

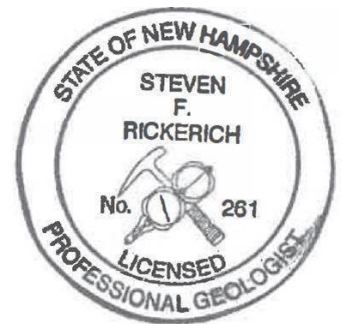
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**NH DES Site #:
Project Type:
Project Number:**

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EXECUTIVE SUMMARY

The following report presents the findings of a Supplemental Phase II Environmental Site Assessment (ESA) performed by Ransom Consulting, LLC (Ransom) for the Southwest Region Planning Commission (SWRPC). The Supplemental Phase II ESA was performed for the W. W. Cross Property located at 39 Webster Street in the Town of Jaffrey, Cheshire County, New Hampshire (the "Site").

The Site is located at 39 Webster Street in the Town of Jaffrey, New Hampshire. The Site includes an approximately 11.29-acre parcel which is the site of the vacant 100,810 square foot Former W. W. Cross Factory building and a separate bulk-oil aboveground storage tank (AST) structure. The Site is identified by the Town of Jaffrey Assessor's Office as Lot 7.2 on Tax Map 245. At the request of the users (Town of Jaffrey) and in consideration of the known environmental conditions of the eastern 60% of the parcel, the Supplemental Phase II ESA was designed to provide additional assessment of the western 40% of the parcel, which is being proposed for re-development. Evolving plans for the Site could also include portions of the east 60% of the parcel, which were not included in this assessment.

The main Site building was constructed circa 1915 as the W. W. Cross Factory, a manufacturer of tacks and fasteners, and operated as an industrial manufacturing facility until the late 1990s. Municipal water and sewer services are available to the Site and surrounding properties. Prior to circa 1982, and dating back to circa 1915, industrial wastewater generated on the Site was disposed of either on the Site or immediately abutting the Site.

Based on the findings of an October 31, 2017 Phase I ESA, five recognized environmental conditions (RECs) and three areas of potential environmental concern (PECs) were identified in connection with the western 40% of the Site parcel. To evaluate the RECs and PECs, a March 13, 2019 Phase II ESA was conducted, in which the following six areas of concern (AOC) were developed for the Site: (1) AOC 1 Wastewater Disposal Systems (Drains & Sewer); (2) Former Plating Area; (3) Former Fuel Oil Underground Storage Tank (UST) Area; (4) Inactive Fuel Oil AST Area; (5) Facility Loading/Unloading Areas; and (6) Off-Site Sources.

Based on the information collected as part of the Phase II ESA, Ransom concluded that the RECs identified in the Phase I ESA were confirmed, discounted or undetermined as follows:

1. Non-compliant 20,000-gallon No. 6 oil AST: Confirmed. The PAHs documented in soil at B5 and B22 may be indicative of a release of No. 6 oil in that area adjoining the inactive fuel oil AST. The soils are in a paved area and do not present an immediate human risk exposure. Although there were no exceedances of Ambient Groundwater Quality Standards (AGQSs), VOCs including naphthalene (30 micrograms per liter ($\mu\text{g/L}$)) were detected in the groundwater sample collected from the monitoring well (MW105) installed in this area.
2. Historic oil UST (size unknown) located south of the central portion of the Site building: Discounted (for petroleum). Evidence of a petroleum release was identified; however, no violations of soil or groundwater standards were documented.
3. Floor drains and sumps that historically received process-derived wastewater: Confirmed. Cadmium in soil at boring B2 and cyanide in groundwater at MW102 (installed in B2) are likely associated with a release of wastewaters or plating solutions in the former industrial wastewater/plating area. The sampled soils were beneath a concrete slab and do not present an immediate human exposure risk. Tetrachloroethylene (PCE) impacts to groundwater in the area of MW102 and MW104 (above AGQS) could also be

related to an on-Site release or, alternatively to the remnants of a plume from a neighboring known or unknown off-Site source.

4. Contaminated groundwater (cyanide and PCE exceeding AGQSs) in monitoring wells located on the eastern portion of the Site that could indicate the potential for unassessed or unidentified source areas, including areas on the western portion of the Site: Confirmed. Cyanide was detected in groundwater above AGQS in the wastewater/plating area. As noted above, PCE impacts to groundwater in the area of MW102 and MW104 (above AGQS) could be related to an on-Site release or, alternatively to the remnants of a plume from a neighboring known or unknown off-Site source.
5. A neighboring former dry-cleaning facility has adversely impacted groundwater on numerous parcels in the vicinity of the Site; the contaminated groundwater plume may extend onto the Site: Undetermined. Additional investigations within and north of the Site building need to be conducted to rule out whether PCE is migrating onto the northern portion of the Site from a known or unknown source.

Therefore, based on the data collected during the Phase II ESA, Ransom recommended that additional investigation was warranted to further delineate the extent of:

1. Cadmium, cyanide and PCE impacts to soils and/or groundwater in proximity to the former plating and wastewater treatment areas near B2/MW102;
2. PCE impacts to groundwater as was documented in the sample collected from monitoring well MW104 (in conjunction with the MW102 area investigations);
3. PAH impacts to soil broadly in the area of B12 and B26, and naphthalene impacts to groundwater as was documented in the sample collected from exterior monitoring well MW108; and
4. PAH impacts to soil (B5 and B22) in the area of the inactive No. 6 oil AST.

To further delineate the extent of contamination identified in the Phase II ESA, this Supplemental Phase II ESA developed the following three AOCs for the Site:

1. AOC A—PCE Impacts to Groundwater;
2. AOC B—Further Investigation of Cadmium, Cyanide, and PCE Impacts; and
3. AOC C—Delineation of PAHs in Soil / Further Investigation of Petroleum in Groundwater.

To assess AOC A through AOC C, Ransom designed a Supplemental Phase II ESA which included the advancement of soils borings, the collection and analyses of soil samples for field screening for the presence of metals using a x-ray fluorescence (XRF) analyzer and photoionizable compounds (PICs) using a photoionization detector (PID), the selection and laboratory analyses of soil samples for the presence of priority pollutant metals (PPMs), polynuclear aromatic hydrocarbons (PAHs), volatile organic compounds (VOCs), total petroleum hydrocarbons-diesel range organics (TPH-DRO) and/or total cyanide; the installation of three additional monitoring wells and the collection and laboratory analyses of groundwater samples from the monitoring wells for the presence of VOCs, dissolved (field-filtered)

metals and/or total cyanide according to United States Environmental Protection Agency (U.S. EPA) methods, as appropriate.

RESULTS

The Site is generally underlain by fine to medium sands, with little fine to medium gravels and silt; with soil density and the presence of cobbles increasing with depth. The depth to groundwater during this investigation ranged from 2.66 to 11.55 feet below grade. Based on the measured depth to groundwater across the Site, groundwater was inferred to generally flow to the southeast. Soil density (very low density, fine to coarse sand), soils with cobbles and rock at fairly consistent depths (4 to 6 feet below grade), occasional anthropomorphic constituents (asphalt, concrete), and dark silty layers (possible former wet ground surface proximal to the present-day groundwater table) all indicated the likelihood of historical fill placement in the central portion of the Site and beneath the building and extending up to a steep topographic drop on the southeast portion of the lot. These likely fill soils are underlain by denser medium to coarse sand, with gravel and cobbles and occasionally with evidence of layering.

The following results are indicated for each AOC:

AOC A—Tetrachloroethylene Impacts to Groundwater

Boring B101 was advanced along the northern interior wall of the Site building, near the north property boundary, to assess the spatial extent of PCE and to help differentiate and clarify whether the documented on-Site PCE impacts are associated with a potential on-site source or may be related to potential off-site source(s). Groundwater-saturated soils were encountered at approximately 8 feet below grade in the boring and monitoring well MW201 was installed.

The boring was advanced through the poured concrete slab flooring, which was approximately 5.5 inches thick. Soils encountered beneath the concrete slab generally consisted of fine to coarse sands, with little to some gravel, with the presence of cobbles increasing with depth and possible bedrock at about 13.7 feet.

With the exception of a detected low concentration of acetone (a likely laboratory or preservative contaminant), no VOCs were detected in the soil sample selected for laboratory analyses from boring B101, collected from 0.5 to 2 feet below grade.

No VOCS were detected in the groundwater sample collected from monitoring well MW201 at concentrations above AGQs. PCE and its degradation daughter compound cis 1,2-dichloroethylene (DCE) were detected at low levels, and at similar concentrations, in the groundwater sample. This pair of compounds and the parity of the analytes concentrations were noted in samples from other monitoring wells on the upgradient (northwest) portion of the property and likely an off-site source. This pairing of related compounds may be a differentiator for an inferred separate PCE on-site source as documented in groundwater samples collected from near the former plating room/wastewater treatment area which have lesser or no detectable concentrations of 1,2-DCE.

AOC B—Further Investigation of Cadmium, Cyanide, and Tetrachloroethylene Impacts

Borings B103 and B113 were advanced in the Site building to further address the former plating room area. The borings were advanced through the poured concrete slab flooring, which was approximately 5.5 inches thick. In general, soils encountered consisted of fine to medium sands, with little gravel, trace to little silt, and cobbles increasing with depth. Refusal was encountered in borings B103 and B113 at

depths of 8 and 12.3 feet, respectively. Boring B103 was advanced to a depth of approximately 12.3 feet below grade and finished as groundwater monitoring well MW203.

No VOCs or PPMs were detected above Soil Remediation Standards (SRSs) in the soil samples submitted for laboratory analyses from borings B103 and B113. No cyanide was detected above laboratory detection limits in the soil samples analyzed for cyanide from borings B103 and B113.

The boring advanced as part of this Supplemental Phase II ESA in conjunction with the previously advance boring and collective soils data constrain the area of known cadmium-impacted soils to the area proximal to boring B2 (monitoring well MW102). Assuming a volume of cadmium-impacted soils centered on B2 measuring approximately 30 feet by 30 feet by 7 feet deep, then the impacted mass of soils would be on the order of 230 cubic yards, equivalent to 300 tons of soil at 1.4 tons/cubic yard. This volume estimate is an approximation based on data for cadmium concentrations in proximal borings which help to constrain the limits of the impacted area.

To assess for potential impacts to groundwater quality due to past discharges associated with the former plating/wastewater treatment area, groundwater samples were collected from two of the newly installed monitoring wells (MW201 and MW203) and existing monitoring well MW102.

Cyanide (at a concentration of 746 µg/L) was detected in the groundwater sample collected from monitoring well MW102 at a concentration above the AGQS for cyanide of 200 µg/L. Cyanide was not detected above laboratory detection limits in the groundwater samples collected from monitoring well MW203. The source of the cyanide is likely associated with previous on-site industrial operations and based on its location centered on MW102 may be generally co-located with soils impacted by cadmium beneath the former plating room/wastewater treatment areas. Removal and proper disposal of the cadmium impacted soils would lessen any co-located cyanide source and would be likely to lessen the time to achieve AGQS for cyanide.

No VOCs or dissolved (field-filtered) metals were detected in the groundwater samples collected from monitoring well MW203 at concentrations above AGQSs. The VOC PCE was detected at concentrations below the AGQSs in the samples from MW102, MW201 and MW203. PCE was also detected in the sample from nearby MW104 at a concentration (5.8 ug/L) just above its AGQS (5 ug/L). 1,2 DCE was not detected in the area where these slightly elevated PCE concentrations were detected which may indicate a separate low-level source of PCE as compared to samples from the on-site upgradient monitoring wells. The two modest plumes, a possible low-level (below AGQS) off-site plume migrating onto the Site and a possible low-level (slightly exceeding AGQS) plume from an on-site source, likely coming as groundwater flows from northwest to southeast across the Site.

Because very low level PCE AGQS violations have been documented and no residual source mass has been identified, it is possible that a “monitoring only” remedial approach to remediation could be supported for PCE impacts to groundwater.

AOC C—Delineation of Polynuclear Aromatic Hydrocarbons in Soil / Further Investigation of Petroleum in Groundwater

Borings B104, B105, B107 through B111, B116 and B117 were advanced to further delineate and characterize the areas of identified PAH/petroleum impacts to soil in the area of B12 and B26 (unknown source) and naphthalene impacts to groundwater as was documented in the sample collected from exterior monitoring well MW108 (installed in boring B26).

Borings B104, B105 and B107 were advanced within the Site building in the general area of boring B12 to further delineate PAHs in soil inside the building. In general, soils encountered consisted of fine to coarse sands, with little gravel, and trace to little silt. Refusal (possibly concrete and/or cobbles/boulders) was encountered in borings B104, B105 and B107 at depths of 4.2, 2.5 and 4 feet below grade, respectively; soils over this dense layer are interpreted as fill. No unusual odor was noted in soils and no groundwater was encountered in these borings. Previously advanced boring B12 (for which an oil/creosote odor had been noted in soils) was re-drilled and advanced to a depth of approximately 14 feet below grade to install groundwater monitoring well MW204 to assess groundwater in this area.

Borings B108, B109, B110, B111, B116 and B117 were advanced in the south loading dock area in the general area of boring B26 to further delineate PAHs in soil. In general, soils encountered consisted of fine to coarse sands, with little gravel, and trace to little silt. For these borings and this area, soils less than 5 feet below ground surface (bgs) are inferred to be fill. The majority of the borings were advanced to a depth of 12 feet bgs; refusal was not encountered in the borings. Groundwater saturated soils were encountered at approximately 4 feet below bgs.

PICs (ranging from less than 1 to 22 ppmv) were measured in soil samples collected from B111. A strong tar/creosote-type odor was noted during the advancement of borings B110, B111 and B117, particularly in very shallow soils. These borings were advanced along the western exterior wall of the southwestern portion of the Site building. The VOCs benzene and naphthalene were detected in the shallow soil sample collected from B111 at concentrations above SRSs.

PAHs were detected above SRSs in the soil samples analyzed from borings B109, B110, B111 and/or B117. The concentrations of several of these PAHs exceeded the Risk Characterization and Management Policy (RCMP) Method 1 NH S-3 standard for the soil samples collected from borings B111 and B117 (as did a sample with similar characteristics from previous boring B12)). The sample from B111 was collected from 0.0 to 0.5 feet below the pavement and the sample from B117 was collected from 0.0 to 2.0 feet below the pavement. Additional PAHs were detected in samples from borings B104, B105, B108, B109, B110, B111 and B117; however, at concentrations below the applicable SRSs.

TPH-DRO (21,500 mg/kg) was detected in the soil sample collected for laboratory analyses from boring B111 at a concentration exceeding the SRS (equal to the RCMP Method 1 NH S-3 standard) for TPH-DRO (10,000 mg/kg). Based on the petroleum hydrocarbon fingerprint of the sample from B111, the laboratory opined that the contaminant “appears to be similar to a coal tar/creosote.”

The area of creosote-impacted soils is estimated to cover approximately 8,500 square feet and for most borings appears to be most pronounced in a relatively thin layer, less than 2 feet thick, just below paving. Spot locations (B12 and perhaps B111) appeared to have a greater thickness of impacted soils. The estimated mass of impacted soils is likely on the order of 1,000 tons.

Borings B114 and B115 were advanced to the south and west of a building housing the inactive heating oil AST. In general, soils encountered consisted of fine to coarse sands, with little gravel, trace to little silt, and cobbles increasing with depth; placed fill is inferred to comprise the upper 7 to 8 feet of overburden in this area. Refusal was not encountered in either boring to 12 feet bgs. Groundwater saturated soils were encountered in each of these borings at depths ranging from 4 to 5 feet bgs.

No elevated PICs (above 1 ppmv), odors, or staining were noted in the soils from either boring and no VOCs, PAHs or TPH-DRO were detected above SRSs in the soil samples collected from these borings.

It is unclear whether the area of PAH soil impacts near the inactive AST (at B22 and B5) are related to oil storage or fill materials, but dissolved naphthalene detected in the Phase II ESA sampling at MW105

(installed in B5) suggest a possible petroleum source. Borings B114 and B115 appear to constrain the lateral extent of soils impacts. If the area of soil impacts extends up to and beneath the AST building and is limited vertically by the presence of groundwater, then the volume of impacted soils is likely on the order of 350 cubic yards, with an estimated mass of approximately 500 tons.

To assess further the naphthalene impacts to groundwater as was previously documented in the sample collected from exterior monitoring well MW108, groundwater quality was evaluated by collecting groundwater samples from newly installed monitoring well MW204 and existing monitoring well MW108. No VOCS were detected in the groundwater samples collected from monitoring wells MW108 or MW204 at concentrations above AGQSSs.

Because no AGQS violations were noted in this sampling round it is possible that a remedial approach could allow for much of the creosote-impacted and heating oil impacted soils to remain in place under an Activity and Use Restriction, depending in part on future land use. Targeted removal and proper disposal of “hot spots” or soils generated during site redevelopment and not approved for on-site re-use is anticipated.

CONCLUSIONS

Based on the information collected as part of this Supplemental Phase II ESA, the spatial extent and nature of the previously detected releases of PCE, metals (cadmium), cyanide, heavy oil/creosote, and heating oil were better defined, and Ransom concludes the following:

1. AOC A—PCE Impacts to Groundwater. Relatively low concentrations of dissolved PCE are inferred to be migrating onto the Site with groundwater, from the northwest. Groundwater associated with this plume does not, at present, exceed the AGQS for PCE and is inferred to be separate from a low-level on-site plume also with minor (in concentration and extent) PCE impacts. No residual PCE source area, i.e. no soils with SRS exceedances, have been identified, but impacted groundwater does slightly exceed the PCE AGQS (MW104, and intermittently MW102) and is likely associated with past Site industrial activities.
2. AOC B—Further Investigation of Cadmium, Cyanide, and PCE Impacts. No source areas concentrations of PPMs (namely cadmium) or cyanide have been documented in soils collected and analyzed from borings proximal to B2/MW102 which suggests a localized source centered on the boring B2 location beneath the former plating room. A remedial approach involving the removal and proper disposal of the cadmium-impacted soils would also lessen any co-located cyanide source and would be likely to lessen the time to achieve AGQS for cyanide. At present, human contact exposure risks relative to impacted soils are mitigated due to the inaccessibility of soils beneath the building.

A relatively minor PCE source proximal to the former plating room and wastewater treatment area is inferred based on no SRS exceedances for PCE detected in soils samples, and a localized plume with primarily PCE detected and generally little to no 1,2-DCE which is inferred to differentiate this localized plume from low-level impacted groundwater migrating onto the site. Based on the spatial distribution of PCE impacts to groundwater as well as documented land use history, it is likely that the detected PCE is associated with past industrial operations. Consideration of a remedial approach involving a monitoring-only management of the low-level PCE impacts to groundwater is warranted. There is no consumptive use of groundwater at the Site or proximal to the Site.

3. AOC C—Delineation of PAH in Soil / Further Investigation of Petroleum in Groundwater. The extent of PAHs (and in one location, VOCs) in Site soils above SRSs has been delineated in shallow fill soils in the general area of the southeast corner of the building and appears to be associated with creosote or coal tar type impacts to shallow soils beneath paving and a portion of the building. PAH impacts above SRSs were also noted in fill soils off the east side of the inactive heating oil AST (a possible oil release), and have previously been identified proximal to a sewer manhole (possible urban fill) near boring B3 and in shallow surface soils along the north-abutting railroad corridor (coal combustion residuals). Because no impacts to groundwater exceeding AGQS have been identified for PAHs (or the associated VOCs) much of these soils could remain in place under an Activity and Use Restriction (AUR) where regulated (for a creosote or oil source); however, it is probable that the NH DES will require removal of soils with naphthalene concentrations above leaching-based soil standards. Where not strictly regulated (urban fill or coal combustion residual source), soils could also be left in place and would not require management under an AUR, although joint management with regulated soils under an a comprehensive AUR is prudent. Targeted hot-spot soils, where encountered, and disturbed soils not approved for on-site re-use by the NH DES would require proper management, characterization, and off-site disposal. At present, with the exception of inferred unregulated soils along the railroad corridor, human contact exposure risks relative to impacted soils are mitigated due to the inaccessibility of soils beneath the building and parking lot.

RECOMMENDATIONS

Based on the data collected during this Supplemental Phase II ESA, Ransom recommends the following relative to identified AOCs and the findings of this investigation:

1. Assessment of soils beneath the inactive heating oil AST in coordination with the removal and closure of that system in compliance with Env-Or 300 (and coordinated proper management/abatement of the assumed asbestos containing vermiculite insulation in that building in compliance with applicable NH DES rules).
2. Several additional borings are warranted to confirm the spatial extent of PAH impacted soils near the southwest portion of the building.
3. If the eastern portion of the property is to be part of a possible re-use plan, then additional assessment of that portion of the property not previously assessed is warranted, including at a minimum beneath the east portion of the building and adjacent to the electrical transformers as part of environmental due diligence.
4. A remedial action plan should be completed consistent with the requirements of Env-Or 600, which could include monitoring of attenuation, management of certain soils in place under an AUR and/or limited soils removal and disposal.
5. Groundwater monitoring under a Groundwater Management Permit will be required for impacts to groundwater above AGQS. An additional round of groundwater sampling is recommended to help to clarify which wells should be included in future monitoring events.
6. A soils management plan should be completed and approved by the NH DES for soils management during Site redevelopment.

7. In coordination with Site redevelopment, and appropriate pre-acquisition environmental due diligence, application should be made to the NH Brownfields Covenant Program to provide additional liability relief.

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APPENDICES

- Appendix A. Soil Boring/Monitoring Well Logs and Groundwater Sampling Logs
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1.0 INTRODUCTION

Ransom Consulting, LLC (Ransom) is pleased to present this report documenting a Supplemental Phase II Environmental Site Assessment (ESA) for the W. W. Cross Property located at 39 Webster Street in the Town of Jaffrey, Cheshire County, New Hampshire (the “Site”). The Site includes an approximately 11.29-acre parcel which is the site of the vacant 100,810 square foot W. W. Cross Factory building and a separate bulk aboveground storage tank (AST) structure. The Site is identified by the Town of Jaffrey Assessor’s Office as Lot 7.2 on Tax Map 245. At the request of the users and in consideration of the known environmental conditions of the eastern 60% of the parcel, the Supplemental Phase II ESA proposed herein has been designed to assess the western 40% of the parcel, which is being proposed for re-development. It is Ransom’s understanding that the eastern 60% of the parcel is currently identified by the New Hampshire Department of Environmental Services (NH DES) as a Groundwater Management Zone and is not currently proposed for redevelopment. Evolving re-use plans for the Site could also include portions of the east 60% of the parcel, which were not included in this assessment.

Refer to the attached Site Location Map (Figure 1) to view the general location of the Site on a 7.5-minute topographic quadrangle.

This report was prepared for the Southwest Region Planning Commission (SWRPC), who received a United States Environmental Protection Agency (U.S. EPA) Brownfields Assessment Grant to conduct site assessments and investigations at properties within the region with the intent to revitalize underutilized properties.

The work was completed in accordance with Ransom’s Site-Specific Quality Assurance Project Plan (SSQAPP) for the W. W. Cross Site, dated May 17, 2019. The SSQAPP was reviewed and approved by the NH DES and the U.S. EPA prior to implementation of the field activities.

1.1 Purpose

The objectives of this Supplemental Phase II ESA are to further evaluate and investigate the recognized environmental conditions (RECs) and/or areas of potential environmental concern (PECs) identified in a Phase I ESA, dated October 31, 2017, and to supplement the findings of the Phase II Environmental Site Assessment, dated March 13, 2019, both prepared by Ransom. This Supplemental Phase II ESA addresses the recommendations of the Phase II ESA.

1.2 Special Terms and Conditions

This Supplemental Phase II ESA was conducted in accordance with our executed Scope of Work, dated February 25, 2019 and a Change Order dated July 24, 2019. Authorization to perform this Supplemental Phase II ESA was provided by SWRPC.

The services and the contents of any project reports and associated documents provided by Ransom are solely for the benefit of SWRPC, and its Brownfields Program, their affiliates and subsidiaries, and their successors, assigns, and grantees. Reliance or use by any such third party without explicit authorization in the report does not make said third party a third-party beneficiary to Ransom’s contract with SWRPC. Any such unauthorized reliance on or use of this report, including any of its information or conclusions, will be at the third party's risk. For the same reasons, no warranties or representations, expressed or implied in this report, are made to any such third party.

1.3 Limitations and Exceptions of Assessment

The Supplemental Phase II ESA was executed in general accordance with the scope of work proposed in the SSQAPP. Any revisions to the scope of work or methodologies outlined in the SSQAPP are discussed in Section 2.0 (Investigation Methodology).

Furthermore, the findings provided by Ransom in this report are based solely on the information reported in this document and the results of limited explorations, field screening and confirmatory laboratory testing. Ransom's findings and conclusions must be considered as professional opinion based on limited data gathered during the course of this ESA. Ransom does not and cannot represent that the Site contains no hazardous substances and/or petroleum or other adverse environmental conditions beyond that observed by Ransom during the field investigation. Should additional information become available in the future, this information can be reviewed by Ransom and the findings, presented herein, may be modified as a result of the review.

1.4 Site Description and Setting

The Site includes an approximately 11.29-acre parcel which is the site of the vacant 100,810 square foot W. W. Cross Factory building and a separate bulk AST structure. The Site is identified by the Town of Jaffrey Assessor's Office as Lot 7.2 on Tax Map 245. At the request of the users and in consideration of the known environmental conditions of the eastern 60% of the parcel, this Phase II ESA was designed to assess the western 40% of the parcel, which is being proposed for re-development. The eastern 60% of the parcel is currently identified by the NH DES as a Groundwater Management Zone associated with historical impacts from industrial operations practices on that portion of the parcel.

The Site building was constructed circa 1915 as the W. W. Cross Factory, a manufacturer of tacks and fasteners, and operated as an industrial manufacturing facility until the late 1990s. Most recently, the Site was purchased at auction in 2007 by the current owner, Mr. Larry Thibeault. Subsequent uses of the Site building, which was divided into tenant spaces/units, were storage/warehouse spaces, a wood working facility, two gyms, and various other tenants. Dating back to circa 2012, there have been no active business operations at the Site, and the Site building has fallen into a state of disrepair. Additional structures and features on the western 40% of the Site include a concrete block structure housing a 20,000-gallon No. 6 oil AST which is not in compliance with applicable rules, is the site of a reported release of fuel oil (20 gallons, estimated) and historically fueled boilers which provided the Site building with heat.

The properties abutting the Site are primarily residential along Webster Street, with the exception of two auto body shops, a Head Start preschool, and the American Legion Hall. Properties abutting the Site to the north, beyond the drainage swale, include a retail shopping plaza and a courthouse with frontage along Peterborough Road (Route 202). The east abutting property is a vegetated parcel which was historically a portion of the Site; this parcel was the location of an infiltration bed/surface impoundment area which received industrial process wastewater historically generated at the Site building.

The Site and abutting/neighborhood properties are serviced by the municipal water supply and wastewater collection systems operated by the Town of Jaffrey. Currently, utility services have been interrupted/discontinued to the Site building, which has remained vacant for approximately seven years.

The Site is located in a mixed-use residential and commercial area, and a former railroad corridor abuts the Site to the north. Several neighboring properties have been identified as having the potential to have contributed to adverse environmental conditions at the Site.

The topography of the Site is generally level on the developed portion of the Site; with a relatively abrupt downward slope east of the Site building leading to the two ponds located at the eastern extent of the Site and a steep drop to the south, off of the south edge of the paved parking area. The vegetated slope down to the ponds east of the Site building is the area of a capped tack/waste pile landfill. Directly beyond the ponds, and only a few feet elevated relative to the water bodies, is the east abutting parcel which historically served as a surface impoundment area for process derived wastewater generated at the Site. Refer to the attached Site Location Map (Figure 1) to view the general location of the Site on a 7.5-minute topographic quadrangle.

A property boundary survey was not completed as part of this investigation. The property boundaries shown on the attached figures are approximate based on Town of Jaffrey tax maps.

Refer to the attached Site Area Plan and the Site plan (Figure 2 and Figure 3, respectively) for a layout of the Site and the locations of key Site features.

1.5 Previous Investigations

A Phase I ESA was conducted by Ransom to evaluate the entire Site for evidence of RECs using the procedures set forth in the requirements of ASTM International Standard Practice E 1527-13. A hazardous building material inventory (HBMI) was also completed. Based on the findings, conclusions, and recommendations of the Phase I ESA, a Phase II ESA was conducted on the western 40% of the Site by Ransom to evaluate the identified RECs and/or areas of concern (AOCs) identified for this portion of the Site in the Phase I ESA. The scope of work for this Supplemental Phase II ESA as detailed in a May 17, 2019 SSQAPP is to further investigate the sources and extent of specific RECs confirmed in the Phase II ESA.

The following provides a summary of some of the key findings presented in these reports.

Phase I Environmental Site Assessment, Former W. W. Cross Property, NH DES Site #198708007, 39 Webster Street, Jaffrey, New Hampshire; Ransom, dated November 1, 2017

The Phase I ESA was performed for the entire Site parcel, including the eastern 60% of the property that is designated as a Groundwater Management Zone. The eastern portion of the property includes a fenced grassed area which slopes steeply downward to two waterbodies (a “fire pond” which is separated by a berm from a second pond located further to the south). Both of the water bodies are located near the eastern property boundary. The sloped grassed area is the engineered vegetated cap associated with a landfill located on the Site. According to previous environmental reports, this earthen cap was installed as a remedial measure for a “tack dump” disposal area, after the removal of targeted soils with elevated cyanide (and metals) concentrations. According to these previous reports, waste tacks and other waste materials generated by the operations conducted in the Site building from circa 1915 to the mid-1970s were dumped over the banking on this portion of the Site. Environmental investigations related to the tack pile/dump began in December 1993; subsequently, a Remedial Action Plan (RAP) was developed and approved by the NH DES, leading to the targeted soil removals and the November 1999 construction of the capping system over the tack pile. A February 2000 deed reference (Cheshire County Book 1738, Page 0430) is a notice made by Former W. W. Cross Inc. of an unlined landfill capping system on the Site (Tax Map 245, Lot 7.2), and includes restrictions to prohibit disturbing soils, fencing and monitoring wells and ensures continued access to the NH DES for inspection purposes and to Black & Decker for monitoring and maintenance purposes.

Ransom conducted a reconnaissance of the Site on May 11, 2017. Ransom observed suspect hazardous substances and petroleum products stored by the current Site owner, former Site tenants, and/or related to

past maintenance of the Site. Ransom also observed concrete patches associated with former floor drains, trenches/sumps, metal plating facilities, and the former wastewater treatment facility reportedly constructed circa 1982. Process-derived effluent, including oil and/or hazardous materials (OHM) associated with the manufacturing operations historically conducted onsite, is known to have been directed to these drains/sumps and piped to a surface impoundment area on the east abutting property. Loading docks and historic loading/unloading areas were noted in connection with the Site building that likely included handling of OHM as part of the manufacturing activities along west, south and east sides of the building as well as along the north side of the building adjacent to a former railroad spur.

In addition to the on-Site environmental concerns noted above, the following documented or potential off-Site concerns were identified that have the potential to affect groundwater or surface water quality on the Site:

1. A neighboring former dry-cleaning facility has adversely impacted groundwater on numerous parcels in the vicinity of the Site, including the detection of impacted groundwater immediately abutting the Site and in an inferred upgradient position; the contaminated groundwater plume may extend onto the Site.
2. An auto body shop which, by industry type, typically use hazardous substances and is a Resource Conservation and Recovery Act (RCRA) generator, is located south of and proximal to the western portion of the Site in an inferred cross-gradient to upgradient location.
3. An auto body shop which, by industry type, typically used hazardous substances and is a RCRA generator, is located southeast of and proximal to the eastern portion of the Site in an inferred upgradient location to the eastern portion of the property.
4. A former historical wood product manufacturing facility (now a shopping plaza) located to the north of the Site in an inferred cross-gradient to upgradient location to the western portion of the property.

Based on the findings of the Phase I ESA, the following RECs were identified in connection with the western 40% of the Site parcel (RECs and AOCs for the eastern portion of the Site were not discussed):

1. A non-compliant 20,000-gallon No. 6 oil AST: is located in a cement block structure on the Site; the condition of the AST, and the volume of oil remaining in the tank, if any, is unknown; the ground surface beneath the tank could not be viewed to look for staining; it is the site of a reported release of fuel oil to the ground surface; and vermiculite (presumed asbestos containing) was noted on the ground surface adjacent to the cement block structure [vermiculite is an insulating material around the AST].
2. Historically, an oil underground storage tank (UST) (size unknown) was located south of the central portion of the Site building (as depicted on a 1924 Sanborn Map), this area is now occupied by the central portion of the Site building; no records identifying the removal of this UST were identified during the course of this Phase I ESA; the historic presence of this UST and associated petroleum storage had the potential for adverse impacts to Site soils and/or groundwater.
3. Floor drains and sumps historically received process derived wastewater, including OHM, across the manufacturing/industrial portions of the Site building; most of these

structures were closed in place and potential adverse impact to Site soils and/or groundwater beneath and adjacent to these drains/sumps has not been assessed.

4. The detection of low concentrations of cyanide and/or tetrachloroethylene in groundwater samples from monitoring wells MW-14 and MW-2 (located on the eastern portion of the Site), including exceedances of Env-Or 600 Ambient Groundwater Quality Standards (AGQS) as recently as 2012 and/or 2014, could indicate the potential for unassessed or unidentified source areas, including areas on the western portion of the Site.
5. A neighboring former dry-cleaning facility has adversely impacted groundwater on numerous parcels in the vicinity of the Site, including the detection of impacted groundwater immediately abutting the Site and in an inferred upgradient position; the contaminated groundwater plume may extend onto the Site.

Although not considered RECs, Ransom identified the following potential environmental AOCs in connection with the western 40% of the Site:

1. Given the unsecured nature of the Site building and the number of potential OHM containers that were observed to be remaining in the Site building, there is a threat of additional OHM releases.
2. Additional investigations are necessary to assess whether petroleum and hazardous substance handling over many years of operation in loading/unloading areas may have resulted in releases of OHM in those areas.
3. Additional investigations are necessary to assess whether potential releases of OHM from relatively high-risk properties located to the north and south have impacted groundwater quality on the Site.

Based on the information obtained during the Phase I ESA, Ransom concluded that additional investigations were warranted. Ransom recommended the following to address the identified RECs and areas of potential environmental concern for the western 40% of the Site:

1. The completion of a Phase II ESA at the Site, including the advancement of soil borings, installation of groundwater monitoring wells, and laboratory analyses of Site soils and groundwater to assess and evaluate the identified RECs and areas of environmental concern.

Ransom also provided the following non-scope recommendations:

1. A HBMI is being conducted at the Site, the results of which will be delivered under separate cover. Prior to any planned renovation or demolition of the Site buildings or other structures, asbestos and other hazardous building materials must be abated/removed and disposed of as required by applicable regulation and as detailed in the HBMI Report for the Site.
2. Ransom recommends an assessment of the OHM containers remaining at the Site, and the subsequent removal and appropriate disposal.
3. The 20,000-gallon No. 6 oil AST should be pumped, cleaned, assessed for leaks and removed from the Site.

4. Copies of potential agreements made between the historical responsible party (Black & Decker) and the NH DES and current or past owner(s) should be obtained and reviewed to assess what contractual limitations of liability and corrective action obligations may be available to a prospective purchaser [this was completed].

Ransom prepared a SSQAPP, dated August 3, 2018, which outlined the planned activities proposed to address the RECs and AOCs identified in the Phase I ESA. The HBMI was completed and a report, dated September 22, 2017, was delivered to the SWRPC.

Phase II Environmental Site Assessment, Former W. W. Cross Property, NH DES Site #198708007, 39 Webster Street, Jaffrey, New Hampshire; Ransom, dated March 13, 2019

The Phase II ESA was performed for the western 40% of the Site parcel, excluding the eastern 60% of the property that is designated as a Groundwater Management Zone. To evaluate the RECs and PECs, the following six AOCs were developed for the Site:

1. AOC 1—Wastewater disposal systems (drains & sewer);
2. AOC 2—Former plating area;
3. AOC 3—Former fuel oil UST area;
4. AOC 4—Inactive fuel oil AST area;
5. AOC 5—Facility loading/unloading areas; and
6. AOC 6—Off-site sources.

To assess AOC 1 through 6, Ransom designed a Phase II ESA which included the advancement of soils borings, the collection and analyses of soil samples for field screening for the presence of metals using a x-ray fluorescence (XRF) analyzer and photoionizable compounds (PICs) using a photoionization detector (PID), the selection and laboratory analyses of soil and/or concrete samples for the presence of selected metals, hexavalent chromium (if warranted based on total chromium), polynuclear aromatic hydrocarbons (PAHs), volatile organic compounds (VOCs) including 1,4-dioxane, polychlorinated biphenyls (PCBs), total petroleum hydrocarbons (TPH)-diesel range organics (DRO) and/or total cyanide; the installation of eight monitoring wells and the collection and laboratory analyses of groundwater samples from the monitoring wells for the presence of dissolved (field-filtered) metals, dissolved (field-filtered) PAHs, VOCs, total cyanide, sulfate, and/or per- and polyfluoroalkyl substances (PFAS) according to U.S. EPA methods, as appropriate.

Based on the information collected as part of the assessment, RECs identified in the Phase I ESA were confirmed, discounted or undetermined as follows:

1. Non-compliant 20,000-gallon No. 6 oil AST: Confirmed. The PAHs documented in soil at B5 and B22 may be indicative of a release of No. 6 oil in that area adjoining the inactive fuel oil AST and exceed Env-Or 600 Soil Remediation Standards (SRS). The soils are in a paved area and do not present an immediate human risk exposure. Although there were no exceedances of AGQs, VOCs including naphthalene (30 micrograms per liter (µg/L)) were detected in the groundwater sample collected from the monitoring well (MW105) installed in this area.

2. Historic oil UST (size unknown) located south of the central portion of the Site building: Discounted (for petroleum). Evidence of a petroleum release was identified; however, no violations of soil or groundwater standards were documented [for petroleum constituents].
3. Floor drains and sumps that historically received process derived wastewater: Confirmed. Cadmium in soil at boring B2 and cyanide in groundwater at MW102 (installed in B2) are likely associated with a release of wastewaters or plating solutions in the former industrial wastewater/plating area. The sampled soils are beneath a concrete slab and do not present an immediate human exposure risk. Tetrachloroethylene (PCE) impacts to groundwater in the area of MW102 and MW104 (above AGQS) could also be related to an on-Site release or, alternatively to the remnants of a plume from a neighboring known or unknown off-Site source.
4. Contaminated groundwater (cyanide and PCE exceeding AGQSs) in monitoring wells located on the eastern portion of the Site that could indicate the potential for unassessed or unidentified source areas, including areas on the western portion of the Site: Confirmed. Cyanide was detected in groundwater above AGQS in the wastewater/plating area. As noted above, PCE impacts to groundwater in the area of MW102 and MW104 (above AGQS) could be related to an on-Site release or, alternatively to the remnants of a plume from a neighboring known or unknown off-Site source.
5. A neighboring former dry-cleaning facility has adversely impacted groundwater on numerous parcels in the vicinity of the Site; the contaminated groundwater plume may extend onto the Site: Undetermined. Additional investigations within and north of the Site building need to be conducted to determine rule out whether PCE is migrating onto the northern portion of the Site.

In assessing the other identified AOCs, Ransom concluded the following:

1. The source of the PAHs in the area of boring B3 from 5 to 8 feet below ground surface (bgs) but above the groundwater table is unclear but may be related to backfilled soil near sewer infrastructures or another unknown source.
2. The PAHs in soil at boring B12 and B26 that exceed SRSs as well as naphthalene in groundwater at MW108 [other PAHs such as benzo[a]anthracene and benzo[b]fluoranthene were detected at concentrations slightly less than AGQSs], are likely associated with a release (or releases) of a petroleum or a petroleum-like product. The source of an exceedance of arsenic in soil at nearby B18 is unclear; however, no staining similar to that noted at B12 and B25 was observed in soil from this boring. The impacts to soils were documented beneath pavement or concrete and do not present an immediate human exposure risk.
3. The PAHs in soil samples collected from adjacent to a railroad corridor are inferred to constitute a background condition per Env-Or 600 (presence of coal combustion residuals in urban fill).

Based on the data collected during the Phase II ESA, Ransom concluded that additional investigation was warranted. Ransom recommended additional assessment to further delineate the extent of:

1. Cadmium, cyanide and PCE impacts to soils and/or groundwater in proximity to the former plating and wastewater treatment areas near MW102/B2;
2. PCE impacts to groundwater as was documented in the sample collected from monitoring well MW104 (in conjunction with MW102 area investigations);
3. PAH impacts to soil broadly in the area of B12 and B26, and naphthalene impacts to groundwater as was documented in the sample collected from exterior monitoring well MW108; and
4. PAH impacts to soil (B5 and B22) in the area of the inactive No. 6 oil AST.

Contaminant levels detected in soils in some locations on Site (i.e., the railroad corridor) are consistent with background conditions or in most locations assessed do not rise to the level requiring remedial action and could likely be managed in place. However, soils with relatively low-level and mid-level contaminants would/could be subject to regulation and re-use restrictions if excavated and relocated on Site and/or removed from the property.

This Supplemental Phase II ESA scope of work detailed in the May 17, 2019 SSQAPP was designed to further investigate the findings of the Phase II ESA.

1.6 Recognized Environmental Conditions

The intent of this Supplemental Phase II ESA was to further investigate the three recommendations made in the Phase II ESA report for western 40% of the Site; as described in the following AOCs:

1.6.1 Areas of Concern

AOC A—Tetrachloroethylene Impacts to Groundwater

The Phase II ESA identified PCE impacts to groundwater, as was documented in the samples collected from monitoring well MW102 and MW104. The scope of this Supplemental Phase II ESA includes further investigation of the spatial extent of this contaminant of concern to help differentiate and clarify whether the documented PCE impacts are associated with a potential on-site source or may be related to potential off-site source(s).

AOC B—Further Investigation of Cadmium, Cyanide, and Tetrachloroethylene Impacts

The Phase II ESA identified cadmium, cyanide and PCE impacts to soils and/or groundwater in proximity to the former plating and wastewater treatment areas near MW102/B2. The scope of this Supplemental Phase II ESA includes further investigation of the contaminants in this impacted area.

AOC C—Delineation of Polynuclear Aromatic Hydrocarbons in Soil / Further Investigation of Petroleum in Groundwater

The Phase II ESA identified PAH/petroleum impacts to soil broadly in the area of B12 and B26 (unknown source), the area of borings B5 and B22 (possible inactive heating oil AST source), and naphthalene impacts to groundwater as was documented in the sample collected from exterior monitoring well MW108. The scope of this Supplemental Phase II ESA includes further delineation and characterization of the identified impacts in these areas.

2.0 INVESTIGATION METHODOLOGY

Based on the findings of Ransom's 2018 Phase II ESA, a sampling program was developed to further investigate the extent of soil and groundwater contamination on the western 40% of the Site.

As noted above, contaminants of concern (COCs) evaluated as part of this Supplemental Phase II ESA include: Priority Pollutant metals (PPMs) (including antimony (Sb), arsenic (As), beryllium (Be), cadmium (Cd), chromium (Cr), copper (Cu), lead (Pb), mercury (Hg), nickel (Ni), selenium (Se), silver (Ag), thallium (Tl) and zinc (Zn)), VOCs, PAHs, TPH-DRO and cyanide.

These COCs were selected based on the findings of Ransom's 2018 Phase II ESA. Potential exposure routes associated with these COCs include direct contact with impacted soils; direct contact with impacted groundwater; ingestion of contaminated soil or ingestion/inhalation of airborne dust, particularly during any construction activity at the Site; and ingestion of contaminated groundwater (although no nearby potable use of groundwater is known).

As noted in Section 1.5.1 in greater detail and as fully elaborated in the SSQAPP, the scope of work for the Supplemental Phase II ESA includes the advancement of soil borings, the collection of soil samples from the soil borings, the installation of monitoring wells, and the collection of groundwater samples from new and selected existing monitoring wells. Sample locations for the Supplemental Phase II ESA are shown on the attached Figure 3.

Deviations from the proposed scope of work were as follows: (1) proposed B112 could not be installed due to building wall obstructions; however, data from B14 and B19, jointly, met the data needs of B112 which was intended to help constrain former plating room/wastewater treatment area soils impacts; (2) two additional borings (B116 and B117) were advanced off of the southwest building corner based on real-time evaluation of soils quality in the area of elevated PAHs, and the need for additional delineation effort at those locations; and (3) proposed monitoring well MW202 was not installed due to difficult drilling conditions which necessitated prioritization of the work that could be accomplished, as well as a re-assessment that MW201, alone, would meet the needs of additional PCE plume characterization (i.e. assessing dissolved PCE was from an off-site or an on-site source), which was the primary purpose of MW202.

On June 17 and 18, 2019, Ransom oversaw the advancement of eleven soil borings (B101, B103, B014, B105, B107, B108, B109, B110, B111, B114 and B115) throughout the areas of concern on the Site by New England Boring Contractors (NEBC) of Derry, New Hampshire. Two of the borings (B101 and B103) were completed as groundwater monitoring wells (MW201 and MW203, respectively).

On August 12, 2019, Ransom returned to the Site and oversaw the advancement of four additional borings (B105A, B113, B116 and B117) and the over-drilling of previously advanced boring B12 (completed as groundwater monitoring well MW204) throughout the areas of concern on the Site by Eastern Analytical, Inc. (EAI) of Concord, New Hampshire.

Soil boring locations are shown on Figure 3. Soils encountered in the soil borings were generally classified using the Burmister Soil Classification System. Soil samples collected from the borings were screened in the field for total VOCs using a MiniRAE 2000 PID calibrated with 100 parts per million by volume (ppmv) isobutylene and corrected to read as benzene. In addition, the soil samples were field-screened for metals using an XRF analyzer. Soil samples were collected for laboratory analysis from locations and depth intervals selected based on visual and olfactory observations and field screening results, as described in the SSQAPP. Based on field screening results, observations and/or location, at least one soil sample was collected from thirteen of the soil borings (see Table 2) for laboratory analysis

of the specific COCs for the given AOC. Soil boring logs documenting soil profiles, observations, and PID field screening results are included in Appendix A. Results of XRF screening of soil samples are provided in Table 1. Soil samples were submitted for laboratory analysis for the specific parameters specified for each AOC. Soil laboratory analytical results for the selected samples are provided in Table 2. Results are summarized in Section 3.0, below.

Groundwater sampling activities were conducted on September 20, 2019. Measurements of static water levels are summarized in Table 4. Groundwater samples were collected from three of the newly installed monitoring wells (MW201, MW203 and MW204) and three of the existing monitoring wells (MW102, MW104 and MW106), utilizing low-flow sampling procedures. Groundwater sampling logs documenting the field parameters recorded during the low-flow sampling activities are included in Appendix A.

Groundwater samples were submitted for laboratory analysis of dissolved PPMs, VOCs and cyanide. Groundwater samples collected for metals analyses were field-filtered. The locations of the monitoring wells were surveyed to a common datum and are shown on the attached Site Plans.

Field duplicate samples were collected for each matrix/analysis and laboratory analyzed for quality assurance purposes (summarized in Section 4.0).

Soil and groundwater samples were collected directly from sampling equipment into laboratory-prepared sample containers and placed on ice. All samples collected for laboratory analysis during the Supplemental Phase II ESA were handled and transported under chain-of-custody procedures. Chain-of-custody documentation is included in the laboratory reports (Appendix B). The soil and groundwater samples were delivered to Alpha Analytical (Alpha) of Portsmouth, New Hampshire.

3.0 RESULTS

The following subsections document the results of the Supplemental Phase II ESA activities. XRF field screening measurements are summarized in Table 1 and groundwater field parameter measurements are summarized in Table 3. Analytical results are summarized by media in Table 2 (soil) and Table 4 (groundwater). A summary of duplicate soil sample analytical results is presented in Table 5. Groundwater sample duplicate results are included in Table 6. Certified laboratory analytical reports are included in Appendix B.

Analytical results were compared to regulatory guidelines presented in the SSQAPP. The regulatory guidelines include the following:

1. NH DES Env-Or 600 SRS;
2. U.S. EPA Regional Screening Levels (RSLs);
3. NH DES AGQS; and
4. U.S. EPA Maximum Contaminant Levels (MCLs).

Soil analytical results were compared to the NH DES SRS, and in addition, to NH DES Risk Characterization Management Policy (RCMP) Method 1 NH S-1, S-2 and S-3 standards. For detected contaminants that do not have an established SRS, the concentrations were compared to the corresponding U.S. EPA RSLs. Groundwater analytical results were compared to the NH DES AGQS and the U.S. EPA MCLs.

3.1 Geology and Hydrogeology

Based on observations made by Ransom during this Supplemental Phase II ESA and the previous Phase II ESA, the Site is generally underlain by fine to medium sands, with little fine to medium gravels and silt; with soil density and the presence of cobbles increasing with depth.

The bedrock stratigraphic unit underlying the Site and vicinity is mapped on the Bedrock Geologic Map of New Hampshire (1997), as the Spaulding Tonalite (Spaulding Quartz Diorite of Fowler-Billings, 1949 (Early Devonian)) (Ds1-6); detailed as weakly foliated to non-foliated, spotted biotite quartz diorite, tonalite, granodiorite, and granite. Near-surface soils encountered in the investigations areas on the central portion of the Site are inferred to be historical fill based on the following: (1) soil density (very low density, fine to coarse sand outside of the building footprint), (2) soils with cobbles and rock at fairly consistent depths (4 to 6 feet below grade), (3) occasional anthropomorphic constituents (asphalt, concrete), and (4) dark silty layers (possible former wet ground surface proximal to the present-day groundwater table). A broad layer of fill is also consistent with the steep topographic drop on the southeast portion of the lot, presumably down to native soils in a surface water drainage depression. These fill soils are underlain by denser medium to coarse sand, with gravel and cobbles with occasional with evidence of layering. Bedrock is inferred beneath these native soils at depths of about 12 feet below grade in the footprint area of the central portion of the building.

The depth to groundwater ranged from 2.66 to 11.55 feet below grade in sandy soils and unconfined conditions. Depth to groundwater measurements are presented in Table 3. Based on the measured depth to groundwater across the Site, groundwater was inferred to generally flow to the southeast. A groundwater flow map is included as Figure 4 and presents the linear interpolation of static water elevations across the Site based on the depth to groundwater as measured at each monitoring well on the

sampling date (September 20, 2019). The depth to groundwater is deepest along the southeastern portion of the property and shallowest along the western portion of the property.

3.2 Soil

Soil samples were collected for laboratory analyses from thirteen of the seventeen soil borings from the depth interval(s) where evidence of contamination was identified based on field screening results and/or visual and olfactory observations. XRF field screening results of the soil samples are presented in the attached Table 1. Analytical results of soil samples are presented in the attached Table 2.

A summary of observations, field screening results and analytical results for each AOC follows:

AOC A—PCE Impacts to Groundwater

Boring B101 was advanced along the northern interior wall the Site building, near the north property boundary, to assess the spatial extent of PCE and to help differentiate and clarify whether the documented on-Site PCE impacts are associated with a potential on-site source or may be related to potential off-site source(s). Groundwater-saturated soils were encountered at approximately 8 feet below grade in the boring. Boring B101 was finished as groundwater monitoring well MW201.

The boring was advanced through the poured concrete slab flooring, which was approximately 5.5 inches thick. Soils encountered beneath the concrete slab generally consisted of fine to coarse sands, with little to some gravel, with the presence of cobbles increasing with depth and possible bedrock at about 13.7 feet below grade.

Elevated PICs (above 2 ppmv) were not encountered in soil samples from B101. Neither odors nor staining was noted in the soils from B101.

XRF measurements taken at 2-foot or less sample intervals over the depth of boring B101 indicated the potential for a slightly elevated concentration of antimony (above SRS) at a depth of 4 to 5 feet below the concrete slab. XRF measurements did not indicate additional metals concentrations above SRSs in soil samples from this boring.

One soil sample was selected for laboratory analyses from boring B101. Sample S1, collected from 0.5 to 2 feet below grade, was selected for VOC analyses. With the exception of a detected low concentration of acetone (a likely laboratory or preservative contaminant) which was detected much below the applicable Env-Or 600 SRS, no VOCs were detected above laboratory detection limits in soil sample B101.

AOC B—Further Investigation of Cadmium, Cyanide and Tetrachloroethylene Impacts

Borings B103 and B113 were advanced in the Site building to further address the former plating room area. The borings were advanced through the poured concrete slab flooring, which was approximately 5.5 inches thick. In general, soils encountered consisted of fine to medium sands, with little gravel, trace to little silt, and cobbles increasing with depth. Refusal was encountered in borings B103 and B113 at depths of 8 and 12.3 feet, respectively. Boring B103 was advanced to a depth of approximately 12.3 feet below grade and finished as groundwater monitoring well MW203.

Elevated PICs (above 1 ppmv) were not encountered in soil samples from B103 and B113. Neither odors nor staining were noted in the soils from either boring.

XRF measurements taken at 2-foot or less sample intervals over the depth of the borings indicated the potential for a slightly elevated concentration of antimony at a concentration above its SRSs in one soil sample from boring B103. XRF measurements did not indicate additional metals concentrations above SRSs in soil samples from these borings.

One soil sample was selected for laboratory analyses from each boring for VOC, PPM and cyanide analyses. Sample S2, collected from 2 to 4 feet below grade, was selected from boring B103. Sample S4, collected from 6 to 8 feet below grade, was selected from boring B113.

No VOCs or PPMs were detected above SRSs in the soil samples submitted for laboratory analyses from borings B103 and B113. No cyanide was detected above laboratory detection limits in the soil samples analyzed for cyanide from borings B103 and B113.

AOC C—Delineation of Polynuclear Aromatic Hydrocarbons in Soil / Further Investigation of Petroleum in Groundwater

Borings B104, B105, B107 through B111, B116 and B117 were advanced to further delineate and characterize the areas of identified PAH/petroleum impacts to soil in the area of B12 and B26 (unknown source) and naphthalene impacts to groundwater as was documented in the sample collected from exterior monitoring well MW108 (installed in boring B26).

Borings B104, B105 and B107 were advanced within the Site building in the general area of boring B12 to further delineate PAHs in soil inside the building. In general, soils encountered consisted of fine to coarse sands, with little gravel, and trace to little silt. Refusal (possibly concrete and/or cobbles/boulders) was encountered in borings B104, B105 and B107 at depths of 4.2, 2.5 and 4 feet below grade, respectively; soils over this dense layer are interpreted as fill. No unusual odor was noted in soils and no groundwater was encountered in these borings. Because no groundwater was encountered in these borings (one of which was planned to be completed as a groundwater monitoring well), previously advanced boring B12 (for which an oil/creosote odor had been noted in soils) was re-drilled and advanced to a depth of approximately 14 feet below grade to install groundwater monitoring well MW204.

Borings B108, B109, B110, B111, B116 and B117 were advanced in the south loading dock area in the general area of boring B26 to further delineate PAHs in soil in that area. In general, soils encountered consisted of fine to coarse sands, with little gravel, and trace to little silt. For these borings and this area, soils less than 5 feet bgs are inferred to be fill based on low soil density, occasional anthropogenic materials, and evidence of the former ground surface below grade. The majority of the borings were advanced to a depth of 12 feet bgs; refusal was not encountered in the borings. Groundwater saturated soils were encountered in borings B108, B109, B110, B111 at approximately 4 feet below bgs. Borings B116 and B117 were advanced to 4 feet bgs; and no groundwater was encountered.

XRF measurements taken at 2-foot or less sample intervals over the depth of the borings indicated the potential for slightly elevated concentrations (above SRS) of antimony in the soil samples from borings B108, B109 and B110. XRF measurements did not indicate additional metals concentrations above SRSs in soil samples from these borings.

Elevated PICs (above 1 ppmv) were not encountered in soil samples from B104, B105, B107, B108, B109, B110, B111, B116, and B117. PICs (ranging from less than 1 to 22 ppmv) were measured in soil samples collected from B111. A strong tar/creosote-type odor was noted during the advancement of borings B110, B111 and B117, particularly in very shallow soils. These borings were advanced along the western exterior wall of the southwestern portion of the Site building.

No VOCs were detected above SRSs in the soil samples collected from these borings and submitted for laboratory analyses (B105, B107, B108, B109, B110 and B117). However, benzene and naphthalene were detected in the shallow soil sample collected from B111 at concentrations above SRSs (equal to the RCMP Method 1 NH S-3 standard).

PAHs (including naphthalene, benzo(a)pyrene, benzo(a)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene, fluorene, dibenzo(a,h)anthracene, indeno(1,2,3-cd)pyrene and/or 2-methylnaphthalene) were detected above SRSs in the soil samples analyzed from borings B109, B110, B111 and/or B117. The concentrations of several of these PAHs exceeded the RCMP Method 1 NH S-3 standard for the soil samples collected from borings B111 and B117 (as did a sample with similar characteristics from previous boring B12). The sample from B111 was collected from 0.0 to 0.5 feet below the pavement and the sample from B117 was collected from 0.0 to 2.0 feet below grade and beneath pavement.

Additional PAHs were detected in samples from borings B104, B105, B108, B109, B110, B111 and B117; however, at concentrations below the applicable SRSs.

TPH-DRO (21,500 mg/kg) was detected in the soil sample collected for laboratory analyses from boring B111 at a concentration exceeding the SRS (equal to the RCMP Method 1 NH S-3 standard) for TPH-DRO (10,000 mg/kg). TPH-DRO was detected in the soil sample collected for laboratory analyses from boring B117; however, at a concentration below the SRS for TPH-DRO. Based on the petroleum hydrocarbon fingerprint of the sample from B111, the laboratory opined that the contaminant “appears to be similar to a coal tar/creosote.”

Borings B114 and B115 were advanced to the south and west of a building housing the inactive heating oil AST. In general, soils encountered consisted of fine to coarse sands, with little gravel, trace to little silt, and cobbles increasing with depth; placed fill is inferred to comprise the upper 7 to 8 feet of overburden in this area. Each boring was advanced to a depth of 12 feet below grade; refusal was not encountered in either boring. Groundwater saturated soils were encountered in each of these borings at depths ranging from 4 to 5 feet bgs.

Elevated PICs (above 1 ppmv) were not encountered in soil samples from B114 and B115. Neither odors nor staining were noted in the soils from either boring.

XRF measurements taken at 2-foot or less sample intervals over the depth of the borings indicated the potential for a slightly elevated concentration of antimony at a concentration above its SRS in three soil samples from borings B114 and B115. XRF measurements did not indicate additional metals concentrations above SRSs in soil samples from these borings.

No VOCs, PAHs or TPH-DRO were detected above SRSs in the soil samples collected from these borings.

3.3 Groundwater

Groundwater samples were collected from the three newly installed monitoring wells installed as part of this investigation (MW201, MW203 and MW204) and from three existing monitoring wells (MW102, MW104 and MW108).

Monitoring well locations and groundwater detections exceeding AGQs are shown on the attached Figure 6. Groundwater field parameter results are shown in Table 3. Groundwater analytical results are summarized in Table 4.

The groundwater samples were analyzed for the presence of VOCs (MW102, MW104, MW108, MW201, MW203, and MW204), dissolved (field-filtered) PPMs (MW203), and cyanide (MW102 and MW203).

A summary of the analytical results for each AOC is as follows:

AOC A—Tetrachloroethylene Impacts to Groundwater

To assess the spatial extent of PCE and to help differentiate and clarify whether the documented PCE impacts are associated with a potential on-site source or may be related to potential off-site source(s), groundwater quality was evaluated by collecting groundwater samples from monitoring well newly-installed monitoring well MW201 (within the building but proximal to the upgradient property boundary) and existing monitoring well MW104 (in the center of the building and in a former manufacturing area).

The groundwater samples were analyzed for the presence of VOCs.

No VOCS were detected in the groundwater sample collected from monitoring well MW201 at concentrations above AGQs. PCE and its degradation daughter compound cis 1,2-dichloroethylene (DCE) were detected at low levels, and each compound was detected at similar concentrations (2.6 and 2.2 ug/L, respectively), in the groundwater sample.

PCE was detected at a concentration (5.8 ug/L) above its AGQS (5 ug/L) in the sample from MW104. 1,2-DCE was not detected in this sample.

AOC B—Further Investigation of Cadmium, Cyanide and Tetrachloroethylene Impacts

To assess for potential impacts to groundwater quality due to past discharges associated with the former plating and wastewater treatment area, groundwater quality was evaluated by collecting groundwater samples from one of the newly installed monitoring wells (MW203) and existing monitoring wells MW102 and MW104.

The groundwater samples were analyzed for the presence of VOCs (MW102, MW104 and MW203), dissolved (field-filtered) PPMs (MW203), and cyanide (MW102 and MW203).

Cyanide (at a concentration of 746 µg/L) was detected in the groundwater sample collected from existing monitoring well MW102 at a concentration above the AGQS for cyanide of 200 µg/L. Cyanide was not detected above laboratory detection limits in the groundwater samples collected from monitoring well MW203.

No VOCs or dissolved (field-filtered) metals were detected in the groundwater samples collected from monitoring well MW203 at concentrations above AGQs. The VOC PCE was detected at concentrations below the AGQs in the samples from MW102 and MW203. PCE was also detected in the sample from nearby MW104 at a concentration (5.8 µg/L) just above its AGQS (5 µg/L). 1,2 DCE was not detected in the area where these slightly elevated PCE concentrations were detected.

AOC C—Delineation of Polynuclear Aromatic Hydrocarbons in Soil / Further Investigation of Petroleum in Groundwater

To assess further the naphthalene impacts to groundwater as was previously documented in the sample collected from exterior monitoring well MW108, groundwater quality was evaluated by collecting groundwater samples from newly installed monitoring well MW204 and existing monitoring well MW108.

The groundwater samples were analyzed for the presence of VOCs. No VOCS were detected in the groundwater samples collected from monitoring wells MW108 and MW204 at concentrations above AGQs.

4.0 DISCUSSION

The following subsections provide a discussion and interpretation of pertinent results by AOC.

AOC A—Tetrachloroethylene Impacts to Groundwater

As noted above PCE and its degradation daughter compound cis 1,2-dichloroethelene (1,2-DCE) were detected at low levels, and at similar concentrations, in the groundwater sample from the upgradient monitoring well (monitoring well MW201). This pair of compounds and the parity of the analytes' concentrations were noted in samples from monitoring well MW106 also near the upgradient (northwest) property boundary and have been detected in monitoring rounds (sampled by others) at off-site monitoring wells just northwest of the northwest property boundary and support an off-site source for these low-level contaminants.

This pairing of related compounds may be a differentiator for an inferred separate PCE on-site source as documented in groundwater samples collected from near the former plating room and wastewater treatment area which have lesser or no detectable concentrations of 1,2-DCE (see AOC B, below).

AOC B—Further Investigation of Cadmium, Cyanide, and Tetrachloroethylene Impacts

The borings advanced as part of this Supplemental Phase II ESA in conjunction with the previously advance borings and collective soils data constrain the area of known cadmium-impacted soils to the area proximal to boring B2 (monitoring well MW102), i.e. in the former plating room/wastewater treatment area. Assuming a volume of cadmium-impacted soils centered on B2 measuring approximately 30 feet by 30 feet by 7 feet deep, then the impacted mass of soils would be on the order of 230 cubic yards, equivalent to 300 tons of soil at 1.4 tons/cubic yard. This volume estimate is an approximation based on data for cadmium concentrations in proximal borings which help to constrain the limits of the impacted area.

The source of the cyanide detected in Site groundwater at one location sampled as part of the ESA (MW102) is likely associated with previous on-site industrial operations, and based on its location centered on MW102 the area of impacts may generally be co-located with soils impacted by cadmium beneath the former plating room/wastewater treatment areas. Removal and proper disposal of the cadmium impacted soils would also lessen any co-located cyanide source and would be likely to lessen the time to achieve AGQS for cyanide.

As noted above, 1,2-DCE was not detected in monitoring wells in or proximal to the former plating room/wastewater treatment area where slightly elevated PCE concentrations were detected. This finding may indicate a separate on-site low-level source of PCE as compared to the PCE detected in samples from the on-site upgradient monitoring wells and nearby off-site upgradient well, where 1,2-DCE is present. The two modest plumes, a possible low-level (below AGQS) off-site plume migrating onto the Site and a possible low-level (slightly exceeding AGQS) plume from an on-site source, likely comingle as groundwater flows from northwest to southeast across the Site.

Because very low level PCE AGQS violations have been documented and no residual source mass has been identified in Site soils, it is possible that a “monitoring only” remedial approach to remediation could be supported for PCE impacts to groundwater.

AOC C—Delineation of Polynuclear Aromatic Hydrocarbons in Soil / Further Investigation of Petroleum in Groundwater

The area of creosote-impacted soils (characterized by elevated PAH concentrations and creosote odor) off the southwest corner of the Site building and beneath a portion of the building in that area is estimated to cover approximately 8,500 square feet and for most borings appears to be most pronounced in a relatively thin layer, less than 2 feet thick, just below paving. Spot locations (B12 and perhaps B111) appeared to have a greater thickness of impacted soils. Based on the available information, the estimated mass of impacted soils is likely on the order of 1,000 tons.

It is unclear whether the area of PAH soil impacts near the inactive heating oil AST (at B22 and B5) are related to oil storage or fill materials, but dissolved naphthalene detected in the Phase II ESA sampling at MW105 (installed in B5) suggest a possible petroleum source. Borings B114 and B115 appear to constrain the lateral extent of soils impacts. If the area of soil impacts extends up to and beneath the AST building and is limited vertically by the presence of groundwater, then the volume of impacted soils is likely on the order of 350 cubic yards, with an estimated mass of approximately 500 tons.

To assess further the naphthalene impacts to groundwater as was previously documented in the sample collected from exterior monitoring well MW108, groundwater quality was evaluated by collecting groundwater samples from newly installed monitoring well MW204 and existing monitoring well MW108.

Because no petroleum or creosote-related AGQS violations were noted in this sampling round it is possible that a remedial approach could allow for much of the creosote-impacted and heating oil impacted soils to remain in place under an Activity and Use Restriction, depending in part on future land use. Targeted removal and proper disposal of “hot spots” or soils generated during site redevelopment and not approved for on-site re-use is anticipated.

PAH impacted soils are also present at other locations on Site including the former railroad corridor and in urban fill soils. These were not investigated further in this Supplemental Phase II ESA but could be left in place based on no groundwater impacts and likely exemption from regulation under Env-Or 600 as coal combustion residuals.

5.0 QUALITY ANALYSIS/QUALITY CONTROL

The contracted laboratory, Alpha, provided Level II analytical data according to U.S. EPA protocols and U.S. EPA laboratory data validation guidance as required by Ransom's SSQAPP for Tier I Plus data review. Alpha provided the following information in analytical reports:

1. Data results sheets;
2. Method blank results;
3. Surrogate recoveries and acceptance limits;
4. Duplicate results/acceptance limits;
5. Spike/duplicate results/acceptance limits;
6. Laboratory control sample results;
7. Description of analytical methods and results; and
8. Other pertinent results/limits as deemed appropriate.

As outlined in the SSQAPP, at the completion of the field tasks and subsequent to receipt of the analytical results, a data usability analysis was conducted to document the precision, bias, accuracy, representativeness, comparability, and completeness of the results. The following sections present this analysis. A summary of duplicate sample analytical results is included in Table 5 (for soil) and Table 6 (for groundwater).

5.1 Precision

Precision measures the reproducibility of measurements. The precision measurement is established using the relative percent difference (RPD) between the duplicate sample results. Relative percent differences were calculated for samples where both sample and duplicate values were greater than five times the Practical Quantitation Limit (PQL) of the analyte. The RPD is calculated as follows:

$$\text{RPD} = \frac{(\text{Sample Result} - \text{Duplicate Result})}{\text{Mean of the Two Results}} \times 100$$

Precision of the sampling and analytical results is considered acceptable if the RPDs are less than or equal to 50% for soil samples or 35% for aqueous samples.

Duplicate soil samples were collected from soil boring B103-S2 (designated "DUP3"; analyzed for 13 PPMs and cyanide) and from B111-0.5' (designated "DUP2"; analyzed for VOCs, PAHs, TPH-DRO and GC-FID Chromatogram (fingerprint)). Duplicate groundwater samples were collected from monitoring wells MW108 (VOCs) and MW203 (13 PPMs and cyanide). Duplicate soil and groundwater samples are detailed in Table 5 and Table 6, respectively.

B111-0.5' / DUP3

One VOC was detected at concentrations greater than five times the PQL for the analytes for this soil sample pair. The RPD for this VOC (naphthalene) was 6%; therefore, the precision of this sample result is acceptable because the RPD is below the 50% limit for soil duplicates.

Thirteen PAHs were detected at concentrations greater than five times the PQL for the analytes. The RPDs for the PAHs ranged from 5% to 24%; therefore, the precision of these sample results is acceptable because the RPDs are below the 50% limit for soil duplicates.

The RPD was 80% for TPH-DRO for the soil sample pair B111-0.5' and DUP3, which is outside of the acceptable 50% allowance. This result is likely due to sample heterogeneity for this grossly contaminated sample; however, the result is not inferred to adversely affect data usability because the lower of the two concentrations was over 2X the SRS for TPH-DRO.

B103-S2 / DUP2

Total cyanide was not detected therefore an RPD could not be calculated for this soil sample pair.

Four metals were detected at concentrations greater than five times the PQL for the analytes. The RPDs for the detected PPMs ranged from 3% to 38%; therefore, the precision of these sample results is acceptable because the RPDs are below the 50% limit for soil duplicates.

MW108 / DUP-1

One VOC was detected at concentration greater than five times the PQL for the analyte. The RPD for this VOC (naphthalene) was 11%; therefore, the precision of this sample result is acceptable because the RPDs is below the 35% limit for the groundwater duplicates.

MW203 / DUP-2

Total cyanide was not detected; therefore, a total cyanide RPD could not be calculated for this groundwater sample pair.

Dissolved metals were not detected above 5x the PQL, therefore, dissolved metal RPDs could not be calculated for this groundwater sample pair.

5.2 Bias

Bias is the systematic or persistent distortion of a measurement process that causes errors in one direction. Bias assessments are made using personnel, equipment, and spiking materials or reference materials as independent as possible from those used in the calibration of the measurement system. Bias assessments were based on the analysis of spiked samples so that the effect of the matrix on recovery is incorporated into the assessment. A documented spiking protocol and consistency in following that protocol are important to obtaining meaningful data quality estimates.

Matrix spike and matrix spike duplicate samples (MS/MSD) were used to assess bias as prescribed in the specified methods. Unless specified in the notes below for each analytic method and media, acceptable recovery values were within the recoveries specified by each of the analysis methods. Laboratory control samples for assessing bias were analyzed at a rate as specified in the analytical SOPs and specified analytical methods.

The lab provides quality control non-conformance reports that indicate if Laboratory Control Samples/Laboratory Control Sample Duplicates (LCS/LCSD) and/or MS/MSD had low, failing, or high recoveries and if the sample result was affected. Likewise, the lab reports any compounds that had failing RPDs in the LCS/LCSD pair or the MS/MSD pair. This indicates the percent difference between the lab sample and its duplicate or the spike and its duplicate. Specific comments from the laboratory and LCS/LCSD results meriting discussion are provided below for each analytical method and media. Quantitative significance of detections below PQLs are not discussed.

Method blanks are run by the laboratory to assess contamination resulting from the complete preparation and analytical procedure. Trip blanks can assess for aggregate contamination associated with sources associated with transportation and handling, as well as the complete preparation and analytical procedure. Detections at concentrations above PQLs associated with method blanks or trip blanks are included in the discussions below.

5.2.1 Volatile Organic Compounds

Soil

For up to six compounds (chloromethane, acetone, 2-butanone, 2-hexanone, tetrahydrofuran, and isopropyl ether), the percent recovery was slightly outside of the laboratory's percent recovery limits (ranging from 69 to 153%) compared to laboratory criteria (typically 70 to 130%) for the LCS/LCSD pair for the low level and high-level extraction analyses as documented in the soil laboratory reports. None of the compounds are COCs for the Site, and if detected the results would be biased slightly high or low, but well below applicable SRSs; therefore, no adverse effect on data usability is inferred. The RPD for one VOC (tert-butyl alcohol, TBA) in the Batch WG1280700-3 and WG1280700-04 LCS/LCSD pair was high at 50% compared to the laboratory criteria of 20% (laboratory report L1926634). TBA was detected in many Site soil samples, but because it has only been detected at very low concentrations (100X less than the SRS), no adverse effect on data usability is inferred.

L1926634-06 (Trip Blank): The Trip Blank has results for acetone and tert-butyl alcohol present above the reporting limits (PQLs). The sample was verified as being labeled correctly by the laboratory and the previous analysis showed there was no potential for carryover.

L1926197-11 (Trip Blank): The Trip Blank has results for acetone and tert-butyl alcohol present above the reporting limits (PQLs). The sample was verified as being labeled correctly by the laboratory and the previous analysis showed there was no potential for carryover.

L1926969-05 (Trip Blank): The Trip Blank has results for acetone, ethyl ether, and tert-butyl alcohol present above the reporting limits (PQLs). The sample was verified as being labeled correctly by the laboratory and the previous analysis showed there was no potential for carryover.

The noted low-level method blank and trip blank detections likely point to a sample preservative source of contamination; however, at these very low concentrations, well under the AGQs for the analytes, the usability of the data is not adversely effected. These analytes, as well as methyl tertiary butyl ether and 2-butanone, were detected in many of the groundwater samples at similar very low concentrations, which corroborates a likely low-level contaminant, perhaps in the sample preservative.

Groundwater

For trans 1,3-dichloropropene and TBA, the percent recovery was slightly outside of the laboratory's percent recovery limits (ranging from 69 to 134%) compared to laboratory criteria (70 to 130%) for the LCS/LCSD pair as documented in the groundwater laboratory report. Neither of the compounds are COCs for the Site, and if detected the results would be biased slightly high or low, but well below applicable AGQs; therefore, no adverse effect on data usability is inferred. The RPD for two VOCs (2,2-dichloropropane and TBA) in the Batch WG1280700-3 and WG1280700-04 LCS/LCSD pair was high at 34% and 50%, respectively, compared to the laboratory criteria of 20%. Neither compound was detected in Site groundwater samples and 2,2-dichloropropane does not have an AGQ or an MCL; therefore, no adverse effect on data usability is inferred.

5.3 Accuracy

Accuracy is a statistical measurement of correctness and includes components of random error (variability due to imprecision) and systemic error. It therefore reflects the total error associated with a measurement. A measurement is accurate when the value reported does not differ from the true value or known concentration of the spike or standard. For VOCs, surrogate compound recoveries are also used to assess accuracy and method performance for each sample analyzed. Analysis of performance evaluation samples will also be used to provide additional information for assessing the accuracy of the analytical data being produced. Both accuracy and precision are calculated for each analytical batch, and the associated sample results are interpreted by considering these specific measurements.

The laboratory provides a non-conformance summary that reports if all of the quality control criteria including initial calibration, calibration verification, surrogate recovery, holding time and method accuracy/precision for analysis were within acceptable limits. According to the laboratory, unless noted in the non-conformance summary, all of the quality control criteria for these analyses were within acceptable limits.

Estimated concentrations are reported with a "J" flag designation by the laboratory for analytes that are detected at concentrations below the PQL (also called the Reporting Limit) but above the method detection limit. J flagged results are noted in the summary tables of this Supplemental Phase II ESA as well as in the laboratory reports.

5.3.1 Semi-Volatile Organic Compounds

Soil

L1926197-10 (sample B111-0.5'): The sample has elevated detection limits due to the limited sample volume utilized during the extraction and due to the dilution required by the sample matrix.

L1926197-10 (sample B111-0.5'): The surrogate recoveries are below the acceptance criteria for nitrobenzene-d5 (0%), 2-fluorobiphenyl (0%), and 4-terphenyl-d14 (0%) due to the dilution required to quantitate the sample. Re-extraction was not required; therefore, the results of the original analysis are reported.

L1926969-04 (sample DUP3): The sample has elevated detection limits due to the dilution required by the sample matrix.

L1926969-04 (sample DUP3): The surrogate recoveries are below the acceptance criteria for nitrobenzene-d5 (0%), 2-fluorobiphenyl (0%), and 4-terphenyl-d14 (0%) due to the dilution required to quantitate the sample. Re-extraction was not required; therefore, the results of the original analysis are reported.

Due to the elevated detected contaminant levels in the above referenced sample pair, i.e. concentrations well above SRSs, potential inaccuracies indicated by low surrogate recoveries or elevated detection limits do not have an adverse effect on data usability.

5.3.2 Total Petroleum Hydrocarbons-Diesel Range Organics

Soil

L1926969-04 (sample DUP3): The surrogate recovery is below the acceptance criteria for o-terphenyl (0%) due to the dilution required to quantitate the sample. Re-extraction was not required; therefore, the results of the original analysis are reported.

Due to the elevated detected contaminant levels in the above referenced sample, i.e. concentrations well above SRSs, potential inaccuracies indicated by low surrogate recoveries do not have an adverse effect on data usability.

5.3.3 Metals

Groundwater

L1939565-06 and -09 (samples MW203 and DUP-2, respectively): The sample was received above the appropriate pH for the Dissolved Metals analysis. The laboratory added HNO₃ to a pH <2. Because the samples were received by the laboratory the same day they were collected, any necessary adjustments to pH by the laboratory were timely, and de minimis impact on results is anticipated. Detected concentrations of metals were more than 10x less than the AGQs; therefore, it is unlikely that data usability was adversely affected.

5.4 Representativeness

Objectives for representativeness are defined for each sampling and analysis task and are a function of the investigative objectives. Representativeness was accomplished during this project through use of standard field, sampling, and analytical procedures.

5.5 Comparability

Comparability is the confidence with which one data set can be compared to another data set. The objective for this quality assurance/quality control (QA/QC) program is to produce data with the greatest possible degree of comparability. Comparability was achieved by using standard methods for sampling and analysis, reporting data in standard units, normalizing results to standard conditions and using standard and comprehensive reporting formats. Complete field documentation was used, including standardized data collection forms to support the assessment of comparability. Historical comparability shall be achieved through consistent use of methods and documentation procedures throughout the project.

5.6 Completeness

Completeness is calculated by comparing the number of samples successfully analyzed to the number of samples collected. The goal for completeness is 95 percent. The completeness for this project was 100 percent, as there were no samples that could not be analyzed due to holding time violations, samples spilled or broken, or any other reason.

5.7 Project Quantitation Limits

Project specific PQLs were developed for the SSQAPP to ensure analytical results would meet relevant applicable standards.

For one soil sample, B111-0.5', analyte PQLs did exceed the applicable standards for certain VOCs. For this sample the elevated PQLs were due to sample dilution due to matrix interferences encountered during analyses. This outcome did not affect the usability of the data because the sample was highly contaminated and target analytes were detected above PQLs that allowed for interpretation of the sample as “contaminated” and exceeding SRSs for benzene and naphthalene.

6.0 CONCLUSIONS

Based on the information collected as part of this Supplemental Phase II ESA, the spatial extent and nature of the previously detected releases of PCE, metals (cadmium), cyanide, heavy oil/creosote, and heating oil were better defined, and Ransom concludes the following:

1. AOC A—PCE Impacts to Groundwater. Relatively low concentrations of dissolved PCE are inferred to be migrating onto the Site with groundwater, from the northwest. Groundwater associated with this plume does not, at present, exceed the AGQS for PCE and is inferred to be separate from a low-level on-site plume also with minor (in concentration and extent) PCE impacts. No residual PCE source area, i.e. no soils with SRS exceedances, have been identified, but impacted groundwater does slightly exceed the PCE AGQS (MW104, and intermittently MW102) and is likely associated with past Site industrial activities.
2. AOC B—Further Investigation of Cadmium, Cyanide, and PCE Impacts. No source area concentrations of PPMs (namely cadmium) or cyanide have been documented in soils collected and analyzed from borings proximal to B2/MW102 which suggests a localized source centered on the boring B2 location beneath the former plating room. A remedial approach involving the removal and proper disposal of the cadmium-impacted soils would also lessen any co-located cyanide source and would be likely to lessen the time to achieve AGQS for cyanide. At present, human contact exposure risks relative to impacted soils are mitigated due to the inaccessibility of soils beneath the building.

A relatively minor PCE source proximal to the former plating room and wastewater treatment area is inferred based on no SRS exceedances for PCE detected in soils samples, and a localized plume with primarily PCE detected and generally little to no 1,2-DCE which is inferred to differentiate this localized plume from low-level impacted groundwater migrating onto the site. Based on the spatial distribution of PCE impacts to groundwater as well as documented land use history, it is likely that the detected PCE is associated with past industrial operations. Consideration of a remedial approach involving a monitoring-only management of the low-level PCE impacts to groundwater is warranted. There is no consumptive use of groundwater at the Site or proximal to the Site.

3. AOC C—Delineation of PAH in Soil / Further Investigation of Petroleum in Groundwater. The extent of PAHs (and in one location, VOCs) in Site soils above SRSs has been delineated in shallow fill soils in the general area of the southeast corner of the building and appears to be associated with creosote or coal tar type impacts to shallow soils beneath paving and a portion of the building. PAH impacts above SRSs were also noted in fill soils off the east side of the inactive heating oil AST (a possible oil release), and have previously been identified proximal to a sewer manhole (possible urban fill) near boring B3 and in shallow surface soils along the north-abutting railroad corridor (coal combustion residuals). Because no impacts to groundwater exceeding AGQS have been identified for PAHs (or the associated VOCs) much of these soils could remain in place under an Activity and Use Restriction (AUR) where regulated (for a creosote or oil source); however, it is probable that the NH DES will require removal of soils with naphthalene concentrations above leaching-based standards. Where not strictly regulated (urban fill or coal combustion residual source), soils could also be left in place and would not require management under an AUR, although joint management with regulated soils under an a comprehensive AUR is prudent. Targeted hot-spot soils, where encountered,

and disturbed soils not approved for on-site re-use by the NH DES would require proper management, characterization, and off-site disposal. At present, with the exception of inferred unregulated soils along the railroad corridor, human contact exposure risks relative to impacted soils are mitigated due to the inaccessibility of soils beneath the building and parking lot.

7.0 RECOMMENDATIONS

Based on the data collected during this Supplemental Phase II ESA, Ransom recommends the following relative to identified AOCs and the findings of this investigation:

1. Assessment of soils beneath the inactive heating oil AST in coordination with the removal and closure of that system in compliance with Env-Or 300 (and coordinated proper management/abatement of the assumed asbestos containing vermiculite insulation in that building in compliance with applicable NH DES rules).
2. Several additional borings are warranted to confirm the spatial extent of PAH impacted soils near the southwest portion of the building.
3. If the eastern portion of the property is to be part of a possible re-use plan, then additional assessment of that portion of the property not previously assessed is warranted, including at a minimum beneath the east portion of the building and adjacent to the electrical transformers as part of environmental due diligence.
4. A remedial action plan should be completed consistent with the requirements of Env-Or 600, which could include monitoring of attenuation, management of certain soils in place under an AUR and/or limited soils removal and disposal.
5. Groundwater monitoring under a Groundwater Management Permit will be required for impacts to groundwater above AGQs. An additional round of groundwater sampling is recommended to help to clarify which wells should be included in future monitoring events.
6. A soils management plan should be completed and approved by the NH DES for soils management during Site redevelopment.
7. In coordination with Site redevelopment, and appropriate pre-acquisition environmental due diligence, application should be made to the NH Brownfields Covenant Program to provide additional liability relief.

9.0 REFERENCES

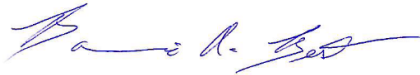
1. Ransom November 2017; Phase I Environmental Site Assessment, 39 Webster Street, Jaffrey, New Hampshire.
2. Ransom March 2019; Phase II Environmental Site Assessment, 39 Webster Street, Jaffrey, New Hampshire.
3. NH DES Env-Or 600 Soil Remediation Standards and Ambient Groundwater Quality Standards, Revised September 1, 2018.
4. NH DES Risk Characterization and Management Policy, Method 1 Soil Standards, Updated February 2013.
5. U.S. EPA; November 2018; Maximum Contaminant Levels.
6. U.S. EPA; November 2018; Regional Screening Levels.
7. NH DES OneStop Database.
8. Ransom; dated May 14 (fully executed May 17), 2019; Site-Specific Quality Assurance Project Plan –Supplemental Phase II Environmental Site Assessment, W. W. Cross Site, Jaffrey, New Hampshire; RFA #17091, Addendum No. 10, Rev. 1 to the State of New Hampshire Brownfields Assessment Projects Generic Quality Assurance Project Plan.
9. NH DES Env-Or 300 Aboveground Petroleum Storage Facilities, Revised February 7, 2014.

10.0 SIGNATURE(S) OF ENVIRONMENTAL PROFESSIONAL(S)

Ransom performed services in a manner consistent with the guidelines set forth in the ASTM International E 1903-97, and in accordance with the scope of work and standard operating procedures outlined in the Generic QAPP and SSQAPP.

The following Ransom personnel possess the sufficient training and experience necessary to conduct a Phase II ESA, and from the information generated by such activities, have the ability to develop opinions and conclusions regarding recognized environmental conditions in connection with the Site.

Environmental Professionals:



Bonnie Best
Environmental Scientist



John M. Ouellette
Project Manager



Stephen Dyer, P.E.
Senior Engineer/ QA/QC Manager



Steven Rickerich, P.G.
Senior Geologist/ Program Manager /Principal-in-Charge

TABLE 3. GROUNDWATER ELEVATION AND SELECTED FIELD PARAMETERS
W. W. Cross Property
Jaffrey, New Hampshire

Monitoring Well I.D.	Date	Reference Elevation (feet)	Depth to Water from Ref. Elev. (feet)	Ground Elevation (feet)	Depth to Water from Grade (feet)	Ground Water Elevation (feet)	Temp. (C)	pH (S.U.)	Dissolved Oxygen (mg/L)	ORP (mv)	Specific Conductivity (mS/cm)	Notes
MW101	6-Sep-18	105.01	8.12	105.34	8.45	96.89	17.57	6.08	6.13	143	3.847	
	29-Aug-19		8.48		8.81	96.53	ns	ns	ns	ns		
MW102	6-Sep-18	105.45	8.65	105.70	8.90	96.80	18.56	6.82	3.24	214.4	0.949	Slow Recharge
	13-Sep-18		8.69		8.94	96.76	nm	5.50	7.26	nm	1.909	Ran dry, sampled recharge
	29-Aug-19		9.20		9.45	96.25	nm	nm	nm	nm	nm	
MW103	6-Sep-18	100.12	9.29	100.44	9.61	90.83	19.56	6.63	5.54	177.4	0.192	
	29-Aug-19		9.31		9.63	90.81	ns	ns	ns	ns	ns	
MW104	6-Sep-18	105.15	10.62	105.53	11.00	94.53	17.34	6.34	5.76	119.2	0.951	Slow Recharge
	13-Sep-18		10.60		10.98	94.55	nm	6.36	2.66	nm	1.099	Ran dry, sampled recharge
	29-Aug-19		11.17		11.55	93.98	nm	nm	nm	nm	nm	
MW105	6-Sep-18	101.87	4.19	102.28	4.60	97.68	20.84	7.63	0.45	-116	0.453	
	29-Aug-19		3.92		4.33	97.95	ns	ns	ns	ns	ns	
MW106	6-Sep-18	101.36	2.86	101.58	3.08	98.50	23.57	5.80	0.22	111	0.323	
	29-Aug-19		2.44		2.66	98.92	ns	ns	ns	ns	ns	
MW107	6-Sep-18	101.22	5.79	101.59	6.16	95.43	21.85	5.19	2.24	275	2.071	
	29-Aug-19		6.71		7.08	94.51	ns	ns	ns	ns	ns	
MW108	6-Sep-18	101.35	4.65	101.71	5.01	96.70	24.03	6.29	0.21	-50.4	0.246	Pavement, sunny
	29-Aug-19		4.73		5.09	96.62	24.51	6.12	0.25	88.7	0.401	
MW14	6-Sep-18	99.76	20.04	99.94	20.22	79.72	nm	nm	nm	nm	nm	
	29-Aug-19		nm		nm	nm	ns	ns	ns	ns	ns	
MW201	29-Aug-19	104.98	8.95	105.62	9.59	96.03	15.14	5.54	2.66	231.60	0.475	
MW203	29-Aug-19	105.10	8.56	105.38	8.84	96.54	16.58	5.86	0.87	182.10	0.441	Ran dry, sampled recharge
MW204	29-Aug-19	104.67	8.04	105.29	8.66	96.63	16.00	5.82	5.23	284.80	0.047	

NOTES: nm = not measured; ns = not sampled
1 - Reference elevation is the highest point of the PVC riser pipe at each location, relative to an assumed datum of 100 feet for a nail set in a telephone pole (adjacent to MW3) and to top of PVC for Loureiro MW14 (99.76 feet).
2 - Depth to ground water measured using an electronic water level indicator.
3 - For pH, S.U. = Standard Units.
4 - For Dissolved Oxygen, ppm = parts per million.
5 - For Specific Conductivity, mS/cm = milliSiemens per centimeter.

TABLE 5. SUMMARY OF DUPLICATE SOIL SAMPLE ANALYTICAL RESULTS
W.W. Cross Property
Jaffrey, New Hampshire

Area of Concern	Samples				Relative Percent Difference
	Sample Location	B111-0.5'	DUP3	B103-S2	
Sample Depth (feet bgs)	0.0-0.5	0.0-0.5	2.0-4.0	2.0-4.0	
Sample Date	6/18/2019	6/18/2019	6/19/2019	6/19/2019	
Volatile Organic Compounds (VOCs) (mg/kg)					%
Benzene	1.4J	BDL (1.4)			NC
p/m-Xylene	7.3J	7.1J			NC
o-Xylene	4.7J	4.8J			NC
Xylenes, Total	12J	12J			NC
Styrene	3.8J	4.1J			NC
Naphthalene	1,700	1,600			6
1,3,5-Trimethylbenzene	4.9J	5.7J			NC
1,2,4-Trimethylbenzene	13J	15J			NC
Polynuclear Aromatic Hydrocarbons (PAHs) (mg/kg)					%
Acenaphthene	45	39			NC
Fluoranthene	550	450			20
Naphthalene	610	540			12
Benzo[a]anthracene	170	140			19
Benzo[a]pyrene	160	140			13
Benzo[b]fluoranthene	170	140			19
Benzo[k]fluoranthene	62	49			NC
Chrysene	140	110			24
Acenaphthylene	190	180			5
Anthracene	180	160			12
Benzo(g,h,i)perylene	76	62			NC
Fluorene	230	210			9
Phenanthrene	770	650			17
Dibenzo[a,h]anthracene	16J	12J			NC
Indeno[1,2,3-cd]pyrene	88	70			NC
Pyrene	450	370			20
1-Methylnaphthalene	210	180			15
2-Methylnaphthalene	290	260			11
Total Cyanide (mg/kg)					%
Cyanide			BDL (1)	BDL (1)	NC
Total Petroleum Hydrocarbons-Diesel Range Organics (TPH-DRO) (mg/kg)					%
TPH-DRO	21,500	49,990			80
Metals (mg/kg)					%
Antimony			0.21J	BDL (2.11)	NC
Arsenic			4.86	4.53	7
Beryllium			0.354	0.329	NC
Cadmium			BDL (0.421)	0.076J	NC
Chromium, Total			7.66	11.2	38
Copper			7.54	7.29	3
Lead			2.86	2.94	NC
Mercury			BDL (0.069)	BDL (0.069)	NC
Nickel			4.50	5.14	NC
Selenium			BDL (0.842)	BDL (0.844)	NC
Silver			BDL (0.421)	BDL (0.422)	NC
Thallium			BDL (0.842)	BDL (0.844)	NC
Zinc			18.8	19.9	6

Notes:

- 1 - mg/kg = milligrams per kilogram. BDL () = Below method detection limit shown in parenthesis.
- 2 - J = estimated concentration detected above laboratory detection limit, but below laboratory reporting limit.
- 3 - Relative percent difference not calculated if the detected concentration is less than 5x the laboratory reporting limit (not calculated: NC).

TABLE 6. SUMMARY OF DUPLICATE GROUNDWATER SAMPLE ANALYTICAL RESULTS
W.W. Cross Property
Jaffrey, New Hampshire

LOCATION	MW108	DUP-1	MW203	DUP-2	Relative Percent Difference
	Sampling Date	9/20/2019	9/20/2019	9/20/2019	
Volatile Organic Compounds (VOCs) (µg/L)					%
cis-1,2-Dichloroethene	2	1.8			NC
Acetone	BDL (5)	1.6J			NC
Naphthalene	19	17			11
Tetrachloroethene (PCE)	0.43J	0.4J			NC
Trichloroethene	1.4	1.5			NC
Total Cyanide (µg/L)					%
Cyanide			BDL(5)	BDL(5)	NC
Dissolved Metals (µg/L)					%
Nickel			8J	8J	NC
Thallium			0.19J	nd (0.5)	NC
Zinc			9J	8J	NC

Notes:

1 - µg/L = micrograms per liter.

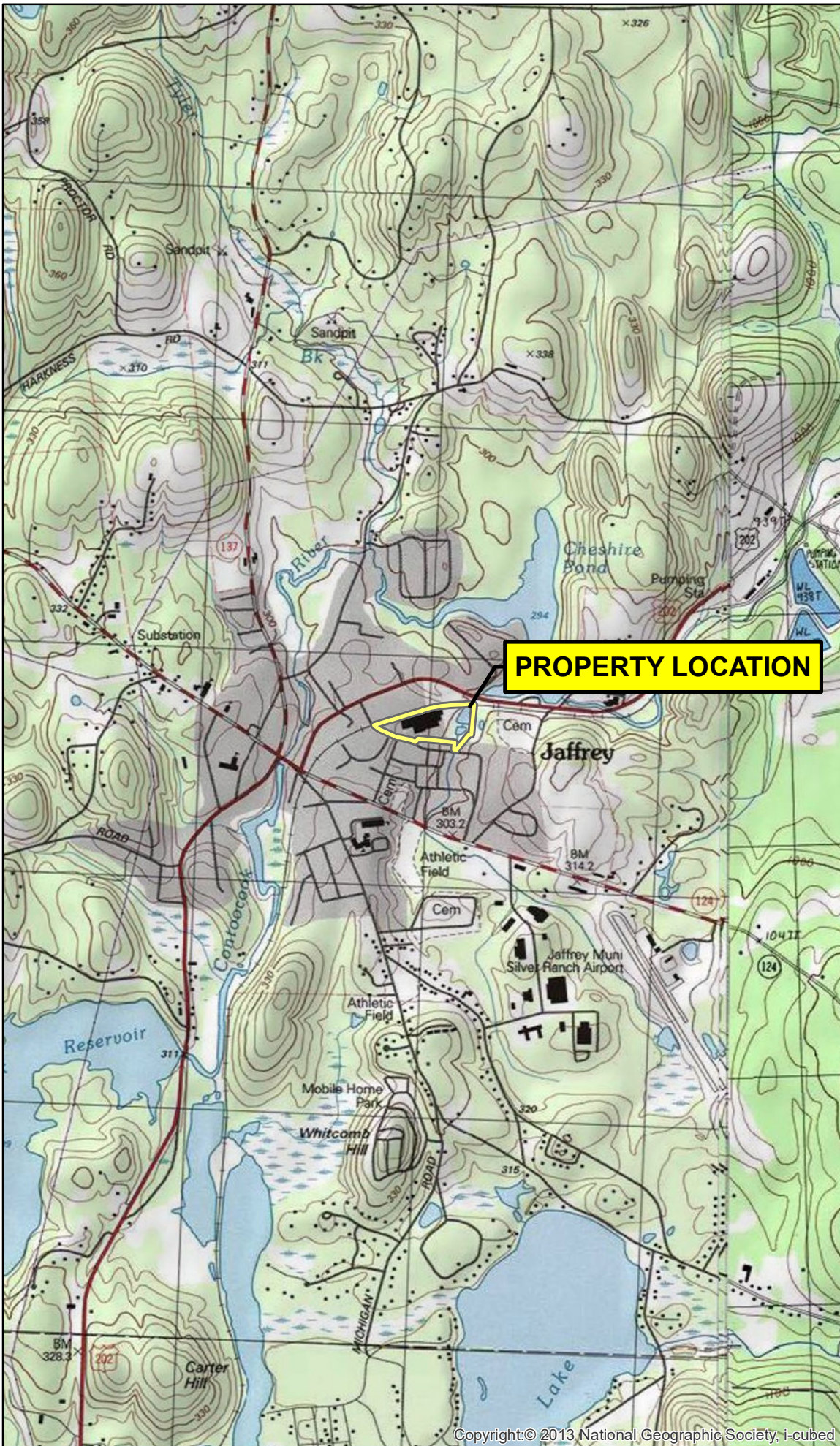
2 - BDL() = Below laboratory detection limit shown in parenthesis.

3 - Relative percent difference not calculated if the detected concentration is less than 5x the laboratory reporting limit (not calculated: NC).

Regional Locator Map



Jaffrey

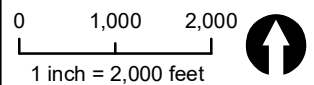


PROPERTY LOCATION

Notes

1. Data Source: USGS National Map Seamless Server, 24K DRG, 1/3" NED
2. USGS Quad Name: Monadnock Mountain
3. Latitude: 42° 48' 58" N
 Longitude: 72° 0' 56" W
 UTM Northing: 4744716 mN
 UTM Easting: 743972 mE

Scale and Orientation



Prepared For

Southwest Region
 Planning Commission
 37 Ashuelot Street
 Keene, New Hampshire

Site Address

W.W. Cross Property
 39 Webster Street
 Jaffrey, New Hampshire

141.05051 **Mar 2020**

Figure 1
 Site Location Map

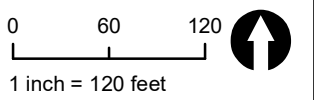
Legend & Notes

-  Approximate Property Boundary
-  Approximate Site Boundary
-  Groundwater Management Zone
-  Former Underground Storage Tank (Approx.)
-  Monitoring Well
-  Pre-Existing Monitoring Well
-  Piezometer
-  Surface Water Sample Location
-  Arbitrary Benchmark (100' Elev)

Notes

1. Site Plan based on National Agricultural Imagery Program Orthophotography
2. Some features are approximate in location and scale
3. This plan has been prepared for Southwest Region Planning Commission. All other uses are not authorized unless written permission is obtained from Ransom Consulting, LLC

Scale & Orientation



Prepared For

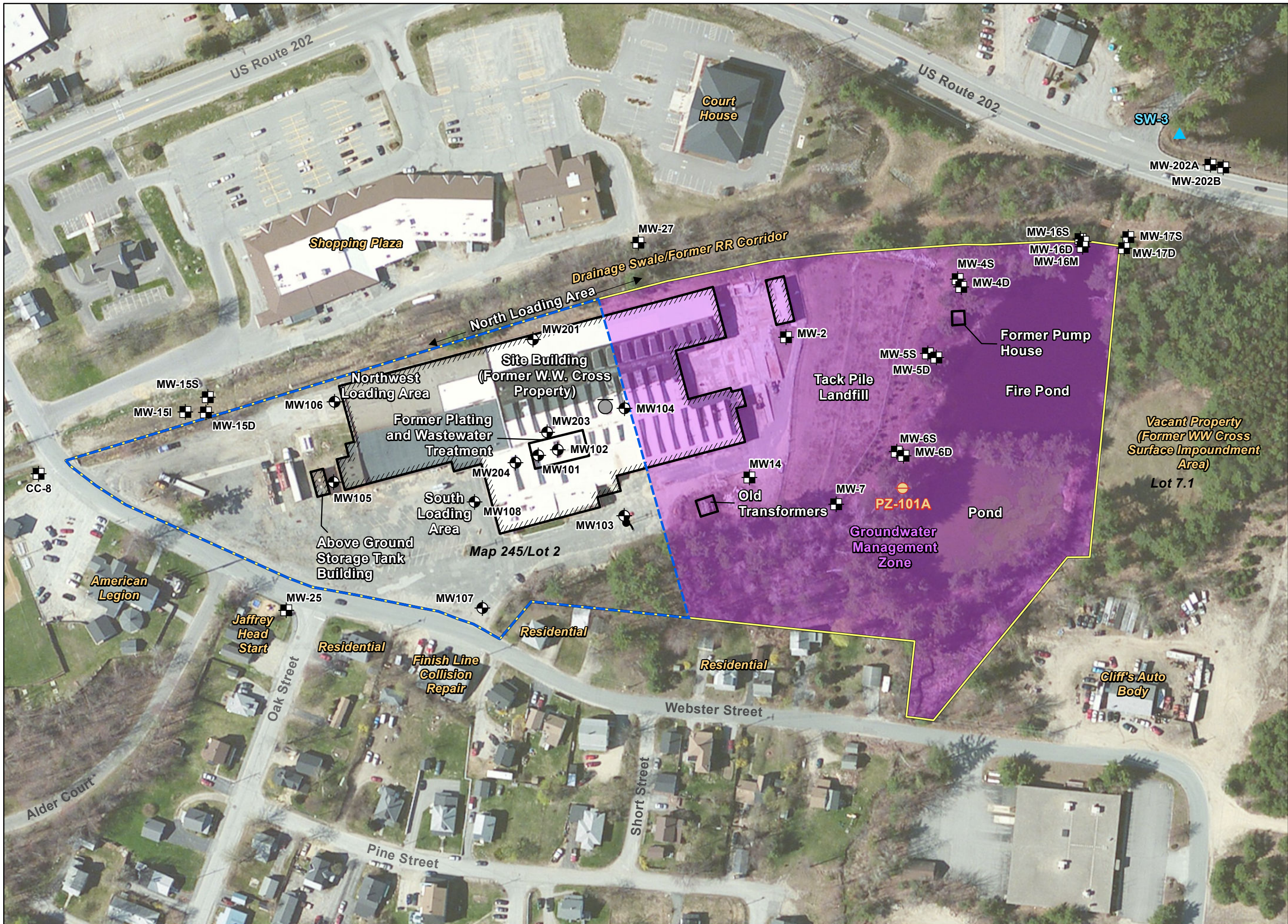
Southwest Region
Planning Commission
37 Ashuelot Street
Keene, New Hampshire

Site Address










W.W. Cross Property
39 Webster Street
Jaffrey, New Hampshire

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Figure 2
Site Area Plan



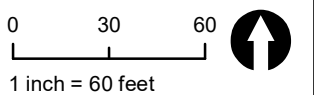
Legend & Notes

-  Approximate Property Boundary
-  Approximate Site Boundary
-  Groundwater Management Zone
-  Former Underground Storage Tank (Approx.)
-  Monitoring Well/Soil Boring
-  Pre-Existing Monitoring Well
-  Soil Boring (2018)
-  Soil Boring (2019)
-  Arbitrary Benchmark (100' Elev)

Notes

1. Site Plan based on National Agricultural Imagery Program Orthophotography.
2. Some features are approximate in location and scale.
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Scale & Orientation



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37 Ashuelot Street
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


W.W. Cross Property
39 Webster Street
Jaffrey, New Hampshire

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Figure 3
Boring/Monitoring
Well Locations



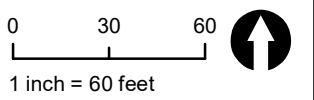
Legend & Notes

-  Approximate Property Boundary
-  Approximate Site Boundary
-  Groundwater Management Zone
-  Former Underground Storage Tank (Approx.)
-  Monitoring Well
-  Pre-Existing Monitoring Well
-  Arbitrary Benchmark (100' Elev)
- (101.35)** Top of PVC Elevation
-  Direction of Groundwater Flow
- (96.03)** Groundwater Elevation
- NM** Not Measured

Notes

1. Site Plan based on National Agricultural Imagery Program Orthophotography.
2. Some features are approximate in location and scale.
3. This plan has been prepared for Southwest Region Planning Commission. All other uses are not authorized unless written permission is obtained from Ransom Consulting, LLC.

Scale & Orientation



Prepared For

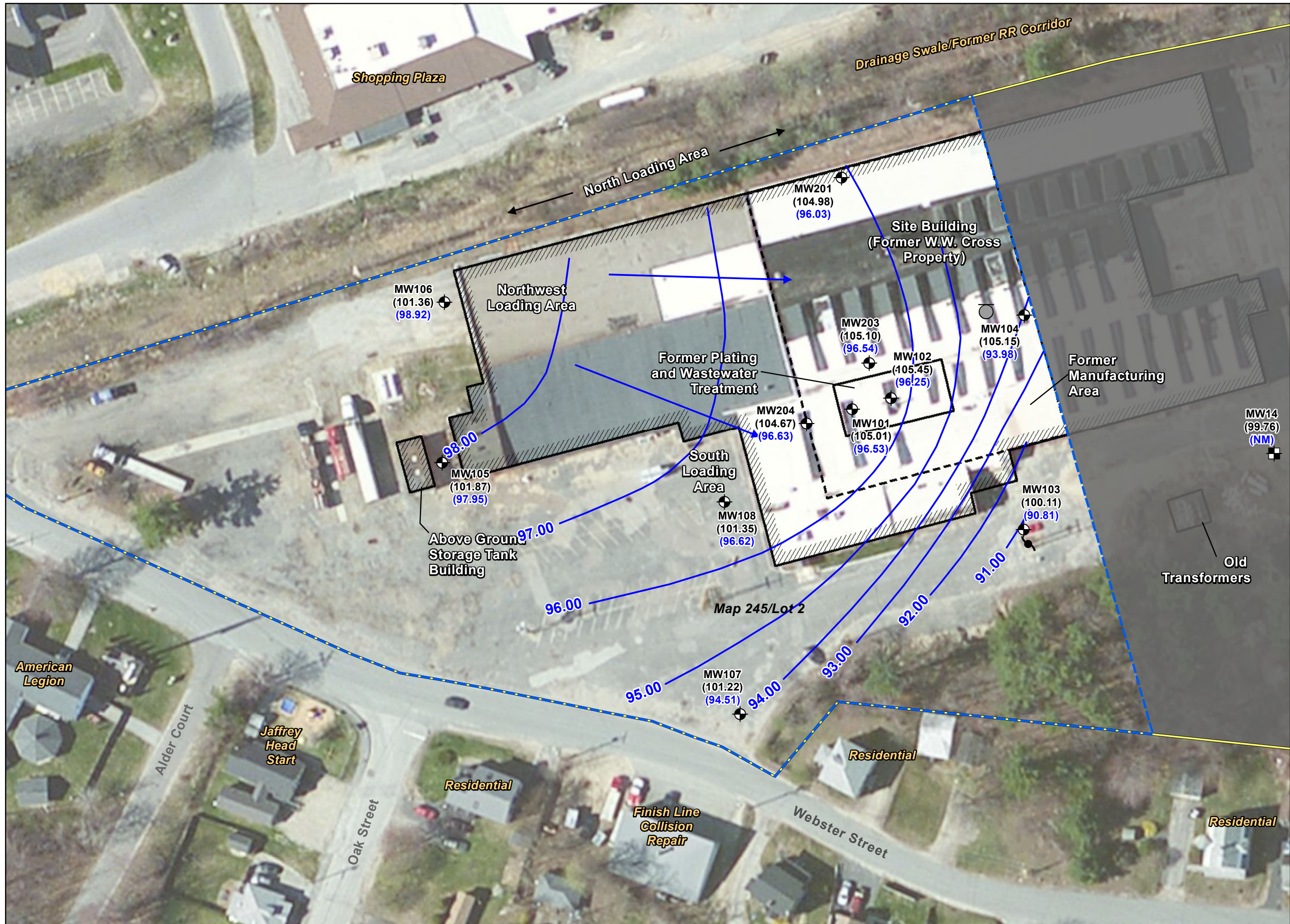
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Site Address










W.W. Cross Property
39 Webster Street
Jaffrey, New Hampshire

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Figure 4
Inferred Groundwater
Flow Map
(August 29, 2019)

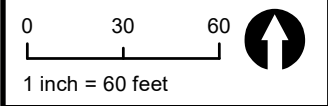


Legend & Notes

-  Approximate Property Boundary
-  Approximate Site Boundary
-  Groundwater Management Zone
-  Former Underground Storage Tank (Approx.)
-  Monitoring Well
-  Pre-Existing Monitoring Well
-  Soil Boring
-  Arbitrary Benchmark (100' Elev)
-  Contaminant Exceeding Env-Or 600 Soil Remediation Standard

- Notes**
1. Site Plan based on National Agricultural Imagery Program Orthophotography.
 2. Some features are approximate in location and scale.
 3. This plan has been prepared for Southwest Region Planning Commission. All other uses are not authorized unless written permission is obtained from Ransom Consulting, LLC.
 4. PAH - Polynuclear Aromatic Hydrocarbons
TPH-DRO - Total Petroleum Hydrocarbons - Diesel Range Organics

Scale & Orientation



Prepared For

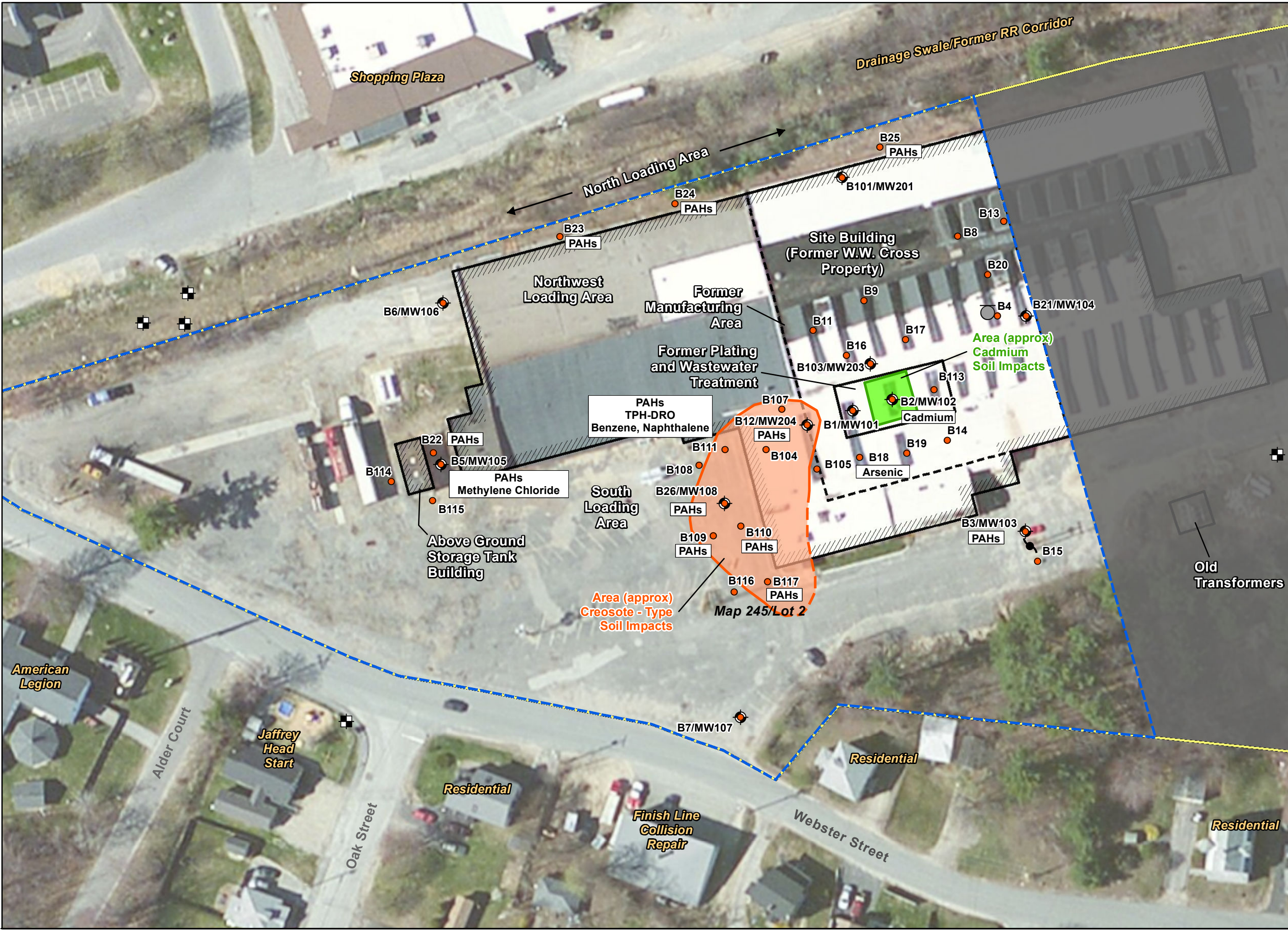
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Planning Commission
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Keene, New Hampshire

Site Address








W.W. Cross Property
39 Webster Street
Jaffrey, New Hampshire

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Figure 5
Soil Contaminant
Distribution Map



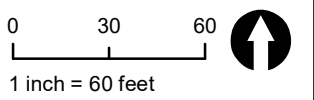
Legend & Notes

-  Approximate Property Boundary
-  Approximate Site Boundary
-  Groundwater Management Zone
-  Former Underground Storage Tank (Approx.)
-  Monitoring Well
-  Pre-Existing Monitoring Well
-  Arbitrary Benchmark (100' Elev)
- PCE** Groundwater Contaminants of Concern
- 8.6** Concentration Detected that Exceeds AGQS (µg/L)
- 2.6** Concentration Detected that Does Not Exceed AGQS (µg/L)
- NI** Not Installed
- NS** Not Sampled
- ND** Not Detected

Notes

1. Site Plan based on National Agricultural Imagery Program Orthophotography.
2. Some features are approximate in location and scale.
3. This plan has been prepared for Southwest Region Planning Commission. All other uses are not authorized unless written permission is obtained from Ransom Consulting, LLC

Scale & Orientation



Prepared For

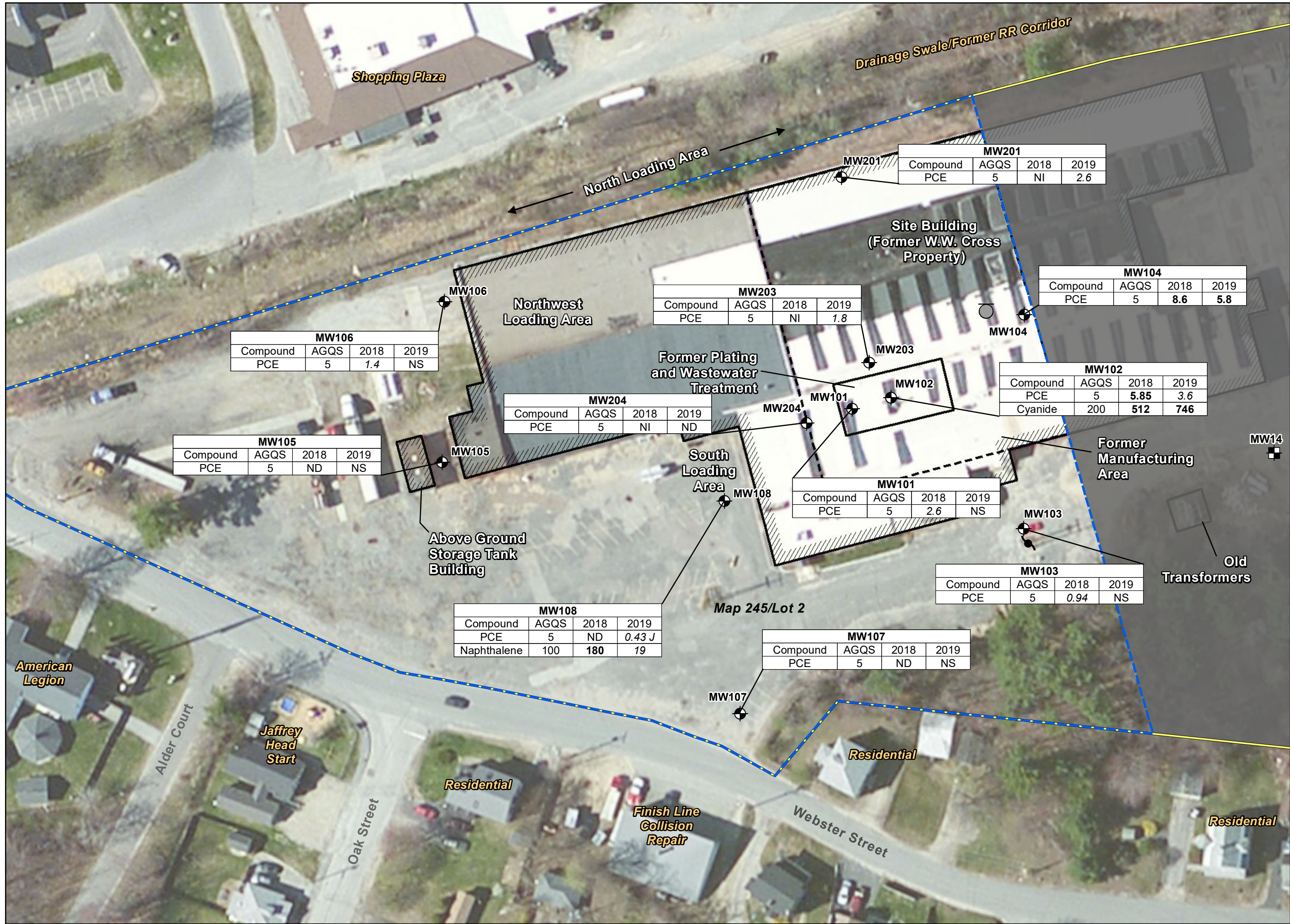
Southwest Region
Planning Commission
37 Ashuelot Street
Keene, New Hampshire

Site Address

W.W. Cross Property
39 Webster Street
Jaffrey, New Hampshire

141.05051 | Mar 2020

Figure 6
Dissolved Contaminant
Distribution Map



MW106				
Compound	AGQS	2018	2019	
PCE	5	1.4	NS	

MW105				
Compound	AGQS	2018	2019	
PCE	5	ND	NS	

MW204				
Compound	AGQS	2018	2019	
PCE	5	NI	ND	

MW108				
Compound	AGQS	2018	2019	
PCE	5	ND	0.43 J	
Naphthalene	100	180	19	

MW203				
Compound	AGQS	2018	2019	
PCE	5	NI	1.8	

MW101				
Compound	AGQS	2018	2019	
PCE	5	2.6	NS	

MW107				
Compound	AGQS	2018	2019	
PCE	5	ND	NS	

MW201				
Compound	AGQS	2018	2019	
PCE	5	NI	2.6	

MW104				
Compound	AGQS	2018	2019	
PCE	5	8.6	5.8	

MW102				
Compound	AGQS	2018	2019	
PCE	5	5.85	3.6	
Cyanide	200	512	746	

MW103				
Compound	AGQS	2018	2019	
PCE	5	0.94	NS	

Old Transformers

MW107

MW108

MW204

MW203

MW104

MW14

MW103

MW107

MW108

MW204

MW203

MW104

MW14

MW103

MW107

MW108

MW204

MW203

MW104

MW14

MW103

APPENDIX A

Soil Boring/Monitoring Well Logs and Groundwater Sampling Logs

Supplemental Phase II Environmental Site Assessment

W. W. Cross Property

39 Webster Street

Jaffrey, New Hampshire

**Borings Advanced June 17, 2019 to June 19, 2019
By New England Boring Contractors**

BORING AND MONITORING WELL LOG: B101/MW201

Reviewed by: <i>SFR</i>	Total Depth: 13.7 Feet	Logged By: DAF
Date Reviewed: 12/16/19	Boring Diameter: 3 Inches	Date Drilled: 6/18/19 to 6/19/19
GW Observed at: ~8 Feet	Well Stickup: Flush	Driller: NEBC

DEPTH	DESCRIPTION (Based on a modified Burmister Soil Classification System)	SAMPLE NUMBER	BLOW COUNTS (per 6 inches)	PENETRATION/ RECOVERY	PID	DEPTH	WELL CONSTRUCTION
	5.5" CONCRETE.						
	S1 (0.5-2') 2" Tan fine to coarse SAND, little gravel, trace silt, moist.	S1	3-3-6	18/2	1.5		
	S2 (2-4') 8" Tan fine to coarse SAND, little gravel, trace silt, red and dark brown staining towards bottom, moist.	S2	6-6-6-7	24/8	1.3		
5	S3 (4-6') 3" Tan fine to coarse SAND, little gravel, trace silt, moist, over 4" gray fine to medium SAND, little silt, thin layer of dark brown/black, moist, over 4" tan fine to medium SAND, trace silt, orange and red staining, moist.	S3	14-9-14-43	24/11	1.5	5	
	S4 (6-8') 9" Brown fine to coarse SAND, little gravel, trace silt. over 15" tan fine to coarse SAND, trace gravel, moist to wet at very bottom.	S4	75-54-50-41	24/24	1.4		
	Drive and wash to 9' (overhead clearance issue).						
10	S5 (9-9.7') 3" Gray fine to coarse SAND, little gravel, little silt, over 1" gray COBBLE FRAGMENTS. Drive and wash to 11'.	S5	45-100/2"	8/4	1.2	10	
	S6 (11-12.9') 3" Tan fine to coarse SAND, some Gravel, trace silt, over 12" tan fine to coarse SAND, little gravel, trace silt, trace red staining.	S6	65-75-62-100/5"	23/15	1.2		
	Drive and wash.						
15	Refusal, presumed top of bedrock, end of boring 13.7'.					15	

LEGEND:

						
Filter Sand	Native Fill	Bentonite	Bentonite Grout	Concrete	PVC Screen	Solid PVC Riser

NOTES:

- Boring advanced using drive and wash techniques.
- Soils field screened with MiniRAE 2000 PID calibrated with 100 ppm isobutylene.
- Sample designated with solid fill submitted for laboratory analysis.
- Boring completed as 2" PVC monitoring well with flush-mounted roadbox.
- NA = Not applicable.

CLIENT:
SWRPC

SITE:
W. W. Cross Property
39 Webster Street
Jaffrey, NH

BORING AND MONITORING WELL LOG: B103/MW203

Reviewed by: <i>SR</i>	Total Depth: 12.3 Feet	Logged By: DAF
Date Reviewed: 12/16/19	Boring Diameter: 3 Inches	Date Drilled: 6/19/19 to 6/19/19
GW Observed at: NA Feet	Well Stickup: Flush	Driller: NEBC

DEPTH	DESCRIPTION (Based on a modified Burmister Soil Classification System)	SAMPLE	SAMPLE NUMBER	BLOW COUNTS (per 6 inches)	PENETRATION/ RECOVERY	PID	DEPTH	WELL CONSTRUCTION
	5.5" CONCRETE.							
	S1 (0.5-2') 5" Brown fine to coarse SAND, little gravel, trace silt, over 2" tan fine to coarse SAND, little gravel, moist.		S1	8-14-21	18/7	<1		
	S2 (2-4') 14" Tan fine to coarse SAND, little gravel, trace silt, moist.		S2	31-28-26-31	24/14	1.0		
	S3 (4-4.6') 3" Brown fine to coarse SAND, little gravel, trace silt, moist.		S3	44-100/1"	7/3	<1		
5	Drive and wash to 6'.						5	
	S4 (6-6.4') 3" Tan fine to coarse SAND, little gravel, little silt, trace red, brown and black staining, dry COBBLE FRAGMENTS at very bottom.		S4	100/5"	5/3	<1		
	Drive and wash.							
	S5 (8-8.5') 5" Tan fine to coarse SAND, little gravel, trace silt.		S5	100-20/0"	6/5	<1		
	Drive and wash (slow progress).							
10	Split spoon refusal, zero recovery.			62/0"	0/0	NA	10	
	Drive and wash.							
	Refusal, end of boring 12.3'.							
15							15	

LEGEND:

Filter Sand	Native Fill	Bentonite	Bentonite Grout	Concrete	PVC Screen	Solid PVC Riser

NOTES:

- Boring advanced using drive and wash techniques.
- Soils field screened with MiniRAE 2000 PID calibrated with 100 ppm isobutylene.
- Sample designated with solid fill submitted for laboratory analysis.
- Boring completed as 2" PVC monitoring well with flush-mounted roadbox.
- NA = Not applicable.

CLIENT:
SWRPC

SITE:
W. W. Cross Property
39 Webster Street
Jaffrey, NH

Project No.: 141.05051.010 Page: 1

BORING LOG:

B104

Reviewed By: <i>SFR</i>	Total Depth: 4.2 Feet	Logged By: DAF
Date Reviewed: <i>12/16/19</i>	Boring Diameter: 3 Inches	Date Drilled: 6/18/19 to 6/18/19
GW Observed at: NE Feet	Well Stickup: Flush	Driller: NEBC

DEPTH	DESCRIPTION (Based on a modified Burmister Soil Classification System)	SAMPLE	SAMPLE NUMBER	BLOW COUNTS (per 6 inches)	PENETRATION/RECOVERY	PID	DEPTH
	5.5" CONCRETE.						
	S1 (0.5-2') 2" Brown fine to coarse SAND, little gravel, trace silt, moist.		S1	2-3-4	18/2	<1	
	S2 (2-4') 2" Brown fine to coarse SAND, little gravel, trace silt, moist.		S2	17-3-2-4	24/2	<1	
5	S3 (4-4.2') 2" Tan/gray fine to coarse SAND, trace gravel, trace silt, trace gray metal fragments; weathered concrete in split spoon tip. Refusal, presumed old foundation, end of boring 4.2'.		S3	100/2"	2/2	<1	5
10							10
15							15

NOTES:

1. Boring advanced using drive and wash techniques.
2. Soils field screened with MiniRAE 2000 PID calibrated with 100 ppm isobutylene.
3. Sample designated with solid fill submitted for laboratory analysis.
4. NA = Not applicable; NE = Not Encountered.

CLIENT:
SWRPC

SITE:
W. W. Cross Property
39 Webster Street
Jaffrey, NH



BORING LOG:

B105

Reviewed By: SFE	Total Depth: 2.5 Feet	Logged By: DAF
Date Reviewed: 12/16/19	Boring Diameter: 3 Inches	Date Drilled: 6/18/19 to 6/18/19
GW Observed at: NE Feet	Well Stickup: Flush	Driller: NEBC

DEPTH	DESCRIPTION (Based on a modified Burmister Soil Classification System)	SAMPLE	SAMPLE NUMBER	BLOW COUNTS (per 6 inches)	PENETRATION/RECOVERY	PID	DEPTH
	5.5" CONCRETE. S1 (0.5-2.5') 3" Tan fine to coarse SAND, little gravel, trace silt, moist; concrete fragments in split spoon tip.		S1	1-3-6-30	24/3	<1	
	Refusal, end of boring 2.5'.						
5							5
10							10
15							15

NOTES:
 1. Boring advanced using drive and wash techniques.
 2. Soils field screened with MiniRAE 2000 PID calibrated with 100 ppm isobutylene.
 3. Sample designated with solid fill submitted for laboratory analysis.
 4. NA = Not applicable; NE = Not Encountered.

CLIENT:
 SWRPC

SITE:
 W. W. Cross Property
 39 Webster Street
 Jaffrey, NH

Project No.: 141.05051.010 Page: 1



BORING LOG:

B107

Reviewed By: <i>SFE</i>	Total Depth: 4 Feet	Logged By: DAF
Date Reviewed: 12/16/19	Boring Diameter: 3 Inches	Date Drilled: 6/18/19 to 6/18/19
GW Observed at: NE Feet	Well Stickup: Flush	Driller: NEBC

DEPTH	DESCRIPTION (Based on a modified Burmister Soil Classification System)	SAMPLE	SAMPLE NUMBER	BLOW COUNTS (per 6 inches)	PENETRATION/RECOVERY	PID	DEPTH
	5.5" CONCRETE.						
	S1 (0.5-2') 10" Tan fine to coarse SAND, trace gravel, trace silt, moist.		S1	1-1-1	18/10	<1	
	S2 (2-4') 6" Tan fine to coarse SAND, trace gravel, trace silt, moist, over 2" gray CONCRETE FRAGMENTS, dry.		S2	2-10-20-21	24/8	<1	
5	Split spoon refusal, zero recovery. Refusal, presumed old foundation, end of boring 4'.			60/0"	0/0	NA	5
10							10
15							15

<p>NOTES:</p> <ol style="list-style-type: none"> Boring advanced using drive and wash techniques. Soils field screened with MiniRAE 2000 PID calibrated with 100 ppm isobutylene. Sample designated with solid fill submitted for laboratory analysis. NA = Not applicable; NE = Not Encountered. 	<p>CLIENT: SWRPC</p>
	<p>SITE: W. W. Cross Property 39 Webster Street Jaffrey, NH</p>
	<p>Project No.: 141.05051.010 Page: 1</p>



BORING LOG:

B108

Reviewed By: <i>SFR</i>	Total Depth: 12 Feet	Logged By: DAF
Date Reviewed: <i>12/16/19</i>	Boring Diameter: 2.75 Inches	Date Drilled: 6/17/19 to 6/17/19
GW Observed at: ~4 Feet	Well Stickup: Flush	Driller: NEBC

DEPTH	DESCRIPTION (Based on a modified Burmister Soil Classification System)	SAMPLE	SAMPLE NUMBER	BLOW COUNTS (per 6 inches)	PENETRATION/ RECOVERY	PID	DEPTH
	S1 (0-2') 2" ASPHALT, over 9" tan fine to coarse SAND, little gravel, trace silt, moist.		S1	8-10-11-8	24/11	<1	
	S2 (2-4') 10" Tan fine to coarse SAND, little gravel, trace silt, trace orange staining, moist.		S2	8-7-5-7	24/10	<1	
5	S3 (4-6') 7" Tan fine to coarse SAND, little gravel, trace silt, trace asphalt, over 4" black SILT, little fine sand, trace clay, trace roots, over 1" gray fine to coarse SAND, trace gravel, trace silt, trace brown staining, wet.		S3	3-3-1-3	24/12	<1 <1 <1	5
	S4 (6-8') 6" Tan fine to coarse SAND, little gravel, trace silt, over 10" gray fine to medium SAND, brown staining at transition, wet.		S4	11-11-12-11	24/16	<1 <1	
	S5 (8-10') 13" Gray fine to medium SAND, over 10" Tan/gray fine to medium SAND, trace thin layers of grey silt and brown fine sand, wet.		S5	2-6-7-7	24/23	<1 <1	
10	S6 (10-12') 24" Gray fine to coarse SAND, trace thin gray silt/clay layers, wet.		S6	9-7-9-11	24/24	<1	10
	End of boring 12'						
15							15

- NOTES:
- Boring advanced using augers; 140-lb auto-hammer split spoon sample collection.
 - Soils field screened with MiniRAE 2000 PID calibrated with 100 ppm isobutylene.
 - Sample designated with solid fill submitted for laboratory analysis.
 - NA = Not applicable.

CLIENT:
SWRPC

SITE:
W. W. Cross Property
39 Webster Street
Jaffrey, NH



BORING LOG:

B109

Reviewed By: <i>SFR</i>	Total Depth: 12 Feet	Logged By: DAF
Date Reviewed: <i>12/16/19</i>	Boring Diameter: 2.75 Inches	Date Drilled: 6/17/19 to 6/17/19
GW Observed at: ~4 Feet	Well Stickup: Flush	Driller: NEBC

DEPTH	DESCRIPTION (Based on a modified Burmister Soil Classification System)	SAMPLE	SAMPLE NUMBER	BLOW COUNTS (per 6 inches)	PENETRATION/RECOVERY	PID	DEPTH
	Auger through ASPHALT (3").						
	S1 (0.5-2') 9" Tan fine to coarse SAND, little gravel, trace silt, moist.		S1	5-7-11	18/9	<1	
	S2 (2-4') 3" Tan fine to coarse SAND, little gravel, trace silt, moist.		S2	4-3-2-1	24/3	<1	
5	S3 (4-6') 4" Tan fine to coarse SAND, little gravel, trace silt, wet.		S3	1- WOH- WOH- 1	24/4	<1	5
	S4 (6-8') 3" Tan fine to coarse SAND, little gravel, trace silt, over 11" gray medium to coarse SAND, trace red staining, thin black layer at 3", wet.		S4	4-8-12-16	24/14	<1	
	S5 (8-10') 24" Gray medium to coarse SAND, little gravel, red mottling, wet.		S5	14-19-17-31	24/24	<1	
10	S6 (10-12') 24" Gray medium to coarse SAND, little gravel, red mottling, wet.		S6	26-24-35-32	24/24	<1	10
	End of boring 12'						
15							15

NOTES:

- Boring advanced using augers; 140-lb auto-hammer split spoon sample collection.
- Soils field screened with MiniRAE 2000 PID calibrated with 100 ppm isobutylene.
- Sample designated with solid fill submitted for laboratory analysis.
- NA = Not applicable; WOH = Weight of Hammer.

CLIENT:
SWRPC

SITE:
W. W. Cross Property
39 Webster Street
Jaffrey, NH

Project No.: 141.05051.010 Page: 1



BORING LOG:

B110

Reviewed By: <i>SFR</i>	Total Depth: 10 Feet	Logged By: DAF
Date Reviewed: <i>12/16/19</i>	Boring Diameter: 2.75 Inches	Date Drilled: 6/17/19 to 6/17/19
GW Observed at: ~4 Feet	Well Stickup: Flush	Driller: NEBC

DEPTH	DESCRIPTION (Based on a modified Burmister Soil Classification System)	SAMPLE	SAMPLE NUMBER	BLOW COUNTS (per 6 inches)	PENETRATION/ RECOVERY	PID	DEPTH
	Augered through ASPHALT (3"); immediate foul tar/creosote odor.						
	S1 (0.5-2') 5" Tan fine to coarse SAND, little gravel, trace silt, moist, tar/creosote odor.		S1	6-10-11	18/5	<1	
	S2 (2-4') 3" Tan fine to coarse SAND, little gravel, trace silt, moist.		S2	6-3-3-2	24/3	<1	
5	S3 (4-6') 9" Tan fine to coarse SAND, 1/2" gray fine to coarse sand layer at 2", wet.		S3	1-1-3-8	24/9	<1	5
	S4 (6-8') 19" Gray medium to coarse SAND, wet.		S4	8-8-10-16	24/19	<1	
	S5 (8-10') 24" Gray medium to coarse SAND, wet.		S5	4-27-30-42	24/24	<1	
10	End of boring 10'.						10
15							15

- NOTES:
- Boring advanced using augers; 140-lb auto-hammer split spoon sample collection.
 - Soils field screened with MiniRAE 2000 PID calibrated with 100 ppm isobutylene.
 - Sample designated with solid fill submitted for laboratory analysis.
 - NA = Not applicable.

CLIENT:
SWRPC

SITE:
W. W. Cross Property
39 Webster Street
Jaffrey, NH



BORING LOG:

B111

Reviewed By: SFR	Total Depth: 12 Feet	Logged By: DAF
Date Reviewed: 12/16/19	Boring Diameter: 2.75 Inches	Date Drilled: 6/17/19 to 6/17/19
GW Observed at: ~4 Feet	Well Stickup: Flush	Driller: NEBC

DEPTH	DESCRIPTION (Based on a modified Burmister Soil Classification System)	SAMPLE	SAMPLE NUMBER	BLOW COUNTS (per 6 inches)	PENETRATION/RECOVERY	PID	DEPTH
	(0-0.5') Auger through asphalt; 3" ASPHALT over 3" black fine to coarse SAND, little gravel, sticky, tar/creosote odor, moist.			NA	NA	22	
	S2 (0.5-2') No recover, clogged split spoon tip.		S1	3-1-1	0/18	NA	
	S3 (2-4') 3" Tan fine to coarse SAND, trace organics, trace asphalt/tar (possible fall-in), moist.		S2	2-2-1-1	24/3	1.5	
5	S4 (4-6') 2" Black fine to coarse SAND, sticky, tar/creosote odor (possible fall-in), over 6" tan fine to coarse SAND, wet.		S3	WOH-2-9-9	24/8	7.8	5
	S5 (6-8') 17" Tan fine to coarse SAND, trace thin gray silt/clay layers, trace orange staining, wet.		S4	8-7-11-14	24/17	<1	
	S6 (8-10') 12" Tan medium to coarse SAND, wet.		S5	6-8-8-16	24/12	<1	
10	S7 (10-12') 22" Tan medium to coarse SAND, trace orange staining, wet.		S6	8-7-9-13	24/22	<1	10
	End of boring 12'.						
15							15

- NOTES:
- Boring advanced using augers; 140-lb auto-hammer split spoon sample collection.
 - Soils field screened with MiniRAE 2000 PID calibrated with 100 ppm isobutylene.
 - Sample designated with solid fill submitted for laboratory analysis.
 - NA = Not applicable; WOH = Weight of Hammer.

CLIENT:
SWRPC

SITE:
W. W. Cross Property
39 Webster Street
Jaffrey, NH



BORING LOG:

B114

Reviewed By: SFR	Total Depth: 12 Feet	Logged By: DAF
Date Reviewed: 12/16/19	Boring Diameter: 2.75 Inches	Date Drilled: 6/17/19 to 6/17/19
GW Observed at: ~4.5 Feet	Well Stickup: Flush	Driller: NEBC

DEPTH	DESCRIPTION (Based on a modified Burmister Soil Classification System)	SAMPLE	SAMPLE NUMBER	BLOW COUNTS (per 6 inches)	PENETRATION/ RECOVERY	PID	DEPTH
	Augered through ASPHALT (2").						
	S1 (0.5-2') 6" Tan fine to coarse SAND, little gravel, trace silt, over 2" brown fine to coarse SAND, little brick & concrete, trace silt, moist.		S1	4-11-6	18/8	<1	
	S2 (2-4') 5" Brown fine to coarse SAND, little silt, trace gravel, trace brick & concrete, moist.		S2	4-8-5-6	24/5	<1	
5	S3 (4-6') 2" Tan fine to coarse SAND, some Gravel, moist, over 2" dark gray fine to coarse SAND, little silt, trace gravel, trace roots, wet, over 2" white ROCK FRAGMENTS, dry, over 2" gray fine to medium SAND, little silt, wet.		S3	9-3-1-7	24/8	<1	5
	S4 (6-8') 1" Gray fine to medium SAND, over 2" dark gray fine to medium SAND, little silt, trace roots, over 6" fine to coarse SAND, some Gravel, wet.		S4	21-26-14-6	24/9	<1	
	S5 (8-10') 7" Tan fine to coarse SAND, trace thin silt layers, trace red staining, over 3" gray fine to medium SAND, trace gravel, over 2" tan fine to coarse SAND, trace gravel, wet.		S5	9-9-9-22	24/12	<1	
10	S6 (10-12') 8" Tan fine to coarse SAND, trace gravel, trace silt, wet.		S6	12-16-15-12	24/8	<1	10
	End of boring 12'.						
15							15

NOTES:
 1. Boring advanced using augers; 140-lb auto-hammer split spoon sample collection.
 2. Soils field screened with MiniRAE 2000 PID calibrated with 100 ppm isobutylene.
 3. Sample designated with solid fill submitted for laboratory analysis.
 4. NA = Not applicable.

CLIENT:
 SWRPC

SITE:
 W. W. Cross Property
 39 Webster Street
 Jaffrey, NH

Project No.: 141.05051.010 Page: 1



BORING LOG:

B115

Reviewed By: <i>SFR</i>	Total Depth: 12 Feet	Logged By: DAF
Date Reviewed: <i>12/16/19</i>	Boring Diameter: 2.75 Inches	Date Drilled: 6/17/19 to 6/17/19
GW Observed at: ~5 Feet	Well Stickup: Flush	Driller: NEBC

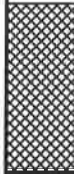

DEPTH	DESCRIPTION (Based on a modified Burmister Soil Classification System)	SAMPLE	SAMPLE NUMBER	BLOW COUNTS (per 6 inches)	PENETRATION/RECOVERY	PID	DEPTH
	Augered through asphalt; 3" ASPHALT, over 9" tan fine to coarse SAND, little cobbles, moist.						
	S1 (1-3') 7" Brown fine to coarse SAND, little gravel, little silt, over 3" white & black ROCK FRAGMENTS, over 1" brown fine to coarse SAND, little gravel, little silt, moist.		S1	3-10-21-10	24/11	<1	
	S2 (3-5') 3" Brown fine to coarse SAND, some Gravel, trace organics, moist, wet at very bottom.		S2	1-1-8-4	24/3	<1	
5	S3 (5-7') 1" Brown fine to coarse SAND, little gravel, trace brick, over 4" dark gray fine to coarse SAND, some Silt, some Organics (wood fragment, roots, bark), over 5" white ROCK FRAGMENTS (weathered), wet.		S3	WOR-2-39-23	24/10	<1	5
	S4 (7-9') 2" White ROCK FRAGMENTS (weathered), over 9" gray fine to medium SAND, trace silt, wet.		S4	10-10-13-13	24/11	<1	
	S5 (9-10') 5" Gray fine to medium SAND, little silt, wet.		S5	10-13	12/5	<1	
10	S6 (10-12') 4" Gray fine to medium SAND, little silt, trace gravel, over 5" tan ROCK FRAGMENTS (weathered), wet.		S6	12-62-24-12	24/9	<1	10
	End of boring 12'						
15							15

<p>NOTES:</p> <ol style="list-style-type: none"> Boring advanced using augers; 140-lb auto-hammer split spoon sample collection. Soils field screened with MiniRAE 2000 PID calibrated with 100 ppm isobutylene. Sample designated with solid fill submitted for laboratory analysis. NA = Not applicable; WOR = Weight of Rods. 	<p>CLIENT: SWRPC</p>
	<p>SITE: W. W. Cross Property 39 Webster Street Jaffrey, NH</p>
	<p>Project No.: 141.05051.010 Page: 1</p>

**Borings Advanced August 12, 2019
By Eastern Analytical, Inc.**







**BORING AND MONITORING WELL LOG
B105A**

Project Number: 141.05051.010	Drilling Company: EAI	Total Depth: 14 Feet
Project: WW Cross Property	Drilling Method: Track-mounted push-probe	Start Date: 8/12/19
Site Location: 39 Webster Avenue Jaffrey, New Hampshire	Well Stick Up: NA	Date Completed: 8/12/19
Client: SWRPC	Boring Diameter: 2 1/2 Inches	Logged by: BAB
	Groundwater Observed: NA	Reviewed by: <i>SFR 12/16/19</i>

DESCRIPTION	SAMPLE	SAMPLE NUMBER	BLOWS (PER 6")	PENETRATION / RECOVERY	PID/FID (PPM)	DEPTH (FT.)	WELL CONSTRUCTION
Based on USCS and Modified Burmister Soil Classification System							
Advanced to 2.5'; see B105 log for soil detail.						1	NA
						2	
						3	
S1 (2.5-5') 2" COBBLE, over 9" gray/brown to brown, fine to medium SAND, little fine to medium gravel, trace silt, 2" dark brown lens at 4.5'; dry to moist.		S1	NA	30/11	<1	4	
						5	
S2 (5-8') Gray/brown, fine to medium SAND, little fine to medium gravel, trace silt, few red mottles at 7-8', moist.		S2	NA	36/30	<1	6	
						7	
						8	
Refusal, end of boring 8'.						9	
						10	
						11	
						12	
						13	
						14	
						15	
						16	
						17	
						18	
						19	

Notes: 1. Soils field screened with MiniRAE 2000 PID calibrated with 100 ppmv isobutylene. 2. Sample designated with solid fill submitted for laboratory analysis.

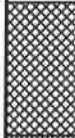
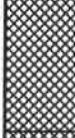
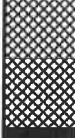


Well Legend:

					
Filter Sand	Native Fill	Bentonite	Bentonite grout	Concrete	PVC Screen

NA=not applicable; NM=not measured; NE=not encountered







**BORING AND MONITORING WELL LOG
B113**

Project Number: 141.05051.010	Drilling Company: EAI	Total Depth: 8 Feet
Project: WW Cross Property	Drilling Method: Track-mounted push-probe	Start Date: 8/12/19
Site Location: 39 Webster Avenue Jaffrey, New Hampshire	Well Stick Up: NA	Date Completed: 8/12/19
Client: SWRPC	Boring Diameter: 2 1/2 Inches	Logged by: BAB
	Groundwater Observed: NA	Reviewed by: <i>STC</i> 12/16/19

DESCRIPTION	SAMPLE	SAMPLE NUMBER	BLOWS (PER 6")	PENETRATION / RECOVERY	PID/FID (PPM)	DEPTH (FT.)	WELL CONSTRUCTION
Based on USCS and Modified Burmister Soil Classification System							
S1 & S2 (0-4') 4" CONCRETE, over 28" brown/gray, fine to medium SAND, some to little, fine to medium gravel, trace silt, moist.		S1	NA	60/28	<1	1	NA
		S2			<1	2	
		S3			<1	3	
		S4			<1	4	
S3 & S4 (4-8') Brown/gray, fine to medium SAND, little fine to medium gravel, trace silt, weathered rock at 5 1/2', 6" cobble at 7', moist.			NA	36/28		5	
Refusal, end of boring 8'.						6	
						7	
						8	
						9	
						10	
						11	
						12	
						13	
						14	
						15	
						16	
						17	
						18	
						19	

Notes: 1. Soils field screened with MiniRAE 2000 PID calibrated with 100 ppmv isobutylene. 2. Sample designated with solid fill submitted for laboratory analysis.

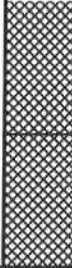
Well Legend:

					
Filter Sand	Native Fill	Bentonite	Bentonite grout	Concrete	PVC Screen

NA=not applicable; NM=not measured; NE=not encountered

**BORING AND MONITORING WELL LOG
B116**

Project Number: 141.05051.010	Drilling Company: EAI	Total Depth: 4 Feet
Project: WW Cross Property	Drilling Method: Track-mounted push-probe	Start Date: 8/12/19
Site Location: 39 Webster Avenue Jaffrey, New Hampshire	Well Stick Up: NA	Date Completed: 8/12/19
Client: SWRPC	Boring Diameter: 2 1/2 Inches	Logged by: BAB
	Groundwater Observed: NA	Reviewed by: <i>SFR 12/16/19</i>

DESCRIPTION	SAMPLE	SAMPLE NUMBER	BLOWS (PER 6")	PENETRATION / RECOVERY	PID/FID (PPM)	DEPTH (FT.)	WELL CONSTRUCTION
Based on USCS and Modified Burmister Soil Classification System							
S1 & S2 (0-4') 4" ASPHALT, over 22" brown/gray, fine to medium SAND, little fine to medium gravel, trace silt, dry to moist.		S1	NA	48/26	<1	1	NA
		S2			<1	2	
						3	
End of boring 4'.						4	
						5	
						6	
						7	
						8	
						9	
						10	
						11	
						12	
						13	
						14	
						15	
						16	
						17	
						18	
						19	

Notes: 1. Soils field screened with MiniRAE 2000 PID calibrated with 100 ppmv isobutylene.

Well Legend:

						
Filter Sand	Native Sand Fill	Bentonite	Bentonite grout	Concrete	PVC Screen	

NA=not applicable; NM=not measured; NE=not encountered

**BORING AND MONITORING WELL LOG
B117**

Project Number: 141.05051.010	Drilling Company: EAI	Total Depth: 4 Feet
Project: WW Cross Property	Drilling Method: Track-mounted push-probe	Start Date: 8/12/19
Site Location: 39 Webster Avenue Jaffrey, New Hampshire	Well Stick Up: NA	Date Completed: 8/12/19
Client: SWRPC	Boring Diameter: 2 1/2 Inches	Logged by: BAB
	Groundwater Observed: NA	Reviewed by: <i>SPK 12/16/19</i>

DESCRIPTION Based on USCS and Modified Burmister Soil Classification System	SAMPLE	SAMPLE NUMBER	BLOWS (PER 6")	PENETRATION / RECOVERY	PID/FID (PPM)	DEPTH (FT.)	WELL CONSTRUCTION
S1 (0-2') 4" ASPHALT, over 6" brown, fine to medium SAND, little fine to medium gravel, trace silt, lens of black at 0.5' and 2' (estimated), creosote like odor, dry to moist.	[Solid Fill]	S1	NA	48/20	<1	1	NA
						2	
S2 (2-4') 10" Brown, fine to medium SAND, little fine to medium gravel, trace silt, moist.	[Cross-hatch]	S2			<1	3	
						4	
End of boring 4'.						5	
						6	
						7	
						8	
						9	
						10	
						11	
						12	
						13	
						14	
						15	
						16	
						17	
						18	
						19	

Notes: 1. Soils field screened with MiniRAE 2000 PID calibrated with 100 ppmv isobutylene. 2. Sample designated with solid fill submitted for laboratory analysis.

Well Legend:

[Solid Fill]	[Dotted]	[Diagonal Lines]	[Horizontal Lines]	[Vertical Lines]	[Cross-hatch]	[Grid]
Filter Sand	Native Fill	Bentonite	Bentonite grout	Concrete	PVC Screen	

NA=not applicable; NM=not measured; NE=not encountered

APPENDIX B

Laboratory Analytical Results

Supplemental Phase II Environmental Site Assessment

W. W. Cross Property

39 Webster Street

Jaffrey, New Hampshire



ANALYTICAL REPORT

Lab Number:	L1926197
Client:	Ransom Consulting, Inc. 112 Corporate Drive Pease International Tradeport Portsmouth, NH 03801
ATTN:	John Ouellette
Phone:	(603) 436-1490
Project Name:	WW CROSS PROPERTY
Project Number:	141.05051.010
Report Date:	07/10/19

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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: WW CROSS PROPERTY
Project Number: 141.05051.010

Lab Number: L1926197
Report Date: 07/10/19

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1926197-01	B108-S2	SOIL	JAFFREY, NH	06/17/19 08:10	06/18/19
L1926197-02	B108-S3	SOIL	JAFFREY, NH	06/17/19 08:20	06/18/19
L1926197-03	B109-S3	SOIL	JAFFREY, NH	06/17/19 10:50	06/18/19
L1926197-04	B109-S4	SOIL	JAFFREY, NH	06/17/19 11:00	06/18/19
L1926197-05	B110-S3	SOIL	JAFFREY, NH	06/17/19 10:05	06/18/19
L1926197-06	B111-S3	SOIL	JAFFREY, NH	06/17/19 09:15	06/18/19
L1926197-07	B114-S3	SOIL	JAFFREY, NH	06/17/19 13:30	06/18/19
L1926197-08	B114-S4	SOIL	JAFFREY, NH	06/17/19 13:40	06/18/19
L1926197-09	B115-S3	SOIL	JAFFREY, NH	06/17/19 12:50	06/18/19
L1926197-10	B111-0.5'	SOIL	JAFFREY, NH	06/17/19 09:45	06/18/19
L1926197-11	TRIP BLANK	SOIL	JAFFREY, NH	06/17/19 00:00	06/18/19

Project Name: WW CROSS PROPERTY
Project Number: 141.05051.010

Lab Number: L1926197
Report Date: 07/10/19

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: WW CROSS PROPERTY
Project Number: 141.05051.010

Lab Number: L1926197
Report Date: 07/10/19

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

L1926197-11: The Trip Blank has results for acetone and tert-butyl alcohol present above the reporting limits. The sample was verified as being labeled correctly by the laboratory and the previous analysis showed there was no potential for carry over.

Semivolatile Organics

L1926197-10: The sample has elevated detection limits due to the limited sample volume utilized during extraction and due to the dilution required by the sample matrix.

L1926197-10: The surrogate recoveries are below the acceptance criteria for nitrobenzene-d5 (0%), 2-fluorobiphenyl (0%), and 4-terphenyl-d14 (0%) due to the dilution required to quantitate the sample. Re-extraction was not required; therefore, the results of the original analysis are reported.

Petroleum Hydrocarbon Identification by GC-FID

L1926197-10: The sample was extracted and then analyzed using a gas chromatograph equipped with a flame ionization detector (GC/FID). The temperature program and associated experimental conditions were optimized to obtain maximum resolution in an eighty minute chromatographic run representative of hydrocarbons in the n-Octane (C8) to n-Tetracontane (C40) range. Qualitative evaluation of the sample was conducted by reviewing the sample chromatogram in conjunction with a chromatogram of a normal alkane series generated with the same chromatographic conditions. Chromatograms of hydrocarbon reference materials obtained from our library of 82 reference standards were also utilized to provide the best possible sample match. Quantitative determination of the sample's hydrocarbon concentration was performed in accordance with EPA Method 8015M. The sample's total hydrocarbon concentration and all associated quality control data are included in the report.

Project Name: WW CROSS PROPERTY
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Lab Number: L1926197
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Case Narrative (continued)

The following qualitative information is based on a tentative interpretation of chromatographic pattern recognition and boiling point ranges:


Total Petroleum Hydrocarbon Identification

L1926197-10 contains hydrocarbons eluting in the range of n-Nonane (C9) to after the elution of n-Tetracontane (C40).

Based on the data generated, L1926197-10 contains material eluting in the low to heavy molecular weight ranges of the chromatogram. The material appears to be similar to a coal tar/creosote.

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:

 Kelly Stenstrom

Title: Technical Director/Representative

Date: 07/10/19

ORGANICS

VOLATILES

Project Name: WW CROSS PROPERTY
Project Number: 141.05051.010

Lab Number: L1926197
Report Date: 07/10/19

SAMPLE RESULTS

Lab ID: L1926197-02
 Client ID: B108-S3
 Sample Location: JAFFREY, NH

Date Collected: 06/17/19 08:20
 Date Received: 06/18/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8260C
 Analytical Date: 06/27/19 22:50
 Analyst: NLK
 Percent Solids: 85%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Methylene chloride	ND		ug/kg	5.5	2.5	1
1,1-Dichloroethane	ND		ug/kg	1.1	0.16	1
Chloroform	ND		ug/kg	1.6	0.15	1
Carbon tetrachloride	ND		ug/kg	1.1	0.25	1
1,2-Dichloropropane	ND		ug/kg	1.1	0.14	1
Dibromochloromethane	ND		ug/kg	1.1	0.15	1
1,1,2-Trichloroethane	ND		ug/kg	1.1	0.29	1
Tetrachloroethene	ND		ug/kg	0.55	0.21	1
Chlorobenzene	ND		ug/kg	0.55	0.14	1
Trichlorofluoromethane	ND		ug/kg	4.4	0.76	1
1,2-Dichloroethane	ND		ug/kg	1.1	0.28	1
1,1,1-Trichloroethane	ND		ug/kg	0.55	0.18	1
Bromodichloromethane	ND		ug/kg	0.55	0.12	1
trans-1,3-Dichloropropene	ND		ug/kg	1.1	0.30	1
cis-1,3-Dichloropropene	ND		ug/kg	0.55	0.17	1
1,3-Dichloropropene, Total	ND		ug/kg	0.55	0.17	1
1,1-Dichloropropene	ND		ug/kg	0.55	0.17	1
Bromoform	ND		ug/kg	4.4	0.27	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.55	0.18	1
Benzene	ND		ug/kg	0.55	0.18	1
Toluene	ND		ug/kg	1.1	0.59	1
Ethylbenzene	ND		ug/kg	1.1	0.15	1
Chloromethane	ND		ug/kg	4.4	1.0	1
Bromomethane	ND		ug/kg	2.2	0.63	1
Vinyl chloride	ND		ug/kg	1.1	0.36	1
Chloroethane	ND		ug/kg	2.2	0.49	1
1,1-Dichloroethene	ND		ug/kg	1.1	0.26	1
trans-1,2-Dichloroethene	ND		ug/kg	1.6	0.15	1

Project Name: WW CROSS PROPERTY
Project Number: 141.05051.010

Lab Number: L1926197
Report Date: 07/10/19

SAMPLE RESULTS

Lab ID: L1926197-02
Client ID: B108-S3
Sample Location: JAFFREY, NH

Date Collected: 06/17/19 08:20
Date Received: 06/18/19
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatiles Organics by EPA 5035 Low - Westborough Lab						
Trichloroethene	ND		ug/kg	0.55	0.15	1
1,2-Dichlorobenzene	ND		ug/kg	2.2	0.16	1
1,3-Dichlorobenzene	ND		ug/kg	2.2	0.16	1
1,4-Dichlorobenzene	ND		ug/kg	2.2	0.19	1
Methyl tert butyl ether	0.73	J	ug/kg	2.2	0.22	1
p/m-Xylene	ND		ug/kg	2.2	0.61	1
o-Xylene	ND		ug/kg	1.1	0.32	1
Xylenes, Total	ND		ug/kg	1.1	0.32	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
Dibromomethane	ND		ug/kg	2.2	0.26	1
1,2,3-Trichloropropane	ND		ug/kg	2.2	0.14	1
Styrene	ND		ug/kg	1.1	0.21	1
Dichlorodifluoromethane	ND		ug/kg	11	1.0	1
Acetone	72		ug/kg	11	5.2	1
Carbon disulfide	ND		ug/kg	11	5.0	1
2-Butanone	ND		ug/kg	11	2.4	1
4-Methyl-2-pentanone	ND		ug/kg	11	1.4	1
2-Hexanone	ND		ug/kg	11	1.3	1
Bromochloromethane	ND		ug/kg	2.2	0.22	1
Tetrahydrofuran	ND		ug/kg	4.4	1.7	1
2,2-Dichloropropane	ND		ug/kg	2.2	0.22	1
1,2-Dibromoethane	ND		ug/kg	1.1	0.30	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.55	0.14	1
Bromobenzene	ND		ug/kg	2.2	0.16	1
n-Butylbenzene	ND		ug/kg	1.1	0.18	1
sec-Butylbenzene	ND		ug/kg	1.1	0.16	1
tert-Butylbenzene	ND		ug/kg	2.2	0.13	1
1,3,5-Trichlorobenzene	ND		ug/kg	2.2	0.19	1
o-Chlorotoluene	ND		ug/kg	2.2	0.21	1
p-Chlorotoluene	ND		ug/kg	2.2	0.12	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.3	1.1	1
Hexachlorobutadiene	ND		ug/kg	4.4	0.18	1
Isopropylbenzene	ND		ug/kg	1.1	0.12	1
p-Isopropyltoluene	ND		ug/kg	1.1	0.12	1
Naphthalene	ND		ug/kg	4.4	0.71	1
n-Propylbenzene	ND		ug/kg	1.1	0.19	1

Project Name: WW CROSS PROPERTY
Project Number: 141.05051.010

Lab Number: L1926197
Report Date: 07/10/19

SAMPLE RESULTS

Lab ID: L1926197-02
Client ID: B108-S3
Sample Location: JAFFREY, NH

Date Collected: 06/17/19 08:20
Date Received: 06/18/19
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
1,2,3-Trichlorobenzene	ND		ug/kg	2.2	0.35	1
1,2,4-Trichlorobenzene	ND		ug/kg	2.2	0.30	1
1,3,5-Trimethylbenzene	ND		ug/kg	2.2	0.21	1
1,2,4-Trimethylbenzene	ND		ug/kg	2.2	0.36	1
Ethyl ether	1.6	J	ug/kg	2.2	0.37	1
Isopropyl Ether	ND		ug/kg	2.2	0.23	1
Tert-Butyl Alcohol	22		ug/kg	22	5.6	1
Ethyl-Tert-Butyl-Ether	0.17	J	ug/kg	2.2	0.14	1
Tertiary-Amyl Methyl Ether	ND		ug/kg	2.2	0.19	1
1,4-Dioxane	ND		ug/kg	87	38.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	113		70-130
Toluene-d8	105		70-130
4-Bromofluorobenzene	108		70-130
Dibromofluoromethane	103		70-130

Project Name: WW CROSS PROPERTY
Project Number: 141.05051.010

Lab Number: L1926197
Report Date: 07/10/19

SAMPLE RESULTS

Lab ID: L1926197-04
 Client ID: B109-S4
 Sample Location: JAFFREY, NH

Date Collected: 06/17/19 11:00
 Date Received: 06/18/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8260C
 Analytical Date: 06/27/19 23:16
 Analyst: NLK
 Percent Solids: 80%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Methylene chloride	ND		ug/kg	4.6	2.1	1
1,1-Dichloroethane	ND		ug/kg	0.92	0.13	1
Chloroform	ND		ug/kg	1.4	0.13	1
Carbon tetrachloride	ND		ug/kg	0.92	0.21	1
1,2-Dichloropropane	ND		ug/kg	0.92	0.12	1
Dibromochloromethane	ND		ug/kg	0.92	0.13	1
1,1,2-Trichloroethane	ND		ug/kg	0.92	0.24	1
Tetrachloroethene	ND		ug/kg	0.46	0.18	1
Chlorobenzene	ND		ug/kg	0.46	0.12	1
Trichlorofluoromethane	ND		ug/kg	3.7	0.64	1
1,2-Dichloroethane	ND		ug/kg	0.92	0.24	1
1,1,1-Trichloroethane	ND		ug/kg	0.46	0.15	1
Bromodichloromethane	ND		ug/kg	0.46	0.10	1
trans-1,3-Dichloropropene	ND		ug/kg	0.92	0.25	1
cis-1,3-Dichloropropene	ND		ug/kg	0.46	0.14	1
1,3-Dichloropropene, Total	ND		ug/kg	0.46	0.14	1
1,1-Dichloropropene	ND		ug/kg	0.46	0.15	1
Bromoform	ND		ug/kg	3.7	0.23	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.46	0.15	1
Benzene	ND		ug/kg	0.46	0.15	1
Toluene	ND		ug/kg	0.92	0.50	1
Ethylbenzene	ND		ug/kg	0.92	0.13	1
Chloromethane	ND		ug/kg	3.7	0.86	1
Bromomethane	ND		ug/kg	1.8	0.54	1
Vinyl chloride	ND		ug/kg	0.92	0.31	1
Chloroethane	ND		ug/kg	1.8	0.42	1
1,1-Dichloroethene	ND		ug/kg	0.92	0.22	1
trans-1,2-Dichloroethene	ND		ug/kg	1.4	0.13	1

Project Name: WW CROSS PROPERTY
Project Number: 141.05051.010

Lab Number: L1926197
Report Date: 07/10/19

SAMPLE RESULTS

Lab ID: L1926197-04
Client ID: B109-S4
Sample Location: JAFFREY, NH

Date Collected: 06/17/19 11:00
Date Received: 06/18/19
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatiles Organics by EPA 5035 Low - Westborough Lab						
Trichloroethene	ND		ug/kg	0.46	0.13	1
1,2-Dichlorobenzene	ND		ug/kg	1.8	0.13	1
1,3-Dichlorobenzene	ND		ug/kg	1.8	0.14	1
1,4-Dichlorobenzene	ND		ug/kg	1.8	0.16	1
Methyl tert butyl ether	0.61	J	ug/kg	1.8	0.18	1
p/m-Xylene	ND		ug/kg	1.8	0.52	1
o-Xylene	ND		ug/kg	0.92	0.27	1
Xylenes, Total	ND		ug/kg	0.92	0.27	1
cis-1,2-Dichloroethene	0.29	J	ug/kg	0.92	0.16	1
1,2-Dichloroethene, Total	0.29	J	ug/kg	0.92	0.13	1
Dibromomethane	ND		ug/kg	1.8	0.22	1
1,2,3-Trichloropropane	ND		ug/kg	1.8	0.12	1
Styrene	ND		ug/kg	0.92	0.18	1
Dichlorodifluoromethane	ND		ug/kg	9.2	0.84	1
Acetone	62		ug/kg	9.2	4.4	1
Carbon disulfide	ND		ug/kg	9.2	4.2	1
2-Butanone	10		ug/kg	9.2	2.0	1
4-Methyl-2-pentanone	ND		ug/kg	9.2	1.2	1
2-Hexanone	ND		ug/kg	9.2	1.1	1
Bromochloromethane	ND		ug/kg	1.8	0.19	1
Tetrahydrofuran	ND		ug/kg	3.7	1.5	1
2,2-Dichloropropane	ND		ug/kg	1.8	0.19	1
1,2-Dibromoethane	ND		ug/kg	0.92	0.26	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.46	0.12	1
Bromobenzene	ND		ug/kg	1.8	0.13	1
n-Butylbenzene	ND		ug/kg	0.92	0.15	1
sec-Butylbenzene	ND		ug/kg	0.92	0.13	1
tert-Butylbenzene	ND		ug/kg	1.8	0.11	1
1,3,5-Trichlorobenzene	ND		ug/kg	1.8	0.16	1
o-Chlorotoluene	ND		ug/kg	1.8	0.18	1
p-Chlorotoluene	ND		ug/kg	1.8	0.10	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	2.8	0.92	1
Hexachlorobutadiene	ND		ug/kg	3.7	0.16	1
Isopropylbenzene	ND		ug/kg	0.92	0.10	1
p-Isopropyltoluene	ND		ug/kg	0.92	0.10	1
Naphthalene	1.6	J	ug/kg	3.7	0.60	1
n-Propylbenzene	ND		ug/kg	0.92	0.16	1

Project Name: WW CROSS PROPERTY
Project Number: 141.05051.010

Lab Number: L1926197
Report Date: 07/10/19

SAMPLE RESULTS

Lab ID: L1926197-04
Client ID: B109-S4
Sample Location: JAFFREY, NH

Date Collected: 06/17/19 11:00
Date Received: 06/18/19
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
1,2,3-Trichlorobenzene	ND		ug/kg	1.8	0.30	1
1,2,4-Trichlorobenzene	ND		ug/kg	1.8	0.25	1
1,3,5-Trimethylbenzene	ND		ug/kg	1.8	0.18	1
1,2,4-Trimethylbenzene	ND		ug/kg	1.8	0.31	1
Ethyl ether	1.4	J	ug/kg	1.8	0.31	1
Isopropyl Ether	ND		ug/kg	1.8	0.20	1
Tert-Butyl Alcohol	17	J	ug/kg	18	4.7	1
Ethyl-Tert-Butyl-Ether	0.13	J	ug/kg	1.8	0.12	1
Tertiary-Amyl Methyl Ether	ND		ug/kg	1.8	0.16	1
1,4-Dioxane	ND		ug/kg	74	32.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	114		70-130
Toluene-d8	104		70-130
4-Bromofluorobenzene	111		70-130
Dibromofluoromethane	102		70-130

Project Name: WW CROSS PROPERTY
Project Number: 141.05051.010

Lab Number: L1926197
Report Date: 07/10/19

SAMPLE RESULTS

Lab ID: L1926197-05
 Client ID: B110-S3
 Sample Location: JAFFREY, NH

Date Collected: 06/17/19 10:05
 Date Received: 06/18/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8260C
 Analytical Date: 06/28/19 01:52
 Analyst: NLK
 Percent Solids: 84%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 High - Westborough Lab						
Methylene chloride	ND		ug/kg	300	140	1
1,1-Dichloroethane	ND		ug/kg	60	8.6	1
Chloroform	ND		ug/kg	89	8.3	1
Carbon tetrachloride	ND		ug/kg	60	14.	1
1,2-Dichloropropane	ND		ug/kg	60	7.4	1
Dibromochloromethane	ND		ug/kg	60	8.3	1
1,1,2-Trichloroethane	ND		ug/kg	60	16.	1
Tetrachloroethene	70		ug/kg	30	12.	1
Chlorobenzene	ND		ug/kg	30	7.6	1
Trichlorofluoromethane	ND		ug/kg	240	41.	1
1,2-Dichloroethane	ND		ug/kg	60	15.	1
1,1,1-Trichloroethane	ND		ug/kg	30	9.9	1
Bromodichloromethane	ND		ug/kg	30	6.5	1
trans-1,3-Dichloropropene	ND		ug/kg	60	16.	1
cis-1,3-Dichloropropene	ND		ug/kg	30	9.4	1
1,3-Dichloropropene, Total	ND		ug/kg	30	9.4	1
1,1-Dichloropropene	ND		ug/kg	30	9.5	1
Bromoform	ND		ug/kg	240	15.	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	30	9.9	1
Benzene	ND		ug/kg	30	9.9	1
Toluene	ND		ug/kg	60	32.	1
Ethylbenzene	ND		ug/kg	60	8.4	1
Chloromethane	ND		ug/kg	240	56.	1
Bromomethane	ND		ug/kg	120	35.	1
Vinyl chloride	ND		ug/kg	60	20.	1
Chloroethane	ND		ug/kg	120	27.	1
1,1-Dichloroethene	ND		ug/kg	60	14.	1
trans-1,2-Dichloroethene	ND		ug/kg	89	8.2	1

Project Name: WW CROSS PROPERTY
Project Number: 141.05051.010

Lab Number: L1926197
Report Date: 07/10/19

SAMPLE RESULTS

Lab ID: L1926197-05
Client ID: B110-S3
Sample Location: JAFFREY, NH

Date Collected: 06/17/19 10:05
Date Received: 06/18/19
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 High - Westborough Lab						
Trichloroethene	ND		ug/kg	30	8.2	1
1,2-Dichlorobenzene	ND		ug/kg	120	8.6	1
1,3-Dichlorobenzene	ND		ug/kg	120	8.8	1
1,4-Dichlorobenzene	ND		ug/kg	120	10.	1
Methyl tert butyl ether	ND		ug/kg	120	12.	1
p/m-Xylene	ND		ug/kg	120	33.	1
o-Xylene	22	J	ug/kg	60	17.	1
Xylenes, Total	22	J	ug/kg	60	17.	1
cis-1,2-Dichloroethene	ND		ug/kg	60	10.	1
1,2-Dichloroethene, Total	ND		ug/kg	60	8.2	1
Dibromomethane	ND		ug/kg	120	14.	1
1,2,3-Trichloropropane	ND		ug/kg	120	7.6	1
Styrene	20	J	ug/kg	60	12.	1
Dichlorodifluoromethane	ND		ug/kg	600	54.	1
Acetone	ND		ug/kg	600	290	1
Carbon disulfide	ND		ug/kg	600	270	1
2-Butanone	ND		ug/kg	600	130	1
4-Methyl-2-pentanone	ND		ug/kg	600	76.	1
2-Hexanone	ND		ug/kg	600	70.	1
Bromochloromethane	ND		ug/kg	120	12.	1
Tetrahydrofuran	ND		ug/kg	240	95.	1
2,2-Dichloropropane	ND		ug/kg	120	12.	1
1,2-Dibromoethane	ND		ug/kg	60	17.	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	30	7.9	1
Bromobenzene	ND		ug/kg	120	8.6	1
n-Butylbenzene	ND		ug/kg	60	9.9	1
sec-Butylbenzene	ND		ug/kg	60	8.7	1
tert-Butylbenzene	ND		ug/kg	120	7.0	1
1,3,5-Trichlorobenzene	ND		ug/kg	120	10.	1
o-Chlorotoluene	ND		ug/kg	120	11.	1
p-Chlorotoluene	ND		ug/kg	120	6.4	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	180	59.	1
Hexachlorobutadiene	ND		ug/kg	240	10.	1
Isopropylbenzene	ND		ug/kg	60	6.5	1
p-Isopropyltoluene	ND		ug/kg	60	6.5	1
Naphthalene	14000		ug/kg	240	39.	1
n-Propylbenzene	ND		ug/kg	60	10.	1

Project Name: WW CROSS PROPERTY
Project Number: 141.05051.010

Lab Number: L1926197
Report Date: 07/10/19

SAMPLE RESULTS

Lab ID: L1926197-05
Client ID: B110-S3
Sample Location: JAFFREY, NH

Date Collected: 06/17/19 10:05
Date Received: 06/18/19
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 High - Westborough Lab						
1,2,3-Trichlorobenzene	ND		ug/kg	120	19.	1
1,2,4-Trichlorobenzene	ND		ug/kg	120	16.	1
1,3,5-Trimethylbenzene	30	J	ug/kg	120	11.	1
1,2,4-Trimethylbenzene	76	J	ug/kg	120	20.	1
Ethyl ether	ND		ug/kg	120	20.	1
Isopropyl Ether	ND		ug/kg	120	13.	1
Tert-Butyl Alcohol	ND		ug/kg	1200	310	1
Ethyl-Tert-Butyl-Ether	ND		ug/kg	120	7.6	1
Tertiary-Amyl Methyl Ether	ND		ug/kg	120	10.	1
1,4-Dioxane	ND		ug/kg	4800	2100	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	115		70-130
Toluene-d8	104		70-130
4-Bromofluorobenzene	104		70-130
Dibromofluoromethane	101		70-130

Project Name: WW CROSS PROPERTY
Project Number: 141.05051.010

Lab Number: L1926197
Report Date: 07/10/19

SAMPLE RESULTS

Lab ID: L1926197-07
Client ID: B114-S3
Sample Location: JAFFREY, NH

Date Collected: 06/17/19 13:30
Date Received: 06/18/19
Field Prep: Not Specified

Sample Depth:

Matrix: Soil
Analytical Method: 1,8260C
Analytical Date: 06/28/19 08:51
Analyst: MV
Percent Solids: 82%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Methylene chloride	ND		ug/kg	3.7	1.7	1
1,1-Dichloroethane	ND		ug/kg	0.74	0.11	1
Chloroform	ND		ug/kg	1.1	0.10	1
Carbon tetrachloride	ND		ug/kg	0.74	0.17	1
1,2-Dichloropropane	ND		ug/kg	0.74	0.09	1
Dibromochloromethane	ND		ug/kg	0.74	0.10	1
1,1,2-Trichloroethane	ND		ug/kg	0.74	0.20	1
Tetrachloroethene	ND		ug/kg	0.37	0.14	1
Chlorobenzene	ND		ug/kg	0.37	0.09	1
Trichlorofluoromethane	ND		ug/kg	3.0	0.51	1
1,2-Dichloroethane	ND		ug/kg	0.74	0.19	1
1,1,1-Trichloroethane	ND		ug/kg	0.37	0.12	1
Bromodichloromethane	ND		ug/kg	0.37	0.08	1
trans-1,3-Dichloropropene	ND		ug/kg	0.74	0.20	1
cis-1,3-Dichloropropene	ND		ug/kg	0.37	0.12	1
1,3-Dichloropropene, Total	ND		ug/kg	0.37	0.12	1
1,1-Dichloropropene	ND		ug/kg	0.37	0.12	1
Bromoform	ND		ug/kg	3.0	0.18	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.37	0.12	1
Benzene	ND		ug/kg	0.37	0.12	1
Toluene	ND		ug/kg	0.74	0.40	1
Ethylbenzene	ND		ug/kg	0.74	0.10	1
Chloromethane	ND		ug/kg	3.0	0.69	1
Bromomethane	ND		ug/kg	1.5	0.43	1
Vinyl chloride	ND		ug/kg	0.74	0.25	1
Chloroethane	ND		ug/kg	1.5	0.33	1
1,1-Dichloroethene	ND		ug/kg	0.74	0.18	1
trans-1,2-Dichloroethene	ND		ug/kg	1.1	0.10	1

Project Name: WW CROSS PROPERTY
Project Number: 141.05051.010

Lab Number: L1926197
Report Date: 07/10/19

SAMPLE RESULTS

Lab ID: L1926197-07
Client ID: B114-S3
Sample Location: JAFFREY, NH

Date Collected: 06/17/19 13:30
Date Received: 06/18/19
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatiles Organics by EPA 5035 Low - Westborough Lab						
Trichloroethene	ND		ug/kg	0.37	0.10	1
1,2-Dichlorobenzene	ND		ug/kg	1.5	0.11	1
1,3-Dichlorobenzene	ND		ug/kg	1.5	0.11	1
1,4-Dichlorobenzene	ND		ug/kg	1.5	0.13	1
Methyl tert butyl ether	0.32	J	ug/kg	1.5	0.15	1
p/m-Xylene	ND		ug/kg	1.5	0.41	1
o-Xylene	ND		ug/kg	0.74	0.22	1
Xylenes, Total	ND		ug/kg	0.74	0.22	1
cis-1,2-Dichloroethene	ND		ug/kg	0.74	0.13	1
1,2-Dichloroethene, Total	ND		ug/kg	0.74	0.10	1
Dibromomethane	ND		ug/kg	1.5	0.18	1
1,2,3-Trichloropropane	ND		ug/kg	1.5	0.09	1
Styrene	ND		ug/kg	0.74	0.14	1
Dichlorodifluoromethane	ND		ug/kg	7.4	0.68	1
Acetone	38		ug/kg	7.4	3.6	1
Carbon disulfide	ND		ug/kg	7.4	3.4	1
2-Butanone	3.4	J	ug/kg	7.4	1.6	1
4-Methyl-2-pentanone	ND		ug/kg	7.4	0.95	1
2-Hexanone	ND		ug/kg	7.4	0.87	1
Bromochloromethane	ND		ug/kg	1.5	0.15	1
Tetrahydrofuran	ND		ug/kg	3.0	1.2	1
2,2-Dichloropropane	ND		ug/kg	1.5	0.15	1
1,2-Dibromoethane	ND		ug/kg	0.74	0.21	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.37	0.10	1
Bromobenzene	ND		ug/kg	1.5	0.11	1
n-Butylbenzene	ND		ug/kg	0.74	0.12	1
sec-Butylbenzene	ND		ug/kg	0.74	0.11	1
tert-Butylbenzene	ND		ug/kg	1.5	0.09	1
1,3,5-Trichlorobenzene	ND		ug/kg	1.5	0.13	1
o-Chlorotoluene	ND		ug/kg	1.5	0.14	1
p-Chlorotoluene	ND		ug/kg	1.5	0.08	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	2.2	0.74	1
Hexachlorobutadiene	ND		ug/kg	3.0	0.12	1
Isopropylbenzene	ND		ug/kg	0.74	0.08	1
p-Isopropyltoluene	ND		ug/kg	0.74	0.08	1
Naphthalene	ND		ug/kg	3.0	0.48	1
n-Propylbenzene	ND		ug/kg	0.74	0.13	1

Project Name: WW CROSS PROPERTY
Project Number: 141.05051.010

Lab Number: L1926197
Report Date: 07/10/19

SAMPLE RESULTS

Lab ID: L1926197-07
Client ID: B114-S3
Sample Location: JAFFREY, NH

Date Collected: 06/17/19 13:30
Date Received: 06/18/19
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
1,2,3-Trichlorobenzene	ND		ug/kg	1.5	0.24	1
1,2,4-Trichlorobenzene	ND		ug/kg	1.5	0.20	1
1,3,5-Trimethylbenzene	ND		ug/kg	1.5	0.14	1
1,2,4-Trimethylbenzene	ND		ug/kg	1.5	0.25	1
Ethyl ether	1.4	J	ug/kg	1.5	0.25	1
Isopropyl Ether	ND		ug/kg	1.5	0.16	1
Tert-Butyl Alcohol	23		ug/kg	15	3.8	1
Ethyl-Tert-Butyl-Ether	0.13	J	ug/kg	1.5	0.10	1
Tertiary-Amyl Methyl Ether	ND		ug/kg	1.5	0.13	1
1,4-Dioxane	ND		ug/kg	59	26.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	112		70-130
Toluene-d8	109		70-130
4-Bromofluorobenzene	120		70-130
Dibromofluoromethane	101		70-130

Project Name: WW CROSS PROPERTY
Project Number: 141.05051.010

Lab Number: L1926197
Report Date: 07/10/19

SAMPLE RESULTS

Lab ID: L1926197-09
 Client ID: B115-S3
 Sample Location: JAFFREY, NH

Date Collected: 06/17/19 12:50
 Date Received: 06/18/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8260C
 Analytical Date: 06/28/19 00:08
 Analyst: NLK
 Percent Solids: 66%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Methylene chloride	ND		ug/kg	6.0	2.7	1
1,1-Dichloroethane	ND		ug/kg	1.2	0.17	1
Chloroform	ND		ug/kg	1.8	0.17	1
Carbon tetrachloride	ND		ug/kg	1.2	0.27	1
1,2-Dichloropropane	ND		ug/kg	1.2	0.15	1
Dibromochloromethane	ND		ug/kg	1.2	0.17	1
1,1,2-Trichloroethane	ND		ug/kg	1.2	0.32	1
Tetrachloroethene	ND		ug/kg	0.60	0.23	1
Chlorobenzene	ND		ug/kg	0.60	0.15	1
Trichlorofluoromethane	ND		ug/kg	4.8	0.83	1
1,2-Dichloroethane	ND		ug/kg	1.2	0.31	1
1,1,1-Trichloroethane	ND		ug/kg	0.60	0.20	1
Bromodichloromethane	ND		ug/kg	0.60	0.13	1
trans-1,3-Dichloropropene	ND		ug/kg	1.2	0.32	1
cis-1,3-Dichloropropene	ND		ug/kg	0.60	0.19	1
1,3-Dichloropropene, Total	ND		ug/kg	0.60	0.19	1
1,1-Dichloropropene	ND		ug/kg	0.60	0.19	1
Bromoform	ND		ug/kg	4.8	0.29	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.60	0.20	1
Benzene	ND		ug/kg	0.60	0.20	1
Toluene	ND		ug/kg	1.2	0.65	1
Ethylbenzene	ND		ug/kg	1.2	0.17	1
Chloromethane	ND		ug/kg	4.8	1.1	1
Bromomethane	ND		ug/kg	2.4	0.69	1
Vinyl chloride	ND		ug/kg	1.2	0.40	1
Chloroethane	ND		ug/kg	2.4	0.54	1
1,1-Dichloroethene	ND		ug/kg	1.2	0.28	1
trans-1,2-Dichloroethene	ND		ug/kg	1.8	0.16	1

Project Name: WW CROSS PROPERTY
Project Number: 141.05051.010

Lab Number: L1926197
Report Date: 07/10/19

SAMPLE RESULTS

Lab ID: L1926197-09
Client ID: B115-S3
Sample Location: JAFFREY, NH

Date Collected: 06/17/19 12:50
Date Received: 06/18/19
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatiles Organics by EPA 5035 Low - Westborough Lab						
Trichloroethene	ND		ug/kg	0.60	0.16	1
1,2-Dichlorobenzene	ND		ug/kg	2.4	0.17	1
1,3-Dichlorobenzene	ND		ug/kg	2.4	0.18	1
1,4-Dichlorobenzene	ND		ug/kg	2.4	0.20	1
Methyl tert butyl ether	0.73	J	ug/kg	2.4	0.24	1
p/m-Xylene	ND		ug/kg	2.4	0.67	1
o-Xylene	ND		ug/kg	1.2	0.35	1
Xylenes, Total	ND		ug/kg	1.2	0.35	1
cis-1,2-Dichloroethene	0.61	J	ug/kg	1.2	0.21	1
1,2-Dichloroethene, Total	0.61	J	ug/kg	1.2	0.16	1
Dibromomethane	ND		ug/kg	2.4	0.28	1
1,2,3-Trichloropropane	ND		ug/kg	2.4	0.15	1
Styrene	ND		ug/kg	1.2	0.23	1
Dichlorodifluoromethane	ND		ug/kg	12	1.1	1
Acetone	110		ug/kg	12	5.7	1
Carbon disulfide	ND		ug/kg	12	5.4	1
2-Butanone	10	J	ug/kg	12	2.6	1
4-Methyl-2-pentanone	ND		ug/kg	12	1.5	1
2-Hexanone	ND		ug/kg	12	1.4	1
Bromochloromethane	ND		ug/kg	2.4	0.24	1
Tetrahydrofuran	ND		ug/kg	4.8	1.9	1
2,2-Dichloropropane	ND		ug/kg	2.4	0.24	1
1,2-Dibromoethane	ND		ug/kg	1.2	0.33	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.60	0.16	1
Bromobenzene	ND		ug/kg	2.4	0.17	1
n-Butylbenzene	ND		ug/kg	1.2	0.20	1
sec-Butylbenzene	ND		ug/kg	1.2	0.17	1
tert-Butylbenzene	ND		ug/kg	2.4	0.14	1
1,3,5-Trichlorobenzene	ND		ug/kg	2.4	0.21	1
o-Chlorotoluene	ND		ug/kg	2.4	0.23	1
p-Chlorotoluene	ND		ug/kg	2.4	0.13	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.6	1.2	1
Hexachlorobutadiene	ND		ug/kg	4.8	0.20	1
Isopropylbenzene	ND		ug/kg	1.2	0.13	1
p-Isopropyltoluene	ND		ug/kg	1.2	0.13	1
Naphthalene	0.84	J	ug/kg	4.8	0.77	1
n-Propylbenzene	ND		ug/kg	1.2	0.20	1

Project Name: WW CROSS PROPERTY
Project Number: 141.05051.010

Lab Number: L1926197
Report Date: 07/10/19

SAMPLE RESULTS

Lab ID: L1926197-09
Client ID: B115-S3
Sample Location: JAFFREY, NH

Date Collected: 06/17/19 12:50
Date Received: 06/18/19
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
1,2,3-Trichlorobenzene	ND		ug/kg	2.4	0.38	1
1,2,4-Trichlorobenzene	ND		ug/kg	2.4	0.32	1
1,3,5-Trimethylbenzene	ND		ug/kg	2.4	0.23	1
1,2,4-Trimethylbenzene	ND		ug/kg	2.4	0.40	1
Ethyl ether	1.7	J	ug/kg	2.4	0.41	1
Isopropyl Ether	ND		ug/kg	2.4	0.25	1
Tert-Butyl Alcohol	25		ug/kg	24	6.1	1
Ethyl-Tert-Butyl-Ether	ND		ug/kg	2.4	0.15	1
Tertiary-Amyl Methyl Ether	ND		ug/kg	2.4	0.21	1
1,4-Dioxane	ND		ug/kg	95	42.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	120		70-130
Toluene-d8	112		70-130
4-Bromofluorobenzene	124		70-130
Dibromofluoromethane	105		70-130

Project Name: WW CROSS PROPERTY
Project Number: 141.05051.010

Lab Number: L1926197
Report Date: 07/10/19

SAMPLE RESULTS

Lab ID: L1926197-10 D
 Client ID: B111-0.5'
 Sample Location: JAFFREY, NH

Date Collected: 06/17/19 09:45
 Date Received: 06/18/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8260C
 Analytical Date: 06/28/19 02:18
 Analyst: NLK
 Percent Solids: 97%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 High - Westborough Lab						
Methylene chloride	ND		ug/kg	42000	19000	200
1,1-Dichloroethane	ND		ug/kg	8300	1200	200
Chloroform	ND		ug/kg	12000	1200	200
Carbon tetrachloride	ND		ug/kg	8300	1900	200
1,2-Dichloropropane	ND		ug/kg	8300	1000	200
Dibromochloromethane	ND		ug/kg	8300	1200	200
1,1,2-Trichloroethane	ND		ug/kg	8300	2200	200
Tetrachloroethene	ND		ug/kg	4200	1600	200
Chlorobenzene	ND		ug/kg	4200	1000	200
Trichlorofluoromethane	ND		ug/kg	33000	5800	200
1,2-Dichloroethane	ND		ug/kg	8300	2100	200
1,1,1-Trichloroethane	ND		ug/kg	4200	1400	200
Bromodichloromethane	ND		ug/kg	4200	910	200
trans-1,3-Dichloropropene	ND		ug/kg	8300	2300	200
cis-1,3-Dichloropropene	ND		ug/kg	4200	1300	200
1,3-Dichloropropene, Total	ND		ug/kg	4200	1300	200
1,1-Dichloropropene	ND		ug/kg	4200	1300	200
Bromoform	ND		ug/kg	33000	2000	200
1,1,2,2-Tetrachloroethane	ND		ug/kg	4200	1400	200
Benzene	1400	J	ug/kg	4200	1400	200
Toluene	ND		ug/kg	8300	4500	200
Ethylbenzene	ND		ug/kg	8300	1200	200
Chloromethane	ND		ug/kg	33000	7800	200
Bromomethane	ND		ug/kg	17000	4800	200
Vinyl chloride	ND		ug/kg	8300	2800	200
Chloroethane	ND		ug/kg	17000	3800	200
1,1-Dichloroethene	ND		ug/kg	8300	2000	200
trans-1,2-Dichloroethene	ND		ug/kg	12000	1100	200

Project Name: WW CROSS PROPERTY
Project Number: 141.05051.010

Lab Number: L1926197
Report Date: 07/10/19

SAMPLE RESULTS

Lab ID: L1926197-10 D
 Client ID: B111-0.5'
 Sample Location: JAFFREY, NH

Date Collected: 06/17/19 09:45
 Date Received: 06/18/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 High - Westborough Lab						
Trichloroethene	ND		ug/kg	4200	1100	200
1,2-Dichlorobenzene	ND		ug/kg	17000	1200	200
1,3-Dichlorobenzene	ND		ug/kg	17000	1200	200
1,4-Dichlorobenzene	ND		ug/kg	17000	1400	200
Methyl tert butyl ether	ND		ug/kg	17000	1700	200
p/m-Xylene	7300	J	ug/kg	17000	4700	200
o-Xylene	4700	J	ug/kg	8300	2400	200
Xylenes, Total	12000	J	ug/kg	8300	2400	200
cis-1,2-Dichloroethene	ND		ug/kg	8300	1400	200
1,2-Dichloroethene, Total	ND		ug/kg	8300	1100	200
Dibromomethane	ND		ug/kg	17000	2000	200
1,2,3-Trichloropropane	ND		ug/kg	17000	1000	200
Styrene	3800	J	ug/kg	8300	1600	200
Dichlorodifluoromethane	ND		ug/kg	83000	7600	200
Acetone	ND		ug/kg	83000	40000	200
Carbon disulfide	ND		ug/kg	83000	38000	200
2-Butanone	ND		ug/kg	83000	18000	200
4-Methyl-2-pentanone	ND		ug/kg	83000	11000	200
2-Hexanone	ND		ug/kg	83000	9800	200
Bromochloromethane	ND		ug/kg	17000	1700	200
Tetrahydrofuran	ND		ug/kg	33000	13000	200
2,2-Dichloropropane	ND		ug/kg	17000	1700	200
1,2-Dibromoethane	ND		ug/kg	8300	2300	200
1,1,1,2-Tetrachloroethane	ND		ug/kg	4200	1100	200
Bromobenzene	ND		ug/kg	17000	1200	200
n-Butylbenzene	ND		ug/kg	8300	1400	200
sec-Butylbenzene	ND		ug/kg	8300	1200	200
tert-Butylbenzene	ND		ug/kg	17000	980	200
1,3,5-Trichlorobenzene	ND		ug/kg	17000	1400	200
o-Chlorotoluene	ND		ug/kg	17000	1600	200
p-Chlorotoluene	ND		ug/kg	17000	900	200
1,2-Dibromo-3-chloropropane	ND		ug/kg	25000	8300	200
Hexachlorobutadiene	ND		ug/kg	33000	1400	200
Isopropylbenzene	ND		ug/kg	8300	910	200
p-Isopropyltoluene	ND		ug/kg	8300	910	200
Naphthalene	1700000		ug/kg	33000	5400	200
n-Propylbenzene	ND		ug/kg	8300	1400	200

Project Name: WW CROSS PROPERTY
Project Number: 141.05051.010

Lab Number: L1926197
Report Date: 07/10/19

SAMPLE RESULTS

Lab ID: L1926197-10 D
Client ID: B111-0.5'
Sample Location: JAFFREY, NH

Date Collected: 06/17/19 09:45
Date Received: 06/18/19
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 High - Westborough Lab						
1,2,3-Trichlorobenzene	ND		ug/kg	17000	2700	200
1,2,4-Trichlorobenzene	ND		ug/kg	17000	2300	200
1,3,5-Trimethylbenzene	4900	J	ug/kg	17000	1600	200
1,2,4-Trimethylbenzene	13000	J	ug/kg	17000	2800	200
Ethyl ether	ND		ug/kg	17000	2800	200
Isopropyl Ether	ND		ug/kg	17000	1800	200
Tert-Butyl Alcohol	ND		ug/kg	170000	43000	200
Ethyl-Tert-Butyl-Ether	ND		ug/kg	17000	1100	200
Tertiary-Amyl Methyl Ether	ND		ug/kg	17000	1500	200
1,4-Dioxane	ND		ug/kg	670000	290000	200

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	113		70-130
Toluene-d8	104		70-130
4-Bromofluorobenzene	104		70-130
Dibromofluoromethane	100		70-130

Project Name: WW CROSS PROPERTY
Project Number: 141.05051.010

Lab Number: L1926197
Report Date: 07/10/19

SAMPLE RESULTS

Lab ID: L1926197-11
 Client ID: TRIP BLANK
 Sample Location: JAFFREY, NH

Date Collected: 06/17/19 00:00
 Date Received: 06/18/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8260C
 Analytical Date: 06/28/19 00:34
 Analyst: NLK
 Percent Solids: Results reported on an 'AS RECEIVED' basis.

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Methylene chloride	ND		ug/kg	5.0	2.3	1
1,1-Dichloroethane	ND		ug/kg	1.0	0.14	1
Chloroform	ND		ug/kg	1.5	0.14	1
Carbon tetrachloride	ND		ug/kg	1.0	0.23	1
1,2-Dichloropropane	ND		ug/kg	1.0	0.12	1
Dibromochloromethane	ND		ug/kg	1.0	0.14	1
1,1,2-Trichloroethane	ND		ug/kg	1.0	0.27	1
Tetrachloroethene	ND		ug/kg	0.50	0.20	1
Chlorobenzene	ND		ug/kg	0.50	0.13	1
Trichlorofluoromethane	ND		ug/kg	4.0	0.70	1
1,2-Dichloroethane	ND		ug/kg	1.0	0.26	1
1,1,1-Trichloroethane	ND		ug/kg	0.50	0.17	1
Bromodichloromethane	ND		ug/kg	0.50	0.11	1
trans-1,3-Dichloropropene	ND		ug/kg	1.0	0.27	1
cis-1,3-Dichloropropene	ND		ug/kg	0.50	0.16	1
1,3-Dichloropropene, Total	ND		ug/kg	0.50	0.16	1
1,1-Dichloropropene	ND		ug/kg	0.50	0.16	1
Bromoform	ND		ug/kg	4.0	0.25	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.50	0.17	1
Benzene	ND		ug/kg	0.50	0.17	1
Toluene	ND		ug/kg	1.0	0.54	1
Ethylbenzene	ND		ug/kg	1.0	0.14	1
Chloromethane	ND		ug/kg	4.0	0.93	1
Bromomethane	ND		ug/kg	2.0	0.58	1
Vinyl chloride	ND		ug/kg	1.0	0.34	1
Chloroethane	ND		ug/kg	2.0	0.45	1
1,1-Dichloroethene	ND		ug/kg	1.0	0.24	1
trans-1,2-Dichloroethene	ND		ug/kg	1.5	0.14	1

Project Name: WW CROSS PROPERTY
Project Number: 141.05051.010

Lab Number: L1926197
Report Date: 07/10/19

SAMPLE RESULTS

Lab ID: L1926197-11
Client ID: TRIP BLANK
Sample Location: JAFFREY, NH

Date Collected: 06/17/19 00:00
Date Received: 06/18/19
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Trichloroethene	ND		ug/kg	0.50	0.14	1
1,2-Dichlorobenzene	ND		ug/kg	2.0	0.14	1
1,3-Dichlorobenzene	ND		ug/kg	2.0	0.15	1
1,4-Dichlorobenzene	ND		ug/kg	2.0	0.17	1
Methyl tert butyl ether	ND		ug/kg	2.0	0.20	1
p/m-Xylene	ND		ug/kg	2.0	0.56	1
o-Xylene	ND		ug/kg	1.0	0.29	1
Xylenes, Total	ND		ug/kg	1.0	0.29	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
Dibromomethane	ND		ug/kg	2.0	0.24	1
1,2,3-Trichloropropane	ND		ug/kg	2.0	0.13	1
Styrene	ND		ug/kg	1.0	0.20	1
Dichlorodifluoromethane	ND		ug/kg	10	0.92	1
Acetone	19		ug/kg	10	4.8	1
Carbon disulfide	ND		ug/kg	10	4.6	1
2-Butanone	ND		ug/kg	10	2.2	1
4-Methyl-2-pentanone	ND		ug/kg	10	1.3	1
2-Hexanone	ND		ug/kg	10	1.2	1
Bromochloromethane	ND		ug/kg	2.0	0.20	1
Tetrahydrofuran	ND		ug/kg	4.0	1.6	1
2,2-Dichloropropane	ND		ug/kg	2.0	0.20	1
1,2-Dibromoethane	ND		ug/kg	1.0	0.28	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.50	0.13	1
Bromobenzene	ND		ug/kg	2.0	0.14	1
n-Butylbenzene	ND		ug/kg	1.0	0.17	1
sec-Butylbenzene	ND		ug/kg	1.0	0.15	1
tert-Butylbenzene	ND		ug/kg	2.0	0.12	1
1,3,5-Trichlorobenzene	ND		ug/kg	2.0	0.17	1
o-Chlorotoluene	ND		ug/kg	2.0	0.19	1
p-Chlorotoluene	ND		ug/kg	2.0	0.11	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.0	1.0	1
Hexachlorobutadiene	ND		ug/kg	4.0	0.17	1
Isopropylbenzene	ND		ug/kg	1.0	0.11	1
p-Isopropyltoluene	ND		ug/kg	1.0	0.11	1
Naphthalene	ND		ug/kg	4.0	0.65	1
n-Propylbenzene	ND		ug/kg	1.0	0.17	1

Project Name: WW CROSS PROPERTY
Project Number: 141.05051.010

Lab Number: L1926197
Report Date: 07/10/19

SAMPLE RESULTS

Lab ID: L1926197-11
Client ID: TRIP BLANK
Sample Location: JAFFREY, NH

Date Collected: 06/17/19 00:00
Date Received: 06/18/19
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
1,2,3-Trichlorobenzene	ND		ug/kg	2.0	0.32	1
1,2,4-Trichlorobenzene	ND		ug/kg	2.0	0.27	1
1,3,5-Trimethylbenzene	ND		ug/kg	2.0	0.19	1
1,2,4-Trimethylbenzene	ND		ug/kg	2.0	0.33	1
Ethyl ether	1.6	J	ug/kg	2.0	0.34	1
Isopropyl Ether	ND		ug/kg	2.0	0.21	1
Tert-Butyl Alcohol	24		ug/kg	20	5.1	1
Ethyl-Tert-Butyl-Ether	ND		ug/kg	2.0	0.13	1
Tertiary-Amyl Methyl Ether	ND		ug/kg	2.0	0.18	1
1,4-Dioxane	ND		ug/kg	80	35.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	116		70-130
Toluene-d8	104		70-130
4-Bromofluorobenzene	105		70-130
Dibromofluoromethane	104		70-130

Project Name: WW CROSS PROPERTY
Project Number: 141.05051.010

Lab Number: L1926197
Report Date: 07/10/19

SAMPLE RESULTS

Lab ID: L1926197-11
 Client ID: TRIP BLANK
 Sample Location: JAFFREY, NH

Date Collected: 06/17/19 00:00
 Date Received: 06/18/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8260C
 Analytical Date: 06/28/19 01:00
 Analyst: NLK
 Percent Solids: Results reported on an 'AS RECEIVED' basis.

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 High - Westborough Lab						
Methylene chloride	ND		ug/kg	250	110	1
1,1-Dichloroethane	ND		ug/kg	50	7.2	1
Chloroform	ND		ug/kg	75	7.0	1
Carbon tetrachloride	ND		ug/kg	50	12.	1
1,2-Dichloropropane	ND		ug/kg	50	6.2	1
Dibromochloromethane	ND		ug/kg	50	7.0	1
1,1,2-Trichloroethane	ND		ug/kg	50	13.	1
Tetrachloroethene	ND		ug/kg	25	9.8	1
Chlorobenzene	ND		ug/kg	25	6.4	1
Trichlorofluoromethane	ND		ug/kg	200	35.	1
1,2-Dichloroethane	ND		ug/kg	50	13.	1
1,1,1-Trichloroethane	ND		ug/kg	25	8.4	1
Bromodichloromethane	ND		ug/kg	25	5.4	1
trans-1,3-Dichloropropene	ND		ug/kg	50	14.	1
cis-1,3-Dichloropropene	ND		ug/kg	25	7.9	1
1,3-Dichloropropene, Total	ND		ug/kg	25	7.9	1
1,1-Dichloropropene	ND		ug/kg	25	8.0	1
Bromoform	ND		ug/kg	200	12.	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	25	8.3	1
Benzene	ND		ug/kg	25	8.3	1
Toluene	ND		ug/kg	50	27.	1
Ethylbenzene	ND		ug/kg	50	7.0	1
Chloromethane	ND		ug/kg	200	47.	1
Bromomethane	ND		ug/kg	100	29.	1
Vinyl chloride	ND		ug/kg	50	17.	1
Chloroethane	ND		ug/kg	100	23.	1
1,1-Dichloroethene	ND		ug/kg	50	12.	1
trans-1,2-Dichloroethene	ND		ug/kg	75	6.8	1

Project Name: WW CROSS PROPERTY**Lab Number:** L1926197**Project Number:** 141.05051.010**Report Date:** 07/10/19**SAMPLE RESULTS**

Lab ID: L1926197-11
 Client ID: TRIP BLANK
 Sample Location: JAFFREY, NH

Date Collected: 06/17/19 00:00
 Date Received: 06/18/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatiles Organics by EPA 5035 High - Westborough Lab						
Trichloroethene	ND		ug/kg	25	6.8	1
1,2-Dichlorobenzene	ND		ug/kg	100	7.2	1
1,3-Dichlorobenzene	ND		ug/kg	100	7.4	1
1,4-Dichlorobenzene	ND		ug/kg	100	8.6	1
Methyl tert butyl ether	ND		ug/kg	100	10.	1
p/m-Xylene	ND		ug/kg	100	28.	1
o-Xylene	ND		ug/kg	50	14.	1
Xylenes, Total	ND		ug/kg	50	14.	1
cis-1,2-Dichloroethene	ND		ug/kg	50	8.8	1
1,2-Dichloroethene, Total	ND		ug/kg	50	6.8	1
Dibromomethane	ND		ug/kg	100	12.	1
1,2,3-Trichloropropane	ND		ug/kg	100	6.4	1
Styrene	ND		ug/kg	50	9.8	1
Dichlorodifluoromethane	ND		ug/kg	500	46.	1
Acetone	ND		ug/kg	500	240	1
Carbon disulfide	ND		ug/kg	500	230	1
2-Butanone	ND		ug/kg	500	110	1
4-Methyl-2-pentanone	ND		ug/kg	500	64.	1
2-Hexanone	ND		ug/kg	500	59.	1
Bromochloromethane	ND		ug/kg	100	10.	1
Tetrahydrofuran	ND		ug/kg	200	80.	1
2,2-Dichloropropane	ND		ug/kg	100	10.	1
1,2-Dibromoethane	ND		ug/kg	50	14.	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	25	6.6	1
Bromobenzene	ND		ug/kg	100	7.2	1
n-Butylbenzene	ND		ug/kg	50	8.4	1
sec-Butylbenzene	ND		ug/kg	50	7.3	1
tert-Butylbenzene	ND		ug/kg	100	5.9	1
1,3,5-Trichlorobenzene	ND		ug/kg	100	8.6	1
o-Chlorotoluene	ND		ug/kg	100	9.6	1
p-Chlorotoluene	ND		ug/kg	100	5.4	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	150	50.	1
Hexachlorobutadiene	ND		ug/kg	200	8.4	1
Isopropylbenzene	ND		ug/kg	50	5.4	1
p-Isopropyltoluene	ND		ug/kg	50	5.4	1
Naphthalene	ND		ug/kg	200	32.	1
n-Propylbenzene	ND		ug/kg	50	8.6	1

Project Name: WW CROSS PROPERTY
Project Number: 141.05051.010

Lab Number: L1926197
Report Date: 07/10/19

SAMPLE RESULTS

Lab ID: L1926197-11
Client ID: TRIP BLANK
Sample Location: JAFFREY, NH

Date Collected: 06/17/19 00:00
Date Received: 06/18/19
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 High - Westborough Lab						
1,2,3-Trichlorobenzene	ND		ug/kg	100	16.	1
1,2,4-Trichlorobenzene	ND		ug/kg	100	14.	1
1,3,5-Trimethylbenzene	ND		ug/kg	100	9.6	1
1,2,4-Trimethylbenzene	ND		ug/kg	100	17.	1
Ethyl ether	ND		ug/kg	100	17.	1
Isopropyl Ether	ND		ug/kg	100	11.	1
Tert-Butyl Alcohol	ND		ug/kg	1000	260	1
Ethyl-Tert-Butyl-Ether	ND		ug/kg	100	6.4	1
Tertiary-Amyl Methyl Ether	ND		ug/kg	100	8.8	1
1,4-Dioxane	ND		ug/kg	4000	1800	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	113		70-130
Toluene-d8	104		70-130
4-Bromofluorobenzene	105		70-130
Dibromofluoromethane	99		70-130

Project Name: WW CROSS PROPERTY
Project Number: 141.05051.010

Lab Number: L1926197
Report Date: 07/10/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 06/27/19 19:22
Analyst: AD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by EPA 5035 High - Westborough Lab for sample(s): 05,10-11 Batch: WG1254373-5					
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

Project Name: WW CROSS PROPERTY
Project Number: 141.05051.010

Lab Number: L1926197
Report Date: 07/10/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 06/27/19 19:22
Analyst: AD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by EPA 5035 High - Westborough Lab for sample(s): 05,10-11 Batch: WG1254373-5					
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	11	J	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.
1,2,3-Trichloropropane	ND		ug/kg	100	6.4
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
4-Methyl-2-pentanone	ND		ug/kg	500	64.
2-Hexanone	ND		ug/kg	500	59.
Bromochloromethane	ND		ug/kg	100	10.
Tetrahydrofuran	ND		ug/kg	200	80.
2,2-Dichloropropane	ND		ug/kg	100	10.
1,2-Dibromoethane	ND		ug/kg	50	14.
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
1,3,5-Trichlorobenzene	ND		ug/kg	100	8.6
o-Chlorotoluene	ND		ug/kg	100	9.6

Project Name: WW CROSS PROPERTY
Project Number: 141.05051.010

Lab Number: L1926197
Report Date: 07/10/19

**Method Blank Analysis
Batch Quality Control**

Analytical Method: 1,8260C
Analytical Date: 06/27/19 19:22
Analyst: AD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by EPA 5035 High - Westborough Lab for sample(s): 05,10-11 Batch: WG1254373-5					
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	ND		ug/kg	200	32.
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.
Ethyl ether	ND		ug/kg	100	17.
Isopropyl Ether	ND		ug/kg	100	11.
Tert-Butyl Alcohol	ND		ug/kg	1000	260
Ethyl-Tert-Butyl-Ether	ND		ug/kg	100	6.4
Tertiary-Amyl Methyl Ether	ND		ug/kg	100	8.8
1,4-Dioxane	ND		ug/kg	4000	1800

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	112		70-130
Toluene-d8	106		70-130
4-Bromofluorobenzene	106		70-130
Dibromofluoromethane	99		70-130

Project Name: WW CROSS PROPERTY
Project Number: 141.05051.010

Lab Number: L1926197
Report Date: 07/10/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 06/27/19 19:22
Analyst: AD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 02,04,09,11 Batch: WG1254376-5					
Methylene chloride	ND		ug/kg	5.0	2.3
1,1-Dichloroethane	ND		ug/kg	1.0	0.14
Chloroform	ND		ug/kg	1.5	0.14
Carbon tetrachloride	ND		ug/kg	1.0	0.23
1,2-Dichloropropane	ND		ug/kg	1.0	0.12
Dibromochloromethane	ND		ug/kg	1.0	0.14
1,1,2-Trichloroethane	ND		ug/kg	1.0	0.27
Tetrachloroethene	ND		ug/kg	0.50	0.20
Chlorobenzene	ND		ug/kg	0.50	0.13
Trichlorofluoromethane	ND		ug/kg	4.0	0.70
1,2-Dichloroethane	ND		ug/kg	1.0	0.26
1,1,1-Trichloroethane	ND		ug/kg	0.50	0.17
Bromodichloromethane	ND		ug/kg	0.50	0.11
trans-1,3-Dichloropropene	ND		ug/kg	1.0	0.27
cis-1,3-Dichloropropene	ND		ug/kg	0.50	0.16
1,3-Dichloropropene, Total	ND		ug/kg	0.50	0.16
1,1-Dichloropropene	ND		ug/kg	0.50	0.16
Bromoform	ND		ug/kg	4.0	0.25
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.50	0.17
Benzene	ND		ug/kg	0.50	0.17
Toluene	ND		ug/kg	1.0	0.54
Ethylbenzene	ND		ug/kg	1.0	0.14
Chloromethane	ND		ug/kg	4.0	0.93
Bromomethane	ND		ug/kg	2.0	0.58
Vinyl chloride	ND		ug/kg	1.0	0.34
Chloroethane	ND		ug/kg	2.0	0.45
1,1-Dichloroethene	ND		ug/kg	1.0	0.24
trans-1,2-Dichloroethene	ND		ug/kg	1.5	0.14
Trichloroethene	ND		ug/kg	0.50	0.14

Project Name: WW CROSS PROPERTY
Project Number: 141.05051.010

Lab Number: L1926197
Report Date: 07/10/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 06/27/19 19:22
Analyst: AD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 02,04,09,11 Batch: WG1254376-5					
1,2-Dichlorobenzene	ND		ug/kg	2.0	0.14
1,3-Dichlorobenzene	ND		ug/kg	2.0	0.15
1,4-Dichlorobenzene	ND		ug/kg	2.0	0.17
Methyl tert butyl ether	0.22	J	ug/kg	2.0	0.20
p/m-Xylene	ND		ug/kg	2.0	0.56
o-Xylene	ND		ug/kg	1.0	0.29
Xylenes, Total	ND		ug/kg	1.0	0.29
cis-1,2-Dichloroethene	ND		ug/kg	1.0	0.18
1,2-Dichloroethene, Total	ND		ug/kg	1.0	0.14
Dibromomethane	ND		ug/kg	2.0	0.24
1,2,3-Trichloropropane	ND		ug/kg	2.0	0.13
Styrene	ND		ug/kg	1.0	0.20
Dichlorodifluoromethane	ND		ug/kg	10	0.92
Acetone	ND		ug/kg	10	4.8
Carbon disulfide	ND		ug/kg	10	4.6
2-Butanone	ND		ug/kg	10	2.2
4-Methyl-2-pentanone	ND		ug/kg	10	1.3
2-Hexanone	ND		ug/kg	10	1.2
Bromochloromethane	ND		ug/kg	2.0	0.20
Tetrahydrofuran	ND		ug/kg	4.0	1.6
2,2-Dichloropropane	ND		ug/kg	2.0	0.20
1,2-Dibromoethane	ND		ug/kg	1.0	0.28
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.50	0.13
Bromobenzene	ND		ug/kg	2.0	0.14
n-Butylbenzene	ND		ug/kg	1.0	0.17
sec-Butylbenzene	ND		ug/kg	1.0	0.15
tert-Butylbenzene	ND		ug/kg	2.0	0.12
1,3,5-Trichlorobenzene	ND		ug/kg	2.0	0.17
o-Chlorotoluene	ND		ug/kg	2.0	0.19

Project Name: WW CROSS PROPERTY
Project Number: 141.05051.010

Lab Number: L1926197
Report Date: 07/10/19

**Method Blank Analysis
Batch Quality Control**

Analytical Method: 1,8260C
Analytical Date: 06/27/19 19:22
Analyst: AD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 02,04,09,11 Batch: WG1254376-5					
p-Chlorotoluene	ND		ug/kg	2.0	0.11
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.0	1.0
Hexachlorobutadiene	ND		ug/kg	4.0	0.17
Isopropylbenzene	ND		ug/kg	1.0	0.11
p-Isopropyltoluene	ND		ug/kg	1.0	0.11
Naphthalene	ND		ug/kg	4.0	0.65
n-Propylbenzene	ND		ug/kg	1.0	0.17
1,2,3-Trichlorobenzene	ND		ug/kg	2.0	0.32
1,2,4-Trichlorobenzene	ND		ug/kg	2.0	0.27
1,3,5-Trimethylbenzene	ND		ug/kg	2.0	0.19
1,2,4-Trimethylbenzene	ND		ug/kg	2.0	0.33
Ethyl ether	ND		ug/kg	2.0	0.34
Isopropyl Ether	ND		ug/kg	2.0	0.21
Tert-Butyl Alcohol	ND		ug/kg	20	5.1
Ethyl-Tert-Butyl-Ether	ND		ug/kg	2.0	0.13
Tertiary-Amyl Methyl Ether	ND		ug/kg	2.0	0.18
1,4-Dioxane	ND		ug/kg	80	35.

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	112		70-130
Toluene-d8	106		70-130
4-Bromofluorobenzene	106		70-130
Dibromofluoromethane	99		70-130

Project Name: WW CROSS PROPERTY
Project Number: 141.05051.010

Lab Number: L1926197
Report Date: 07/10/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 06/28/19 07:06
Analyst: MV

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by EPA 5035 Low - Westborough Lab for sample(s): 07 Batch: WG1254417-5					
Methylene chloride	ND		ug/kg	5.0	2.3
1,1-Dichloroethane	ND		ug/kg	1.0	0.14
Chloroform	ND		ug/kg	1.5	0.14
Carbon tetrachloride	ND		ug/kg	1.0	0.23
1,2-Dichloropropane	ND		ug/kg	1.0	0.12
Dibromochloromethane	ND		ug/kg	1.0	0.14
1,1,2-Trichloroethane	ND		ug/kg	1.0	0.27
Tetrachloroethene	ND		ug/kg	0.50	0.20
Chlorobenzene	ND		ug/kg	0.50	0.13
Trichlorofluoromethane	ND		ug/kg	4.0	0.70
1,2-Dichloroethane	ND		ug/kg	1.0	0.26
1,1,1-Trichloroethane	ND		ug/kg	0.50	0.17
Bromodichloromethane	ND		ug/kg	0.50	0.11
trans-1,3-Dichloropropene	ND		ug/kg	1.0	0.27
cis-1,3-Dichloropropene	ND		ug/kg	0.50	0.16
1,3-Dichloropropene, Total	ND		ug/kg	0.50	0.16
1,1-Dichloropropene	ND		ug/kg	0.50	0.16
Bromoform	ND		ug/kg	4.0	0.25
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.50	0.17
Benzene	ND		ug/kg	0.50	0.17
Toluene	ND		ug/kg	1.0	0.54
Ethylbenzene	ND		ug/kg	1.0	0.14
Chloromethane	ND		ug/kg	4.0	0.93
Bromomethane	ND		ug/kg	2.0	0.58
Vinyl chloride	ND		ug/kg	1.0	0.34
Chloroethane	ND		ug/kg	2.0	0.45
1,1-Dichloroethene	ND		ug/kg	1.0	0.24
trans-1,2-Dichloroethene	ND		ug/kg	1.5	0.14
Trichloroethene	ND		ug/kg	0.50	0.14

Project Name: WW CROSS PROPERTY
Project Number: 141.05051.010

Lab Number: L1926197
Report Date: 07/10/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 06/28/19 07:06
Analyst: MV

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by EPA 5035 Low - Westborough Lab for sample(s): 07 Batch: WG1254417-5					
1,2-Dichlorobenzene	ND		ug/kg	2.0	0.14
1,3-Dichlorobenzene	ND		ug/kg	2.0	0.15
1,4-Dichlorobenzene	ND		ug/kg	2.0	0.17
Methyl tert butyl ether	0.22	J	ug/kg	2.0	0.20
p/m-Xylene	ND		ug/kg	2.0	0.56
o-Xylene	ND		ug/kg	1.0	0.29
Xylenes, Total	ND		ug/kg	1.0	0.29
cis-1,2-Dichloroethene	ND		ug/kg	1.0	0.18
1,2-Dichloroethene, Total	ND		ug/kg	1.0	0.14
Dibromomethane	ND		ug/kg	2.0	0.24
1,2,3-Trichloropropane	ND		ug/kg	2.0	0.13
Styrene	ND		ug/kg	1.0	0.20
Dichlorodifluoromethane	ND		ug/kg	10	0.92
Acetone	ND		ug/kg	10	4.8
Carbon disulfide	ND		ug/kg	10	4.6
2-Butanone	ND		ug/kg	10	2.2
4-Methyl-2-pentanone	ND		ug/kg	10	1.3
2-Hexanone	ND		ug/kg	10	1.2
Bromochloromethane	ND		ug/kg	2.0	0.20
Tetrahydrofuran	ND		ug/kg	4.0	1.6
2,2-Dichloropropane	ND		ug/kg	2.0	0.20
1,2-Dibromoethane	ND		ug/kg	1.0	0.28
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.50	0.13
Bromobenzene	ND		ug/kg	2.0	0.14
n-Butylbenzene	ND		ug/kg	1.0	0.17
sec-Butylbenzene	ND		ug/kg	1.0	0.15
tert-Butylbenzene	ND		ug/kg	2.0	0.12
1,3,5-Trichlorobenzene	ND		ug/kg	2.0	0.17
o-Chlorotoluene	ND		ug/kg	2.0	0.19

Project Name: WW CROSS PROPERTY
Project Number: 141.05051.010

Lab Number: L1926197
Report Date: 07/10/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 06/28/19 07:06
Analyst: MV

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by EPA 5035 Low - Westborough Lab for sample(s): 07 Batch: WG1254417-5					
p-Chlorotoluene	ND		ug/kg	2.0	0.11
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.0	1.0
Hexachlorobutadiene	ND		ug/kg	4.0	0.17
Isopropylbenzene	ND		ug/kg	1.0	0.11
p-Isopropyltoluene	ND		ug/kg	1.0	0.11
Naphthalene	ND		ug/kg	4.0	0.65
n-Propylbenzene	ND		ug/kg	1.0	0.17
1,2,3-Trichlorobenzene	ND		ug/kg	2.0	0.32
1,2,4-Trichlorobenzene	ND		ug/kg	2.0	0.27
1,3,5-Trimethylbenzene	ND		ug/kg	2.0	0.19
1,2,4-Trimethylbenzene	ND		ug/kg	2.0	0.33
Ethyl ether	ND		ug/kg	2.0	0.34
Isopropyl Ether	ND		ug/kg	2.0	0.21
Tert-Butyl Alcohol	ND		ug/kg	20	5.1
Ethyl-Tert-Butyl-Ether	ND		ug/kg	2.0	0.13
Tertiary-Amyl Methyl Ether	ND		ug/kg	2.0	0.18
1,4-Dioxane	ND		ug/kg	80	35.

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	110		70-130
Toluene-d8	103		70-130
4-Bromofluorobenzene	106		70-130
Dibromofluoromethane	99		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: WW CROSS PROPERTY

Lab Number: L1926197

Project Number: 141.05051.010

Report Date: 07/10/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by EPA 5035 High - Westborough Lab Associated sample(s): 05,10-11 Batch: WG1254373-3 WG1254373-4								
Methylene chloride	111		111		70-130	0		30
1,1-Dichloroethane	121		122		70-130	1		30
Chloroform	115		111		70-130	4		30
Carbon tetrachloride	99		99		70-130	0		30
1,2-Dichloropropane	117		118		70-130	1		30
Dibromochloromethane	104		106		70-130	2		30
1,1,2-Trichloroethane	113		117		70-130	3		30
Tetrachloroethene	101		101		70-130	0		30
Chlorobenzene	106		106		70-130	0		30
Trichlorofluoromethane	85		84		70-139	1		30
1,2-Dichloroethane	115		118		70-130	3		30
1,1,1-Trichloroethane	109		110		70-130	1		30
Bromodichloromethane	108		110		70-130	2		30
trans-1,3-Dichloropropene	116		118		70-130	2		30
cis-1,3-Dichloropropene	108		110		70-130	2		30
1,1-Dichloropropene	112		112		70-130	0		30
Bromoform	98		102		70-130	4		30
1,1,2,2-Tetrachloroethane	116		120		70-130	3		30
Benzene	110		110		70-130	0		30
Toluene	111		111		70-130	0		30
Ethylbenzene	112		110		70-130	2		30
Chloromethane	148	Q	138	Q	52-130	7		30
Bromomethane	90		86		57-147	5		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: WW CROSS PROPERTY

Lab Number: L1926197

Project Number: 141.05051.010

Report Date: 07/10/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by EPA 5035 High - Westborough Lab Associated sample(s): 05,10-11 Batch: WG1254373-3 WG1254373-4								
Vinyl chloride	120		117		67-130	3		30
Chloroethane	107		104		50-151	3		30
1,1-Dichloroethene	113		110		65-135	3		30
trans-1,2-Dichloroethene	110		107		70-130	3		30
Trichloroethene	106		106		70-130	0		30
1,2-Dichlorobenzene	104		103		70-130	1		30
1,3-Dichlorobenzene	106		103		70-130	3		30
1,4-Dichlorobenzene	104		103		70-130	1		30
Methyl tert butyl ether	107		111		66-130	4		30
p/m-Xylene	108		105		70-130	3		30
o-Xylene	106		105		70-130	1		30
cis-1,2-Dichloroethene	106		106		70-130	0		30
Dibromomethane	103		106		70-130	3		30
1,2,3-Trichloropropane	117		120		68-130	3		30
Styrene	106		105		70-130	1		30
Dichlorodifluoromethane	108		104		30-146	4		30
Acetone	145	Q	153	Q	54-140	5		30
Carbon disulfide	111		108		59-130	3		30
2-Butanone	130		135	Q	70-130	4		30
4-Methyl-2-pentanone	115		124		70-130	8		30
2-Hexanone	119		132	Q	70-130	10		30
Bromochloromethane	101		103		70-130	2		30
Tetrahydrofuran	125		134	Q	66-130	7		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: WW CROSS PROPERTY

Lab Number: L1926197

Project Number: 141.05051.010

Report Date: 07/10/19

Parameter	LCS		LCSD		%Recovery		RPD	
	%Recovery	Qual	%Recovery	Qual	Limits	RPD	Qual	Limits
Volatile Organics by EPA 5035 High - Westborough Lab Associated sample(s): 05,10-11 Batch: WG1254373-3 WG1254373-4								
2,2-Dichloropropane	115		114		70-130	1		30
1,2-Dibromoethane	103		106		70-130	3		30
1,1,1,2-Tetrachloroethane	106		106		70-130	0		30
Bromobenzene	103		102		70-130	1		30
n-Butylbenzene	118		116		70-130	2		30
sec-Butylbenzene	114		113		70-130	1		30
tert-Butylbenzene	109		107		70-130	2		30
1,3,5-Trichlorobenzene	100		98		70-139	2		30
o-Chlorotoluene	116		115		70-130	1		30
p-Chlorotoluene	114		112		70-130	2		30
1,2-Dibromo-3-chloropropane	93		94		68-130	1		30
Hexachlorobutadiene	101		100		67-130	1		30
Isopropylbenzene	112		109		70-130	3		30
p-Isopropyltoluene	110		108		70-130	2		30
Naphthalene	100		102		70-130	2		30
n-Propylbenzene	118		115		70-130	3		30
1,2,3-Trichlorobenzene	100		100		70-130	0		30
1,2,4-Trichlorobenzene	99		96		70-130	3		30
1,3,5-Trimethylbenzene	111		110		70-130	1		30
1,2,4-Trimethylbenzene	111		110		70-130	1		30
Ethyl ether	96		98		67-130	2		30
Isopropyl Ether	130		132	Q	66-130	2		30
Tert-Butyl Alcohol	127		130		70-130	2		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: WW CROSS PROPERTY

Project Number: 141.05051.010

Lab Number: L1926197

Report Date: 07/10/19

Parameter	LCS		LCSD		%Recovery Limits	RPD	RPD	
	%Recovery	Qual	%Recovery	Qual			Qual	Limits
Volatile Organics by EPA 5035 High - Westborough Lab Associated sample(s): 05,10-11 Batch: WG1254373-3 WG1254373-4								
Ethyl-Tert-Butyl-Ether	117		119		70-130	2		30
Tertiary-Amyl Methyl Ether	107		110		70-130	3		30
1,4-Dioxane	117		106		65-136	10		30

Surrogate	LCS		LCSD		Acceptance Criteria
	%Recovery	Qual	%Recovery	Qual	
1,2-Dichloroethane-d4	110		113		70-130
Toluene-d8	106		105		70-130
4-Bromofluorobenzene	107		105		70-130
Dibromofluoromethane	100		99		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: WW CROSS PROPERTY

Lab Number: L1926197

Project Number: 141.05051.010

Report Date: 07/10/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 02,04,09,11 Batch: WG1254376-3 WG1254376-4								
Methylene chloride	111		111		70-130	0		30
1,1-Dichloroethane	121		122		70-130	1		30
Chloroform	115		111		70-130	4		30
Carbon tetrachloride	99		99		70-130	0		30
1,2-Dichloropropane	117		118		70-130	1		30
Dibromochloromethane	104		106		70-130	2		30
1,1,2-Trichloroethane	113		117		70-130	3		30
Tetrachloroethene	101		101		70-130	0		30
Chlorobenzene	106		106		70-130	0		30
Trichlorofluoromethane	85		84		70-139	1		30
1,2-Dichloroethane	115		118		70-130	3		30
1,1,1-Trichloroethane	109		110		70-130	1		30
Bromodichloromethane	108		110		70-130	2		30
trans-1,3-Dichloropropene	116		118		70-130	2		30
cis-1,3-Dichloropropene	108		110		70-130	2		30
1,1-Dichloropropene	112		112		70-130	0		30
Bromoform	98		102		70-130	4		30
1,1,2,2-Tetrachloroethane	116		120		70-130	3		30
Benzene	110		110		70-130	0		30
Toluene	111		111		70-130	0		30
Ethylbenzene	112		110		70-130	2		30
Chloromethane	148	Q	138	Q	52-130	7		30
Bromomethane	90		86		57-147	5		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: WW CROSS PROPERTY

Lab Number: L1926197

Project Number: 141.05051.010

Report Date: 07/10/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 02,04,09,11 Batch: WG1254376-3 WG1254376-4								
Vinyl chloride	120		117		67-130	3		30
Chloroethane	107		104		50-151	3		30
1,1-Dichloroethene	113		110		65-135	3		30
trans-1,2-Dichloroethene	110		107		70-130	3		30
Trichloroethene	106		106		70-130	0		30
1,2-Dichlorobenzene	104		103		70-130	1		30
1,3-Dichlorobenzene	106		103		70-130	3		30
1,4-Dichlorobenzene	104		103		70-130	1		30
Methyl tert butyl ether	107		111		66-130	4		30
p/m-Xylene	108		105		70-130	3		30
o-Xylene	106		105		70-130	1		30
cis-1,2-Dichloroethene	106		106		70-130	0		30
Dibromomethane	103		106		70-130	3		30
1,2,3-Trichloropropane	117		120		68-130	3		30
Styrene	106		105		70-130	1		30
Dichlorodifluoromethane	108		104		30-146	4		30
Acetone	145	Q	153	Q	54-140	5		30
Carbon disulfide	111		108		59-130	3		30
2-Butanone	130		135	Q	70-130	4		30
4-Methyl-2-pentanone	115		124		70-130	8		30
2-Hexanone	119		132	Q	70-130	10		30
Bromochloromethane	101		103		70-130	2		30
Tetrahydrofuran	125		134	Q	66-130	7		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: WW CROSS PROPERTY

Lab Number: L1926197

Project Number: 141.05051.010

Report Date: 07/10/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 02,04,09,11 Batch: WG1254376-3 WG1254376-4								
2,2-Dichloropropane	115		114		70-130	1		30
1,2-Dibromoethane	103		106		70-130	3		30
1,1,1,2-Tetrachloroethane	106		106		70-130	0		30
Bromobenzene	103		102		70-130	1		30
n-Butylbenzene	118		116		70-130	2		30
sec-Butylbenzene	114		113		70-130	1		30
tert-Butylbenzene	109		107		70-130	2		30
1,3,5-Trichlorobenzene	100		98		70-139	2		30
o-Chlorotoluene	116		115		70-130	1		30
p-Chlorotoluene	114		112		70-130	2		30
1,2-Dibromo-3-chloropropane	93		94		68-130	1		30
Hexachlorobutadiene	101		100		67-130	1		30
Isopropylbenzene	112		109		70-130	3		30
p-Isopropyltoluene	110		108		70-130	2		30
Naphthalene	100		102		70-130	2		30
n-Propylbenzene	118		115		70-130	3		30
1,2,3-Trichlorobenzene	100		100		70-130	0		30
1,2,4-Trichlorobenzene	99		96		70-130	3		30
1,3,5-Trimethylbenzene	111		110		70-130	1		30
1,2,4-Trimethylbenzene	111		110		70-130	1		30
Ethyl ether	96		98		67-130	2		30
Isopropyl Ether	130		132	Q	66-130	2		30
Tert-Butyl Alcohol	127		130		70-130	2		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: WW CROSS PROPERTY

Project Number: 141.05051.010

Lab Number: L1926197

Report Date: 07/10/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 02,04,09,11 Batch: WG1254376-3 WG1254376-4								
Ethyl-Tert-Butyl-Ether	117		119		70-130	2		30
Tertiary-Amyl Methyl Ether	107		110		70-130	3		30
1,4-Dioxane	117		106		65-136	10		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	110		113		70-130
Toluene-d8	106		105		70-130
4-Bromofluorobenzene	107		105		70-130
Dibromofluoromethane	100		99		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: WW CROSS PROPERTY

Lab Number: L1926197

Project Number: 141.05051.010

Report Date: 07/10/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 07 Batch: WG1254417-3 WG1254417-4								
Methylene chloride	105		99		70-130	6		30
1,1-Dichloroethane	115		107		70-130	7		30
Chloroform	110		102		70-130	8		30
Carbon tetrachloride	97		92		70-130	5		30
1,2-Dichloropropane	111		104		70-130	7		30
Dibromochloromethane	100		96		70-130	4		30
1,1,2-Trichloroethane	107		105		70-130	2		30
Tetrachloroethene	102		96		70-130	6		30
Chlorobenzene	102		96		70-130	6		30
Trichlorofluoromethane	89		83		70-139	7		30
1,2-Dichloroethane	107		102		70-130	5		30
1,1,1-Trichloroethane	107		99		70-130	8		30
Bromodichloromethane	101		98		70-130	3		30
trans-1,3-Dichloropropene	111		106		70-130	5		30
cis-1,3-Dichloropropene	104		98		70-130	6		30
1,1-Dichloropropene	111		100		70-130	10		30
Bromoform	95		92		70-130	3		30
1,1,1,2,2-Tetrachloroethane	110		106		70-130	4		30
Benzene	105		98		70-130	7		30
Toluene	107		101		70-130	6		30
Ethylbenzene	108		101		70-130	7		30
Chloromethane	133	Q	120		52-130	10		30
Bromomethane	81		79		57-147	3		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: WW CROSS PROPERTY

Lab Number: L1926197

Project Number: 141.05051.010

Report Date: 07/10/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 07 Batch: WG1254417-3 WG1254417-4								
Vinyl chloride	113		104		67-130	8		30
Chloroethane	103		98		50-151	5		30
1,1-Dichloroethene	111		104		65-135	7		30
trans-1,2-Dichloroethene	106		100		70-130	6		30
Trichloroethene	102		95		70-130	7		30
1,2-Dichlorobenzene	99		94		70-130	5		30
1,3-Dichlorobenzene	101		95		70-130	6		30
1,4-Dichlorobenzene	100		94		70-130	6		30
Methyl tert butyl ether	104		99		66-130	5		30
p/m-Xylene	103		96		70-130	7		30
o-Xylene	102		95		70-130	7		30
cis-1,2-Dichloroethene	102		97		70-130	5		30
Dibromomethane	97		93		70-130	4		30
1,2,3-Trichloropropane	108		105		68-130	3		30
Styrene	100		95		70-130	5		30
Dichlorodifluoromethane	107		96		30-146	11		30
Acetone	119		110		54-140	8		30
Carbon disulfide	108		99		59-130	9		30
2-Butanone	114		112		70-130	2		30
4-Methyl-2-pentanone	110		106		70-130	4		30
2-Hexanone	114		108		70-130	5		30
Bromochloromethane	97		94		70-130	3		30
Tetrahydrofuran	114		116		66-130	2		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: WW CROSS PROPERTY

Lab Number: L1926197

Project Number: 141.05051.010

Report Date: 07/10/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 07 Batch: WG1254417-3 WG1254417-4								
2,2-Dichloropropane	113		102		70-130	10		30
1,2-Dibromoethane	100		98		70-130	2		30
1,1,1,2-Tetrachloroethane	103		96		70-130	7		30
Bromobenzene	101		96		70-130	5		30
n-Butylbenzene	114		106		70-130	7		30
sec-Butylbenzene	111		105		70-130	6		30
tert-Butylbenzene	106		100		70-130	6		30
1,3,5-Trichlorobenzene	98		91		70-139	7		30
o-Chlorotoluene	110		103		70-130	7		30
p-Chlorotoluene	109		102		70-130	7		30
1,2-Dibromo-3-chloropropane	84		83		68-130	1		30
Hexachlorobutadiene	101		93		67-130	8		30
Isopropylbenzene	109		102		70-130	7		30
p-Isopropyltoluene	106		100		70-130	6		30
Naphthalene	97		94		70-130	3		30
n-Propylbenzene	114		106		70-130	7		30
1,2,3-Trichlorobenzene	96		91		70-130	5		30
1,2,4-Trichlorobenzene	95		90		70-130	5		30
1,3,5-Trimethylbenzene	108		102		70-130	6		30
1,2,4-Trimethylbenzene	107		101		70-130	6		30
Ethyl ether	91		92		67-130	1		30
Isopropyl Ether	123		115		66-130	7		30
Tert-Butyl Alcohol	111		112		70-130	1		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: WW CROSS PROPERTY

Project Number: 141.05051.010

Lab Number: L1926197

Report Date: 07/10/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 07 Batch: WG1254417-3 WG1254417-4								
Ethyl-Tert-Butyl-Ether	112		106		70-130	6		30
Tertiary-Amyl Methyl Ether	104		99		70-130	5		30
1,4-Dioxane	91		93		65-136	2		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	106		105		70-130
Toluene-d8	106		105		70-130
4-Bromofluorobenzene	107		106		70-130
Dibromofluoromethane	97		98		70-130

SEMIVOLATILES

Project Name: WW CROSS PROPERTY
Project Number: 141.05051.010

Lab Number: L1926197
Report Date: 07/10/19

SAMPLE RESULTS

Lab ID: L1926197-02
 Client ID: B108-S3
 Sample Location: JAFFREY, NH

Date Collected: 06/17/19 08:20
 Date Received: 06/18/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8270D
 Analytical Date: 07/04/19 09:09
 Analyst: JG
 Percent Solids: 85%

Extraction Method: EPA 3546
 Extraction Date: 06/30/19 09:24

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	150	20.	1
2-Chloronaphthalene	ND		ug/kg	190	19.	1
Fluoranthene	420		ug/kg	110	22.	1
Naphthalene	ND		ug/kg	190	23.	1
Benzo(a)anthracene	240		ug/kg	110	21.	1
Benzo(a)pyrene	410		ug/kg	150	46.	1
Benzo(b)fluoranthene	550		ug/kg	110	32.	1
Benzo(k)fluoranthene	240		ug/kg	110	30.	1
Chrysene	280		ug/kg	110	20.	1
Acenaphthylene	470		ug/kg	150	29.	1
Anthracene	120		ug/kg	110	37.	1
Benzo(ghi)perylene	370		ug/kg	150	22.	1
Fluorene	28	J	ug/kg	190	18.	1
Phenanthrene	120		ug/kg	110	23.	1
Dibenzo(a,h)anthracene	61	J	ug/kg	110	22.	1
Indeno(1,2,3-cd)pyrene	380		ug/kg	150	26.	1
Pyrene	420		ug/kg	110	19.	1
1-Methylnaphthalene	ND		ug/kg	190	22.	1
2-Methylnaphthalene	ND		ug/kg	230	23.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	72		23-120
2-Fluorobiphenyl	67		30-120
4-Terphenyl-d14	46		18-120

Project Name: WW CROSS PROPERTY
Project Number: 141.05051.010

Lab Number: L1926197
Report Date: 07/10/19

SAMPLE RESULTS

Lab ID: L1926197-04
 Client ID: B109-S4
 Sample Location: JAFFREY, NH

Date Collected: 06/17/19 11:00
 Date Received: 06/18/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8270D
 Analytical Date: 07/05/19 16:54
 Analyst: CB
 Percent Solids: 80%

Extraction Method: EPA 3546
 Extraction Date: 06/30/19 09:24

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	140	J	ug/kg	160	21.	1
2-Chloronaphthalene	ND		ug/kg	210	20.	1
Fluoranthene	2700		ug/kg	120	24.	1
Naphthalene	380		ug/kg	210	25.	1
Benzo(a)anthracene	1200		ug/kg	120	23.	1
Benzo(a)pyrene	880		ug/kg	160	50.	1
Benzo(b)fluoranthene	1300		ug/kg	120	35.	1
Benzo(k)fluoranthene	380		ug/kg	120	33.	1
Chrysene	1000		ug/kg	120	21.	1
Acenaphthylene	480		ug/kg	160	32.	1
Anthracene	550		ug/kg	120	40.	1
Benzo(ghi)perylene	590		ug/kg	160	24.	1
Fluorene	490		ug/kg	210	20.	1
Phenanthrene	3500		ug/kg	120	25.	1
Dibenzo(a,h)anthracene	150		ug/kg	120	24.	1
Indeno(1,2,3-cd)pyrene	610		ug/kg	160	29.	1
Pyrene	2100		ug/kg	120	20.	1
1-Methylnaphthalene	390		ug/kg	210	24.	1
2-Methylnaphthalene	410		ug/kg	250	25.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	55		23-120
2-Fluorobiphenyl	70		30-120
4-Terphenyl-d14	46		18-120

Project Name: WW CROSS PROPERTY
Project Number: 141.05051.010

Lab Number: L1926197
Report Date: 07/10/19

SAMPLE RESULTS

Lab ID: L1926197-05
 Client ID: B110-S3
 Sample Location: JAFFREY, NH

Date Collected: 06/17/19 10:05
 Date Received: 06/18/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8270D
 Analytical Date: 07/05/19 17:19
 Analyst: CB
 Percent Solids: 84%

Extraction Method: EPA 3546
 Extraction Date: 06/30/19 09:24

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	330		ug/kg	160	20.	1
2-Chloronaphthalene	ND		ug/kg	200	20.	1
Fluoranthene	4400		ug/kg	120	23.	1
Naphthalene	3700		ug/kg	200	24.	1
Benzo(a)anthracene	1600		ug/kg	120	22.	1
Benzo(a)pyrene	1400		ug/kg	160	48.	1
Benzo(b)fluoranthene	1800		ug/kg	120	33.	1
Benzo(k)fluoranthene	520		ug/kg	120	32.	1
Chrysene	1500		ug/kg	120	20.	1
Acenaphthylene	1500		ug/kg	160	30.	1
Anthracene	1600		ug/kg	120	38.	1
Benzo(ghi)perylene	850		ug/kg	160	23.	1
Fluorene	1800		ug/kg	200	19.	1
Phenanthrene	6600		ug/kg	120	24.	1
Dibenzo(a,h)anthracene	190		ug/kg	120	23.	1
Indeno(1,2,3-cd)pyrene	900		ug/kg	160	28.	1
Pyrene	3500		ug/kg	120	20.	1
1-Methylnaphthalene	1200		ug/kg	200	23.	1
2-Methylnaphthalene	1600		ug/kg	240	24.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	68		23-120
2-Fluorobiphenyl	84		30-120
4-Terphenyl-d14	69		18-120

Project Name: WW CROSS PROPERTY
Project Number: 141.05051.010

Lab Number: L1926197
Report Date: 07/10/19

SAMPLE RESULTS

Lab ID: L1926197-07
 Client ID: B114-S3
 Sample Location: JAFFREY, NH

Date Collected: 06/17/19 13:30
 Date Received: 06/18/19
 Field Prep: Not Specified

Sample Depth:
 Matrix: Soil
 Analytical Method: 1,8270D
 Analytical Date: 07/05/19 17:43
 Analyst: CB
 Percent Solids: 82%

Extraction Method: EPA 3546
 Extraction Date: 06/30/19 09:24

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	160	21.	1
2-Chloronaphthalene	ND		ug/kg	200	20.	1
Fluoranthene	32	J	ug/kg	120	23.	1
Naphthalene	ND		ug/kg	200	24.	1
Benzo(a)anthracene	ND		ug/kg	120	22.	1
Benzo(a)pyrene	ND		ug/kg	160	49.	1
Benzo(b)fluoranthene	ND		ug/kg	120	34.	1
Benzo(k)fluoranthene	ND		ug/kg	120	32.	1
Chrysene	ND		ug/kg	120	21.	1
Acenaphthylene	ND		ug/kg	160	31.	1
Anthracene	ND		ug/kg	120	39.	1
Benzo(ghi)perylene	ND		ug/kg	160	23.	1
Fluorene	ND		ug/kg	200	19.	1
Phenanthrene	32	J	ug/kg	120	24.	1
Dibenzo(a,h)anthracene	ND		ug/kg	120	23.	1
Indeno(1,2,3-cd)pyrene	ND		ug/kg	160	28.	1
Pyrene	26	J	ug/kg	120	20.	1
1-Methylnaphthalene	ND		ug/kg	200	23.	1
2-Methylnaphthalene	ND		ug/kg	240	24.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	49		23-120
2-Fluorobiphenyl	68		30-120
4-Terphenyl-d14	74		18-120

Project Name: WW CROSS PROPERTY
Project Number: 141.05051.010

Lab Number: L1926197
Report Date: 07/10/19

SAMPLE RESULTS

Lab ID: L1926197-09
 Client ID: B115-S3
 Sample Location: JAFFREY, NH

Date Collected: 06/17/19 12:50
 Date Received: 06/18/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8270D
 Analytical Date: 07/05/19 18:07
 Analyst: CB
 Percent Solids: 66%

Extraction Method: EPA 3546
 Extraction Date: 06/30/19 09:24

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	57	J	ug/kg	200	25.	1
2-Chloronaphthalene	ND		ug/kg	240	24.	1
Fluoranthene	1400		ug/kg	150	28.	1
Naphthalene	100	J	ug/kg	240	30.	1
Benzo(a)anthracene	600		ug/kg	150	28.	1
Benzo(a)pyrene	460		ug/kg	200	60.	1
Benzo(b)fluoranthene	610		ug/kg	150	41.	1
Benzo(k)fluoranthene	220		ug/kg	150	39.	1
Chrysene	560		ug/kg	150	25.	1
Acenaphthylene	240		ug/kg	200	38.	1
Anthracene	290		ug/kg	150	48.	1
Benzo(ghi)perylene	290		ug/kg	200	29.	1
Fluorene	230	J	ug/kg	240	24.	1
Phenanthrene	1600		ug/kg	150	30.	1
Dibenzo(a,h)anthracene	73	J	ug/kg	150	28.	1
Indeno(1,2,3-cd)pyrene	310		ug/kg	200	34.	1
Pyrene	1200		ug/kg	150	24.	1
1-Methylnaphthalene	100	J	ug/kg	240	28.	1
2-Methylnaphthalene	82	J	ug/kg	290	30.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	75		23-120
2-Fluorobiphenyl	78		30-120
4-Terphenyl-d14	49		18-120

Project Name: WW CROSS PROPERTY
Project Number: 141.05051.010

Lab Number: L1926197
Report Date: 07/10/19

SAMPLE RESULTS

Lab ID: L1926197-10 D
 Client ID: B111-0.5'
 Sample Location: JAFFREY, NH

Date Collected: 06/17/19 09:45
 Date Received: 06/18/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8270D
 Analytical Date: 07/10/19 00:37
 Analyst: EK
 Percent Solids: 97%

Extraction Method: EPA 3546
 Extraction Date: 06/30/19 09:24

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	45000		ug/kg	41000	5300	100
2-Chloronaphthalene	ND		ug/kg	52000	5100	100
Fluoranthene	550000		ug/kg	31000	5900	100
Naphthalene	610000		ug/kg	52000	6300	100
Benzo(a)anthracene	170000		ug/kg	31000	5800	100
Benzo(a)pyrene	160000		ug/kg	41000	12000	100
Benzo(b)fluoranthene	170000		ug/kg	31000	8700	100
Benzo(k)fluoranthene	62000		ug/kg	31000	8200	100
Chrysene	140000		ug/kg	31000	5400	100
Acenaphthylene	190000		ug/kg	41000	8000	100
Anthracene	180000		ug/kg	31000	10000	100
Benzo(ghi)perylene	76000		ug/kg	41000	6000	100
Fluorene	230000		ug/kg	52000	5000	100
Phenanthrene	770000		ug/kg	31000	6300	100
Dibenzo(a,h)anthracene	16000	J	ug/kg	31000	6000	100
Indeno(1,2,3-cd)pyrene	88000		ug/kg	41000	7200	100
Pyrene	450000		ug/kg	31000	5100	100
1-Methylnaphthalene	210000		ug/kg	52000	6000	100
2-Methylnaphthalene	290000		ug/kg	62000	6200	100

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	0	Q	23-120
2-Fluorobiphenyl	0	Q	30-120
4-Terphenyl-d14	0	Q	18-120

Project Name: WW CROSS PROPERTY
Project Number: 141.05051.010

Lab Number: L1926197
Report Date: 07/10/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 07/03/19 20:51
Analyst: SZ

Extraction Method: EPA 3546
Extraction Date: 06/30/19 09:24

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 02,04-05,07,09-10 Batch: WG1254970-1					
Acenaphthene	ND		ug/kg	130	17.
2-Chloronaphthalene	ND		ug/kg	160	16.
Fluoranthene	ND		ug/kg	97	18.
Naphthalene	ND		ug/kg	160	20.
Benzo(a)anthracene	ND		ug/kg	97	18.
Benzo(a)pyrene	ND		ug/kg	130	39.
Benzo(b)fluoranthene	ND		ug/kg	97	27.
Benzo(k)fluoranthene	ND		ug/kg	97	26.
Chrysene	ND		ug/kg	97	17.
Acenaphthylene	ND		ug/kg	130	25.
Anthracene	ND		ug/kg	97	32.
Benzo(ghi)perylene	ND		ug/kg	130	19.
Fluorene	ND		ug/kg	160	16.
Phenanthrene	ND		ug/kg	97	20.
Dibenzo(a,h)anthracene	ND		ug/kg	97	19.
Indeno(1,2,3-cd)pyrene	ND		ug/kg	130	22.
Pyrene	ND		ug/kg	97	16.
1-Methylnaphthalene	ND		ug/kg	160	19.
2-Methylnaphthalene	ND		ug/kg	190	20.

Surrogate	%Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	74		23-120
2-Fluorobiphenyl	77		30-120
4-Terphenyl-d14	80		18-120

Lab Control Sample Analysis

Batch Quality Control

Project Name: WW CROSS PROPERTY

Lab Number: L1926197

Project Number: 141.05051.010

Report Date: 07/10/19

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 02,04-05,07,09-10 Batch: WG1254970-2 WG1254970-3								
Acenaphthene	83		87		31-137	5		50
2-Chloronaphthalene	85		88		40-140	3		50
Fluoranthene	91		95		40-140	4		50
Naphthalene	79		81		40-140	3		50
Benzo(a)anthracene	92		96		40-140	4		50
Benzo(a)pyrene	90		96		40-140	6		50
Benzo(b)fluoranthene	91		98		40-140	7		50
Benzo(k)fluoranthene	91		91		40-140	0		50
Chrysene	85		89		40-140	5		50
Acenaphthylene	90		92		40-140	2		50
Anthracene	88		92		40-140	4		50
Benzo(ghi)perylene	90		92		40-140	2		50
Fluorene	87		90		40-140	3		50
Phenanthrene	85		90		40-140	6		50
Dibenzo(a,h)anthracene	99		102		40-140	3		50
Indeno(1,2,3-cd)pyrene	84		85		40-140	1		50
Pyrene	90		95		35-142	5		50
1-Methylnaphthalene	86		86		26-130	0		50
2-Methylnaphthalene	84		86		40-140	2		50

Lab Control Sample Analysis

Batch Quality Control

Project Name: WW CROSS PROPERTY
Project Number: 141.05051.010

Lab Number: L1926197
Report Date: 07/10/19

Parameter	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>%Recovery</i> Limits	<i>RPD</i>	<i>Qual</i>	<i>RPD</i> Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 02,04-05,07,09-10 Batch: WG1254970-2 WG1254970-3								

<i>Surrogate</i>	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>Acceptance</i> Criteria
Nitrobenzene-d5	86		88		23-120
2-Fluorobiphenyl	87		88		30-120
4-Terphenyl-d14	90		92		18-120

PETROLEUM HYDROCARBONS

Project Name: WW CROSS PROPERTY
Project Number: 141.05051.010

Lab Number: L1926197
Report Date: 07/10/19

SAMPLE RESULTS

Lab ID: L1926197-07
 Client ID: B114-S3
 Sample Location: JAFFREY, NH

Date Collected: 06/17/19 13:30
 Date Received: 06/18/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8015D(M)
 Analytical Date: 07/01/19 04:32
 Analyst: MEO
 Percent Solids: 82%

Extraction Method: EPA 3546
 Extraction Date: 06/30/19 10:35

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Petroleum Hydrocarbon Quantitation - Westborough Lab						
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TPH	44300		ug/kg	39100	4490	1
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Surrogate	% Recovery	Qualifier	Acceptance Criteria
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o-Terphenyl	54		40-140
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Project Name: WW CROSS PROPERTY
Project Number: 141.05051.010

Lab Number: L1926197
Report Date: 07/10/19

SAMPLE RESULTS

Lab ID: L1926197-09
 Client ID: B115-S3
 Sample Location: JAFFREY, NH

Date Collected: 06/17/19 12:50
 Date Received: 06/18/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8015D(M)
 Analytical Date: 07/01/19 05:04
 Analyst: MEO
 Percent Solids: 66%

Extraction Method: EPA 3546
 Extraction Date: 06/30/19 10:35

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Petroleum Hydrocarbon Quantitation - Westborough Lab						
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TPH	190000		ug/kg	49200	5660	1
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Surrogate	% Recovery	Qualifier	Acceptance Criteria
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o-Terphenyl	94		40-140
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Project Name: WW CROSS PROPERTY
Project Number: 141.05051.010

Lab Number: L1926197
Report Date: 07/10/19

SAMPLE RESULTS

Lab ID: L1926197-10
 Client ID: B111-0.5'
 Sample Location: JAFFREY, NH

Date Collected: 06/17/19 09:45
 Date Received: 06/18/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8015D(M)
 Analytical Date: 07/02/19 23:19
 Analyst: WR
 Percent Solids: 97%

Extraction Method: ALPHA OP-013
 Extraction Date: 07/01/19 11:59

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Petroleum Hydrocarbon Identification by GC-FID - Mansfield Lab						
Total Petroleum Hydrocarbons (C9-C44)	47200		mg/kg	582	291.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
o-Terphenyl	102		50-130
d50-Tetracosane	118		50-130

Project Name: WW CROSS PROPERTY
Project Number: 141.05051.010

Lab Number: L1926197
Report Date: 07/10/19

SAMPLE RESULTS

Lab ID: L1926197-10 D
 Client ID: B111-0.5'
 Sample Location: JAFFREY, NH

Date Collected: 06/17/19 09:45
 Date Received: 06/18/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8015D(M)
 Analytical Date: 07/01/19 06:10
 Analyst: MEO
 Percent Solids: 97%

Extraction Method: EPA 3546
 Extraction Date: 06/30/19 10:35

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Petroleum Hydrocarbon Quantitation - Westborough Lab						
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TPH	21500000		ug/kg	1010000	116000	10
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Surrogate	% Recovery	Qualifier	Acceptance Criteria
o-Terphenyl	65		40-140

Project Name: WW CROSS PROPERTY
Project Number: 141.05051.010

Lab Number: L1926197
Report Date: 07/10/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8015D(M)
Analytical Date: 06/30/19 19:29
Analyst: MEO

Extraction Method: EPA 3546
Extraction Date: 06/29/19 20:01

Parameter	Result	Qualifier	Units	RL	MDL
Petroleum Hydrocarbon Quantitation - Westborough Lab for sample(s): 07,09-10 Batch: WG1254914-1					
TPH	ND		ug/kg	31900	3670

Surrogate	%Recovery	Qualifier	Acceptance Criteria
o-Terphenyl	88		40-140

Project Name: WW CROSS PROPERTY
Project Number: 141.05051.010

Lab Number: L1926197
Report Date: 07/10/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8015D(M)
Analytical Date: 07/02/19 17:26
Analyst: WR

Extraction Method: ALPHA OP-013
Extraction Date: 07/01/19 11:59

Parameter	Result	Qualifier	Units	RL	MDL
Petroleum Hydrocarbon Identification by GC-FID - Mansfield Lab for sample(s): 10 Batch: WG1255235-1					
Total Petroleum Hydrocarbons (C9-C44)	ND		mg/kg	2.20	1.10

Surrogate	%Recovery	Qualifier	Acceptance Criteria
o-Terphenyl	94		50-130
d50-Tetracosane	95		50-130

Lab Control Sample Analysis Batch Quality Control

Project Name: WW CROSS PROPERTY
Project Number: 141.05051.010

Lab Number: L1926197
Report Date: 07/10/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Petroleum Hydrocarbon Quantitation - Westborough Lab Associated sample(s): 07,09-10 Batch: WG1254914-2								
TPH	95		-		40-140	-		40

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
o-Terphenyl	74				40-140

Lab Control Sample Analysis

Batch Quality Control

Project Name: WW CROSS PROPERTY

Lab Number: L1926197

Project Number: 141.05051.010

Report Date: 07/10/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Petroleum Hydrocarbon Identification by GC-FID - Mansfield Lab Associated sample(s): 10 Batch: WG1255235-2 WG1255235-3								
Nonane (C9)	63		68		50-130	8		30
Decane (C10)	67		73		50-130	9		30
Dodecane (C12)	71		77		50-130	8		30
Tetradecane (C14)	72		78		50-130	8		30
Hexadecane (C16)	82		89		50-130	8		30
Octadecane (C18)	88		95		50-130	8		30
Nonadecane (C19)	80		87		50-130	8		30
Eicosane (C20)	80		87		50-130	8		30
Docosane (C22)	80		88		50-130	10		30
Tetracosane (C24)	82		90		50-130	9		30
Hexacosane (C26)	88		97		50-130	10		30
Octacosane (C28)	91		100		50-130	9		30
Triacontane (C30)	93		101		50-130	8		30
Hexatriacontane (C36)	91		98		50-130	7		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
o-Terphenyl	98		99		50-130
d50-Tetracosane	101		103		50-130

INORGANICS & MISCELLANEOUS

Project Name: WW CROSS PROPERTY**Lab Number:** L1926197**Project Number:** 141.05051.010**Report Date:** 07/10/19**SAMPLE RESULTS**

Lab ID: L1926197-02

Date Collected: 06/17/19 08:20

Client ID: B108-S3

Date Received: 06/18/19

Sample Location: JAFFREY, NH

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	85.4		%	0.100	NA	1	-	06/27/19 13:58	121,2540G	RI



Project Name: WW CROSS PROPERTY

Lab Number: L1926197

Project Number: 141.05051.010

Report Date: 07/10/19

SAMPLE RESULTS

Lab ID: L1926197-04

Date Collected: 06/17/19 11:00

Client ID: B109-S4

Date Received: 06/18/19

Sample Location: JAFFREY, NH

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	80.3		%	0.100	NA	1	-	06/27/19 13:58	121,2540G	RI



Project Name: WW CROSS PROPERTY
Project Number: 141.05051.010

Lab Number: L1926197
Report Date: 07/10/19

SAMPLE RESULTS

Lab ID: L1926197-05
Client ID: B110-S3
Sample Location: JAFFREY, NH

Date Collected: 06/17/19 10:05
Date Received: 06/18/19
Field Prep: Not Specified

Sample Depth:
Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	83.6		%	0.100	NA	1	-	06/27/19 13:58	121,2540G	RI



Project Name: WW CROSS PROPERTY
Project Number: 141.05051.010

Lab Number: L1926197
Report Date: 07/10/19

SAMPLE RESULTS

Lab ID: L1926197-07
Client ID: B114-S3
Sample Location: JAFFREY, NH

Date Collected: 06/17/19 13:30
Date Received: 06/18/19
Field Prep: Not Specified

Sample Depth:
Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	82.4		%	0.100	NA	1	-	06/27/19 13:58	121,2540G	RI



Project Name: WW CROSS PROPERTY**Lab Number:** L1926197**Project Number:** 141.05051.010**Report Date:** 07/10/19**SAMPLE RESULTS**

Lab ID: L1926197-09

Date Collected: 06/17/19 12:50

Client ID: B115-S3

Date Received: 06/18/19

Sample Location: JAFFREY, NH

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	66.3		%	0.100	NA	1	-	06/27/19 13:58	121,2540G	RI



Project Name: WW CROSS PROPERTY
Project Number: 141.05051.010

Lab Number: L1926197
Report Date: 07/10/19

SAMPLE RESULTS

Lab ID: L1926197-10
Client ID: B111-0.5'
Sample Location: JAFFREY, NH

Date Collected: 06/17/19 09:45
Date Received: 06/18/19
Field Prep: Not Specified

Sample Depth:
Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	96.5		%	0.100	NA	1	-	06/29/19 10:52	121,2540G	RI



Project Name: WW CROSS PROPERTY
Project Number: 141.05051.010

Serial_No:07101915:29
Lab Number: L1926197
Report Date: 07/10/19

Sample Receipt and Container Information

Were project specific reporting limits specified?

YES

Cooler Information

Cooler **Custody Seal**
A Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1926197-01A	Vial MeOH preserved	A	NA		3.8	Y	Absent		HOLD-8260HLW(14)
L1926197-01B	Vial water preserved	A	NA		3.8	Y	Absent	19-JUN-19 00:20	HOLD-8260HLW(14)
L1926197-01C	Vial water preserved	A	NA		3.8	Y	Absent	19-JUN-19 00:20	HOLD-8260HLW(14)
L1926197-01D	Plastic 2oz unpreserved for TS	A	NA		3.8	Y	Absent		HOLD-WETCHEM()
L1926197-01E	Glass 250ml/8oz unpreserved	A	NA		3.8	Y	Absent		HOLD-PETRO(14),HOLD-PHI(),HOLD-8270(14)
L1926197-02A	Vial MeOH preserved	A	NA		3.8	Y	Absent		8260HLW-NH(14)
L1926197-02B	Vial water preserved	A	NA		3.8	Y	Absent	19-JUN-19 00:20	8260HLW-NH(14)
L1926197-02C	Vial water preserved	A	NA		3.8	Y	Absent	19-JUN-19 00:20	8260HLW-NH(14)
L1926197-02D	Plastic 2oz unpreserved for TS	A	NA		3.8	Y	Absent		TS(7)
L1926197-02E	Glass 250ml/8oz unpreserved	A	NA		3.8	Y	Absent		HOLD-PETRO(14),8270TCL-PAH(14),HOLD-PHI()
L1926197-03A	Vial MeOH preserved	A	NA		3.8	Y	Absent		HOLD-8260HLW(14)
L1926197-03B	Vial water preserved	A	NA		3.8	Y	Absent	19-JUN-19 00:20	HOLD-8260HLW(14)
L1926197-03C	Vial water preserved	A	NA		3.8	Y	Absent	19-JUN-19 00:20	HOLD-8260HLW(14)
L1926197-03D	Plastic 2oz unpreserved for TS	A	NA		3.8	Y	Absent		HOLD-WETCHEM()
L1926197-04A	Vial MeOH preserved	A	NA		3.8	Y	Absent		8260HLW-NH(14)
L1926197-04B	Vial water preserved	A	NA		3.8	Y	Absent	19-JUN-19 00:20	8260HLW-NH(14)
L1926197-04C	Vial water preserved	A	NA		3.8	Y	Absent	19-JUN-19 00:20	8260HLW-NH(14)
L1926197-04D	Plastic 2oz unpreserved for TS	A	NA		3.8	Y	Absent		TS(7)
L1926197-04E	Glass 250ml/8oz unpreserved	A	NA		3.8	Y	Absent		HOLD-PETRO(14),8270TCL-PAH(14),HOLD-PHI()
L1926197-05A	Vial MeOH preserved	A	NA		3.8	Y	Absent		8260HLW-NH(14)
L1926197-05B	Vial water preserved	A	NA		3.8	Y	Absent	19-JUN-19 00:20	8260HLW-NH(14)
L1926197-05C	Vial water preserved	A	NA		3.8	Y	Absent	19-JUN-19 00:20	8260HLW-NH(14)

*Values in parentheses indicate holding time in days



Project Name: WW CROSS PROPERTY**Lab Number:** L1926197**Project Number:** 141.05051.010**Report Date:** 07/10/19**Container Information**

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1926197-05D	Plastic 2oz unpreserved for TS	A	NA		3.8	Y	Absent		TS(7)
L1926197-05E	Glass 250ml/8oz unpreserved	A	NA		3.8	Y	Absent		HOLD-PETRO(14),8270TCL-PAH(14),HOLD-PHI()
L1926197-06A	Vial MeOH preserved	A	NA		3.8	Y	Absent		HOLD-8260HLW(14)
L1926197-06B	Vial water preserved	A	NA		3.8	Y	Absent	19-JUN-19 00:20	HOLD-8260HLW(14)
L1926197-06C	Vial water preserved	A	NA		3.8	Y	Absent	19-JUN-19 00:20	HOLD-8260HLW(14)
L1926197-06D	Plastic 2oz unpreserved for TS	A	NA		3.8	Y	Absent		HOLD-WETCHEM()
L1926197-06E	Glass 250ml/8oz unpreserved	A	NA		3.8	Y	Absent		HOLD-PETRO(14),HOLD-PHI(),HOLD-8270(14)
L1926197-07A	Vial MeOH preserved	A	NA		3.8	Y	Absent		8260HLW-NH(14)
L1926197-07B	Vial water preserved	A	NA		3.8	Y	Absent	19-JUN-19 00:20	8260HLW-NH(14)
L1926197-07C	Vial water preserved	A	NA		3.8	Y	Absent	19-JUN-19 00:20	8260HLW-NH(14)
L1926197-07D	Plastic 2oz unpreserved for TS	A	NA		3.8	Y	Absent		TS(7)
L1926197-07E	Glass 250ml/8oz unpreserved	A	NA		3.8	Y	Absent		8270TCL-PAH(14),TPH-DRO-D(14)
L1926197-08A	Vial MeOH preserved	A	NA		3.8	Y	Absent		HOLD-8260HLW(14)
L1926197-08B	Vial water preserved	A	NA		3.8	Y	Absent	19-JUN-19 00:20	HOLD-8260HLW(14)
L1926197-08C	Vial water preserved	A	NA		3.8	Y	Absent	19-JUN-19 00:20	HOLD-8260HLW(14)
L1926197-08D	Plastic 2oz unpreserved for TS	A	NA		3.8	Y	Absent		HOLD-WETCHEM()
L1926197-08E	Glass 250ml/8oz unpreserved	A	NA		3.8	Y	Absent		HOLD-PETRO(14),HOLD-8270(14)
L1926197-09A	Vial MeOH preserved	A	NA		3.8	Y	Absent		8260HLW-NH(14)
L1926197-09B	Vial water preserved	A	NA		3.8	Y	Absent	19-JUN-19 00:20	8260HLW-NH(14)
L1926197-09C	Vial water preserved	A	NA		3.8	Y	Absent	19-JUN-19 00:20	8260HLW-NH(14)
L1926197-09D	Plastic 2oz unpreserved for TS	A	NA		3.8	Y	Absent		TS(7)
L1926197-09E	Glass 250ml/8oz unpreserved	A	NA		3.8	Y	Absent		8270TCL-PAH(14),TPH-DRO-D(14)
L1926197-10A	Vial MeOH preserved	A	NA		3.8	Y	Absent		8260HLW-NH(14)
L1926197-10B	Vial water preserved	A	NA		3.8	Y	Absent	19-JUN-19 00:20	8260HLW-NH(14)
L1926197-10C	Vial water preserved	A	NA		3.8	Y	Absent	19-JUN-19 00:20	8260HLW-NH(14)
L1926197-10D	Glass 250ml/8oz unpreserved	A	NA		3.8	Y	Absent		8270TCL-PAH(14),TS(7),TPH-DRO-D(14)
L1926197-10X	Glass 120ml unpreserved split	A	NA		3.8	Y	Absent		A2-PHI(14)
L1926197-11A	Vial MeOH preserved	A	NA		3.8	Y	Absent		8260H-NH(14),8260HLW-NH(14)

Project Name: WW CROSS PROPERTY

Project Number: 141.05051.010

Serial_No:07101915:29

Lab Number: L1926197

Report Date: 07/10/19

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1926197-11B	Vial water preserved	A	NA		3.8	Y	Absent	19-JUN-19 00:20	8260H-NH(14),8260HLW-NH(14)

Project Name: WW CROSS PROPERTY
Project Number: 141.05051.010

Lab Number: L1926197
Report Date: 07/10/19

GLOSSARY

Acronyms

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

Footnotes

Report Format: DU Report with 'J' Qualifiers



Project Name: WW CROSS PROPERTY
Project Number: 141.05051.010

Lab Number: L1926197
Report Date: 07/10/19

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

Terms

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

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

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

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

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

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.

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 Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- 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 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: WW CROSS PROPERTY
Project Number: 141.05051.010

Lab Number: L1926197
Report Date: 07/10/19

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

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

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

EPA 6860: SCM: Perchlorate

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

Mansfield Facility

SM 2540D: TSS

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

EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene,

3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

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

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

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

Non-Potable Water

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

EPA 624.1: Volatile Halocarbons & Aromatics,

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

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

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

Mansfield Facility:

Drinking Water

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

EPA 522.

Non-Potable Water

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

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

EPA 245.1 Hg.

SM2340B

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



CHAIN OF CUSTODY

PAGE 1 OF 2

Date Rec'd in Lab: 6/18/19 ALPHA Job #: 4926197

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

320 Forbes Blvd
Norfolk, MA 02401
Tel: 508-822-9300

Project Information

Project Name: WV Cross
Project Location: Jaffrey NH
Project #: 141 05051 010
Project Manager: John Javellette
ALPHA Quote #:

Report Information - Data Deliverables

LADEX EMAIL Same as Client info PO #: 11764

Client Information

Client: Ransom Consulting Inc.
Address: 112 Corporate Dr
Portsmouth, NH
Phone: 603-436-1400
Email: Javellette@ransomenv.com
Additional Project Information:
4. brew. tuckey@ransomenv.com

Turn-Around Time

Standard RUSH (only available for pre-approved)
Date Due:

Regulatory Requirements & Project Information Requirements

Yes No MA MCP Analytical Methods Yes No CT RCP Analytical Methods
 Yes No Matrix Spike Required on this SDG? (Required for MCP Inorganics)
 Yes No GW1 Standards (Info Required for Metals & EPH with Targets)
 Yes No NPDES RGP
 Other State Fed Program NPDES + US EPA Brownfields per SSQAPP

*Low-level soil VOC samples must be frozen upon reception,
HOLD all samples pending email from Ransom.*

ANALYSIS	VOC: <input checked="" type="checkbox"/> Gas <input type="checkbox"/> LIQ <input type="checkbox"/> SAJ	SVOC: <input type="checkbox"/> ABN <input checked="" type="checkbox"/> PAH	METALS: <input type="checkbox"/> MGP 13 <input type="checkbox"/> MGP 14 <input type="checkbox"/> RCP 15	EPH: <input type="checkbox"/> RCRAS <input type="checkbox"/> RCRAB <input type="checkbox"/> PP-13	UPH: <input type="checkbox"/> Ranges & Targets <input type="checkbox"/> Ranges Only	PCB: <input type="checkbox"/> Ranges & Targets <input type="checkbox"/> Ranges Only	TPH: <input type="checkbox"/> Quant Only <input type="checkbox"/> Fingerprint	THI - PLO	Permeable Product Analyzing
----------	--	--	---	---	---	---	---	-----------	-----------------------------

SAMPLE INFO
 Filtration
 Field Lab to do
 Preservation
 Lab to do

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection		Sample Matrix	Sampler Initials	ANALYSIS										Sample Comments	TOTAL			
		Date	Time			VOC	SVOC	METALS	EPH	UPH	PCB	TPH	THI - PLO	Permeable Product Analyzing						
26197-01	B108-S2	6-17-19	8:10	Soil	DAF	X	X										X	X		5
02	B108-S3		8:20			X	X										X	X		5
03	B109-S3		10:50			X														4
04	B109-S4		11:00			X	X										X	X		5
05	B110-S3		10:05			X	X										X	X		5
06	B111-S3		9:15			X	X										X	X		5
07	B114-S3		13:30			X	X										X			5
08	B114-S4		13:40			X	X										X			5
09	B115-S3		12:50			X	X										X			5
10	B111-0.5		9:45			X	X										X	X	potential crosscont	4

Container Type
 P= Plastic
 A= Amber glass
 V= Vial
 G= Glass
 B= Bottoms cup
 C= Cube
 O= Other
 E= Encore
 B= Solid Bottle

Preservative
 A= None
 B= HCl
 C= HNO3
 D= H2SO4
 E= NaOH
 F= NaOH
 G= NaHSO4
 H= Na2CO3
 I= Ascorbic Acid
 J= NH4Cl
 K= Zn Acetate
 O= Other

Relinquished By: [Signature] Date/Time: 6/18/19 10:44

Received By: [Signature] Date/Time: 6/18/19 12:25

All samples submitted are subject to Alpha's Terms and Conditions. See reverse side. FORM NO: 05-01 (rev. 12-Mar-2012)



CHAIN OF CUSTODY

PAGE 2 OF 2

Date Rec'd in Lab: 6/18/19 ALPHA Job #: L1926197

Client Information
 Client: Ransom Consulting
 Address: 112 Corporate Drive
Dorchester, MA
 Phone: 603-436-1490
 Email: jweller@ransomcon.com
co. Brian Ficks @ransomcon.com

Project Information
 Project Name: WW Cross
 Project Location: Taffrey, NH
 Project #: 141.05056.010
 Project Manager: John A. DeBorja
 ALPHA Quote #:

Report Information - Data Deliverables
 ADEX EMAIL

Billing Information
 Same as Client info PO #: 11764

Additional Project Information:
Low level soil VOC samples need to be frozen when received
HOC. All samples pending anal from Ransom.

Turn-Around Time
 Standard RUSH (only use Standard if not requested)
 Date Due:

Regulatory Requirements & Project Information Requirements
 Yes No MA MCP Analytical Methods Yes No CT RCP Analytical Methods
 Yes No Matrix Spike Required on this SDG? (Required for MCP Inorganics)
 Yes No GW1 Standards (Info Required for Metals & EPH with Targets)
 Yes No NPOES RGP
 Other State / Fed Program NHDES / USEPA Bismuthfields Criteria per SDSRAPP

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection		Sample Matrix	Sampler Inlets	ANALYSIS	SAMPLE INFO
		Date	Time				
<u>2487-11</u>	<u>Try Blanks</u>					VOC: <input checked="" type="checkbox"/> R200 <input type="checkbox"/> SA <input type="checkbox"/> S242 SVOC: <input type="checkbox"/> ABN <input type="checkbox"/> PAH METALS: <input type="checkbox"/> MCP 13 <input type="checkbox"/> MCP 14 <input type="checkbox"/> RCP 13 METALS: <input type="checkbox"/> RCRA9 <input type="checkbox"/> RCRA8 <input type="checkbox"/> PPH3 EPH: <input type="checkbox"/> DRanges & Targets <input type="checkbox"/> Ranges Only VPH: <input type="checkbox"/> DRanges & Targets <input type="checkbox"/> Ranges Only <input type="checkbox"/> PCB <input type="checkbox"/> PEST TPH: <input type="checkbox"/> Cust Only <input type="checkbox"/> Fingerprint	Filtration <input type="checkbox"/> Field <input type="checkbox"/> Lab to do Preservation <input type="checkbox"/> Lab to do

- Container Type**
 P= Plastic
 A= Amber glass
 V= Vial
 G= Glass
 B= Bacterio cup
 C= Cup
 O= Other
 E= Encone
 D= 900 Bordo
- Preservative**
 A= None
 B= HCl
 C= HNO3
 D= H2SO4
 E= NaOH
 F= NaOH
 G= NaHSO4
 H= Na2S2O8
 I= Ascorbic Acid
 J= HCl
 K= Zn Acetate
 O= Other

Relinquished By: <u>[Signature]</u>	Date/Time: <u>6/18/19 10:49</u>	Received By: <u>[Signature]</u>	Date/Time: <u>6/18/19 12:25</u>
<u>[Signature]</u>	<u>6/18/19 15:48</u>	<u>[Signature]</u>	<u>6/18/19 15:48</u>

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



CHAIN OF CUSTODY

PAGE 1 OF 2

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

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

Date Rec'd in Lab: 6/18/19

ALPHA Job #: 4926197

Project Information

Project Name: WW Cross

Project Location: Jaffrey, NH

Project #: 146.05051.010

Project Manager: John Ovellette

ALPHA Quote #:

Report Information - Data Deliverables

ADEX EMAIL

Billing Information

Same as Client info PO #: 11764

Client Information

Client: Ransom Consulting Inc

Address: 112 Corporate Dr
Portsmouth, NH

Phone: 603-436-1490

Email: ~~john.ovellette@ransomenv.com~~
jovellette@ransomenv.com
Additional Project Information:
cc: drew.tuchse@ransomenv.com

Turn-Around Time

Standard RUSH (only confirmed if pre-approved)

Date Due:

Regulatory Requirements & Project Information Requirements

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

Low-level soil VOC samples must be frozen upon reception,
HOLD all samples pending email from Ransom.

ANALYSIS		SAMPLE INFO	
VOC: <input checked="" type="checkbox"/> 8260 <input type="checkbox"/> 624 <input type="checkbox"/> 524.2	SVOC: <input type="checkbox"/> ABN <input checked="" type="checkbox"/> PAH	Filtration	<input type="checkbox"/> Field <input type="checkbox"/> Lab to do
METALS: <input type="checkbox"/> MCP 13 <input type="checkbox"/> MCP 14 <input type="checkbox"/> RCP 15	METALS: <input type="checkbox"/> RCRA5 <input type="checkbox"/> RCRA6 <input type="checkbox"/> PP13	Preservation	<input type="checkbox"/> Lab to do
EPH: <input type="checkbox"/> Ranges & Targets <input type="checkbox"/> Ranges Only	VPH: <input type="checkbox"/> Ranges & Targets <input type="checkbox"/> Ranges Only		
PCB: <input type="checkbox"/> PEST	TPH: <input type="checkbox"/> Quant Only <input type="checkbox"/> Fingerprint		
TPH - DEO			
Petroleum Product Fingerprinting			
TOTAL # BOTTLES			

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection		Sample Matrix	Sampler Initials	VOC: <input checked="" type="checkbox"/> 8260 <input type="checkbox"/> 624 <input type="checkbox"/> 524.2	SVOC: <input type="checkbox"/> ABN <input checked="" type="checkbox"/> PAH	METALS: <input type="checkbox"/> MCP 13 <input type="checkbox"/> MCP 14 <input type="checkbox"/> RCP 15	METALS: <input type="checkbox"/> RCRA5 <input type="checkbox"/> RCRA6 <input type="checkbox"/> PP13	EPH: <input type="checkbox"/> Ranges & Targets <input type="checkbox"/> Ranges Only	VPH: <input type="checkbox"/> Ranges & Targets <input type="checkbox"/> Ranges Only	PCB: <input type="checkbox"/> PEST	TPH: <input type="checkbox"/> Quant Only <input type="checkbox"/> Fingerprint	TPH - DEO	Petroleum Product Fingerprinting	SAMPLE INFO	Sample Comments	TOTAL # BOTTLES
		Date	Time															
26197-01	B108-S2	6-17-19	8:10	Soil	DAF	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>											5
02	B108-S3		8:20			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>											5
03	B109-S3		10:50			<input checked="" type="checkbox"/>												4
04	B109-S4		11:00			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>											5
05	B110-S3		10:05			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>											5
06	B111-S3		9:15			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>											5
07	B114-S3		13:30			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>											5
08	B114-S4		13:40			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>											5
09	B115-S3		12:50			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>											5
10	B111-0.5'		9:45			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>										potential creosote	4

Container Type
P= Plastic
A= Amber glass
V= Vial
G= Glass
B= Bacteria cup
C= Cube
O= Other
E= Encore
D= BOD Bottle

Preservative
A= None
B= HCl
C= HNO₃
D= H₂SO₄
E= NaOH
F= MeOH
G= NaHSO₄
H= Na₂S₂O₃
I= Ascorbic Acid
J= NH₄Cl
K= Zn Acetate
O= Other

Container Type: VA
Preservative: A

Relinquished By:	Date/Time	Received By:	Date/Time
<i>[Signature]</i>	6/18/19 10:44	<i>[Signature]</i>	6/18/19 10:44
<i>[Signature]</i>	6/18/19	<i>[Signature]</i>	6-19-19 10:35
<i>[Signature]</i>	6/19/19 19:10	<i>[Signature]</i>	6/18/19

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



CHAIN OF CUSTODY

PAGE 2 OF 2

Date Rec'd in Lab: 6/18/19

ALPHA Job #: L1926197

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

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

Project Information

Project Name: WW Cross
Project Location: Jaffrey, NH
Project #: 141.05051.010
Project Manager: John Ouellette
ALPHA Quote #:

Report Information - Data Deliverables

ADEx EMAIL

Billing Information

Same as Client info PO #: 11764

Client Information

Client: Ransom Consulting
Address: 112 Corporate Drive
Dorchester, NH
Phone: 603-436-1490
Email: joelle@ransomenv.com
ce, drew, ficks@ransomenv.com

Turn-Around Time

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

Regulatory Requirements & Project Information Requirements

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

Additional Project Information:

Low level soil VOC samples need to be frozen when received
HOL D all samples pending email from Ransom.

ANALYSIS	VOC: <input checked="" type="checkbox"/> 8260 <input type="checkbox"/> 624 <input type="checkbox"/> 5342
	SVOC: <input type="checkbox"/> ABN <input type="checkbox"/> PAH
	METALS: <input type="checkbox"/> MCP 13 <input type="checkbox"/> MCP 14 <input type="checkbox"/> RCP 15
	EPH: <input type="checkbox"/> RCRA5 <input type="checkbox"/> RCRA8 <input type="checkbox"/> PPI3
	VPH: <input type="checkbox"/> Ranges & Targets <input type="checkbox"/> Ranges Only
	<input type="checkbox"/> PCB <input type="checkbox"/> PEST
	TPH: <input type="checkbox"/> Quant Only <input type="checkbox"/> Fingerprint
SAMPLE INFO	
Filtration	
<input type="checkbox"/> Field <input type="checkbox"/> Lab to do	
Preservation	
<input type="checkbox"/> Lab to do	
Sample Comments	

TOTAL # BOTTLES

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection		Sample Matrix	Sampler Initials
		Date	Time		
<u>2697-11</u>	<u>Tryp Blank</u>				

Container Type
P= Plastic
A= Amber glass
V= Vial
G= Glass
B= Bacteria cup
C= Cube
O= Other
E= Encore
D= BOD Bottle

Preservative
A= None
B= HCl
C= HNO₃
D= H₂SO₄
E= NaOH
F= MeOH
G= NaHSO₄
H = Na₂S₂O₃
I= Ascorbic Acid
J = NH₄Cl
K= Zn Acetate
O= Other

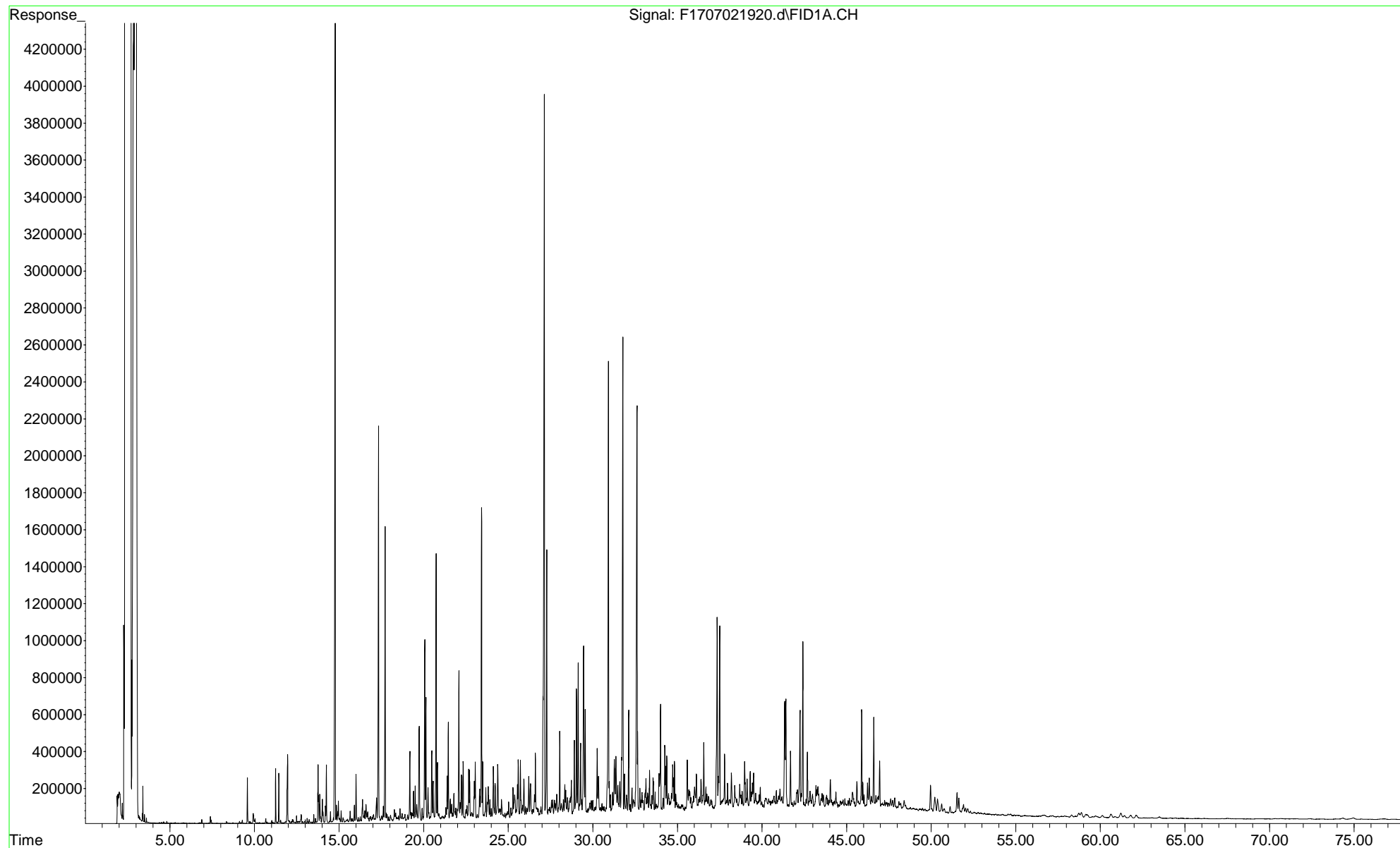
Container Type V
Preservative F

Relinquished By:	Date/Time	Received By:	Date/Time
<u>[Signature]</u>	<u>6/18/19 12:44</u>	<u>[Signature]</u>	<u>6/18/19 12:44</u>
<u>[Signature]</u>	<u>6/18/19</u>	<u>[Signature]</u>	<u>6-18-19 10:25</u>
<u>[Signature]</u>	<u>6-18-19 19:40</u>	<u>[Signature]</u>	<u>6/18/19 18:00</u>

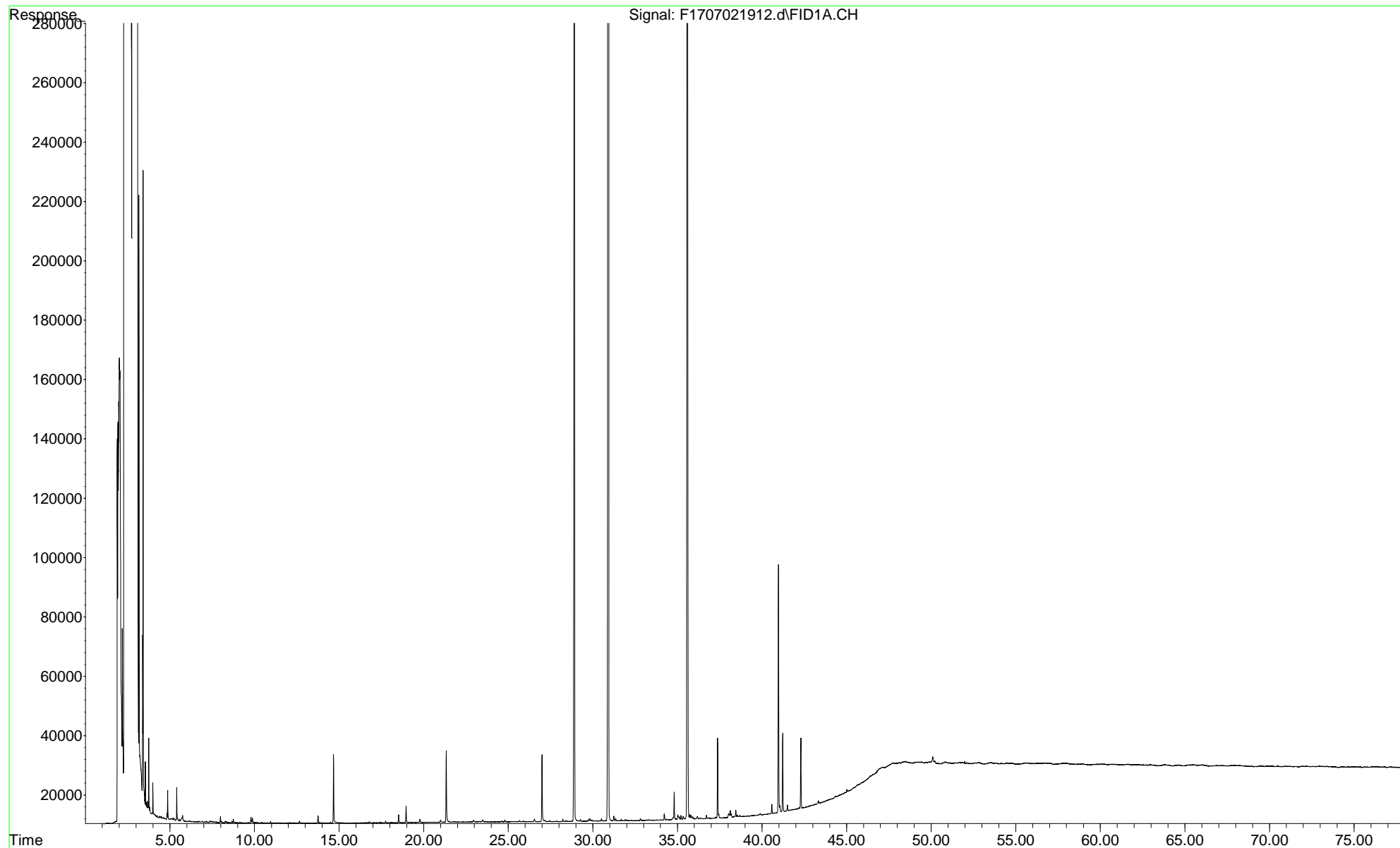
All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.
FORM NO: 01-01 (rev. 12-Mar-2012)

GC-FID Chromatogram

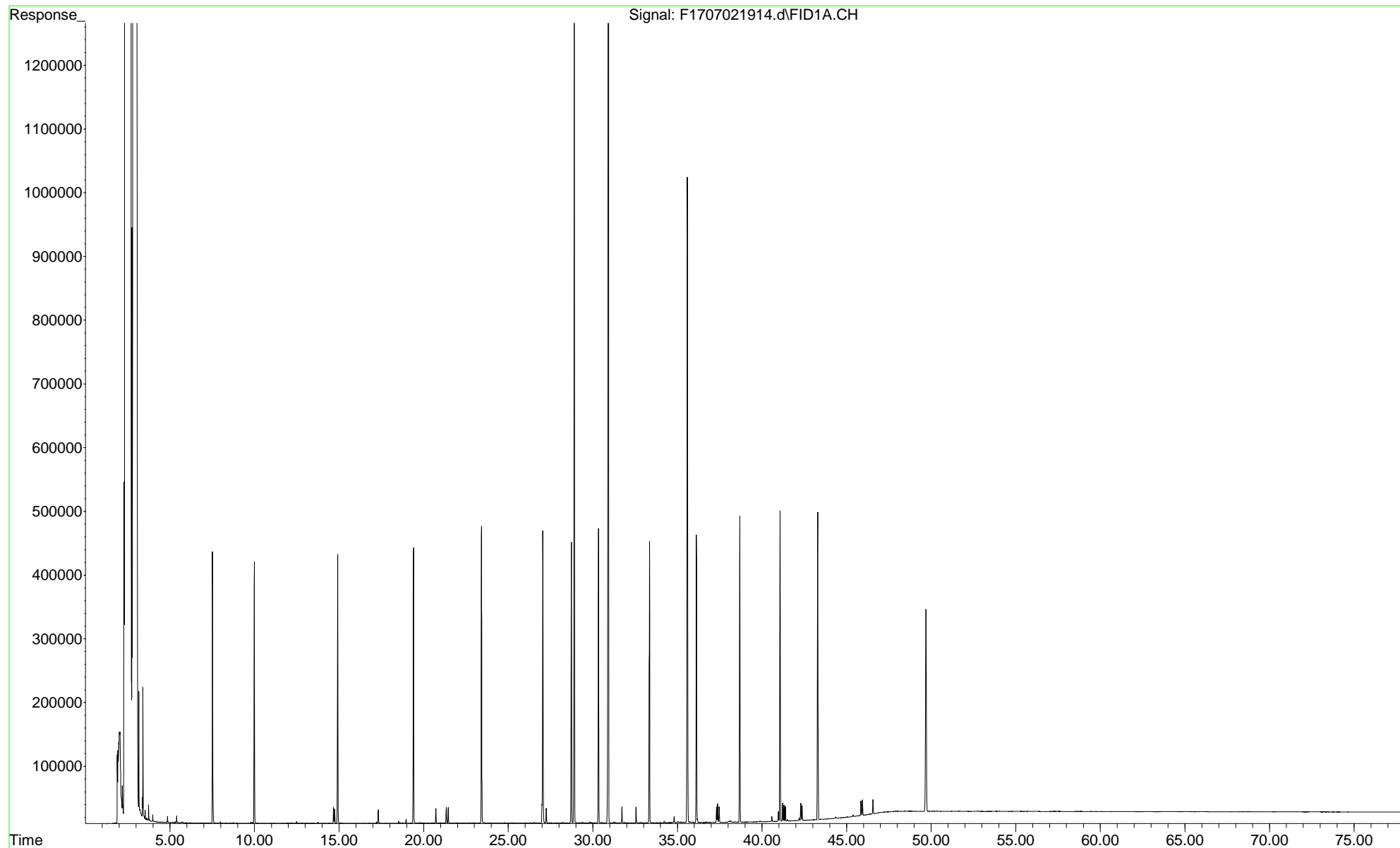
File :O:\Forensics\Data\FID17\2019\JUL\JUL02\F1707021920.d
Operator : FID17:WR
Acquired : 02 Jul 2019 11:19 pm using AcqMethod FID17.M
Instrument : FID17
Sample Name: L1926197-10
Misc Info : WG1255847,WG1255235,ICAL15688
Vial Number: 10



File :O:\Forensics\Data\FID17\2019\JUL\JUL02\F1707021912.d
Operator : FID17:WR
Acquired : 02 Jul 2019 5:26 pm using AcqMethod FID17.M
Instrument : FID17
Sample Name: WG1255235-1 (Method Blank)
Misc Info : WG1255847,WG1255235,ICAL15688
Vial Number: 6

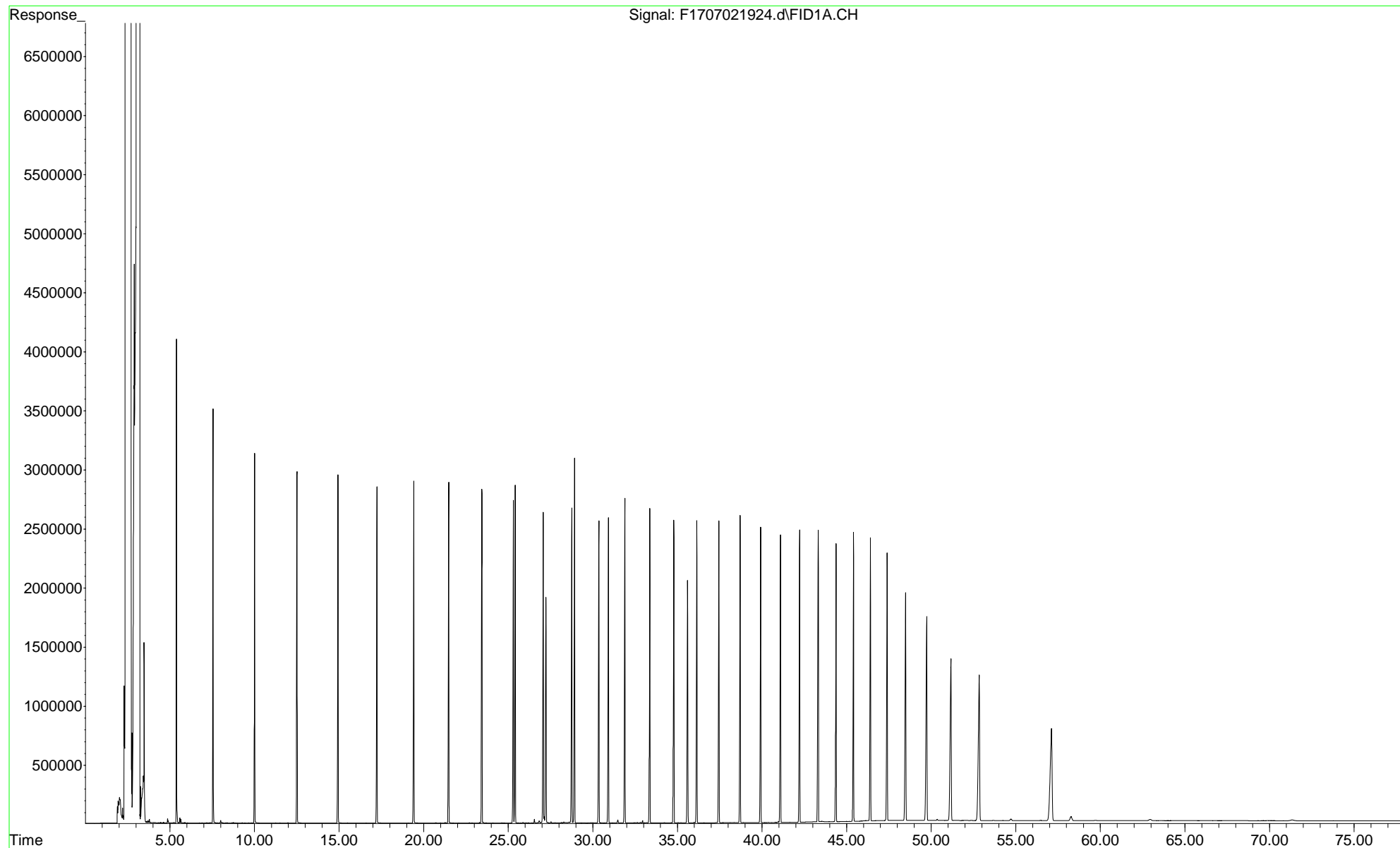


File :O:\Forensics\Data\FID17\2019\JUL\JUL02\F1707021914.d
Operator : FID17:WR
Acquired : 02 Jul 2019 6:54 pm using AcqMethod FID17.M
Instrument : FID17
Sample Name: WG1255235-2 (Laboratory Control Sample)
Misc Info : WG1255847,WG1255235,ICAL15688
Vial Number: 7

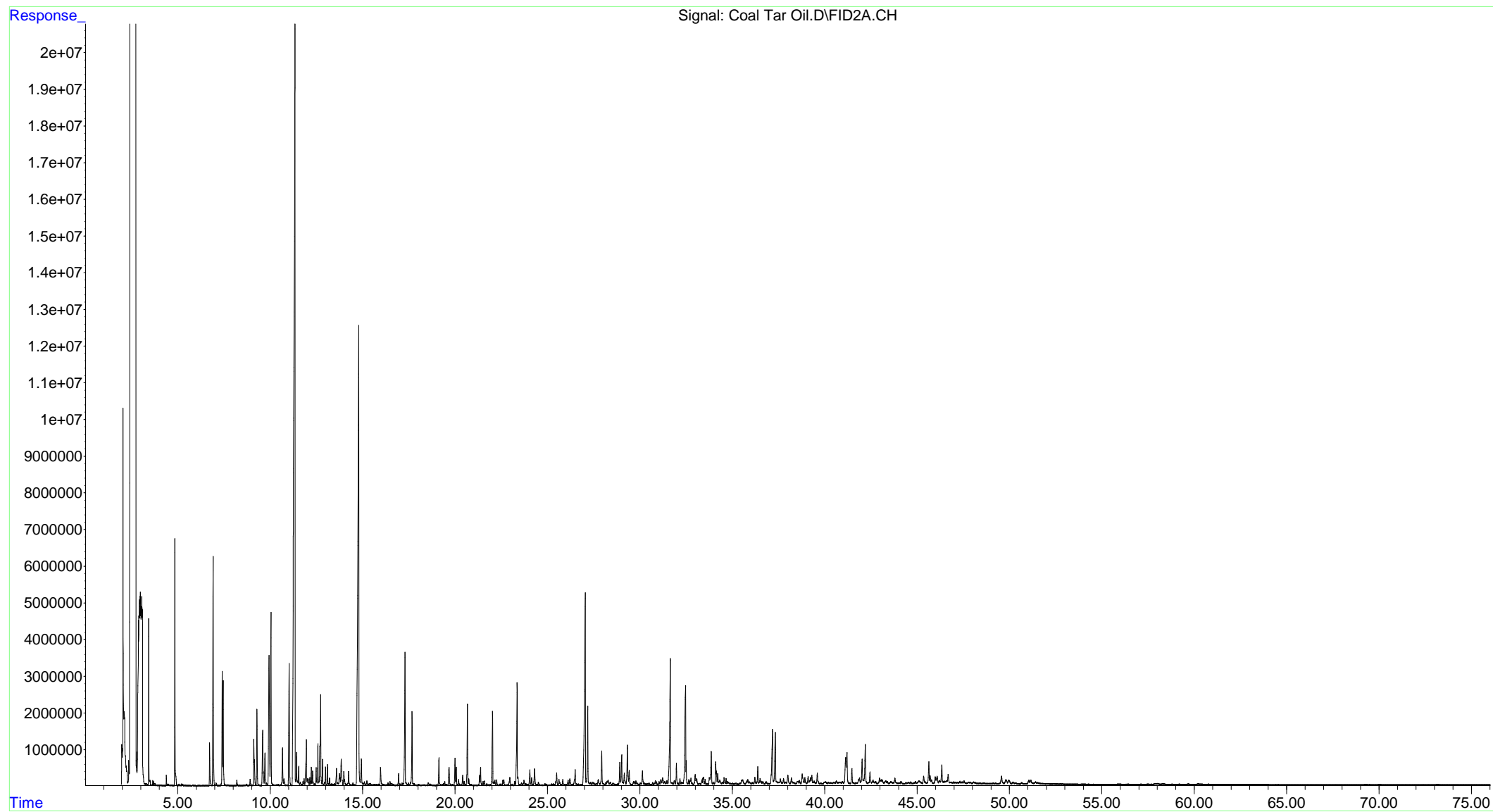


Petroleum Reference Standards

File :O:\Forensics\Data\FID17\2019\JUL\JUL02\F1707021924.d
Operator : FID17:WR
Acquired : 03 Jul 2019 2:15 am using AcqMethod FID17.M
Instrument : FID17
Sample Name: WG1255847-2 (Alkane Reference Standard)
Misc Info : WG1255847,FRBB06,ICAL15688
Vial Number: 12



File :O:\Forensics\Data\LIBRARY\Hydrocarbon Reference Standards\Coal Tar Oil.D
... al Tar Oil.D
Operator : DMP
Instrument : PAH2
Acquired : 08 Aug 2013 6:49 pm using AcqMethod FRNC2A.M
Sample : Coal Tar Oil
Misc Info : Chem Service Pz-123 (F031908K)





ANALYTICAL REPORT

Lab Number:	L1926634
Client:	Ransom Consulting, Inc. 112 Corporate Drive Pease International Tradeport Portsmouth, NH 03801
ATTN:	John Ouellette
Phone:	(603) 436-1490
Project Name:	WW CROSS
Project Number:	141.05051.010
Report Date:	07/09/19

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: WW CROSS
Project Number: 141.05051.010

Lab Number: L1926634
Report Date: 07/09/19

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1926634-01	B101-S1	SOIL	JAFFREY, NH	06/18/19 13:00	06/19/19
L1926634-02	B104-S3	SOIL	JAFFREY, NH	06/18/19 09:40	06/19/19
L1926634-03	B105-S1	SOIL	JAFFREY, NH	06/18/19 11:10	06/19/19
L1926634-04	B107-S2	SOIL	JAFFREY, NH	06/18/19 10:30	06/19/19
L1926634-05	DUP1	SOIL	JAFFREY, NH	06/18/19 10:30	06/19/19
L1926634-06	TRIP BLANK	SOIL	JAFFREY, NH	06/18/19 00:00	06/19/19

Project Name: WW CROSS
Project Number: 141.05051.010

Lab Number: L1926634
Report Date: 07/09/19

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: WW CROSS
Project Number: 141.05051.010

Lab Number: L1926634
Report Date: 07/09/19

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.

Sample Receipt

The analyses performed were specified by the client.

Volatile Organics

L1926634-06: The Trip Blank has results for acetone and tert butyl alcohol present above the reporting limits. The sample was verified as being labeled correctly by the laboratory and the previous analysis showed there was no potential for carry over.

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:  Melissa Sturgis

Title: Technical Director/Representative

Date: 07/09/19

ORGANICS

VOLATILES

Project Name: WW CROSS
Project Number: 141.05051.010

Lab Number: L1926634
Report Date: 07/09/19

SAMPLE RESULTS

Lab ID: L1926634-01
 Client ID: B101-S1
 Sample Location: JAFFREY, NH

Date Collected: 06/18/19 13:00
 Date Received: 06/19/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8260C
 Analytical Date: 06/30/19 14:47
 Analyst: JC
 Percent Solids: 95%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Methylene chloride	ND		ug/kg	4.3	2.0	1
1,1-Dichloroethane	ND		ug/kg	0.86	0.12	1
Chloroform	ND		ug/kg	1.3	0.12	1
Carbon tetrachloride	ND		ug/kg	0.86	0.20	1
1,2-Dichloropropane	ND		ug/kg	0.86	0.11	1
Dibromochloromethane	ND		ug/kg	0.86	0.12	1
1,1,2-Trichloroethane	ND		ug/kg	0.86	0.23	1
Tetrachloroethene	ND		ug/kg	0.43	0.17	1
Chlorobenzene	ND		ug/kg	0.43	0.11	1
Trichlorofluoromethane	ND		ug/kg	3.4	0.60	1
1,2-Dichloroethane	ND		ug/kg	0.86	0.22	1
1,1,1-Trichloroethane	ND		ug/kg	0.43	0.14	1
Bromodichloromethane	ND		ug/kg	0.43	0.09	1
trans-1,3-Dichloropropene	ND		ug/kg	0.86	0.24	1
cis-1,3-Dichloropropene	ND		ug/kg	0.43	0.14	1
1,3-Dichloropropene, Total	ND		ug/kg	0.43	0.14	1
1,1-Dichloropropene	ND		ug/kg	0.43	0.14	1
Bromoform	ND		ug/kg	3.4	0.21	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.43	0.14	1
Benzene	ND		ug/kg	0.43	0.14	1
Toluene	ND		ug/kg	0.86	0.47	1
Ethylbenzene	ND		ug/kg	0.86	0.12	1
Chloromethane	ND		ug/kg	3.4	0.80	1
Bromomethane	ND		ug/kg	1.7	0.50	1
Vinyl chloride	ND		ug/kg	0.86	0.29	1
Chloroethane	ND		ug/kg	1.7	0.39	1
1,1-Dichloroethene	ND		ug/kg	0.86	0.20	1
trans-1,2-Dichloroethene	ND		ug/kg	1.3	0.12	1

Project Name: WW CROSS
Project Number: 141.05051.010

Lab Number: L1926634
Report Date: 07/09/19

SAMPLE RESULTS

Lab ID: L1926634-01
Client ID: B101-S1
Sample Location: JAFFREY, NH

Date Collected: 06/18/19 13:00
Date Received: 06/19/19
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatiles Organics by EPA 5035 Low - Westborough Lab						
Trichloroethene	ND		ug/kg	0.43	0.12	1
1,2-Dichlorobenzene	ND		ug/kg	1.7	0.12	1
1,3-Dichlorobenzene	ND		ug/kg	1.7	0.13	1
1,4-Dichlorobenzene	ND		ug/kg	1.7	0.15	1
Methyl tert butyl ether	0.47	J	ug/kg	1.7	0.17	1
p/m-Xylene	ND		ug/kg	1.7	0.48	1
o-Xylene	ND		ug/kg	0.86	0.25	1
Xylenes, Total	ND		ug/kg	0.86	0.25	1
cis-1,2-Dichloroethene	ND		ug/kg	0.86	0.15	1
1,2-Dichloroethene, Total	ND		ug/kg	0.86	0.12	1
Dibromomethane	ND		ug/kg	1.7	0.20	1
1,2,3-Trichloropropane	ND		ug/kg	1.7	0.11	1
Styrene	ND		ug/kg	0.86	0.17	1
Dichlorodifluoromethane	ND		ug/kg	8.6	0.79	1
Acetone	14		ug/kg	8.6	4.2	1
Carbon disulfide	ND		ug/kg	8.6	3.9	1
2-Butanone	ND		ug/kg	8.6	1.9	1
4-Methyl-2-pentanone	ND		ug/kg	8.6	1.1	1
2-Hexanone	ND		ug/kg	8.6	1.0	1
Bromochloromethane	ND		ug/kg	1.7	0.18	1
Tetrahydrofuran	ND		ug/kg	3.4	1.4	1
2,2-Dichloropropane	ND		ug/kg	1.7	0.17	1
1,2-Dibromoethane	ND		ug/kg	0.86	0.24	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.43	0.11	1
Bromobenzene	ND		ug/kg	1.7	0.12	1
n-Butylbenzene	ND		ug/kg	0.86	0.14	1
sec-Butylbenzene	ND		ug/kg	0.86	0.13	1
tert-Butylbenzene	ND		ug/kg	1.7	0.10	1
1,3,5-Trichlorobenzene	ND		ug/kg	1.7	0.15	1
o-Chlorotoluene	ND		ug/kg	1.7	0.16	1
p-Chlorotoluene	ND		ug/kg	1.7	0.09	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	2.6	0.86	1
Hexachlorobutadiene	ND		ug/kg	3.4	0.15	1
Isopropylbenzene	ND		ug/kg	0.86	0.09	1
p-Isopropyltoluene	ND		ug/kg	0.86	0.09	1
Naphthalene	ND		ug/kg	3.4	0.56	1
n-Propylbenzene	ND		ug/kg	0.86	0.15	1

Project Name: WW CROSS
Project Number: 141.05051.010

Lab Number: L1926634
Report Date: 07/09/19

SAMPLE RESULTS

Lab ID: L1926634-01
Client ID: B101-S1
Sample Location: JAFFREY, NH

Date Collected: 06/18/19 13:00
Date Received: 06/19/19
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
1,2,3-Trichlorobenzene	ND		ug/kg	1.7	0.28	1
1,2,4-Trichlorobenzene	ND		ug/kg	1.7	0.24	1
1,3,5-Trimethylbenzene	ND		ug/kg	1.7	0.17	1
1,2,4-Trimethylbenzene	ND		ug/kg	1.7	0.29	1
Ethyl ether	1.1	J	ug/kg	1.7	0.29	1
Isopropyl Ether	ND		ug/kg	1.7	0.18	1
Tert-Butyl Alcohol	ND		ug/kg	17	4.4	1
Ethyl-Tert-Butyl-Ether	ND		ug/kg	1.7	0.11	1
Tertiary-Amyl Methyl Ether	ND		ug/kg	1.7	0.15	1
1,4-Dioxane	ND		ug/kg	69	30.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	106		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	95		70-130
Dibromofluoromethane	103		70-130

Project Name: WW CROSS
Project Number: 141.05051.010

Lab Number: L1926634
Report Date: 07/09/19

SAMPLE RESULTS

Lab ID: L1926634-03
 Client ID: B105-S1
 Sample Location: JAFFREY, NH

Date Collected: 06/18/19 11:10
 Date Received: 06/19/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8260C
 Analytical Date: 06/30/19 15:14
 Analyst: JC
 Percent Solids: 96%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Methylene chloride	ND		ug/kg	4.9	2.2	1
1,1-Dichloroethane	ND		ug/kg	0.98	0.14	1
Chloroform	ND		ug/kg	1.5	0.14	1
Carbon tetrachloride	ND		ug/kg	0.98	0.22	1
1,2-Dichloropropane	ND		ug/kg	0.98	0.12	1
Dibromochloromethane	ND		ug/kg	0.98	0.14	1
1,1,2-Trichloroethane	ND		ug/kg	0.98	0.26	1
Tetrachloroethene	ND		ug/kg	0.49	0.19	1
Chlorobenzene	ND		ug/kg	0.49	0.12	1
Trichlorofluoromethane	ND		ug/kg	3.9	0.68	1
1,2-Dichloroethane	ND		ug/kg	0.98	0.25	1
1,1,1-Trichloroethane	ND		ug/kg	0.49	0.16	1
Bromodichloromethane	ND		ug/kg	0.49	0.11	1
trans-1,3-Dichloropropene	ND		ug/kg	0.98	0.27	1
cis-1,3-Dichloropropene	ND		ug/kg	0.49	0.15	1
1,3-Dichloropropene, Total	ND		ug/kg	0.49	0.15	1
1,1-Dichloropropene	ND		ug/kg	0.49	0.16	1
Bromoform	ND		ug/kg	3.9	0.24	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.49	0.16	1
Benzene	ND		ug/kg	0.49	0.16	1
Toluene	ND		ug/kg	0.98	0.53	1
Ethylbenzene	ND		ug/kg	0.98	0.14	1
Chloromethane	ND		ug/kg	3.9	0.91	1
Bromomethane	ND		ug/kg	2.0	0.57	1
Vinyl chloride	ND		ug/kg	0.98	0.33	1
Chloroethane	ND		ug/kg	2.0	0.44	1
1,1-Dichloroethene	ND		ug/kg	0.98	0.23	1
trans-1,2-Dichloroethene	ND		ug/kg	1.5	0.13	1

Project Name: WW CROSS
Project Number: 141.05051.010

Lab Number: L1926634
Report Date: 07/09/19

SAMPLE RESULTS

Lab ID: L1926634-03
Client ID: B105-S1
Sample Location: JAFFREY, NH

Date Collected: 06/18/19 11:10
Date Received: 06/19/19
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatiles Organics by EPA 5035 Low - Westborough Lab						
Trichloroethene	ND		ug/kg	0.49	0.13	1
1,2-Dichlorobenzene	ND		ug/kg	2.0	0.14	1
1,3-Dichlorobenzene	ND		ug/kg	2.0	0.14	1
1,4-Dichlorobenzene	ND		ug/kg	2.0	0.17	1
Methyl tert butyl ether	0.67	J	ug/kg	2.0	0.20	1
p/m-Xylene	ND		ug/kg	2.0	0.55	1
o-Xylene	ND		ug/kg	0.98	0.28	1
Xylenes, Total	ND		ug/kg	0.98	0.28	1
cis-1,2-Dichloroethene	ND		ug/kg	0.98	0.17	1
1,2-Dichloroethene, Total	ND		ug/kg	0.98	0.13	1
Dibromomethane	ND		ug/kg	2.0	0.23	1
1,2,3-Trichloropropane	ND		ug/kg	2.0	0.12	1
Styrene	ND		ug/kg	0.98	0.19	1
Dichlorodifluoromethane	ND		ug/kg	9.8	0.90	1
Acetone	46		ug/kg	9.8	4.7	1
Carbon disulfide	ND		ug/kg	9.8	4.4	1
2-Butanone	ND		ug/kg	9.8	2.2	1
4-Methyl-2-pentanone	ND		ug/kg	9.8	1.2	1
2-Hexanone	ND		ug/kg	9.8	1.2	1
Bromochloromethane	ND		ug/kg	2.0	0.20	1
Tetrahydrofuran	ND		ug/kg	3.9	1.6	1
2,2-Dichloropropane	ND		ug/kg	2.0	0.20	1
1,2-Dibromoethane	ND		ug/kg	0.98	0.27	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.49	0.13	1
Bromobenzene	ND		ug/kg	2.0	0.14	1
n-Butylbenzene	ND		ug/kg	0.98	0.16	1
sec-Butylbenzene	ND		ug/kg	0.98	0.14	1
tert-Butylbenzene	ND		ug/kg	2.0	0.12	1
1,3,5-Trichlorobenzene	ND		ug/kg	2.0	0.17	1
o-Chlorotoluene	ND		ug/kg	2.0	0.19	1
p-Chlorotoluene	ND		ug/kg	2.0	0.10	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	2.9	0.98	1
Hexachlorobutadiene	ND		ug/kg	3.9	0.16	1
Isopropylbenzene	ND		ug/kg	0.98	0.11	1
p-Isopropyltoluene	ND		ug/kg	0.98	0.11	1
Naphthalene	ND		ug/kg	3.9	0.64	1
n-Propylbenzene	ND		ug/kg	0.98	0.17	1

Project Name: WW CROSS
Project Number: 141.05051.010

Lab Number: L1926634
Report Date: 07/09/19

SAMPLE RESULTS

Lab ID: L1926634-03
Client ID: B105-S1
Sample Location: JAFFREY, NH

Date Collected: 06/18/19 11:10
Date Received: 06/19/19
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
1,2,3-Trichlorobenzene	ND		ug/kg	2.0	0.32	1
1,2,4-Trichlorobenzene	ND		ug/kg	2.0	0.27	1
1,3,5-Trimethylbenzene	ND		ug/kg	2.0	0.19	1
1,2,4-Trimethylbenzene	ND		ug/kg	2.0	0.33	1
Ethyl ether	2.0		ug/kg	2.0	0.33	1
Isopropyl Ether	ND		ug/kg	2.0	0.21	1
Tert-Butyl Alcohol	16	J	ug/kg	20	5.0	1
Ethyl-Tert-Butyl-Ether	ND		ug/kg	2.0	0.12	1
Tertiary-Amyl Methyl Ether	ND		ug/kg	2.0	0.17	1
1,4-Dioxane	ND		ug/kg	78	34.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	108		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	94		70-130
Dibromofluoromethane	102		70-130

Project Name: WW CROSS
Project Number: 141.05051.010

Lab Number: L1926634
Report Date: 07/09/19

SAMPLE RESULTS

Lab ID: L1926634-04
 Client ID: B107-S2
 Sample Location: JAFFREY, NH

Date Collected: 06/18/19 10:30
 Date Received: 06/19/19
 Field Prep: Not Specified

Sample Depth:
 Matrix: Soil
 Analytical Method: 1,8260C
 Analytical Date: 06/30/19 15:40
 Analyst: JC
 Percent Solids: 95%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Methylene chloride	ND		ug/kg	4.6	2.1	1
1,1-Dichloroethane	ND		ug/kg	0.91	0.13	1
Chloroform	ND		ug/kg	1.4	0.13	1
Carbon tetrachloride	ND		ug/kg	0.91	0.21	1
1,2-Dichloropropane	ND		ug/kg	0.91	0.11	1
Dibromochloromethane	ND		ug/kg	0.91	0.13	1
1,1,2-Trichloroethane	ND		ug/kg	0.91	0.24	1
Tetrachloroethene	ND		ug/kg	0.46	0.18	1
Chlorobenzene	ND		ug/kg	0.46	0.12	1
Trichlorofluoromethane	ND		ug/kg	3.6	0.63	1
1,2-Dichloroethane	ND		ug/kg	0.91	0.23	1
1,1,1-Trichloroethane	ND		ug/kg	0.46	0.15	1
Bromodichloromethane	ND		ug/kg	0.46	0.10	1
trans-1,3-Dichloropropene	ND		ug/kg	0.91	0.25	1
cis-1,3-Dichloropropene	ND		ug/kg	0.46	0.14	1
1,3-Dichloropropene, Total	ND		ug/kg	0.46	0.14	1
1,1-Dichloropropene	ND		ug/kg	0.46	0.14	1
Bromoform	ND		ug/kg	3.6	0.22	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.46	0.15	1
Benzene	ND		ug/kg	0.46	0.15	1
Toluene	ND		ug/kg	0.91	0.50	1
Ethylbenzene	ND		ug/kg	0.91	0.13	1
Chloromethane	ND		ug/kg	3.6	0.85	1
Bromomethane	ND		ug/kg	1.8	0.53	1
Vinyl chloride	ND		ug/kg	0.91	0.30	1
Chloroethane	ND		ug/kg	1.8	0.41	1
1,1-Dichloroethene	ND		ug/kg	0.91	0.22	1
trans-1,2-Dichloroethene	ND		ug/kg	1.4	0.12	1

Project Name: WW CROSS
Project Number: 141.05051.010

Lab Number: L1926634
Report Date: 07/09/19

SAMPLE RESULTS

Lab ID: L1926634-04
Client ID: B107-S2
Sample Location: JAFFREY, NH

Date Collected: 06/18/19 10:30
Date Received: 06/19/19
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatiles Organics by EPA 5035 Low - Westborough Lab						
Trichloroethene	ND		ug/kg	0.46	0.12	1
1,2-Dichlorobenzene	ND		ug/kg	1.8	0.13	1
1,3-Dichlorobenzene	ND		ug/kg	1.8	0.14	1
1,4-Dichlorobenzene	ND		ug/kg	1.8	0.16	1
Methyl tert butyl ether	0.52	J	ug/kg	1.8	0.18	1
p/m-Xylene	ND		ug/kg	1.8	0.51	1
o-Xylene	ND		ug/kg	0.91	0.26	1
Xylenes, Total	ND		ug/kg	0.91	0.26	1
cis-1,2-Dichloroethene	ND		ug/kg	0.91	0.16	1
1,2-Dichloroethene, Total	ND		ug/kg	0.91	0.12	1
Dibromomethane	ND		ug/kg	1.8	0.22	1
1,2,3-Trichloropropane	ND		ug/kg	1.8	0.12	1
Styrene	ND		ug/kg	0.91	0.18	1
Dichlorodifluoromethane	ND		ug/kg	9.1	0.84	1
Acetone	19		ug/kg	9.1	4.4	1
Carbon disulfide	ND		ug/kg	9.1	4.2	1
2-Butanone	ND		ug/kg	9.1	2.0	1
4-Methyl-2-pentanone	ND		ug/kg	9.1	1.2	1
2-Hexanone	ND		ug/kg	9.1	1.1	1
Bromochloromethane	ND		ug/kg	1.8	0.19	1
Tetrahydrofuran	ND		ug/kg	3.6	1.4	1
2,2-Dichloropropane	ND		ug/kg	1.8	0.18	1
1,2-Dibromoethane	ND		ug/kg	0.91	0.25	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.46	0.12	1
Bromobenzene	ND		ug/kg	1.8	0.13	1
n-Butylbenzene	ND		ug/kg	0.91	0.15	1
sec-Butylbenzene	ND		ug/kg	0.91	0.13	1
tert-Butylbenzene	ND		ug/kg	1.8	0.11	1
1,3,5-Trichlorobenzene	ND		ug/kg	1.8	0.16	1
o-Chlorotoluene	ND		ug/kg	1.8	0.17	1
p-Chlorotoluene	ND		ug/kg	1.8	0.10	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	2.7	0.91	1
Hexachlorobutadiene	ND		ug/kg	3.6	0.15	1
Isopropylbenzene	ND		ug/kg	0.91	0.10	1
p-Isopropyltoluene	ND		ug/kg	0.91	0.10	1
Naphthalene	ND		ug/kg	3.6	0.59	1
n-Propylbenzene	ND		ug/kg	0.91	0.16	1

Project Name: WW CROSS
Project Number: 141.05051.010

Lab Number: L1926634
Report Date: 07/09/19

SAMPLE RESULTS

Lab ID: L1926634-04
Client ID: B107-S2
Sample Location: JAFFREY, NH

Date Collected: 06/18/19 10:30
Date Received: 06/19/19
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
1,2,3-Trichlorobenzene	ND		ug/kg	1.8	0.29	1
1,2,4-Trichlorobenzene	ND		ug/kg	1.8	0.25	1
1,3,5-Trimethylbenzene	ND		ug/kg	1.8	0.18	1
1,2,4-Trimethylbenzene	ND		ug/kg	1.8	0.30	1
Ethyl ether	1.9		ug/kg	1.8	0.31	1
Isopropyl Ether	ND		ug/kg	1.8	0.19	1
Tert-Butyl Alcohol	18		ug/kg	18	4.7	1
Ethyl-Tert-Butyl-Ether	ND		ug/kg	1.8	0.12	1
Tertiary-Amyl Methyl Ether	ND		ug/kg	1.8	0.16	1
1,4-Dioxane	ND		ug/kg	73	32.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	108		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	98		70-130
Dibromofluoromethane	104		70-130

Project Name: WW CROSS
Project Number: 141.05051.010

Lab Number: L1926634
Report Date: 07/09/19

SAMPLE RESULTS

Lab ID: L1926634-06
 Client ID: TRIP BLANK
 Sample Location: JAFFREY, NH

Date Collected: 06/18/19 00:00
 Date Received: 06/19/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8260C
 Analytical Date: 06/30/19 13:02
 Analyst: JC
 Percent Solids: Results reported on an 'AS RECEIVED' basis.

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Methylene chloride	ND		ug/kg	5.0	2.3	1
1,1-Dichloroethane	ND		ug/kg	1.0	0.14	1
Chloroform	ND		ug/kg	1.5	0.14	1
Carbon tetrachloride	ND		ug/kg	1.0	0.23	1
1,2-Dichloropropane	ND		ug/kg	1.0	0.12	1
Dibromochloromethane	ND		ug/kg	1.0	0.14	1
1,1,2-Trichloroethane	ND		ug/kg	1.0	0.27	1
Tetrachloroethene	ND		ug/kg	0.50	0.20	1
Chlorobenzene	ND		ug/kg	0.50	0.13	1
Trichlorofluoromethane	ND		ug/kg	4.0	0.70	1
1,2-Dichloroethane	ND		ug/kg	1.0	0.26	1
1,1,1-Trichloroethane	ND		ug/kg	0.50	0.17	1
Bromodichloromethane	ND		ug/kg	0.50	0.11	1
trans-1,3-Dichloropropene	ND		ug/kg	1.0	0.27	1
cis-1,3-Dichloropropene	ND		ug/kg	0.50	0.16	1
1,3-Dichloropropene, Total	ND		ug/kg	0.50	0.16	1
1,1-Dichloropropene	ND		ug/kg	0.50	0.16	1
Bromoform	ND		ug/kg	4.0	0.25	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.50	0.17	1
Benzene	ND		ug/kg	0.50	0.17	1
Toluene	ND		ug/kg	1.0	0.54	1
Ethylbenzene	ND		ug/kg	1.0	0.14	1
Chloromethane	ND		ug/kg	4.0	0.93	1
Bromomethane	ND		ug/kg	2.0	0.58	1
Vinyl chloride	ND		ug/kg	1.0	0.34	1
Chloroethane	ND		ug/kg	2.0	0.45	1
1,1-Dichloroethene	ND		ug/kg	1.0	0.24	1
trans-1,2-Dichloroethene	ND		ug/kg	1.5	0.14	1

Project Name: WW CROSS
Project Number: 141.05051.010

Lab Number: L1926634
Report Date: 07/09/19

SAMPLE RESULTS

Lab ID: L1926634-06
Client ID: TRIP BLANK
Sample Location: JAFFREY, NH

Date Collected: 06/18/19 00:00
Date Received: 06/19/19
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Trichloroethene	ND		ug/kg	0.50	0.14	1
1,2-Dichlorobenzene	ND		ug/kg	2.0	0.14	1
1,3-Dichlorobenzene	ND		ug/kg	2.0	0.15	1
1,4-Dichlorobenzene	ND		ug/kg	2.0	0.17	1
Methyl tert butyl ether	ND		ug/kg	2.0	0.20	1
p/m-Xylene	ND		ug/kg	2.0	0.56	1
o-Xylene	ND		ug/kg	1.0	0.29	1
Xylenes, Total	ND		ug/kg	1.0	0.29	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
Dibromomethane	ND		ug/kg	2.0	0.24	1
1,2,3-Trichloropropane	ND		ug/kg	2.0	0.13	1
Styrene	ND		ug/kg	1.0	0.20	1
Dichlorodifluoromethane	ND		ug/kg	10	0.92	1
Acetone	11		ug/kg	10	4.8	1
Carbon disulfide	ND		ug/kg	10	4.6	1
2-Butanone	ND		ug/kg	10	2.2	1
4-Methyl-2-pentanone	ND		ug/kg	10	1.3	1
2-Hexanone	ND		ug/kg	10	1.2	1
Bromochloromethane	ND		ug/kg	2.0	0.20	1
Tetrahydrofuran	ND		ug/kg	4.0	1.6	1
2,2-Dichloropropane	ND		ug/kg	2.0	0.20	1
1,2-Dibromoethane	ND		ug/kg	1.0	0.28	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.50	0.13	1
Bromobenzene	ND		ug/kg	2.0	0.14	1
n-Butylbenzene	ND		ug/kg	1.0	0.17	1
sec-Butylbenzene	ND		ug/kg	1.0	0.15	1
tert-Butylbenzene	ND		ug/kg	2.0	0.12	1
1,3,5-Trichlorobenzene	ND		ug/kg	2.0	0.17	1
o-Chlorotoluene	ND		ug/kg	2.0	0.19	1
p-Chlorotoluene	ND		ug/kg	2.0	0.11	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.0	1.0	1
Hexachlorobutadiene	ND		ug/kg	4.0	0.17	1
Isopropylbenzene	ND		ug/kg	1.0	0.11	1
p-Isopropyltoluene	ND		ug/kg	1.0	0.11	1
Naphthalene	ND		ug/kg	4.0	0.65	1
n-Propylbenzene	ND		ug/kg	1.0	0.17	1

Project Name: WW CROSS
Project Number: 141.05051.010

Lab Number: L1926634
Report Date: 07/09/19

SAMPLE RESULTS

Lab ID: L1926634-06
Client ID: TRIP BLANK
Sample Location: JAFFREY, NH

Date Collected: 06/18/19 00:00
Date Received: 06/19/19
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
1,2,3-Trichlorobenzene	ND		ug/kg	2.0	0.32	1
1,2,4-Trichlorobenzene	ND		ug/kg	2.0	0.27	1
1,3,5-Trimethylbenzene	ND		ug/kg	2.0	0.19	1
1,2,4-Trimethylbenzene	ND		ug/kg	2.0	0.33	1
Ethyl ether	1.7	J	ug/kg	2.0	0.34	1
Isopropyl Ether	ND		ug/kg	2.0	0.21	1
Tert-Butyl Alcohol	24		ug/kg	20	5.1	1
Ethyl-Tert-Butyl-Ether	ND		ug/kg	2.0	0.13	1
Tertiary-Amyl Methyl Ether	ND		ug/kg	2.0	0.18	1
1,4-Dioxane	ND		ug/kg	80	35.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	103		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	94		70-130
Dibromofluoromethane	103		70-130

Project Name: WW CROSS
Project Number: 141.05051.010

Lab Number: L1926634
Report Date: 07/09/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 06/30/19 09:59
Analyst: AD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by EPA 5035 Low - Westborough Lab for sample(s): 01,03-04,06 Batch: WG1255119-5					
Methylene chloride	ND		ug/kg	5.0	2.3
1,1-Dichloroethane	ND		ug/kg	1.0	0.14
Chloroform	ND		ug/kg	1.5	0.14
Carbon tetrachloride	ND		ug/kg	1.0	0.23
1,2-Dichloropropane	ND		ug/kg	1.0	0.12
Dibromochloromethane	ND		ug/kg	1.0	0.14
1,1,2-Trichloroethane	ND		ug/kg	1.0	0.27
Tetrachloroethene	ND		ug/kg	0.50	0.20
Chlorobenzene	ND		ug/kg	0.50	0.13
Trichlorofluoromethane	ND		ug/kg	4.0	0.70
1,2-Dichloroethane	ND		ug/kg	1.0	0.26
1,1,1-Trichloroethane	ND		ug/kg	0.50	0.17
Bromodichloromethane	ND		ug/kg	0.50	0.11
trans-1,3-Dichloropropene	ND		ug/kg	1.0	0.27
cis-1,3-Dichloropropene	ND		ug/kg	0.50	0.16
1,3-Dichloropropene, Total	ND		ug/kg	0.50	0.16
1,1-Dichloropropene	ND		ug/kg	0.50	0.16
Bromoform	ND		ug/kg	4.0	0.25
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.50	0.17
Benzene	ND		ug/kg	0.50	0.17
Toluene	ND		ug/kg	1.0	0.54
Ethylbenzene	ND		ug/kg	1.0	0.14
Chloromethane	ND		ug/kg	4.0	0.93
Bromomethane	ND		ug/kg	2.0	0.58
Vinyl chloride	ND		ug/kg	1.0	0.34
Chloroethane	ND		ug/kg	2.0	0.45
1,1-Dichloroethene	ND		ug/kg	1.0	0.24
trans-1,2-Dichloroethene	ND		ug/kg	1.5	0.14
Trichloroethene	ND		ug/kg	0.50	0.14

Project Name: WW CROSS
Project Number: 141.05051.010

Lab Number: L1926634
Report Date: 07/09/19

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 06/30/19 09:59
Analyst: AD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by EPA 5035 Low - Westborough Lab for sample(s): 01,03-04,06 Batch: WG1255119-5					
1,2-Dichlorobenzene	ND		ug/kg	2.0	0.14
1,3-Dichlorobenzene	ND		ug/kg	2.0	0.15
1,4-Dichlorobenzene	ND		ug/kg	2.0	0.17
Methyl tert butyl ether	ND		ug/kg	2.0	0.20
p/m-Xylene	ND		ug/kg	2.0	0.56
o-Xylene	ND		ug/kg	1.0	0.29
Xylenes, Total	ND		ug/kg	1.0	0.29
cis-1,2-Dichloroethene	ND		ug/kg	1.0	0.18
1,2-Dichloroethene, Total	ND		ug/kg	1.0	0.14
Dibromomethane	ND		ug/kg	2.0	0.24
1,2,3-Trichloropropane	ND		ug/kg	2.0	0.13
Styrene	ND		ug/kg	1.0	0.20
Dichlorodifluoromethane	ND		ug/kg	10	0.92
Acetone	ND		ug/kg	10	4.8
Carbon disulfide	ND		ug/kg	10	4.6
2-Butanone	ND		ug/kg	10	2.2
4-Methyl-2-pentanone	ND		ug/kg	10	1.3
2-Hexanone	ND		ug/kg	10	1.2
Bromochloromethane	ND		ug/kg	2.0	0.20
Tetrahydrofuran	ND		ug/kg	4.0	1.6
2,2-Dichloropropane	ND		ug/kg	2.0	0.20
1,2-Dibromoethane	ND		ug/kg	1.0	0.28
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.50	0.13
Bromobenzene	ND		ug/kg	2.0	0.14
n-Butylbenzene	ND		ug/kg	1.0	0.17
sec-Butylbenzene	ND		ug/kg	1.0	0.15
tert-Butylbenzene	ND		ug/kg	2.0	0.12
1,3,5-Trichlorobenzene	ND		ug/kg	2.0	0.17
o-Chlorotoluene	ND		ug/kg	2.0	0.19

Project Name: WW CROSS
Project Number: 141.05051.010

Lab Number: L1926634
Report Date: 07/09/19

**Method Blank Analysis
Batch Quality Control**

Analytical Method: 1,8260C
Analytical Date: 06/30/19 09:59
Analyst: AD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by EPA 5035 Low - Westborough Lab for sample(s): 01,03-04,06 Batch: WG1255119-5					
p-Chlorotoluene	ND		ug/kg	2.0	0.11
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.0	1.0
Hexachlorobutadiene	ND		ug/kg	4.0	0.17
Isopropylbenzene	ND		ug/kg	1.0	0.11
p-Isopropyltoluene	ND		ug/kg	1.0	0.11
Naphthalene	ND		ug/kg	4.0	0.65
n-Propylbenzene	ND		ug/kg	1.0	0.17
1,2,3-Trichlorobenzene	ND		ug/kg	2.0	0.32
1,2,4-Trichlorobenzene	ND		ug/kg	2.0	0.27
1,3,5-Trimethylbenzene	ND		ug/kg	2.0	0.19
1,2,4-Trimethylbenzene	ND		ug/kg	2.0	0.33
Ethyl ether	ND		ug/kg	2.0	0.34
Isopropyl Ether	ND		ug/kg	2.0	0.21
Tert-Butyl Alcohol	ND		ug/kg	20	5.1
Ethyl-Tert-Butyl-Ether	ND		ug/kg	2.0	0.13
Tertiary-Amyl Methyl Ether	ND		ug/kg	2.0	0.18
1,4-Dioxane	ND		ug/kg	80	35.

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	98		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	94		70-130
Dibromofluoromethane	98		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: WW CROSS
Project Number: 141.05051.010

Lab Number: L1926634
Report Date: 07/09/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 01,03-04,06 Batch: WG1255119-3 WG1255119-4								
Methylene chloride	86		84		70-130	2		30
1,1-Dichloroethane	97		96		70-130	1		30
Chloroform	102		102		70-130	0		30
Carbon tetrachloride	110		109		70-130	1		30
1,2-Dichloropropane	93		93		70-130	0		30
Dibromochloromethane	105		107		70-130	2		30
1,1,2-Trichloroethane	103		101		70-130	2		30
Tetrachloroethene	110		111		70-130	1		30
Chlorobenzene	103		103		70-130	0		30
Trichlorofluoromethane	105		105		70-139	0		30
1,2-Dichloroethane	92		95		70-130	3		30
1,1,1-Trichloroethane	110		108		70-130	2		30
Bromodichloromethane	102		104		70-130	2		30
trans-1,3-Dichloropropene	105		107		70-130	2		30
cis-1,3-Dichloropropene	104		104		70-130	0		30
1,1-Dichloropropene	108		108		70-130	0		30
Bromoform	108		109		70-130	1		30
1,1,2,2-Tetrachloroethane	99		98		70-130	1		30
Benzene	100		99		70-130	1		30
Toluene	103		103		70-130	0		30
Ethylbenzene	105		106		70-130	1		30
Chloromethane	83		79		52-130	5		30
Bromomethane	100		100		57-147	0		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: WW CROSS
Project Number: 141.05051.010

Lab Number: L1926634
Report Date: 07/09/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 01,03-04,06 Batch: WG1255119-3 WG1255119-4								
Vinyl chloride	95		94		67-130	1		30
Chloroethane	104		102		50-151	2		30
1,1-Dichloroethene	106		105		65-135	1		30
trans-1,2-Dichloroethene	104		102		70-130	2		30
Trichloroethene	103		106		70-130	3		30
1,2-Dichlorobenzene	103		101		70-130	2		30
1,3-Dichlorobenzene	104		103		70-130	1		30
1,4-Dichlorobenzene	104		102		70-130	2		30
Methyl tert butyl ether	98		97		66-130	1		30
p/m-Xylene	109		109		70-130	0		30
o-Xylene	107		108		70-130	1		30
cis-1,2-Dichloroethene	103		101		70-130	2		30
Dibromomethane	100		101		70-130	1		30
1,2,3-Trichloropropane	96		97		68-130	1		30
Styrene	108		109		70-130	1		30
Dichlorodifluoromethane	96		94		30-146	2		30
Acetone	72		73		54-140	1		30
Carbon disulfide	100		99		59-130	1		30
2-Butanone	69	Q	84		70-130	20		30
4-Methyl-2-pentanone	90		90		70-130	0		30
2-Hexanone	78		77		70-130	1		30
Bromochloromethane	105		108		70-130	3		30
Tetrahydrofuran	84		85		66-130	1		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: WW CROSS
Project Number: 141.05051.010

Lab Number: L1926634
Report Date: 07/09/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 01,03-04,06 Batch: WG1255119-3 WG1255119-4								
2,2-Dichloropropane	108		107		70-130	1		30
1,2-Dibromoethane	103		105		70-130	2		30
1,1,1,2-Tetrachloroethane	105		109		70-130	4		30
Bromobenzene	104		101		70-130	3		30
n-Butylbenzene	106		103		70-130	3		30
sec-Butylbenzene	106		105		70-130	1		30
tert-Butylbenzene	107		104		70-130	3		30
1,3,5-Trichlorobenzene	108		107		70-139	1		30
o-Chlorotoluene	86		84		70-130	2		30
p-Chlorotoluene	104		102		70-130	2		30
1,2-Dibromo-3-chloropropane	93		99		68-130	6		30
Hexachlorobutadiene	111		108		67-130	3		30
Isopropylbenzene	108		105		70-130	3		30
p-Isopropyltoluene	108		106		70-130	2		30
Naphthalene	103		102		70-130	1		30
n-Propylbenzene	106		103		70-130	3		30
1,2,3-Trichlorobenzene	103		106		70-130	3		30
1,2,4-Trichlorobenzene	109		109		70-130	0		30
1,3,5-Trimethylbenzene	107		106		70-130	1		30
1,2,4-Trimethylbenzene	107		105		70-130	2		30
Ethyl ether	96		101		67-130	5		30
Isopropyl Ether	84		82		66-130	2		30
Tert-Butyl Alcohol	90		91		70-130	1		30

Lab Control Sample Analysis Batch Quality Control

Project Name: WW CROSS
Project Number: 141.05051.010

Lab Number: L1926634
Report Date: 07/09/19

Parameter	LCS %Recovery	Qual	LCS %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 01,03-04,06 Batch: WG1255119-3 WG1255119-4								
Ethyl-Tert-Butyl-Ether	93		93		70-130	0		30
Tertiary-Amyl Methyl Ether	97		100		70-130	3		30
1,4-Dioxane	94		94		65-136	0		30

Surrogate	LCS %Recovery	Qual	LCS %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	97		99		70-130
Toluene-d8	99		101		70-130
4-Bromofluorobenzene	96		94		70-130
Dibromofluoromethane	100		101		70-130

SEMIVOLATILES

Project Name: WW CROSS
Project Number: 141.05051.010

Lab Number: L1926634
Report Date: 07/09/19

SAMPLE RESULTS

Lab ID: L1926634-02
 Client ID: B104-S3
 Sample Location: JAFFREY, NH

Date Collected: 06/18/19 09:40
 Date Received: 06/19/19
 Field Prep: Not Specified

Sample Depth:
 Matrix: Soil
 Analytical Method: 1,8270D
 Analytical Date: 07/04/19 08:42
 Analyst: JG
 Percent Solids: 86%

Extraction Method: EPA 3546
 Extraction Date: 06/30/19 09:24

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	160	20.	1
2-Chloronaphthalene	ND		ug/kg	190	19.	1
Fluoranthene	650		ug/kg	120	22.	1
Naphthalene	ND		ug/kg	190	24.	1
Benzo(a)anthracene	270		ug/kg	120	22.	1
Benzo(a)pyrene	190		ug/kg	160	47.	1
Benzo(b)fluoranthene	240		ug/kg	120	33.	1
Benzo(k)fluoranthene	110	J	ug/kg	120	31.	1
Chrysene	260		ug/kg	120	20.	1
Acenaphthylene	86	J	ug/kg	160	30.	1
Anthracene	92	J	ug/kg	120	38.	1
Benzo(ghi)perylene	120	J	ug/kg	160	23.	1
Fluorene	25	J	ug/kg	190	19.	1
Phenanthrene	440		ug/kg	120	24.	1
Dibenzo(a,h)anthracene	22	J	ug/kg	120	22.	1
Indeno(1,2,3-cd)pyrene	120	J	ug/kg	160	27.	1
Pyrene	590		ug/kg	120	19.	1
1-Methylnaphthalene	ND		ug/kg	190	22.	1
2-Methylnaphthalene	ND		ug/kg	230	23.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	76		23-120
2-Fluorobiphenyl	76		30-120
4-Terphenyl-d14	62		18-120

Project Name: WW CROSS
Project Number: 141.05051.010

Lab Number: L1926634
Report Date: 07/09/19

SAMPLE RESULTS

Lab ID: L1926634-03
 Client ID: B105-S1
 Sample Location: JAFFREY, NH

Date Collected: 06/18/19 11:10
 Date Received: 06/19/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8270D
 Analytical Date: 07/04/19 08:15
 Analyst: JG
 Percent Solids: 96%

Extraction Method: EPA 3546
 Extraction Date: 06/30/19 09:24

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	140	18.	1
2-Chloronaphthalene	ND		ug/kg	170	17.	1
Fluoranthene	170		ug/kg	100	20.	1
Naphthalene	ND		ug/kg	170	21.	1
Benzo(a)anthracene	87	J	ug/kg	100	20.	1
Benzo(a)pyrene	57	J	ug/kg	140	42.	1
Benzo(b)fluoranthene	88	J	ug/kg	100	29.	1
Benzo(k)fluoranthene	45	J	ug/kg	100	28.	1
Chrysene	83	J	ug/kg	100	18.	1
Acenaphthylene	ND		ug/kg	140	27.	1
Anthracene	ND		ug/kg	100	34.	1
Benzo(ghi)perylene	46	J	ug/kg	140	20.	1
Fluorene	ND		ug/kg	170	17.	1
Phenanthrene	120		ug/kg	100	21.	1
Dibenzo(a,h)anthracene	ND		ug/kg	100	20.	1
Indeno(1,2,3-cd)pyrene	46	J	ug/kg	140	24.	1
Pyrene	140		ug/kg	100	17.	1
1-Methylnaphthalene	ND		ug/kg	170	20.	1
2-Methylnaphthalene	ND		ug/kg	210	21.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	65		23-120
2-Fluorobiphenyl	72		30-120
4-Terphenyl-d14	73		18-120

Project Name: WW CROSS
Project Number: 141.05051.010

Lab Number: L1926634
Report Date: 07/09/19

SAMPLE RESULTS

Lab ID: L1926634-04
 Client ID: B107-S2
 Sample Location: JAFFREY, NH

Date Collected: 06/18/19 10:30
 Date Received: 06/19/19
 Field Prep: Not Specified

Sample Depth:
 Matrix: Soil
 Analytical Method: 1,8270D
 Analytical Date: 07/04/19 07:21
 Analyst: JG
 Percent Solids: 95%

Extraction Method: EPA 3546
 Extraction Date: 06/30/19 09:24

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	140	18.	1
2-Chloronaphthalene	ND		ug/kg	170	17.	1
Fluoranthene	ND		ug/kg	100	20.	1
Naphthalene	ND		ug/kg	170	21.	1
Benzo(a)anthracene	ND		ug/kg	100	20.	1
Benzo(a)pyrene	ND		ug/kg	140	42.	1
Benzo(b)fluoranthene	ND		ug/kg	100	29.	1
Benzo(k)fluoranthene	ND		ug/kg	100	28.	1
Chrysene	ND		ug/kg	100	18.	1
Acenaphthylene	ND		ug/kg	140	27.	1
Anthracene	ND		ug/kg	100	34.	1
Benzo(ghi)perylene	ND		ug/kg	140	20.	1
Fluorene	ND		ug/kg	170	17.	1
Phenanthrene	ND		ug/kg	100	21.	1
Dibenzo(a,h)anthracene	ND		ug/kg	100	20.	1
Indeno(1,2,3-cd)pyrene	ND		ug/kg	140	24.	1
Pyrene	ND		ug/kg	100	17.	1
1-Methylnaphthalene	ND		ug/kg	170	20.	1
2-Methylnaphthalene	ND		ug/kg	210	21.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	82		23-120
2-Fluorobiphenyl	83		30-120
4-Terphenyl-d14	80		18-120

Project Name: WW CROSS
Project Number: 141.05051.010

Lab Number: L1926634
Report Date: 07/09/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 07/03/19 20:51
Analyst: SZ

Extraction Method: EPA 3546
Extraction Date: 06/30/19 09:24

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 02-04 Batch: WG1254970-1					
Acenaphthene	ND		ug/kg	130	17.
2-Chloronaphthalene	ND		ug/kg	160	16.
Fluoranthene	ND		ug/kg	97	18.
Naphthalene	ND		ug/kg	160	20.
Benzo(a)anthracene	ND		ug/kg	97	18.
Benzo(a)pyrene	ND		ug/kg	130	39.
Benzo(b)fluoranthene	ND		ug/kg	97	27.
Benzo(k)fluoranthene	ND		ug/kg	97	26.
Chrysene	ND		ug/kg	97	17.
Acenaphthylene	ND		ug/kg	130	25.
Anthracene	ND		ug/kg	97	32.
Benzo(ghi)perylene	ND		ug/kg	130	19.
Fluorene	ND		ug/kg	160	16.
Phenanthrene	ND		ug/kg	97	20.
Dibenzo(a,h)anthracene	ND		ug/kg	97	19.
Indeno(1,2,3-cd)pyrene	ND		ug/kg	130	22.
Pyrene	ND		ug/kg	97	16.
1-Methylnaphthalene	ND		ug/kg	160	19.
2-Methylnaphthalene	ND		ug/kg	190	20.

Surrogate	%Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	74		23-120
2-Fluorobiphenyl	77		30-120
4-Terphenyl-d14	80		18-120

Lab Control Sample Analysis

Batch Quality Control

Project Name: WW CROSS
Project Number: 141.05051.010

Lab Number: L1926634
Report Date: 07/09/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 02-04 Batch: WG1254970-2 WG1254970-3								
Acenaphthene	83		87		31-137	5		50
2-Chloronaphthalene	85		88		40-140	3		50
Fluoranthene	91		95		40-140	4		50
Naphthalene	79		81		40-140	3		50
Benzo(a)anthracene	92		96		40-140	4		50
Benzo(a)pyrene	90		96		40-140	6		50
Benzo(b)fluoranthene	91		98		40-140	7		50
Benzo(k)fluoranthene	91		91		40-140	0		50
Chrysene	85		89		40-140	5		50
Acenaphthylene	90		92		40-140	2		50
Anthracene	88		92		40-140	4		50
Benzo(ghi)perylene	90		92		40-140	2		50
Fluorene	87		90		40-140	3		50
Phenanthrene	85		90		40-140	6		50
Dibenzo(a,h)anthracene	99		102		40-140	3		50
Indeno(1,2,3-cd)pyrene	84		85		40-140	1		50
Pyrene	90		95		35-142	5		50
1-Methylnaphthalene	86		86		26-130	0		50
2-Methylnaphthalene	84		86		40-140	2		50

Lab Control Sample Analysis Batch Quality Control

Project Name: WW CROSS
Project Number: 141.05051.010

Lab Number: L1926634
Report Date: 07/09/19

Parameter	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>%Recovery</i> Limits	<i>RPD</i>	<i>Qual</i>	<i>RPD</i> Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 02-04 Batch: WG1254970-2 WG1254970-3								

<i>Surrogate</i>	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>Acceptance</i> Criteria
Nitrobenzene-d5	86		88		23-120
2-Fluorobiphenyl	87		88		30-120
4-Terphenyl-d14	90		92		18-120

PETROLEUM HYDROCARBONS

Project Name: WW CROSS
Project Number: 141.05051.010

Lab Number: L1926634
Report Date: 07/09/19

SAMPLE RESULTS

Lab ID: L1926634-04
 Client ID: B107-S2
 Sample Location: JAFFREY, NH

Date Collected: 06/18/19 10:30
 Date Received: 06/19/19
 Field Prep: Not Specified

Sample Depth:
 Matrix: Soil
 Analytical Method: 1,8015D(M)
 Analytical Date: 07/01/19 05:37
 Analyst: MEO
 Percent Solids: 95%

Extraction Method: EPA 3546
 Extraction Date: 06/30/19 10:35

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Petroleum Hydrocarbon Quantitation - Westborough Lab						
TPH	5570	J	ug/kg	34200	3930	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
o-Terphenyl	85		40-140

Project Name: WW CROSS
Project Number: 141.05051.010

Lab Number: L1926634
Report Date: 07/09/19

**Method Blank Analysis
Batch Quality Control**

Analytical Method: 1,8015D(M)
Analytical Date: 06/30/19 19:29
Analyst: MEO

Extraction Method: EPA 3546
Extraction Date: 06/29/19 20:01

Parameter	Result	Qualifier	Units	RL	MDL
Petroleum Hydrocarbon Quantitation - Westborough Lab for sample(s): 04 Batch: WG1254914-1					
TPH	ND		ug/kg	31900	3670

Surrogate	%Recovery	Qualifier	Acceptance Criteria
o-Terphenyl	88		40-140

Lab Control Sample Analysis Batch Quality Control

Project Name: WW CROSS
Project Number: 141.05051.010

Lab Number: L1926634
Report Date: 07/09/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Petroleum Hydrocarbon Quantitation - Westborough Lab Associated sample(s): 04 Batch: WG1254914-2								
TPH	95		-		40-140	-		40

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
o-Terphenyl	74				40-140

INORGANICS & MISCELLANEOUS

Project Name: WW CROSS
Project Number: 141.05051.010

Lab Number: L1926634
Report Date: 07/09/19

SAMPLE RESULTS

Lab ID: L1926634-01
Client ID: B101-S1
Sample Location: JAFFREY, NH

Date Collected: 06/18/19 13:00
Date Received: 06/19/19
Field Prep: Not Specified

Sample Depth:
Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	94.8		%	0.100	NA	1	-	06/27/19 14:19	121,2540G	RI



Project Name: WW CROSS
Project Number: 141.05051.010

Lab Number: L1926634
Report Date: 07/09/19

SAMPLE RESULTS

Lab ID: L1926634-02
Client ID: B104-S3
Sample Location: JAFFREY, NH

Date Collected: 06/18/19 09:40
Date Received: 06/19/19
Field Prep: Not Specified

Sample Depth:
Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	85.5		%	0.100	NA	1	-	06/27/19 14:19	121,2540G	RI



Project Name: WW CROSS
Project Number: 141.05051.010

Lab Number: L1926634
Report Date: 07/09/19

SAMPLE RESULTS

Lab ID: L1926634-03
Client ID: B105-S1
Sample Location: JAFFREY, NH

Date Collected: 06/18/19 11:10
Date Received: 06/19/19
Field Prep: Not Specified

Sample Depth:
Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	95.9		%	0.100	NA	1	-	06/27/19 14:19	121,2540G	RI



Project Name: WW CROSS
Project Number: 141.05051.010

Lab Number: L1926634
Report Date: 07/09/19

SAMPLE RESULTS

Lab ID: L1926634-04
Client ID: B107-S2
Sample Location: JAFFREY, NH

Date Collected: 06/18/19 10:30
Date Received: 06/19/19
Field Prep: Not Specified

Sample Depth:
Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	94.9		%	0.100	NA	1	-	06/27/19 14:19	121,2540G	RI



Lab Duplicate Analysis

Batch Quality Control

Project Name: WW CROSS
Project Number: 141.05051.010

Lab Number: L1926634
Report Date: 07/09/19

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-04 QC Batch ID: WG1253941-1 QC Sample: L1926634-01 Client ID: B101-S1						
Solids, Total	94.8	94.7	%	0		20

Project Name: WW CROSS
Project Number: 141.05051.010

Serial_No:07091918:41
Lab Number: L1926634
Report Date: 07/09/19

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler **Custody Seal**
A Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1926634-01A	Vial MeOH preserved	A	NA		3.2	Y	Absent		8260HLW-NH(14)
L1926634-01B	Vial water preserved	A	NA		3.2	Y	Absent	19-JUN-19 23:36	8260HLW-NH(14)
L1926634-01C	Vial water preserved	A	NA		3.2	Y	Absent	19-JUN-19 23:36	8260HLW-NH(14)
L1926634-01D	Plastic 2oz unpreserved for TS	A	NA		3.2	Y	Absent		TS(7)
L1926634-02A	Glass 250ml/8oz unpreserved	A	NA		3.2	Y	Absent		HOLD-PETRO(14),8270TCL-PAH(14),TS(7),HOLD-PHI()
L1926634-03A	Vial MeOH preserved	A	NA		3.2	Y	Absent		8260HLW-NH(14)
L1926634-03B	Vial water preserved	A	NA		3.2	Y	Absent	19-JUN-19 23:36	8260HLW-NH(14)
L1926634-03C	Vial water preserved	A	NA		3.2	Y	Absent	20-JUN-19 09:05	8260HLW-NH(14)
L1926634-03D	Plastic 2oz unpreserved for TS	A	NA		3.2	Y	Absent		TS(7)
L1926634-03E	Glass 250ml/8oz unpreserved	A	NA		3.2	Y	Absent		HOLD-PETRO(14),8270TCL-PAH(14),HOLD-PHI()
L1926634-04A	Vial MeOH preserved	A	NA		3.2	Y	Absent		8260HLW-NH(14)
L1926634-04B	Vial water preserved	A	NA		3.2	Y	Absent	19-JUN-19 23:36	8260HLW-NH(14)
L1926634-04C	Vial water preserved	A	NA		3.2	Y	Absent	20-JUN-19 09:17	8260HLW-NH(14)
L1926634-04D	Plastic 2oz unpreserved for TS	A	NA		3.2	Y	Absent		TS(7)
L1926634-04E	Glass 250ml/8oz unpreserved	A	NA		3.2	Y	Absent		8270TCL-PAH(14),HOLD-PHI(),TPH-DRO-D(14)
L1926634-05A	Vial MeOH preserved	A	NA		3.2	Y	Absent		HOLD-8260HLW(14)
L1926634-05B	Vial water preserved	A	NA		3.2	Y	Absent	19-JUN-19 23:36	HOLD-8260HLW(14)
L1926634-05C	Vial water preserved	A	NA		3.2	Y	Absent	19-JUN-19 23:36	HOLD-8260HLW(14)
L1926634-05D	Glass 250ml/8oz unpreserved	A	NA		3.2	Y	Absent		HOLD-PETRO(14),HOLD-WETCHEM(),HOLD-PHI(),HOLD-8270(14)
L1926634-05E	Glass 250ml/8oz unpreserved	A	NA		3.2	Y	Absent		-
L1926634-06A	Vial MeOH preserved	A	NA		3.2	Y	Absent		8260HLW-NH(14)
L1926634-06B	Vial water preserved	A	NA		3.2	Y	Absent	19-JUN-19 23:36	8260HLW-NH(14)

*Values in parentheses indicate holding time in days



Project Name: WW CROSS
Project Number: 141.05051.010

Serial_No:07091918:41
Lab Number: L1926634
Report Date: 07/09/19

Container Information

Container ID **Container Type**

Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
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Project Name: WW CROSS
Project Number: 141.05051.010

Lab Number: L1926634
Report Date: 07/09/19

GLOSSARY

Acronyms

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

Footnotes

Report Format: DU Report with 'J' Qualifiers



Project Name: WW CROSS
Project Number: 141.05051.010

Lab Number: L1926634
Report Date: 07/09/19

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

Terms

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

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

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

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

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

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.

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 Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- 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 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: WW CROSS
Project Number: 141.05051.010

Lab Number: L1926634
Report Date: 07/09/19

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

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

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

EPA 6860: SCM: Perchlorate

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

Mansfield Facility

SM 2540D: TSS

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

EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene,

3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

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

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

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

Non-Potable Water

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

EPA 624.1: Volatile Halocarbons & Aromatics,

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

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

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

Mansfield Facility:

Drinking Water

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

EPA 522.

Non-Potable Water

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

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


EPA 245.1 Hg.

SM2340B

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

CHAIN OF CUSTODY

PAGE 1 OF 1



ALPHA ANALYTICAL
 8 Wakeup Drive
 Westboro, MA 01581
 Tel: 508-898-9220

320 Forbes Blvd
 Mansfield, MA 02048
 Tel: 508-422-9300

Date Rec'd in Lab: 6/19/19

ALPHA Job #: L192663A

Project Information

Project Name: WW CROSS

Project Location: Jaffrey, NH

Project #: 141.05051.010

Project Manager: John DeLelleo

ALPHA Quote #:

Report Information - Data Deliverables

LADEX EMAIL

Same as Client info PO #: 11764

Client Information

Client: Ransom Consulting

Address: 112 Corporate Dr
Rossman, NH

Phone: 603-436-1490

Email: john.deleleo@ransom.com
cc: john.fuchs@ransom.com

Additional Project Information:
Low level soil VOC samples must be frozen within 48hrs.
HOLD all samples until pending email from Ransom.

Regulatory Requirements & Project Information Requirements

Yes No MA MCP Analytical Methods Yes No CT RCP Analytical Methods

Yes No Matrix Spike Required on this SDG? (Required for MCP (Inorganics))

Yes No GW1 Standards (Info Required for Metals & EPM with Targets)

Yes No NPDES RGP

Other State / Fed Program: NPDES + 15 EPA Brownfields Criteria: per 55QMP

Turn-Around Time

Standard RUSH (only confirmed if pre-approved)

Date Due:

ANALYSIS

VOC: Metals SOA SOA2

SVOC: ABN PAH

METALS: MCP 15 MCP 14 CRCP 15

METALS: CRAS CRAS CRAS

EPA: CRanges & Targets Ranges Only

VPH: Ranges & Targets Ranges Only

PCB: PBT

TPH: Quant Only Fingerprint

TM-DEQ
Perchlorate Under Investigation

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection		Sample Matrix	Sampler Initials						TOTAL # BOTTLES	
		Date	Time									
2663A-01	B101-51	6-18-19	13:00	Soil	DAP	X						4
-02	B104-53		9:40				X					1
-03	B105-51		11:10			X	X					5
-04	B107-52		10:30			X	X					5
-05	DUP 1		10:30			X	X					2
-06	Top Blank					X						

SAMPLE INFO

Filtration

Field Lab to do

Preservation

Lab to do

Container Type	V A	A A	A A
Preservative	B0 A	A A	A A

Relinquished By:	Date/Time	Received By:	Date/Time
<u>[Signature]</u>	<u>6/19/19 15:00</u>	<u>[Signature]</u>	<u>6/19/19 15:15</u>
<u>[Signature]</u>	<u>6/19/19</u>	<u>[Signature]</u>	<u>6/19/19</u>
<u>[Signature]</u>	<u>6/19/19</u>	<u>[Signature]</u>	<u>6/19/19</u>

All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

FORM NGL 01-01 (rev. 12-Mar-2012)



CHAIN OF CUSTODY

PAGE 1 OF 1

8 Walkup Drive
Westboro, MA 01581
Tel: 508-896-9220

320 Forbes Blvd
Mansfield, MA 02048
Tel: 508-922-9300

Date Rec'd in Lab: 6/19/19

ALPHA Job #: L1926634

Project Information		Report Information - Data Deliverables		Billing Information	
Project Name: <i>WW CROSS</i>		<input checked="" type="checkbox"/> ADEX	<input checked="" type="checkbox"/> EMAIL	<input type="checkbox"/> Same as Client info	PO #: <i>11764</i>

Client Information

Client: *Ransom Consulting*

Address: *112 Concourse Dr
Barnstable, MA*

Phone: *603-436-1490*

Email: *zavellette@ransomenv.com*
cc: drew.fuchs@ransomenv.com

Additional Project Information:
*Low level soil VOC samples must be frozen within 48 hrs.
HOLD all samples until pending email from Ransom.*

Project Location: *Jaffray, NH*

Project #: *141.05051.010*

Project Manager: *John Zavellette*

ALPHA Quote #:

Turn-Around Time

Standard RUSH (only confirmed if pre-approved)

Date Due:

Regulatory Requirements & Project Information Requirements

Yes No MA MCP Analytical Methods Yes No CT RCP Analytical Methods

Yes No Matrix Spike Required on this SDG? (Required for MCP Inorganics)

Yes No GW1 Standards (Info Required for Metals & EPH with Targets)

Yes No NPDES RGP

Other State /Fed Program *MADES + US EPA Brownfields* Criteria *per SSQAPP*

ANALYSIS	VOC: <input checked="" type="checkbox"/> 8260 <input type="checkbox"/> 624 <input type="checkbox"/> 524.2	SVOC: <input type="checkbox"/> ABN <input checked="" type="checkbox"/> PAH	METALS: <input type="checkbox"/> MCP 13 <input type="checkbox"/> MCP 14 <input type="checkbox"/> MCP 15	METALS: <input type="checkbox"/> RCRA5 <input type="checkbox"/> RCRA8	EPH: <input type="checkbox"/> Ranges & Targets <input type="checkbox"/> Ranges Only	VPH: <input type="checkbox"/> Ranges & Targets <input type="checkbox"/> Ranges Only	PCB: <input type="checkbox"/> PEST	TPH: <input type="checkbox"/> Quant Only <input type="checkbox"/> Fingerprint	<i>TPH-DRO</i>	<i>Petroleum Product Fingerprinting</i>	SAMPLE INFO	TOTAL # BOTTLES
										Filtration <input type="checkbox"/> Field <input type="checkbox"/> Lab to do		
											Preservation <input type="checkbox"/> Lab to do	
											Sample Comments	

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection		Sample Matrix	Sampler Initials									
		Date	Time											
26634-01	B101-51	6-18-19	13:00	Soil	DAF	X							4	
-02	B104-53		9:40				X			X	X		low volume (~3oz)	1
-03	B105-51		11:10			X	X			X	X			5
-04	B107-52		10:30			X	X			X	X			5
-05	DUP 1		10:30			X	X			X	X			34
-06	Trip Blank					X								2

Container Type
P= Plastic
A= Amber glass
V= Vial
G= Glass
B= Bacteria cup
C= Cube
E= Encore
D= BOD Bottle

Preservative
A= None
B= HCl
C= HNO₃
D= H₂SO₄
E= NaOH
F= MeOH
G= NaHSO₄
H= Na₂S₂O₃
I= Ascorbic Acid
J= NH₄Cl
K= Zn Acetate
O= Other

Container Type	V	A									A	A
Preservative	E	O	A								A	A

Relinquished By:	Date/Time	Received By:	Date/Time
<i>[Signature]</i>	6/19/19 15:10	<i>[Signature]</i>	6/19/19 15:10
<i>[Signature]</i>	6/18/19	<i>[Signature]</i>	6/19/19 16:15
<i>[Signature]</i>	6/19/19 18:30	<i>[Signature]</i>	6/19/19 18:30

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



ANALYTICAL REPORT

Lab Number:	L1926969
Client:	Ransom Consulting, Inc. 112 Corporate Drive Pease International Tradeport Portsmouth, NH 03801
ATTN:	John Ouellette
Phone:	(603) 436-1490
Project Name:	WW CROSS
Project Number:	141.05051.010
Report Date:	07/10/19

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: WW CROSS
Project Number: 141.05051.010

Lab Number: L1926969
Report Date: 07/10/19

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1926969-01	B103-S2	SOIL	JAFFREY, NH	06/19/19 09:40	06/20/19
L1926969-02	B103-S4	SOIL	JAFFREY, NH	06/19/19 10:30	06/20/19
L1926969-03	DUP2	SOIL	JAFFREY, NH	06/19/19 09:40	06/20/19
L1926969-04	DUP3	SOIL	JAFFREY, NH	06/19/19 14:10	06/20/19
L1926969-05	TRIP BLANK	SOIL	JAFFREY, NH	06/19/19 00:00	06/20/19

Project Name: WW CROSS
Project Number: 141.05051.010

Lab Number: L1926969
Report Date: 07/10/19

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: WW CROSS
Project Number: 141.05051.010

Lab Number: L1926969
Report Date: 07/10/19

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

L1926969-05: The Trip Blank has results for acetone, ethyl ether, and tert butyl alcohol present above the reporting limits. The sample was verified as being labeled correctly by the laboratory and the previous analysis showed there was no potential for carry over.

Semivolatile Organics

L1926969-04: The sample has elevated detection limits due to the dilution required by the sample matrix.

L1926969-04: The surrogate recoveries are below the acceptance criteria for nitrobenzene-d5 (0%), 2-fluorobiphenyl (0%), and 4-terphenyl-d14 (0%) due to the dilution required to quantitate the sample. Re-extraction was not required; therefore, the results of the original analysis are reported.

Petroleum Hydrocarbon Quantitation

L1926969-04: The surrogate recovery is below the acceptance criteria for o-terphenyl (0%) due to the dilution required to quantitate the sample. Re-extraction was not required; therefore, the results of the original analysis are reported.

Petroleum Hydrocarbon Identification by GC-FID

L1926969-04: The sample was extracted and then analyzed using a gas chromatograph equipped with a flame ionization detector (GC/FID). The temperature program and associated experimental conditions were optimized to obtain maximum resolution in an eighty minute chromatographic run representative of hydrocarbons in the n-Octane (C8) to n-Tetracontane (C40) range. Qualitative evaluation of the sample was conducted by reviewing the sample chromatogram in conjunction with a chromatogram of a normal alkane series generated with the same chromatographic conditions. Chromatograms of hydrocarbon reference materials obtained from

Project Name: WW CROSS
Project Number: 141.05051.010

Lab Number: L1926969
Report Date: 07/10/19

Case Narrative (continued)

our library of 82 reference standards were also utilized to provide the best possible sample match. Quantitative determination of the sample's hydrocarbon concentration was performed in accordance with EPA Method 8015M. The sample's total hydrocarbon concentration and all associated quality control data are included in the report.


The following qualitative information is based on a tentative interpretation of chromatographic pattern recognition and boiling point ranges:

Total Petroleum Hydrocarbon Identification

L1926969-04 contains hydrocarbons eluting in the range of n-Nonane (C9) to after the elution of n-Tetracontane (C40).

Based on the data generated, L1926969-04 contains material eluting in the low to heavy molecular weight ranges of the chromatogram. The material appears to be similar to a coal tar/creosote.

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:  Kelly Stenstrom

Title: Technical Director/Representative

Date: 07/10/19

ORGANICS

VOLATILES

Project Name: WW CROSS
Project Number: 141.05051.010

Lab Number: L1926969
Report Date: 07/10/19

SAMPLE RESULTS

Lab ID: L1926969-01
 Client ID: B103-S2
 Sample Location: JAFFREY, NH

Date Collected: 06/19/19 09:40
 Date Received: 06/20/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8260C
 Analytical Date: 06/30/19 16:06
 Analyst: JC
 Percent Solids: 93%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Methylene chloride	ND		ug/kg	5.0	2.3	1
1,1-Dichloroethane	ND		ug/kg	1.0	0.14	1
Chloroform	ND		ug/kg	1.5	0.14	1
Carbon tetrachloride	ND		ug/kg	1.0	0.23	1
1,2-Dichloropropane	ND		ug/kg	1.0	0.12	1
Dibromochloromethane	ND		ug/kg	1.0	0.14	1
1,1,2-Trichloroethane	ND		ug/kg	1.0	0.27	1
Tetrachloroethene	ND		ug/kg	0.50	0.20	1
Chlorobenzene	ND		ug/kg	0.50	0.13	1
Trichlorofluoromethane	ND		ug/kg	4.0	0.70	1
1,2-Dichloroethane	ND		ug/kg	1.0	0.26	1
1,1,1-Trichloroethane	ND		ug/kg	0.50	0.17	1
Bromodichloromethane	ND		ug/kg	0.50	0.11	1
trans-1,3-Dichloropropene	ND		ug/kg	1.0	0.27	1
cis-1,3-Dichloropropene	ND		ug/kg	0.50	0.16	1
1,3-Dichloropropene, Total	ND		ug/kg	0.50	0.16	1
1,1-Dichloropropene	ND		ug/kg	0.50	0.16	1
Bromoform	ND		ug/kg	4.0	0.25	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.50	0.17	1
Benzene	ND		ug/kg	0.50	0.17	1
Toluene	1.4		ug/kg	1.0	0.54	1
Ethylbenzene	ND		ug/kg	1.0	0.14	1
Chloromethane	ND		ug/kg	4.0	0.93	1
Bromomethane	ND		ug/kg	2.0	0.58	1
Vinyl chloride	ND		ug/kg	1.0	0.34	1
Chloroethane	ND		ug/kg	2.0	0.45	1
1,1-Dichloroethene	ND		ug/kg	1.0	0.24	1
trans-1,2-Dichloroethene	ND		ug/kg	1.5	0.14	1

Project Name: WW CROSS
Project Number: 141.05051.010

Lab Number: L1926969
Report Date: 07/10/19

SAMPLE RESULTS

Lab ID: L1926969-01
Client ID: B103-S2
Sample Location: JAFFREY, NH

Date Collected: 06/19/19 09:40
Date Received: 06/20/19
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatiles Organics by EPA 5035 Low - Westborough Lab						
Trichloroethene	ND		ug/kg	0.50	0.14	1
1,2-Dichlorobenzene	ND		ug/kg	2.0	0.14	1
1,3-Dichlorobenzene	ND		ug/kg	2.0	0.15	1
1,4-Dichlorobenzene	ND		ug/kg	2.0	0.17	1
Methyl tert butyl ether	0.68	J	ug/kg	2.0	0.20	1
p/m-Xylene	ND		ug/kg	2.0	0.56	1
o-Xylene	ND		ug/kg	1.0	0.29	1
Xylenes, Total	ND		ug/kg	1.0	0.29	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
Dibromomethane	ND		ug/kg	2.0	0.24	1
1,2,3-Trichloropropane	ND		ug/kg	2.0	0.13	1
Styrene	ND		ug/kg	1.0	0.20	1
Dichlorodifluoromethane	ND		ug/kg	10	0.92	1
Acetone	22		ug/kg	10	4.8	1
Carbon disulfide	ND		ug/kg	10	4.6	1
2-Butanone	ND		ug/kg	10	2.2	1
4-Methyl-2-pentanone	ND		ug/kg	10	1.3	1
2-Hexanone	ND		ug/kg	10	1.2	1
Bromochloromethane	ND		ug/kg	2.0	0.20	1
Tetrahydrofuran	ND		ug/kg	4.0	1.6	1
2,2-Dichloropropane	ND		ug/kg	2.0	0.20	1
1,2-Dibromoethane	ND		ug/kg	1.0	0.28	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.50	0.13	1
Bromobenzene	ND		ug/kg	2.0	0.14	1
n-Butylbenzene	ND		ug/kg	1.0	0.17	1
sec-Butylbenzene	ND		ug/kg	1.0	0.15	1
tert-Butylbenzene	ND		ug/kg	2.0	0.12	1
1,3,5-Trichlorobenzene	ND		ug/kg	2.0	0.17	1
o-Chlorotoluene	ND		ug/kg	2.0	0.19	1
p-Chlorotoluene	ND		ug/kg	2.0	0.11	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.0	1.0	1
Hexachlorobutadiene	ND		ug/kg	4.0	0.17	1
Isopropylbenzene	ND		ug/kg	1.0	0.11	1
p-Isopropyltoluene	ND		ug/kg	1.0	0.11	1
Naphthalene	ND		ug/kg	4.0	0.65	1
n-Propylbenzene	ND		ug/kg	1.0	0.17	1

Project Name: WW CROSS
Project Number: 141.05051.010

Lab Number: L1926969
Report Date: 07/10/19

SAMPLE RESULTS

Lab ID: L1926969-01
Client ID: B103-S2
Sample Location: JAFFREY, NH

Date Collected: 06/19/19 09:40
Date Received: 06/20/19
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
1,2,3-Trichlorobenzene	ND		ug/kg	2.0	0.32	1
1,2,4-Trichlorobenzene	ND		ug/kg	2.0	0.27	1
1,3,5-Trimethylbenzene	ND		ug/kg	2.0	0.19	1
1,2,4-Trimethylbenzene	ND		ug/kg	2.0	0.33	1
Ethyl ether	2.0		ug/kg	2.0	0.34	1
Isopropyl Ether	ND		ug/kg	2.0	0.21	1
Tert-Butyl Alcohol	17	J	ug/kg	20	5.1	1
Ethyl-Tert-Butyl-Ether	ND		ug/kg	2.0	0.13	1
Tertiary-Amyl Methyl Ether	ND		ug/kg	2.0	0.18	1
1,4-Dioxane	ND		ug/kg	80	35.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	109		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	94		70-130
Dibromofluoromethane	105		70-130

Project Name: WW CROSS
Project Number: 141.05051.010

Lab Number: L1926969
Report Date: 07/10/19

SAMPLE RESULTS

Lab ID: L1926969-04 D
 Client ID: DUP3
 Sample Location: JAFFREY, NH

Date Collected: 06/19/19 14:10
 Date Received: 06/20/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8260C
 Analytical Date: 07/01/19 10:29
 Analyst: JC
 Percent Solids: 97%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 High - Westborough Lab						
Methylene chloride	ND		ug/kg	42000	19000	200
1,1-Dichloroethane	ND		ug/kg	8500	1200	200
Chloroform	ND		ug/kg	13000	1200	200
Carbon tetrachloride	ND		ug/kg	8500	1900	200
1,2-Dichloropropane	ND		ug/kg	8500	1000	200
Dibromochloromethane	ND		ug/kg	8500	1200	200
1,1,2-Trichloroethane	ND		ug/kg	8500	2300	200
Tetrachloroethene	ND		ug/kg	4200	1700	200
Chlorobenzene	ND		ug/kg	4200	1100	200
Trichlorofluoromethane	ND		ug/kg	34000	5900	200
1,2-Dichloroethane	ND		ug/kg	8500	2200	200
1,1,1-Trichloroethane	ND		ug/kg	4200	1400	200
Bromodichloromethane	ND		ug/kg	4200	920	200
trans-1,3-Dichloropropene	ND		ug/kg	8500	2300	200
cis-1,3-Dichloropropene	ND		ug/kg	4200	1300	200
1,3-Dichloropropene, Total	ND		ug/kg	4200	1300	200
1,1-Dichloropropene	ND		ug/kg	4200	1300	200
Bromoform	ND		ug/kg	34000	2100	200
1,1,2,2-Tetrachloroethane	ND		ug/kg	4200	1400	200
Benzene	ND		ug/kg	4200	1400	200
Toluene	ND		ug/kg	8500	4600	200
Ethylbenzene	ND		ug/kg	8500	1200	200
Chloromethane	ND		ug/kg	34000	7900	200
Bromomethane	ND		ug/kg	17000	4900	200
Vinyl chloride	ND		ug/kg	8500	2800	200
Chloroethane	ND		ug/kg	17000	3800	200
1,1-Dichloroethene	ND		ug/kg	8500	2000	200
trans-1,2-Dichloroethene	ND		ug/kg	13000	1200	200

Project Name: WW CROSS
Project Number: 141.05051.010

Lab Number: L1926969
Report Date: 07/10/19

SAMPLE RESULTS

Lab ID: L1926969-04 D
 Client ID: DUP3
 Sample Location: JAFFREY, NH

Date Collected: 06/19/19 14:10
 Date Received: 06/20/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 High - Westborough Lab						
Trichloroethene	ND		ug/kg	4200	1200	200
1,2-Dichlorobenzene	ND		ug/kg	17000	1200	200
1,3-Dichlorobenzene	ND		ug/kg	17000	1200	200
1,4-Dichlorobenzene	ND		ug/kg	17000	1400	200
Methyl tert butyl ether	ND		ug/kg	17000	1700	200
p/m-Xylene	7100	J	ug/kg	17000	4700	200
o-Xylene	4800	J	ug/kg	8500	2500	200
Xylenes, Total	12000	J	ug/kg	8500	2500	200
cis-1,2-Dichloroethene	ND		ug/kg	8500	1500	200
1,2-Dichloroethene, Total	ND		ug/kg	8500	1200	200
Dibromomethane	ND		ug/kg	17000	2000	200
1,2,3-Trichloropropane	ND		ug/kg	17000	1100	200
Styrene	4100	J	ug/kg	8500	1700	200
Dichlorodifluoromethane	ND		ug/kg	85000	7800	200
Acetone	ND		ug/kg	85000	41000	200
Carbon disulfide	ND		ug/kg	85000	38000	200
2-Butanone	ND		ug/kg	85000	19000	200
4-Methyl-2-pentanone	ND		ug/kg	85000	11000	200
2-Hexanone	ND		ug/kg	85000	10000	200
Bromochloromethane	ND		ug/kg	17000	1700	200
Tetrahydrofuran	ND		ug/kg	34000	13000	200
2,2-Dichloropropane	ND		ug/kg	17000	1700	200
1,2-Dibromoethane	ND		ug/kg	8500	2400	200
1,1,1,2-Tetrachloroethane	ND		ug/kg	4200	1100	200
Bromobenzene	ND		ug/kg	17000	1200	200
n-Butylbenzene	ND		ug/kg	8500	1400	200
sec-Butylbenzene	ND		ug/kg	8500	1200	200
tert-Butylbenzene	ND		ug/kg	17000	1000	200
1,3,5-Trichlorobenzene	ND		ug/kg	17000	1500	200
o-Chlorotoluene	ND		ug/kg	17000	1600	200
p-Chlorotoluene	ND		ug/kg	17000	910	200
1,2-Dibromo-3-chloropropane	ND		ug/kg	25000	8400	200
Hexachlorobutadiene	ND		ug/kg	34000	1400	200
Isopropylbenzene	ND		ug/kg	8500	920	200
p-Isopropyltoluene	ND		ug/kg	8500	920	200
Naphthalene	1600000		ug/kg	34000	5500	200
n-Propylbenzene	ND		ug/kg	8500	1400	200

Project Name: WW CROSS
Project Number: 141.05051.010

Lab Number: L1926969
Report Date: 07/10/19

SAMPLE RESULTS

Lab ID: L1926969-04 D
 Client ID: DUP3
 Sample Location: JAFFREY, NH

Date Collected: 06/19/19 14:10
 Date Received: 06/20/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 High - Westborough Lab						
1,2,3-Trichlorobenzene	ND		ug/kg	17000	2700	200
1,2,4-Trichlorobenzene	ND		ug/kg	17000	2300	200
1,3,5-Trimethylbenzene	5700	J	ug/kg	17000	1600	200
1,2,4-Trimethylbenzene	15000	J	ug/kg	17000	2800	200
Ethyl ether	ND		ug/kg	17000	2900	200
Isopropyl Ether	ND		ug/kg	17000	1800	200
Tert-Butyl Alcohol	ND		ug/kg	170000	44000	200
Ethyl-Tert-Butyl-Ether	ND		ug/kg	17000	1100	200
Tertiary-Amyl Methyl Ether	ND		ug/kg	17000	1500	200
1,4-Dioxane	ND		ug/kg	680000	300000	200

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	112		70-130
Toluene-d8	96		70-130
4-Bromofluorobenzene	92		70-130
Dibromofluoromethane	105		70-130

Project Name: WW CROSS
Project Number: 141.05051.010

Lab Number: L1926969
Report Date: 07/10/19

SAMPLE RESULTS

Lab ID: L1926969-05
 Client ID: TRIP BLANK
 Sample Location: JAFFREY, NH

Date Collected: 06/19/19 00:00
 Date Received: 06/20/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8260C
 Analytical Date: 06/30/19 12:10
 Analyst: JC
 Percent Solids: Results reported on an 'AS RECEIVED' basis.

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 High - Westborough Lab						
Methylene chloride	ND		ug/kg	250	110	1
1,1-Dichloroethane	ND		ug/kg	50	7.2	1
Chloroform	ND		ug/kg	75	7.0	1
Carbon tetrachloride	ND		ug/kg	50	12.	1
1,2-Dichloropropane	ND		ug/kg	50	6.2	1
Dibromochloromethane	ND		ug/kg	50	7.0	1
1,1,2-Trichloroethane	ND		ug/kg	50	13.	1
Tetrachloroethene	ND		ug/kg	25	9.8	1
Chlorobenzene	ND		ug/kg	25	6.4	1
Trichlorofluoromethane	ND		ug/kg	200	35.	1
1,2-Dichloroethane	ND		ug/kg	50	13.	1
1,1,1-Trichloroethane	ND		ug/kg	25	8.4	1
Bromodichloromethane	ND		ug/kg	25	5.4	1
trans-1,3-Dichloropropene	ND		ug/kg	50	14.	1
cis-1,3-Dichloropropene	ND		ug/kg	25	7.9	1
1,3-Dichloropropene, Total	ND		ug/kg	0.50	0.16	1
1,1-Dichloropropene	ND		ug/kg	25	8.0	1
Bromoform	ND		ug/kg	200	12.	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	25	8.3	1
Benzene	ND		ug/kg	25	8.3	1
Toluene	ND		ug/kg	50	27.	1
Ethylbenzene	ND		ug/kg	50	7.0	1
Chloromethane	ND		ug/kg	200	47.	1
Bromomethane	ND		ug/kg	100	29.	1
Vinyl chloride	ND		ug/kg	50	17.	1
Chloroethane	ND		ug/kg	100	23.	1
1,1-Dichloroethene	ND		ug/kg	50	12.	1
trans-1,2-Dichloroethene	ND		ug/kg	75	6.8	1

Project Name: WW CROSS
Project Number: 141.05051.010

Lab Number: L1926969
Report Date: 07/10/19

SAMPLE RESULTS

Lab ID: L1926969-05
Client ID: TRIP BLANK
Sample Location: JAFFREY, NH

Date Collected: 06/19/19 00:00
Date Received: 06/20/19
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatiles Organics by EPA 5035 High - Westborough Lab						
Trichloroethene	ND		ug/kg	25	6.8	1
1,2-Dichlorobenzene	ND		ug/kg	100	7.2	1
1,3-Dichlorobenzene	ND		ug/kg	100	7.4	1
1,4-Dichlorobenzene	ND		ug/kg	100	8.6	1
Methyl tert butyl ether	ND		ug/kg	100	10.	1
p/m-Xylene	ND		ug/kg	100	28.	1
o-Xylene	ND		ug/kg	50	14.	1
Xylenes, Total	ND		ug/kg	1.0	0.29	1
cis-1,2-Dichloroethene	ND		ug/kg	50	8.8	1
1,2-Dichloroethene, Total	ND		ug/kg	1.0	0.14	1
Dibromomethane	ND		ug/kg	100	12.	1
1,2,3-Trichloropropane	ND		ug/kg	100	6.4	1
Styrene	ND		ug/kg	50	9.8	1
Dichlorodifluoromethane	ND		ug/kg	500	46.	1
Acetone	ND		ug/kg	500	240	1
Carbon disulfide	ND		ug/kg	500	230	1
2-Butanone	ND		ug/kg	500	110	1
4-Methyl-2-pentanone	ND		ug/kg	500	64.	1
2-Hexanone	ND		ug/kg	500	59.	1
Bromochloromethane	ND		ug/kg	100	10.	1
Tetrahydrofuran	ND		ug/kg	200	80.	1
2,2-Dichloropropane	ND		ug/kg	100	10.	1
1,2-Dibromoethane	ND		ug/kg	50	14.	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	25	6.6	1
Bromobenzene	ND		ug/kg	100	7.2	1
n-Butylbenzene	ND		ug/kg	50	8.4	1
sec-Butylbenzene	ND		ug/kg	50	7.3	1
tert-Butylbenzene	ND		ug/kg	100	5.9	1
1,3,5-Trichlorobenzene	ND		ug/kg	100	8.6	1
o-Chlorotoluene	ND		ug/kg	100	9.6	1
p-Chlorotoluene	ND		ug/kg	100	5.4	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	150	50.	1
Hexachlorobutadiene	ND		ug/kg	200	8.4	1
Isopropylbenzene	ND		ug/kg	50	5.4	1
p-Isopropyltoluene	ND		ug/kg	50	5.4	1
Naphthalene	ND		ug/kg	200	32.	1
n-Propylbenzene	ND		ug/kg	50	8.6	1

Project Name: WW CROSS
Project Number: 141.05051.010

Lab Number: L1926969
Report Date: 07/10/19

SAMPLE RESULTS

Lab ID: L1926969-05
Client ID: TRIP BLANK
Sample Location: JAFFREY, NH

Date Collected: 06/19/19 00:00
Date Received: 06/20/19
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 High - Westborough Lab						
1,2,3-Trichlorobenzene	ND		ug/kg	100	16.	1
1,2,4-Trichlorobenzene	ND		ug/kg	100	14.	1
1,3,5-Trimethylbenzene	ND		ug/kg	100	9.6	1
1,2,4-Trimethylbenzene	ND		ug/kg	100	17.	1
Ethyl ether	ND		ug/kg	100	17.	1
Isopropyl Ether	ND		ug/kg	100	11.	1
Tert-Butyl Alcohol	ND		ug/kg	1000	260	1
Ethyl-Tert-Butyl-Ether	ND		ug/kg	100	6.4	1
Tertiary-Amyl Methyl Ether	ND		ug/kg	100	8.8	1
1,4-Dioxane	ND		ug/kg	4000	1800	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	101		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	91		70-130
Dibromofluoromethane	101		70-130

Project Name: WW CROSS
Project Number: 141.05051.010

Lab Number: L1926969
Report Date: 07/10/19

SAMPLE RESULTS

Lab ID: L1926969-05
 Client ID: TRIP BLANK
 Sample Location: JAFFREY, NH

Date Collected: 06/19/19 00:00
 Date Received: 06/20/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8260C
 Analytical Date: 06/30/19 12:36
 Analyst: JC
 Percent Solids: Results reported on an 'AS RECEIVED' basis.

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Methylene chloride	ND		ug/kg	5.0	2.3	1
1,1-Dichloroethane	ND		ug/kg	1.0	0.14	1
Chloroform	ND		ug/kg	1.5	0.14	1
Carbon tetrachloride	ND		ug/kg	1.0	0.23	1
1,2-Dichloropropane	ND		ug/kg	1.0	0.12	1
Dibromochloromethane	ND		ug/kg	1.0	0.14	1
1,1,2-Trichloroethane	ND		ug/kg	1.0	0.27	1
Tetrachloroethene	ND		ug/kg	0.50	0.20	1
Chlorobenzene	ND		ug/kg	0.50	0.13	1
Trichlorofluoromethane	ND		ug/kg	4.0	0.70	1
1,2-Dichloroethane	ND		ug/kg	1.0	0.26	1
1,1,1-Trichloroethane	ND		ug/kg	0.50	0.17	1
Bromodichloromethane	ND		ug/kg	0.50	0.11	1
trans-1,3-Dichloropropene	ND		ug/kg	1.0	0.27	1
cis-1,3-Dichloropropene	ND		ug/kg	0.50	0.16	1
1,3-Dichloropropene, Total	ND		ug/kg	0.50	0.16	1
1,1-Dichloropropene	ND		ug/kg	0.50	0.16	1
Bromoform	ND		ug/kg	4.0	0.25	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.50	0.17	1
Benzene	ND		ug/kg	0.50	0.17	1
Toluene	ND		ug/kg	1.0	0.54	1
Ethylbenzene	ND		ug/kg	1.0	0.14	1
Chloromethane	ND		ug/kg	4.0	0.93	1
Bromomethane	ND		ug/kg	2.0	0.58	1
Vinyl chloride	ND		ug/kg	1.0	0.34	1
Chloroethane	ND		ug/kg	2.0	0.45	1
1,1-Dichloroethene	ND		ug/kg	1.0	0.24	1
trans-1,2-Dichloroethene	ND		ug/kg	1.5	0.14	1

Project Name: WW CROSS
Project Number: 141.05051.010

Lab Number: L1926969
Report Date: 07/10/19

SAMPLE RESULTS

Lab ID: L1926969-05
Client ID: TRIP BLANK
Sample Location: JAFFREY, NH

Date Collected: 06/19/19 00:00
Date Received: 06/20/19
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatiles Organics by EPA 5035 Low - Westborough Lab						
Trichloroethene	ND		ug/kg	0.50	0.14	1
1,2-Dichlorobenzene	ND		ug/kg	2.0	0.14	1
1,3-Dichlorobenzene	ND		ug/kg	2.0	0.15	1
1,4-Dichlorobenzene	ND		ug/kg	2.0	0.17	1
Methyl tert butyl ether	ND		ug/kg	2.0	0.20	1
p/m-Xylene	ND		ug/kg	2.0	0.56	1
o-Xylene	ND		ug/kg	1.0	0.29	1
Xylenes, Total	ND		ug/kg	1.0	0.29	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
Dibromomethane	ND		ug/kg	2.0	0.24	1
1,2,3-Trichloropropane	ND		ug/kg	2.0	0.13	1
Styrene	ND		ug/kg	1.0	0.20	1
Dichlorodifluoromethane	ND		ug/kg	10	0.92	1
Acetone	17		ug/kg	10	4.8	1
Carbon disulfide	ND		ug/kg	10	4.6	1
2-Butanone	ND		ug/kg	10	2.2	1
4-Methyl-2-pentanone	ND		ug/kg	10	1.3	1
2-Hexanone	ND		ug/kg	10	1.2	1
Bromochloromethane	ND		ug/kg	2.0	0.20	1
Tetrahydrofuran	ND		ug/kg	4.0	1.6	1
2,2-Dichloropropane	ND		ug/kg	2.0	0.20	1
1,2-Dibromoethane	ND		ug/kg	1.0	0.28	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.50	0.13	1
Bromobenzene	ND		ug/kg	2.0	0.14	1
n-Butylbenzene	ND		ug/kg	1.0	0.17	1
sec-Butylbenzene	ND		ug/kg	1.0	0.15	1
tert-Butylbenzene	ND		ug/kg	2.0	0.12	1
1,3,5-Trichlorobenzene	ND		ug/kg	2.0	0.17	1
o-Chlorotoluene	ND		ug/kg	2.0	0.19	1
p-Chlorotoluene	ND		ug/kg	2.0	0.11	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.0	1.0	1
Hexachlorobutadiene	ND		ug/kg	4.0	0.17	1
Isopropylbenzene	ND		ug/kg	1.0	0.11	1
p-Isopropyltoluene	ND		ug/kg	1.0	0.11	1
Naphthalene	ND		ug/kg	4.0	0.65	1
n-Propylbenzene	ND		ug/kg	1.0	0.17	1

Project Name: WW CROSS
Project Number: 141.05051.010

Lab Number: L1926969
Report Date: 07/10/19

SAMPLE RESULTS

Lab ID: L1926969-05
Client ID: TRIP BLANK
Sample Location: JAFFREY, NH

Date Collected: 06/19/19 00:00
Date Received: 06/20/19
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
1,2,3-Trichlorobenzene	ND		ug/kg	2.0	0.32	1
1,2,4-Trichlorobenzene	ND		ug/kg	2.0	0.27	1
1,3,5-Trimethylbenzene	ND		ug/kg	2.0	0.19	1
1,2,4-Trimethylbenzene	ND		ug/kg	2.0	0.33	1
Ethyl ether	2.1		ug/kg	2.0	0.34	1
Isopropyl Ether	ND		ug/kg	2.0	0.21	1
Tert-Butyl Alcohol	31		ug/kg	20	5.1	1
Ethyl-Tert-Butyl-Ether	ND		ug/kg	2.0	0.13	1
Tertiary-Amyl Methyl Ether	ND		ug/kg	2.0	0.18	1
1,4-Dioxane	ND		ug/kg	80	35.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	105		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	95		70-130
Dibromofluoromethane	105		70-130

Project Name: WW CROSS
Project Number: 141.05051.010

Lab Number: L1926969
Report Date: 07/10/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 06/30/19 09:59
Analyst: AD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by EPA 5035 Low - Westborough Lab for sample(s): 01,05 Batch: WG1255119-5					
Methylene chloride	ND		ug/kg	5.0	2.3
1,1-Dichloroethane	ND		ug/kg	1.0	0.14
Chloroform	ND		ug/kg	1.5	0.14
Carbon tetrachloride	ND		ug/kg	1.0	0.23
1,2-Dichloropropane	ND		ug/kg	1.0	0.12
Dibromochloromethane	ND		ug/kg	1.0	0.14
1,1,2-Trichloroethane	ND		ug/kg	1.0	0.27
Tetrachloroethene	ND		ug/kg	0.50	0.20
Chlorobenzene	ND		ug/kg	0.50	0.13
Trichlorofluoromethane	ND		ug/kg	4.0	0.70
1,2-Dichloroethane	ND		ug/kg	1.0	0.26
1,1,1-Trichloroethane	ND		ug/kg	0.50	0.17
Bromodichloromethane	ND		ug/kg	0.50	0.11
trans-1,3-Dichloropropene	ND		ug/kg	1.0	0.27
cis-1,3-Dichloropropene	ND		ug/kg	0.50	0.16
1,3-Dichloropropene, Total	ND		ug/kg	0.50	0.16
1,1-Dichloropropene	ND		ug/kg	0.50	0.16
Bromoform	ND		ug/kg	4.0	0.25
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.50	0.17
Benzene	ND		ug/kg	0.50	0.17
Toluene	ND		ug/kg	1.0	0.54
Ethylbenzene	ND		ug/kg	1.0	0.14
Chloromethane	ND		ug/kg	4.0	0.93
Bromomethane	ND		ug/kg	2.0	0.58
Vinyl chloride	ND		ug/kg	1.0	0.34
Chloroethane	ND		ug/kg	2.0	0.45
1,1-Dichloroethene	ND		ug/kg	1.0	0.24
trans-1,2-Dichloroethene	ND		ug/kg	1.5	0.14
Trichloroethene	ND		ug/kg	0.50	0.14

Project Name: WW CROSS
Project Number: 141.05051.010

Lab Number: L1926969
Report Date: 07/10/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 06/30/19 09:59
Analyst: AD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by EPA 5035 Low - Westborough Lab for sample(s): 01,05 Batch: WG1255119-5					
1,2-Dichlorobenzene	ND		ug/kg	2.0	0.14
1,3-Dichlorobenzene	ND		ug/kg	2.0	0.15
1,4-Dichlorobenzene	ND		ug/kg	2.0	0.17
Methyl tert butyl ether	ND		ug/kg	2.0	0.20
p/m-Xylene	ND		ug/kg	2.0	0.56
o-Xylene	ND		ug/kg	1.0	0.29
Xylenes, Total	ND		ug/kg	1.0	0.29
cis-1,2-Dichloroethene	ND		ug/kg	1.0	0.18
1,2-Dichloroethene, Total	ND		ug/kg	1.0	0.14
Dibromomethane	ND		ug/kg	2.0	0.24
1,2,3-Trichloropropane	ND		ug/kg	2.0	0.13
Styrene	ND		ug/kg	1.0	0.20
Dichlorodifluoromethane	ND		ug/kg	10	0.92
Acetone	ND		ug/kg	10	4.8
Carbon disulfide	ND		ug/kg	10	4.6
2-Butanone	ND		ug/kg	10	2.2
4-Methyl-2-pentanone	ND		ug/kg	10	1.3
2-Hexanone	ND		ug/kg	10	1.2
Bromochloromethane	ND		ug/kg	2.0	0.20
Tetrahydrofuran	ND		ug/kg	4.0	1.6
2,2-Dichloropropane	ND		ug/kg	2.0	0.20
1,2-Dibromoethane	ND		ug/kg	1.0	0.28
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.50	0.13
Bromobenzene	ND		ug/kg	2.0	0.14
n-Butylbenzene	ND		ug/kg	1.0	0.17
sec-Butylbenzene	ND		ug/kg	1.0	0.15
tert-Butylbenzene	ND		ug/kg	2.0	0.12
1,3,5-Trichlorobenzene	ND		ug/kg	2.0	0.17
o-Chlorotoluene	ND		ug/kg	2.0	0.19

Project Name: WW CROSS
Project Number: 141.05051.010

Lab Number: L1926969
Report Date: 07/10/19

**Method Blank Analysis
Batch Quality Control**

Analytical Method: 1,8260C
Analytical Date: 06/30/19 09:59
Analyst: AD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by EPA 5035 Low - Westborough Lab for sample(s): 01,05 Batch: WG1255119-5					
p-Chlorotoluene	ND		ug/kg	2.0	0.11
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.0	1.0
Hexachlorobutadiene	ND		ug/kg	4.0	0.17
Isopropylbenzene	ND		ug/kg	1.0	0.11
p-Isopropyltoluene	ND		ug/kg	1.0	0.11
Naphthalene	ND		ug/kg	4.0	0.65
n-Propylbenzene	ND		ug/kg	1.0	0.17
1,2,3-Trichlorobenzene	ND		ug/kg	2.0	0.32
1,2,4-Trichlorobenzene	ND		ug/kg	2.0	0.27
1,3,5-Trimethylbenzene	ND		ug/kg	2.0	0.19
1,2,4-Trimethylbenzene	ND		ug/kg	2.0	0.33
Ethyl ether	ND		ug/kg	2.0	0.34
Isopropyl Ether	ND		ug/kg	2.0	0.21
Tert-Butyl Alcohol	ND		ug/kg	20	5.1
Ethyl-Tert-Butyl-Ether	ND		ug/kg	2.0	0.13
Tertiary-Amyl Methyl Ether	ND		ug/kg	2.0	0.18
1,4-Dioxane	ND		ug/kg	80	35.

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	98		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	94		70-130
Dibromofluoromethane	98		70-130

Project Name: WW CROSS
Project Number: 141.05051.010

Lab Number: L1926969
Report Date: 07/10/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 07/01/19 08:18
Analyst: MV

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by EPA 5035 High - Westborough Lab for sample(s): 04 Batch: WG1255765-5					
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

Project Name: WW CROSS
Project Number: 141.05051.010

Lab Number: L1926969
Report Date: 07/10/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 07/01/19 08:18
Analyst: MV

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by EPA 5035 High - Westborough Lab for sample(s): 04 Batch: WG1255765-5					
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.
1,2,3-Trichloropropane	ND		ug/kg	100	6.4
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
4-Methyl-2-pentanone	ND		ug/kg	500	64.
2-Hexanone	ND		ug/kg	500	59.
Bromochloromethane	ND		ug/kg	100	10.
Tetrahydrofuran	ND		ug/kg	200	80.
2,2-Dichloropropane	ND		ug/kg	100	10.
1,2-Dibromoethane	ND		ug/kg	50	14.
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
1,3,5-Trichlorobenzene	ND		ug/kg	100	8.6
o-Chlorotoluene	ND		ug/kg	100	9.6

Project Name: WW CROSS
Project Number: 141.05051.010

Lab Number: L1926969
Report Date: 07/10/19

**Method Blank Analysis
Batch Quality Control**

Analytical Method: 1,8260C
Analytical Date: 07/01/19 08:18
Analyst: MV

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by EPA 5035 High - Westborough Lab for sample(s): 04 Batch: WG1255765-5					
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	ND		ug/kg	200	32.
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.
Ethyl ether	ND		ug/kg	100	17.
Isopropyl Ether	ND		ug/kg	100	11.
Tert-Butyl Alcohol	ND		ug/kg	1000	260
Ethyl-Tert-Butyl-Ether	ND		ug/kg	100	6.4
Tertiary-Amyl Methyl Ether	ND		ug/kg	100	8.8
1,4-Dioxane	ND		ug/kg	4000	1800

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	108		70-130
Toluene-d8	97		70-130
4-Bromofluorobenzene	92		70-130
Dibromofluoromethane	103		70-130

Project Name: WW CROSS
Project Number: 141.05051.010

Lab Number: L1926969
Report Date: 07/10/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 06/30/19 09:59
Analyst: AD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by EPA 5035 High - Westborough Lab for sample(s): 05 Batch: WG1257404-5					
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

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Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 06/30/19 09:59
Analyst: AD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by EPA 5035 High - Westborough Lab for sample(s): 05 Batch: WG1257404-5					
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.
1,2,3-Trichloropropane	ND		ug/kg	100	6.4
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
4-Methyl-2-pentanone	ND		ug/kg	500	64.
2-Hexanone	ND		ug/kg	500	59.
Bromochloromethane	ND		ug/kg	100	10.
Tetrahydrofuran	ND		ug/kg	200	80.
2,2-Dichloropropane	ND		ug/kg	100	10.
1,2-Dibromoethane	ND		ug/kg	50	14.
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
1,3,5-Trichlorobenzene	ND		ug/kg	100	8.6
o-Chlorotoluene	ND		ug/kg	100	9.6

Project Name: WW CROSS
Project Number: 141.05051.010

Lab Number: L1926969
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**Method Blank Analysis
Batch Quality Control**

Analytical Method: 1,8260C
Analytical Date: 06/30/19 09:59
Analyst: AD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by EPA 5035 High - Westborough Lab for sample(s): 05 Batch: WG1257404-5					
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	ND		ug/kg	200	32.
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.
Ethyl ether	ND		ug/kg	100	17.
Isopropyl Ether	ND		ug/kg	100	11.
Tert-Butyl Alcohol	ND		ug/kg	1000	260
Ethyl-Tert-Butyl-Ether	ND		ug/kg	100	6.4
Tertiary-Amyl Methyl Ether	ND		ug/kg	100	8.8
1,4-Dioxane	ND		ug/kg	4000	1800

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	98		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	94		70-130
Dibromofluoromethane	98		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: WW CROSS
Project Number: 141.05051.010

Lab Number: L1926969
Report Date: 07/10/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 01,05 Batch: WG1255119-3 WG1255119-4								
Methylene chloride	86		84		70-130	2		30
1,1-Dichloroethane	97		96		70-130	1		30
Chloroform	102		102		70-130	0		30
Carbon tetrachloride	110		109		70-130	1		30
1,2-Dichloropropane	93		93		70-130	0		30
Dibromochloromethane	105		107		70-130	2		30
1,1,2-Trichloroethane	103		101		70-130	2		30
Tetrachloroethene	110		111		70-130	1		30
Chlorobenzene	103		103		70-130	0		30
Trichlorofluoromethane	105		105		70-139	0		30
1,2-Dichloroethane	92		95		70-130	3		30
1,1,1-Trichloroethane	110		108		70-130	2		30
Bromodichloromethane	102		104		70-130	2		30
trans-1,3-Dichloropropene	105		107		70-130	2		30
cis-1,3-Dichloropropene	104		104		70-130	0		30
1,1-Dichloropropene	108		108		70-130	0		30
Bromoform	108		109		70-130	1		30
1,1,2,2-Tetrachloroethane	99		98		70-130	1		30
Benzene	100		99		70-130	1		30
Toluene	103		103		70-130	0		30
Ethylbenzene	105		106		70-130	1		30
Chloromethane	83		79		52-130	5		30
Bromomethane	100		100		57-147	0		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: WW CROSS
Project Number: 141.05051.010

Lab Number: L1926969
Report Date: 07/10/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 01,05 Batch: WG1255119-3 WG1255119-4								
Vinyl chloride	95		94		67-130	1		30
Chloroethane	104		102		50-151	2		30
1,1-Dichloroethene	106		105		65-135	1		30
trans-1,2-Dichloroethene	104		102		70-130	2		30
Trichloroethene	103		106		70-130	3		30
1,2-Dichlorobenzene	103		101		70-130	2		30
1,3-Dichlorobenzene	104		103		70-130	1		30
1,4-Dichlorobenzene	104		102		70-130	2		30
Methyl tert butyl ether	98		97		66-130	1		30
p/m-Xylene	109		109		70-130	0		30
o-Xylene	107		108		70-130	1		30
cis-1,2-Dichloroethene	103		101		70-130	2		30
Dibromomethane	100		101		70-130	1		30
1,2,3-Trichloropropane	96		97		68-130	1		30
Styrene	108		109		70-130	1		30
Dichlorodifluoromethane	96		94		30-146	2		30
Acetone	72		73		54-140	1		30
Carbon disulfide	100		99		59-130	1		30
2-Butanone	69	Q	84		70-130	20		30
4-Methyl-2-pentanone	90		90		70-130	0		30
2-Hexanone	78		77		70-130	1		30
Bromochloromethane	105		108		70-130	3		30
Tetrahydrofuran	84		85		66-130	1		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: WW CROSS
Project Number: 141.05051.010

Lab Number: L1926969
Report Date: 07/10/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 01,05 Batch: WG1255119-3 WG1255119-4								
2,2-Dichloropropane	108		107		70-130	1		30
1,2-Dibromoethane	103		105		70-130	2		30
1,1,1,2-Tetrachloroethane	105		109		70-130	4		30
Bromobenzene	104		101		70-130	3		30
n-Butylbenzene	106		103		70-130	3		30
sec-Butylbenzene	106		105		70-130	1		30
tert-Butylbenzene	107		104		70-130	3		30
1,3,5-Trichlorobenzene	108		107		70-139	1		30
o-Chlorotoluene	86		84		70-130	2		30
p-Chlorotoluene	104		102		70-130	2		30
1,2-Dibromo-3-chloropropane	93		99		68-130	6		30
Hexachlorobutadiene	111		108		67-130	3		30
Isopropylbenzene	108		105		70-130	3		30
p-Isopropyltoluene	108		106		70-130	2		30
Naphthalene	103		102		70-130	1		30
n-Propylbenzene	106		103		70-130	3		30
1,2,3-Trichlorobenzene	103		106		70-130	3		30
1,2,4-Trichlorobenzene	109		109		70-130	0		30
1,3,5-Trimethylbenzene	107		106		70-130	1		30
1,2,4-Trimethylbenzene	107		105		70-130	2		30
Ethyl ether	96		101		67-130	5		30
Isopropyl Ether	84		82		66-130	2		30
Tert-Butyl Alcohol	90		91		70-130	1		30

Lab Control Sample Analysis Batch Quality Control

Project Name: WW CROSS
Project Number: 141.05051.010

Lab Number: L1926969
Report Date: 07/10/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 01,05 Batch: WG1255119-3 WG1255119-4								
Ethyl-Tert-Butyl-Ether	93		93		70-130	0		30
Tertiary-Amyl Methyl Ether	97		100		70-130	3		30
1,4-Dioxane	94		94		65-136	0		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	97		99		70-130
Toluene-d8	99		101		70-130
4-Bromofluorobenzene	96		94		70-130
Dibromofluoromethane	100		101		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: WW CROSS
Project Number: 141.05051.010

Lab Number: L1926969
Report Date: 07/10/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by EPA 5035 High - Westborough Lab Associated sample(s): 04 Batch: WG1255765-3 WG1255765-4								
Methylene chloride	77		74		70-130	4		30
1,1-Dichloroethane	91		88		70-130	3		30
Chloroform	101		97		70-130	4		30
Carbon tetrachloride	118		113		70-130	4		30
1,2-Dichloropropane	86		83		70-130	4		30
Dibromochloromethane	103		99		70-130	4		30
1,1,2-Trichloroethane	92		91		70-130	1		30
Tetrachloroethene	107		104		70-130	3		30
Chlorobenzene	96		92		70-130	4		30
Trichlorofluoromethane	119		112		70-139	6		30
1,2-Dichloroethane	99		96		70-130	3		30
1,1,1-Trichloroethane	115		108		70-130	6		30
Bromodichloromethane	105		100		70-130	5		30
trans-1,3-Dichloropropene	102		98		70-130	4		30
cis-1,3-Dichloropropene	100		96		70-130	4		30
1,1-Dichloropropene	106		102		70-130	4		30
Bromoform	100		97		70-130	3		30
1,1,2,2-Tetrachloroethane	86		82		70-130	5		30
Benzene	93		88		70-130	6		30
Toluene	94		90		70-130	4		30
Ethylbenzene	98		95		70-130	3		30
Chloromethane	75		72		52-130	4		30
Bromomethane	99		96		57-147	3		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: WW CROSS
Project Number: 141.05051.010

Lab Number: L1926969
Report Date: 07/10/19

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Volatile Organics by EPA 5035 High - Westborough Lab Associated sample(s): 04 Batch: WG1255765-3 WG1255765-4								
Vinyl chloride	92		88		67-130	4		30
Chloroethane	103		96		50-151	7		30
1,1-Dichloroethene	98		95		65-135	3		30
trans-1,2-Dichloroethene	97		93		70-130	4		30
Trichloroethene	103		98		70-130	5		30
1,2-Dichlorobenzene	98		93		70-130	5		30
1,3-Dichlorobenzene	99		94		70-130	5		30
1,4-Dichlorobenzene	98		94		70-130	4		30
Methyl tert butyl ether	94		91		66-130	3		30
p/m-Xylene	102		97		70-130	5		30
o-Xylene	100		97		70-130	3		30
cis-1,2-Dichloroethene	98		92		70-130	6		30
Dibromomethane	101		93		70-130	8		30
1,2,3-Trichloropropane	92		88		68-130	4		30
Styrene	100		98		70-130	2		30
Dichlorodifluoromethane	104		99		30-146	5		30
Acetone	79		69		54-140	14		30
Carbon disulfide	92		88		59-130	4		30
2-Butanone	99		93		70-130	6		30
4-Methyl-2-pentanone	83		79		70-130	5		30
2-Hexanone	70		70		70-130	0		30
Bromochloromethane	101		98		70-130	3		30
Tetrahydrofuran	77		70		66-130	10		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: WW CROSS
Project Number: 141.05051.010

Lab Number: L1926969
Report Date: 07/10/19

Parameter	LCS		LCSD		%Recovery		RPD	
	%Recovery	Qual	%Recovery	Qual	Limits	RPD	Qual	Limits
Volatile Organics by EPA 5035 High - Westborough Lab Associated sample(s): 04 Batch: WG1255765-3 WG1255765-4								
2,2-Dichloropropane	111		104		70-130	7		30
1,2-Dibromoethane	96		92		70-130	4		30
1,1,1,2-Tetrachloroethane	104		100		70-130	4		30
Bromobenzene	98		93		70-130	5		30
n-Butylbenzene	102		96		70-130	6		30
sec-Butylbenzene	101		95		70-130	6		30
tert-Butylbenzene	102		97		70-130	5		30
1,3,5-Trichlorobenzene	105		96		70-139	9		30
o-Chlorotoluene	80		76		70-130	5		30
p-Chlorotoluene	99		92		70-130	7		30
1,2-Dibromo-3-chloropropane	88		90		68-130	2		30
Hexachlorobutadiene	113		104		67-130	8		30
Isopropylbenzene	101		95		70-130	6		30
p-Isopropyltoluene	104		97		70-130	7		30
Naphthalene	94		90		70-130	4		30
n-Propylbenzene	98		93		70-130	5		30
1,2,3-Trichlorobenzene	100		94		70-130	6		30
1,2,4-Trichlorobenzene	103		98		70-130	5		30
1,3,5-Trimethylbenzene	102		96		70-130	6		30
1,2,4-Trimethylbenzene	102		96		70-130	6		30
Ethyl ether	89		83		67-130	7		30
Isopropyl Ether	78		75		66-130	4		30
Tert-Butyl Alcohol	83		81		70-130	2		30

Lab Control Sample Analysis Batch Quality Control

Project Name: WW CROSS
Project Number: 141.05051.010

Lab Number: L1926969
Report Date: 07/10/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by EPA 5035 High - Westborough Lab Associated sample(s): 04 Batch: WG1255765-3 WG1255765-4								
Ethyl-Tert-Butyl-Ether	89		86		70-130	3		30
Tertiary-Amyl Methyl Ether	95		92		70-130	3		30
1,4-Dioxane	82		86		65-136	5		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	112		110		70-130
Toluene-d8	97		98		70-130
4-Bromofluorobenzene	96		94		70-130
Dibromofluoromethane	106		105		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: WW CROSS
Project Number: 141.05051.010

Lab Number: L1926969
Report Date: 07/10/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by EPA 5035 High - Westborough Lab Associated sample(s): 05 Batch: WG1257404-3 WG1257404-4								
Methylene chloride	86		84		70-130	2		30
1,1-Dichloroethane	97		96		70-130	1		30
Chloroform	102		102		70-130	0		30
Carbon tetrachloride	110		109		70-130	1		30
1,2-Dichloropropane	93		93		70-130	0		30
Dibromochloromethane	105		107		70-130	2		30
1,1,2-Trichloroethane	103		101		70-130	2		30
Tetrachloroethene	110		111		70-130	1		30
Chlorobenzene	103		103		70-130	0		30
Trichlorofluoromethane	105		105		70-139	0		30
1,2-Dichloroethane	92		95		70-130	3		30
1,1,1-Trichloroethane	110		108		70-130	2		30
Bromodichloromethane	102		104		70-130	2		30
trans-1,3-Dichloropropene	105		107		70-130	2		30
cis-1,3-Dichloropropene	104		104		70-130	0		30
1,1-Dichloropropene	108		108		70-130	0		30
Bromoform	108		109		70-130	1		30
1,1,2,2-Tetrachloroethane	99		98		70-130	1		30
Benzene	100		99		70-130	1		30
Toluene	103		103		70-130	0		30
Ethylbenzene	105		106		70-130	1		30
Chloromethane	83		79		52-130	5		30
Bromomethane	100		100		57-147	0		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: WW CROSS
Project Number: 141.05051.010

Lab Number: L1926969
Report Date: 07/10/19

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Volatile Organics by EPA 5035 High - Westborough Lab Associated sample(s): 05 Batch: WG1257404-3 WG1257404-4								
Vinyl chloride	95		94		67-130	1		30
Chloroethane	104		102		50-151	2		30
1,1-Dichloroethene	106		105		65-135	1		30
trans-1,2-Dichloroethene	104		102		70-130	2		30
Trichloroethene	103		106		70-130	3		30
1,2-Dichlorobenzene	103		101		70-130	2		30
1,3-Dichlorobenzene	104		103		70-130	1		30
1,4-Dichlorobenzene	104		102		70-130	2		30
Methyl tert butyl ether	98		97		66-130	1		30
p/m-Xylene	109		109		70-130	0		30
o-Xylene	107		108		70-130	1		30
cis-1,2-Dichloroethene	103		101		70-130	2		30
Dibromomethane	100		101		70-130	1		30
1,2,3-Trichloropropane	96		97		68-130	1		30
Styrene	108		109		70-130	1		30
Dichlorodifluoromethane	96		94		30-146	2		30
Acetone	72		73		54-140	1		30
Carbon disulfide	100		99		59-130	1		30
2-Butanone	69	Q	84		70-130	20		30
4-Methyl-2-pentanone	90		90		70-130	0		30
2-Hexanone	78		77		70-130	1		30
Bromochloromethane	105		108		70-130	3		30
Tetrahydrofuran	84		85		66-130	1		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: WW CROSS
Project Number: 141.05051.010

Lab Number: L1926969
Report Date: 07/10/19

Parameter	LCS		LCSD		%Recovery		RPD	
	%Recovery	Qual	%Recovery	Qual	Limits	RPD	Qual	Limits
Volatile Organics by EPA 5035 High - Westborough Lab Associated sample(s): 05 Batch: WG1257404-3 WG1257404-4								
2,2-Dichloropropane	108		107		70-130	1		30
1,2-Dibromoethane	103		105		70-130	2		30
1,1,1,2-Tetrachloroethane	105		109		70-130	4		30
Bromobenzene	104		101		70-130	3		30
n-Butylbenzene	106		103		70-130	3		30
sec-Butylbenzene	106		105		70-130	1		30
tert-Butylbenzene	107		104		70-130	3		30
1,3,5-Trichlorobenzene	108		107		70-139	1		30
o-Chlorotoluene	86		84		70-130	2		30
p-Chlorotoluene	104		102		70-130	2		30
1,2-Dibromo-3-chloropropane	93		99		68-130	6		30
Hexachlorobutadiene	111		108		67-130	3		30
Isopropylbenzene	108		105		70-130	3		30
p-Isopropyltoluene	108		106		70-130	2		30
Naphthalene	103		102		70-130	1		30
n-Propylbenzene	106		103		70-130	3		30
1,2,3-Trichlorobenzene	103		106		70-130	3		30
1,2,4-Trichlorobenzene	109		109		70-130	0		30
1,3,5-Trimethylbenzene	107		106		70-130	1		30
1,2,4-Trimethylbenzene	107		105		70-130	2		30
Ethyl ether	96		101		67-130	5		30
Isopropyl Ether	84		82		66-130	2		30
Tert-Butyl Alcohol	90		91		70-130	1		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: WW CROSS
Project Number: 141.05051.010

Lab Number: L1926969
Report Date: 07/10/19

Parameter	LCS		LCSD		%Recovery Limits	RPD	RPD	
	%Recovery	Qual	%Recovery	Qual			Qual	Limits
Volatile Organics by EPA 5035 High - Westborough Lab Associated sample(s): 05 Batch: WG1257404-3 WG1257404-4								
Ethyl-Tert-Butyl-Ether	93		93		70-130	0		30
Tertiary-Amyl Methyl Ether	97		100		70-130	3		30
1,4-Dioxane	94		94		65-136	0		30

Surrogate	LCS		LCSD		Acceptance Criteria
	%Recovery	Qual	%Recovery	Qual	
1,2-Dichloroethane-d4	97		99		70-130
Toluene-d8	99		101		70-130
4-Bromofluorobenzene	96		94		70-130
Dibromofluoromethane	100		101		70-130

SEMIVOLATILES

Project Name: WW CROSS
Project Number: 141.05051.010

Lab Number: L1926969
Report Date: 07/10/19

SAMPLE RESULTS

Lab ID: L1926969-04 D
 Client ID: DUP3
 Sample Location: JAFFREY, NH

Date Collected: 06/19/19 14:10
 Date Received: 06/20/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8270D
 Analytical Date: 07/10/19 00:12
 Analyst: EK
 Percent Solids: 97%

Extraction Method: EPA 3546
 Extraction Date: 07/03/19 12:08

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	39000		ug/kg	27000	3500	200
2-Chloronaphthalene	ND		ug/kg	34000	3300	200
Fluoranthene	450000		ug/kg	20000	3900	200
Naphthalene	540000		ug/kg	34000	4100	200
Benzo(a)anthracene	140000		ug/kg	20000	3800	200
Benzo(a)pyrene	140000		ug/kg	27000	8200	200
Benzo(b)fluoranthene	140000		ug/kg	20000	5700	200
Benzo(k)fluoranthene	49000		ug/kg	20000	5400	200
Chrysene	110000		ug/kg	20000	3500	200
Acenaphthylene	180000		ug/kg	27000	5200	200
Anthracene	160000		ug/kg	20000	6600	200
Benzo(ghi)perylene	62000		ug/kg	27000	4000	200
Fluorene	210000		ug/kg	34000	3300	200
Phenanthrene	650000		ug/kg	20000	4100	200
Dibenzo(a,h)anthracene	12000	J	ug/kg	20000	3900	200
Indeno(1,2,3-cd)pyrene	70000		ug/kg	27000	4700	200
Pyrene	370000		ug/kg	20000	3300	200
1-Methylnaphthalene	180000		ug/kg	34000	3900	200
2-Methylnaphthalene	260000		ug/kg	40000	4100	200

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	0	Q	23-120
2-Fluorobiphenyl	0	Q	30-120
4-Terphenyl-d14	0	Q	18-120

Project Name: WW CROSS
Project Number: 141.05051.010

Lab Number: L1926969
Report Date: 07/10/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 07/03/19 23:24
Analyst: SZ

Extraction Method: EPA 3546
Extraction Date: 07/03/19 09:14

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 04 Batch: WG1256188-1					
Acenaphthene	ND		ug/kg	130	17.
2-Chloronaphthalene	ND		ug/kg	160	16.
Fluoranthene	ND		ug/kg	99	19.
Naphthalene	ND		ug/kg	160	20.
Benzo(a)anthracene	ND		ug/kg	99	19.
Benzo(a)pyrene	ND		ug/kg	130	40.
Benzo(b)fluoranthene	ND		ug/kg	99	28.
Benzo(k)fluoranthene	ND		ug/kg	99	26.
Chrysene	ND		ug/kg	99	17.
Acenaphthylene	ND		ug/kg	130	26.
Anthracene	ND		ug/kg	99	32.
Benzo(ghi)perylene	ND		ug/kg	130	19.
Fluorene	ND		ug/kg	160	16.
Phenanthrene	ND		ug/kg	99	20.
Dibenzo(a,h)anthracene	ND		ug/kg	99	19.
Indeno(1,2,3-cd)pyrene	ND		ug/kg	130	23.
Pyrene	ND		ug/kg	99	16.
1-Methylnaphthalene	ND		ug/kg	160	19.
2-Methylnaphthalene	ND		ug/kg	200	20.

Surrogate	%Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	75		23-120
2-Fluorobiphenyl	76		30-120
4-Terphenyl-d14	77		18-120

Lab Control Sample Analysis

Batch Quality Control

Project Name: WW CROSS
Project Number: 141.05051.010

Lab Number: L1926969
Report Date: 07/10/19

Parameter	LCS %Recovery	Qual	LCS %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 04 Batch: WG1256188-2 WG1256188-3								
Acenaphthene	72		69		31-137	4		50
2-Chloronaphthalene	76		74		40-140	3		50
Fluoranthene	75		73		40-140	3		50
Naphthalene	72		69		40-140	4		50
Benzo(a)anthracene	77		73		40-140	5		50
Benzo(a)pyrene	76		72		40-140	5		50
Benzo(b)fluoranthene	78		73		40-140	7		50
Benzo(k)fluoranthene	73		70		40-140	4		50
Chrysene	71		68		40-140	4		50
Acenaphthylene	79		75		40-140	5		50
Anthracene	75		72		40-140	4		50
Benzo(ghi)perylene	73		69		40-140	6		50
Fluorene	74		71		40-140	4		50
Phenanthrene	72		70		40-140	3		50
Dibenzo(a,h)anthracene	81		76		40-140	6		50
Indeno(1,2,3-cd)pyrene	69		65		40-140	6		50
Pyrene	74		73		35-142	1		50
1-Methylnaphthalene	77		73		26-130	5		50
2-Methylnaphthalene	75		72		40-140	4		50

Lab Control Sample Analysis

Batch Quality Control

Project Name: WW CROSS
Project Number: 141.05051.010

Lab Number: L1926969
Report Date: 07/10/19

Parameter	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>%Recovery</i> Limits	<i>RPD</i>	<i>Qual</i>	<i>RPD</i> Limits
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Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 04 Batch: WG1256188-2 WG1256188-3

<i>Surrogate</i>	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>Acceptance</i> Criteria
Nitrobenzene-d5	80		77		23-120
2-Fluorobiphenyl	76		72		30-120
4-Terphenyl-d14	73		71		18-120

PETROLEUM HYDROCARBONS

Project Name: WW CROSS
Project Number: 141.05051.010

Lab Number: L1926969
Report Date: 07/10/19

SAMPLE RESULTS

Lab ID: L1926969-04
 Client ID: DUP3
 Sample Location: JAFFREY, NH

Date Collected: 06/19/19 14:10
 Date Received: 06/20/19
 Field Prep: Not Specified

Sample Depth:
 Matrix: Soil
 Analytical Method: 1,8015D(M)
 Analytical Date: 07/03/19 00:47
 Analyst: WR
 Percent Solids: 97%

Extraction Method: ALPHA OP-013
 Extraction Date: 07/01/19 11:59

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Petroleum Hydrocarbon Identification by GC-FID - Mansfield Lab						
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Total Petroleum Hydrocarbons (C9-C44)	49900		mg/kg	603	302.	1
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Surrogate	% Recovery	Qualifier	Acceptance Criteria
o-Terphenyl	105		50-130
d50-Tetracosane	128		50-130

Project Name: WW CROSS
Project Number: 141.05051.010

Lab Number: L1926969
Report Date: 07/10/19

SAMPLE RESULTS

Lab ID: L1926969-04 D
 Client ID: DUP3
 Sample Location: JAFFREY, NH

Date Collected: 06/19/19 14:10
 Date Received: 06/20/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8015D(M)
 Analytical Date: 07/09/19 12:54
 Analyst: MEO
 Percent Solids: 97%

Extraction Method: EPA 3546
 Extraction Date: 07/03/19 15:38

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Petroleum Hydrocarbon Quantitation - Westborough Lab						
TPH	27000000		ug/kg	1670000	192000	50

Surrogate	% Recovery	Qualifier	Acceptance Criteria
o-Terphenyl	0	Q	40-140

Project Name: WW CROSS
Project Number: 141.05051.010

Lab Number: L1926969
Report Date: 07/10/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8015D(M)
Analytical Date: 07/02/19 17:26
Analyst: WR

Extraction Method: ALPHA OP-013
Extraction Date: 07/01/19 11:59

Parameter	Result	Qualifier	Units	RL	MDL
Petroleum Hydrocarbon Identification by GC-FID - Mansfield Lab for sample(s): 04 Batch: WG1255235-1					
Total Petroleum Hydrocarbons (C9-C44)	ND		mg/kg	2.20	1.10

Surrogate	%Recovery	Qualifier	Acceptance Criteria
o-Terphenyl	94		50-130
d50-Tetracosane	95		50-130

Project Name: WW CROSS
Project Number: 141.05051.010

Lab Number: L1926969
Report Date: 07/10/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8015D(M)
 Analytical Date: 07/06/19 11:22
 Analyst: SR

Extraction Method: EPA 3546
 Extraction Date: 07/03/19 15:38

Parameter	Result	Qualifier	Units	RL	MDL
Petroleum Hydrocarbon Quantitation - Westborough Lab for sample(s): 04 Batch: WG1256376-1					
TPH	ND		ug/kg	31800	3660

Surrogate	%Recovery	Qualifier	Acceptance Criteria
o-Terphenyl	77		40-140

Lab Control Sample Analysis Batch Quality Control

Project Name: WW CROSS
Project Number: 141.05051.010

Lab Number: L1926969
Report Date: 07/10/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Petroleum Hydrocarbon Identification by GC-FID - Mansfield Lab Associated sample(s): 04 Batch: WG1255235-2 WG1255235-3								
Nonane (C9)	63		68		50-130	8		30
Decane (C10)	67		73		50-130	9		30
Dodecane (C12)	71		77		50-130	8		30
Tetradecane (C14)	72		78		50-130	8		30
Hexadecane (C16)	82		89		50-130	8		30
Octadecane (C18)	88		95		50-130	8		30
Nonadecane (C19)	80		87		50-130	8		30
Eicosane (C20)	80		87		50-130	8		30
Docosane (C22)	80		88		50-130	10		30
Tetracosane (C24)	82		90		50-130	9		30
Hexacosane (C26)	88		97		50-130	10		30
Octacosane (C28)	91		100		50-130	9		30
Triacontane (C30)	93		101		50-130	8		30
Hexatriacontane (C36)	91		98		50-130	7		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
o-Terphenyl	98		99		50-130
d50-Tetracosane	101		103		50-130

Lab Control Sample Analysis Batch Quality Control

Project Name: WW CROSS
Project Number: 141.05051.010

Lab Number: L1926969
Report Date: 07/10/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Petroleum Hydrocarbon Quantitation - Westborough Lab Associated sample(s): 04 Batch: WG1256376-2								
TPH	106		-		40-140	-		40

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
o-Terphenyl	75				40-140

METALS

Project Name: WW CROSS
Project Number: 141.05051.010

Lab Number: L1926969
Report Date: 07/10/19

SAMPLE RESULTS

Lab ID: L1926969-01
 Client ID: B103-S2
 Sample Location: JAFFREY, NH

Date Collected: 06/19/19 09:40
 Date Received: 06/20/19
 Field Prep: Not Specified

Sample Depth:
 Matrix: Soil
 Percent Solids: 93%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Antimony, Total	0.210	J	mg/kg	2.10	0.160	1	07/03/19 21:40	07/08/19 22:05	EPA 3050B	1,6010D	AB
Arsenic, Total	4.86		mg/kg	0.421	0.088	1	07/03/19 21:40	07/08/19 22:05	EPA 3050B	1,6010D	AB
Beryllium, Total	0.354		mg/kg	0.210	0.014	1	07/03/19 21:40	07/08/19 22:05	EPA 3050B	1,6010D	AB
Cadmium, Total	ND		mg/kg	0.421	0.041	1	07/03/19 21:40	07/08/19 22:05	EPA 3050B	1,6010D	AB
Chromium, Total	7.66		mg/kg	0.421	0.040	1	07/03/19 21:40	07/08/19 22:05	EPA 3050B	1,6010D	AB
Copper, Total	7.54		mg/kg	0.421	0.109	1	07/03/19 21:40	07/08/19 22:05	EPA 3050B	1,6010D	AB
Lead, Total	2.86		mg/kg	2.10	0.113	1	07/03/19 21:40	07/08/19 22:05	EPA 3050B	1,6010D	AB
Mercury, Total	ND		mg/kg	0.069	0.045	1	07/04/19 10:10	07/08/19 13:56	EPA 7471B	1,7471B	GD
Nickel, Total	4.50		mg/kg	1.05	0.102	1	07/03/19 21:40	07/08/19 22:05	EPA 3050B	1,6010D	AB
Selenium, Total	ND		mg/kg	0.842	0.109	1	07/03/19 21:40	07/08/19 22:05	EPA 3050B	1,6010D	AB
Silver, Total	ND		mg/kg	0.421	0.119	1	07/03/19 21:40	07/08/19 22:05	EPA 3050B	1,6010D	AB
Thallium, Total	ND		mg/kg	0.842	0.133	1	07/03/19 21:40	07/08/19 22:05	EPA 3050B	1,6010D	AB
Zinc, Total	18.8		mg/kg	2.10	0.123	1	07/03/19 21:40	07/08/19 22:05	EPA 3050B	1,6010D	AB



Project Name: WW CROSS
Project Number: 141.05051.010

Lab Number: L1926969
Report Date: 07/10/19

SAMPLE RESULTS

Lab ID: L1926969-03
 Client ID: DUP2
 Sample Location: JAFFREY, NH

Date Collected: 06/19/19 09:40
 Date Received: 06/20/19
 Field Prep: Not Specified

Sample Depth:
 Matrix: Soil
 Percent Solids: 92%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Antimony, Total	ND		mg/kg	2.11	0.160	1	07/08/19 19:00	07/09/19 00:06	EPA 3050B	1,6010D	LC
Arsenic, Total	4.53		mg/kg	0.422	0.088	1	07/08/19 19:00	07/09/19 00:06	EPA 3050B	1,6010D	LC
Beryllium, Total	0.329		mg/kg	0.211	0.014	1	07/08/19 19:00	07/09/19 00:06	EPA 3050B	1,6010D	LC
Cadmium, Total	0.076	J	mg/kg	0.422	0.041	1	07/08/19 19:00	07/09/19 00:06	EPA 3050B	1,6010D	LC
Chromium, Total	11.2		mg/kg	0.422	0.041	1	07/08/19 19:00	07/09/19 00:06	EPA 3050B	1,6010D	LC
Copper, Total	7.29		mg/kg	0.422	0.109	1	07/08/19 19:00	07/09/19 00:06	EPA 3050B	1,6010D	LC
Lead, Total	2.94		mg/kg	2.11	0.113	1	07/08/19 19:00	07/09/19 00:06	EPA 3050B	1,6010D	LC
Mercury, Total	ND		mg/kg	0.069	0.045	1	07/09/19 06:00	07/09/19 13:17	EPA 7471B	1,7471B	GD
Nickel, Total	5.14		mg/kg	1.06	0.102	1	07/08/19 19:00	07/09/19 00:06	EPA 3050B	1,6010D	LC
Selenium, Total	ND		mg/kg	0.844	0.109	1	07/08/19 19:00	07/09/19 00:06	EPA 3050B	1,6010D	LC
Silver, Total	ND		mg/kg	0.422	0.119	1	07/08/19 19:00	07/09/19 00:06	EPA 3050B	1,6010D	LC
Thallium, Total	ND		mg/kg	0.844	0.133	1	07/08/19 19:00	07/09/19 00:06	EPA 3050B	1,6010D	LC
Zinc, Total	19.9		mg/kg	2.11	0.124	1	07/08/19 19:00	07/09/19 00:06	EPA 3050B	1,6010D	LC



Project Name: WW CROSS
Project Number: 141.05051.010

Lab Number: L1926969
Report Date: 07/10/19

Method Blank Analysis Batch Quality Control

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01 Batch: WG1256426-1									
Antimony, Total	ND	mg/kg	2.00	0.152	1	07/03/19 21:40	07/08/19 20:57	1,6010D	AB
Arsenic, Total	ND	mg/kg	0.400	0.083	1	07/03/19 21:40	07/08/19 20:57	1,6010D	AB
Beryllium, Total	ND	mg/kg	0.200	0.013	1	07/03/19 21:40	07/08/19 20:57	1,6010D	AB
Cadmium, Total	ND	mg/kg	0.400	0.039	1	07/03/19 21:40	07/08/19 20:57	1,6010D	AB
Chromium, Total	ND	mg/kg	0.400	0.038	1	07/03/19 21:40	07/08/19 20:57	1,6010D	AB
Copper, Total	ND	mg/kg	0.400	0.103	1	07/03/19 21:40	07/08/19 20:57	1,6010D	AB
Lead, Total	ND	mg/kg	2.00	0.107	1	07/03/19 21:40	07/08/19 20:57	1,6010D	AB
Nickel, Total	ND	mg/kg	1.00	0.097	1	07/03/19 21:40	07/08/19 20:57	1,6010D	AB
Selenium, Total	ND	mg/kg	0.800	0.103	1	07/03/19 21:40	07/08/19 20:57	1,6010D	AB
Silver, Total	ND	mg/kg	0.400	0.113	1	07/03/19 21:40	07/08/19 20:57	1,6010D	AB
Thallium, Total	ND	mg/kg	0.800	0.126	1	07/03/19 21:40	07/08/19 20:57	1,6010D	AB
Zinc, Total	ND	mg/kg	2.00	0.117	1	07/03/19 21:40	07/08/19 20:57	1,6010D	AB

Prep Information

Digestion Method: EPA 3050B

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01 Batch: WG1256548-1									
Mercury, Total	ND	mg/kg	0.083	0.054	1	07/04/19 10:10	07/08/19 11:38	1,7471B	GD

Prep Information

Digestion Method: EPA 7471B

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 03 Batch: WG1257221-1									
Antimony, Total	ND	mg/kg	2.00	0.152	1	07/08/19 19:00	07/08/19 22:52	1,6010D	LC
Arsenic, Total	ND	mg/kg	0.400	0.083	1	07/08/19 19:00	07/08/19 22:52	1,6010D	LC
Beryllium, Total	ND	mg/kg	0.200	0.013	1	07/08/19 19:00	07/08/19 22:52	1,6010D	LC
Cadmium, Total	ND	mg/kg	0.400	0.039	1	07/08/19 19:00	07/08/19 22:52	1,6010D	LC



Project Name: WW CROSS
Project Number: 141.05051.010

Lab Number: L1926969
Report Date: 07/10/19

Method Blank Analysis Batch Quality Control

Chromium, Total	ND	mg/kg	0.400	0.038	1	07/08/19 19:00	07/08/19 22:52	1,6010D	LC
Copper, Total	ND	mg/kg	0.400	0.103	1	07/08/19 19:00	07/08/19 22:52	1,6010D	LC
Lead, Total	ND	mg/kg	2.00	0.107	1	07/08/19 19:00	07/08/19 22:52	1,6010D	LC
Nickel, Total	ND	mg/kg	1.00	0.097	1	07/08/19 19:00	07/08/19 22:52	1,6010D	LC
Selenium, Total	ND	mg/kg	0.800	0.103	1	07/08/19 19:00	07/08/19 22:52	1,6010D	LC
Silver, Total	ND	mg/kg	0.400	0.113	1	07/08/19 19:00	07/08/19 22:52	1,6010D	LC
Thallium, Total	ND	mg/kg	0.800	0.126	1	07/08/19 19:00	07/08/19 22:52	1,6010D	LC
Zinc, Total	ND	mg/kg	2.00	0.117	1	07/08/19 19:00	07/08/19 22:52	1,6010D	LC

Prep Information

Digestion Method: EPA 3050B

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 03 Batch: WG1257360-1									
Mercury, Total	ND	mg/kg	0.083	0.054	1	07/09/19 06:00	07/09/19 13:13	1,7471B	GD

Prep Information

Digestion Method: EPA 7471B

Lab Control Sample Analysis

Batch Quality Control

Project Name: WW CROSS
Project Number: 141.05051.010

Lab Number: L1926969
Report Date: 07/10/19

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Total Metals - Mansfield Lab Associated sample(s): 01 Batch: WG1256426-2 SRM Lot Number: D105-540								
Antimony, Total	147		-		19-249	-		
Arsenic, Total	120		-		70-130	-		
Beryllium, Total	109		-		75-125	-		
Cadmium, Total	106		-		75-125	-		
Chromium, Total	104		-		70-130	-		
Copper, Total	104		-		75-125	-		
Lead, Total	107		-		71-128	-		
Nickel, Total	105		-		70-131	-		
Selenium, Total	113		-		63-137	-		
Silver, Total	110		-		69-131	-		
Thallium, Total	103		-		68-132	-		
Zinc, Total	112		-		70-130	-		
Total Metals - Mansfield Lab Associated sample(s): 01 Batch: WG1256548-2 SRM Lot Number: D105-540								
Mercury, Total	104		-		60-141	-		

Lab Control Sample Analysis

Batch Quality Control

Project Name: WW CROSS
Project Number: 141.05051.010

Lab Number: L1926969
Report Date: 07/10/19

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 03 Batch: WG1257221-2 SRM Lot Number: D105-540					
Antimony, Total	150	-	19-249	-	
Arsenic, Total	91	-	70-130	-	
Beryllium, Total	97	-	75-125	-	
Cadmium, Total	99	-	75-125	-	
Chromium, Total	83	-	70-130	-	
Copper, Total	86	-	75-125	-	
Lead, Total	83	-	71-128	-	
Nickel, Total	91	-	70-131	-	
Selenium, Total	91	-	63-137	-	
Silver, Total	84	-	69-131	-	
Thallium, Total	94	-	68-132	-	
Zinc, Total	88	-	70-130	-	
Total Metals - Mansfield Lab Associated sample(s): 03 Batch: WG1257360-2 SRM Lot Number: D105-540					
Mercury, Total	88	-	60-141	-	

Matrix Spike Analysis
Batch Quality Control

Project Name: WW CROSS
Project Number: 141.05051.010

Lab Number: L1926969
Report Date: 07/10/19

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Qual	MSD Found	MSD %Recovery	MSD Qual	Recovery Limits	RPD	RPD Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 03 QC Batch ID: WG1257360-3 QC Sample: L1926969-03 Client ID: DUP2												
Mercury, Total	ND	0.138	0.124	90		-	-		80-120	-		20

Lab Duplicate Analysis

Batch Quality Control

Project Name: WW CROSS
Project Number: 141.05051.010

Lab Number: L1926969
Report Date: 07/10/19

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 03 QC Batch ID: WG1257360-4 QC Sample: L1926969-03 Client ID: DUP2						
Mercury, Total	ND	ND	mg/kg	NC		20

INORGANICS & MISCELLANEOUS

Project Name: WW CROSS
Project Number: 141.05051.010

Lab Number: L1926969
Report Date: 07/10/19

SAMPLE RESULTS

Lab ID: L1926969-01
Client ID: B103-S2
Sample Location: JAFFREY, NH

Date Collected: 06/19/19 09:40
Date Received: 06/20/19
Field Prep: Not Specified

Sample Depth:
Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	93.2		%	0.100	NA	1	-	06/27/19 13:58	121,2540G	RI
Cyanide, Total	ND		mg/kg	1.0	0.21	1	06/26/19 13:00	06/26/19 15:18	1,9010C/9012B	LH



Project Name: WW CROSS
Project Number: 141.05051.010

Lab Number: L1926969
Report Date: 07/10/19

SAMPLE RESULTS

Lab ID: L1926969-03
Client ID: DUP2
Sample Location: JAFFREY, NH

Date Collected: 06/19/19 09:40
Date Received: 06/20/19
Field Prep: Not Specified

Sample Depth:
Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	92.2		%	0.100	NA	1	-	06/27/19 13:58	121,2540G	RI
Cyanide, Total	ND		mg/kg	1.0	0.22	1	06/26/19 13:00	06/26/19 15:19	1,9010C/9012B	LH



Project Name: WW CROSS
Project Number: 141.05051.010

Lab Number: L1926969
Report Date: 07/10/19

SAMPLE RESULTS

Lab ID: L1926969-04
Client ID: DUP3
Sample Location: JAFFREY, NH

Date Collected: 06/19/19 14:10
Date Received: 06/20/19
Field Prep: Not Specified

Sample Depth:
Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	97.2		%	0.100	NA	1	-	06/27/19 13:58	121,2540G	RI



Project Name: WW CROSS
Project Number: 141.05051.010

Lab Number: L1926969
Report Date: 07/10/19

Method Blank Analysis
Batch Quality Control

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab for sample(s): 01,03 Batch: WG1253231-1									
Cyanide, Total	ND	mg/kg	0.86	0.18	1	06/26/19 13:00	06/26/19 15:13	1,9010C/9012B	LH

Lab Control Sample Analysis

Batch Quality Control

Project Name: WW CROSS
Project Number: 141.05051.010

Lab Number: L1926969
Report Date: 07/10/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01,03 Batch: WG1253231-2 WG1253231-3								
Cyanide, Total	90		88		80-120	2		35

Lab Duplicate Analysis

Batch Quality Control

Project Name: WW CROSS
Project Number: 141.05051.010

Lab Number: L1926969
Report Date: 07/10/19

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01,03-04 QC Batch ID: WG1253936-1 QC Sample: L1926969-01 Client ID: B103-S2						
Solids, Total	93.2	93.6	%	0		20

Project Name: WW CROSS
Project Number: 141.05051.010

Lab Number: L1926969
Report Date: 07/10/19

Sample Receipt and Container Information

Were project specific reporting limits specified?

YES

Cooler Information

Cooler	Custody Seal
A	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1926969-01A	Vial MeOH preserved	A	NA		4.1	Y	Absent		8260HLW-NH(14)
L1926969-01B	Vial water preserved	A	NA		4.1	Y	Absent	20-JUN-19 23:28	8260HLW-NH(14)
L1926969-01C	Vial water preserved	A	NA		4.1	Y	Absent	20-JUN-19 23:28	8260HLW-NH(14)
L1926969-01D	Glass 60mL/2oz unpreserved	A	NA		4.1	Y	Absent		TCN-9010(14),TS(7)
L1926969-01E	Glass 60mL/2oz unpreserved	A	NA		4.1	Y	Absent		-
L1926969-01F	Glass 60mL/2oz unpreserved	A	NA		4.1	Y	Absent		-
L1926969-02A	Glass 60mL/2oz unpreserved	A	NA		4.1	Y	Absent		HOLD-8260HLW(14)
L1926969-02B	Glass 60mL/2oz unpreserved	A	NA		4.1	Y	Absent		HOLD-METAL(180)
L1926969-02C	Glass 60ml unpreserved split	A	NA		4.1	Y	Absent		HOLD-WETCHEM()
L1926969-02X	Vial MeOH preserved split	A	NA		4.1	Y	Absent		HOLD-8260HLW(14)
L1926969-02Y	Vial Water preserved split	A	NA		4.1	Y	Absent		HOLD-8260HLW(14)
L1926969-02Z	Vial Water preserved split	A	NA		4.1	Y	Absent		HOLD-8260HLW(14)
L1926969-03A	Vial MeOH preserved	A	NA		4.1	Y	Absent		HOLD-8260HLW(14)
L1926969-03B	Vial water preserved	A	NA		4.1	Y	Absent	20-JUN-19 23:28	HOLD-8260HLW(14)
L1926969-03C	Vial water preserved	A	NA		4.1	Y	Absent	20-JUN-19 23:28	HOLD-8260HLW(14)
L1926969-03D	Plastic 2oz unpreserved for TS	A	NA		4.1	Y	Absent		TCN-9010(14),TS(7)
L1926969-03E	Glass 60mL/2oz unpreserved	A	NA		4.1	Y	Absent		BE-TI(180),AS-TI(180),AG-TI(180),CR-TI(180),NI-TI(180),TL-TI(180),CU-TI(180),PB-TI(180),SB-TI(180),SE-TI(180),ZN-TI(180),HG-T(28),CD-TI(180)
L1926969-03F	Glass 60mL/2oz unpreserved	A	NA		4.1	Y	Absent		-
L1926969-04A	Vial MeOH preserved	A	NA		4.1	Y	Absent		8260HLW-NH(14)
L1926969-04B	Vial water preserved	A	NA		4.1	Y	Absent	20-JUN-19 23:28	8260HLW-NH(14)
L1926969-04C	Vial water preserved	A	NA		4.1	Y	Absent	20-JUN-19 23:28	8260HLW-NH(14)
L1926969-04D	Plastic 2oz unpreserved for TS	A	NA		4.1	Y	Absent		TS(7)

Project Name: WW CROSS
Project Number: 141.05051.010

Serial_No:07101915:54
Lab Number: L1926969
Report Date: 07/10/19

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1926969-04E	Glass 250ml/8oz unpreserved	A	NA		4.1	Y	Absent		8270TCL-PAH(14),TPH-DRO-D(14)
L1926969-04X	Plastic 120ml unpreserved split	A	NA		4.1	Y	Absent		A2-PHI(14)
L1926969-05A	Vial MeOH preserved	A	NA		4.1	Y	Absent		8260HLW-NH(14)
L1926969-05B	Vial water preserved	A	NA		4.1	Y	Absent	20-JUN-19 23:28	8260HLW-NH(14)

Project Name: WW CROSS
Project Number: 141.05051.010

Lab Number: L1926969
Report Date: 07/10/19

GLOSSARY

Acronyms

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

Footnotes

Report Format: DU Report with 'J' Qualifiers



Project Name: WW CROSS
Project Number: 141.05051.010

Lab Number: L1926969
Report Date: 07/10/19

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

Terms

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

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

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

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

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

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.

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 Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- 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 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: WW CROSS
Project Number: 141.05051.010

Lab Number: L1926969
Report Date: 07/10/19

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

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

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

EPA 6860: SCM: Perchlorate

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

Mansfield Facility

SM 2540D: TSS

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

EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene,

3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

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

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

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

Non-Potable Water

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

EPA 624.1: Volatile Halocarbons & Aromatics,

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

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

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

Mansfield Facility:

Drinking Water

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

EPA 522.

Non-Potable Water

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

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

EPA 245.1 Hg.

SM2340B

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



CHAIN OF CUSTODY

PAGE 1 OF 1

Date Rec'd in Lab: 6/20/19 ALPHA Job #: LP26969

6 Walkup Drive
Westboro, MA 01581
Tel: 508-898-9320

320 Forbes Blvd
Mendon, MA 02646
Tel: 508-827-0300

Project Information

Project Name: W W Cross
Project Location: Jaffrey, NH
Project #: 14L05051.010
Project Manager: John Ouellette
ALPHA Quote #:

Report Information - Data Deliverables

INDEX EMAIL
 Same as Client info PO #: 11764

Client Information

Client: Ransom Consulting
Address: 112 Corporate Dr
Portsmouth, NH
Phone: 603-436-1490
Email: jouellette@ransomenv.com
cc: drew.fuchs@ransomenv.com
Additional Project Information:

Turn-Around Time

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

Regulatory Requirements & Project Information Requirements

Yes No MA MCP Analytical Methods Yes No CT RCP Analytical Methods
 Yes No Matrix Spike Required on this SDG? (Required for MCP Inorganics)
 Yes No GW1 Standards (Info Required for Metals & EPH with Targets)
 Yes No NPDES RGP NPDES + US EPA Brown Balls
 Other State / Fed Program Criteria per SS02APP

Low level soft VOC samples must be frozen within 48hrs
HOLD all samples pending email from Ransom.

ALPHA Lab ID (Lab Use Only) Sample ID Collection Date Time Sample Matrix Sampler Initials

ANALYSIS

VOC: Benzene Ethyl Benzene Toluene Xylene o-Xylene m-Xylene p-Xylene Styrene

SVOC: 1,1,1-Trichloroethane 1,1,2-Trichloroethane 1,1-Dichloroethane 1,2-Dichloroethane 1,1-Dichloroethene 1,2-Dichloroethene 1,1,1-Trichloroethene 1,1,2-Trichloroethene 1,1,2,2-Tetrachloroethane 1,1,2,2-Tetrachloroethene 1,1,1,2-Tetrachloroethane 1,1,1,2-Tetrachloroethene 1,1,2,2-Tetrachloroethane 1,1,2,2-Tetrachloroethene 1,1,1,2-Tetrachloroethane 1,1,1,2-Tetrachloroethene

METALS: Arsenic Barium Cadmium Chromium Copper Lead Manganese Mercury Nickel Selenium Silver Vanadium Zinc

EPH: Aroclor 1248 Aroclor 1254 Aroclor 1260 Aroclor 1268 Aroclor 1281 Aroclor 1524 Aroclor 1548 Aroclor 1616 Aroclor 1632 Aroclor 1644 Aroclor 1651 Aroclor 1669 Aroclor 1688 Aroclor 1701 Aroclor 1713 Aroclor 1733 Aroclor 1754 Aroclor 1774 Aroclor 1794 Aroclor 1813 Aroclor 1832 Aroclor 1851 Aroclor 1871 Aroclor 1891 Aroclor 1911 Aroclor 1931 Aroclor 1951 Aroclor 1971 Aroclor 1991

VPH: Benzene Ethyl Benzene Toluene Xylene Styrene

PCB: PCB A PCB B PCB C PCB D PCB E PCB F PCB G PCB H PCB I PCB J PCB K PCB L PCB M PCB N PCB O PCB P PCB Q PCB R PCB S PCB T PCB U PCB V PCB W PCB X PCB Y PCB Z

TPH: TPH TPH-C TPH-H TPH-L TPH-M TPH-S

TPH-DRO
Petroleum Product Parameters
Total Cyanide

SAMPLE INFO

Filtration Field Lab to do

Preservation Lab to do

TOTAL # BOTTLES

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Time	Sample Matrix	Sampler Initials	VOC	SVOC	METALS	EPH	VPH	PCB	TPH	TPH-DRO	Petroleum Product Parameters	Total Cyanide	Sample Comments	TOTAL # BOTTLES	
<u>26969-01</u>	<u>B103-S2</u>	<u>6-19-19</u>	<u>9:40</u>	<u>Soil</u>	<u>DAF</u>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>										<u>1</u>
<u>-02</u>	<u>B103-S4</u>		<u>10:30</u>			<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>										<u>2</u>
<u>-03</u>	<u>DUP2</u>		<u>9:40</u>			<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>										<u>3</u>
<u>-04</u>	<u>DUP3</u>		<u>14:10</u>			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>					<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>					<u>5</u>
<u>-05</u>	<u>Trip Blank</u>					<input checked="" type="checkbox"/>												<u>2</u>

Container Type
M= Mason jar
A= Amber glass
V= Vial
G= Glass
S= Sealed air can
C= Cube
O= Other
E= Encore
D= BOD Bottle

Preservative
A= None
H= HCl
C= HClO₂
D= H₂SO₄
E= H₂O₂
F= MeOH
G= NaHSO₄
H= Na₂S₂O₈
I= Acetic Acid
J= NH₄Cl
K= Zn Acetate
O= Other

Container Type	<input checked="" type="checkbox"/> A	<input checked="" type="checkbox"/> A	<input checked="" type="checkbox"/> A	<input checked="" type="checkbox"/> A	<input checked="" type="checkbox"/> A
Preservative	<input checked="" type="checkbox"/> A	<input checked="" type="checkbox"/> A	<input checked="" type="checkbox"/> A	<input checked="" type="checkbox"/> A	<input checked="" type="checkbox"/> A

Relinquished By: Drew Fuchs Date/Time: 6/20/19 15:25
 Received By: Rob Maerts Date/Time: 6/20/19 18:20

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



CHAIN OF CUSTODY

PAGE 1 OF 1

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

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

Date Rec'd in Lab: 6/20/19

ALPHA Job #: LP26969

Report Information - Data Deliverables

ADEX EMAIL

Billing Information

Same as Client info PO #: 11764

Client Information

Client: Ransom Consulting

Address: 112 Corporate Dr
Portsmouth, NH

Phone: 603-436-1490

Email: javellette@ransomenv.com
cc: drew.fuchs@ransomenv.com

Additional Project Information:

Project Information

Project Name: W W Cross

Project Location: Jaffrey, NH

Project #: 146.05051.010

Project Manager: John Ovellette

ALPHA Quote #:

Regulatory Requirements & Project Information Requirements

Yes No MA MCP Analytical Methods Yes No CT RCP Analytical Methods

Yes No Matrix Spike Required on this SDG? (Required for MCP Inorganics)

Yes No GW1 Standards (Info Required for Metals & EPH with Targets)

Yes No NPDES RGP

Other State /Fed Program NH DES + US EPA Brownfields Criteria per SS&APP

Turn-Around Time

Standard RUSH (only confirmed if pre-approved)

Date Due:

Low level soil VOC samples must be frozen within 48hrs

HOLD all samples pending email from Ransom.

ANALYSIS	VOC: <input checked="" type="checkbox"/> 8260 <input type="checkbox"/> 624 <input type="checkbox"/> 524.2		SVOC: <input type="checkbox"/> ABN <input checked="" type="checkbox"/> PAH		METALS: <input type="checkbox"/> MCP 13 <input type="checkbox"/> MCP 14 <input type="checkbox"/> RCP 15		METALS: <input type="checkbox"/> RCRA5 <input type="checkbox"/> RCRA8		EPH: <input type="checkbox"/> Ranges & Targets <input type="checkbox"/> Ranges Only		VPH: <input type="checkbox"/> Ranges & Targets <input type="checkbox"/> Ranges Only		PCB <input type="checkbox"/> PEST		TPH: <input type="checkbox"/> Quant Only <input type="checkbox"/> Fingerprint		TPH-DRO		Petroleum Product Fingerprint		Total Cyanide		SAMPLE INFO	TOTAL # BOTTLES
	Filtration	Field	Lab to do	Preservation	Lab to do																			

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection		Sample Matrix	Sampler Initials	VOC	SVOC	METALS	METALS	EPH	VPH	PCB	TPH	TPH-DRO	Petroleum Product Fingerprint	Total Cyanide	SAMPLE INFO	TOTAL # BOTTLES	
		Date	Time																
26969-01	B103-S2	6-19-19	9:40	Soil	DAF	X			X								X		6
-02	B103-S4		10:30			X			X								X		2
-03	DUP2		9:40			X			X								X		6
-04	DUP3		14:10			X	X							X	X				5
-05	Trip Blank					X													2

Container Type

P= Plastic
A= Amber glass
V= Vial
G= Glass
B= Bacteria cup
C= Cube
O= Other
E= Encore
D= BOD Bottle

Preservative

A= None
B= HCl
C= HNO3
D= H2SO4
E= NaOH
F= MeOH
G= NaHSO4
H= Na2S2O3
I= Ascorbic Acid
J= NH4Cl
K= Zn Acetate
O= Other

Container Type	<u>V</u>	<u>A</u>	<u>A</u>	<u>A</u>	<u>A</u>	<u>A</u>	<u>A</u>	<u>A</u>
Preservative	<u>NO</u>	<u>A</u>	<u>A</u>					

Relinquished By: Drew Fuchs Date/Time: 6/20/19 15:25

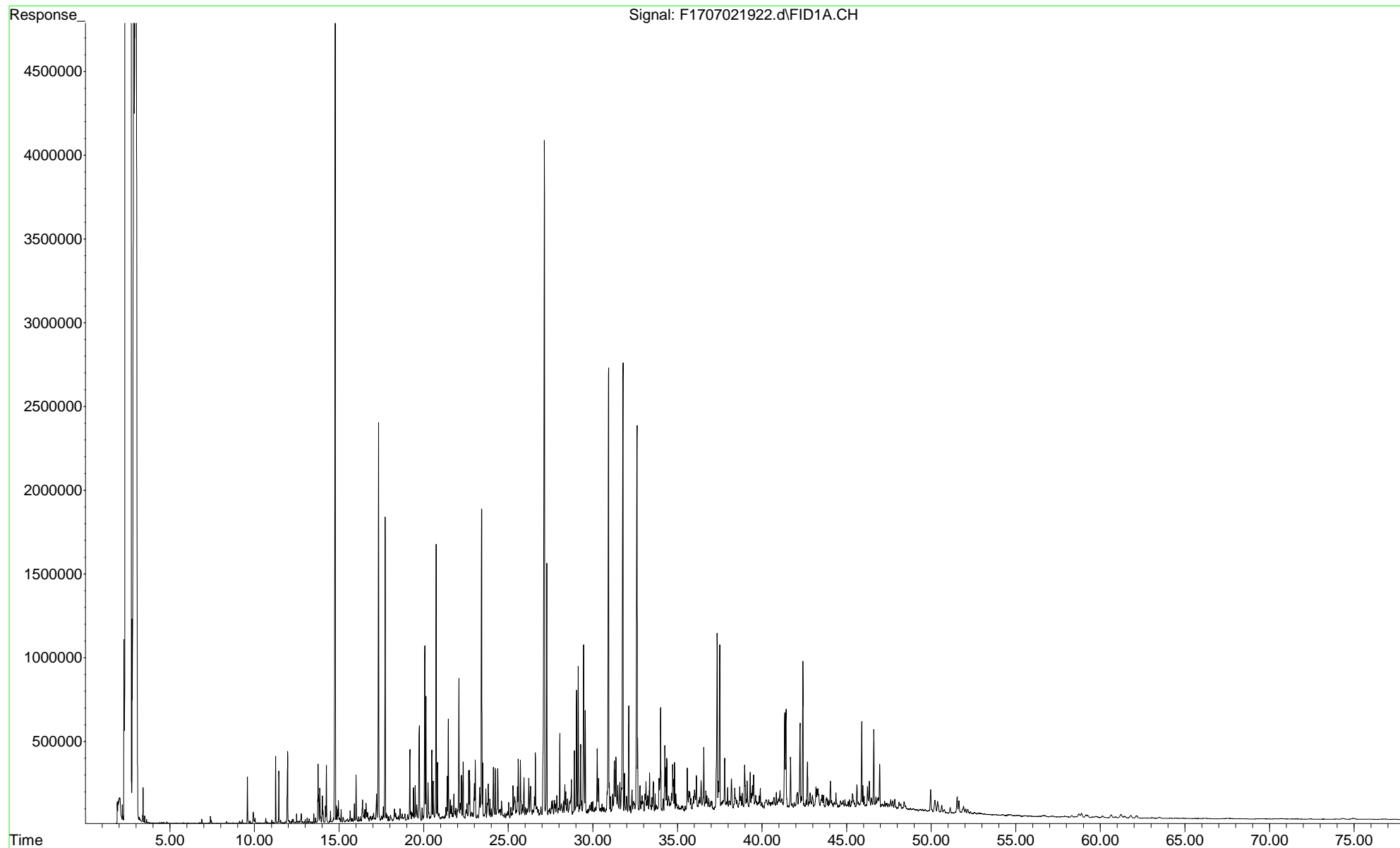
Received By: Rob Maesto Date/Time: 6/20/19 15:25

All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

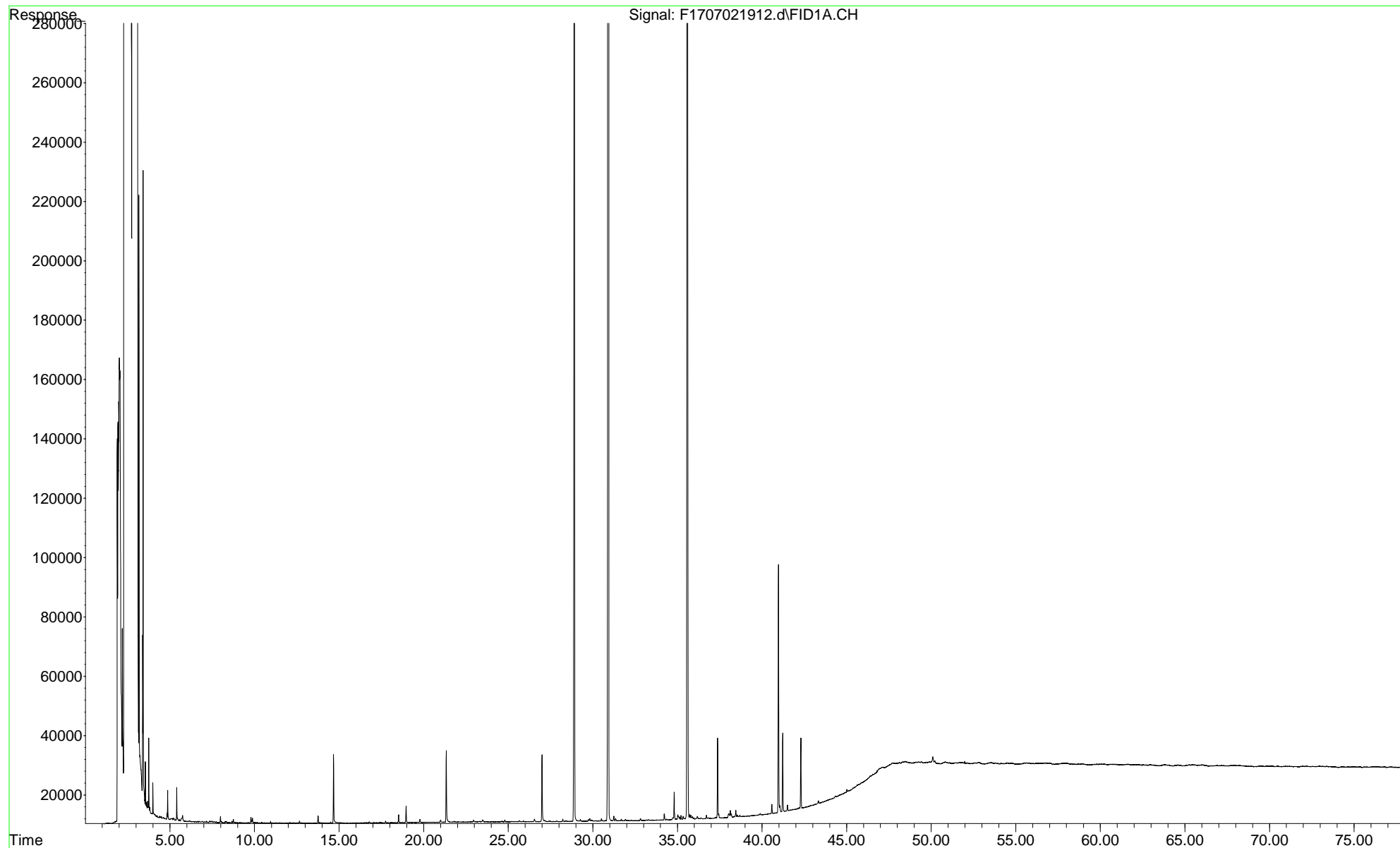
FORM NO: 01-01 (rev. 12-Mar-2012)

GC-FID Chromatogram

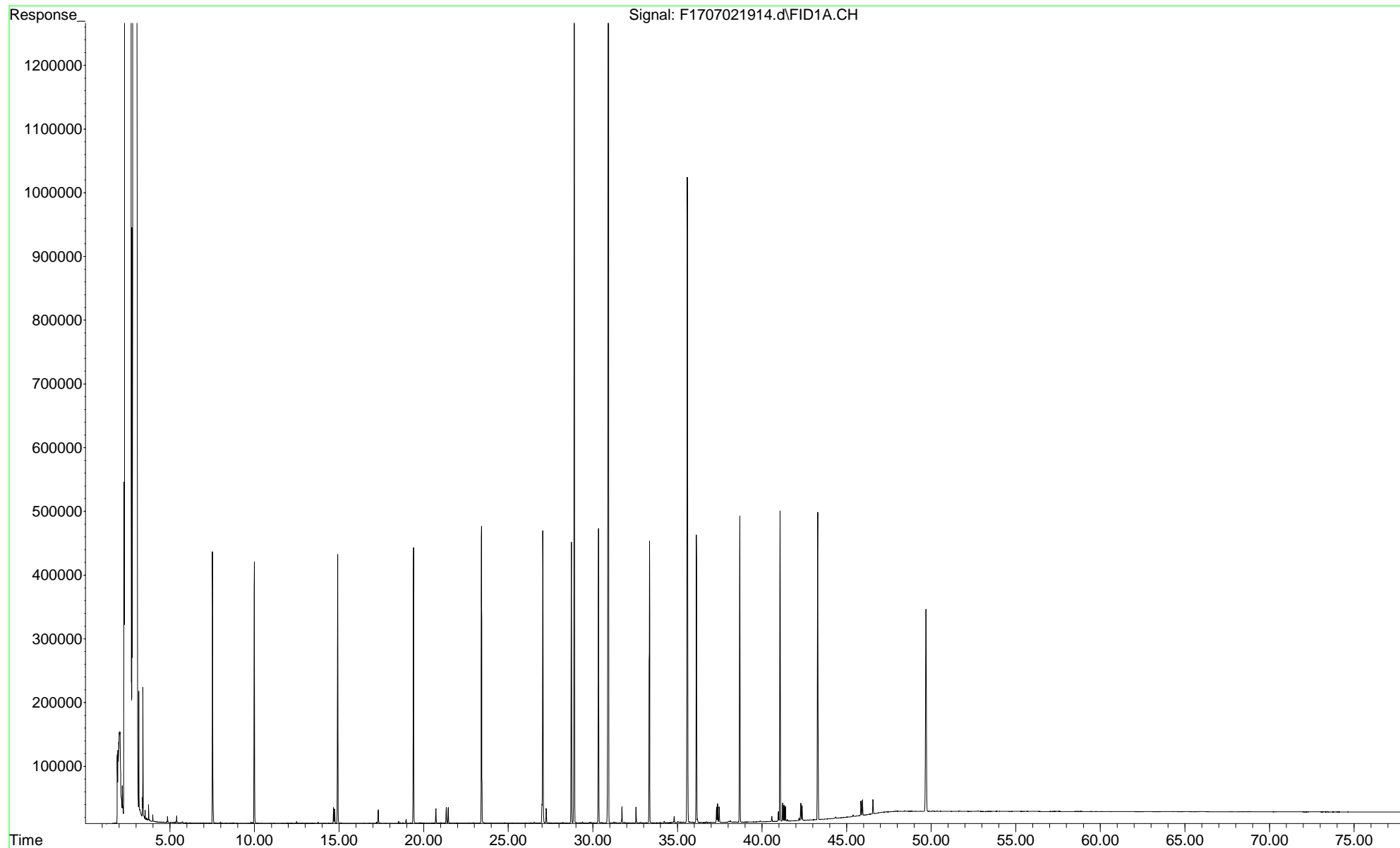
File :O:\Forensics\Data\FID17\2019\JUL\JUL02\F1707021922.d
Operator : FID17:WR
Acquired : 03 Jul 2019 12:47 am using AcqMethod FID17.M
Instrument : FID17
Sample Name: L1926969-04
Misc Info : WG1255847,WG1255235,ICAL15688
Vial Number: 11



File :O:\Forensics\Data\FID17\2019\JUL\JUL02\F1707021912.d
Operator : FID17:WR
Acquired : 02 Jul 2019 5:26 pm using AcqMethod FID17.M
Instrument : FID17
Sample Name: WG1255235-1 (Method Blank)
Misc Info : WG1255847,WG1255235,ICAL15688
Vial Number: 6

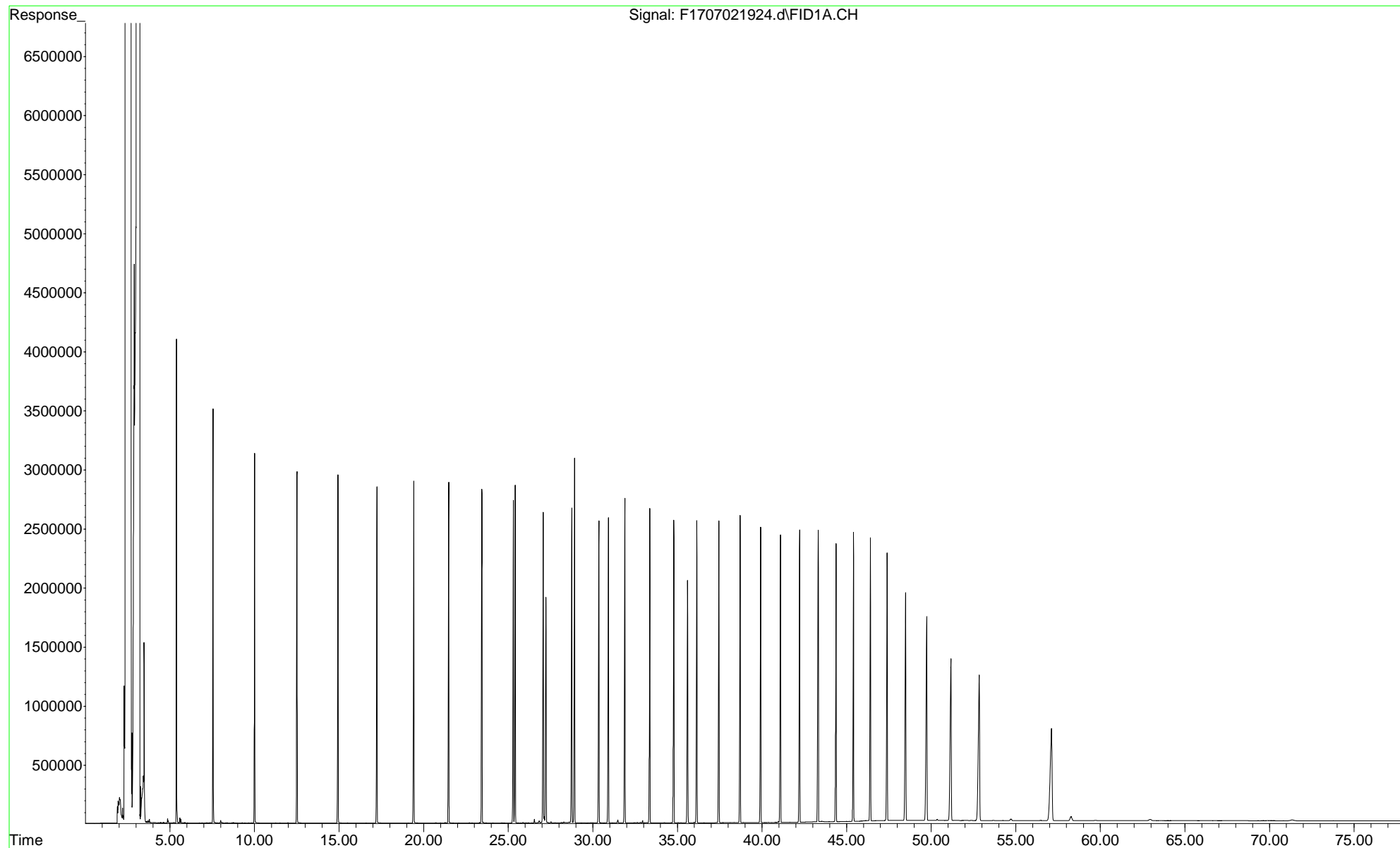


File :O:\Forensics\Data\FID17\2019\JUL\JUL02\F1707021914.d
Operator : FID17:WR
Acquired : 02 Jul 2019 6:54 pm using AcqMethod FID17.M
Instrument : FID17
Sample Name: WG1255235-2 (Laboratory Control Sample)
Misc Info : WG1255847,WG1255235,ICAL15688
Vial Number: 7

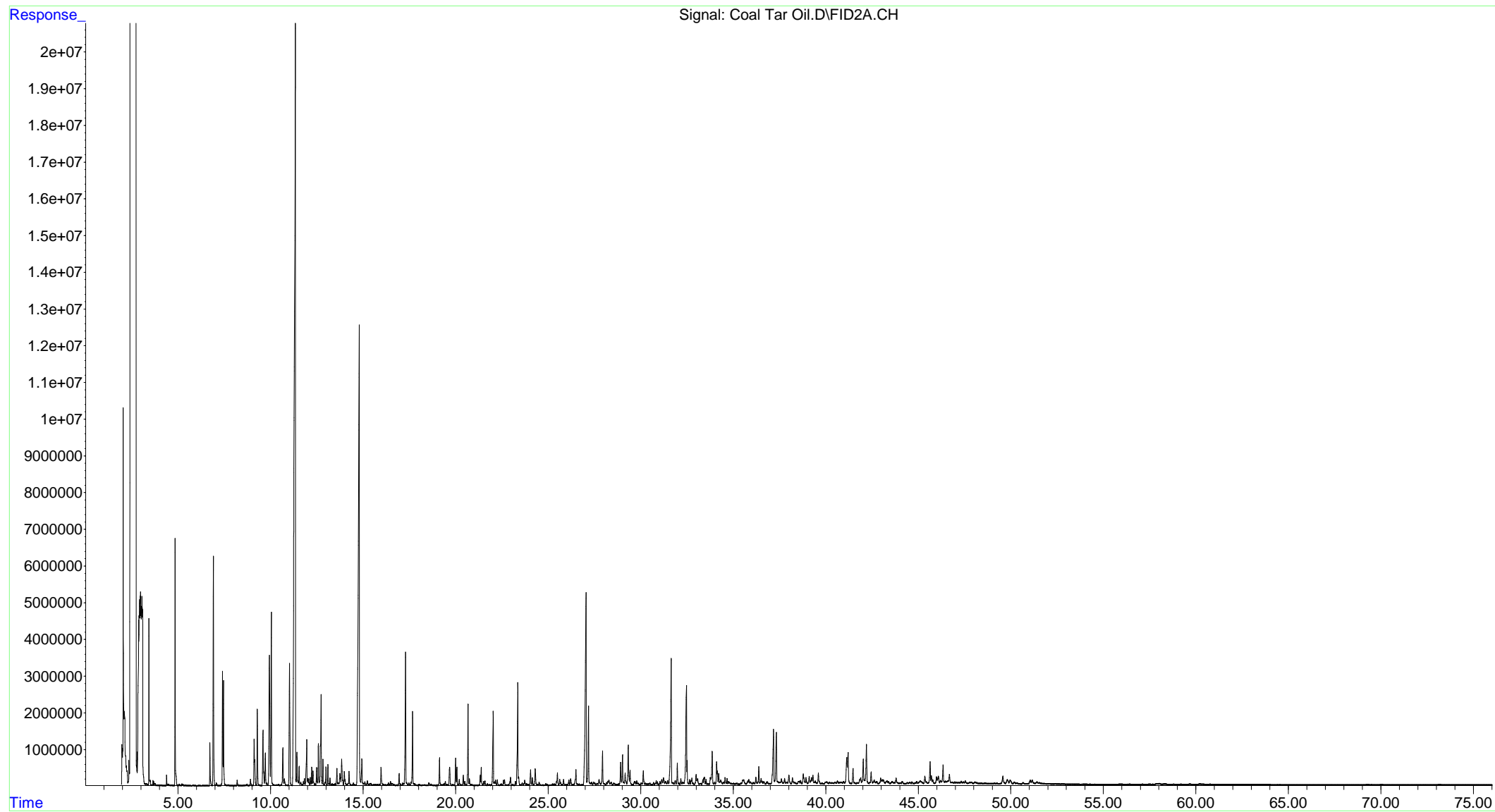


Petroleum Reference Standards

File :O:\Forensics\Data\FID17\2019\JUL\JUL02\F1707021924.d
Operator : FID17:WR
Acquired : 03 Jul 2019 2:15 am using AcqMethod FID17.M
Instrument : FID17
Sample Name: WG1255847-2 (Alkane Reference Standard)
Misc Info : WG1255847,FRBB06,ICAL15688
Vial Number: 12



File :O:\Forensics\Data\LIBRARY\Hydrocarbon Reference Standards\Coal Tar Oil.D
... al Tar Oil.D
Operator : DMP
Instrument : PAH2
Acquired : 08 Aug 2013 6:49 pm using AcqMethod FRNC2A.M
Sample : Coal Tar Oil
Misc Info : Chem Service Pz-123 (F031908K)





ANALYTICAL REPORT

Lab Number:	L1936388
Client:	Ransom Consulting, Inc. 112 Corporate Drive Pease International Tradeport Portsmouth, NH 03801
ATTN:	Steve Rickerich
Phone:	(603) 436-1490
Project Name:	WW CROSS PROPERTY
Project Number:	141.05051.010
Report Date:	08/27/19

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: WW CROSS PROPERTY
Project Number: 141.05051.010

Lab Number: L1936388
Report Date: 08/27/19

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1936388-01	B105A-S1	SOIL	JAFFREY, NH	08/12/19 09:40	08/13/19
L1936388-02	B105A-S2	SOIL	JAFFREY, NH	08/12/19 09:50	08/13/19
L1936388-03	B113-S2	SOIL	JAFFREY, NH	08/12/19 12:00	08/13/19
L1936388-04	B113-S4	SOIL	JAFFREY, NH	08/12/19 12:20	08/13/19
L1936388-05	B116-S2	SOIL	JAFFREY, NH	08/12/19 13:50	08/13/19
L1936388-06	B117-S1	SOIL	JAFFREY, NH	08/12/19 14:00	08/13/19
L1936388-07	TRIP BLANK	SOIL	JAFFREY, NH	08/12/19 00:00	08/13/19

Project Name: WW CROSS PROPERTY
Project Number: 141.05051.010

Lab Number: L1936388
Report Date: 08/27/19

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: WW CROSS PROPERTY
Project Number: 141.05051.010

Lab Number: L1936388
Report Date: 08/27/19

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.

Semivolatile Organics

L1936388-06: The surrogate recoveries are below the acceptance criteria for nitrobenzene-d5 (0%), 2-fluorobiphenyl (0%) and 4-terphenyl-d14 (0%) due to the dilution required to quantitate the sample. Re-extraction was not required; therefore, the results of the original analysis are reported.

Cyanide, Total

The WG1273690-2/-3 LCS/LCSD recoveries (56%/47%), associated with L1936388-04, are outside our in-house acceptance criteria, but within the vendor-certified acceptance limits. The results of the original analyses 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:

Melissa Sturgis Melissa Sturgis

Title: Technical Director/Representative

Date: 08/27/19

ORGANICS

VOLATILES

Project Name: WW CROSS PROPERTY
Project Number: 141.05051.010

Lab Number: L1936388
Report Date: 08/27/19

SAMPLE RESULTS

Lab ID: L1936388-02
 Client ID: B105A-S2
 Sample Location: JAFFREY, NH

Date Collected: 08/12/19 09:50
 Date Received: 08/13/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8260C
 Analytical Date: 08/22/19 00:32
 Analyst: NLK
 Percent Solids: 92%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Methylene chloride	ND		ug/kg	3.2	1.5	1
1,1-Dichloroethane	ND		ug/kg	0.64	0.09	1
Chloroform	ND		ug/kg	0.96	0.09	1
Carbon tetrachloride	ND		ug/kg	0.64	0.15	1
1,2-Dichloropropane	ND		ug/kg	0.64	0.08	1
Dibromochloromethane	ND		ug/kg	0.64	0.09	1
1,1,2-Trichloroethane	ND		ug/kg	0.64	0.17	1
Tetrachloroethene	ND		ug/kg	0.32	0.12	1
Chlorobenzene	ND		ug/kg	0.32	0.08	1
Trichlorofluoromethane	ND		ug/kg	2.6	0.44	1
1,2-Dichloroethane	ND		ug/kg	0.64	0.16	1
1,1,1-Trichloroethane	ND		ug/kg	0.32	0.11	1
Bromodichloromethane	ND		ug/kg	0.32	0.07	1
trans-1,3-Dichloropropene	ND		ug/kg	0.64	0.17	1
cis-1,3-Dichloropropene	ND		ug/kg	0.32	0.10	1
1,3-Dichloropropene, Total	ND		ug/kg	0.32	0.10	1
1,1-Dichloropropene	ND		ug/kg	0.32	0.10	1
Bromoform	ND		ug/kg	2.6	0.16	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.32	0.11	1
Benzene	ND		ug/kg	0.32	0.11	1
Toluene	ND		ug/kg	0.64	0.35	1
Ethylbenzene	ND		ug/kg	0.64	0.09	1
Chloromethane	ND		ug/kg	2.6	0.60	1
Bromomethane	ND		ug/kg	1.3	0.37	1
Vinyl chloride	ND		ug/kg	0.64	0.21	1
Chloroethane	ND		ug/kg	1.3	0.29	1
1,1-Dichloroethene	ND		ug/kg	0.64	0.15	1
trans-1,2-Dichloroethene	ND		ug/kg	0.96	0.09	1

Project Name: WW CROSS PROPERTY
Project Number: 141.05051.010

Lab Number: L1936388
Report Date: 08/27/19

SAMPLE RESULTS

Lab ID: L1936388-02
Client ID: B105A-S2
Sample Location: JAFFREY, NH

Date Collected: 08/12/19 09:50
Date Received: 08/13/19
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Trichloroethene	ND		ug/kg	0.32	0.09	1
1,2-Dichlorobenzene	ND		ug/kg	1.3	0.09	1
1,3-Dichlorobenzene	ND		ug/kg	1.3	0.10	1
1,4-Dichlorobenzene	ND		ug/kg	1.3	0.11	1
Methyl tert butyl ether	ND		ug/kg	1.3	0.13	1
p/m-Xylene	ND		ug/kg	1.3	0.36	1
o-Xylene	ND		ug/kg	0.64	0.19	1
Xylenes, Total	ND		ug/kg	0.64	0.19	1
cis-1,2-Dichloroethene	ND		ug/kg	0.64	0.11	1
1,2-Dichloroethene, Total	ND		ug/kg	0.64	0.09	1
Dibromomethane	ND		ug/kg	1.3	0.15	1
1,2,3-Trichloropropane	ND		ug/kg	1.3	0.08	1
Styrene	ND		ug/kg	0.64	0.12	1
Dichlorodifluoromethane	ND		ug/kg	6.4	0.58	1
Acetone	ND		ug/kg	6.4	3.1	1
Carbon disulfide	ND		ug/kg	6.4	2.9	1
2-Butanone	ND		ug/kg	6.4	1.4	1
4-Methyl-2-pentanone	ND		ug/kg	6.4	0.82	1
2-Hexanone	ND		ug/kg	6.4	0.75	1
Bromochloromethane	ND		ug/kg	1.3	0.13	1
Tetrahydrofuran	ND		ug/kg	2.6	1.0	1
2,2-Dichloropropane	ND		ug/kg	1.3	0.13	1
1,2-Dibromoethane	ND		ug/kg	0.64	0.18	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.32	0.08	1
Bromobenzene	ND		ug/kg	1.3	0.09	1
n-Butylbenzene	ND		ug/kg	0.64	0.11	1
sec-Butylbenzene	ND		ug/kg	0.64	0.09	1
tert-Butylbenzene	ND		ug/kg	1.3	0.08	1
1,3,5-Trichlorobenzene	ND		ug/kg	1.3	0.11	1
o-Chlorotoluene	ND		ug/kg	1.3	0.12	1
p-Chlorotoluene	ND		ug/kg	1.3	0.07	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	1.9	0.64	1
Hexachlorobutadiene	ND		ug/kg	2.6	0.11	1
Isopropylbenzene	ND		ug/kg	0.64	0.07	1
p-Isopropyltoluene	ND		ug/kg	0.64	0.07	1
Naphthalene	ND		ug/kg	2.6	0.42	1
n-Propylbenzene	ND		ug/kg	0.64	0.11	1

Project Name: WW CROSS PROPERTY
Project Number: 141.05051.010

Lab Number: L1936388
Report Date: 08/27/19

SAMPLE RESULTS

Lab ID: L1936388-02
Client ID: B105A-S2
Sample Location: JAFFREY, NH

Date Collected: 08/12/19 09:50
Date Received: 08/13/19
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
1,2,3-Trichlorobenzene	ND		ug/kg	1.3	0.20	1
1,2,4-Trichlorobenzene	ND		ug/kg	1.3	0.17	1
1,3,5-Trimethylbenzene	ND		ug/kg	1.3	0.12	1
1,2,4-Trimethylbenzene	ND		ug/kg	1.3	0.21	1
Ethyl ether	1.0	J	ug/kg	1.3	0.22	1
Isopropyl Ether	ND		ug/kg	1.3	0.14	1
Tert-Butyl Alcohol	ND		ug/kg	13	3.3	1
Ethyl-Tert-Butyl-Ether	ND		ug/kg	1.3	0.08	1
Tertiary-Amyl Methyl Ether	ND		ug/kg	1.3	0.11	1
1,4-Dioxane	ND		ug/kg	51	22.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	117		70-130
Toluene-d8	107		70-130
4-Bromofluorobenzene	105		70-130
Dibromofluoromethane	108		70-130

Project Name: WW CROSS PROPERTY
Project Number: 141.05051.010

Lab Number: L1936388
Report Date: 08/27/19

SAMPLE RESULTS

Lab ID: L1936388-04
 Client ID: B113-S4
 Sample Location: JAFFREY, NH

Date Collected: 08/12/19 12:20
 Date Received: 08/13/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8260C
 Analytical Date: 08/22/19 00:59
 Analyst: NLK
 Percent Solids: 94%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Methylene chloride	ND		ug/kg	3.2	1.5	1
1,1-Dichloroethane	ND		ug/kg	0.65	0.09	1
Chloroform	ND		ug/kg	0.98	0.09	1
Carbon tetrachloride	ND		ug/kg	0.65	0.15	1
1,2-Dichloropropane	ND		ug/kg	0.65	0.08	1
Dibromochloromethane	ND		ug/kg	0.65	0.09	1
1,1,2-Trichloroethane	ND		ug/kg	0.65	0.17	1
Tetrachloroethene	ND		ug/kg	0.32	0.13	1
Chlorobenzene	ND		ug/kg	0.32	0.08	1
Trichlorofluoromethane	ND		ug/kg	2.6	0.45	1
1,2-Dichloroethane	ND		ug/kg	0.65	0.17	1
1,1,1-Trichloroethane	ND		ug/kg	0.32	0.11	1
Bromodichloromethane	ND		ug/kg	0.32	0.07	1
trans-1,3-Dichloropropene	ND		ug/kg	0.65	0.18	1
cis-1,3-Dichloropropene	ND		ug/kg	0.32	0.10	1
1,3-Dichloropropene, Total	ND		ug/kg	0.32	0.10	1
1,1-Dichloropropene	ND		ug/kg	0.32	0.10	1
Bromoform	ND		ug/kg	2.6	0.16	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.32	0.11	1
Benzene	ND		ug/kg	0.32	0.11	1
Toluene	ND		ug/kg	0.65	0.35	1
Ethylbenzene	ND		ug/kg	0.65	0.09	1
Chloromethane	ND		ug/kg	2.6	0.61	1
Bromomethane	ND		ug/kg	1.3	0.38	1
Vinyl chloride	ND		ug/kg	0.65	0.22	1
Chloroethane	ND		ug/kg	1.3	0.29	1
1,1-Dichloroethene	ND		ug/kg	0.65	0.15	1
trans-1,2-Dichloroethene	ND		ug/kg	0.98	0.09	1

Project Name: WW CROSS PROPERTY

Lab Number: L1936388

Project Number: 141.05051.010

Report Date: 08/27/19

SAMPLE RESULTS

Lab ID: L1936388-04

Date Collected: 08/12/19 12:20

Client ID: B113-S4

Date Received: 08/13/19

Sample Location: JAFFREY, NH

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Trichloroethene	ND		ug/kg	0.32	0.09	1
1,2-Dichlorobenzene	ND		ug/kg	1.3	0.09	1
1,3-Dichlorobenzene	ND		ug/kg	1.3	0.10	1
1,4-Dichlorobenzene	ND		ug/kg	1.3	0.11	1
Methyl tert butyl ether	ND		ug/kg	1.3	0.13	1
p/m-Xylene	ND		ug/kg	1.3	0.36	1
o-Xylene	ND		ug/kg	0.65	0.19	1
Xylenes, Total	ND		ug/kg	0.65	0.19	1
cis-1,2-Dichloroethene	ND		ug/kg	0.65	0.11	1
1,2-Dichloroethene, Total	ND		ug/kg	0.65	0.09	1
Dibromomethane	ND		ug/kg	1.3	0.15	1
1,2,3-Trichloropropane	ND		ug/kg	1.3	0.08	1
Styrene	ND		ug/kg	0.65	0.13	1
Dichlorodifluoromethane	ND		ug/kg	6.5	0.60	1
Acetone	94		ug/kg	6.5	3.1	1
Carbon disulfide	ND		ug/kg	6.5	3.0	1
2-Butanone	ND		ug/kg	6.5	1.4	1
4-Methyl-2-pentanone	ND		ug/kg	6.5	0.83	1
2-Hexanone	ND		ug/kg	6.5	0.77	1
Bromochloromethane	ND		ug/kg	1.3	0.13	1
Tetrahydrofuran	ND		ug/kg	2.6	1.0	1
2,2-Dichloropropane	ND		ug/kg	1.3	0.13	1
1,2-Dibromoethane	ND		ug/kg	0.65	0.18	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.32	0.09	1
Bromobenzene	ND		ug/kg	1.3	0.09	1
n-Butylbenzene	ND		ug/kg	0.65	0.11	1
sec-Butylbenzene	ND		ug/kg	0.65	0.10	1
tert-Butylbenzene	ND		ug/kg	1.3	0.08	1
1,3,5-Trichlorobenzene	ND		ug/kg	1.3	0.11	1
o-Chlorotoluene	ND		ug/kg	1.3	0.12	1
p-Chlorotoluene	ND		ug/kg	1.3	0.07	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	2.0	0.65	1
Hexachlorobutadiene	ND		ug/kg	2.6	0.11	1
Isopropylbenzene	ND		ug/kg	0.65	0.07	1
p-Isopropyltoluene	ND		ug/kg	0.65	0.07	1
Naphthalene	ND		ug/kg	2.6	0.42	1
n-Propylbenzene	ND		ug/kg	0.65	0.11	1

Project Name: WW CROSS PROPERTY
Project Number: 141.05051.010

Lab Number: L1936388
Report Date: 08/27/19

SAMPLE RESULTS

Lab ID: L1936388-04
Client ID: B113-S4
Sample Location: JAFFREY, NH

Date Collected: 08/12/19 12:20
Date Received: 08/13/19
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
1,2,3-Trichlorobenzene	ND		ug/kg	1.3	0.21	1
1,2,4-Trichlorobenzene	ND		ug/kg	1.3	0.18	1
1,3,5-Trimethylbenzene	ND		ug/kg	1.3	0.12	1
1,2,4-Trimethylbenzene	ND		ug/kg	1.3	0.22	1
Ethyl ether	8.4		ug/kg	1.3	0.22	1
Isopropyl Ether	ND		ug/kg	1.3	0.14	1
Tert-Butyl Alcohol	15		ug/kg	13	3.3	1
Ethyl-Tert-Butyl-Ether	ND		ug/kg	1.3	0.08	1
Tertiary-Amyl Methyl Ether	ND		ug/kg	1.3	0.11	1
1,4-Dioxane	ND		ug/kg	52	23.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	116		70-130
Toluene-d8	109		70-130
4-Bromofluorobenzene	107		70-130
Dibromofluoromethane	102		70-130

Project Name: WW CROSS PROPERTY
Project Number: 141.05051.010

Lab Number: L1936388
Report Date: 08/27/19

SAMPLE RESULTS

Lab ID: L1936388-06
 Client ID: B117-S1
 Sample Location: JAFFREY, NH

Date Collected: 08/12/19 14:00
 Date Received: 08/13/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8260C
 Analytical Date: 08/21/19 22:12
 Analyst: MV
 Percent Solids: 97%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 High - Westborough Lab						
Methylene chloride	ND		ug/kg	180	85.	1
1,1-Dichloroethane	ND		ug/kg	37	5.4	1
Chloroform	ND		ug/kg	56	5.2	1
Carbon tetrachloride	ND		ug/kg	37	8.5	1
1,2-Dichloropropane	ND		ug/kg	37	4.6	1
Dibromochloromethane	ND		ug/kg	37	5.2	1
1,1,2-Trichloroethane	ND		ug/kg	37	9.9	1
Tetrachloroethene	ND		ug/kg	18	7.3	1
Chlorobenzene	ND		ug/kg	18	4.7	1
Trichlorofluoromethane	ND		ug/kg	150	26.	1
1,2-Dichloroethane	ND		ug/kg	37	9.5	1
1,1,1-Trichloroethane	ND		ug/kg	18	6.2	1
Bromodichloromethane	ND		ug/kg	18	4.0	1
trans-1,3-Dichloropropene	ND		ug/kg	37	10.	1
cis-1,3-Dichloropropene	ND		ug/kg	18	5.8	1
1,3-Dichloropropene, Total	ND		ug/kg	18	5.8	1
1,1-Dichloropropene	ND		ug/kg	18	5.9	1
Bromoform	ND		ug/kg	150	9.1	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	18	6.2	1
Benzene	ND		ug/kg	18	6.2	1
Toluene	ND		ug/kg	37	20.	1
Ethylbenzene	ND		ug/kg	37	5.2	1
Chloromethane	ND		ug/kg	150	34.	1
Bromomethane	ND		ug/kg	74	22.	1
Vinyl chloride	ND		ug/kg	37	12.	1
Chloroethane	ND		ug/kg	74	17.	1
1,1-Dichloroethene	ND		ug/kg	37	8.8	1
trans-1,2-Dichloroethene	ND		ug/kg	56	5.1	1

Project Name: WW CROSS PROPERTY
Project Number: 141.05051.010

Lab Number: L1936388
Report Date: 08/27/19

SAMPLE RESULTS

Lab ID: L1936388-06
Client ID: B117-S1
Sample Location: JAFFREY, NH

Date Collected: 08/12/19 14:00
Date Received: 08/13/19
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatiles Organics by EPA 5035 High - Westborough Lab						
Trichloroethene	ND		ug/kg	18	5.1	1
1,2-Dichlorobenzene	ND		ug/kg	74	5.3	1
1,3-Dichlorobenzene	ND		ug/kg	74	5.5	1
1,4-Dichlorobenzene	ND		ug/kg	74	6.3	1
Methyl tert butyl ether	ND		ug/kg	74	7.4	1
p/m-Xylene	ND		ug/kg	74	21.	1
o-Xylene	ND		ug/kg	37	11.	1
Xylenes, Total	ND		ug/kg	37	11.	1
cis-1,2-Dichloroethene	ND		ug/kg	37	6.5	1
1,2-Dichloroethene, Total	ND		ug/kg	37	5.1	1
Dibromomethane	ND		ug/kg	74	8.8	1
1,2,3-Trichloropropane	ND		ug/kg	74	4.7	1
Styrene	ND		ug/kg	37	7.3	1
Dichlorodifluoromethane	ND		ug/kg	370	34.	1
Acetone	ND		ug/kg	370	180	1
Carbon disulfide	ND		ug/kg	370	170	1
2-Butanone	ND		ug/kg	370	82.	1
4-Methyl-2-pentanone	ND		ug/kg	370	47.	1
2-Hexanone	ND		ug/kg	370	44.	1
Bromochloromethane	ND		ug/kg	74	7.6	1
Tetrahydrofuran	ND		ug/kg	150	59.	1
2,2-Dichloropropane	ND		ug/kg	74	7.5	1
1,2-Dibromoethane	ND		ug/kg	37	10.	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	18	4.9	1
Bromobenzene	ND		ug/kg	74	5.4	1
n-Butylbenzene	ND		ug/kg	37	6.2	1
sec-Butylbenzene	ND		ug/kg	37	5.4	1
tert-Butylbenzene	ND		ug/kg	74	4.4	1
1,3,5-Trichlorobenzene	ND		ug/kg	74	6.4	1
o-Chlorotoluene	ND		ug/kg	74	7.1	1
p-Chlorotoluene	ND		ug/kg	74	4.0	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	110	37.	1
Hexachlorobutadiene	ND		ug/kg	150	6.3	1
Isopropylbenzene	ND		ug/kg	37	4.0	1
p-Isopropyltoluene	ND		ug/kg	37	4.0	1
Naphthalene	1300		ug/kg	150	24.	1
n-Propylbenzene	ND		ug/kg	37	6.3	1

Project Name: WW CROSS PROPERTY
Project Number: 141.05051.010

Lab Number: L1936388
Report Date: 08/27/19

SAMPLE RESULTS

Lab ID: L1936388-06
Client ID: B117-S1
Sample Location: JAFFREY, NH

Date Collected: 08/12/19 14:00
Date Received: 08/13/19
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 High - Westborough Lab						
1,2,3-Trichlorobenzene	ND		ug/kg	74	12.	1
1,2,4-Trichlorobenzene	ND		ug/kg	74	10.	1
1,3,5-Trimethylbenzene	ND		ug/kg	74	7.2	1
1,2,4-Trimethylbenzene	ND		ug/kg	74	12.	1
Ethyl ether	ND		ug/kg	74	13.	1
Isopropyl Ether	ND		ug/kg	74	7.9	1
Tert-Butyl Alcohol	ND		ug/kg	740	190	1
Ethyl-Tert-Butyl-Ether	ND		ug/kg	74	4.7	1
Tertiary-Amyl Methyl Ether	ND		ug/kg	74	6.5	1
1,4-Dioxane	ND		ug/kg	3000	1300	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	106		70-130
Toluene-d8	97		70-130
4-Bromofluorobenzene	91		70-130
Dibromofluoromethane	100		70-130

Project Name: WW CROSS PROPERTY
Project Number: 141.05051.010

Lab Number: L1936388
Report Date: 08/27/19

SAMPLE RESULTS

Lab ID: L1936388-07
 Client ID: TRIP BLANK
 Sample Location: JAFFREY, NH

Date Collected: 08/12/19 00:00
 Date Received: 08/13/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8260C
 Analytical Date: 08/21/19 19:29
 Analyst: NLK
 Percent Solids: Results reported on an 'AS RECEIVED' basis.

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Methylene chloride	ND		ug/kg	5.0	2.3	1
1,1-Dichloroethane	ND		ug/kg	1.0	0.14	1
Chloroform	ND		ug/kg	1.5	0.14	1
Carbon tetrachloride	ND		ug/kg	1.0	0.23	1
1,2-Dichloropropane	ND		ug/kg	1.0	0.12	1
Dibromochloromethane	ND		ug/kg	1.0	0.14	1
1,1,2-Trichloroethane	ND		ug/kg	1.0	0.27	1
Tetrachloroethene	ND		ug/kg	0.50	0.20	1
Chlorobenzene	ND		ug/kg	0.50	0.13	1
Trichlorofluoromethane	ND		ug/kg	4.0	0.70	1
1,2-Dichloroethane	ND		ug/kg	1.0	0.26	1
1,1,1-Trichloroethane	ND		ug/kg	0.50	0.17	1
Bromodichloromethane	ND		ug/kg	0.50	0.11	1
trans-1,3-Dichloropropene	ND		ug/kg	1.0	0.27	1
cis-1,3-Dichloropropene	ND		ug/kg	0.50	0.16	1
1,3-Dichloropropene, Total	ND		ug/kg	0.50	0.16	1
1,1-Dichloropropene	ND		ug/kg	0.50	0.16	1
Bromoform	ND		ug/kg	4.0	0.25	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.50	0.17	1
Benzene	ND		ug/kg	0.50	0.17	1
Toluene	ND		ug/kg	1.0	0.54	1
Ethylbenzene	ND		ug/kg	1.0	0.14	1
Chloromethane	ND		ug/kg	4.0	0.93	1
Bromomethane	ND		ug/kg	2.0	0.58	1
Vinyl chloride	ND		ug/kg	1.0	0.34	1
Chloroethane	ND		ug/kg	2.0	0.45	1
1,1-Dichloroethene	ND		ug/kg	1.0	0.24	1
trans-1,2-Dichloroethene	ND		ug/kg	1.5	0.14	1

Project Name: WW CROSS PROPERTY
Project Number: 141.05051.010

Lab Number: L1936388
Report Date: 08/27/19

SAMPLE RESULTS

Lab ID: L1936388-07
Client ID: TRIP BLANK
Sample Location: JAFFREY, NH

Date Collected: 08/12/19 00:00
Date Received: 08/13/19
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Trichloroethene	ND		ug/kg	0.50	0.14	1
1,2-Dichlorobenzene	ND		ug/kg	2.0	0.14	1
1,3-Dichlorobenzene	ND		ug/kg	2.0	0.15	1
1,4-Dichlorobenzene	ND		ug/kg	2.0	0.17	1
Methyl tert butyl ether	ND		ug/kg	2.0	0.20	1
p/m-Xylene	ND		ug/kg	2.0	0.56	1
o-Xylene	ND		ug/kg	1.0	0.29	1
Xylenes, Total	ND		ug/kg	1.0	0.29	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
Dibromomethane	ND		ug/kg	2.0	0.24	1
1,2,3-Trichloropropane	ND		ug/kg	2.0	0.13	1
Styrene	ND		ug/kg	1.0	0.20	1
Dichlorodifluoromethane	ND		ug/kg	10	0.92	1
Acetone	ND		ug/kg	10	4.8	1
Carbon disulfide	ND		ug/kg	10	4.6	1
2-Butanone	ND		ug/kg	10	2.2	1
4-Methyl-2-pentanone	ND		ug/kg	10	1.3	1
2-Hexanone	ND		ug/kg	10	1.2	1
Bromochloromethane	ND		ug/kg	2.0	0.20	1
Tetrahydrofuran	ND		ug/kg	4.0	1.6	1
2,2-Dichloropropane	ND		ug/kg	2.0	0.20	1
1,2-Dibromoethane	ND		ug/kg	1.0	0.28	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.50	0.13	1
Bromobenzene	ND		ug/kg	2.0	0.14	1
n-Butylbenzene	ND		ug/kg	1.0	0.17	1
sec-Butylbenzene	ND		ug/kg	1.0	0.15	1
tert-Butylbenzene	ND		ug/kg	2.0	0.12	1
1,3,5-Trichlorobenzene	ND		ug/kg	2.0	0.17	1
o-Chlorotoluene	ND		ug/kg	2.0	0.19	1
p-Chlorotoluene	ND		ug/kg	2.0	0.11	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.0	1.0	1
Hexachlorobutadiene	ND		ug/kg	4.0	0.17	1
Isopropylbenzene	ND		ug/kg	1.0	0.11	1
p-Isopropyltoluene	ND		ug/kg	1.0	0.11	1
Naphthalene	ND		ug/kg	4.0	0.65	1
n-Propylbenzene	ND		ug/kg	1.0	0.17	1

Project Name: WW CROSS PROPERTY
Project Number: 141.05051.010

Lab Number: L1936388
Report Date: 08/27/19

SAMPLE RESULTS

Lab ID: L1936388-07
Client ID: TRIP BLANK
Sample Location: JAFFREY, NH

Date Collected: 08/12/19 00:00
Date Received: 08/13/19
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
1,2,3-Trichlorobenzene	ND		ug/kg	2.0	0.32	1
1,2,4-Trichlorobenzene	ND		ug/kg	2.0	0.27	1
1,3,5-Trimethylbenzene	ND		ug/kg	2.0	0.19	1
1,2,4-Trimethylbenzene	ND		ug/kg	2.0	0.33	1
Ethyl ether	1.1	J	ug/kg	2.0	0.34	1
Isopropyl Ether	ND		ug/kg	2.0	0.21	1
Tert-Butyl Alcohol	ND		ug/kg	20	5.1	1
Ethyl-Tert-Butyl-Ether	ND		ug/kg	2.0	0.13	1
Tertiary-Amyl Methyl Ether	ND		ug/kg	2.0	0.18	1
1,4-Dioxane	ND		ug/kg	80	35.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	115		70-130
Toluene-d8	109		70-130
4-Bromofluorobenzene	108		70-130
Dibromofluoromethane	106		70-130

Project Name: WW CROSS PROPERTY
Project Number: 141.05051.010

Lab Number: L1936388
Report Date: 08/27/19

SAMPLE RESULTS

Lab ID: L1936388-07
 Client ID: TRIP BLANK
 Sample Location: JAFFREY, NH

Date Collected: 08/12/19 00:00
 Date Received: 08/13/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8260C
 Analytical Date: 08/22/19 08:41
 Analyst: MV
 Percent Solids: Results reported on an 'AS RECEIVED' basis.

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 High - Westborough Lab						
Methylene chloride	ND		ug/kg	250	110	1
1,1-Dichloroethane	ND		ug/kg	50	7.2	1
Chloroform	ND		ug/kg	75	7.0	1
Carbon tetrachloride	ND		ug/kg	50	12.	1
1,2-Dichloropropane	ND		ug/kg	50	6.2	1
Dibromochloromethane	ND		ug/kg	50	7.0	1
1,1,2-Trichloroethane	ND		ug/kg	50	13.	1
Tetrachloroethene	ND		ug/kg	25	9.8	1
Chlorobenzene	ND		ug/kg	25	6.4	1
Trichlorofluoromethane	ND		ug/kg	200	35.	1
1,2-Dichloroethane	ND		ug/kg	50	13.	1
1,1,1-Trichloroethane	ND		ug/kg	25	8.4	1
Bromodichloromethane	ND		ug/kg	25	5.4	1
trans-1,3-Dichloropropene	ND		ug/kg	50	14.	1
cis-1,3-Dichloropropene	ND		ug/kg	25	7.9	1
1,3-Dichloropropene, Total	ND		ug/kg	25	7.9	1
1,1-Dichloropropene	ND		ug/kg	25	8.0	1
Bromoform	ND		ug/kg	200	12.	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	25	8.3	1
Benzene	ND		ug/kg	25	8.3	1
Toluene	ND		ug/kg	50	27.	1
Ethylbenzene	ND		ug/kg	50	7.0	1
Chloromethane	ND		ug/kg	200	47.	1
Bromomethane	ND		ug/kg	100	29.	1
Vinyl chloride	ND		ug/kg	50	17.	1
Chloroethane	ND		ug/kg	100	23.	1
1,1-Dichloroethene	ND		ug/kg	50	12.	1
trans-1,2-Dichloroethene	ND		ug/kg	75	6.8	1

Project Name: WW CROSS PROPERTY
Project Number: 141.05051.010

Lab Number: L1936388
Report Date: 08/27/19

SAMPLE RESULTS

Lab ID: L1936388-07
Client ID: TRIP BLANK
Sample Location: JAFFREY, NH

Date Collected: 08/12/19 00:00
Date Received: 08/13/19
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatiles Organics by EPA 5035 High - Westborough Lab						
Trichloroethene	ND		ug/kg	25	6.8	1
1,2-Dichlorobenzene	ND		ug/kg	100	7.2	1
1,3-Dichlorobenzene	ND		ug/kg	100	7.4	1
1,4-Dichlorobenzene	ND		ug/kg	100	8.6	1
Methyl tert butyl ether	ND		ug/kg	100	10.	1
p/m-Xylene	ND		ug/kg	100	28.	1
o-Xylene	ND		ug/kg	50	14.	1
Xylenes, Total	ND		ug/kg	50	14.	1
cis-1,2-Dichloroethene	ND		ug/kg	50	8.8	1
1,2-Dichloroethene, Total	ND		ug/kg	50	6.8	1
Dibromomethane	ND		ug/kg	100	12.	1
1,2,3-Trichloropropane	ND		ug/kg	100	6.4	1
Styrene	ND		ug/kg	50	9.8	1
Dichlorodifluoromethane	ND		ug/kg	500	46.	1
Acetone	ND		ug/kg	500	240	1
Carbon disulfide	ND		ug/kg	500	230	1
2-Butanone	ND		ug/kg	500	110	1
4-Methyl-2-pentanone	ND		ug/kg	500	64.	1
2-Hexanone	ND		ug/kg	500	59.	1
Bromochloromethane	ND		ug/kg	100	10.	1
Tetrahydrofuran	ND		ug/kg	200	80.	1
2,2-Dichloropropane	ND		ug/kg	100	10.	1
1,2-Dibromoethane	ND		ug/kg	50	14.	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	25	6.6	1
Bromobenzene	ND		ug/kg	100	7.2	1
n-Butylbenzene	ND		ug/kg	50	8.4	1
sec-Butylbenzene	ND		ug/kg	50	7.3	1
tert-Butylbenzene	ND		ug/kg	100	5.9	1
1,3,5-Trichlorobenzene	ND		ug/kg	100	8.6	1
o-Chlorotoluene	ND		ug/kg	100	9.6	1
p-Chlorotoluene	ND		ug/kg	100	5.4	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	150	50.	1
Hexachlorobutadiene	ND		ug/kg	200	8.4	1
Isopropylbenzene	ND		ug/kg	50	5.4	1
p-Isopropyltoluene	ND		ug/kg	50	5.4	1
Naphthalene	ND		ug/kg	200	32.	1
n-Propylbenzene	ND		ug/kg	50	8.6	1

Project Name: WW CROSS PROPERTY
Project Number: 141.05051.010

Lab Number: L1936388
Report Date: 08/27/19

SAMPLE RESULTS

Lab ID: L1936388-07
Client ID: TRIP BLANK
Sample Location: JAFFREY, NH

Date Collected: 08/12/19 00:00
Date Received: 08/13/19
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatiles Organics by EPA 5035 High - Westborough Lab						
1,2,3-Trichlorobenzene	ND		ug/kg	100	16.	1
1,2,4-Trichlorobenzene	ND		ug/kg	100	14.	1
1,3,5-Trimethylbenzene	ND		ug/kg	100	9.6	1
1,2,4-Trimethylbenzene	ND		ug/kg	100	17.	1
Ethyl ether	ND		ug/kg	100	17.	1
Isopropyl Ether	ND		ug/kg	100	11.	1
Tert-Butyl Alcohol	ND		ug/kg	1000	260	1
Ethyl-Tert-Butyl-Ether	ND		ug/kg	100	6.4	1
Tertiary-Amyl Methyl Ether	ND		ug/kg	100	8.8	1
1,4-Dioxane	ND		ug/kg	4000	1800	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	106		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	96		70-130
Dibromofluoromethane	99		70-130

Project Name: WW CROSS PROPERTY
Project Number: 141.05051.010

Lab Number: L1936388
Report Date: 08/27/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 08/21/19 18:17
Analyst: AD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by EPA 5035 High - Westborough Lab for sample(s): 06 Batch: WG1275383-5					
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

Project Name: WW CROSS PROPERTY
Project Number: 141.05051.010

Lab Number: L1936388
Report Date: 08/27/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 08/21/19 18:17
Analyst: AD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by EPA 5035 High - Westborough Lab for sample(s): 06 Batch: WG1275383-5					
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.
1,2,3-Trichloropropane	ND		ug/kg	100	6.4
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
4-Methyl-2-pentanone	ND		ug/kg	500	64.
2-Hexanone	ND		ug/kg	500	59.
Bromochloromethane	ND		ug/kg	100	10.
Tetrahydrofuran	ND		ug/kg	200	80.
2,2-Dichloropropane	ND		ug/kg	100	10.
1,2-Dibromoethane	ND		ug/kg	50	14.
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
1,3,5-Trichlorobenzene	ND		ug/kg	100	8.6
o-Chlorotoluene	ND		ug/kg	100	9.6

Project Name: WW CROSS PROPERTY
Project Number: 141.05051.010

Lab Number: L1936388
Report Date: 08/27/19

**Method Blank Analysis
Batch Quality Control**

Analytical Method: 1,8260C
Analytical Date: 08/21/19 18:17
Analyst: AD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by EPA 5035 High - Westborough Lab for sample(s): 06 Batch: WG1275383-5					
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	ND		ug/kg	200	32.
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.
Ethyl ether	ND		ug/kg	100	17.
Isopropyl Ether	ND		ug/kg	100	11.
Tert-Butyl Alcohol	ND		ug/kg	1000	260
Ethyl-Tert-Butyl-Ether	ND		ug/kg	100	6.4
Tertiary-Amyl Methyl Ether	ND		ug/kg	100	8.8
1,4-Dioxane	ND		ug/kg	4000	1800

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	103		70-130
Toluene-d8	97		70-130
4-Bromofluorobenzene	93		70-130
Dibromofluoromethane	99		70-130

Project Name: WW CROSS PROPERTY
Project Number: 141.05051.010

Lab Number: L1936388
Report Date: 08/27/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 08/21/19 19:02
Analyst: AD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by EPA 5035 Low - Westborough Lab for sample(s): 02,04,07 Batch: WG1275448-5					
Methylene chloride	ND		ug/kg	5.0	2.3
1,1-Dichloroethane	ND		ug/kg	1.0	0.14
Chloroform	ND		ug/kg	1.5	0.14
Carbon tetrachloride	ND		ug/kg	1.0	0.23
1,2-Dichloropropane	ND		ug/kg	1.0	0.12
Dibromochloromethane	ND		ug/kg	1.0	0.14
1,1,2-Trichloroethane	ND		ug/kg	1.0	0.27
Tetrachloroethene	ND		ug/kg	0.50	0.20
Chlorobenzene	ND		ug/kg	0.50	0.13
Trichlorofluoromethane	ND		ug/kg	4.0	0.70
1,2-Dichloroethane	ND		ug/kg	1.0	0.26
1,1,1-Trichloroethane	ND		ug/kg	0.50	0.17
Bromodichloromethane	ND		ug/kg	0.50	0.11
trans-1,3-Dichloropropene	ND		ug/kg	1.0	0.27
cis-1,3-Dichloropropene	ND		ug/kg	0.50	0.16
1,3-Dichloropropene, Total	ND		ug/kg	0.50	0.16
1,1-Dichloropropene	ND		ug/kg	0.50	0.16
Bromoform	ND		ug/kg	4.0	0.25
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.50	0.17
Benzene	ND		ug/kg	0.50	0.17
Toluene	ND		ug/kg	1.0	0.54
Ethylbenzene	ND		ug/kg	1.0	0.14
Chloromethane	ND		ug/kg	4.0	0.93
Bromomethane	ND		ug/kg	2.0	0.58
Vinyl chloride	ND		ug/kg	1.0	0.34
Chloroethane	ND		ug/kg	2.0	0.45
1,1-Dichloroethene	ND		ug/kg	1.0	0.24
trans-1,2-Dichloroethene	ND		ug/kg	1.5	0.14
Trichloroethene	ND		ug/kg	0.50	0.14

Project Name: WW CROSS PROPERTY
Project Number: 141.05051.010

Lab Number: L1936388
Report Date: 08/27/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 08/21/19 19:02
Analyst: AD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by EPA 5035 Low - Westborough Lab for sample(s): 02,04,07 Batch: WG1275448-5					
1,2-Dichlorobenzene	ND		ug/kg	2.0	0.14
1,3-Dichlorobenzene	ND		ug/kg	2.0	0.15
1,4-Dichlorobenzene	ND		ug/kg	2.0	0.17
Methyl tert butyl ether	ND		ug/kg	2.0	0.20
p/m-Xylene	ND		ug/kg	2.0	0.56
o-Xylene	ND		ug/kg	1.0	0.29
Xylenes, Total	ND		ug/kg	1.0	0.29
cis-1,2-Dichloroethene	ND		ug/kg	1.0	0.18
1,2-Dichloroethene, Total	ND		ug/kg	1.0	0.14
Dibromomethane	ND		ug/kg	2.0	0.24
1,2,3-Trichloropropane	ND		ug/kg	2.0	0.13
Styrene	ND		ug/kg	1.0	0.20
Dichlorodifluoromethane	ND		ug/kg	10	0.92
Acetone	ND		ug/kg	10	4.8
Carbon disulfide	ND		ug/kg	10	4.6
2-Butanone	ND		ug/kg	10	2.2
4-Methyl-2-pentanone	ND		ug/kg	10	1.3
2-Hexanone	ND		ug/kg	10	1.2
Bromochloromethane	ND		ug/kg	2.0	0.20
Tetrahydrofuran	ND		ug/kg	4.0	1.6
2,2-Dichloropropane	ND		ug/kg	2.0	0.20
1,2-Dibromoethane	ND		ug/kg	1.0	0.28
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.50	0.13
Bromobenzene	ND		ug/kg	2.0	0.14
n-Butylbenzene	ND		ug/kg	1.0	0.17
sec-Butylbenzene	ND		ug/kg	1.0	0.15
tert-Butylbenzene	ND		ug/kg	2.0	0.12
1,3,5-Trichlorobenzene	ND		ug/kg	2.0	0.17
o-Chlorotoluene	ND		ug/kg	2.0	0.19

Project Name: WW CROSS PROPERTY
Project Number: 141.05051.010

Lab Number: L1936388
Report Date: 08/27/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 08/21/19 19:02
Analyst: AD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by EPA 5035 Low - Westborough Lab for sample(s): 02,04,07 Batch: WG1275448-5					
p-Chlorotoluene	ND		ug/kg	2.0	0.11
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.0	1.0
Hexachlorobutadiene	ND		ug/kg	4.0	0.17
Isopropylbenzene	ND		ug/kg	1.0	0.11
p-Isopropyltoluene	ND		ug/kg	1.0	0.11
Naphthalene	ND		ug/kg	4.0	0.65
n-Propylbenzene	ND		ug/kg	1.0	0.17
1,2,3-Trichlorobenzene	ND		ug/kg	2.0	0.32
1,2,4-Trichlorobenzene	ND		ug/kg	2.0	0.27
1,3,5-Trimethylbenzene	ND		ug/kg	2.0	0.19
1,2,4-Trimethylbenzene	ND		ug/kg	2.0	0.33
Ethyl ether	ND		ug/kg	2.0	0.34
Isopropyl Ether	ND		ug/kg	2.0	0.21
Tert-Butyl Alcohol	ND		ug/kg	20	5.1
Ethyl-Tert-Butyl-Ether	ND		ug/kg	2.0	0.13
Tertiary-Amyl Methyl Ether	ND		ug/kg	2.0	0.18
1,4-Dioxane	ND		ug/kg	80	35.

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	114		70-130
Toluene-d8	113		70-130
4-Bromofluorobenzene	106		70-130
Dibromofluoromethane	102		70-130

Project Name: WW CROSS PROPERTY
Project Number: 141.05051.010

Lab Number: L1936388
Report Date: 08/27/19

**Method Blank Analysis
Batch Quality Control**

Analytical Method: 1,8260C
Analytical Date: 08/22/19 06:28
Analyst: MV

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by EPA 5035 High - Westborough Lab for sample(s): 07 Batch: WG1275471-5					
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

Project Name: WW CROSS PROPERTY
Project Number: 141.05051.010

Lab Number: L1936388
Report Date: 08/27/19

**Method Blank Analysis
Batch Quality Control**

Analytical Method: 1,8260C
Analytical Date: 08/22/19 06:28
Analyst: MV

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by EPA 5035 High - Westborough Lab for sample(s): 07 Batch: WG1275471-5					
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.
1,2,3-Trichloropropane	ND		ug/kg	100	6.4
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
4-Methyl-2-pentanone	ND		ug/kg	500	64.
2-Hexanone	ND		ug/kg	500	59.
Bromochloromethane	ND		ug/kg	100	10.
Tetrahydrofuran	ND		ug/kg	200	80.
2,2-Dichloropropane	ND		ug/kg	100	10.
1,2-Dibromoethane	ND		ug/kg	50	14.
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
1,3,5-Trichlorobenzene	ND		ug/kg	100	8.6
o-Chlorotoluene	ND		ug/kg	100	9.6

Project Name: WW CROSS PROPERTY
Project Number: 141.05051.010

Lab Number: L1936388
Report Date: 08/27/19

**Method Blank Analysis
Batch Quality Control**

Analytical Method: 1,8260C
Analytical Date: 08/22/19 06:28
Analyst: MV

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by EPA 5035 High - Westborough Lab for sample(s): 07 Batch: WG1275471-5					
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	ND		ug/kg	200	32.
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.
Ethyl ether	ND		ug/kg	100	17.
Isopropyl Ether	ND		ug/kg	100	11.
Tert-Butyl Alcohol	ND		ug/kg	1000	260
Ethyl-Tert-Butyl-Ether	ND		ug/kg	100	6.4
Tertiary-Amyl Methyl Ether	ND		ug/kg	100	8.8
1,4-Dioxane	ND		ug/kg	4000	1800

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	108		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	101		70-130
Dibromofluoromethane	102		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: WW CROSS PROPERTY

Lab Number: L1936388

Project Number: 141.05051.010

Report Date: 08/27/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by EPA 5035 High - Westborough Lab Associated sample(s): 06 Batch: WG1275383-3 WG1275383-4								
Methylene chloride	95		95		70-130	0		30
1,1-Dichloroethane	103		103		70-130	0		30
Chloroform	98		94		70-130	4		30
Carbon tetrachloride	93		91		70-130	2		30
1,2-Dichloropropane	101		102		70-130	1		30
Dibromochloromethane	90		90		70-130	0		30
1,1,2-Trichloroethane	99		99		70-130	0		30
Tetrachloroethene	94		92		70-130	2		30
Chlorobenzene	92		91		70-130	1		30
Trichlorofluoromethane	101		100		70-139	1		30
1,2-Dichloroethane	100		98		70-130	2		30
1,1,1-Trichloroethane	93		92		70-130	1		30
Bromodichloromethane	90		91		70-130	1		30
trans-1,3-Dichloropropene	95		94		70-130	1		30
cis-1,3-Dichloropropene	93		92		70-130	1		30
1,1-Dichloropropene	96		95		70-130	1		30
Bromoform	91		91		70-130	0		30
1,1,2,2-Tetrachloroethane	95		93		70-130	2		30
Benzene	94		93		70-130	1		30
Toluene	96		95		70-130	1		30
Ethylbenzene	97		95		70-130	2		30
Chloromethane	121		115		52-130	5		30
Bromomethane	91		86		57-147	6		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: WW CROSS PROPERTY

Lab Number: L1936388

Project Number: 141.05051.010

Report Date: 08/27/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by EPA 5035 High - Westborough Lab Associated sample(s): 06 Batch: WG1275383-3 WG1275383-4								
Vinyl chloride	103		101		67-130	2		30
Chloroethane	97		91		50-151	6		30
1,1-Dichloroethene	93		90		65-135	3		30
trans-1,2-Dichloroethene	96		95		70-130	1		30
Trichloroethene	93		92		70-130	1		30
1,2-Dichlorobenzene	92		91		70-130	1		30
1,3-Dichlorobenzene	93		93		70-130	0		30
1,4-Dichlorobenzene	94		93		70-130	1		30
Methyl tert butyl ether	93		91		66-130	2		30
p/m-Xylene	94		93		70-130	1		30
o-Xylene	93		92		70-130	1		30
cis-1,2-Dichloroethene	95		94		70-130	1		30
Dibromomethane	95		95		70-130	0		30
1,2,3-Trichloropropane	98		99		68-130	1		30
Styrene	91		89		70-130	2		30
Dichlorodifluoromethane	95		92		30-146	3		30
Acetone	114		114		54-140	0		30
Carbon disulfide	93		92		59-130	1		30
2-Butanone	111		114		70-130	3		30
4-Methyl-2-pentanone	101		98		70-130	3		30
2-Hexanone	93		90		70-130	3		30
Bromochloromethane	93		93		70-130	0		30
Tetrahydrofuran	120		116		66-130	3		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: WW CROSS PROPERTY

Lab Number: L1936388

Project Number: 141.05051.010

Report Date: 08/27/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by EPA 5035 High - Westborough Lab Associated sample(s): 06 Batch: WG1275383-3 WG1275383-4								
2,2-Dichloropropane	93		92		70-130	1		30
1,2-Dibromoethane	94		93		70-130	1		30
1,1,1,2-Tetrachloroethane	88		86		70-130	2		30
Bromobenzene	90		90		70-130	0		30
n-Butylbenzene	99		97		70-130	2		30
sec-Butylbenzene	94		93		70-130	1		30
tert-Butylbenzene	91		90		70-130	1		30
1,3,5-Trichlorobenzene	92		92		70-139	0		30
o-Chlorotoluene	96		95		70-130	1		30
p-Chlorotoluene	94		94		70-130	0		30
1,2-Dibromo-3-chloropropane	88		87		68-130	1		30
Hexachlorobutadiene	85		83		67-130	2		30
Isopropylbenzene	94		92		70-130	2		30
p-Isopropyltoluene	92		92		70-130	0		30
Naphthalene	90		88		70-130	2		30
n-Propylbenzene	98		96		70-130	2		30
1,2,3-Trichlorobenzene	92		90		70-130	2		30
1,2,4-Trichlorobenzene	93		91		70-130	2		30
1,3,5-Trimethylbenzene	94		94		70-130	0		30
1,2,4-Trimethylbenzene	93		93		70-130	0		30
Ethyl ether	82		81		67-130	1		30
Isopropyl Ether	113		112		66-130	1		30
Tert-Butyl Alcohol	99		93		70-130	6		30

Lab Control Sample Analysis Batch Quality Control

Project Name: WW CROSS PROPERTY
Project Number: 141.05051.010

Lab Number: L1936388
Report Date: 08/27/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by EPA 5035 High - Westborough Lab Associated sample(s): 06 Batch: WG1275383-3 WG1275383-4								
Ethyl-Tert-Butyl-Ether	101		100		70-130	1		30
Tertiary-Amyl Methyl Ether	92		90		70-130	2		30
1,4-Dioxane	101		100		65-136	1		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	102		102		70-130
Toluene-d8	100		100		70-130
4-Bromofluorobenzene	98		97		70-130
Dibromofluoromethane	99		99		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: WW CROSS PROPERTY

Lab Number: L1936388

Project Number: 141.05051.010

Report Date: 08/27/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 02,04,07 Batch: WG1275448-3 WG1275448-4								
Methylene chloride	84		87		70-130	4		30
1,1-Dichloroethane	95		96		70-130	1		30
Chloroform	92		94		70-130	2		30
Carbon tetrachloride	94		96		70-130	2		30
1,2-Dichloropropane	94		96		70-130	2		30
Dibromochloromethane	105		110		70-130	5		30
1,1,2-Trichloroethane	108		112		70-130	4		30
Tetrachloroethene	107		112		70-130	5		30
Chlorobenzene	101		105		70-130	4		30
Trichlorofluoromethane	76		75		70-139	1		30
1,2-Dichloroethane	103		106		70-130	3		30
1,1,1-Trichloroethane	97		99		70-130	2		30
Bromodichloromethane	96		99		70-130	3		30
trans-1,3-Dichloropropene	112		117		70-130	4		30
cis-1,3-Dichloropropene	97		100		70-130	3		30
1,1-Dichloropropene	96		96		70-130	0		30
Bromoform	106		111		70-130	5		30
1,1,1,2-Tetrachloroethane	106		111		70-130	5		30
Benzene	91		94		70-130	3		30
Toluene	107		110		70-130	3		30
Ethylbenzene	107		112		70-130	5		30
Chloromethane	92		98		52-130	6		30
Bromomethane	80		84		57-147	5		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: WW CROSS PROPERTY

Lab Number: L1936388

Project Number: 141.05051.010

Report Date: 08/27/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 02,04,07 Batch: WG1275448-3 WG1275448-4								
Vinyl chloride	97		98		67-130	1		30
Chloroethane	78		75		50-151	4		30
1,1-Dichloroethene	86		88		65-135	2		30
trans-1,2-Dichloroethene	90		92		70-130	2		30
Trichloroethene	94		97		70-130	3		30
1,2-Dichlorobenzene	108		112		70-130	4		30
1,3-Dichlorobenzene	106		110		70-130	4		30
1,4-Dichlorobenzene	106		109		70-130	3		30
Methyl tert butyl ether	92		95		66-130	3		30
p/m-Xylene	108		113		70-130	5		30
o-Xylene	107		112		70-130	5		30
cis-1,2-Dichloroethene	92		93		70-130	1		30
Dibromomethane	93		96		70-130	3		30
1,2,3-Trichloropropane	109		114		68-130	4		30
Styrene	106		112		70-130	6		30
Dichlorodifluoromethane	84		87		30-146	4		30
Acetone	102		101		54-140	1		30
Carbon disulfide	88		89		59-130	1		30
2-Butanone	93		94		70-130	1		30
4-Methyl-2-pentanone	105		111		70-130	6		30
2-Hexanone	104		109		70-130	5		30
Bromochloromethane	92		94		70-130	2		30
Tetrahydrofuran	101		108		66-130	7		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: WW CROSS PROPERTY

Lab Number: L1936388

Project Number: 141.05051.010

Report Date: 08/27/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 02,04,07 Batch: WG1275448-3 WG1275448-4								
2,2-Dichloropropane	99		101		70-130	2		30
1,2-Dibromoethane	106		111		70-130	5		30
1,1,1,2-Tetrachloroethane	107		113		70-130	5		30
Bromobenzene	104		108		70-130	4		30
n-Butylbenzene	112		117		70-130	4		30
sec-Butylbenzene	111		115		70-130	4		30
tert-Butylbenzene	111		115		70-130	4		30
1,3,5-Trichlorobenzene	106		110		70-139	4		30
o-Chlorotoluene	122		125		70-130	2		30
p-Chlorotoluene	112		113		70-130	1		30
1,2-Dibromo-3-chloropropane	95		100		68-130	5		30
Hexachlorobutadiene	108		112		67-130	4		30
Isopropylbenzene	110		114		70-130	4		30
p-Isopropyltoluene	112		117		70-130	4		30
Naphthalene	107		114		70-130	6		30
n-Propylbenzene	110		114		70-130	4		30
1,2,3-Trichlorobenzene	107		113		70-130	5		30
1,2,4-Trichlorobenzene	106		111		70-130	5		30
1,3,5-Trimethylbenzene	110		115		70-130	4		30
1,2,4-Trimethylbenzene	112		116		70-130	4		30
Ethyl ether	78		78		67-130	0		30
Isopropyl Ether	99		102		66-130	3		30
Tert-Butyl Alcohol	94		102		70-130	8		30

Lab Control Sample Analysis Batch Quality Control

Project Name: WW CROSS PROPERTY
Project Number: 141.05051.010

Lab Number: L1936388
Report Date: 08/27/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 02,04,07 Batch: WG1275448-3 WG1275448-4								
Ethyl-Tert-Butyl-Ether	94		98		70-130	4		30
Tertiary-Amyl Methyl Ether	92		96		70-130	4		30
1,4-Dioxane	94		99		65-136	5		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	112		113		70-130
Toluene-d8	112		111		70-130
4-Bromofluorobenzene	105		108		70-130
Dibromofluoromethane	100		99		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: WW CROSS PROPERTY

Lab Number: L1936388

Project Number: 141.05051.010

Report Date: 08/27/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by EPA 5035 High - Westborough Lab Associated sample(s): 07 Batch: WG1275471-3 WG1275471-4								
Methylene chloride	102		97		70-130	5		30
1,1-Dichloroethane	103		100		70-130	3		30
Chloroform	100		96		70-130	4		30
Carbon tetrachloride	94		90		70-130	4		30
1,2-Dichloropropane	98		96		70-130	2		30
Dibromochloromethane	93		90		70-130	3		30
1,1,2-Trichloroethane	100		97		70-130	3		30
Tetrachloroethene	87		83		70-130	5		30
Chlorobenzene	90		87		70-130	3		30
Trichlorofluoromethane	119		114		70-139	4		30
1,2-Dichloroethane	108		106		70-130	2		30
1,1,1-Trichloroethane	95		91		70-130	4		30
Bromodichloromethane	94		92		70-130	2		30
trans-1,3-Dichloropropene	98		95		70-130	3		30
cis-1,3-Dichloropropene	92		90		70-130	2		30
1,1-Dichloropropene	93		92		70-130	1		30
Bromoform	93		90		70-130	3		30
1,1,2,2-Tetrachloroethane	96		91		70-130	5		30
Benzene	91		88		70-130	3		30
Toluene	92		89		70-130	3		30
Ethylbenzene	93		90		70-130	3		30
Chloromethane	114		110		52-130	4		30
Bromomethane	110		105		57-147	5		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: WW CROSS PROPERTY

Lab Number: L1936388

Project Number: 141.05051.010

Report Date: 08/27/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by EPA 5035 High - Westborough Lab Associated sample(s): 07 Batch: WG1275471-3 WG1275471-4								
Vinyl chloride	117		113		67-130	3		30
Chloroethane	121		118		50-151	3		30
1,1-Dichloroethene	98		95		65-135	3		30
trans-1,2-Dichloroethene	96		92		70-130	4		30
Trichloroethene	90		88		70-130	2		30
1,2-Dichlorobenzene	91		89		70-130	2		30
1,3-Dichlorobenzene	92		89		70-130	3		30
1,4-Dichlorobenzene	93		90		70-130	3		30
Methyl tert butyl ether	103		99		66-130	4		30
p/m-Xylene	90		87		70-130	3		30
o-Xylene	90		86		70-130	5		30
cis-1,2-Dichloroethene	94		91		70-130	3		30
Dibromomethane	101		96		70-130	5		30
1,2,3-Trichloropropane	104		99		68-130	5		30
Styrene	89		86		70-130	3		30
Dichlorodifluoromethane	105		99		30-146	6		30
Acetone	128		120		54-140	6		30
Carbon disulfide	98		94		59-130	4		30
2-Butanone	114		108		70-130	5		30
4-Methyl-2-pentanone	101		96		70-130	5		30
2-Hexanone	91		88		70-130	3		30
Bromochloromethane	95		92		70-130	3		30
Tetrahydrofuran	119		115		66-130	3		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: WW CROSS PROPERTY

Lab Number: L1936388

Project Number: 141.05051.010

Report Date: 08/27/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by EPA 5035 High - Westborough Lab Associated sample(s): 07 Batch: WG1275471-3 WG1275471-4								
2,2-Dichloropropane	96		92		70-130	4		30
1,2-Dibromoethane	96		93		70-130	3		30
1,1,1,2-Tetrachloroethane	88		85		70-130	3		30
Bromobenzene	90		86		70-130	5		30
n-Butylbenzene	96		93		70-130	3		30
sec-Butylbenzene	91		87		70-130	4		30
tert-Butylbenzene	88		85		70-130	3		30
1,3,5-Trichlorobenzene	91		88		70-139	3		30
o-Chlorotoluene	94		90		70-130	4		30
p-Chlorotoluene	93		90		70-130	3		30
1,2-Dibromo-3-chloropropane	88		85		68-130	3		30
Hexachlorobutadiene	84		84		67-130	0		30
Isopropylbenzene	90		86		70-130	5		30
p-Isopropyltoluene	90		86		70-130	5		30
Naphthalene	88		84		70-130	5		30
n-Propylbenzene	95		91		70-130	4		30
1,2,3-Trichlorobenzene	90		87		70-130	3		30
1,2,4-Trichlorobenzene	91		88		70-130	3		30
1,3,5-Trimethylbenzene	91		89		70-130	2		30
1,2,4-Trimethylbenzene	92		89		70-130	3		30
Ethyl ether	115		110		67-130	4		30
Isopropyl Ether	111		108		66-130	3		30
Tert-Butyl Alcohol	108		99		70-130	9		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: WW CROSS PROPERTY

Project Number: 141.05051.010

Lab Number: L1936388

Report Date: 08/27/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by EPA 5035 High - Westborough Lab Associated sample(s): 07 Batch: WG1275471-3 WG1275471-4								
Ethyl-Tert-Butyl-Ether	106		101		70-130	5		30
Tertiary-Amyl Methyl Ether	95		93		70-130	2		30
1,4-Dioxane	100		96		65-136	4		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	111		112		70-130
Toluene-d8	100		101		70-130
4-Bromofluorobenzene	98		97		70-130
Dibromofluoromethane	102		102		70-130

SEMIVOLATILES

Project Name: WW CROSS PROPERTY
Project Number: 141.05051.010

Lab Number: L1936388
Report Date: 08/27/19

SAMPLE RESULTS

Lab ID: L1936388-02
 Client ID: B105A-S2
 Sample Location: JAFFREY, NH

Date Collected: 08/12/19 09:50
 Date Received: 08/13/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8270D
 Analytical Date: 08/24/19 00:58
 Analyst: IM
 Percent Solids: 92%

Extraction Method: EPA 3546
 Extraction Date: 08/23/19 11:52

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	140	19.	1
2-Chloronaphthalene	ND		ug/kg	180	18.	1
Fluoranthene	ND		ug/kg	110	21.	1
Naphthalene	ND		ug/kg	180	22.	1
Benzo(a)anthracene	ND		ug/kg	110	20.	1
Benzo(a)pyrene	ND		ug/kg	140	44.	1
Benzo(b)fluoranthene	ND		ug/kg	110	30.	1
Benzo(k)fluoranthene	ND		ug/kg	110	29.	1
Chrysene	ND		ug/kg	110	19.	1
Acenaphthylene	ND		ug/kg	140	28.	1
Anthracene	ND		ug/kg	110	35.	1
Benzo(ghi)perylene	ND		ug/kg	140	21.	1
Fluorene	ND		ug/kg	180	18.	1
Phenanthrene	ND		ug/kg	110	22.	1
Dibenzo(a,h)anthracene	ND		ug/kg	110	21.	1
Indeno(1,2,3-cd)pyrene	ND		ug/kg	140	25.	1
Pyrene	ND		ug/kg	110	18.	1
1-Methylnaphthalene	ND		ug/kg	180	21.	1
2-Methylnaphthalene	ND		ug/kg	220	22.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	56		23-120
2-Fluorobiphenyl	62		30-120
4-Terphenyl-d14	78		18-120

Project Name: WW CROSS PROPERTY
Project Number: 141.05051.010

Lab Number: L1936388
Report Date: 08/27/19

SAMPLE RESULTS

Lab ID: L1936388-06 D
 Client ID: B117-S1
 Sample Location: JAFFREY, NH

Date Collected: 08/12/19 14:00
 Date Received: 08/13/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8270D
 Analytical Date: 08/26/19 16:41
 Analyst: ALS
 Percent Solids: 97%

Extraction Method: EPA 3546
 Extraction Date: 08/23/19 11:52

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	3200	J	ug/kg	3400	440	25
2-Chloronaphthalene	ND		ug/kg	4300	420	25
Fluoranthene	150000		ug/kg	2600	490	25
Naphthalene	4300		ug/kg	4300	520	25
Benzo(a)anthracene	57000		ug/kg	2600	480	25
Benzo(a)pyrene	49000		ug/kg	3400	1000	25
Benzo(b)fluoranthene	66000		ug/kg	2600	720	25
Benzo(k)fluoranthene	22000		ug/kg	2600	690	25
Chrysene	47000		ug/kg	2600	450	25
Acenaphthylene	12000		ug/kg	3400	660	25
Anthracene	25000		ug/kg	2600	840	25
Benzo(ghi)perylene	28000		ug/kg	3400	500	25
Fluorene	10000		ug/kg	4300	420	25
Phenanthrene	68000		ug/kg	2600	520	25
Dibenzo(a,h)anthracene	6900		ug/kg	2600	500	25
Indeno(1,2,3-cd)pyrene	32000		ug/kg	3400	600	25
Pyrene	110000		ug/kg	2600	430	25
1-Methylnaphthalene	1600	J	ug/kg	4300	500	25
2-Methylnaphthalene	2200	J	ug/kg	5100	520	25

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	0	Q	23-120
2-Fluorobiphenyl	0	Q	30-120
4-Terphenyl-d14	0	Q	18-120

Project Name: WW CROSS PROPERTY
Project Number: 141.05051.010

Lab Number: L1936388
Report Date: 08/27/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 08/23/19 23:24
Analyst: RC

Extraction Method: EPA 3546
Extraction Date: 08/23/19 11:52

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 02,06 Batch: WG1276079-1					
Acenaphthene	ND		ug/kg	130	17.
2-Chloronaphthalene	ND		ug/kg	160	16.
Fluoranthene	ND		ug/kg	97	18.
Naphthalene	ND		ug/kg	160	20.
Benzo(a)anthracene	ND		ug/kg	97	18.
Benzo(a)pyrene	ND		ug/kg	130	39.
Benzo(b)fluoranthene	ND		ug/kg	97	27.
Benzo(k)fluoranthene	ND		ug/kg	97	26.
Chrysene	ND		ug/kg	97	17.
Acenaphthylene	ND		ug/kg	130	25.
Anthracene	ND		ug/kg	97	31.
Benzo(ghi)perylene	ND		ug/kg	130	19.
Fluorene	ND		ug/kg	160	16.
Phenanthrene	ND		ug/kg	97	20.
Dibenzo(a,h)anthracene	ND		ug/kg	97	19.
Indeno(1,2,3-cd)pyrene	ND		ug/kg	130	22.
Pyrene	ND		ug/kg	97	16.
1-Methylnaphthalene	ND		ug/kg	160	19.
2-Methylnaphthalene	ND		ug/kg	190	20.

Surrogate	%Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	42		23-120
2-Fluorobiphenyl	52		30-120
4-Terphenyl-d14	66		18-120

Lab Control Sample Analysis

Batch Quality Control

Project Name: WW CROSS PROPERTY
Project Number: 141.05051.010

Lab Number: L1936388
Report Date: 08/27/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 02,06 Batch: WG1276079-2 WG1276079-3								
Acenaphthene	78		75		31-137	4		50
2-Chloronaphthalene	73		71		40-140	3		50
Fluoranthene	79		80		40-140	1		50
Naphthalene	81		72		40-140	12		50
Benzo(a)anthracene	89		84		40-140	6		50
Benzo(a)pyrene	87		83		40-140	5		50
Benzo(b)fluoranthene	92		86		40-140	7		50
Benzo(k)fluoranthene	95		91		40-140	4		50
Chrysene	83		82		40-140	1		50
Acenaphthylene	83		74		40-140	11		50
Anthracene	88		86		40-140	2		50
Benzo(ghi)perylene	93		87		40-140	7		50
Fluorene	87		79		40-140	10		50
Phenanthrene	82		78		40-140	5		50
Dibenzo(a,h)anthracene	102		90		40-140	13		50
Indeno(1,2,3-cd)pyrene	98		90		40-140	9		50
Pyrene	82		80		35-142	2		50
1-Methylnaphthalene	70		68		26-130	3		50
2-Methylnaphthalene	76		72		40-140	5		50

Lab Control Sample Analysis

Batch Quality Control

Project Name: WW CROSS PROPERTY

Lab Number: L1936388

Project Number: 141.05051.010

Report Date: 08/27/19

Parameter	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>%Recovery</i> Limits	<i>RPD</i>	<i>Qual</i>	<i>RPD</i> Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 02,06 Batch: WG1276079-2 WG1276079-3								

<i>Surrogate</i>	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>Acceptance</i> Criteria
Nitrobenzene-d5	91		90		23-120
2-Fluorobiphenyl	72		70		30-120
4-Terphenyl-d14	78		78		18-120

PETROLEUM HYDROCARBONS

Project Name: WW CROSS PROPERTY
Project Number: 141.05051.010

Lab Number: L1936388
Report Date: 08/27/19

SAMPLE RESULTS

Lab ID: L1936388-06 D
 Client ID: B117-S1
 Sample Location: JAFFREY, NH

Date Collected: 08/12/19 14:00
 Date Received: 08/13/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8015D(M)
 Analytical Date: 08/23/19 20:14
 Analyst: LL
 Percent Solids: 97%

Extraction Method: EPA 3546
 Extraction Date: 08/22/19 16:32

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Petroleum Hydrocarbon Quantitation - Westborough Lab						
TPH	6430000		ug/kg	654000	75200	20

Surrogate	% Recovery	Qualifier	Acceptance Criteria
o-Terphenyl	45		40-140

Project Name: WW CROSS PROPERTY
Project Number: 141.05051.010

Lab Number: L1936388
Report Date: 08/27/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8015D(M)
Analytical Date: 08/23/19 00:28
Analyst: LL

Extraction Method: EPA 3546
Extraction Date: 08/22/19 02:08

Parameter	Result	Qualifier	Units	RL	MDL
Petroleum Hydrocarbon Quantitation - Westborough Lab for sample(s): 06 Batch: WG1275324-1					
TPH	6590	J	ug/kg	33000	3800

Surrogate	%Recovery	Qualifier	Acceptance Criteria
o-Terphenyl	83		40-140

Lab Control Sample Analysis Batch Quality Control

Project Name: WW CROSS PROPERTY
Project Number: 141.05051.010

Lab Number: L1936388
Report Date: 08/27/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Petroleum Hydrocarbon Quantitation - Westborough Lab Associated sample(s): 06 Batch: WG1275324-2								
TPH	88		-		40-140	-		40

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
o-Terphenyl	80				40-140

METALS

Project Name: WW CROSS PROPERTY**Lab Number:** L1936388**Project Number:** 141.05051.010**Report Date:** 08/27/19**SAMPLE RESULTS**

Lab ID: L1936388-04

Date Collected: 08/12/19 12:20

Client ID: B113-S4

Date Received: 08/13/19

Sample Location: JAFFREY, NH

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 94%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Antimony, Total	ND		mg/kg	2.05	0.156	1	08/21/19 20:07	08/22/19 23:53	EPA 3050B	1,6010D	AB
Arsenic, Total	5.09		mg/kg	0.409	0.085	1	08/21/19 20:07	08/22/19 23:53	EPA 3050B	1,6010D	AB
Beryllium, Total	0.290		mg/kg	0.205	0.014	1	08/21/19 20:07	08/22/19 23:53	EPA 3050B	1,6010D	AB
Cadmium, Total	ND		mg/kg	0.409	0.040	1	08/21/19 20:07	08/22/19 23:53	EPA 3050B	1,6010D	AB
Chromium, Total	6.04		mg/kg	0.409	0.039	1	08/21/19 20:07	08/22/19 23:53	EPA 3050B	1,6010D	AB
Copper, Total	19.4		mg/kg	0.409	0.106	1	08/21/19 20:07	08/22/19 23:53	EPA 3050B	1,6010D	AB
Lead, Total	3.58		mg/kg	2.05	0.110	1	08/21/19 20:07	08/22/19 23:53	EPA 3050B	1,6010D	AB
Mercury, Total	ND		mg/kg	0.067	0.044	1	08/22/19 07:50	08/22/19 16:45	EPA 7471B	1,7471B	GD
Nickel, Total	3.97		mg/kg	1.02	0.099	1	08/21/19 20:07	08/22/19 23:53	EPA 3050B	1,6010D	AB
Selenium, Total	ND		mg/kg	0.818	0.106	1	08/21/19 20:07	08/22/19 23:53	EPA 3050B	1,6010D	AB
Silver, Total	ND		mg/kg	0.409	0.116	1	08/21/19 20:07	08/22/19 23:53	EPA 3050B	1,6010D	AB
Thallium, Total	ND		mg/kg	0.818	0.129	1	08/21/19 20:07	08/22/19 23:53	EPA 3050B	1,6010D	AB
Zinc, Total	15.8		mg/kg	2.05	0.120	1	08/21/19 20:07	08/22/19 23:53	EPA 3050B	1,6010D	AB



Project Name: WW CROSS PROPERTY
Project Number: 141.05051.010

Lab Number: L1936388
Report Date: 08/27/19

Method Blank Analysis Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 04 Batch: WG1275217-1										
Antimony, Total	ND		mg/kg	2.00	0.152	1	08/21/19 20:07	08/22/19 21:40	1,6010D	AB
Arsenic, Total	ND		mg/kg	0.400	0.083	1	08/21/19 20:07	08/22/19 21:40	1,6010D	AB
Beryllium, Total	ND		mg/kg	0.200	0.013	1	08/21/19 20:07	08/22/19 21:40	1,6010D	AB
Cadmium, Total	ND		mg/kg	0.400	0.039	1	08/21/19 20:07	08/22/19 21:40	1,6010D	AB
Chromium, Total	0.044	J	mg/kg	0.400	0.038	1	08/21/19 20:07	08/22/19 21:40	1,6010D	AB
Copper, Total	ND		mg/kg	0.400	0.103	1	08/21/19 20:07	08/22/19 21:40	1,6010D	AB
Lead, Total	ND		mg/kg	2.00	0.107	1	08/21/19 20:07	08/22/19 21:40	1,6010D	AB
Nickel, Total	ND		mg/kg	1.00	0.097	1	08/21/19 20:07	08/22/19 21:40	1,6010D	AB
Selenium, Total	ND		mg/kg	0.800	0.103	1	08/21/19 20:07	08/22/19 21:40	1,6010D	AB
Silver, Total	ND		mg/kg	0.400	0.113	1	08/21/19 20:07	08/22/19 21:40	1,6010D	AB
Thallium, Total	ND		mg/kg	0.800	0.126	1	08/21/19 20:07	08/22/19 21:40	1,6010D	AB
Zinc, Total	ND		mg/kg	2.00	0.117	1	08/21/19 20:07	08/22/19 21:40	1,6010D	AB

Prep Information

Digestion Method: EPA 3050B

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 04 Batch: WG1275390-1										
Mercury, Total	ND		mg/kg	0.083	0.054	1	08/22/19 07:50	08/22/19 15:29	1,7471B	GD

Prep Information

Digestion Method: EPA 7471B

Lab Control Sample Analysis

Batch Quality Control

Project Name: WW CROSS PROPERTY

Project Number: 141.05051.010

Lab Number: L1936388

Report Date: 08/27/19

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Total Metals - Mansfield Lab Associated sample(s): 04 Batch: WG1275217-2 SRM Lot Number: D105-540								
Antimony, Total	162		-		19-249	-		
Arsenic, Total	101		-		70-130	-		
Beryllium, Total	99		-		75-125	-		
Cadmium, Total	96		-		75-125	-		
Chromium, Total	90		-		70-130	-		
Copper, Total	101		-		75-125	-		
Lead, Total	91		-		71-128	-		
Nickel, Total	98		-		70-131	-		
Selenium, Total	98		-		63-137	-		
Silver, Total	91		-		69-131	-		
Thallium, Total	95		-		68-132	-		
Zinc, Total	93		-		70-130	-		
Total Metals - Mansfield Lab Associated sample(s): 04 Batch: WG1275390-2 SRM Lot Number: D105-540								
Mercury, Total	95		-		60-141	-		

INORGANICS & MISCELLANEOUS

Project Name: WW CROSS PROPERTY
Project Number: 141.05051.010

Lab Number: L1936388
Report Date: 08/27/19

SAMPLE RESULTS

Lab ID: L1936388-02
Client ID: B105A-S2
Sample Location: JAFFREY, NH

Date Collected: 08/12/19 09:50
Date Received: 08/13/19
Field Prep: Not Specified

Sample Depth:
Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	92.1		%	0.100	NA	1	-	08/19/19 08:55	121,2540G	JK



Project Name: WW CROSS PROPERTY
Project Number: 141.05051.010

Lab Number: L1936388
Report Date: 08/27/19

SAMPLE RESULTS

Lab ID: L1936388-04
Client ID: B113-S4
Sample Location: JAFFREY, NH

Date Collected: 08/12/19 12:20
Date Received: 08/13/19
Field Prep: Not Specified

Sample Depth:
Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	93.9		%	0.100	NA	1	-	08/19/19 08:55	121,2540G	JK
Cyanide, Total	ND		mg/kg	1.0	0.22	1	08/17/19 16:55	08/19/19 10:48	1,9010C/9012B	LH



Project Name: WW CROSS PROPERTY
Project Number: 141.05051.010

Lab Number: L1936388
Report Date: 08/27/19

SAMPLE RESULTS

Lab ID: L1936388-06
Client ID: B117-S1
Sample Location: JAFFREY, NH

Date Collected: 08/12/19 14:00
Date Received: 08/13/19
Field Prep: Not Specified

Sample Depth:
Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	96.5		%	0.100	NA	1	-	08/19/19 08:55	121,2540G	JK



Project Name: WW CROSS PROPERTY
Project Number: 141.05051.010

Lab Number: L1936388
Report Date: 08/27/19

Method Blank Analysis
Batch Quality Control

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab for sample(s): 04 Batch: WG1273690-1									
Cyanide, Total	ND	mg/kg	0.93	0.20	1	08/17/19 16:55	08/19/19 09:59	1,9010C/9012B	LH

Lab Control Sample Analysis Batch Quality Control

Project Name: WW CROSS PROPERTY
Project Number: 141.05051.010

Lab Number: L1936388
Report Date: 08/27/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 04 Batch: WG1273690-2 WG1273690-3								
Cyanide, Total	56	Q	47	Q	80-120	10		35

Lab Duplicate Analysis

Batch Quality Control

Project Name: WW CROSS PROPERTY

Project Number: 141.05051.010

Lab Number: L1936388

Report Date: 08/27/19

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 02,04,06 QC Batch ID: WG1273964-1 QC Sample: L1936388-06 Client ID: B117-S1						
Solids, Total	96.5	96.8	%	0		20

Project Name: WW CROSS PROPERTY**Lab Number:** L1936388**Project Number:** 141.05051.010**Report Date:** 08/27/19**Sample Receipt and Container Information**

Were project specific reporting limits specified?

YES

Cooler Information

Cooler	Custody Seal
A	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1936388-01A	Vial MeOH preserved	A	NA		2.0	Y	Absent		HOLD-8260HLW(14)
L1936388-01B	Vial water preserved	A	NA		2.0	Y	Absent	13-AUG-19 20:33	HOLD-8260HLW(14)
L1936388-01C	Vial water preserved	A	NA		2.0	Y	Absent	13-AUG-19 20:33	HOLD-8260HLW(14)
L1936388-01D	Glass 250ml/8oz unpreserved	A	NA		2.0	Y	Absent		HOLD-PETRO(14),HOLD-8270(14)
L1936388-01E	Glass 60ml unpreserved split	A	NA		2.0	Y	Absent		HOLD-METAL(180)
L1936388-02A	Vial MeOH preserved	A	NA		2.0	Y	Absent		8260HLW-NH(14)
L1936388-02B	Vial water preserved	A	NA		2.0	Y	Absent	13-AUG-19 20:33	8260HLW-NH(14)
L1936388-02C	Vial water preserved	A	NA		2.0	Y	Absent	13-AUG-19 20:33	8260HLW-NH(14)
L1936388-02D	Plastic 2oz unpreserved for TS	A	NA		2.0	Y	Absent		8270TCL-PAH(14),TS(7)
L1936388-02E	Glass 250ml/8oz unpreserved	A	NA		2.0	Y	Absent		HOLD-PETRO(14),8270TCL-PAH(14)
L1936388-02F	Glass 60ml unpreserved split	A	NA		2.0	Y	Absent		HOLD-METAL(180)
L1936388-03A	Vial MeOH preserved	A	NA		2.0	Y	Absent		HOLD-8260HLW(14)
L1936388-03B	Vial water preserved	A	NA		2.0	Y	Absent	13-AUG-19 20:33	HOLD-8260HLW(14)
L1936388-03C	Vial water preserved	A	NA		2.0	Y	Absent	13-AUG-19 20:33	HOLD-8260HLW(14)
L1936388-03D	Plastic 2oz unpreserved for TS	A	NA		2.0	Y	Absent		HOLD-8270(14)
L1936388-03E	Glass 60mL/2oz unpreserved	A	NA		2.0	Y	Absent		HOLD-PETRO(14)
L1936388-03F	Glass 60mL/2oz unpreserved	A	NA		2.0	Y	Absent		HOLD-METAL(180)
L1936388-04A	Vial MeOH preserved	A	NA		2.0	Y	Absent		8260HLW-NH(14)
L1936388-04B	Vial water preserved	A	NA		2.0	Y	Absent	13-AUG-19 20:33	8260HLW-NH(14)
L1936388-04C	Vial water preserved	A	NA		2.0	Y	Absent	13-AUG-19 20:33	8260HLW-NH(14)
L1936388-04D	Plastic 2oz unpreserved for TS	A	NA		2.0	Y	Absent		TS(7)
L1936388-04E	Glass 60mL/2oz unpreserved	A	NA		2.0	Y	Absent		TCN-9010(14)
L1936388-04F	Glass 60mL/2oz unpreserved	A	NA		2.0	Y	Absent		-

Project Name: WW CROSS PROPERTY

Project Number: 141.05051.010

Serial_No:08271910:01

Lab Number: L1936388

Report Date: 08/27/19

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1936388-05A	Vial MeOH preserved	A	NA		2.0	Y	Absent		HOLD-8260HLW(14)
L1936388-05B	Vial water preserved	A	NA		2.0	Y	Absent	13-AUG-19 20:33	HOLD-8260HLW(14)
L1936388-05C	Vial water preserved	A	NA		2.0	Y	Absent	13-AUG-19 20:33	HOLD-8260HLW(14)
L1936388-05D	Plastic 2oz unpreserved for TS	A	NA		2.0	Y	Absent		HOLD-8270(14)
L1936388-05E	Glass 250ml/8oz unpreserved	A	NA		2.0	Y	Absent		HOLD-PETRO(14),HOLD-8270(14)
L1936388-05F	Glass 60ml unpreserved split	A	NA		2.0	Y	Absent		HOLD-METAL(180)
L1936388-06A	Vial MeOH preserved	A	NA		2.0	Y	Absent		8260HLW-NH(14)
L1936388-06B	Vial water preserved	A	NA		2.0	Y	Absent	13-AUG-19 20:33	8260HLW-NH(14)
L1936388-06C	Vial water preserved	A	NA		2.0	Y	Absent	13-AUG-19 20:33	8260HLW-NH(14)
L1936388-06D	Glass 250ml/8oz unpreserved	A	NA		2.0	Y	Absent		8270TCL-PAH(14),TS(7),TPH-DRO-D(14)
L1936388-06E	Glass 60ml unpreserved split	A	NA		2.0	Y	Absent		HOLD-METAL(180)
L1936388-07A	Vial MeOH preserved	A	NA		2.0	Y	Absent		8260H-NH(14),TS100(),8260HLW-NH(14)
L1936388-07B	Vial water preserved	A	NA		2.0	Y	Absent	13-AUG-19 20:33	8260H-NH(14),TS100(),8260HLW-NH(14)

Project Name: WW CROSS PROPERTY
Project Number: 141.05051.010

Lab Number: L1936388
Report Date: 08/27/19

GLOSSARY

Acronyms

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

Footnotes

Report Format: DU Report with 'J' Qualifiers



Project Name: WW CROSS PROPERTY**Lab Number:** L1936388**Project Number:** 141.05051.010**Report Date:** 08/27/19

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

Terms

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

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

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

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

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

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.

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 using acetone as a solvent.
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- 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 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: WW CROSS PROPERTY
Project Number: 141.05051.010

Lab Number: L1936388
Report Date: 08/27/19

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

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

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

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

Mansfield Facility

SM 2540D: TSS

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

EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene,

3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

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, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B

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

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

Non-Potable Water

SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1:**

Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2:** Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E,**

SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate.

EPA 624.1: Volatile Halocarbons & Aromatics,

EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II,

Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs

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

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

Mansfield Facility:

Drinking Water

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

EPA 522.

Non-Potable Water

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

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

EPA 245.1 Hg.

SM2340B

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



CHAIN OF CUSTODY

PAGE 1 OF 1

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

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

Date Rec'd in Lab:

ALPHA Job #:

Project Information

Project Name: *WW Cross Property*

Report Information - Data Deliverables

ADEX EMAIL

Billing Information

Same as Client Info PO #: *11764*

Client Information

Client: *Ransom Consulting Inc.*

Project Location: *Jaffrey NH*

Regulatory Requirements & Project Information Requirements

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

Address: *112 Corporate Drive
Portsmouth NH 03801*

Project #: *141105051.010*

Project Manager: *Steven Richerich*

ALPHA Quote #:

Phone: *603-436-1490*

Turn-Around Time

Email: *sricherich@ransom.com*

Standard RUSH (only confirmed if pre-approved)

bonnie.best@ransom.com

Date Due:

Additional Project Information:

**HOLD all samples pending contract from Ransom*
**Water Preserved VOC Samples Require Freezing*
VOC = RUN SAMPLE

ANALYSIS		SAMPLE INFO
VOC: <input checked="" type="checkbox"/> 6240 <input type="checkbox"/> 624 <input type="checkbox"/> 6242	<input type="checkbox"/> Field <input type="checkbox"/> Lab to do	
SVOC: <input type="checkbox"/> AEN <input checked="" type="checkbox"/> PAH <i>3270</i>	Preservation <input type="checkbox"/> Lab to do	
METALS: <input type="checkbox"/> MCP 13 <input type="checkbox"/> MCP 14 <input type="checkbox"/> RCP 15		
METALS: <input type="checkbox"/> RCRA6 <input type="checkbox"/> RCRA6 <input type="checkbox"/> RCRA6 <input type="checkbox"/> PPT3		
EPH: <input type="checkbox"/> Ranges & Targets <input type="checkbox"/> Ranges Only		
VPH: <input type="checkbox"/> Ranges & Targets <input type="checkbox"/> Ranges Only		
PCB: <input type="checkbox"/> PCB <input type="checkbox"/> PEST		
TPH: <input type="checkbox"/> Quant Only <input type="checkbox"/> Fingerprint		
<i>TPH - DRG 8050</i>		
<i>Total Cyanide</i>		
TOTAL BOTTLES		

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection		Sample Matrix	Sampler Initials	ANALYSIS		SAMPLE INFO
		Date	Time			VOC	SVOC	
	B105A-S1	8/12/19	9:40	S	EB	* *	* *	
	B105A-S2		9:56			* *	* *	
	B113-S2		12:00			* *	* *	
	B113-S4		12:20			* *	* *	
	B116-S2		13:50			* *	* *	
	B117-S1		14:00			* *	* *	
	Trip Blank					* *	* *	

Container Type
 P= Plastic
 A= Amber glass
 V= Vial
 G= Glass
 B= Bacteria cup
 C= Cube
 O= Other
 E= Encore
 D= BOD Bottle

Preservative
 A= None
 B= HCl
 C= HNO3
 D= H2SO4
 E= NaOH
 F= MeOH
 G= NaHSO4
 H= Na2B2O4
 I= Ascorbic Acid
 J= NH4Cl
 K= Zn Acetate
 O= Other

Container Type	V	A	A	A
Preservative	N/A	A	A	A
Relinquished By:	Date/Time	Received By:	Date/Time	
<i>[Signature]</i>	<i>8-13-19/16:15</i>	<i>Rob Mault</i>	<i>8/13/19 16:15</i>	

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



Ransom

CHAIN OF CUSTODY

PAGE 1 OF 1

Date Rec'd in Lab: 8/13/19

ALPHA Job #: L1936388

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

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

Project Information

Project Name: WW Cross Property
Project Location: Jaffrey NH
Project #: 141.05057.010
Project Manager: Steven Rickerich
ALPHA Quote #:

Report Information - Data Deliverables

ADEX EMAIL

Billing Information

Same as Client info PO #: 11764

Client Information

Client: Ransom Consulting Inc.
Address: 112 Corporate Drive
Portsmouth NH 03801
Phone: 603-436-1490
Email: srickerich@ransomenv.com
bonnie.best@ransomenv.com

Regulatory Requirements & Project Information Requirements

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

Turn-Around Time

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

Additional Project Information:
***HOLD all samples pending contact from Ransom**
****Water Preserved VOC Samples Require Freezing**

ANALYSIS	VOC: <input checked="" type="checkbox"/> 2260 <input type="checkbox"/> 624 <input type="checkbox"/> 524.2
	SVOC: <input type="checkbox"/> ABN <input checked="" type="checkbox"/> PAH <u>8270</u>
	METALS: <input type="checkbox"/> MCP 13 <input type="checkbox"/> MCP 14 <input type="checkbox"/> MCP 15
	EPH: <input type="checkbox"/> RCRA5 <input type="checkbox"/> RCRA6 <input type="checkbox"/> POP13
	VPH: <input type="checkbox"/> Ranges & Targets <input type="checkbox"/> Ranges Only
	<input type="checkbox"/> PCB <input type="checkbox"/> PEST
	TPH: <input type="checkbox"/> Quant Only <input type="checkbox"/> Fingerprint
	<u>TPH-DRO 80150</u>

SAMPLE INFO
Filtration
 Field
 Lab to do
Preservation
 Lab to do

TOTAL # BOTTLES

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection		Sample Matrix	Sampler Initials
		Date	Time		
36388-01	B105A-S1	8-12-19	9:40	S	BBB
-02	B105A-S2		9:50		
-03	B113-S2		12:00		
-04	B113-S4		12:20		
-05	B116-S2		13:50		
-06	B117-S1		14:00		
-07	Trip Blank				

Container Type
P= Plastic
A= Amber glass
V= Vial
G= Glass
B= Bacteria cup
C= Cube
O= Other
E= Encore
D= BOD Bottle

Preservative
A= None
B= HCl
C= HNO₃
D= H₂SO₄
E= NaOH
F= MeOH
G= NaHSO₄
H= Na₂S₂O₈
I= Ascorbic Acid
J= NH₄Cl
K= Zn Acetate
O= Other

Container Type	V	A	A	A
Preservative	F	A	A	A

Relinquished By: Rob Mauro Date/Time: 8-13-19/16:15
Received By: Rob Mauro Date/Time: 8/13/19 16:15

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