

1.0 INTRODUCTION

O'Reilly, Talbot & Okun Associates, Inc. (OTO) has prepared this Phase I Initial Site Investigation Report and Immediate Response Action (IRA) Completion Report for commingled releases of No. 2 and No. 6 fuel oil at 16 East Main Street in the town of Ware, Massachusetts (the Site).

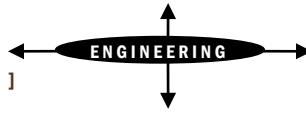
The Site is listed with the Massachusetts Department of Environmental Protection (MassDEP) under Release Tracking Number (RTN) 1-19320. This release was orally reported to MassDEP by the Ware Fire Department as a 2-hour sudden release condition on January 18, 2014, following which MassDEP issued a Notice of Responsibility to the Site owner, Micheller Enterprises LLC. This document was prepared on behalf of the Site owner to satisfy requirements of the Massachusetts Contingency Plan (MCP) and a MassDEP Administrative Consent Order dated December 8, 2015 which required the submittal of a Permanent Solution or Phase I Initial Site Investigation and Tier Classification Report by April 6, 2016.

The source of the initial release was an aboveground storage tank (AST) located within an unoccupied building on the Site, and which impacted a penstock beneath the building. Subsequent response actions identified a commingled release of No.6 fuel oil, the potential source for which may be an out-of-service 10,000-gallon UST and located proximal to the Site building and the penstock. This tank is located straddling the property line with the abutting 6 East Main Street property. Post-excavation samples within the penstock also exhibited concentrations of petroleum hydrocarbons, polycyclic aromatic hydrocarbons (PAHs) and lead greater than MassDEP's current Method 1 S-1 standards, although it is possible that the PAH and lead results are attributable to the presence of coal or coal ash in the material within the penstock.

As described in the following sections, preliminary response actions at the Site have included a limited removal of petroleum-impacted material from within an underground penstock structure beneath an on-Site mill building, monitoring of stormwater discharges from the penstock to the Ware River, the installation of soil borings and monitoring wells, and the collection of indoor air samples from the 44 East Main Street building, where petroleum odors were reported at the time of the release

Based on the information available to date, petroleum-impacted materials associated with the identified oil releases are generally located beneath the former boiler building, in a penstock tunnel to which access is restricted, for an estimated total area of 1,000 square feet. Based on site access constraints and safety concerns due to the state of the Site building, significant assessment work in the vicinity of this tank was limited.

In our opinion, Site conditions do not meet the inclusionary criteria that would cause it to be classified as Tier I, and the Site is therefore classified Tier II. This report also serves as an Immediate Response Action Completion Report.



This report is subject to the Limitations in Appendix A. Copies of MassDEP's BWSC-105 Immediate Response Action transmittal form and BWSC-107 Tier Classification Transmittal Form are provided in Appendix B.

2.0 GENERAL DISPOSAL SITE INFORMATION

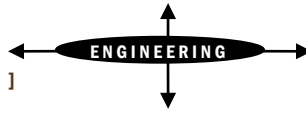
The Disposal Site is located on an approximately 1.35-acre property in the downtown section of Ware, Massachusetts, with the address of record of 16 East Main Street. A Site Locus map derived from the USGS topographic map of the Ware, Massachusetts 7.5-minute quadrangle is included as Figure 1.

This property is part of a 19th-Century mill complex that has been subdivided into several properties, and is improved with two masonry mill buildings. The release occurred in a former pump room located at the eastern end of the western building. This structure is vacant and unused, having been damaged by a fire in 1984, and is in a dilapidated condition with no roof. Sanborn Fire Insurance Maps indicated that this structure was used as a boiler house to provide steam to other buildings in the mill complex between approximately 1919 and 1959. Figure 2 depicts the Site and Figure 3 depicts the release area and sampling locations.

The northern bank of the Ware River is approximately 30-feet south of the former boiler building, separated from the building by an approximately 15-foot wide access road and a concrete retaining wall along the riverbank.

A stone-walled penstock, which is part of the mill's historic water-power system, passes under the southern half of the Site building in which the release occurred. The walls and ceiling of this penstock appear to form part of the Site building's foundations. According to OTO's field measurements and an undated drawing provided by the Ware Department of Public Works, this section of the penstock measures approximately 14-feet wide and when in use would have a depth of water of five feet at capacity. The penstock discharges to the Ware River. Although the penstock has reportedly been permanently closed at the upstream end, storm drains in the former mill complex reportedly discharge to the penstock, which may also collect infiltrating groundwater. Numerous pipes, electrical conduits and other utilities also run through the penstock, limiting access within the structure. Although Micheller Enterprises LLC owns the Site, Ware River Power, Inc. owns the water rights to the former mill complex and holds an easement to the penstock system.

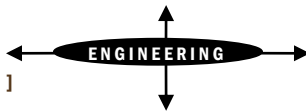
The Site is located at an approximate elevation of 440 feet above mean sea level, and slopes moderately to steeply down from north to south. Topography in the general vicinity of the Site slopes down to the river from a hilltop approximately 200-feet north of the Site building. Most of the surrounding area is either paved or improved with buildings. Storm water is expected either to sheet-flow to unpaved areas or water bodies, or to storm drains that discharge to the penstock or directly to the Ware River.



The Site and vicinity are served by municipal water and sewer services. Massachusetts Geographic Information System (MassGIS) maps available on-line at http://maps.massgis.state.ma.us/massgis_viewer/index.htm indicate the Site is not located within 500 feet of a public water supply, an Interim Wellhead Protection Area, or the Zone A of a Class A surface water body. The site is not located within a potentially productive aquifer. The Ware Board of Health has no record of private wells within 500-feet of the Disposal Site. Based on this mapping, groundwater at the Site is classified as GW-2 and GW-3. A copy of the 21E Priority Resource Map is attached in Appendix C.

Specific Site information required in 310 CMR 40.0483 (1)(a) is provided below:

MassDEP Release Tracking Number (RTN)	1-19320
Disposal Site Address	16 East Main Street Ware, MA
Latitude/Longitude	42° 15' 31.24" N 72° 14' 11.64" E
Universal Transverse Mercator (UTM) Coordinates	Northing: 4682196 Easting: 727940
Disposal Site Locus Map w/radii	See Figure 1 and Appendix C
Number of on-Site workers at the Disposal Site	Approximately 1-2, in eastern Site building only
Estimated residential population within a half mile of the disposal Site	Greater than 1,000
Land use to the north	Derelict mill building, followed by commercial buildings at 6 East Main Street, occupied by G&G Medical Products LLC.
Land use to the east	Mill complex access road, commercial buildings, and the Ware River.
Land use to the south	Derelict building and the Ware River
Land use to the west	Commercial properties at 40 and 44 East Main Street.



Number of Institutions within 500 feet	None
Natural Resource Areas within 500 feet	100-year floodplain is mapped to the southeast of the Site.

3.0 DISPOSAL SITE MAP

Figures 2 and 3 depict the Disposal Site and where applicable, identifies the elements listed in 310 CMR 40.0483(1)(b), including buildings and exploration locations.

4.0 DISPOSAL SITE HISTORY

This section provides information required pursuant to 310 CMR 40.0483(1)(c).

4.1 OWNER/OPERATOR HISTORY

The Site was historically part of the former Otis Company mill complex, located on the northern bank of the Ware River. The Ware Manufacturing Company constructed the first generation of mill buildings in the 1840s and later structures continued to be added until circa 1890. The Otis Company occupied the site for much of the late 19th and early 20th Centuries, with the Otis Company closing in 1937. The successor owner, Ware Industries, continued textile manufacturing until the 1970s, after which the complex was subdivided into several parcels and most of the space in the complex was rented or sold to various commercial tenants.

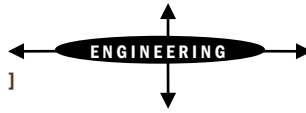
The building in which the release occurred was reportedly constructed circa 1885 and served as a boiler house for the complex.¹ This use appears to have continued through the 1950s, as a 1959 Factory Insurance Association depicts a new boiler plant on the southern bank of the Ware River, opposite the Site. Sanborn Fire Insurance Maps dated 1919, 1946 and 1959 also identify the building as a boiler house. The building was reportedly damaged by a fire in 1984 and has been vacant and unused since then.

The building located immediately west of the building in which the release occurred is identified on the Sanborn maps as a dye house. This building is currently occupied by an automotive maintenance garage.

4.2 OIL AND/OR HAZARDOUS MATERIAL (OHM) STORAGE HISTORY

Interviews with the Site owner, the staff of the Ware Fire Department, and a review of MassDEP files generated limited information on the history and use of oils and hazardous materials at the Site. No. 6 fuel oil and No. 2 oil are known to have been used on the Site, as boiler fuel and as fuel for auxiliary systems such as the pump system associated with the AST from which the release occurred. Coal was historically used as boiler fuel; although coal ash was generated as a result of this use, as

¹ Massachusetts Cultural Resource Information System Record, Ware Millyard Historic District, 11/21/1986



discussed below, our site assessment did not encounter significant quantities of coal ash in Site soils.

A UST with an estimated capacity of 10,000 gallons and containing No. 6 fuel oil is located in a courtyard-type area north of the eastern end of the boiler building. Based on field measurements, a 1959 fire insurance plan of the mill complex that shows a 10,000-gallon fuel oil UST in this location, and a 1979 survey plan prepared by Almer Huntley Jr. & Associates that shows the Site's property lines, this UST appears to lie on the property line shared by the Site and by the northerly abutting G&G Medical Products, LLC property at 6 East Main Street. This UST is located approximately 25-feet from the northern wall of the penstock, and is roughly opposite the section of penstock wall where the heavy fuel oil was noted during our February 2014 removal work. The Ware Fire Department does not have a file for the 10,000-gallon No. 6 fuel oil UST.

Dyes historically used in textile manufacturing varied over time, including plant-based dyes, dyes with metal-based pigments, and hydrocarbon-based synthetic dyes such as aniline.

4.3 ENVIRONMENTAL PERMIT AND COMPLIANCE HISTORY

The Site is not a registered hazardous waste generator and has no known history of environmental permits.

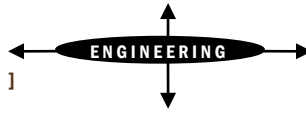
5.0 SITE ASSESSMENT AND RELEASE DISCOVERY

5.1 RELEASE DISCOVERY

On January 18, 2014, the Ware Fire Department notified MassDEP of a complaint of oil odors in a building located at 40 East Main Street.² On January 21, Fire Department and MassDEP personnel investigated the odors and traced them to the penstock system of the former mill complex. MassDEP entered the penstock and identified a pool of oil located on the floor of the penstock beneath the Site building, which had apparently been discharged through a drainpipe connected to a floor drain in the Site building. MassDEP personnel applied sorbent pads to impacted areas and placed several booms in the penstock. The Ware Fire Department subsequently indicated that the source of the release appeared to be an approximately 100-gallon aboveground storage tank (AST) located in a pump room at the eastern end of the Site building.

MassDEP assigned Release Tracking Number (RTN) 1-19320 to the Site. MassDEP issued a Notice of Responsibility to Micheller Enterprises LLC on January 28, 2014, and included authorization for response actions, including deployment of absorbents and removal of the oil and water in the penstock.

² This report was originally called in for the address of 23-25 East Main Street. The correct address of this property is 40 East Main Street.



5.2 PENSTOCK ENTRY AND EXCAVATION

OTO observed and documented initial response action work on February 19 and 20, 2014. The goals of this work were to evaluate the interior of the penstock; to remove impacted soil, sediment and debris to the extent feasible; and to secure oil-control booms within the penstock.

Appropriately-trained personnel from OTO, BGL Corporation of Agawam, MA (BGL) and Environmental Services, Inc. (ESI) of Connecticut entered the penstock under the OSHA permit-required Confined Space entry protocols. Guided by visual observations and photoionization detector (PID) screening results, approximately six cubic yards of oil-contaminated material were removed and stockpiled in a lined and covered roll-off container provided by ESI. Additional details, including summary of post-excavation soil analytical results, are provided in our March 19, 2014 IRA Plan.

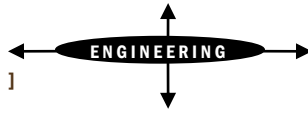
Based on PID screening results, OTO submitted five grab samples of soil from the limits of the excavation for laboratory analysis for volatile and extractable petroleum hydrocarbons (VPH and EPH). Two samples exhibited EPH-range hydrocarbon concentrations in excess of MassDEP Method 1 S-1 standards. Four samples exhibited concentrations of polycyclic aromatic hydrocarbons (PAHs) consistent with residues of coal, coal ash or wood ash, which exceeded Method 1 standards in two samples.

OTO also collected a composite sample of the stockpiled soil for waste characterization analysis, with analysis for volatile organic compounds (VOCs), total petroleum hydrocarbons, polychlorinated biphenyls, flashpoint, reactivity, pH and selected metals.

Based on the elevated concentrations of lead and chromium identified in the waste characterization sample, we requested laboratory analysis for lead and chromium for the five post-removal samples and TCLP analysis for lead for the waste characterization sample. Three of the five post-removal samples exhibited concentrations of lead in excess of the Method 1 standard, and four samples exhibited concentrations of total chromium in excess of the Method 1 standard. Hexavalent chromium analysis could not be performed because the samples were out of hold time for this analysis. The TCLP analysis indicated leachable lead at a concentration less than the applicable RCRA threshold for a characteristic hazardous waste. MassDEP changed its Method 1 standards for cadmium and chromium in June 2014; the concentrations of cadmium and chromium are less than the current standards.

5.3 OUTFALL MONITORING

OTO personnel visited the Site on March 25, 2014, April 15, 2014 and May 2, 2014. These visits were scheduled to follow significant rain events or periods of snowmelt. OTO observed the river adjacent to the penstock outfall on each occasion, upstream of the adjacent dam, and did not observe oil sheen or other evidence of a discharge of oil from the penstock. The Ware Fire Department cooperated with this monitoring by making periodic checks for sheen or other indications of a release to surface water.



According to Deputy Chief Edward Wloch, the Ware Fire Department did not observe a sheen on the Ware River during its checks.

5.4 INDOOR AIR ASSESSMENT

As the penstock to which the oil was released passes under the eastern end of the 40 East Main Street building, which is occupied by Berkshire Blanket Company, and a diesel odor was reported in January 2014, prior to the discovery of the release. OTO screened the indoor air within the building during the removal work on February 19, 20, and 25, 2014, and during site visits on April 15 and May 2, 2014. OTO used a MiniRAE 3000 photoionization detector (PID) calibrated to a benzene standard. The building could not be screened during our March 25 site visit as the business had closed early that day and the interior could not be accessed. OTO also screened air within the penstock during each site visit by lowering tubing connected to a PID into the penstock through a gap located near the release area and the penstock access manway. The screening did not encounter significant odors or PID responses indicative of fuel oil vapors, although PID responses were identified in the presence of bottles of hand sanitizer or air freshener, which were observed throughout the Berkshire Blanket tenant space.

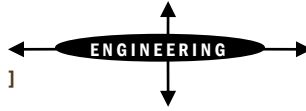
OTO collected samples of indoor air from the 44 East Main Street building on October 28, 2015. One sample of indoor air was collected within the Berkshire Blanket office space on the ground floor above the penstock, one in the basement storage room immediately above the penstock outfall, and one sample within the penstock itself. The office and basement samples were collected over a four-hour period using stainless steel SUMMA canisters and submitted to Con-Test Analytical Laboratory for analysis using MassDEP's Air Phase Hydrocarbon method.

As indicated, the analytical results for indoor air samples collected within the 44 East Main Street building are less than MassDEP's Indoor Air Threshold Values for commercial and industrial sites. We note that hand sanitizers, room deodorizers, perfumes and other products were identified in the Berkshire Blanket space during past visits to the facility; these products may contain compounds that are volatile that are detected by this analytical method, but which are unrelated to the release of fuel oil to the penstock that runs beneath the Site building.

5.5 SOIL BORINGS

On October 28, 2015, OTO observed and documented the performance of eight soil borings by Martin GeoEnvironmental Drilling, LLC. Boring logs are included in Appendix E. Site constraints limited access for the drill rig to the access road along the southern face of the boiler house building. Drilling within the building footprint was not feasible due to conditions within the building shell.

Borings B-1 through B-5 were advanced using a Geoprobe direct-push rig in the access road along the southern face of the Site building. Borings B-2 and B-5 were completed as two-inch diameter monitoring wells, designated MW-1 and MW-2. Due to the



potential for unmapped utilities in this area, Martin pre-cleared each borehole to a depth of five feet using an air knife and vacuum unit. OTO visually observed the cuttings from the air-knifing and field-screened a sample from this interval of each boring using the PID.

Soils encountered in these borings generally consisted of brown and gray medium and fine sand and silt, with gravel. Bedrock was encountered at depths ranging from 14 feet in B-2 to 20 feet in B-5. Trace urban fill debris was identified at depths of up to ten feet below grade in some borings. Given the history of the Site, it is unclear whether these soils represent native material, reworked fill materials, or some combination thereof.

Martin advanced two additional borings, HB-1 and HB-2, along the southern side of the 10,000-gallon UST using a combination of air knife/vac and hand tools. These borings were advanced to approximately four feet below grade, where refusal was encountered due to the presence of boulders and debris. The soils encountered in these borings consisted primarily of brown fine and medium sand with gravel, cobbles and debris including brick and iron fragments. Samples were not submitted from these borings because refusal was encountered in shallow soil and no indicators of hydrocarbon impacts were observed.

OTO field-screened soil samples from roughly two to three foot intervals in the Geoprobe borings and from two and four feet below grade in HB-1 and HB-2, using a MiniRae Lite calibrated to a benzene standard. No PID readings greater than 0.0 ppmv were identified.

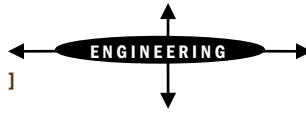
The results of our investigation indicate that petroleum impacts to the penstock do not extend outside the southern wall of the penstock structure, while the northern wall of the penstock was inaccessible.

5.6 GROUNDWATER GAUGING

OTO gauged MW-1 and MW-2 on two occasions on November 5 and December 18, 2015. On the first occasion, the wells did not exhibit groundwater. On the second occasion, groundwater was not encountered in MW-1 and was present in MW-2 but not in quantities sufficient to yield a sample, with approximately two inches of water measured, with no indications of light non-aqueous phase liquid (LNAPL). We note that most of 2015 was unusually dry, which likely contributed to unusually low groundwater elevations.

5.7 CURRENT SITE CONDITIONS

On Friday, February 5, 2016 MassDEP indicated to OTO that what appeared to be No. 6 fuel oil was emerging from a pipe believed to be associated with the on-Site No. 6 fuel oil UST. Based on photographs provided by MassDEP, the amount of product exiting the pipe appeared to be minimal. This condition may be due to water entering the UST and causing the oil to float. MassDEP and Ware Fire Department personnel entered the penstock and visually assessed the release area; representatives of these agencies



indicated to OTO that they did not observe evidence of a new intrusion of oil into the penstock.

On February 11, 2016 OTO conferred with Deputy Chief Wloch of the Ware Fire Department. The Deputy Chief indicated that the Ware Fire Department has safety concerns due to the condition of the former boiler building and the dilapidated condition of a portion of the 6 East Main Street structure, and that the Fire Department and Building Department had ordered the access road along the southern face of the former boiler building be closed due to falling debris. Deputy Chief Wloch indicated that this portion of the Site should not be entered for major non-emergency work and that heavy vehicle traffic or the use of heavy equipment in the vicinity of the boiler building should be avoided.

OTO staff, Ms. Stacey Dakai from MassDEP, and Deputy Chief Wloch met at the Site on February 18, 2016. OTO secured four pipes that appeared to be associated with the UST, including one pipe that exhibited surcharged oil, using screw plugs and waterproof, oil-resistant tape. The quantity of oil that had exited the pipe appeared to be minimal and had mostly adhered to the outside of the pipe, without significant impact to soil. OTO partly cleared the pipe of oil and observed water within the pipe, suggesting that water is entering the tank and that the residual oil within the UST is floating on the water.

6.0 SITE HYDROGEOLOGIC CHARACTERISTICS

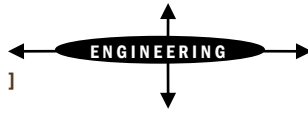
6.1 SITE DRAINAGE

Local topography generally slopes down towards the southwest, with an approximate elevation for the Site of 440 feet above mean sea level. The nearest surface water body is the westerly-flowing Ware River, located approximately 20 feet south of the former boiler building.

6.2 SITE GEOLOGY AND HYDROGEOLOGY

Soils in this area are mapped as sand and gravel, which is consistent with soils encountered in site assessment work. Soils encountered in borings consisted of heterogeneous sand and gravel, some of which appeared to be fill materials. Bedrock is mapped as the Lower Devonian Littleton Formation, consisting of black to gray aluminous mica schist, quartzose schist and aluminous phyllite. Bedrock was encountered in Site borings at depths ranging from 14 to 20 feet below grade.

Groundwater has not been encountered to date at the Disposal Site to date. Based on observations of iron mottling in soil borings at the Site, groundwater is likely present in overburden soils under normal conditions, but 2015 was a year of unusually low precipitation, and the wells installed at the Site did not yield groundwater sufficient for sampling.



Based on the proximity of the Ware River and local topography, groundwater at the Site likely flows towards the south, towards the Ware River.

7.0 NATURE AND EXTENT OF OIL/HAZARDOUS MATERIALS

The nature and extent of petroleum impacts are discussed in the following section, by medium, to the extent that delineation has been completed. The overall area of impact identified or interpolated to date includes a portion of the penstock structure and may include an adjacent area of soil near or beneath the northeastern corner of the former boiler house building, proximal to the 10,000-gallon No. 6 fuel oil UST. The inferred extent of impacts is shown on Figure 3.

7.1 SOIL

Petroleum-impacted materials associated with the identified releases of No. 2 and No. 6 fuel oil are generally located beneath the former boiler building, in a penstock tunnel to which access is restricted. The potential source for the No. 6 oil impacts may be a 10,000-gallon No. 6 fuel oil AST located north of the former boiler building. Soil identified in impacted areas of the penstock locally exceeded Method 1 S-1 standards. Based on site access constraints and safety concerns due to the state of the Site building, significant assessment work in the vicinity of this tank was not possible.

7.2 GROUNDWATER

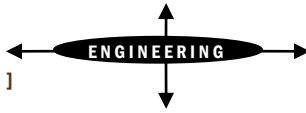
Groundwater has not been encountered during assessment work to date. Monitoring wells installed in October 2015 did not yield sufficient water for sampling on two events in November and December 2015.

7.3 SURFACE WATER

Accessible impacted soil within the penstock was excavated and removed in October 2014. Subsequent visual monitoring of surface water at the outfall of the penstock after major storm events did not indicate sheens or other evidence of significant impact to the Ware River.

7.4 VAPOR INTRUSION

The former boiler house building located over the penstock is currently unoccupied and open to the elements. OTO collected indoor air samples from the adjacent Berkshire Blanket building at 44 East Main Street, two from office and basement locations located over the penstock, and one from within the penstock. Hydrocarbon concentrations detected did not exceed MassDEP indoor air screening levels for industrial and commercial uses.



8.0 MIGRATION PATHWAYS AND EXPOSURE POTENTIAL

We considered several potential contaminant migration pathways and resulting potential for exposure under current and foreseeable Site use conditions. These include direct soil contact, groundwater migration, and vapor inhalation. A preliminary assessment of these pathways is provided below.

8.1 SOIL

Petroleum-impacted materials associated with the identified releases of No. 2 and No. 6 fuel oil are generally located beneath the former boiler building, in a penstock tunnel to which access is restricted, for an estimated total area of 1,000 square feet. Soil identified in impacted areas of the penstock locally exceeded Method 1 S-1 standards. Utility workers engaged in repair or construction work associated with utilities in the penstock could encounter impacted soil.

Although the Site is part of a mill complex, the adjacent building at 40 East Main Street is used in part for residences. Residential children and adults are therefore assumed to be present in the Site vicinity, but based on the location of the impacted material there is not a complete exposure pathway. Due to the viscous nature of No. 6 fuel oil when it is not heated, residues of this type of oil in soil are unlikely to be mobile in soil given that the boiler building is not in service.

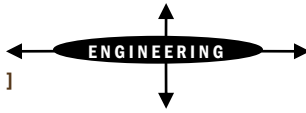
8.2 GROUNDWATER

Groundwater has not been encountered during assessment work to date. Monitoring wells installed in October 2015 did not yield sufficient water for sampling on two events in November and December 2015.

8.3 SURFACE WATER

Accessible impacted soil within the penstock was excavated and removed in October 2014. Subsequent visual monitoring of surface water at the outfall of the penstock after major storm events did not indicate sheens or other evidence of significant impact to the Ware River.

The penstock also serves as a primary conduit for the mill complex's stormwater system, and receives flow from parking lots, asphalt-coated roofs, and other impervious areas that typically generate detectable but de minimis concentrations of hydrocarbons in stormwater runoff. Although some degree of discharge of hydrocarbons to the river may occur during storm events and snowmelt periods, such discharges are likely indistinguishable from background conditions associated with stormwater discharges from developed areas.



8.4 INDOOR AIR

The former boiler house building located over the penstock is currently unoccupied and open to the elements. OTO collected indoor air samples from the adjacent Berkshire Blanket building at 44 East Main Street, two from office and basement locations located over the penstock, and one from within the penstock. Hydrocarbon concentrations detected did not exceed MassDEP indoor air screening levels. Based on this data, indoor air exposures do not appear to be a complete exposure pathway.

9.0 IMMEDIATE RESPONSE ACTION COMPLETION

The MCP requires an assessment of the need for further Immediate Response Actions at Sites. Available data indicate that further Immediate Response Actions are not warranted at the Site, as there is not a Critical Exposure Pathway or an Imminent Hazard to health, safety, public welfare and/or the environment at the Site under current conditions. Site conditions have been evaluated and found to be stable. Soil gas results are less than MassDEP sub-slab screening values for residential scenarios. No Active Remedial Systems or Active Exposure Pathway Mitigation Measures (as defined by the MCP) are necessary to eliminate or control an Imminent Hazard or Critical Exposure Pathway.

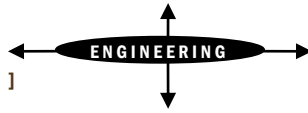
Although the IRA is being closed out, further remediation work may be required, including excavation of impacted soils. The removal of impacted soil will be complicated by the need to protect both the foundation of the Site building and the numerous utilities that run through or adjacent to the impacted area. If conducted, this work would likely be conducted as a Release Abatement Measure.

10.0 TIER CLASSIFICATION

In accordance with the Massachusetts Contingency Plan revisions that went into effect in April 2014, the MCP specifies four inclusionary criteria in 310 CMR 40.0520(2) that, if present at a Disposal Site, trigger a Tier I classification. These criteria are:

- There is evidence of groundwater contamination with oil and/or hazardous material at concentrations equal to or exceeding the applicable RCGW-1 Reportable Concentration set forth in 310 CMR 40.0360, and such groundwater is located within an Interim Wellhead Protection Area, Zone II, or within 500 feet of a Private Water Supply Well;
- An Imminent Hazard is present;
- One or more remedial actions are required as part of an Immediate Response Action pursuant to 310 CMR 40.0414(2); or
- One or more response actions are required as part of an Immediate Response Action to eliminate or mitigate a Critical Exposure Pathway pursuant to 310 CMR 40.0414(3).

None of these inclusionary criteria are present at the Disposal Site. An IRA is not necessary to address an Imminent Hazard or Critical Exposure Pathway, and a



containment or removal action pursuant to 310 CMR 40.0414(2) is not required. In our opinion, Site conditions do not meet any of the inclusionary criteria that would cause it to be classified as Tier I, and is therefore classified a Tier II site.

11.0 CONCEPTUAL PHASE II SCOPE OF WORK

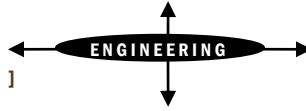
Site conditions are not currently consistent with a condition of No Significant Risk, as defined in the MCP. Further response actions at the Site are therefore necessary. Conceptually, we anticipate the following activities will be required to adequately assess Site conditions:

- A confined-space entry of the penstock is anticipated in order to obtain additional sampling points within the structure, and if warranted, to remove additional impacted material. This removal work would likely be conducted as a Release Abatement Measure (RAM).
- The 10,000-gallon fuel oil UST should be cleaned and removed or closed in place in accordance with MassDEP requirements. We note that access to the location of this UST is very limited by the adjacent buildings, and that concerns have been raised by the Town of Ware for the stability of these buildings and the safety of workers in their vicinity. We note that as the UST is located straddling a property line, the removal of the UST will likely require cooperation with the adjacent property owner.
- In accordance with current MassDEP guidance, a second round of indoor air samples should be collected from the 44 East Main Street building.
- Additional attempts should be made to obtain groundwater data, as groundwater rises in the spring.

Such work is generally conducted in an iterative, phased manner, with the scope of work evolving after each stage of work.

SUMMARY AND CONCLUSIONS

A sudden release of No. 2 fuel oil occurred in January 2014, impacting a penstock beneath the former boiler house of the Otis Mills complex in Ware, Massachusetts. This release is commingled with a historic release of No. 6 fuel oil, the potential source for which may be a 10,000-gallon No. 6 fuel oil UST located proximal to the former boiler house. Based on site access constraints and safety concerns due to the state of the Site building, significant assessment work in the vicinity of this tank was not possible. The overall area of impacted material identified to date is estimated at approximately 1,000 square feet. The impacted area is located within the penstock and beneath or immediately adjacent to the boiler house building. Post-excavation samples within the penstock also exhibited concentrations of lead greater than MassDEP's Method 1 S-1 standards, although it is possible that these compounds are attributable to coal or coal ash.



Site conditions do not indicate an Imminent Hazard to health, safety, public welfare and/or the environment, and further Immediate Response Actions are therefore not necessary. The site does not meet the inclusion criteria for a Tier I classification and is therefore classified Tier II.

Site conditions are not currently consistent with a condition of No Significant Risk, and further response actions are therefore necessary.

The MCP requires public notification be made of the availability of Phase I reports. Copies of public notification letters for this submittal are attached in Appendix F.

TABLES

Table 1
Soil Analytical Results
Volatile Organic Compounds (VOCs)
Concentrations in mg/kg
30-32 East Main Street
Ware, MA

Sample No.:	Comp	MCP Method 1 Standards	
		S-1 / GW-2	S-1 / GW-3
Depth (feet):	NA		
Date Collected:	2/21/14		
PID Reading (ppmv):	-	NS	NS
n-Butylbenzene	3.40	NS	NS
sec-Butylbenzene	1.30	NS	NS
Ethylbenzene	0.62	500	500
Isopropylbenzene	0.48	NS	NS
4-Isopropyltoluene	1.200	NS	NS
Naphthalene	29.00	40	500
n-Propylbenzene	1.30	NS	NS
Toluene	0.27	500	500
1,2,4-Trimethylbenzene	9.10	NS	NS
1,3,5-Trimethylbenzene	3.10	NS	NS
Xylenes (total)	3.90	300	500

NOTES:

1. Concentrations in milligrams per kilogram (mg/kg, or parts per million (ppm)).
2. "<" indicates not detected; value is sample-specific quantitative.
3. MCP Method 1 soil standards from 310 CMR 40.0975(6).
4. "NS" = No standard.
5. Values shown in **bold** exceed Method 1 standards.
6. Only analytes detected in at least one sample are shown; refer to full report for details.

Table 1
Soil Analytical Results
Volatile and Extractable Petroleum Hydrocarbons (VPH/EPH)
Concentrations in mg/kg
16 East Main Street
Ware, MA

Sample No.:	1	2-1	3	4-1	5-1	MassDEP Natural Background	MassDEP Ash Fill Background	MCP Method 1 Standards		UCLs
	Depth (feet):	24"	12"	6"	12"			12"	S-1 / GW-2	
Date Collected:	2/20/14	2/20/14	2/20/14	2/20/14	2/20/14					
PID Reading (ppmv):						NA	NA	NA	NA	NA
VPH Fractions										
C5-C8 Aliphatics	<25	<12	<13	<12	<13	NA	NA	100	100	5,000
C9-C12 Aliphatics	<25	16	<13	<12	<13	NA	NA	1,000	1,000	20,000
C9-C10 Aromatics	<25	41	<13	28	<13	NA	NA	100	100	5,000
VPH Target Compounds										
Benzene	<0.12	<0.059	<0.064	<0.061	<0.064	NA	NA	30	30	9,000
Ethylbenzene	<0.12	0.13	<0.064	<0.061	<0.064	NA	NA	500	500	10,000
Methyl tert-butyl ether	<0.12	<0.059	<0.064	<0.061	<0.064	NA	NA	100	100	5,000
Naphthalene	<0.12	0.81	<0.032	0.62	<0.032	NA	NA	40	500	10,000
Toluene	0.14	<0.059	<0.064	<0.061	<0.064	NA	NA	500	500	10,000
Xylenes (total)	<0.12	0.23	<0.064	0.17	<0.064	NA	NA	300	500	10,000
EPH Fractions										
C9-C18 Aliphatics	2,900	450	27	<11	270	NA	NA	1,000	1,000	20,000
C19-C36 Aliphatics	8,600	130	620	<11	53	NA	NA	3,000	3,000	20,000
C11-C22 Aromatics	1,600	580	330	<11	140	NA	NA	1,000	1,000	10,000
EPH Target Compounds										
Naphthalene	1.4	2.5	0.6	<0.11	0.94	0.5	1	20	500	10,000
2-Methylnaphthalene	3.6	5.3	0.34	<0.11	2.9	0.5	1	80	300	5,000
Acenaphthylene	<0.15	<0.11	0.54	<0.11	<0.12	0.5	1	600	10	10,000
Acenaphthene	<0.15	<0.11	0.59	<0.11	<0.12	0.5	2	1,000	1,000	10,000
Fluorene	1.6	2.9	0.93	<0.11	0.64	1	2	1,000	1,000	10,000
Phenanthrene	2.4	21	12	<0.11	0.6	3	20	500	500	10,000
Anthracene	0.64	4.8	2.8	<0.11	<0.12	1	4	1,000	1,000	10,000
Fluoranthene	4.8	26	14	<0.11	0.17	4	10	1,000	1,000	10,000
Pyrene	3.5	24	13	<0.11	<0.12	4	20	1,000	1,000	10,000
Benzo(a)anthracene	<0.15	12	5.8	<0.11	<0.12	2	9	7	7	3,000
Chrysene	<0.15	12	6	<0.11	<0.12	2	7	70	70	10,000
Benzo(b)fluoranthene	<0.15	17	8.6	<0.11	<0.12	2	8	7	7	3,000
Benzo(k)fluoranthene	<0.15	6	2.8	<0.11	<0.12	1	4	70	70	10,000
Benzo(a)pyrene	<0.15	12	6.1	<0.11	<0.12	2	7	2	2	300
Indeno(1,2,3-cd)pyrene	<0.15	7.8	4.2	<0.11	<0.12	1	3	7	7	3,000
Dibenzo(a,h)anthracene	<0.15	2.1	1	<0.11	<0.12	0.5	1	0.7	0.7	300
Benzo(g,h,i)perylene	<0.15	6.3	3.5	<0.11	<0.12	1	3	1,000	1,000	10,000

NOTES:

- Concentrations in mg/kg (parts per million) on a dry weight basis
- "<" indicates not detected; value is sample-specific quantitation limit
- MCP Method 1 soil standards from 310 CMR 40.0975(6).
- "UCLs" = Upper Concentration Limits, from 310 CMR 40.0996(7). "NS" indicates no standard
- Background values from MassDEP "Technical Update: Background Levels of Polycyclic Aromatic Hydrocarbons and Metals in Soil", IV
- "PID"=Photoionization detector soil headspace measurement in parts per million by volume
- Only analytes detected in at least one sample are shown; refer to laboratory reports for full analyte listing
- Values shown in **bold** exceed Method 1 standards.
- "---" indicates not analyzed for this parameter.

Table E
Soil Analytical Results
Polychlorinated Biphenyls (PCBs)
Concentrations in mg/kg
Site Name
City, MA

Sample No.:	Depth (feet):	Date Collected:	Reportable Conc. RCS-1	Reportable Conc. RCS-2	2-Hour at surface 40.0321	MCP Method 1 Standards									UCLs
						S-1 / GW-1	S-1 / GW-2	S-1 / GW-3	S-2 / GW-1	S-2 / GW-2	S-2 / GW-3	S-3 GW-1	S-3 GW-2	S-3 GW-3	
PCBs (total)			2	3	10	2	2	2	3	3	3	3	3	3	100
Aroclor 1016															
Aroclor 1221															
Aroclor 1232															
Aroclor 1242															
Aroclor 1248															
Aroclor 1254															
Aroclor 1260															
Aroclor 1262															
Aroclor 1268															

NOTES:

1. Concentrations in mg/kg (parts per million) on a dry weight basis.
2. "<" indicates not detected; value is sample-specific quantitation limit.
3. "RCS" = Reportable concentration from 310 CMR 40.1600.
3. MCP Method 1 soil standards from 310 CMR 40.0975(6).
3. "UCLs" = Upper Concentration Limits, from 310 CMR 40.0996(7). "NS" indicates no standard.
4. Background values from MassDEP "Technical Update: Background Levels of Polycyclic Aromatic Hydrocarbons and Metals in Soil", May 23, 2002.
5. Values shown in **bold** exceed Method 1 standards.
6. "---" indicates not analyzed for this parameter.

Table 2
Soil Analytical Results
Inorganic Analytes
Concentrations in mg/kg
16 East Main Street
Ware, Massachusetts

Sample No.:	Comp	1	2-1	3	4-1	5-1	MassDEP Natural Soil Background	MassDEP Ash Fill Background	S-1 / GW-2,3 Standard	UCLs
Depth (feet):	NA	24"	12"	6"	12"	12"				
Date Collected:	2/20/14	2/20/14	2/20/14	2/20/14	2/20/14	2/20/14				
Cadmium	4.7	--	--	--	--	--	2	3	70	1,000
Chromium (VI or total)*	53	56	69	47	66	22	30	40	100	2,000
Lead	490	520	350	380	6.9	2.3	100	600	200	6,000
Mercury	1	--	--	--	--	--	0.3	1	20	300

NOTES:

1. Concentrations in milligrams per kilogram (mg/kg, or parts per million) on a dry weight basis.
2. "<" indicates not detected; value is sample-specific quantitation limit.
3. MCP Method 1 soil standards from 310 CMR 40.0975(6).
4. UCLs = Upper Concentration Limits, from 310 CMR 40.0996(7). "NS" indicates no standard.
5. Background values from MassDEP "Technical Update: Background Levels of Polycyclic Aromatic Hydrocarbons and Metals in Soil", May 23,
6. Values shown in **bold** exceed Method 1 standards.
7. "---" indicates not analyzed for this parameter.

* Per the 4/06 MCP, chromium is assumed to be hexavalent unless testing is done to prove otherwise.

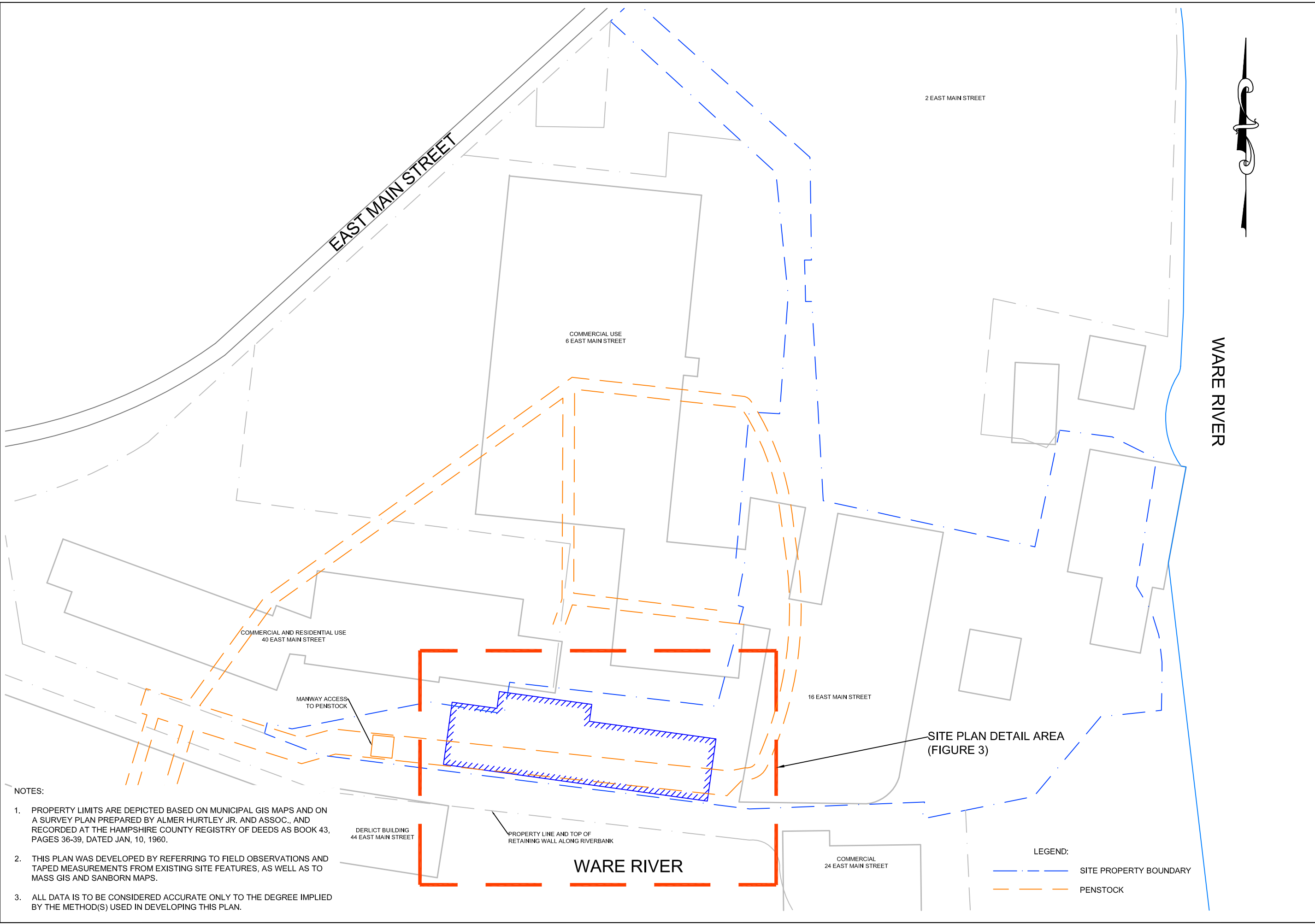
Table 2
Indoor Air Analytical Results
Concentrations in ug/m³
44 East Main Street
Ware, Massachusetts

Sample Location	BB Office	BB Cellar	Penstock Air	Residential Indoor Air Threshold Values (TV _r)	Commercial/Industrial Indoor Air Threshold Values (TV _{c/i})
Sample Date	10/29/15	10/29/15	10/29/15		
APH Hydrocarbons					
C5 - C8 Aliphatics	110	39	36	58	330
C9 - C12 Aliphatics	22	11	49	68	220
C9 - C10 Aromatics	< 6.4	< 6.4	< 6.4	10	44
APH Target Analytes					
Benzene	1	0.65	< 0.41	2.3	11
Ethylbenzene	< 0.55	< 0.55	< 0.55	7.4	880
Methyl t-butyl ether	< 0.46	< 0.46	< 0.46	39	2,700
Naphthalene	< 0.59	< 0.59	< 0.59	0.6	2.7
Toluene	3.6	2.8	2.1	54	4,400
Total Xylenes	1.7	2.3	< 1.1	20	88
1,3 Butadiene	< 0.28	< 0.28	< 0.28	NA	NA

NOTES:

1. APH=Air-phase Petroleum Hydrocarbons by MassDEP method.
2. Concentrations in micrograms per cubic meter (ug/m³).
3. "<" = Not detected; value is quantitation limit.
4. Indoor Air Threshold Values from MassDEP Public Review Draft Vapor Intrusion Guidance, WSC#-14-435, October 2014.
5. "NA" indicates no threshold value available.
6. **Bold** = measured concentration exceeds the indoor air Threshold Value.

FIGURES



NOTES:

1. PROPERTY LIMITS ARE DEPICTED BASED ON MUNICIPAL GIS MAPS AND ON A SURVEY PLAN PREPARED BY ALMER HURTLEY JR. AND ASSOC., AND RECORDED AT THE HAMPSHIRE COUNTY REGISTRY OF DEEDS AS BOOK 43, PAGES 36-39, DATED JAN, 10, 1960.
2. THIS PLAN WAS DEVELOPED BY REFERRING TO FIELD OBSERVATIONS AND TAPED MEASUREMENTS FROM EXISTING SITE FEATURES, AS WELL AS TO MASS GIS AND SANBORN MAPS.
3. ALL DATA IS TO BE CONSIDERED ACCURATE ONLY TO THE DEGREE IMPLIED BY THE METHOD(S) USED IN DEVELOPING THIS PLAN.

LEGEND:

— — — — — SITE PROPERTY BOUNDARY

— — — — — PENSTOCK

WARE RIVER

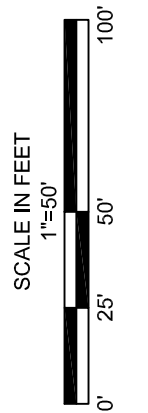


16 EAST MAIN STREET
WARE, MASSACHUSETTS

SITE PLAN

PROJECT No.
J2550-01-03

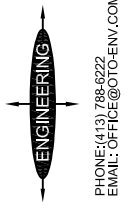
FIGURE No.
2



DESIGNED BY: TBS
CHECKED BY: KJO

DRAWN BY: NAD
DATE: DECEMBER, 2015

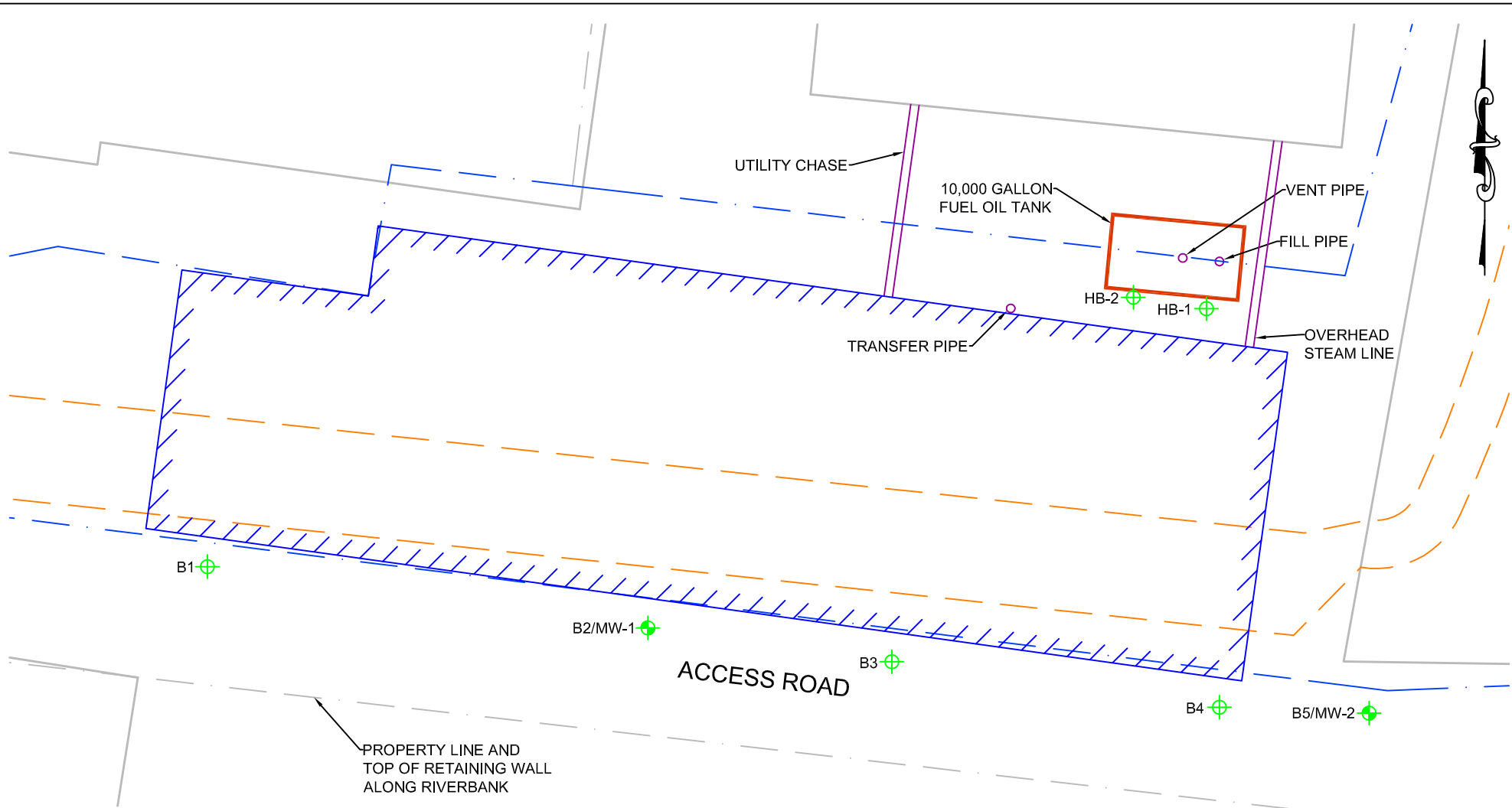
O'REILLY, TALBOT & OKUN
ASSOCIATES



293 BRIDGE STREET
SPRINGFIELD, MA 01103

PHONE: (413) 786-6222
EMAIL: OTR@OTC-ENV.COM

C:\2020\2550_Michelle and Sons Hydraulics Inc\1-03_16_East St Ware - Phase I Report and Title Classification\CAD\2550-01-03_16 E Main St Ware MA.dwg



NOTES:

1. PROPERTY LIMITS ARE DEPICTED BASED ON MUNICIPAL GIS MAPS AND ON A SURVEY PLAN PREPARED BY ALMER HURTLEY JR. AND ASSOC., AND RECORDED AT THE HAMPSHIRE COUNTY REGISTRY OF DEEDS AS BOOK 43, PAGES 36-39, DATED JAN, 10, 1960.
2. THIS PLAN WAS DEVELOPED BY REFERRING TO FIELD OBSERVATIONS AND TAPED MEASUREMENTS FROM EXISTING SITE FEATURES, AS WELL AS TO MASS GIS AND SANBORN MAPS.
3. ALL DATA IS TO BE CONSIDERED ACCURATE ONLY TO THE DEGREE IMPLIED BY THE METHOD(S) USED IN DEVELOPING THIS PLAN.

← WARE RIVER ←

LEGEND:

- - - SITE PROPERTY BOUNDARY
- - - PENSTOCK
- ← WATER FLOW DIRECTION
- ⊕ BORING LOCATION
- ⊕ MONITORING WELL LOCATION

DATE: FEBRUARY, 2016 O'REILLY, TALBOT & OKUN [ASSOCIATES] <small>293 BRIDGE STREET, SUITE 500 SPRINGFIELD, MASSACHUSETTS 01103</small>	SCALE 1" = 20' 	16 EAST MAIN STREET WARE, MASSACHUSETTS SITE PLAN DETAIL	JOB NUMBER: 2550-01-03 FIGURE NO: 3
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APPENDIX A
LIMITATIONS

LIMITATIONS

1. The observations presented in this report were made under the conditions described herein. The conclusions presented in this report were based solely upon the services described in the report and not on scientific tasks or procedures beyond the scope of the project or the time and budgetary constraints imposed by the client.
2. In preparing the report, O'Reilly, Talbot & Okun Associates, Inc. relied on certain information provided by state and local officials and other parties referenced herein, and on information contained in the files of state or local regulatory agencies. Although there may have been some degree of overlap in the information provided by these sources, O'Reilly, Talbot & Okun Associates, Inc. did not attempt to independently verify the accuracy or completeness of all information reviewed or received during the course of this assessment.
3. Unless otherwise specified in the Report, we did not perform testing or analyses to determine the presence or concentration of asbestos or polychlorinated biphenyls (PCBs) at the Site or in the environment at the Site.
4. This Report assesses the physical characteristics of the subject site with respect to the presence of oil or hazardous material (OHM) in soil or groundwater at the Site, and to assess risks associated with detected OHM, within the meaning of the Massachusetts Contingency Plan, 310 CMR 40.0000. No specific attempt was made to check on the compliance of present or past owners or operators of the Site with federal, state, or local laws and regulations, environmental or otherwise.
5. Risk assessment was performed in accordance with generally accepted practices of government agencies and other consultants conducting similar characterizations. The findings of the risk characterization are dependent on numerous assumptions and uncertainties inherent in the risk assessment process. Therefore, the findings of the risk assessment should not be interpreted as an absolute characterization of actual risks, but as general indicators highlighting potential sources of risk at the Site. Although the range of uncertainty in the risk characterization has not (and can not) be quantified, the use of conservative assumptions throughout the process would be expected to err on the side of protection of human health and the environment.
6. Where analytical data or information regarding site environmental conditions was unavailable or limited, we render no opinion as to risks due to oil and/or hazardous materials in those portions of the Site, or to oil and/or hazardous materials not tested.
7. Our report was prepared for the exclusive benefit of the client. The report and its conclusions are not extended to third parties or future property owners. We acknowledge copies of our report may be submitted to Massachusetts Department of Environmental Protection for Massachusetts Contingency Plan compliance purposes.

APPENDIX B
MASSDEP TRANSMITTAL FORM(S)



**COMPREHENSIVE RESPONSE ACTION TRANSMITTAL
FORM & PHASE I COMPLETION STATEMENT**

Release Tracking Number

1 - 19320

Pursuant to 310 CMR 40.0484 (Subpart D) and 40.0800 (Subpart H)

A. SITE LOCATION:

1. Site Name: COMMERCIAL BUILDING
2. Street Address: 16 EAST MAIN STREET
3. City/Town: WARE 4. ZIP Code: 010820000
5. Check here if the disposal site that is the source of the release is Tier Classified. Check the current Tier Classification Category:
- a. Tier I b. Tier ID c. Tier II

B. THIS FORM IS BEING USED TO: (check all that apply)

1. Submit a **Phase I Completion Statement**, pursuant to 310 CMR 40.0484.
2. Submit a **Revised Phase I Completion Statement**, pursuant to 310 CMR 40.0484.
3. Submit a **Phase II Scope of Work**, pursuant to 310 CMR 40.0834.
4. Submit an **interim Phase II Report**. This report does not satisfy the response action deadline requirements in 310 CMR 40.0500.
5. Submit a **final Phase II Report and Completion Statement**, pursuant to 310 CMR 40.0836.
6. Submit a **Revised Phase II Report and Completion Statement**, pursuant to 310 CMR 40.0836.
7. Submit a **Phase III Remedial Action Plan and Completion Statement**, pursuant to 310 CMR 40.0862.
8. Submit a **Revised Phase III Remedial Action Plan and Completion Statement**, pursuant to 310 CMR 40.0862.
9. Submit a **Phase IV Remedy Implementation Plan**, pursuant to 310 CMR 40.0874.
10. Submit a **Modified Phase IV Remedy Implementation Plan**, pursuant to 310 CMR 40.0874.
11. Submit an **As-Built Construction Report**, pursuant to 310 CMR 40.0875.
12. Submit a **Phase IV Status Report**, pursuant to 310 CMR 40.0877.
13. Submit a **Phase IV Completion Statement**, pursuant to 310 CMR 40.0878 and 40.0879.
- Specify the outcome of Phase IV activities: (check one)
- a. Phase V Operation, Maintenance or Monitoring of the Comprehensive Remedial Action is necessary to achieve a Permanent or Temporary Solution.
- b. The requirements of a Permanent Solution have been met. A completed Permanent Solution Statement and Report (BWSC104) will be submitted to DEP.
- c. The requirements of a Temporary Solution have been met. A completed Temporary Solution Statement and Report (BWSC104) will be submitted to DEP.



**COMPREHENSIVE RESPONSE ACTION TRANSMITTAL
FORM & PHASE I COMPLETION STATEMENT**

Release Tracking Number

1 - 19320

Pursuant to 310 CMR 40.0484 (Subpart D) and 40.0800 (Subpart H)

B. THIS FORM IS BEING USED TO (cont.): (check all that apply)

- 14. Submit a **Revised Phase IV Completion Statement**, pursuant to 310 CMR 40.0878 and 40.0879.
- 15. Submit a **Phase V Status Report**, pursuant to 310 CMR 40.0892.
- 16. Submit a **Remedial Monitoring Report**. (This report can only be submitted through eDEP.)
 - a. Type of Report: (check one)
 - i. Initial Report
 - ii. Interim Report
 - iii. Final Report
 - b. Frequency of Submittal: (check all that apply)
 - i. A Remedial Monitoring Report(s) submitted monthly to address an Imminent Hazard.
 - ii. A Remedial Monitoring Report(s) submitted monthly to address a Condition of Substantial Release Migration.
 - iii. A Remedial Monitoring Report(s) submitted every six months, concurrent with a Status Report.
 - iv. A Remedial Monitoring Report(s) submitted annually, concurrent with a Status Report.
 - c. Status of Site: (check one)
 - i. Phase IV
 - ii. Phase V
 - iii. Remedy Operation Status
 - iv. Temporary Solution
 - d. Number of Remedial Systems and/or Monitoring Programs: _____

A separate BWSC108A, CRA Remedial Monitoring Report, must be filled out for each Remedial System and/or Monitoring Program addressed by this transmittal form.
- 17. Submit a **Remedy Operation Status**, pursuant to 310 CMR 40.0893.
- 18. Submit a **Status Report to maintain a Remedy Operation Status**, pursuant to 310 CMR 40.0893(2).
- 19. Submit a **Transfer and/or a Modification of Persons Maintaining a Remedy Operation Status (ROS)**, pursuant to 310 CMR 40.0893(5) (check one, or both, if applicable).
 - a. Submit a Transfer of Persons Maintaining an ROS (the transferee should be the person listed in Section D, "Person Undertaking Response Actions").
 - b. Submit a Modification of Persons Maintaining an ROS (the primary representative should be the person listed in Section D, "Person Undertaking Response Actions").
- c. Number of Persons Maintaining an ROS not including the primary representative: _____
- 20. Submit a **Termination of a Remedy Operation Status**, pursuant to 310 CMR 40.0893(6).(check one)
 - a. Submit a notice indicating ROS performance standards have not been met. A plan and timetable pursuant to 310 CMR 40.0893(6) (b) for resuming the ROS are attached.
 - b. Submit a notice of Termination of ROS.
- 21. Submit a **Phase V Completion Statement**, pursuant to 310 CMR 40.0894.

Specify the outcome of Phase V activities: (check one)

 - a. The requirements of a Permanent Solution have been met. A completed Permanent Solution Statement and Report (BWSC104) will be submitted to DEP.
 - b. The requirements for a Temporary Solution have been met. A completed Temporary Solution Statement and Report (BWSC104) will be submitted to DEP.
- 22. Submit a **Revised Phase V Completion Statement**, pursuant to 310 CMR 40.0894.
- 23. Submit a **Temporary Solution Status Report**, pursuant to 310 CMR 40.0898.
- 24. Submit a **Plan for the Application of Remedial Additives** near a sensitive receptor, pursuant to 310 CMR 40.0046(3).
 - a. Status of Site: (check one)
 - i. Phase IV
 - ii. Phase V
 - iii. Remedy Operation Status
 - iv. Temporary Solution



**COMPREHENSIVE RESPONSE ACTION TRANSMITTAL
FORM & PHASE I COMPLETION STATEMENT**

Pursuant to 310 CMR 40.0484 (Subpart D) and 40.0800 (Subpart H)

Release Tracking Number

1 - 19320

C. LSP SIGNATURE AND STAMP:

I attest under the pains and penalties of perjury that I have personally examined and am familiar with this transmittal form, including any and all documents accompanying this submittal. In my professional opinion and judgment based upon application of (i) the standard of care in 309 CMR 4.02(1), (ii) the applicable provisions of 309 CMR 4.02(2) and (3), and 309 CMR 4.03(2), and (iii) the provisions of 309 CMR 4.03(3), to the best of my knowledge, information and belief,

> if Section B indicates that a **Phase I, Phase II, Phase III, Phase IV or Phase V Completion Statement and/or a Termination of a Remedy Operation Status** is being submitted, the response action(s) that is (are) the subject of this submittal (i) has (have) been developed and implemented in accordance with the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000, (ii) is (are) appropriate and reasonable to accomplish the purposes of such response action(s) as set forth in the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000, and (iii) comply(ies) with the identified provisions of all orders, permits, and approvals identified in this submittal;

> if Section B indicates that a **Phase II Scope of Work or a Phase IV Remedy Implementation Plan** is being submitted, the response action (s) that is (are) the subject of this submittal (i) has (have) been developed in accordance with the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000, (ii) is (are) appropriate and reasonable to accomplish the purposes of such response action(s) as set forth in the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000, and (iii) comply(ies) with the identified provisions of all orders, permits, and approvals identified in this submittal;

> if Section B indicates that an **As-Built Construction Report, a Remedy Operation Status, a Phase IV, Phase V or Temporary Solution Status Report, a Status Report to Maintain a Remedy Operation Status, a Transfer or Modification of Persons Maintaining a Remedy Operation Status and/or a Remedial Monitoring Report** is being submitted, the response action(s) that is (are) the subject of this submittal (i) is (are) being implemented in accordance with the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000, (ii) is (are) appropriate and reasonable to accomplish the purposes of such response action(s) as set forth in the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000, and (iii) comply(ies) with the identified provisions of all orders, permits, and approvals identified in this submittal.

I am aware that significant penalties may result, including, but not limited to, possible fines and imprisonment, if I submit information which I know to be false, inaccurate or materially incomplete.

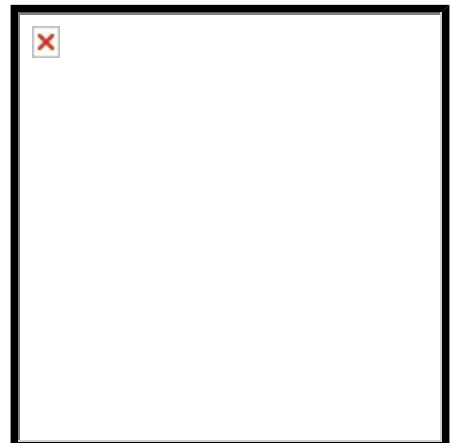
1. LSP#: 9908

2. First Name: KEVIN J 3. Last Name: OREILLY

4. Telephone: 413-788-6222 5. Ext.: 105 6. Email:

7. Signature:

8. Date: (mm/dd/yyyy) 9. LSP Stamp:





**COMPREHENSIVE RESPONSE ACTION TRANSMITTAL
FORM & PHASE I COMPLETION STATEMENT**

Release Tracking Number

1 - 19320

Pursuant to 310 CMR 40.0484 (Subpart D) and 40.0800 (Subpart H)

D. PERSON UNDERTAKING RESPONSE ACTIONS:

1. Check all that apply: a. change in contact name b. change of address c. change in the person undertaking response actions
2. Name of Organization: MICHELLER ENTERPRISES LLC
3. Contact First Name: ATTILLA 4. Last Name: MICHELLER
5. Street: 534 W 1ST AVE 6. Title: _____
7. City/Town: ROSELLE 8. State: NJ 9. ZIP Code: 072031087
10. Telephone: _____ 11. Ext: _____ 12. Email: _____

E. RELATIONSHIP TO SITE OF PERSON UNDERTAKING RESPONSE ACTIONS: Check here to change relationship

1. RP or PRP a. Owner b. Operator c. Generator d. Transporter
- e. Other RP or PRP Specify: _____
2. Fiduciary, Secured Lender or Municipality with Exempt Status (as defined by M.G.L. c. 21E, s. 2)
3. Agency or Public Utility on a Right of Way (as defined by M.G.L. c. 21E, s. 5(j))
4. Any Other Person Undertaking Response Actions Specify Relationship: _____

F. REQUIRED ATTACHMENT AND SUBMITTALS:

1. Check here if the Response Action(s) on which this opinion is based, if any, are (were) subject to any order(s), permit(s) and/or approval(s) issued by DEP or EPA. If the box is checked, you MUST attach a statement identifying the applicable provisions thereof.
2. Check here to certify that the Chief Municipal Officer and the Local Board of Health have been notified of the submittal of any Phase Reports to DEP.
3. Check here to certify that the Chief Municipal Officer and the Local Board of Health have been notified of the availability of a Phase III Remedial Action Plan.
4. Check here to certify that the Chief Municipal Officer and the Local Board of Health have been notified of the availability of a Phase IV Remedy Implementation Plan.
5. Check here to certify that the Chief Municipal Officer and the Local Board of Health have been notified of any field work involving the implementation of a Phase IV Remedial Action.
6. If submitting a Transfer of a Remedy Operation Status (as per 310 CMR 40.0893(5)), check here to certify that a statement detailing the compliance history for the person making this submittal (transferee) is attached.
7. If submitting a Modification of a Remedy Operation Status (as per 310 CMR 40.0893(5)), check here to certify that a statement detailing the compliance history for each new person making this submittal is attached.
8. Check here if any non-updatable information provided on this form is incorrect, e.g. Release Address/Location Aid. Send corrections to: BWSC.eDEP@state.ma.us.
9. Check here to certify that the LSP Opinion containing the material facts, data, and other information is attached.



**COMPREHENSIVE RESPONSE ACTION TRANSMITTAL
FORM & PHASE I COMPLETION STATEMENT**

Release Tracking Number

1 - 19320

Pursuant to 310 CMR 40.0484 (Subpart D) and 40.0800 (Subpart H)

G. CERTIFICATION OF PERSON UNDERTAKING RESPONSE ACTIONS:

1. I, _____, attest under the pains and penalties of perjury (i) that I have personally examined and am familiar with the information contained in this submittal, including any and all documents accompanying this transmittal form, (ii) that, based on my inquiry of those individuals immediately responsible for obtaining the information, the material information contained in this submittal is, to the best of my knowledge and belief, true, accurate and complete, and (iii) that I am fully authorized to make this attestation on behalf of the entity legally responsible for this submittal. I/the person or entity on whose behalf this submittal is made am/is aware that there are significant penalties, including, but not limited to, possible fines and imprisonment, for willfully submitting false, inaccurate, or incomplete information.

>if Section B indicates that this is a **Modification of a Remedy Operation Status (ROS)**, I attest under the pains and penalties of perjury that I am fully authorized to act on behalf of all persons performing response actions under the ROS as stated in 310 CMR 40.0893(5)(d) to receive oral and written correspondence from MassDEP with respect to performance of response actions under the ROS, and to receive a statement of fee amount as per 4.03(3).

I understand that any material received by the Primary Representative from MassDEP shall be deemed received by all the persons performing response actions under the ROS, and I am aware that there are significant penalties, including, but not limited to, possible fines and imprisonment, for willfully submitting false, inaccurate or incomplete information.

2. By: _____ 3. Title: _____
Signature

4. For: MICHELLER ENTERPRISES LLC 5. Date: _____
(Name of person or entity recorded in Section D) (mm/dd/yyyy)

6. Check here if the address of the person providing certification is different from address recorded in Section D.

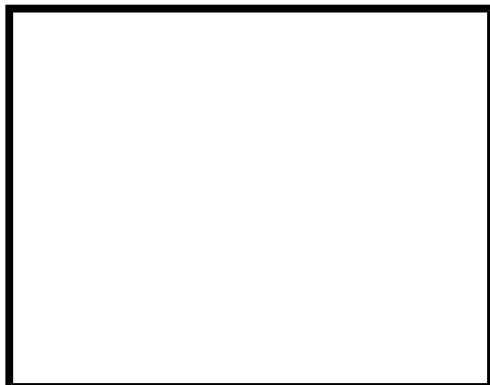
7. Street: _____

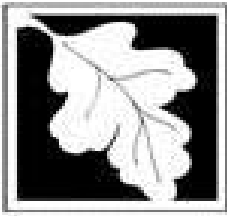
8. City/Town: _____ 9. State: _____ 10. ZIP Code: _____

11. Telephone: _____ 12. Ext.: _____ 13. Email: _____

YOU ARE SUBJECT TO AN ANNUAL COMPLIANCE ASSURANCE FEE OF UP TO \$10,000 PER BILLABLE YEAR FOR THIS DISPOSAL SITE. YOU MUST LEGIBLY COMPLETE ALL RELEVANT SECTIONS OF THIS FORM OR DEP MAY RETURN THE DOCUMENT AS INCOMPLETE. IF YOU SUBMIT AN INCOMPLETE FORM, YOU MAY BE PENALIZED FOR MISSING A REQUIRED DEADLINE.

Date Stamp (DEP USE ONLY:)





TIER CLASSIFICATION TRANSMITTAL FORM

Pursuant to 310 CMR 40.0500 (Subpart E)

Release Tracking Number

1 - 19320

A. DISPOSAL SITE LOCATION:

1. Disposal Site Name: COMMERCIAL BUILDING
2. Street Address: 16 EAST MAIN STREET
3. City/Town: WARE 4. ZIP Code: 010820000
5. Coordinates: Latitude: N 42.25869 Longitude: W 72.23641

B. THIS FORM IS BEING USED TO: (check all that apply)

- 1. Submit a new **Tier Classification Submittal**, including a **Tier Classification Compliance History** (BWSC107B). Check the tier classification category:
 - a. Tier I
 - b. Tier II
 - c. Check all Tier I criteria that apply, pursuant to 310 CMR 40.0520(2):
 - i. Groundwater is located within an Interim Wellhead Protection Area, Zone II, or within 500 feet of a Private Water Supply Well, and there is evidence of groundwater contamination by an Oil or Hazardous Material at the time of Tier Classification at concentrations equal to or exceeding the applicable RCGW-1 Reportable Concentration set forth in 310 CMR 40.0360.
 - ii. An Imminent Hazard is present at the time of Tier Classification.
 - iii. One or more remedial actions are required as part of an Immediate Response Action pursuant to 310 CMR 40.0414(2).
 - iv. One or more response actions are required as part of an Immediate Response Action to eliminate or mitigate a Critical Exposure Pathway pursuant to 310 CMR 40.0414(3).
 - d. Check here if including an **Eligible Person, Eligible Tenant, or Other Person Certification** (BWSC107D)
- 2. Submit a **Phase I Completion Statement** as per 310 CMR 40.0480.
If previously submitted, provide date _____
mm/dd/yyyy
- 3. Submit a **Phase II Scope of Work** as per 310 CMR 40.0834.
If previously submitted, provide date _____
mm/dd/yyyy
- 4. Submit a **Phase II Conceptual Scope of Work supporting a Tier Classification Submittal**.
- 5. Submit a **Tier Classification Extension Submittal** for Response Actions at a Tier Classified Site including the **Tier Classification Compliance History** (BWSC107B).
- 6. Submit a Tier Classification Transfer Submittal for a change in person(s) undertaking Response Actions at a Tier Classified Site including the **Tier Classification Compliance History** (BWSC107B) and the **Tier Classification Transferor Certification** (BWSC107C).
Proposed effective date of transfer : _____
mm/dd/yyyy



TIER CLASSIFICATION TRANSMITTAL FORM
Pursuant to 310 CMR 40.0500 (Subpart E)

Release Tracking Number
1 - 19320

B. THIS FORM IS BEING USED TO: (cont.)

- ☐ 7. Submit a **Revised Tier Classification Submittal**.
Check the revised Tier Classification Category. If the Tier Classification Category is not changing, indicate the current classification.
 - ☐ a. Tier I ☐ b. Tier II
 - c. Check all Tier I criteria that apply, pursuant to 310 CMR 40.0520(2):
 - ☐ i. Groundwater is located within an Interim Wellhead Protection Area, Zone II, or within 500 feet of a Private Water Supply Well, and there is evidence of groundwater contamination by an Oil or Hazardous Material at the time of Tier Classification at concentrations equal to or exceeding the applicable RCGW-1 Reportable Concentration set forth in 310 CMR 40.0360.
 - ☐ ii. An Imminent Hazard is present at the time of Tier Classification.
 - ☐ iii. One or more remedial actions are required as part of an Immediate Response Action pursuant to 310 CMR 40.0414(2).
 - ☐ iv. One or more response actions are required as part of an Immediate Response Action to eliminate or mitigate a Critical Exposure Pathway pursuant to 310 CMR 40.0414(3).
 - ☐ d. Check here if including an **Eligible Person, Eligible Tenant, or Other Person Certification** (BWSC107D)
- ☐ 8. Provide a **Notice that an additional Release Tracking Number(s) is (are) being linked to this Tier Classified Site** (Primary RTN). Future response actions addressing the Release or Threat of Release notification condition associated with additional Release Tracking Numbers (RTNs) will be conducted as part of the Response Actions planned or ongoing at the Primary Site listed above. For a previously Tier Classified Primary Site, if there is a reasonable likelihood that the addition of the new secondary RTN(s) would change the classification of the site, a **Revised Tier Classification Submittal** must also be made.

Provide Release Tracking Number(s): a. - b. -

All future Response Actions must occur according to the deadlines applicable to the Primary RTN. Use only the Primary RTN when making future submittals for this site unless specifically relating to response actions started before the linking occurred.



TIER CLASSIFICATION TRANSMITTAL FORM
Pursuant to 310 CMR 40.0500 (Subpart E)

Release Tracking Number
1 - 19320

C. LSP SIGNATURE AND STAMP:

I attest under the pains and penalties of perjury that I have personally examined and am familiar with this transmittal form, including any and all documents accompanying this submittal. In my professional opinion and judgment based upon application of (i) the standard of care in 309 CMR 4.02(1), (ii) the applicable provisions of 309 CMR 4.02(2) and (3), and 309 CMR 4.03(2), and (iii) the provisions of 309 CMR 4.03(3), to the best of my knowledge, information and belief,

> if Section B of this form indicates that a **Tier Classification Submittal** is being submitted, this Tier Classification Submittal has been developed in accordance with the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000 and, the response action(s) that is (are) the subject of this submittal (i) has (have) been developed and implemented in accordance with the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000, (ii) is (are) appropriate and reasonable to accomplish the purposes of such response action(s) as set forth in the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000, and (iii) complies(y) with the identified provisions of all orders, permits, and approvals identified in this submittal;

> if Section B of this form indicates that a **Phase I Completion Statement** is being submitted, the response action(s) that is (are) the subject of this submittal (i) has (have) been developed and implemented in accordance with the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000, (ii) is (are) appropriate and reasonable to accomplish the purposes of such response action(s) as set forth in the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000, and (iii) comply(ies) with the identified provisions of all orders, permits, and approvals identified in this submittal;

> if Section B of this form indicates that a **Phase II Scope of Work** is being submitted, the response action(s) that is (are) the subject of this submittal (i) has (have) been developed in accordance with the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000, (ii) is (are) appropriate and reasonable to accomplish the purposes of such response action(s) as set forth in the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000, and (iii) comply(ies) with the identified provisions of all orders, permits, and approvals identified in this submittal;

> if Section B of this form indicates that a **Tier Classification Extension Submittal** or a **Tier Classification Transfer Submittal** is being submitted, the response action(s) that is (are) the subject of this submittal (i) is (are) being implemented in accordance with the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000, (ii) is (are) appropriate and reasonable to accomplish the purposes of such response action (s) as set forth in the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000, and (iii) complies(y) with the identified provisions of all orders, permits, and approvals identified in this submittal.

I am aware that significant penalties may result, including, but not limited to, possible fines and imprisonment, if I submit information which I know to be false, inaccurate or materially incomplete.

1. LSP#: 9908

2. First Name: KEVIN J 3. Last Name: OREILLY

4. Telephone: 413-788-6222 5. Ext.: 105 6. Email:

7. Signature:

8. Date: mm/dd/yyyy 9. LSP Stamp:





TIER CLASSIFICATION TRANSMITTAL FORM
Pursuant to 310 CMR 40.0500 (Subpart E)

Release Tracking Number
1 - 19320

D. PERSON MAKING SUBMITTAL:

1. Check all that apply: a. change in contact name b. change of address c. change in the person undertaking response actions

2. Name of Organization: MICHELLER ENTERPRISES LLC

3. Contact First Name: ATTILLA 4. Last Name: MICHELLER

5. Street: 534 W 1ST AVE 6. Title: _____

7. City/Town: ROSELLE 8. State: NJ 9. ZIP Code: 072031087

10. Telephone: _____ 11. Ext.: _____ 12. Email: _____

E. RELATIONSHIP OF PERSON MAKING SUBMITTAL TO DISPOSAL SITE: Check here to change relationship

1. RP or PRP a. Owner b. Operator c. Generator d. Transporter

e. Other RP or PRP Specify: _____

2. Fiduciary, Secured Lender or Municipality with Exempt Status (as defined by M.G.L. c. 21E, s. 2)

3. Agency or Public Utility on a Right of Way (as defined by M.G.L. c. 21E, s. 5(j))

4. Any Other Person Making Submittal Specify Relationship: _____

F. REQUIRED ATTACHMENT AND SUBMITTALS:

- 1. Check here if the Response Action(s) on which this opinion is based, if any, are (were) subject to any order(s), permit(s) and/or approval(s) issued by DEP or EPA. If the box is checked, you MUST attach a statement identifying the applicable provisions thereof.
- 2. Check here to certify that the Chief Municipal Officer and the Local Board of Health have been notified of the submittal of any Phase Reports to DEP.
- 3. Check here to certify that a copy of the Legal Notice of a Tier Classification or Re-classification Submittal is attached, and a cover letter and a copy of the notice is sent to the Chief Municipal Officer and the Local Board of Health pursuant to 310 CMR 40.0510(3) and 40.1403.
- 4. Check here to certify that the owner of a Public Water Supply has been provided written notice pursuant to 310 CMR 40.0510(3).
- 5. For a Tier Classification Extension Submittal, check here to certify that a statement summarizing why a Permanent or Temporary Solution has not been achieved at the Disposal Site is attached.
- 6. For a Tier Classification Transfer Submittal, check here to certify that a statement summarizing the reasons for the proposed change in person(s) undertaking the Response Actions is attached. All Response Actions must be completed by the deadline applicable to the person who first filed a Tier Classification Submittal for the Disposal Site.
- 7. Check here if any non-updatable information provided on this form is incorrect, e.g., Release Address/Location Aid. Send corrections to bwsc.edep@state.ma.us.
- 8. Check here to certify that the LSP Opinion containing the material facts, data, and other information is attached.



TIER CLASSIFICATION TRANSMITTAL FORM
Pursuant to 310 CMR 40.0500 (Subpart E)

Release Tracking Number
1 - 19320

G. CERTIFICATION OF PERSON MAKING SUBMITTAL:

1. I, _____, attest under the pains and penalties of perjury (i) that I have personally examined and am familiar with the information contained in this submittal, including any and all documents accompanying this transmittal form, (ii) that, based on my inquiry of those individuals immediately responsible for obtaining the information, the material information contained in this submittal is, to the best of my knowledge and belief, true, accurate and complete, and (iii) that I am fully authorized to make this attestation on behalf of the entity legally responsible for this submittal. I/the person or entity on whose behalf this submittal is made am/is aware that there are significant penalties, including, but not limited to, possible fines and imprisonment, for willfully submitting false, inaccurate, or incomplete information.

If submitting a Tier II Classification, Extension or Transfer, I also attest under the pains and penalties of perjury that (i) I/the person(s) or entity(ies) on whose behalf this submittal is made has/have personally examined and am/is familiar with the requirements of M.G.L. c. 21E and 310 CMR 40.0000; (ii) based upon my inquiry of the/those Licensed Site Professional(s) employed or engaged to render Professional Services for the disposal site which is the subject of this Transmittal Form and of the person(s) or entity(ies) on whose behalf this submittal is made, and my/that person's(s') or entity's(ies') understanding as to the estimated costs of necessary response actions, that/those person (s) or entity(ies) has/have the technical, financial and legal ability to proceed with response actions for such site in accordance with M.G.L. c. 21E, 310 CMR 40.0000 and other applicable requirements; and (iii) that I am fully authorized to make this attestation on behalf of the person(s) or entity(ies) legally responsible for this submittal. I/the person(s) or entity(ies) on whose behalf this submittal is made is aware of the requirements in 310 CMR 40.0172 for notifying the Department in the event that I/the person(s) or entity(ies) on whose behalf this submittal is made learn(s) that it/they is/are unable to proceed with the necessary response actions.

2. By: _____ 3. Title: _____
Signature

4. For: MICHELLER ENTERPRISES LLC 5. Date: _____
(Name of person or entity recorded in Section D) mm/dd/yyyy

6. Check here if the address of the person providing certification is different from address recorded in Section D.

7. Street: _____

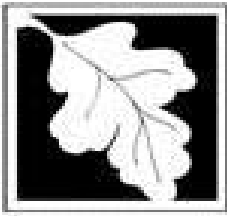
8. City/Town: _____ 9. State: _____ 10. ZIP Code: _____

11. Telephone: _____ 12. Ext.: _____ 13. Email: _____

YOU ARE SUBJECT TO AN ANNUAL COMPLIANCE ASSURANCE FEE OF UP TO \$10,000 PER BILLABLE YEAR FOR THIS DISPOSAL SITE. YOU MUST LEGIBLY COMPLETE ALL RELEVANT SECTIONS OF THIS FORM OR DEP MAY RETURN THE DOCUMENT AS INCOMPLETE. IF YOU SUBMIT AN INCOMPLETE FORM, YOU MAY BE PENALIZED FOR MISSING A REQUIRED DEADLINE.

Date Stamp (DEP USE ONLY):





TIER CLASSIFICATION COMPLIANCE HISTORY

Pursuant to 310 CMR 40.0540 (Subpart E)

Release Tracking Number

1 - 19320

A. DISPOSAL SITE COMPLIANCE HISTORY SUMMARY:

☐ 1. Check here if a Tier Classification Compliance History of the person listed in BWSC107, Section D, was previously submitted, and there has been no change in that person's compliance history, or the person in Section D has no compliance history. If this box is checked, this section does not have to be completed.

2. List all permits or licenses that have been issued by the Department that are relevant to this Disposal Site:

Program	Permit Number	Permit Category	Facility ID
a. Air Quality	NA	NA	NA
b. Hazardous Waste (M.G.L. c. 21C)			
c. Solid Waste			
d. Industrial Wastewater Management			
e. Water Supply			
f. Water Pollution Control/Surface Water			
g. Water Pollution Control/Groundwater			
h. Water Pollution Control/Sewer Connection			
i. Wetland & Waterways			

3. List all other Federal, state or local permits, licenses, certifications, registrations, variances, or approvals that are relevant to this Disposal Site:

Issuing Authority or Program, or Documentation Type	Identification Number	Date Issued mm/dd/yyyy

☐ 4. Check here to certify that, if needed, a statement further describing the Compliance History of this Disposal Site is attached.

This statement must describe the compliance history of the person or entity named in BWSC107, Section D with the following: (1) DEP regulations; and (2) other laws for the protection of health, safety, public welfare and the environment administered or enforced by any other government agency. Such a statement should identify information such as: (1) actions relevant to the Disposal Site taken by the Department to enforce its requirements including, but not limited to, a Notice of Noncompliance (NON), Notice of Intent to Assess Civil Administrative Penalty (PAN), Notice of Intent to Take Response Action (NORA), and an administrative enforcement order; (2) administrative consent orders; (3) judicial consent judgements; (4) similar administrative actions taken by other Federal, state or local agencies; (5) civil or criminal actions relevant to the Disposal Site brought on behalf of the DEP or other Federal, state, or local agencies; and (6) any additional relevant information. For each action identified, provide the following information: (1) name of the issuing authority, type of action, identification number and date issued; (2) description of noncompliance cited; (3) current status of the matter; and (4) final disposition, if any.



Immediate Response Action (IRA) Transmittal Form
Pursuant to 310 CMR 40.0424 - 40.0427 (Subpart D)

Release Tracking Number

1 - 19320

A. SITE LOCATION:

1. Release Name/Location Aid: COMMERCIAL BUILDING

2. Street Address: 16 EAST MAIN STREET

3. City/Town: WARE 4. Zip Code: 010820000

5. Check here if this location is Adequately Regulated, pursuant to 310 CMR 40.0110-0114.

a. CERCLA b. HSWA Corrective Action c. Solid Waste Management

d. RCRA State Program (21C Facilities)

B. THIS FORM IS BEING USED TO: (check all that apply)

1. List Submittal Date of Initial IRA Written Plan (if previously submitted): _____

2. Submit an **Initial IRA Plan**.

3. Submit a **Modified IRA Plan** of a previously submitted written IRA Plan.

4. Submit an **Imminent Hazard Evaluation**. (check one)

a. An Imminent Hazard exists in connection with this Release or Threat of Release.

b. An Imminent Hazard does not exist in connection with this Release or Threat of Release.

c. It is unknown whether an Imminent Hazard exists in connection with this Release or Threat of Release, and further assessment activities will be undertaken.

d. It is unknown whether an Imminent Hazard exists in connection with this Release or Threat of Release. However, response actions will address those conditions that could pose an Imminent Hazard.

5. Submit a request to **Terminate an Active Remedial System or Response Action(s) Taken to Address an Imminent Hazard**.

6. Submit an **IRA Status Report**

7. Submit a **Remedial Monitoring Report**. (This report can only be submitted through eDEP.)

a. Type of Report: (check one) i. Initial Report ii. Interim Report iii. Final Report

b. Frequency of Submittal: (check all that apply)

i. A Remedial Monitoring Report(s) submitted monthly to address an Imminent Hazard.

ii. A Remedial Monitoring Report(s) submitted monthly to address a Condition of Substantial Release Migration.

iii. A Remedial Monitoring Report(s) submitted every six months, concurrent with an IRA Status Report.

iv. A Remedial Monitoring Report(s) submitted annually, concurrent with an IRA Status Report.

c. Number of Remedial Systems and/or Monitoring Programs: _____

A separate BWSC105A, IRA Remedial Monitoring Report, must be filled out for each Remedial System and/or Monitoring Program addressed by this transmittal form.



Immediate Response Action (IRA) Transmittal Form
Pursuant to 310 CMR 40.0424 - 40.0427 (Subpart D)

Release Tracking Number
1 - 19320

8. Submit an **IRA Completion Statement**.

a. Check here if future response actions addressing this Release or Threat of Release notification condition will be conducted as part of the Response Actions planned or ongoing at a Site that has already been Tier Classified under a different Release Tracking Number (RTN)

b. Provide Release Tracking Number of Tier Classified Site (Primary RTN): _____

These additional response actions must occur according to the deadlines applicable to the Primary RTN. Use the Primary RTN when making all future submittals for the site unless specifically relating to this Immediate Response Action.

9. Submit a **Revised IRA Completion Statement**.

10. Submit a **Plan for the Application of Remedial Additives** near a sensitive receptor, pursuant to 310 CMR 40.0046(3).

(All sections of this transmittal form must be filled out unless otherwise noted above)

C. RELEASE OR THREAT OF RELEASE CONDITIONS THAT WARRANT IRA:

1. Media Impacted and Receptors Affected: (check all that apply)

- a. Paved Surface
- b. Basement
- c. School
- d. Public Water Supply
- e. Surface Water
- f. Zone 2
- g. Private Well
- h. Residence
- i. Soil
- j. Groundwater
- k. Sediments
- l. Wetland
- m. Storm Drain
- n. Indoor Air
- o. Air
- p. Soil Gas
- q. Sub-Slab Soil Gas
- r. Critical Exposure Pathway
- s. NAPL
- t. Unknown
- r. Others Specify: PENSTOCK OF A MILL COMPLEX

2. Sources of the Release or TOR: (check all that apply)

- a. Transformer
- b. Fuel Tank
- c. Pipe
- d. OHM Delivery
- e. AST
- f. Drums
- g. Tanker Truck
- h. Hose
- i. Line
- j. UST Describe: _____
- k. Vehicle
- l. Boat/Vessel
- m. Unknown
- n. Other: _____

3. Type of Release or TOR: (check all that apply)

- a. Dumping
- b. Fire
- c. AST Removal
- d. Overfill
- e. Rupture
- f. Vehicle Accident
- g. Leak
- h. Spill
- i. Test failure
- j. TOR Only
- k. UST Removal Describe: _____
- l. Unknown
- m. Other: _____

4. Identify Oils and Hazardous Materials Released: (check all that apply)

- a. Oils
- b. Chlorinated Solvents
- c. Heavy Metals
- d. Others Specify: _____

D. DESCRIPTION OF RESPONSE ACTIONS: (check all that apply, for volumes list cumulative amounts)

- 1. Assessment and/or Monitoring Only
- 2. Temporary Covers or Caps
- 3. Deployment of Absorbent or Containment Materials
- 4. Temporary Water Supplies
- 5. Structure Venting System/HVAC Modification System
- 6. Temporary Evacuation or Relocation of Residents
- 7. Product or NAPL Recovery
- 8. Fencing and Sign Posting
- 9. Groundwater Treatment Systems
- 10. Soil Vapor Extraction
- 11. Remedial Additives
- 12. Air Sparging
- 13. Active Exposure Pathway Mitigation System
- 14. Passive Exposure Pathway Mitigation System



D. DESCRIPTION OF RESPONSE ACTIONS: (cont.)

B 15. Excavation of Contaminated Soils.

B a. Re-use, Recycling or Treatment **E** i. On Site Estimated volume in cubic yards _____

B ii. Off Site Estimated volume in cubic yards 6

iiia. Receiving Facility: ONDRICK MATERIALS & RECYCLING Town: CHICOPEE State: MA

iiib. Receiving Facility: _____ Town: _____ State: _____

iii. Describe: _____

E b. Store **E** i. On Site Estimated volume in cubic yards _____

E ii. Off Site Estimated volume in cubic yards _____

iiia. Receiving Facility: _____ Town: _____ State: _____

iiib. Receiving Facility: _____ Town: _____ State: _____

E c. Landfill **E** i. Cover Estimated volume in cubic yards _____

Receiving Facility: _____ Town: _____ State: _____

E ii. Disposal Estimated volume in cubic yards _____

Receiving Facility: _____ Town: _____ State: _____

E 16. Removal of Drums, Tanks, or Containers:

a. Describe Quantity and Amount: _____

b. Receiving Facility: _____ Town: _____ State: _____

c. Receiving Facility: _____ Town: _____ State: _____

E 17. Removal of Other Contaminated Media:

a. Specify Type and Volume: _____

E 18. Other Response Actions:

Describe: _____

E 19. Use of Innovative Technologies:

Describe: _____



Immediate Response Action (IRA) Transmittal Form
Pursuant to 310 CMR 40.0424 - 40.0427 (Subpart D)

Release Tracking Number
1 - 19320

E. LSP SIGNATURE AND STAMP:

I attest under the pains and penalties of perjury that I have personally examined and am familiar with this transmittal form, including any and all documents accompanying this submittal. In my professional opinion and judgment based upon application of (i) the standard of care in 309 CMR 4.02(1), (ii) the applicable provisions of 309 CMR 4.02(2) and (3), and 309 CMR 4.03(2), and (iii) the provisions of 309 CMR 4.03(3), to the best of my knowledge, information and belief,

> if Section B of this form indicates that an **Immediate Response Action Plan** is being submitted, the response action(s) that is(are) the subject of this submittal (i) has (have) been developed in accordance with the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000, (ii) is(are) appropriate and reasonable to accomplish the purposes of such response action(s) as set forth in the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000 and (iii) complies(y) with the identified provisions of all orders, permits, and approvals identified in this submittal;

> if Section B of this form indicates that an **Imminent Hazard Evaluation** is being submitted, this Imminent Hazard Evaluation was developed in accordance with the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000, and the assessment activity(ies) undertaken to support this Imminent Hazard Evaluation comply(ies) with the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000;

> if Section B of this form indicates that an **Immediate Response Action Status Report** and/or a **Remedial Monitoring Report** is(are) being submitted, the response action(s) that is (are) the subject of this submittal (i) is (are) being implemented in accordance with the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000, (ii) is (are) appropriate and reasonable to accomplish the purposes of such response action(s) as set forth in the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000 and (iii) comply(ies) with the identified provisions of all orders, permits, and approvals identified in this submittal;

> if Section B of this form indicates that an **Immediate Response Action Completion Statement** or a request to **Terminate an Active Remedial System or Response Action(s) Taken to Address an Imminent Hazard** is being submitted, the response action(s) that is(are) the subject of this submittal (i) has (have) been developed and implemented in accordance with the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000, (ii) is(are) appropriate and reasonable to accomplish the purposes of such response action(s) as set forth in the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000 and (iii) comply(ies) with the identified provisions of all orders, permits, and approvals identified in this submittal.

I am aware that significant penalties may result, including, but not limited to, possible fines and imprisonment, if I submit information which I know to be false, inaccurate or materially incomplete.

1. LSP #: 9908 _____

2. First Name: KEVIN J _____ 3. Last Name: OREILLY _____

4. Telephone: 413-788-6222 _____ 5. Ext: 105 _____ 6. Email: _____

7. Signature: _____

8. Date: _____ (mm/dd/yyyy)

9. LSP Stamp:





Immediate Response Action (IRA) Transmittal Form
Pursuant to 310 CMR 40.0424 - 40.0427 (Subpart D)

Release Tracking Number
1 - 19320

F. PERSON UNDERTAKING IRA:

- 1. Check all that apply: a. change in contact name b. change of address c. change in the person undertaking response actions
- 2. Name of Organization: MICHELLER ENTERPRISES LLC
- 3. Contact First Name: ATTILLA 4. Last Name: MICHELLER
- 5. Street: 534 W 1ST AVE 6. Title: _____
- 7. City/Town: ROSELLE 8. State: NJ 9. Zip Code: 072031087
- 10. Telephone: _____ 11. Ext: _____ 12. Email: _____

G. RELATIONSHIP TO RELEASE OR THREAT OF RELEASE OF PERSON UNDERTAKING IRA:

- Check here to change relationship
- 1. RP or PRP a. Owner b. Operator c. Generator d. Transporter
- e. Other RP or PRP Specify Relationship: _____
- 2. Fiduciary, Secured Lender or Municipality with Exempt Status (as defined by M.G.L. c. 21E, s. 2)
- 3. Agency or Public Utility on a Right of Way (as defined by M.G.L. c. 21E, s. 5(j))
- 4. Any Other Person Undertaking Response Actions: Specify Relationship: _____

H. REQUIRED ATTACHMENT AND SUBMITTALS:

- 1. Check here if any Remediation Waste, generated as a result of this IRA, will be stored, treated, managed, recycled or reused at the site following submission of the IRA Completion Statement. If this box is checked, you must submit one of the following plans, along with the appropriate transmittal form.
 - a. A Release Abatement Measure (RAM) Plan (BWSC106) b. Phase IV Remedy Implementation Plan (BWSC108)
- 2. Check here if the Response Action(s) on which this opinion is based, if any, are (were) subject to any order(s), permit(s) and/or approval(s) issued by MassDEP or EPA. If the box is checked, you MUST attach a statement identifying the applicable provisions thereof.
- 3. Check here to certify that the Chief Municipal Officer and the Local Board of Health were notified of the implementation of an Immediate Response Action taken to control, prevent, abate or eliminate an Imminent Hazard.
- 4. Check here to certify that the Chief Municipal Officer and the Local Board of Health were notified of the submittal of a Completion Statement for an Immediate Response Action taken to control, prevent, abate or eliminate an Imminent Hazard.
- 5. Check here if any non-updatable information provided on this form is incorrect, e.g. Release Address/Location Aid. Send corrections to BWSC.eDEP@state.ma.us.
- 6. Check here to certify that the LSP Opinion containing the material facts, data, and other information is attached.



I. CERTIFICATION OF PERSON UNDERTAKING IRA:

1. I, _____, attest under the pains and penalties of perjury (i) that I have personally examined and am familiar with the information contained in this submittal, including any and all documents accompanying this transmittal form; (ii) that, based on my inquiry of the/those individual(s) immediately responsible for obtaining the information, the material information contained herein is, to the best of my knowledge, information and belief, true, accurate and complete; (iii) that, to the best of my knowledge, information and belief, I/the person(s) or entity(ies) on whose behalf this submittal is made satisfy(ies) the criteria in 310 CMR 40.0183(2); (iv) that I/the person(s) or entity(ies) on whose behalf this submittal is made have provided notice in accordance with 310 CMR 40.0183(5); and (v) that I am fully authorized to make this attestation on behalf of the person(s) or entity(ies) legally responsible for this submittal. I/the person(s) or entity(ies) on whose behalf this submittal is made is/are aware that there are significant penalties, including, but not limited to, possible fines and imprisonment, for willfully submitting false, inaccurate, or incomplete information.

2. By: _____ 3. Title: _____

4. For: MICHELLER ENTERPRISES LLC 5. Date: _____ (mm/dd/yyyy)

6. Check here if the address of the person providing certification is different from address recorded in Section F.

7. Street: _____

8. City/Town: _____ 9. State: _____ 10. Zip Code: _____

11. Telephone: _____ 12. Ext: _____ 13. Email: _____

YOU ARE SUBJECT TO AN ANNUAL COMPLIANCE ASSURANCE FEE OF UP TO \$10,000 PER BILLABLE YEAR FOR THIS DISPOSAL SITE. YOU MUST LEGIBLY COMPLETE ALL RELEVANT SECTIONS OF THIS FORM OR DEP MAY RETURN THE DOCUMENT AS INCOMPLETE. IF YOU SUBMIT AN INCOMPLETE FORM, YOU MAY BE PENALIZED FOR MISSING A REQUIRED DEADLINE.

Date Stamp (DEP USE ONLY:)

APPENDIX C
PRIORITY RESOURCES MAP

MassDEP - Bureau of Waste Site Cleanup

Phase 1 Site Assessment Map: 500 feet & 0.5 Mile Radii

Site Information:

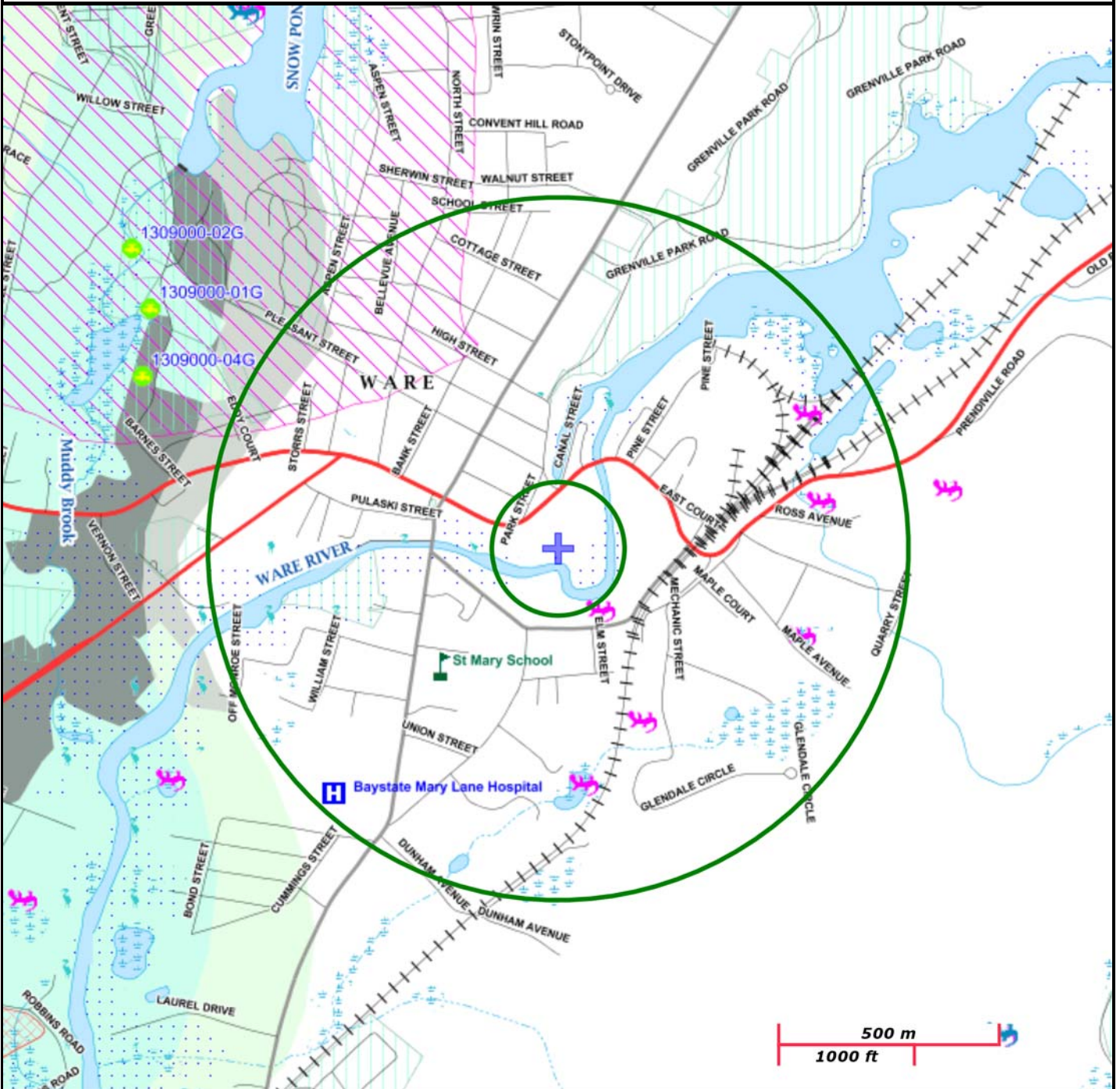
16 EAST MAIN STREET WARE, MA

NAD83 UTM Meters:
4682196mN, 727940mE (Zone: 18)
December 18, 2015

The information shown is the best available at the date of printing. However, it may be incomplete. The responsible party and LSP are ultimately responsible for ascertaining the true conditions surrounding the site. Metadata for data layers shown on this map can be found at: <http://www.mass.gov/mgis/>.



MassDEP
Commonwealth of Massachusetts
Department of Environmental Protection



Roads: Limited Access, Divided, Other Hwy, Major Road, Minor Road, Track, Trail	PWS Protection Areas: Zone II, IWPA, Zone A		
Boundaries: Town, County, DEP Region; Train; Powerline; Pipeline; Aqueduct	Hydrography: Open Water, PWS Reservoir, Tidal Flat		
Basins: Major, PWS; Streams: Perennial, Intermittent, Man Made Shore, Dam	Wetlands: Freshwater, Saltwater, Cranberry Bog		
Aquifers: Medium Yield, High Yield, EPA Sole Source	FEMA 100yr Floodplain; Protected Open Space; ACEC		
Non Potential Drinking Water Source Area: Medium, High (Yield)	Est. Rare Wetland Wildlife Hab; Vernal Pool: Cert., Potential		
	Solid Waste Landfill; PWS: Com.GW,SW, Emerg., Non-Com.		

APPENDIX D
LABORATORY REPORTS

November 9, 2015

Tom Speight
OTO Associates
293 Bridge St. Suite 500
Springfield, MA 01103

Project Location: 16 E. Main St. Ware, MA
Client Job Number:
Project Number: 2550-01-03
Laboratory Work Order Number: 15J1520

Enclosed are results of analyses for samples received by the laboratory on October 30, 2015. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, reading "Meghan E. Kelley". The signature is written in a cursive style with a large, sweeping 'y' at the end.

Meghan E. Kelley
Project Manager

Table of Contents

Sample Summary	3
Case Narrative	4
Sample Results	5
Sample Preparation Information	8
QC Data	9
Air Petroleum Hydrocarbons Analyses	9
B134830	9
B134942	10
Flag/Qualifier Summary	11
Internal standard Area & RT Summary	12
Continuing Calibration Check	14
Certifications	16
Chain of Custody/Sample Receipt	17

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

OTO Associates
293 Bridge St. Suite 500
Springfield, MA 01103
ATTN: Tom Speight

REPORT DATE: 11/9/2015

PURCHASE ORDER NUMBER:

PROJECT NUMBER: 2550-01-03

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 15J1520

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

PROJECT LOCATION: 16 E. Main St. Ware, MA

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
BB office	15J1520-01	Indoor air		MADEP APH rev 1	
BB cellar	15J1520-02	Indoor air		MADEP APH rev 1	
Penstock air	15J1520-03	Indoor air		MADEP APH rev 1	

CASE NARRATIVE SUMMARY

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

MADEP APH rev 1

Qualifications:

V-05

Continuing calibration did not meet method specifications and was biased on the low side for this compound. Increased uncertainty is associated with the reported value which is likely to be biased on the low side.

Analyte & Sample(s) Qualified:

Naphthalene

15J1520-01[BB office], 15J1520-02[BB cellar], 15J1520-03[Penstock air], B134830-BLK1, B134830-BS1, B134942-BLK1, B134942-BS1, S009951-CCV1, S009957-CCV1

MADEP APH rev 1

No significant modifications were made to the APH method.

All performance/acceptance standards for required QA/QC procedures were achieved unless otherwise indicated in this case narrative.

The results of analyses reported only relate to samples submitted to the Con-Test Analytical Laboratory for testing.

I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.



Tod E. Kopyscinski
Laboratory Director

ANALYTICAL RESULTS

Project Location: 16 E. Main St. Ware, MA
 Date Received: 10/30/2015
Field Sample #: BB office
Sample ID: 15J1520-01
 Sample Matrix: Indoor air
 Sampled: 10/29/2015 12:45

Sample Description/Location:
 Sub Description/Location:
 Canister ID: 1678
 Canister Size: 6 liter
 Flow Controller ID: 4610
 Sample Type: 4 hr

Work Order: 15J1520
 Initial Vacuum(in Hg): -29
 Final Vacuum(in Hg): -4
 Receipt Vacuum(in Hg): -10.2
 Flow Controller Type: Fixed-Orifice
 Flow Controller Calibration
 RPD Pre and Post-Sampling: <20%

MADEP APH rev 1

Analyte	ppbv		Flag/Qual	ug/m3		Dilution	Date/Time		Analyst
	Results	RL		Results	RL		Analyzed		
Benzene	0.32	0.13		1.0	0.41	0.678	11/5/15 22:31	CMR	
1,3-Butadiene	ND	0.13		ND	0.28	0.678	11/5/15 22:31	CMR	
Ethylbenzene	ND	0.13		ND	0.55	0.678	11/5/15 22:31	CMR	
Methyl tert-Butyl Ether (MTBE)	ND	0.13		ND	0.46	0.678	11/5/15 22:31	CMR	
Toluene	0.96	0.13		3.6	0.48	0.678	11/5/15 22:31	CMR	
Naphthalene	ND	0.11	V-05	ND	0.59	0.678	11/5/15 22:31	CMR	
m&p-Xylene	0.39	0.13		1.7	0.55	0.678	11/5/15 22:31	CMR	
o-Xylene	ND	0.13		ND	0.55	0.678	11/5/15 22:31	CMR	
C5-C8 Aliphatics				110	5.8	0.678	11/5/15 22:31	CMR	
C9-C10 Aromatics				ND	6.4	0.678	11/5/15 22:31	CMR	
C9-C12 Aliphatics				22	9.0	0.678	11/5/15 22:31	CMR	

Surrogates	% Recovery	% REC Limits	
4-Bromofluorobenzene (4)	111	70-130	11/5/15 22:31

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ANALYTICAL RESULTS

Project Location: 16 E. Main St. Ware, MA
 Date Received: 10/30/2015
Field Sample #: BB cellar
Sample ID: 15J1520-02
 Sample Matrix: Indoor air
 Sampled: 10/29/2015 12:45

Sample Description/Location:
 Sub Description/Location:
 Canister ID: 1253
 Canister Size: 6 liter
 Flow Controller ID: 4611
 Sample Type: 4 hr

Work Order: 15J1520
 Initial Vacuum(in Hg): -30
 Final Vacuum(in Hg): -5
 Receipt Vacuum(in Hg): -11.2
 Flow Controller Type: Fixed-Orifice
 Flow Controller Calibration
 RPD Pre and Post-Sampling: <20%

MADEP APH rev 1

Analyte	ppbv		Flag/Qual	ug/m3		Dilution	Date/Time		Analyst
	Results	RL		Results	RL		Analyzed		
Benzene	0.20	0.13		0.65	0.41	0.678	11/6/15	22:52	TPH
1,3-Butadiene	ND	0.13		ND	0.28	0.678	11/6/15	22:52	TPH
Ethylbenzene	ND	0.13		ND	0.55	0.678	11/6/15	22:52	TPH
Methyl tert-Butyl Ether (MTBE)	ND	0.13		ND	0.46	0.678	11/6/15	22:52	TPH
Toluene	0.74	0.13		2.8	0.48	0.678	11/6/15	22:52	TPH
Naphthalene	ND	0.11	V-05	ND	0.59	0.678	11/6/15	22:52	TPH
m&p-Xylene	0.38	0.13		1.7	0.55	0.678	11/6/15	22:52	TPH
o-Xylene	0.14	0.13		0.60	0.55	0.678	11/6/15	22:52	TPH
C5-C8 Aliphatics				39	5.8	0.678	11/6/15	22:52	TPH
C9-C10 Aromatics				ND	6.4	0.678	11/6/15	22:52	TPH
C9-C12 Aliphatics				11	9.0	0.678	11/6/15	22:52	TPH

Surrogates	% Recovery	% REC Limits	
4-Bromofluorobenzene (4)	115	70-130	11/6/15 22:52

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ANALYTICAL RESULTS

Project Location: 16 E. Main St. Ware, MA
 Date Received: 10/30/2015
Field Sample #: Penstock air
Sample ID: 15J1520-03
 Sample Matrix: Indoor air
 Sampled: 10/29/2015 13:01

Sample Description/Location:
 Sub Description/Location:
 Canister ID: 1119
 Canister Size: 6 liter
 Flow Controller ID: 5001
 Sample Type: Grab

Work Order: 15J1520
 Initial Vacuum(in Hg): -29
 Final Vacuum(in Hg): -4
 Receipt Vacuum(in Hg): -5.6
 Flow Controller Type: Fixed-Orifice
 Flow Controller Calibration
 RPD Pre and Post-Sampling: <20%

MADEP APH rev 1

Analyte	ppbv		Flag/Qual	ug/m3		Dilution	Date/Time		Analyst
	Results	RL		Results	RL		Analyzed		
Benzene	ND	0.13		ND	0.41	0.678	11/6/15	0:12	CMR
1,3-Butadiene	ND	0.13		ND	0.28	0.678	11/6/15	0:12	CMR
Ethylbenzene	ND	0.13		ND	0.55	0.678	11/6/15	0:12	CMR
Methyl tert-Butyl Ether (MTBE)	ND	0.13		ND	0.46	0.678	11/6/15	0:12	CMR
Toluene	0.56	0.13		2.1	0.48	0.678	11/6/15	0:12	CMR
Naphthalene	ND	0.11	V-05	ND	0.59	0.678	11/6/15	0:12	CMR
m&p-Xylene	ND	0.13		ND	0.55	0.678	11/6/15	0:12	CMR
o-Xylene	ND	0.13		ND	0.55	0.678	11/6/15	0:12	CMR
C5-C8 Aliphatics				36	5.8	0.678	11/6/15	0:12	CMR
C9-C10 Aromatics				ND	6.4	0.678	11/6/15	0:12	CMR
C9-C12 Aliphatics				49	9.0	0.678	11/6/15	0:12	CMR

Surrogates	% Recovery	% REC Limits	
4-Bromofluorobenzene (4)	109	70-130	11/6/15 0:12

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Sample Extraction Data

Prep Method: APH Prep-MADEPAPH rev 1

Lab Number [Field ID]	Batch	Pressure Dilution	Pre Dilution	Pre-Dil Initial mL	Pre-Dil Final mL	Default Injection mL	Actual Injection mL	Date
15J1520-01 [BB office]	B134830	1.5	1	N/A	1000	400	885	11/05/15
15J1520-03 [Penstock air]	B134830	1.5	1	N/A	1000	400	885	11/05/15

Prep Method: APH Prep-MADEPAPH rev 1

Lab Number [Field ID]	Batch	Pressure Dilution	Pre Dilution	Pre-Dil Initial mL	Pre-Dil Final mL	Default Injection mL	Actual Injection mL	Date
15J1520-02 [BB cellar]	B134942	1.5	1	N/A	1000	400	885	11/06/15

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QUALITY CONTROL

Air Petroleum Hydrocarbons Analyses - Quality Control

Analyte	ppbv		ug/m3		Spike Level	Source	%REC	%REC	RPD	RPD	Flag/Qual
	Results	RL	Results	RL	ppbv	Result	Limits	RPD	Limit		
Batch B134830 - APH Prep											
Blank (B134830-BLK1)											
						Prepared & Analyzed: 11/05/15					
Benzene	ND	0.13									
1,3-Butadiene	ND	0.13									
Ethylbenzene	ND	0.13									
Methyl tert-Butyl Ether (MTBE)	ND	0.13									
Toluene	ND	0.13									
Naphthalene	ND	0.11									V-05
m&p-Xylene	ND	0.13									
o-Xylene	ND	0.13									
C5-C8 Aliphatics				ND							
C5-C8 Aliphatics (ug/m ³)				ND							
C9-C10 Aromatics				ND							
C9-C10 Aromatics (ug/m ³)				ND							
C9-C12 Aliphatics				ND							
C9-C12 Aliphatics (ug/m ³)				ND							
<i>Surrogate: 4-Bromofluorobenzene (4)</i>	<i>8.54</i>				<i>8.00</i>		<i>107</i>	<i>70-130</i>			
LCS (B134830-BS1)											
						Prepared & Analyzed: 11/05/15					
Benzene	9.86				9.38		105	70-130			
1,3-Butadiene	7.14				9.38		76.1	70-130			
Decane	10.9				9.38		116	70-130			
Ethylbenzene	10.6				9.38		113	70-130			
Heptane	9.98				9.38		106	70-130			
Methyl tert-Butyl Ether (MTBE)	12.2				9.38		130	70-130			
Toluene	10.5				9.38		111	70-130			
1,3,5-Trimethylbenzene	10.8				9.38		115	70-130			
Naphthalene	13.3				9.38		141	50-150			V-05
m&p-Xylene	10.5				9.38		111	70-130			
o-Xylene	10.9				9.38		116	70-130			
<i>Surrogate: 4-Bromofluorobenzene (4)</i>	<i>9.05</i>				<i>8.00</i>		<i>113</i>	<i>70-130</i>			

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QUALITY CONTROL

Air Petroleum Hydrocarbons Analyses - Quality Control

Analyte	ppbv		ug/m3		Spike Level	Source	%REC	%REC	RPD	RPD	Flag/Qual
	Results	RL	Results	RL	ppbv	Result	%REC	Limits	RPD	Limit	
Batch B134942 - APH Prep											
Blank (B134942-BLK1)						Prepared & Analyzed: 11/06/15					
Benzene	ND	0.13									
1,3-Butadiene	ND	0.13									
Ethylbenzene	ND	0.13									
Methyl tert-Butyl Ether (MTBE)	ND	0.13									
Toluene	ND	0.13									
Naphthalene	ND	0.11									V-05
m&p-Xylene	ND	0.13									
o-Xylene	ND	0.13									
C5-C8 Aliphatics				ND							
C9-C10 Aromatics				ND							
C9-C12 Aliphatics				ND							
<i>Surrogate: 4-Bromofluorobenzene (4)</i>	<i>9.06</i>				<i>8.00</i>		<i>113</i>	<i>70-130</i>			
LCS (B134942-BS1)						Prepared & Analyzed: 11/06/15					
Benzene	8.96				9.38		95.6	70-130			
1,3-Butadiene	6.80				9.38		72.5	70-130			
Decane	9.98				9.38		106	70-130			
Ethylbenzene	9.03				9.38		96.3	70-130			
Heptane	9.30				9.38		99.1	70-130			
Methyl tert-Butyl Ether (MTBE)	11.4				9.38		122	70-130			
Toluene	9.46				9.38		101	70-130			
1,3,5-Trimethylbenzene	8.99				9.38		95.8	70-130			
Naphthalene	11.8				9.38		126	50-150			V-05
m&p-Xylene	8.75				9.38		93.2	70-130			
o-Xylene	9.32				9.38		99.3	70-130			
<i>Surrogate: 4-Bromofluorobenzene (4)</i>	<i>9.20</i>				<i>8.00</i>		<i>115</i>	<i>70-130</i>			

FLAG/QUALIFIER SUMMARY

- * QC result is outside of established limits.
 - † Wide recovery limits established for difficult compound.
 - ‡ Wide RPD limits established for difficult compound.
 - # Data exceeded client recommended or regulatory level
- Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.
No results have been blank subtracted unless specified in the case narrative section.
- V-05 Continuing calibration did not meet method specifications and was biased on the low side for this compound.
Increased uncertainty is associated with the reported value which is likely to be biased on the low side.

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

INTERNAL STANDARD AREA AND RT SUMMARY

MADEPAPH rev 1

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Calibration Check (S009951-CCV1)			Lab File ID: B110505.D			Analyzed: 11/05/15 17:07			
Bromochloromethane (4)	244886	8.249	252616	8.28	97	50 - 200	-0.0310	+/-0.50	
1,4-Difluorobenzene (4)	493394	10.136	437111	10.173	113	50 - 200	-0.0370	+/-0.50	
Chlorobenzene-d5 (4)	427247	14.9	374963	14.954	114	50 - 200	-0.0540	+/-0.50	
LCS (B134830-BS1)			Lab File ID: B110506.D			Analyzed: 11/05/15 17:46			
Bromochloromethane (4)	240801	8.248	244886	8.249	98	50 - 200	-0.0010	+/-0.50	
1,4-Difluorobenzene (4)	482933	10.141	493394	10.136	98	50 - 200	0.0050	+/-0.50	
Chlorobenzene-d5 (4)	416331	14.905	427247	14.9	97	50 - 200	0.0050	+/-0.50	
Blank (B134830-BLK1)			Lab File ID: B110509.D			Analyzed: 11/05/15 20:00			
Bromochloromethane (4)	222358	8.258	244886	8.249	91	50 - 200	0.0090	+/-0.50	
1,4-Difluorobenzene (4)	431440	10.139	493394	10.136	87	50 - 200	0.0030	+/-0.50	
Chlorobenzene-d5 (4)	371708	14.904	427247	14.9	87	50 - 200	0.0040	+/-0.50	
BB office (15J1520-01)			Lab File ID: B110511.D			Analyzed: 11/05/15 22:31			
Bromochloromethane (4)	233588	8.253	244886	8.249	95	50 - 200	0.0040	+/-0.50	
1,4-Difluorobenzene (4)	447611	10.14	493394	10.136	91	50 - 200	0.0040	+/-0.50	
Chlorobenzene-d5 (4)	398947	14.899	427247	14.9	93	50 - 200	-0.0010	+/-0.50	
Penstock air (15J1520-03)			Lab File ID: B110513.D			Analyzed: 11/06/15 00:12			
Bromochloromethane (4)	169138	8.25	244886	8.249	69	50 - 200	0.0010	+/-0.50	
1,4-Difluorobenzene (4)	372304	10.137	493394	10.136	75	50 - 200	0.0010	+/-0.50	
Chlorobenzene-d5 (4)	397060	14.902	427247	14.9	93	50 - 200	0.0020	+/-0.50	

INTERNAL STANDARD AREA AND RT SUMMARY

MADEPAPH rev 1

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Calibration Check (S009957-CCV1)			Lab File ID: B110605.D			Analyzed: 11/06/15 17:03			
Bromochloromethane (4)	225608	8.253	252616	8.28	89	50 - 200	-0.0270	+/-0.50	
1,4-Difluorobenzene (4)	450478	10.14	437111	10.173	103	50 - 200	-0.0330	+/-0.50	
Chlorobenzene-d5 (4)	390988	14.899	374963	14.954	104	50 - 200	-0.0550	+/-0.50	
LCS (B134942-BS1)			Lab File ID: B110606.D			Analyzed: 11/06/15 17:42			
Bromochloromethane (4)	213668	8.253	225608	8.253	95	50 - 200	0.0000	+/-0.50	
1,4-Difluorobenzene (4)	429401	10.14	450478	10.14	95	50 - 200	0.0000	+/-0.50	
Chlorobenzene-d5 (4)	374336	14.905	390988	14.899	96	50 - 200	0.0060	+/-0.50	
Blank (B134942-BLK1)			Lab File ID: B110609.D			Analyzed: 11/06/15 20:02			
Bromochloromethane (4)	224603	8.253	225608	8.253	100	50 - 200	0.0000	+/-0.50	
1,4-Difluorobenzene (4)	443778	10.134	450478	10.14	99	50 - 200	-0.0060	+/-0.50	
Chlorobenzene-d5 (4)	368442	14.899	390988	14.899	94	50 - 200	0.0000	+/-0.50	

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INTERNAL STANDARD AREA AND RT SUMMARY

MADEPAPH rev 1

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
BB cellar (15J1520-02)			Lab File ID: B110610.D			Analyzed: 11/06/15 22:52			
Bromochloromethane (4)	211684	8.248	225608	8.253	94	50 - 200	-0.0050	+/-0.50	
1,4-Difluorobenzene (4)	406544	10.135	450478	10.14	90	50 - 200	-0.0050	+/-0.50	
Chlorobenzene-d5 (4)	351973	14.9	390988	14.899	90	50 - 200	0.0010	+/-0.50	

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CONTINUING CALIBRATION CHECK
MADEP APH rev 1

S009951-CCV1

COMPOUND	TYPE	CONC. (ppbv)		RESPONSE FACTOR			% DIFF / DRIFT	
		STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
Benzene	A	9.38	8.96	0.788663	0.7537107	0.05	-4.4	30
1,3-Butadiene	A	9.38	7.83	0.3156076	0.2633173	0.05	-16.6	30
Ethylbenzene	A	9.38	9.53	1.194193	1.213867	0.05	1.6	30
Methyl tert-Butyl Ether (MTBE)	A	9.38	11.4	1.141456	1.39241	0.05	22.0	30
Toluene	A	9.38	9.48	0.7724277	0.7809534	0.05	1.1	30
Naphthalene	A	9.38	5.67	0.937891	0.5670978	0.05	-39.5	30 *
m&p-Xylene	A	9.38	9.41	0.9464494	0.9495973	0.05	0.3	30
o-Xylene	A	9.38	9.60	0.9181589	0.9398457	0.05	2.4	30
C5-C8 Aliphatics (µg/m³)	A	214	222	0.518912	0.5385426	0.05	3.8	30
C9-C10 Aromatics (µg/m³)	A	236	211	7.769163E-02	6.958464E-02	0.05	-10.4	30
C9-C12 Aliphatics (µg/m³)	A	333	308	0.6254355	0.5781573	0.05	-7.6	30

Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

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CONTINUING CALIBRATION CHECK
MADEP APH rev 1

S009957-CCV1

COMPOUND	TYPE	CONC. (ppbv)		RESPONSE FACTOR			% DIFF / DRIFT	
		STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
Benzene	A	9.38	8.17	0.788663	0.6866187	0.05	-12.9	30
1,3-Butadiene	A	9.38	7.34	0.3156076	0.2469177	0.05	-21.8	30
Ethylbenzene	A	9.38	8.20	1.194193	1.044034	0.05	-12.6	30
Methyl tert-Butyl Ether (MTBE)	A	9.38	10.2	1.141456	1.241185	0.05	8.7	30
Toluene	A	9.38	8.56	0.7724277	0.7047903	0.05	-8.8	30
Naphthalene	A	9.38	4.92	0.937891	0.491825	0.05	-47.6	30 *
m&p-Xylene	A	9.38	7.70	0.9464494	0.7769067	0.05	-17.9	30
o-Xylene	A	9.38	8.17	0.9181589	0.8002776	0.05	-12.8	30
C5-C8 Aliphatics (µg/m³)	A	214	205	0.518912	0.4980001	0.05	-4.0	30
C9-C10 Aromatics (µg/m³)	A	236	170	7.769163E-02	5.603883E-02	0.05	-27.9	30
C9-C12 Aliphatics (µg/m³)	A	333	270	0.6254355	0.5064817	0.05	-19.0	30

Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
<i>MADEP APH rev 1 in Air</i>	
Benzene	ME
1,3-Butadiene	ME
Ethylbenzene	ME
Methyl tert-Butyl Ether (MTBE)	ME
Toluene	ME
Naphthalene	ME
m&p-Xylene	ME
o-Xylene	ME
C5-C8 Aliphatics	ME
C9-C10 Aromatics	ME
C9-C12 Aliphatics	ME

The CON-TEST Environmental Laboratory operates under the following certifications and accreditations:

Code	Description	Number	Expires
AIHA	AIHA-LAP, LLC	100033	02/1/2016
MA	Massachusetts DEP	M-MA100	06/30/2016
CT	Connecticut Department of Public Health	PH-0567	09/30/2017
NY	New York State Department of Health	10899 NELAP	04/1/2016
NH-S	New Hampshire Environmental Lab	2516 NELAP	02/5/2016
RI	Rhode Island Department of Health	LAO00112	12/30/2015
NC	North Carolina Div. of Water Quality	652	12/31/2015
NJ	New Jersey DEP	MA007 NELAP	06/30/2016
FL	Florida Department of Health	E871027 NELAP	06/30/2016
VT	Vermont Department of Health Lead Laboratory	LL015036	07/30/2016
WA	State of Washington Department of Ecology	C2065	02/23/2016
ME	State of Maine	2011028	06/9/2017
VA	Commonwealth of Virginia	460217	12/14/2015
NH-P	New Hampshire Environmental Lab	2557 NELAP	09/6/2016



AIR Only Receipt Checklist

CLIENT NAME: OTO RECEIVED BY: PLF DATE: 10/30/15

- 1) Was the chain(s) of custody relinquished and signed? Yes No
- 2) Does the chain agree with the samples? Yes No
 If not, explain:
- 3) Are all the samples in good condition? Yes No
 If not, explain:
- 4) Are there any samples "On Hold"? Yes No Stored where:
- 5) Are there any RUSH or SHORT HOLDING TIME samples? Yes No
 Who was notified _____ Date _____ Time _____

6) Location where samples are stored:
 Permission to subcontract samples? Yes No
 (Walk-in clients only) if not already approved
 Client Signature: _____

7) Number of cans Individually Certified or Batch Certified? none

Containers received at Con-Test		
	# of Containers	Types (Size, Duration)
Summa Cans (TO-14/TO-15/APH)	3	CEL
Tedar Bags		
TO-17 Tubes		
Regulators	3	4 hr / grab
Restrictors		
Hg/Hopcalite Tube (NIOSH 6009)		
(TO-4A/ TO-10A/TO-13) PUFs		
PCB Florisil Tubes (NIOSH 5503)		
Air cassette		
PM 2.5/PM 10		
TO-11A Cartridges		
Other		

Unused Summas/PUF Media:

Unused Regulators:

- 1) Was all media (used & unused) checked into the WASP?
- 2) Were all returned summa cans, Restrictors & Regulators and PUF's documented as returned in the Air Lab Inbound/Outbound Excel Spreadsheet?

Laboratory Comments: } 1678 1253 1119 4610 4611 5001

Login Sample Receipt Checklist

(Rejection Criteria Listing - Using Sample Acceptance Policy)

Any False statement will be brought to the attention of Client

<u>Question</u>	<u>Answer (True/False)</u>		<u>Comment</u>
	<u>T/F/NA</u>		
1) The coolers'/boxes' custody seal, if present, is intact.	T		
2) The cooler or samples do not appear to have been compromised or tampered with.	T		
3) Samples were received on ice.	NA		
4) Cooler Temperature is acceptable.	NA		
5) Cooler Temperature is recorded.	NA		
6) COC is filled out in ink and legible.	T		
7) COC is filled out with all pertinent information.	T		
8) Field Sampler's name present on COC.	T		
9) Samples are received within Holding Time.	T		
10) Sample containers have legible labels.	T		
11) Containers/media are not broken or leaking and valves and caps are closed tightly.	T		
12) Sample collection date/times are provided.	T		
13) Appropriate sample/media containers are used.	T		
14) There is sufficient volume for all requested analyses, including any requested MS/MSDs.	T		
15) Trip blanks provided if applicable.	T		

Doc #278 Rev. 5 October 2014

Who notified of False statements?

Log-In Technician Initials:

Date/Time:

Date/Time:

PLF 10/30/15 1530



Air Sampling Media Certificate of Analysis

Date Analyzed: 8/7/2015 **Batch #:** 15CC370

Certification Type: *Batch Certified* *Individual Certified*

Media Type: *Summa Canister* *Flow Controllers*

Media IDs: 1678 1253 _____

Note: Two ID's grouped together, for example BC2136/BC3145, represents matched pairs of certified summa canisters and flow controllers.

Units:

PPBv	Ug/M3
RL	RL
<0.08	<0.17
<0.08	<0.27
<0.08	<0.24
<0.08	<0.28
<0.08	<0.33
<0.08	<0.33
<0.08	<0.33
<0.07	<0.39
	<3.4
	<5.3
	<3.8

Special Notes: _____

Analyst Initials/Date: CMR 11/6/15



Air Sampling Media Certificate of Analysis

Date Analyzed: 9/14/2015 **Batch #:** 15CC408

Certification Type: *Batch Certified* *Individual Certified*

Media Type: *Summa Canister* *Flow Controllers*

Media IDs: 1119 _____

Note: Two ID's grouped together, for example BC2136/BC3145, represents matched pairs of certified summa canisters and flow controllers.

Units:

PPBv		Ug/M3	
RL		RL	
<0.08	1,3-Butadiene	<0.17	1,3-Butadiene
<0.08	Methyl tert-butyl Ether	<0.27	Methyl tert-butyl Ether
<0.08	Benzene	<0.24	Benzene
<0.08	Toluene	<0.28	Toluene
<0.08	Ethylbenzene	<0.33	Ethylbenzene
<0.08	m,p-Xylenes	<0.33	m,p-Xylenes
<0.08	o-Xylene	<0.33	o-Xylene
<0.07	Naphthalene	<0.39	Naphthalene
		<3.4	C5 - C8 Aliphatic Range
		<5.3	C9 - C12 Aliphatic Range
		<3.8	C9 - C10 Aromatic Range

Special Notes: _____

Analyst Initials/Date: CMR 11/6/15

MADEP MCP Analytical Method Report Certification Form

Laboratory Name: Con-Test Analytical Laboratory			Project #: 15J1520		
Project Location: 16 E. Main St. Ware, MA			RTN:		
This Form provides certifications for the following data set: [list Laboratory Sample ID Number(s)] 15J1520-01 thru 15J1520-03					
Matrices: Air					
CAM Protocol (check all that below)					
8260 VOC CAM II A ()	7470/7471 Hg CAM III B ()	MassDEP VPH CAM IV A ()	8081 Pesticides CAM V B ()	7196 Hex Cr CAM VI B ()	MassDEP APH CAM IX A (X)
8270 SVOC CAM II B ()	7010 Metals CAM III C ()	MassDEP EPH CAM IV A ()	8151 Herbicides CAM V C ()	8330 Explosives CAM VIII A ()	TO-15 VOC CAM IX B ()
6010 Metals CAM III A ()	6020 Metals CAM III D ()	8082 PCB CAM V A ()	9014 Total Cyanide/PAC CAM VI A ()	6860 Perchlorate CAM VIII B ()	
Affirmative response to Questions A through F is required for "Presumptive Certainty" status					
A	Were all samples received in a condition consistent with those described on the Chain-of-Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times?				<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No ¹
B	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?				<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No ¹
C	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?				<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No ¹
D	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data?				<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No ¹
E a	VPH, EPH, and APH Methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications).				<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No ¹
E b	APH and TO-15 Methods only: Was the complete analyte list reported for each method?				<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No ¹
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all No responses to Questions A through E)?				<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No ¹
A response to questions G, H and I below is required for "Presumptive Certainty" status					
G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?				<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No ¹
Data User Note: Data that achieve "Presumptive Certainty" status may not necessarily meet the data usability and representativeness requirements described in 310 CMR 40. 1056 (2)(k) and WSC-07-350.					
H	Were all QC performance standards specified in the CAM protocol(s) achieved?				<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No ¹
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?				<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No ¹
¹ All Negative responses must be addressed in an attached Environmental Laboratory case narrative.					
I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this analytical report is, to the best of my knowledge and belief, accurate and complete.					
Signature: <u>Tod Kopyscinski</u>		Position: Laboratory Director			
Printed Name: <u>Tod E. Kopyscinski</u>		Date: <u>11/09/15</u>			

May 19, 2014

Kevin O'Reilly
OTO Associates
293 Bridge St. Suite 500
Springfield, MA 01103

Project Location: Ware
Client Job Number:
Project Number: 2550-01-01
Laboratory Work Order Number: 14E0403

Enclosed are results of analyses for samples received by the laboratory on May 12, 2014. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Meghan E. Kelley
Project Manager

OTO Associates
293 Bridge St. Suite 500
Springfield, MA 01103
ATTN: Kevin O'Reilly

REPORT DATE: 5/19/2014

PURCHASE ORDER NUMBER:

PROJECT NUMBER: 2550-01-01

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 14E0403

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

PROJECT LOCATION: Ware

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
1 (24")	14E0403-01	Soil		SM 2540G SW-846 6010C	
2-1 (12")	14E0403-02	Soil		SM 2540G SW-846 6010C	
3 (6")	14E0403-03	Soil		SM 2540G SW-846 6010C	
4-1 (12")	14E0403-04	Soil		SM 2540G SW-846 6010C	
5-1 (12")	14E0403-05	Soil		SM 2540G SW-846 6010C	
Comp	14E0403-06	Soil		SM 2540G SW-846 1311 SW-846 6010C	

CASE NARRATIVE SUMMARY

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.
For method 6010, only total Cr and Pb for all samples and TCLP Pb for 14E0403-06 were requested and reported.

SW-846 6010C

Qualifications:

The reporting limit verification for the AIHA lead program is outside of control limits for this element. Any reported result at or near the detection limit may be biased on the low side.

Analyte & Samples(s) Qualified:

Lead

14E0403-01[1 (24")], 14E0403-02[2-1 (12")], 14E0403-03[3 (6")], 14E0403-04[4-1 (12")], 14E0403-05[5-1 (12")], 14E0403-06[Comp], B095586-MRL1

The results of analyses reported only relate to samples submitted to the Con-Test Analytical Laboratory for testing.

I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.



Michael A. Erickson
Laboratory Director

Project Location: Ware

Sample Description:

Work Order: 14E0403

Date Received: 5/12/2014

Sampled: 2/20/2014 09:35

Field Sample #: 1 (24")

Sample ID: 14E0403-01

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Chromium	120	0.69	mg/Kg dry	1		SW-846 6010C	5/12/14	5/13/14 22:30	OP
Lead	420	1.0	mg/Kg dry	1	M-12	SW-846 6010C	5/12/14	5/13/14 22:30	OP

Project Location: Ware

Sample Description:

Work Order: 14E0403

Date Received: 5/12/2014

Sampled: 2/20/2014 09:35

Field Sample #: 1 (24")

Sample ID: 14E0403-01

Sample Matrix: Soil

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

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	67.5		% Wt	1		SM 2540G	5/12/14	5/12/14 17:21	AKS

Project Location: Ware

Sample Description:

Work Order: 14E0403

Date Received: 5/12/2014

Sampled: 2/20/2014 10:20

Field Sample #: 2-1 (12")

Sample ID: 14E0403-02

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Chromium	69	0.56	mg/Kg dry	1		SW-846 6010C	5/12/14	5/13/14 22:35	OP
Lead	350	0.84	mg/Kg dry	1	M-12	SW-846 6010C	5/12/14	5/13/14 22:35	OP

Project Location: Ware

Sample Description:

Work Order: 14E0403

Date Received: 5/12/2014

Sampled: 2/20/2014 10:20

Field Sample #: 2-1 (12")

Sample ID: 14E0403-02

Sample Matrix: Soil

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

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	88.8		% Wt	1		SM 2540G	5/12/14	5/12/14 17:21	AKS

Project Location: Ware

Sample Description:

Work Order: 14E0403

Date Received: 5/12/2014

Sampled: 2/20/2014 10:35

Field Sample #: 3 (6")

Sample ID: 14E0403-03

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Chromium	47	0.60	mg/Kg dry	1		SW-846 6010C	5/12/14	5/13/14 22:39	OP
Lead	380	0.90	mg/Kg dry	1	M-12	SW-846 6010C	5/12/14	5/13/14 22:39	OP

Project Location: Ware

Sample Description:

Work Order: 14E0403

Date Received: 5/12/2014

Sampled: 2/20/2014 10:35

Field Sample #: 3 (6")

Sample ID: 14E0403-03

Sample Matrix: Soil

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

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	81.8		% Wt	1		SM 2540G	5/12/14	5/12/14 17:21	AKS

Project Location: Ware

Sample Description:

Work Order: 14E0403

Date Received: 5/12/2014

Sampled: 2/20/2014 13:45

Field Sample #: 4-1 (12")

Sample ID: 14E0403-04

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Chromium	66	0.55	mg/Kg dry	1		SW-846 6010C	5/12/14	5/13/14 22:44	OP
Lead	6.9	0.83	mg/Kg dry	1	M-12	SW-846 6010C	5/12/14	5/13/14 22:44	OP

Project Location: Ware

Sample Description:

Work Order: 14E0403

Date Received: 5/12/2014

Sampled: 2/20/2014 13:45

Field Sample #: 4-1 (12")

Sample ID: 14E0403-04

Sample Matrix: Soil

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

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	89.4		% Wt	1		SM 2540G	5/12/14	5/12/14 17:21	AKS

Project Location: Ware

Sample Description:

Work Order: 14E0403

Date Received: 5/12/2014

Sampled: 2/20/2014 14:25

Field Sample #: 5-1 (12")

Sample ID: 14E0403-05

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Chromium	22	0.58	mg/Kg dry	1		SW-846 6010C	5/12/14	5/13/14 22:48	OP
Lead	2.3	0.88	mg/Kg dry	1	M-12	SW-846 6010C	5/12/14	5/13/14 22:48	OP

Project Location: Ware

Sample Description:

Work Order: 14E0403

Date Received: 5/12/2014

Sampled: 2/20/2014 14:25

Field Sample #: 5-1 (12")

Sample ID: 14E0403-05

Sample Matrix: Soil

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

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	84.5		% Wt	1		SM 2540G	5/12/14	5/12/14 17:21	AKS

Project Location: Ware

Sample Description:

Work Order: 14E0403

Date Received: 5/12/2014

Sampled: 2/20/2014 15:05

Field Sample #: Comp

Sample ID: 14E0403-06

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Chromium	56	0.59	mg/Kg dry	1		SW-846 6010C	5/12/14	5/13/14 22:53	OP
Lead	520	0.89	mg/Kg dry	1	M-12	SW-846 6010C	5/12/14	5/13/14 22:53	OP

Project Location: Ware

Sample Description:

Work Order: 14E0403

Date Received: 5/12/2014

Sampled: 2/20/2014 15:05

Field Sample #: Comp

Sample ID: 14E0403-06

Sample Matrix: Soil

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

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	79.8		% Wt	1		SM 2540G	5/12/14	5/12/14 17:21	AKS

Project Location: Ware

Sample Description:

Work Order: 14E0403

Date Received: 5/12/2014

Sampled: 2/20/2014 15:05

Field Sample #: Comp

Sample ID: 14E0403-06

Sample Matrix: Soil

TCLP - Metals Analyses

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Lead	2.9	0.010	mg/L	1		SW-846 6010C	5/15/14	5/16/14 11:17	OP

Sample Extraction Data

Prep Method: % Solids-SM 2540G

Lab Number [Field ID]	Batch	Date
14E0403-01 [1 (24")]	B095587	05/12/14
14E0403-02 [2-1 (12")]	B095587	05/12/14
14E0403-03 [3 (6")]	B095587	05/12/14
14E0403-04 [4-1 (12")]	B095587	05/12/14
14E0403-05 [5-1 (12")]	B095587	05/12/14
14E0403-06 [Comp]	B095587	05/12/14

Prep Method: SW-846 3050B-SW-846 6010C

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
14E0403-01 [1 (24")]	B095586	1.07	50.0	05/12/14
14E0403-02 [2-1 (12")]	B095586	1.01	50.0	05/12/14
14E0403-03 [3 (6")]	B095586	1.02	50.0	05/12/14
14E0403-04 [4-1 (12")]	B095586	1.01	50.0	05/12/14
14E0403-05 [5-1 (12")]	B095586	1.01	50.0	05/12/14
14E0403-06 [Comp]	B095586	1.06	50.0	05/12/14

Prep Method: SW-846 3010A-SW-846 6010C

Leachates were extracted on 5/14/2014 per SW-846 1311 in Batch B095712

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
14E0403-06 [Comp]	B095821	50.0	50.0	05/15/14

QUALITY CONTROL

Metals Analyses (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B095586 - SW-846 3050B										
Blank (B095586-BLK1)										
					Prepared: 05/12/14 Analyzed: 05/13/14					
Chromium	ND	0.50	mg/Kg wet							
Lead	ND	0.75	mg/Kg wet							
LCS (B095586-BS1)										
					Prepared: 05/12/14 Analyzed: 05/13/14					
Chromium	133	0.99	mg/Kg wet	136		97.6	81.6-117.6			
Lead	104	1.5	mg/Kg wet	115		90.3	82.4-117.8			
LCS Dup (B095586-BSD1)										
					Prepared: 05/12/14 Analyzed: 05/13/14					
Chromium	136	0.99	mg/Kg wet	136		99.9	81.6-117.6	2.37	30	
Lead	106	1.5	mg/Kg wet	115		92.2	82.4-117.8	2.04	30	
MRL Check (B095586-MRL1)										
					Prepared: 05/12/14 Analyzed: 05/14/14					
Lead	0.588	0.74	mg/Kg wet	0.741		79.4	* 80-120			M-12

QUALITY CONTROL

TCLP - Metals Analyses - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B095821 - SW-846 3010A										
Blank (B095821-BLK1)				Prepared: 05/15/14 Analyzed: 05/16/14						
Lead	ND	0.010	mg/L							
LCS (B095821-BS1)				Prepared: 05/15/14 Analyzed: 05/16/14						
Lead	0.500	0.010	mg/L	0.500		99.9	80-120			
LCS Dup (B095821-BSD1)				Prepared: 05/15/14 Analyzed: 05/16/14						
Lead	0.499	0.010	mg/L	0.500		99.7	80-120	0.217	20	
Matrix Spike (B095821-MS1)				Source: 14E0403-06		Prepared: 05/15/14 Analyzed: 05/16/14				
Lead	3.45	0.010	mg/L	0.500	2.90	109	75-125			

FLAG/QUALIFIER SUMMARY

- * QC result is outside of established limits.
- † Wide recovery limits established for difficult compound.
- ‡ Wide RPD limits established for difficult compound.
- # Data exceeded client recommended or regulatory level

Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.

No results have been blank subtracted unless specified in the case narrative section.

- M-12 The reporting limit verification for the AIHA lead program is outside of control limits for this element. Any reported result at or near the detection limit may be biased on the low side.

CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
SW-846 6010C in Soil	
Chromium	CT,NH,NY,ME,NC,VA,NJ
Lead	CT,NH,NY,AIHA,ME,NC,VA,NJ
SW-846 6010C in Water	
Lead	NY,CT,ME,NC,NH,VA,NJ

The CON-TEST Environmental Laboratory operates under the following certifications and accreditations:

Code	Description	Number	Expires
AIHA	AIHA-LAP, LLC	100033	02/1/2016
MA	Massachusetts DEP	M-MA100	06/30/2014
CT	Connecticut Department of Public Health	PH-0567	09/30/2015
NY	New York State Department of Health	10899 NELAP	04/1/2015
NH-S	New Hampshire Environmental Lab	2516 NELAP	02/5/2015
RI	Rhode Island Department of Health	LAO00112	12/30/2014
NC	North Carolina Div. of Water Quality	652	12/31/2014
NJ	New Jersey DEP	MA007 NELAP	06/30/2014
FL	Florida Department of Health	E871027 NELAP	06/30/2014
VT	Vermont Department of Health Lead Laboratory	LL015036	07/30/2014
WA	State of Washington Department of Ecology	C2065	02/23/2015
ME	State of Maine	2011028	06/9/2015
VA	Commonwealth of Virginia	460217	12/14/2014
NH-P	New Hampshire Environmental Lab	2557 NELAP	09/6/2014



Phone: 413-525-2332
 Fax: 413-525-6405
 Email: info@contestlabs.com
 www.contestlabs.com

CHAIN OF CUSTODY RECORD

39 Spruce Street
 East Longmeadow, MA 01028

Page 1 of 7

Company Name: O'Reilly Talent & Ukm
 Address: 293 Bridge St. Suite 500
Springfield MA 01103
 Attention: Kerin O'Reilly
 Project Location: Ware
 Sampled By: CAS

Telephone: 413-288-6222
 Project # 2550-01-01
 Client PO#

DATA DELIVERY (check all that apply)
 FAX EMAIL WEBSITE
 Fax #
 Email:
 Format: PDF EXCEL OGIS
 OTHER

Project Proposal Provided? (for billing purposes)
 Yes No proposal date

Con-Test Lab ID <small>(laboratory use only)</small>	Client Sample ID / Description	Collection		Composite	Grab	Matrix	
		Beginning Date/Time	Ending Date/Time			Ends	Basic Ends
01	1 - 24"	2/24/14	9:35		X	S	H
02	2-1 12"	2/24/14	10:20		X	S	H
03	3 6"	2/24/14	11:35		X	S	L
04	4-1 12"	2/24/14	13:40		X	S	M
05	5-1 12"	2/24/14	14:25		X	S	L
06	Comp	2/24/14	15:05	X		S	H

Comments: Please use the following codes to let Con-Test know if a specific sample may be high in concentration in Matrix/Conc. Code Box:
 H - High; M - Medium; L - Low; C - Clean; U - Unknown

Relinquished by (signature): Chris A. Lamb Date/Time: 2/27/14 11:00
 Received by (signature): Wesley Sapp Date/Time: 11:00 2/27/14
 Relinquished by (signature): Wesley Sapp Date/Time: 5:30 2/27/14
 Received by (signature): Ken O'Reilly Date/Time: 7:30 2/27/14

Turnaround # 1100
 Turnaround: 7-Day 10-Day Other 5 days
 Rush: RUSH 24-Hr 48-Hr 72-Hr 14-Day
 Require lab approval

Detection Limit Requirements
 Massachusetts: CAM GW 2/3
 Connecticut: _____
 Other: _____

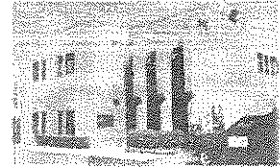
Is your project MCP of RCP?
 MCP Form Required
 RCP Form Required
 MA State DW Form Required PWSID # _____
 NELAC & AHA-LAP, LLC Accredited
 WBE/DBE Certified

ANALYSIS REQUESTED
 Total Pb
 TCI PP6
 ODNs
 VPH
 EPH

of Containers
 ** Preservation
 *** Container Code
 Dissolved Metals
 Field Filtered
 Lab to Filter
 *** Cont. Codes:
 A=amber glass
 G=glass
 P=plastic
 ST=sterile
 V=vial
 S=Summa can
 T=tedlar bag
 O=Other
 *** Preservation
 I=iced
 H=HCL
 M=Methanol
 N=Nitric Acid
 S=Sulfuric Acid
 B=Sodium bisulfate
 X=Na hydroxide
 T=Na thiosulfate
 O=Other DI H₂O
 *Matrix Code:
 GW=groundwater
 WW=wastewater
 DW=drinking water
 A=air
 S=soil/solid
 SL=sludge
 O=other

IS INCORRECT, TURNAROUND TIME WILL NOT START UNTIL ALL QUESTIONS ARE ANSWERED BY OUR CLIENT. PLEASE BE CAREFUL NOT TO CONTAMINATE THIS DOCUMENT

39 Spruce St.
 East Longmeadow, MA. 01028
 P: 413-525-2332
 F: 413-525-6405
 www.contestlabs.com



Sample Receipt Checklist

CLIENT NAME: OTO RECEIVED BY: KOB DATE: 2-21-14

- 1) Was the chain(s) of custody relinquished and signed? Yes No No CoC Included
- 2) Does the chain agree with the samples? Yes No
If not, explain:
- 3) Are all the samples in good condition? Yes No
If not, explain:
- 4) How were the samples received:

On Ice Direct from Sampling Ambient In Cooler(s)

Were the samples received in Temperature Compliance of (2-6°C)? Yes No N/A

Temperature °C by Temp blank _____ Temperature °C by Temp gun 2.3°

5) Are there Dissolved samples for the lab to filter? Yes No

Who was notified _____ Date _____ Time _____

6) Are there any RUSH or SHORT HOLDING TIME samples? Yes No

Who was notified _____ Date _____ Time _____

7) Location where samples are stored:

19

Permission to subcontract samples? Yes No
 (Walk-in clients only) if not already approved
 Client Signature: _____

8) Do all samples have the proper Acid pH: Yes No N/A

9) Do all samples have the proper Base pH: Yes No N/A

10) Was the PC notified of any discrepancies with the CoC vs the samples: Yes No N/A

Containers received at Con-Test

	# of containers		# of containers
1 Liter Amber		8 oz <input checked="" type="radio"/> amber/clear jar	<u>8</u>
500 mL Amber		4 oz amber/clear jar	
250 mL Amber (8oz amber)		2 oz amber/clear jar	
1 Liter Plastic		Plastic Bag / Ziploc	
500 mL Plastic		SOC Kit	
250 mL plastic		Non-Con Test Container	
40 mL Vial - type listed below	<u>8</u>	Perchlorate Kit	
Colisure / bacteria bottle		Flashpoint bottle	
Dissolved Oxygen bottle		Other glass jar	
Encore		Other	

Laboratory Comments:

10 mL vials: # HCl _____ # Methanol 6
 # Bisulfate _____ # DI Water 2
 # Thiosulfate _____ Unpreserved _____

Time and Date Frozen:
2-21-14
1730

Login Sample Receipt Checklist

(Rejection Criteria Listing - Using Sample Acceptance Policy)

Any False statement will be brought to the attention of Client

Question	Answer (True/False)	Comment
	T/F/NA	
1) The cooler's custody seal, if present, is intact.	NA	
2) The cooler or samples do not appear to have been compromised or tampered with.	T	
3) Samples were received on ice.	T	
4) Cooler Temperature is acceptable.	T	
5) Cooler Temperature is recorded.	T	
6) COC is filled out in ink and legible.	T	
7) COC is filled out with all pertinent information.	T	
8) Field Sampler's name present on COC.	T	
9) There are no discrepancies between the sample IDs on the container and the COC.	T	
10) Samples are received within Holding Time.	T	
11) Sample containers have legible labels.	T	
12) Containers are not broken or leaking.	T	
13) Air Cassettes are not broken/open.	NA	
14) Sample collection date/times are provided.	T	
15) Appropriate sample containers are used.	T	
16) Proper collection media used.	T	
17) No headspace sample bottles are completely filled.	T	
18) There is sufficient volume for all requested analyses, including any requested MS/MSDs.	T	
19) Trip blanks provided if applicable.	NA	
20) VOA sample vials do not have head space or bubble is <6mm (1/4") in diameter.	NA	
21) Samples do not require splitting or compositing.	T	

Doc #277 Rev. 4 August 2013 Who notified of False statements?
Log-In Technician Initials: KOB

Date/Time:
Date/Time: 2-21-14
1730

Meghan Kelley

From: Thomas Speight [Speight@oto-env.com]
Sent: Monday, May 12, 2014 2:56 PM
To: Meghan Kelley
Cc: Kevin O'Reilly
Subject: RE: 2550-01-01 - Micheller/Ware

Hi Meghan

Could we please get the following analyses:

TCLP lead for the composite waste profile sample.

Total lead and chromium in each of the six soil samples.

If there is anything left of samples 2-1 and 3 after you're done with them, I'd like to take them back.

Thanks,

Tom

From: Meghan Kelley [mailto:mkelley@contestlabs.com]
Sent: Tuesday, May 06, 2014 12:09 PM
To: Thomas Speight
Subject: RE: 2550-01-01 - Micheller/Ware

You are in luck, we still have the samples. Let me know if you need to do additional testing.

From: Thomas Speight [mailto:Speight@oto-env.com]
Sent: Monday, May 05, 2014 5:30 PM
To: Meghan Kelley (mkelley@contestlabs.com)
Subject: 2550-01-01 - Micheller/Ware

Good afternoon Meghan,

Could you please let me know if you still have any of our samples from your lab work order 14B0612 available?

Thanks,

T

Thomas B. Speight, CHMM
O'Reilly Talbot & Okun Associates, Inc.
Office: 413.788.6222/ Direct: 413.276.4292
Fax: 413.788.8830/ Email: speight@oto-env.com
Web: www.oto-env.com

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MADEP MCP Analytical Method Report Certification Form

Laboratory Name: Con-Test Analytical Laboratory	Project #: 14E0403
Project Location: Ware	RTN:

This Form provides certifications for the following data set: [list Laboratory Sample ID Number(s)]
 14E0403-01 thru 14E0403-06

Matrices: Soil

CAM Protocol (check all that below)

8260 VOC CAM II A ()	7470/7471 Hg CAM IIIB ()	MassDEP VPH CAM IV A ()	8081 Pesticides CAM V B ()	7196 Hex Cr CAM VI B ()	MassDEP APH CAM IX A ()
8270 SVOC CAM II B ()	7010 Metals CAM III C ()	MassDEP EPH CAM IV A ()	8151 Herbicides CAM V C ()	8330 Explosives CAM VIII A ()	TO-15 VOC CAM IX B ()
6010 Metals CAM III A (X)	6020 Metals CAM III D ()	8082 PCB CAM V A ()	9014 Total Cyanide/PAC CAM VI A ()	6860 Perchlorate CAM VIII B ()	

Affirmative response to Questions A through F is required for "Presumptive Certainty" status

A	Were all samples received in a condition consistent with those described on the Chain-of-Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No ¹
B	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No ¹
C	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No ¹
D	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No ¹
E a	VPH, EPH, and APH Methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications).	<input type="checkbox"/> Yes <input type="checkbox"/> No ¹
E b	APH and TO-15 Methods only: Was the complete analyte list reported for each method?	<input type="checkbox"/> Yes <input type="checkbox"/> No ¹
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all No responses to Questions A through E)?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No ¹

A response to questions G, H and I below is required for "Presumptive Certainty" status


G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No ¹
----------	---	--

Data User Note: Data that achieve "Presumptive Certainty" status may not necessarily meet the data usability and representativeness requirements described in 310 CMR 40. 1056 (2)(k) and WSC-07-350.

H	Were all QC performance standards specified in the CAM protocol(s) achieved?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No ¹
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No ¹

¹ All Negative responses must be addressed in an attached Environmental Laboratory case narrative.

I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this analytical report is, to the best of my knowledge and belief, accurate and complete.

Signature: _____ 	Position: Laboratory Director
Printed Name: Michael A. Erickson	Date: 05/19/14

February 28, 2014

Kevin O'Reilly
OTO Associates
293 Bridge St. Suite 500
Springfield, MA 01103

Project Location: Ware
Client Job Number:
Project Number: 2550-01-01
Laboratory Work Order Number: 14B0612

Enclosed are results of analyses for samples received by the laboratory on February 21, 2014. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, reading "Meghan E. Kelley". The signature is written in a cursive style with a large, sweeping flourish at the end.

Meghan E. Kelley
Project Manager

OTO Associates
 293 Bridge St. Suite 500
 Springfield, MA 01103
 ATTN: Kevin O'Reilly

REPORT DATE: 2/28/2014

PURCHASE ORDER NUMBER:

PROJECT NUMBER: 2550-01-01

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 14B0612

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

PROJECT LOCATION: Ware

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
1 (24")	14B0612-01	Soil		MADEP-EPH-04-1.1 MADEP-VPH-04-1.1 SM 2540G	
2-1 (12")	14B0612-02	Soil		MADEP-EPH-04-1.1 MADEP-VPH-04-1.1 SM 2540G	
3 (6")	14B0612-03	Soil		MADEP-EPH-04-1.1 MADEP-VPH-04-1.1 SM 2540G	
4-1 (12")	14B0612-04	Soil		MADEP-EPH-04-1.1 MADEP-VPH-04-1.1 SM 2540G	
5-1 (12")	14B0612-05	Soil		MADEP-EPH-04-1.1 MADEP-VPH-04-1.1 SM 2540G	
Comp	14B0612-06	Soil		SW-846 1010 SW-846 6010C SW-846 7471B SW-846 8082A SW-846 8100 Modified SW-846 8260C SW-846 9014 SW-846 9030A SW-846 9045C	MA M-MA071/CT PH-0520

CASE NARRATIVE SUMMARY

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

For method 6010, only RCRA 5 metals were requested and reported.

MADEP-EPH-04-1.1

Qualifications:

Surrogate recovery outside of control limits due to suspected sample matrix interference. Chromatogram(s) is attached.

Analyte & Samples(s) Qualified:

Chlorooctadecane (COD)
14B0612-01[1 (24")]

MADEP-VPH-04-1.1

Qualifications:

Soil/methanol ratio does not meet method specifications. Insufficient amount of soil. Data validation is not affected since a sufficient amount of preservative is present. Detection limits may be above useful levels.

Analyte & Samples(s) Qualified:

14B0612-01[1 (24")]

SW-846 8100 Modified

Qualifications:

The surrogate recovery for this sample is not available due to sample dilution below the surrogate reporting limit required from high analyte concentration and/or matrix interferences.

Analyte & Samples(s) Qualified:

o-Terphenyl
14B0612-06[Comp]

SW-846 8260C

Qualifications:

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

Analyte & Samples(s) Qualified:

1,2,3-Trichlorobenzene
B090774-BS1

Either laboratory fortified blank/laboratory control sample or duplicate recovery is outside of control limits, but the other is within limits. RPD outside of control limits. Reduced precision anticipated for any reported result for this compound.

Analyte & Samples(s) Qualified:

Naphthalene
B090774-BS1

Compound classified by MA CAM as difficult with acceptable recoveries of 40-160%. Recovery does not meet 70-130% criteria but does meet difficult compound criteria.

Analyte & Samples(s) Qualified:

1,4-Dioxane, Chloromethane, Dichlorodifluoromethane (Freon 12)
B090774-BS1, B090774-BSD1

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

Analyte & Samples(s) Qualified:

Acetone, Carbon Disulfide, Naphthalene
14B0612-06[Comp], B090774-BLK1, B090774-BS1, B090774-BSD1

Elevated reporting limit due to high concentration of target compounds. MA CAM reporting limit not met.

Analyte & Samples(s) Qualified:

14B0612-06[Comp]

Continuing calibration did not meet method specifications and was biased on the low side for this compound. Increased uncertainty is associated with the reported value which is likely to be biased on the low side.

Analyte & Samples(s) Qualified:

1,2-Dibromo-3-chloropropane (DBCP)

14B0612-06[Comp], B090774-BLK1, B090774-BS1, B090774-BSD1

Continuing calibration did not meet method specifications and was biased on the high side for this compound. Increased uncertainty is associated with the reported value which is likely to be biased on the high side.

Analyte & Samples(s) Qualified:

Naphthalene

14B0612-06[Comp], B090774-BS1, B090774-BSD1

Response factor is less than method specified minimum acceptable value. Reduced precision and accuracy may be associated with reported result.

Analyte & Samples(s) Qualified:

1,4-Dioxane

14B0612-06[Comp], B090774-BLK1, B090774-BS1, B090774-BSD1

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

Analyte & Samples(s) Qualified:

1,2,3-Trichlorobenzene, 1,4-Dioxane, Bromomethane, Dichlorodifluoromethane (Freon 12)

B090774-BS1, B090774-BSD1

SW-846 9045C

Qualifications:

Sample received after recommended holding time was exceeded.

Analyte & Samples(s) Qualified:

pH

14B0612-06[Comp], B090766-DUP1

MADEP-EPH-04-1.1

SPE cartridge contamination with non-petroleum compounds, if present, is verified by GC/MS in each method blank per extraction batch and excluded from C11-C22 aromatic range fraction in all samples in the batch. No significant modifications were made to the method.

MADEP-VPH-04-1.1

No significant modifications were made to the method. All VPH samples were received preserved properly in methanol with a soil/methanol ratio of 1:1 +/- 25% completely covered by methanol in the proper containers specified on the chain-of-custody form unless specified in this narrative.

SW-846 8100 Modified

TPH (C9-C36) is quantitated against a calibration made with a diesel standard.

SW-846 8260C

Laboratory control sample recoveries for required MCP Data Enhancement 8260 compounds were all within limits specified by the method except for "difficult analytes" where recovery control limits of 40-160% are used and/or unless otherwise listed in this narrative. Difficult analytes: MIBK, MEK, acetone, 1,4-dioxane, chloromethane, dichlorodifluoromethane, 2-hexanone, and bromomethane.

The results of analyses reported only relate to samples submitted to the Con-Test Analytical Laboratory for testing.

I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.



Daren J. Damboragian
Laboratory Manager

Project Location: Ware

Sample Description:

Work Order: 14B0612

Date Received: 2/21/2014

Field Sample #: 1 (24")

Sampled: 2/20/2014 09:35

Sample ID: 14B0612-01

Sample Matrix: Soil

Petroleum Hydrocarbons Analyses - EPH

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
C9-C18 Aliphatics	2900	1500	mg/Kg dry	100		MADEP-EPH-04-1.1	2/24/14	2/27/14 11:22	SCS
C19-C36 Aliphatics	8600	1500	mg/Kg dry	100		MADEP-EPH-04-1.1	2/24/14	2/27/14 11:22	SCS
Unadjusted C11-C22 Aromatics	1600	290	mg/Kg dry	20		MADEP-EPH-04-1.1	2/24/14	2/27/14 11:22	SCS
C11-C22 Aromatics	1600	290	mg/Kg dry	20		MADEP-EPH-04-1.1	2/24/14	2/27/14 11:22	SCS
Acenaphthene	ND	0.15	mg/Kg dry	1		MADEP-EPH-04-1.1	2/24/14	2/26/14 14:33	SCS
Acenaphthylene	ND	0.15	mg/Kg dry	1		MADEP-EPH-04-1.1	2/24/14	2/26/14 14:33	SCS
Anthracene	0.64	0.15	mg/Kg dry	1		MADEP-EPH-04-1.1	2/24/14	2/26/14 14:33	SCS
Benzo(a)anthracene	ND	0.15	mg/Kg dry	1		MADEP-EPH-04-1.1	2/24/14	2/26/14 14:33	SCS
Benzo(a)pyrene	ND	0.15	mg/Kg dry	1		MADEP-EPH-04-1.1	2/24/14	2/26/14 14:33	SCS
Benzo(b)fluoranthene	ND	0.15	mg/Kg dry	1		MADEP-EPH-04-1.1	2/24/14	2/26/14 14:33	SCS
Benzo(g,h,i)perylene	ND	0.15	mg/Kg dry	1		MADEP-EPH-04-1.1	2/24/14	2/26/14 14:33	SCS
Benzo(k)fluoranthene	ND	0.15	mg/Kg dry	1		MADEP-EPH-04-1.1	2/24/14	2/26/14 14:33	SCS
Chrysene	ND	0.15	mg/Kg dry	1		MADEP-EPH-04-1.1	2/24/14	2/26/14 14:33	SCS
Dibenz(a,h)anthracene	ND	0.15	mg/Kg dry	1		MADEP-EPH-04-1.1	2/24/14	2/26/14 14:33	SCS
Fluoranthene	4.8	0.15	mg/Kg dry	1		MADEP-EPH-04-1.1	2/24/14	2/26/14 14:33	SCS
Fluorene	1.6	0.15	mg/Kg dry	1		MADEP-EPH-04-1.1	2/24/14	2/26/14 14:33	SCS
Indeno(1,2,3-cd)pyrene	ND	0.15	mg/Kg dry	1		MADEP-EPH-04-1.1	2/24/14	2/26/14 14:33	SCS
2-Methylnaphthalene	3.6	0.15	mg/Kg dry	1		MADEP-EPH-04-1.1	2/24/14	2/26/14 14:33	SCS
Naphthalene	1.4	0.15	mg/Kg dry	1		MADEP-EPH-04-1.1	2/24/14	2/26/14 14:33	SCS
Phenanthrene	2.4	0.15	mg/Kg dry	1		MADEP-EPH-04-1.1	2/24/14	2/26/14 14:33	SCS
Pyrene	3.5	0.15	mg/Kg dry	1		MADEP-EPH-04-1.1	2/24/14	2/26/14 14:33	SCS
Surrogates		% Recovery	Recovery Limits		Flag/Qual				
Chlorooctadecane (COD)		11.4 *	40-140		S-15			2/26/14 14:33	
o-Terphenyl (OTP)		75.9	40-140					2/26/14 14:33	
2-Bromonaphthalene		105	40-140					2/26/14 14:33	
2-Fluorobiphenyl		107	40-140					2/26/14 14:33	

Project Location: Ware

Sample Description:

Work Order: 14B0612

Date Received: 2/21/2014

Field Sample #: 1 (24")

Sampled: 2/20/2014 09:35

Sample ID: 14B0612-01

Sample Matrix: Soil

Sample Flags: O-02

Petroleum Hydrocarbons Analyses - VPH

Soil/Methanol Preservation Ratio: 0.74

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Unadjusted C5-C8 Aliphatics	ND	25	mg/Kg dry	1		MADEP-VPH-04-1.1	2/24/14	2/24/14 19:02	LBD
C5-C8 Aliphatics	ND	25	mg/Kg dry	1		MADEP-VPH-04-1.1	2/24/14	2/24/14 19:02	LBD
Unadjusted C9-C12 Aliphatics	ND	25	mg/Kg dry	1		MADEP-VPH-04-1.1	2/24/14	2/24/14 19:02	LBD
C9-C12 Aliphatics	ND	25	mg/Kg dry	1		MADEP-VPH-04-1.1	2/24/14	2/24/14 19:02	LBD
C9-C10 Aromatics	ND	25	mg/Kg dry	1		MADEP-VPH-04-1.1	2/24/14	2/24/14 19:02	LBD
Benzene	ND	0.12	mg/Kg dry	1		MADEP-VPH-04-1.1	2/24/14	2/24/14 19:02	LBD
Ethylbenzene	ND	0.12	mg/Kg dry	1		MADEP-VPH-04-1.1	2/24/14	2/24/14 19:02	LBD
Methyl tert-Butyl Ether (MTBE)	ND	0.12	mg/Kg dry	1		MADEP-VPH-04-1.1	2/24/14	2/24/14 19:02	LBD
Naphthalene	ND	0.62	mg/Kg dry	1		MADEP-VPH-04-1.1	2/24/14	2/24/14 19:02	LBD
Toluene	0.14	0.12	mg/Kg dry	1		MADEP-VPH-04-1.1	2/24/14	2/24/14 19:02	LBD
m+p Xylene	ND	0.25	mg/Kg dry	1		MADEP-VPH-04-1.1	2/24/14	2/24/14 19:02	LBD
o-Xylene	ND	0.12	mg/Kg dry	1		MADEP-VPH-04-1.1	2/24/14	2/24/14 19:02	LBD
Surrogates		% Recovery	Recovery Limits		Flag/Qual				
2,5-Dibromotoluene (FID)		113	70-130					2/24/14 19:02	
2,5-Dibromotoluene (PID)		107	70-130					2/24/14 19:02	

Project Location: Ware

Sample Description:

Work Order: 14B0612

Date Received: 2/21/2014

Sampled: 2/20/2014 09:35

Field Sample #: 1 (24")

Sample ID: 14B0612-01

Sample Matrix: Soil

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

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	67.5		% Wt	1		SM 2540G	2/26/14	2/27/14 8:07	MXG

Project Location: Ware

Sample Description:

Work Order: 14B0612

Date Received: 2/21/2014

Field Sample #: 2-1 (12")

Sampled: 2/20/2014 10:20

Sample ID: 14B0612-02

Sample Matrix: Soil

Petroleum Hydrocarbons Analyses - EPH

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
C9-C18 Aliphatics	450	110	mg/Kg dry	10		MADEP-EPH-04-1.1	2/24/14	2/27/14 11:42	SCS
C19-C36 Aliphatics	130	11	mg/Kg dry	1		MADEP-EPH-04-1.1	2/24/14	2/26/14 15:13	SCS
Unadjusted C11-C22 Aromatics	720	110	mg/Kg dry	10		MADEP-EPH-04-1.1	2/24/14	2/27/14 11:42	SCS
C11-C22 Aromatics	580	110	mg/Kg dry	10		MADEP-EPH-04-1.1	2/24/14	2/27/14 11:42	SCS
Acenaphthene	ND	0.11	mg/Kg dry	1		MADEP-EPH-04-1.1	2/24/14	2/26/14 15:13	SCS
Acenaphthylene	ND	0.11	mg/Kg dry	1		MADEP-EPH-04-1.1	2/24/14	2/26/14 15:13	SCS
Anthracene	4.8	0.11	mg/Kg dry	1		MADEP-EPH-04-1.1	2/24/14	2/26/14 15:13	SCS
Benzo(a)anthracene	12	0.11	mg/Kg dry	1		MADEP-EPH-04-1.1	2/24/14	2/26/14 15:13	SCS
Benzo(a)pyrene	12	0.11	mg/Kg dry	1		MADEP-EPH-04-1.1	2/24/14	2/26/14 15:13	SCS
Benzo(b)fluoranthene	17	0.11	mg/Kg dry	1		MADEP-EPH-04-1.1	2/24/14	2/26/14 15:13	SCS
Benzo(g,h,i)perylene	6.3	0.11	mg/Kg dry	1		MADEP-EPH-04-1.1	2/24/14	2/26/14 15:13	SCS
Benzo(k)fluoranthene	6.0	0.11	mg/Kg dry	1		MADEP-EPH-04-1.1	2/24/14	2/26/14 15:13	SCS
Chrysene	12	0.11	mg/Kg dry	1		MADEP-EPH-04-1.1	2/24/14	2/26/14 15:13	SCS
Dibenz(a,h)anthracene	2.1	0.11	mg/Kg dry	1		MADEP-EPH-04-1.1	2/24/14	2/26/14 15:13	SCS
Fluoranthene	26	1.1	mg/Kg dry	10		MADEP-EPH-04-1.1	2/24/14	2/27/14 11:42	SCS
Fluorene	2.9	0.11	mg/Kg dry	1		MADEP-EPH-04-1.1	2/24/14	2/26/14 15:13	SCS
Indeno(1,2,3-cd)pyrene	7.8	0.11	mg/Kg dry	1		MADEP-EPH-04-1.1	2/24/14	2/26/14 15:13	SCS
2-Methylnaphthalene	5.3	0.11	mg/Kg dry	1		MADEP-EPH-04-1.1	2/24/14	2/26/14 15:13	SCS
Naphthalene	2.5	0.11	mg/Kg dry	1		MADEP-EPH-04-1.1	2/24/14	2/26/14 15:13	SCS
Phenanthrene	21	0.11	mg/Kg dry	1		MADEP-EPH-04-1.1	2/24/14	2/26/14 15:13	SCS
Pyrene	24	1.1	mg/Kg dry	10		MADEP-EPH-04-1.1	2/24/14	2/27/14 11:42	SCS
Surrogates	% Recovery		Recovery Limits		Flag/Qual				
Chlorooctadecane (COD)	63.1		40-140				2/26/14 15:13		
o-Terphenyl (OTP)	106		40-140				2/26/14 15:13		
2-Bromonaphthalene	127		40-140				2/26/14 15:13		
2-Fluorobiphenyl	128		40-140				2/26/14 15:13		

Project Location: Ware

Sample Description:

Work Order: 14B0612

Date Received: 2/21/2014

Field Sample #: 2-1 (12")

Sampled: 2/20/2014 10:20

Sample ID: 14B0612-02

Sample Matrix: Soil

Petroleum Hydrocarbons Analyses - VPH

Soil/Methanol Preservation Ratio: 1.08

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Unadjusted C5-C8 Aliphatics	ND	12	mg/Kg dry	1		MADEP-VPH-04-1.1	2/24/14	2/24/14 19:38	LBD
C5-C8 Aliphatics	ND	12	mg/Kg dry	1		MADEP-VPH-04-1.1	2/24/14	2/24/14 19:38	LBD
Unadjusted C9-C12 Aliphatics	58	12	mg/Kg dry	1		MADEP-VPH-04-1.1	2/24/14	2/24/14 19:38	LBD
C9-C12 Aliphatics	16	12	mg/Kg dry	1		MADEP-VPH-04-1.1	2/24/14	2/24/14 19:38	LBD
C9-C10 Aromatics	41	12	mg/Kg dry	1		MADEP-VPH-04-1.1	2/24/14	2/24/14 19:38	LBD
Benzene	ND	0.059	mg/Kg dry	1		MADEP-VPH-04-1.1	2/24/14	2/24/14 19:38	LBD
Ethylbenzene	0.13	0.059	mg/Kg dry	1		MADEP-VPH-04-1.1	2/24/14	2/24/14 19:38	LBD
Methyl tert-Butyl Ether (MTBE)	ND	0.059	mg/Kg dry	1		MADEP-VPH-04-1.1	2/24/14	2/24/14 19:38	LBD
Naphthalene	0.81	0.29	mg/Kg dry	1		MADEP-VPH-04-1.1	2/24/14	2/24/14 19:38	LBD
Toluene	ND	0.059	mg/Kg dry	1		MADEP-VPH-04-1.1	2/24/14	2/24/14 19:38	LBD
m+p Xylene	0.23	0.12	mg/Kg dry	1		MADEP-VPH-04-1.1	2/24/14	2/24/14 19:38	LBD
o-Xylene	ND	0.059	mg/Kg dry	1		MADEP-VPH-04-1.1	2/24/14	2/24/14 19:38	LBD
Surrogates		% Recovery	Recovery Limits		Flag/Qual				
2,5-Dibromotoluene (FID)		103	70-130					2/24/14 19:38	
2,5-Dibromotoluene (PID)		105	70-130					2/24/14 19:38	

Project Location: Ware

Sample Description:

Work Order: 14B0612

Date Received: 2/21/2014

Sampled: 2/20/2014 10:20

Field Sample #: 2-1 (12")

Sample ID: 14B0612-02

Sample Matrix: Soil

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

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	88.8		% Wt	1		SM 2540G	2/26/14	2/27/14 8:07	MXG

Project Location: Ware
 Date Received: 2/21/2014
 Field Sample #: 3 (6")
 Sample ID: 14B0612-03
 Sample Matrix: Soil

Sample Description:
 Sampled: 2/20/2014 10:35

Work Order: 14B0612

Petroleum Hydrocarbons Analyses - EPH

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
C9-C18 Aliphatics	27	12	mg/Kg dry	1		MADEP-EPH-04-1.1	2/24/14	2/26/14 15:34	SCS
C19-C36 Aliphatics	620	120	mg/Kg dry	10		MADEP-EPH-04-1.1	2/24/14	2/27/14 12:03	SCS
Unadjusted C11-C22 Aromatics	450	61	mg/Kg dry	5		MADEP-EPH-04-1.1	2/24/14	2/27/14 12:03	SCS
C11-C22 Aromatics	330	12	mg/Kg dry	1		MADEP-EPH-04-1.1	2/24/14	2/26/14 15:34	SCS
Acenaphthene	0.59	0.12	mg/Kg dry	1		MADEP-EPH-04-1.1	2/24/14	2/26/14 15:34	SCS
Acenaphthylene	0.54	0.12	mg/Kg dry	1		MADEP-EPH-04-1.1	2/24/14	2/26/14 15:34	SCS
Anthracene	2.8	0.12	mg/Kg dry	1		MADEP-EPH-04-1.1	2/24/14	2/26/14 15:34	SCS
Benzo(a)anthracene	5.8	0.12	mg/Kg dry	1		MADEP-EPH-04-1.1	2/24/14	2/26/14 15:34	SCS
Benzo(a)pyrene	6.1	0.12	mg/Kg dry	1		MADEP-EPH-04-1.1	2/24/14	2/26/14 15:34	SCS
Benzo(b)fluoranthene	8.6	0.12	mg/Kg dry	1		MADEP-EPH-04-1.1	2/24/14	2/26/14 15:34	SCS
Benzo(g,h,i)perylene	3.5	0.12	mg/Kg dry	1		MADEP-EPH-04-1.1	2/24/14	2/26/14 15:34	SCS
Benzo(k)fluoranthene	2.8	0.12	mg/Kg dry	1		MADEP-EPH-04-1.1	2/24/14	2/26/14 15:34	SCS
Chrysene	6.0	0.12	mg/Kg dry	1		MADEP-EPH-04-1.1	2/24/14	2/26/14 15:34	SCS
Dibenz(a,h)anthracene	1.0	0.12	mg/Kg dry	1		MADEP-EPH-04-1.1	2/24/14	2/26/14 15:34	SCS
Fluoranthene	14	0.12	mg/Kg dry	1		MADEP-EPH-04-1.1	2/24/14	2/26/14 15:34	SCS
Fluorene	0.93	0.12	mg/Kg dry	1		MADEP-EPH-04-1.1	2/24/14	2/26/14 15:34	SCS
Indeno(1,2,3-cd)pyrene	4.2	0.12	mg/Kg dry	1		MADEP-EPH-04-1.1	2/24/14	2/26/14 15:34	SCS
2-Methylnaphthalene	0.34	0.12	mg/Kg dry	1		MADEP-EPH-04-1.1	2/24/14	2/26/14 15:34	SCS
Naphthalene	0.60	0.12	mg/Kg dry	1		MADEP-EPH-04-1.1	2/24/14	2/26/14 15:34	SCS
Phenanthrene	12	0.12	mg/Kg dry	1		MADEP-EPH-04-1.1	2/24/14	2/26/14 15:34	SCS
Pyrene	13	0.12	mg/Kg dry	1		MADEP-EPH-04-1.1	2/24/14	2/26/14 15:34	SCS
Surrogates	% Recovery	Recovery Limits	Flag/Qual						
Chlorooctadecane (COD)	67.8	40-140							
o-Terphenyl (OTP)	93.1	40-140							
2-Bromonaphthalene	104	40-140							
2-Fluorobiphenyl	108	40-140							

Project Location: Ware

Sample Description:

Work Order: 14B0612

Date Received: 2/21/2014

Field Sample #: 3 (6")

Sampled: 2/20/2014 10:35

Sample ID: 14B0612-03

Sample Matrix: Soil

Petroleum Hydrocarbons Analyses - VPH

Soil/Methanol Preservation Ratio: 1.16

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Unadjusted C5-C8 Aliphatics	ND	13	mg/Kg dry	1		MADEP-VPH-04-1.1	2/24/14	2/24/14 20:14	LBD
C5-C8 Aliphatics	ND	13	mg/Kg dry	1		MADEP-VPH-04-1.1	2/24/14	2/24/14 20:14	LBD
Unadjusted C9-C12 Aliphatics	ND	13	mg/Kg dry	1		MADEP-VPH-04-1.1	2/24/14	2/24/14 20:14	LBD
C9-C12 Aliphatics	ND	13	mg/Kg dry	1		MADEP-VPH-04-1.1	2/24/14	2/24/14 20:14	LBD
C9-C10 Aromatics	ND	13	mg/Kg dry	1		MADEP-VPH-04-1.1	2/24/14	2/24/14 20:14	LBD
Benzene	ND	0.064	mg/Kg dry	1		MADEP-VPH-04-1.1	2/24/14	2/24/14 20:14	LBD
Ethylbenzene	ND	0.064	mg/Kg dry	1		MADEP-VPH-04-1.1	2/24/14	2/24/14 20:14	LBD
Methyl tert-Butyl Ether (MTBE)	ND	0.064	mg/Kg dry	1		MADEP-VPH-04-1.1	2/24/14	2/24/14 20:14	LBD
Naphthalene	ND	0.32	mg/Kg dry	1		MADEP-VPH-04-1.1	2/24/14	2/24/14 20:14	LBD
Toluene	ND	0.064	mg/Kg dry	1		MADEP-VPH-04-1.1	2/24/14	2/24/14 20:14	LBD
m+p Xylene	ND	0.13	mg/Kg dry	1		MADEP-VPH-04-1.1	2/24/14	2/24/14 20:14	LBD
o-Xylene	ND	0.064	mg/Kg dry	1		MADEP-VPH-04-1.1	2/24/14	2/24/14 20:14	LBD
Surrogates		% Recovery	Recovery Limits		Flag/Qual				
2,5-Dibromotoluene (FID)		114	70-130					2/24/14 20:14	
2,5-Dibromotoluene (PID)		111	70-130					2/24/14 20:14	

Project Location: Ware

Sample Description:

Work Order: 14B0612

Date Received: 2/21/2014

Sampled: 2/20/2014 10:35

Field Sample #: 3 (6")

Sample ID: 14B0612-03

Sample Matrix: Soil

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

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	81.8		% Wt	1		SM 2540G	2/26/14	2/27/14 8:07	MXG

Project Location: Ware

Sample Description:

Work Order: 14B0612

Date Received: 2/21/2014

Sampled: 2/20/2014 13:45

Field Sample #: 4-1 (12")

Sample ID: 14B0612-04

Sample Matrix: Soil

Petroleum Hydrocarbons Analyses - EPH

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
C9-C18 Aliphatics	ND	11	mg/Kg dry	1		MADEP-EPH-04-1.1	2/24/14	2/26/14 15:54	SCS
C19-C36 Aliphatics	ND	11	mg/Kg dry	1		MADEP-EPH-04-1.1	2/24/14	2/26/14 15:54	SCS
Unadjusted C11-C22 Aromatics	ND	11	mg/Kg dry	1		MADEP-EPH-04-1.1	2/24/14	2/26/14 15:54	SCS
C11-C22 Aromatics	ND	11	mg/Kg dry	1		MADEP-EPH-04-1.1	2/24/14	2/26/14 15:54	SCS
Acenaphthene	ND	0.11	mg/Kg dry	1		MADEP-EPH-04-1.1	2/24/14	2/26/14 15:54	SCS
Acenaphthylene	ND	0.11	mg/Kg dry	1		MADEP-EPH-04-1.1	2/24/14	2/26/14 15:54	SCS
Anthracene	ND	0.11	mg/Kg dry	1		MADEP-EPH-04-1.1	2/24/14	2/26/14 15:54	SCS
Benzo(a)anthracene	ND	0.11	mg/Kg dry	1		MADEP-EPH-04-1.1	2/24/14	2/26/14 15:54	SCS
Benzo(a)pyrene	ND	0.11	mg/Kg dry	1		MADEP-EPH-04-1.1	2/24/14	2/26/14 15:54	SCS
Benzo(b)fluoranthene	ND	0.11	mg/Kg dry	1		MADEP-EPH-04-1.1	2/24/14	2/26/14 15:54	SCS
Benzo(g,h,i)perylene	ND	0.11	mg/Kg dry	1		MADEP-EPH-04-1.1	2/24/14	2/26/14 15:54	SCS
Benzo(k)fluoranthene	ND	0.11	mg/Kg dry	1		MADEP-EPH-04-1.1	2/24/14	2/26/14 15:54	SCS
Chrysene	ND	0.11	mg/Kg dry	1		MADEP-EPH-04-1.1	2/24/14	2/26/14 15:54	SCS
Dibenz(a,h)anthracene	ND	0.11	mg/Kg dry	1		MADEP-EPH-04-1.1	2/24/14	2/26/14 15:54	SCS
Fluoranthene	ND	0.11	mg/Kg dry	1		MADEP-EPH-04-1.1	2/24/14	2/26/14 15:54	SCS
Fluorene	ND	0.11	mg/Kg dry	1		MADEP-EPH-04-1.1	2/24/14	2/26/14 15:54	SCS
Indeno(1,2,3-cd)pyrene	ND	0.11	mg/Kg dry	1		MADEP-EPH-04-1.1	2/24/14	2/26/14 15:54	SCS
2-Methylnaphthalene	ND	0.11	mg/Kg dry	1		MADEP-EPH-04-1.1	2/24/14	2/26/14 15:54	SCS
Naphthalene	ND	0.11	mg/Kg dry	1		MADEP-EPH-04-1.1	2/24/14	2/26/14 15:54	SCS
Phenanthrene	ND	0.11	mg/Kg dry	1		MADEP-EPH-04-1.1	2/24/14	2/26/14 15:54	SCS
Pyrene	ND	0.11	mg/Kg dry	1		MADEP-EPH-04-1.1	2/24/14	2/26/14 15:54	SCS
Surrogates		% Recovery	Recovery Limits		Flag/Qual				
Chlorooctadecane (COD)		61.8	40-140					2/26/14 15:54	
o-Terphenyl (OTP)		85.6	40-140					2/26/14 15:54	
2-Bromonaphthalene		109	40-140					2/26/14 15:54	
2-Fluorobiphenyl		112	40-140					2/26/14 15:54	

Project Location: Ware

Sample Description:

Work Order: 14B0612

Date Received: 2/21/2014

Field Sample #: 4-1 (12")

Sampled: 2/20/2014 13:45

Sample ID: 14B0612-04

Sample Matrix: Soil

Petroleum Hydrocarbons Analyses - VPH

Soil/Methanol Preservation Ratio: 1.02

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Unadjusted C5-C8 Aliphatics	ND	12	mg/Kg dry	1		MADEP-VPH-04-1.1	2/24/14	2/24/14 20:50	LBD
C5-C8 Aliphatics	ND	12	mg/Kg dry	1		MADEP-VPH-04-1.1	2/24/14	2/24/14 20:50	LBD
Unadjusted C9-C12 Aliphatics	37	12	mg/Kg dry	1		MADEP-VPH-04-1.1	2/24/14	2/24/14 20:50	LBD
C9-C12 Aliphatics	ND	12	mg/Kg dry	1		MADEP-VPH-04-1.1	2/24/14	2/24/14 20:50	LBD
C9-C10 Aromatics	28	12	mg/Kg dry	1		MADEP-VPH-04-1.1	2/24/14	2/24/14 20:50	LBD
Benzene	ND	0.061	mg/Kg dry	1		MADEP-VPH-04-1.1	2/24/14	2/24/14 20:50	LBD
Ethylbenzene	ND	0.061	mg/Kg dry	1		MADEP-VPH-04-1.1	2/24/14	2/24/14 20:50	LBD
Methyl tert-Butyl Ether (MTBE)	ND	0.061	mg/Kg dry	1		MADEP-VPH-04-1.1	2/24/14	2/24/14 20:50	LBD
Naphthalene	0.62	0.30	mg/Kg dry	1		MADEP-VPH-04-1.1	2/24/14	2/24/14 20:50	LBD
Toluene	ND	0.061	mg/Kg dry	1		MADEP-VPH-04-1.1	2/24/14	2/24/14 20:50	LBD
m+p Xylene	0.17	0.12	mg/Kg dry	1		MADEP-VPH-04-1.1	2/24/14	2/24/14 20:50	LBD
o-Xylene	ND	0.061	mg/Kg dry	1		MADEP-VPH-04-1.1	2/24/14	2/24/14 20:50	LBD
Surrogates		% Recovery	Recovery Limits		Flag/Qual				
2,5-Dibromotoluene (FID)		106	70-130					2/24/14 20:50	
2,5-Dibromotoluene (PID)		104	70-130					2/24/14 20:50	

Project Location: Ware

Sample Description:

Work Order: 14B0612

Date Received: 2/21/2014

Sampled: 2/20/2014 13:45

Field Sample #: 4-1 (12")

Sample ID: 14B0612-04

Sample Matrix: Soil

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

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	89.4		% Wt	1		SM 2540G	2/26/14	2/27/14 8:07	MXG

Project Location: Ware

Sample Description:

Work Order: 14B0612

Date Received: 2/21/2014

Sampled: 2/20/2014 14:25

Field Sample #: 5-1 (12")

Sample ID: 14B0612-05

Sample Matrix: Soil

Petroleum Hydrocarbons Analyses - EPH

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
C9-C18 Aliphatics	270	59	mg/Kg dry	5		MADEP-EPH-04-1.1	2/24/14	2/27/14 12:24	SCS
C19-C36 Aliphatics	53	12	mg/Kg dry	1		MADEP-EPH-04-1.1	2/24/14	2/26/14 16:15	SCS
Unadjusted C11-C22 Aromatics	140	12	mg/Kg dry	1		MADEP-EPH-04-1.1	2/24/14	2/26/14 16:15	SCS
C11-C22 Aromatics	140	12	mg/Kg dry	1		MADEP-EPH-04-1.1	2/24/14	2/26/14 16:15	SCS
Acenaphthene	ND	0.12	mg/Kg dry	1		MADEP-EPH-04-1.1	2/24/14	2/26/14 16:15	SCS
Acenaphthylene	ND	0.12	mg/Kg dry	1		MADEP-EPH-04-1.1	2/24/14	2/26/14 16:15	SCS
Anthracene	ND	0.12	mg/Kg dry	1		MADEP-EPH-04-1.1	2/24/14	2/26/14 16:15	SCS
Benzo(a)anthracene	ND	0.12	mg/Kg dry	1		MADEP-EPH-04-1.1	2/24/14	2/26/14 16:15	SCS
Benzo(a)pyrene	ND	0.12	mg/Kg dry	1		MADEP-EPH-04-1.1	2/24/14	2/26/14 16:15	SCS
Benzo(b)fluoranthene	ND	0.12	mg/Kg dry	1		MADEP-EPH-04-1.1	2/24/14	2/26/14 16:15	SCS
Benzo(g,h,i)perylene	ND	0.12	mg/Kg dry	1		MADEP-EPH-04-1.1	2/24/14	2/26/14 16:15	SCS
Benzo(k)fluoranthene	ND	0.12	mg/Kg dry	1		MADEP-EPH-04-1.1	2/24/14	2/26/14 16:15	SCS
Chrysene	ND	0.12	mg/Kg dry	1		MADEP-EPH-04-1.1	2/24/14	2/26/14 16:15	SCS
Dibenz(a,h)anthracene	ND	0.12	mg/Kg dry	1		MADEP-EPH-04-1.1	2/24/14	2/26/14 16:15	SCS
Fluoranthene	0.17	0.12	mg/Kg dry	1		MADEP-EPH-04-1.1	2/24/14	2/26/14 16:15	SCS
Fluorene	0.64	0.12	mg/Kg dry	1		MADEP-EPH-04-1.1	2/24/14	2/26/14 16:15	SCS
Indeno(1,2,3-cd)pyrene	ND	0.12	mg/Kg dry	1		MADEP-EPH-04-1.1	2/24/14	2/26/14 16:15	SCS
2-Methylnaphthalene	2.9	0.12	mg/Kg dry	1		MADEP-EPH-04-1.1	2/24/14	2/26/14 16:15	SCS
Naphthalene	0.94	0.12	mg/Kg dry	1		MADEP-EPH-04-1.1	2/24/14	2/26/14 16:15	SCS
Phenanthrene	0.60	0.12	mg/Kg dry	1		MADEP-EPH-04-1.1	2/24/14	2/26/14 16:15	SCS
Pyrene	ND	0.12	mg/Kg dry	1		MADEP-EPH-04-1.1	2/24/14	2/26/14 16:15	SCS
Surrogates		% Recovery	Recovery Limits		Flag/Qual				
Chlorooctadecane (COD)		63.5	40-140					2/26/14 16:15	
o-Terphenyl (OTP)		89.8	40-140					2/26/14 16:15	
2-Bromonaphthalene		100	40-140					2/26/14 16:15	
2-Fluorobiphenyl		101	40-140					2/26/14 16:15	

Project Location: Ware

Sample Description:

Work Order: 14B0612

Date Received: 2/21/2014

Field Sample #: 5-1 (12")

Sampled: 2/20/2014 14:25

Sample ID: 14B0612-05

Sample Matrix: Soil

Petroleum Hydrocarbons Analyses - VPH

Soil/Methanol Preservation Ratio: 1.10

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Unadjusted C5-C8 Aliphatics	ND	13	mg/Kg dry	1		MADEP-VPH-04-1.1	2/24/14	2/24/14 21:26	LBD
C5-C8 Aliphatics	ND	13	mg/Kg dry	1		MADEP-VPH-04-1.1	2/24/14	2/24/14 21:26	LBD
Unadjusted C9-C12 Aliphatics	ND	13	mg/Kg dry	1		MADEP-VPH-04-1.1	2/24/14	2/24/14 21:26	LBD
C9-C12 Aliphatics	ND	13	mg/Kg dry	1		MADEP-VPH-04-1.1	2/24/14	2/24/14 21:26	LBD
C9-C10 Aromatics	ND	13	mg/Kg dry	1		MADEP-VPH-04-1.1	2/24/14	2/24/14 21:26	LBD
Benzene	ND	0.064	mg/Kg dry	1		MADEP-VPH-04-1.1	2/24/14	2/24/14 21:26	LBD
Ethylbenzene	ND	0.064	mg/Kg dry	1		MADEP-VPH-04-1.1	2/24/14	2/24/14 21:26	LBD
Methyl tert-Butyl Ether (MTBE)	ND	0.064	mg/Kg dry	1		MADEP-VPH-04-1.1	2/24/14	2/24/14 21:26	LBD
Naphthalene	ND	0.32	mg/Kg dry	1		MADEP-VPH-04-1.1	2/24/14	2/24/14 21:26	LBD
Toluene	ND	0.064	mg/Kg dry	1		MADEP-VPH-04-1.1	2/24/14	2/24/14 21:26	LBD
m+p Xylene	ND	0.13	mg/Kg dry	1		MADEP-VPH-04-1.1	2/24/14	2/24/14 21:26	LBD
o-Xylene	ND	0.064	mg/Kg dry	1		MADEP-VPH-04-1.1	2/24/14	2/24/14 21:26	LBD
Surrogates		% Recovery	Recovery Limits		Flag/Qual				
2,5-Dibromotoluene (FID)		114	70-130					2/24/14 21:26	
2,5-Dibromotoluene (PID)		114	70-130					2/24/14 21:26	

Project Location: Ware

Sample Description:

Work Order: 14B0612

Date Received: 2/21/2014

Sampled: 2/20/2014 14:25

Field Sample #: 5-1 (12")

Sample ID: 14B0612-05

Sample Matrix: Soil

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

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	84.5		% Wt	1		SM 2540G	2/26/14	2/27/14 8:07	MXG

Project Location: Ware
 Date Received: 2/21/2014
 Field Sample #: Comp
 Sample ID: 14B0612-06
 Sample Matrix: Soil

Sample Description:
 Sampled: 2/20/2014 15:05

Work Order: 14B0612

Sample Flags: RL-05

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	7.6	mg/Kg dry	2	R-05	SW-846 8260C	2/24/14	2/24/14 14:31	LBD
tert-Amyl Methyl Ether (TAME)	ND	0.076	mg/Kg dry	2		SW-846 8260C	2/24/14	2/24/14 14:31	LBD
Benzene	ND	0.15	mg/Kg dry	2		SW-846 8260C	2/24/14	2/24/14 14:31	LBD
Bromobenzene	ND	0.15	mg/Kg dry	2		SW-846 8260C	2/24/14	2/24/14 14:31	LBD
Bromochloromethane	ND	0.15	mg/Kg dry	2		SW-846 8260C	2/24/14	2/24/14 14:31	LBD
Bromodichloromethane	ND	0.15	mg/Kg dry	2		SW-846 8260C	2/24/14	2/24/14 14:31	LBD
Bromoform	ND	0.76	mg/Kg dry	2		SW-846 8260C	2/24/14	2/24/14 14:31	LBD
Bromomethane	ND	0.31	mg/Kg dry	2		SW-846 8260C	2/24/14	2/24/14 14:31	LBD
2-Butanone (MEK)	ND	3.1	mg/Kg dry	2		SW-846 8260C	2/24/14	2/24/14 14:31	LBD
n-Butylbenzene	3.4	0.31	mg/Kg dry	2		SW-846 8260C	2/24/14	2/24/14 14:31	LBD
sec-Butylbenzene	1.3	0.15	mg/Kg dry	2		SW-846 8260C	2/24/14	2/24/14 14:31	LBD
tert-Butylbenzene	ND	0.15	mg/Kg dry	2		SW-846 8260C	2/24/14	2/24/14 14:31	LBD
tert-Butyl Ethyl Ether (TBEE)	ND	0.076	mg/Kg dry	2		SW-846 8260C	2/24/14	2/24/14 14:31	LBD
Carbon Disulfide	ND	1.5	mg/Kg dry	2	R-05	SW-846 8260C	2/24/14	2/24/14 14:31	LBD
Carbon Tetrachloride	ND	0.15	mg/Kg dry	2		SW-846 8260C	2/24/14	2/24/14 14:31	LBD
Chlorobenzene	ND	0.15	mg/Kg dry	2		SW-846 8260C	2/24/14	2/24/14 14:31	LBD
Chlorodibromomethane	ND	0.31	mg/Kg dry	2		SW-846 8260C	2/24/14	2/24/14 14:31	LBD
Chloroethane	ND	0.31	mg/Kg dry	2		SW-846 8260C	2/24/14	2/24/14 14:31	LBD
Chloroform	ND	0.31	mg/Kg dry	2		SW-846 8260C	2/24/14	2/24/14 14:31	LBD
Chloromethane	ND	0.76	mg/Kg dry	2		SW-846 8260C	2/24/14	2/24/14 14:31	LBD
2-Chlorotoluene	ND	0.15	mg/Kg dry	2		SW-846 8260C	2/24/14	2/24/14 14:31	LBD
4-Chlorotoluene	ND	0.15	mg/Kg dry	2		SW-846 8260C	2/24/14	2/24/14 14:31	LBD
1,2-Dibromo-3-chloropropane (DBCP)	ND	0.61	mg/Kg dry	2	V-05	SW-846 8260C	2/24/14	2/24/14 14:31	LBD
1,2-Dibromoethane (EDB)	ND	0.076	mg/Kg dry	2		SW-846 8260C	2/24/14	2/24/14 14:31	LBD
Dibromomethane	ND	0.15	mg/Kg dry	2		SW-846 8260C	2/24/14	2/24/14 14:31	LBD
1,2-Dichlorobenzene	ND	0.15	mg/Kg dry	2		SW-846 8260C	2/24/14	2/24/14 14:31	LBD
1,3-Dichlorobenzene	ND	0.15	mg/Kg dry	2		SW-846 8260C	2/24/14	2/24/14 14:31	LBD
1,4-Dichlorobenzene	ND	0.15	mg/Kg dry	2		SW-846 8260C	2/24/14	2/24/14 14:31	LBD
Dichlorodifluoromethane (Freon 12)	ND	0.76	mg/Kg dry	2		SW-846 8260C	2/24/14	2/24/14 14:31	LBD
1,1-Dichloroethane	ND	0.15	mg/Kg dry	2		SW-846 8260C	2/24/14	2/24/14 14:31	LBD
1,2-Dichloroethane	ND	0.15	mg/Kg dry	2		SW-846 8260C	2/24/14	2/24/14 14:31	LBD
1,1-Dichloroethylene	ND	0.15	mg/Kg dry	2		SW-846 8260C	2/24/14	2/24/14 14:31	LBD
cis-1,2-Dichloroethylene	ND	0.15	mg/Kg dry	2		SW-846 8260C	2/24/14	2/24/14 14:31	LBD
trans-1,2-Dichloroethylene	ND	0.15	mg/Kg dry	2		SW-846 8260C	2/24/14	2/24/14 14:31	LBD
1,2-Dichloropropane	ND	0.15	mg/Kg dry	2		SW-846 8260C	2/24/14	2/24/14 14:31	LBD
1,3-Dichloropropane	ND	0.076	mg/Kg dry	2		SW-846 8260C	2/24/14	2/24/14 14:31	LBD
2,2-Dichloropropane	ND	0.15	mg/Kg dry	2		SW-846 8260C	2/24/14	2/24/14 14:31	LBD
1,1-Dichloropropene	ND	0.76	mg/Kg dry	2		SW-846 8260C	2/24/14	2/24/14 14:31	LBD
cis-1,3-Dichloropropene	ND	0.076	mg/Kg dry	2		SW-846 8260C	2/24/14	2/24/14 14:31	LBD
trans-1,3-Dichloropropene	ND	0.31	mg/Kg dry	2		SW-846 8260C	2/24/14	2/24/14 14:31	LBD
Diethyl Ether	ND	0.31	mg/Kg dry	2		SW-846 8260C	2/24/14	2/24/14 14:31	LBD
Diisopropyl Ether (DIPE)	ND	0.076	mg/Kg dry	2		SW-846 8260C	2/24/14	2/24/14 14:31	LBD
1,4-Dioxane	ND	7.6	mg/Kg dry	2	V-16	SW-846 8260C	2/24/14	2/24/14 14:31	LBD
Ethylbenzene	0.62	0.15	mg/Kg dry	2		SW-846 8260C	2/24/14	2/24/14 14:31	LBD

Project Location: Ware
 Date Received: 2/21/2014
Field Sample #: Comp
Sample ID: 14B0612-06
 Sample Matrix: Soil
 Sample Flags: RL-05

Sample Description:
 Sampled: 2/20/2014 15:05

Work Order: 14B0612

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Hexachlorobutadiene	ND	0.76	mg/Kg dry	2		SW-846 8260C	2/24/14	2/24/14 14:31	LBD
2-Hexanone (MBK)	ND	1.5	mg/Kg dry	2		SW-846 8260C	2/24/14	2/24/14 14:31	LBD
Isopropylbenzene (Cumene)	0.48	0.15	mg/Kg dry	2		SW-846 8260C	2/24/14	2/24/14 14:31	LBD
p-Isopropyltoluene (p-Cymene)	1.2	0.15	mg/Kg dry	2		SW-846 8260C	2/24/14	2/24/14 14:31	LBD
Methyl tert-Butyl Ether (MTBE)	ND	0.15	mg/Kg dry	2		SW-846 8260C	2/24/14	2/24/14 14:31	LBD
Methylene Chloride	ND	0.76	mg/Kg dry	2		SW-846 8260C	2/24/14	2/24/14 14:31	LBD
4-Methyl-2-pentanone (MIBK)	ND	1.5	mg/Kg dry	2		SW-846 8260C	2/24/14	2/24/14 14:31	LBD
Naphthalene	29	0.31	mg/Kg dry	2	R-05, V-06	SW-846 8260C	2/24/14	2/24/14 14:31	LBD
n-Propylbenzene	1.3	0.15	mg/Kg dry	2		SW-846 8260C	2/24/14	2/24/14 14:31	LBD
Styrene	ND	0.15	mg/Kg dry	2		SW-846 8260C	2/24/14	2/24/14 14:31	LBD
1,1,1,2-Tetrachloroethane	ND	0.15	mg/Kg dry	2		SW-846 8260C	2/24/14	2/24/14 14:31	LBD
1,1,2,2-Tetrachloroethane	ND	0.076	mg/Kg dry	2		SW-846 8260C	2/24/14	2/24/14 14:31	LBD
Tetrachloroethylene	ND	0.15	mg/Kg dry	2		SW-846 8260C	2/24/14	2/24/14 14:31	LBD
Tetrahydrofuran	ND	0.61	mg/Kg dry	2		SW-846 8260C	2/24/14	2/24/14 14:31	LBD
Toluene	0.27	0.15	mg/Kg dry	2		SW-846 8260C	2/24/14	2/24/14 14:31	LBD
1,2,3-Trichlorobenzene	ND	0.61	mg/Kg dry	2		SW-846 8260C	2/24/14	2/24/14 14:31	LBD
1,2,4-Trichlorobenzene	ND	0.31	mg/Kg dry	2		SW-846 8260C	2/24/14	2/24/14 14:31	LBD
1,1,1-Trichloroethane	ND	0.76	mg/Kg dry	2		SW-846 8260C	2/24/14	2/24/14 14:31	LBD
1,1,2-Trichloroethane	ND	0.15	mg/Kg dry	2		SW-846 8260C	2/24/14	2/24/14 14:31	LBD
Trichloroethylene	ND	0.15	mg/Kg dry	2		SW-846 8260C	2/24/14	2/24/14 14:31	LBD
Trichlorofluoromethane (Freon 11)	ND	0.76	mg/Kg dry	2		SW-846 8260C	2/24/14	2/24/14 14:31	LBD
1,2,3-Trichloropropane	ND	0.31	mg/Kg dry	2		SW-846 8260C	2/24/14	2/24/14 14:31	LBD
1,2,4-Trimethylbenzene	9.1	0.15	mg/Kg dry	2		SW-846 8260C	2/24/14	2/24/14 14:31	LBD
1,3,5-Trimethylbenzene	3.1	0.15	mg/Kg dry	2		SW-846 8260C	2/24/14	2/24/14 14:31	LBD
Vinyl Chloride	ND	0.31	mg/Kg dry	2		SW-846 8260C	2/24/14	2/24/14 14:31	LBD
m+p Xylene	2.4	0.31	mg/Kg dry	2		SW-846 8260C	2/24/14	2/24/14 14:31	LBD
o-Xylene	1.5	0.15	mg/Kg dry	2		SW-846 8260C	2/24/14	2/24/14 14:31	LBD

Surrogates	% Recovery	Recovery Limits	Flag/Qual
1,2-Dichloroethane-d4	82.9	70-130	2/24/14 14:31
Toluene-d8	102	70-130	2/24/14 14:31
4-Bromofluorobenzene	109	70-130	2/24/14 14:31

Project Location: Ware
 Date Received: 2/21/2014
 Field Sample #: Comp
 Sample ID: 14B0612-06
 Sample Matrix: Soil

Sample Description:
 Sampled: 2/20/2014 15:05

Work Order: 14B0612

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.12	mg/Kg dry	5		SW-846 8082A	2/25/14	2/26/14 13:54	MJC
Aroclor-1221 [1]	ND	0.12	mg/Kg dry	5		SW-846 8082A	2/25/14	2/26/14 13:54	MJC
Aroclor-1232 [1]	ND	0.12	mg/Kg dry	5		SW-846 8082A	2/25/14	2/26/14 13:54	MJC
Aroclor-1242 [1]	ND	0.12	mg/Kg dry	5		SW-846 8082A	2/25/14	2/26/14 13:54	MJC
Aroclor-1248 [1]	ND	0.12	mg/Kg dry	5		SW-846 8082A	2/25/14	2/26/14 13:54	MJC
Aroclor-1254 [2]	0.21	0.12	mg/Kg dry	5		SW-846 8082A	2/25/14	2/26/14 13:54	MJC
Aroclor-1260 [1]	ND	0.12	mg/Kg dry	5		SW-846 8082A	2/25/14	2/26/14 13:54	MJC
Aroclor-1262 [1]	ND	0.12	mg/Kg dry	5		SW-846 8082A	2/25/14	2/26/14 13:54	MJC
Aroclor-1268 [1]	ND	0.12	mg/Kg dry	5		SW-846 8082A	2/25/14	2/26/14 13:54	MJC
Surrogates		% Recovery	Recovery Limits		Flag/Qual				
Decachlorobiphenyl [1]		84.0	30-150					2/26/14 13:54	
Decachlorobiphenyl [2]		123	30-150					2/26/14 13:54	
Tetrachloro-m-xylene [1]		81.4	30-150					2/26/14 13:54	
Tetrachloro-m-xylene [2]		71.3	30-150					2/26/14 13:54	

Project Location: Ware

Sample Description:

Work Order: 14B0612

Date Received: 2/21/2014

Sampled: 2/20/2014 15:05

Field Sample #: Comp

Sample ID: 14B0612-06

Sample Matrix: Soil

Petroleum Hydrocarbons Analyses

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
TPH (C9-C36)	22000	1000	mg/Kg dry	100		SW-846 8100 Modified	2/24/14	2/25/14 11:25	SCS
Surrogates	% Recovery		Recovery Limits	Flag/Qual					
o-Terphenyl	*		40-140	S-01		2/25/14 11:25			

Project Location: Ware

Sample Description:

Work Order: 14B0612

Date Received: 2/21/2014

Sampled: 2/20/2014 15:05

Field Sample #: Comp

Sample ID: 14B0612-06

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	3.0	mg/Kg dry	1		SW-846 6010C	2/22/14	2/25/14 12:23	OP
Cadmium	4.7	0.30	mg/Kg dry	1		SW-846 6010C	2/22/14	2/25/14 12:23	OP
Chromium	53	0.61	mg/Kg dry	1		SW-846 6010C	2/22/14	2/25/14 12:23	OP
Lead	490	0.91	mg/Kg dry	1		SW-846 6010C	2/22/14	2/25/14 12:23	OP
Mercury	1.0	0.31	mg/Kg dry	10		SW-846 7471B	2/22/14	2/24/14 13:53	AMP

Project Location: Ware

Sample Description:

Work Order: 14B0612

Date Received: 2/21/2014

Sampled: 2/20/2014 15:05

Field Sample #: Comp

Sample ID: 14B0612-06

Sample Matrix: Soil

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

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
pH @24.2°C	7.1		pH Units	1	H-03	SW-846 9045C	2/22/14	2/22/14 15:35	ABH
Reactive Cyanide	ND	4.0	mg/Kg	1		SW-846 9014	2/21/14	2/21/14 22:00	DAP
Reactive Sulfide	ND	20	mg/Kg	1		SW-846 9030A	2/21/14	2/21/14 21:30	DAP
% Solids	79.8		% Wt	1		SM 2540G	2/26/14	2/27/14 8:07	MXG

Project Location: Ware

Sample Description:

Work Order: 14B0612

Date Received: 2/21/2014

Sampled: 2/20/2014 15:05

Field Sample #: Comp

Sample ID: 14B0612-06

Sample Matrix: Soil

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

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Flashpoint	>212	75	°F	1		SW-846 1010		2/27/14 0:00	SAL

Sample Extraction Data

Prep Method: SW-846 3546-MADEP-EPH-04-1.1

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
14B0612-01 [1 (24")]	B090817	20.2	2.00	02/24/14
14B0612-02 [2-1 (12")]	B090817	20.2	2.00	02/24/14
14B0612-03 [3 (6")]	B090817	20.1	2.00	02/24/14
14B0612-04 [4-1 (12")]	B090817	20.2	2.00	02/24/14
14B0612-05 [5-1 (12")]	B090817	20.2	2.00	02/24/14

Prep Method: MA VPH-MADEP-VPH-04-1.1

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
14B0612-01 [1 (24")]	B090786	11.2	18.7	02/24/14
14B0612-02 [2-1 (12")]	B090786	16.2	16.9	02/24/14
14B0612-03 [3 (6")]	B090786	17.4	18.3	02/24/14
14B0612-04 [4-1 (12")]	B090786	15.4	16.7	02/24/14
14B0612-05 [5-1 (12")]	B090786	16.4	17.6	02/24/14

Prep Method: % Solids-SM 2540G

Lab Number [Field ID]	Batch	Date
14B0612-01 [1 (24")]	B090961	02/26/14
14B0612-02 [2-1 (12")]	B090961	02/26/14
14B0612-03 [3 (6")]	B090961	02/26/14
14B0612-04 [4-1 (12")]	B090961	02/26/14
14B0612-05 [5-1 (12")]	B090961	02/26/14
14B0612-06 [Comp]	B090961	02/26/14

Prep Method: SW-846 3050B-SW-846 6010C

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
14B0612-06 [Comp]	B090749	1.03	50.0	02/22/14

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

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
14B0612-06 [Comp]	B090751	0.608	50.0	02/22/14

Prep Method: SW-846 3546-SW-846 8082A

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
14B0612-06 [Comp]	B090901	10.3	10.0	02/25/14

Prep Method: SW-846 3546-SW-846 8100 Modified

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
14B0612-06 [Comp]	B090821	30.2	1.00	02/24/14

Sample Extraction Data

Prep Method: SW-846 5035-SW-846 8260C

Lab Number [Field ID]	Batch	Sample Amount(g)	Methanol Volume(mL)	Methanol Aliquot(mL)	Final Volume(mL)	Date
14B0612-06 [Comp]	B090774	14.8	18.0	0.5	50	02/24/14

SW-846 9014

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
14B0612-06 [Comp]	B090739	25.1	250	02/21/14

SW-846 9030A

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
14B0612-06 [Comp]	B090740	25.1	250	02/21/14

SW-846 9045C

Lab Number [Field ID]	Batch	Initial [g]	Date
14B0612-06 [Comp]	B090766	20.0	02/22/14

QUALITY CONTROL

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B090774 - SW-846 5035

Blank (B090774-BLK1)

Prepared & Analyzed: 02/24/14

Acetone	ND	2.5	mg/Kg wet							R-05
tert-Amyl Methyl Ether (TAME)	ND	0.025	mg/Kg wet							
Benzene	ND	0.050	mg/Kg wet							
Bromobenzene	ND	0.050	mg/Kg wet							
Bromochloromethane	ND	0.050	mg/Kg wet							
Bromodichloromethane	ND	0.050	mg/Kg wet							
Bromoform	ND	0.050	mg/Kg wet							
Bromomethane	ND	0.10	mg/Kg wet							
2-Butanone (MEK)	ND	1.0	mg/Kg wet							
n-Butylbenzene	ND	0.050	mg/Kg wet							
sec-Butylbenzene	ND	0.050	mg/Kg wet							
tert-Butylbenzene	ND	0.050	mg/Kg wet							
tert-Butyl Ethyl Ether (TBEE)	ND	0.025	mg/Kg wet							
Carbon Disulfide	ND	0.50	mg/Kg wet							R-05
Carbon Tetrachloride	ND	0.050	mg/Kg wet							
Chlorobenzene	ND	0.050	mg/Kg wet							
Chlorodibromomethane	ND	0.025	mg/Kg wet							
Chloroethane	ND	0.10	mg/Kg wet							
Chloroform	ND	0.10	mg/Kg wet							
Chloromethane	ND	0.10	mg/Kg wet							
2-Chlorotoluene	ND	0.050	mg/Kg wet							
4-Chlorotoluene	ND	0.050	mg/Kg wet							
1,2-Dibromo-3-chloropropane (DBCP)	ND	0.20	mg/Kg wet							V-05
1,2-Dibromoethane (EDB)	ND	0.025	mg/Kg wet							
Dibromomethane	ND	0.050	mg/Kg wet							
1,2-Dichlorobenzene	ND	0.050	mg/Kg wet							
1,3-Dichlorobenzene	ND	0.050	mg/Kg wet							
1,4-Dichlorobenzene	ND	0.050	mg/Kg wet							
Dichlorodifluoromethane (Freon 12)	ND	0.10	mg/Kg wet							
1,1-Dichloroethane	ND	0.050	mg/Kg wet							
1,2-Dichloroethane	ND	0.050	mg/Kg wet							
1,1-Dichloroethylene	ND	0.050	mg/Kg wet							
cis-1,2-Dichloroethylene	ND	0.050	mg/Kg wet							
trans-1,2-Dichloroethylene	ND	0.050	mg/Kg wet							
1,2-Dichloropropane	ND	0.050	mg/Kg wet							
1,3-Dichloropropane	ND	0.025	mg/Kg wet							
2,2-Dichloropropane	ND	0.050	mg/Kg wet							
1,1-Dichloropropene	ND	0.10	mg/Kg wet							
cis-1,3-Dichloropropene	ND	0.025	mg/Kg wet							
trans-1,3-Dichloropropene	ND	0.025	mg/Kg wet							
Diethyl Ether	ND	0.10	mg/Kg wet							
Diisopropyl Ether (DIPE)	ND	0.025	mg/Kg wet							
1,4-Dioxane	ND	2.5	mg/Kg wet							V-16
Ethylbenzene	ND	0.050	mg/Kg wet							
Hexachlorobutadiene	ND	0.050	mg/Kg wet							
2-Hexanone (MBK)	ND	0.50	mg/Kg wet							
Isopropylbenzene (Cumene)	ND	0.050	mg/Kg wet							
p-Isopropyltoluene (p-Cymene)	ND	0.050	mg/Kg wet							
Methyl tert-Butyl Ether (MTBE)	ND	0.050	mg/Kg wet							
Methylene Chloride	ND	0.25	mg/Kg wet							
4-Methyl-2-pentanone (MIBK)	ND	0.50	mg/Kg wet							
Naphthalene	ND	0.10	mg/Kg wet							R-05

QUALITY CONTROL

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B090774 - SW-846 5035

Blank (B090774-BLK1)

Prepared & Analyzed: 02/24/14

n-Propylbenzene	ND	0.050	mg/Kg wet							
Styrene	ND	0.050	mg/Kg wet							
1,1,1,2-Tetrachloroethane	ND	0.050	mg/Kg wet							
1,1,2,2-Tetrachloroethane	ND	0.025	mg/Kg wet							
Tetrachloroethylene	ND	0.050	mg/Kg wet							
Tetrahydrofuran	ND	0.20	mg/Kg wet							
Toluene	ND	0.050	mg/Kg wet							
1,2,3-Trichlorobenzene	ND	0.20	mg/Kg wet							
1,2,4-Trichlorobenzene	ND	0.050	mg/Kg wet							
1,1,1-Trichloroethane	ND	0.050	mg/Kg wet							
1,1,2-Trichloroethane	ND	0.050	mg/Kg wet							
Trichloroethylene	ND	0.050	mg/Kg wet							
Trichlorofluoromethane (Freon 11)	ND	0.10	mg/Kg wet							
1,2,3-Trichloropropane	ND	0.10	mg/Kg wet							
1,2,4-Trimethylbenzene	ND	0.050	mg/Kg wet							
1,3,5-Trimethylbenzene	ND	0.050	mg/Kg wet							
Vinyl Chloride	ND	0.10	mg/Kg wet							
m+p Xylene	ND	0.10	mg/Kg wet							
o-Xylene	ND	0.050	mg/Kg wet							
Surrogate: 1,2-Dichloroethane-d4	0.0208		mg/Kg wet	0.0250		83.3	70-130			
Surrogate: Toluene-d8	0.0257		mg/Kg wet	0.0250		103	70-130			
Surrogate: 4-Bromofluorobenzene	0.0276		mg/Kg wet	0.0250		110	70-130			

LCS (B090774-BS1)

Prepared & Analyzed: 02/24/14

Acetone	0.116	0.057	mg/Kg wet	0.113		102	40-160			R-05 †
tert-Amyl Methyl Ether (TAME)	0.0117	0.00057	mg/Kg wet	0.0113		103	70-130			
Benzene	0.0144	0.0011	mg/Kg wet	0.0113		127	70-130			
Bromobenzene	0.0127	0.0011	mg/Kg wet	0.0113		112	70-130			
Bromochloromethane	0.0146	0.0011	mg/Kg wet	0.0113		129	70-130			
Bromodichloromethane	0.0106	0.0011	mg/Kg wet	0.0113		93.4	70-130			
Bromoform	0.00952	0.0011	mg/Kg wet	0.0113		84.0	70-130			
Bromomethane	0.0120	0.0023	mg/Kg wet	0.0113		106	40-160			V-20 †
2-Butanone (MEK)	0.128	0.023	mg/Kg wet	0.113		113	40-160			†
n-Butylbenzene	0.0127	0.0011	mg/Kg wet	0.0113		112	70-130			
sec-Butylbenzene	0.0132	0.0011	mg/Kg wet	0.0113		117	70-130			
tert-Butylbenzene	0.0123	0.0011	mg/Kg wet	0.0113		108	70-130			
tert-Butyl Ethyl Ether (TBEE)	0.0122	0.00057	mg/Kg wet	0.0113		108	70-130			
Carbon Disulfide	0.0109	0.011	mg/Kg wet	0.0113		95.8	70-130			R-05
Carbon Tetrachloride	0.0108	0.0011	mg/Kg wet	0.0113		95.5	70-130			
Chlorobenzene	0.0136	0.0011	mg/Kg wet	0.0113		120	70-130			
Chlorodibromomethane	0.00962	0.00057	mg/Kg wet	0.0113		84.9	70-130			
Chloroethane	0.0121	0.0023	mg/Kg wet	0.0113		107	70-130			
Chloroform	0.0128	0.0023	mg/Kg wet	0.0113		112	70-130			
Chloromethane	0.00876	0.0023	mg/Kg wet	0.0113		77.3	40-160			†
2-Chlorotoluene	0.0127	0.0011	mg/Kg wet	0.0113		112	70-130			
4-Chlorotoluene	0.0130	0.0011	mg/Kg wet	0.0113		115	70-130			
1,2-Dibromo-3-chloropropane (DBCP)	0.00969	0.0045	mg/Kg wet	0.0113		85.5	70-130			V-05
1,2-Dibromoethane (EDB)	0.0136	0.00057	mg/Kg wet	0.0113		120	70-130			
Dibromomethane	0.0126	0.0011	mg/Kg wet	0.0113		111	70-130			
1,2-Dichlorobenzene	0.0126	0.0011	mg/Kg wet	0.0113		112	70-130			
1,3-Dichlorobenzene	0.0127	0.0011	mg/Kg wet	0.0113		112	70-130			
1,4-Dichlorobenzene	0.0128	0.0011	mg/Kg wet	0.0113		113	70-130			

QUALITY CONTROL

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B090774 - SW-846 5035										
LCS (B090774-BS1)										
Prepared & Analyzed: 02/24/14										
Dichlorodifluoromethane (Freon 12)	0.00739	0.0023	mg/Kg wet	0.0113		65.2	40-160			L-14, V-20 †
1,1-Dichloroethane	0.0125	0.0011	mg/Kg wet	0.0113		110	70-130			
1,2-Dichloroethane	0.0110	0.0011	mg/Kg wet	0.0113		97.5	70-130			
1,1-Dichloroethylene	0.0126	0.0011	mg/Kg wet	0.0113		111	70-130			
cis-1,2-Dichloroethylene	0.0127	0.0011	mg/Kg wet	0.0113		112	70-130			
trans-1,2-Dichloroethylene	0.0115	0.0011	mg/Kg wet	0.0113		102	70-130			
1,2-Dichloropropane	0.0131	0.0011	mg/Kg wet	0.0113		115	70-130			
1,3-Dichloropropane	0.0129	0.00057	mg/Kg wet	0.0113		114	70-130			
2,2-Dichloropropane	0.0131	0.0011	mg/Kg wet	0.0113		116	70-130			
1,1-Dichloropropene	0.0132	0.0023	mg/Kg wet	0.0113		117	70-130			
cis-1,3-Dichloropropene	0.0115	0.00057	mg/Kg wet	0.0113		101	70-130			
trans-1,3-Dichloropropene	0.0104	0.00057	mg/Kg wet	0.0113		91.7	70-130			
Diethyl Ether	0.0118	0.0023	mg/Kg wet	0.0113		104	70-130			
Diisopropyl Ether (DIPE)	0.0114	0.00057	mg/Kg wet	0.0113		100	70-130			
1,4-Dioxane	0.177	0.057	mg/Kg wet	0.113		156	40-160			L-14, V-16, V-20 †
Ethylbenzene	0.0141	0.0011	mg/Kg wet	0.0113		125	70-130			
Hexachlorobutadiene	0.0138	0.0011	mg/Kg wet	0.0113		122	70-130			
2-Hexanone (MBK)	0.123	0.011	mg/Kg wet	0.113		109	40-160			†
Isopropylbenzene (Cumene)	0.0142	0.0011	mg/Kg wet	0.0113		125	70-130			
p-Isopropyltoluene (p-Cymene)	0.0133	0.0011	mg/Kg wet	0.0113		117	70-130			
Methyl tert-Butyl Ether (MTBE)	0.0110	0.0011	mg/Kg wet	0.0113		97.4	70-130			
Methylene Chloride	0.00998	0.0057	mg/Kg wet	0.0113		88.1	70-130			
4-Methyl-2-pentanone (MIBK)	0.120	0.011	mg/Kg wet	0.113		106	40-160			†
Naphthalene	0.0156	0.0023	mg/Kg wet	0.0113		138 *	70-130			L-07A, R-05, V-06
n-Propylbenzene	0.0144	0.0011	mg/Kg wet	0.0113		127	70-130			
Styrene	0.0143	0.0011	mg/Kg wet	0.0113		126	70-130			
1,1,1,2-Tetrachloroethane	0.0130	0.0011	mg/Kg wet	0.0113		115	70-130			
1,1,1,2,2-Tetrachloroethane	0.0144	0.00057	mg/Kg wet	0.0113		127	70-130			
Tetrachloroethylene	0.0146	0.0011	mg/Kg wet	0.0113		129	70-130			
Tetrahydrofuran	0.0137	0.0045	mg/Kg wet	0.0113		121	70-130			
Toluene	0.0139	0.0011	mg/Kg wet	0.0113		122	70-130			
1,2,3-Trichlorobenzene	0.0162	0.0045	mg/Kg wet	0.0113		143 *	70-130			L-07, V-20
1,2,4-Trichlorobenzene	0.0137	0.0011	mg/Kg wet	0.0113		121	70-130			
1,1,1-Trichloroethane	0.0112	0.0011	mg/Kg wet	0.0113		99.1	70-130			
1,1,2-Trichloroethane	0.0136	0.0011	mg/Kg wet	0.0113		120	70-130			
Trichloroethylene	0.0141	0.0011	mg/Kg wet	0.0113		125	70-130			
Trichlorofluoromethane (Freon 11)	0.0121	0.0023	mg/Kg wet	0.0113		107	70-130			
1,2,3-Trichloropropane	0.0133	0.0023	mg/Kg wet	0.0113		117	70-130			
1,2,4-Trimethylbenzene	0.0123	0.0011	mg/Kg wet	0.0113		109	70-130			
1,3,5-Trimethylbenzene	0.0136	0.0011	mg/Kg wet	0.0113		120	70-130			
Vinyl Chloride	0.0103	0.0023	mg/Kg wet	0.0113		90.6	70-130			
m+p Xylene	0.0275	0.0023	mg/Kg wet	0.0227		121	70-130			
o-Xylene	0.0130	0.0011	mg/Kg wet	0.0113		114	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0233		mg/Kg wet	0.0283		82.1	70-130			
Surrogate: Toluene-d8	0.0293		mg/Kg wet	0.0283		103	70-130			
Surrogate: 4-Bromofluorobenzene	0.0304		mg/Kg wet	0.0283		107	70-130			

QUALITY CONTROL

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B090774 - SW-846 5035										
LCS Dup (B090774-BSD1)										
Prepared & Analyzed: 02/24/14										
Acetone	0.0874	0.057	mg/Kg wet	0.113		77.1	40-160	28.0 *	20	R-05 †
tert-Amyl Methyl Ether (TAME)	0.0110	0.00057	mg/Kg wet	0.0113		97.0	70-130	6.10	20	
Benzene	0.0135	0.0011	mg/Kg wet	0.0113		119	70-130	6.43	20	
Bromobenzene	0.0121	0.0011	mg/Kg wet	0.0113		107	70-130	5.03	20	
Bromochloromethane	0.0141	0.0011	mg/Kg wet	0.0113		124	70-130	3.40	20	
Bromodichloromethane	0.0102	0.0011	mg/Kg wet	0.0113		89.8	70-130	3.93	20	
Bromoform	0.00901	0.0011	mg/Kg wet	0.0113		79.5	70-130	5.50	20	
Bromomethane	0.0113	0.0023	mg/Kg wet	0.0113		99.3	40-160	6.43	20	V-20 †
2-Butanone (MEK)	0.109	0.023	mg/Kg wet	0.113		95.8	40-160	16.7	20	†
n-Butylbenzene	0.0121	0.0011	mg/Kg wet	0.0113		107	70-130	4.85	20	
sec-Butylbenzene	0.0127	0.0011	mg/Kg wet	0.0113		112	70-130	4.46	20	
tert-Butylbenzene	0.0120	0.0011	mg/Kg wet	0.0113		106	70-130	2.43	20	
tert-Butyl Ethyl Ether (TBEE)	0.0115	0.00057	mg/Kg wet	0.0113		101	70-130	6.12	20	
Carbon Disulfide	0.00799	0.011	mg/Kg wet	0.0113		70.5	70-130	30.4 *	20	R-05
Carbon Tetrachloride	0.0101	0.0011	mg/Kg wet	0.0113		89.0	70-130	7.05	20	
Chlorobenzene	0.0128	0.0011	mg/Kg wet	0.0113		113	70-130	6.44	20	
Chlorodibromomethane	0.00902	0.00057	mg/Kg wet	0.0113		79.6	70-130	6.44	20	
Chloroethane	0.0102	0.0023	mg/Kg wet	0.0113		89.8	70-130	17.5	20	
Chloroform	0.0120	0.0023	mg/Kg wet	0.0113		106	70-130	6.14	20	
Chloromethane	0.00765	0.0023	mg/Kg wet	0.0113		67.5	40-160	13.5	20	L-14 †
2-Chlorotoluene	0.0119	0.0011	mg/Kg wet	0.0113		105	70-130	6.43	20	
4-Chlorotoluene	0.0123	0.0011	mg/Kg wet	0.0113		108	70-130	6.09	20	
1,2-Dibromo-3-chloropropane (DBCP)	0.00804	0.0045	mg/Kg wet	0.0113		70.9	70-130	18.7	20	V-05
1,2-Dibromoethane (EDB)	0.0127	0.00057	mg/Kg wet	0.0113		112	70-130	6.65	20	
Dibromomethane	0.0120	0.0011	mg/Kg wet	0.0113		106	70-130	4.69	20	
1,2-Dichlorobenzene	0.0120	0.0011	mg/Kg wet	0.0113		106	70-130	4.78	20	
1,3-Dichlorobenzene	0.0121	0.0011	mg/Kg wet	0.0113		107	70-130	4.93	20	
1,4-Dichlorobenzene	0.0122	0.0011	mg/Kg wet	0.0113		108	70-130	4.45	20	
Dichlorodifluoromethane (Freon 12)	0.00772	0.0023	mg/Kg wet	0.0113		68.1	40-160	4.35	20	L-14, V-20 †
1,1-Dichloroethane	0.0127	0.0011	mg/Kg wet	0.0113		112	70-130	1.17	20	
1,2-Dichloroethane	0.0103	0.0011	mg/Kg wet	0.0113		91.3	70-130	6.57	20	
1,1-Dichloroethylene	0.0105	0.0011	mg/Kg wet	0.0113		92.3	70-130	18.6	20	
cis-1,2-Dichloroethylene	0.0119	0.0011	mg/Kg wet	0.0113		105	70-130	5.80	20	
trans-1,2-Dichloroethylene	0.0120	0.0011	mg/Kg wet	0.0113		106	70-130	4.24	20	
1,2-Dichloropropane	0.0123	0.0011	mg/Kg wet	0.0113		108	70-130	6.53	20	
1,3-Dichloropropane	0.0123	0.00057	mg/Kg wet	0.0113		109	70-130	4.76	20	
2,2-Dichloropropane	0.0120	0.0011	mg/Kg wet	0.0113		106	70-130	8.65	20	
1,1-Dichloropropene	0.0122	0.0023	mg/Kg wet	0.0113		107	70-130	8.30	20	
cis-1,3-Dichloropropene	0.0109	0.00057	mg/Kg wet	0.0113		96.2	70-130	5.07	20	
trans-1,3-Dichloropropene	0.0100	0.00057	mg/Kg wet	0.0113		88.4	70-130	3.66	20	
Diethyl Ether	0.0101	0.0023	mg/Kg wet	0.0113		88.7	70-130	16.3	20	
Diisopropyl Ether (DIPE)	0.0121	0.00057	mg/Kg wet	0.0113		107	70-130	6.09	20	
1,4-Dioxane	0.153	0.057	mg/Kg wet	0.113		135	40-160	14.6	20	L-14, V-16, V-20 †
Ethylbenzene	0.0133	0.0011	mg/Kg wet	0.0113		117	70-130	6.20	20	
Hexachlorobutadiene	0.0127	0.0011	mg/Kg wet	0.0113		112	70-130	8.63	20	
2-Hexanone (MBK)	0.105	0.011	mg/Kg wet	0.113		93.0	40-160	15.6	20	†
Isopropylbenzene (Cumene)	0.0132	0.0011	mg/Kg wet	0.0113		116	70-130	7.05	20	
p-Isopropyltoluene (p-Cymene)	0.0126	0.0011	mg/Kg wet	0.0113		112	70-130	5.16	20	
Methyl tert-Butyl Ether (MTBE)	0.0109	0.0011	mg/Kg wet	0.0113		96.3	70-130	1.14	20	
Methylene Chloride	0.0104	0.0057	mg/Kg wet	0.0113		92.2	70-130	4.55	20	
4-Methyl-2-pentanone (MIBK)	0.105	0.011	mg/Kg wet	0.113		92.4	40-160	13.7	20	†
Naphthalene	0.0125	0.0023	mg/Kg wet	0.0113		110	70-130	22.2 *	20	R-05, V-06

QUALITY CONTROL

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B090774 - SW-846 5035										
LCS Dup (B090774-BSD1)										
Prepared & Analyzed: 02/24/14										
n-Propylbenzene	0.0135	0.0011	mg/Kg wet	0.0113		119	70-130	6.10	20	
Styrene	0.0135	0.0011	mg/Kg wet	0.0113		119	70-130	5.95	20	
1,1,1,2-Tetrachloroethane	0.0124	0.0011	mg/Kg wet	0.0113		110	70-130	4.71	20	
1,1,2,2-Tetrachloroethane	0.0132	0.00057	mg/Kg wet	0.0113		116	70-130	9.02	20	
Tetrachloroethylene	0.0136	0.0011	mg/Kg wet	0.0113		120	70-130	7.24	20	
Tetrahydrofuran	0.0118	0.0045	mg/Kg wet	0.0113		104	70-130	15.1	20	
Toluene	0.0134	0.0011	mg/Kg wet	0.0113		118	70-130	3.83	20	
1,2,3-Trichlorobenzene	0.0133	0.0045	mg/Kg wet	0.0113		117	70-130	19.5	20	V-20
1,2,4-Trichlorobenzene	0.0121	0.0011	mg/Kg wet	0.0113		107	70-130	12.2	20	
1,1,1-Trichloroethane	0.0106	0.0011	mg/Kg wet	0.0113		93.6	70-130	5.71	20	
1,1,2-Trichloroethane	0.0129	0.0011	mg/Kg wet	0.0113		114	70-130	5.37	20	
Trichloroethylene	0.0130	0.0011	mg/Kg wet	0.0113		115	70-130	8.19	20	
Trichlorofluoromethane (Freon 11)	0.0104	0.0023	mg/Kg wet	0.0113		92.1	70-130	14.6	20	
1,2,3-Trichloropropane	0.0123	0.0023	mg/Kg wet	0.0113		109	70-130	7.70	20	
1,2,4-Trimethylbenzene	0.0120	0.0011	mg/Kg wet	0.0113		106	70-130	2.14	20	
1,3,5-Trimethylbenzene	0.0128	0.0011	mg/Kg wet	0.0113		112	70-130	6.20	20	
Vinyl Chloride	0.00894	0.0023	mg/Kg wet	0.0113		78.9	70-130	13.8	20	
m+p Xylene	0.0257	0.0023	mg/Kg wet	0.0227		114	70-130	6.60	20	
o-Xylene	0.0123	0.0011	mg/Kg wet	0.0113		109	70-130	5.29	20	
Surrogate: 1,2-Dichloroethane-d4	0.0230		mg/Kg wet	0.0283		81.3	70-130			
Surrogate: Toluene-d8	0.0298		mg/Kg wet	0.0283		105	70-130			
Surrogate: 4-Bromofluorobenzene	0.0305		mg/Kg wet	0.0283		107	70-130			

QUALITY CONTROL

Polychlorinated Biphenyls By GC/ECD - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B090901 - SW-846 3546										
Blank (B090901-BLK1)										
Prepared: 02/25/14 Analyzed: 02/26/14										
Aroclor-1016	ND	0.020	mg/Kg wet							
Aroclor-1016 [2C]	ND	0.020	mg/Kg wet							
Aroclor-1221	ND	0.020	mg/Kg wet							
Aroclor-1221 [2C]	ND	0.020	mg/Kg wet							
Aroclor-1232	ND	0.020	mg/Kg wet							
Aroclor-1232 [2C]	ND	0.020	mg/Kg wet							
Aroclor-1242	ND	0.020	mg/Kg wet							
Aroclor-1242 [2C]	ND	0.020	mg/Kg wet							
Aroclor-1248	ND	0.020	mg/Kg wet							
Aroclor-1248 [2C]	ND	0.020	mg/Kg wet							
Aroclor-1254	ND	0.020	mg/Kg wet							
Aroclor-1254 [2C]	ND	0.020	mg/Kg wet							
Aroclor-1260	ND	0.020	mg/Kg wet							
Aroclor-1260 [2C]	ND	0.020	mg/Kg wet							
Aroclor-1262	ND	0.020	mg/Kg wet							
Aroclor-1262 [2C]	ND	0.020	mg/Kg wet							
Aroclor-1268	ND	0.020	mg/Kg wet							
Aroclor-1268 [2C]	ND	0.020	mg/Kg wet							
Surrogate: Decachlorobiphenyl	0.200		mg/Kg wet	0.200		100	30-150			
Surrogate: Decachlorobiphenyl [2C]	0.204		mg/Kg wet	0.200		102	30-150			
Surrogate: Tetrachloro-m-xylene	0.207		mg/Kg wet	0.200		103	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	0.186		mg/Kg wet	0.200		93.0	30-150			
LCS (B090901-BS1)										
Prepared: 02/25/14 Analyzed: 02/26/14										
Aroclor-1016	0.20	0.10	mg/Kg wet	0.200		98.9	40-140			
Aroclor-1016 [2C]	0.19	0.10	mg/Kg wet	0.200		97.3	40-140			
Aroclor-1260	0.19	0.10	mg/Kg wet	0.200		93.5	40-140			
Aroclor-1260 [2C]	0.21	0.10	mg/Kg wet	0.200		107	40-140			
Surrogate: Decachlorobiphenyl	0.216		mg/Kg wet	0.200		108	30-150			
Surrogate: Decachlorobiphenyl [2C]	0.221		mg/Kg wet	0.200		110	30-150			
Surrogate: Tetrachloro-m-xylene	0.217		mg/Kg wet	0.200		108	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	0.200		mg/Kg wet	0.200		100	30-150			
LCS Dup (B090901-BSD1)										
Prepared: 02/25/14 Analyzed: 02/26/14										
Aroclor-1016	0.21	0.10	mg/Kg wet	0.200		105	40-140	6.23	30	
Aroclor-1016 [2C]	0.20	0.10	mg/Kg wet	0.200		98.4	40-140	1.15	30	
Aroclor-1260	0.20	0.10	mg/Kg wet	0.200		98.1	40-140	4.82	30	
Aroclor-1260 [2C]	0.23	0.10	mg/Kg wet	0.200		113	40-140	5.44	30	
Surrogate: Decachlorobiphenyl	0.218		mg/Kg wet	0.200		109	30-150			
Surrogate: Decachlorobiphenyl [2C]	0.221		mg/Kg wet	0.200		110	30-150			
Surrogate: Tetrachloro-m-xylene	0.219		mg/Kg wet	0.200		109	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	0.202		mg/Kg wet	0.200		101	30-150			

QUALITY CONTROL

Petroleum Hydrocarbons Analyses - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B090821 - SW-846 3546										
Blank (B090821-BLK1)										
Prepared: 02/24/14 Analyzed: 02/25/14										
TPH (C9-C36)	ND	8.3	mg/Kg wet							
Surrogate: o-Terphenyl	3.04		mg/Kg wet	3.33		91.1	40-140			
LCS (B090821-BS1)										
Prepared: 02/24/14 Analyzed: 02/25/14										
TPH (C9-C36)	27.6	8.3	mg/Kg wet	33.3		82.9	40-140			
Surrogate: o-Terphenyl	3.08		mg/Kg wet	3.33		92.5	40-140			
LCS Dup (B090821-BSD1)										
Prepared: 02/24/14 Analyzed: 02/25/14										
TPH (C9-C36)	32.4	8.3	mg/Kg wet	33.3		97.2	40-140	16.0	30	
Surrogate: o-Terphenyl	3.31		mg/Kg wet	3.33		99.2	40-140			

QUALITY CONTROL

Petroleum Hydrocarbons Analyses - EPH - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B090817 - SW-846 3546

Blank (B090817-BLK1)

Prepared: 02/24/14 Analyzed: 02/25/14

C9-C18 Aliphatics	ND	10	mg/Kg wet							
C19-C36 Aliphatics	ND	10	mg/Kg wet							
Unadjusted C11-C22 Aromatics	ND	10	mg/Kg wet							
C11-C22 Aromatics	ND	10	mg/Kg wet							
Acenaphthene	ND	0.10	mg/Kg wet							
Acenaphthylene	ND	0.10	mg/Kg wet							
Anthracene	ND	0.10	mg/Kg wet							
Benzo(a)anthracene	ND	0.10	mg/Kg wet							
Benzo(a)pyrene	ND	0.10	mg/Kg wet							
Benzo(b)fluoranthene	ND	0.10	mg/Kg wet							
Benzo(g,h,i)perylene	ND	0.10	mg/Kg wet							
Benzo(k)fluoranthene	ND	0.10	mg/Kg wet							
Chrysene	ND	0.10	mg/Kg wet							
Dibenz(a,h)anthracene	ND	0.10	mg/Kg wet							
Fluoranthene	ND	0.10	mg/Kg wet							
Fluorene	ND	0.10	mg/Kg wet							
Indeno(1,2,3-cd)pyrene	ND	0.10	mg/Kg wet							
2-Methylnaphthalene	ND	0.10	mg/Kg wet							
Naphthalene	ND	0.10	mg/Kg wet							
Phenanthrene	ND	0.10	mg/Kg wet							
Pyrene	ND	0.10	mg/Kg wet							
n-Decane	ND	0.10	mg/Kg wet							
n-Docosane	ND	0.10	mg/Kg wet							
n-Dodecane	ND	0.10	mg/Kg wet							
n-Eicosane	ND	0.10	mg/Kg wet							
n-Hexacosane	ND	0.10	mg/Kg wet							
n-Hexadecane	ND	0.10	mg/Kg wet							
n-Hexatriacontane	ND	0.10	mg/Kg wet							
n-Nonadecane	ND	0.10	mg/Kg wet							
n-Nonane	ND	0.10	mg/Kg wet							
n-Octacosane	ND	0.10	mg/Kg wet							
n-Octadecane	ND	0.10	mg/Kg wet							
n-Tetracosane	ND	0.10	mg/Kg wet							
n-Tetradecane	ND	0.10	mg/Kg wet							
n-Triacontane	ND	0.10	mg/Kg wet							
Naphthalene-aliphatic fraction	ND	0.10	mg/Kg wet							
2-Methylnaphthalene-aliphatic fraction	ND	0.10	mg/Kg wet							
Surrogate: Chlorooctadecane (COD)	3.08		mg/Kg wet	4.99		61.7	40-140			
Surrogate: o-Terphenyl (OTP)	4.04		mg/Kg wet	5.00		80.8	40-140			
Surrogate: 2-Bromonaphthalene	4.62		mg/Kg wet	5.00		92.4	40-140			
Surrogate: 2-Fluorobiphenyl	4.70		mg/Kg wet	5.00		94.0	40-140			

LCS (B090817-BS1)

Prepared: 02/24/14 Analyzed: 02/25/14

Acenaphthene	3.59	0.10	mg/Kg wet	5.00		71.8	40-140			
Acenaphthylene	3.54	0.10	mg/Kg wet	5.00		70.9	40-140			
Anthracene	3.51	0.10	mg/Kg wet	5.00		70.1	40-140			
Benzo(a)anthracene	3.57	0.10	mg/Kg wet	5.00		71.5	40-140			
Benzo(a)pyrene	3.51	0.10	mg/Kg wet	5.00		70.3	40-140			
Benzo(b)fluoranthene	3.54	0.10	mg/Kg wet	5.00		70.8	40-140			
Benzo(g,h,i)perylene	3.85	0.10	mg/Kg wet	5.00		77.1	40-140			
Benzo(k)fluoranthene	3.61	0.10	mg/Kg wet	5.00		72.2	40-140			
Chrysene	3.43	0.10	mg/Kg wet	5.00		68.6	40-140			

QUALITY CONTROL

Petroleum Hydrocarbons Analyses - EPH - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B090817 - SW-846 3546

LCS (B090817-BS1)

Prepared: 02/24/14 Analyzed: 02/25/14

Dibenz(a,h)anthracene	3.86	0.10	mg/Kg wet	5.00		77.3	40-140			
Fluoranthene	3.41	0.10	mg/Kg wet	5.00		68.2	40-140			
Fluorene	3.55	0.10	mg/Kg wet	5.00		70.9	40-140			
Indeno(1,2,3-cd)pyrene	3.80	0.10	mg/Kg wet	5.00		76.1	40-140			
2-Methylnaphthalene	3.52	0.10	mg/Kg wet	5.00		70.5	40-140			
Naphthalene	3.22	0.10	mg/Kg wet	5.00		64.4	40-140			
Phenanthrene	3.46	0.10	mg/Kg wet	5.00		69.2	40-140			
Pyrene	3.33	0.10	mg/Kg wet	5.00		66.5	40-140			
n-Decane	2.33	0.10	mg/Kg wet	5.00		46.5	40-140			
n-Docosane	3.29	0.10	mg/Kg wet	5.00		65.7	40-140			
n-Dodecane	2.89	0.10	mg/Kg wet	5.00		57.8	40-140			
n-Eicosane	3.20	0.10	mg/Kg wet	5.00		64.0	40-140			
n-Hexacosane	3.38	0.10	mg/Kg wet	5.00		67.5	40-140			
n-Hexadecane	3.21	0.10	mg/Kg wet	5.00		64.2	40-140			
n-Hexatriacontane	3.26	0.10	mg/Kg wet	5.00		65.1	40-140			
n-Nonadecane	3.18	0.10	mg/Kg wet	5.00		63.7	40-140			
n-Nonane	1.63	0.10	mg/Kg wet	5.00		32.5	30-140			
n-Octacosane	3.32	0.10	mg/Kg wet	5.00		66.4	40-140			
n-Octadecane	3.21	0.10	mg/Kg wet	5.00		64.1	40-140			
n-Tetracosane	3.29	0.10	mg/Kg wet	5.00		65.8	40-140			
n-Tetradecane	3.10	0.10	mg/Kg wet	5.00		62.1	40-140			
n-Triacontane	3.41	0.10	mg/Kg wet	5.00		68.2	40-140			
Naphthalene-aliphatic fraction	ND	0.10	mg/Kg wet	5.00			0-5			
2-Methylnaphthalene-aliphatic fraction	ND	0.10	mg/Kg wet	5.00			0-5			
Surrogate: Chlorooctadecane (COD)	2.73		mg/Kg wet	4.99		54.7	40-140			
Surrogate: o-Terphenyl (OTP)	3.46		mg/Kg wet	5.00		69.2	40-140			
Surrogate: 2-Bromonaphthalene	4.74		mg/Kg wet	5.00		94.8	40-140			
Surrogate: 2-Fluorobiphenyl	4.88		mg/Kg wet	5.00		97.6	40-140			

LCS Dup (B090817-BS1)

Prepared: 02/24/14 Analyzed: 02/25/14

Acenaphthene	3.80	0.10	mg/Kg wet	5.00		76.0	40-140	5.74	25	
Acenaphthylene	3.74	0.10	mg/Kg wet	5.00		74.8	40-140	5.33	25	
Anthracene	3.77	0.10	mg/Kg wet	5.00		75.5	40-140	7.31	25	
Benzo(a)anthracene	3.79	0.10	mg/Kg wet	5.00		75.8	40-140	5.88	25	
Benzo(a)pyrene	3.71	0.10	mg/Kg wet	5.00		74.1	40-140	5.29	25	
Benzo(b)fluoranthene	3.84	0.10	mg/Kg wet	5.00		76.8	40-140	8.08	25	
Benzo(g,h,i)perylene	3.93	0.10	mg/Kg wet	5.00		78.7	40-140	2.02	25	
Benzo(k)fluoranthene	3.75	0.10	mg/Kg wet	5.00		75.1	40-140	3.86	25	
Chrysene	3.54	0.10	mg/Kg wet	5.00		70.8	40-140	3.10	25	
Dibenz(a,h)anthracene	3.94	0.10	mg/Kg wet	5.00		78.9	40-140	2.05	25	
Fluoranthene	3.70	0.10	mg/Kg wet	5.00		74.0	40-140	8.17	25	
Fluorene	3.79	0.10	mg/Kg wet	5.00		75.8	40-140	6.68	25	
Indeno(1,2,3-cd)pyrene	4.04	0.10	mg/Kg wet	5.00		80.8	40-140	6.05	25	
2-Methylnaphthalene	3.71	0.10	mg/Kg wet	5.00		74.3	40-140	5.23	25	
Naphthalene	3.38	0.10	mg/Kg wet	5.00		67.7	40-140	4.95	25	
Phenanthrene	3.74	0.10	mg/Kg wet	5.00		74.8	40-140	7.70	25	
Pyrene	3.62	0.10	mg/Kg wet	5.00		72.3	40-140	8.34	25	
n-Decane	2.44	0.10	mg/Kg wet	5.00		48.8	40-140	4.68	25	
n-Docosane	3.59	0.10	mg/Kg wet	5.00		71.7	40-140	8.73	25	
n-Dodecane	3.04	0.10	mg/Kg wet	5.00		60.9	40-140	5.28	25	
n-Eicosane	3.49	0.10	mg/Kg wet	5.00		69.8	40-140	8.80	25	
n-Hexacosane	3.67	0.10	mg/Kg wet	5.00		73.5	40-140	8.41	25	

QUALITY CONTROL

Petroleum Hydrocarbons Analyses - EPH - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B090817 - SW-846 3546										
LCS Dup (B090817-BSD1)										
					Prepared: 02/24/14 Analyzed: 02/25/14					
n-Hexadecane	3.48	0.10	mg/Kg wet	5.00		69.7	40-140	8.16	25	
n-Hexatriacontane	3.69	0.10	mg/Kg wet	5.00		73.9	40-140	12.6	25	
n-Nonadecane	3.48	0.10	mg/Kg wet	5.00		69.6	40-140	8.81	25	
n-Nonane	1.69	0.10	mg/Kg wet	5.00		33.8	30-140	3.73	25	
n-Octacosane	3.60	0.10	mg/Kg wet	5.00		72.0	40-140	8.02	25	
n-Octadecane	3.50	0.10	mg/Kg wet	5.00		70.0	40-140	8.77	25	
n-Tetracosane	3.58	0.10	mg/Kg wet	5.00		71.7	40-140	8.62	25	
n-Tetradecane	3.33	0.10	mg/Kg wet	5.00		66.7	40-140	7.15	25	
n-Triacontane	3.72	0.10	mg/Kg wet	5.00		74.3	40-140	8.59	25	
Naphthalene-aliphatic fraction	ND	0.10	mg/Kg wet	5.00			0-5			
2-Methylnaphthalene-aliphatic fraction	ND	0.10	mg/Kg wet	5.00			0-5			
Surrogate: Chlorooctadecane (COD)	2.87		mg/Kg wet	4.99		57.6	40-140			
Surrogate: o-Terphenyl (OTP)	3.71		mg/Kg wet	5.00		74.1	40-140			
Surrogate: 2-Bromonaphthalene	4.34		mg/Kg wet	5.00		86.7	40-140			
Surrogate: 2-Fluorobiphenyl	4.46		mg/Kg wet	5.00		89.3	40-140			

QUALITY CONTROL

Petroleum Hydrocarbons Analyses - VPH - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B090786 - MA VPH

Blank (B090786-BLK1)

Prepared & Analyzed: 02/24/14

Unadjusted C5-C8 Aliphatics	ND	10	mg/Kg wet							
C5-C8 Aliphatics	ND	10	mg/Kg wet							
Unadjusted C9-C12 Aliphatics	ND	10	mg/Kg wet							
C9-C12 Aliphatics	ND	10	mg/Kg wet							
C9-C10 Aromatics	ND	10	mg/Kg wet							
Benzene	ND	0.050	mg/Kg wet							
Butylcyclohexane	ND	0.050	mg/Kg wet							
Decane	ND	0.050	mg/Kg wet							
Ethylbenzene	ND	0.050	mg/Kg wet							
Methyl tert-Butyl Ether (MTBE)	ND	0.050	mg/Kg wet							
2-Methylpentane	ND	0.050	mg/Kg wet							
Naphthalene	ND	0.25	mg/Kg wet							
Nonane	ND	0.050	mg/Kg wet							
Pentane	ND	0.050	mg/Kg wet							
Toluene	ND	0.050	mg/Kg wet							
1,2,4-Trimethylbenzene	ND	0.050	mg/Kg wet							
2,2,4-Trimethylpentane	ND	0.050	mg/Kg wet							
m+p Xylene	ND	0.10	mg/Kg wet							
o-Xylene	ND	0.050	mg/Kg wet							
Surrogate: 2,5-Dibromotoluene (FID)	3.03		mg/Kg wet	3.33		91.0	70-130			
Surrogate: 2,5-Dibromotoluene (PID)	2.76		mg/Kg wet	3.33		82.9	70-130			

LCS (B090786-BS1)

Prepared & Analyzed: 02/24/14

Benzene	5.17	0.050	mg/Kg wet	5.00		103	70-130			
Butylcyclohexane	4.50	0.050	mg/Kg wet	5.00		90.0	70-130			
Decane	5.11	0.050	mg/Kg wet	5.00		102	70-130			
Ethylbenzene	5.32	0.050	mg/Kg wet	5.00		106	70-130			
Methyl tert-Butyl Ether (MTBE)	5.20	0.050	mg/Kg wet	5.00		104	70-130			
2-Methylpentane	5.86	0.050	mg/Kg wet	5.00		117	70-130			
Naphthalene	5.66	0.25	mg/Kg wet	5.00		113	70-130			
Nonane	4.67	0.050	mg/Kg wet	5.00		93.4	30-130			
Pentane	5.70	0.050	mg/Kg wet	5.00		114	70-130			
Toluene	5.23	0.050	mg/Kg wet	5.00		105	70-130			
1,2,4-Trimethylbenzene	5.28	0.050	mg/Kg wet	5.00		106	70-130			
2,2,4-Trimethylpentane	5.64	0.050	mg/Kg wet	5.00		113	70-130			
m+p Xylene	10.7	0.10	mg/Kg wet	10.0		107	70-130			
o-Xylene	5.32	0.050	mg/Kg wet	5.00		106	70-130			
Surrogate: 2,5-Dibromotoluene (FID)	3.17		mg/Kg wet	3.33		95.0	70-130			
Surrogate: 2,5-Dibromotoluene (PID)	2.92		mg/Kg wet	3.33		87.7	70-130			

LCS Dup (B090786-BSD1)

Prepared & Analyzed: 02/24/14

Benzene	5.03	0.050	mg/Kg wet	5.00		101	70-130	2.76	25	
Butylcyclohexane	4.63	0.050	mg/Kg wet	5.00		92.5	70-130	2.74	25	
Decane	5.18	0.050	mg/Kg wet	5.00		104	70-130	1.43	25	
Ethylbenzene	5.21	0.050	mg/Kg wet	5.00		104	70-130	2.02	25	
Methyl tert-Butyl Ether (MTBE)	5.09	0.050	mg/Kg wet	5.00		102	70-130	2.15	25	
2-Methylpentane	5.87	0.050	mg/Kg wet	5.00		117	70-130	0.332	25	
Naphthalene	5.83	0.25	mg/Kg wet	5.00		117	70-130	3.01	25	
Nonane	4.88	0.050	mg/Kg wet	5.00		97.5	30-130	4.34	25	
Pentane	5.87	0.050	mg/Kg wet	5.00		117	70-130	2.93	25	
Toluene	5.11	0.050	mg/Kg wet	5.00		102	70-130	2.31	25	
1,2,4-Trimethylbenzene	5.31	0.050	mg/Kg wet	5.00		106	70-130	0.604	25	

QUALITY CONTROL

Petroleum Hydrocarbons Analyses - VPH - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B090786 - MA VPH

LCS Dup (B090786-BSD1)

Prepared & Analyzed: 02/24/14

2,2,4-Trimethylpentane	5.64	0.050	mg/Kg wet	5.00		113	70-130	0.00886	25	
m+p Xylene	10.5	0.10	mg/Kg wet	10.0		105	70-130	1.58	25	
o-Xylene	5.26	0.050	mg/Kg wet	5.00		105	70-130	1.12	25	
Surrogate: 2,5-Dibromotoluene (FID)	3.73		mg/Kg wet	3.33		112	70-130			
Surrogate: 2,5-Dibromotoluene (PID)	3.43		mg/Kg wet	3.33		103	70-130			

QUALITY CONTROL

Metals Analyses (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B090749 - SW-846 3050B										
Blank (B090749-BLK1)										
Prepared: 02/22/14 Analyzed: 02/25/14										
Arsenic	ND	2.5	mg/Kg wet							
Cadmium	ND	0.25	mg/Kg wet							
Chromium	ND	0.50	mg/Kg wet							
Lead	ND	0.75	mg/Kg wet							
LCS (B090749-BS1)										
Prepared: 02/22/14 Analyzed: 02/25/14										
Arsenic	99.3	5.0	mg/Kg wet	99.6		99.7	83-117.6			
Cadmium	163	0.50	mg/Kg wet	182		89.7	83.1-116.9			
Chromium	133	1.0	mg/Kg wet	136		98.1	81.6-117.6			
Lead	110	1.5	mg/Kg wet	115		95.7	82.4-117.8			
LCS Dup (B090749-BSD1)										
Prepared: 02/22/14 Analyzed: 02/25/14										
Arsenic	98.1	5.0	mg/Kg wet	99.6		98.5	83-117.6	1.19	30	
Cadmium	162	0.50	mg/Kg wet	182		89.0	83.1-116.9	0.767	30	
Chromium	135	1.0	mg/Kg wet	136		98.9	81.6-117.6	0.807	30	
Lead	113	1.5	mg/Kg wet	115		98.0	82.4-117.8	2.32	30	
MRL Check (B090749-MRL1)										
Prepared: 02/22/14 Analyzed: 02/25/14										
Lead	0.673	0.73	mg/Kg wet	0.732		91.8	80-120			
Batch B090751 - SW-846 7471										
Blank (B090751-BLK1)										
Prepared: 02/22/14 Analyzed: 02/24/14										
Mercury	ND	0.025	mg/Kg wet							
LCS (B090751-BS1)										
Prepared: 02/22/14 Analyzed: 02/24/14										
Mercury	5.92	0.38	mg/Kg wet	5.76		103	71.6-128.1			
LCS Dup (B090751-BSD1)										
Prepared: 02/22/14 Analyzed: 02/24/14										
Mercury	6.05	0.38	mg/Kg wet	5.76		105	71.6-128.1	2.11	30	

QUALITY CONTROL

Conventional Chemistry Parameters by EPA/PHA/SW-846 Methods (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B090739 - SW-846 9014										
Blank (B090739-BLK1)				Prepared & Analyzed: 02/21/14						
Reactive Cyanide	ND	0.40	mg/Kg							
LCS (B090739-BS1)				Prepared & Analyzed: 02/21/14						
Reactive Cyanide	10	0.40	mg/Kg	10.0		103	81.3-112			
Batch B090740 - SW-846 9030A										
Blank (B090740-BLK1)				Prepared & Analyzed: 02/21/14						
Reactive Sulfide	ND	2.0	mg/Kg							
LCS (B090740-BS1)				Prepared & Analyzed: 02/21/14						
Reactive Sulfide	14	2.0	mg/Kg	14.4		94.4	15.2-146			
Batch B090766 - SW-846 9045C										
LCS (B090766-BS1)				Prepared & Analyzed: 02/22/14						
pH	6.00		pH Units	6.00		100	99-102			
Duplicate (B090766-DUP1)				Source: 14B0612-06 Prepared & Analyzed: 02/22/14						
pH	7.1		pH Units	7.1				0.282	6.77	H-03

FLAG/QUALIFIER SUMMARY

- * QC result is outside of established limits.
 - † Wide recovery limits established for difficult compound.
 - ‡ Wide RPD limits established for difficult compound.
 - # Data exceeded client recommended or regulatory level
- Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.
No results have been blank subtracted unless specified in the case narrative section.
- H-03 Sample received after recommended holding time was exceeded.
 - L-07 Either laboratory fortified blank/laboratory control sample or duplicate recovery is outside of control limits, but the other is within limits. RPD between the two LFB/LCS results is within method specified criteria.
 - L-07A Either laboratory fortified blank/laboratory control sample or duplicate recovery is outside of control limits, but the other is within limits. RPD outside of control limits. Reduced precision anticipated for any reported result for this compound.
 - L-14 Compound classified by MA CAM as difficult with acceptable recoveries of 40-160%. Recovery does not meet 70-130% criteria but does meet difficult compound criteria.
 - O-02 Soil/methanol ratio does not meet method specifications. Insufficient amount of soil. Data validation is not affected since a sufficient amount of preservative is present. Detection limits may be above useful levels.
 - R-05 Laboratory fortified blank duplicate RPD is outside of control limits. Reduced precision is anticipated for any reported value for this compound.
 - RL-05 Elevated reporting limit due to high concentration of target compounds. MA CAM reporting limit not met.
 - S-01 The surrogate recovery for this sample is not available due to sample dilution below the surrogate reporting limit required from high analyte concentration and/or matrix interferences.
 - S-15 Surrogate recovery outside of control limits due to suspected sample matrix interference. Chromatogram(s) is attached.
 - V-05 Continuing calibration did not meet method specifications and was biased on the low side for this compound. Increased uncertainty is associated with the reported value which is likely to be biased on the low side.
 - V-06 Continuing calibration did not meet method specifications and was biased on the high side for this compound. Increased uncertainty is associated with the reported value which is likely to be biased on the high side.
 - V-16 Response factor is less than method specified minimum acceptable value. Reduced precision and accuracy may be associated with reported result.
 - V-20 Continuing calibration did not meet method specifications and was biased on the high side. Data validation is not affected since sample result was "not detected" for this compound.

CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
MADEP-EPH-04-1.1 in Soil	
C9-C18 Aliphatics	CT,NC,WA,ME,ME,NH-P
C19-C36 Aliphatics	CT,NC,WA,ME,ME,NH-P
Unadjusted C11-C22 Aromatics	CT,NC,WA,ME,ME,NH-P
C11-C22 Aromatics	CT,NC,WA,ME,ME,NH-P
Acenaphthene	CT,NC,WA,ME,ME,NH-P
Acenaphthylene	CT,NC,WA,ME,ME,NH-P
Anthracene	CT,NC,WA,ME,ME,NH-P
Benzo(a)anthracene	CT,NC,WA,ME,ME,NH-P
Benzo(a)pyrene	CT,NC,WA,ME,ME,NH-P
Benzo(b)fluoranthene	CT,NC,WA,ME,ME,NH-P
Benzo(g,h,i)perylene	CT,NC,WA,ME,ME,NH-P
Benzo(k)fluoranthene	CT,NC,WA,ME,ME,NH-P
Chrysene	CT,NC,WA,ME,ME,NH-P
Dibenz(a,h)anthracene	CT,NC,WA,ME,ME,NH-P
Fluoranthene	CT,NC,WA,ME,ME,NH-P
Fluorene	CT,NC,WA,ME,ME
Indeno(1,2,3-cd)pyrene	CT,NC,WA,ME,ME,NH-P
2-Methylnaphthalene	CT,NC,WA,ME,ME
Naphthalene	CT,NC,WA,ME,ME,NH-P
Phenanthrene	CT,NC,WA,ME,ME,NH-P
Pyrene	CT,NC,WA,ME,ME,NH-P
MADEP-VPH-04-1.1 in Soil	
Unadjusted C5-C8 Aliphatics	CT,NC,WA,ME,ME,NH-P
C5-C8 Aliphatics	CT,NC,WA,ME,ME,NH-P
Unadjusted C9-C12 Aliphatics	CT,NC,WA,ME,ME,NH-P
C9-C12 Aliphatics	CT,NC,WA,ME,ME,NH-P
C9-C10 Aromatics	CT,NC,WA,ME,ME,NH-P
Benzene	CT,NC,WA,ME,ME,NH-P
Ethylbenzene	CT,NC,WA,ME,ME,NH-P
Methyl tert-Butyl Ether (MTBE)	CT,NC,WA,ME,ME,NH-P
Naphthalene	CT,NC,WA,ME,ME,NH-P
Toluene	CT,NC,WA,ME,ME,NH-P
m+p Xylene	CT,NC,WA,ME,ME,NH-P
o-Xylene	CT,NC,WA,ME,ME,NH-P
SW-846 1010 in Soil	
Flashpoint	NY,NC,ME,VA,NJ
SW-846 6010C in Soil	
Arsenic	CT,NH,NY,ME,NC,VA,NJ
Cadmium	CT,NH,NY,ME,NC,VA,NJ
Chromium	CT,NH,NY,ME,NC,VA,NJ
Lead	CT,NH,NY,AIHA,ME,NC,VA,NJ
SW-846 7471B in Soil	
Mercury	CT,NH,NY,NC,ME,VA,NJ
SW-846 8082A in Soil	
Aroclor-1016	CT,NH,NY,NC,ME,VA,NJ

CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
SW-846 8082A in Soil	
Aroclor-1016 [2C]	CT,NH,NY,NC,ME,VA,NJ
Aroclor-1221	CT,NH,NY,NC,ME,VA,NJ
Aroclor-1221 [2C]	CT,NH,NY,NC,ME,VA,NJ
Aroclor-1232	CT,NH,NY,NC,ME,VA,NJ
Aroclor-1232 [2C]	CT,NH,NY,NC,ME,VA,NJ
Aroclor-1242	CT,NH,NY,NC,ME,VA,NJ
Aroclor-1242 [2C]	CT,NH,NY,NC,ME,VA,NJ
Aroclor-1248	CT,NH,NY,NC,ME,VA,NJ
Aroclor-1248 [2C]	CT,NH,NY,NC,ME,VA,NJ
Aroclor-1254	CT,NH,NY,NC,ME,VA,NJ
Aroclor-1254 [2C]	CT,NH,NY,NC,ME,VA,NJ
Aroclor-1260	CT,NH,NY,NC,ME,VA,NJ
Aroclor-1260 [2C]	CT,NH,NY,NC,ME,VA,NJ
Aroclor-1262	NC
Aroclor-1262 [2C]	NC
Aroclor-1268	NC
Aroclor-1268 [2C]	NC
SW-846 8260C in Soil	
Acetone	CT,NH,NY,ME
Benzene	CT,NH,NY,ME
Bromobenzene	NH,NY,ME
Bromochloromethane	NH,NY,ME
Bromodichloromethane	CT,NH,NY,ME
Bromoform	CT,NH,NY,ME
Bromomethane	CT,NH,NY,ME
2-Butanone (MEK)	CT,NH,NY,ME
n-Butylbenzene	CT,NH,NY,ME
sec-Butylbenzene	CT,NH,NY,ME
tert-Butylbenzene	CT,NH,NY,ME
Carbon Disulfide	CT,NH,NY,ME
Carbon Tetrachloride	CT,NH,NY,ME
Chlorobenzene	CT,NH,NY,ME
Chlorodibromomethane	CT,NH,NY,ME
Chloroethane	CT,NH,NY,ME
Chloroform	CT,NH,NY,ME
Chloromethane	CT,NH,NY,ME
2-Chlorotoluene	CT,NH,NY,ME
4-Chlorotoluene	CT,NH,NY,ME
Dibromomethane	NH,NY,ME
1,2-Dichlorobenzene	CT,NH,NY,ME
1,3-Dichlorobenzene	CT,NH,NY,ME
1,4-Dichlorobenzene	CT,NH,NY,ME
Dichlorodifluoromethane (Freon 12)	NY,ME
1,1-Dichloroethane	CT,NH,NY,ME
1,2-Dichloroethane	CT,NH,NY,ME
1,1-Dichloroethylene	CT,NH,NY,ME

CERTIFICATIONS

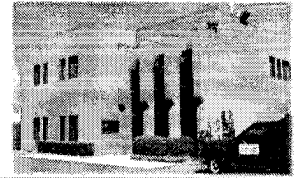
Certified Analyses included in this Report

Analyte	Certifications
SW-846 8260C in Soil	
cis-1,2-Dichloroethylene	CT,NH,NY,ME
trans-1,2-Dichloroethylene	CT,NH,NY,ME
1,2-Dichloropropane	CT,NH,NY,ME
1,3-Dichloropropane	NH,NY,ME
2,2-Dichloropropane	NH,NY,ME
1,1-Dichloropropene	NH,NY,ME
cis-1,3-Dichloropropene	CT,NH,NY,ME
trans-1,3-Dichloropropene	CT,NH,NY,ME
Ethylbenzene	CT,NH,NY,ME
Hexachlorobutadiene	NH,NY,ME
2-Hexanone (MBK)	CT,NH,NY,ME
Isopropylbenzene (Cumene)	CT,NH,NY,ME
p-Isopropyltoluene (p-Cymene)	NH,NY
Methyl tert-Butyl Ether (MTBE)	NY
Methylene Chloride	CT,NH,NY,ME
4-Methyl-2-pentanone (MIBK)	CT,NH,NY
Naphthalene	NH,NY,ME
n-Propylbenzene	NH,NY
Styrene	CT,NH,NY,ME
1,1,1,2-Tetrachloroethane	CT,NH,NY,ME
1,1,2,2-Tetrachloroethane	CT,NH,NY,ME
Tetrachloroethylene	CT,NH,NY,ME
Toluene	CT,NH,NY,ME
1,2,3-Trichlorobenzene	ME
1,2,4-Trichlorobenzene	NH,NY,ME
1,1,1-Trichloroethane	CT,NH,NY,ME
1,1,2-Trichloroethane	CT,NH,NY,ME
Trichloroethylene	CT,NH,NY,ME
Trichlorofluoromethane (Freon 11)	CT,NH,NY,ME
1,2,3-Trichloropropane	NH,NY,ME
1,2,4-Trimethylbenzene	CT,NH,NY,ME
1,3,5-Trimethylbenzene	CT,NH,NY,ME
Vinyl Chloride	CT,NH,NY,ME
m+p Xylene	CT,NH,NY,ME
o-Xylene	CT,NH,NY,ME
SW-846 9014 in Soil	
Reactive Cyanide	NY,CT
SW-846 9030A in Soil	
Reactive Sulfide	CT,NY

The CON-TEST Environmental Laboratory operates under the following certifications and accreditations:

Code	Description	Number	Expires
AIHA	AIHA-LAP, LLC	100033	02/1/2016
MA	Massachusetts DEP	M-MA100	06/30/2014
CT	Connecticut Department of Public Health	PH-0567	09/30/2015
NY	New York State Department of Health	10899 NELAP	04/1/2014
NH-S	New Hampshire Environmental Lab	2516 NELAP	02/5/2015
RI	Rhode Island Department of Health	LAO00112	12/30/2014
NC	North Carolina Div. of Water Quality	652	12/31/2014
NJ	New Jersey DEP	MA007 NELAP	06/30/2014
FL	Florida Department of Health	E871027 NELAP	06/30/2014
VT	Vermont Department of Health Lead Laboratory	LL015036	07/30/2014
WA	State of Washington Department of Ecology	C2065	02/23/2015
ME	State of Maine	2011028	06/9/2015
VA	Commonwealth of Virginia	460217	12/14/2014
NH-P	New Hampshire Environmental Lab	2557 NELAP	09/6/2014

39 Spruce St.
 East Longmeadow, MA. 01028
 P: 413-525-2332
 F: 413-525-6405
 www.contestlabs.com



Sample Receipt Checklist

CLIENT NAME: OTO RECEIVED BY: KOB DATE: 2-21-14

- 1) Was the chain(s) of custody relinquished and signed? Yes No No CoC Included
- 2) Does the chain agree with the samples? Yes No
 If not, explain: _____
- 3) Are all the samples in good condition? Yes No
 If not, explain: _____
- 4) How were the samples received:

On Ice Direct from Sampling Ambient In Cooler(s)

Were the samples received in Temperature Compliance of (2-6°C)? Yes No N/A

Temperature °C by Temp blank _____ Temperature °C by Temp gun 2.3°

5) Are there Dissolved samples for the lab to filter? Yes No

Who was notified _____ Date _____ Time _____

6) Are there any RUSH or SHORT HOLDING TIME samples? Yes No

Who was notified _____ Date _____ Time _____

7) Location where samples are stored: 19

Permission to subcontract samples? Yes No
 (Walk-in clients only) if not already approved
 Client Signature: _____

8) Do all samples have the proper Acid pH: Yes No N/A

9) Do all samples have the proper Base pH: Yes No N/A

10) Was the PC notified of any discrepancies with the CoC vs the samples: Yes No N/A

Containers received at Con-Test

	# of containers			# of containers
1 Liter Amber			8 oz <input checked="" type="radio"/> amber/clear jar	<u>8</u>
500 mL Amber			4 oz amber/clear jar	
250 mL Amber (8oz amber)			2 oz amber/clear jar	
1 Liter Plastic			Plastic Bag / Ziploc	
500 mL Plastic			SOC Kit	
250 mL plastic			Non-ConTest Container	
40 mL Vial - type listed below	<u>8</u>		Perchlorate Kit	
Colisure / bacteria bottle			Flashpoint bottle	
Dissolved Oxygen bottle			Other glass jar	
Encore			Other	

Laboratory Comments: _____

10 mL vials: # HCl _____	# Methanol <u>6</u>	Time and Date Frozen: <u>2-21-14</u> <u>1730</u>
Doc# 277 # Bisulfate _____	# DI Water <u>2</u>	
Rev. 4 August 2013 # Thiosulfate _____	Unpreserved _____	

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

Question	Answer (True/False)	Comment
	T/F/NA	
1) The cooler's custody seal, if present, is intact.	NA	
2) The cooler or samples do not appear to have been compromised or tampered with.	T	
3) Samples were received on ice.	T	
4) Cooler Temperature is acceptable.	T	
5) Cooler Temperature is recorded.	T	
6) COC is filled out in ink and legible.	T	
7) COC is filled out with all pertinent information.	T	
8) Field Sampler's name present on COC.	T	
9) There are no discrepancies between the sample IDs on the container and the COC.	T	
10) Samples are received within Holding Time.	T	
11) Sample containers have legible labels.	T	
12) Containers are not broken or leaking.	T	
13) Air Cassettes are not broken/open.	NA	
14) Sample collection date/times are provided.	T	
15) Appropriate sample containers are used.	T	
16) Proper collection media used.	T	
17) No headspace sample bottles are completely filled.	T	
18) There is sufficient volume for all requested analyses, including any requested MS/MSDs.	T	
19) Trip blanks provided if applicable.	NA	
20) VOA sample vials do not have head space or bubble is <6mm (1/4") in diameter.	NA	
21) Samples do not require splitting or compositing.	T	

Doc #277 Rev. 4 August 2013

Who notified of False statements?
 Log-In Technician Initials: KOB

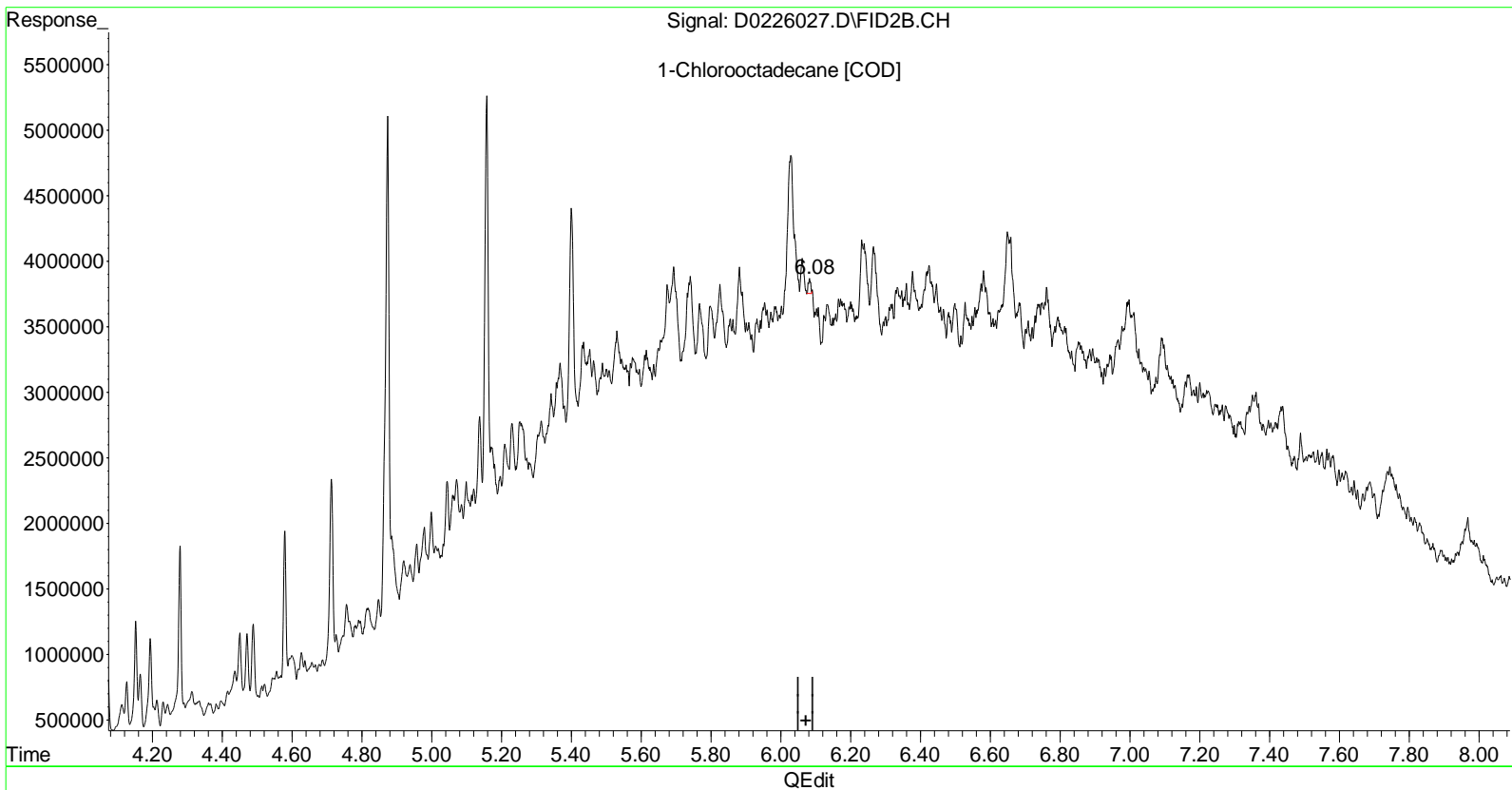
Date/Time:
 Date/Time: 2-21-14
 1730

Quantitation Report (Qedit)

Data Path : C:\MSDCHEM\4\DATA\D022614.SEC\
Data File : D0226027.D
Signal(s) : FID2B.CH
Acq On : 26 Feb 2014 2:33 pm
Operator : SCS
Sample : 14B0612-01 Inst : GCFID4
Misc :
ALS Vial : 27 Sample Multiplier: 1

Integration File: EVENTS.E
Quant Time: Feb 27 08:58:24 2014
DataAcq Meth:EPH11D.M
Quant Method : C:\MSDCHEM\4\METHODS\AL092513.M
Quant Title : MA EPH Aliphatic GCFID4
QLast Update : Wed Feb 12 09:31:40 2014
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1 uL
Signal Phase : Rtx-5Sil MS w/Integra-Guard
Signal Info : 0.25 mm



(11) Chlorooctadecane (COD) (S)
6.08min 5.664ug/mL
response 523321

MADEP MCP Analytical Method Report Certification Form

Laboratory Name: Con-Test Analytical Laboratory	Project #: 14B0612
Project Location: Ware	RTN:

This Form provides certifications for the following data set: [list Laboratory Sample ID Number(s)]
 14B0612-01 thru 14B0612-06

Matrices: Soil

CAM Protocol (check all that below)

8260 VOC CAM II A (X)	7470/7471 Hg CAM IIIB (X)	MassDEP VPH CAM IV A (X)	8081 Pesticides CAM V B ()	7196 Hex Cr CAM VI B ()	MassDEP APH CAM IX A ()
8270 SVOC CAM II B ()	7010 Metals CAM III C ()	MassDEP EPH CAM IV A (X)	8151 Herbicides CAM V C ()	8330 Explosives CAM VIII A ()	TO-15 VOC CAM IX B ()
6010 Metals CAM III A (X)	6020 Metals CAM III D ()	8082 PCB CAM V A (X)	9014 Total Cyanide/PAC CAM VI A ()	6860 Perchlorate CAM VIII B ()	

Affirmative response to Questions A through F is required for "Presumptive Certainty" status

A	Were all samples received in a condition consistent with those described on the Chain-of-Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No ¹
B	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No ¹
C	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No ¹
D	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No ¹
E a	VPH, EPH, and APH Methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications).	<input type="checkbox"/> Yes <input type="checkbox"/> No ¹
E b	APH and TO-15 Methods only: Was the complete analyte list reported for each method?	<input type="checkbox"/> Yes <input type="checkbox"/> No ¹
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all No responses to Questions A through E)?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No ¹

A response to questions G, H and I below is required for "Presumptive Certainty" status


G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No ¹
----------	---	--

Data User Note: Data that achieve "Presumptive Certainty" status may not necessarily meet the data usability and representativeness requirements described in 310 CMR 40. 1056 (2)(k) and WSC-07-350.

H	Were all QC performance standards specified in the CAM protocol(s) achieved?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No ¹
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No ¹

¹ All Negative responses must be addressed in an attached Environmental Laboratory case narrative.

I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this analytical report is, to the best of my knowledge and belief, accurate and complete.

Signature: 	Position: Laboratory Manager
Printed Name: Daren J. Damboragian	Date: 02/28/14

APPENDIX E
BORING LOGS

O'REILLY, TALBOT & OKUN ASSOCIATES, INC.
 ENVIRONMENTAL AND GEOTECHNICAL ENGINEERING CONSULTANTS

LOG OF BORING B-1

PROJECT		16 East Main Street Ware, MA		CONTRACTOR		Martin Geo Environmental	
JOB NUMBER		2550-01-03		DRILLING EQUIPMENT		Geoprobe 6620-DT	
LOCATION		16 East Main Street Ware, MA		FOREMAN		Jeremy	
START DATE		10/28/2015		HELPER		Scott	
FINISH DATE		10/28/2015		BIT TYPE		Direct Push	
ENGINEER/SCIENTIST		Tom Speight		ROD TYPE		Probe Rod (2.25" O.D.)	
BORING LOCATION		9' east of SW corner of former boiler building, 4' into access road		WATER LEVEL		ROCK CORING INFORMATION	
				FIRST (ft)		TYPE	
				LAST (ft)		SIZE	
				SAMPLER		4' Dual Tube Liner	
				HAMMER TYPE		Soil Probing Hammer	
				HAMMER WGT/DROP		N/A	

DEPTH (ft)/ SAMPLES	SAMPLES				SAMPLE DESCRIPTION (MODIFIED BURMISTER)	PROFILE		REMARKS/ WELL CONSTRUCTION
	PENETR. RESIST. (bl / 6 in)	REC. (in)	TYPE/ NO.	FIELD TEST DATA		DEPTH (ft)	ELEV.	
0.0		NA		0.0	Cleared borehole to 5' below grade using air knife and soil vac. (Air knife cuttings) brown medium and fine SAND with gravel, trace brick and concrete			
4		28		0.0 top 0.0 bott	Brown medum and fine SAND with gravel, trace brick and ash	SAND		
8		36		0.0 top 0.0 bott.	Brown medum and fine SAND with gravel, trace brick and ash			
12		20		0.0 top 0.0 bott.	Brown medum and fine SAND with gravel			
16'					Refusal at 15', end of exploration			
20'								
25'								

Remarks: 1. Soil screened in field using MiniRAE Lite photoionization detector (PID) referenced to benzene in air. Readings in parts per million by volume. ND indicates none detected.	PROJECT NO. 2550-01-03
	LOG OF BORING B-1

O'REILLY, TALBOT & OKUN ASSOCIATES, INC.
 ENVIRONMENTAL AND GEOTECHNICAL ENGINEERING CONSULTANTS

LOG OF BORING B-2/MW-1

PROJECT	16 East Main Street, Ware MA			CONTRACTOR	Martin Geo Environmental		
JOB NUMBER	2550-01-03	FINAL DEPTH (ft)	14	DRILLING EQUIPMENT	Geoprobe 6620-DT		
LOCATION	16 East Main Street, Ware MA	SURFACE ELEV (ft)		FOREMAN	Jeremy	CASING	
START DATE	10/28/2015	DISTURBED SAMPLES		HELPER	Scott	CASE DIAMETER	N/A
FINISH DATE	10/28/2015	UNDISTURBED SAMPLES		BIT TYPE	Direct Push	HAMMER WGT	N/A
ENGINEER/SCIENTIST	Tom Speight		WATER LEVEL	ROD TYPE	Probe Rod (2.25" O.D.)	HAMMER DROP	N/A
BORING LOCATION	In access road, 69.5 feet east of SW corner of boiler building, 4' out from building wall		FIRST (ft)	SAMPLER	4' Dual Tube Liner	ROCK CORING INFORMATION	
			LAST (ft)	HAMMER TYPE	Soil Probing Hammer	TYPE	N/A
			TIME (hr)	HAMMER WGT/DROP	N/A	SIZE	N/A

DEPTH (ft)/ SAMPLES	SAMPLES				SAMPLE DESCRIPTION (MODIFIED BURMISTER)	PROFILE		REMARKS/ WELL CONSTRUCTION
	PENETR. RESIST. (bl / 6 in)	REC. (in)	TYPE/ NO.	FIELD TEST DATA		DEPTH (ft)	ELEV.	
0.0		NA		0.0	Cleared borehole to 5' below grade using air knife and soil vac. (Air knife cuttings) brown medium and fine SAND with gravel, trace brick and concrete			
4.0								
8.0		31		0.0 top 0.0 bott	Brown medium and fine SAND with coarse sand and trace gravel, rock in tip			
12.0		18		0.0	Brown medium and fine SAND with coarse sand and trace gravel, rock in tip			
16.0								
20.0		20		0.0	Brown medium and fine SAND with coarse sand and trace gravel, rock in tip, wet			
24.0					Refusal on rock at 14' - end of exploration			

Remarks: 1. Soil screened in field using MiniRAE Lite photoionization detector (PID) referenced to benzene in air. Readings in parts per million by volume. ND indicates none detected. 2. 2" Well installed to 14.05' below grade. Screen from 14'-4", riser from 4' to grade. Sand from 14'-3, bentonite seal from 3'-2', sand to grade. Completed with flush-mounted curb box	PROJECT NO. 2550-01-03
	LOG OF BORING B-2/MW-1

O'REILLY, TALBOT & OKUN ASSOCIATES, INC.
 ENVIRONMENTAL AND GEOTECHNICAL ENGINEERING CONSULTANTS

LOG OF BORING B-3

PROJECT	16 East Main Street Ware, MA			CONTRACTOR	Martin Geo Environmental		
JOB NUMBER	2550-01-03	FINAL DEPTH (ft)	19	DRILLING EQUIPMENT	Geoprobe 6620-DT		
LOCATION	16 East Main Street Ware, MA	SURFACE ELEV (ft)		FOREMAN	Jeremy	CASING	
START DATE	10/28/2015	DISTURBED SAMPLES		HELPER	Scott	CASE DIAMETER	N/A
FINISH DATE	10/28/2015	UNDISTURBED SAMPLES		BIT TYPE	Direct Push	HAMMER WGT	N/A
ENGINEER/SCIENTIST	Tom Speight	WATER LEVEL		ROD TYPE	Probe Rod (2.25" O.D.)	HAMMER DROP	N/A
BORING LOCATION	103' east of SW corner of former boiler building, 4' into access road	FIRST (ft)		SAMPLER	4' Dual Tube Liner	ROCK CORING INFORMATION	
		LAST (ft)		HAMMER TYPE	Soil Probing Hammer	TYPE	N/A
		TIME (hr)		HAMMER WGT/DROP	N/A	SIZE	N/A

DEPTH (ft)/ SAMPLES	SAMPLES				SAMPLE DESCRIPTION (MODIFIED BURMISTER)	PROFILE		REMARKS/ WELL CONSTRUCTION
	PENETR. RESIST. (bl / 6 in)	REC. (in)	TYPE/ NO.	FIELD TEST DATA		DEPTH (ft)	ELEV.	
0		NA		0.0	Cleared borehole to 5' below grade using air knife and soil vac. (Air knife cuttings) brown medium and fine SAND with gravel, trace brick and concrete			
4		34		0.0 top 0.0 bott	Brown medum and fine SAND with gravel, trace brick and ash		SAND	
8		29		0.0 top 0.0 bott.	Top 8" Brown medum and fine SAND with gravel, trace brick and ash 18" ROCK FRAGMENTS 3" Brown medium SAND, little silt			
12		39"		0.0 top 0.0 bott.	22" brown SAND and gravel, trace brick 10" brown silty fine SAND 7" ROCK FRAGMENTS			
16'		28		0.0	Brown medium fine SAND and gravel, trace rock fragments			
20'					Refusal at 19'; end of exploration			
25'								

Remarks: 1. Soil screened in field using MiniRAE Lite photoionization detector (PID) referenced to benzene in air. Readings in parts per million by volume. ND indicates none detected.	PROJECT NO. 2550-01-03
	LOG OF BORING B-3

O'REILLY, TALBOT & OKUN ASSOCIATES, INC.
 ENVIRONMENTAL AND GEOTECHNICAL ENGINEERING CONSULTANTS

LOG OF BORING B-4

PROJECT	16 East Main Street Ware, MA			CONTRACTOR	Martin Geo Environmental		
JOB NUMBER	2550-01-03	FINAL DEPTH (ft)	17	DRILLING EQUIPMENT	Geoprobe 6620-DT		
LOCATION	16 East Main Street Ware, MA	SURFACE ELEV (ft)		FOREMAN	Jeremy	CASING	
START DATE	10/28/2015	DISTURBED SAMPLES		HELPER	Scott	CASE DIAMETER	N/A
FINISH DATE	10/28/2015	UNDISTURBED SAMPLES		BIT TYPE	Direct Push	HAMMER WGT	N/A
ENGINEER/SCIENTIST	Tom Speight	WATER LEVEL		ROD TYPE	Probe Rod (2.25" O.D.)	HAMMER DROP	N/A
BORING LOCATION	9' east of SW corner of former boiler building, 4' into access road	FIRST (ft)		SAMPLER	4' Dual Tube Liner	ROCK CORING INFORMATION	
		LAST (ft)		HAMMER TYPE	Soil Probing Hammer	TYPE	N/A
		TIME (hr)		HAMMER WGT/DROP	N/A	SIZE	N/A

DEPTH (ft)/ SAMPLES	SAMPLES				SAMPLE DESCRIPTION (MODIFIED BURMISTER)	PROFILE		REMARKS/ WELL CONSTRUCTION
	PENETR. RESIST. (bl / 6 in)	REC. (in)	TYPE/ NO.	FIELD TEST DATA		DEPTH (ft)	ELEV.	
0		NA		0.0	Cleared borehole to 5' below grade using air knife and soil vac. (Air knife cuttings) brown medium and fine SAND with gravel, trace brick and concrete			
4		23		0.0	Top 8" Brown medum and fine SAND with gravel, trace brick and ash		SAND	
8		38		0.0 top 0.0 bott.	Top 8" Brown medum and fine SAND with gravel, trace brick and ash 8" Brown mediun and fine SAND and gravel 12" ROCK FRAGMENTS 10" Brown medium SAND, trace gravel and coarse sand, little silt			
12		39"		0.0 top 0.0 bott.	22" brown SAND and gravel, trace brick 10" brown silty fine SAND 7" ROCK FRAGMENTS			
16		12		0.0	12" Brown medium fine SAND and gravel Refusal at 17', end of exploration			
20								
25								

Remarks: 1. Soil screened in field using MiniRAE Lite photoionization detector (PID) referenced to benzene in air. Readings in parts per million by volume. ND indicates none detected.	PROJECT NO. 2550-01-03
	LOG OF BORING B-4

O'REILLY, TALBOT & OKUN ASSOCIATES, INC.
 ENVIRONMENTAL AND GEOTECHNICAL ENGINEERING CONSULTANTS

LOG OF BORING B-5/MW-2

PROJECT		16 East Main Street, Ware MA		CONTRACTOR		Martin Geo Environmental		
JOB NUMBER	2550-01-03	FINAL DEPTH (ft)	20	DRILLING EQUIPMENT				Geoprobe 6620-DT
LOCATION		16 East Main Street, Ware MA		SURFACE ELEV (ft)		FOREMAN		Jeremy
START DATE		10/28/2015		DISTURBED SAMPLES		HELPER		Scott
FINISH DATE		10/28/2015		UNDISTURBED SAMPLES		BIT TYPE		Direct Push
ENGINEER/SCIENTIST		Tom Speight		WATER LEVEL		ROD TYPE		Probe Rod (2.25" O.D.)
BORING LOCATION	In access road, 10 feet east of SE corner of boiler building, 4' out from building wall			FIRST (ft)		SAMPLER		4' Dual Tube Liner
				LAST (ft)		HAMMER TYPE		Soil Probing Hammer
				TIME (hr)		HAMMER WGT/DROP		N/A
				CASE DIAMETER		N/A		
				HAMMER WGT		N/A		
				HAMMER DROP		N/A		
				ROCK CORING INFORMATION				
				TYPE		N/A		
				SIZE		N/A		

DEPTH (ft)/ SAMPLES	SAMPLES				SAMPLE DESCRIPTION (MODIFIED BURMISTER)	PROFILE		REMARKS/ WELL CONSTRUCTION
	PENETR. RESIST. (bl / 6 in)	REC. (in)	TYPE/ NO.	FIELD TEST DATA		DEPTH (ft)	ELEV.	
4'		NA		0.0	Cleared borehole to 5' below grade using air knife and soil vac. (Air knife cuttings) brown medium and fine SAND with gravel, trace brick and concrete			7'
8'		30		0.0 top 0.0 bott	Brown medium and fine SAND with coarse sand and little gravel			8'
12'		24		0.0 top 0.0 bott	Brown medium and fine SAND with coarse sand and trace gravel, rock in tip			10'
16'		18		0.0 top 0.0 bott	Brown medium and fine SAND with coarse sand and trace gravel, rock in tip			
20'		32		0.0 top 0.0 bott	Brown medium and coarse SAND, trace gravel, little silt.			
25'					Refusal at 20' - End of Exploration			

Remarks:

1. Soil screened in field using MiniRAE Lite photoionization detector (PID) referenced to benzene in air. Readings in parts per million by volume. ND indicates none detected.
2. 2" Well installed to 20' below grade. Screen from 20'-10', riser from 10' to grade. Sand from 20'-8', bentonite seal from 8'-7', sand to grade. Completed with flush-mounted curb box

**PROJECT NO.
2550-01-03**

**LOG OF BORING
B-5/MW-2**

O'REILLY, TALBOT & OKUN ASSOCIATES, INC.
 ENVIRONMENTAL AND GEOTECHNICAL ENGINEERING CONSULTANTS

LOG OF BORING HA-1

PROJECT		16 East Main Street Ware, MA		CONTRACTOR		Martin Geo Environmental	
JOB NUMBER		2550-01-03		FINAL DEPTH (ft)		4	
LOCATION		16 East Main Street Ware, MA		DRILLING EQUIPMENT		Hand Auger	
START DATE		10/28/2015		FOREMAN		Jeremy	
FINISH DATE		10/28/2015		HELPER		Scott	
ENGINEER/SCIENTIST		Tom Speight		BIT TYPE		Hand Auger & Air Knife	
BORING LOCATION		Between No. 6 oil UST and northern wall of boiler house		WATER LEVEL		ROD TYPE	
				FIRST (ft)		N/A	
				LAST (ft)		N/A	
				TIME (hr)		N/A	
				SAMPLER		N/A	
				HAMMER TYPE		N/A	
				HAMMER WGT/DROP		N/A	
				ROCK CORING INFORMATION			
				TYPE		N/A	
				SIZE		N/A	

DEPTH (ft)/ SAMPLES	SAMPLES				SAMPLE DESCRIPTION (MODIFIED BURMISTER)	PROFILE		REMARKS/ WELL CONSTRUCTION
	PENETR. RESIST. (bl / 6 in)	REC. (in)	TYPE/ NO.	FIELD TEST DATA		DEPTH (ft)	ELEV.	
0.0		NA		0.0	Excavated to 4' below grade with hand auger and air knife Brown medium and fine SAND with gravel, cobbles, brick and concrete	SAND		
4								
8								
12								
16								
20								
25								

Remarks: 1. Soil screened in field using MiniRAE Lite photoionization detector (PID) referenced to benzene in air. Readings in parts per million by volume. ND indicates none detected.	PROJECT NO. 2550-01-03
	LOG OF BORING HA-1

O'REILLY, TALBOT & OKUN ASSOCIATES, INC.
 ENVIRONMENTAL AND GEOTECHNICAL ENGINEERING CONSULTANTS

LOG OF BORING HA-2

PROJECT		16 East Main Street Ware, MA		CONTRACTOR		Martin Geo Environmental	
JOB NUMBER		2550-01-03		FINAL DEPTH (ft)		4	
LOCATION		16 East Main Street Ware, MA		DRILLING EQUIPMENT		Hand Auger	
START DATE		10/28/2015		FOREMAN		Jeremy	
FINISH DATE		10/28/2015		HELPER		Scott	
ENGINEER/SCIENTIST		Tom Speight		BIT TYPE		Hand Auger & Air Knife	
		WATER LEVEL		ROD TYPE		N/A	
BORING LOCATION		Between No. 6 oil UST and northern wall of boiler house		SAMPLER		N/A	
		FIRST (ft)		HAMMER TYPE		N/A	
		LAST (ft)		HAMMER WGT/DROP		N/A	
		TIME (hr)		ROCK CORING INFORMATION			
				TYPE		N/A	
				SIZE		N/A	

DEPTH (ft)/ SAMPLES	SAMPLES				SAMPLE DESCRIPTION (MODIFIED BURMISTER)	PROFILE		REMARKS/ WELL CONSTRUCTION
	PENETR. RESIST. (bl / 6 in)	REC. (in)	TYPE/ NO.	FIELD TEST DATA		DEPTH (ft)	ELEV.	
0.0		NA		0.0	Excavated to 4' below grade with hand auger and air knife Brown medium and fine SAND with gravel, cobbles, brick and concrete	SAND		
4								
8								
12								
16								
20								
25								

Remarks: 1. Soil screened in field using MiniRAE Lite photoionization detector (PID) referenced to benzene in air. Readings in parts per million by volume. ND indicates none detected.	PROJECT NO. 2550-01-03
	LOG OF BORING HA-2