Dichloropropane ND ug/l 2.5 0.70 1 1,1,1.2-Tetrachloroethane ND ug/l 2.5 0.70 1 1,1,1.2-Tetrachloroethane ND ug/l 2.5 0.70 1 1,1,1.2-Tetrachloroethane ND ug/l 2.5 0.70 1 Somoobenzene ND ug/l 2.5 0.70 1 n-Butylbenzene ND ug/l 2.5 0.70 1 sec-Butylbenzene ND ug/l 2.5 0.70 1 -Chlorotoluene ND ug/l 2.5 0.70 1 -Chlorotoluene ND ug/l 2.5 0.70 1 -Lochtorotoluene ND ug/l 2.5 0.70 1	4-Methyl-2-pentanone	ND	u	g/l 5.0	1.0	1
2,2-Dichloropropane ND ug/l 2.5 0.70 1 1,2-Dibromoethane ND ug/l 2.0 0.65 1 1,3-Dichloropropane ND ug/l 2.5 0.70 1 1,1,1,2-Tetrachloroethane ND ug/l 2.5 0.70 1 1,1,1,2-Tetrachloroethane ND ug/l 2.5 0.70 1 Bromobenzene ND ug/l 2.5 0.70 1 n-Butylbenzene ND ug/l 2.5 0.70 1 n-Chlorotoluene ND ug/l 2.5 0.70 1 n-Chlorotoluene ND ug/l 2.5 0.70 1 t_2-Dibromo-3-chloropropane ND ug/l 2.5 0.70 1 t_2-Dibromo-3-chloropropane ND ug/l 2.5 0.70 <td>2-Hexanone</td> <td>ND</td> <td>u</td> <td>g/l 5.0</td> <td>1.0</td> <td>1</td>	2-Hexanone	ND	u	g/l 5.0	1.0	1
1,2-Dibromoethane ND ug/l 2.0 0.65 1 1,3-Dichloropropane ND ug/l 2.5 0.70 1 1,1,1,2-Tetrachloroethane ND ug/l 2.5 0.70 1 Bromobenzene ND ug/l 2.5 0.70 1 -Butylbenzene ND ug/l 2.5 0.70 1 -Butylbenzene ND ug/l 2.5 0.70 1 -Butylbenzene ND ug/l 2.5 0.70 1 -Sec-Butylbenzene ND ug/l 2.5 0.70 1 -Sec-Diforotoluene ND ug/l 2.5 0.70 1 -Lexachlorobutadiene ND ug/l 2.5 0.70 1 -texachlorobutadiene ND ug/l 2.5 0.70 1	Bromochloromethane	ND	u	g/l 2.5	0.70	1
1,3-Dichloropropane ND ug/l 2.5 0.70 1 1,1,1,2-Tetrachloroethane ND ug/l 2.5 0.70 1 Bromobenzene ND ug/l 2.5 0.70 1 n-Butylbenzene ND ug/l 2.5 0.70 1 n-Butylbenzene ND ug/l 2.5 0.70 1 see-Butylbenzene ND ug/l 2.5 0.70 1 see-Chlorotoluene ND ug/l 2.5 0.70 1 see-Chloroboluene ND ug/l 2.5 0.70 1 t_2-Dibromo-3-chloropropane ND ug/l 2.5 0.70 1 sepropylbenzene ND ug/l 2.5 0.70 1 <td>2,2-Dichloropropane</td> <td>ND</td> <td>u</td> <td>g/l 2.5</td> <td>0.70</td> <td>1</td>	2,2-Dichloropropane	ND	u	g/l 2.5	0.70	1
1,1,1,2-Tetrachloroethane ND ug/l 2.5 0.70 1 Bromobenzene ND ug/l 2.5 0.70 1 n-Butylbenzene ND ug/l 2.5 0.70 1 sec-Butylbenzene ND ug/l 2.5 0.70 1 sec-Butylbenzene ND ug/l 2.5 0.70 1 sec-Butylbenzene ND ug/l 2.5 0.70 1 o-Chlorotoluene ND ug/l 2.5 0.70 1 Hexachlorobutadiene ND ug/l 2.5 0.70 1 sopropylbenzene ND ug/l 2.5 0.70 1 ug/l 2.5 0.70 1 1 1	1,2-Dibromoethane	ND	u	g/l 2.0	0.65	1
Bronobenzene ND ug/l 2.5 0.70 1 n-Butylbenzene ND ug/l 2.5 0.70 1 sec-Butylbenzene ND ug/l 2.5 0.70 1 sec-Butylbenzene ND ug/l 2.5 0.70 1 sec-Butylbenzene ND ug/l 2.5 0.70 1 oc-Chlorotoluene ND ug/l 2.5 0.70 1 oc-Chlorotoluene ND ug/l 2.5 0.70 1 text-Butylbenzene ND ug/l 2.5 0.70 1 oc-Chlorotoluene ND ug/l 2.5 0.70 1 oc-Chlorotoluene ND ug/l 2.5 0.70 1 textschlorobutadiene ND ug/l 2.5 0.70 1 sopropylbenzene ND ug/l 2.5 0.70 1	1,3-Dichloropropane	ND	U	g/l 2.5	0.70	1
ND ug/l 2.5 0.70 1 sec-Butylbenzene ND ug/l 2.5 0.70 1 sec-Chlorotoluene ND ug/l 2.5 0.70 1 secrechlorotoluene ND ug/l 2.5 0.70 1 secrechlorotoluene ND ug/l 2.5 0.70 1 secrechlorotoluene ND ug/l 2.5 0.70 1	1,1,1,2-Tetrachloroethane	ND	U	g/l 2.5	0.70	1
Sec-Butylbenzene ND ug/l 2.5 0.70 1 rert-Butylbenzene ND ug/l 2.5 0.70 1 o-Chlorotoluene ND ug/l 2.5 0.70 1 1,2-Dibromo-3-chloropropane ND ug/l 2.5 0.70 1 Hexachlorobutadiene ND ug/l 2.5 0.70 1 sopropylbenzene ND ug/l 2.5 0.70 1	Bromobenzene	ND	U	g/l 2.5	0.70	1
ND ug/l 2.5 0.70 1 p-Chlorotoluene ND ug/l 2.5 0.70 1 1,2-Dibromo-3-chloropropane ND ug/l 2.5 0.70 1 Hexachlorobutadiene ND ug/l 2.5 0.70 1 sopropylbenzene ND ug/l 2.5 0.70 1 p-Isopropyltoluene ND ug/l 2.5 0.70 1	n-Butylbenzene	ND	U	g/l 2.5	0.70	1
ND ug/l 2.5 0.70 1 p-Chlorotoluene ND ug/l 2.5 0.70 1 p-Chlorotoluene ND ug/l 2.5 0.70 1 1,2-Dibromo-3-chloropropane ND ug/l 2.5 0.70 1 Hexachlorobutadiene ND ug/l 2.5 0.70 1 sopropylbenzene ND ug/l 2.5 0.70 1 p-Isopropyltoluene ND ug/l 2.5 0.70 1	sec-Butylbenzene	ND	U	g/l 2.5	0.70	1
ND ug/l 2.5 0.70 1 1,2-Dibromo-3-chloropropane ND ug/l 2.5 0.70 1 Hexachlorobutadiene ND ug/l 2.5 0.70 1 sopropylbenzene ND ug/l 2.5 0.70 1 p-Sopropyltoluene ND ug/l 2.5 0.70 1	tert-Butylbenzene	ND	U	g/l 2.5	0.70	1
ND ug/l 2.5 0.70 1 Hexachlorobutadiene ND ug/l 2.5 0.70 1 sopropylbenzene ND ug/l 2.5 0.70 1 o-Isopropyltoluene ND ug/l 2.5 0.70 1	o-Chlorotoluene	ND	U	g/l 2.5	0.70	1
Hexachlorobutadiene ND ug/l 2.5 0.70 1 sopropylbenzene ND ug/l 2.5 0.70 1 p-Isopropyltoluene ND ug/l 2.5 0.70 1	p-Chlorotoluene	ND	U	g/l 2.5	0.70	1
ND ug/l 2.5 0.70 1 p-Isopropyltoluene ND ug/l 2.5 0.70 1	1,2-Dibromo-3-chloropropane	ND	U	g/l 2.5	0.70	1
p-Isopropyltoluene ND ug/I 2.5 0.70 1	Hexachlorobutadiene	ND	U	g/l 2.5	0.70	1
	Isopropylbenzene	ND	U	g/l 2.5	0.70	1
Naphthalene ND ug/l 2.5 0.70 1	p-Isopropyltoluene	ND	U	g/l 2.5	0.70	1
	Naphthalene	ND	u	g/l 2.5	0.70	1



		Serial_No	0:06262013:37
Project Name:	MINMILT	Lab Number:	L2025985
Project Number:	MIN2002	Report Date:	06/26/20
	SAMPLE RESULTS		
Lab ID:	L2025985-02	Date Collected:	06/19/20 14:15
Client ID:	WC0001 (L)	Date Received:	06/19/20
Sample Location:	540 SMITH STREET, FARMINGDALE, NY	Field Prep:	Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	
Volatile Organics by GC/MS - Westborough Lab							
n-Propylbenzene	ND		ug/l	2.5	0.70	1	
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1	
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1	
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1	
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1	
1,4-Dioxane	ND		ug/l	250	61.	1	
p-Diethylbenzene	ND		ug/l	2.0	0.70	1	
p-Ethyltoluene	ND		ug/l	2.0	0.70	1	
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1	
Ethyl ether	ND		ug/l	2.5	0.70	1	
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1	

Surrogate	% Recovery	Acceptance Qualifier Criteria	
1,2-Dichloroethane-d4	98	70-130	
Toluene-d8	98	70-130	
4-Bromofluorobenzene	100	70-130	
Dibromofluoromethane	98	70-130	



Lab Number: **Report Date:**

L2025985 06/26/20

Project Name: MINMILT **Project Number:** MIN2002

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C Analytical Date: 06/24/20 08:17 Analyst: PD

arameter	Result	Qualifier Ur	its RL	MDL	
olatile Organics by GC/MS - V	Westborough Lat	o for sample(s	: 02 Batch	: WG1385822-5	
Methylene chloride	ND	ι	g/l 2.5	0.70	
1,1-Dichloroethane	ND	ι	g/l 2.5	0.70	
Chloroform	ND	ι	g/l 2.5	0.70	
Carbon tetrachloride	ND	ι	g/l 0.50	0.13	
1,2-Dichloropropane	ND	ι	g/l 1.0	0.14	
Dibromochloromethane	ND	ι	g/l 0.50	0.15	
1,1,2-Trichloroethane	ND	ι	g/l 1.5	0.50	
Tetrachloroethene	ND	ι	g/l 0.50	0.18	
Chlorobenzene	ND	ι	g/l 2.5	0.70	
Trichlorofluoromethane	ND	ι	g/l 2.5	0.70	
1,2-Dichloroethane	ND	ι	g/l 0.50	0.13	
1,1,1-Trichloroethane	ND	ι	g/l 2.5	0.70	
Bromodichloromethane	ND	ι	g/l 0.50	0.19	
trans-1,3-Dichloropropene	ND	ι	g/l 0.50	0.16	
cis-1,3-Dichloropropene	ND	ι	g/l 0.50	0.14	
1,3-Dichloropropene, Total	ND	ι	g/l 0.50	0.14	
1,1-Dichloropropene	ND	ι	g/l 2.5	0.70	
Bromoform	ND	ι	g/l 2.0	0.65	
1,1,2,2-Tetrachloroethane	ND	ι	g/l 0.50	0.17	
Benzene	ND	ι	g/l 0.50	0.16	
Toluene	ND	ι	g/l 2.5	0.70	
Ethylbenzene	ND	ι	g/l 2.5	0.70	
Chloromethane	ND	ι	g/l 2.5	0.70	
Bromomethane	ND	ι	g/l 2.5	0.70	
Vinyl chloride	ND	ι	g/l 1.0	0.07	
Chloroethane	ND	ι	g/l 2.5	0.70	
1,1-Dichloroethene	ND	ι	g/l 0.50	0.17	
trans-1,2-Dichloroethene	ND	ι	g/l 2.5	0.70	
Trichloroethene	ND	l	g/l 0.50	0.18	



 Lab Number:
 L2025985

 Report Date:
 06/26/20

Project Name:

MINMILT

Project Number: MIN2002

Method Blank Analysis Batch Quality Control

Analytical Method:1,8260CAnalytical Date:06/24/20 08:17Analyst:PD

arameter	Result	Qualifier	Units	RL	MDL
olatile Organics by GC/MS -	Westborough Lat	o for sampl	e(s): 02	Batch:	WG1385822-5
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70
Methyl tert butyl ether	ND		ug/l	2.5	0.70
p/m-Xylene	ND		ug/l	2.5	0.70
o-Xylene	ND		ug/l	2.5	0.70
Xylenes, Total	ND		ug/l	2.5	0.70
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70
Dibromomethane	ND		ug/l	5.0	1.0
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70
Acrylonitrile	ND		ug/l	5.0	1.5
Styrene	ND		ug/l	2.5	0.70
Dichlorodifluoromethane	ND		ug/l	5.0	1.0
Acetone	ND		ug/l	5.0	1.5
Carbon disulfide	ND		ug/l	5.0	1.0
2-Butanone	ND		ug/l	5.0	1.9
Vinyl acetate	ND		ug/l	5.0	1.0
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0
2-Hexanone	ND		ug/l	5.0	1.0
Bromochloromethane	ND		ug/l	2.5	0.70
2,2-Dichloropropane	ND		ug/l	2.5	0.70
1,2-Dibromoethane	ND		ug/l	2.0	0.65
1,3-Dichloropropane	ND		ug/l	2.5	0.70
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70
Bromobenzene	ND		ug/l	2.5	0.70
n-Butylbenzene	ND		ug/l	2.5	0.70
sec-Butylbenzene	ND		ug/l	2.5	0.70
tert-Butylbenzene	ND		ug/l	2.5	0.70



Project Name:MINMILTProject Number:MIN2002

 Lab Number:
 L2025985

 Report Date:
 06/26/20

Method Blank Analysis Batch Quality Control

Analytical Method:1,8260CAnalytical Date:06/24/20 08:17Analyst:PD

arameter	Result	Qualifier Units	RL	MDL
olatile Organics by GC/MS - W	/estborough Lat	o for sample(s): 02	2 Batch:	WG1385822-5
o-Chlorotoluene	ND	ug/l	2.5	0.70
p-Chlorotoluene	ND	ug/l	2.5	0.70
1,2-Dibromo-3-chloropropane	ND	ug/l	2.5	0.70
Hexachlorobutadiene	ND	ug/l	2.5	0.70
Isopropylbenzene	ND	ug/l	2.5	0.70
p-Isopropyltoluene	ND	ug/l	2.5	0.70
Naphthalene	ND	ug/l	2.5	0.70
n-Propylbenzene	ND	ug/l	2.5	0.70
1,2,3-Trichlorobenzene	ND	ug/l	2.5	0.70
1,2,4-Trichlorobenzene	ND	ug/l	2.5	0.70
1,3,5-Trimethylbenzene	ND	ug/l	2.5	0.70
1,2,4-Trimethylbenzene	ND	ug/l	2.5	0.70
1,4-Dioxane	ND	ug/l	250	61.
p-Diethylbenzene	ND	ug/l	2.0	0.70
p-Ethyltoluene	ND	ug/l	2.0	0.70
1,2,4,5-Tetramethylbenzene	ND	ug/l	2.0	0.54
Ethyl ether	ND	ug/l	2.5	0.70
trans-1,4-Dichloro-2-butene	ND	ug/l	2.5	0.70

		Acceptance		
Surrogate	%Recovery	Qualifier	Criteria	
1,2-Dichloroethane-d4	94		70-130	
Toluene-d8	100		70-130	
4-Bromofluorobenzene	102		70-130	
Dibromofluoromethane	97		70-130	



 Lab Number:
 L2025985

 Report Date:
 06/26/20

Project Name: MINMILT Project Number: MIN2002

Method Blank Analysis Batch Quality Control

Analytical Method:1,8260CAnalytical Date:06/24/20 18:36Analyst:JC

arameter	Result	Qualifier	Units	RL		MDL
olatile Organics by EPA 5035	High - Westbord	ough Lab fo	or sample(s):	01	Batch:	WG1385834-5
Methylene chloride	ND		ug/kg	250		110
1,1-Dichloroethane	ND		ug/kg	50		7.2
Chloroform	ND		ug/kg	75		7.0
Carbon tetrachloride	ND		ug/kg	50		12.
1,2-Dichloropropane	ND		ug/kg	50		6.2
Dibromochloromethane	ND		ug/kg	50		7.0
1,1,2-Trichloroethane	ND		ug/kg	50		13.
Tetrachloroethene	ND		ug/kg	25		9.8
Chlorobenzene	ND		ug/kg	25		6.4
Trichlorofluoromethane	ND		ug/kg	200		35.
1,2-Dichloroethane	ND		ug/kg	50		13.
1,1,1-Trichloroethane	ND		ug/kg	25		8.4
Bromodichloromethane	ND		ug/kg	25		5.4
trans-1,3-Dichloropropene	ND		ug/kg	50		14.
cis-1,3-Dichloropropene	ND		ug/kg	25		7.9
1,3-Dichloropropene, Total	ND		ug/kg	25		7.9
1,1-Dichloropropene	ND		ug/kg	25		8.0
Bromoform	ND		ug/kg	200		12.
1,1,2,2-Tetrachloroethane	ND		ug/kg	25		8.3
Benzene	ND		ug/kg	25		8.3
Toluene	ND		ug/kg	50		27.
Ethylbenzene	ND		ug/kg	50		7.0
Chloromethane	ND		ug/kg	200		47.
Bromomethane	ND		ug/kg	100		29.
Vinyl chloride	ND		ug/kg	50		17.
Chloroethane	ND		ug/kg	100		23.
1,1-Dichloroethene	ND		ug/kg	50		12.
trans-1,2-Dichloroethene	ND		ug/kg	75		6.8
Trichloroethene	ND		ug/kg	25		6.8



 Lab Number:
 L2025985

 Report Date:
 06/26/20

Project Name: MINMILT

Project Number: MIN2002

Method Blank Analysis Batch Quality Control

Analytical Method:1,8260CAnalytical Date:06/24/20 18:36Analyst:JC

arameter	Result	Qualifier	Units	RL		MDL
platile Organics by EPA 503	5 High - Westbord	ough Lab fo	r sample(s):	01	Batch:	WG1385834-5
1,2-Dichlorobenzene	ND		ug/kg	100		7.2
1,3-Dichlorobenzene	ND		ug/kg	100		7.4
1,4-Dichlorobenzene	ND		ug/kg	100		8.6
Methyl tert butyl ether	ND		ug/kg	100		10.
p/m-Xylene	ND		ug/kg	100		28.
o-Xylene	ND		ug/kg	50		14.
Xylenes, Total	ND		ug/kg	50		14.
cis-1,2-Dichloroethene	ND		ug/kg	50		8.8
1,2-Dichloroethene, Total	ND		ug/kg	50		6.8
Dibromomethane	ND		ug/kg	100		12.
Styrene	ND		ug/kg	50		9.8
Dichlorodifluoromethane	ND		ug/kg	500		46.
Acetone	ND		ug/kg	500		240
Carbon disulfide	ND		ug/kg	500		230
2-Butanone	ND		ug/kg	500		110
Vinyl acetate	ND		ug/kg	500		110
4-Methyl-2-pentanone	ND		ug/kg	500		64.
1,2,3-Trichloropropane	ND		ug/kg	100		6.4
2-Hexanone	ND		ug/kg	500		59.
Bromochloromethane	ND		ug/kg	100		10.
2,2-Dichloropropane	ND		ug/kg	100		10.
1,2-Dibromoethane	ND		ug/kg	50		14.
1,3-Dichloropropane	ND		ug/kg	100		8.4
1,1,1,2-Tetrachloroethane	ND		ug/kg	25		6.6
Bromobenzene	ND		ug/kg	100		7.2
n-Butylbenzene	ND		ug/kg	50		8.4
sec-Butylbenzene	ND		ug/kg	50		7.3
tert-Butylbenzene	ND		ug/kg	100		5.9
o-Chlorotoluene	ND		ug/kg	100		9.6



Lab Number: **Report Date:**

L2025985 06/26/20

Project Name: MINMILT Project Number: MIN2002

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C Analytical Date: 06/24/20 18:36 Analyst: JC

arameter	Result	Qualifier	Units	RL		MDL
olatile Organics by EPA 5035	High - Westbord	ough Lab fo	or sample(s):	01	Batch:	WG1385834-5
p-Chlorotoluene	ND		ug/kg	100		5.4
1,2-Dibromo-3-chloropropane	ND		ug/kg	150		50.
Hexachlorobutadiene	ND		ug/kg	200		8.4
Isopropylbenzene	ND		ug/kg	50		5.4
p-Isopropyltoluene	ND		ug/kg	50		5.4
Naphthalene	290		ug/kg	200		32.
Acrylonitrile	ND		ug/kg	200		58.
n-Propylbenzene	ND		ug/kg	50		8.6
1,2,3-Trichlorobenzene	ND		ug/kg	100		16.
1,2,4-Trichlorobenzene	ND		ug/kg	100		14.
1,3,5-Trimethylbenzene	ND		ug/kg	100		9.6
1,2,4-Trimethylbenzene	ND		ug/kg	100		17.
1,4-Dioxane	ND		ug/kg	4000		1800
p-Diethylbenzene	ND		ug/kg	100		8.8
p-Ethyltoluene	ND		ug/kg	100		19.
1,2,4,5-Tetramethylbenzene	ND		ug/kg	100		9.6
Ethyl ether	ND		ug/kg	100		17.
trans-1,4-Dichloro-2-butene	ND		ug/kg	250		71.

			Acceptance
Surrogate	%Recovery	Qualifier	Criteria
1,2-Dichloroethane-d4	97		70-130
Toluene-d8	90		70-130
4-Bromofluorobenzene	85		70-130
Dibromofluoromethane	106		70-130



MINMILT MIN2002

 Lab Number:
 L2025985

 Report Date:
 06/26/20

Method Blank Analysis Batch Quality Control

Analytical Method: Analytical Date: Analyst:

Project Name:

Project Number:

1,8260C 06/25/20 06:47 MV

arameter	Result	Qualifier	Units	RL	MDL
olatile Organics by GC/MS -	Westborough Lab	o for sample	e(s): 01	Batch:	WG1385860-5
Methylene chloride	ND		ug/kg	250	110
1,1-Dichloroethane	ND		ug/kg	50	7.2
Chloroform	ND		ug/kg	75	7.0
Carbon tetrachloride	ND		ug/kg	50	12.
1,2-Dichloropropane	ND		ug/kg	50	6.2
Dibromochloromethane	ND		ug/kg	50	7.0
1,1,2-Trichloroethane	ND		ug/kg	50	13.
Tetrachloroethene	ND		ug/kg	25	9.8
Chlorobenzene	ND		ug/kg	25	6.4
Trichlorofluoromethane	ND		ug/kg	200	35.
1,2-Dichloroethane	ND		ug/kg	50	13.
1,1,1-Trichloroethane	ND		ug/kg	25	8.4
Bromodichloromethane	ND		ug/kg	25	5.4
trans-1,3-Dichloropropene	ND		ug/kg	50	14.
cis-1,3-Dichloropropene	ND		ug/kg	25	7.9
1,3-Dichloropropene, Total	ND		ug/kg	25	7.9
1,1-Dichloropropene	ND		ug/kg	25	8.0
Bromoform	ND		ug/kg	200	12.
1,1,2,2-Tetrachloroethane	ND		ug/kg	25	8.3
Benzene	ND		ug/kg	25	8.3
Toluene	ND		ug/kg	50	27.
Ethylbenzene	ND		ug/kg	50	7.0
Chloromethane	ND		ug/kg	200	47.
Bromomethane	ND		ug/kg	100	29.
Vinyl chloride	ND		ug/kg	50	17.
Chloroethane	ND		ug/kg	100	23.
1,1-Dichloroethene	ND		ug/kg	50	12.
trans-1,2-Dichloroethene	ND		ug/kg	75	6.8
Trichloroethene	ND		ug/kg	25	6.8



 Lab Number:
 L2025985

 Report Date:
 06/26/20

Method Blank Analysis Batch Quality Control

Analytical Method:1,82Analytical Date:06/2Analyst:MV

Project Name:

Project Number:

1,8260C 06/25/20 06:47 MV

MINMILT

MIN2002

Olatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG1385860-5 1,2-Dichlorobenzene ND ug/kg 100 7.2 1,3-Dichlorobenzene ND ug/kg 100 7.4 1,4-Dichlorobenzene ND ug/kg 100 8.6 Methyl tert butyl ether ND ug/kg 100 28. o-Xylene ND ug/kg 50 14. Xylenes, Total ND ug/kg 50 14. cis-1,2-Dichloroethene, Total ND ug/kg 50 6.8 1,2-Dichloroethene, Total ND ug/kg 50 6.8 Dibromomethane ND ug/kg 50 6.8 Dichlorodifluoromethane ND ug/kg 50 9.8 Dichlorodifluoromethane ND ug/kg 500 46. Aceton ND ug/kg 500 110 Vinyl acetate ND ug/kg 500 64. 1,2.3-Trichloropropane ND <	arameter	Result	Qualifier	Units	RL	MDL
1.3-Dichlorobenzene ND ug/kg 100 7.4 1,4-Dichlorobenzene ND ug/kg 100 8.6 Methyl tert butyl ether ND ug/kg 100 10. p/m-Xylene ND ug/kg 100 28. o-Xylene ND ug/kg 50 14. Xylenes, Total ND ug/kg 50 14. cis-1,2-Dichloroethene ND ug/kg 50 8.8 1,2-Dichloroethene, Total ND ug/kg 50 6.8 Dibromomethane ND ug/kg 50 9.8 Dichlorodifluoromethane ND ug/kg 500 240 Carbon disulfide ND ug/kg 500 240 Carbon disulfide ND ug/kg 500 110 Vinyl acetate ND ug/kg 500 64. 1,2.3-Trichloropropane ND ug/kg 500 64. 1,2.3-Trichloropropane ND ug/kg	olatile Organics by GC/MS - V	Vestborough Lal	o for samp	le(s): 01	Batch:	WG1385860-5
1,4-Dichlorobenzene ND ug/kg 100 8.6 Methyl tert butyl ether ND ug/kg 100 10. p/m-Xylene ND ug/kg 50 14. Xylenes, Total ND ug/kg 50 14. Xylenes, Total ND ug/kg 50 8.8 1,2-Dichloroethene ND ug/kg 50 8.8 1,2-Dichloroethene, Total ND ug/kg 50 6.8 Dibromomethane ND ug/kg 50 9.8 Dichloroetfluoromethane ND ug/kg 50 240 Carbon disulfide ND ug/kg 500 240 Carbon disulfide ND ug/kg 500 230 2-Butanone ND ug/kg 500 110 Vinyl acetate ND ug/kg 500 64. 1,2,3-Trichloropropane ND ug/kg 500 64. 1,2,3-Trichloropropane ND ug/kg 500 64. 1,2,3-Trichloropropane ND ug/kg 50 <td>1,2-Dichlorobenzene</td> <td>ND</td> <td></td> <td>ug/kg</td> <td>100</td> <td>7.2</td>	1,2-Dichlorobenzene	ND		ug/kg	100	7.2
Methyl tert butyl ether ND ug/kg 100 10. p/m-Xylene ND ug/kg 100 28. o-Xylene ND ug/kg 50 14. Xylenes, Total ND ug/kg 50 14. xylenes, Total ND ug/kg 50 8.8 1.2-Dichloroethene, Total ND ug/kg 50 6.8 Dibromomethane ND ug/kg 50 9.8 Dichlorodifluoromethane ND ug/kg 50 9.8 Carbon disulfide ND ug/kg 500 46. Acetone ND ug/kg 500 230 2-Butanone ND ug/kg 500 110 Vinyl acetate ND ug/kg 500 64. 1.2,3-Trichloropropane ND ug/kg 500 64. 2-Hexanone ND ug/kg 500 59. Bromochloromethane ND ug/kg 100 10.	1,3-Dichlorobenzene	ND		ug/kg	100	7.4
p/m-Xylene ND ug/kg 100 28. o-Xylene ND ug/kg 50 14. Xylenes, Total ND ug/kg 50 14. Xylenes, Total ND ug/kg 50 8.8 1,2-Dichloroethene, Total ND ug/kg 50 6.8 Dibromomethane ND ug/kg 50 9.8 Dichlorodifluoromethane ND ug/kg 50 46. Acetone ND ug/kg 50 230 2-Butanone ND ug/kg 50 110 Vinyl acetate ND ug/kg 50 64. 1,2,3-Trichloropropane ND ug/kg 50 64. 2-Hexanone ND ug/kg 50 64. 2-Hexanone ND ug/kg 50 64. 2-Joichloropropane ND ug/kg 100 10. 2,2-Dichloropropane ND ug/kg 100 10. 1	1,4-Dichlorobenzene	ND		ug/kg	100	8.6
Average ND ug/kg 50 14. Xylenes, Total ND ug/kg 50 14. cis-1,2-Dichloroethene ND ug/kg 50 8.8 1,2-Dichloroethene, Total ND ug/kg 50 6.8 Dibromomethane ND ug/kg 50 9.8 Dichlorodifluoromethane ND ug/kg 50 9.8 Dichlorodifluoromethane ND ug/kg 50 9.8 Carbon disulfide ND ug/kg 50 240 Carbon disulfide ND ug/kg 50 230 2-Butanone ND ug/kg 50 110 Vinyl acetate ND ug/kg 50 110 4-Methyl-2-pentanone ND ug/kg 50 64. 1,2,3-Trichloropropane ND ug/kg 50 59. Bromochloromethane ND ug/kg 100 10. 1,2-Dichloropropane ND ug/kg 100 </td <td>Methyl tert butyl ether</td> <td>ND</td> <td></td> <td>ug/kg</td> <td>100</td> <td>10.</td>	Methyl tert butyl ether	ND		ug/kg	100	10.
Xylenes, Total ND ug/kg 50 14. cis-1,2-Dichloroethene ND ug/kg 50 8.8 1,2-Dichloroethene, Total ND ug/kg 50 6.8 Dibromomethane ND ug/kg 50 9.8 Dichlorodifluoromethane ND ug/kg 500 46. Acetone ND ug/kg 500 240 Carbon disulfide ND ug/kg 500 230 2-Butanone ND ug/kg 500 110 Vinyl acetate ND ug/kg 500 64. 1,2,3-Trichloropropane ND ug/kg 500 64. 2.4Hexanone ND ug/kg 500 64. 2.2.Dichloropropane ND ug/kg 500 59. Bromochloromethane ND ug/kg 100 10. 1,2-Dibromoethane ND ug/kg 50 14. 1,3-Dichloropropane ND ug/kg 100	p/m-Xylene	ND		ug/kg	100	28.
cis-1,2-Dichloroethene ND ug/kg 50 8.8 1,2-Dichloroethene, Total ND ug/kg 50 6.8 Dibromomethane ND ug/kg 50 9.8 Dichlorodifluoromethane ND ug/kg 500 46. Acetone ND ug/kg 500 240 Carbon disulfide ND ug/kg 500 230 2-Butanone ND ug/kg 500 110 Vinyl acetate ND ug/kg 500 64. 1,2.3-Trichloropropane ND ug/kg 500 64. 2,4-Dichloropropane ND ug/kg 500 59. Bromochloromethane ND ug/kg 100 10. 2,2-Dichloropropane ND ug/kg 50 14. 1,2-Dibromoethane ND ug/kg 50 14. 1,3-Dichloropropane ND ug/kg 100 6.6 Bromochloromethane ND ug/kg <	o-Xylene	ND		ug/kg	50	14.
1,2-Dichloroethene, Total ND ug/kg 50 6.8 Dibromomethane ND ug/kg 100 12. Styrene ND ug/kg 50 9.8 Dichlorodifluoromethane ND ug/kg 500 46. Acetone ND ug/kg 500 240 Carbon disulfide ND ug/kg 500 230 2-Butanone ND ug/kg 500 110 Vinyl acetate ND ug/kg 500 64. 1,2,3-Trichloropropane ND ug/kg 500 64. 2.Hexanone ND ug/kg 100 6.4 2.Hexanone ND ug/kg 100 10. 2.2-Dichloropropane ND ug/kg 100 10. 1,2-Dibromoethane ND ug/kg 100 10. 1,2-Dibromoethane ND ug/kg 50 14. 1,3-Dichloropropane ND ug/kg 100 8.4 <td>Xylenes, Total</td> <td>ND</td> <td></td> <td>ug/kg</td> <td>50</td> <td>14.</td>	Xylenes, Total	ND		ug/kg	50	14.
Dibromomethane ND ug/kg 100 12. Styrene ND ug/kg 50 9.8 Dichlorodifluoromethane ND ug/kg 500 46. Acetone ND ug/kg 500 240 Carbon disulfide ND ug/kg 500 230 2-Butanone ND ug/kg 500 110 Vinyl acetate ND ug/kg 500 64. 1,2,3-Trichloropropane ND ug/kg 500 64. 2-Hexanone ND ug/kg 100 6.4 2-Hexanone ND ug/kg 100 10. 2,2-Dichloropropane ND ug/kg 100 10. 1,2-Dibromoethane ND ug/kg 100 10. 1,2-Dibromopenae ND ug/kg 100 8.4 1,1,1,2-Tetrachloroethane ND ug/kg 100 7.2 n-Butylbenzene ND ug/kg 50 7.3	cis-1,2-Dichloroethene	ND		ug/kg	50	8.8
ND ug/kg 50 9.8 Dichlorodifluoromethane ND ug/kg 500 46. Acetone ND ug/kg 500 240 Carbon disulfide ND ug/kg 500 240 Carbon disulfide ND ug/kg 500 230 2-Butanone ND ug/kg 500 110 Vinyl acetate ND ug/kg 500 64. 1,2,3-Trichloropropane ND ug/kg 500 64. 2-Hexanone ND ug/kg 500 59. Bromochloromethane ND ug/kg 100 10. 2,2-Dichloropropane ND ug/kg 100 10. 1,2-Dibromoethane ND ug/kg 100 10. 1,2-Dibromoethane ND ug/kg 50 14. 1,1,1,2-Tetrachloropthane ND ug/kg 100 8.4 1,1,1,2-Tetrachloroethane ND ug/kg 50 7.3 <td>1,2-Dichloroethene, Total</td> <td>ND</td> <td></td> <td>ug/kg</td> <td>50</td> <td>6.8</td>	1,2-Dichloroethene, Total	ND		ug/kg	50	6.8
Dichlorodifluoromethane ND ug/kg 500 46. Acetone ND ug/kg 500 240 Carbon disulfide ND ug/kg 500 230 2-Butanone ND ug/kg 500 110 Vinyl acetate ND ug/kg 500 110 4-Methyl-2-pentanone ND ug/kg 500 64. 1,2,3-Trichloropropane ND ug/kg 500 64. 2-Hexanone ND ug/kg 500 59. Bromochloromethane ND ug/kg 100 10. 2,2-Dichloropropane ND ug/kg 100 10. 1,2-Dibromoethane ND ug/kg 50 14. 1,3-Dichloropropane ND ug/kg 50 14. 1,3-Dichloropropane ND ug/kg 50 14. 1,3-Dichloropropane ND ug/kg 50 8.4 1,1,1,2-Tetrachloroethane ND ug/kg 5	Dibromomethane	ND		ug/kg	100	12.
Acetone ND ug/kg 500 240 Carbon disulfide ND ug/kg 500 230 2-Butanone ND ug/kg 500 110 Vinyl acetate ND ug/kg 500 110 4-Methyl-2-pentanone ND ug/kg 500 64. 1,2,3-Trichloropropane ND ug/kg 500 64. 2-Hexanone ND ug/kg 500 59. Bromochloromethane ND ug/kg 100 10. 2,2-Dichloropropane ND ug/kg 100 10. 1,2-Dibromoethane ND ug/kg 50 14. 1,3-Dichloropropane ND ug/kg 50 14. 1,3-Dichloropropane ND ug/kg 100 8.4 1,1,1,2-Tetrachloroethane ND ug/kg 100 7.2 n-Butylbenzene ND ug/kg 50 8.4 sec-Butylbenzene ND ug/kg 50	Styrene	ND		ug/kg	50	9.8
Carbon disulfide ND ug/kg 500 230 2-Butanone ND ug/kg 500 110 Vinyl acetate ND ug/kg 500 110 4-Methyl-2-pentanone ND ug/kg 500 64. 1,2,3-Trichloropropane ND ug/kg 500 64. 2-Hexanone ND ug/kg 500 59. Bromochloromethane ND ug/kg 100 10. 2,2-Dichloropropane ND ug/kg 100 10. 1,2-Dibromoethane ND ug/kg 100 10. 1,3-Dichloropropane ND ug/kg 50 14. 1,3-Dichloropropane ND ug/kg 100 8.4 1,1,1,2-Tetrachloroethane ND ug/kg 100 7.2 n-Butylbenzene ND ug/kg 50 8.4 sec-Butylbenzene ND ug/kg 50 8.4 tert-Butylbenzene ND ug/kg 50	Dichlorodifluoromethane	ND		ug/kg	500	46.
2-Butanone ND ug/kg 500 110 Vinyl acetate ND ug/kg 500 110 4-Methyl-2-pentanone ND ug/kg 500 64. 1,2,3-Trichloropropane ND ug/kg 500 64. 2-Hexanone ND ug/kg 500 64. 2-Hexanone ND ug/kg 500 59. Bromochloromethane ND ug/kg 100 10. 2,2-Dichloropropane ND ug/kg 100 10. 1,2-Dibromoethane ND ug/kg 100 10. 1,3-Dichloropropane ND ug/kg 50 14. 1,3-Dichloropropane ND ug/kg 100 8.4 1,1,1,2-Tetrachloroethane ND ug/kg 100 7.2 n-Butylbenzene ND ug/kg 50 8.4 sec-Butylbenzene ND ug/kg 50 7.3 tert-Butylbenzene ND ug/kg 100	Acetone	ND		ug/kg	500	240
Vinyl acetate ND ug/kg 500 110 4-Methyl-2-pentanone ND ug/kg 500 64. 1,2,3-Trichloropropane ND ug/kg 100 6.4 2-Hexanone ND ug/kg 500 59. Bromochloromethane ND ug/kg 100 10. 2,2-Dichloropropane ND ug/kg 100 10. 2,2-Dichloropropane ND ug/kg 100 10. 1,2-Dibromoethane ND ug/kg 50 14. 1,3-Dichloropropane ND ug/kg 100 8.4 1,1,1,2-Tetrachloroethane ND ug/kg 100 7.2 n-Butylbenzene ND ug/kg 50 8.4 sec-Butylbenzene ND ug/kg 50 7.3 tert-Butylbenzene ND ug/kg 100 5.9	Carbon disulfide	ND		ug/kg	500	230
4-Methyl-2-pentanone ND ug/kg 500 64. 1,2,3-Trichloropropane ND ug/kg 100 6.4 2-Hexanone ND ug/kg 500 59. Bromochloromethane ND ug/kg 100 10. 2,2-Dichloropropane ND ug/kg 100 10. 1,2-Dibromoethane ND ug/kg 100 10. 1,2-Dibromoethane ND ug/kg 100 10. 1,2-Dibromoethane ND ug/kg 100 10. 1,3-Dichloropropane ND ug/kg 100 8.4 1,1,1,2-Tetrachloroethane ND ug/kg 100 7.2 n-Butylbenzene ND ug/kg 50 8.4 sec-Butylbenzene ND ug/kg 50 7.3 tert-Butylbenzene ND ug/kg 100 5.9	2-Butanone	ND		ug/kg	500	110
1,2,3-TrichloropropaneNDug/kg1006.42-HexanoneNDug/kg50059.BromochloromethaneNDug/kg10010.2,2-DichloropropaneNDug/kg10010.1,2-DibromoethaneNDug/kg5014.1,3-DichloropropaneNDug/kg1008.41,1,1,2-TetrachloroethaneNDug/kg256.6BromobenzeneNDug/kg1007.2n-ButylbenzeneNDug/kg508.4sec-ButylbenzeneNDug/kg507.3tert-ButylbenzeneNDug/kg1005.9	Vinyl acetate	ND		ug/kg	500	110
2-HexanoneNDug/kg50059.BromochloromethaneNDug/kg10010.2,2-DichloropropaneNDug/kg10010.1,2-DibromoethaneNDug/kg5014.1,3-DichloropropaneNDug/kg1008.41,1,1,2-TetrachloroethaneNDug/kg256.6BromobenzeneNDug/kg1007.2n-ButylbenzeneNDug/kg508.4sec-ButylbenzeneNDug/kg507.3tert-ButylbenzeneNDug/kg1005.9	4-Methyl-2-pentanone	ND		ug/kg	500	64.
BromochloromethaneNDug/kg10010.2,2-DichloropropaneNDug/kg10010.1,2-DibromoethaneNDug/kg5014.1,3-DichloropropaneNDug/kg1008.41,1,1,2-TetrachloroethaneNDug/kg256.6BromobenzeneNDug/kg1007.2n-ButylbenzeneNDug/kg508.4sec-ButylbenzeneNDug/kg507.3tert-ButylbenzeneNDug/kg1005.9	1,2,3-Trichloropropane	ND		ug/kg	100	6.4
2,2-DichloropropaneNDug/kg10010.1,2-DibromoethaneNDug/kg5014.1,3-DichloropropaneNDug/kg1008.41,1,1,2-TetrachloroethaneNDug/kg256.6BromobenzeneNDug/kg1007.2n-ButylbenzeneNDug/kg508.4sec-ButylbenzeneNDug/kg507.3tert-ButylbenzeneNDug/kg1005.9	2-Hexanone	ND		ug/kg	500	59.
1,2-DibromoethaneNDug/kg5014.1,3-DichloropropaneNDug/kg1008.41,1,1,2-TetrachloroethaneNDug/kg256.6BromobenzeneNDug/kg1007.2n-ButylbenzeneNDug/kg508.4sec-ButylbenzeneNDug/kg507.3tert-ButylbenzeneNDug/kg1005.9	Bromochloromethane	ND		ug/kg	100	10.
1,3-DichloropropaneNDug/kg1008.41,1,1,2-TetrachloroethaneNDug/kg256.6BromobenzeneNDug/kg1007.2n-ButylbenzeneNDug/kg508.4sec-ButylbenzeneNDug/kg507.3tert-ButylbenzeneNDug/kg1005.9	2,2-Dichloropropane	ND		ug/kg	100	10.
ND ug/kg 25 6.6 Bromobenzene ND ug/kg 100 7.2 n-Butylbenzene ND ug/kg 50 8.4 sec-Butylbenzene ND ug/kg 50 7.3 tert-Butylbenzene ND ug/kg 100 5.9	1,2-Dibromoethane	ND		ug/kg	50	14.
BromobenzeneNDug/kg1007.2n-ButylbenzeneNDug/kg508.4sec-ButylbenzeneNDug/kg507.3tert-ButylbenzeneNDug/kg1005.9	1,3-Dichloropropane	ND		ug/kg	100	8.4
n-Butylbenzene ND ug/kg 50 8.4 sec-Butylbenzene ND ug/kg 50 7.3 tert-Butylbenzene ND ug/kg 100 5.9	1,1,1,2-Tetrachloroethane	ND		ug/kg	25	6.6
sec-ButylbenzeneNDug/kg507.3tert-ButylbenzeneNDug/kg1005.9	Bromobenzene	ND		ug/kg	100	7.2
tert-Butylbenzene ND ug/kg 100 5.9	n-Butylbenzene	ND		ug/kg	50	8.4
	sec-Butylbenzene	ND		ug/kg	50	7.3
o-Chlorotoluene ND ug/kg 100 9.6	tert-Butylbenzene	ND		ug/kg	100	5.9
	o-Chlorotoluene	ND		ug/kg	100	9.6



Project Name: MINMILT Project Number: MIN2002
 Lab Number:
 L2025985

 Report Date:
 06/26/20

Method Blank Analysis Batch Quality Control

Analytical Method:1,826Analytical Date:06/25Analyst:MV

1,8260C 06/25/20 06:47 MV

arameter	Result	Qualifier	Units	RL	MDL
olatile Organics by GC/MS - We	stborough Lab	o for sampl	e(s): 01	Batch:	WG1385860-5
p-Chlorotoluene	ND		ug/kg	100	5.4
1,2-Dibromo-3-chloropropane	ND		ug/kg	150	50.
Hexachlorobutadiene	ND		ug/kg	200	8.4
Isopropylbenzene	ND		ug/kg	50	5.4
p-Isopropyltoluene	ND		ug/kg	50	5.4
Naphthalene	33	J	ug/kg	200	32.
Acrylonitrile	ND		ug/kg	200	58.
n-Propylbenzene	ND		ug/kg	50	8.6
1,2,3-Trichlorobenzene	ND		ug/kg	100	16.
1,2,4-Trichlorobenzene	ND		ug/kg	100	14.
1,3,5-Trimethylbenzene	ND		ug/kg	100	9.6
1,2,4-Trimethylbenzene	ND		ug/kg	100	17.
1,4-Dioxane	ND		ug/kg	4000	1800
p-Diethylbenzene	ND		ug/kg	100	8.8
p-Ethyltoluene	ND		ug/kg	100	19.
1,2,4,5-Tetramethylbenzene	ND		ug/kg	100	9.6
Ethyl ether	ND		ug/kg	100	17.
trans-1,4-Dichloro-2-butene	ND		ug/kg	250	71.

		Acceptance		
Surrogate	%Recovery	Qualifier	Criteria	
1,2-Dichloroethane-d4	98		70-130	
Toluene-d8	104		70-130	
4-Bromofluorobenzene	100		70-130	
Dibromofluoromethane	93		70-130	



Lab Number: L2025985

arameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	RPD Qual Limits
olatile Organics by GC/MS - Westborough I	ab Associated	sample(s): 02	2 Batch: WG ²	1385822-3	WG1385822-4		
Methylene chloride	110		110		70-130	0	20
1,1-Dichloroethane	100		110		70-130	10	20
Chloroform	100		110		70-130	10	20
Carbon tetrachloride	100		110		63-132	10	20
1,2-Dichloropropane	110		110		70-130	0	20
Dibromochloromethane	97		99		63-130	2	20
1,1,2-Trichloroethane	98		99		70-130	1	20
Tetrachloroethene	100		110		70-130	10	20
Chlorobenzene	100		100		75-130	0	20
Trichlorofluoromethane	110		110		62-150	0	20
1,2-Dichloroethane	100		100		70-130	0	20
1,1,1-Trichloroethane	110		110		67-130	0	20
Bromodichloromethane	110		110		67-130	0	20
trans-1,3-Dichloropropene	100		100		70-130	0	20
cis-1,3-Dichloropropene	110		110		70-130	0	20
1,1-Dichloropropene	110		110		70-130	0	20
Bromoform	95		97		54-136	2	20
1,1,2,2-Tetrachloroethane	90		94		67-130	4	20
Benzene	100		110		70-130	10	20
Toluene	100		110		70-130	10	20
Ethylbenzene	97		100		70-130	3	20
Chloromethane	91		98		64-130	7	20
Bromomethane	110		110		39-139	0	20



Lab Number: L2025985

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	
Volatile Organics by GC/MS - Westborough	Lab Associated	sample(s): 02	Batch: WG	1385822-3	WG1385822-4				
Vinyl chloride	96		100		55-140	4		20	
Chloroethane	100		110		55-138	10		20	
1,1-Dichloroethene	100		110		61-145	10		20	
trans-1,2-Dichloroethene	110		110		70-130	0		20	
Trichloroethene	97		100		70-130	3		20	
1,2-Dichlorobenzene	98		100		70-130	2		20	
1,3-Dichlorobenzene	99		100		70-130	1		20	
1,4-Dichlorobenzene	100		100		70-130	0		20	
Methyl tert butyl ether	99		100		63-130	1		20	
p/m-Xylene	100		105		70-130	5		20	
o-Xylene	100		100		70-130	0		20	
cis-1,2-Dichloroethene	110		110		70-130	0		20	
Dibromomethane	100		100		70-130	0		20	
1,2,3-Trichloropropane	86		90		64-130	5		20	
Acrylonitrile	95		93		70-130	2		20	
Styrene	100		100		70-130	0		20	
Dichlorodifluoromethane	90		89		36-147	1		20	
Acetone	87		85		58-148	2		20	
Carbon disulfide	100		110		51-130	10		20	
2-Butanone	86		99		63-138	14		20	
Vinyl acetate	98		98		70-130	0		20	
4-Methyl-2-pentanone	88		90		59-130	2		20	
2-Hexanone	90		88		57-130	2		20	



Project Name: MINMILT Project Number: MIN2002 Lab Number: L2025985

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	RPD Qual Limits	
olatile Organics by GC/MS - Westborough	Lab Associated	sample(s): 02	2 Batch: WG	1385822-3	WG1385822-4			
Bromochloromethane	110		110		70-130	0	20	
2,2-Dichloropropane	120		130		63-133	8	20	
1,2-Dibromoethane	97		98		70-130	1	20	
1,3-Dichloropropane	98		100		70-130	2	20	
1,1,1,2-Tetrachloroethane	100		100		64-130	0	20	
Bromobenzene	100		100		70-130	0	20	
n-Butylbenzene	93		100		53-136	7	20	
sec-Butylbenzene	94		100		70-130	6	20	
tert-Butylbenzene	96		100		70-130	4	20	
o-Chlorotoluene	96		100		70-130	4	20	
p-Chlorotoluene	97		100		70-130	3	20	
1,2-Dibromo-3-chloropropane	89		92		41-144	3	20	
Hexachlorobutadiene	90		100		63-130	11	20	
Isopropylbenzene	97		100		70-130	3	20	
p-Isopropyltoluene	95		100		70-130	5	20	
Naphthalene	81		90		70-130	11	20	
n-Propylbenzene	95		100		69-130	5	20	
1,2,3-Trichlorobenzene	88		98		70-130	11	20	
1,2,4-Trichlorobenzene	93		100		70-130	7	20	
1,3,5-Trimethylbenzene	97		100		64-130	3	20	
1,2,4-Trimethylbenzene	97		100		70-130	3	20	
1,4-Dioxane	86		96		56-162	11	20	
p-Diethylbenzene	95		100		70-130	5	20	



Project Name:MINMILTProject Number:MIN2002

 Lab Number:
 L2025985

 Report Date:
 06/26/20

	LCS		LCSD		%Recovery			RPD	
Parameter	%Recovery	Qual	%Recovery	Qual	Limits	RPD	Qual	Limits	
Volatile Organics by GC/MS - Westborough	Lab Associated	sample(s): 0	2 Batch: WG1	1385822-3	WG1385822-4				
p-Ethyltoluene	96		100		70-130	4		20	
1,2,4,5-Tetramethylbenzene	96		100		70-130	4		20	
Ethyl ether	100		100		59-134	0		20	
trans-1,4-Dichloro-2-butene	100		95		70-130	5		20	

Surrogate	LCS %Recovery Qua	LCSD I %Recovery Qual	Acceptance Criteria
1,2-Dichloroethane-d4	101	93	70-130
Toluene-d8	99	100	70-130
4-Bromofluorobenzene	98	100	70-130
Dibromofluoromethane	101	100	70-130



Lab Number: L2025985

Project Name: MINMILT Project Number: MIN2002

arameter	LCS %Recovery	LCSD Qual %Recovery	%Recovery Qual Limits	RPD	RPD Qual Limits
olatile Organics by EPA 5035 High -	Westborough Lab Associa	ated sample(s): 01 Batch	n: WG1385834-3 WG138583	34-4	
Methylene chloride	94	91	70-130	3	30
1,1-Dichloroethane	99	100	70-130	1	30
Chloroform	109	109	70-130	0	30
Carbon tetrachloride	123	122	70-130	1	30
1,2-Dichloropropane	100	100	70-130	0	30
Dibromochloromethane	117	119	70-130	2	30
1,1,2-Trichloroethane	98	98	70-130	0	30
Tetrachloroethene	120	125	70-130	4	30
Chlorobenzene	101	101	70-130	0	30
Trichlorofluoromethane	129	124	70-139	4	30
1,2-Dichloroethane	110	109	70-130	1	30
1,1,1-Trichloroethane	119	119	70-130	0	30
Bromodichloromethane	119	118	70-130	1	30
trans-1,3-Dichloropropene	102	104	70-130	2	30
cis-1,3-Dichloropropene	118	115	70-130	3	30
1,1-Dichloropropene	111	111	70-130	0	30
Bromoform	109	105	70-130	4	30
1,1,2,2-Tetrachloroethane	85	80	70-130	6	30
Benzene	108	107	70-130	1	30
Toluene	96	101	70-130	5	30
Ethylbenzene	98	99	70-130	1	30
Chloromethane	74	70	52-130	6	30
Bromomethane	134	123	57-147	9	30



Project Name: MINMILT Project Number: MIN2002 Lab Number: L2025985

arameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	RPD Qual Limits	
olatile Organics by EPA 5035 High	a - Westborough Lab Asso	ciated sample	e(s): 01 Batch	: WG1385	834-3 WG13858	34-4		
Vinyl chloride	94		91		67-130	3	30	
Chloroethane	131		125		50-151	5	30	
1,1-Dichloroethene	110		105		65-135	5	30	
trans-1,2-Dichloroethene	113		112		70-130	1	30	
Trichloroethene	116		116		70-130	0	30	
1,2-Dichlorobenzene	97		96		70-130	1	30	
1,3-Dichlorobenzene	97		98		70-130	1	30	
1,4-Dichlorobenzene	96		94		70-130	2	30	
Methyl tert butyl ether	106		101		66-130	5	30	
p/m-Xylene	105		105		70-130	0	30	
o-Xylene	106		106		70-130	0	30	
cis-1,2-Dichloroethene	115		114		70-130	1	30	
Dibromomethane	122		119		70-130	2	30	
Styrene	110		109		70-130	1	30	
Dichlorodifluoromethane	82		77		30-146	6	30	
Acetone	84		76		54-140	10	30	
Carbon disulfide	101		97		59-130	4	30	
2-Butanone	75		67	Q	70-130	11	30	
Vinyl acetate	85		83		70-130	2	30	
4-Methyl-2-pentanone	81		78		70-130	4	30	
1,2,3-Trichloropropane	83		79		68-130	5	30	
2-Hexanone	75		68	Q	70-130	10	30	
Bromochloromethane	134	Q	133	Q	70-130	1	30	



Parameter	LCS %Recovery	Qual	LCSD %Recovery	%Recovery Qual Limits	RPD	RPD Qual Limits
/olatile Organics by EPA 5035 High - We	stborough Lab Ass	ociated sample	e(s): 01 Batch	: WG1385834-3 WG13858	34-4	
2,2-Dichloropropane	113		112	70-130	1	30
1,2-Dibromoethane	111		110	70-130	1	30
1,3-Dichloropropane	95		94	69-130	1	30
1,1,1,2-Tetrachloroethane	112		111	70-130	1	30
Bromobenzene	97		96	70-130	1	30
n-Butylbenzene	87		90	70-130	3	30
sec-Butylbenzene	90		91	70-130	1	30
tert-Butylbenzene	94		94	70-130	0	30
o-Chlorotoluene	86		71	70-130	19	30
p-Chlorotoluene	85		85	70-130	0	30
1,2-Dibromo-3-chloropropane	94		88	68-130	7	30
Hexachlorobutadiene	99		99	67-130	0	30
Isopropylbenzene	91		92	70-130	1	30
p-Isopropyltoluene	96		96	70-130	0	30
Naphthalene	111		103	70-130	7	30
Acrylonitrile	82		76	70-130	8	30
n-Propylbenzene	86		87	70-130	1	30
1,2,3-Trichlorobenzene	101		101	70-130	0	30
1,2,4-Trichlorobenzene	101		102	70-130	1	30
1,3,5-Trimethylbenzene	91		92	70-130	1	30
1,2,4-Trimethylbenzene	92		92	70-130	0	30
1,4-Dioxane	115		104	65-136	10	30
p-Diethylbenzene	95		96	70-130	1	30



Project Name:MINMILTProject Number:MIN2002

 Lab Number:
 L2025985

 Report Date:
 06/26/20

LCS LCSD %Recovery RPD %Recovery %Recovery Parameter Qual Qual Limits RPD Qual Limits Volatile Organics by EPA 5035 High - Westborough Lab Associated sample(s): 01 Batch: WG1385834-3 WG1385834-4 90 p-Ethyltoluene 90 70-130 0 30 1,2,4,5-Tetramethylbenzene 94 95 70-130 30 1 Ethyl ether 102 96 67-130 6 30 trans-1,4-Dichloro-2-butene 74 69 Q 70-130 7 30

	LCS	LCSD	Acceptance
Surrogate	%Recovery Qua	I %Recovery Qua	al Criteria
1,2-Dichloroethane-d4	98	97	70-130
Toluene-d8	89	94	70-130
4-Bromofluorobenzene	85	85	70-130
Dibromofluoromethane	109	108	70-130



MINMILT **Project Name:** Project Number: MIN2002 Lab Number: L2025985

Report Date: 06/26/20

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	
Volatile Organics by GC/MS - Westborough	Lab Associated	sample(s): 01	Batch: WG	1385860-3	WG1385860-4				
Methylene chloride	100		96		70-130	4		30	
1,1-Dichloroethane	94		92		70-130	2		30	
Chloroform	90		89		70-130	1		30	
Carbon tetrachloride	92		90		70-130	2		30	
1,2-Dichloropropane	90		90		70-130	0		30	
Dibromochloromethane	89		90		70-130	1		30	
1,1,2-Trichloroethane	94		96		70-130	2		30	
Tetrachloroethene	111		110		70-130	1		30	
Chlorobenzene	91		91		70-130	0		30	
Trichlorofluoromethane	96		92		70-139	4		30	
1,2-Dichloroethane	90		92		70-130	2		30	
1,1,1-Trichloroethane	104		102		70-130	2		30	
Bromodichloromethane	86		88		70-130	2		30	
trans-1,3-Dichloropropene	97		98		70-130	1		30	
cis-1,3-Dichloropropene	90		91		70-130	1		30	
1,1-Dichloropropene	102		101		70-130	1		30	
Bromoform	88		90		70-130	2		30	
1,1,2,2-Tetrachloroethane	88		91		70-130	3		30	
Benzene	91		90		70-130	1		30	
Toluene	100		99		70-130	1		30	
Ethylbenzene	102		101		70-130	1		30	
Chloromethane	92		84		52-130	9		30	
Bromomethane	98		93		57-147	5		30	



Project Name: MINMILT Project Number: MIN2002 Lab Number: L2025985

Report Date: 06/26/20

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	RPD Qual Limits
Volatile Organics by GC/MS - Westborough	Lab Associated	sample(s): 01	Batch: WG	1385860-3	WG1385860-4		
Vinyl chloride	100		94		67-130	6	30
Chloroethane	93		88		50-151	6	30
1,1-Dichloroethene	106		102		65-135	4	30
trans-1,2-Dichloroethene	100		97		70-130	3	30
Trichloroethene	96		95		70-130	1	30
1,2-Dichlorobenzene	95		94		70-130	1	30
1,3-Dichlorobenzene	95		95		70-130	0	30
1,4-Dichlorobenzene	94		93		70-130	1	30
Methyl tert butyl ether	91		92		66-130	1	30
p/m-Xylene	99		98		70-130	1	30
o-Xylene	95		94		70-130	1	30
cis-1,2-Dichloroethene	94		93		70-130	1	30
Dibromomethane	90		92		70-130	2	30
Styrene	96		95		70-130	1	30
Dichlorodifluoromethane	96		90		30-146	6	30
Acetone	72		72		54-140	0	30
Carbon disulfide	90		86		59-130	5	30
2-Butanone	90		92		70-130	2	30
Vinyl acetate	103		105		70-130	2	30
4-Methyl-2-pentanone	92		96		70-130	4	30
1,2,3-Trichloropropane	92		94		68-130	2	30
2-Hexanone	85		88		70-130	3	30
Bromochloromethane	89		89		70-130	0	30



Project Name: MINMILT Project Number: MIN2002 Lab Number: L2025985

Report Date: 06/26/20

Actile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG1385860-3 WG1385860-3 2.2-Dichloropropane 94 97 70-130 3 30 1.2-Dibromoethane 94 97 70-130 3 30 1.3-Dichloropropane 95 97 68-130 2 30 1.1.2-Ditrachloroethane 99 70-130 1 30 Bromobenzene 89 90 70-130 1 30 ne-Butylbenzene 103 101 70-130 1 30 sec-Burylbenzene 103 101 70-130 1 30 o-Chlorotoluene 98 95 70-130 1 30 o-Chlorotoluene 98 95 70-130 1 30 12-Ditromo-3-chloropropane 98 95 70-130 1 30 p-Chlorotoluene 98 95 70-130 1 30 12-Ditromo-3-chloropropane 93 96 68-130 3	Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	
1.2.Dibromoethane 94 97 70.130 3 30 1.3.Dichloropropane 95 97 69.130 2 30 1.1.1.2.Tetrachloroethane 90 90 70-130 0 30 Bromobenzene 89 90 70-130 1 30 n-Butybenzene 89 90 70-130 1 30 sec-Butybenzene 104 103 70-130 1 30 sec-Butybenzene 103 101 70-130 1 30 or-Chlorobluene 96 95 70-130 1 30 p-Chlorobluene 96 95 70-130 1 30 1,2.Dibromo-3-chloropropane 93 96 66-130 3 30 1,2.Dibromo-3-chloropropane 102 104 67-130 1 30 p-Soproylbourene 102 100 70-130 3 30 p-Isoproylbourene 102 105 70-130 4	Volatile Organics by GC/MS - Westborough	Lab Associated	sample(s): 01	Batch: WG1	385860-3	WG1385860-4				
1.3-Dichloropropane 95 97 69-130 2 90 1,1,1.2-Tetrachloropthane 90 90 70-130 0 30 Bromobenzene 89 90 70-130 1 30 n-Butylbenzene 104 103 70-130 1 30 sec-Butylbenzene 103 70-130 1 30 tert-Butylbenzene 99 98 70-130 1 30 o-Chlorobluene 96 95 70-130 1 30 p-Chlorobluene 96 95 70-130 1 30 1.2-Dbromo-3-chloropropane 93 96 68-130 3 30 1.2-Dbromo-3-chloropropane 93 96 68-130 1 30 1.2-Dbromo-3-chloropropane 102 100 70-130 1 30 p-shoprophylbenzene 102 100 70-130 3 30 p-shoprophylbenzene 102 100 70-130 4 30 <td>2,2-Dichloropropane</td> <td>103</td> <td></td> <td>99</td> <td></td> <td>70-130</td> <td>4</td> <td></td> <td>30</td> <td></td>	2,2-Dichloropropane	103		99		70-130	4		30	
1,1,1,2-Tetrachloroethane 90 70-130 0 30 Bromobenzene 89 90 70-130 1 30 n-Butylbenzene 104 103 70-130 1 30 sec-Butylbenzene 103 70-130 1 30 tert-Butylbenzene 103 70-130 2 30 tert-Butylbenzene 99 98 70-130 1 30 o-Chlorotoluene 96 95 70-130 1 30 p-Chlorotoluene 96 95 70-130 1 30 12-Dbromo-3-chloropropane 93 96 68-130 3 30 Isopropylbenzene 100 70-130 1 30 30 p-Isopropylbenzene 102 106 70-130 3 30 n-Propylbenzene 102 105 70-130 3 30 n-Propylbenzene 102 101 70-130 4 30 1,2,3-Trichlorobenzene	1,2-Dibromoethane	94		97		70-130	3		30	
Bromobenzene 89 90 70-130 1 30 n-Butylbenzene 104 103 70-130 1 30 sec-Butylbenzene 103 101 70-130 2 30 tert-Butylbenzene 99 98 70-130 1 30 o-Chorotoluene 96 95 70-130 1 30 p-Chlorotoluene 96 95 70-130 1 30 1.2-Dbromo-3-chloropropane 93 96 66-130 3 30 1.2-Dbromo-3-chloropropane 105 104 67-130 1 30 hexachlorobutadiene 105 104 67-130 1 30 p-lopropylbourene 102 100 70-130 1 30 p-lopropylbourene 102 106 70-130 1 30 n-Propylbanzene 102 101 70-130 1 30 1.2-Strichlorobenzene 96 1000 70-130 1 <	1,3-Dichloropropane	95		97		69-130	2		30	
n-Butylbenzene10410370-130130sec-Butylbenzene10310170-130230tert-Butylbenzene999870-130130o-Chlorotoluene969570-130130p-Chlorotoluene969570-1301301,2-Dibromo-3-chloropropane989668-130330Hexachlorobutadiene10510467-130130Isopropylbenzene1009970-130130p-lsopropylbenzene10210070-130230Acrylonitrile10210570-130330n-Propylbenzene10210170-1304301,2-Trinethylbenzene99101170-1304301,2-Trinethylbenzene9910070-1304301,2-Trinethylbenzene999870-1301301,2-Trinethylbenzene99101070-1304301,2-Trinethylbenzene999870-1301301,2-Trinethylbenzene999870-1301301,2-Trinethylbenzene999870-1301301,4-Dioxane999870-1301301,4-Dioxane999670-1301301,4-Dioxane999870-1301301,4-Dioxane999670-1301	1,1,1,2-Tetrachloroethane	90		90		70-130	0		30	
sec-Butylbenzene 103 101 70-130 2 30 tert-Butylbenzene 99 98 70-130 1 30 o-Chorotoluene 96 95 70-130 1 30 p-Chorotoluene 96 95 70-130 1 30 p-Chorotoluene 96 95 70-130 1 30 1,2-Dibromo-3-chloropopane 93 96 68-130 3 30 Hexachlorobutadiene 105 104 67-130 1 30 Isopropylbenzene 100 99 70-130 1 30 p-lsopropylbenzene 102 100 70-130 1 30 Acrylonitrile 89 93 70-130 3 30 n.Propylbenzene 102 101 70-130 4 30 1,2,3-Trichlorobenzene 96 100 70-130 1 30 1,3,5-Trimethylbenzene 99 98 70-130 1 30 <td>Bromobenzene</td> <td>89</td> <td></td> <td>90</td> <td></td> <td>70-130</td> <td>1</td> <td></td> <td>30</td> <td></td>	Bromobenzene	89		90		70-130	1		30	
tert-Butylbenzene 99 98 70-130 1 30 o-Chlorotoluene 96 95 70-130 1 30 p-Chlorotoluene 96 95 70-130 1 30 1,2-Dibromo-3-chloropropane 98 96 668-130 3 30 Hexachlorobutadiene 105 104 667-130 1 30 Isopropylbenzene 100 99 70-130 1 30 p-lsopropylbulene 102 100 70-130 2 30 Acrylonitrile 102 105 70-130 3 30 n-Propylbenzene 102 105 70-130 3 30 Acrylonitrile 89 93 70-130 4 30 1,2,3-Trichlorobenzene 96 100 70-130 1 30 1,2,4-Trimethylbenzene 99 100 70-130 1 30 1,3,5-Trimethylbenzene 99 98 70-130 1	n-Butylbenzene	104		103		70-130	1		30	
o-Chlorotoluene 96 95 70-130 1 30 p-Chlorotoluene 96 95 70-130 1 30 p-Chlorotoluene 96 95 70-130 1 30 1,2-Dibromo-3-chloropropane 93 96 68-130 3 30 Hexachlorobutadiene 105 104 67-130 1 30 Isopropylbenzene 100 99 70-130 1 30 p-lsopropylbuene 102 100 70-130 2 30 Naphthalene 102 105 70-130 3 30 Acrylonitrile 89 93 70-130 4 30 n-Propylbenzene 102 101 70-130 4 30 1,2,3-Trichlorobenzene 96 100 70-130 4 30 1,3,5-Trimethylbenzene 99 100 70-130 1 30 1,4-Dioxane 99 96 70-130 1 30 </td <td>sec-Butylbenzene</td> <td>103</td> <td></td> <td>101</td> <td></td> <td>70-130</td> <td>2</td> <td></td> <td>30</td> <td></td>	sec-Butylbenzene	103		101		70-130	2		30	
p-Chlorotoluene 96 95 70-130 1 30 1,2-Dibromo-3-chloropropane 93 96 68-130 3 30 Hexachlorobutadiene 105 104 67-130 1 30 Isopropylbenzene 100 99 70-130 1 30 p-lsopropylbulene 102 100 70-130 2 30 Acrylonitrile 102 105 70-130 3 30 n-Propylbenzene 102 105 70-130 3 30 1,2,3-Trichlorobenzene 102 101 70-130 4 30 1,2,3-Trichlorobenzene 99 100 70-130 4 30 1,2,4-Trichlorobenzene 99 100 70-130 4 30 1,3,5-Trimethylbenzene 99 100 70-130 1 30 1,2,4-Trimethylbenzene 99 98 70-130 1 30 1,2,4-Trimethylbenzene 97 96 70-130	tert-Butylbenzene	99		98		70-130	1		30	
1,2-Dibromo-3-chloropropane939668-130330Hexachlorobutadiene10510467-130130Isopropylbenzene1009970-130130p-lsopropylbulene10210070-130230Naphthalene10210570-130330Acrylonitrile899370-130430n-Propylbenzene10210170-1304301,2,3-Trichlorobenzene9610070-1301301,2,4-Trichlorobenzene999870-1301301,3,5-Trimethylbenzene999870-1301301,2,4-Trimethylbenzene979670-1301301,4-Dioxane10611065-136430	o-Chlorotoluene	96		95		70-130	1		30	
Hexachlorobutadiene10510467-130130Isopropylbenzene1009970-130130p-Isopropylbluene10210070-130230Naphthalene10210570-130330Acrylonitrile899370-130430n-Propylbenzene10210170-1301301,2,3-Trichlorobenzene9610070-1304301,3,5-Trimethylbenzene9910070-1301301,2,4-Trichlorobenzene999870-1301301,2,4-Trimethylbenzene979670-1301301,2,4-Trimethylbenzene10611065-136430	p-Chlorotoluene	96		95		70-130	1		30	
Isopropylbenzene1009970-130130p-Isopropyltoluene10210070-130230Naphthalene10210570-130330Acrylonitrile899370-130430n-Propylbenzene10210170-1301301,2,3-Trichlorobenzene9610070-1304301,2,4-Trimethylbenzene9910070-1301301,2,4-Trimethylbenzene999870-1301301,2,4-Trimethylbenzene979670-1301301,4-Dioxane10611065-136430	1,2-Dibromo-3-chloropropane	93		96		68-130	3		30	
P-Isopropyltoluene10210070-130230Naphthalene10210570-130330Acrylonitrile899370-130430n-Propylbenzene10210170-1301301,2,3-Trichlorobenzene9610070-1304301,2,4-Trichlorobenzene9910070-1301301,3,5-Trimethylbenzene999870-1301301,2,4-Trimethylbenzene999870-1301301,2,4-Trimethylbenzene9796969670-1301301,4-Dioxane10611065-136430	Hexachlorobutadiene	105		104		67-130	1		30	
Naphthalene 102 105 70-130 3 30 Acrylonitrile 89 93 70-130 4 30 n-Propylbenzene 102 101 70-130 1 30 1,2,3-Trichlorobenzene 96 100 70-130 4 30 1,2,4-Trichlorobenzene 99 100 70-130 1 30 1,3,5-Trimethylbenzene 99 100 70-130 1 30 1,2,4-Trimethylbenzene 99 98 70-130 1 30 1,2,4-Trimethylbenzene 99 98 70-130 1 30 1,2,4-Trimethylbenzene 99 96 70-130 1 30 1,2,4-Trimethylbenzene 99 96 70-130 1 30 1,4-Dioxane 106 110 65-136 4 30	Isopropylbenzene	100		99		70-130	1		30	
Acrylonitrile899370-130430n-Propylbenzene10210170-1301301,2,3-Trichlorobenzene9610070-1304301,2,4-Trichlorobenzene9910070-1301301,3,5-Trimethylbenzene999870-1301301,2,4-Triinethylbenzene999870-1301301,2,4-Trimethylbenzene979670-1301301,4-Dioxane10611065-136430	p-Isopropyltoluene	102		100		70-130	2		30	
n-Propylbenzene 102 101 70-130 1 30 1,2,3-Trichlorobenzene 96 100 70-130 4 30 1,2,4-Trichlorobenzene 99 100 70-130 1 30 1,3,5-Trimethylbenzene 99 100 70-130 1 30 1,3,5-Trimethylbenzene 99 98 70-130 1 30 1,2,4-Trimethylbenzene 97 96 70-130 1 30 1,4-Dioxane 106 110 65-136 4 30	Naphthalene	102		105		70-130	3		30	
1.2 1.2 <td>Acrylonitrile</td> <td>89</td> <td></td> <td>93</td> <td></td> <td>70-130</td> <td>4</td> <td></td> <td>30</td> <td></td>	Acrylonitrile	89		93		70-130	4		30	
1,2,4-Trichlorobenzene 99 100 70-130 1 30 1,3,5-Trimethylbenzene 99 98 70-130 1 30 1,2,4-Trimethylbenzene 97 96 70-130 1 30 1,2,4-Trimethylbenzene 97 96 70-130 1 30 1,4-Dioxane 106 110 65-136 4 30	n-Propylbenzene	102		101		70-130	1		30	
1,3,5-Trimethylbenzene 99 98 70-130 1 30 1,2,4-Trimethylbenzene 97 96 70-130 1 30 1,4-Dioxane 106 110 65-136 4 30	1,2,3-Trichlorobenzene	96		100		70-130	4		30	
1,2,4-Trimethylbenzene 97 96 70-130 1 30 1,4-Dioxane 106 110 65-136 4 30	1,2,4-Trichlorobenzene	99		100		70-130	1		30	
1,4-Dioxane 106 110 65-136 4 30	1,3,5-Trimethylbenzene	99		98		70-130	1		30	
	1,2,4-Trimethylbenzene	97		96		70-130	1		30	
p-Diethylbenzene 100 100 70-130 0 30	1,4-Dioxane	106		110		65-136	4		30	
	p-Diethylbenzene	100		100		70-130	0		30	



Project Name:MINMILTProject Number:MIN2002

Lab Number: L2025985

Report Date: 06/26/20

	LCS		LCSD		%Recovery			RPD	
Parameter	%Recovery	Qual	%Recovery	Qual	Limits	RPD	Qual	Limits	
Volatile Organics by GC/MS - Westborough L	ab Associated	sample(s): (01 Batch: WG	1385860-3	WG1385860-4				
p-Ethyltoluene	100		99		70-130	1		30	
1,2,4,5-Tetramethylbenzene	101		102		70-130	1		30	
Ethyl ether	93		92		67-130	1		30	
trans-1,4-Dichloro-2-butene	96		104		70-130	8		30	

	LCS	LCSD	Acceptance
Surrogate	%Recovery Qua	al %Recovery Qual	Criteria
1,2-Dichloroethane-d4	99	101	70-130
Toluene-d8	103	104	70-130
4-Bromofluorobenzene	100	100	70-130
Dibromofluoromethane	95	96	70-130



PCBS



		Serial_No	:06262013:37
Project Name:	MINMILT	Lab Number:	L2025985
Project Number:	MIN2002	Report Date:	06/26/20
	SAMPLE RESULTS		
Lab ID:	L2025985-01	Date Collected:	06/19/20 14:00
Client ID:	WC0001 (S)	Date Received:	06/19/20
Sample Location:	540 SMITH STREET, FARMINGDALE, NY	Field Prep:	Not Specified
Sample Depth:			
Matrix:	Soil	Extraction Method	: EPA 3546
Analytical Method:	1,8082A	Extraction Date:	06/24/20 09:05
Analytical Date:	06/25/20 20:00	Cleanup Method:	EPA 3665A
Analyst:	JAW	Cleanup Date:	06/25/20
Percent Solids:	90%	Cleanup Method:	EPA 3660B
		Cleanup Date:	06/25/20

Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
estborough Lab						
ND		ua/ka	35.0	2 11	1	А
					1	A
					1	A
					1	A
					1	A
					1	A
					1	A
ND			35.0	4.45	1	A
ND		ug/kg	35.0	3.63	1	A
ND		ug/kg	35.0	3.11	1	А
	estborough Lab ND ND ND ND ND ND ND ND ND ND ND	estborough Lab ND	estborough Lab ND ug/kg ND ug/kg	ND ug/kg 35.0 ND ug/kg 35.0	ND ug/kg 35.0 3.11 ND ug/kg 35.0 3.51 ND ug/kg 35.0 7.43 ND ug/kg 35.0 7.43 ND ug/kg 35.0 4.72 ND ug/kg 35.0 5.26 ND ug/kg 35.0 5.26 ND ug/kg 35.0 6.48 ND ug/kg 35.0 4.45 ND ug/kg 35.0 3.63	ND ug/kg 35.0 3.11 1 ND ug/kg 35.0 3.51 1 ND ug/kg 35.0 3.51 1 ND ug/kg 35.0 7.43 1 ND ug/kg 35.0 7.43 1 ND ug/kg 35.0 4.72 1 ND ug/kg 35.0 5.26 1 ND ug/kg 35.0 6.48 1 ND ug/kg 35.0 4.45 1 ND ug/kg 35.0 3.63 1

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	81		30-150	А
Decachlorobiphenyl	76		30-150	А
2,4,5,6-Tetrachloro-m-xylene	82		30-150	В
Decachlorobiphenyl	85		30-150	В



		Serial_No	:06262013:37
Project Name:	MINMILT	Lab Number:	L2025985
Project Number:	MIN2002	Report Date:	06/26/20
	SAMPLE RESULTS		
Lab ID:	L2025985-02	Date Collected:	06/19/20 14:15
Client ID:	WC0001 (L)	Date Received:	06/19/20
Sample Location:	540 SMITH STREET, FARMINGDALE, NY	Field Prep:	Not Specified
Sample Depth:			
Matrix:	Water	Extraction Method	: EPA 3510C
Analytical Method:	1,8082A	Extraction Date:	06/25/20 07:56
Analytical Date:	06/26/20 11:50	Cleanup Method:	EPA 3665A
Analyst:	JM	Cleanup Date:	06/25/20
		Cleanup Method:	EPA 3660B
		Cleanup Date:	06/26/20

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - W	/estborough Lab						
Aroclor 1016	ND		ug/l	0.083	0.034	1	A
Aroclor 1221	ND		ug/l	0.083	0.067	1	А
Aroclor 1232	ND		ug/l	0.083	0.046	1	А
Aroclor 1242	ND		ug/l	0.083	0.039	1	А
Aroclor 1248	ND		ug/l	0.083	0.049	1	А
Aroclor 1254	ND		ug/l	0.083	0.039	1	А
Aroclor 1260	ND		ug/l	0.083	0.032	1	А
Aroclor 1262	ND		ug/l	0.083	0.035	1	А
Aroclor 1268	ND		ug/l	0.083	0.034	1	А
PCBs, Total	ND		ug/l	0.083	0.032	1	А

			Acceptance				
Surrogate	% Recovery	Qualifier	Criteria	Column			
2,4,5,6-Tetrachloro-m-xylene	79		30-150	А			
Decachlorobiphenyl	102		30-150	А			
2,4,5,6-Tetrachloro-m-xylene	71		30-150	В			
Decachlorobiphenyl	79		30-150	В			



 Lab Number:
 L2025985

 Report Date:
 06/26/20

MINMILT

Project Number: MIN2002

Method Blank Analysis Batch Quality Control

Analytical Method: Analytical Date: Analyst:

Project Name:

1,8082A 06/25/20 09:03 JM Extraction Method:EPA 3510CExtraction Date:06/24/20 08:17Cleanup Method:EPA 3665ACleanup Date:06/24/20Cleanup Method:EPA 3660BCleanup Date:06/25/20

Parameter	Result	Qualifier	Units	RI		MDL	Column
Polychlorinated Biphenyls by GC -	Westboroug	h Lab for s	sample(s):	02 E	Batch:	WG1385261	I-1
Aroclor 1016	ND		ug/l	0.08	33	0.034	А
Aroclor 1221	ND		ug/l	0.08	33	0.067	А
Aroclor 1232	ND		ug/l	0.08	33	0.046	А
Aroclor 1242	ND		ug/l	0.08	33	0.039	А
Aroclor 1248	ND		ug/l	0.08	33	0.049	А
Aroclor 1254	ND		ug/l	0.08	33	0.039	А
Aroclor 1260	ND		ug/l	0.08	33	0.032	А
Aroclor 1262	ND		ug/l	0.08	33	0.035	А
Aroclor 1268	ND		ug/l	0.08	33	0.034	А
PCBs, Total	ND		ug/l	0.08	33	0.032	А

			Acceptanc	е
Surrogate	%Recovery	Qualifier	Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	79		30-150	А
Decachlorobiphenyl	106		30-150	А
2,4,5,6-Tetrachloro-m-xylene	77		30-150	В
Decachlorobiphenyl	89		30-150	В



 Lab Number:
 L2025985

 Report Date:
 06/26/20

MINMILT

Project Number: MIN2002

Method Blank Analysis Batch Quality Control

Analytical Method: Analytical Date: Analyst:

Project Name:

1,8082A 06/25/20 04:13 JM Extraction Method:EPA 3546Extraction Date:06/24/20 09:00Cleanup Method:EPA 3665ACleanup Date:06/24/20Cleanup Method:EPA 3660BCleanup Date:06/24/20

Parameter	Result	Qualifier	Units		RL	MDL	Column
Polychlorinated Biphenyls by GC -	Westborough	h Lab for s	ample(s):	01	Batch:	WG1385279-	·1
Aroclor 1016	ND		ug/kg	3	32.7	2.90	А
Aroclor 1221	ND		ug/kg	3	32.7	3.28	А
Aroclor 1232	ND		ug/kg	3	32.7	6.94	А
Aroclor 1242	ND		ug/kg	3	32.7	4.41	А
Aroclor 1248	ND		ug/kg	3	32.7	4.91	А
Aroclor 1254	ND		ug/kg	3	32.7	3.58	А
Aroclor 1260	ND		ug/kg	3	32.7	6.05	А
Aroclor 1262	ND		ug/kg	3	32.7	4.16	А
Aroclor 1268	ND		ug/kg	3	32.7	3.39	А
PCBs, Total	ND		ug/kg	3	32.7	2.90	А

			Acceptanc	e
Surrogate	%Recovery	Qualifier	Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	60		30-150	А
Decachlorobiphenyl	54		30-150	А
2,4,5,6-Tetrachloro-m-xylene	70		30-150	В
Decachlorobiphenyl	60		30-150	В



Project Name:MINMILTProject Number:MIN2002

 Lab Number:
 L2025985

 Report Date:
 06/26/20

LCS LCSD %Recovery RPD %Recovery %Recovery Limits Parameter Qual Qual Limits RPD Qual Column Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 02 Batch: WG1385261-2 WG1385261-3 Aroclor 1016 70 76 40-140 8 50 А 80 97 40-140 19 50 Aroclor 1260 А

	LCS	LCSD	Accept	ance
Surrogate	%Recovery	Qual %Recovery	Qual Crite	ria Column
2,4,5,6-Tetrachloro-m-xylene	73	75	30-1	50 A
Decachlorobiphenyl	87	93	30-1	50 A
2,4,5,6-Tetrachloro-m-xylene	67	74	30-1	50 B
Decachlorobiphenyl	78	85	30-1	50 B



Project Name:MINMILTProject Number:MIN2002

 Lab Number:
 L2025985

 Report Date:
 06/26/20

	LCS		LCSD	%	6Recovery			RPD	
Parameter	%Recovery	Qual	%Recovery	Qual	Limits	RPD	Qual	Limits	Column
Polychlorinated Biphenyls by GC - Wes	stborough Lab Associa	ted sample(s):	01 Batch:	WG1385279-2	WG1385279-3				
Aroclor 1016	60		61		40-140	2		50	А
Aroclor 1260	54		55		40-140	2		50	А

	LCS	LCSD	Acceptar	nce
Surrogate	%Recovery	Qual %Recovery	Qual Criteria	a Column
2,4,5,6-Tetrachloro-m-xylene	65	67	30-150	А
Decachlorobiphenyl	59	62	30-150	А
2,4,5,6-Tetrachloro-m-xylene	74	76	30-150	В
Decachlorobiphenyl	66	67	30-150	В



METALS



Serial_No:06262013:37

Project Name:	MINM	ILT					Lab Nu	mber:	L2025	985	
Project Number:	MIN20	002					Report	Date:	06/26/	20	
				SAMPI	E RES	ULTS					
Lab ID:	L2025	985-01					Date Co	ollected:	06/19/2	20 14:00	
Client ID:	WC00	01 (S)					Date Re	eceived:	06/19/2	20	
Sample Location:	540 SI	MITH STR	EET, FAF	RMINGE	OALE, N	Y	Field Pr	ep:	Not Sp	ecified	
Sample Depth:							TCLP/S	PLP Ext. Da	te: 06/22/2	20 12:34	
Matrix:	Soil										
Percent Solids:	90%					Dilution	Date	Date	Prep	Analytical	
Parameter	Result	Qualifier	Units	RL	MDL	Factor	Prepared	Analyzed	Method	Method	Analyst

TCLP Metals by EPA 1311 - Mansfield Lab

		lansheiu	Lab					
Arsenic, TCLP	ND		mg/l	1.00	0.019	1	06/24/20 10:04 06/25/20 22:04 EPA 3015 1,60	10D BV
Barium, TCLP	0.060	J	mg/l	0.500	0.021	1	06/24/20 10:04 06/25/20 22:04 EPA 3015 1,60	10D BV
Cadmium, TCLP	ND		mg/l	0.100	0.010	1	06/24/20 10:04 06/25/20 22:04 EPA 3015 1,60	10D BV
Chromium, TCLP	ND		mg/l	0.200	0.021	1	06/24/20 10:04 06/25/20 22:04 EPA 3015 1,60	10D BV
Lead, TCLP	ND		mg/l	0.500	0.027	1	06/24/20 10:04 06/25/20 22:04 EPA 3015 1,60	10D BV
Mercury, TCLP	ND		mg/l	0.0010	0.0005	1	06/24/20 10:42 06/24/20 18:40 EPA 7470A 1,74	70A AL
Selenium, TCLP	ND		mg/l	0.500	0.035	1	06/24/20 10:04 06/25/20 22:04 EPA 3015 1,60	10D BV
Silver, TCLP	ND		mg/l	0.100	0.028	1	06/24/20 10:04 06/25/20 22:04 EPA 3015 1,60	10D BV



Serial_No:06262013:37

Project Name:	MINMILT	Lab Number:	L2025985
Project Number:	MIN2002	Report Date:	06/26/20
	SAMPLE RESULTS		
Lab ID:	L2025985-02	Date Collected:	06/19/20 14:15
Client ID:	WC0001 (L)	Date Received:	06/19/20
Sample Location:	540 SMITH STREET, FARMINGDALE, NY	Field Prep:	Not Specified
Sample Depth:		TCLP/SPLP Ext. Date	e: 06/22/20 08:14

Prep Dilution Date Date Analytical Method Qualifier Factor Prepared Analyzed Method Parameter Result Units RL MDL Analyst TCLP Metals by EPA 1311 - Mansfield Lab Arsenic, TCLP ND mg/l 1.00 0.019 1 06/23/20 15:48 06/25/20 00:33 EPA 3015 1,6010D ΒV Barium, TCLP 0.058 J 0.500 0.021 1 06/23/20 15:48 06/25/20 00:33 EPA 3015 1,6010D ΒV mg/l 1 Cadmium, TCLP ND mg/l 0.100 0.010 06/23/20 15:48 06/25/20 00:33 EPA 3015 1,6010D ΒV 1 Chromium, TCLP ND mg/l 0.200 0.021 06/23/20 15:48 06/25/20 00:33 EPA 3015 1,6010D ΒV Lead, TCLP ND 0.500 0.027 06/23/20 15:48 06/25/20 00:33 EPA 3015 1,6010D mg/l 1 ΒV 1,7470A Mercury, TCLP ND 0.0010 0.0005 1 06/23/20 16:04 06/24/20 10:00 EPA 7470A GD mg/l Selenium, TCLP ND mg/l 0.500 0.035 1 06/23/20 15:48 06/25/20 00:33 EPA 3015 1,6010D ΒV Silver, TCLP ND 0.028 1 1,6010D ΒV 0.100 06/23/20 15:48 06/25/20 00:33 EPA 3015 mg/l



Matrix:

Water

 Lab Number:
 L2025985

 Report Date:
 06/26/20

Project Name: MINMILT Project Number: MIN2002

Method Blank Analysis Batch Quality Control

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
TCLP Metals by EPA 1	1311 - Mansfield Lab	for sample	e(s): 02	Batch:	WG13848	53-1			
Arsenic, TCLP	ND	mg/l	1.00	0.019	1	06/23/20 15:48	06/24/20 23:37	1,6010D	BV
Barium, TCLP	ND	mg/l	0.500	0.021	1	06/23/20 15:48	06/24/20 23:37	1,6010D	BV
Cadmium, TCLP	ND	mg/l	0.100	0.010	1	06/23/20 15:48	06/24/20 23:37	1,6010D	BV
Chromium, TCLP	ND	mg/l	0.200	0.021	1	06/23/20 15:48	06/24/20 23:37	1,6010D	BV
Lead, TCLP	ND	mg/l	0.500	0.027	1	06/23/20 15:48	06/24/20 23:37	1,6010D	BV
Selenium, TCLP	ND	mg/l	0.500	0.035	1	06/23/20 15:48	06/24/20 23:37	1,6010D	BV
Silver, TCLP	ND	mg/l	0.100	0.028	1	06/23/20 15:48	06/24/20 23:37	1,6010D	BV

Prep Information

Digestion Method: EPA 3015

TCLP/SPLP Extraction Date: 06/22/20 08:14

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	
TCLP Metals by EPA 13	311 - Mansfield Lab	for sample	e(s): 02	Batch:	WG13848	54-1			
Mercury, TCLP	ND	mg/l	0.0010	0.0005	1	06/23/20 16:04	06/24/20 09:50	1,7470A	GD

Prep Information

Digestion Method:	EPA 7470A
TCLP/SPLP Extraction Date:	06/22/20 08:14

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
TCLP Metals by EPA 1	1311 - Mansfield Lab	for sample	e(s): 01	Batch:	WG13849	04-1			
Arsenic, TCLP	ND	mg/l	1.00	0.019	1	06/24/20 09:27	06/25/20 08:31	1,6010D	PE
Barium, TCLP	ND	mg/l	0.500	0.021	1	06/24/20 09:27	06/25/20 08:31	1,6010D	PE
Cadmium, TCLP	ND	mg/l	0.100	0.010	1	06/24/20 09:27	06/25/20 08:31	1,6010D	PE
Chromium, TCLP	ND	mg/l	0.200	0.021	1	06/24/20 09:27	06/25/20 08:31	1,6010D	PE
Lead, TCLP	ND	mg/l	0.500	0.027	1	06/24/20 09:27	06/25/20 08:31	1,6010D	PE
Selenium, TCLP	ND	mg/l	0.500	0.035	1	06/24/20 09:27	06/25/20 08:31	1,6010D	PE
Silver, TCLP	ND	mg/l	0.100	0.028	1	06/24/20 09:27	06/25/20 08:31	1,6010D	PE



Lab Number: L2025985

Project Name: MINMILT Project Number: MIN2002

Report Date: 06/26/20

Method Blank Analysis Batch Quality Control

			Prep Info	ormatio	n				
		Digestion	Method:	EPA	3015				
	TCLP/SPL	P Extract	ion Date:	06/20)/20 13:15				
Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
TCLP Metals by EPA	1311 - Mansfield Lab	for sample	e(s): 01	Batch:	WG13849	06-1			
Mercury, TCLP	ND	mg/l	0.0010	0.0005	1	06/24/20 10:42	06/24/20 17:58	1,7470A	AL
			D						

Prep Information

Digestion Method: EPA 7470A

TCLP/SPLP Extraction Date: 06/20/20 13:15



Lab Control Sample Analysis

Batch Quality Control

Project Name:MINMILTProject Number:MIN2002

 Lab Number:
 L2025985

 Report Date:
 06/26/20

LCS LCSD %Recovery %Recovery Qual %Recovery Limits RPD **RPD** Limits Parameter Qual Qual TCLP Metals by EPA 1311 - Mansfield Lab Associated sample(s): 02 Batch: WG1384853-2 Arsenic, TCLP 100 -75-125 20 -Barium, TCLP 98 75-125 20 --Cadmium, TCLP 100 75-125 20 --Chromium, TCLP 102 75-125 20 --Lead, TCLP 101 75-125 20 --Selenium, TCLP 104 75-125 20 --Silver, TCLP 97 75-125 20 --TCLP Metals by EPA 1311 - Mansfield Lab Associated sample(s): 02 Batch: WG1384854-2 Mercury, TCLP 80-120 88 -TCLP Metals by EPA 1311 - Mansfield Lab Associated sample(s): 01 Batch: WG1384904-2 Arconio TCI D 100 75 405 20

Arsenic, TCLP	108	-	75-125	-	20
Barium, TCLP	100	-	75-125	-	20
Cadmium, TCLP	97	-	75-125	-	20
Chromium, TCLP	97	-	75-125	-	20
Lead, TCLP	104	-	75-125	-	20
Selenium, TCLP	107	-	75-125	-	20
Silver, TCLP	96	-	75-125	-	20



Project Name:MINMILTProject Number:MIN2002

 Lab Number:
 L2025985

 Report Date:
 06/26/20

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
TCLP Metals by EPA 1311 - Mansfield Lab A	ssociated sample(s): 01	Batch: WG1384906-2			
Mercury, TCLP	102	-	80-120	-	



Matrix Spike Analysis Batch Quality Control

Bat

Project Name:MINMILTProject Number:MIN2002

 Lab Number:
 L2025985

 Report Date:
 06/26/20

arameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Reco ^r Qual Lim		RPD Qual Limits
CLP Metals by EPA 131	1 - Mansfield Lab /	Associated s	sample(s): 02	2 QC Batch	ID: WG1	384853-3	QC Sample:	L2025567-86	6 Client ID:	MS Sample
Arsenic, TCLP	ND	1.2	1.20	100		-	-	75-1	25 -	20
Barium, TCLP	ND	20	19.7	98		-	-	75-1	25 -	20
Cadmium, TCLP	ND	0.51	0.517	101		-	-	75-1	25 -	20
Chromium, TCLP	ND	2	2.05	102		-	-	75-1	25 -	20
Lead, TCLP	ND	5.1	5.20	102		-	-	75-1	25 -	20
Selenium, TCLP	ND	1.2	1.25	104		-	-	75-1	25 -	20
Silver, TCLP	ND	0.5	0.490	98		-	-	75-1	25 -	20
CLP Metals by EPA 131	1 - Mansfield Lab /	Associated s	sample(s): 02	2 QC Batch	ID: WG1	384854-3	QC Sample:	L2025567-86	6 Client ID:	MS Sample
Mercury, TCLP	ND	0.025	0.0229	92		-	-	80-1	20 -	20
CLP Metals by EPA 131	1 - Mansfield Lab /	Associated s	sample(s): 01	QC Batch	ID: WG1	384904-3	QC Sample:	L2025567-77	7 Client ID:	MS Sample
Arsenic, TCLP	0.019J	1.2	1.31	109		-	-	75-1	25 -	20
Barium, TCLP	0.736	20	21.1	102		-	-	75-1	25 -	20
Cadmium, TCLP	0.012J	0.51	0.515	101		-	-	75-1	25 -	20
Chromium, TCLP	ND	2	1.99	100		-	-	75-1	25 -	20
Lead, TCLP	0.196J	5.1	5.58	109		-	-	75-1	25 -	20
Selenium, TCLP	ND	1.2	1.30	108		-	-	75-1	25 -	20
Silver, TCLP	ND	0.5	0.491	98		-	-	75-12	25 -	20
CLP Metals by EPA 131	1 - Mansfield Lab /	Associated s	sample(s): 01	QC Batch	ID: WG1	384906-3	QC Sample:	L2025567-77	7 Client ID:	MS Sample



Lab Duplicate Analysis Batch Quality Control

Project Name: MINMILT Project Number: MIN2002 Lab Number:

L2025985 Report Date: 06/26/20

rameter	Native Samp	Duplicate Sample	Units	RPD	Qual	RPD Limits
CLP Metals by EPA 1311 - Mansfield Lab	Associated sample(s): 02	QC Batch ID: WG1384853-4	QC Sample:	L2025567-86	Client ID:	DUP Sample
Arsenic, TCLP	ND	ND	mg/l	NC		20
Barium, TCLP	ND	ND	mg/l	NC		20
Cadmium, TCLP	ND	ND	mg/l	NC		20
Chromium, TCLP	ND	ND	mg/l	NC		20
Lead, TCLP	ND	ND	mg/l	NC		20
Selenium, TCLP	ND	ND	mg/l	NC		20
Silver, TCLP	ND	ND	mg/l	NC		20
CLP Metals by EPA 1311 - Mansfield Lab	Associated sample(s): 02	QC Batch ID: WG1384854-4	QC Sample:	L2025567-86	Client ID:	DUP Sample
Mercury, TCLP	ND			10		
	ND	ND	mg/l	NC		20
CLP Metals by EPA 1311 - Mansfield Lab				L2025567-77	Client ID:	
					Client ID:	
LP Metals by EPA 1311 - Mansfield Lab	Associated sample(s): 01	QC Batch ID: WG1384904-4	QC Sample:	L2025567-77	Client ID:	DUP Sample
CLP Metals by EPA 1311 - Mansfield Lab	Associated sample(s): 01 0.019J	QC Batch ID: WG1384904-4 ND	QC Sample: mg/l	L2025567-77 NC	Client ID:	DUP Sample 20
CLP Metals by EPA 1311 - Mansfield Lab Arsenic, TCLP Barium, TCLP	Associated sample(s): 01 0.019J 0.736	QC Batch ID: WG1384904-4 ND 0.786	QC Sample: mg/l mg/l	L2025567-77 NC 7	Client ID:	DUP Sample 20 20
CLP Metals by EPA 1311 - Mansfield Lab Arsenic, TCLP Barium, TCLP Cadmium, TCLP	Associated sample(s): 01 0.019J 0.736 0.012J	QC Batch ID: WG1384904-4 ND 0.786 0.012J	QC Sample: mg/l mg/l mg/l	L2025567-77 NC 7 NC	Client ID:	DUP Sample 20 20 20 20
CLP Metals by EPA 1311 - Mansfield Lab Arsenic, TCLP Barium, TCLP Cadmium, TCLP Chromium, TCLP	Associated sample(s): 01 0.019J 0.736 0.012J ND	ND 0.786 0.012J ND	QC Sample: mg/l mg/l mg/l	L2025567-77 NC NC NC	Client ID:	DUP Sample 20 20 20 20 20 20 20
CLP Metals by EPA 1311 - Mansfield Lab Arsenic, TCLP Barium, TCLP Cadmium, TCLP Chromium, TCLP Lead, TCLP	Associated sample(s): 01 0.019J 0.736 0.012J ND 0.196J	ND 0.786 0.012J ND	QC Sample: mg/l mg/l mg/l mg/l	L2025567-77 NC NC NC NC	Client ID:	DUP Sample 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20
CLP Metals by EPA 1311 - Mansfield Lab Arsenic, TCLP Barium, TCLP Cadmium, TCLP Chromium, TCLP Lead, TCLP Selenium, TCLP	Associated sample(s): 01 0.019J 0.736 0.012J ND 0.196J ND ND	QC Batch ID: WG1384904-4 ND 0.786 0.012J ND 0.201J ND ND	QC Sample: mg/l mg/l mg/l mg/l mg/l mg/l	L2025567-77 NC NC NC NC NC NC NC		DUP Sample 20 20 20 20 20 20 20 20 20



INORGANICS & MISCELLANEOUS



Serial	No:06262013:37
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06/19/20 14:00

06/19/20 Not Specified

Lab Number: L2025985 Report Date: 06/26/20

Date Collected:

Date Received:

Field Prep:

Project Name: MINMILT Project Number: MIN2002

SAMPLE RESULTS

Lab ID:L2025985-01Client ID:WC0001 (S)Sample Location:540 SMITH STREET, FARMINGDALE, NY

Sample Depth: Matrix:

Soil

Test Material Information

Source of Material:	Unknown
Description of Material:	Non-Metallic - Damp Sand
Particle Size:	Medium
Preliminary Burning Time (sec):	120

Parameter	Result	Date Analyzed	Analytical Method	Analyst
Ignitability of Solic	ls - Westborough Lab			
Ignitability	NI	06/25/20 05:40	1,1030	MV



Serial	No:06262013:37

Lab Number: L2025985 Report Date: 06/26/20

Project Name: MINMILT Project Number: MIN2002

Soil

SAMPLE RESULTS

Lab ID:	L2025985-01	Date Collected:	06/19/20 14:00
Client ID:	WC0001 (S)	Date Received:	06/19/20
Sample Location:	540 SMITH STREET, FARMINGDALE, NY	Field Prep:	Not Specified

Sample Depth: Matrix:

Parameter	Result	Qualifier Unit	s RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - V	Vestborough Lab								
Solids, Total	90.2	%	0.100	NA	1	-	06/20/20 13:47	121,2540G	RI
рН (Н)	7.4	SU	-	NA	1	-	06/22/20 20:32	1,9045D	AS
Cyanide, Reactive	ND	mg/ł	g 10	10.	1	06/22/20 21:32	06/22/20 22:46	125,7.3	KF
Sulfide, Reactive	ND	mg/ł	g 10	10.	1	06/22/20 21:32	06/22/20 22:35	125,7.3	KF



Lab Number: L2025985 Report Date: 06/26/20

Project Name: MINMILT Project Number: MIN2002

SAMPLE RESULTS

Par	rameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
	Sample Depth: Matrix:	Water									
	Client ID: Sample Location:	WC0001 (L) 540 SMITH \$		FARMING	GDALE, N	IY		Date Re Field Pre		06/19/20 Not Specified	
	Lab ID:	L2025985-02	2					Date Co	lected:	06/19/20 14:15	

General Chemistry - \	Nestborough Lab								
рН (Н)	7.4	SU	-	NA	1	-	06/22/20 19:07	121,4500H+-B	AS
Flash Point	>150	deg F	70	NA	1	-	06/22/20 14:45	1,1010A	AG
Cyanide, Reactive	ND	mg/l	1.0	1.0	1	06/22/20 20:14	06/22/20 21:02	125,7.3	KF
Sulfide, Reactive	ND	mg/l	1.0	1.0	1	06/22/20 20:14	06/22/20 20:58	125,7.3	KF



Project Name: MINMILT Project Number: MIN2002
 Lab Number:
 L2025985

 Report Date:
 06/26/20

Method Blank Analysis Batch Quality Control

Parameter	Result Qu	alifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry -	Westborough Lab	for sam	ple(s): 02	Batch:	WG13	84617-1				
Sulfide, Reactive	ND		mg/l	1.0	1.0	1	06/22/20 20:14	06/22/20 20:56	125,7.3	KF
General Chemistry -	Westborough Lab	for sam	ple(s): 02	Batch:	WG13	84618-1				
Cyanide, Reactive	ND		mg/l	1.0	1.0	1	06/22/20 20:14	06/22/20 21:00	125,7.3	KF
General Chemistry -	Westborough Lab	for sam	ple(s): 01	Batch:	WG13	84629-1				
Sulfide, Reactive	ND		mg/kg	10	10.	1	06/22/20 21:32	06/22/20 22:32	125,7.3	KF
General Chemistry -	Westborough Lab	for sam	ple(s): 01	Batch:	WG13	84630-1				
Cyanide, Reactive	ND		mg/kg	10	10.	1	06/22/20 21:32	06/22/20 22:42	125,7.3	KF



Lab Control Sample Analysis

Batch Quality Control

 Lab Number:
 L2025985

 Report Date:
 06/26/20

%Recovery LCS LCSD %Recovery %Recovery Limits RPD **RPD Limits** Qual Parameter Qual Qual General Chemistry - Westborough Lab Associated sample(s): 02 Batch: WG1384502-1 Flash Point 100 -96-104 General Chemistry - Westborough Lab Associated sample(s): 02 Batch: WG1384573-1 pН 101 99-101 5 General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG1384576-1 pН 100 99-101 -General Chemistry - Westborough Lab Associated sample(s): 02 Batch: WG1384617-2 25 Sulfide, Reactive 102 -60-125 General Chemistry - Westborough Lab Associated sample(s): 02 Batch: WG1384618-2 Cyanide, Reactive 84 30-125 25 General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG1384629-2 Sulfide, Reactive 104 60-125 40 -General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG1384630-2 40 Cyanide, Reactive 83 -30-125



Project Name:

Project Number:

MINMILT

MIN2002

Lab Duplicate Analysis Batch Quality Control

Project Name: MINMILT Project Number: MIN2002

Lab Number: L2025985 Report Date: 06/26/20

Parameter	Nat	ive S	ample	Duplicate Sam	nple Unit	s RPE) Qual	RPD Limits
General Chemistry - Westborough Lab	Associated sample(s):	01	QC Batch ID:	WG1384065-1	QC Sample:	L2025928-01	Client ID:	DUP Sample
Solids, Total		94.0	6	95.0	%	0		20
General Chemistry - Westborough Lab	Associated sample(s):	02	QC Batch ID:	WG1384573-2	QC Sample:	L2025939-01	Client ID:	DUP Sample
рН		7.2	2	7.1	SU	1		5
General Chemistry - Westborough Lab	Associated sample(s):	01	QC Batch ID:	WG1384576-2	QC Sample:	L2026114-01	Client ID:	DUP Sample
рН		7.5	;	7.5	SU	0		5
General Chemistry - Westborough Lab	Associated sample(s):	02	QC Batch ID:	WG1384617-3	QC Sample:	L2025985-02	Client ID:	WC0001 (L)
Sulfide, Reactive		ND)	ND	mg/l	I NC		25
General Chemistry - Westborough Lab	Associated sample(s):	02	QC Batch ID:	WG1384618-3	QC Sample:	L2025985-02	Client ID:	WC0001 (L)
Cyanide, Reactive		ND)	ND	mg/	I NC		25
General Chemistry - Westborough Lab	Associated sample(s):	01	QC Batch ID:	WG1384629-3	QC Sample:	L2025985-01	Client ID:	WC0001 (S)
Sulfide, Reactive		ND)	ND	mg/k	g NC		40
General Chemistry - Westborough Lab	Associated sample(s):	01	QC Batch ID:	WG1384630-3	QC Sample:	L2025985-01	Client ID:	WC0001 (S)
Cyanide, Reactive		NC)	ND	mg/k	g NC		40



Project Name: MINMILT Project Number: MIN2002

Serial_No:06262013:37 Lab Number: L2025985 Report Date: 06/26/20

Sample Receipt and Container Information

Were project specific reporting limits specified?

YES

Cooler Information

Cooler	Custody Seal
A	Absent

Container Info	ormation		Initial	Final	Temp			Frozen	
Container ID	Container Type	Cooler	pН	рН	-	Pres	Seal	Date/Time	Analysis(*)
L2025985-01A	Vial MeOH preserved	А	NA		3.7	Y	Absent		NYTCL-8260HLW(14)
L2025985-01B	Vial water preserved	А	NA		3.7	Υ	Absent	20-JUN-20 08:37	NYTCL-8260HLW(14)
L2025985-01C	Vial water preserved	А	NA		3.7	Υ	Absent	20-JUN-20 08:37	NYTCL-8260HLW(14)
L2025985-01D	Plastic 2oz unpreserved for TS	А	NA		3.7	Y	Absent		TS(7)
L2025985-01E	Glass 500ml/16oz unpreserved	А	NA		3.7	Y	Absent		IGNIT-1030(14),REACTS(14),PH- 9045(1),REACTCN(14),NYTCL-8082(14)
L2025985-01X	Plastic 120ml HNO3 preserved Extracts	A	NA		3.7	Y	Absent		CD-CI(180),BA-CI(180),AS-CI(180),HG- C(28),PB-CI(180),CR-CI(180),SE-CI(180),AG- CI(180)
L2025985-01X9	Tumble Vessel	А	NA		3.7	Y	Absent		-
L2025985-02A	Vial HCI preserved	А	NA		3.7	Y	Absent		NYTCL-8260(14)
L2025985-02B	Vial HCI preserved	А	NA		3.7	Υ	Absent		NYTCL-8260(14)
L2025985-02C	Vial HCI preserved	А	NA		3.7	Υ	Absent		NYTCL-8260(14)
L2025985-02D	Amber 120ml unpreserved	А	7	7	3.7	Υ	Absent		NYTCL-8082-LVI(7)
L2025985-02E	Amber 120ml unpreserved	А	7	7	3.7	Y	Absent		NYTCL-8082-LVI(7)
L2025985-02F	Amber 500ml unpreserved	А	7	7	3.7	Y	Absent		REACTS(7),REACTCN(7),FLASH()
L2025985-02G	Plastic 950ml unpreserved	А	7	7	3.7	Y	Absent		PH-4500(.01)
L2025985-02X	Plastic 120ml HNO3 preserved Extracts	A	NA		3.7	Y	Absent		CD-CI(180),AS-CI(180),BA-CI(180),HG- C(28),PB-CI(180),CR-CI(180),SE-CI(180),AG- CI(180)
L2025985-02X9	Tumble Vessel	А	NA		3.7	Υ	Absent		-



Serial_No:06262013:37

Project Name: MINMILT

Project Number: MIN2002

Lab Number: L2025985

Report Date: 06/26/20

GLOSSARY

Acronyms

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

Report Format: DU Report with 'J' Qualifiers



Project Name:	MINMILT	Lab Number:	L2025985
Project Number:	MIN2002	Report Date:	06/26/20

1

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

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum. Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

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

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Waterpreserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'. Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

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

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

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

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

Data Qualifiers

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

Report Format: DU Report with 'J' Qualifiers



Serial_No:06262013:37

Project Name:	MINMILT	Lab Number:	L2025985
Project Number:	MIN2002	Report Date:	06/26/20

Data Qualifiers

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

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

Report Format: DU Report with 'J' Qualifiers



Project Name: MINMILT Project Number: MIN2002

 Lab Number:
 L2025985

 Report Date:
 06/26/20

REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.
- 121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.
- 125 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates IIIA, April 1998.

LIMITATION OF LIABILITIES

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

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



Certification Information

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

Westborough Facility

EPA 624/624.1: m/p-xylene, o-xylene, Naphthalene
EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D: NPW: Dimethylnaphthalene, 1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene, 1,4-Diphenylhydrazine.
SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO2, NO3.
Mansfield Facility
SM 2540D: TSS
EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 1-Methylnaphthalene.
SPA 3C Fixed gases
Biological Tissue Matrix: EPA 3050B

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

Westborough Facility:

Drinking Water

EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; EPA 353.2: Nitrate-N, Nitrite-N; SM4500NO3-F: Nitrate-N, Nitrite-N; SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B EPA 332: Perchlorate; EPA 524.2: THMs and VOCs; EPA 504.1: EDB, DBCP. Microbiology: SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D.

Non-Potable Water

SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, EPA 350.1: Ammonia-N, LACHAT 10-107-06-1-B: Ammonia-N, EPA 351.1, SM4500NO3-F, EPA 353.2: Nitrate-N, SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate. EPA 624.1: Volatile Halocarbons & Aromatics,

EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs **EPA 625.1**: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.

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

Mansfield Facility:

Drinking Water

EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. EPA 200.8: Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. EPA 245.1 Hg. EPA 522.

Non-Potable Water

EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn. **EPA 200.8:** Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn. **EPA 245.1** Hg. **SM2340B**

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

	NEW YORK CHAIN OF CUSTODY	Service Centers Mahwah, NJ 07430: 35 Whitney Albany, NY 12205: 14 Walker W Tonawanda, NY 14150: 275 Co	¥ay	5	Page of		-	Date F in L		6	,/1	9/2	0	- HANGE	ALPHA JOB # 2025985		
Westborough, MA 01581 8 Walkup Dr.	Mansfield, MA 02048 320 Forbes Blvd	Project Information	1				Delive	erables		201		4310	Vil 3	_	Billing Information		
TEL: 508-898-9220 FAX: 508-898-9193	TEL: 508-822-9300 FAX: 508-822-3288	Project Name: Min N					ASP-A ASP-B							. r	Same as Client Info		
PAA. 505-650-9195	FAX: 500-022-5200	Project Location: 540.	Smith Str	eet, Fari	mirgdale,	NY		EQuis	6 (1 Fil	le)		EQuIS	(4 File)	PO#		
Client Information		Project # MINZ	2002		v			Other			_						
client: PWG-C		(Use Project name as Pr		1.1			Regu	latory l	Requir	rement			l o s		Disposal Site Information		
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	NY 11716	ALPHAQuote #:	-				AWQ Standards NY CP-51								applicable disposal facilities.		
Phone: 631 - 589	-6353	Turn-Around Time			1 KKING			NY Re	stricted	Use		Other			Disposal Facility:		
Fax:		Standard		Due Date:				NY Un	restricte	ed Use					🗌 NJ 🗌 NY		
Email: RByKov@p	hugerosser.com	Rush (only if pre approved	0	# of Days:			NYC Sewer Discharge								Other.		
These samples have be	en previously analyze	ed by Alpha 🛛					ANAI	YSIS			_				Sample Filtration	_	
Other project specific		nents:					VOC	TCUP Metals (RCEA)		Y+ini	-	point			Done Lab to do Preservation Lab to do		
1							260	Me	20	さ	-	4	-		(Please Specify below)		
ALPHA Lab ID (Lab Use Only)	Sa	imple ID	Colle	tion Time	Sample Matrix	Sampler's Initials	821	3	PCB	Peact ivi	H	los			Sample Specific Comments	s	
25985 -01	WCOOL	(5)	5-19-2020	1400	5	KC	V	X	X	×	X	X	-		1	5	
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A = None H B = HCI	P = Plastic A = Amber Glass	Westboro: Certification Mansfield: Certification Mansfield			Con	tainer Type	%	A/P	A	MA.	Te	MA.			Please print clearly, leand completely. Samp	-	
D = H ₂ SO ₄	/ = Vial 3 = Glass 3 = Bacteria Cup				P	reservative	BAAAA		A/A	A	AA			not be logged in and turnaround time clock start until any ambiguit			
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APPENDIX D DATA USABILITY SUMMARY REPORT

P.W. GROSSER CONSULTING, INC.
P.W. GROSSER CONSULTING ENGINEER & HYDROGEOLOGIST, P.C.PHONE: 631.589.6353
PWGROSSER.COM630 JOHNSON AVENUE, STE 7
BOHEMIA, NY 11716LONG ISLAND • MANHATTAN • SARATOGA SPRINGS • SYRACUSE • SEATTLE • SHELTON



P.W. Grosser Consulting 630 Johnson Ave, Suite 7 Bohemia, NY 11716 ATTN: Mr. Ryan Morley ryanm@pwgrosser.com July 8, 2020

SUBJECT: MINMILT, Data Usability Summary Report

Dear Mr. Morley,

Enclosed are the final validation reports for the fraction listed below. These SDGs were received on June 18, 2020. Attachment 1 is a summary of the samples that were reviewed for each analysis.

LDC Project #48381:

SDG #

Fraction

L2020621, L2020812 L2021006, L2021318 Volatiles

The data validation was performed under modified Category B guidelines using quality control summaries provided by the laboratory. The analyses were validated using the following documents, as applicable to each method:

- USEPA Region 2 Standard Operating Procedure for Validating Volatile Organic Compounds By Gas Chromatography/Mass Spectrometry SW-Method 8260B and 8260C, SOP HW-24, Revision 4; October 2014
- USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review, EPA 540-R-2017-002; January 2017
- EPA SW 846, Third Edition, Test Methods for Evaluating Solid Waste, update 1, July 1992; update IIA, August 1993; update II, September 1994; update IIB, January 1995; update III, December 1996; update IIIA, April 1998; IIIB, November 2004; update IV, February 2007; update V, July 2014

Please feel free to contact us if you have any questions.

Sincerely,

eisting Rink

Christina Rink <u>crink@lab-data.com</u> Project Manager/Senior Chemist

	309 pages-DL													At	tach	men	it 1																				_
Cate	jory B / 5%of Data	or 1 Meth	od/SDG		LC	DC :	#48	38	1 (F	P.W	. G	ros	se	r Co	ons	ult	ing	- E	Soh	em	ia,	NY	/ N	IIN	MIL	. T)											
LDC	SDG#	DATE REC'D	(3) DATE DUE	(6 VC (826	DA																												-				
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В	L2020812	06/18/20	07/09/20	0	2																																
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Site:	MINMILT
Laboratory:	Alpha Analytical, Inc.
Report No.:	L2020621
Reviewer:	Josephine Go and Christina Rink/Laboratory Data Consultants for P.W.
	Grosser Consulting
Date:	July 7, 2020

Samples Reviewed and Evaluation Summary

FIELD ID	LAB ID	FRACTIONS VALIDATED
DB001 (90-95) DB001 (90-95)MS DB001 (90-95)MSD	L2020621-06 L2020621-06MS L2020621-06MSD	VOC VOC VOC

Associated QC Samples(s): Field/Trip Blanks: TB001, EB001 Field Duplicate pair: None Associated

The above-listed soil samples were collected on May 18, 2020 and were analyzed for volatile organic compounds (VOCs) by SW-846 method 8260C. The data validation was performed in accordance with the USEPA Region 2 *Standard Operating Procedure for Validating Volatile Organic Compounds By Gas Chromatography/Mass Spectrometry SW-Method 8260B and 8260C*, SOP HW-24, Revision 4 (October 2014) and the USEPA *Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review*, EPA 540-R-2017-002 (January 2017), modified as necessary to accommodate the non-CLP methodologies used.

The organic data were evaluated based on the following parameters:

- Data Completeness
- Holding Times and Sample Preservation
- Gas Chromatography/Mass Spectrometry (GC/MS) Tunes
- Initial and Continuing Calibrations
- Blanks
- Surrogate Recoveries
- Matrix Spike/Matrix Spike Duplicate (MS/MSD) Results
- Laboratory Control Sample (LCS) Results
- Internal Standards
- Field Duplicate Results
- Moisture Content
- Quantitation Limits and Data Assessment
- Sample Quantitation and Compound Identification

Overall Evaluation of Data and Potential Usability Issues

All results are usable as reported or usable with minor qualification due to sample matrix.

The validation findings were based on the following information.

Data Completeness

The data package was complete as defined under the requirements for the NYSDEC ASP category B laboratory deliverables.

Holding Times and Sample Preservation

All criteria were met.

GC/MS Tunes

All criteria were met.

Initial and Continuing Calibrations

All criteria were met.

Blanks

Contamination was not detected in the method blanks.

No positive results were found in the trip blank sample TB001 and equipment blank sample EB001 for VOC analysis.

Surrogate Recoveries

All criteria were met.

MS/MSD Results

MS/MSD analyses were performed on sample DB001 (90-95) for VOC analysis. The following table lists the MS/MSD percent recoveries (%R) outside of control limits in the VOC analysis and the resulting validation actions.

MS ID	Compound	MS %R (Limits)	MS/D %R (Limits)	Affected Sample	Validation Action
DB001 (90-95)MS/MSD	Tetrachloroethene	-	64 (70-130)	DB001 (90-95)	J detects

- Within control limits

The tetrachloroethene result may be biased low due to low MS/MSD percent recovery. The result can be used for project objectives as an estimated value (J) which may have a minor impact on the data usability.

LCS Results

All criteria were met.

Internal Standards

All criteria were met.

Field Duplicate Results

A field duplicate pair was not associated with this sample set. Validation action was not required on this basis.

Moisture Content

All criteria were met.

Quantitation Limits and Data Assessment

No results were reported below the reporting limit (RL) and above the method detection limit (MDL) in the VOC analysis.

Due to high target compound levels or difficult sample matrix, select samples were analyzed at dilutions. The following table lists the sample dilutions which were performed and the results reported. RLs were elevated accordingly.

	VOC Analysis						
Sample	Reported						
DB001 (90-95)	50-fold dilution due to nature of sample matrix						

Sample Quantitation and Compound Identification

Calculations were spot-checked; no discrepancies were noted.

DATA VALIDATION QUALIFIERS

- U The analyte was analyzed for, but due to blank contamination was flagged as nondetect (U). The result is usable as a nondetect.
- J Data are flagged (J) when a QC analysis fails outside the primary acceptance limits. The qualified "J" data are not excluded from further review or consideration. However, only one flag (J) is applied to a sample result, even though several associated QC analyses may fail. The 'J' data may be biased high or low or the direction of the bias may be indeterminable.
- UJ The analyte was not detected above the reported sample quantitation limit. Data are flagged (UJ) when a QC analysis fails outside the primary acceptance limits. The qualified "UJ" data are not excluded from further review or consideration. However, only one flag is applied to a sample result, even though several associated QC analyses may fail. The 'UJ' data may be biased low.
- JN The analysis indicates the presence of a compound that has been "tentatively identified" (N) and the associated numerical value represents its approximate (J) concentration.
- R Data rejected (R) on the basis of an unacceptable QC analysis should be excluded from further review or consideration. Data are rejected when associated QC analysis results exceed the expanded control limits of the QC criteria. The rejected data are known to contain significant errors based on documented information. The data user must not use the rejected data to make environmental decisions. The presence or absence of the analyte cannot be verified.

Results Summary Form 1 Volatile Organics by EPA 5035

Client	: P. W. Grosser	Lab Number	: L2020621
Project Name	: MINMILT	Project Number	: MIN2001
Lab ID	: L2020621-06	Date Collected	: 05/18/20 13:00
Client ID	: DB001 (90-95)	Date Received	: 05/19/20
Sample Location	: 540 SMITH ST, FARMINGDALE, NY	Date Analyzed	: 05/21/20 21:04
Sample Matrix	: SOIL		: 1
Analytical Method	: 1,8260C	Analyst	: JC
Lab File ID	: V27200521A20	Instrument ID	: VOA127
Sample Amount	: 6.1 g	GC Column	: RTX-VMS
Level	: HIGH	%Solids	: 82
Extract Volume (MeOH)	: 5 ml	Injection Volume	: N/A

			ug/Kg			
CAS NO.	Parameter	Results	RL	MDL	Qualifier	
127-18-4	Tetrachloroethene	8100	31	12.	5	5
75-01-4	Vinyl chloride	ND	62	21.	υĻ)
156-60-5	trans-1,2-Dichloroethene	ND	93	8.5	U	*********
79-01-6	Trichloroethene	ND	31	8.5	U	
156-59-2	cis-1,2-Dichloroethene	ND	62	11.	U	
540-59-0	1,2-Dichloroethene, Total	ND	62	8.5	n A	

JUL 0 8 2020 Initials: *CR*



VALIDATION COMPLETENESS WORKSHEET

Category B

SDG #: <u>L2020621</u> Laboratory: <u>Alpha Analytical, Inc.</u>

LDC #: 48381A1a

Date: <u>0</u> / 0 • / 2, Page: <u>of</u> Reviewer: <u>M</u> 2nd Reviewer:

Laboratory. 7 April 7 Analytical, mo.

METHOD: GC/MS Volatiles (EPA SW 846 Method 8260)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments	
Ι.	Sample receipt/Technical holding times	A, A		
П.	GC/MS Instrument performance check	A		
.	Initial calibration/ICV	AIA	KAL = 202	1015302
IV.	Continuing calibration		Cal = 20/,	
V.	Laboratory Blanks	A		
VI.	Field blanks	ND	EB = EB601 + B = TB001	(same SDG)
VII.	Surrogate spikes	A		,
VIII.	Matrix spike/Matrix spike duplicates	SW		
IX.	Laboratory control samples	A	Las (p	
Х.	Field duplicates	N		
XI.	Internal standards	Ŕ		
XII.	Compound quantitation RL/LOQ/LODs	A	(no results CRL)	
XIII.	Target compound identification	A		
XIV.	System performance	A		
XV.	Overall assessment of data	A		

Note:

A = Acceptable N = Not provided/applicable

SW = See worksheet

ND = No compounds detected R = Rinsate FB = Field blank D = Duplicate TB = Trip blank EB = Equipment blank SB=Source blank OTHER:

	Client ID		(JUX)	Lab ID	Matrix	k Date
1	DB001 (90-95)			 L2020621-06	Soil	05/18/20
2	DB001 (90-95)MS			L2020621-06N	IS Soil	05/18/20
3	DB001 (90-95)MSD			 L2020621-06N	ISD Soil	05/18/20
4						
5						
6						
7						
8						
٩						
Notes				 		
	WG137 7612-5 BL	ANK				
	(c, s,	AA,	PPP, QQQ, J)			

VALIDATION FINDINGS CHECKLIST

. ...

Page: <u>1 of 2</u> Reviewer: <u>JVG</u> 2nd Reviewer: _____

Method: Volatiles (EPA SW 846 Method 8260C)

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
Were all technical holding times met?				
Was cooler temperature criteria met?	/			
II. GC/MS Instrument performance check				
Were the BFB performance results reviewed and found to be within the specified criteria?	/			
Were all samples analyzed within the 12 hour clock criteria?	/			
IIIa. Initial calibration				
Did the laboratory perform a 5 point calibration prior to sample analysis?		·		
Were all percent relative standard deviations (%RSD) < 20% and relative response factors (RRF) within method criteria?	/			
Was a curve fit used for evaluation? If yes, did the initial calibration meet the curve fit acceptance criteria of \geq 0.990?	W		/	
IIIb. Initial Calibration Verification		·····		
Was an initial calibration verification standard analyzed after each initial calibration for each instrument?				
Were all percent differences (%D) ≤ 30%?				
IV. Continuing calibration	_			····
Was a continuing calibration standard analyzed at least once every 12 hours for each instrument?				
Were all percent differences (%D) \leq 20% and relative response factors (RRF) within method criteria?				
V. Laboratory Blanks				
Was a laboratory blank associated with every sample in this SDG?				
Was a laboratory blank analyzed at least once every 12 hours for each matrix and concentration?				
Was there contamination in the laboratory blanks?		<u> </u>		
VI. Field blanks				
Were field blanks were identified in this SDG?	\bigvee			
Were target compounds detected in the field blanks?		/		
VII. Surrogate spikes	,			
Were all surrogate percent recovery (%R) within QC limits?				·
If the percent recovery (%R) for one or more surrogates was out of QC limits, was a reanalysis performed to confirm samples with %R outside of criteria?			/	
VIII. Matrix spike/Matrix spike duplicates				
Were matrix spike (MS) and matrix spike duplicate (MSD) analyzed in this SDG?				
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?				

VALIDATION FINDINGS CHECKLIST

Page: <u>2_of_2_</u> Reviewer: <u>JVG</u>

2nd Reviewer:

Validation Area	Yes	No	NA	Findings/Comments
IX. Laboratory control samples				
Was an LCS analyzed per analytical batch?	/			
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?	/			
X. Field duplicates				
Were field duplicate pairs identified in this SDG?				
Were target compounds detected in the field duplicates?				
XI. Internal standards				
Were internal standard area counts within -50% to +100% of the associated calibration standard?	/			
Were retention times within ± 30 seconds of the associated calibration standard?				
XII. Compound quantitation				
Did the laboratory LOQs/RLs meet the QAPP LOQs/RLs?				
Were the correct internal standard (IS), quantitation ion and relative response factor (RRF) used to quantitate the compound?	/			
Were compound quantitation and RLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	/			
XIII. Target compound identification				
Were relative retention times (RRT's) within ± 0.06 RRT units of the standard?				
Did compound spectra meet specified EPA "Functional Guidelines" criteria?				
Were chromatogram peaks verified and accounted for?				
XIV. System performance				
System performance was found to be acceptable.	$\lfloor /$			
XV. Overall assessment of data	-	<u>,</u>		
Overall assessment of data was found to be acceptable.				

TARGET COMPOUND WORKSHEET

METHOD: VOA

WETHOD: VOA					
A. Chloromethane	AA. Tetrachloroethene	AAA. 1,3,5-Trimethylbenzene	AAAA. Ethyl tert-butyl ether	A1. 1,3-Butadiene	A2.
B. Bromomethane	BB. 1,1,2,2-Tetrachloroethane	BBB. 4-Chlorotoluene	BBBB. tert-Amyl methyl ether	B1. Hexane	B2.
C. Vinyl choride	CC. Toluene	CCC. tert-Butylbenzene	CCCC. 1-Chlorohexane	C1. Heptane	C2.
D. Chioroethane	DD. Chlorobenzene	DDD. 1,2,4-Trimethylbenzene	DDDD. Isopropyl alcohol	D1. Propylene	D2.
E. Methylene chloride	EE. Ethylbenzene	EEE. sec-Butylbenzene	EEEE. Acetonitrile	E1. Freon 11	E2.
F. Acetone	FF. Styrene	FFF. 1,3-Dichlorobenzene	FFFF. Acrolein	F1. Freon 12	F2.
G. Carbon disulfide	GG. Xylenes, total	GGG. p-Isopropyltoluene	GGGG. Acrylonitrile	G1. Freon 113	G2.
H. 1,1-Dichloroethene	HH. Vinyl acetate	HHH. 1,4-Dichlorobenzene	HHHH. 1,4-Dioxane	H1. Freon 114	H2.
I. 1,1-Dichloroethane	II. 2-Chloroethylvinyl ether	III. n-Butylbenzene	IIII. Isobutyl alcohol	I1. 2-Nitropropane	12.
J. 1,2-Dichloroethene, total	JJ. Dichlorodifluoromethane	JJJ. 1,2-Dichlorobenzene	JJJJ. Methacrylonitrile	J1. Dimethyl disulfide	J2.
K. Chloroform	KK. Trichlorofluoromethane	KKK. 1,2,4-Trichlorobenzene	KKKK. Propionitrile	K1. 2,3-Dimethyl pentane	К2.
L. 1,2-Dichloroethane	LL. Methyl-tert-butyl ether	LLL. Hexachlorobutadiene	LLLL. Ethyl ether	L1. 2,4-Dimethyl pentane	L2.
M. 2-Butanone	MM. 1,2-Dibromo-3-chloropropane	MMM. Naphthalene	MMMM. Benzyl chloride	M1. 3,3-Dimethyl pentane	M2.
N. 1,1,1-Trichloroethane	NN. Methyl ethyl ketone	NNN. 1,2,3-Trichlorobenzene	NNNN. lodomethane	N1. 2-Methylpentane	N2.
O. Carbon tetrachloride	OO. 2,2-Dichloropropane	OOO. 1,3,5-Trichlorobenzene	0000.1,1-Difluoroethane	O1. 3-Methylpentane	02.
P. Bromodichloromethane	PP. Bromochloromethane	PPP. trans-1,2-Dichloroethene	PPPP. Tetrahydrofuran	P1. 3-Ethylpentane	P2.
Q. 1,2-Dichloropropane	QQ. 1,1-Dichloropropene	QQQ. cis-1,2-Dichloroethene	QQQQ. Methyl acetate	Q1. 2,2-Dimethylpentane	Q2.
R. cis-1,3-Dichloropropene	RR. Dibromomethane	RRR. m,p-Xylenes	RRRR. Ethyl acetate	R1. 2,2,3- Trimethylbutane	R2.
S. Trichloroethene	SS. 1,3-Dichloropropane	SSS. o-Xylene	SSSS. Cyclohexane	S1. 2,2,4-Trimethylpentane	S2.
T. Dibromochloromethane	TT. 1,2-Dibromoethane	TTT. 1,1,2-Trichloro-1,2,2-trifluoroethane	TTTT. Methylcyclohexane	T1. 2-Methylhexane	T2.
U. 1,1,2-Trichloroethane	UU. 1,1,1,2-Tetrachloroethane	UUU. 1,2-Dichlorotetrafluoroethane	UUUU. Allyl chloride	U1. Nonanal	U2.
V. Benzene	VV. Isopropylbenzene	VVV. 4-Ethyltoluene	VVVV. Methyl methacrylate	V1. 2-Methylnaphthalene	V2.
W. trans-1,3-Dichloropropene	WW. Bromobenzene	WWW. Ethanol	WWWW, Ethyl methacrylate	W1. Methanol	W2.
X. Bromoform	XX. 1,2,3-Trichloropropane	XXX. Di-isopropyl ether	XXXX. cis-1,4-Dichloro-2-butene	X1. 1,2,3-Trimethylbenzene	X2.
Y. 4-Methyl-2-pentanone	YY. n-Propylbenzene	YYY. tert-Butanol	YYYY. trans-1,4-Dichloro-2-butene	Y1.	Y2.
Z. 2-Hexanone	ZZ. 2-Chlorotoluene	ZZZ. tert-Butyl alcohol	ZZZZ. Pentachloroethane	Z1.	Z2.

LDC #: 48381 CIA

VALIDATION FINDINGS WORKSHEET Matrix Spike/Matrix Spike Duplicates

Page:	of
Reviewer:	JVG
2nd Reviewer	

METHOD : GC/MS VOA (EPA SW 846 Method 8260C)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD. Soil / Water.

N/A Was a MS/MSD analyzed every 20 samples of each matrix? N/N/A Were the MS/MSD percent recoveries (%R) and the relative

Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?

#	Date	MS/MSD ID	Compound	MS %R (Limits)	MSD %R (Limits)	RPD (Limits)	Associated Samples	Qualifications
		2/3	AA	()	64 (70-130)	()	1 (Pet)	J/UJ/A
				()	()	()		
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LDC #: <u>48381A1a</u>

VALIDATION FINDINGS WORKSHEET Initial Calibration Calculation Verification

Page: <u>1</u> of <u>1</u> Reviewer: <u>JVG</u> 2nd Reviewer: _____

METHOD: GC/MS VOA (EPA SW 846 Method 8260C)

The Relative Response Factor (RRF), average RRF, and percent relative standard deviation (%RSD) were recalculated for the compounds identified below using the following calculations:

 $RRF = (A_x)(C_{is})/(A_{is})(C_x)$ average RRF = sum of the RRFs/number of standards %RSD = 100 * (S/X) A_x = Area of Compound C_x = Concentration of compound, S= Standard deviation of the RRFs, A_{is} = Area of associated internal standard

- C_{is} = Concentration of internal standard
- X = Mean of the RRFs

#	Standard ID	Calibration Date	Compound (IS)	Reported RRF (RRF 20 std)	Recalculated RRF (RRF 20 std)	Reported Average RRF (Initial)	Recalculated Average RRF (Initial)	Reported %RSD	Recalculated %RSD
1	ICAL	02/12/20	Trichloroethene (FB)	0.250	0.250	0.265	0.265	9.61	9.62
	VOA 127		Tetrachloroethene (CBZ	0.372	0.372	0.377	0.377	4.79	4.77

LDC # 48381A1a

VALIDATION FINDINGS WORKSHEET Continuing Calibration Results Verification

Page:<u>1_of_1</u> Reviewer:<u>JVG</u> 2nd Reviewer:_____

METHOD: GC/MS VOA (EPA SW 846 Method 8260C)

The percent difference (%D) of the initial calibration average Relative Response Factors (RRFs) and the continuing calibration RRFs were recalculated for the compounds identified below using the following calculation:

% Difference = 100 * (ave. RRF - RRF)/ave. RRF RRF = (Ax)(Cis)/(Ais)(Cx) Where: ave. RRF = initial calibration average RRF RRF = continuing calibration RRF Ax = Area of compound,

Cx = Concentration of compound, Ais = Area of associated internal standard Cis = Concentration of internal standard

						Reported	Recalculated	Reported	Recalculated
		Calibration			Average RRF	RRF	RRF	% D	%D
#	Standard ID	Date	Compound	(IS)	(Initial)	(CC)	(CC)		
1	V27200521A02	05/21/20	Trichloroethene	(FB)	0.265	0.261	0.261	1.6	1.7
	VOA 127		Tetrachloroethene	(CBZ)	0.377	0.341	0.341	9.5	9.5

VALIDATION FINDINGS WORKSHEET Surrogate Results Verification

Page: 1_of_1_ Reviewer: ______ 2nd reviewer: ______

METHOD: GC/MS VOA (EPA SW 846 Method 8260C)

The percent recoveries (%R) of surrogates were recalculated for the compounds identified below using the following calculation:

% Recovery: SF/SS * 100

Where: SF = Surrogate Found SS = Surrogate Spiked

Sample ID:_____

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Dibromofluoromethane	20.0	19.561	98	98	9
1,2-Dichloroethane-d4		20.709	104	104	
Toluene-d8		19.207	96	96	1
Bromofluorobenzene	*	20.614	103	107	X

Sample ID:_____

× .	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Dibromofluoromethane					
1,2-Dichloroethane-d4					
Toluene-d8					
Bromofluorobenzene					

Sample ID:_____

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Dibromofluoromethane					
1,2-Dichloroethane-d4					
Toluene-d8					
Bromofluorobenzene					

Sample ID:_____

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Dibromofluoromethane					
1,2-Dichloroethane-d4					
Toluene-d8					
Bromofluorobenzene					

Sample ID:_

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Dibromofluoromethane			,		
1,2-Dichloroethane-d4					
Toluene-d8					
Bromofluorobenzene					

LDC #: 48381 AIA

VALIDATION FINDINGS WORKSHEET Matrix Spike/Matrix Spike Duplicates Results Verification

Page: 1_of_1 Reviewer: JVG 2nd Reviewer:

METHOD: GC/MS VOA (EPA SW 846 Method 8260C)

The percent recoveries (%R) and Relative Percent Difference (RPD) of the matrix spike and matrix spike duplicate were recalculated for the compounds identified below using the following calculation:

% Recovery = 100 * (SSC - SC)/SA

Where: SSC = Spiked sample concentration SA = Spike added SC = Sample concentration

RPD = I MSC - MSC I * 2/(MSC + MSDC)

MSC = Matrix spike concentration

MSDC = Matrix spike duplicate concentration

MS/MSD sample: 2/2

Compound	Ac	pike Ided Æ()	Sample Concentration	(19/4)		Matrix Percent I			Matrix Spike Duplicate Percent Recovery		/MSD PD
	MS	MSD		MS	MSD	Reported	Recalc	Reported	Recalc	Reported	Recalculated
1,1-Dichloroethene											
Trichloroethene	6200	6200	0	7100	6500	n4	114	164	104,8	9	(>
Benzene											
Toluene						_					
Chlorobenzene											

Comments: <u>Refer to Matrix Spike/Matrix Spike Duplicates findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.</u>

LDC #: 48 9/51 A(~

VALIDATION FINDINGS WORKSHEET Laboratory Control Sample Results Verification

Page: <u>1</u> of <u>1</u> Reviewer: <u>JVG</u> 2nd Reviewer: _____

METHOD: GC/MS VOA (EPA SW 846 Method 8260C)

The percent recoveries (%R) and Relative Percent Difference (RPD) of the laboratoy control sample and laboratory control sample duplicate (if applicable) were recalculated for the compounds identified below using the following calculation:

% Recovery = 100 * SSC/SA

Where: SSC = Spiked sample concentration SA = Spike added

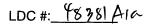
RPD = I LCSC - LCSDC I * 2/(LCSC + LCSDC)

LCSC = Laboratory control sample concentration LCSDC = Laboratory control sample duplicate concentration

LCS ID: _____WG1373612-3,4

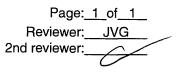
Compound	Ad	bike Ided)/Fc)	Spiked Sample Concentration (لام الحر)		LCS Percent Recovery		LCSD Percent Recovery		LCS/LCSD RPD	
	LCS	LCSD	LCS		Reported	Recalc.	Reported	Recalc.	Reported	Recalculated
1,1-Dichloroethene Trichloroethene	2000	2000	1968	1907	da es	48	97	95	7)	3
Benzene										
Toluene Chlorobenzene										

Comments: <u>Refer to Laboratory Control Sample findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0%</u> of the recalculated results.



METHOD: GC/MS VOA (EPA SW 846 Method 8260C)

VALIDATION FINDINGS WORKSHEET Sample Calculation Verification



Y/N Y/N		orted results recalculated and alculated results for detected t				orted results?					
Conce	entration = $\frac{(A_x)(I_s)(V_p)(DF}{(A_{s})(RRF)(V_s)}$	<u>-)</u> (%S)		nple:							
A _x		teristic ion (EICP) for the	Sam	ple I.D,	PCE:						
A _{is} I _s	internal standard	teristic ion (EICP) for the specific standard added in nanograms	$Conc. = \frac{(608238)(20)(6.118)(50)}{(246405)(0.377)(6.069)(0.8155)}$								
RRF	(ng)	factor of the calibration standard.	(246405) (0.377) (6.06g) (0.8195)								
V _o	= Volume or weight of	 Volume or weight of sample purged in milliliters (ml) or grams (g). 			= 8105.79						
V_p	= Purge Volume		2 8100 mg kg								
%S	 Percent solids, app only. 	plicable to soils and solid matrices			<u> </u>						
#	Sample ID	Compound		Reported Concentration	Calculated Concentration	Qualification					
	[PCE		8100	8160						
					0,00						
	con vol. = 5	m + (6.09 (0.1845)] 118 m									
	= 6.	118 ml			· · · · · · · · · · · · · · · · · · ·						
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Site:	MINMILT
Laboratory:	Alpha Analytical, Inc.
Report No.:	L2020812
Reviewer:	Josephine Go and Christina Rink/Laboratory Data Consultants for P.W.
	Grosser Consulting
Date:	July 7, 2020

Samples Reviewed and Evaluation Summary

FIELD ID	LAB ID	FRACTIONS VALIDATED
DB002 (10-15)(Low level) DB002 (10-15) (High level)		VOC VOC

Associated QC Samples(s): Field/Trip Blanks: TB002, FB002 Field Duplicate pair: None Associated

The above-listed soil samples were collected on May 19, 2020 and were analyzed for volatile organic compounds (VOCs) by SW-846 method 8260C. The data validation was performed in accordance with the USEPA Region 2 *Standard Operating Procedure for Validating Volatile Organic Compounds By Gas Chromatography/Mass Spectrometry SW-Method 8260B and 8260C*, SOP HW-24, Revision 4 (October 2014) and the USEPA *Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review*, EPA 540-R-2017-002 (January 2017), modified as necessary to accommodate the non-CLP methodologies used.

The organic data were evaluated based on the following parameters:

- Data Completeness
- Holding Times and Sample Preservation
- Gas Chromatography/Mass Spectrometry (GC/MS) Tunes
- Initial and Continuing Calibrations
- Blanks
- Surrogate Recoveries
- Matrix Spike/Matrix Spike Duplicate (MS/MSD) Results
- Laboratory Control Sample (LCS) Results
- Internal Standards
- Field Duplicate Results
- Moisture Content
- Quantitation Limits and Data Assessment
- Sample Quantitation and Compound Identification

Overall Evaluation of Data and Potential Usability Issues

All results are usable as reported.

The validation findings were based on the following information.

Data Completeness

The data package was complete as defined under the requirements for the NYSDEC ASP category B laboratory deliverables.

Holding Times and Sample Preservation

All criteria were met.

GC/MS Tunes

All criteria were met.

Initial and Continuing Calibrations

All criteria were met.

<u>Blanks</u>

Contamination was not detected in the method blanks.

No positive results were found in the trip blank sample TB002 and field blank sample FB002 for VOC analysis.

Surrogate Recoveries

All criteria were met.

MS/MSD Results

MS/MSD analyses were not associated with this sample set. Validation action was not required on this basis.

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LCS Results

All criteria were met.

Internal Standards

All criteria were met.

Field Duplicate Results

A field duplicate pair was not associated with this sample set. Validation action was not required on this basis.

Moisture Content

All criteria were met.

Quantitation Limits and Data Assessment

Results were reported which were below the reporting limit (RL) and above the method detection limit (MDL) in the VOC analysis. These results were qualified as estimated (J) by the laboratory.

Due to high target compound levels or difficult sample matrix, select samples were analyzed at dilutions. The following table lists the sample dilutions which were performed and the results reported. RLs were elevated accordingly.

	VOC Analysis
Sample	Reported
DB002 (10-15) (High level)	50-fold dilution due to nature of sample matrix

Sample Quantitation and Compound Identification

Calculations were spot-checked; no discrepancies were noted.

In the case where more than one result was reported for an individual sample, the least technically acceptable results were deemed not reportable as follows:

Sample	Compound	Reason	Validation Action
DB002 (10-15) (Low level)	Tetrachloroethene	Lower results.	Not reportable
	Trichloroethene		
	cis-1,2-Dichloroethene		
	1,2-Dichloroethene, total		
DB002 (10-15) (High level)	Vinyl chloride	Higher reporting limits.	Not reportable
	trans-1,2-Dichloroethene		_

DATA VALIDATION QUALIFIERS

- U The analyte was analyzed for, but due to blank contamination was flagged as nondetect (U). The result is usable as a nondetect.
- J Data are flagged (J) when a QC analysis fails outside the primary acceptance limits. The qualified "J" data are not excluded from further review or consideration. However, only one flag (J) is applied to a sample result, even though several associated QC analyses may fail. The 'J' data may be biased high or low or the direction of the bias may be indeterminable.
- UJ The analyte was not detected above the reported sample quantitation limit. Data are flagged (UJ) when a QC analysis fails outside the primary acceptance limits. The qualified "UJ" data are not excluded from further review or consideration. However, only one flag is applied to a sample result, even though several associated QC analyses may fail. The 'UJ' data may be biased low.
- JN The analysis indicates the presence of a compound that has been "tentatively identified" (N) and the associated numerical value represents its approximate (J) concentration.
- R Data rejected (R) on the basis of an unacceptable QC analysis should be excluded from further review or consideration. Data are rejected when associated QC analysis results exceed the expanded control limits of the QC criteria. The rejected data are known to contain significant errors based on documented information. The data user must not use the rejected data to make environmental decisions. The presence or absence of the analyte cannot be verified.

Results Summary Form 1 Volatile Organics by EPA 5035 High

Client Project Name Lab ID Client ID Sample Locatio Sample Matrix Analytical Meth Lab File ID Sample Amour Level Extract Volume	: SOIL od : 1,8260C : V27200522A25		Lab Num Project N Date Col Date Rec Date Ana Dilution I Analyst Instrume GC Colu %Solids Injection	lumber lected ceived alyzed Factor nt ID mn	: L2020812 : MIN2002 : 05/19/20 12:40 : 05/20/20 : 05/22/20 16:43 : 1 : MKS : VOA127 : RTX-VMS : 93 : N/A
CAS NO.	Parameter	Results	ug/Kg RL	MDL	Qualifier
127-18-4	Tetrachloroethene	280	25	9.7	
75-01-4	Vinyl chloride	ND	50	17.	U Not repartable
156-60-5	trans-1,2-Dichloroethene	ND	74	6.8	U Not repartable U Not repartable
79-01-6	Trichloroethene	12	25	6.8	15
156-59-2	cis-1,2-Dichloroethene	73	50	8.7	
540-59-0	1,2-Dichloroethene, Total	73	50	6.8	

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JUL 0 8 2020

Initials: CR



Results Summary Form 1 Volatile Organics by EPA 5035

AS NO.	Parameter	Results RL MDL Qualifier
		ug/Kg
Extract Volum	e (MeOH) : N/A	Injection Volume : N/A
Level	: LOW	%Solids : 93
Sample Amou	ınt : 6.3 g	GC Column : RTX-VMS
Lab File ID	: V00200524A24	Instrument ID : VOA100
Analytical Me	thod : 1,8260C	Analyst : JC
Sample Matri	c : SOIL	Dilution Factor : 1
Sample Locat	ion : 540 SMITH STREET, FARM	NGDALE Date Analyzed : 05/24/20 19:41
Client ID	: DB002 (10-15)	Date Received : 05/20/20
Lab ID	: L2020812-04	Date Collected : 05/19/20 12:40
Project Name	: MINMILT	Project Number : MIN2002
Client	: P. W. Grosser	Lab Number : L2020812

127-18-4	Tetrachloroethene	17	0.43	0.17		Notrepartable
75-01-4	Vinyl chloride	ND	0.86	0.29	U	\cup
156-60-5	trans-1,2-Dichloroethene	ND	1.3	0.12	U	V
79-01-6	Trichloroethene	1.7	0.43	0.12		Notreportable
156-59-2	cis-1,2-Dichloroethene	11	0.86	0.15		No+ reportable
540-59-0	1,2-Dichloroethene, Total	11	0.86	0.12		Not reportable

JUL 0 8 2020

Initials: CR



VALIDATION COMPLETENESS WORKSHEET

Category B

LDC #: 48381B1a SDG #: L2020812

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Laboratory: Alpha Analytical, Inc.

Date Page Reviewer 2nd Reviewer:

METHOD: GC/MS Volatiles (EPA SW 846 Method 8260)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments				
<u> </u>	Sample receipt/Technical holding times	AIA					
11.	GC/MS Instrument performance check	A					
111.	Initial calibration/ICV	AIA	ICAL	6202	INE	301,	
IV.	Continuing calibration	A	CCN	£202 = 2020			
V.	Laboratory Blanks	X					
<u>VI.</u>	Field blanks	ND	FB = F	0002 TB:	= TB002		
VII.	Surrogate spikes	A					
VIII.	Matrix spike/Matrix spike duplicates	N					
IX.	Laboratory control samples	A	us	19			
X .	Field duplicates	N					
<u></u>	Internal standards	A					
XII.	Compound quantitation RL/LOQ/LODs	Á	Resu	HS LRL 7N	1DL = J du	łs	
XIII.	Target compound identification	A			· ····		
XIV.	System performance	A					
XV.	Overall assessment of data	SW					
Note:	N = Not provided/applicable R = Rin	o compounds sate eld blank	s detected	D = Duplicate TB = Trip blank EB = Equipment bla	OTHER:	rce blank	
	Client ID			Lab ID	Matrix	Date	
1 [DB002 (10-15) (Low level)			L2020812-04 LL	Soil	05/19/20	
2		0X)		L HL			
3							
4							
5							
6							
6 7							
8							
9							
Notes:							
<u> </u> h	G 1374132-5 BRANK						
7 1	61374392-51						
	(C,S,AA, PPP, QQQ J)						

VALIDATION FINDINGS CHECKLIST

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Page: <u>1</u> of <u>2</u> Reviewer: <u>JVG</u> 2nd Reviewer:

Method: Volatiles (EPA SW 846 Method 8260C)

Validation Area	Yes	No	NA	Findings/Comments	
I. Technical holding times					
Were all technical holding times met?	/				
Was cooler temperature criteria met?	/				
II. GC/MS Instrument performance check					
Were the BFB performance results reviewed and found to be within the specified criteria?	/				
Were all samples analyzed within the 12 hour clock criteria?					
IIIa. Initial calibration	<i>-</i>				
Did the laboratory perform a 5 point calibration prior to sample analysis?	1				
Were all percent relative standard deviations (%RSD) < 20% and relative response factors (RRF) within method criteria?	/				
Was a curve fit used for evaluation? If yes, did the initial calibration meet the curve fit acceptance criteria of \geq 0.990?			/		
IIIb. Initial Calibration Verification					
Was an initial calibration verification standard analyzed after each initial calibration for each instrument?	/				
Were all percent differences (%D) ≤ 30%?	\angle				
IV. Continuing calibration					
Was a continuing calibration standard analyzed at least once every 12 hours for each instrument?					
Were all percent differences (%D) \leq 20% and relative response factors (RRF) within method criteria?					
V. Laboratory Blanks					
Was a laboratory blank associated with every sample in this SDG?	[
Was a laboratory blank analyzed at least once every 12 hours for each matrix and concentration?					
Was there contamination in the laboratory blanks?					
VI. Field blanks					
Were field blanks were identified in this SDG?	/				
Were target compounds detected in the field blanks?					
VII. Surrogate spikes					
Were all surrogate percent recovery (%R) within QC limits?					
If the percent recovery (%R) for one or more surrogates was out of QC limits, was a reanalysis performed to confirm samples with %R outside of criteria?				/	
VIII. Matrix spike/Matrix spike duplicates					
Were matrix spike (MS) and matrix spike duplicate (MSD) analyzed in this SDG?		\square			
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?			/		

VALIDATION FINDINGS CHECKLIST

Page:	<u>2_of_2_</u>
Reviewer:_	JVG
2nd Reviewer:	0

Validation Area	Yes	No	NA	Findings/Comments
IX. Laboratory control samples				
Was an LCS analyzed per analytical batch?	/			
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?		,		
X. Field duplicates				
Were field duplicate pairs identified in this SDG?				/
Were target compounds detected in the field duplicates?			7	
XI. Internal standards				
Were internal standard area counts within -50% to +100% of the associated calibration standard?	/			
Were retention times within ± 30 seconds of the associated calibration standard?				
XII. Compound quantitation				
Did the laboratory LOQs/RLs meet the QAPP LOQs/RLs?	(
Were the correct internal standard (IS), quantitation ion and relative response factor (RRF) used to quantitate the compound?				
Were compound quantitation and RLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	/			
XIII. Target compound identification				
Were relative retention times (RRT's) within \pm 0.06 RRT units of the standard?	1			
Did compound spectra meet specified EPA "Functional Guidelines" criteria?	/			
Were chromatogram peaks verified and accounted for?	/			
XIV. System performance	,			
System performance was found to be acceptable.	/			
XV. Overall assessment of data	\square			
Overall assessment of data was found to be acceptable.	Ĺ			

TARGET COMPOUND WORKSHEET

A. Chloromethane AA. Tetrachloroethene AAA. 1,3,5-Trimethylbenzene AAAA. Ethyl tert-butyl ether A1. 1,3-Butadiene A2. B. Bromomethane BB. 1,1,2,2-Tetrachloroethane BBB. 4-Chlorotoluene BBBB. tert-Amyl methyl ether B1. Hexane B2. C. Vinyl choride CC. Toluene CCC. tert-Butylbenzene CCCC. 1-Chlorohexane C1. Heptane C2. D. Chloroethane DD. Chlorobenzene DDD. 1,2,4-Trimethylbenzene DDDD. Isopropyl alcohol D1. Propylene D2. E. Methylene chloride EE. Ethylbenzene EEE. sec-Butylbenzene EEEE. Acetonitrile E1. Freon 11 E2. F. Acetone FF. Styrene FFF. 1,3-Dichlorobenzene FFFF. Acrolein F1. Freon 12 F2. G. Carbon disulfide GG. Xylenes, total GGG. p-isopropyltoluene GGGG. Acrylonitrile G1. Freon 113 G2. H. 1,1-Dichloroethene HH. Vinyl acetate HHH. 1,4-Dichlorobenzene HHHH. 1,4-Dioxane H1. Freon 114 H2. I. 1,1-Dichloroethane II. 2-Chloroethylvinyl ether III. n-Butylbenzene IIII. Isobutyl alcohol 11. 2-Nitropropane 12. J. 1,2-Dichloroethene, total JJ. Dichlorodifluoromethane JJJ. 1.2-Dichlorobenzene JJJJ. Methacrylonitrile J1. Dimethyl disulfide J2. KKK. 1,2,4-Trichlorobenzene KKKK. Propionitrile K2. K. Chloroform KK. Trichlorofluoromethane K1. 2,3-Dimethyl pentane L. 1,2-Dichloroethane LL. Methyl-tert-butyl ether LLL. Hexachlorobutadiene LLLL. Ethyl ether L1. 2,4-Dimethyl pentane L2. MMM, Naphthalene MMMM, Benzvl chloride M1. 3,3-Dimethyl pentane M. 2-Butanone MM. 1,2-Dibromo-3-chloropropane M2. N. 1,1,1-Trichloroethane NN. Methyl ethyl ketone NNN. 1.2.3-Trichlorobenzene NNNN. Iodomethane N1. 2-Methylpentane N2. 02. O. Carbon tetrachloride OO. 2,2-Dichloropropane OOO. 1,3,5-Trichlorobenzene 0000.1,1-Difluoroethane O1. 3-Methylpentane P2. PPP. trans-1,2-Dichloroethene PPPP. Tetrahydrofuran P1. 3-Ethylpentane P. Bromodichloromethane PP. Bromochloromethane QQ. 1,1-Dichloropropene QQQ, cis-1.2-Dichloroethene QQQQ. Methyl acetate Q1. 2,2-Dimethylpentane Q2. Q. 1,2-Dichloropropane R. cis-1,3-Dichloropropene R1. 2,2,3- Trimethylbutane R2. RR. Dibromomethane RRR. m.p-Xylenes RRRR. Ethyl acetate S1. 2,2,4-Trimethylpentane S. Trichloroethene SS. 1,3-Dichloropropane SSS. o-Xylene SSSS. Cyclohexane S2. T1. 2-Methylhexane T2. T. Dibromochloromethane TT. 1,2-Dibromoethane TTT. 1,1,2-Trichloro-1,2,2-trifluoroethane TTTT. Methylcyclohexane U2. UUU. 1,2-Dichlorotetrafluoroethane UUUU. Allyl chloride U1. Nonanal U. 1,1,2-Trichloroethane UU. 1,1,1,2-Tetrachloroethane V. Benzene VV. Isopropylbenzene VVV. 4-Ethyltoluene VVVV. Methyl methacrylate V1. 2-Methylnaphthalene V2. W. trans-1,3-Dichloropropene WW. Bromobenzene WWW. Ethanol WWWW. Ethyl methacrylate W1. Methanol W2. X1. 1,2,3-Trimethylbenzene X2. X. Bromoform XX. 1,2,3-Trichloropropane XXX. Di-isopropyl ether XXXX. cis-1,4-Dichloro-2-butene YYY, tert-Butanol YYYY. trans-1,4-Dichloro-2-butene Y1. Y2. Y. 4-Methyl-2-pentanone YY. n-Propylbenzene ZZ. 2-Chlorotoluene ZZZ. tert-Butyl alcohol ZZZZ. Pentachloroethane Z1. Z2. Z. 2-Hexanone

METHOD: VOA

VALIDATION FINDINGS WORKSHEET Overall Assessment of Data

Page:		_of_	
Reviewer:	J	VG	
2nd Reviewer:	<u>د</u>		

METHOD: GC/MS VOA (EPA SW 846 Method 8260C)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Attavailable information pertaining to the data were reviewed using professional judgement to compliment the determination of the overall quality of the data.

#	Date	Sample ID	Compound	Finding	Qualifications
			AA S ROR J	Lower results	NR
		2	C, PPP	higher RL's	
			,		

Comments: _____

VALIDATION FINDINGS WORKSHEET Initial Calibration Calculation Verification

Page: <u>1</u> of <u>1</u> Reviewer: <u>JVG</u> 2nd Reviewer: _____

METHOD: GC/MS VOA (EPA SW 846 Method 8260C)

The Relative Response Factor (RRF), average RRF, and percent relative standard deviation (%RSD) were recalculated for the compounds identified below using the following calculations:

 $\mathsf{RRF} = (\mathsf{A}_\mathsf{x})(\mathsf{C}_\mathsf{is})/(\mathsf{A}_\mathsf{is})(\mathsf{C}_\mathsf{x})$

average RRF = sum of the RRFs/number of standards %RSD = 100 * (S/X) A_x = Area of Compound C_x = Concentration of compound, S= Standard deviation of the RRFs, A_{is} = Area of associated internal standard

C_{is} = Concentration of internal standard

X = Mean of the RRFs

#	Standard ID	Calibration Date	Compound (IS)	Reported RRF (RRF 20 std)	Recalculated RRF (RRF 20 std)	Reported Average RRF (Initial)	Recalculated Average RRF (Initial)	Reported %RSD	Recalculated %RSD
1	ICAL VOA 127	02/12/20	Trichloroethene (FB) Tetrachloroethene (CB2	0.250 Z) 0.372	0.250 0.372	0.265 0.377	0.265 0.377	9.61 4.79	9.62 4.77
2	ICAL VOA 100	05/12/20	Trichloroethene (FB) Tetrachloroethene (CB2		0.221 0.317	0.216 0.301	0.216 0.301	7.07 7.48	7.06 7.50

LDC # <u>48381B1a</u>

VALIDATION FINDINGS WORKSHEET Continuing Calibration Results Verification

Page: <u>1</u> of <u>1</u> Reviewer: <u>JVG</u> 2nd Reviewer: _____

METHOD: GC/MS VOA (EPA SW 846 Method 8260C)

The percent difference (%D) of the initial calibration average Relative Response Factors (RRFs) and the continuing calibration RRFs were recalculated for the compounds identified below using the following calculation:

% Difference = 100 * (ave. RRF - RRF)/ave. RRF RRF = (Ax)(Cis)/(Ais)(Cx) Where: ave. RRF = initial calibration average RRF RRF = continuing calibration RRF Ax = Area of compound,

Cx = Concentration of compound, Ais = Area of associated internal standard Cis = Concentration of internal standard

#	Standard ID	Calibration Date	Compound	(IS)	Average RRF (Initial)	Reported RRF (CC)	Recalculated RRF (CC)	Reported % D	Recalculated %D
1	V27200522A01	05/22/20	Trichloroethene	(FB)	0.265	0.263	0.263	0.8	0.8
	VOA 127		Tetrachloroethene	(CBZ)	0.377	0.347	0.347	8.0	8.0
2	V27200522A01	05/22/20	Trichloroethene	(FB)	0.216	0.234	0.234	8.3	8.4
	VOA 127		Tetrachloroethene	(CBZ)	0.301	0.341	0.341	13.3	13.3

VALIDATION FINDINGS WORKSHEET Surrogate Results Verification

Page: 1_of 1_ Reviewer: JVG 2nd reviewer:

METHOD: GC/MS VOA (EPA SW 846 Method 8260C)

The percent recoveries (%R) of surrogates were recalculated for the compounds identified below using the following calculation:

% Recovery: SF/SS * 100

Where: SF = Surrogate Found SS = Surrogate Spiked

Sample ID: # 2 (High level)

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Dibromofluoromethane	20.0	20.229	101	10)	9
1,2-Dichloroethane-d4		21.689	108	08	
Toluene-d8		19.119	96	96	
Bromofluorobenzene		21.878	109	109	J

Sample ID:_____

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Dibromofluoromethane					
1,2-Dichloroethane-d4					
Toluene-d8					
Bromofluorobenzene					

Sample ID:_____

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Dibromofluoromethane					
1,2-Dichloroethane-d4					
Toluene-d8					
Bromofluorobenzene					

Sample ID:_____

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Dibromofluoromethane					
1,2-Dichloroethane-d4					
Toluene-d8					
Bromofluorobenzene					

Sample ID:

Sample ID:				<u></u>	
	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Dibromofluoromethane					
1,2-Dichloroethane-d4					
Toluene-d8					
Bromofluorobenzene					

48381 B/a LDC #:

VALIDATION FINDINGS WORKSHEET Laboratory Control Sample Results Verification

Page: <u>1</u> of <u>1</u> Reviewer: <u>JVG</u> 2nd Reviewer: <u></u>

METHOD: GC/MS VOA (EPA SW 846 Method 8260C)

The percent recoveries (%R) and Relative Percent Difference (RPD) of the laboratoy control sample and laboratory control sample duplicate (if applicable) were recalculated for the compounds identified below using the following calculation:

 % Recovery = 100 * SSC/SA
 Where:
 SSC = Spiked sample concentration

 SA = Spike added
 SA = Spike added

 RPD = I LCSC - LCSDC I * 2/(LCSC + LCSDC)
 LCSC = Laboratory control sample concentration

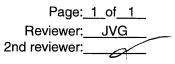
LCS ID: WG 137 d BZ_ 3,4

Compound	Α	spike dded s /k_)	Conc	d Sample entration හු /ිදා		CS		<u>SD</u> Recovery		
	LCS		LCS		Reported	Recalc.	Reported	Recalc.	Reported	Recalculated
1,1-Dichloroethene										
Trichloroethene	2000	2000	1980	1844	95	99	92	92	7	7
Benzene										
Toluene										
Chlorobenzene										

Comments: <u>Refer to Laboratory Control Sample findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0%</u> of the recalculated results.

LDC #: 48981 BIG

VALIDATION FINDINGS WORKSHEET Sample Calculation Verification



METHOD: GC/MS VOA (EPA SW 846 Method 8260C) N <u>N/A</u> Were all reported results recalculated and verified for all level IV samples? Were all recalculated results for detected target compounds agree within 10.0% of the reported results? N/A Example: Concentration = $(A_x)(I_s)(V_p)(DF)$ (A_{is})(RRF)(V_o)(%S) Sample I.D. 2, PCE Area of the characteristic ion (EICP) for the A_x = compound to be measured Area of the characteristic ion (EICP) for the specific A_{is} = internal standard $Conc. = \frac{(28201)(20)(5.338ml)(50)}{(263025)(0.377)(5.84g)(0.9325)}$ Amount of internal standard added in nanograms l, = (ng) Relative response factor of the calibration standard. = 278.8 280 ng/kg RRF = Volume or weight of sample purged in milliliters (ml) ٧。 = or grams (g). Purge Volume V_p = Percent solids, applicable to soils and solid matrices %S = only.

#	Sample ID	Compound	Reported Concentration (Vg /kz)	Calculated Concentration (Ug/k)	Qualification
	2	PCE	280	280	
	Vol. corr = 5m	1+ (5.84(0.676)]			
	z 5.3?	8			
				· · · ·	
					+
<u> </u>	· · · · · · · · · · · · · · · · · · ·				

Site:	MINMILT
Laboratory:	Alpha Analytical, Inc.
Report No.:	L2021006
Reviewer:	Josephine Go and Christina Rink/Laboratory Data Consultants for P.W.
	Grosser Consulting
Date:	July 7, 2020

Samples Reviewed and Evaluation Summary

FIELD ID	LAB ID	FRACTIONS VALIDATED
DB002 (165-170)	L2021006-13	VOC
DB002 (165-170)MS	L2021006-13MS	VOC
DB002 (165-170)MSD	L2021006-13MSD	VOC
Associated QC Samples(s):		
Field/Trip Blanks: TB	J03, EB003	

Field Duplicate pair: None Associated The above-listed soil samples were collected on May 20, 2020 and were analyzed for volatile organic compounds (VOCs) by SW-846 method 8260C. The data validation was performed in accordance with the USEPA Region 2 *Standard Operating Procedure for Validating Volatile Organic Compounds By Gas Chromatography/Mass Spectrometry SW-Method 8260B and 8260C*, SOP HW-24, Revision 4 (October 2014) and the USEPA *Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review*, EPA 540-R-2017-002 (January 2017), modified as necessary to accommodate the non-CLP methodologies used.

The organic data were evaluated based on the following parameters:

- Data Completeness
- Holding Times and Sample Preservation
- Gas Chromatography/Mass Spectrometry (GC/MS) Tunes
- Initial and Continuing Calibrations
- Blanks
- Surrogate Recoveries
- Matrix Spike/Matrix Spike Duplicate (MS/MSD) Results
- Laboratory Control Sample (LCS) Results
- Internal Standards
- Field Duplicate Results
- Moisture Content
- Quantitation Limits and Data Assessment
- Sample Quantitation and Compound Identification

Overall Evaluation of Data and Potential Usability Issues

All results are usable as reported or usable with minor qualification due to sample matrix.

The validation findings were based on the following information.

Data Completeness

The data package was complete as defined under the requirements for the NYSDEC ASP category B laboratory deliverables.

Holding Times and Sample Preservation

All criteria were met.

GC/MS Tunes

'All criteria were met.

Initial and Continuing Calibrations

All criteria were met.

<u>Blanks</u>

Contamination was not detected in the method blanks.

No positive results were found in the trip blank sample TB003 and equipment blank sample EB003 for VOC analysis.

Surrogate Recoveries

All criteria were met.

MS/MSD Results

MS/MSD analyses were performed on sample DB001 (90-95) for VOC analysis. The following table lists the MS/MSD percent recoveries (%R) outside of control limits in the VOC analysis and the resulting validation actions.

		MS %R	MS/D %R		Validation
MS ID	Compound	(Limits)	(Limits)	Affected Sample	Action
DB002 (165-170)MS/MSD	Tetrachloroethene	66 (70-130)	-	DB002 (165-170)	UJ nondetects

- Within control limits

The tetrachloroethene result may be biased low due to low MS/MSD percent recovery. The result can be used for project objectives as a nondetects with an estimated quantitation limit (UJ) which may have a minor impact on the data usability.

The following table lists the MS/MSD relative percent differences (RPD) outside of control limits in the VOC analysis and the resulting validation actions.

		RPD		Validation
MS ID	Compound	(Limits)	Affected Sample	Action
DB002 (165-170)MS/MSD	Tetrachloroethene	37 (≤30)	DB002 (165-170)	None

Validation action was not required for etrachloroethene due to MS/MSD relative percent difference exceedance as positive results only are affected and this compound was not detected in the associated sample.

LCS Results

All criteria were met.

Internal Standards

All criteria were met.

Field Duplicate Results

A field duplicate pair was not associated with this sample set. Validation action was not required on this basis.

Moisture Content

All criteria were met.

Quantitation Limits and Data Assessment

Results were reported which were below the reporting limit (RL) and above the method detection limit (MDL) in the VOC analysis. These results were qualified as estimated (J) by the laboratory.

Dilutions were not required for VOC analysis.

Sample Quantitation and Compound Identification

Calculations were spot-checked; no discrepancies were noted.

DATA VALIDATION QUALIFIERS

- U The analyte was analyzed for, but due to blank contamination was flagged as nondetect (U). The result is usable as a nondetect.
- J Data are flagged (J) when a QC analysis fails outside the primary acceptance limits. The qualified "J" data are not excluded from further review or consideration. However, only one flag (J) is applied to a sample result, even though several associated QC analyses may fail. The 'J' data may be biased high or low or the direction of the bias may be indeterminable.
- UJ The analyte was not detected above the reported sample quantitation limit. Data are flagged (UJ) when a QC analysis fails outside the primary acceptance limits. The qualified "UJ" data are not excluded from further review or consideration. However, only one flag is applied to a sample result, even though several associated QC analyses may fail. The 'UJ' data may be biased low.
- JN The analysis indicates the presence of a compound that has been "tentatively identified" (N) and the associated numerical value represents its approximate (J) concentration.
- R Data rejected (R) on the basis of an unacceptable QC analysis should be excluded from further review or consideration. Data are rejected when associated QC analysis results exceed the expanded control limits of the QC criteria. The rejected data are known to contain significant errors based on documented information. The data user must not use the rejected data to make environmental decisions. The presence or absence of the analyte cannot be verified.

Results Summary Form 1 Volatile Organics by EPA 5035

Client	: P. W. Grosser	Lab Number	: L2021006
Project Name	: MINMILT	Project Number	: MIN2002
Lab ID	: L2021006-13	Date Collected	: 05/20/20 12:40
Client ID	: DB002 (165-170)	Date Received	: 05/21/20
Sample Location	: 540 SMITH STREET, FARMINGDALE	Date Analyzed	: 05/28/20 00:33
Sample Matrix	: SOIL	Dilution Factor	: 1
Analytical Method	: 1,8260C	Analyst	: JC
Lab File ID	: V23200527N18	Instrument ID	: VOA123
Sample Amount	: 5.8 g	GC Column	: RTX-VMS
Level	: LOW	%Solids	: 87
Extract Volume (MeOH)	: N/A	Injection Volume	: N/A

			ug/Kg				
CAS NO.	Parameter	Results	RL	MDL	Qualifier		
127-18-4	Tetrachloroethene	ND	0.50	0.20	د ں ۳		
75-01-4	Vinyl chloride	ND	1.0	0.34	U U		
156-60-5	trans-1,2-Dichloroethene	ND	1.5	0.14	υU		
79-01-6	Trichloroethene	0.32	0.50	0.14	JJ		
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.18	υU		
540-59-0	1,2-Dichloroethene, Total	ND	1.0	0.14	υU		

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VALIDATION COMPLETENESS WORKSHEET

Category B

Laboratory: Alpha Analytical, Inc.

LDC #: 48381C1a

SDG #: L2021006

Date: <u>o1/o6/20</u> Page: <u>1 of 1</u> Reviewer: <u>0</u> 2nd Reviewer:

ري METHOD: GC/MS Volatiles (EPA SW 846 Method 8260)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
- I.	Sample receipt/Technical holding times	AIA	
١١.	GC/MS Instrument performance check	A	
- 111.	Initial calibration/ICV	AIA	1CAL 5202 1CAL 5306 COV 5 202
IV.	Continuing calibration	A	cave zolo
V.	Laboratory Blanks	A	
VI.	Field blanks	ND	EB = EBOOM TB = TBOO3 (SAME FOG)
	Surrogate spikes	A	
_VIII.	Matrix spike/Matrix spike duplicates	Św	
_ IX.	Laboratory control samples	A	Les /p
<u> </u>	Field duplicates	N	
XI.	Internal standards	A	
XII.	Compound quantitation RL/LOQ/LODs	A	Result = RI 7 MDL = Jacks
_xIII.	Target compound identification	<u> </u>	
XIV.	System performance	A	·
_xv.	Overall assessment of data	<u> </u>	

Note:

A = Acceptable N = Not provided/applicable SW = See worksheet

ND = No compounds detected
R = Rinsate
FB = Field blank

D = Duplicate TB = Trip blank EB = Equipment blank SB=Source blank OTHER:

	Client ID			Lab ID		Matrix	Date
1	DB002 (165-170)			 L20210	06-13	Soil	05/20/20
2	DB002 (165-170)MS			 L20210	06-13MS	Soil	05/20/20
3	DB002 (165-170)MSD			 L20210	06-13MSD	Soil	05/20/20
4				 			
5							
6							
7 8							
9							
lotes	:			 			
_	<u> </u>			 			
							
	(C,S,AA, P	'PP, add	, J)				

VALIDATION FINDINGS CHECKLIST

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Page: <u>1 of 2</u> Reviewer: <u>JVG</u> 2nd Reviewer:

Method: Volatiles (EPA SW 846 Method 8260C)

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
Were all technical holding times met?				
Was cooler temperature criteria met?				
II. GC/MS Instrument performance check				
Were the BFB performance results reviewed and found to be within the specified criteria?	/			
Were all samples analyzed within the 12 hour clock criteria?				
IIIa. Initial calibration	·/			
Did the laboratory perform a 5 point calibration prior to sample analysis?				
Were all percent relative standard deviations (%RSD) \leq 20% and relative response factors (RRF) within method criteria?	/			
Was a curve fit used for evaluation? If yes, did the initial calibration meet the curve fit acceptance criteria of \geq 0.990?			/	
IIIb. Initial Calibration Verification		 _	r	
Was an initial calibration verification standard analyzed after each initial calibration for each instrument?				
Were all percent differences (%D) ≤ 30%?				
IV. Continuing calibration	·,	·		···
Was a continuing calibration standard analyzed at least once every 12 hours for each instrument?				
Were all percent differences (%D) \leq 20% and relative response factors (RRF) within method criteria?				
V. Laboratory Blanks				
Was a laboratory blank associated with every sample in this SDG?				
Was a laboratory blank analyzed at least once every 12 hours for each matrix and concentration?			/	
Was there contamination in the laboratory blanks?				
VI. Field blanks				
Were field blanks were identified in this SDG?				
Were target compounds detected in the field blanks?				
VII. Surrogate spikes				
Were all surrogate percent recovery (%R) within QC limits?	\angle	[
If the percent recovery (%R) for one or more surrogates was out of QC limits, was a reanalysis performed to confirm samples with %R outside of criteria?				
VIII. Matrix spike/Matrix spike duplicates			4	3
Were matrix spike (MS) and matrix spike duplicate (MSD) analyzed in this SDG?		XX	Y	ING
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?			JAK.	ſ

VALIDATION FINDINGS CHECKLIST

Page: <u>2_</u> of <u>2_</u>
Reviewer: JVG
2nd Reviewer:

Validation Area	Yes	No	NA	Findings/Comments
IX. Laboratory control samples	/			
Was an LCS analyzed per analytical batch?	/			
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?				
X. Field duplicates				
Were field duplicate pairs identified in this SDG?				/
Were target compounds detected in the field duplicates?				
XI. Internal standards				
Were internal standard area counts within -50% to +100% of the associated calibration standard?				
Were retention times within ± 30 seconds of the associated calibration standard?				
XII. Compound quantitation	<u> </u>			
Did the laboratory LOQs/RLs meet the QAPP LOQs/RLs?				
Were the correct internal standard (IS), quantitation ion and relative response factor (RRF) used to quantitate the compound?	/			
Were compound quantitation and RLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	/			
XIII. Target compound identification				
Were relative retention times (RRT's) within \pm 0.06 RRT units of the standard?	/			
Did compound spectra meet specified EPA "Functional Guidelines" criteria?				
Were chromatogram peaks verified and accounted for?				
XIV. System performance				
System performance was found to be acceptable.	/			
XV. Overall assessment of data				
Overall assessment of data was found to be acceptable.				

TARGET COMPOUND WORKSHEET

METHOD: VOA

METHOD: VOA					
A. Chloromethane	AA. Tetrachloroethene	AAA. 1,3,5-Trimethylbenzene	AAAA. Ethyl tert-butyl ether	A1. 1,3-Butadiene	A2.
B. Bromomethane	BB. 1,1,2,2-Tetrachloroethane	BBB. 4-Chlorotoluene	BBBB. tert-Amyl methyl ether	B1. Hexane	B2.
C. Vinyl choride	CC. Toluene	CCC. tert-Butylbenzene	CCCC. 1-Chlorohexane	C1. Heptane	C2.
D. Chloroethane	DD. Chlorobenzene	DDD. 1,2,4-Trimethylbenzene	DDDD. Isopropyl alcohol	D1. Propylene	D2.
E. Methylene chloride	EE. Ethylbenzene	EEE. sec-Butylbenzene	EEEE. Acetonitrile	E1. Freon 11	E2.
F. Acetone	FF. Styrene	FFF. 1,3-Dichlorobenzene	FFFF. Acrolein	F1. Freon 12	F2.
G. Carbon disulfide	GG. Xylenes, total	GGG. p-Isopropyltoluene	GGGG. Acrylonitrile	G1. Freon 113	G2.
H. 1,1-Dichloroethene	HH. Vinyl acetate	HHH. 1,4-Dichlorobenzene	HHHH. 1,4-Dioxane	H1. Freon 114	H2.
I. 1,1-Dichloroethane	II. 2-Chloroethylvinyl ether	III. n-Butylbenzene	IIII. Isobutyl alcohol	I1. 2-Nitropropane	12.
J. 1,2-Dichloroethene, total	JJ. Dichlorodifluoromethane	JJJ. 1,2-Dichlorobenzene	JJJJ. Methacrylonitrile	J1. Dimethyl disulfide	J2.
K. Chloroform	KK. Trichlorofluoromethane	KKK. 1,2,4-Trichlorobenzene	KKKK. Propionitrile	K1. 2,3-Dimethyl pentane	К2.
L. 1,2-Dichloroethane	LL. Methyl-tert-butyl ether	LLL. Hexachlorobutadiene	LLLL. Ethyl ether	L1. 2,4-Dimethyl pentane	L2.
M. 2-Butanone	MM. 1,2-Dibromo-3-chloropropane	MMM. Naphthalene	MMMM. Benzyl chloride	M1. 3,3-Dimethyl pentane	M2.
N. 1,1,1-Trichloroethane	NN. Methyl ethyl ketone	NNN. 1,2,3-Trichlorobenzene	NNNN. lodomethane	N1. 2-Methylpentane	N2.
O. Carbon tetrachloride	OO. 2,2-Dichloropropane	OOO. 1,3,5-Trichlorobenzene	OOOO.1,1-Difluoroethane	O1. 3-Methylpentane	02.
P. Bromodichloromethane	PP. Bromochloromethane	PPP. trans-1,2-Dichloroethene	PPPP. Tetrahydrofuran	P1. 3-Ethylpentane	P2.
Q. 1,2-Dichloropropane	QQ. 1,1-Dichloropropene	QQQ. cis-1,2-Dichloroethene	QQQQ. Methyl acetate	Q1. 2,2-Dimethylpentane	Q2.
R. cis-1,3-Dichloropropene	RR. Dibromomethane	RRR. m,p-Xylenes	RRRR. Ethyl acetate	R1. 2,2,3- Trimethylbutane	R2.
S. Trichloroethene	SS. 1,3-Dichloropropane	SSS. o-Xylene	SSSS. Cyclohexane	S1. 2,2,4-Trimethylpentane	S2.
T. Dibromochloromethane	TT. 1,2-Dibromoethane	TTT. 1,1,2-Trichloro-1,2,2-trifluoroethane	TTTT. Methylcyclohexane	T1. 2-Methylhexane	T2.
U. 1,1,2-Trichloroethane	UU. 1,1,1,2-Tetrachloroethane	UUU. 1,2-Dichlorotetrafluoroethane	UUUU. Allyl chloride	U1. Nonanal	U2.
V. Benzene	VV. Isopropylbenzene	VVV. 4-Ethyltoluene	VVVV. Methyl methacrylate	V1. 2-Methylnaphthalene	V2.
W. trans-1,3-Dichloropropene	WW. Bromobenzene	WWW. Ethanol	WWWW. Ethyl methacrylate	W1. Methanol	W2.
X. Bromoform	XX. 1,2,3-Trichloropropane	XXX. Di-isopropyl ether	XXXX. cis-1,4-Dichloro-2-butene	X1. 1,2,3-Trimethylbenzene	X2.
Y. 4-Methyl-2-pentanone	YY. n-Propylbenzene	YYY. tert-Butanol	YYYY. trans-1,4-Dichloro-2-butene	Y1.	Y2.
Z. 2-Hexanone	ZZ. 2-Chlorotoluene	ZZZ. tert-Butyl alcohol	ZZZZ. Pentachloroethane	Z1.	Z2.

LDC #: 4838

VALIDATION FINDINGS WORKSHEET Matrix Spike/Matrix Spike Duplicates

Page:_	of
Reviewer:	JVG
2nd Reviewer:	9

METHOD : GC/MS VOA (EPA SW 846 Method 8260C)

Rease see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an Ý) N N/A associated MS/MSD. Soil / Water.

N N/A Was a MS/MSD analyzed every 20 samples of each matrix? (N)N/A

Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?

#	Date	MS/MSD ID	Compound	MS %R (Limits)	MSD %R (Limits)	RPD (Limits)	Associated Samples	Qualifications
		2/3	AA	64 (70-130)	• ()	()	(ND)	J/NJ/A J dets/A
			AA	()	()	37 (30)		J dets/A
			• •	()	()	()		
				()	()	()		
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VALIDATION FINDINGS WORKSHEET Initial Calibration Calculation Verification

Page: <u>1</u> of <u>1</u> Reviewer: <u>JVG</u> 2nd Reviewer: _____

METHOD: GC/MS VOA (EPA SW 846 Method 8260C)

The Relative Response Factor (RRF), average RRF, and percent relative standard deviation (%RSD) were recalculated for the compounds identified below using the following calculations:

 $RRF = (A_x)(C_{is})/(A_{is})(C_x)$ average RRF = sum of the RRFs/number of standards %RSD = 100 * (S/X) A_x = Area of Compound C_x = Concentration of compound, S= Standard deviation of the RRFs, A_{is} = Area of associated internal standard C_{is} = Concentration of internal standard X = Mean of the RRFs

	#	Standard ID	Calibration Date	Compound (IS)	Reported RRF (RRF 20 std)	Recalculated RRF (RRF 20 std)	Reported Average RRF (Initial)	Recalculated Average RRF (Initial)	Reported %RSD	Recalculated %RSD
	1	ICAL	05/19/20	Trichloroethene (FB)	0.355	0.355	0.385	0.385	7.61	7.61
		VOA 123		Tetrachloroethene (CBZ)	0.497	0.497	0.533	0.533	12.08	12.06
L										

LDC # <u>48381C1a</u>

VALIDATION FINDINGS WORKSHEET Continuing Calibration Results Verification

Page: <u>1 of 1</u> Reviewer: <u>JVG</u> 2nd Reviewer:

METHOD: GC/MS VOA (EPA SW 846 Method 8260C)

The percent difference (%D) of the initial calibration average Relative Response Factors (RRFs) and the continuing calibration RRFs were recalculated for the compounds identified below using the following calculation:

% Difference = 100 * (ave. RRF - RRF)/ave. RRF RRF = (Ax)(Cis)/(Ais)(Cx) Where: ave. RRF = initial calibration average RRF RRF = continuing calibration RRF Ax = Area of compound,

Cx = Concentration of compound, Ais = Area of associated internal standard Cis = Concentration of internal standard

	I					Reported	Recalculated	Reported	Recalculated
		Calibration			Average RRF	RRF	RRF	% D	%D
#	Standard ID	Date	Compound	(IS)	(Initial)	(CC)	(CC)		
1	V23200527N01	05/27/20	Trichloroethene	(FB)	0.385	0.437	0.437	13.5	13.5
	VOA 123		Tetrachloroethene	(CBZ)	0.533	0.595	0.595	11.6	11.6

VALIDATION FINDINGS WORKSHEET Surrogate Results Verification

Page: 1_of_1 Reviewer: JVG 2nd reviewer:

METHOD: GC/MS VOA (EPA SW 846 Method 8260C)

The percent recoveries (%R) of surrogates were recalculated for the compounds identified below using the following calculation:

% Recovery:	SE/SS	*	100
70 Recovery.	31/00		100

Where: SF = Surrogate Found SS = Surrogate Spiked

Sample ID: 4 1

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Dibromofluoromethane	20,0	19.803	99	99	0
1,2-Dichloroethane-d4		20.178	104	104	
Toluene-d8		19.193	99	99	
Bromofluorobenzene	8	21.237	106	106	2

Sample ID:___

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Dibromofluoromethane					
1,2-Dichloroethane-d4					
Toluene-d8					
Bromofluorobenzene					

Sample ID:_____

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Dibromofluoromethane					
1,2-Dichloroethane-d4					
Toluene-d8					
Bromofluorobenzene					

Sample ID:_____

· · ·	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Dibromofluoromethane					
1,2-Dichloroethane-d4					
Toluene-d8					
Bromofluorobenzene			· •••		

Sample ID:

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Dibromofluoromethane					
1,2-Dichloroethane-d4					
Toluene-d8					
Bromofluorobenzene					

LDC #: 4878 42

VALIDATION FINDINGS WORKSHEET <u>Matrix Spike/Matrix Spike Duplicates Results Verification</u>

Page: 1 of 1 Reviewer: JVG 2nd Reviewer:

METHOD: GC/MS VOA (EPA SW 846 Method 8260C)

The percent recoveries (%R) and Relative Percent Difference (RPD) of the matrix spike and matrix spike duplicate were recalculated for the compounds identified below using the following calculation:

% Recovery = 100 * (SSC - SC)/SA

Where: SSC = Spiked sample concentration SA = Spike added SC = Sample concentration

RPD = I MSC - MSC I * 2/(MSC + MSDC)

MSC = Matrix spike concentration

MSDC = Matrix spike duplicate concentration

MS/MSD sample: $\frac{2}{2}$

Compound	A	pike dded 5 (K,)	Sample Spiked Sample Concentration Concentration		Matrix Spike Percent Recovery		Matrix Spike Duplicate Percent Recovery		MS/MSD RPD		
	MS	MSD		MS	MSD	Reported	Recalc	Reported	Recalc	Reported	Recalculated
1,1-Dichloroethene											
Trichloroethene	104	114	0.32	94.48	123.82	89	89	tog	109	27	27
Benzene			(ZRL) not sub traded)					r		,
Toluene	_										
Chlorobenzene											

Comments: Refer to Matrix Spike/Matrix Spike Duplicates findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

VALIDATION FINDINGS WORKSHEET Laboratory Control Sample Results Verification

Page: <u>1</u> of <u>1</u> Reviewer: <u>JVG</u> 2nd Reviewer:

METHOD: GC/MS VOA (EPA SW 846 Method 8260C)

The percent recoveries (%R) and Relative Percent Difference (RPD) of the laboratory control sample and laboratory control sample duplicate (if applicable) were recalculated for the compounds identified below using the following calculation:

% Recovery = 100 * SSC/SA

Where: SSC = Spiked sample concentration SA = Spike added

RPD = I LCSC - LCSDC I * 2/(LCSC + LCSDC)

LCSDC = Laboratory control sample concentration LCSDC = Laboratory control sample duplicate concentration

WG+1375252-3,4 LCS ID:

		Spike		Spiked Sample Concentration (سح الحر)		L CS Percent Recovery		L CSD Percent Recovery		LCS/LCSD RPD	
Compound	11	Added									
	LCS	LCSD	LCS	LCSD	Reported	Recalc.	Reported	Recalc.	Reported	Recalculated	
1,1-Dichloroethene											
Trichloroethene	40	40	45.384	43. 206	113	113	108	108	5	5	
Benzene											
Toluene											
Chlorobenzene											

Comments: <u>Refer to Laboratory Control Sample findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0%</u> of the recalculated results.

LDC #: 4838 Cla

VALIDATION FINDINGS WORKSHEET Sample Calculation Verification

Page:	<u>1_of_1_</u>
Reviewer:	JVG
2nd reviewer:	
	0

METHOD: GC/MS VOA (EPA SW 846 Method 8260C)

 $\begin{array}{c|c}
Y N N/A \\
Y N N/A
\end{array}$

Were all reported results recalculated and verified for all level IV samples? Were all recalculated results for detected target compounds agree within 10.0% of the reported results?

Example:

Concer	ntratio	$n = \frac{(A_{v})(I_{v})(V_{P})(DF)}{(A_{v})(RRF)(V_{v})(\%S)}$
A _x	=	Area of the characteristic ion (EICP) for the compound to be measured
A _{is}	=	Area of the characteristic ion (EICP) for the specific internal standard
l _s	=	Amount of internal standard added in nanograms (ng)
RRF	=	Relative response factor of the calibration standard.
Vo	=	Volume or weight of sample purged in milliliters (ml) or grams (g).
Vp	=	Purge Volume
%5		Percent solids, applicable to soils and solid matrices

%S = Percent solids, applicable to soils and solid matrices only.

Sample I.D. _____, _____;

 $Conc. = \frac{(974)(20.0)}{(149134)(0.785)}(5.8g)(0.867)}$ = 0.72 m/key

#	Sample ID	Compound	Reported Concentration (¹⁴ G/t _C)	Calculated Concentration (% 1()	Qualification
		5	0,32	0.32	
			· · ·		
	÷				
		<u> </u>			
			······································		
		· · · · · · · · · · · · · · · · · · ·			

MINMILT, NYSDEC

Site:	MINMILT
Laboratory:	Alpha Analytical, Inc.
Report No.:	L2021318
Reviewer:	Josephine Go and Christina Rink/Laboratory Data Consultants for P.W.
	Grosser Consulting
Date:	July 7, 2020

Samples Reviewed and Evaluation Summary

FIELD ID	LAB ID	FRACTIONS VALIDATED
DB003 (175-180) DB003 (175-180)MS DB003 (175-180)MSD	L2021318-15 L2021318-15MS L2021318-15MSD	VOC VOC VOC
Associated OC Samples(s):		

Associated QC Samples(s):Field/Trip Blanks:TB004, EB004Field Duplicate pair:DB003 (175-180) and DUP003

The above-listed soil samples were collected on May 21, 2020 and were analyzed for volatile organic compounds (VOCs) by SW-846 method 8260C. The data validation was performed in accordance with the USEPA Region 2 *Standard Operating Procedure for Validating Volatile Organic Compounds By Gas Chromatography/Mass Spectrometry SW-Method 8260B and 8260C*, SOP HW-24, Revision 4 (October 2014) and the USEPA *Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review*, EPA 540-R-2017-002 (January 2017), modified as necessary to accommodate the non-CLP methodologies used.

The organic data were evaluated based on the following parameters:

- Data Completeness
- Holding Times and Sample Preservation
- Gas Chromatography/Mass Spectrometry (GC/MS) Tunes
- Initial and Continuing Calibrations
- Blanks
- Surrogate Recoveries
- Matrix Spike/Matrix Spike Duplicate (MS/MSD) Results
- Laboratory Control Sample (LCS) Results
- Internal Standards
- Field Duplicate Results
- Moisture Content
- Quantitation Limits and Data Assessment
- Sample Quantitation and Compound Identification

Overall Evaluation of Data and Potential Usability Issues

All results are usable as reported.

The validation findings were based on the following information.

Data Completeness

The data package was complete as defined under the requirements for the NYSDEC ASP category B laboratory deliverables.

Holding Times and Sample Preservation

All criteria were met.

GC/MS Tunes

All criteria were met.

Initial and Continuing Calibrations

All criteria were met.

Blanks

Contamination was not detected in the method blanks.

1

No positive results were found in the trip blank sample TB004 and equipment blank sample EB004 for VOC analysis.

Surrogate Recoveries

All criteria were met.

MS/MSD Results

MS/MSD analyses were performed on sample DB003 (175-180) for VOC analysis. All criteria were met.

LCS Results

All criteria were met.

Internal Standards

All criteria were met.

Field Duplicate Results

Samples DB003 (175-180) and DUP003 were submitted as the field duplicate pair with this sample group. The following table summarizes the concentrations.

	Concentration	Concentration (ug/Kg)		
Compound	DB003 (175-180)	DUP003	RPD	
Tetrachloroethene	1.5	1.8	18	
Trichloroethene	13	19	38	
cis-1,2-Dichloroethene	0.24	0.29	19	
1,2-Dichloroethene, total	0.24	0.29	19	

Moisture Content

All criteria were met.

Quantitation Limits and Data Assessment

Results were reported which were below the reporting limit (RL) and above the method detection limit (MDL) in the VOC analysis. These results were qualified as estimated (J) by the laboratory.

Dilutions were not required for VOC analysis.

Sample Quantitation and Compound Identification

Calculations were spot-checked; no discrepancies were noted.

DATA VALIDATION QUALIFIERS

- U The analyte was analyzed for, but due to blank contamination was flagged as nondetect (U). The result is usable as a nondetect.
- J Data are flagged (J) when a QC analysis fails outside the primary acceptance limits. The qualified "J" data are not excluded from further review or consideration. However, only one flag (J) is applied to a sample result, even though several associated QC analyses may fail. The 'J' data may be biased high or low or the direction of the bias may be indeterminable.
- UJ The analyte was not detected above the reported sample quantitation limit. Data are flagged (UJ) when a QC analysis fails outside the primary acceptance limits. The qualified "UJ" data are not excluded from further review or consideration. However, only one flag is applied to a sample result, even though several associated QC analyses may fail. The 'UJ' data may be biased low.
- JN The analysis indicates the presence of a compound that has been "tentatively identified" (N) and the associated numerical value represents its approximate (J) concentration.
- R Data rejected (R) on the basis of an unacceptable QC analysis should be excluded from further review or consideration. Data are rejected when associated QC analysis results exceed the expanded control limits of the QC criteria. The rejected data are known to contain significant errors based on documented information. The data user must not use the rejected data to make environmental decisions. The presence or absence of the analyte cannot be verified.

Results Summary Form 1 Volatile Organics by EPA 5035

Client	: P. W. Grosser	Lab Number	: L2021318
Project Name	: MINMILT	Project Number	: MIN2002
Lab ID	: L2021318-15	Date Collected	: 05/21/20 17:30
Client ID	: DB003 (175-180)	Date Received	: 05/22/20
Sample Location	: 540 SMITH STREET, FARMINGDALE	Date Analyzed	: 05/30/20 15:45
Sample Matrix	: SOIL	Dilution Factor	: 1
Analytical Method	: 1,8260C	Analyst	: MV
Lab File ID	: VC200530B12	Instrument ID	: CHARLIE
Sample Amount	: 6.7 q	GC Column	: RTX-VMS
Level	: LOW	%Solids	: 84
Extract Volume (MeOH)	: N/A	Injection Volume	: N/A

			ug/Kg			
CAS NO.	Parameter	Results	RL	MDL	Qualifier	
127-18-4	Tetrachloroethene	1.5	0.45	0.18		~~~~
75-01-4	Vinyl chloride	ND	0.90	0.30	υU	
156-60-5	trans-1,2-Dichloroethene	ND	1.3	0.12	U U	
79-01-6	Trichloroethene	13	0.45	0.12		
156-59-2	cis-1,2-Dichloroethene	0.24	0.90	0.16	1 J	
540-59-0	1,2-Dichloroethene, Total	0.24	0.90	0.12	1 7	
,,,						

JUL 0 8 2020

Initials: CR



VALIDATION COMPLETENESS WORKSHEET

Category B

Laboratory: Alpha Analytical, Inc.

LDC #: 48381D1a

SDG #: L2021318

Date: <u>67/66/20</u> Page: <u>of </u> Reviewer: <u>206</u> 2nd Reviewer: <u>206</u>

METHOD: GC/MS Volatiles (EPA SW 846 Method 8260)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
<u>I.</u>	Sample receipt/Technical holding times	A/A	
п.	GC/MS Instrument performance check	A	
.	Initial calibration/ICV	AIA	101620? 1016302
IV.	Continuing calibration	A	
V.	Laboratory Blanks	Â	
VI.	Field blanks	ND	EB = EB004 TB = T\$004 (same EDG)
VII.	Surrogate spikes	Â.	
VIII.	Matrix spike/Matrix spike duplicates	ŚW)	2 RPD NA-spike ants not comparable
IX.	Laboratory control samples	A	us 1p
Х.	Field duplicates	SIN	p = 1/pupoo3
XI.	Internal standards	Á	
XII.	Compound quantitation RL/LOQ/LODs	Å	Results CRL 7 MOL = Jdets
XIII.	Target compound identification	Á	
XIV.	System performance	Á	
XV.	Overall assessment of data	A	

Note:

A = Acceptable N = Not provided/applicable

SW = See worksheet

ND = No compounds detected R = Rinsate FB = Field blank D = Duplicate TB = Trip blank EB = Equipment blank SB=Source blank OTHER:

	Client ID			Lab ID	Matrix	Date
1	DB003 (175-180)			L2021318-15	Soil	05/21/20
2	DB003 (175-180)MS			L2021318-15MS	Soil	05/21/20
3	DB003 (175-180)MSD		·	L2021318-15MSD	Soil	05/21/20
4						
5			<u>.</u>			
6						
6 7						
8						
9						
Notes						
-	WG1376189-5 PM	ANK				

VALIDATION FINDINGS CHECKLIST

.

Page: <u>1</u> of <u>2</u> Reviewer: <u>JVG</u> 2nd Reviewer:

Method: Volatiles (EPA SW 846 Method 8260C)

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
Were all technical holding times met?	(
Was cooler temperature criteria met?				
II. GC/MS Instrument performance check				
Were the BFB performance results reviewed and found to be within the specified criteria?	[
Were all samples analyzed within the 12 hour clock criteria?	/			
IIIa. Initial calibration		/		
Did the laboratory perform a 5 point calibration prior to sample analysis?	/			
Were all percent relative standard deviations (%RSD) < 20% and relative response factors (RRF) within method criteria?	/			
Was a curve fit used for evaluation? If yes, did the initial calibration meet the curve fit acceptance criteria of \geq 0.990?				
IIIb. Initial Calibration Verification				
Was an initial calibration verification standard analyzed after each initial calibration for each instrument?				
Were all percent differences (%D) < 30%?				
IV. Continuing calibration				х.
Was a continuing calibration standard analyzed at least once every 12 hours for each instrument?	1			
Were all percent differences (%D) \leq 20% and relative response factors (RRF) within method criteria?	/			
V. Laboratory Blanks				
Was a laboratory blank associated with every sample in this SDG?	/			
Was a laboratory blank analyzed at least once every 12 hours for each matrix and concentration?				
Was there contamination in the laboratory blanks?				
VI. Field blanks				
Were field blanks were identified in this SDG?				
Were target compounds detected in the field blanks?		/	ſ	
VII. Surrogate spikes				
Were all surrogate percent recovery (%R) within QC limits?				
If the percent recovery (%R) for one or more surrogates was out of QC limits, was a reanalysis performed to confirm samples with %R outside of criteria?			/	
VIII. Matrix spike/Matrix spike duplicates		/		
Were matrix spike (MS) and matrix spike duplicate (MSD) analyzed in this SDG?				
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?		/		

VALIDATION FINDINGS CHECKLIST

	Page:	2	of_	2	
	Reviewer:	J\	/G		_
2nd	Reviewer:	\mathcal{C}	ン	\leq	

Validation Area	Yes	No	NA	Findings/Comments
IX. Laboratory control samples				
Was an LCS analyzed per analytical batch?	\square			
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?	/			
X. Field duplicates				
Were field duplicate pairs identified in this SDG?				
Were target compounds detected in the field duplicates?				
XI. Internal standards				
Were internal standard area counts within -50% to +100% of the associated calibration standard?	/			
Were retention times within ± 30 seconds of the associated calibration standard?				
XII. Compound quantitation	-			
Did the laboratory LOQs/RLs meet the QAPP LOQs/RLs?				
Were the correct internal standard (IS), quantitation ion and relative response factor (RRF) used to quantitate the compound?	/		-	
Were compound quantitation and RLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	/			
XIII. Target compound identification				
Were relative retention times (RRT's) within ± 0.06 RRT units of the standard?				
Did compound spectra meet specified EPA "Functional Guidelines" criteria?	/			
Were chromatogram peaks verified and accounted for?	/			
XIV. System performance				
System performance was found to be acceptable.				
XV. Overall assessment of data	•			
Overall assessment of data was found to be acceptable.				

TARGET COMPOUND WORKSHEET

METHOD: VOA

METHOD, VOA					
A. Chloromethane	AA. Tetrachloroethene	AAA. 1,3,5-Trimethylbenzene	AAAA. Ethyl tert-butyl ether	A1. 1,3-Butadiene	A2.
B. Bromomethane	BB. 1,1,2,2-Tetrachloroethane	BBB. 4-Chlorotoluene	BBBB. tert-Amyl methyl ether	B1. Hexane	B2.
C. Vinyl choride	CC. Toluene	CCC. tert-Butylbenzene	CCCC. 1-Chlorohexane	C1. Heptane	C2.
D. Chloroethane	DD. Chlorobenzene	DDD. 1,2,4-Trimethylbenzene	DDDD. Isopropyl alcohol	D1. Propylene	D2.
E. Methylene chloride	EE. Ethylbenzene	EEE. sec-Butylbenzene	EEEE. Acetonitrile	E1. Freon 11	E2.
F. Acetone	FF. Styrene	FFF. 1,3-Dichlorobenzene	FFFF. Acrolein	F1. Freon 12	F2.
G. Carbon disulfide	GG. Xylenes, total	GGG. p-Isopropyltoluene	GGGG. Acrylonitrile	G1. Freon 113	G2.
H. 1,1-Dichloroethene	HH. Vinyl acetate	HHH. 1,4-Dichlorobenzene	HHHH. 1,4-Dioxane	H1. Freon 114	H2.
I. 1,1-Dichloroethane	II. 2-Chloroethylvinyl ether	III. n-Butylbenzene	IIII. Isobutyl alcohol	I1. 2-Nitropropane	12.
J. 1,2-Dichloroethene, total	JJ. Dichlorodifluoromethane	JJJ. 1,2-Dichlorobenzene	JJJJ. Methacrylonitrile	J1. Dimethyl disulfide	J2.
K. Chloroform	KK. Trichlorofluoromethane	KKK. 1,2,4-Trichlorobenzene	KKKK. Propionitrile	K1. 2,3-Dimethyl pentane	К2.
L. 1,2-Dichloroethane	LL. Methyl-tert-butyl ether	LLL. Hexachlorobutadiene	LLLL. Ethyl ether	L1. 2,4-Dimethyl pentane	L2.
M. 2-Butanone	MM. 1,2-Dibromo-3-chloropropane	MMM. Naphthaiene	MMMM. Benzyl chloride	M1. 3,3-Dimethyl pentane	M2.
N. 1,1,1-Trichloroethane	NN. Methyl ethyl ketone	NNN. 1,2,3-Trichlorobenzene	NNNN. iodomethane	N1. 2-Methylpentane	N2.
O. Carbon tetrachloride	OO. 2,2-Dichloropropane	OOO. 1,3,5-Trichlorobenzene	0000.1,1-Difluoroethane	O1. 3-Methylpentane	02.
P. Bromodichloromethane	PP. Bromochloromethane	PPP. trans-1,2-Dichloroethene	PPPP. Tetrahydrofuran	P1. 3-Ethylpentane	P2.
Q. 1,2-Dichloropropane	QQ. 1,1-Dichloropropene	QQQ. cis-1,2-Dichloroethene	QQQQ. Methyl acetate	Q1. 2,2-Dimethylpentane	Q2.
R. cis-1,3-Dichloropropene	RR. Dibromomethane	RRR. m,p-Xylenes	RRRR. Ethyl acetate	R1. 2,2,3- Trimethylbutane	R2.
S. Trichloroethene	SS. 1,3-Dichloropropane	SSS. o-Xylene	SSSS. Cyclohexane	S1. 2,2,4-Trimethylpentane	S2.
T. Dibromochloromethane	TT. 1,2-Dibromoethane	TTT. 1,1,2-Trichloro-1,2,2-trifluoroethane	TTTT. Methylcyclohexane	T1. 2-Methylhexane	T2.
U. 1,1,2-Trichloroethane	UU. 1,1,1,2-Tetrachloroethane	UUU. 1,2-Dichlorotetrafluoroethane	UUUU. Allyl chloride	U1. Nonanal	U2.
V. Benzene	VV. Isopropylbenzene	VVV. 4-Ethyltoluene	VVVV. Methyl methacrylate	V1. 2-Methylnaphthalene	V2.
W. trans-1,3-Dichloropropene	WW. Bromobenzene	WWW. Ethanol	WWWW. Ethyl methacrylate	W1. Methanol	W2.
X. Bromoform	XX. 1,2,3-Trichloropropane	XXX. Di-isopropyl ether	XXXX. cis-1,4-Dichloro-2-butene	X1. 1,2,3-Trimethylbenzene	X2.
Y. 4-Methyl-2-pentanone	YY. n-Propylbenzene	YYY. tert-Butanol	YYYY. trans-1,4-Dichloro-2-butene	Y1.	Y2.
Z. 2-Hexanone	ZZ. 2-Chlorotoluene	ZZZ. tert-Butyl alcohol	ZZZZ. Pentachloroethane	Z1.	Z2.

VALIDATION FINDINGS WORKSHEET Field Duplicates

Page: 1_of_1_ Reviewer: JVG 2nd Reviewer:

METHOD: GCMS VOA (EPA SW 846 Method 8260C)

YN NA

Were field duplicate pairs identified in this SDG? Were target analytes detected in the field duplicate pairs? YN NA

	Concentra	RPD	
Compound	1	1 DUP003	
AA	1.5.	1.8	18
S	13	19	38
QQQ	0.24	0.29	19
J	0.24	0.29	19

V:\Josephine\FIELD DUPLICATES\48381D1a pw grosser minmilt.wpd

LDC #: <u>48381D1a</u>

VALIDATION FINDINGS WORKSHEET Initial Calibration Calculation Verification

Page:	<u>1</u> of <u>1</u>
Reviewer:	JVG
2nd Reviewer:	9

METHOD: GC/MS VOA (EPA SW 846 Method 8260C)

The Relative Response Factor (RRF), average RRF, and percent relative standard deviation (%RSD) were recalculated for the compounds identified below using the following calculations:

RRF = $(A_x)(C_{is})/(A_{is})(C_x)$ average RRF = sum of the RRFs/number of standards %RSD = 100 * (S/X) A_x = Area of Compound C_x = Concentration of compound, S= Standard deviation of the RRFs. A_{is} = Area of associated internal standard C_{is} = Concentration of internal standard

X	-	Mean	of	the	RRFs	

		Calibration			Reported RRF	Recalculated RRF	Reported Average RRF	Recalculated Average RRF	Reported %RSD	Recalculated %RSD
#	Standard ID	Date	Compound (I	S)	(RRF 20 std)	(RRF 20 std)	(Initial)	(Initial)	:	
1	ICAL	04/07/20	Trichloroethene	(FB)	0.383	0.383	0.370	0.370	7.93	7.94
	Charlie		Tetrachloroethene	(CBZ)	0.515	0.515	0.478	0.477	8.66	8.68
L										

LDC # <u>48381D1a</u>

VALIDATION FINDINGS WORKSHEET Continuing Calibration Results Verification

Page: <u>1 of 1</u> Reviewer: <u>JVG</u> 2nd Reviewer:

METHOD: GC/MS VOA (EPA SW 846 Method 8260C)

The percent difference (%D) of the initial calibration average Relative Response Factors (RRFs) and the continuing calibration RRFs were recalculated for the compounds identified below using the following calculation:

% Difference = 100 * (ave. RRF - RRF)/ave. RRF RRF = (Ax)(Cis)/(Ais)(Cx) Where: ave. RRF = initial calibration average RRF RRF = continuing calibration RRF Ax = Area of compound,

Cx = Concentration of compound, Ais = Area of associated internal standard

Cis = Concentration of internal standard

						Reported	Recalculated	Reported	Recalculated
		Calibration			Average RRF	RRF	RRF	% D	%D
#	Standard ID	Date	Compound	(IS)	(Initial)	(CC)	(CC)		
1	VC200530B01	05/30/20	Trichloroethene	(FB)	0.370	0.400	0.400	8.1	8.1
	CHARLIE		Tetrachloroethene	(CBZ)	0.478	0.560	0.560	17.2	17.2

LDC #: 48381 DIN

VALIDATION FINDINGS WORKSHEET Surrogate Results Verification

Page: 1 of 1 Reviewer: JVG 2nd reviewer:

METHOD: GC/MS VOA (EPA SW 846 Method 8260C)

The percent recoveries (%R) of surrogates were recalculated for the compounds identified below using the following calculation:

% Recovery: SF/SS * 100

Where: SF = Surrogate Found SS = Surrogate Spiked

Sample ID: _____ \

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Dibromofluoromethane	20,0	20.564	163	103	Q
1,2-Dichloroethane-d4		17.982	90 103	90	
Toluene-d8		20.510	103	10 7	
Bromofluorobenzene		20.216	101	101	X

Sample ID:					
	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Dibromofluoromethane					
1,2-Dichloroethane-d4					
Toluene-d8					
Bromofluorobenzene					

Sample ID:_____

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Dibromofluoromethane			Í		
1,2-Dichloroethane-d4					
Toluene-d8					
Bromofluorobenzene					

Sample ID:

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Dibromofluoromethane					
1,2-Dichloroethane-d4					
Toluene-d8					
Bromofluorobenzene					

Sample ID:___

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Dibromofluoromethane					
1,2-Dichloroethane-d4					
Toluene-d8					
Bromofluorobenzene					

LDC #: 4838 DIA

VALIDATION FINDINGS WORKSHEET <u>Matrix Spike/Matrix Spike Duplicates Results Verification</u>

Page: 1 of 1 Reviewer: JVG 2nd Reviewer:

METHOD: GC/MS VOA (EPA SW 846 Method 8260C)

The percent recoveries (%R) and Relative Percent Difference (RPD) of the matrix spike and matrix spike duplicate were recalculated for the compounds identified below using the following calculation:

% Recovery = 100 * (SSC - SC)/SA

Where: SSC = Spiked sample concentration SA = Spike added

SC = Sample concentration

RPD = I MSC - MSC I * 2/(MSC + MSDC)

MSC = Matrix spike concentration

MSDC = Matrix spike duplicate concentration

MS/MSD sample:

Compound	A	pike dded ç/kç)	Sample Concentration	Spiked Sample Concentration (///(ح))		Matrix Spike Percent Recovery		Matrix Spike Duplicate Percent Recovery		MS/MSD RPD	
	MS	MSD		MS	MSD	Reported	Recalc	Reported	Recalc	Reported	Recalculated
1,1-Dichloroethene											
Trichloroethene	96	121	13	108.02	167.9	99	99	128	128	43	26
Benzene											
Toluene											
Chlorobenzene											

Comments: <u>Refer to Matrix Spike/Matrix Spike Duplicates findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.</u>

 RPP	recalc	bheek	n	7.K	Sanke	amts	not	comparable,	
					7				

LDC #: 48381 DIA

VALIDATION FINDINGS WORKSHEET Laboratory Control Sample Results Verification

Page: 1 of 1 Reviewer: JVG 2nd Reviewer:

METHOD: GC/MS VOA (EPA SW 846 Method 8260C)

The percent recoveries (%R) and Relative Percent Difference (RPD) of the laboratoy control sample and laboratory control sample duplicate (if applicable) were recalculated for the compounds identified below using the following calculation:

% Recovery = 100 * SSC/SA Where: SSC = Spiked sample concentration SA = Spike added

RPD = I LCSC - LCSDC I * 2/(LCSC + LCSDC) LCSC = Laboratory control sample concentration LCSDC = Laboratory control sample duplicate concentration

LCS ID: WG1 376189- 3,4

		pike		Spiked Sample		CS	c	SD	LCS	/LCSD
Compound	11	ided K)		ntration (le _y)	tration (ϵ_{γ}) Percent Recovery		Percent Recovery		F	PD
	LCS	LCSD	LCS	LCSD	Reported Recalc.		Reported	Recalc.	Reported	Recalculated
1,1-Dichloroethene										
Trichloroethene	40	40	43.255	43.064	168	108	108	108	0	6
Benzene			·							
Toluene										
Chlorobenzene										

Comments: <u>Refer to Laboratory Control Sample findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0%</u> of the recalculated results.

VALIDATION FINDINGS WORKSHEET **Sample Calculation Verification**

Page:_	1	_of_	1
Reviewer:		JVC	G
2nd reviewer:			\leq
	- د	/	

METHOD: GC/MS VOA (EPA SW 846 Method 8260C)

Y N <u>N/A</u> Y/ N_N/A

A_x

Were all reported results recalculated and verified for all level IV samples? Were all recalculated results for detected target compounds agree within 10.0% of the reported results? Concentration = $(A_x)(I_s)(V_p)(DF)$ Example: (A_{is})(RRF)(V_o)(%S) Sample I.D. # , S Area of the characteristic ion (EICP) for the = compound to be measured

- Area of the characteristic ion (EICP) for the specific A_{is} = internal standard Amount of internal standard added in nanograms ۱_s = (ng)
- RRF Relative response factor of the calibration standard. =
- Volume or weight of sample purged in milliliters (ml) v. = or grams (g).
- Vp Purge Volume =
- %S Percent solids, applicable to soils and solid matrices = only.

 $Conc. = \frac{(42255)(20)(5 \text{ mL})}{(151666)(0.376)(6.76)(0.8354)}$ = 3.45 ~ 13 mg kg

#	Sample ID	Compound	Reported Concentration	Calculated Concentration (<u>~</u> / ///、)	Qualification
		5	13	13	—