PARTNER

ADDITIONAL PHASE II SUBSURFACE INVESTIGATION REPORT

COMMERCIAL PROPERTY
125 & 160 Beechwood Avenue
New Rochelle, New York

August 22, 2014
Partner Project Number 14-121477.2

Prepared for

AMERCO REAL ESTATE COMPANY
2727 North Central Avenue
Phoenix, Arizona 85004

August 22, 2014

Mr. Larry Hine
AMERCO Real Estate Company
2727 North Central Avenue
Phoenix, Arizona 85004

Subject: **Additional Phase II Subsurface Investigation Report**
Commercial Property
125 & 160 Beechwood Avenue
New Rochelle, New York 10801
Partner Project Number 14-121477.2

Dear Mr. Hine:

The following letter report describes the field activities, methods, and findings of the Additional Phase II Subsurface Investigation (Phase II) conducted by Partner Assessment Corporation (Partner) at the above-referenced property (site or subject property). The purpose of the investigation was to further investigate volatile organic compound (VOC) and/or polycyclic aromatic hydrocarbon (PAH) impacts to groundwater and/or soil vapor as a consequence of a release or releases from the former underground storage tanks (USTs), aboveground storage tank (AST), and/or from former historical operations and based on the impacts detected during Partner's June 2014 Phase II Subsurface Investigation (Phase II). AMERCO Real Estate Company provided project authorization through a signed copy of Partner Proposal Number P14-121477.2.

Site Description

The subject property consists of two non continuous parcels of land [Tax Block and lots; 0691-0005 (125 Beechwood), 0681-0001 (160 Beechwood Avenue)] in a mixed commercial and residential area of New Rochelle, New York. 125 Beechwood Avenue and 160 Beechwood Avenue are located south and north of Beechwood Avenue, respectively.

Please see Figure 1 for a site location map of the subject property.

The subject property is bound by the Metro North Railroad to the north; residential and commercial development to the south and east; and Beechwoods Cemeteries to the west. The subject property is developed with a two-story warehouse/office building (125 Beechwood Avenue) and asphalt-paved parking lot (160 Beechwood Avenue). The building is currently occupied by the Charles Sadek Import, Co. with an empty tenant space comprising the lower level of the northeastern portion of the site. The remainder of the subject property consists of asphalt- and concrete-paved parking spaces. Based on the findings from the June 2014 Phase II, the additional investigation activities were only conducted on the 125 Beechwood Avenue parcel.

Please see Figure 2 for a Topographic Map of the subject property area.

Site History

According to the April 2012 *Phase I Environmental Site Assessment* (Phase I) prepared by AKRF, Inc. (AKRF). The subject property was developed in approximately 1951 with the construction of the original one-and two-story distribution warehouse building, which covers a majority of the subject property. In 1955, a northern wing was added on to the site building with additions and renovations added periodically throughout the years. The roof was raised in 1990 to accommodate operations of the distribution warehouse. Gries Reproducer Corp. (aka Gries Dynacast) occupied the site between 1951 and 1985 and utilized it for metal fabrication, including die-casting and plating operations. The former metal plating and die-casting process took place in the central portion of the building in the area of the current warehouse.

160 Beechwood currently consists of an asphalt-paved parking lot utilized by the employees of 125 Beechwood Avenue. According to historical information contained in the Phase I prepared by AKRF, this property was developed in 1911 with numerous residential dwellings. A 1990 Sanborn Map indicated that the dwellings had been removed.

The Phase I prepared by AKRF identified 17 recognized environmental conditions (RECs) in connection with 125 and 160 Beechwood Avenue. Following a review of the 2012 Phase I Report, Partner concluded that several of the RECs presented by AKRF did not meet the definition of a REC or warrant further investigation. Partner concluded the following RECs identified by the 2012 Phase I Report warrant further investigation:

- Gries Reproducer Corp. (aka Gries Dynacast) occupied the site between 1951 and 1985 and utilized it for metal fabrication, including die-casting and plating operations. The former metal plating and die-casting process took place in the southern portion of the building in the area of the current warehouse. An approximately 8,000-square foot area of wood block flooring with intermittent petroleum-like staining was located in the southern and southeastern portion of the distribution warehouse. Wood-block flooring was reportedly used to absorb vibrations caused by the equipment.
- A closed-in-place 10,000-gallon fuel oil UST was located in the northeastern portion of the building, in the employee cafeteria. The fuel oil UST was located beneath an access door in the floor. Concrete was visible in the tank and fill line. An underground tank closure site assessment report documented that visual observation of the UST during abandonment revealed no evidence of a release, and laboratory results soil samples collected from three soil borings drilled along Second Street, and approximately 50 feet downgradient of the UST, indicated that residual detections were not indicative of an adverse impact to soil quality.
- According to New Rochelle Building Department records, the subject property formerly used two gasoline USTs and a gas pump. The tanks included a 3,000-gallon tank and gas pump installed in 1979 and a 4,000-gallon tank installed in 1980. The tanks and gas pump were reportedly removed on November 26, 1985. The former tanks were reportedly located on the northeastern portion of subject property in the loading dock area. Sections of patched asphalt were observed in this area, which may be indicative of the tanks being removed.

- The boiler room was located in the northeastern portion of the site building in the basement area. Two natural gas-fired/oil combination furnaces were located in the northern portion of the boiler room. Isolated petroleum-like staining was observed on the wall and floor areas in the southwestern portion of the room, in the vicinity of the former fuel oil UST supply lines. The closed-in-place 10,000-gallon fuel oil UST was located west-adjacent to the boiler room in the cafeteria.
- A partial basement was located on the eastern side of the building. The northeast portion of the lower level contained a vacant tenant space, which the owner previously rented to a tenant for the purpose of storing landscaping equipment. The tenant used the space for equipment storage and automobile repair. During a 2009 inspection, the space contained a 275-gallon aboveground waste oil tank, three aboveground self-contained hydraulic lifts, parts cleaners, used batteries, coolant storage and staining on the concrete floor slab. The tenant had informed AKRF that he worked for Bruno's auto dealership in Darien, Connecticut, and that any used oils, batteries, and coolants were transported to Bruno's for disposal. The former tenant reported that he did not generate any hazardous waste. A 2012 inspection of the area revealed that the former tenant space was empty, and that the hydraulic lifts and all auto fluid storage devices were removed.
- The gas meter room was located in the northeastern portion of the building. A recirculation vat (Vat -2), formerly used by the metal plating and die casting tenant, an AST (capacity and contents unknown) and sump were located in the gas meter room. The sump reportedly discharged to the municipal sewer system. Localized petroleum-like staining was noted on the concrete floor slab at random locations throughout the gas meter room. The AST in the gas meter room contained pressure gauges and product transfer pipes. The pipes were cut off and abandoned. The exact use of the tank was unable to be determined.
- A compressor area was located next to a capped groundwater well. Dark petroleum-like staining from condensate blow-down and minimal floor cracking was noted on the concrete adjacent to the compressor area.
- A hydraulic freight elevator pit and hydraulic lift gates were located in the southwestern loading dock area. The elevator pit was observed to be filled with groundwater at the time of the 2009 site inspection. According to the plant manager, the elevator pit had a tendency to flood following heavy rain events. The pit was not flooded during the 2012 visit. There was no evidence of a line failure or hydraulic release observed.
- Two Consolidated Edison (Con Ed) owned pad-mounted transformers were located adjacent to the southwestern exterior of the site building. Con Ed reported that the transformers were sampled between 2009 and 2011 and contained PCBs at a concentration of 23.34 and 30.82 parts per million (ppm). Discoloration associated with staining was observed around a draining port attached to the transformer, which may be associated with reported maintenance and/or sampling completed by ConEd. There was no evidence of a release observed in the area surround the transformers. A third transformer was reported as being previously removed from this area.
- According to historical Sanborn maps, numerous residential dwellings and an aboveground propane tank were previously located at 160 Beechwood Avenue. The dwellings were removed prior to 1990 and the lot was developed into an asphalt-paved

parking lot. According to AKRF's site contact, the houses were demolished and paved over to create the parking lot that presently exists. Building department records support this. According to the New Rochelle Fire Marshal records, a 275-gallon fuel oil tank was present in the cellar of one of the structures; however, no additional information was available. Additionally, the New Rochelle Building Department records indicate that there was one 30,000-gallon propane AST formerly located at 160 Beechwood Avenue which was reportedly removed in December 1996. This AST was located in the northwestern portion of the property according to a 1990 Sanborn Map.

- A review of federal and state databases indicated the following: the subject property was listed in the Spills Information Database (SPILLS), Petroleum Bulk Storage (PBS) and Resource Conservation and Recovery Act (RCRA) Small Quantity Generator of hazardous waste databases. Numerous SPILLS, RCRA generators and PBS sites were listed within a ½-mile radius of the study site in anticipated upgradient groundwater flow directions from the study site. Known and potential spills from these facilities have the potential to affect groundwater beneath the study site.

To address the above listed RECs, Partner conducted a Phase II at the subject property in June 2014 in an effort to evaluate whether the former USTs, ASTs, and/or former historic operations had adversely impacted subsurface soil and/or groundwater beneath the subject property. The scope of the investigation included the advancement of 13 soil borings (SB-1 through SB-13) and the collection of groundwater samples from six of the 13 soil boring locations. As part of the Phase II, 13 soil samples and six groundwater sample were submitted to a New York-certified laboratory for chemical analyses of VOCs, low level PAHs using single ion monitoring (SIM) technology, polychlorinated biphenyls (PCBs), and/or RCRA 8 metals in accordance with Environmental Protection Agency (EPA) Methods 8260, 8720, 8082, and 6010, respectively.

The soil analytical results indicated PAHs, RCRA 8 metals, and PCBs were not detected above their respective New York State Department of Environmental Conservation (NYSDEC) Soil Cleanup Objectives (SCOs) in any of the soil samples collected. Acetone was detected above the respective NYSDEC SCOs for Unrestricted use and Protection of Groundwater in a soil sample collected from 125 Beechwood Avenue; however, acetone was detected below the Residential, Commercial, and Industrial Use. The subject property is zoned as light Industrial so comparison to the NYSDEC SCO for Industrial Use is appropriate. None of the analyzed soils samples contained any other VOCs above their respective NYSDEC SCOs.

The groundwater analytical results indicated RCRA 8 metals and PCBs were not detected above their respective NYSDEC Technical and Operational Guidance Memorandum Groundwater Standards (TOGS) in the groundwater samples collected from GWSB-8, GWSB-9, and GWSB-12. 1,1-dichloroethane (DCA), tetrachloroethene (PERC), 1,1,1-trichloroethane (TCA), 1,1-dichloroethene (DCE), trichloroethene (TCE), and/or cis-1,2-dichlorethene (CIS) were detected above their respective NYSDEC TOGS in groundwater samples collected from borings GWSB-1, GWSB-6, GWSB-9, and GWSB-12 (located at 125 Beechwood Avenue). Benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, chyrsene, and indeno(1,2,3-

cd)pyrene were detected above their respective NYSDEC TOGS in groundwater samples collected from borings GWSB-6 and GWSB-12 (located at 125 Beechwood Avenue).

Based on the findings from the Phase II conducted by Partner on the subject property in June 2014, subsurface groundwater conditions at 125 Beechwood Avenue have been impacted and target analytes in groundwater are above applicable NYSDEC criteria. Accordingly, Partner recommended further evaluation of the groundwater at 125 Beechwood Avenue to delineate the nature and extent of the VOC and PAH impacts and if they are originating from on- or off-site (based on the absence of soil impacts) and the potential for remedial action. Partner also recommended a soil gas investigation at 125 Beechwood Avenue be conducted to evaluate the potential for vapor intrusion based on the VOC groundwater exceedances.

Geology and Hydrogeology

Based on a review of the United States Geological Survey (USGS) Mount Vernon, New York Quadrangle topographic map, the subject property is situated at an elevation approximately 50-60 feet above mean sea level, and the local topography is sloping gently to the southwest.

The subject property is situated within the Appalachian Plateau physiographic province of the State of New York. The uppermost geologic formation underlying the soils at the subject property is the Ordovician Age Hartland formation. The Hartland formation comprises the underlying stratigraphy and consists mostly of basal amphibolite overlain by pelitic schist. The thickness of the Hartland formation is estimated to be up to 4,000 feet. The Hartland formation covers the areas of the east Bronx and Queens, separated by Cameron's line, a tectonic fault that separates the Manhattan prong, with the Ravenswood formation in Queens, Kings, and lower Manhattan.

Based on borings advanced during this investigation, the underlying subsurface consists predominantly of brown silty sand with some gravel and rock fragments from the ground surface to approximately 19 feet below ground surface (bgs). Groundwater was encountered during this and previous subsurface investigations between three and 15 feet bgs. Bedrock was encountered during this and previous investigations between two and 19 feet bgs. Refer to Appendix A for boring logs from this investigation.

Field Activities

To further evaluate and delineate the nature and extent of VOCs and PAHs detected in groundwater at the subject property (125 Beechwood Avenue) and to evaluate if the impacts are from an on- or off-site source, Partner conducted an Additional Phase II investigation. Another objective of this additional investigation was to evaluate if there was a potential for vapor intrusion based on the VOC groundwater exceedances from the previous June 2014 investigation. The investigation scope included the advancement of eight borings (B-1 through B-8) for the collection of representative soil, soil gas, and/or groundwater samples. Based on the subsurface conditions (brown silty sand with some gravel and rock fragments), several additional

boring attempts were made in the locations of borings B-1, B-2, and B-3. However, based on shallow refusal these boring attempts were not logged.

Utility Clearance

Partner retained Aquifer Drilling & Testing, Inc. (ADT) of Hartford, Connecticut to provide and operate drilling equipment. ADT notified the New York's One Call Center to clear public utility lines as required by law at least 48 hours prior to drilling activities. New York's One Call Center issued ticket numbers 07314-120-070 to ADT for this project.

Health and Safety Plan

Partner reviewed the site-specific Health and Safety Plan with on-site personnel involved in the project prior to the commencement of drilling activities.

Drilling Equipment

Between August 6th and August 11th, Partner subcontracted with ADT to provide and operate drilling equipment. ADT, under the direction of Partner, advanced eight borings. Borings B-1, B-2 and B-4 through B-6 were advanced with a direct-push, track-mounted Geoprobe Model 7720DT drill rig and borings B-3, B-7, and B-8 were advanced with a direct-push, track-mounted Geoprobe Model 6620DT drill rig. Partner constructed four sub-slab vapor sampling points with specialized hand tools. Drilling rods and sampling equipment were decontaminated between samples and borings to prevent cross-contamination.

Boring Locations

Borings B-1 and B-2 were advanced in the vicinity of previous boring SB-6 in the approximately location of the former gasoline USTs. Boring B-3 was advanced to the east of the gas meter room and previous SB-1. Borings B-4 through B-6 were advanced in the vicinity of boring previous boring SB-12 in the former automotive repair space. Boring B-7 and B-8 were advanced in the vicinity of previous boring SB-9 in the former die-casting area. Refer to Figure 3 for a map indicating boring locations (previous and current).

Sampling Depths

Borings B-1 through B-8 were advanced to terminal depths ranging between three and 19 feet bgs. Soil samples were collected from each boring at the 6-inch interval directly above the groundwater interface or terminal depth, which ever was shallower. Geoprobe refusal was encountered in soil borings B-1 (10 feet bgs), B-2 (10 feet bgs), B-3 (19 feet bgs), B-4 (19 feet bgs), B-5 (17 feet bgs), B-6 (12 feet bgs), B-7 (3 feet bgs), and B-8 (10 feet bgs). The bedrock surface appears to undulate across the subject property.

Soil Sampling Methodology

Borings B-1 through B-3 were overlain by asphalt and borings B-4 through B-7 were overlain by concrete. Borings B-1 through B-8 were penetrated using the direct-push drill rig(s).

Soil cores from each boring were collected using a 5-foot long by 1.5-inch diameter MacroCore sampler with a 5-foot long acetate liner, which was advanced by the direct-push drill rig using 5-foot long by 1.5-inch diameter drill rods. The sampler was driven into the subsurface to allow undisturbed soil to enter the open MacroCore barrel and retrieved in 5-foot intervals to recover the soil-filled liners.

A lengthwise section of each acetate liner was removed with a splitting tool to expose the soil. The soil column was visually inspected for discoloration, monitored for odors, and classified in accordance with the Unified Soil Classification System (USCS). Select intervals were placed in sealable plastic bags and field-screened with a photoionization detector (PID) calibrated to isobutylene.

Soils encountered consisted predominately of brown silty sand with some gravel and rock fragments. No visual evidence of impacted conditions were detected in any of the borings advanced on the subject property. Additionally, several borings had detectable PID readings ranging from 0.0 to 13.7 ppm.

Refer to Appendix A for a copy of the soil boring logs

Groundwater Sampling Methodology

Groundwater was encountered between three and 14 feet bgs in soil borings B-2, B-3, B-4, B-5, and B-8; however, boring B-8 is located in the basement and at a lower elevation which is why it was encountered at a shallow depth.

An ADT representative, under the direction of the Partner, installed pre-pack temporary monitoring wells in four of the eight borings (B-2, B-3, B-4, and B-8). The temporary pre-pack wells were installed to depths ranging from the basement surface (below grade) to 19 feet bgs and were installed utilizing 5-feet of ¾-inch pre-pack stainless steel wrapped polyvinyl chloride (PVC) screened material with ¾-inch solid PVC riser pipe from the top of the screened interval to just above land surface. Refer to Figure 3 for a map indicating the location of the temporary pre-pack monitoring wells installed during this subsurface investigation.

A groundwater sample was collected from soil boring B-5 by withdrawing the drill rods from the subsurface and installing a ¾-inch diameter temporary monitoring well within the open borehole. Groundwater was not encountered in soil borings B-1, B-6, and B-7.

Groundwater Purging and Sampling Methodology

The purging of the temporary pre-pack wells was conducted with a peristaltic pump and clean disposable polyethylene tubing. Field parameters were measured using an YSI® 556 MPS meter and a LaMotte® 2020 turbidity meter. A flow-through-cell was utilized to measure the select field parameters. Upon completion of the purging of these wells, groundwater samples were collected by direct filling the supplied bottleware for the VOC analysis in accordance with EPA method 8260 and PAH analysis in accordance with EPA method 8270 using SIM technology. A copy of the Ground Water Sampling Logs is presented in Appendix B.

The temporary monitoring well installed in boring B-5 consisted of a 10-foot long, 0.010-inch factory-slotted PVC screen at the terminal end and solid PVC risers from the top of the screen interval to the ground surface. Groundwater samples from the temporary well installed in boring B-5 was retrieved using new, dedicated 3/8-inch diameter polyethylene tubing attached to a peristaltic pump. Groundwater samples were collected by direct filling the supplied bottleware for the VOC analysis in accordance with EPA method 8260 and PAH analysis in accordance with EPA method 8270 using SIM technology.

Upon completion of the groundwater sampling, the tooling and/or temporary pre-pack wells were removed from the subsurface and the boreholes were backfilled with bentonite chips and capped to match the existing ground cover.

No significant amounts of derived wastes were generated during this investigation.

Well Surveying

The four temporary pre-pack groundwater monitoring wells (B-2GW, B-3GW, B-4GW, and B-8GW) were surveyed relative to a benchmark (vertical datum 100 feet). Datum points were used to plot the location of the boring locations and the relative top of casing elevation for the groundwater monitoring wells. Depth to groundwater measurements were also collected. Based on the relative elevations of the temporary pre-pack wells, the groundwater flow on the subject property was calculated to flow towards the west/northwest. Refer to Figure 4 for a groundwater contour map. Refer to Table 1 for well and depth to water information.

Sub-Slab Vapor Sampling Methodology

To facilitate the collection of a sub-slab vapor sample from beneath the subject property, temporary sub-slab vapor sample points SG-1 through SG-4 were advanced beneath the surface to a depth of approximately 1.5-feet bgs. Once at the target depth, ¼" diameter Teflon tubing was inserted into the borehole. Once set, a sand filter pack was placed around the tubing followed by hydrated bentonite which was placed around the connection between the surface and the sub-slab vapor tubing. Air was purged from the tubing using a PID for a ten minute period, then the tubing was connected to a 2.7-liter batch certified Summa Canister with a 60-minute

flow controller. Dedicated, batch-certified Summa Canisters were collected from temporary sub-slab vapor sample points SG-1 and SG-4.

The sampling end of the tubing was initially connected to a PID to perform an initial field screening of the soil-gas conditions for VOCs and purge the sample point. The soil-gas sample points were purged for approximately ten minutes and PID readings ranged from 0.0 ppm to 0.9 ppm in SG-1 through SG-4. The ambient PID reading was 0.0 ppm in the tenant space.

Probes were removed from the subsurface and the boreholes were backfilled with hydrated bentonite chips and capped with concrete or asphalt patch to match existing ground cover after sampling.

No significant amounts of derived wastes were generated during this sampling.

Laboratory Analyses

Partner collected five groundwater samples and four soil gas samples between August 6th and August 11th, 2014 which were transported in iced-coolers under proper chain-of-custody protocol to Alpha Analytical Laboratories (Alpha) in Westborough, Massachusetts a state-certified laboratory [New York State Department of Environmental Conservation (NYSDEC) Environmental Laboratory Accreditation Program (ELAP) certificate number 11148] for analysis.

Five groundwater samples (B-2GW, B-3GW, B-4GW, B-5GW, and B-8GW) were analyzed for VOCs in accordance with EPA Method 8260 and three groundwater samples (B-2GW, B-4GW, and B-5GW) were also analyzed for low level PAHs in according with EPA Method 8270C using SIM technology. Four sub-slab vapor samples (SG-1 through SG-4) were analyzed for VOC analysis in accordance with EPA TO-15. Additionally, Partner collected eight soil samples from the eight borings advanced on the subject property during this investigation, placing eight soil samples on "hold."

Investigation Scope Summary

Refer to Table 2 for a summary of the borings, sampling schedule, and laboratory analyses for this investigation.

Laboratory Analysis Results

Please see Table 3 for a summary of the groundwater sample laboratory analysis results and Table 4 for a summary of the soil gas sample laboratory analysis results.

Refer to Appendix C for the full laboratory analysis report, which includes chain-of-custody and laboratory quality assurance/quality control (QA/QC) documentation. Laboratory QA/QC data were within acceptable limits.

Discussion

Groundwater Analysis

Groundwater results were compared to the following NYSDEC groundwater criteria:

- Technical and Operational Guidance Memorandum Groundwater Standards (TOGS).

As indicated in Table 3, groundwater samples collected from sample points B-2, B-3, B-4, B-5, and B-8 detected VOCs at concentrations above their respective TOGs criteria. Specifically, TCA (exceedances ranged from 17 to 2,100 micrograms per liter [μg/L]), DCA (exceedances ranged from 56 to 90 μg/L), DCE (exceedances ranged from 160 to 380 μg/L), CIS (exceedances ranged from 23 to 110J μg/L), PERC (exceedances ranged from 32 to 4,800 μg/L), and/or TCE (exceedances ranged from 12 to 1,000 μg/L), were detected in the groundwater samples collected from sample points B-2GW, B-3GW, B-4GW, B-5GW, and B-8GW at concentrations above their respective TOGs criteria.

Groundwater samples collected from sample point B-2GW detected SVOCs at concentrations above their respective TOGs criteria. Specifically, benzo(a)pyrene (exceedance of 0.1J μg/L), benzo(b)fluoranthene (exceedance of 0.07J μg/L), and indeno(1,2,3-cd)pyrene (exceedance of 0.14J μg/L) were detected in the groundwater samples collected from sample point B-2GW at concentrations above their TOGs criteria. Additional VOCs and SVOCs were reported as non-detect in groundwater samples collected from sample points B-2GW, B-3GW, B-4GW, B-5GW, and B-8GW; however, the reporting limit for those analytes were above their respective TOGs criteria so it is, therefore, unknown if they are above their respective NYSDEC TOGs criteria.

Sub-Slab Vapor Analysis:

Currently, neither the NYSDEC nor the New State Department of Health (NYSDOH) provide sub-slab comparison criteria. Therefore, the sub-slab soil gas data was compared to EPA screening levels. The EPA Office of Solid Waste and Emergency Response (OSWER) has provisionally issued the external review draft document *"OSWER Final Guidelines for Evaluating the Vapor Intrusion to Indoor Air Pathway from Subsurface Sources to Indoor Air"*, dated April 11, 2013, to specifically address the "vapor intrusion pathway." The intent of this guidance document is to provide a tool to help the user conduct a screening evaluation as to whether or not the vapor intrusion exposure pathway is complete and, if so, whether it poses an unacceptable risk to human health.

The sub-slab soil gas samples collected during this investigation were compared to their EPA OSWER 10^{-6} and 10^{-4} Target Sub-Slab Soil Gas Concentrations for Carcinogens for Commercial Exposure Scenarios that are provided in the USEPA Vapor Intrusion Screening Level (VISL) Calculator Version 2.0, updated May 2014, Regional Screening Levels (RSLs).

Ideally, vapor intrusion sampling is completed in the winter months when the building is closed to outdoor air and the heating and ventilation system is running. However, to accommodate a due diligence timeframe, the sampling was completed in the summer.

As indicated in Table 4, sub-slab vapor samples collected from sample points SG-1 through SG-4 detected VOCs at concentrations well exceeding the $1x10^{-6}$ risk level that is considered to be de minimis and also exceeding the $1x10^{-4}$ risk level that is typically considered to require immediate remediation/mitigation. Specifically, DCA (exceedances ranged from 142 to 4,370 µg/L), DCE (exceedance of 18,900 µg/L), benzene (exceedance of 22 µg/L), chloroform (exceedance of 82.5 µg/L), PERC (exceendances ranged from 7,930 to 51,100 µg/L), and/or TCE (exceendances ranged from 519 to 48,900 µg/L) were detected in the soil vapor samples collected from sub-slab vapor points SG-1, SG-2, SG-3, and SG-4 at concentrations above their corresponding EPA VISL RSLs.

Summary and Conclusions

Partner conducted this Additional Phase II investigation to further evaluate and delineate the nature and extent of the VOCs and PAHs detected in groundwater at the subject property from a previous investigation conducted by Partner in June 2014 and to evaluate if the impacts are originating from an on- or off-site source and to evaluate the potential for remedial actions. Another objective of this additional investigation was to evaluate if there was a potential for vapor intrusion based on the VOC groundwater exceedances from a previous Phase II investigation conducted by Partner in June 2014. The investigation scope included the advancement of eight borings (B-1 through B-8) and four sub-slab vapor points (SG-1 through SG-4) for the collection of representative soil gas and/or groundwater samples. Groundwater was not collected from soil borings B-1, B-2, B-6 and B-7 due to the insufficient amount of water encountered during drilling activities.

Five groundwater samples were collected from the soil boring locations that intersected the groundwater table and were analyzed for VOCs in accordance with EPA Method 8260 and three groundwater samples were also analyzed for low level PAHs using SIM technology in accordance with EPA Method 8270. Four sub-slab vapor samples were analyzed for VOCs in accordance with EPA Method TO-15.

Groundwater samples collected from sample points B-2, B-3, B-4, B-5, and B-8 detected VOCs at concentrations above their respective TOGs criteria. Specifically, TCA, DCA, DCE, CIS, PERC, and/or TCE were detected in the groundwater samples collected from sample points B-2GW, B-3GW, B-4GW, B-5GW, and B-8GW at concentrations above their respective TOGs criteria.

Groundwater samples collected from sample point B-2GW detected SVOCs at concentrations above their respective TOGs criteria. Specifically, benzo(a)pyrene, benzo(b)fluoranthene, and indeno(1,2,3-cd)pyrene were detected in the groundwater samples collected from sample point B-2GW at concentrations above their TOGs criteria. Additional VOCs and SVOCs were

reported as non-detect in groundwater samples collected from sample points B-2GW, B-3GW, B-4GW, B-5GW, and B-8GW; however, the reporting limit for those analytes were above their respective TOGs criteria so it is, therefore, unknown if they are above their respective NYSDEC TOGs criteria.

Sub-slab vapor samples collected from sample points SG-1, SG-2, SG-3, and SG-4 detected VOCs at concentrations above their corresponding EPA VISL RSLs for EPA carcinogen risk factors of 10^{-6} and some are above 10^{-4}. Specifically, DCA, DCE, benzene, chloroform, PERC, and/or TCE were detected in the samples collected from sub-slab vapor points SG-1, SG-2, SG-3, and SG-4 at concentrations above their corresponding EPA VISL RSLs.

Based on these findings, subsurface groundwater conditions have been impacted and target analytes in groundwater are above applicable NYSDEC criteria. Additionally, soil vapor below the site building is above applicable EPA VISL RSLs which may contribute to a potential vapor intrusion concern. Accordingly, Partner recommends that additional investigation should be conducted on-site to evaluate the source of the VOC and SVOC impacts to groundwater and soil vapor. Additionally, Partner recommends implementing mitigation activities to address the indoor air and vapor intrusion issues. Partner also recommends that the property owner engage in communication with applicable regulatory bodies.

Limitations

This Report presents a summary of work conducted by Partner. The work includes observations of site conditions encountered and the analytical results provided by an independent third party laboratory of samples collected during the course of the project. The number and location of samples were selected to provide the required information. However, it cannot be assumed that the limited available data are representative of subsurface conditions in areas not sampled.

Conclusions and/or recommendations are based on the observations, laboratory analyses, and the governing regulations. Conclusions and/or recommendations beyond those stated and reported herein should not be inferred from this document.

Partner warrants that the environmental consulting services contained herein were accomplished in accordance with generally accepted practices in the environmental engineering, geology, and hydrogeology fields that existed at the time and location of work. No other warranties are implied or expressed.

Reports, both verbal and written, as they pertain to the property located at 125 & 160 Beechwood Avenue in New Rochelle, New York, are for the sole use and benefit of AMERCO Real Estate Company. This report has no other purpose and may not be relied upon by another person or entity without the written consent of Partner.

Signatures of Participating Professionals

Thank you for the opportunity to be of service. If you have questions regarding this investigation, please contact the undersigned at (203) 604-6565.

Sincerely,

Jonathan Lokko
Project Staff

Jodi Markowsky
Project Manager

Kristine MacWilliams
Technical Director – Subsurface Investigation

Attachments:

Tables
1. Well Detail Information
2. Summary of Investigation Scope
2. Groundwater Sample Laboratory Results – Detected Compounds
3. Soil Vapor Sample VOCs Laboratory Results – Detected Compounds

Figures
1. Site Location Map
2. Topographic Map
3. Sample Location Map
4. Groundwater Contour Map
5. Groundwater Concentration Map

Appendices
A. Boring Logs
B. Groundwater Sampling Logs
C. Laboratory Reports

Tables

Table 1: Well Detail Information

Well ID	Date	Top of PVC Relative Elevation	Depth to Water (feet bgs)	Relative GW Elevation
B-2(GW)	8/11/2014	100.28	9.21	91.07
B-3(GW)	8/11/2014	99.99	8.75	91.24
B-4(GW)	8/11/2014	104.90	13.85	91.05
B-5(GW)	8/11/2014	NA	12.00	NA
B-8(GW)	8/11/2014	92.82	2.95	89.87

Notes:
bgs = below ground surface
PVC = polyvinyl chloride

Table 2: Summary of Investigation Scope

Borehole Identification	Location	Terminal Depth (feet bgs)	Sample Identification	Matrix Sampled	Sampling Depths (feet bgs)	Target Contaminants
B-1	Approximately 15 feet east of former SB-6 location	10 (Rock refusal)	B-1	Soil	1 .0 - 2.0	VOCs and PAHs on Hold
B-2	Approximately 15 feet west of former SB-6 location	10 (Rock refusal)	B-2	Soil	2.0 - 3.0	VOCs and PAHs on Hold
SB-2/PTW	One foot west of SB-6 location	11 (Rock refusal)	B-2GW	Groundwater	5.0 - 11.0	VOCs and PAHs
B-3/PTW	Approximately 30 feet east of gas meter room	19 (Rock refusal)	B-3	Soil	9.0 - 10.0	VOCs and PAHs on Hold
			B-3GW	Groundwater	9.0 - 19.0	VOCs
B-4/PTW	Approximately 30 feet south of former SB-12 location	19 (Rock refusal)	B-4	Soil	13.0 - 14.0	VOCs and PAHs on Hold
			B-4GW	Groundwater	9.0 - 19.0	VOCs and PAHs
B-5/TW	Approximately 30 feet east of former SB-12 location	17 (Rock refusal)	B-5	Soil	8.0 - 9.0	VOCs and PAHs on Hold
			B-5GW	Groundwater	7.0 - 17.0	VOCs and PAHs
B-6	Approximately 30 feet north of former SB-12 location	12 (Rock refusal)	B-6	Soil	4.0 - 5.0	VOCs and PAHs on Hold
B-7	Approximately 30 feet west of former SB-9 location	3 (Rock refusal)	B-7	Soil	2.0 - 3.0	VOCs and PAHs on Hold
B-8/PTW	Approximately 20 feet south of former SB-9 location	10 (Rock refusal)	B-8	Soil	1.5 - 2.5	VOCs and PAHs on Hold
			B-8GW	Groundwater	3.0 - 10.0	VOCs
SG-1	Adjacent to former SB-1 location	1.5	SG-1	Soil gas	0.5 - 1.5	TO+15 - VOCs
SG-2	Northwestern portion of subject property	1.5	SG-2	Soil gas	0.5 - 1.5	TO+15 - VOCs
SG-3	Southwestern portion of subject property	1.5	SG-3	Soil gas	0.5 - 1.5	TO+15 - VOCs
SG-4	In the vicinity of former SB-12 location	1.5	SG-4	Soil gas	0.5 - 1.5	TO+15 - VOCs

Notes:
VOCs = Volatile organic compounds in accordance with EPA Method 8260
PAHs = Polycyclic Aromatic Hydrocarbons in accordance with EPA Method 8270
PTW = Prepacked Temporary Well
TW = Temporary Well
bgs = below ground surface

Table 3: Groundwater Sample Laboratory Results - Detected Compounds

LOCATION				B-5GW			B-2 GW			B-3 GW			B-4 GW			B-8 GW		
SAMPLING DATE				8/6/2014			8/11/2014			8/11/2014			8/11/2014			8/11/2014		
LAB SAMPLE ID				L1417987-09			L1418076-01			L1418076-02			L1418076-03			L1418076-04		
SAMPLE TYPE				GROUNDWATER			GROUNDWATER			GROUNDWATER			GROUNDWATER			GROUNDWATER		
	CasNum	NY-TOGS-GA	Units		RL	MDL		RL	MDL		RL	MDL		RL	MDL		RL	MDL
Semivolatile Organics by GC/MS-SIM - Westborough Lab																		
Acenaphthene	83-32-9	20	ug/l	0.07J	0.2	0.06	ND	0.2	0.06	ND	0.2	0.06	0.11J	0.2	0.06	ND	0.2	0.06
Benzo(a)anthracene	56-55-3	0.002	ug/l	ND	0.2	0.06	ND	0.2	0.06	ND	0.2	0.06	ND	0.2	0.06	ND	0.2	0.06
Benzo(a)pyrene	50-32-8	0	ug/l	ND	0.2	0.07	0.1J	0.2	0.07	ND	0.2	0.07	ND	0.2	0.07	ND	0.2	0.07
Benzo(b)fluoranthene	205-99-2	0.002	ug/l	ND	0.2	0.07	0.07J	0.2	0.07	ND	0.2	0.07	ND	0.2	0.07	ND	0.2	0.07
Benzo(k)fluoranthene	207-08-9	0.002	ug/l	ND	0.2	0.07	ND	0.2	0.07	ND	0.2	0.07	ND	0.2	0.07	ND	0.2	0.07
Chrysene	218-01-9	0.002	ug/l	ND	0.2	0.05	ND	0.2	0.05	ND	0.2	0.05	ND	0.2	0.05	ND	0.2	0.05
Fluoranthene	206-44-0	50	ug/l	0.17J	0.2	0.04	0.08J	0.2	0.04	ND	0.2	0.04	0.11J	0.2	0.04	ND	0.2	0.04
Fluorene	86-73-7	50	ug/l	ND	0.2	0.06	ND	0.2	0.06	ND	0.2	0.06	0.09J	0.2	0.06	ND	0.2	0.06
Hexachlorobenzene	118-74-1	0.04	ug/l	ND	0.8	0.01	-	-	-	-	-	-	-	-	-	-	-	-
Hexachlorobutadiene	87-68-3	0.5	ug/l	ND	0.5	0.07	-	-	-	-	-	-	-	-	-	-	-	-
Indeno(1,2,3-cd)Pyrene	193-39-5	0.002	ug/l	ND	0.2	0.08	0.14J	0.2	0.08	ND	0.2	0.08	ND	0.2	0.08	ND	0.2	0.08
Naphthalene	91-20-3	10	ug/l	0.13J	0.2	0.06	ND	0.2	0.06	ND	0.2	0.06	0.2	0.2	0.06	ND	0.2	0.06
Phenanthrene	85-01-8	50	ug/l	0.34	0.2	0.06	ND	0.2	0.06	ND	0.2	0.06	0.37	0.2	0.06	ND	0.2	0.06
Pyrene	129-00-0	50	ug/l	0.12J	0.2	0.06	0.07J	0.2	0.06	ND	0.2	0.06	0.07J	0.2	0.06	ND	0.2	0.06
Volatile Organics by GC/MS - Westborough Lab																		
1,1,1,2-Tetrachloroethane	630-20-6	5	ug/l	ND	25	7	ND	2.5	0.7	ND	2.5	0.7	ND	120	35	ND	25	7
1,1,1-Trichloroethane	71-55-6	5	ug/l	490	25	7	ND	2.5	0.7	17	2.5	0.7	2100	120	35	930	25	7
1,1,2,2-Tetrachloroethane	79-34-5	5	ug/l	ND	5	1.4	ND	0.5	0.14	ND	0.5	0.14	ND	25	7.2	ND	5	1.4
1,1,2-Trichloroethane	79-00-5	1	ug/l	ND	15	5	ND	1.5	0.5	ND	1.5	0.5	ND	75	25	ND	15	5
1,1-Dichloroethane	75-34-3	5	ug/l	76	25	7	ND	2.5	0.7	56	2.5	0.7	74J	120	35	90	25	7
1,1-Dichloroethene	75-35-4	5	ug/l	160	5	1.4	0.34J	0.5	0.14	ND	0.5	0.14	340	25	7.1	380	5	1.4
1,1-Dichloropropene	563-58-6	5	ug/l	ND	25	7	ND	2.5	0.7	ND	2.5	0.7	ND	120	35	ND	25	7
1,2,3-Trichlorobenzene	87-61-6	5	ug/l	ND	25	7	ND	2.5	0.7	ND	2.5	0.7	ND	120	35	ND	25	7
1,2,3-Trichloropropane	96-18-4	0.04	ug/l	ND	25	7	ND	2.5	0.7	ND	2.5	0.7	ND	120	35	ND	25	7
1,2,4-Trichlorobenzene	120-82-1	5	ug/l	ND	25	7	ND	2.5	0.7	ND	2.5	0.7	ND	120	35	ND	25	7
1,2,4-Trimethylbenzene	95-63-6	5	ug/l	ND	25	7	ND	2.5	0.7	ND	2.5	0.7	ND	120	35	ND	25	7
1,2-Dibromo-3-chloropropane	96-12-8	0.04	ug/l	ND	25	7	ND	2.5	0.7	ND	2.5	0.7	ND	120	35	ND	25	7
1,2-Dibromoethane	106-93-4	0.0006	ug/l	ND	20	6.5	ND	2	0.65	ND	2	0.65	ND	100	32	ND	20	6.5
1,2-Dichlorobenzene	95-50-1	3	ug/l	ND	25	7	ND	2.5	0.7	ND	2.5	0.7	ND	120	35	ND	25	7
1,2-Dichloroethane	107-06-2	0.6	ug/l	ND	5	1.3	ND	0.5	0.13	0.47J	0.5	0.13	ND	25	6.6	ND	5	1.3
1,2-Dichloroethene, Total	540-59-0	NE	ug/l	32	25	7	0.7J	2.5	0.7	23	2.5	0.7	110J	120	35	42	25	7
1,2-Dichloropropane	78-87-5	1	ug/l	ND	10	1.3	ND	1	0.13	ND	1	0.13	ND	50	6.6	ND	10	1.3
1,3,5-Trimethylbenzene	108-67-8	5	ug/l	ND	25	7	ND	2.5	0.7	ND	2.5	0.7	ND	120	35	ND	25	7
1,3-Dichlorobenzene	541-73-1	3	ug/l	ND	25	7	ND	2.5	0.7	ND	2.5	0.7	ND	120	35	ND	25	7
1,3-Dichloropropane	142-28-9	5	ug/l	ND	25	7	ND	2.5	0.7	ND	2.5	0.7	ND	120	35	ND	25	7
1,4-Dichlorobenzene	106-46-7	3	ug/l	ND	25	7	ND	2.5	0.7	ND	2.5	0.7	ND	120	35	ND	25	7
2,2-Dichloropropane	594-20-7	5	ug/l	ND	25	7	ND	2.5	0.7	ND	2.5	0.7	ND	120	35	ND	25	7
2-Butanone	78-93-3	50	ug/l	ND	50	19	ND	5	1.9	ND	5	1.9	ND	250	97	ND	50	19
2-Hexanone	591-78-6	50	ug/l	ND	50	10	ND	5	1	ND	5	1	ND	250	50	ND	50	10
Acetone	67-64-1	50	ug/l	ND	50	15	ND	5	1.5	ND	5	1.5	ND	250	73	ND	50	15
Acrylonitrile	107-13-1	5	ug/l	ND	50	15	ND	5	1.5	ND	5	1.5	ND	250	75	ND	50	15
Benzene	71-43-2	1	ug/l	ND	5	1.6	ND	0.5	0.16	ND	0.5	0.16	ND	25	8	ND	5	1.6
Bromobenzene	108-86-1	5	ug/l	ND	25	7	ND	2.5	0.7	ND	2.5	0.7	ND	120	35	ND	25	7
Bromochloromethane	74-97-5	5	ug/l	ND	25	7	ND	2.5	0.7	ND	2.5	0.7	ND	120	35	ND	25	7
Bromoform	75-25-2	50	ug/l	ND	20	6.5	ND	2	0.65	ND	2	0.65	ND	100	32	ND	20	6.5
Bromomethane	74-83-9	5	ug/l	ND	25	7	ND	2.5	0.7	ND	2.5	0.7	ND	120	35	ND	25	7

Table 3: Groundwater Sample Laboratory Results - Detected Compounds

LOCATION				B-5GW			B-2 GW			B-3 GW			B-4 GW			B-8 GW		
SAMPLING DATE				8/6/2014			8/11/2014			8/11/2014			8/11/2014			8/11/2014		
LAB SAMPLE ID				L1417987-09			L1418076-01			L1418076-02			L1418076-03			L1418076-04		
SAMPLE TYPE				GROUNDWATER			GROUNDWATER			GROUNDWATER			GROUNDWATER			GROUNDWATER		
	CasNum	NY-TOGS-GA	Units		RL	MDL		RL	MDL		RL	MDL		RL	MDL		RL	MDL
Carbon disulfide	75-15-0	60	ug/l	ND	50	10	ND	5	1	ND	5	1	ND	250	50	ND	50	10
Carbon tetrachloride	56-23-5	5	ug/l	ND	5	1.3	ND	0.5	0.13	ND	0.5	0.13	ND	25	6.7	ND	5	1.3
Chlorobenzene	108-90-7	5	ug/l	ND	25	7	ND	2.5	0.7	ND	2.5	0.7	ND	120	35	ND	25	7
Chloroethane	75-00-3	5	ug/l	ND	25	7	ND	2.5	0.7	ND	2.5	0.7	ND	120	35	ND	25	7
Chloroform	67-66-3	7	ug/l	ND	25	7	ND	2.5	0.7	ND	2.5	0.7	ND	120	35	ND	25	7
cis-1,2-Dichloroethene	156-59-2	5	ug/l	32	25	7	0.7J	2.5	0.7	23	2.5	0.7	110J	120	35	42	25	7
cis-1,3-Dichloropropene	10061-01-5	0.4	ug/l	ND	5	1.4	ND	0.5	0.14	ND	0.5	0.14	ND	25	7.2	ND	5	1.4
Dibromomethane	74-95-3	5	ug/l	ND	50	10	ND	5	1	ND	5	1	ND	250	50	ND	50	10
Dichlorodifluoromethane	75-71-8	5	ug/l	ND	50	10	ND	5	1	ND	5	1	ND	250	50	ND	50	10
Ethylbenzene	100-41-4	5	ug/l	ND	25	7	ND	2.5	0.7	ND	2.5	0.7	ND	120	35	ND	25	7
Hexachlorobutadiene	87-68-3	0.5	ug/l	ND	25	7	ND	2.5	0.7	ND	2.5	0.7	ND	120	35	ND	25	7
Isopropylbenzene	98-82-8	5	ug/l	ND	25	7	ND	2.5	0.7	ND	2.5	0.7	ND	120	35	ND	25	7
Methyl tert butyl ether	1634-04-4	10	ug/l	ND	25	7	ND	2.5	0.7	ND	2.5	0.7	ND	120	35	ND	25	7
Methylene chloride	75-09-2	5	ug/l	ND	25	7	ND	2.5	0.7	ND	2.5	0.7	ND	120	35	ND	25	7
n-Butylbenzene	104-51-8	5	ug/l	ND	25	7	ND	2.5	0.7	ND	2.5	0.7	ND	120	35	ND	25	7
n-Propylbenzene	103-65-1	5	ug/l	ND	25	7	ND	2.5	0.7	ND	2.5	0.7	ND	120	35	ND	25	7
Naphthalene	91-20-3	10	ug/l	ND	25	7	ND	2.5	0.7	ND	2.5	0.7	ND	120	35	ND	25	7
o-Chlorotoluene	95-49-8	5	ug/l	ND	25	7	ND	2.5	0.7	ND	2.5	0.7	ND	120	35	ND	25	7
o-Xylene	95-47-6	5	ug/l	ND	25	7	ND	2.5	0.7	ND	2.5	0.7	ND	120	35	ND	25	7
p-Chlorotoluene	106-43-4	5	ug/l	ND	25	7	ND	2.5	0.7	ND	2.5	0.7	ND	120	35	ND	25	7
p-Isopropyltoluene	99-87-6	5	ug/l	ND	25	7	ND	2.5	0.7	ND	2.5	0.7	ND	120	35	ND	25	7
p/m-Xylene	179601-23-1	5	ug/l	ND	25	7	ND	2.5	0.7	ND	2.5	0.7	ND	120	35	ND	25	7
sec-Butylbenzene	135-98-8	5	ug/l	ND	25	7	ND	2.5	0.7	ND	2.5	0.7	ND	120	35	ND	25	7
Styrene	100-42-5	930	ug/l	ND	25	7	ND	2.5	0.7	ND	2.5	0.7	ND	120	35	ND	25	7
tert-Butylbenzene	98-06-6	5	ug/l	ND	25	7	ND	2.5	0.7	ND	2.5	0.7	ND	120	35	ND	25	7
Tetrachloroethene	127-18-4	5	ug/l	36	5	1.8	37	0.5	0.18	32	0.5	0.18	4800	25	9	180	5	1.8
Toluene	108-88-3	5	ug/l	ND	25	7	ND	2.5	0.7	ND	2.5	0.7	ND	120	35	ND	25	7
trans-1,2-Dichloroethene	156-60-5	5	ug/l	ND	25	7	ND	2.5	0.7	ND	2.5	0.7	ND	120	35	ND	25	7
trans-1,3-Dichloropropene	10061-02-6	0.4	ug/l	ND	5	1.6	ND	0.5	0.16	ND	0.5	0.16	ND	25	8.2	ND	5	1.6
trans-1,4-Dichloro-2-butene	110-57-6	5	ug/l	ND	25	7	ND	2.5	0.7	ND	2.5	0.7	ND	120	35	ND	25	7
Trichloroethene	79-01-6	5	ug/l	31	5	1.8	2	0.5	0.18	12	0.5	0.18	1000	25	8.8	30	5	1.8
Trichlorofluoromethane	75-69-4	5	ug/l	ND	25	7	ND	2.5	0.7	ND	2.5	0.7	ND	120	35	ND	25	7
Vinyl chloride	75-01-4	2	ug/l	ND	10	3.3	ND	1	0.33	1.3	1	0.33	ND	50	16	ND	10	3.3

NOTES:
ug/l = Micrograms Per Liter
NY-TOGS-GA = New York TOGS 111 Groundwater Effluent Limitations criteria reflects all addendum to criteria through June 2004
ND = Non Detect
NE = Not Established
RL Exceeds Standard
Exceeds Standard
J = Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses

Table 4: Soil Vapor Sample VOCs Laboratory Results - Detected Compounds

LOCATION SAMPLING DATE LAB SAMPLE ID SAMPLE TYPE					SG-1 8/7/2014 L1417998-01 SOIL GAS		SG-2 8/7/2014 L1417998-02 SOIL GAS		SG-3 8/7/2014 L1417998-03 SOIL GAS		SG-4 8/7/2014 L1417998-04 SOIL GAS	
	CasNum	**VISL RSL EPA 10^{-6}**	**VISL RSL EPA 10^{-4}**	**Units**		**RL**		**RL**		**RL**		**RL**
Volatile Organics in Air - Mansfield Lab												
1,1,1-Trichloroethane	71-55-6	220000	220000	ug/m3	982	49.3	7970	38.8	52400	163	13300	32.9
1,1-Dichloroethane	75-34-3	77	7700	ug/m3	142	36.5	457	28.8	4370	121	2550	24.4
1,1-Dichloroethene	75-35-4	8800	8800	ug/m3	120	35.8	5550	28.2	***18900***	119	4440	23.9
2-Butanone	78-93-3	220000	220000	ug/m3	ND	26.6	128	21	ND	88.2	33	17.8
2-Hexanone	591-78-6	1300	1300	ug/m3	ND	37	36.7	29.1	ND	123	ND	24.7
Acetone	67-64-1	1400000	1400000	ug/m3	ND	107	884	84.3	ND	356	247	71.5
Benzene	71-43-2	16	1300	ug/m3	ND	28.8	ND	22.7	ND	95.5	22	19.3
Carbon disulfide	75-15-0	31000	31000	ug/m3	ND	28.1	ND	22.1	ND	93.1	69.8	18.8
Chloroform	67-66-3	5.3	530	ug/m3	ND	44.1	ND	34.7	ND	146	82.5	29.4
cis-1,2-Dichloroethene	156-59-2	NE	NE	ug/m3	60.7	35.8	272	28.2	23200	119	599	23.9
Freon-113	76-13-1	1300000	1300000	ug/m3	ND	69.2	212	54.5	ND	229	ND	46.2
Tetrachloroethene	127-18-4	470	1800	ug/m3	***15700***	61.2	***11100***	48.2	***51100***	203	***7930***	40.9
trans-1,2-Dichloroethene	156-60-5	NE	NE	ug/m3	ND	35.8	ND	28.2	239	119	ND	23.9
Trichloroethene	79-01-6	30	86	ug/m3	***519***	48.5	***930***	38.2	***48900***	161	***4560***	32.4

NOTES:
ug/m3 = Micrograms per Meter cubed
VISL RSL = Vapor Intrusion Screening Level (VISL) Regional Screening Levels - USEPA VISL Calculator Version 3.3.1 May 2014 RSLs
EPA 10^{-4} = EPA 10-4 Carcinogen Risk Factor
EPA 10^{-6} = EPA 10-6 Carcinogen Risk Factor
ND = Non Detect
NE = Not Established
Exceeds VISL RSL EPA 10^{-6} Carcinogen Risk Factor
Exceeds VISL RSL EPA 10^{-4} Carcinogen Risk Factor

Figures

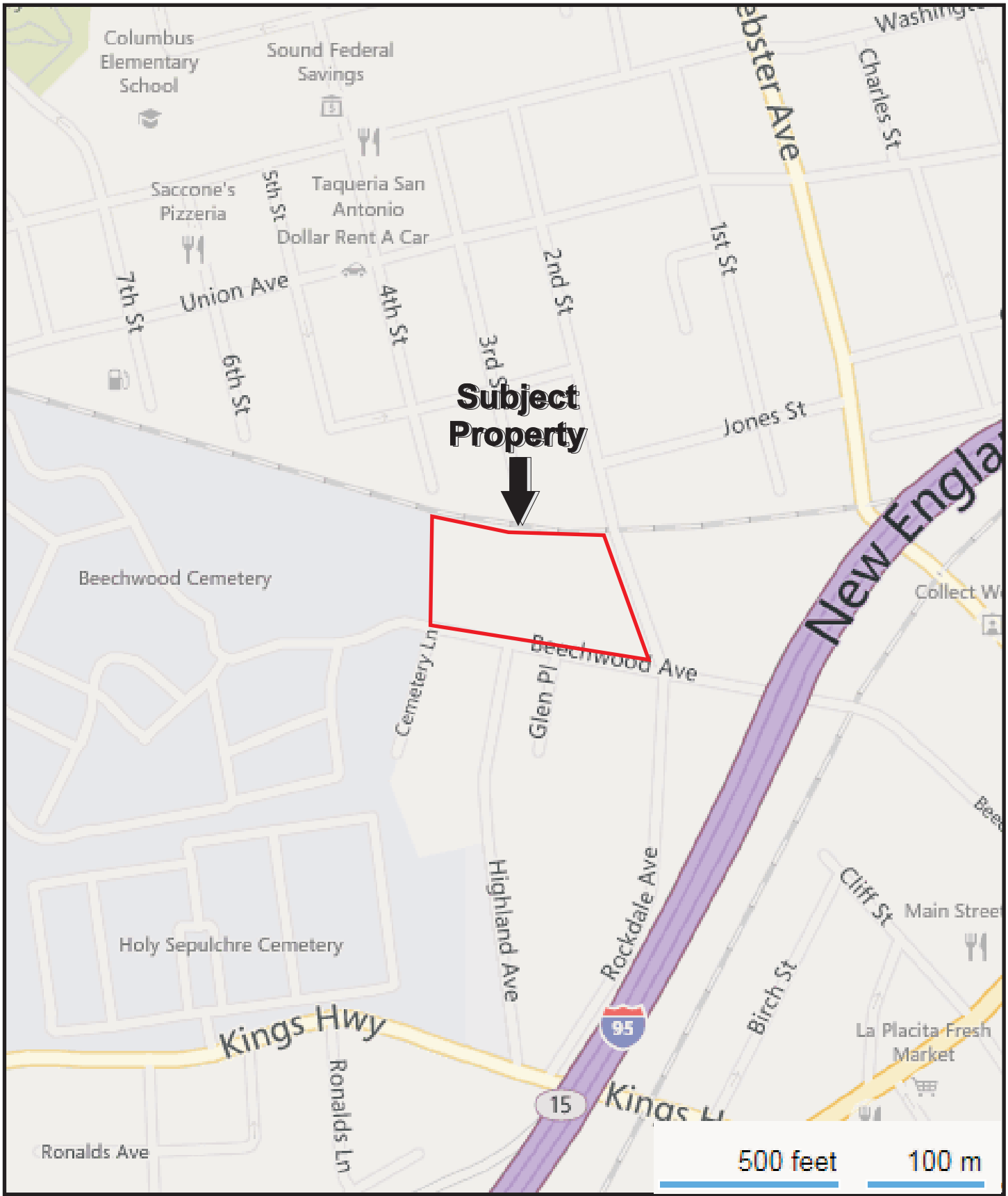

FIGURE 1: Site Location Map

Site Address:

Charles Sadek Import, Co.
125 Beechwood Avenue
New Rochelle, New York 10801

N

PARTNER

www.PARTNEResi.com
(800) 419-4923

Job Number: 14-121477.2

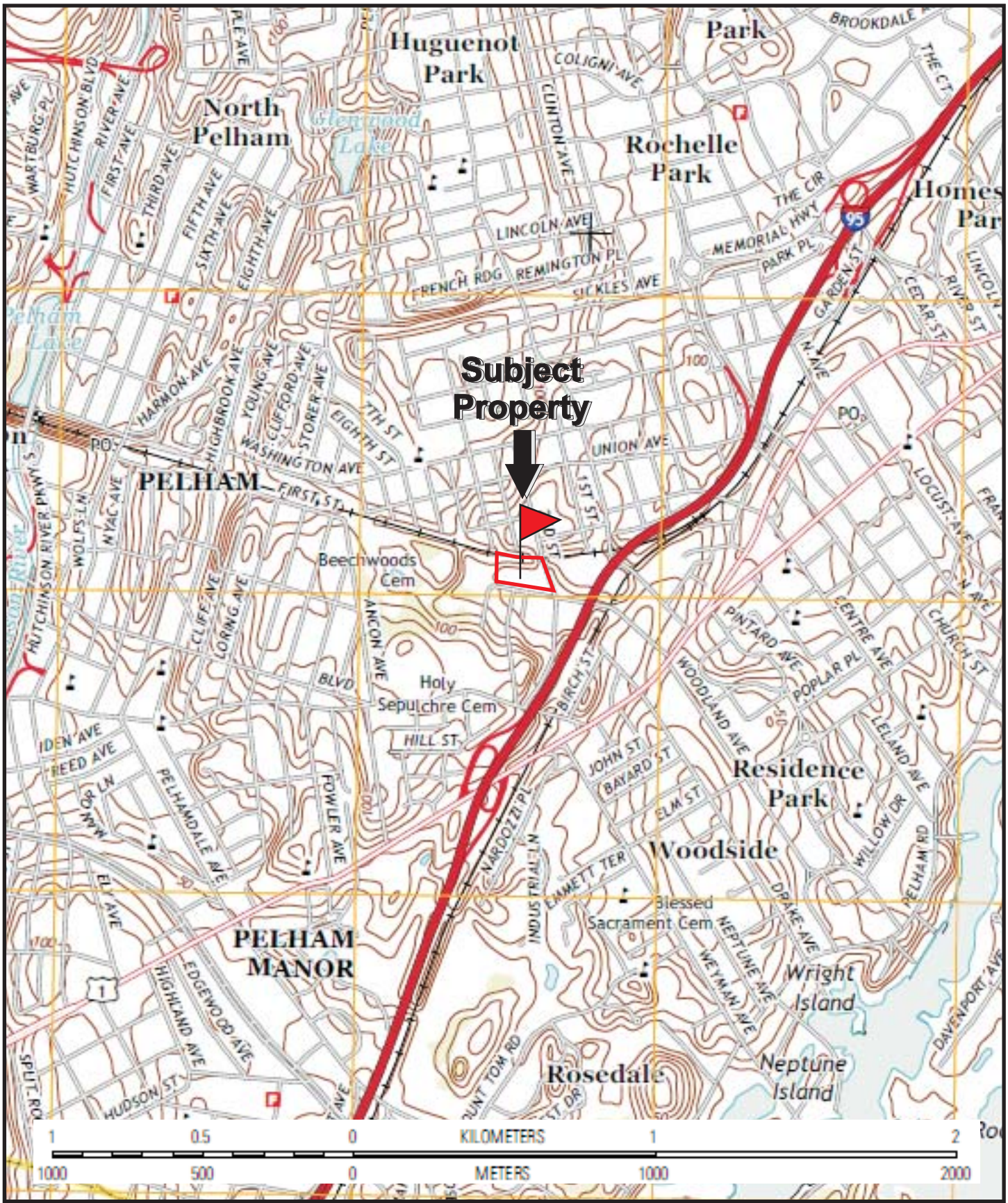

FIGURE 2: Topographic Map

Site Address:
Charles Sadek Import, Co.
125 Beechwood Avenue
New Rochelle, New York 10801

N

USGS 7.5 Minute
Mount Vernon,
New York
Quadrangle
Created: 2013

PARTNER
www.PARTNEResi.com
(800) 419-4923

Job Number: 14-121477.2

FIGURE 3: Sample Location Map

Site Address:
Charles Sadek Import, Co.
125 & 160 Beechwood Avenue
New Rochelle, New York 10801

Legend

- N
- Boring Location from June 2014
- Boring Location
- Soil Gas Sampling Location
- Prep-Packed Temp Well Location
- Approximate Site Boundary
- Soil Boring with Temp Well

PARTNER
www.PARTNEResi.com
(800) 419-4923
Job Number: 14-121477.1

FIGURE 4: Groundwater Contour Map

Site Address:
Charles Sadek Import, Co.
125 & 160 Beechwood Avenue
New Rochelle, New York 10801

N

Legend

- Boring Location from June 2014
- Soil Boring with Temp Well
- Prep-Packed Temp Well Location
- Approximate Site Boundary
- Groundwater Contour
- Groundwater Flow Direction

PARTNER
www.PARTNEResi.com
(800) 419-4923
Job Number: 14-121477.2

Compounds Legend:

DCA- 1,1-Dichloroethane
DCE- 1,1-Dichloroethene
TCE- 1,1,1-Trichloroethane
CIS- cis-1,2-Dichloroethene
PERC-Tetrachloroethene

FIGURE 5: Groundwater Concentration Map

Site Address:
Charles Sadek Import, Co.
125 & 160 Beechwood Avenue
New Rochelle, New York 10801

Legend

N

- Boring Location from June 2014
- Soil Boring with Temp Well
- Prep-Packed Temp Well Location
- Approximate Site Boundary

PARTNER
www.PARTNERResi.com
(800) 419-4923

Job Number: 14-121477.2

Appendix A:

Boring Logs

Boring Number:	**B-1**				Page 1 of 1
Location:	Approximately 15 feet east of former soil boring SB-6 location			Date Started:	8/6/2014
Site Address:	125 & 160 Beechwood Avenue			Date Completed:	8/6/2014
	New Rochelle, NY 10801			Depth to Groundwater:	N/A
Project Number:	14-121477.2			Field Technician:	Jonathan Lokko
Drill Rig Type:	Geoprobe 7720DT			**Partner Engineering and Science**	
Sampling Equipment:	5 ft Macrocores			611 Industrial Way West	
Borehole Diameter:	2 inch			Eatontown, NJ 07724	

Depth	Sample	PID	USCS	Description	Notes
0.5				Asphalt and gravel	
1		0.1			4.0 ft recovery
2	B-1	13.7			Soil sample B-1 collected at 9:00 from interval of 1.0 ft to 2.0 ft bgs (placed on hold).
3		1.4	GM	Brown Silty Sand with some gravel	
4		0..7			No odors or staining observed
5		0.1			
6		0.3		Brown Silty Sand with some gravel	
7		0.0			
8		0.0	GM	Brown fine to medium Sand with gravel, moist at 8 ft to 10 ft	4.8 ft recovery. No odors or staining observed
9		0.0			
10		0.0			
				Boring terminated at 10 ft bgs due to rock refusal	

Boring Number:	B-2				Page 1 of 1
Location:	Approximately 15 feet west of former soil boring SB-6 location			Date Started:	8/6/2014
Site Address:	125 & 160 Beechwood Avenue			Date Completed:	8/6/2014
	New Rochelle, NY 10801			Depth to Groundwater:	N/A
Project Number:	14-121477.2			Field Technician:	Jonathan Lokko
Drill Rig Type:	Geoprobe 7720DT			**Partner Engineering and Science**	
Sampling Equipment:	5 ft Macrocores			611 Industrial Way West	
Borehole Diameter:	2 inch			Eatontown, NJ 07724	

Depth	Sample	PID	USCS	Description	Notes
0.5				Asphalt and gravel	
1		3.3			3.5 ft recovery
2		9.5			
3	B-2	4.6	GM	Grayish brown Silty Sand with some gravel	Soil sample B-2 collected at 9:30 from interval of 2.0 ft to 3.0 ft bgs (placed on hold)
4		0.0			No odors or staining observed
5		0.0			
6		0.0			
7		0.0		Brown Silty Sand with some gravel	
8		0.0	GM		3.0 ft recovery. No odors or staining observed
9		0.0		Brown fine to medium Sand with gravel, rock encountered at 9.5 ft	
10		0.0			
				Boring terminated at 10 ft bgs due to rock refusal	

Boring Number:	**B-3**				Page 1 of 1
Location:	Approximately 30 feet east of Gas meter room			Date Started:	8/7/2014
Site Address:	125 & 160 Beechwood Avenue			Date Completed:	8/7/2014
	New Rochelle, NY 10801			Depth to Groundwater:	10
Project Number:	14-121477.2			Field Technician:	Jonathan Lokko
Drill Rig Type:	Geoprobe 6620DT			**Partner Engineering and Science**	
Sampling Equipment:	5 ft Macrocores			611 Industrial Way West	
Borehole Diameter:	2 inch			Eatontown, NJ 07724	

Depth	Sample	PID	USCS	Description	Notes
0.5				Asphalt and gravel	
1		0.0		Brown fine to medium Sand with some gravel	
2		0.0			
3		0.0	GM	Grayish brown Silty Sand with some gravel	3.0 ft recovery. No odors or staining observed
4		0.0			
5		0.0			
6		0.0			
7		0.0			
8		0.0	GM	Grayish brown Silty Sand with some gravel	3.0 ft recovery. No odors or staining observed
9		0.0			
10	B-3	0.0			Soil sample B-3 collected at 15:20 from interval of 9.0 ft to 10.0 ft bgs (placed on hold).
11		0.0			
12		0.0		Gray Silty Sand with some gravel and rock fragments, saturated	
13		0.0	GM		4.5 ft recovery. No odors or staining observed
14		0.0		Gray fine to medium Sand with gravel, saturated	
15		0.0			
16		0.0			
17		0.0	GM	Gray fine to medium Sand with gravel, saturated	4.0 ft recovery. No odors or staining observed
18		0.0			
19		0.0			
				Boring terminated at 19 ft bgs due to rock refusal	Boring converted to Prepacked temporary well point; screened from 9 to 19 ft bgs. GW sample B-3GW collected at 10:16 on 8/11/14

Boring Number:	**B-4**				Page 1 of 1
Location:	Approximately 30 feet south of former soil boring SB-12 location			Date Started:	8/6/2014
Site Address:	125 & 160 Beechwood Avenue			Date Completed:	8/6/2014
	New Rochelle, NY 10801			Depth to Groundwater:	14
Project Number:	14-121477.2			Field Technician:	Jonathan Lokko
Drill Rig Type:	Geoprobe 7720DT			**Partner Engineering and Science**	
Sampling Equipment:	5 ft Macrocores			611 Industrial Way West	
Borehole Diameter:	2 inch			Eatontown, NJ 07724	

Depth	Sample	PID	USCS	Description	Notes
0.5				Concrete and gravel	
1		0.0			
2		0.0			
3		0.0	GM	Brown Silty Sand with some gravel	4.0 ft recovery. No odors or staining observed
4		0.0			
5		0.0			
6		0.0			
7		0.0			
8		0.0	GM	Brown Silty Sand with some gravel. Rock fragments encountered at 7.0 - 7.5ft and 8.0 - 9.0ft	3.0 ft recovery. No odors or staining observed
9		0.0			
10		0.0			
11		0.0			
12		0.0		Brown fine to medium Sand with some gravel and rock fragments	5.0 ft recovery. No odors or staining observed
13		0.0	GM		
14	B-4	0.0			Soil sample B-4 collected at 13:40 from interval of 13.0 ft to 14.0 ft bgs (placed on hold).
15		0.0		Grayish brown Silty Sand with gravel, wet	
16		0.0			
17		0.0	GM	Grayish brown Silty Sand with gravel and rock fragments, saturated	4.0 ft recovery. No odors or staining observed
18		0.0			
19		0.0			
				Boring terminated at 19 ft bgs due to rock refusal	Boring converted to Prepacked temporary well point; screened from 9 to 19 ft bgs. GW sample B-4GW collected at 12:16 on 8/11/14

Boring Number:	**B-5**				Page 1 of 1
Location:	Approximately 30 feet east of former soil boring SB-12 location			Date Started:	8/6/2014
Site Address:	125 & 160 Beechwood Avenue			Date Completed:	8/6/2014
	New Rochelle, NY 10801			Depth to Groundwater:	12
Project Number:	14-121477.2			Field Technician:	Jonathan Lokko
Drill Rig Type:	Geoprobe 7720DT			**Partner Engineering and Science**	
Sampling Equipment:	5 ft Macrocores			611 Industrial Way West	
Borehole Diameter:	2 inch			Eatontown, NJ 07724	

Depth	Sample	PID	USCS	Description	Notes
0.5				Concrete and gravel	3.5 ft recovery. No odors or staining observed
1		0.0	GM	Brown Silty Sand with some gravel and some rock fragments	
2		0.0			
3		0.3			
4		0.2			
5		0.7			
6		3.1	GM	Brown Silty Sand with some gravel and some rock fragments	4.0 ft recovery. No odors or staining observed Soil sample B-5 collected at 14:35 from interval of 13.0 ft to 14.0 ft bgs (placed on hold).
7		1.1			
8		4.9			
9	B-5	3.6			
10		0.0			
11		1.0	GM	Brown fine to medium Sand with some gravel	4.0 ft recovery. No odors or staining observed
12		2.6		Grayish brown Silty Sand with gravel and some rock fragments, wet	
13		3.8			
14		6.4			
15		0.6			
16		0.4	GM	Grayish brown Silty Sand with gravel and rock fragments, saturated	2.0 ft recovery. No odors or staining observed
17		0.0			
				Boring terminated at 17 ft bgs due to rock refusal	Boring converted to temporary well point; screened from 10 to 17 ft bgs. GW sample B-5GW collected at 16:00 on 8/6/14

Boring Number:	**B-6**				Page 1 of 1
Location:	Approximately 30 feet north of former soil boring SB-12 location			Date Started:	8/6/2014
Site Address:	125 & 160 Beechwood Avenue			Date Completed:	8/6/2014
	New Rochelle, NY 10801			Depth to Groundwater:	N/A
Project Number:	14-121477.2			Field Technician:	Jonathan Lokko
Drill Rig Type:	Geoprobe 7720DT			**Partner Engineering and Science**	
Sampling Equipment:	5 ft Macrocores			611 Industrial Way West	
Borehole Diameter:	2 inch			Eatontown, NJ 07724	

Depth	Sample	PID	USCS	Description	Notes
0.5				Concrete and gravel	
1		5.2	GM	Brown fine to medium Sand with some gravel and rock fragments at 2-3 ft	3.5 ft recovery. No odors or staining observed
2		3.5			
3		3.8			
4		6.8		Brown Silty Sand with some gravel	
5	B-6	8.0			Soil sample B-6 collected at 15:05 from interval of 4.0 ft to 5.0 ft bgs (placed on hold).
6		1.8	GM	Brown fine to medium Sand with some gravel	3.0 ft recovery. No odors or staining observed
7		2.2			
8		2.3			
9		2.0		Grayish brown fine to medium Sand with gravel, and rock fragments at 9-10 ft	
10		1.2			
11		3.8	GM	Grayish brown Silty Sand with gravel, and rock fragments	2.0 ft recovery. No odors or staining observed
12		1.9			
				Boring terminated at 12 ft bgs due to rock refusal	

Boring Number:	**B-7**				Page 1 of 1
Location:	Approximately 30 feet west of former soil boring SB-9 location			Date Started:	8/7/2014
Site Address:	125 & 160 Beechwood Avenue			Date Completed:	8/7/2014
	New Rochelle, NY 10801			Depth to Groundwater:	N/A
Project Number:	14-121477.2			Field Technician:	Jonathan Lokko
Drill Rig Type:	Geoprobe 6620DT			**Partner Engineering and Science**	
Sampling Equipment:	5 ft Macrocores			611 Industrial Way West	
Borehole Diameter:	2 inch			Eatontown, NJ 07724	

Depth	Sample	PID	USCS	Description	Notes
0.5				Concrete and gravel	
1		0.0		Grayish brown fine to medium Sand with some gravel and rock fragments at 2-3 ft	2.5 ft recovery. No odors or staining observed
2		0.0	GM	Brown Silty Sand with some gravel and rock fragments at 2-3 ft	
3	B-7	0.0			Soil sample B-7 collected at 13:20 from interval of 2.0 ft to 3.0 ft bgs (placed on hold).
				Boring terminated at 3 ft bgs due to rock refusal	

Boring Number:	**B-8**				Page 1 of 1
Location:	Approximately 20 feet south of former soil boring SB-9 location			Date Started:	8/7/2014
Site Address:	125 & 160 Beechwood Avenue			Date Completed:	8/7/2014
	New Rochelle, NY 10801			Depth to Groundwater:	3
Project Number:	14-121477.2			Field Technician:	Jonathan Lokko
Drill Rig Type:	Geoprobe 6620DT			**Partner Engineering and Science**	
Sampling Equipment:	5 ft Macrocores			611 Industrial Way West	
Borehole Diameter:	2 inch			Eatontown, NJ 07724	

Depth	Sample	PID	USCS	Description	Notes
0.5				Concrete and gravel	
1		1.7	GM	Brown Silty Sand with some gravel	2.0 ft recovery. No odors or staining observed
2	B-8	1.9			Soil sample B-8 collected at 13:45 from interval of 1.5 ft to 2.5 ft bgs (placed on hold).
3		0.5		Brown fine to medium Sand with gravel, wet at 3.0 ft	
4		1.2	GM	Brown fine to medium with gravel, saturated	2.5 ft recovery. No odors or staining observed
5		0.0		Grayish brown Silty Sand with some gravel and rock fragments at 5 ft, wet	
6		0.0			
7		0.0	GM	Brown fine to medium Sand with gravel and rock fragments, saturated	3.0 ft recovery. No odors or staining observed
8		0.0			
9		0.0			
10		0.0	GM	Brown fine to medium Sand with gravel and rock fragments, saturated	1.0 ft recovery. No odors or staining observed
				Boring terminated at 10 ft bgs due to rock refusal	Boring converted to Prepacked temporary well point; screened from 0 to 10 ft bgs. GW sample B-8GW collected at 11:11 on 8/11/14

Appendix B:

Groundwater Sampling Logs

GROUNDWATER FIELD SAMPLING RECORD
LOW-FLOW PROCEDURE
PARTNER ENGINEERING & SCIENCE

GENERAL INFORMATION:

PROJECT NAME:	New Rochelle	**DATE:**	8/11/2014
JOB #:	14-121477.2	**WELL NUMBER:**	B-2GW
LOCATION:	New Rochelle - NY	**WELL DIAMETER:**	1.50"
SAMPLING PERSONNEL:	Jonathan Lokko	**WELL PERMIT #:**	
PROJECT MANAGER:	Jodi Markowsky	**WEATHER:**	80's Sunny

INITIAL WELL MEASUREMENTS:

PID (ppm): Annular Space	0.00
PID (ppm): Head Space	0.00
***DEPTH TO PRODUCT (ft):**	ND
***DEPTH TO WATER (ft):**	9.21
TOTAL WELL DEPTH (ft):	10.81
FREE PRODUCT (inches):	ND
WATER COLUMN HEIGHT (ft):	1.60

INITIAL HORIBA MEASUREMENTS:

HORIBA # : ☐ 1 ☐ 2 ☐ 3 ☑ R 18704 (serial #)

TIME OF MEASUREMENT:	8:10
pH:	6.88
SPEC. COND. (mS/cm):	0.781
TURBIDITY (NTU):	4.0
DISSOLVED OXYGEN (mg/L):	11.18
TEMPERATURE (°C):	20.85
SALINITY (%):	0.40
ORP (mV):	149

WELL PURGING:

PUMP TYPE:	Peristaltic
PUMPING DEPTH (ft):	10.50
PURGE TIME START:	8:01
PURGE TIME STOP:	8:25
PURGING TIME (min):	24
PUMP RATE (mL/min):	
GALLONS PURGED:	1.0

** Pump rate should be between 200 to 500 mL/ min. during purging.

TIME OF HORIBA CALIBRATION IN LAB:

TIME OF LAST FIELD pH CHECK:

**** Field pH check is required every 3 hours****

TIME:					
TEMPERATURE (C):					
pH :					
Accepted:					
Rejected:					

pH value must be 7.00 +/-0.2 otherwise 2-point calibration is required

PARAMETERS MEASURED DURING PURGING:

** Well is ready for sampling after indicator parameters have stabilized for three consecutive readings**

		TIME								
PARAMETERS:	Tolerance	8:15	8:20	8:25	8:30	8:35				
pH:	+/- 0.1	6.87	6.99	7.07	7.14	7.15				
SPEC. COND. (mS/cm):	+/- 3%	0.755	0.740	0.719	0.718	0.72				
TURBIDITY (NTU):	+/- 10%	3.80	3.90	164.00	167.00	169.00				
DISSOLVED OXYGEN (mg/l):	+/- 10%	10.29	10.46	10.82	10.94	10.96				
TEMPERATURE (C):	N/A	20.83	20.79	20.77	20.78	20.78				
SALINITY (%):	N/A	0.40	0.40	0.40	0.40	0.40				
ORP (mV):	+/- 10 mV	0.743	0.717	0.719	0.713	0.715				
***DEPTH TO WATER (ft):**	+/- 0.3 ft	10.00	10.21	10.50	10.50	10.50				

SAMPLING:

SAMPLING START TIME:	8:36
***DEPTH TO WATER (ft):**	10.50
PUMP RATE (mL/min):	

** Sampling pump rate should be the same as purging rate**

SAMPLING STOP TIME:	8:43
SAMPLE ID #:	B-2GW
NO. OF CONTAINERS:	5
PHYSICAL APPEARANCE:	Cloudy
ODOR:	None

TIME OF REFRIGERATION:

- IMMEDIATE: **X**

- OTHER:

FINAL MEASUREMENTS AFTER SAMPLING:

TIME OF MEASUREMENT:	8:44
***DEPTH TO WATER (ft):**	10.50
RECHARGE RATE (mL/min):	
pH:	7.17
SPEC. COND. (mS/cm):	0.720
TURBIDITY (NTU):	167.00
DISSOLVED OXYGEN (mg/l):	11.00
TEMPERATURE (°C):	20.79
SALINITY (%):	0.40
ORP (mV):	0.711

COMMENTS:

Legend:

*** Depth to Groundwater from the surveyed top of the PVC casing**

**** As per USEPA Region 2 Ground water sampling procedure, low flow purging and sampling**

NM- Not Measured

NR - Reading not taken

EM - Equipment malfunction

Horiba Serial #'s

#1: W34AYLTT

#2: LHMHSBF1

#3: 84JGF00X

GROUNDWATER FIELD SAMPLING RECORD
LOW-FLOW PROCEDURE
PARTNER ENGINEERING & SCIENCE

GENERAL INFORMATION:

PROJECT NAME:	New Rochelle	**DATE:**	8/11/2014
JOB #:	14-121477.2	**WELL NUMBER:**	B-2GW
LOCATION:	New Rochelle - NY	**WELL DIAMETER:**	1.50"
SAMPLING PERSONNEL:	Jonathan Lokko	**WELL PERMIT #:**	
PROJECT MANAGER:	Jodi Markowsky	**WEATHER:**	80's Sunny

INITIAL WELL MEASUREMENTS:

PID (ppm): Annular Space	0.00
PID (ppm): Head Space	0.60
***DEPTH TO PRODUCT (ft):**	ND
***DEPTH TO WATER (ft):**	8.75
TOTAL WELL DEPTH (ft):	18.20
FREE PRODUCT (inches):	ND
WATER COLUMN HEIGHT (ft):	9.45

INITIAL HORIBA MEASUREMENTS:

HORIBA # : ☐ 1 ☐ 2 ☐ 3 ☑ R 18704 (serial #)

TIME OF MEASUREMENT:	9:45
pH:	7.29
SPEC. COND. (mS/cm):	1.060
TURBIDITY (NTU):	183.0
DISSOLVED OXYGEN (mg/L):	2.66
TEMPERATURE (°C):	21.87
SALINITY (%):	0.50
ORP (mV):	-102

WELL PURGING:

PUMP TYPE:	Peristaltic
PUMPING DEPTH (ft):	14.00
PURGE TIME START:	9:40
PURGE TIME STOP:	10:15
PURGING TIME (min):	35
PUMP RATE (mL/min):	
GALLONS PURGED:	3.0

** Pump rate should be between 200 to 500 mL/ min. during purging.

TIME OF HORIBA CALIBRATION IN LAB:

TIME OF LAST FIELD pH CHECK:

**** Field pH check is required every 3 hours****

TIME:					
TEMPERATURE (C):					
pH :					
Accepted:					
Rejected:					

pH value must be 7.00 +/-0.2 otherwise 2-point calibration is required

PARAMETERS MEASURED DURING PURGING:

** Well is ready for sampling after indicator parameters have stabilized for three consecutive readings**

		TIME								
PARAMETERS:	Tolerance	9:50	9:55	10:00	10:05	10:10	10:15			
pH:	+/- 0.1	7.12	6.76	6.69	6.66	6.65	6.65			
SPEC. COND. (mS/cm):	+/- 3%	1.07	0.945	0.961	0.976	0.978	1.01			
TURBIDITY (NTU):	+/- 10%	186.00	67.30	36.90	20.70	18.60	18.00			
DISSOLVED OXYGEN (mg/l):	+/- 10%	4.36	2.70	2.40	2.28	2.18	2.08			
TEMPERATURE (C):	N/A	19.69	18.64	18.45	18.30	18.18	17.96			
SALINITY (%):	N/A	0.50	0.50	0.50	0.50	0.50	0.50			
ORP (mV):	+/- 10 mV	-90	-76	-73	-73	-73	-73			
***DEPTH TO WATER (ft):**	+/- 0.3 ft	9.15	9.15	9.15	9.16	9.18	9.20			

SAMPLING:

SAMPLING START TIME:	10:16
***DEPTH TO WATER (ft):**	9.20
PUMP RATE (mL/min):	

** Sampling pump rate should be the same as purging rate**

SAMPLING STOP TIME:	10:25
SAMPLE ID #:	B-3GW
NO. OF CONTAINERS:	3
PHYSICAL APPEARANCE:	Clear
ODOR:	None

TIME OF REFRIGERATION:

- IMMEDIATE: **X**

- OTHER:

FINAL MEASUREMENTS AFTER SAMPLING:

TIME OF MEASUREMENT:	10:26
***DEPTH TO WATER (ft):**	9.35
RECHARGE RATE (mL/min):	
pH:	6.65
SPEC. COND. (mS/cm):	1.040
TURBIDITY (NTU):	17.70
DISSOLVED OXYGEN (mg/l):	2.73
TEMPERATURE (°C):	18.06
SALINITY (%):	0.50
ORP (mV):	-75

COMMENTS:

Legend:

*** Depth to Groundwater from the surveyed top of the PVC casing**

**** As per USEPA Region 2 Ground water sampling procedure, low flow purging and sampling**

NM- Not Measured

NR - Reading not taken

EM - Equipment malfunction

Horiba Serial #'s

#1: W34AYLTT

#2: LHMHSBF1

#3: 84JGF00X

GROUNDWATER FIELD SAMPLING RECORD
LOW-FLOW PROCEDURE
PARTNER ENGINEERING & SCIENCE

GENERAL INFORMATION:

PROJECT NAME:	New Rochelle	**DATE:**	8/11/2014
JOB #:	14-121477.2	**WELL NUMBER:**	B-4GW
LOCATION:	New Rochelle - NY	**WELL DIAMETER:**	1.50"
SAMPLING PERSONNEL:	Jonathan Lokko	**WELL PERMIT #:**	
PROJECT MANAGER:	Jodi Markowsky	**WEATHER:**	80's Sunny

INITIAL WELL MEASUREMENTS:

PID (ppm): Annular Space	0.00
PID (ppm): Head Space	3.40
***DEPTH TO PRODUCT (ft):**	ND
***DEPTH TO WATER (ft):**	13.85
TOTAL WELL DEPTH (ft):	19.15
FREE PRODUCT (inches):	ND
WATER COLUMN HEIGHT (ft):	5.30

INITIAL HORIBA MEASUREMENTS:

HORIBA # : ☐ 1 ☐ 2 ☐ 3 ☑ R 18704 (serial #)

TIME OF MEASUREMENT:	11:55
pH:	6.84
SPEC. COND. (mS/cm):	0.770
TURBIDITY (NTU):	7.7
DISSOLVED OXYGEN (mg/L):	2.43
TEMPERATURE (°C):	17.35
SALINITY (%):	0.04
ORP (mV):	30

WELL PURGING:

PUMP TYPE:	Peristaltic
PUMPING DEPTH (ft):	17.00
PURGE TIME START:	11:50
PURGE TIME STOP:	12:15
PURGING TIME (min):	25
PUMP RATE (mL/min):	
GALLONS PURGED:	2.5

** Pump rate should be between 200 to 500 mL/ min. during purging.

TIME OF HORIBA CALIBRATION IN LAB:

TIME OF LAST FIELD pH CHECK:

**** Field pH check is required every 3 hours****

TIME:					
TEMPERATURE (C):					
pH :					
Accepted:					
Rejected:					

pH value must be 7.00 +/-0.2 otherwise 2-point calibration is required

PARAMETERS MEASURED DURING PURGING:

** Well is ready for sampling after indicator parameters have stabilized for three consecutive readings**

		TIME								
PARAMETERS:	Tolerance	12:00	12:05	12:10	12:15					
pH:	+/- 0.1	6.80	6.72	6.70	6.68					
SPEC. COND. (mS/cm):	+/- 3%	0.768	0.766	0.764	0.763					
TURBIDITY (NTU):	+/- 10%	4.60	1.10	1.00	1.40					
DISSOLVED OXYGEN (mg/l):	+/- 10%	2.32	2.26	2.29	2.27					
TEMPERATURE (C):	N/A	17.32	17.28	17.23	17.19					
SALINITY (%):	N/A	0.40	0.40	0.40	0.40					
ORP (mV):	+/- 10 mV	34.0	40.0	42.0	49.0					
***DEPTH TO WATER (ft):**	+/- 0.3 ft	14.98	15.00	15.03	15.06					

SAMPLING:

SAMPLING START TIME:	12:16
***DEPTH TO WATER (ft):**	15.06
PUMP RATE (mL/min):	

** Sampling pump rate should be the same as purging rate**

SAMPLING STOP TIME:	12:19
SAMPLE ID #:	B-4GW
NO. OF CONTAINERS:	5
PHYSICAL APPEARANCE:	Clear
ODOR:	None
TIME OF REFRIGERATION:	
- IMMEDIATE:	**X**
- OTHER:	

FINAL MEASUREMENTS AFTER SAMPLING:

TIME OF MEASUREMENT:	12:20
***DEPTH TO WATER (ft):**	15.08
RECHARGE RATE (mL/min):	
pH:	6.69
SPEC. COND. (mS/cm):	0.760
TURBIDITY (NTU):	1.30
DISSOLVED OXYGEN (mg/l):	2.20
TEMPERATURE (°C):	17.45
SALINITY (%):	0.40
ORP (mV):	52

COMMENTS:

Legend:
*** Depth to Groundwater from the surveyed top of the PVC casing**
**** As per USEPA Region 2 Ground water sampling procedure, low flow purging and sampling**
NM- Not Measured
NR - Reading not taken
EM - Equipment malfunction

Horiba Serial #'s
#1: W34AYLTT
#2: LHMHSBF1
#3: 84JGF00X

GROUNDWATER FIELD SAMPLING RECORD
LOW-FLOW PROCEDURE
PARTNER ENGINEERING & SCIENCE

GENERAL INFORMATION:

PROJECT NAME:	New Rochelle	**DATE:**	8/11/2014
JOB #:	14-121477.2	**WELL NUMBER:**	B-8GW
LOCATION:	New Rochelle - NY	**WELL DIAMETER:**	1.50"
SAMPLING PERSONNEL:	Jonathan Lokko	**WELL PERMIT #:**	
PROJECT MANAGER:	Jodi Markowsky	**WEATHER:**	80's Sunny

INITIAL WELL MEASUREMENTS:

PID (ppm): Annular Space	0.00
PID (ppm): Head Space	0.30
***DEPTH TO PRODUCT (ft):**	ND
***DEPTH TO WATER (ft):**	2.95
TOTAL WELL DEPTH (ft):	10.00
FREE PRODUCT (inches):	ND
WATER COLUMN HEIGHT (ft):	7.05

INITIAL HORIBA MEASUREMENTS:

HORIBA # : ☐ 1 ☐ 2 ☐ 3 ☑ R 18704 (serial #)

TIME OF MEASUREMENT:	10:45
pH:	7.29
SPEC. COND. (mS/cm):	0.727
TURBIDITY (NTU):	84.5
DISSOLVED OXYGEN (mg/L):	1.69
TEMPERATURE (^{o}C):	20.04
SALINITY (%):	0.40
ORP (mV):	65

WELL PURGING:

PUMP TYPE:	Peristaltic
PUMPING DEPTH (ft):	7.00
PURGE TIME START:	10:40
PURGE TIME STOP:	11:10
PURGING TIME (min):	30
PUMP RATE (mL/min):	
GALLONS PURGED:	3.0

** Pump rate should be between 200 to 500 mL/ min. during purging.

TIME OF HORIBA CALIBRATION IN LAB:

TIME OF LAST FIELD pH CHECK:

**** Field pH check is required every 3 hours****

TIME:					
TEMPERATURE (C):					
pH :					
Accepted:					
Rejected:					

pH value must be 7.00 +/-0.2 otherwise 2-point calibration is required

PARAMETERS MEASURED DURING PURGING:

** Well is ready for sampling after indicator parameters have stabilized for three consecutive readings**

		TIME								
PARAMETERS:	Tolerance	10:50	10:55	11:00	11:05	11:10				
pH:	+/- 0.1	7.10	6.95	6.87	6.86	6.86				
SPEC. COND. (mS/cm):	+/- 3%	0.722	0.720	0.715	0.713	0.710				
TURBIDITY (NTU):	+/- 10%	27.50	17.50	13.80	13.40	13.00				
DISSOLVED OXYGEN (mg/l):	+/- 10%	1.78	1.63	1.33	1.31	1.29				
TEMPERATURE (C):	N/A	19.98	19.82	19.66	19.63	19.57				
SALINITY (%):	N/A	0.40	0.40	0.40	0.40	0.40				
ORP (mV):	+/- 10 mV	73.00	76.00	77.00	76.00	74.00				
***DEPTH TO WATER (ft):**	+/- 0.3 ft	3.31	3.38	3.39	3.40	3.40				

SAMPLING:

SAMPLING START TIME:	11:11
***DEPTH TO WATER (ft):**	3.40
PUMP RATE (mL/min):	

** Sampling pump rate should be the same as purging rate**

SAMPLING STOP TIME:	11:18
SAMPLE ID #:	B-8GW
NO. OF CONTAINERS:	3
PHYSICAL APPEARANCE:	Clear
ODOR:	None
TIME OF REFRIGERATION:	
- IMMEDIATE:	**X**
- OTHER:	

FINAL MEASUREMENTS AFTER SAMPLING:

TIME OF MEASUREMENT:	11:19
***DEPTH TO WATER (ft):**	3.40
RECHARGE RATE (mL/min):	
pH:	6.86
SPEC. COND. (mS/cm):	0.709
TURBIDITY (NTU):	5.30
DISSOLVED OXYGEN (mg/l):	1.34
TEMPERATURE (^{o}C):	19.61
SALINITY (%):	0.30
ORP (mV):	70.00

COMMENTS:

Legend:

*** Depth to Groundwater from the surveyed top of the PVC casing**

**** As per USEPA Region 2 Ground water sampling procedure, low flow purging and sampling**

NM- Not Measured

NR - Reading not taken

EM - Equipment malfunction

Horiba Serial #'s

#1: W34AYLTT

#2: LHMHSBF1

#3: 84JGF00X

Appendix C:

Laboratory Reports

JOB: L1417987 REPORT STYLE: Data Usability Report
0010: Cover Page - OK
0015: Sample Cross Reference Summary - OK
0060: Narrative Page(s) - OK
0100: Cover Page - OK
0110: Volatiles Sample Results - OK
0120: Volatiles Blank Report - OK
0130: Volatiles LCS Report - OK
0180: Cover Page - OK
0190: Semivolatiles Sample Results - OK
0200: Semivolatiles Blank Report - OK
0210: Semivolatiles LCS Report - OK
5100: Container Report - OK
5200: Glossary - OK
5400: Reference Report - OK

ANALYTICAL REPORT

Lab Number:	L1417987
Client:	Partner Engineering and Science, Inc. 1031 Farmington Avenue Farmington, CT 06032
ATTN:	Jodi Markowsky
Phone:	(203) 604-6565
Project Name:	14-121477.2
Project Number:	14-121477.2
Report Date:	08/15/14

Certifications & Approvals: MA (M-MA086), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), USDA (Permit #P-330-11-00240), NC (666), TX (T104704476), DOD (L2217), US Army Corps of Engineers.

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

Project Name: 14-121477.2
Project Number: 14-121477.2

Lab Number: L1417987
Report Date: 08/15/14

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1417987-01	B-1	SOIL	125&160 BEECHWOOD AVE	08/06/14 09:00	08/08/14
L1417987-02	B-2	SOIL	125&160 BEECHWOOD AVE	08/06/14 09:30	08/08/14
L1417987-03	B-3	SOIL	125&160 BEECHWOOD AVE	08/07/14 15:20	08/08/14
L1417987-04	B-4	SOIL	125&160 BEECHWOOD AVE	08/06/14 13:40	08/08/14
L1417987-05	B-5	SOIL	125&160 BEECHWOOD AVE	08/06/14 14:35	08/08/14
L1417987-06	B-6	SOIL	125&160 BEECHWOOD AVE	08/06/14 15:05	08/08/14
L1417987-07	B-7	SOIL	125&160 BEECHWOOD AVE	08/07/14 13:20	08/08/14
L1417987-08	B-8	SOIL	125&160 BEECHWOOD AVE	08/07/14 13:45	08/08/14
L1417987-09	B-5GW	WATER	125&160 BEECHWOOD AVE	08/06/14 16:00	08/08/14

Project Name:	14-121477.2	**Lab Number:**	L1417987
Project Number:	14-121477.2	**Report Date:**	08/15/14

Case Narrative

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

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY

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

Please contact Client Services at 800-624-9220 with any questions.

Project Name:	14-121477.2	**Lab Number:**	L1417987
Project Number:	14-121477.2	**Report Date:**	08/15/14

Case Narrative (continued)

Report Submission

This is a partial report. A final report will be issued as soon as the results of all requested analyses become available.

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

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

Authorized Signature: Cristin Walker

Title: Technical Director/Representative Date: 08/15/14

ORGANICS

VOLATILES

Project Name: 14-121477.2 **Lab Number:** L1417987

Project Number: 14-121477.2 **Report Date:** 08/15/14

SAMPLE RESULTS

Lab ID: L1417987-09 D
Client ID: B-5GW
Sample Location: 125&160 BEECHWOOD AVE
Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 08/13/14 18:21
Analyst: PD

Date Collected: 08/06/14 16:00
Date Received: 08/08/14
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	25	7.0	10
1,1-Dichloroethane	76		ug/l	25	7.0	10
Chloroform	ND		ug/l	25	7.0	10
Carbon tetrachloride	ND		ug/l	5.0	1.3	10
1,2-Dichloropropane	ND		ug/l	10	1.3	10
Dibromochloromethane	ND		ug/l	5.0	1.5	10
1,1,2-Trichloroethane	ND		ug/l	15	5.0	10
Tetrachloroethene	36		ug/l	5.0	1.8	10
Chlorobenzene	ND		ug/l	25	7.0	10
Trichlorofluoromethane	ND		ug/l	25	7.0	10
1,2-Dichloroethane	ND		ug/l	5.0	1.3	10
1,1,1-Trichloroethane	490		ug/l	25	7.0	10
Bromodichloromethane	ND		ug/l	5.0	1.9	10
trans-1,3-Dichloropropene	ND		ug/l	5.0	1.6	10
cis-1,3-Dichloropropene	ND		ug/l	5.0	1.4	10
1,3-Dichloropropene, Total	ND		ug/l	5.0	1.4	10
1,1-Dichloropropene	ND		ug/l	25	7.0	10
Bromoform	ND		ug/l	20	6.5	10
1,1,2,2-Tetrachloroethane	ND		ug/l	5.0	1.4	10
Benzene	ND		ug/l	5.0	1.6	10
Toluene	ND		ug/l	25	7.0	10
Ethylbenzene	ND		ug/l	25	7.0	10
Chloromethane	ND		ug/l	25	7.0	10
Bromomethane	ND		ug/l	25	7.0	10
Vinyl chloride	ND		ug/l	10	3.3	10
Chloroethane	ND		ug/l	25	7.0	10
1,1-Dichloroethene	160		ug/l	5.0	1.4	10
trans-1,2-Dichloroethene	ND		ug/l	25	7.0	10
Trichloroethene	31		ug/l	5.0	1.8	10
1,2-Dichlorobenzene	ND		ug/l	25	7.0	10

Project Name: 14-121477.2 **Lab Number:** L1417987

Project Number: 14-121477.2 **Report Date:** 08/15/14

SAMPLE RESULTS

Lab ID: L1417987-09 D Date Collected: 08/06/14 16:00

Client ID: B-5GW Date Received: 08/08/14

Sample Location: 125&160 BEECHWOOD AVE Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	25	7.0	10
1,4-Dichlorobenzene	ND		ug/l	25	7.0	10
Methyl tert butyl ether	ND		ug/l	25	7.0	10
p/m-Xylene	ND		ug/l	25	7.0	10
o-Xylene	ND		ug/l	25	7.0	10
Xylenes, Total	ND		ug/l	25	7.0	10
cis-1,2-Dichloroethene	32		ug/l	25	7.0	10
1,2-Dichloroethene, Total	32		ug/l	25	7.0	10
Dibromomethane	ND		ug/l	50	10.	10
1,2,3-Trichloropropane	ND		ug/l	25	7.0	10
Acrylonitrile	ND		ug/l	50	15.	10
Styrene	ND		ug/l	25	7.0	10
Dichlorodifluoromethane	ND		ug/l	50	10.	10
Acetone	ND		ug/l	50	15.	10
Carbon disulfide	ND		ug/l	50	10.	10
2-Butanone	ND		ug/l	50	19.	10
Vinyl acetate	ND		ug/l	50	10.	10
4-Methyl-2-pentanone	ND		ug/l	50	10.	10
2-Hexanone	ND		ug/l	50	10.	10
Bromochloromethane	ND		ug/l	25	7.0	10
2,2-Dichloropropane	ND		ug/l	25	7.0	10
1,2-Dibromoethane	ND		ug/l	20	6.5	10
1,3-Dichloropropane	ND		ug/l	25	7.0	10
1,1,1,2-Tetrachloroethane	ND		ug/l	25	7.0	10
Bromobenzene	ND		ug/l	25	7.0	10
n-Butylbenzene	ND		ug/l	25	7.0	10
sec-Butylbenzene	ND		ug/l	25	7.0	10
tert-Butylbenzene	ND		ug/l	25	7.0	10
o-Chlorotoluene	ND		ug/l	25	7.0	10
p-Chlorotoluene	ND		ug/l	25	7.0	10
1,2-Dibromo-3-chloropropane	ND		ug/l	25	7.0	10
Hexachlorobutadiene	ND		ug/l	25	7.0	10
Isopropylbenzene	ND		ug/l	25	7.0	10
p-Isopropyltoluene	ND		ug/l	25	7.0	10
Naphthalene	ND		ug/l	25	7.0	10
n-Propylbenzene	ND		ug/l	25	7.0	10
1,2,3-Trichlorobenzene	ND		ug/l	25	7.0	10
1,2,4-Trichlorobenzene	ND		ug/l	25	7.0	10
1,3,5-Trimethylbenzene	ND		ug/l	25	7.0	10

Project Name: 14-121477.2 **Lab Number:** L1417987

Project Number: 14-121477.2 **Report Date:** 08/15/14

SAMPLE RESULTS

Lab ID: L1417987-09 D Date Collected: 08/06/14 16:00

Client ID: B-5GW Date Received: 08/08/14

Sample Location: 125&160 BEECHWOOD AVE Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,2,4-Trimethylbenzene	ND		ug/l	25	7.0	10
1,4-Dioxane	ND		ug/l	2500	410	10
p-Diethylbenzene	ND		ug/l	20	7.0	10
p-Ethyltoluene	ND		ug/l	20	7.0	10
1,2,4,5-Tetramethylbenzene	ND		ug/l	20	6.5	10
Ethyl ether	ND		ug/l	25	7.0	10
trans-1,4-Dichloro-2-butene	ND		ug/l	25	7.0	10

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	107		70-130
Toluene-d8	94		70-130
4-Bromofluorobenzene	98		70-130
Dibromofluoromethane	114		70-130

Project Name: 14-121477.2 **Lab Number:** L1417987

Project Number: 14-121477.2 **Report Date:** 08/15/14

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 08/13/14 10:24
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 09 Batch: WG713591-3					
Methylene chloride	ND		ug/l	2.5	0.70
1,1-Dichloroethane	ND		ug/l	2.5	0.70
Chloroform	ND		ug/l	2.5	0.70
Carbon tetrachloride	ND		ug/l	0.50	0.13
1,2-Dichloropropane	ND		ug/l	1.0	0.13
Dibromochloromethane	ND		ug/l	0.50	0.15
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50
Tetrachloroethene	ND		ug/l	0.50	0.18
Chlorobenzene	ND		ug/l	2.5	0.70
Trichlorofluoromethane	ND		ug/l	2.5	0.70
1,2-Dichloroethane	ND		ug/l	0.50	0.13
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70
Bromodichloromethane	ND		ug/l	0.50	0.19
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14
1,1-Dichloropropene	ND		ug/l	2.5	0.70
Bromoform	ND		ug/l	2.0	0.65
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.14
Benzene	ND		ug/l	0.50	0.16
Toluene	ND		ug/l	2.5	0.70
Ethylbenzene	ND		ug/l	2.5	0.70
Chloromethane	ND		ug/l	2.5	0.70
Bromomethane	ND		ug/l	2.5	0.70
Vinyl chloride	ND		ug/l	1.0	0.33
Chloroethane	ND		ug/l	2.5	0.70
1,1-Dichloroethene	ND		ug/l	0.50	0.14
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70
Trichloroethene	ND		ug/l	0.50	0.18

Project Name: 14-121477.2 **Lab Number:** L1417987

Project Number: 14-121477.2 **Report Date:** 08/15/14

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 08/13/14 10:24
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 09 Batch: WG713591-3					
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70
Methyl tert butyl ether	ND		ug/l	2.5	0.70
p/m-Xylene	ND		ug/l	2.5	0.70
o-Xylene	ND		ug/l	2.5	0.70
Xylenes, Total	ND		ug/l	2.5	0.70
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70
Dibromomethane	ND		ug/l	5.0	1.0
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70
Acrylonitrile	ND		ug/l	5.0	1.5
Styrene	ND		ug/l	2.5	0.70
Dichlorodifluoromethane	ND		ug/l	5.0	1.0
Acetone	ND		ug/l	5.0	1.5
Carbon disulfide	ND		ug/l	5.0	1.0
2-Butanone	ND		ug/l	5.0	1.9
Vinyl acetate	ND		ug/l	5.0	1.0
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0
2-Hexanone	ND		ug/l	5.0	1.0
Bromochloromethane	ND		ug/l	2.5	0.70
2,2-Dichloropropane	ND		ug/l	2.5	0.70
1,2-Dibromoethane	ND		ug/l	2.0	0.65
1,3-Dichloropropane	ND		ug/l	2.5	0.70
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70
Bromobenzene	ND		ug/l	2.5	0.70
n-Butylbenzene	ND		ug/l	2.5	0.70
sec-Butylbenzene	ND		ug/l	2.5	0.70
tert-Butylbenzene	ND		ug/l	2.5	0.70

Project Name: 14-121477.2 **Lab Number:** L1417987

Project Number: 14-121477.2 **Report Date:** 08/15/14

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 08/13/14 10:24
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 09 Batch: WG713591-3					
o-Chlorotoluene	ND		ug/l	2.5	0.70
p-Chlorotoluene	ND		ug/l	2.5	0.70
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70
Hexachlorobutadiene	ND		ug/l	2.5	0.70
Isopropylbenzene	ND		ug/l	2.5	0.70
p-Isopropyltoluene	ND		ug/l	2.5	0.70
Naphthalene	ND		ug/l	2.5	0.70
n-Propylbenzene	ND		ug/l	2.5	0.70
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70
1,4-Dioxane	ND		ug/l	250	41.
p-Diethylbenzene	ND		ug/l	2.0	0.70
p-Ethyltoluene	ND		ug/l	2.0	0.70
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.65
Ethyl ether	ND		ug/l	2.5	0.70
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	101		70-130
Toluene-d8	94		70-130
4-Bromofluorobenzene	101		70-130
Dibromofluoromethane	106		70-130

Lab Control Sample Analysis
Batch Quality Control

Project Name: 14-121477.2
Project Number: 14-121477.2

Lab Number: L1417987
Report Date: 08/15/14

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 09 Batch: WG713591-1 WG713591-2								
Methylene chloride	95		99		70-130	4		20
1,1-Dichloroethane	92		96		70-130	4		20
Chloroform	97		100		70-130	3		20
Carbon tetrachloride	96		99		63-132	3		20
1,2-Dichloropropane	92		96		70-130	4		20
Dibromochloromethane	93		98		63-130	5		20
1,1,2-Trichloroethane	96		100		70-130	4		20
Tetrachloroethene	96		100		70-130	4		20
Chlorobenzene	95		99		75-130	4		20
Trichlorofluoromethane	97		99		62-150	2		20
1,2-Dichloroethane	94		98		70-130	4		20
1,1,1-Trichloroethane	97		100		67-130	3		20
Bromodichloromethane	95		99		67-130	4		20
trans-1,3-Dichloropropene	91		96		70-130	5		20
cis-1,3-Dichloropropene	96		101		70-130	5		20
1,1-Dichloropropene	97		100		70-130	3		20
Bromoform	93		97		54-136	4		20
1,1,2,2-Tetrachloroethane	90		96		67-130	6		20
Benzene	96		100		70-130	4		20
Toluene	92		96		70-130	4		20
Ethylbenzene	98		102		70-130	4		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: 14-121477.2

Project Number: 14-121477.2

Lab Number: L1417987

Report Date: 08/15/14

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 09 Batch: WG713591-1 WG713591-2								
Chloromethane	83		86		64-130	4		20
Bromomethane	124		125		39-139	1		20
Vinyl chloride	81		82		55-140	1		20
Chloroethane	82		87		55-138	6		20
1,1-Dichloroethene	90		92		61-145	2		20
trans-1,2-Dichloroethene	97		100		70-130	3		20
Trichloroethene	99		103		70-130	4		20
1,2-Dichlorobenzene	95		98		70-130	3		20
1,3-Dichlorobenzene	96		99		70-130	3		20
1,4-Dichlorobenzene	93		96		70-130	3		20
Methyl tert butyl ether	94		98		63-130	4		20
p/m-Xylene	104		108		70-130	4		20
o-Xylene	106		111		70-130	5		20
cis-1,2-Dichloroethene	98		102		70-130	4		20
Dibromomethane	95		100		70-130	5		20
1,2,3-Trichloropropane	95		100		64-130	5		20
Acrylonitrile	89		93		70-130	4		20
Styrene	104		109		70-130	5		20
Dichlorodifluoromethane	107		108		36-147	1		20
Acetone	93		100		58-148	7		20
Carbon disulfide	86		89		51-130	3		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: 14-121477.2

Project Number: 14-121477.2

Lab Number: L1417987

Report Date: 08/15/14

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 09 Batch: WG713591-1 WG713591-2								
2-Butanone	90		97		63-138	7		20
Vinyl acetate	88		94		70-130	7		20
4-Methyl-2-pentanone	84		90		59-130	7		20
2-Hexanone	68		72		57-130	6		20
Bromochloromethane	105		110		70-130	5		20
2,2-Dichloropropane	98		100		63-133	2		20
1,2-Dibromoethane	94		99		70-130	5		20
1,3-Dichloropropane	91		96		70-130	5		20
1,1,1,2-Tetrachloroethane	96		100		64-130	4		20
Bromobenzene	95		99		70-130	4		20
n-Butylbenzene	102		104		53-136	2		20
sec-Butylbenzene	101		104		70-130	3		20
tert-Butylbenzene	101		105		70-130	4		20
o-Chlorotoluene	96		100		70-130	4		20
p-Chlorotoluene	97		101		70-130	4		20
1,2-Dibromo-3-chloropropane	93		97		41-144	4		20
Hexachlorobutadiene	97		100		63-130	3		20
Isopropylbenzene	100		104		70-130	4		20
p-Isopropyltoluene	99		102		70-130	3		20
Naphthalene	75		79		70-130	5		20
n-Propylbenzene	100		103		69-130	3		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: 14-121477.2

Project Number: 14-121477.2

Lab Number: L1417987

Report Date: 08/15/14

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 09 Batch: WG713591-1 WG713591-2								
1,2,3-Trichlorobenzene	90		94		70-130	4		20
1,2,4-Trichlorobenzene	86		89		70-130	3		20
1,3,5-Trimethylbenzene	101		105		64-130	4		20
1,2,4-Trimethylbenzene	102		106		70-130	4		20
1,4-Dioxane	95		100		56-162	5		20
p-Diethylbenzene	96		97		70-130	1		20
p-Ethyltoluene	102		104		70-130	2		20
1,2,4,5-Tetramethylbenzene	94		97		70-130	3		20
Ethyl ether	81		86		59-134	6		20
trans-1,4-Dichloro-2-butene	83		87		70-130	5		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	96		94		70-130
Toluene-d8	95		95		70-130
4-Bromofluorobenzene	99		99		70-130
Dibromofluoromethane	104		103		70-130

SEMIVOLATILES

Project Name: 14-121477.2 **Lab Number:** L1417987

Project Number: 14-121477.2 **Report Date:** 08/15/14

SAMPLE RESULTS

Lab ID: L1417987-09
Client ID: B-5GW
Sample Location: 125&160 BEECHWOOD AVE
Matrix: Water
Analytical Method: 1,8270D-SIM
Analytical Date: 08/13/14 21:52
Analyst: KR

Date Collected: 08/06/14 16:00
Date Received: 08/08/14
Field Prep: Not Specified
Extraction Method: EPA 3510C
Extraction Date: 08/12/14 16:06

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						
Acenaphthene	0.07	J	ug/l	0.20	0.06	1
2-Chloronaphthalene	ND		ug/l	0.20	0.07	1
Fluoranthene	0.17	J	ug/l	0.20	0.04	1
Hexachlorobutadiene	ND		ug/l	0.50	0.07	1
Naphthalene	0.13	J	ug/l	0.20	0.06	1
Benzo(a)anthracene	ND		ug/l	0.20	0.06	1
Benzo(a)pyrene	ND		ug/l	0.20	0.07	1
Benzo(b)fluoranthene	ND		ug/l	0.20	0.07	1
Benzo(k)fluoranthene	ND		ug/l	0.20	0.07	1
Chrysene	ND		ug/l	0.20	0.05	1
Acenaphthylene	ND		ug/l	0.20	0.05	1
Anthracene	ND		ug/l	0.20	0.06	1
Benzo(ghi)perylene	ND		ug/l	0.20	0.07	1
Fluorene	ND		ug/l	0.20	0.06	1
Phenanthrene	0.34		ug/l	0.20	0.06	1
Dibenzo(a,h)anthracene	ND		ug/l	0.20	0.07	1
Indeno(1,2,3-cd)Pyrene	ND		ug/l	0.20	0.08	1
Pyrene	0.12	J	ug/l	0.20	0.06	1
2-Methylnaphthalene	ND		ug/l	0.20	0.06	1
Pentachlorophenol	0.50	J	ug/l	0.80	0.19	1
Hexachlorobenzene	ND		ug/l	0.80	0.01	1
Hexachloroethane	ND		ug/l	0.80	0.07	1

Project Name: 14-121477.2 **Lab Number:** L1417987

Project Number: 14-121477.2 **Report Date:** 08/15/14

SAMPLE RESULTS

Lab ID: L1417987-09 Date Collected: 08/06/14 16:00

Client ID: B-5GW Date Received: 08/08/14

Sample Location: 125&160 BEECHWOOD AVE Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor

Semivolatile Organics by GC/MS-SIM - Westborough Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	67		21-120
Phenol-d6	45		10-120
Nitrobenzene-d5	109		23-120
2-Fluorobiphenyl	107		15-120
2,4,6-Tribromophenol	101		10-120
4-Terphenyl-d14	109		41-149

Project Name: 14-121477.2 **Lab Number:** L1417987

Project Number: 14-121477.2 **Report Date:** 08/15/14

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D-SIM
Analytical Date: 08/13/14 17:50
Analyst: KR

Extraction Method: EPA 3510C
Extraction Date: 08/12/14 16:06

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS-SIM - Westborough Lab for sample(s): 09 Batch: WG713221-1					
Acenaphthene	ND		ug/l	0.20	0.06
2-Chloronaphthalene	ND		ug/l	0.20	0.07
Fluoranthene	ND		ug/l	0.20	0.04
Hexachlorobutadiene	0.14	J	ug/l	0.50	0.07
Naphthalene	0.09	J	ug/l	0.20	0.06
Benzo(a)anthracene	ND		ug/l	0.20	0.06
Benzo(a)pyrene	ND		ug/l	0.20	0.07
Benzo(b)fluoranthene	ND		ug/l	0.20	0.07
Benzo(k)fluoranthene	ND		ug/l	0.20	0.07
Chrysene	ND		ug/l	0.20	0.05
Acenaphthylene	ND		ug/l	0.20	0.05
Anthracene	ND		ug/l	0.20	0.06
Benzo(ghi)perylene	ND		ug/l	0.20	0.07
Fluorene	ND		ug/l	0.20	0.06
Phenanthrene	ND		ug/l	0.20	0.06
Dibenzo(a,h)anthracene	ND		ug/l	0.20	0.07
Indeno(1,2,3-cd)Pyrene	ND		ug/l	0.20	0.08
Pyrene	ND		ug/l	0.20	0.06
2-Methylnaphthalene	0.06	J	ug/l	0.20	0.06
Pentachlorophenol	ND		ug/l	0.80	0.19
Hexachlorobenzene	ND		ug/l	0.80	0.01
Hexachloroethane	0.16	J	ug/l	0.80	0.07

Project Name: 14-121477.2
Project Number: 14-121477.2

Lab Number: L1417987
Report Date: 08/15/14

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D-SIM
Analytical Date: 08/13/14 17:50
Analyst: KR

Extraction Method: EPA 3510C
Extraction Date: 08/12/14 16:06

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS-SIM - Westborough Lab for sample(s): 09 Batch: WG713221-1					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	55		21-120
Phenol-d6	38		10-120
Nitrobenzene-d5	82		23-120
2-Fluorobiphenyl	80		15-120
2,4,6-Tribromophenol	80		10-120
4-Terphenyl-d14	115		41-149

Lab Control Sample Analysis

Batch Quality Control

Project Name: 14-121477.2

Project Number: 14-121477.2

Lab Number: L1417987

Report Date: 08/15/14

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 09 Batch: WG713221-2 WG713221-3								
Acenaphthene	102		97		37-111	5		40
2-Chloronaphthalene	101		94		40-140	7		40
Fluoranthene	118		132		40-140	11		40
Hexachlorobutadiene	89		82		40-140	8		40
Naphthalene	90		84		40-140	7		40
Benzo(a)anthracene	116		131		40-140	12		40
Benzo(a)pyrene	115		130		40-140	12		40
Benzo(b)fluoranthene	117		130		40-140	11		40
Benzo(k)fluoranthene	112		127		40-140	13		40
Chrysene	111		125		40-140	12		40
Acenaphthylene	102		98		40-140	4		40
Anthracene	110		120		40-140	9		40
Benzo(ghi)perylene	109		122		40-140	11		40
Fluorene	109		110		40-140	1		40
Phenanthrene	109		117		40-140	7		40
Dibenzo(a,h)anthracene	110		124		40-140	12		40
Indeno(1,2,3-cd)Pyrene	108		122		40-140	12		40
Pyrene	118		**132**	Q	26-127	11		40
2-Methylnaphthalene	101		94		40-140	7		40
Pentachlorophenol	**105**	Q	**116**	Q	9-103	10		40
Hexachlorobenzene	110		118		40-140	7		40

Lab Control Sample Analysis

Batch Quality Control

Project Name: 14-121477.2

Project Number: 14-121477.2

Lab Number: L1417987

Report Date: 08/15/14

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 09 Batch: WG713221-2 WG713221-3								
Hexachloroethane	90		85		40-140	6		40

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	68		64		21-120
Phenol-d6	47		43		10-120
Nitrobenzene-d5	99		91		23-120
2-Fluorobiphenyl	101		93		15-120
2,4,6-Tribromophenol	101		107		10-120
4-Terphenyl-d14	113		124		41-149

Project Name: 14-121477.2
Project Number: 14-121477.2

Lab Number: L1417987
Report Date: 08/15/14

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: 08/09/2014 01:39

Cooler Information Custody Seal

Cooler	
A	Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1417987-01A	Vial MeOH preserved	A	N/A	2.6	Y	Absent	HOLD(0)
L1417987-01B	Vial water preserved	A	N/A	2.6	Y	Absent	HOLD(0)
L1417987-01C	Vial water preserved	A	N/A	2.6	Y	Absent	HOLD(0)
L1417987-01D	Plastic 2oz unpreserved for TS	A	N/A	2.6	Y	Absent	HOLD()
L1417987-01E	Amber 120ml unpreserved	A	N/A	2.6	Y	Absent	HOLD()
L1417987-02A	Vial MeOH preserved	A	N/A	2.6	Y	Absent	HOLD(0)
L1417987-02B	Vial water preserved	A	N/A	2.6	Y	Absent	HOLD(0)
L1417987-02C	Vial water preserved	A	N/A	2.6	Y	Absent	HOLD(0)
L1417987-02D	Plastic 2oz unpreserved for TS	A	N/A	2.6	Y	Absent	HOLD()
L1417987-02E	Amber 120ml unpreserved	A	N/A	2.6	Y	Absent	HOLD()
L1417987-03A	Vial MeOH preserved	A	N/A	2.6	Y	Absent	HOLD(0)
L1417987-03B	Vial water preserved	A	N/A	2.6	Y	Absent	HOLD(0)
L1417987-03C	Vial water preserved	A	N/A	2.6	Y	Absent	HOLD(0)
L1417987-03D	Plastic 2oz unpreserved for TS	A	N/A	2.6	Y	Absent	HOLD()
L1417987-03E	Amber 120ml unpreserved	A	N/A	2.6	Y	Absent	HOLD()
L1417987-04A	Vial MeOH preserved	A	N/A	2.6	Y	Absent	HOLD(0)
L1417987-04B	Vial water preserved	A	N/A	2.6	Y	Absent	HOLD(0)
L1417987-04C	Vial water preserved	A	N/A	2.6	Y	Absent	HOLD(0)
L1417987-04D	Plastic 2oz unpreserved for TS	A	N/A	2.6	Y	Absent	HOLD()
L1417987-04E	Amber 120ml unpreserved	A	N/A	2.6	Y	Absent	HOLD()
L1417987-05A	Vial MeOH preserved	A	N/A	2.6	Y	Absent	HOLD(0)
L1417987-05B	Vial water preserved	A	N/A	2.6	Y	Absent	HOLD(0)
L1417987-05C	Vial water preserved	A	N/A	2.6	Y	Absent	HOLD(0)
L1417987-05D	Plastic 2oz unpreserved for TS	A	N/A	2.6	Y	Absent	HOLD()
L1417987-05E	Amber 120ml unpreserved	A	N/A	2.6	Y	Absent	HOLD()
L1417987-06A	Vial MeOH preserved	A	N/A	2.6	Y	Absent	HOLD(0)
L1417987-06B	Vial water preserved	A	N/A	2.6	Y	Absent	HOLD(0)

*Values in parentheses indicate holding time in days

Project Name: 14-121477.2
Project Number: 14-121477.2

Lab Number: L1417987
Report Date: 08/15/14

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1417987-06C	Vial water preserved	A	N/A	2.6	Y	Absent	HOLD(0)
L1417987-06D	Plastic 2oz unpreserved for TS	A	N/A	2.6	Y	Absent	HOLD()
L1417987-06E	Amber 120ml unpreserved	A	N/A	2.6	Y	Absent	HOLD()
L1417987-07A	Vial MeOH preserved	A	N/A	2.6	Y	Absent	HOLD(0)
L1417987-07B	Vial water preserved	A	N/A	2.6	Y	Absent	HOLD(0)
L1417987-07C	Vial water preserved	A	N/A	2.6	Y	Absent	HOLD(0)
L1417987-07D	Plastic 2oz unpreserved for TS	A	N/A	2.6	Y	Absent	HOLD()
L1417987-07E	Amber 120ml unpreserved	A	N/A	2.6	Y	Absent	HOLD()
L1417987-08A	Vial MeOH preserved	A	N/A	2.6	Y	Absent	HOLD(0)
L1417987-08B	Vial water preserved	A	N/A	2.6	Y	Absent	HOLD(0)
L1417987-08C	Vial water preserved	A	N/A	2.6	Y	Absent	HOLD(0)
L1417987-08D	Plastic 2oz unpreserved for TS	A	N/A	2.6	Y	Absent	HOLD()
L1417987-08E	Amber 120ml unpreserved	A	N/A	2.6	Y	Absent	HOLD()
L1417987-09A	Vial HCl preserved	A	N/A	2.6	Y	Absent	NYTCL-8260(14)
L1417987-09B	Vial HCl preserved	A	N/A	2.6	Y	Absent	NYTCL-8260(14)
L1417987-09C	Vial HCl preserved	A	N/A	2.6	Y	Absent	NYTCL-8260(14)
L1417987-09D	Amber 1000ml unpreserved	A	7	2.6	Y	Absent	NYTCL-8270-SIM(7)
L1417987-09E	Amber 1000ml unpreserved	A	7	2.6	Y	Absent	NYTCL-8270-SIM(7)

*Values in parentheses indicate holding time in days

Project Name:	14-121477.2	**Lab Number:**	L1417987
Project Number:	14-121477.2	**Report Date:**	08/15/14

GLOSSARY

Acronyms

EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NI	- Not Ignitable.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

Footnotes

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

Terms

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

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

Data Qualifiers

A	- Spectra identified as "Aldol Condensation Product".
B	- The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit.
C	- Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
D	- Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
E	- Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
G	- The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

Report Format: DU Report with 'J' Qualifiers

Project Name:	14-121477.2	**Lab Number:**	L1417987
Project Number:	14-121477.2	**Report Date:**	08/15/14

Data Qualifiers

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with 'J' Qualifiers

Project Name:	14-121477.2	**Lab Number:**	L1417987
Project Number:	14-121477.2	**Report Date:**	08/15/14

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.

LIMITATION OF LIABILITIES

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

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

Certification Information

Last revised April 15, 2014

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

Westborough Facility
EPA 524.2: Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether.
EPA 8260C: 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene, Iodomethane (methyl iodide), Methyl methacrylate, Azobenzene.
EPA 8330A/B: PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT.
EPA 8270D: 1-Methylnaphthalene, Dimethylnaphthalene,1,4-Diphenylhydrazine.
EPA 625: 4-Chloroaniline, 4-Methylphenol.
SM4500: Soil: Total Phosphorus, TKN, NO2, NO3.
EPA 9071: Total Petroleum Hydrocarbons, Oil & Grease.

Mansfield Facility
EPA 8270D: Biphenyl.
EPA 2540D: TSS
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

The following analytes are included in our Massachusetts DEP Scope of Accreditation, Westborough Facility:

Drinking Water
EPA 200.8: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl; **EPA 200.7**: Ba,Be,Ca,Cd,Cr,Cu,Na; **EPA 245.1:** Mercury;
EPA 300.0: Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B**
EPA 332: Perchlorate.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, Enterolert-QT.**

Non-Potable Water
EPA 200.8: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn;
EPA 200.7: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn;
EPA 245.1, SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2340B, SM2320B, SM4500CL-E, SM4500F-BC, SM426C, SM4500NH3-BH, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **SM4500NO3-F, EPA 353.2**: Nitrate-N**, SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, SM4500P-B, E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.**
EPA 624: Volatile Halocarbons & Aromatics,
EPA 608: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9222D-MF**.

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

NEW JERSEY CHAIN OF CUSTODY

Westborough, MA 01581
8 Walkup Dr.
TEL: 508-898-9220
FAX: 508-898-9193

Mansfield, MA 02048
320 Forbes Blvd
TEL: 508-822-9300
FAX: 508-822-3288

Service Centers
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page 1 of 2

Date Rec'd in Lab: 8/9/14

ALPHA Job #: L1417987

Client Information

Client: Partner Eng & Science
Address: 1031 Farmington Ave,
Farmington CT 06032
Phone: 1-800-419-4523
Fax: 1-866-928-7418
Email: jmarkowsky@partnereng.com

Project Information

Project Name: 14-121477.2
Project Location: 125 & 160 Beechwood Ave, New Rochelle New York 10801
Project #: 14-121477.2
(Use Project name as Project #) ☐
Project Manager: Jodi Markowsky
ALPHAQuote #:

Turn-Around Time

Standard ☒ 5 Days Due Date: 8/15/14
Rush (only if pre approved) ☐ # of Days:

Deliverables

☐ NJ Full / Reduced
☐ EQuIS (1 File) ☐ EQuIS (4 File)
☒ Other NYSDEC

Regulatory Requirement

☐ SRS Residential/Non Residential
☐ SRS Impact to Groundwater
☐ NJ Ground Water Quality Standards
☐ NJ IGW SPLP Leachate Criteria
☒ Other NYSDEC

Billing Information

☒ Same as Client Info
PO #

Site Information

Is this site impacted by Petroleum? Yes ☐
Petroleum Product:

These samples have been previously analyzed by Alpha ☐

For EPH, selection is REQUIRED:
☐ Category 1
☐ Category 2

For VOC, selection is REQUIRED:
☐ 1,4-Dioxane
☐ 8011

Other project specific requirements/comments:
Please hold analysis for all the soil samples ie (B-1 through B-8)

Please specify Metals or TAL.

ANALYSIS

Sample Filtration
☐ Done
☐ Lab to do
Preservation
☐ Lab to do
(Please Specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	VOCs	PAHs	Sample Specific Comments	Total Bottle
17987 -01	B-1	8/6/14	9:00	S	JL	X	X	Please hold	
-02	B-2	8/6/14	9:30	S	JL	X	X	analysis for all	
-03	B-3	8/7/14	15:20	S	JL	X	X	soil samples	
-04	B-4	8/6/14	13:40	S	JL	X	X	ie B-1 through	
-05	B-5	8/6/14	14:35	S	JL	X	X	B-8	
-06	B-6	8/6/14	15:05	S	JL	X	X		
-07	B-7	8/7/14	13:20	S	JL	X	X		
-08	B-8	8/7/14	13:45	S	JL	X	X		
-09	B-5FW	8/6/14	16:00	FW	JL	X	X		

Container Type: V | G/A
Preservative: F/B | A

Preservative Code:
A = None
B = HCl
C = HNO_3
D = H_2SO_4
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

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

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

Relinquished By:	Date/Time	Received By:	Date/Time
	8/8/14		8/8/14 9:40
AAL	8/8/14 1915	Tom Tobey	8-8-14 1915
Tom Tobey	8-9-14 0010	Mike Millard	8/9/14 0010

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)

Form No: 01-14 HC (rev. 30-Sept-2013)

ANALYTICAL REPORT

Lab Number:	L1417998
Client:	Partner Engineering and Science, Inc. 1031 Farmington Avenue Farmington, CT 06032
ATTN:	Jodi Markowsky
Phone:	(203) 604-6565
Project Name:	14-121477-2
Project Number:	14-121477.2
Report Date:	08/15/14

Certifications & Approvals: NY (11627), CT (PH-0141), NH (2206), NJ NELAP (MA015), RI (LAO00299), PA (68-02089), LA NELAP (03090), FL (E87814), TX (T104704419), WA (C954), DOD (L2217.01), USDA (Permit #P330-11-00109), US Army Corps of Engineers.

320 Forbes Boulevard, Mansfield, MA 02048-1806
508-822-9300 (Fax) 508-822-3288 800-624-9220 - www.alphalab.com

Project Name: 14-121477-2
Project Number: 14-121477.2

Lab Number: L1417998
Report Date: 08/15/14

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1417998-01	SG-1	SOIL_VAPOR	125 & 160 BEECHWOOD AVE NEW ROCHELLE, NY	08/07/14 16:50	08/08/14
L1417998-02	SG-2	SOIL_VAPOR	125 & 160 BEECHWOOD AVE NEW ROCHELLE, NY	08/07/14 17:15	08/08/14
L1417998-03	SG-3	SOIL_VAPOR	125 & 160 BEECHWOOD AVE NEW ROCHELLE, NY	08/07/14 17:35	08/08/14
L1417998-04	SG-4	SOIL_VAPOR	125 & 160 BEECHWOOD AVE NEW ROCHELLE, NY	08/07/14 18:00	08/08/14

Project Name: 14-121477-2 **Lab Number:** L1417998
Project Number: 14-121477.2 **Report Date:** 08/15/14

Case Narrative

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

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

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

Please contact Client Services at 800-624-9220 with any questions.

Project Name:	14-121477-2	**Lab Number:**	L1417998
Project Number:	14-121477.2	**Report Date:**	08/15/14

Case Narrative (continued)

Volatile Organics in Air

Canisters were released from the laboratory on August 4, 2014. The canister certification results are provided as an addendum.

Samples L1417998-01 through -04 have elevated detection limits due to the dilution required by the elevated concentrations of target compounds in the samples.

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

Authorized Signature: Christopher J. Anderson

Title: Technical Director/Representative Date: 08/15/14

AIR

Project Name: 14-121477-2
Project Number: 14-121477.2
Lab Number: L1417998
Report Date: 08/15/14

SAMPLE RESULTS

Lab ID: L1417998-01 D
Client ID: SG-1
Sample Location: 125 & 160 BEECHWOOD AVE NEW RO
Matrix: Soil_Vapor
Anaytical Method: 48,TO-15
Analytical Date: 08/13/14 00:40
Analyst: RY

Date Collected: 08/07/14 16:50
Date Received: 08/08/14
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Dichlorodifluoromethane	ND	9.03	--	ND	44.7	--		45.14
Chloromethane	ND	9.03	--	ND	18.6	--		45.14
Freon-114	ND	9.03	--	ND	63.1	--		45.14
Vinyl chloride	ND	9.03	--	ND	23.1	--		45.14
1,3-Butadiene	ND	9.03	--	ND	20.0	--		45.14
Bromomethane	ND	9.03	--	ND	35.1	--		45.14
Chloroethane	ND	9.03	--	ND	23.8	--		45.14
Ethanol	ND	113	--	ND	213	--		45.14
Vinyl bromide	ND	9.03	--	ND	39.5	--		45.14
Acetone	ND	45.1	--	ND	107	--		45.14
Trichlorofluoromethane	ND	9.03	--	ND	50.7	--		45.14
Isopropanol	ND	22.6	--	ND	55.6	--		45.14
1,1-Dichloroethene	30.3	9.03	--	120	35.8	--		45.14
Tertiary butyl Alcohol	ND	22.6	--	ND	68.5	--		45.14
Methylene chloride	ND	22.6	--	ND	78.5	--		45.14
3-Chloropropene	ND	9.03	--	ND	28.3	--		45.14
Carbon disulfide	ND	9.03	--	ND	28.1	--		45.14
Freon-113	ND	9.03	--	ND	69.2	--		45.14
trans-1,2-Dichloroethene	ND	9.03	--	ND	35.8	--		45.14
1,1-Dichloroethane	35.2	9.03	--	142	36.5	--		45.14
Methyl tert butyl ether	ND	9.03	--	ND	32.6	--		45.14
2-Butanone	ND	9.03	--	ND	26.6	--		45.14
cis-1,2-Dichloroethene	15.3	9.03	--	60.7	35.8	--		45.14
Ethyl Acetate	ND	22.6	--	ND	81.4	--		45.14

Project Name: 14-121477-2 ***Lab Number:*** L1417998

Project Number: 14-121477.2 ***Report Date:*** 08/15/14

SAMPLE RESULTS

Lab ID: L1417998-01 D Date Collected: 08/07/14 16:50

Client ID: SG-1 Date Received: 08/08/14

Sample Location: 125 & 160 BEECHWOOD AVE NEW RO Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Chloroform	ND	9.03	--	ND	44.1	--		45.14
Tetrahydrofuran	ND	9.03	--	ND	26.6	--		45.14
1,2-Dichloroethane	ND	9.03	--	ND	36.5	--		45.14
n-Hexane	ND	9.03	--	ND	31.8	--		45.14
1,1,1-Trichloroethane	180	9.03	--	982	49.3	--		45.14
Benzene	ND	9.03	--	ND	28.8	--		45.14
Carbon tetrachloride	ND	9.03	--	ND	56.8	--		45.14
Cyclohexane	ND	9.03	--	ND	31.1	--		45.14
1,2-Dichloropropane	ND	9.03	--	ND	41.7	--		45.14
Bromodichloromethane	ND	9.03	--	ND	60.5	--		45.14
1,4-Dioxane	ND	9.03	--	ND	32.5	--		45.14
Trichloroethene	96.6	9.03	--	519	48.5	--		45.14
2,2,4-Trimethylpentane	ND	9.03	--	ND	42.2	--		45.14
Heptane	ND	9.03	--	ND	37.0	--		45.14
cis-1,3-Dichloropropene	ND	9.03	--	ND	41.0	--		45.14
4-Methyl-2-pentanone	ND	9.03	--	ND	37.0	--		45.14
trans-1,3-Dichloropropene	ND	9.03	--	ND	41.0	--		45.14
1,1,2-Trichloroethane	ND	9.03	--	ND	49.3	--		45.14
Toluene	ND	9.03	--	ND	34.0	--		45.14
2-Hexanone	ND	9.03	--	ND	37.0	--		45.14
Dibromochloromethane	ND	9.03	--	ND	76.9	--		45.14
1,2-Dibromoethane	ND	9.03	--	ND	69.4	--		45.14
Tetrachloroethene	2310	9.03	--	15700	61.2	--		45.14
Chlorobenzene	ND	9.03	--	ND	41.6	--		45.14
Ethylbenzene	ND	9.03	--	ND	39.2	--		45.14
p/m-Xylene	ND	18.0	--	ND	78.2	--		45.14
Bromoform	ND	9.03	--	ND	93.4	--		45.14
Styrene	ND	9.03	--	ND	38.4	--		45.14

Project Name: 14-121477-2 ***Lab Number:*** L1417998

Project Number: 14-121477.2 ***Report Date:*** 08/15/14

SAMPLE RESULTS

Lab ID: L1417998-01 D Date Collected: 08/07/14 16:50

Client ID: SG-1 Date Received: 08/08/14

Sample Location: 125 & 160 BEECHWOOD AVE NEW RO Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
1,1,2,2-Tetrachloroethane	ND	9.03	--	ND	62.0	--		45.14
o-Xylene	ND	9.03	--	ND	39.2	--		45.14
4-Ethyltoluene	ND	9.03	--	ND	44.4	--		45.14
1,3,5-Trimethylbenzene	ND	9.03	--	ND	44.4	--		45.14
1,2,4-Trimethylbenzene	ND	9.03	--	ND	44.4	--		45.14
Benzyl chloride	ND	9.03	--	ND	46.8	--		45.14
1,3-Dichlorobenzene	ND	9.03	--	ND	54.3	--		45.14
1,4-Dichlorobenzene	ND	9.03	--	ND	54.3	--		45.14
1,2-Dichlorobenzene	ND	9.03	--	ND	54.3	--		45.14
1,2,4-Trichlorobenzene	ND	9.03	--	ND	67.0	--		45.14
Hexachlorobutadiene	ND	9.03	--	ND	96.3	--		45.14

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-Difluorobenzene	93		60-140
Bromochloromethane	88		60-140
chlorobenzene-d5	98		60-140

Project Name: 14-121477-2 ***Lab Number:*** L1417998

Project Number: 14-121477.2 ***Report Date:*** 08/15/14

SAMPLE RESULTS

Lab ID: L1417998-02 D
Client ID: SG-2
Sample Location: 125 & 160 BEECHWOOD AVE NEW RO
Matrix: Soil_Vapor
Anaytical Method: 48,TO-15
Analytical Date: 08/13/14 01:12
Analyst: RY

Date Collected: 08/07/14 17:15
Date Received: 08/08/14
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Dichlorodifluoromethane	ND	7.11	--	ND	35.2	--		35.53
Chloromethane	ND	7.11	--	ND	14.7	--		35.53
Freon-114	ND	7.11	--	ND	49.7	--		35.53
Vinyl chloride	ND	7.11	--	ND	18.2	--		35.53
1,3-Butadiene	ND	7.11	--	ND	15.7	--		35.53
Bromomethane	ND	7.11	--	ND	27.6	--		35.53
Chloroethane	ND	7.11	--	ND	18.8	--		35.53
Ethanol	ND	88.8	--	ND	167	--		35.53
Vinyl bromide	ND	7.11	--	ND	31.1	--		35.53
Acetone	372	35.5	--	884	84.3	--		35.53
Trichlorofluoromethane	ND	7.11	--	ND	40.0	--		35.53
Isopropanol	ND	17.8	--	ND	43.8	--		35.53
1,1-Dichloroethene	1400	7.11	--	5550	28.2	--		35.53
Tertiary butyl Alcohol	ND	17.8	--	ND	54.0	--		35.53
Methylene chloride	ND	17.8	--	ND	61.8	--		35.53
3-Chloropropene	ND	7.11	--	ND	22.3	--		35.53
Carbon disulfide	ND	7.11	--	ND	22.1	--		35.53
Freon-113	27.6	7.11	--	212	54.5	--		35.53
trans-1,2-Dichloroethene	ND	7.11	--	ND	28.2	--		35.53
1,1-Dichloroethane	113	7.11	--	457	28.8	--		35.53
Methyl tert butyl ether	ND	7.11	--	ND	25.6	--		35.53
2-Butanone	43.3	7.11	--	128	21.0	--		35.53
cis-1,2-Dichloroethene	68.6	7.11	--	272	28.2	--		35.53
Ethyl Acetate	ND	17.8	--	ND	64.1	--		35.53

Project Name: 14-121477-2 ***Lab Number:*** L1417998

Project Number: 14-121477.2 ***Report Date:*** 08/15/14

SAMPLE RESULTS

Lab ID: L1417998-02 D Date Collected: 08/07/14 17:15

Client ID: SG-2 Date Received: 08/08/14

Sample Location: 125 & 160 BEECHWOOD AVE NEW RO Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Chloroform	ND	7.11	--	ND	34.7	--		35.53
Tetrahydrofuran	ND	7.11	--	ND	21.0	--		35.53
1,2-Dichloroethane	ND	7.11	--	ND	28.8	--		35.53
n-Hexane	ND	7.11	--	ND	25.1	--		35.53
1,1,1-Trichloroethane	1460	7.11	--	7970	38.8	--		35.53
Benzene	ND	7.11	--	ND	22.7	--		35.53
Carbon tetrachloride	ND	7.11	--	ND	44.7	--		35.53
Cyclohexane	ND	7.11	--	ND	24.5	--		35.53
1,2-Dichloropropane	ND	7.11	--	ND	32.9	--		35.53
Bromodichloromethane	ND	7.11	--	ND	47.6	--		35.53
1,4-Dioxane	ND	7.11	--	ND	25.6	--		35.53
Trichloroethene	173	7.11	--	930	38.2	--		35.53
2,2,4-Trimethylpentane	ND	7.11	--	ND	33.2	--		35.53
Heptane	ND	7.11	--	ND	29.1	--		35.53
cis-1,3-Dichloropropene	ND	7.11	--	ND	32.3	--		35.53
4-Methyl-2-pentanone	ND	7.11	--	ND	29.1	--		35.53
trans-1,3-Dichloropropene	ND	7.11	--	ND	32.3	--		35.53
1,1,2-Trichloroethane	ND	7.11	--	ND	38.8	--		35.53
Toluene	ND	7.11	--	ND	26.8	--		35.53
2-Hexanone	8.95	7.11	--	36.7	29.1	--		35.53
Dibromochloromethane	ND	7.11	--	ND	60.6	--		35.53
1,2-Dibromoethane	ND	7.11	--	ND	54.6	--		35.53
Tetrachloroethene	1630	7.11	--	11100	48.2	--		35.53
Chlorobenzene	ND	7.11	--	ND	32.7	--		35.53
Ethylbenzene	ND	7.11	--	ND	30.9	--		35.53
p/m-Xylene	ND	14.2	--	ND	61.7	--		35.53
Bromoform	ND	7.11	--	ND	73.5	--		35.53
Styrene	ND	7.11	--	ND	30.3	--		35.53

Project Name: 14-121477-2 ***Lab Number:*** L1417998

Project Number: 14-121477.2 ***Report Date:*** 08/15/14

SAMPLE RESULTS

Lab ID: L1417998-02 D Date Collected: 08/07/14 17:15

Client ID: SG-2 Date Received: 08/08/14

Sample Location: 125 & 160 BEECHWOOD AVE NEW RO Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
1,1,2,2-Tetrachloroethane	ND	7.11	--	ND	48.8	--		35.53
o-Xylene	ND	7.11	--	ND	30.9	--		35.53
4-Ethyltoluene	ND	7.11	--	ND	35.0	--		35.53
1,3,5-Trimethylbenzene	ND	7.11	--	ND	35.0	--		35.53
1,2,4-Trimethylbenzene	ND	7.11	--	ND	35.0	--		35.53
Benzyl chloride	ND	7.11	--	ND	36.8	--		35.53
1,3-Dichlorobenzene	ND	7.11	--	ND	42.7	--		35.53
1,4-Dichlorobenzene	ND	7.11	--	ND	42.7	--		35.53
1,2-Dichlorobenzene	ND	7.11	--	ND	42.7	--		35.53
1,2,4-Trichlorobenzene	ND	7.11	--	ND	52.8	--		35.53
Hexachlorobutadiene	ND	7.11	--	ND	75.8	--		35.53

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-Difluorobenzene	97		60-140
Bromochloromethane	91		60-140
chlorobenzene-d5	101		60-140

Project Name: 14-121477-2 ***Lab Number:*** L1417998

Project Number: 14-121477.2 ***Report Date:*** 08/15/14

SAMPLE RESULTS

Lab ID: L1417998-03 D
Client ID: SG-3
Sample Location: 125 & 160 BEECHWOOD AVE NEW RO
Matrix: Soil_Vapor
Anaytical Method: 48,TO-15
Analytical Date: 08/13/14 01:43
Analyst: RY

Date Collected: 08/07/14 17:35
Date Received: 08/08/14
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Dichlorodifluoromethane	ND	29.9	--	ND	148	--		149.6
Chloromethane	ND	29.9	--	ND	61.7	--		149.6
Freon-114	ND	29.9	--	ND	209	--		149.6
Vinyl chloride	ND	29.9	--	ND	76.4	--		149.6
1,3-Butadiene	ND	29.9	--	ND	66.1	--		149.6
Bromomethane	ND	29.9	--	ND	116	--		149.6
Chloroethane	ND	29.9	--	ND	78.9	--		149.6
Ethanol	ND	374	--	ND	705	--		149.6
Vinyl bromide	ND	29.9	--	ND	131	--		149.6
Acetone	ND	150	--	ND	356	--		149.6
Trichlorofluoromethane	ND	29.9	--	ND	168	--		149.6
Isopropanol	ND	74.8	--	ND	184	--		149.6
1,1-Dichloroethene	4770	29.9	--	18900	119	--		149.6
Tertiary butyl Alcohol	ND	74.8	--	ND	227	--		149.6
Methylene chloride	ND	74.8	--	ND	260	--		149.6
3-Chloropropene	ND	29.9	--	ND	93.6	--		149.6
Carbon disulfide	ND	29.9	--	ND	93.1	--		149.6
Freon-113	ND	29.9	--	ND	229	--		149.6
trans-1,2-Dichloroethene	60.3	29.9	--	239	119	--		149.6
1,1-Dichloroethane	1080	29.9	--	4370	121	--		149.6
Methyl tert butyl ether	ND	29.9	--	ND	108	--		149.6
2-Butanone	ND	29.9	--	ND	88.2	--		149.6
cis-1,2-Dichloroethene	5860	29.9	--	23200	119	--		149.6
Ethyl Acetate	ND	74.8	--	ND	270	--		149.6

Project Name: 14-121477-2 ***Lab Number:*** L1417998

Project Number: 14-121477.2 ***Report Date:*** 08/15/14

SAMPLE RESULTS

Lab ID: L1417998-03 D Date Collected: 08/07/14 17:35

Client ID: SG-3 Date Received: 08/08/14

Sample Location: 125 & 160 BEECHWOOD AVE NEW RO Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Chloroform	ND	29.9	--	ND	146	--		149.6
Tetrahydrofuran	ND	29.9	--	ND	88.2	--		149.6
1,2-Dichloroethane	ND	29.9	--	ND	121	--		149.6
n-Hexane	ND	29.9	--	ND	105	--		149.6
1,1,1-Trichloroethane	9600	29.9	--	52400	163	--		149.6
Benzene	ND	29.9	--	ND	95.5	--		149.6
Carbon tetrachloride	ND	29.9	--	ND	188	--		149.6
Cyclohexane	ND	29.9	--	ND	103	--		149.6
1,2-Dichloropropane	ND	29.9	--	ND	138	--		149.6
Bromodichloromethane	ND	29.9	--	ND	200	--		149.6
1,4-Dioxane	ND	29.9	--	ND	108	--		149.6
Trichloroethene	9090	29.9	--	48900	161	--		149.6
2,2,4-Trimethylpentane	ND	29.9	--	ND	140	--		149.6
Heptane	ND	29.9	--	ND	123	--		149.6
cis-1,3-Dichloropropene	ND	29.9	--	ND	136	--		149.6
4-Methyl-2-pentanone	ND	29.9	--	ND	123	--		149.6
trans-1,3-Dichloropropene	ND	29.9	--	ND	136	--		149.6
1,1,2-Trichloroethane	ND	29.9	--	ND	163	--		149.6
Toluene	ND	29.9	--	ND	113	--		149.6
2-Hexanone	ND	29.9	--	ND	123	--		149.6
Dibromochloromethane	ND	29.9	--	ND	255	--		149.6
1,2-Dibromoethane	ND	29.9	--	ND	230	--		149.6
Tetrachloroethene	7540	29.9	--	51100	203	--		149.6
Chlorobenzene	ND	29.9	--	ND	138	--		149.6
Ethylbenzene	ND	29.9	--	ND	130	--		149.6
p/m-Xylene	ND	59.8	--	ND	260	--		149.6
Bromoform	ND	29.9	--	ND	309	--		149.6
Styrene	ND	29.9	--	ND	127	--		149.6

Project Name: 14-121477-2 ***Lab Number:*** L1417998

Project Number: 14-121477.2 ***Report Date:*** 08/15/14

SAMPLE RESULTS

Lab ID: L1417998-03 D Date Collected: 08/07/14 17:35

Client ID: SG-3 Date Received: 08/08/14

Sample Location: 125 & 160 BEECHWOOD AVE NEW RO Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
1,1,2,2-Tetrachloroethane	ND	29.9	--	ND	205	--		149.6
o-Xylene	ND	29.9	--	ND	130	--		149.6
4-Ethyltoluene	ND	29.9	--	ND	147	--		149.6
1,3,5-Trimethylbenzene	ND	29.9	--	ND	147	--		149.6
1,2,4-Trimethylbenzene	ND	29.9	--	ND	147	--		149.6
Benzyl chloride	ND	29.9	--	ND	155	--		149.6
1,3-Dichlorobenzene	ND	29.9	--	ND	180	--		149.6
1,4-Dichlorobenzene	ND	29.9	--	ND	180	--		149.6
1,2-Dichlorobenzene	ND	29.9	--	ND	180	--		149.6
1,2,4-Trichlorobenzene	ND	29.9	--	ND	222	--		149.6
Hexachlorobutadiene	ND	29.9	--	ND	319	--		149.6

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-Difluorobenzene	97		60-140
Bromochloromethane	91		60-140
chlorobenzene-d5	100		60-140

Project Name: 14-121477-2
Project Number: 14-121477.2

Lab Number: L1417998
Report Date: 08/15/14

SAMPLE RESULTS

Lab ID: L1417998-04 D
Client ID: SG-4
Sample Location: 125 & 160 BEECHWOOD AVE NEW RO
Matrix: Soil_Vapor
Anaytical Method: 48,TO-15
Analytical Date: 08/13/14 02:15
Analyst: RY

Date Collected: 08/07/14 18:00
Date Received: 08/08/14
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Dichlorodifluoromethane	ND	6.03	--	ND	29.8	--		30.14
Chloromethane	ND	6.03	--	ND	12.5	--		30.14
Freon-114	ND	6.03	--	ND	42.1	--		30.14
Vinyl chloride	ND	6.03	--	ND	15.4	--		30.14
1,3-Butadiene	ND	6.03	--	ND	13.3	--		30.14
Bromomethane	ND	6.03	--	ND	23.4	--		30.14
Chloroethane	ND	6.03	--	ND	15.9	--		30.14
Ethanol	ND	75.4	--	ND	142	--		30.14
Vinyl bromide	ND	6.03	--	ND	26.4	--		30.14
Acetone	104	30.1	--	247	71.5	--		30.14
Trichlorofluoromethane	ND	6.03	--	ND	33.9	--		30.14
Isopropanol	ND	15.1	--	ND	37.1	--		30.14
1,1-Dichloroethene	1120	6.03	--	4440	23.9	--		30.14
Tertiary butyl Alcohol	ND	15.1	--	ND	45.8	--		30.14
Methylene chloride	ND	15.1	--	ND	52.5	--		30.14
3-Chloropropene	ND	6.03	--	ND	18.9	--		30.14
Carbon disulfide	22.4	6.03	--	69.8	18.8	--		30.14
Freon-113	ND	6.03	--	ND	46.2	--		30.14
trans-1,2-Dichloroethene	ND	6.03	--	ND	23.9	--		30.14
1,1-Dichloroethane	631	6.03	--	2550	24.4	--		30.14
Methyl tert butyl ether	ND	6.03	--	ND	21.7	--		30.14
2-Butanone	11.2	6.03	--	33.0	17.8	--		30.14
cis-1,2-Dichloroethene	151	6.03	--	599	23.9	--		30.14
Ethyl Acetate	ND	15.1	--	ND	54.4	--		30.14

Project Name: 14-121477-2 ***Lab Number:*** L1417998

Project Number: 14-121477.2 ***Report Date:*** 08/15/14

SAMPLE RESULTS

Lab ID: L1417998-04 D Date Collected: 08/07/14 18:00

Client ID: SG-4 Date Received: 08/08/14

Sample Location: 125 & 160 BEECHWOOD AVE NEW RO Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Chloroform	16.9	6.03	--	82.5	29.4	--		30.14
Tetrahydrofuran	ND	6.03	--	ND	17.8	--		30.14
1,2-Dichloroethane	ND	6.03	--	ND	24.4	--		30.14
n-Hexane	ND	6.03	--	ND	21.3	--		30.14
1,1,1-Trichloroethane	2430	6.03	--	13300	32.9	--		30.14
Benzene	6.90	6.03	--	22.0	19.3	--		30.14
Carbon tetrachloride	ND	6.03	--	ND	37.9	--		30.14
Cyclohexane	ND	6.03	--	ND	20.8	--		30.14
1,2-Dichloropropane	ND	6.03	--	ND	27.9	--		30.14
Bromodichloromethane	ND	6.03	--	ND	40.4	--		30.14
1,4-Dioxane	ND	6.03	--	ND	21.7	--		30.14
Trichloroethene	848	6.03	--	4560	32.4	--		30.14
2,2,4-Trimethylpentane	ND	6.03	--	ND	28.2	--		30.14
Heptane	ND	6.03	--	ND	24.7	--		30.14
cis-1,3-Dichloropropene	ND	6.03	--	ND	27.4	--		30.14
4-Methyl-2-pentanone	ND	6.03	--	ND	24.7	--		30.14
trans-1,3-Dichloropropene	ND	6.03	--	ND	27.4	--		30.14
1,1,2-Trichloroethane	ND	6.03	--	ND	32.9	--		30.14
Toluene	ND	6.03	--	ND	22.7	--		30.14
2-Hexanone	ND	6.03	--	ND	24.7	--		30.14
Dibromochloromethane	ND	6.03	--	ND	51.4	--		30.14
1,2-Dibromoethane	ND	6.03	--	ND	46.3	--		30.14
Tetrachloroethene	1170	6.03	--	7930	40.9	--		30.14
Chlorobenzene	ND	6.03	--	ND	27.8	--		30.14
Ethylbenzene	ND	6.03	--	ND	26.2	--		30.14
p/m-Xylene	ND	12.0	--	ND	52.1	--		30.14
Bromoform	ND	6.03	--	ND	62.3	--		30.14
Styrene	ND	6.03	--	ND	25.7	--		30.14

Project Name: 14-121477-2 ***Lab Number:*** L1417998

Project Number: 14-121477.2 ***Report Date:*** 08/15/14

SAMPLE RESULTS

Lab ID: L1417998-04 D Date Collected: 08/07/14 18:00

Client ID: SG-4 Date Received: 08/08/14

Sample Location: 125 & 160 BEECHWOOD AVE NEW RO Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
1,1,2,2-Tetrachloroethane	ND	6.03	--	ND	41.4	--		30.14
o-Xylene	ND	6.03	--	ND	26.2	--		30.14
4-Ethyltoluene	ND	6.03	--	ND	29.6	--		30.14
1,3,5-Trimethylbenzene	ND	6.03	--	ND	29.6	--		30.14
1,2,4-Trimethylbenzene	ND	6.03	--	ND	29.6	--		30.14
Benzyl chloride	ND	6.03	--	ND	31.2	--		30.14
1,3-Dichlorobenzene	ND	6.03	--	ND	36.3	--		30.14
1,4-Dichlorobenzene	ND	6.03	--	ND	36.3	--		30.14
1,2-Dichlorobenzene	ND	6.03	--	ND	36.3	--		30.14
1,2,4-Trichlorobenzene	ND	6.03	--	ND	44.8	--		30.14
Hexachlorobutadiene	ND	6.03	--	ND	64.3	--		30.14

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-Difluorobenzene	97		60-140
Bromochloromethane	89		60-140
chlorobenzene-d5	100		60-140

Project Name: 14-121477-2
Project Number: 14-121477.2
Lab Number: L1417998
Report Date: 08/15/14

Method Blank Analysis
Batch Quality Control

Analytical Method: 48,TO-15
Analytical Date: 08/12/14 19:22

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab for sample(s): 01-04 Batch: WG713286-4								
Propylene	ND	0.500	--	ND	0.861	--		1
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	ND	2.50	--	ND	4.71	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Trichlorofluoromethane	ND	0.200	--	ND	1.12	--		1
Isopropanol	ND	0.500	--	ND	1.23	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
Vinyl acetate	ND	0.200	--	ND	0.704	--		1
2-Butanone	ND	0.200	--	ND	0.590	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1

Project Name: 14-121477-2
Project Number: 14-121477.2
Lab Number: L1417998
Report Date: 08/15/14

Method Blank Analysis
Batch Quality Control

Analytical Method: 48,TO-15
Analytical Date: 08/12/14 19:22

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab for sample(s): 01-04 Batch: WG713286-4								
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	ND	0.200	--	ND	0.590	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	ND	0.200	--	ND	0.705	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Benzene	ND	0.200	--	ND	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.200	--	ND	0.820	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	ND	0.200	--	ND	0.754	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1

Project Name: 14-121477-2
Project Number: 14-121477.2
Lab Number: L1417998
Report Date: 08/15/14

Method Blank Analysis
Batch Quality Control

Analytical Method: 48,TO-15
Analytical Date: 08/12/14 19:22

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab for sample(s): 01-04 Batch: WG713286-4								
Ethylbenzene	ND	0.200	--	ND	0.869	--		1
p/m-Xylene	ND	0.400	--	ND	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	ND	0.200	--	ND	0.869	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

Lab Control Sample Analysis

Batch Quality Control

Project Name: 14-121477-2

Project Number: 14-121477.2

Lab Number: L1417998

Report Date: 08/15/14

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-04 Batch: WG713286-3								
Chlorodifluoromethane	86		-		70-130	-		
Propylene	89		-		70-130	-		
Propane	74		-		70-130	-		
Dichlorodifluoromethane	84		-		70-130	-		
Chloromethane	86		-		70-130	-		
1,2-Dichloro-1,1,2,2-tetrafluoroethane	90		-		70-130	-		
Methanol	89		-		70-130	-		
Vinyl chloride	90		-		70-130	-		
1,3-Butadiene	88		-		70-130	-		
Butane	92		-		70-130	-		
Bromomethane	93		-		70-130	-		
Chloroethane	98		-		70-130	-		
Ethyl Alcohol	119		-		70-130	-		
Dichlorofluoromethane	94		-		70-130	-		
Vinyl bromide	88		-		70-130	-		
Acrolein	105		-		70-130	-		
Acetone	107		-		70-130	-		
Acetonitrile	109		-		70-130	-		
Trichlorofluoromethane	100		-		70-130	-		
iso-Propyl Alcohol	103		-		70-130	-		
Acrylonitrile	102		-		70-130	-		

Lab Control Sample Analysis

Batch Quality Control

Project Name: 14-121477-2

Project Number: 14-121477.2

Lab Number: L1417998

Report Date: 08/15/14

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-04 Batch: WG713286-3								
Pentane	102		-		70-130	-		
Ethyl ether	96		-		70-130	-		
1,1-Dichloroethene	92		-		70-130	-		
tert-Butyl Alcohol	102		-		70-130	-		
Methylene chloride	96		-		70-130	-		
3-Chloropropene	86		-		70-130	-		
Carbon disulfide	80		-		70-130	-		
1,1,2-Trichloro-1,2,2-Trifluoroethane	88		-		70-130	-		
trans-1,2-Dichloroethene	80		-		70-130	-		
1,1-Dichloroethane	92		-		70-130	-		
Methyl tert butyl ether	86		-		70-130	-		
Vinyl acetate	108		-		70-130	-		
2-Butanone	85		-		70-130	-		
cis-1,2-Dichloroethene	103		-		70-130	-		
Ethyl Acetate	87		-		70-130	-		
Chloroform	93		-		70-130	-		
Tetrahydrofuran	80		-		70-130	-		
2,2-Dichloropropane	91		-		70-130	-		
1,2-Dichloroethane	90		-		70-130	-		
n-Hexane	87		-		70-130	-		
Isopropyl Ether	94		-		70-130	-		

Lab Control Sample Analysis

Batch Quality Control

Project Name: 14-121477-2

Project Number: 14-121477.2

Lab Number: L1417998

Report Date: 08/15/14

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-04 Batch: WG713286-3								
Ethyl-Tert-Butyl-Ether	91		-		70-130	-		
1,1,1-Trichloroethane	94		-		70-130	-		
1,1-Dichloropropene	97		-		70-130	-		
Benzene	90		-		70-130	-		
Carbon tetrachloride	95		-		70-130	-		
Cyclohexane	86		-		70-130	-		
Tertiary-Amyl Methyl Ether	94		-		70-130	-		
Dibromomethane	93		-		70-130	-		
1,2-Dichloropropane	95		-		70-130	-		
Bromodichloromethane	89		-		70-130	-		
1,4-Dioxane	91		-		70-130	-		
Trichloroethene	95		-		70-130	-		
2,2,4-Trimethylpentane	89		-		70-130	-		
Methyl methacrylate	114		-		70-130	-		
Heptane	86		-		70-130	-		
cis-1,3-Dichloropropene	101		-		70-130	-		
4-Methyl-2-pentanone	88		-		70-130	-		
trans-1,3-Dichloropropene	86		-		70-130	-		
1,1,2-Trichloroethane	96		-		70-130	-		
Toluene	93		-		70-130	-		
1,3-Dichloropropane	94		-		70-130	-		

Lab Control Sample Analysis

Batch Quality Control

Project Name: 14-121477-2

Project Number: 14-121477.2

Lab Number: L1417998

Report Date: 08/15/14

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-04 Batch: WG713286-3								
2-Hexanone	89		-		70-130	-		
Dibromochloromethane	96		-		70-130	-		
1,2-Dibromoethane	97		-		70-130	-		
Butyl Acetate	88		-		70-130	-		
Octane	91		-		70-130	-		
Tetrachloroethene	94		-		70-130	-		
1,1,1,2-Tetrachloroethane	95		-		70-130	-		
Chlorobenzene	96		-		70-130	-		
Ethylbenzene	94		-		70-130	-		
p/m-Xylene	94		-		70-130	-		
Bromoform	93		-		70-130	-		
Styrene	95		-		70-130	-		
1,1,2,2-Tetrachloroethane	98		-		70-130	-		
o-Xylene	96		-		70-130	-		
1,2,3-Trichloropropane	82		-		70-130	-		
Nonane (C9)	98		-		70-130	-		
Isopropylbenzene	97		-		70-130	-		
Bromobenzene	101		-		70-130	-		
o-Chlorotoluene	94		-		70-130	-		
n-Propylbenzene	94		-		70-130	-		
p-Chlorotoluene	94		-		70-130	-		

Lab Control Sample Analysis

Batch Quality Control

Project Name: 14-121477-2

Project Number: 14-121477.2

Lab Number: L1417998

Report Date: 08/15/14

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-04 Batch: WG713286-3								
4-Ethyltoluene	82		-		70-130	-		
1,3,5-Trimethylbenzene	97		-		70-130	-		
tert-Butylbenzene	97		-		70-130	-		
1,2,4-Trimethylbenzene	100		-		70-130	-		
Decane (C10)	95		-		70-130	-		
Benzyl chloride	95		-		70-130	-		
1,3-Dichlorobenzene	98		-		70-130	-		
1,4-Dichlorobenzene	97		-		70-130	-		
sec-Butylbenzene	96		-		70-130	-		
p-Isopropyltoluene	92		-		70-130	-		
1,2-Dichlorobenzene	98		-		70-130	-		
n-Butylbenzene	100		-		70-130	-		
1,2-Dibromo-3-chloropropane	92		-		70-130	-		
Undecane	100		-		70-130	-		
Dodecane (C12)	116		-		70-130	-		
1,2,4-Trichlorobenzene	107		-		70-130	-		
Naphthalene	110		-		70-130	-		
1,2,3-Trichlorobenzene	112		-		70-130	-		
Hexachlorobutadiene	105		-		70-130	-		

Lab Duplicate Analysis
Batch Quality Control

Project Name: 14-121477-2
Project Number: 14-121477.2

Lab Number: L1417998
Report Date: 08/15/14

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-04 QC Batch ID: WG713286-5 QC Sample: L1417706-01 Client ID: DUP Sample						
Dichlorodifluoromethane	ND	ND	ppbV	NC		25
Chloromethane	ND	ND	ppbV	NC		25
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	ND	ppbV	NC		25
Vinyl chloride	ND	ND	ppbV	NC		25
1,3-Butadiene	ND	ND	ppbV	NC		25
Bromomethane	ND	ND	ppbV	NC		25
Chloroethane	ND	ND	ppbV	NC		25
Ethyl Alcohol	ND	ND	ppbV	NC		25
Vinyl bromide	ND	ND	ppbV	NC		25
Acetone	5.76	5.84	ppbV	1		25
Trichlorofluoromethane	1.00	ND	ppbV	NC		25
iso-Propyl Alcohol	ND	ND	ppbV	NC		25
1,1-Dichloroethene	ND	ND	ppbV	NC		25
tert-Butyl Alcohol	ND	ND	ppbV	NC		25
Methylene chloride	ND	ND	ppbV	NC		25
3-Chloropropene	ND	ND	ppbV	NC		25
Carbon disulfide	ND	ND	ppbV	NC		25
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	ND	ppbV	NC		25
trans-1,2-Dichloroethene	ND	ND	ppbV	NC		25

Lab Duplicate Analysis
Batch Quality Control

Project Name: 14-121477-2
Project Number: 14-121477.2

Lab Number: L1417998
Report Date: 08/15/14

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-04 QC Batch ID: WG713286-5 QC Sample: L1417706-01 Client ID: DUP Sample					
1,1-Dichloroethane	ND	ND	ppbV	NC	25
Methyl tert butyl ether	ND	ND	ppbV	NC	25
2-Butanone	1.10	1.07	ppbV	3	25
cis-1,2-Dichloroethene	ND	ND	ppbV	NC	25
Ethyl Acetate	ND	ND	ppbV	NC	25
Chloroform	4.57	4.42	ppbV	3	25
Tetrahydrofuran	1.06	1.10	ppbV	4	25
1,2-Dichloroethane	ND	ND	ppbV	NC	25
n-Hexane	ND	ND	ppbV	NC	25
1,1,1-Trichloroethane	1.92	1.88	ppbV	2	25
Benzene	ND	ND	ppbV	NC	25
Carbon tetrachloride	ND	ND	ppbV	NC	25
Cyclohexane	ND	ND	ppbV	NC	25
1,2-Dichloropropane	ND	ND	ppbV	NC	25
Bromodichloromethane	ND	ND	ppbV	NC	25
1,4-Dioxane	ND	ND	ppbV	NC	25
Trichloroethene	346	337	ppbV	3	25
2,2,4-Trimethylpentane	ND	ND	ppbV	NC	25
Heptane	1.61	1.56	ppbV	3	25

Lab Duplicate Analysis
Batch Quality Control

Project Name: 14-121477-2
Project Number: 14-121477.2

Lab Number: L1417998
Report Date: 08/15/14

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-04 QC Batch ID: WG713286-5 QC Sample: L1417706-01 Client ID: DUP Sample					
cis-1,3-Dichloropropene	ND	ND	ppbV	NC	25
4-Methyl-2-pentanone	ND	ND	ppbV	NC	25
trans-1,3-Dichloropropene	ND	ND	ppbV	NC	25
1,1,2-Trichloroethane	ND	ND	ppbV	NC	25
Toluene	1.76	1.69	ppbV	4	25
2-Hexanone	ND	ND	ppbV	NC	25
Dibromochloromethane	ND	ND	ppbV	NC	25
1,2-Dibromoethane	ND	ND	ppbV	NC	25
Tetrachloroethene	17.1	17.2	ppbV	1	25
Chlorobenzene	ND	ND	ppbV	NC	25
Ethylbenzene	ND	ND	ppbV	NC	25
p/m-Xylene	ND	ND	ppbV	NC	25
Bromoform	ND	ND	ppbV	NC	25
Styrene	ND	ND	ppbV	NC	25
1,1,2,2-Tetrachloroethane	ND	ND	ppbV	NC	25
o-Xylene	ND	ND	ppbV	NC	25
4-Ethyltoluene	ND	ND	ppbV	NC	25
1,3,5-Trimethylbenzene	ND	ND	ppbV	NC	25
1,2,4-Trimethylbenzene	ND	ND	ppbV	NC	25

Lab Duplicate Analysis
Batch Quality Control

Project Name: 14-121477-2
Project Number: 14-121477.2

Lab Number: L1417998
Report Date: 08/15/14

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-04 QC Batch ID: WG713286-5 QC Sample: L1417706-01 Client ID: DUP Sample					
Benzyl chloride	ND	ND	ppbV	NC	25
1,3-Dichlorobenzene	ND	ND	ppbV	NC	25
1,4-Dichlorobenzene	ND	ND	ppbV	NC	25
1,2-Dichlorobenzene	ND	ND	ppbV	NC	25
1,2,4-Trichlorobenzene	ND	ND	ppbV	NC	25
Hexachlorobutadiene	ND	ND	ppbV	NC	25

Project Name: 14-121477-2

Project Number: 14-121477.2

Lab Number: L1417998

Report Date: 08/15/14

Canister and Flow Controller Information

Samplenum	Client ID	Media ID	Media Type	Date Prepared	Bottle Order	Cleaning Batch ID	Can Leak Check	Initial Pressure (in. Hg)	Pressure on Receipt (in. Hg)	Flow Controler Leak Chk	Flow Out mL/min	Flow In mL/min	% RPD
L1417998-01	SG-1	0090	#30 SV	08/04/14	106433		-	-	-	Pass	30	33	10
L1417998-01	SG-1	463	2.7L Can	08/04/14	106433	L1416884-02	Pass	-29.6	-7.0	-	-	-	-
L1417998-02	SG-2	0282	#30 SV	08/04/14	106433		-	-	-	Pass	36	42	15
L1417998-02	SG-2	198	2.7L Can	08/04/14	106433	L1416884-02	Pass	-29.6	-0.7	-	-	-	-
L1417998-03	SG-3	0046	#30 AMB	08/04/14	106433		-	-	-	Pass	32	34	6
L1417998-03	SG-3	132	2.7L Can	08/04/14	106433	L1416884-02	Pass	-29.6	-2.2	-	-	-	-
L1417998-04	SG-4	0440	#30 SV	08/04/14	106433		-	-	-	Pass	36	40	11
L1417998-04	SG-4	201	2.7L Can	08/04/14	106433	L1416884-02	Pass	-29.6	-2.4	-	-	-	-

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1416884
Report Date: 08/15/14

Air Canister Certification Results

Lab ID: L1416884-02
Client ID: CAN 136 SHELF 8
Sample Location:
Matrix: Air
Anaytical Method: 48,TO-15
Analytical Date: 07/30/14 17:34
Analyst: MB

Date Collected: 07/28/14 16:08
Date Received: 07/29/14
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Chlorodifluoromethane	ND	0.200	--	ND	0.707	--		1
Propylene	ND	0.500	--	ND	0.861	--		1
Propane	ND	0.500	--	ND	0.902	--		1
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Methanol	ND	5.00	--	ND	6.55	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Butane	ND	0.200	--	ND	0.475	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	ND	2.50	--	ND	4.71	--		1
Dichlorofluoromethane	ND	0.200	--	ND	0.842	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acrolein	ND	0.500	--	ND	1.15	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Acetonitrile	ND	0.200	--	ND	0.336	--		1
Trichlorofluoromethane	ND	0.200	--	ND	1.12	--		1
Isopropanol	ND	0.500	--	ND	1.23	--		1
Acrylonitrile	ND	0.200	--	ND	0.434	--		1
Pentane	ND	0.200	--	ND	0.590	--		1
Ethyl ether	ND	0.200	--	ND	0.606	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L1416884
Report Date: 08/15/14

Air Canister Certification Results

Lab ID: L1416884-02
Client ID: CAN 136 SHELF 8
Sample Location:
Date Collected: 07/28/14 16:08
Date Received: 07/29/14
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
Vinyl acetate	ND	0.200	--	ND	0.704	--		1
2-Butanone	ND	0.200	--	ND	0.590	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	ND	0.200	--	ND	0.590	--		1
2,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	ND	0.200	--	ND	0.705	--		1
Diisopropyl ether	ND	0.200	--	ND	0.836	--		1
tert-Butyl Ethyl Ether	ND	0.200	--	ND	0.836	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
1,1-Dichloropropene	ND	0.200	--	ND	0.908	--		1
Benzene	ND	0.200	--	ND	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		1
tert-Amyl Methyl Ether	ND	0.200	--	ND	0.836	--		1
Dibromomethane	ND	0.200	--	ND	1.42	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L1416884
Report Date: 08/15/14

Air Canister Certification Results

Lab ID: L1416884-02
Client ID: CAN 136 SHELF 8
Sample Location:
Date Collected: 07/28/14 16:08
Date Received: 07/29/14
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Methyl Methacrylate	ND	0.500	--	ND	2.05	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.200	--	ND	0.820	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	ND	0.200	--	ND	0.754	--		1
1,3-Dichloropropane	ND	0.200	--	ND	0.924	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Butyl acetate	ND	0.500	--	ND	2.38	--		1
Octane	ND	0.200	--	ND	0.934	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
1,1,1,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	ND	0.200	--	ND	0.869	--		1
p/m-Xylene	ND	0.400	--	ND	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	ND	0.200	--	ND	0.869	--		1
1,2,3-Trichloropropane	ND	0.200	--	ND	1.21	--		1
Nonane	ND	0.200	--	ND	1.05	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
Bromobenzene	ND	0.200	--	ND	0.793	--		1

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L1416884
Report Date: 08/15/14

Air Canister Certification Results

Lab ID: L1416884-02
Client ID: CAN 136 SHELF 8
Sample Location:
Date Collected: 07/28/14 16:08
Date Received: 07/29/14
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
2-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
n-Propylbenzene	ND	0.200	--	ND	0.983	--		1
4-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
tert-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
Decane	ND	0.200	--	ND	1.16	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2-Dibromo-3-chloropropane	ND	0.200	--	ND	1.93	--		1
Undecane	ND	0.200	--	ND	1.28	--		1
Dodecane	ND	0.200	--	ND	1.39	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Naphthalene	ND	0.200	--	ND	1.05	--		1
1,2,3-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					
No Tentatively Identified Compounds					

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L1416884
Report Date: 08/15/14

Air Canister Certification Results

Lab ID: L1416884-02
Client ID: CAN 136 SHELF 8
Sample Location:
Date Collected: 07/28/14 16:08
Date Received: 07/29/14
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	91		60-140
Bromochloromethane	95		60-140
chlorobenzene-d5	97		60-140

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L1416884
Report Date: 08/15/14

Air Canister Certification Results

Lab ID: L1416884-02
Client ID: CAN 136 SHELF 8
Sample Location:
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 07/30/14 17:34
Analyst: MB

Date Collected: 07/28/14 16:08
Date Received: 07/29/14
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Dichlorodifluoromethane	ND	0.050	--	ND	0.247	--		1
Chloromethane	ND	0.500	--	ND	1.03	--		1
Freon-114	ND	0.050	--	ND	0.349	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,3-Butadiene	ND	0.020	--	ND	0.044	--		1
Bromomethane	ND	0.020	--	ND	0.078	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
Acetone	ND	2.00	--	ND	4.75	--		1
Trichlorofluoromethane	ND	0.050	--	ND	0.281	--		1
Acrylonitrile	ND	0.500	--	ND	1.09	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Methylene chloride	ND	1.00	--	ND	3.47	--		1
Freon-113	ND	0.050	--	ND	0.383	--		1
Halothane	ND	0.050	--	ND	0.404	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
Methyl tert butyl ether	ND	0.020	--	ND	0.072	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Chloroform	ND	0.020	--	ND	0.098	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Benzene	ND	0.100	--	ND	0.319	--		1
Carbon tetrachloride	ND	0.020	--	ND	0.126	--		1
1,2-Dichloropropane	ND	0.020	--	ND	0.092	--		1

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L1416884
Report Date: 08/15/14

Air Canister Certification Results

Lab ID: L1416884-02
Client ID: CAN 136 SHELF 8
Sample Location:
Date Collected: 07/28/14 16:08
Date Received: 07/29/14
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1
1,4-Dioxane	ND	0.100	--	ND	0.360	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	ND	0.050	--	ND	0.188	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
Chlorobenzene	ND	0.020	--	ND	0.092	--		1
Ethylbenzene	ND	0.020	--	ND	0.087	--		1
p/m-Xylene	ND	0.040	--	ND	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	ND	0.020	--	ND	0.085	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	ND	0.020	--	ND	0.087	--		1
Isopropylbenzene	ND	0.500	--	ND	2.46	--		1
4-Ethyltoluene	ND	0.020	--	ND	0.098	--		1
1,3,5-Trimethybenzene	ND	0.020	--	ND	0.098	--		1
1,2,4-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
sec-Butylbenzene	ND	0.500	--	ND	2.74	--		1
p-Isopropyltoluene	ND	0.500	--	ND	2.74	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1416884

Project Number: CANISTER QC BAT **Report Date:** 08/15/14

Air Canister Certification Results

Lab ID: L1416884-02 Date Collected: 07/28/14 16:08

Client ID: CAN 136 SHELF 8 Date Received: 07/29/14

Sample Location: Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
n-Butylbenzene	ND	0.500	--	ND	2.74	--		1
1,2,4-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Naphthalene	ND	0.050	--	ND	0.262	--		1
1,2,3-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Hexachlorobutadiene	ND	0.050	--	ND	0.533	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	94		60-140
bromochloromethane	98		60-140
chlorobenzene-d5	96		60-140

Project Name: 14-121477-2
Project Number: 14-121477.2

Lab Number: L1417998
Report Date: 08/15/14

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information **Custody Seal**
Cooler
NA Present/Intact

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1417998-01A	Canister - 2.7 Liter	NA	NA	na	Y	Present/Intact	TO15-LL(30)
L1417998-02A	Canister - 2.7 Liter	NA	NA	na	Y	Present/Intact	TO15-LL(30)
L1417998-03A	Canister - 2.7 Liter	NA	NA	na	Y	Present/Intact	TO15-LL(30)
L1417998-04A	Canister - 2.7 Liter	NA	NA	na	Y	Present/Intact	TO15-LL(30)

*Values in parentheses indicate holding time in days

Project Name:	14-121477-2	**Lab Number:**	L1417998
Project Number:	14-121477.2	**Report Date:**	08/15/14

GLOSSARY

Acronyms

EDL - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).

EPA - Environmental Protection Agency.

LCS - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

LFB - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

MDL - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

MS - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA - Not Applicable.

NC - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.

NI - Not Ignitable.

RL - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

RPD - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.

SRM - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

Footnotes

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

Terms

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

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

Data Qualifiers

A - Spectra identified as "Aldol Condensation Product".

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit.

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

Report Format: Data Usability Report

Project Name:	14-121477-2	**Lab Number:**	L1417998
Project Number:	14-121477.2	**Report Date:**	08/15/14

Data Qualifiers

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

J - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

ND - Not detected at the reporting limit (RL) for the sample.

Report Format: Data Usability Report

Project Name:	14-121477-2	**Lab Number:**	L1417998
Project Number:	14-121477.2	**Report Date:**	08/15/14

REFERENCES

48 Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air. Second Edition. EPA/625/R-96/010b, January 1999.

LIMITATION OF LIABILITIES

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

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

Certification Information

Last revised April 15, 2014

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

Westborough Facility
EPA 524.2: Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether.
EPA 8260C: 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene, Iodomethane (methyl iodide), Methyl methacrylate, Azobenzene.
EPA 8330A/B: PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT.
EPA 8270D: 1-Methylnaphthalene, Dimethylnaphthalene,1,4-Diphenylhydrazine.
EPA 625: 4-Chloroaniline, 4-Methylphenol.
SM4500: Soil: Total Phosphorus, TKN, NO2, NO3.
EPA 9071: Total Petroleum Hydrocarbons, Oil & Grease.

Mansfield Facility
EPA 8270D: Biphenyl.
EPA 2540D: TSS
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

The following analytes are included in our Massachusetts DEP Scope of Accreditation, Westborough Facility:

Drinking Water
EPA 200.8: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl; **EPA 200.7**: Ba,Be,Ca,Cd,Cr,Cu,Na; **EPA 245.1:** Mercury;
EPA 300.0: Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B**
EPA 332: Perchlorate.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, Enterolert-QT.**

Non-Potable Water
EPA 200.8: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn;
EPA 200.7: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn;
EPA 245.1, SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2340B, SM2320B, SM4500CL-E, SM4500F-BC, SM426C, SM4500NH3-BH, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **SM4500NO3-F, EPA 353.2**: Nitrate-N**, SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, SM4500P-B, E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.**
EPA 624: Volatile Halocarbons & Aromatics,
EPA 608: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9222D-MF**.

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

Serial_No:08151409:44

AIR ANALYSIS

CHAIN OF CUSTODY

ALPHA ANALYTICAL
320 Forbes Blvd, Mansfield, MA 02048
TEL: 508-822-9300 FAX: 508-822-3288

Date Rec'd in Lab:

ALPHA Job #: L1417998

Client Information

Client: Partner Eng & Science
Address: 1031 Farmington Ave, Farmington, CT 06032
Phone: 1-800-419-4523
Fax: 1-866-928-7418
Email: j.markowsky@partneresi.com, j.lokko@partneresi.com

☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: 14-121477.2
Project Location: 125 & 160 Beechwood Ave, New Rochelle, NY 10801
Project #: 14-121477.2
Project Manager: Jodi Markowsky
ALPHA Quote #:

Turn-Around Time

☒ Standard 5 Days ☐ RUSH *(only confirmed if pre-approved!)*

Date Due: Time:

Report Information - Data Deliverables

☐ FAX
☒ ADEx
Criteria Checker:
(Default based on Regulatory Criteria Indicated)
Other Formats:
☒ EMAIL (standard pdf report)
☐ Additional Deliverables:
Report to: (if different than Project Manager)

Billing Information

☒ Same as Client info PO #:

Regulatory Requirements/Report Limits

State/Fed	Program	Criteria
NY SDEC		

Other Project Specific Requirements/Comments:

All Columns Below Must Be Filled Out

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Start Time	End Time	Initial Vacuum	Final Vacuum	Sample Matrix*	Sampler's Initials	Can Size	I D Can	I D - Flow Controller	TO-14A by TO-15	TO-15 - VOCs	TO-15 SIM	APH	FIXED GASES	TO-13A	TO-4 / TO-10	Sample Comments (i.e. PID)
L1417998-01	SG-1	8/7/14	15:48	16:50	-29.47	-6.78	SV	JL	2.7L	463	0090		X						
-02	SG-2	8/7/14	16:15	17:15	-29.55	-0.12	SV	JL	2.7L	198	0282		X						
-03	SG-3	8/7/14	16:33	17:35	-29.85	-1.62	SV	JL	2.7L	132	0046		X						
-04	SG-4	8/7/14	16:53	18:00	-29.95	-1.94	SV	JL	2.7L	201	0440		X						

*SAMPLE MATRIX CODES
AA = Ambient Air (Indoor/Outdoor)
SV = Soil Vapor/Landfill Gas/SVE
Other = Please Specify

Container Type: CS

Relinquished By:	Date/Time	Received By:	Date/Time:
J. Lokko	8/8/14	[signature]	8/8/14 941
[signature]	8/8/14 1925	Tom Tabor	8-8-14 1925
Tom Tabor	8-9-14 0130	Mansfield Lab	8-9-14 01:30

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

Form No: 101-02 (18-Jan-09)

ANALYTICAL REPORT

Lab Number:	L1418076
Client:	Partner Engineering and Science, Inc. 1031 Farmington Avenue Farmington, CT 06032
ATTN:	Jodi Markowsky
Phone:	(203) 604-6565
Project Name:	14-121477.2
Project Number:	14-121477.2
Report Date:	08/18/14

Certifications & Approvals: MA (M-MA086), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), USDA (Permit #P-330-11-00240), NC (666), TX (T104704476), DOD (L2217), US Army Corps of Engineers.

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

Project Name: 14-121477.2
Project Number: 14-121477.2

Lab Number: L1418076
Report Date: 08/18/14

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1418076-01	B-2 GW	WATER	125 & 160 BEECHWOOD AVE	08/11/14 08:36	08/11/14
L1418076-02	B-3 GW	WATER	125 & 160 BEECHWOOD AVE	08/11/14 10:16	08/11/14
L1418076-03	B-4 GW	WATER	125 & 160 BEECHWOOD AVE	08/11/14 12:16	08/11/14
L1418076-04	B-8 GW	WATER	125 & 160 BEECHWOOD AVE	08/11/14 11:11	08/11/14

Project Name: 14-121477.2 **Lab Number:** L1418076
Project Number: 14-121477.2 **Report Date:** 08/18/14

Case Narrative

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

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

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

Please contact Client Services at 800-624-9220 with any questions.

Project Name:	14-121477.2	**Lab Number:**	L1418076
Project Number:	14-121477.2	**Report Date:**	08/18/14

Case Narrative (continued)

Report Submission

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

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

Authorized Signature: Michelle M. Morris

Title: Technical Director/Representative Date: 08/18/14

ORGANICS

VOLATILES

Project Name: 14-121477.2 **Lab Number:** L1418076

Project Number: 14-121477.2 **Report Date:** 08/18/14

SAMPLE RESULTS

Lab ID: L1418076-01
Client ID: B-2 GW
Sample Location: 125 & 160 BEECHWOOD AVE
Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 08/13/14 17:44
Analyst: PD

Date Collected: 08/11/14 08:36
Date Received: 08/11/14
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.13	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	37		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.14	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.33	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	0.34	J	ug/l	0.50	0.14	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	2.0		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: 14-121477.2 **Lab Number:** L1418076

Project Number: 14-121477.2 **Report Date:** 08/18/14

SAMPLE RESULTS

Lab ID: L1418076-01 Date Collected: 08/11/14 08:36

Client ID: B-2 GW Date Received: 08/11/14

Sample Location: 125 & 160 BEECHWOOD AVE Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	0.70	J	ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	0.70	J	ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1

Project Name: 14-121477.2 **Lab Number:** L1418076

Project Number: 14-121477.2 **Report Date:** 08/18/14

SAMPLE RESULTS

Lab ID: L1418076-01 Date Collected: 08/11/14 08:36

Client ID: B-2 GW Date Received: 08/11/14

Sample Location: 125 & 160 BEECHWOOD AVE Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	41.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.65	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	105		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	106		70-130
Dibromofluoromethane	98		70-130

Project Name: 14-121477.2 **Lab Number:** L1418076

Project Number: 14-121477.2 **Report Date:** 08/18/14

SAMPLE RESULTS

Lab ID: L1418076-02
Client ID: B-3 GW
Sample Location: 125 & 160 BEECHWOOD AVE
Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 08/13/14 18:18
Analyst: PD

Date Collected: 08/11/14 10:16
Date Received: 08/11/14
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	56		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.13	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	32		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	0.47	J	ug/l	0.50	0.13	1
1,1,1-Trichloroethane	17		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.14	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	1.3		ug/l	1.0	0.33	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.14	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	12		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: 14-121477.2 **Lab Number:** L1418076

Project Number: 14-121477.2 **Report Date:** 08/18/14

SAMPLE RESULTS

Lab ID: L1418076-02 Date Collected: 08/11/14 10:16

Client ID: B-3 GW Date Received: 08/11/14

Sample Location: 125 & 160 BEECHWOOD AVE Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	23		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	23		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1

Project Name: 14-121477.2 **Lab Number:** L1418076

Project Number: 14-121477.2 **Report Date:** 08/18/14

SAMPLE RESULTS

Lab ID: L1418076-02 Date Collected: 08/11/14 10:16

Client ID: B-3 GW Date Received: 08/11/14

Sample Location: 125 & 160 BEECHWOOD AVE Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	41.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.65	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	103		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	105		70-130
Dibromofluoromethane	99		70-130

Project Name: 14-121477.2 **Lab Number:** L1418076

Project Number: 14-121477.2 **Report Date:** 08/18/14

SAMPLE RESULTS

Lab ID: L1418076-03 D
Client ID: B-4 GW
Sample Location: 125 & 160 BEECHWOOD AVE
Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 08/13/14 16:35
Analyst: PD

Date Collected: 08/11/14 12:16
Date Received: 08/11/14
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	120	35.	50
1,1-Dichloroethane	74	J	ug/l	120	35.	50
Chloroform	ND		ug/l	120	35.	50
Carbon tetrachloride	ND		ug/l	25	6.7	50
1,2-Dichloropropane	ND		ug/l	50	6.6	50
Dibromochloromethane	ND		ug/l	25	7.4	50
1,1,2-Trichloroethane	ND		ug/l	75	25.	50
Tetrachloroethene	4800		ug/l	25	9.0	50
Chlorobenzene	ND		ug/l	120	35.	50
Trichlorofluoromethane	ND		ug/l	120	35.	50
1,2-Dichloroethane	ND		ug/l	25	6.6	50
1,1,1-Trichloroethane	2100		ug/l	120	35.	50
Bromodichloromethane	ND		ug/l	25	9.6	50
trans-1,3-Dichloropropene	ND		ug/l	25	8.2	50
cis-1,3-Dichloropropene	ND		ug/l	25	7.2	50
1,3-Dichloropropene, Total	ND		ug/l	25	7.2	50
1,1-Dichloropropene	ND		ug/l	120	35.	50
Bromoform	ND		ug/l	100	32.	50
1,1,2,2-Tetrachloroethane	ND		ug/l	25	7.2	50
Benzene	ND		ug/l	25	8.0	50
Toluene	ND		ug/l	120	35.	50
Ethylbenzene	ND		ug/l	120	35.	50
Chloromethane	ND		ug/l	120	35.	50
Bromomethane	ND		ug/l	120	35.	50
Vinyl chloride	ND		ug/l	50	16.	50
Chloroethane	ND		ug/l	120	35.	50
1,1-Dichloroethene	340		ug/l	25	7.1	50
trans-1,2-Dichloroethene	ND		ug/l	120	35.	50
Trichloroethene	1000		ug/l	25	8.8	50
1,2-Dichlorobenzene	ND		ug/l	120	35.	50

Project Name: 14-121477.2 **Lab Number:** L1418076

Project Number: 14-121477.2 **Report Date:** 08/18/14

SAMPLE RESULTS

Lab ID: L1418076-03 D
Client ID: B-4 GW
Sample Location: 125 & 160 BEECHWOOD AVE

Date Collected: 08/11/14 12:16
Date Received: 08/11/14
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	120	35.	50
1,4-Dichlorobenzene	ND		ug/l	120	35.	50
Methyl tert butyl ether	ND		ug/l	120	35.	50
p/m-Xylene	ND		ug/l	120	35.	50
o-Xylene	ND		ug/l	120	35.	50
Xylenes, Total	ND		ug/l	120	35.	50
cis-1,2-Dichloroethene	110	J	ug/l	120	35.	50
1,2-Dichloroethene, Total	110	J	ug/l	120	35.	50
Dibromomethane	ND		ug/l	250	50.	50
1,2,3-Trichloropropane	ND		ug/l	120	35.	50
Acrylonitrile	ND		ug/l	250	75.	50
Styrene	ND		ug/l	120	35.	50
Dichlorodifluoromethane	ND		ug/l	250	50.	50
Acetone	ND		ug/l	250	73.	50
Carbon disulfide	ND		ug/l	250	50.	50
2-Butanone	ND		ug/l	250	97.	50
Vinyl acetate	ND		ug/l	250	50.	50
4-Methyl-2-pentanone	ND		ug/l	250	50.	50
2-Hexanone	ND		ug/l	250	50.	50
Bromochloromethane	ND		ug/l	120	35.	50
2,2-Dichloropropane	ND		ug/l	120	35.	50
1,2-Dibromoethane	ND		ug/l	100	32.	50
1,3-Dichloropropane	ND		ug/l	120	35.	50
1,1,1,2-Tetrachloroethane	ND		ug/l	120	35.	50
Bromobenzene	ND		ug/l	120	35.	50
n-Butylbenzene	ND		ug/l	120	35.	50
sec-Butylbenzene	ND		ug/l	120	35.	50
tert-Butylbenzene	ND		ug/l	120	35.	50
o-Chlorotoluene	ND		ug/l	120	35.	50
p-Chlorotoluene	ND		ug/l	120	35.	50
1,2-Dibromo-3-chloropropane	ND		ug/l	120	35.	50
Hexachlorobutadiene	ND		ug/l	120	35.	50
Isopropylbenzene	ND		ug/l	120	35.	50
p-Isopropyltoluene	ND		ug/l	120	35.	50
Naphthalene	ND		ug/l	120	35.	50
n-Propylbenzene	ND		ug/l	120	35.	50
1,2,3-Trichlorobenzene	ND		ug/l	120	35.	50
1,2,4-Trichlorobenzene	ND		ug/l	120	35.	50
1,3,5-Trimethylbenzene	ND		ug/l	120	35.	50

Project Name: 14-121477.2 **Lab Number:** L1418076

Project Number: 14-121477.2 **Report Date:** 08/18/14

SAMPLE RESULTS

Lab ID: L1418076-03 D
Client ID: B-4 GW
Sample Location: 125 & 160 BEECHWOOD AVE

Date Collected: 08/11/14 12:16
Date Received: 08/11/14
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,2,4-Trimethylbenzene	ND		ug/l	120	35.	50
1,4-Dioxane	ND		ug/l	12000	2000	50
p-Diethylbenzene	ND		ug/l	100	35.	50
p-Ethyltoluene	ND		ug/l	100	35.	50
1,2,4,5-Tetramethylbenzene	ND		ug/l	100	32.	50
Ethyl ether	ND		ug/l	120	35.	50
trans-1,4-Dichloro-2-butene	ND		ug/l	120	35.	50

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	102		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	104		70-130
Dibromofluoromethane	98		70-130

Project Name: 14-121477.2 **Lab Number:** L1418076

Project Number: 14-121477.2 **Report Date:** 08/18/14

SAMPLE RESULTS

Lab ID: L1418076-04 D
Client ID: B-8 GW
Sample Location: 125 & 160 BEECHWOOD AVE
Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 08/13/14 17:10
Analyst: PD

Date Collected: 08/11/14 11:11
Date Received: 08/11/14
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	25	7.0	10
1,1-Dichloroethane	90		ug/l	25	7.0	10
Chloroform	ND		ug/l	25	7.0	10
Carbon tetrachloride	ND		ug/l	5.0	1.3	10
1,2-Dichloropropane	ND		ug/l	10	1.3	10
Dibromochloromethane	ND		ug/l	5.0	1.5	10
1,1,2-Trichloroethane	ND		ug/l	15	5.0	10
Tetrachloroethene	180		ug/l	5.0	1.8	10
Chlorobenzene	ND		ug/l	25	7.0	10
Trichlorofluoromethane	ND		ug/l	25	7.0	10
1,2-Dichloroethane	ND		ug/l	5.0	1.3	10
1,1,1-Trichloroethane	930		ug/l	25	7.0	10
Bromodichloromethane	ND		ug/l	5.0	1.9	10
trans-1,3-Dichloropropene	ND		ug/l	5.0	1.6	10
cis-1,3-Dichloropropene	ND		ug/l	5.0	1.4	10
1,3-Dichloropropene, Total	ND		ug/l	5.0	1.4	10
1,1-Dichloropropene	ND		ug/l	25	7.0	10
Bromoform	ND		ug/l	20	6.5	10
1,1,2,2-Tetrachloroethane	ND		ug/l	5.0	1.4	10
Benzene	ND		ug/l	5.0	1.6	10
Toluene	ND		ug/l	25	7.0	10
Ethylbenzene	ND		ug/l	25	7.0	10
Chloromethane	ND		ug/l	25	7.0	10
Bromomethane	ND		ug/l	25	7.0	10
Vinyl chloride	ND		ug/l	10	3.3	10
Chloroethane	ND		ug/l	25	7.0	10
1,1-Dichloroethene	380		ug/l	5.0	1.4	10
trans-1,2-Dichloroethene	ND		ug/l	25	7.0	10
Trichloroethene	30		ug/l	5.0	1.8	10
1,2-Dichlorobenzene	ND		ug/l	25	7.0	10

Project Name: 14-121477.2 **Lab Number:** L1418076

Project Number: 14-121477.2 **Report Date:** 08/18/14

SAMPLE RESULTS

Lab ID: L1418076-04 D
Client ID: B-8 GW
Sample Location: 125 & 160 BEECHWOOD AVE

Date Collected: 08/11/14 11:11
Date Received: 08/11/14
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	25	7.0	10
1,4-Dichlorobenzene	ND		ug/l	25	7.0	10
Methyl tert butyl ether	ND		ug/l	25	7.0	10
p/m-Xylene	ND		ug/l	25	7.0	10
o-Xylene	ND		ug/l	25	7.0	10
Xylenes, Total	ND		ug/l	25	7.0	10
cis-1,2-Dichloroethene	42		ug/l	25	7.0	10
1,2-Dichloroethene, Total	42		ug/l	25	7.0	10
Dibromomethane	ND		ug/l	50	10.	10
1,2,3-Trichloropropane	ND		ug/l	25	7.0	10
Acrylonitrile	ND		ug/l	50	15.	10
Styrene	ND		ug/l	25	7.0	10
Dichlorodifluoromethane	ND		ug/l	50	10.	10
Acetone	ND		ug/l	50	15.	10
Carbon disulfide	ND		ug/l	50	10.	10
2-Butanone	ND		ug/l	50	19.	10
Vinyl acetate	ND		ug/l	50	10.	10
4-Methyl-2-pentanone	ND		ug/l	50	10.	10
2-Hexanone	ND		ug/l	50	10.	10
Bromochloromethane	ND		ug/l	25	7.0	10
2,2-Dichloropropane	ND		ug/l	25	7.0	10
1,2-Dibromoethane	ND		ug/l	20	6.5	10
1,3-Dichloropropane	ND		ug/l	25	7.0	10
1,1,1,2-Tetrachloroethane	ND		ug/l	25	7.0	10
Bromobenzene	ND		ug/l	25	7.0	10
n-Butylbenzene	ND		ug/l	25	7.0	10
sec-Butylbenzene	ND		ug/l	25	7.0	10
tert-Butylbenzene	ND		ug/l	25	7.0	10
o-Chlorotoluene	ND		ug/l	25	7.0	10
p-Chlorotoluene	ND		ug/l	25	7.0	10
1,2-Dibromo-3-chloropropane	ND		ug/l	25	7.0	10
Hexachlorobutadiene	ND		ug/l	25	7.0	10
Isopropylbenzene	ND		ug/l	25	7.0	10
p-Isopropyltoluene	ND		ug/l	25	7.0	10
Naphthalene	ND		ug/l	25	7.0	10
n-Propylbenzene	ND		ug/l	25	7.0	10
1,2,3-Trichlorobenzene	ND		ug/l	25	7.0	10
1,2,4-Trichlorobenzene	ND		ug/l	25	7.0	10
1,3,5-Trimethylbenzene	ND		ug/l	25	7.0	10

Project Name: 14-121477.2 **Lab Number:** L1418076

Project Number: 14-121477.2 **Report Date:** 08/18/14

SAMPLE RESULTS

Lab ID: L1418076-04 D
Client ID: B-8 GW
Sample Location: 125 & 160 BEECHWOOD AVE

Date Collected: 08/11/14 11:11
Date Received: 08/11/14
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,2,4-Trimethylbenzene	ND		ug/l	25	7.0	10
1,4-Dioxane	ND		ug/l	2500	410	10
p-Diethylbenzene	ND		ug/l	20	7.0	10
p-Ethyltoluene	ND		ug/l	20	7.0	10
1,2,4,5-Tetramethylbenzene	ND		ug/l	20	6.5	10
Ethyl ether	ND		ug/l	25	7.0	10
trans-1,4-Dichloro-2-butene	ND		ug/l	25	7.0	10

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	104		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	105		70-130
Dibromofluoromethane	99		70-130

Project Name: 14-121477.2 **Lab Number:** L1418076

Project Number: 14-121477.2 **Report Date:** 08/18/14

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 08/13/14 11:27
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-04 Batch: WG713700-3					
Methylene chloride	ND		ug/l	2.5	0.70
1,1-Dichloroethane	ND		ug/l	2.5	0.70
Chloroform	ND		ug/l	2.5	0.70
Carbon tetrachloride	ND		ug/l	0.50	0.13
1,2-Dichloropropane	ND		ug/l	1.0	0.13
Dibromochloromethane	ND		ug/l	0.50	0.15
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50
Tetrachloroethene	ND		ug/l	0.50	0.18
Chlorobenzene	ND		ug/l	2.5	0.70
Trichlorofluoromethane	ND		ug/l	2.5	0.70
1,2-Dichloroethane	ND		ug/l	0.50	0.13
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70
Bromodichloromethane	ND		ug/l	0.50	0.19
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14
1,1-Dichloropropene	ND		ug/l	2.5	0.70
Bromoform	ND		ug/l	2.0	0.65
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.14
Benzene	ND		ug/l	0.50	0.16
Toluene	ND		ug/l	2.5	0.70
Ethylbenzene	ND		ug/l	2.5	0.70
Chloromethane	ND		ug/l	2.5	0.70
Bromomethane	ND		ug/l	2.5	0.70
Vinyl chloride	ND		ug/l	1.0	0.33
Chloroethane	ND		ug/l	2.5	0.70
1,1-Dichloroethene	ND		ug/l	0.50	0.14
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70
Trichloroethene	ND		ug/l	0.50	0.18

Project Name: 14-121477.2 **Lab Number:** L1418076

Project Number: 14-121477.2 **Report Date:** 08/18/14

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 08/13/14 11:27
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-04 Batch: WG713700-3					
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70
Methyl tert butyl ether	ND		ug/l	2.5	0.70
p/m-Xylene	ND		ug/l	2.5	0.70
o-Xylene	ND		ug/l	2.5	0.70
Xylenes, Total	ND		ug/l	2.5	0.70
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70
Dibromomethane	ND		ug/l	5.0	1.0
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70
Acrylonitrile	ND		ug/l	5.0	1.5
Styrene	ND		ug/l	2.5	0.70
Dichlorodifluoromethane	ND		ug/l	5.0	1.0
Acetone	ND		ug/l	5.0	1.5
Carbon disulfide	ND		ug/l	5.0	1.0
2-Butanone	ND		ug/l	5.0	1.9
Vinyl acetate	ND		ug/l	5.0	1.0
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0
2-Hexanone	ND		ug/l	5.0	1.0
Bromochloromethane	ND		ug/l	2.5	0.70
2,2-Dichloropropane	ND		ug/l	2.5	0.70
1,2-Dibromoethane	ND		ug/l	2.0	0.65
1,3-Dichloropropane	ND		ug/l	2.5	0.70
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70
Bromobenzene	ND		ug/l	2.5	0.70
n-Butylbenzene	ND		ug/l	2.5	0.70
sec-Butylbenzene	ND		ug/l	2.5	0.70
tert-Butylbenzene	ND		ug/l	2.5	0.70

Project Name: 14-121477.2 **Lab Number:** L1418076

Project Number: 14-121477.2 **Report Date:** 08/18/14

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 08/13/14 11:27
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-04 Batch: WG713700-3					
o-Chlorotoluene	ND		ug/l	2.5	0.70
p-Chlorotoluene	ND		ug/l	2.5	0.70
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70
Hexachlorobutadiene	ND		ug/l	2.5	0.70
Isopropylbenzene	ND		ug/l	2.5	0.70
p-Isopropyltoluene	ND		ug/l	2.5	0.70
Naphthalene	ND		ug/l	2.5	0.70
n-Propylbenzene	ND		ug/l	2.5	0.70
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70
1,4-Dioxane	ND		ug/l	250	41.
p-Diethylbenzene	ND		ug/l	2.0	0.70
p-Ethyltoluene	ND		ug/l	2.0	0.70
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.65
Ethyl ether	ND		ug/l	2.5	0.70
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	101		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	106		70-130
Dibromofluoromethane	98		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: 14-121477.2

Project Number: 14-121477.2

Lab Number: L1418076

Report Date: 08/18/14

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-04 Batch: WG713700-1 WG713700-2								
Methylene chloride	81		80		70-130	1		20
1,1-Dichloroethane	88		86		70-130	2		20
Chloroform	90		88		70-130	2		20
Carbon tetrachloride	82		77		63-132	6		20
1,2-Dichloropropane	94		93		70-130	1		20
Dibromochloromethane	92		91		63-130	1		20
1,1,2-Trichloroethane	101		100		70-130	1		20
Tetrachloroethene	89		86		70-130	3		20
Chlorobenzene	98		96		75-130	2		20
Trichlorofluoromethane	78		73		62-150	7		20
1,2-Dichloroethane	90		89		70-130	1		20
1,1,1-Trichloroethane	84		81		67-130	4		20
Bromodichloromethane	93		90		67-130	3		20
trans-1,3-Dichloropropene	97		93		70-130	4		20
cis-1,3-Dichloropropene	94		91		70-130	3		20
1,1-Dichloropropene	84		82		70-130	2		20
Bromoform	92		90		54-136	2		20
1,1,2,2-Tetrachloroethane	102		101		67-130	1		20
Benzene	90		88		70-130	2		20
Toluene	96		94		70-130	2		20
Ethylbenzene	102		99		70-130	3		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: 14-121477.2

Project Number: 14-121477.2

Lab Number: L1418076

Report Date: 08/18/14

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-04 Batch: WG713700-1 WG713700-2								
Chloromethane	127		**57**	Q	64-130	**76**	Q	20
Bromomethane	**181**	Q	**175**	Q	39-139	3		20
Vinyl chloride	91		88		55-140	3		20
Chloroethane	85		72		55-138	17		20
1,1-Dichloroethene	81		77		61-145	5		20
trans-1,2-Dichloroethene	82		81		70-130	1		20
Trichloroethene	89		86		70-130	3		20
1,2-Dichlorobenzene	100		99		70-130	1		20
1,3-Dichlorobenzene	100		98		70-130	2		20
1,4-Dichlorobenzene	99		97		70-130	2		20
Methyl tert butyl ether	82		81		63-130	1		20
p/m-Xylene	102		99		70-130	3		20
o-Xylene	105		102		70-130	3		20
cis-1,2-Dichloroethene	87		85		70-130	2		20
Dibromomethane	91		91		70-130	0		20
1,2,3-Trichloropropane	98		98		64-130	0		20
Acrylonitrile	86		83		70-130	4		20
Styrene	111		108		70-130	3		20
Dichlorodifluoromethane	87		81		36-147	7		20
Acetone	82		74		58-148	10		20
Carbon disulfide	80		75		51-130	6		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: 14-121477.2

Project Number: 14-121477.2

Lab Number: L1418076

Report Date: 08/18/14

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-04 Batch: WG713700-1 WG713700-2								
2-Butanone	84		78		63-138	7		20
Vinyl acetate	85		82		70-130	4		20
4-Methyl-2-pentanone	93		91		59-130	2		20
2-Hexanone	93		90		57-130	3		20
Bromochloromethane	94		91		70-130	3		20
2,2-Dichloropropane	81		76		63-133	6		20
1,2-Dibromoethane	95		94		70-130	1		20
1,3-Dichloropropane	97		96		70-130	1		20
1,1,1,2-Tetrachloroethane	101		99		64-130	2		20
Bromobenzene	100		99		70-130	1		20
n-Butylbenzene	98		90		53-136	9		20
sec-Butylbenzene	104		100		70-130	4		20
tert-Butylbenzene	102		98		70-130	4		20
o-Chlorotoluene	102		99		70-130	3		20
p-Chlorotoluene	103		101		70-130	2		20
1,2-Dibromo-3-chloropropane	91		86		41-144	6		20
Hexachlorobutadiene	98		89		63-130	10		20
Isopropylbenzene	101		98		70-130	3		20
p-Isopropyltoluene	100		94		70-130	6		20
Naphthalene	92		82		70-130	11		20
n-Propylbenzene	105		102		69-130	3		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: 14-121477.2

Project Number: 14-121477.2

Lab Number: L1418076

Report Date: 08/18/14

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-04 Batch: WG713700-1 WG713700-2								
1,2,3-Trichlorobenzene	93		85		70-130	9		20
1,2,4-Trichlorobenzene	91		83		70-130	9		20
1,3,5-Trimethylbenzene	103		100		64-130	3		20
1,2,4-Trimethylbenzene	100		95		70-130	5		20
1,4-Dioxane	84		79		56-162	6		20
p-Diethylbenzene	102		95		70-130	7		20
p-Ethyltoluene	104		100		70-130	4		20
1,2,4,5-Tetramethylbenzene	98		90		70-130	9		20
Ethyl ether	81		77		59-134	5		20
trans-1,4-Dichloro-2-butene	99		98		70-130	1		20

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

SEMIVOLATILES

Project Name: 14-121477.2 **Lab Number:** L1418076

Project Number: 14-121477.2 **Report Date:** 08/18/14

SAMPLE RESULTS

Lab ID:	L1418076-01	Date Collected:	08/11/14 08:36
Client ID:	B-2 GW	Date Received:	08/11/14
Sample Location:	125 & 160 BEECHWOOD AVE	Field Prep:	Not Specified
Matrix:	Water	Extraction Method:	EPA 3510C
Analytical Method:	1,8270D-SIM	Extraction Date:	08/13/14 00:01
Analytical Date:	08/14/14 17:26		
Analyst:	MW		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						
Acenaphthene	ND		ug/l	0.20	0.06	1
2-Chloronaphthalene	ND		ug/l	0.20	0.07	1
Fluoranthene	0.08	J	ug/l	0.20	0.04	1
Naphthalene	ND		ug/l	0.20	0.06	1
Benzo(a)anthracene	ND		ug/l	0.20	0.06	1
Benzo(a)pyrene	0.10	J	ug/l	0.20	0.07	1
Benzo(b)fluoranthene	0.07	J	ug/l	0.20	0.07	1
Benzo(k)fluoranthene	ND		ug/l	0.20	0.07	1
Chrysene	ND		ug/l	0.20	0.05	1
Acenaphthylene	ND		ug/l	0.20	0.05	1
Anthracene	ND		ug/l	0.20	0.06	1
Benzo(ghi)perylene	ND		ug/l	0.20	0.07	1
Fluorene	ND		ug/l	0.20	0.06	1
Phenanthrene	ND		ug/l	0.20	0.06	1
Dibenzo(a,h)anthracene	ND		ug/l	0.20	0.07	1
Indeno(1,2,3-cd)Pyrene	0.14	J	ug/l	0.20	0.08	1
Pyrene	0.07	J	ug/l	0.20	0.06	1
2-Methylnaphthalene	ND		ug/l	0.20	0.06	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	86		23-120
2-Fluorobiphenyl	88		15-120
4-Terphenyl-d14	100		41-149

Project Name: 14-121477.2 **Lab Number:** L1418076

Project Number: 14-121477.2 **Report Date:** 08/18/14

SAMPLE RESULTS

Lab ID:	L1418076-02	Date Collected:	08/11/14 10:16
Client ID:	B-3 GW	Date Received:	08/11/14
Sample Location:	125 & 160 BEECHWOOD AVE	Field Prep:	Not Specified
Matrix:	Water	Extraction Method:	EPA 3510C
Analytical Method:	1,8270D-SIM	Extraction Date:	08/13/14 00:01
Analytical Date:	08/14/14 17:54		
Analyst:	MW		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						
Acenaphthene	ND		ug/l	0.20	0.06	1
2-Chloronaphthalene	ND		ug/l	0.20	0.07	1
Fluoranthene	ND		ug/l	0.20	0.04	1
Naphthalene	ND		ug/l	0.20	0.06	1
Benzo(a)anthracene	ND		ug/l	0.20	0.06	1
Benzo(a)pyrene	ND		ug/l	0.20	0.07	1
Benzo(b)fluoranthene	ND		ug/l	0.20	0.07	1
Benzo(k)fluoranthene	ND		ug/l	0.20	0.07	1
Chrysene	ND		ug/l	0.20	0.05	1
Acenaphthylene	ND		ug/l	0.20	0.05	1
Anthracene	ND		ug/l	0.20	0.06	1
Benzo(ghi)perylene	ND		ug/l	0.20	0.07	1
Fluorene	ND		ug/l	0.20	0.06	1
Phenanthrene	ND		ug/l	0.20	0.06	1
Dibenzo(a,h)anthracene	ND		ug/l	0.20	0.07	1
Indeno(1,2,3-cd)Pyrene	ND		ug/l	0.20	0.08	1
Pyrene	ND		ug/l	0.20	0.06	1
2-Methylnaphthalene	ND		ug/l	0.20	0.06	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	86		23-120
2-Fluorobiphenyl	86		15-120
4-Terphenyl-d14	95		41-149

Project Name: 14-121477.2 **Lab Number:** L1418076

Project Number: 14-121477.2 **Report Date:** 08/18/14

SAMPLE RESULTS

Lab ID:	L1418076-03	Date Collected:	08/11/14 12:16
Client ID:	B-4 GW	Date Received:	08/11/14
Sample Location:	125 & 160 BEECHWOOD AVE	Field Prep:	Not Specified
Matrix:	Water	Extraction Method:	EPA 3510C
Analytical Method:	1,8270D-SIM	Extraction Date:	08/13/14 00:01
Analytical Date:	08/14/14 18:24		
Analyst:	MW		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						
Acenaphthene	0.11	J	ug/l	0.20	0.06	1
2-Chloronaphthalene	ND		ug/l	0.20	0.07	1
Fluoranthene	0.11	J	ug/l	0.20	0.04	1
Naphthalene	0.20		ug/l	0.20	0.06	1
Benzo(a)anthracene	ND		ug/l	0.20	0.06	1
Benzo(a)pyrene	ND		ug/l	0.20	0.07	1
Benzo(b)fluoranthene	ND		ug/l	0.20	0.07	1
Benzo(k)fluoranthene	ND		ug/l	0.20	0.07	1
Chrysene	ND		ug/l	0.20	0.05	1
Acenaphthylene	ND		ug/l	0.20	0.05	1
Anthracene	ND		ug/l	0.20	0.06	1
Benzo(ghi)perylene	ND		ug/l	0.20	0.07	1
Fluorene	0.09	J	ug/l	0.20	0.06	1
Phenanthrene	0.37		ug/l	0.20	0.06	1
Dibenzo(a,h)anthracene	ND		ug/l	0.20	0.07	1
Indeno(1,2,3-cd)Pyrene	ND		ug/l	0.20	0.08	1
Pyrene	0.07	J	ug/l	0.20	0.06	1
2-Methylnaphthalene	ND		ug/l	0.20	0.06	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	77		23-120
2-Fluorobiphenyl	74		15-120
4-Terphenyl-d14	86		41-149

Project Name: 14-121477.2 **Lab Number:** L1418076

Project Number: 14-121477.2 **Report Date:** 08/18/14

SAMPLE RESULTS

Lab ID: L1418076-04
Client ID: B-8 GW
Sample Location: 125 & 160 BEECHWOOD AVE
Matrix: Water
Analytical Method: 1,8270D-SIM
Analytical Date: 08/14/14 18:54
Analyst: MW

Date Collected: 08/11/14 11:11
Date Received: 08/11/14
Field Prep: Not Specified
Extraction Method: EPA 3510C
Extraction Date: 08/13/14 00:01

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						
Acenaphthene	ND		ug/l	0.20	0.06	1
2-Chloronaphthalene	ND		ug/l	0.20	0.07	1
Fluoranthene	ND		ug/l	0.20	0.04	1
Naphthalene	ND		ug/l	0.20	0.06	1
Benzo(a)anthracene	ND		ug/l	0.20	0.06	1
Benzo(a)pyrene	ND		ug/l	0.20	0.07	1
Benzo(b)fluoranthene	ND		ug/l	0.20	0.07	1
Benzo(k)fluoranthene	ND		ug/l	0.20	0.07	1
Chrysene	ND		ug/l	0.20	0.05	1
Acenaphthylene	ND		ug/l	0.20	0.05	1
Anthracene	ND		ug/l	0.20	0.06	1
Benzo(ghi)perylene	ND		ug/l	0.20	0.07	1
Fluorene	ND		ug/l	0.20	0.06	1
Phenanthrene	ND		ug/l	0.20	0.06	1
Dibenzo(a,h)anthracene	ND		ug/l	0.20	0.07	1
Indeno(1,2,3-cd)Pyrene	ND		ug/l	0.20	0.08	1
Pyrene	ND		ug/l	0.20	0.06	1
2-Methylnaphthalene	ND		ug/l	0.20	0.06	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	86		23-120
2-Fluorobiphenyl	84		15-120
4-Terphenyl-d14	87		41-149

Project Name: 14-121477.2 **Lab Number:** L1418076

Project Number: 14-121477.2 **Report Date:** 08/18/14

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D-SIM
Analytical Date: 08/14/14 15:26
Analyst: MW

Extraction Method: EPA 3510C
Extraction Date: 08/13/14 00:01

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS-SIM - Westborough Lab for sample(s): 01-04 Batch: WG713337-1					
Acenaphthene	ND		ug/l	0.20	0.06
2-Chloronaphthalene	ND		ug/l	0.20	0.07
Fluoranthene	ND		ug/l	0.20	0.04
Hexachlorobutadiene	ND		ug/l	0.50	0.07
Naphthalene	ND		ug/l	0.20	0.06
Benzo(a)anthracene	ND		ug/l	0.20	0.06
Benzo(a)pyrene	ND		ug/l	0.20	0.07
Benzo(b)fluoranthene	ND		ug/l	0.20	0.07
Benzo(k)fluoranthene	ND		ug/l	0.20	0.07
Chrysene	ND		ug/l	0.20	0.05
Acenaphthylene	ND		ug/l	0.20	0.05
Anthracene	ND		ug/l	0.20	0.06
Benzo(ghi)perylene	ND		ug/l	0.20	0.07
Fluorene	ND		ug/l	0.20	0.06
Phenanthrene	ND		ug/l	0.20	0.06
Dibenzo(a,h)anthracene	ND		ug/l	0.20	0.07
Indeno(1,2,3-cd)Pyrene	ND		ug/l	0.20	0.08
Pyrene	ND		ug/l	0.20	0.06
2-Methylnaphthalene	ND		ug/l	0.20	0.06
Pentachlorophenol	ND		ug/l	0.80	0.19
Hexachlorobenzene	ND		ug/l	0.80	0.01
Hexachloroethane	0.08	J	ug/l	0.80	0.07

Project Name: 14-121477.2
Project Number: 14-121477.2

Lab Number: L1418076
Report Date: 08/18/14

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D-SIM
Analytical Date: 08/14/14 15:26
Analyst: MW

Extraction Method: EPA 3510C
Extraction Date: 08/13/14 00:01

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS-SIM - Westborough Lab for sample(s): 01-04 Batch: WG713337-1					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	41		21-120
Phenol-d6	30		10-120
Nitrobenzene-d5	70		23-120
2-Fluorobiphenyl	64		15-120
2,4,6-Tribromophenol	72		10-120
4-Terphenyl-d14	70		41-149

Lab Control Sample Analysis

Batch Quality Control

Project Name: 14-121477.2

Project Number: 14-121477.2

Lab Number: L1418076

Report Date: 08/18/14

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 01-04 Batch: WG713337-2 WG713337-3								
Acenaphthene	65		60		37-111	8		40
2-Chloronaphthalene	65		57		40-140	13		40
Fluoranthene	80		76		40-140	5		40
Hexachlorobutadiene	66		56		40-140	16		40
Naphthalene	63		56		40-140	12		40
Benzo(a)anthracene	86		84		40-140	2		40
Benzo(a)pyrene	78		74		40-140	5		40
Benzo(b)fluoranthene	81		79		40-140	3		40
Benzo(k)fluoranthene	75		74		40-140	1		40
Chrysene	76		76		40-140	0		40
Acenaphthylene	76		67		40-140	13		40
Anthracene	76		72		40-140	5		40
Benzo(ghi)perylene	55		50		40-140	10		40
Fluorene	70		67		40-140	4		40
Phenanthrene	71		67		40-140	6		40
Dibenzo(a,h)anthracene	64		61		40-140	5		40
Indeno(1,2,3-cd)Pyrene	62		56		40-140	10		40
Pyrene	80		76		26-127	5		40
2-Methylnaphthalene	67		60		40-140	11		40
Pentachlorophenol	77		73		9-103	5		40
Hexachlorobenzene	78		70		40-140	11		40

Lab Control Sample Analysis

Batch Quality Control

Project Name: 14-121477.2

Project Number: 14-121477.2

Lab Number: L1418076

Report Date: 08/18/14

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 01-04 Batch: WG713337-2 WG713337-3								
Hexachloroethane	61		59		40-140	3		40

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	39		38		21-120
Phenol-d6	31		28		10-120
Nitrobenzene-d5	68		64		23-120
2-Fluorobiphenyl	72		63		15-120
2,4,6-Tribromophenol	78		74		10-120
4-Terphenyl-d14	75		70		41-149

Project Name: 14-121477.2
Project Number: 14-121477.2

Lab Number: L1418076
Report Date: 08/18/14

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information Custody Seal

Cooler	
A	Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1418076-01A	Vial HCl preserved	A	N/A	2.9	Y	Absent	NYTCL-8260(14)
L1418076-01B	Vial HCl preserved	A	N/A	2.9	Y	Absent	NYTCL-8260(14)
L1418076-01C	Vial HCl preserved	A	N/A	2.9	Y	Absent	NYTCL-8260(14)
L1418076-01D	Amber 1000ml unpreserved	A	7	2.9	Y	Absent	NYTCL-8270-SIM(7)
L1418076-01E	Amber 1000ml unpreserved	A	7	2.9	Y	Absent	NYTCL-8270-SIM(7)
L1418076-02A	Vial HCl preserved	A	N/A	2.9	Y	Absent	NYTCL-8260(14)
L1418076-02B	Vial HCl preserved	A	N/A	2.9	Y	Absent	NYTCL-8260(14)
L1418076-02C	Vial HCl preserved	A	N/A	2.9	Y	Absent	NYTCL-8260(14)
L1418076-02D	Amber 1000ml unpreserved	A	7	2.9	Y	Absent	NYTCL-8270-SIM(7)
L1418076-02E	Amber 1000ml unpreserved	A	7	2.9	Y	Absent	NYTCL-8270-SIM(7)
L1418076-03A	Vial HCl preserved	A	N/A	2.9	Y	Absent	NYTCL-8260(14)
L1418076-03B	Vial HCl preserved	A	N/A	2.9	Y	Absent	NYTCL-8260(14)
L1418076-03C	Vial HCl preserved	A	N/A	2.9	Y	Absent	NYTCL-8260(14)
L1418076-03D	Amber 1000ml unpreserved	A	7	2.9	Y	Absent	NYTCL-8270-SIM(7)
L1418076-03E	Amber 1000ml unpreserved	A	7	2.9	Y	Absent	NYTCL-8270-SIM(7)
L1418076-04A	Vial HCl preserved	A	N/A	2.9	Y	Absent	NYTCL-8260(14)
L1418076-04B	Vial HCl preserved	A	N/A	2.9	Y	Absent	NYTCL-8260(14)
L1418076-04C	Vial HCl preserved	A	N/A	2.9	Y	Absent	NYTCL-8260(14)
L1418076-04D	Amber 1000ml unpreserved	A	7	2.9	Y	Absent	NYTCL-8270-SIM(7)
L1418076-04E	Amber 1000ml unpreserved	A	7	2.9	Y	Absent	NYTCL-8270-SIM(7)

*Values in parentheses indicate holding time in days

Project Name:	14-121477.2	**Lab Number:**	L1418076
Project Number:	14-121477.2	**Report Date:**	08/18/14

GLOSSARY

Acronyms

EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NI	- Not Ignitable.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

Footnotes

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

Terms

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

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

Data Qualifiers

A	- Spectra identified as "Aldol Condensation Product".
B	- The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit.
C	- Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
D	- Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
E	- Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
G	- The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

Report Format: DU Report with 'J' Qualifiers

Project Name:	14-121477.2	**Lab Number:**	L1418076
Project Number:	14-121477.2	**Report Date:**	08/18/14

Data Qualifiers

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with 'J' Qualifiers

Project Name:	14-121477.2	**Lab Number:**	L1418076
Project Number:	14-121477.2	**Report Date:**	08/18/14

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.

LIMITATION OF LIABILITIES

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

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

Certification Information

Last revised April 15, 2014

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

Westborough Facility
EPA 524.2: Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether.
EPA 8260C: 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene, Iodomethane (methyl iodide), Methyl methacrylate, Azobenzene.
EPA 8330A/B: PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT.
EPA 8270D: 1-Methylnaphthalene, Dimethylnaphthalene,1,4-Diphenylhydrazine.
EPA 625: 4-Chloroaniline, 4-Methylphenol.
SM4500: Soil: Total Phosphorus, TKN, NO2, NO3.
EPA 9071: Total Petroleum Hydrocarbons, Oil & Grease.

Mansfield Facility
EPA 8270D: Biphenyl.
EPA 2540D: TSS
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

The following analytes are included in our Massachusetts DEP Scope of Accreditation, Westborough Facility:

Drinking Water
EPA 200.8: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl; **EPA 200.7**: Ba,Be,Ca,Cd,Cr,Cu,Na; **EPA 245.1:** Mercury;
EPA 300.0: Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B**
EPA 332: Perchlorate.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, Enterolert-QT.**

Non-Potable Water
EPA 200.8: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn;
EPA 200.7: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn;
EPA 245.1, SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2340B, SM2320B, SM4500CL-E, SM4500F-BC, SM426C, SM4500NH3-BH, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **SM4500NO3-F, EPA 353.2**: Nitrate-N**, SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, SM4500P-B, E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.**
EPA 624: Volatile Halocarbons & Aromatics,
EPA 608: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9222D-MF**.

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

Revised COC - mmm 8/18/14

Serial_No:08181410:57

CHAIN OF CUSTODY

PAGE 1 OF 1

Date Rec'd in Lab: 8/11/14

ALPHA Job #: L1418076

ALPHA ANALYTICAL

WESTBORO, MA
TEL: 508-898-9220
FAX: 508-898-9193

MANSFIELD, MA
TEL: 508-822-9300
FAX: 508-822-3288

Client Information

Client: Partner Engineering & Science
Address: 1031 Farmington Ave
Farmington CT 06032
Phone: 1-800-49-4923
Fax: 1-866-928-7418
Email: jmarkowsky@partneresi.com

☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: 14-121477.2
Project Location: 125 & 160 Beechwood Ave New Rochelle NY 1081
Project #: 14-121477.2
Project Manager: Jodi Markowsky
ALPHA Quote #:

Turn-Around Time

☒ Standard 5 Days ☐ RUSH (only confirmed if pre-approved!)

Date Due: 8/18/14 Time:

Report Information - Data Deliverables

☐ FAX ☒ EMAIL
☒ ADEx ☐ Add'l Deliverables

Billing Information

☒ Same as Client info PO #:

Regulatory Requirements/Report Limits

State /Fed Program	Criteria
NYSDEC	

Other Project Specific Requirements/Comments/Detection Limits:

ANALYSIS: VOCs (8260B); Low Level PAHs (SIM) (8270C)

SAMPLE HANDLING

Filtration
☐ Done
☐ Not needed
☐ Lab to do
Preservation
☐ Lab to do
(Please specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	VOCs (8260B)	Low Level PAHs (SIM) (8270C)	Sample Specific Comments	TOTAL # BOTTLES
18076.1	B-2GW	8/11/14	8:36	GW	JL	X	X		
.2	B-3GW	8/11/14	10:16	GW	JL	X	X		
.3	B-4GW	8/11/14	12:16	GW	JL	X	X		
.4	B-8GW	8/11/14	1:11	GW	JL	X	X		

Container Type
Preservative

Relinquished By:	Date/Time	Received By:	Date/Time
[signature]	8/11/14 1740	[signature] AAL	8/11/14 1740
[signature]	8/11/14 1840	Tom Toher	8-11-14 1840
Tom Toher	8-11-14 2230	Richard Scott	8/11/14 2230

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

FORM NO: 01-01 (rev. 14-OCT-07)

Serial No:08181410:57

CHAIN OF CUSTODY

PAGE 1 OF 1

Date Rec'd in Lab: 8/11/14

ALPHA Job #: L1418076

ALPHA ANALYTICAL
WESTBORO, MA TEL: 508-898-9220 FAX: 508-898-9193
MANSFIELD, MA TEL: 508-822-9300 FAX: 508-822-3288

Client Information

Client: Partner Engineering & Science
Address: 1031 Farmington Ave
Farmington CT 06032
Phone: 1-800-419-4923
Fax: 1-866-928-7418
Email: jmarkowsky@partnerse.com

☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: 14-121477.2
Project Location: 125 & 160 Beechwood Ave New Rochelle NY 10801
Project #: 14-121477.2
Project Manager: Jodi Markowsky
ALPHA Quote #:

Turn-Around Time

☒ Standard 5 Days ☐ RUSH (only confirmed if pre-approved!)
Date Due: 8/18/14 Time:

Report Information - Data Deliverables

☐ FAX ☒ EMAIL
☒ ADEx ☐ Add'l Deliverables

Billing Information

☒ Same as Client info PO #:

Regulatory Requirements/Report Limits

State /Fed Program	Criteria
NYSDEC	

Other Project Specific Requirements/Comments/Detection Limits:

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	ANALYSIS: VOCs (8260B)	ANALYSIS: Low Level PAHs (GC) (8270C)	SAMPLE HANDLING	TOTAL # BOTTLES
1807(1	B-2GW	8/11/14	8:36	GW	JL	X	X		
-2	B-3GW	8/11/14	10:16	GW	JL	X			
-3	B-4GW	8/11/14	12:16	GW	JL	X	X		
-4	B-8GW	8/11/14	9:11	GW	JL	X			

SAMPLE HANDLING: *Filtration* ☐ Done ☐ Not needed ☐ Lab to do *Preservation* ☐ Lab to do (Please specify below)

Sample Specific Comments

Container Type																			
Preservative																			

Relinquished By:	Date/Time	Received By:	Date/Time
[signature]	8/11/14 1740	[signature] AAL	8/11/14 1740
[signature] Tom Tobin	8/11/14 1840	Tom Tobin	8-11-14 1840
[signature]	8-11-14 2230	Richard Scott	8/11/14 2230

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.