Brownfields Phase II Environmental Site Assessment
Congress and Main Redevelopment Project
10 Maiden Lane
10 and 12 Congress Street
83-87, 89, and 99 North Main Street
St. Albans, Vermont 05478

September 14, 2018

Prepared for:

City of St. Albans
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St. Albans, Vermont 05478

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LEE Project 18-112

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1.0 EXECUTIVE SUMMARY

LE Environmental LLC (LEE) was retained by the City of St. Albans to perform a Brownfields Phase II Environmental Site Assessment (ESA) at the Congress and Main Redevelopment project, located at 10 Maiden Lane, 10 and 12 Congress Street, 83-87, 89, and 99 Main Street in the City of St. Albans, Vermont (Site).

The Site consists of six separate parcels, totaling approximately 1-acre of land, with five buildings. The Site is located on the southeast corner of the intersection of North Main Street and Congress Street, in the downtown area of the City of St. Albans. The Site was developed prior to 1876, which was the oldest historical reference found to date. The 1876 development consisted of several buildings along North Main Street and Congress Street, and the Welden House Hotel along Maiden Lane. The Site remained similarly developed through 1896, when the Welden House burned down. Documented uses of the Site since 1884 have included retail shops (bicycling, groceries and fish, printing, harnesses, marble, auto parts, paint, glass and wallpaper, books, stationary), service shops (dry cleaning, auto sales and service with gasoline dispensing, barbers, tailors, doctors, dentists, and lawyers), manufacturing (machine shop, vulcanizing, millinery), and residential apartments.

LEE performed a Phase II ESA consisting of a soil, groundwater, and sub-slab soil vapor evaluation. The future plans for development of the Site include both commercial and residential uses. Therefore, all laboratory analytical data have been evaluated in the context of state and federal residential Site thresholds for contaminated media.

Soils at the Site consisted of sand with varying amounts of silt, overlaying a dense glacial till layer. Evidence of charred wood and ash were noted in the soil borings advanced at the northwest portion of the Site, in the gravel parking lot, where a building burned in the 1990s. Evidence of charred wood, ash, and bricks were also noted in the soil borings advanced in the parking lot behind the Maiden Lane apartments, where a hotel burned in the late 1800s.

Concentrations of metals and polycyclic aromatic hydrocarbons (PAHs) were observed in soils throughout the Site. Levels of lead, arsenic, and PAHs were noted above statewide urban background in soils on the Site, which is consistent with urban fill or "'development soils" typically found in urban downtowns. No Volatile Organic Compound (VOCs) or other metals were reported above regulatory standards in the soil samples. TCLP lead and TCLP mercury analysis indicates the metal concentrations found in the soil would not render the soil hazardous waste.

Groundwater was found to flow in a westerly direction, at an approximate hydraulic gradient of 6%. The laboratory results indicate that two VOCs (acetone, and 1,2,4-trimethylbenzene) were present above the laboratory reporting limits, but well below the VGES, in the sample collected from MW-1. A low level of acetone, well

below the VGES was also noted in MW-2. No other VOCs were reported in the groundwater samples.

Concentrations of total arsenic, total barium, total chromium, total lead, and total selenium were reported in the groundwater samples. The concentrations were well below the VGES for these metals except for the arsenic and lead concentrations in MW-1. The turbidity in the groundwater sample from MW-1 was higher than the other groundwater samples due to slow groundwater recharge. The elevated metals concentrations may be attributed to sediment in the groundwater sample.

Four sub-slab soil gas samples were obtained from three of the existing buildings on-Site. An outdoor ambient air sample was also collected for comparison purposes. Several VOCs were reported in the sub-slab soil gas samples. None of the reported VOC concentrations exceeded VI residential sub-slab soil gas screening values except for naphthalene and acrolein in all four samples. The reported acrolein concentration also exceeded the industrial sub-slab soil gas screening value in Subslab-2. The concentration of Acrolein in the ambient air sample also exceeded the VI residential sub-slab soil gas screening value. Naphthalene was not detected in the ambient air sample, but the laboratory detection limit was elevated to just above the VI residential sub-slab soil gas screening value.

KD Associates, Inc. performed asbestos inspections at the 83-87 and 89 North Main Street Buildings, 10 Congress, and 10 Maiden Lane in July and August 2018. Asbestos containing building materials were detected in each of the buildings. These materials included vinyl flooring and mastic, sink undercoating, pipe insulation, roof tar, roofing paper, shingled roofing, window glazing, mudded joint fittings, gypsum board, window glazing, and foundation coatings.

TCLP lead testing was performed for a representative building materials sample from each existing structure. The results of the testing indicated that the waste characterization samples contained insufficient extractable lead to render the combined waste stream hazardous by reason of toxicity.

LEE has developed the following recommendations in connection with this Phase II ESA.

1. A round of indoor air quality testing should be performed to determine if naphthalene is present in the indoor air above applicable standards.
2. An Evaluation of Corrective Action Alternatives (ECAA) and Corrective Action Plan (CAP) should be completed to accommodate the redevelopment plan for the Site.

2.0 SITE INFORMATION

LE Environmental LLC of Waterbury, Vermont (LEE) was retained by the City of St. Albans to perform a Brownfields Phase II Environmental Site Assessment (ESA) at the Congress and Main Redevelopment project, located at 10 Maiden Lane, 10 and 12 Congress Street, 83-87, 89, and 99 Main Street in the City of St. Albans, Vermont (Site). A Site location map is attached. The Phase II ESA was performed as specified in the Brownfields Phase II ESA Work Plan dated June 20, 2018. The Work Plan was approved by Vermont Department of Environmental Conservation (DEC) Site Manager Kristi Herzer on June 29, 2018, with the caveat that duplicate soil and groundwater samples are obtained during the sampling.

The Site consists of six separate parcels, totaling approximately 1-acre of land, with five buildings. The Site is located on the southeast corner of the intersection of North Main Street and Congress Street in the downtown area of the City of St. Albans. A description of the Site's current and former structures is included in Section 5.

Site Information Table	
Site Owner Name:	City of St. Albans
Site Owner Address	100 North Main Street, St. Albans, VT, 05478
Site Owner E-mail	d.cloud@stalbansvt.com
Site Owner Phone	(802) 524-1500

3.0 CURRENT USE OF THE SITE

Current uses of the property are as follows:

- 83, 85, 87 and 89 North Main Street: vacant former retail space and vacant residential apartments.
- 99 North Main Street: gravel parking lot.
- 10 Congress Street: vacant office space (1st floor); law office (2nd floor).
- 12 Congress Street: Salon and 3 occupied residential apartments.
- 10 Maiden Lane: 23-unit residential apartment building with 20 occupied units and 3 vacant units.

4.0 CURRENT ADJOINING PROPERTY USES

Current uses of adjoining properties are as follows:

- North: Ace Hardware and retail space, residential housing, church.
- East: Vacant new commercial space for rent and the St. Albans Public Library.
- South: Fairpoint Communications building on Bank Street, Green Mt. Hemp Company and residential apartments.
- West: North Main Street, retail space and residential apartments, City Hall.

5.0 SITE DESCRIPTION

The Site is located in the downtown area of the City of St. Albans. The surrounding area includes residential/institutional/commercial properties along North Main Street, Congress Street, Bank Street, and Maiden Lane. Taylor Park occupies the next block to the south. The area becomes residential to the east (uphill) and more commercial/industrial in nature toward the west (downhill). The Site's topography drops toward the west. The Site is entirely developed with structures, parking lots, and a retaining wall.

There are five separate structures located on the Site. Each of these structures is slated for demolition during redevelopment except 12 Congress Street. Following is a description of each of the structures on the Site:

- 83-87 North Main Street: a 2-story wood frame structure with a brick façade and building dimensions approximately 40' wide and 100' deep. Construction appears to be from the 1800's with extensive updates. No basement was encountered. This building is vacant. The last apparent uses were for retail and residential housing. This address shares a paved alleyway to the south with 81 North Main Street.
- 89 North Main Street: a 2-story wood frame structure with a brick façade and joined second structure to the rear with an attached porch. This building has a basement that extends beneath the front part of the building. The basement contains utilities and an out of service fuel oil AST. The overall building dimensions approximately 32' wide and 80' deep. Construction appears to be from the 1800's with updates. The building was vacant. The last apparent uses were for retail and residential housing.
- 10 Congress Street: a 2-story wood frame structure with a basement. The basement contains utilities and an out of service fuel oil AST. The overall building dimensions approximately 25' wide and 55' deep and it appears the rear part of the building was added onto. Construction appears to be from the 1800's with updates. The property was vacant office space on the 1st floor and a law office on the 2nd floor.
- 12 Congress Street: a 2-story wood frame structure with a basement. The basement contains utilities. The overall building dimensions approximately 25' wide and 70' deep and it appears the rear part of the building was added onto. Construction appears to be from the 1800's with significant updates. The property was a salon on the 1st floor and residential apartments on the 1st and 2nd floors.
- 10 Maiden Lane: a 3-story residential apartment building. The overall building dimensions approximately 200' wide and 45' deep. Construction appears to be from the 1950's. This location has 23 residential apartments.

6.0 LATITUDE/LONGITUDE

The Site coordinates are 44° 48' 46.70'' north latitude and 73° 4' 55.93'' west longitude.[1]

7.0 PROPERTY HISTORY

The Site is located in a portion of Downtown St. Albans that has a long history of commercial and residential use. The Site was developed prior to 1876, which was the oldest historical reference found to date. The 1876 development consisted of several buildings along North Main Street and Congress Street, and the Welden House Hotel along Maiden Lane. The property remained similarly developed through 1896, when the Welden House burned down. Documented uses of the property since 1884 have included retail shops (bicycling, groceries and fish, printing, harnesses, marble, auto parts, paint, glass and wallpaper, books, stationary), service shops (dry cleaning, auto sales and service with gasoline dispensing, barbers, tailors, doctors, dentists, and lawyers), manufacturing (machine shop, vulcanizing, millinery), and residential apartments.

The North Main Street side of the structure at 83-87 North Main Street appears to have been built circa 1912, and the rear portion was added before 1920 as a garage. A gasoline UST was installed there between 1920 and 1926. Historic environmentally sensitive uses at this location included a print shop, and an automotive sales and service with gasoline dispensing.

The structure at 89-93 North Main Street was built prior to 1884, with more recent expansion in the rear (after 1959). An out of service fuel oil AST is present in the basement. Its fill and vent pipes remain on the side of the building but the pipes are not connected to the AST. A small oil spill was noted on the basement floor beneath the AST oil filter. Historic environmentally sensitive uses at this address included millinery, and a machine shop.

The former structure at 99 North Main Street (The Elms) was built between 1906 and 1912 and it remained at that location until it burned down between 1995 and 2008. It replaced a previous structure in the same location. This part of the property is now a gravel parking lot. Historic environmentally sensitive uses at this address included a millinery.

The structure at 10 Congress Street was built prior to 1884. An out of service fuel oil AST is present in the basement. Its fill and vent pipes are still on the side of the building and the pipes are still connected to the AST. No historic environmentally sensitive uses were identified.

[1] EDR, Environmental Database Radius Report, Page 3.

The structure at 12 Congress Street was built prior to 1884. The building at 12 Congress Street is currently a salon and residential apartments. Historic environmentally sensitive uses at this addresses included a dry cleaner from at least 1936 to 1940. The ANR Atlas indicates that Ideal Cleaners operated for 20 years from 1940 to 1960. City directory information reviewed by LEE indicates its operations may have begun as early as 1929 and may have lasted through 1946. Ideal Cleaners is not listed in the Manning City Directories at 12 Congress Street in 1947 or afterwards. This building will remain as-is during redevelopment.

The 23-unit apartment building at 10 Maiden Lane was built circa 1953. There was a fuel oil UST at this address that was closed in-place in 2006. Limited but detectable fuel oil contamination was encountered when the UST was closed. This part of the property had parts of two hotels on it historically, as well as an auto shed. At least one of the hotels burned down and the 1901 Sanborn map notes the presence of fire debris.

LEE completed a Phase I ESA report for the project location on May 3, 2018. The following Recognized Environmental Conditions (RECs) were identified:

1. Historic use of 12 Congress Street as a dry cleaner.
2. A gasoline underground storage tank (UST) shown on the south side of 83-87 North Main Street on the 1926 Sanborn map.
3. Historic use of the property for a vulcanizing plant (83 North Main Street, 1926).
4. Historic use of the property as a machine shop (89 North Main Street, 1906-1920).
5. Fuel oil contamination in soil and groundwater in the vicinity of a closed in place 5,000-gallon UST at 10 Maiden Lane.
6. Historic use of the property as a millinery (89 North Main Street, 1889 and 97-99 North Main Street, 1884-1889).
7. Potential soil contamination from the 1980's fire at 99 North Main Street, and the 1896 fire that destroyed the Welden Inn.

A Phase II ESA was recommended to determine whether subsurface contamination is present due to the identified RECs, and to assist in the redevelopment planning for the property.

A geophysical investigation was performed on June 13, 2018, to investigate the former gasoline UST location noted on the historic Sanborn map. Subterra Locating Services of Colchester conducted a ground penetrating radar investigation in the area of the former gasoline UST. Only one anomaly was detected in the investigation, and it was determined to be buried piping associated with a water suppression system for the adjoining building. The anomaly was not believed to be associated with a UST. A copy of the Geophysical Report is included in Appendix G.

8.0 SITE CONTAMINANT BACKGROUND

A. Release Date and Description

A 5,000-gallon fuel oil UST was closed in-place at the 10 Maiden Lane address in July 2006. Evidence of low-level petroleum contamination was encountered, which was attributed to tank overfills and residual fuel in the vent pipe. An investigation was performed, and the DEC issued a Sites Management Activity Complete letter in October 2006. The State-Listed Hazardous Waste Site #870154 appears on the Site on the ANR Atlas. The State-Listed Hazardous Waste Site is actually located at the northeast corner of the intersection of North Main and Congress Streets. Apparent releases noted during this investigation include elevated arsenic, lead and PAH concentrations in soil, and naphthalene and acrolein in soil vapor.

B. Release Report Date

The presence of elevated contaminants in the media described above is being reported via submittal of this report.

C. Release Response Actions

A UST closure was conducted in 2006 at 10 Maiden Lane as noted in above.

D. Previous Environmental Documents

LEE prepared a Phase I ESA at the Site in May 2018.[2] LEE identified the seven RECs noted in Section 7.0. LEE recommended that a Phase II ESA be performed to determine whether the RECs have caused contamination at the Site.

E. Copy of Previous Environmental Documents

The referenced Phase I ESA report is on-file with the DEC in Montpelier, Vermont.

F. List of Governmental Records Reviewed

LEE reviewed various governmental records during and preceding this Phase II ESA, including records reviewed during the Phase I ESA:

- City of St. Albans Land Records
- State of Vermont Department of Environmental Conservation Hazardous Sites List, Solid Waste Facilities list, Leaking UST and Above-ground Storage Tank database, Brownfields List

[2] LEE, Phase I Environmental Site Assessment Report, Congress and Main Redevelopment, St. Albans, Vermont, May 3, 2018.

- EPA National Priorities List (NPL), Proposed NPL, Delisted NPL, CERCLIS, RCRA CORRACTS, RCRA TSDF, RCRA Generators database, Institutional Controls inventory, Emergency Response Notification System

9.0 WORK PLAN PROTOCOL DEVIATIONS

All of the work described in the Work Plan dated June 20, 2018 was performed as described, with no deviations except for the addition of laboratory duplicate soil and groundwater samples, which was completed at the request of the DEC. Additionally, TCLP lead and mercury analyses were performed on some of the soil samples with concentrations that exceeded the theoretical hazardous waste threshold.

10.0 SAMPLE COLLECTION DEVIATIONS

No deviations from the sample collection protocols identified in the approved Work Plan were made.

11.0 CONTAMINATED MEDIA CHARACTERIZATION

LEE performed a Phase II ESA consisting of a soil, groundwater, and sub-slab soil vapor evaluation. The future plans for development of the Site include both commercial and residential uses. Therefore, all laboratory analytical data have been evaluated in the context of state and federal residential Site thresholds for contaminated media. Photos showing the investigation locations are in Appendix B.

A. Soil

LEE performed a soil boring investigation of the Site as specified in the approved Work Plan. Prior to the initiation of subsurface activities, LEE pre-marked the proposed soil boring locations. Dig Safe ticket numbers 20182701737, 20182701911, 20182701939, and 20182701953, were obtained. A Site-Specific Health and Safety Plan was prepared and reviewed by field staff and the drilling subcontractor prior to work.

Eight soil borings (SB-1 through SB-8) were advanced on Site by T&K Drilling on July 9, 2018 under the direction of a LEE geologist. Soil borings SB-1 through SB-4 were advanced using a truck-mounted Bombardier Model E 4.25” ID hollow stem auger unit and split spoon sampling capability. Soil boring SB-5 was advanced using a jackhammer with geoprobe sampling equipment, and soil borings SB-6 through SB-8 were advanced using a truck-mounted geoprobe. Soil boring logs are included in Appendix A. Photos of the drilling are included in Appendix B.

Split spoon soil sampling was performed at each of the soil boring locations. Continuous sampling was performed at each of the soil boring locations. The following observations were made:

- Soils at the Site consisted of sand with varying amounts of silt, overlaying a dense glacial till layer.
- Evidence of charred wood and ash were noted in the soil borings advanced at the northwest portion of the Site, in the gravel parking lot, where a building burned in the 1990s.
- Evidence of charred wood, ash, and bricks were also noted in the soil borings advanced in the parking lot behind the Maiden apartments, where a hotel burned in the late 1800s.
- Soil samples were screened for volatile organic compounds (VOCs) using a calibrated photoionization device (PID) with a 10.6 eV bulb. No PID readings over background were observed.
- Wet soils were encountered between 3' and 6' bg in the soil borings in the northwest and western portions of the Site (SB-1, SB-2, and SB-5). Wet soils were noted between 7' and 8' bg in the soil borings in the central and northeastern portions of the Site. Groundwater monitoring wells were installed in SB-1, SB-2, SB-3, and SB-4. (Section 11B).

Twelve soil samples were collected from the soil borings, following the sampling requirements in the approved Work Plan. A duplicate soil sample was also collected. Soil samples were collected from the shallow soil horizon (0-2' bg) in each of the soil borings. Deeper, composite soil samples were also obtained from 2-10' bg in SB-1, 2-8' bg in SB-3 and SB-4, and from 2-7.4' bg in SB-7. Soil samples were containerized and submitted to Eastern Analytical Inc. for analysis of VOCs via EPA Method 8260c, RCRA 8 Metals via EPA Method 6020a, and polycyclic aromatic hydrocarbons (PAHs) via EPA Method 8270d. The results of the laboratory testing are presented in Appendix D and are summarized as follows.

- No VOCs were reported above regulatory standards in the soil samples. A low detection of xylenes were noted in the shallow soil sample SB-6s, well below regulatory standards.
- Concentrations of arsenic, barium, cadmium, chromium, lead, mercury and selenium were reported in one or more soil samples. The reported lead concentration in soil samples SB-3s and SB-4s exceeded the EPA residential RSL and the Vermont statewide background lead concentration. The reported arsenic concentrations in SB-5s, SB-7s, and SB-7d exceeded the Vermont statewide background concentrations. None of the rest of the reported metals concentrations exceeded RSLs or VSLs.
- Since several of the lead and mercury concentrations exceeded the theoretical hazardous waste level, TCLP analysis was conducted for those samples. Each of the TCLP lead and TCLP mercury results were non-detect, indicating the soils would not be considered hazardous waste during disposal.

- PAHs were reported in each soil sample, except for SB-3d and SB-4d. PAH concentrations exceeded one or more RSL or VSL values at SB-1s, SB-1d, SB-3s, SB-4s, SB-5s, SB-6s, SB-7s, SB-7d, and SB-8d.
- PAH toxicity equivalency quotient relative to Benzo[a]pyrene (TEQ) was calculated for each soil sample. The TEQ values at SB-3s, SB-5s, SB-6s, and SB-8s exceeded the Vermont statewide urban background PAH concentration of 0.56 mg/kg. The Site is within a designated urban background PAH area.

B. Groundwater

Four groundwater monitoring wells were installed on July 9, 2018. Groundwater monitoring wells were installed in soil borings SB-1, SB-2, SB-3, and SB-4 (known as MW-1, MW-2, MW-3, and MW-4 respectively). A 2" PVC groundwater monitoring well was installed in SB-1, SB-2, SB-3, and SB-4 to depths of 10', 10', 12', and 12' bg, respectively. Each groundwater monitoring well consists of a 7 or 9-foot length of factory-slotted 0.010 slot PVC well screen attached to a PVC riser pipe. Each groundwater monitoring well was finished with a flush-mounted steel road box in cement. The tops of the well casings were surveyed relative to existing Site features. Well locations are shown on the attached Site Map, and well completion diagrams are included in Appendix A.

On July 18, 2018, LEE gauged the wells with an electronic water level indicator. Groundwater was measured at a depth of 7.98', 8,71', 8.60', and 8.26' below the top of casing in MW-1, MW-2, MW-3, and MW-4 respectively. LEE collected groundwater samples from each of the monitoring wells using low-flow methods. A Geotech peristaltic pump was used to purge and sample the well. New, disposable, polyethylene down hole tubing and silicon pump head tubing was installed prior to pumping the well. Monitoring wells MW-1 and MW-2 dewatered during purging, and the samples were collected from the recharged well. This is likely due to the low permeability of the glacial till soils and the dry conditions during sampling. A turbidity measurement of 1,100 NTU was obtained at MW-1 at the time of sampling, and a turbidity measurement of 15.1 NTU was obtained at MW-2 at the time of sampling. Low flow sampling methods were successful while sampling MW-3, and MW-4. A turbidity measurement of 4.61 NTU was obtained at MW-3 at the time of sampling, and a turbidity measurement of 21.6 NTU was obtained at MW-4 at the time of sampling.

Following the completion of purging, groundwater samples were collected directly from the pump discharge tubing into laboratory-supplied pre-acidified sample containers. One duplicate sample was also collected. The samples were submitted to Eastern Analytical Inc. for analysis of VOCs via EPA Method 8260c and RCRA 8 Metals via EPA Method 200.8.

A groundwater contour map was created using the measured depths to water at the four monitoring wells. The groundwater flows to the west at an approximate

hydraulic gradient of 6%. The measured water level depths, surveyed top of casing elevations, and calculated groundwater flow are presented in Appendix D and the groundwater contour map is attached.

The laboratory results indicate that two VOCs (acetone, and 1,2,4-trimethylbenzene) were present above the laboratory reporting limits, and well below the Vermont Groundwater Enforcement Standard (VGES), in the sample collected from MW-1. A low level of acetone, well below the VGES was also noted in MW-2. No other VOCs were reported in the groundwater samples. Concentrations of total arsenic, total barium, total chromium, total lead, and total selenium were reported in the groundwater samples. The concentrations were well below the VGES for these metals except for the arsenic and lead concentrations in MW-1. The turbidity in the groundwater sample from MW-1 was higher than the other groundwater samples. The elevated metals concentrations may be attributed to sediment in the groundwater sample. A tabular summary of the groundwater monitoring data is included in Appendix D.

C. Drinking Water

No drinking water sampling was proposed or performed during this Phase II ESA. The Site and surrounding area is served by a municipal drinking water system.

D. Surface Water

No surface water sampling was proposed or performed during this Phase II ESA. No surface water bodies exist on the Site.

E. Sediment

No sediment sampling was proposed or performed during this Phase II ESA. No bodies of water exist on or proximal to the Site.

F. Soil Gas and Indoor Air

Four sub-slab soil gas samples, and an outdoor ambient air sample were obtained during the Phase II ESA. The locations are shown on the attached Site Map.

On July 18 2018, four VAPOR PINS® were installed in 5/8" penetrations of the basement floor slabs at 10 Congress, 12 Congress, and 10 Maiden Lane. The penetrations were made by LEE using an electric rotary hammer drill and 5/8" masonry drill bit. The VAPOR PINS® allow collection of representative soil gas samples from soils below the bottom of the building's foundation. The VAPOR PINS® consist of ¼" ID x 3" brass fitting with a silicon seal. The VAPOR PINS® were pressed into the 5/8" hole to create a tight seal around the pin. The VAPOR PINS® were

water tested following installation to insure that no leakage was taking place around the pin.

On July 18, 2018, LEE performed sub-slab soil gas monitoring using the four installed VAPOR PINS®. An outdoor ambient air sample was collected simultaneously for comparison. The ambient air sample was collected from an area in the center of the Site.

Approximately 1 liter of air was purged from each VAPOR PIN® prior to sampling using a calibrated air pump at 200 ml/min. The soil gas wells were screened prior to sampling with a PID and a reading of 0.4 ppm was obtained at each of the sampling locations. Following successful QAQC tests, soil gas samples and the ambient air sample were collected into 6-liter stainless steel Summa canisters with 2-hour regulators. The post-sampling PID readings collected from each sub-slab sampling point were 0.3, 0.3, 0.2, and 0.2 at Subslab-1, Subslab-2, Subslab-3, and Subslab-4, respectively.

ALS of Simi Valley, California analyzed the soil gas samples via EPA Method TO-15. A summary of the soil gas results, and the laboratory analytical report is included in Appendix D. Detected compounds are presented for reference in this summary table along with the Vapor Intrusion (VI) residential screening values for sub-slab soil gas.

Several VOCs were reported in the soil gas samples. Total reported VOC concentrations were 634 ug/m^3 in Subslab-1, 891 ug/m^3 in Subslab-2, 294 ug/m^3 in Subslab-3, 253 ug/m^3 in Subslab-4, and 53 ug/m^3 in the ambient air sample. The detection limits in the ambient air samples were slightly higher than the sub-slab samples.

None of the reported VOC concentrations exceeded VI residential sub-slab soil gas screening values except for naphthalene and acrolein in all four samples. The reported acrolein concentration also exceeded the industrial sub-slab soil gas screening value in Subslab-2. The concentration of Acrolein in the ambient air sample also exceeded the VI residential sub-slab soil gas screening value. Naphthalene was not detected in the ambient air sample, but the detection limit was elevated to just above the VI residential sub-slab soil gas screening value.

G. Site-Specific Values

No site-specific values were proposed or generated during this ISI.

H. Building Material Sampling

KD Associates, Inc. performed asbestos inspections at the 83-87 and 89 North Main Street Buildings, 10 Congress, and 10 Maiden Lane in July and August 2018.

Asbestos containing building materials were detected in each of the buildings. These materials included vinyl flooring and mastic, sink undercoating, pipe insulation, roof tar, roofing paper, shingled roofing, window glazing, mudded joint fittings, gypsum board, window glazing, and foundation coatings. Copies of the asbestos inspection reports are included in Appendix G.

TCLP lead testing was performed for a representative building materials sample from the existing structures. The purpose of the sampling was to ensure the resulting building debris was not sufficiently enriched in lead so as to render the building waste streams as hazardous.

Representative samples of building materials, including wood, brick, roofing, carpeting, flooring, and concrete were collected by a LEE inspector on August 2 and August 22, 2018. A reasonable attempt was made to create building material samples that reflected the composition of the demolition waste stream. The samples were containerized and labeled in the field pursuant to LEE' protocols, then delivered to EAI under chain of custody procedure for TCLP Lead analysis.

The results of the testing indicated that the waste characterization samples contained insufficient extractable lead to render the combined waste stream hazardous by reason of toxicity. The state and federal threshold for TCLP lead is 5 milligrams per liter (mg/l) and the samples obtained from the buildings were below that level.

One building material sample that was collected on August 2, 2018, at 87-91 Main Street, had a concentration of 9.7 mg/l, which exceeded the threshold. The laboratory indicated it only used a portion of the sample to run the analysis, whereas they used the entire sample mass for the other building samples. Therefore, and it is possible the sample for 87-91 Main Street collected on August 2, 2018 was not properly homogenized. A follow-up sample was obtained for this building on August 22, 2018. The follow-up sample was below the threshold (2.3 mg/L). Copies of the two laboratory reports are contained within Appendix D.

12.0 SITE-SPECIFIC RISK ASSESSMENT

No site-specific risk assessment was proposed or generated during this ISI.

13.0 MAPS

A Site location map, Site Map, Air Contaminant Map, Groundwater Contour Map, Soil Contaminant Maps, Sub-Slab Soil Vapor Contaminant Map, and a current ANR Natural Resources Atlas map are attached.

14.0 DISCUSSION

The soils data collected during this Phase II ESA suggest that soils contain levels of PAHs and metals above regulatory standards. The concentrations appear to be fairly typical for urban fill soils with similar history. No VOCs were reported in the soils, and the TCLP metal concentrations indicate the soil is not hazardous waste. However, special handling and disposal considerations will be required for the soils during redevelopment.

Exceedances of groundwater enforcement standards for arsenic and lead, were noted in one of the groundwater samples obtained during the Phase II ESA. However, these concentrations may be attributed to sediment in the groundwater sample, since the sample was collected from the recharge in the well. The turbidity levels in the sample were a magnitude higher than the other groundwater samples, and no other exceedances were noted.

The soil gas data suggest that naphthalene and acrolein are present at concentrations above DEC screening values for vapor intrusion into structures throughout the Site. Acrolein was also found in the outdoor air at comparable concentrations. These observations suggest that there is an area wide source of acrolein and that it could be transmitted through outdoor air. According to an EPA summary, acrolein is primarily used as an intermediate in chemical synthesis, and as a biocide. It also forms from the breakdown of outdoor air pollutants and from burning of organic matter such as tobacco or petroleum.[3] The naphthalene levels were found to be just above the DEC residential screening value.

Updated Site Conceptual Model

The Site is located in the downtown area of the City of St. Albans. The surrounding area includes residential/institutional/commercial properties along North Main Street, Congress Street, Bank Street, and Maiden Lane. Taylor Park occupies the next block to the south. The area becomes residential to the east (uphill) and more commercial/industrial in nature toward the west (downhill).

The Site's topography drops toward the west. The Site is entirely developed with structures, parking lots, and a retaining wall. Bedrock in the vicinity of the property consists of Ordovician-aged slate and dolostone of the Skeels Corners group. The overburden deposits in the area of the property are mapped as beach gravel.[4]

Potential Sources

Potential source(s) of contamination at the Site include historic uses of the Site, which include drycleaning, vulcanizing, machine shops, and millineries, as well as

[3] https://www.epa.gov/sites/production/files/2016-08/documents/acrolein.pdf
[4] ANR Atlas

previous USTs and structure fires. No other potential sources are known at this time.

Potential Receptors

Buildings in the Vicinity:
The concentrations of naphthalene in sub-slab vapor were slightly above regulatory screening levels, which implies indoor air of the on-Site buildings may be impacted as well. Acrolein appears to be elevated in ambient air in the vicinity of the Site.

Utility Corridors:
Utility corridors in the vicinity of the Site include buried water, sewer and storm drain lines. Based on the results of the Phase II ESA, it does not appear that the Site poses an environmental risk to nearby utility lines.

Wetlands and Surface Water Bodies:
The nearest body of water is Stevens Brook, located approximately 2,000 feet to the west of the Site. The ANR Natural Resources Atlas does not depict any wetlands advisory areas in the vicinity of the Site. Based on the results of the investigation, surface water does not appear to be at risk.

Public and Private Water Supplies:
The Site and nearby properties are served by the City of St. Albans municipal water system. No drinking water wells are nearby, and no drinking water wells were tested during the Phase II ESA. One private well is depicted on the ANR Natural Resources Atlas within a half-mile of the former Site, approximately 880 feet to the west according to the DEC's on line water supply well locator.[5]

Sediment:
Due to the type of contamination observed, and the fact that bodies of water are not located proximal the Site, contaminated sediment transport is not a risk for this Site.

Site Users:
The Site users may come into contact with shallow soils if excavations occur. However, the exterior grounds are primarily used for parking, and no garden or playgrounds were noted on the Site. The elevated levels of naphthalene in the sub-slab soil vapor samples imply the indoor air may also contain naphthalene. Additional testing is warranted to investigate this potential risk.

15.0 DATA PRESENTATION

LEE compiled current and previous analytical data for the Site in tabular format with comparisons to the current state and federal soil screening values presented in

[5] Vermont Agency of Natural Resources Private Well Locator

the I-Rule. These tables are included in Appendix C, with the supporting laboratory data in Appendix D. Observations regarding the data and comparison to current screening values are presented in Section 11.

16.0 QA/QC SAMPLE RESULTS

Quality assurance and quality control samples for this investigation included two trip blanks, and two field duplicates. No VOCs were reported in either of the trip blanks, indicating that VOCs were not transmitted to the samples or blanks during sampling, storage, or transit. The relative percent difference calculations for the groundwater samples ranged from a low of 0.0% to a high of 10.0%, which is within the acceptable range of 30%. The relative percent difference calculations for the soil samples ranged from a low of 0.0% to a high of 39.7%, which is within the acceptable range of 50%. Based on this information, all of the laboratory data meet normal QAQC requirements and are considered acceptable for the purposes of this investigation.

17.0 INVESTIGATION DERIVED WASTE

Investigation-derived waste associated with this investigation included small amounts of soils generated during drilling and purge water during groundwater sampling. All of the drill cuttings were returned to the boreholes that they were generated from. Purge water was disposed of on-Site. No investigation-derived waste was left on-Site pending testing or disposal.

18.0 CONCLUSIONS AND RECOMMENDATIONS

LEE has developed the following conclusions following completion of this investigation.

1. Soils at the Site consisted of sand with varying amounts of silt, overlaying a dense glacial till layer. Evidence of charred wood and ash were noted in the soil borings advanced at the northwest portion of the Site, in the gravel parking lot, where a building burned in the 1990s. Evidence of charred wood, ash, and bricks were also noted in the soil borings advanced in the parking lot behind the Maiden Lane apartments, where a hotel burned in the late 1800s.
2. Soil samples were screened for VOCs using a PID with a 10.6 eV bulb. No PID readings over background were observed.
3. No VOCs were reported above regulatory standards in the soil samples. A low detection of xylenes were noted in the shallow soil sample SB-6s, well below regulatory standards.
4. Concentrations of arsenic, barium, cadmium, chromium, lead, mercury and selenium were reported in one or more soil samples. The reported lead concentration in soil samples SB-3s and SB-4s exceeded the EPA residential RSL

and the Vermont statewide background lead concentration. The reported arsenic concentrations in SB-5s, SB-7s, and SB-7d exceeded the Vermont statewide background concentration. None of the rest of the reported metals concentrations exceeded RSLs or VSLs.

5. Since several of the lead and mercury concentrations exceeded the theoretical hazardous waste level, TCLP analysis was conducted for those samples. Each of the TCLP lead and TCLP mercury results were non-detect, indicating the soils would not be considered hazardous waste.
6. PAHs were reported in each soil sample, except for SB-3d and SB-4d. PAH concentrations exceeded one or more RSL or VSL values at SB-1s, SB-1d, SB-3s, SB-4s, SB-5s, SB-6s, SB-7s, SB-7d, and SB-8d.
7. Benzo[a]pyrene TEQ values at SB-3s, SB-5s, SB-6s, and SB-8s exceeded the Vermont statewide urban background PAH concentration of 0.56 mg/kg. The Site is within a designated urban background PAH area.
8. Four groundwater monitoring wells were installed at the Site. Groundwater was measured at a depth of 7.98', 8,71', 8.60', and 8.26' below the top of casing in MW-1, MW-2, MW-3, and MW-4 respectively. Groundwater was found to flow in a westerly direction, at an approximate hydraulic gradient of 6%
9. The laboratory results indicate that two VOCs (acetone, and 1,2,4-trimethylbenzene) were present above the laboratory reporting limits, and well below the VGES, in the sample collected from MW-1. A low level of acetone, well below the VGES was also noted in MW-2. No other VOCs were reported in the groundwater samples.
10. Concentrations of total arsenic, total barium, total chromium, total lead, and total selenium were reported in the groundwater samples. The concentrations were well below the VGES for these metals except for the arsenic and lead concentrations in MW-1. The turbidity in the groundwater sample from MW-1 was higher than the other groundwater samples. The elevated metals concentrations may be attributed to sediment in the groundwater sample.
11. Four sub-slab soil gas samples, and an outdoor ambient air sample were obtained.
12. Several VOCs were reported in the soil gas samples. Total reported VOC concentrations were 634 ug/m^3 in Subslab-1, 891 ug/m^3 in Subslab-2, 294 ug/m^3 in Subslab-3, 253 ug/m^3 in Subslab-4, and 53 ug/m^3 in the ambient air sample.
13. None of the reported VOC concentrations exceeded VI residential sub-slab soil gas screening values except for naphthalene and acrolein in all four samples. The reported acrolein concentration also exceeded the industrial sub-slab soil gas screening value in Subslab-2. The concentration of Acrolein in the ambient air sample also exceeded the VI residential sub-slab soil gas screening value. Naphthalene was not detected in the ambient air sample, but the detection limit was elevated to just above the VI residential sub-slab soil gas screening value.
14. Pre-demolition asbestos inspections were completed at the 83-87 and 89 North Main Street Buildings, 10 Congress, and 10 Maiden Lane. Asbestos containing building materials were detected in each of the buildings. These materials included vinyl flooring and mastic, sink undercoating, pipe insulation, roof tar,

roofing paper, shingled roofing, window glazing, mudded joint fittings, gypsum board, window glazing, and foundation coatings.

15. TCLP lead testing was performed for a representative building materials sample from the existing structures. The results of the testing indicated that the waste characterization samples contained insufficient extractable lead to render the combined waste stream hazardous by reason of toxicity.

LEE has developed the following recommendations in connection with this Phase II ESA.

1. A round of indoor air quality testing should be performed to determine if naphthalene is present in the indoor air above applicable standards.
2. An Evaluation of Corrective Action Alternatives (ECAA) and Corrective Action Plan (CAP) should be completed to accommodate the redevelopment plan for the Site.

19.0 SIGNATURE AND CERTIFICATION

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

_____

Angela Emerson, PG, Environmental Professional

20.0 STANDARD OPERATING PROCEDURES

Following is a table of SOPs that were used during the Phase II ESA:

SOP Reference	Title, Date
LEE SOP A	Soil Sampling, Version 1, July 1, 2014
LEE SOP B	Soil Borings, Groundwater Monitoring Well Installation and Low Flow Sampling, Version 1, July 2014
LEE SOP C	Soil Gas Well Installation and Sampling, Version 1, May 8, 2015
LEE SOP E	Sample Handling, Version 1, July 1, 2014
LEE SOP F	PID Operation, Calibration and Maintenance, Version 1, July 1, 2014
LEE SOP I	Water and Product Level Meters/Interface Probes, Version 1, July 1, 2014
LEE SOP J	Building Materials Sampling Collection, Version 1, October 10, 2014
VAPOR PIN®	VAPOR PIN® Standard Operating Procedure

21.0 MAPS AND APPENDICIES

MAPS

A. Site Location Map
B. Site Map
C. Groundwater Contour Map
D. Soil Contaminant Map – PAHs
E. Soil Contaminant Map – B[a]P TEQ
F. Soil Contaminant Map – Metals
G. Air Contaminant Map
H. ANR Atlas Map

APPENDIX

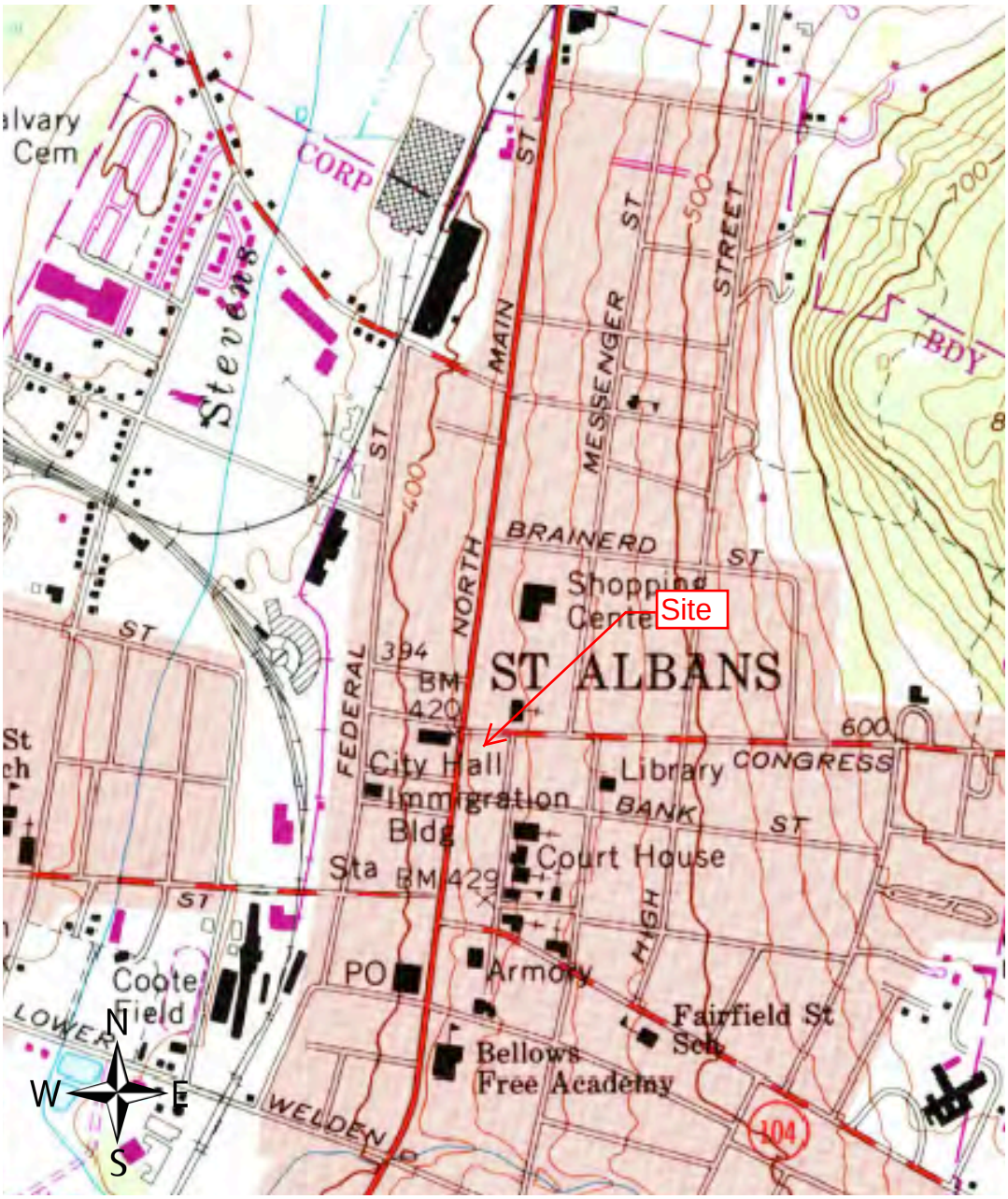
A. Monitoring Well and Soil Boring Logs
B. Photographic Documentation
C. Field Notes
D. Tabular Summary of Assessment Data
E. Laboratory Analytical Reports
F. Geophysical Investigation Report
G. Asbestos Inspection Reports

MAPS

Site Location Map
Site Map
Groundwater Contour Map
Soil Contaminant Map – PAHs
Soil Contaminant Map – B[a]P TEQ
Soil Contaminant Map - Metals
Sub-Slab Soil Vapor Contaminant Map
ANR Atlas Map

MAPS

Site Location Map
Site Map
Groundwater Contour Map
Soil Contaminant Map – PAHs
Soil Contaminant Map – B[a]P TEQ
Soil Contaminant Map - Metals
Sub-Slab Soil Vapor Contaminant Map
ANR Atlas Map

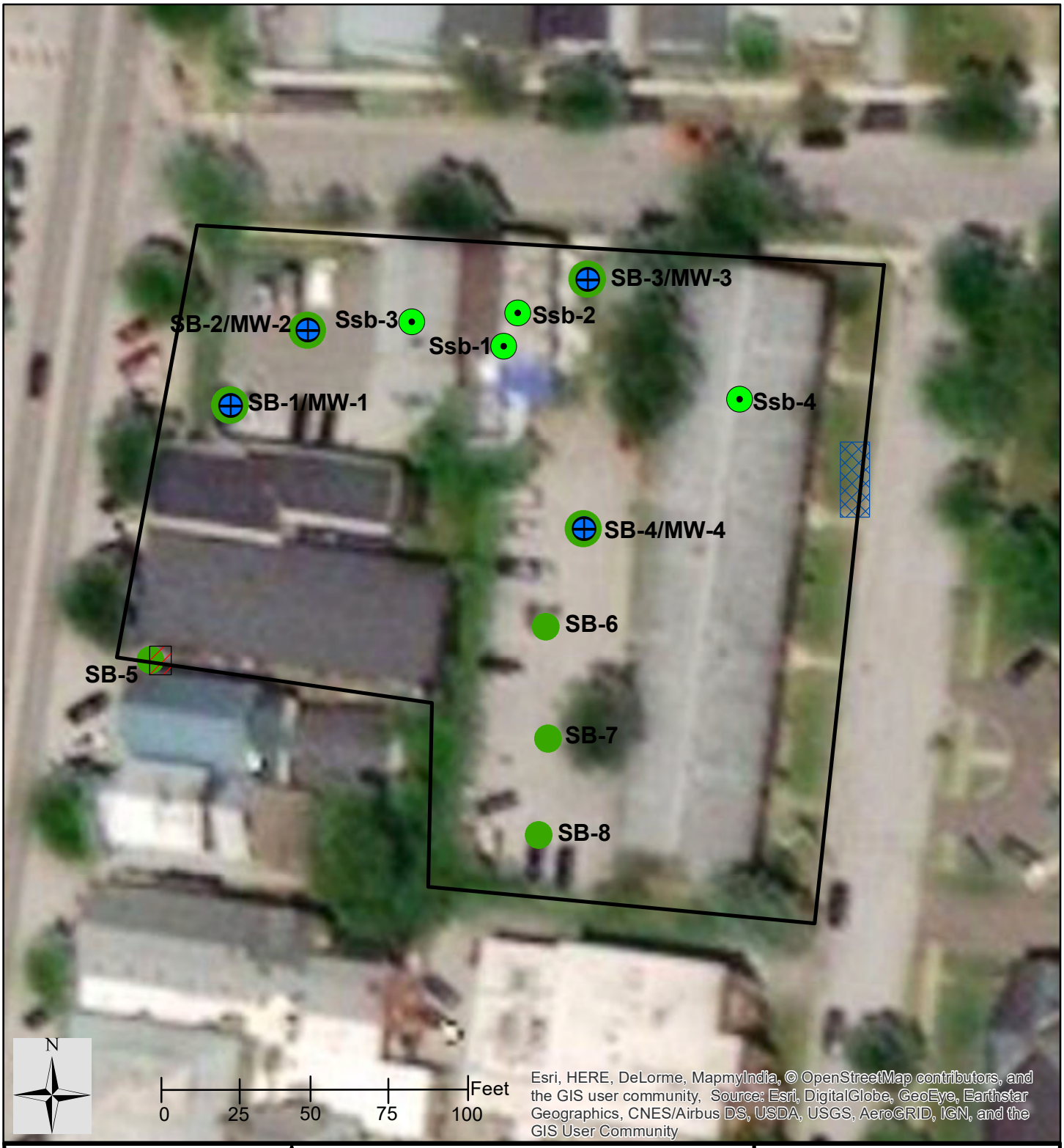


Congress and Main Redevelopment
St. Albans, Vermont

LE·Environmental

Site Location Map

LEE# 18-112
Date: June 18, 2018
Source: USGS

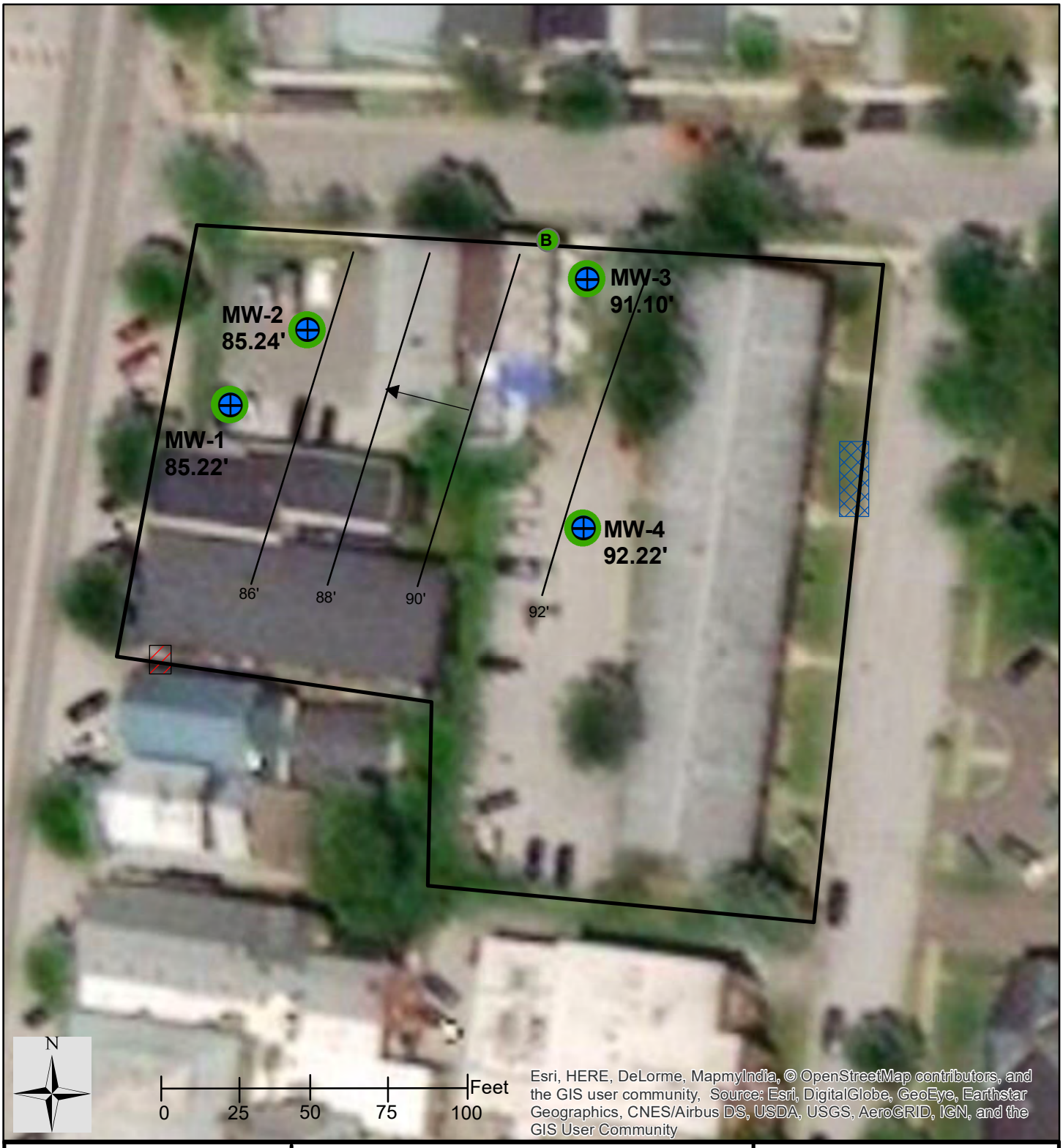


LEE
LE·Environmental
21 North Main Street Unit #1
Waterbury, Vermont
Phone: 802-917-2001
www.leenv.net

Site Map
Congress and Main Redevelopment Project
St. Albans, Vermont

Legend
- SB-X: Soil Boring
- GW-X: GW Well
- Ssb-X: SS Vapor Point
- Former Gasoline UST
- Former Fuel Oil UST (closed in-place)

Drawing Date: 9/12/18
LEE Project #: 18-112



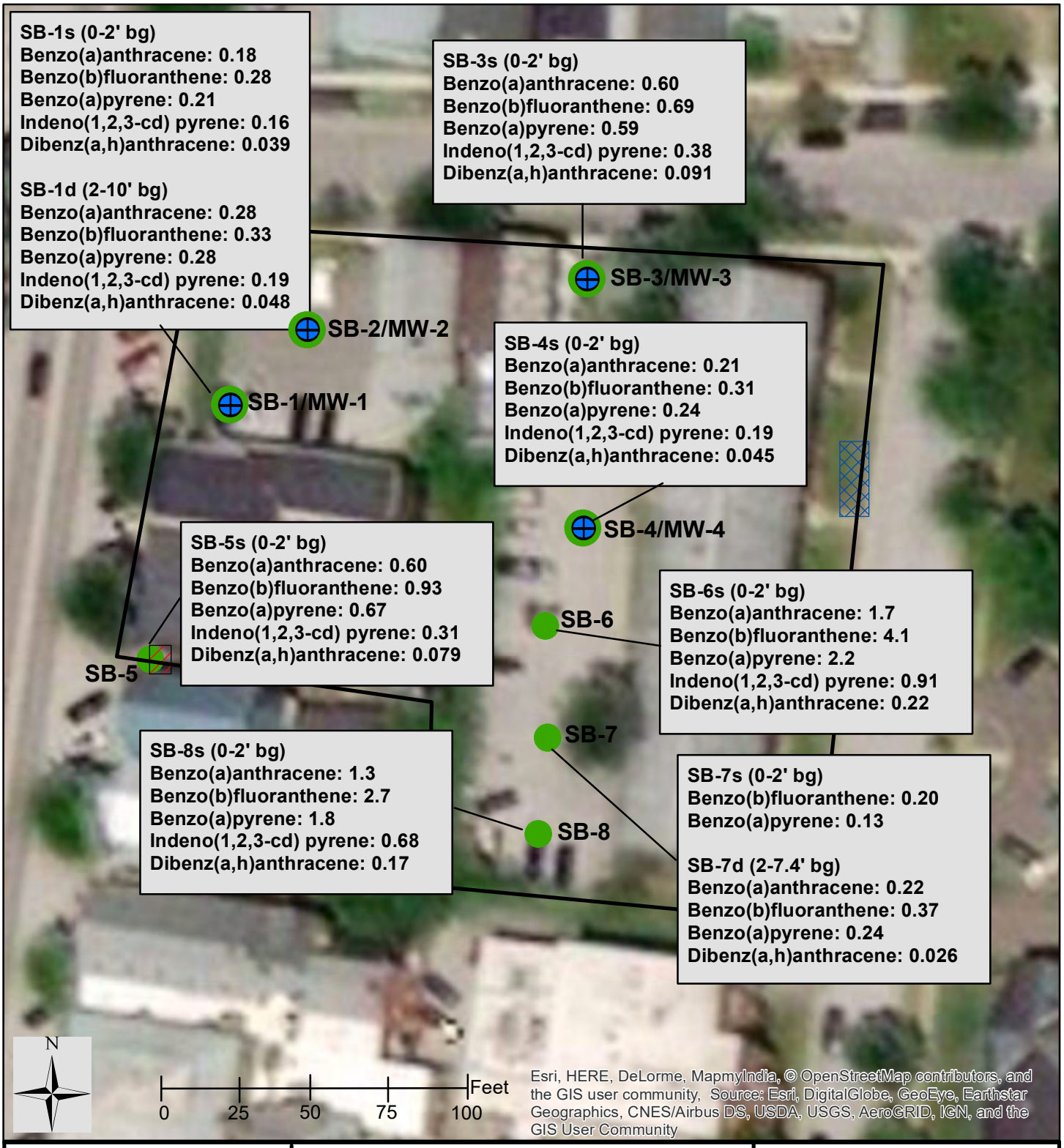
LEE
LE·Environmental
21 North Main Street Unit #1
Waterbury, Vermont
Phone: 802-917-2001
www.leenv.net

Groundwater Contour Map
Congress and Main Redevelopment Project
St. Albans, Vermont

LEE #18-112

Legend
- Monitoring Well with GW elevations measured in feet
- Arrow indicates estimated groundwater flow direction
- B Benchmark 100'

Measure Date: 7/18/18
Drawing Date: 9/12/18



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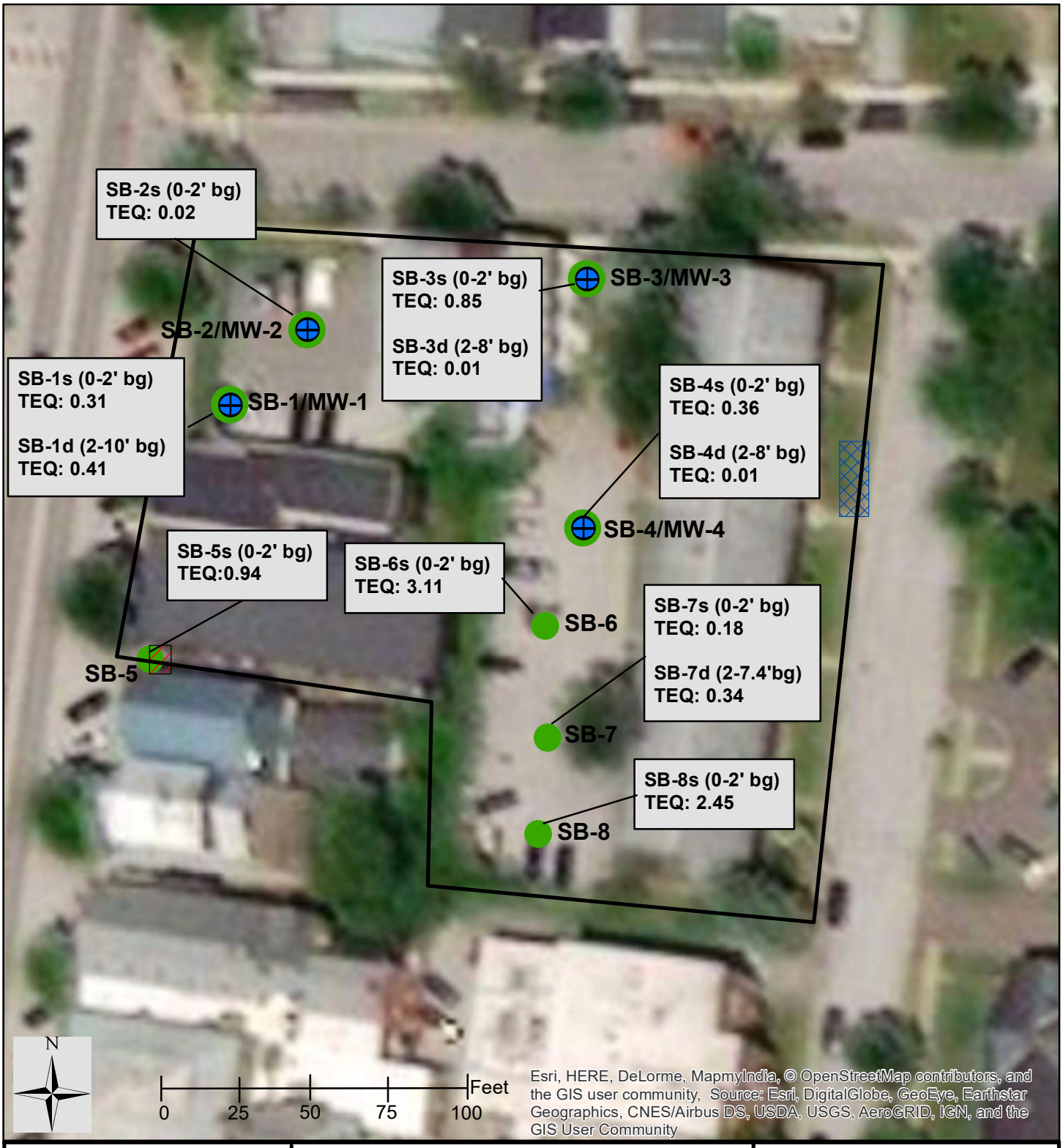
Waterbury, Vermont
Phone: 802-917-2001
www.leenv.net

Soil Contaminant Map-PAHs
Congress and Main Redevelopment Project
St. Albans, Vermont

Legend

● Soil boring/soil sample with PAH concentrations exceeding residential standards reported in (mg/kg)

Sample Date: 7/9/18
Drawing Date: 9/12/18
LEE Project # 18-112



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Waterbury, Vermont
Phone: 802-917-2001
www.leenv.net

Soil Contaminant Map- B[a]P TEQ Congress and Main Redevelopment Project St. Albans, Vermont

Legend

● Soil boring/soil sample with B[a]P TEQ concentrations reported in (mg/kg)

Sample Date: 7/9/18
Drawing Date: 9/12/18
LEE Project # 18-112

LEE
LE·Environmental
21 North Main Street Unit #1
Waterbury, Vermont
Phone: 802-917-2001
www.leenv.net

Soil Contaminant Map-Metals
Congress and Main Redevelopment Project
St. Albans, Vermont

Legend

● Soil boring/soil sample with contaminant concentrations exceeding residential standards reported in (mg/kg)

Sample Date: 7/9/18
Drawing Date: 9/12/18
LEE Project # 18-112

Main and Congress Redevelopment

Vermont Agency of Natural Resources

vermont.gov

LEGEND

- Hazardous Site
- Hazardous Waste Generators
- Brownfields
- Aboveground Storage Tank
- Underground Storage Tank (w
- Dry Cleaner
- Parcels (Standardized)
- Roads
  - Interstate
  - Principal Arterial
  - Minor Arterial
  - Major Collector
  - Minor Collector
  - Local
  - Not part of function Classification S
- Waterbody
- Stream
- Parcels (Non-Standardized)
- Town Boundary

NOTES

Map created using ANR's Natural Resources Atlas

101.0 0 50.00 101.0 Meters

WGS_1984_Web_Mercator_Auxiliary_Sphere 1" = 165 Ft. 1cm = 20 Meters

© Vermont Agency of Natural Resources

THIS MAP IS NOT TO BE USED FOR NAVIGATION

DISCLAIMER: This map is for general reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable. ANR and the State of Vermont make no representations of any kind, including but not limited to, the warranties of merchantability, or fitness for a particular use, nor are any such warranties to be implied with respect to the data on this map.

APPENDIX A

Monitoring Well and Soil Boring Logs

SOIL BORING LOG/GROUNDWATER MONITORING WELL COMPLETION DIAGRAM SHEET 1 OF 1

LE Environmental

Main and Congress Development

July 9, 2018 DRILLER T&K Drilling

LEE Project # 18-112 ON-SITE REP. Angela Emerson

BORING NO. / WELL NO. SB-1 / GMW-1

TOP OF CASING ELEVATION 93.20 FT.

REFUSAL: DEPTH NE FT.

TOP OF ROCK: DEPTH NE FT.

BOTTOM OF HOLE DEPTH: DEPTH 10.0 FT.

BORING ADVANCED BY: HS AUGERING

WATER LEVEL DATA (IF APPLICABLE)

COMPLETION: DEPTH 4 FT.

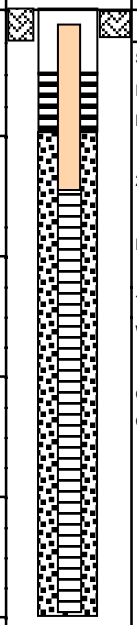
ELEV. 89 FT.

MONITOR DATE: DEPTH 7.98 FT.

ELEV. 85.22 FT.

STRATUM DEPTH FT.	STRATUM DEPTH ELEV.	STRATUM DESCRIPTION	PENETRATION/ RECOVERY (")	FIELD RESULTS Blow Counts	FIELD RESULTS PID (ppm)
0.0 – 2.0	91.2	Poorly Graded Sand with gravel (SP): dry, light gray, fine and medium sand, some gravel. Had to auger through tight gravel	Sampled Cuttings	Augered	0.0
2.0 – 4.0	89.2	Silty Sand (SM): moist to wet, dark brown, fine and medium sand and silt. Glass and coal noted in sample	24/14	2-2-4-26	0.0
4.0 – 6.0	87.2	Silty Sand (SM): moist, medium and orange/brown, fine and medium sand, some silt. Till	24/16	4-4-7-16	0.0
6.0 – 8.0	85.2	Silty Sand (SM): moist, medium and orange/brown, fine and medium sand, some silt. Till	24/5	18-12-12-17	0.0
8.0 – 10.0	83.2	Clayey Sand (SC): moist to wet, medium brown, fine to coarse sand, some clay, trace gravel. Till	24/18	8-14-36-38	0.3

WELL DESIGN



WELL CONSTRUCTION DETAILS

SOIL SAMPLING DETAILS

STEEL ROADBOX IN CEMENT

FLUSH MOUNTED IN GRAVEL PARKING LOT

BENTONITE SEAL 0.5-1.5' BG

2" PVC RISER 0.5-3' BG

DRILLERS SAND 1.5-10' BG

7' LENGTH OF 0.010 SLOT PVC PLASTIC WELL SCREEN 3-10' BG

COLLECTED SOIL SAMPLE SB-1S FROM 0-2' BG

COLLECTED SOIL SAMPLE SB-1D FROM 2-10' BG

SOIL BORING LOG/GROUNDWATER MONITORING WELL COMPLETION DIAGRAM SHEET 1 OF 1

LE Environmental

Main and Congress Development

July 9, 2018 DRILLER T&K Drilling

LEE Project # 18-112 ON-SITE REP. Angela Emerson

BORING NO. / WELL NO. SB-2 / GMW-2

TOP OF CASING ELEVATION 93.95 FT.

REFUSAL: DEPTH NE FT.

TOP OF ROCK: DEPTH NE FT.

BOTTOM OF HOLE DEPTH: DEPTH 10.0 FT.

BORING ADVANCED BY: HS AUGERING

WATER LEVEL DATA (IF APPLICABLE)

COMPLETION: DEPTH 6 FT.

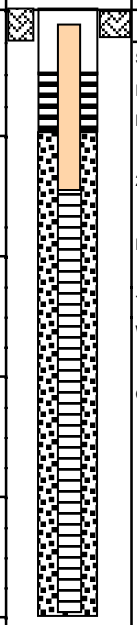
ELEV. 88 FT.

MONITOR DATE: DEPTH 8.71 FT.

ELEV. 85.24 FT.

STRATUM DEPTH FT.	STRATUM DEPTH ELEV.	STRATUM DESCRIPTION	PENETRATION/ RECOVERY (")	FIELD RESULTS Blow Counts	FIELD RESULTS PID (ppm)
0.0 – 2.0	92.0	Well Graded Sand with Gravel (SW): dry, light gray/black, fine to coarse sand, trace gravel. Evidence of burned building	24/6	14-4-7-5	0.1
2.0 – 4.0	90.0	No recovery	24/0	1-1-1-1	0.0
4.0 – 6.0	88.0	Well Graded Sand with Silt (SW-SM): moist to wet, orange/brown/black, fine to coarse sand, some silt, trace gravel. Charred wood, ashes	24/2	1-1-1-1	0.0
6.0 – 8.0	86.0	Well Graded Sand with Silt (SW-SM): wet, orange/ brown/black, fine to coarse sand, some silt, trace silt. Till	24/6	1-4-7-25	0.1
8.0 – 10.0	84.0	Silty Sand (SM): wet, medium brown, fine to coarse sand, some silt, trace gravel. Till	12/5	15-38-50/0"	0.3

WELL DESIGN



WELL CONSTRUCTION DETAILS

SOIL SAMPLING DETAILS

STEEL ROADBOX IN CEMENT

FLUSH MOUNTED IN GRAVEL PARKING LOT

BENTONITE SEAL 0.5-1.5' BG

2" PVC RISER 0.5-3' BG

DRILLERS SAND 1.5-10' BG

7' LENGTH OF 0.010 SLOT PVC PLASTIC WELL SCREEN 3-10' BG

COLLECTED SOIL SAMPLE SB-2S FROM 0-2'BG

SOIL BORING LOG/GROUNDWATER MONITORING WELL COMPLETION DIAGRAM SHEET 1 OF 1

LE Environmental

Main and Congress Development

July 9, 2018 DRILLER T&K Drilling

LEE Project # 18-112 ON-SITE REP. Angela Emerson

BORING NO. / WELL NO. SB-3 / GMW-3

TOP OF CASING ELEVATION 93.70 FT.

REFUSAL: DEPTH NE FT.

TOP OF ROCK: DEPTH NE FT.

BOTTOM OF HOLE DEPTH: DEPTH 12.0 FT.

BORING ADVANCED BY: HS AUGERING

WATER LEVEL DATA (IF APPLICABLE)

COMPLETION: DEPTH 8 FT.

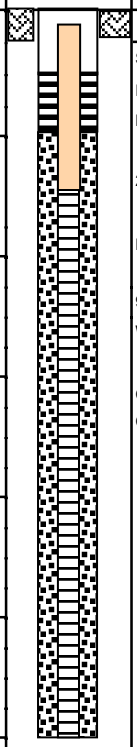
ELEV. 88 FT.

MONITOR DATE: DEPTH 8.60 FT.

ELEV. 85.10 FT.

STRATUM DEPTH FT.	STRATUM DEPTH ELEV.	STRATUM DESCRIPTION	PENETRATION/ RECOVERY (")	FIELD RESULTS Blow Counts	FIELD RESULTS PID (ppm)
0.0		Silty Sand (SM): dry, medium brown, fine to coarse sand, some silt, trace gravel. Concrete and asphalt top 1'	24/16	4-6-18-12	0.1
2.0	91.7				
		Silty Sand (SM): dry, medium brown, fine to coarse sand, some silt, trace gravel.	24/16	7-6-5-5	0.1
4.0	89.7				
		Clayey Sand (SC): dry to moist, orange/ brown, fine to coarse sand with clay, some gravel. Till	24/11	7-7-6-4	0.0
6.0	87.7				
		Clayey Sand (SC): moist to wet, medium brown, fine sand with clay, some gravel. Till	24/9	9-7-8-18	0.1
8.0	85.7				
		Sandy Silt (ML): wet, light brown, silt with fine sand, some gravel. Till	17/12	5-18-50/5"	0.1
10.0	83.7				
		Sandy Silt (ML): wet, light brown, silt with fine sand, some gravel. Till	18/18	31-36-56-50/0"	0.1
12.0	83.7				

WELL DESIGN



WELL CONSTRUCTION DETAILS

SOIL SAMPLING DETAILS

STEEL ROADBOX IN CEMENT

FLUSH MOUNTED IN PAVED PARKING LOT

BENTONITE SEAL 0.5-1.5' BG

2" PVC RISER 0.5-3' BG

DRILLERS SAND 1.5-12' BG

9' LENGTH OF 0.010 SLOT PVC PLASTIC WELL SCREEN 3-12' BG

COLLECTED SOIL SAMPLE SB-3S FROM 0-2' BG

COLLECTED SOIL SAMPLE SB-3D FROM 2-8' BG

SOIL BORING LOG/GROUNDWATER MONITORING WELL COMPLETION DIAGRAM SHEET 1 OF 1

LE Environmental

Main and Congress Development

July 9, 2018 DRILLER T&K Drilling

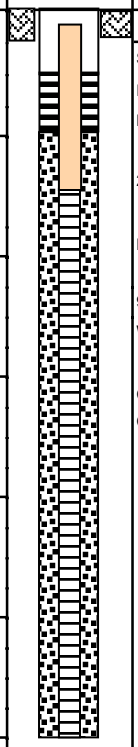
LEE Project # 18-112 ON-SITE REP. Angela Emerson

BORING NO. / WELL NO. SB-4 / GMW-4

TOP OF CASING ELEVATION	100.48 FT.			**WATER LEVEL DATA (IF APPLICABLE)**	
REFUSAL:	DEPTH	NE	FT.	COMPLETION: DEPTH	8 FT.
TOP OF ROCK:	DEPTH	NE	FT.	ELEV.	94 FT.
BOTTOM OF HOLE DEPTH:	DEPTH	12.0	FT.	MONITOR DATE: DEPTH	8.26 FT.
BORING ADVANCED BY:	HS AUGERING			ELEV.	91.88 FT.

STRATUM DEPTH FT.	STRATUM DEPTH ELEV.	STRATUM DESCRIPTION	PENETRATION/ RECOVERY (")	FIELD RESULTS Blow Counts	FIELD RESULTS PID (ppm)
0.0		Well Graded Sand with Silt (SW-SM): dry, medium brown, fine to coarse sand, some silt.	24/18	9-15-19-11	0.1
2.0	98.5				
		Well Graded Sand with Silt (SW-SM): dry to moist, medium brown, fine to coarse sand, some silt.	24/8	11-9-9-8	0.3
4.0	96.5				
		Silty Sand (SM): dry, medium brown, fine to coarse sand, some silt, trace gravel. Till	24/16	7-6-9-10	0.2
6.0	94.5				
		Clayey Sand (SC): moist to wet, medium brown, fine to coarse sand with clay, trace gravel. Till	24/13	10-11-12-9	0.3
8.0	92.5				
		Clayey Sand (SC): moist to wet, medium brown, fine to coarse sand with clay, some gravel. Till	24/24	9-16-19-19	0.3
10.0	90.5				
		Sandy Silt (ML): wet, light brown, silt with fine sand, some gravel. Till	24/22	11-36-39-43	0.3
12.0	90.5				

WELL DESIGN



WELL CONSTRUCTION DETAILS

SOIL SAMPLING DETAILS

STEEL ROADBOX IN CEMENT

FLUSH MOUNTED IN PAVED PARKING LOT

BENTONITE SEAL 0.5-1.5' BG

2" PVC RISER 0.5-3' BG

DRILLERS SAND 1.5-12' BG

9' LENGTH OF 0.010 SLOT PVC PLASTIC WELL SCREEN 3-12' BG

COLLECTED SOIL SAMPLE SB-4S FROM 0-2' BG

COLLECTED SOIL SAMPLE SB-4D FROM 2-8' BG

SOIL BORING LOG

Main and Congress Development

July 9, 2018

LEE Project # 18-112

SHEET 1 OF 1

DRILLER T&K Drilling

ON-SITE REP. Angela Emerson

BORING NO. SB-5

REFUSAL: DEPTH NE FT

TOP OF ROCK: DEPTH NE FT

BOTTOM OF HOLE DEPTH: DEPTH 4.0 FT.

BORING ADVANCED BY: Geoprobe

STRATUM DEPTH FT.	STRATUM DESCRIPTION	PENETRATION/ RECOVERY (")	FIELD RESULTS Blow Counts	FIELD RESULTS PID (ppm)	SOIL SAMPLING DETAILS
3.0	Silty Sand (SM): Dry, medium brown, fine to coarse sand with silt, trace gravel. Fill	36/28	N/A	0.0	COLLECTED SOIL SAMPLE SB-5S FROM 0-2' BG GROUNDWATER ENCOUNTERED AT 3' BG
4.0	Silty Sand (SM): Wet, dark brown, fine to coarse sand with silt, trace gravel. Fill	12/6	N/A	0.0	

SOIL BORING LOG

Main and Congress Development

July 9, 2018

LEE Project # 18-112

DRILLER T&K Drilling

ON-SITE REP. Angela Emerson

BORING NO. SB-6

REFUSAL: DEPTH NE FT

TOP OF ROCK: DEPTH NE FT

BOTTOM OF HOLE DEPTH: DEPTH 9.0 FT.

BORING ADVANCED BY: Geoprobe

STRATUM DEPTH FT.	STRATUM DESCRIPTION	PENETRATION/ RECOVERY (")	FIELD RESULTS Blow Counts	FIELD RESULTS PID (ppm)	SOIL SAMPLING DETAILS
3.0	Well Graded Sand with Silt (SW-SM): dry, gray and black, fine to coarse sand, some silt, trace gravel. Bricks, ashes, charcoal	36/21	N/A	0.1	COLLECTED SOIL SAMPLE SB-6S FROM 0-2' BG GROUNDWATER ENCOUNTERED AT 8' BG
6.0	Silty Sand (SM): Dry, light brown and gray, fine to coarse sand with silt, trace gravel. Evidence of fire debris	36/28	N/A	0.1	
9.0	Clayey Sand (SC): Dry to wet, medium brown, fine to coarse sand with clay, trace gravel. Till	36/20	N/A	0.1	

LEE Environmental

SOIL BORING LOG

Main and Congress Development

July 9, 2018

LEE Project # 18-112

SHEET 1 OF 1

DRILLER T&K Drilling

ON-SITE REP. Angela Emerson

BORING NO. SB-7

REFUSAL: DEPTH 7.4 FT

TOP OF ROCK: DEPTH NE FT

BOTTOM OF HOLE DEPTH: DEPTH 7.4 FT.

BORING ADVANCED BY: Geoprobe

STRATUM DEPTH FT.	STRATUM DESCRIPTION	PENETRATION/ RECOVERY (")	FIELD RESULTS Blow Counts	FIELD RESULTS PID (ppm)	SOIL SAMPLING DETAILS
3.0	Well Graded Sand with Silt (SW-SM): dry, gray and black, fine to coarse sand, some silt, trace gravel. Bricks, ashes, charcoal	36/30	N/A	0.0	COLLECTED SOIL SAMPLE SB-7S FROM 0-2' BG COLLECTED SOIL SAMPLE SB-7D FROM 2-7.4' GROUNDWATER ENCOUNTERED AT 7' BG
6.0	Silty Sand (SM): Dry, light brown and gray, fine to coarse sand with silt, trace gravel. Evidence of fire debris	36/33	N/A	0.0	
7.4	Clayey Sand (SC): Moist to wet, orange/brown, fine to coarse sand with clay, trace gravel. Till	36/20	N/A	0.1	

SOIL BORING LOG

Main and Congress Development

July 9, 2018

LEE Project # 18-112

DRILLER T&K Drilling

ON-SITE REP. Angela Emerson

BORING NO. SB-8

REFUSAL: DEPTH NE FT

TOP OF ROCK: DEPTH NE FT

BOTTOM OF HOLE DEPTH: DEPTH 9.0 FT.

BORING ADVANCED BY: Geoprobe

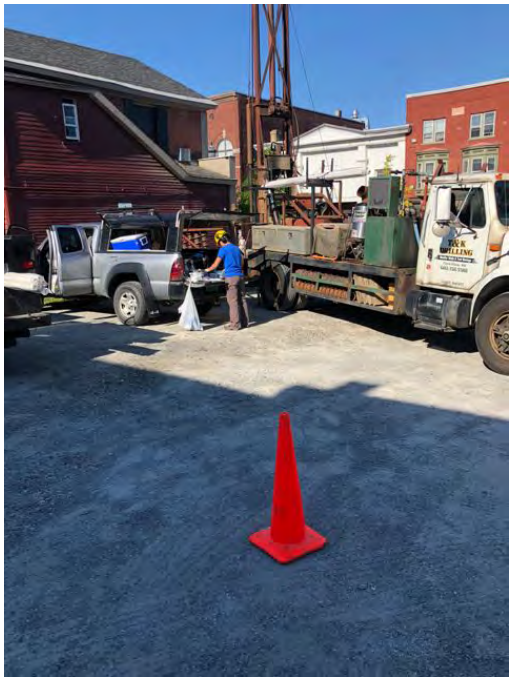
STRATUM DEPTH FT.	STRATUM DESCRIPTION	PENETRATION/ RECOVERY (")	FIELD RESULTS Blow Counts	FIELD RESULTS PID (ppm)	SOIL SAMPLING DETAILS
3.0	Well Graded Sand with Silt (SW-SM): dry, light gray and black and medium brown, fine to coarse sand, some silt, trace gravel. Bricks, ashes, charcoal	36/30	N/A	0.1	COLLECTED SOIL SAMPLE SB-8S FROM 0-2' BG GROUNDWATER ENCOUNTERED AT 8' BG
6.0	Silty Sand (SM): Dry, medium brown, fine to coarse sand with silt, trace gravel. Evidence of fire debris	36/21	N/A	0.1	
9.0	Clayey Sand (SC): Dry to wet, medium brown/orange/gray, fine to coarse sand with clay, trace gravel. Evidence of fire debris.	36/17	N/A	0.1	

APPENDIX B

Photographic Documentation

Photographic Documentation
Phase II Environmental Site Assessment
Main and Congress Redevelopment
St. Albans, VT
LEE #18-112

LE·Environmental

Photograph ID: 001 Date: July 9, 2018 Location: SB-1/MW-1 Direction: Looking west Comments: Drilling SB-1/MW-1 in gravel lot.	
Photograph ID: 002 Date: July 9, 2018 Location: SB-1/MW-2 Direction: Looking east Comments: Drilling SB-2/MW-2. 10 Congress is in background of photo.	

Photographic Documentation
Phase II Environmental Site Assessment
Main and Congress Redevelopment
St. Albans, VT
LEE #18-112

LE·Environmental

Photograph ID: 003
Date: July 9, 2018
Location:
SB-3/MW-3

Direction:
Looking west
Comments:

Drilling SB-3/MW-3. 12 Congress is in background of photo.

Photograph ID: 004
Date: July 9, 2018
Location:
SB-4/MW-4

Direction:
Looking east
Comments:

Drilling SB-4/MW-4. 10 Maiden Land is in background of photo.

Photographic Documentation
Phase II Environmental Site Assessment
Main and Congress Redevelopment
St. Albans, VT
LEE #18-112

LE·Environmental

Photograph ID: 005
Date: July 9, 2018
Location:
SB-5

Direction:
Looking east
Comments:

Drilling SB-5 in former gasoline UST location.

Photograph ID: 006
Date: July 9, 2018
Location:
Parking lot behind 10 Maiden Ln

Direction:
Looking south
Comments:

Drilling soil borings in parking lot behind 10 Maiden Lane.

Photographic Documentation
Phase II Environmental Site Assessment
Main and Congress Redevelopment
St. Albans, VT
LEE #18-112

LE·Environmental

Photograph ID: 007
Date: July 9, 2018
Location:
SB-8

Direction:
N/A
Comments:

Typical soil core from 0-3 feet in parking lot behind 10 Maiden Lane. Evidence of burned building debris and fill materials.

Photograph ID: 008
Date: July 18, 2018
Location:
12 Congress Street

Direction:
Looking north
Comments:

Showing typical vapor pin sampling set-up. This is sample subslab-2.

APPENDIX C

Field Notes

MAIN AND CONGRESS
SOIL SAMPLING FIELD FORM
JOB # 18-112

DATE: 7/9/18 INSPECTORS(S): AE

Equipment Needed: PID, Mag, Handauger, EAI containers, markers, chain of custody, decon equipment (coolers, gloves, alconox, distilled water, etc.), peristaltic pump and tubing, bailers

A hollow stem auger drill rig will be utilized to advance eight soil borings at the locations as shown on the Phase II ESA Site Map.

Continuous soil sampling will be conducted for the top ten feet during soil boring advancement. Soil samples will be screened for VOCs using a calibrated PID. One shallow soil sample will be collected from each of the soil borings (0-2 feet bg) and four additional composite samples will be obtained, from (2 feet bg to the groundwater interface).

If sufficient groundwater is encountered during soil boring advancement (more than 12"), groundwater monitoring wells will be installed at 4 locations, and groundwater testing will be conducted. A 2" diameter PVC groundwater monitoring well will be installed in the soil boring. Each well will have up to a 10' well screen spanning the water table. Each well will be developed following its installation with a peristaltic pump.

Soil samples will be submitted for laboratory analysis of the following contaminants of concern, and a duplicate will be collected (total of 13 samples):

- **VOCs via EPA Method 8260c;**
- **PAHs via EPA Method 8270d; and,**
- **RCRA 8 Metals via EPA Method 6020a**

MAIN AND CONGRESS
SOIL SAMPLING FIELD FORM
JOB # 18-112

SOIL SAMPLES

Sample #	Time	Location/Depth	PID	
SB-1s	0835	SB-1-0-2	0.0	46025
SB-1d	0900	SB-1-2-10	0.3	46028
SB-2s	0930	SB-2-0-2	0.0	46024
SB-3s	1215	SB-3 0-2'	0.1	46016
SB-3d	1230	SB-3 2-8'	0.0-0.1	46019
SB-4s	1030	SB-4 0-2	0.1	46004
SB-4d	1045	SB-2-8	0.2-0.3	46006
SB-5s	1410	SB-5 0-2'	0.0	46005
SB-6s	1515	SB-6 0-2'	0.1	46007
SB-7s	1500	SB-7 0-2'	0.0	46019
SB-7d	1510	SB-7 2-~~8~~ 7.4'	0.0-0.1	46017
SB-8s	1530	SB-8 0-2	0.1	46009
Duplicate	0900	SB-1-2-10	0.3	46015

CONGRESS AND MAIN REDEVELOPMENT
ST. ALBANS, VT
SOIL GAS SAMPLING FIELD FORM
JOB # 17-103

DATE: 7/18/18 INSPECTORS(S): AE/ARL

Phase II ESA Equipment Needed: PID; ALS Soil Gas Cans, PPE (hearing protection, dust masks, eye protection) hammer drill, decon stuff, Geotech air pump calibrated to 200 ml/min.

- **Drill access holes through cement slab (5/8") at four locations shown on plan.**
- **Install vapor pins in four holes.**
- **Purge 5 minutes at 200 ml/min with air pump.**
- **Connect tubing to regulator to canister. Record PID reading beginning and turn on canister.**
- **Set ambient air canister at a suitable outside location.**
- **Let run 2 hours or until 3" HG remains in can, whichever comes first.**
- **Shut down, collect PID reading.**
- **Submit 4 soil gas samples and one ambient to EAI /ALS for TO15 VOCs.**

ASSESSMENT SOIL SAMPLES

Sample #	Location	Time	PID (start/finish)
Maiden Lane	Subslab-4	0943 - 1139	0.4 - 0.2
12 Congress-1	Subslab-1	1206 - 1403	0.4 - 0.3
12 Congress-2	Subslab-2	1158 - 1359	0.4 - 0.3
10 Congress	Subslab-3	1017 - 1216	0.4 - 0.2
Ambient	Outside Center	1020 - 1222	0.0 - 0.0

Barometric Pressure: 29.99 ↑

LE Environmental LLC
Congress and Main
Groundwater monitoring
Field Data Form

Monitoring Well MW-1

Technician: AE/AL

Date: 7/18/18

Location: Gravel Parking Lot

Depth to Water: 7.98'

Time	pH	Cond	Temp	Turb
1048	7.31	1,010	15.1	111
1051	7.09	1,020	14.06	99.6
1055	7.46	992	14.5	226
1058	7.36	1,006	14.3	572
1103	7.31	1,000	15.3	1,100

* Well ran dry
Sampled re-charge @
1120

*DTB - 9' BTOC

LE Environmental LLC
Congress and Main
Groundwater monitoring
Field Data Form

Monitoring Well MW-2

Technician: AE / ARL

Date: 7/18/18

Location: Gravel Parking lot

Depth to Water: 8.71'

Time	pH	Cond	Temp	Turb
1213	6.86	4,250	15.4	15.1

* Purged dry
Sampled recharge @ 1245

* BTB - 9.2' BTOC

LE Environmental LLC
Congress and Main
Groundwater monitoring
Field Data Form

Monitoring Well MW-3

Technician: AE

Date: 7/18/18

Location: Driveway 12 Congress

Depth to Water: 8.60'

Time	pH	Cond	Temp	Turb	
1405	7.39	1,877	16.8	33.1	
1410	7.26	1,932	16.3	8.32	
1415	7.24	2,100	16.2	5.40	
1419	7.23	2,120	16.2	3.92	
1422	7.26	2,140	16.3	4.69	* Sampled 1425

LE Environmental LLC
Congress and Main
Groundwater monitoring
Field Data Form

Monitoring Well MW-4

Technician: AE/ARL

Date: 7/18/18

Location: 12 Congress / 10 Maiden Lane Parking Lot

Depth to Water: 8.26'

Time	pH	Cond	Temp	Turb
1322	7.04	1,877	17.4	489
1327	7.10	1,899	17.4	62.0
1331	7.14	1,892	16.2	37.7
1334	7.16	1,906	17.0	27.2
1338	7.16	1,926	16.8	22.2
1342	7.15	1,944	17.1	22.7
1346	7.17	1,942	17.2	21.6

APPENDIX D

Tabular Summary of Laboratory Results

Brownfields Phase II Environmental Site Assessment
Soil Sampling Data Summary
Congress and Main Street
St. Albans, Vermont

Soil Sample *Sample Depth (ft bg)* *PID reading (ppm)* *Sample Date*	*SB-1s* *0-2* *0.0* *7/9/18*	*SB-1d* *2-10* *0.3* *7/9/18*	*SB-2s* *0-2* *0.0* *7/9/18*	*SB-3s* *0-2* *0.1* *7/9/18*	*SB-3d* *2-8* *0.1* *7/9/18*	*SB-4s* *0-2* *0.1* *7/9/18*	*SB-4d* *2-8* *0.3* *7/9/18*	*SB-5s* *0-2* *0.0* *7/9/18*	*SB-6s* *0-2* *0.1* *7/9/18*	*SB-7s* *0-2* *0.0* *7/9/18*	*SB-7d* *2-7.4* *0.1* *7/9/18*	*SB-8s* *0-2* *0.1* *7/9/18*	*Duplicate* *2-10* *0.3* *7/9/18*	EPA Residential RSL (mg/kg)	EPA Industrial RSL (mg/kg)	VSL Residential (mg/kg)
VOCs, EPA Method 8260C (mg/kg)																
Dichlorodifluoromethane	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	87	370	NA
Chloromethane	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	110	460	NA
Vinyl Chloride	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	0.059	1.7	NA
Bromomethane	ND<0.2	ND<0.2	ND<0.2	ND<0.2	ND<0.2	ND<0.2	ND<0.2	ND<0.2	ND<0.2	ND<0.2	ND<0.2	ND<0.2	ND<0.2	6.8	30	NA
Chloroethane (ethyl chloride)	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	14,000	57,000	NA
Trichlorofluoromethane	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	23,000	350,000	NA
Diethyl Ether	ND<0.05	ND<0.05	ND<0.05	ND<0.06	ND<0.05	ND<0.06	ND<0.05	ND<0.05	ND<0.05	ND<0.07	ND<0.06	ND<0.05	ND<0.05	NA	NA	NA
Acetone	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2	NA	670,000	NA
1 ,1-Dichloroethene	ND<0.05	ND<0.05	ND<0.05	ND<0.06	ND<0.05	ND<0.06	ND<0.05	ND<0.05	ND<0.05	ND<0.07	ND<0.06	ND<0.05	ND<0.05	230	1,000	NA
Methylene chloride	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	57	1,000	NA
Carbon disulfide	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	770	3,500	NA
MTBE	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	47	210	647
trans-1,2-Dichloroethene	ND<0.05	ND<0.05	ND<0.05	ND<0.06	ND<0.05	ND<0.06	ND<0.05	ND<0.05	ND<0.05	ND<0.07	ND<0.06	ND<0.05	ND<0.05	NA	23,000	150
1,1-Dichloroethane	ND<0.05	ND<0.05	ND<0.05	ND<0.06	ND<0.05	ND<0.06	ND<0.05	ND<0.05	ND<0.05	ND<0.07	ND<0.06	ND<0.05	ND<0.05	3.6	16	NA
2,2-Dichloropropane	ND<0.05	ND<0.05	ND<0.05	ND<0.06	ND<0.05	ND<0.06	ND<0.05	ND<0.05	ND<0.05	ND<0.07	ND<0.06	ND<0.05	ND<0.05	NA	NA	NA
cis-1,2-Dichloroethene	ND<0.05	ND<0.05	ND<0.05	ND<0.06	ND<0.05	ND<0.06	ND<0.05	ND<0.05	ND<0.05	ND<0.07	ND<0.06	ND<0.05	ND<0.05	NA	2,300	135
2-Butanone(MEK)	ND<0.5	ND<0.5	ND<0.5	ND<0.06	ND<0.5	ND<0.06	ND<0.5	ND<0.5	ND<0.5	ND<0.07	ND<0.06	ND<0.5	ND<0.5	NA	190,000	26000
Bromochloromethane	ND<0.05	ND<0.05	ND<0.05	ND<0.06	ND<0.05	ND<0.06	ND<0.05	ND<0.05	ND<0.05	ND<0.07	ND<0.06	ND<0.05	ND<0.05	NA	630	129
Tetrahydrofuran(THF)	ND<0.5	ND<0.5	ND<0.5	ND<0.6	ND<0.5	ND<0.6	ND<0.5	ND<0.5	ND<0.5	ND<0.7	ND<0.6	ND<0.5	ND<0.5	NA	NA	NA
Chloroform	ND<0.05	ND<0.05	ND<0.05	ND<0.06	ND<0.05	ND<0.06	ND<0.05	ND<0.05	ND<0.05	ND<0.07	ND<0.06	ND<0.05	ND<0.05	0.32	1.4	NA
1,1,1-Trichloroethane	ND<0.05	ND<0.05	ND<0.05	ND<0.06	ND<0.05	ND<0.06	ND<0.05	ND<0.05	ND<0.05	ND<0.07	ND<0.06	ND<0.05	ND<0.05	8,100	36,000	NA
Carbon tetrachloride	ND<0.05	ND<0.05	ND<0.05	ND<0.06	ND<0.05	ND<0.06	ND<0.05	ND<0.05	ND<0.05	ND<0.07	ND<0.06	ND<0.05	ND<0.05	NA	2.9	0.247
1 ,1-Dichloropropene	ND<0.05	ND<0.05	ND<0.05	ND<0.06	ND<0.05	ND<0.06	ND<0.05	ND<0.05	ND<0.05	ND<0.07	ND<0.06	ND<0.05	ND<0.05	NA	NA	NA
Benzene	ND<0.05	ND<0.05	ND<0.05	ND<0.06	ND<0.05	ND<0.06	ND<0.05	ND<0.05	ND<0.05	ND<0.07	ND<0.06	ND<0.05	ND<0.05	NA	5.1	0.442
1,2-Dichloroethane	ND<0.05	ND<0.05	ND<0.05	ND<0.06	ND<0.05	ND<0.06	ND<0.05	ND<0.05	ND<0.05	ND<0.07	ND<0.06	ND<0.05	ND<0.05	NA	2	0.175
Trichloroethene (TCE)	ND<0.05	ND<0.05	ND<0.05	ND<0.06	ND<0.05	ND<0.06	ND<0.05	ND<0.05	ND<0.05	ND<0.07	ND<0.06	ND<0.05	ND<0.05	NA	6	0.442
1,2-Dichloropropane	ND<0.05	ND<0.05	ND<0.05	ND<0.06	ND<0.05	ND<0.06	ND<0.05	ND<0.05	ND<0.05	ND<0.07	ND<0.06	ND<0.05	ND<0.05	1	4.4	NA
Dibromomethane	ND<0.05	ND<0.05	ND<0.05	ND<0.06	ND<0.05	ND<0.06	ND<0.05	ND<0.05	ND<0.05	ND<0.07	ND<0.06	ND<0.05	ND<0.05	24	99	NA
Bromodichloromethane	ND<0.05	ND<0.05	ND<0.05	ND<0.06	ND<0.05	ND<0.06	ND<0.05	ND<0.05	ND<0.05	ND<0.07	ND<0.06	ND<0.05	ND<0.05	0.29	1.3	NA
4-Methyl-2-pentanone(MIBK)	ND<0.5	ND<0.5	ND<0.5	ND<0.6	ND<0.5	ND<0.6	ND<0.5	ND<0.5	ND<0.5	ND<0.7	ND<0.6	ND<0.5	ND<0.5	33,000	140,000	NA
cis-1,3-Dichloropropene	ND<0.05	ND<0.05	ND<0.05	ND<0.06	ND<0.05	ND<0.06	ND<0.05	ND<0.05	ND<0.05	ND<0.07	ND<0.06	ND<0.05	ND<0.05	1.8	8.2	NA
Toluene	ND<0.05	ND<0.05	ND<0.05	ND<0.06	ND<0.05	ND<0.06	ND<0.05	ND<0.05	ND<0.05	ND<0.07	ND<0.06	ND<0.05	ND<0.05	NA	47,000	4640
trans-1,3-Dichloropropene	ND<0.05	ND<0.05	ND<0.05	ND<0.06	ND<0.05	ND<0.06	ND<0.05	ND<0.05	ND<0.05	ND<0.07	ND<0.06	ND<0.05	ND<0.05	1.8	8.2	NA
1,1,2-Trichloroethane	ND<0.05	ND<0.05	ND<0.05	ND<0.06	ND<0.05	ND<0.06	ND<0.05	ND<0.05	ND<0.05	ND<0.07	ND<0.06	ND<0.05	ND<0.05	1.1	5	NA
2-Hexanone	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	200	1,300	NA
Tetrachloroethene (PCE)	ND<0.05	ND<0.05	ND<0.05	ND<0.06	ND<0.05	ND<0.06	ND<0.05	ND<0.05	ND<0.05	ND<0.07	ND<0.06	ND<0.05	ND<0.05	NA	100	1.46
1,3-Dichloropropane	ND<0.05	ND<0.05	ND<0.05	ND<0.06	ND<0.05	ND<0.06	ND<0.05	ND<0.05	ND<0.05	ND<0.07	ND<0.06	ND<0.05	ND<0.05	1,600	23,000	NA
Dibromochloromethane	ND<0.05	ND<0.05	ND<0.05	ND<0.06	ND<0.05	ND<0.06	ND<0.05	ND<0.05	ND<0.05	ND<0.07	ND<0.06	ND<0.05	ND<0.05	8.3	39	NA
1,2-Dibromoethane(EDB)	ND<0.05	ND<0.05	ND<0.05	ND<0.06	ND<0.05	ND<0.06	ND<0.05	ND<0.05	ND<0.05	ND<0.07	ND<0.06	ND<0.05	ND<0.05	0.036	0.16	NA
Chlorobenzene	ND<0.05	ND<0.05	ND<0.05	ND<0.06	ND<0.05	ND<0.06	ND<0.05	ND<0.05	ND<0.05	ND<0.07	ND<0.06	ND<0.05	ND<0.05	NA	1,300	273

NOTES:
Soil Screening Levels (RSL/SSL) from July 2017 Vermont DEC Investigation and Remediation of Contaminated Properties Rule
Shaded cell = reporting limit exceeds RSL/VSL.
NA = No RSL/VSL available

Brownfields Phase II Environmental Site Assessment
Soil Sampling Data Summary
Main and Congress Street
St. Albans, Vermont

Soil Sample	*SB-1s*	*SB-1d*	*SB-2s*	*SB-3s*	*SB-3d*	*SB-4s*	*SB-4d*	*SB-5s*	*SB-6s*	*SB-7s*	*SB-7d*	*SB-8s*	*Duplicate*	EPA Residential RSL (mg/kg)	EPA Industrial RSL (mg/kg)	VSL Residential (mg/kg)
Sample Depth (ft bg)	*0-2*	*2-10*	*0-2*	*0-2*	*2-8*	*0-2*	*2-8*	*0-2*	*0-2*	*0-2*	*2-7.4*	*0-2*	*2-10*			
PID reading (ppm)	*0.0*	*0.3*	*0.0*	*0.1*	*0.1*	*0.1*	*0.3*	*0.0*	*0.1*	*0.0*	*0.1*	*0.1*	*0.3*			
Sample Date	*7/9/18*	*7/9/18*	*7/9/18*	*7/9/18*	*7/9/18*	*7/9/18*	*7/9/18*	*7/9/18*	*7/9/18*	*7/9/18*	*7/9/18*	*7/9/18*	*7/9/18*			
VOCs, EPA Method 8260C (mg/kg) (continued)																
1,1,1,2-Tetrachloroethane	ND<0.05	ND<0.05	ND<0.05	ND<0.06	ND<0.05	ND<0.06	ND<0.05	ND<0.05	ND<0.05	ND<0.07	ND<0.06	ND<0.05	ND<0.05	2	8.8	NA
Ethylbenzene	ND<0.05	ND<0.05	ND<0.05	ND<0.06	ND<0.05	ND<0.06	ND<0.05	ND<0.05	ND<0.05	ND<0.07	ND<0.06	ND<0.05	ND<0.05	NA	25	2.21
mp-Xylene	ND<0.05	ND<0.05	ND<0.05	ND<0.06	ND<0.05	ND<0.06	ND<0.05	ND<0.05	**0.057**	ND<0.07	ND<0.06	ND<0.05	ND<0.05	550	2,400	NA
o-Xylene	ND<0.05	ND<0.05	ND<0.05	ND<0.06	ND<0.05	ND<0.06	ND<0.05	ND<0.05	**0.073**	ND<0.07	ND<0.06	ND<0.05	ND<0.05	650	2,800	NA
Styrene	ND<0.05	ND<0.05	ND<0.05	ND<0.06	ND<0.05	ND<0.06	ND<0.05	ND<0.05	ND<0.05	ND<0.07	ND<0.06	ND<0.05	ND<0.05	6,000	35,000	NA
Bromoform	ND<0.05	ND<0.05	ND<0.05	ND<0.06	ND<0.05	ND<0.06	ND<0.05	ND<0.05	ND<0.05	ND<0.07	ND<0.06	ND<0.05	ND<0.05	19	86	NA
IsoPropylbenzene (cumene)	ND<0.05	ND<0.05	ND<0.05	ND<0.06	ND<0.05	ND<0.06	ND<0.05	ND<0.05	ND<0.05	ND<0.07	ND<0.06	ND<0.05	ND<0.05	1900	9900	NA
Bromobenzene	ND<0.05	ND<0.05	ND<0.05	ND<0.06	ND<0.05	ND<0.06	ND<0.05	ND<0.05	ND<0.05	ND<0.07	ND<0.06	ND<0.05	ND<0.05	290	1,800	NA
1,1,2,2-Tetrachloroethane	ND<0.05	ND<0.05	ND<0.05	ND<0.06	ND<0.05	ND<0.06	ND<0.05	ND<0.05	ND<0.05	ND<0.07	ND<0.06	ND<0.05	ND<0.05	0.6	2.7	NA
1,2,3-Trichloropropane	ND<0.05	ND<0.05	ND<0.05	ND<0.06	ND<0.05	ND<0.06	ND<0.05	ND<0.05	ND<0.05	ND<0.07	ND<0.06	ND<0.05	ND<0.05	NA	0.11	0.00324
n-Propylbenzene	ND<0.05	ND<0.05	ND<0.05	ND<0.06	ND<0.05	ND<0.06	ND<0.05	ND<0.05	ND<0.05	ND<0.07	ND<0.06	ND<0.05	ND<0.05	3,800	24,000	NA
2-Chlorotoluene	ND<0.05	ND<0.05	ND<0.05	ND<0.06	ND<0.05	ND<0.06	ND<0.05	ND<0.05	ND<0.05	ND<0.07	ND<0.06	ND<0.05	ND<0.05	1,600	23,000	NA
4-Chlorotoluene	ND<0.05	ND<0.05	ND<0.05	ND<0.06	ND<0.05	ND<0.06	ND<0.05	ND<0.05	ND<0.05	ND<0.07	ND<0.06	ND<0.05	ND<0.05	1,600	23,000	NA
1,3,5-trimethylbenzene	ND<0.05	ND<0.05	ND<0.05	ND<0.06	ND<0.05	ND<0.06	ND<0.05	ND<0.05	ND<0.05	ND<0.07	ND<0.06	ND<0.05	ND<0.05	NA	12,000	264*
tert-Butylbenzene	ND<0.05	ND<0.05	ND<0.05	ND<0.06	ND<0.05	ND<0.06	ND<0.05	ND<0.05	ND<0.05	ND<0.07	ND<0.06	ND<0.05	ND<0.05	7,800	120,000	NA
1,2,4-trimethylbenzene	ND<0.05	ND<0.05	ND<0.05	ND<0.06	ND<0.05	ND<0.06	ND<0.05	ND<0.05	ND<0.05	ND<0.07	ND<0.06	ND<0.05	ND<0.05	NA	240	264*
sec-Butylbenzene	ND<0.05	ND<0.05	ND<0.05	ND<0.06	ND<0.05	ND<0.06	ND<0.05	ND<0.05	ND<0.05	ND<0.07	ND<0.06	ND<0.05	ND<0.05	7,800	120,000	NA
1,3-Dichlorobenzene	ND<0.05	ND<0.05	ND<0.05	ND<0.06	ND<0.05	ND<0.06	ND<0.05	ND<0.05	ND<0.05	ND<0.07	ND<0.06	ND<0.05	ND<0.05	NA	NA	NA
p-Isopropyltoluene (p-cymene)	ND<0.05	ND<0.05	ND<0.05	ND<0.06	ND<0.05	ND<0.06	ND<0.05	ND<0.05	ND<0.05	ND<0.07	ND<0.06	ND<0.05	ND<0.05	NA	NA	NA
1,4-Dichlorobenzene	ND<0.05	ND<0.05	ND<0.05	ND<0.06	ND<0.05	ND<0.06	ND<0.05	ND<0.05	ND<0.05	ND<0.07	ND<0.06	ND<0.05	ND<0.05	2.6	11	NA
1,2-Dichlorobenzene	ND<0.05	ND<0.05	ND<0.05	ND<0.06	ND<0.05	ND<0.06	ND<0.05	ND<0.05	ND<0.05	ND<0.07	ND<0.06	ND<0.05	ND<0.05	1,800	9,300	NA
n-Butylbenzene	ND<0.05	ND<0.05	ND<0.05	ND<0.06	ND<0.05	ND<0.06	ND<0.05	ND<0.05	ND<0.05	ND<0.07	ND<0.06	ND<0.05	ND<0.05	3,900	58,000	NA
1,2-Dibromo-3-chloropropane	ND<0.05	ND<0.05	ND<0.05	ND<0.06	ND<0.05	ND<0.06	ND<0.05	ND<0.05	ND<0.05	ND<0.07	ND<0.06	ND<0.05	ND<0.05	NA	0.064	0.00327
1,2,4-Trichlorobenzene	ND<0.05	ND<0.05	ND<0.05	ND<0.06	ND<0.05	ND<0.06	ND<0.05	ND<0.05	ND<0.05	ND<0.07	ND<0.06	ND<0.05	ND<0.05	24	110	NA
Hexachlorobutadiene	ND<0.05	ND<0.05	ND<0.05	ND<0.06	ND<0.05	ND<0.06	ND<0.05	ND<0.05	ND<0.05	ND<0.07	ND<0.06	ND<0.05	ND<0.05	1.2	5.3	NA
Naphthalene	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	NA	17	1.42
1,2,3-Trichlorobenzene	ND<0.05	ND<0.05	ND<0.05	ND<0.06	ND<0.05	ND<0.06	ND<0.05	ND<0.05	ND<0.05	ND<0.07	ND<0.06	ND<0.05	ND<0.05	63	930	NA
Total Reported VOCs	ND	ND	ND	ND	ND	ND	ND	ND	**0.130**	ND	ND	ND	ND	-	-	-

NOTES:
IROCP = July 2017 Vermont DEC Investigation and Remediation of Contaminated Properties Rule
Shaded cell = reporting limit exceeds USEPA or Vermont Residential Soil Screening Value
NA = No RSL/VSL available

Brownfields Phase II Environmental Site Assessment
Soil Sampling Data Summary
Main and Congress Street
St. Albans, Vermont

Soil Sample	*SB-1s*	*SB-1d*	*SB-2s*	*SB-3s*	*SB-3d*	*SB-4s*	*SB-4d*	*SB-5s*	*SB-6s*	*SB-7s*	*SB-7d*	*SB-8s*	*Duplicate*	EPA Residential RSL (mg/kg)	EPA Industrial RSL (mg/kg)	VSL Residential (mg/kg)	VT Statewide Background Soil Concentration (mg/kg)
Sample Depth (ft bg)	*0-2*	*2-10*	*0-2*	*0-2*	*2-8*	*0-2*	*2-8*	*0-2*	*0-2*	*0-2*	*2-7.4*	*0-2*	*2-10*				
PID reading (ppm)	*0.0*	*0.3*	*0.0*	*0.1*	*0.1*	*0.1*	*0.3*	*0.0*	*0.1*	*0.0*	*0.1*	*0.1*	*0.3*				
Sample Date	*7/9/18*	*7/9/18*	*7/9/18*	*7/9/18*	*7/9/18*	*7/9/18*	*7/9/18*	*7/9/18*	*7/9/18*	*7/9/18*	*7/9/18*	*7/9/18*	*7/9/18*				
TOTAL METALS, EPA Method 6020 (mg/kg, dry)																	
Total Arsenic	**2.9**	**8.5**	**4.7**	**7.0**	**5.3**	**10**	**6.8**	**71**	**7.2**	**16**	**21**	**6.6**	**10**	NA	NA	NA	16/16
Total Barium	**39**	**110**	**36**	**130**	**66**	**110**	**92**	**130**	**77**	**52**	**240**	**78**	**150**	NA	220,000	11,700	NA
Total Cadmium	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	**0.81**	ND<0.5	ND<0.5	ND<0.5	ND<0.5	**0.63**	NA	980	7.15	NA
Total Chromium	**6.8**	**19**	**11**	**19**	**21**	**15**	**22**	**24**	**13**	**11**	**26**	**17**	**23**	NA	NA	NA	NA
Total Lead	**66**	**220**	**11**	**430**	**11**	**530**	**21**	**240**	**230**	**50**	**120**	**150**	**270**	400	800	NA	41/111
Total Mercury	ND<0.1	**0.67**	ND<0.1	**0.24**	ND<0.1	ND<0.1	ND<0.1	**8.9**	**0.18**	**0.16**	**0.40**	**0.45**	**0.73**	NA	46	10.9	NA
Total Selenium	ND<0.5	**2.1**	**1.3**	**1.8**	**1.7**	**1.8**	**1.8**	**0.7**	**0.67**	**1.2**	**1.4**	**1.4**	**1.4**	NA	5,800	382	NA
Total Silver	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	NA	5,800	247	NA
PAH EPA Method 8270 (mg/kg)																	
Naphthalene	**0.022**	**0.026**	**0.018**	**0.033**	ND<0.008	**0.019**	ND<0.008	**0.077**	**0.14**	**0.011**	**0.027**	**0.11**	**0.029**	NA	17	1.42	NA
2-Methylnaphthalene	**0.011**	ND<0.008	ND<0.007	**0.0095**	ND<0.008	**0.015**	ND<0.008	**0.050**	**0.14**	**0.0083**	**0.010**	**0.032**	ND<0.008	240	3,000	NA	NA
1-Methylnaphthalene	ND<0.007	ND<0.008	ND<0.007	ND<0.008	ND<0.008	**0.011**	ND<0.008	**0.033**	**0.17**	**0.0082**	**0.0092**	**0.021**	ND<0.008	18	73	NA	NA
Acenaphthylene	**0.042**	**0.043**	ND<0.007	**0.091**	ND<0.008	**0.052**	ND<0.008	**0.16**	**1.2**	**0.048**	**0.046**	**0.34**	**0.045**	NA	NA	NA	NA
Acenaphthene	ND<0.007	ND<0.008	ND<0.007	**0.012**	ND<0.008	**0.011**	ND<0.008	**0.019**	**0.057**	ND<0.008	ND<0.008	**0.016**	ND<0.008	3,600	45,000	NA	NA
Fluorene	**0.0074**	ND<0.008	ND<0.007	**0.021**	ND<0.008	**0.015**	ND<0.008	**0.037**	**0.23**	**0.0096**	ND<0.008	**0.025**	ND<0.008	2,400	30,000	NA	NA
Phenanthrene	**0.14**	**0.11**	**0.019**	**0.47**	ND<0.008	**0.26**	ND<0.008	**0.61**	**3.5**	**0.11**	**0.14**	**0.35**	**0.10**	NA	NA	NA	NA
Anthracene	**0.030**	**0.037**	ND<0.007	**0.11**	ND<0.008	**0.048**	ND<0.008	**0.13**	**0.64**	**0.023**	**0.037**	**0.15**	**0.032**	18,000	230,000	NA	NA
Fluoranthene	**0.35**	**0.40**	**0.031**	**1.2**	ND<0.008	**0.46**	ND<0.008	**1.2**	**4.5**	**0.21**	**0.43**	**1.5**	**0.38**	2,400	30,000	NA	NA
Pyrene	**0.30**	**0.36**	**0.024**	**1.0**	ND<0.008	**0.43**	ND<0.008	**0.93**	**3.2**	**0.18**	**0.33**	**1.2**	**0.30**	1,800	23,000	NA	NA
Benzo(a)anthracene	**0.18**	**0.28**	**0.016**	**0.60**	ND<0.008	**0.21**	ND<0.008	**0.60**	**1.7**	**0.098**	**0.22**	**1.3**	**0.23**	0.16	2.9	NA	NA
Chrysene	**0.22**	**0.28**	**0.017**	**0.65**	ND<0.008	**0.29**	ND<0.008	**0.74**	**2.9**	**0.14**	**0.30**	**1.5**	**0.25**	16	290	NA	NA
Benzo(b)fluoranthene	**0.28**	**0.33**	**0.021**	**0.69**	ND<0.008	**0.31**	ND<0.008	**0.93**	**4.1**	**0.20**	**0.37**	**2.7**	**0.36**	0.16	2.9	NA	NA
Benzo(k)fluoranthene	**0.10**	**0.14**	**0.0075**	**0.27**	ND<0.008	**0.11**	ND<0.008	**0.33**	**1.4**	**0.071**	**0.13**	**1.1**	**0.13**	1.6	29	NA	NA
Benzo(a)pyrene	**0.21**	**0.28**	**0.015**	**0.59**	ND<0.008	**0.24**	ND<0.008	**0.67**	**2.2**	**0.13**	**0.24**	**1.8**	**0.25**	NA	NA	0.076/1.54*	NA
Indeno(1,2,3-cd)pyrene	**0.16**	**0.19**	**0.012**	**0.38**	ND<0.008	**0.19**	ND<0.008	**0.31**	**0.91**	**0.054**	**0.094**	**0.68**	**0.092**	0.16	2.9	NA	NA
Dibenz(a,h)anthracene	**0.039**	**0.048**	ND<0.007	**0.091**	ND<0.008	**0.045**	ND<0.008	**0.079**	**0.22**	**0.015**	**0.026**	**0.17**	**0.025**	0.016	0.29	NA	NA
Benzo(g,h,i)perylene	**0.15**	**0.16**	**0.012**	**0.31**	ND<0.008	**0.18**	ND<0.008	**0.25**	**0.78**	**0.060**	**0.075**	**0.54**	**0.069**	NA	NA	NA	NA
Total Reported PAHs	**2.24**	**2.68**	**0.193**	**6.53**	ND	**2.90**	ND	**7.16**	**27.99**	**1.38**	**2.48**	**13.53**	**2.29**	--	--	--	--
PAH Toxicity Equivalency as B[a]P	**0.31**	**0.41**	**0.02**	**0.85**	**0.01**	**0.36**	**0.01**	**0.94**	**3.11**	**0.18**	**0.34**	**2.45**	**0.34**	NA	NA	NA	0.026/0.580
TCLP METALS, EPA Method 6020 (mg/L)														Vermont Hazardous Waste Standard (mg/L)			
TCLP Lead	NT	ND<0.5	NT	ND<0.5	NT	ND<0.5	NT	ND<0.5	ND<0.5	NT	ND<0.5	ND<0.5	ND<0.5	5.0			
TCLP Mercury	NT	NT	NT	NT	NT	NT	NT	ND<0.01	NT	NT	NT	NT	NT	0.2			

NOTES:
EPA Regional Screening Levels, VT Screening levels, and VT Background Concrentrations from Vermont DEC Investigation and Remediation of Contaminated Properties Rule dated July 27, 2017
NA = No screening level or background concentration available
*VSL for B(a)P presented as residential/industrial
Vermont Statewide Background Concentration presented as rural/urban; The Background Concentration values are used when the background value for benzo(a)pyrene (TEQ) or arsenic is greater than the VSL.
ND<xx = Not Detected< Detection Limit; Results reported above detection limits are indicated in bold
Detection limits and reported concentrations equal to or above the residential regulatory standard are shaded

Toxic Equivalency Calculations
Main and Congress Street
St. Albans, Vermont

Soil Sample SB-1s

Contaminant	Concentration (mg/kg)	Toxicity Equivalency Factor	Toxicity Equivalents to Benzo(a)pyrene
Benzo(a)anthracene	**0.18**	0.1	0.018
Chrysene	**0.22**	0.001	0.00022
Benzo(b)fluoranthene	**0.28**	0.1	0.028
Benzo(k)fluoranthene	**0.10**	0.01	0.001
Benzo(a)pyrene	**0.21**	1	0.21
Indeno(1,2,3-cd)pyrene	**0.16**	0.1	0.016
Dibenz(a,h)anthracene	**0.039**	1	0.039
		Total Benzo(a)pyrene Equivalent =	**0.31**

Soil Sample SB-1d

Contaminant	Concentration (mg/kg)	Toxicity Equivalency Factor	Toxicity Equivalents to Benzo(a)pyrene
Benzo(a)anthracene	**0.28**	0.1	0.028
Chrysene	**0.28**	0.001	0.00028
Benzo(b)fluoranthene	**0.33**	0.1	0.033
Benzo(k)fluoranthene	**0.14**	0.01	0.0014
Benzo(a)pyrene	**0.28**	1	0.28
Indeno(1,2,3-cd)pyrene	**0.19**	0.1	0.019
Dibenz(a,h)anthracene	**0.048**	1	0.048
		Total Benzo(a)pyrene Equivalent =	**0.41**

Soil Sample: SB-2s

Contaminant	Concentration (mg/kg)	Toxicity Equivalency Factor	Toxicity Equivalents to Benzo(a)pyrene
Benzo(a)anthracene	**0.016**	0.1	0.0016
Chrysene	**0.017**	0.001	0.000017
Benzo(b)fluoranthene	**0.021**	0.1	0.0021
Benzo(k)fluoranthene	**0.0075**	0.01	0.000075
Benzo(a)pyrene	**0.015**	1	0.015
Indeno(1,2,3-cd)pyrene	**0.012**	0.1	0.0012
Dibenz(a,h)anthracene	ND<0.007	1	0.0035
		Total Benzo(a)pyrene Equivalent =	**0.02**

Soil Sample: SB-3s

Contaminant	Concentration (mg/kg)	Toxicity Equivalency Factor	Toxicity Equivalents to Benzo(a)pyrene
Benzo(a)anthracene	**0.60**	0.1	0.06
Chrysene	**0.65**	0.001	0.00065
Benzo(b)fluoranthene	**0.69**	0.1	0.069
Benzo(k)fluoranthene	**0.27**	0.01	0.0027
Benzo(a)pyrene	**0.59**	1	0.59
Indeno(1,2,3-cd)pyrene	**0.38**	0.1	0.038
Dibenz(a,h)anthracene	**0.091**	1	0.091
		Total Benzo(a)pyrene Equivalent =	**0.85**

Soil Sample: SB-3d

Contaminant	Concentration (mg/kg)	Toxicity Equivalency Factor	Toxicity Equivalents to Benzo(a)pyrene
Benzo(a)anthracene	ND<0.008	0.1	0.0004
Chrysene	ND<0.008	0.001	0.0000045
Benzo(b)fluoranthene	ND<0.008	0.1	0.00045
Benzo(k)fluoranthene	ND<0.008	0.01	0.000045
Benzo(a)pyrene	ND<0.008	1	0.0045
Indeno(1,2,3-cd)pyrene	ND<0.008	0.1	0.00045
Dibenz(a,h)anthracene	ND<0.008	1	0.0045
		Total Benzo(a)pyrene Equivalent =	**0.01**

Soil Sample: SB-4s

Contaminant	Concentration (mg/kg)	Toxicity Equivalency Factor	Toxicity Equivalents to Benzo(a)pyrene
Benzo(a)anthracene	**0.21**	0.1	0.021
Chrysene	**0.29**	0.001	0.00029
Benzo(b)fluoranthene	**0.31**	0.1	0.031
Benzo(k)fluoranthene	**0.11**	0.01	0.0011
Benzo(a)pyrene	**0.24**	1	0.24
Indeno(1,2,3-cd)pyrene	**0.19**	0.1	0.019
Dibenz(a,h)anthracene	**0.045**	1	0.045
		Total Benzo(a)pyrene Equivalent =	**0.36**

Soil Sample: SB-4d

Contaminant	Concentration (mg/kg)	Toxicity Equivalency Factor	Toxicity Equivalents to Benzo(a)pyrene
Benzo(a)anthracene	ND<0.008	0.1	0.0004
Chrysene	ND<0.008	0.001	0.0000045
Benzo(b)fluoranthene	ND<0.008	0.1	0.00045
Benzo(k)fluoranthene	ND<0.008	0.01	0.000045
Benzo(a)pyrene	ND<0.008	1	0.0045
Indeno(1,2,3-cd)pyrene	ND<0.008	0.1	0.00045
Dibenz(a,h)anthracene	ND<0.008	1	0.0045
		Total Benzo(a)pyrene Equivalent =	**0.01**

Brownfields Phase II Environmental Site Assessment
Groundwater Sampling Data Summary
Main and Congress Street

Groundwater Sample	*MW-1*	*MW-2*	*MW-3*	*MW-4*	*Duplicate*	Vermont
Depth to Groundwater (Ft)	*7.98*	*8.71*	*8.60*	*8.26*	*8.26*	Groundwater
pH (standard units)	*7.31*	*6.86*	*7.26*	*7.17*	*7.17*	Enforcement
Conductivity (umhos)	*1,000*	*4,250*	*2,140*	*1,942*	*1,924*	Standard
Temperature (celcius)	*15.3*	*15.4*	*16.3*	*17.2*	*17.2*	
Turbidity (n.t.u.)	*1,100*	*15.1*	*4.69*	*21.6*	*21.6*	
Sample Date	*7/18/18*	*7/18/18*	*7/18/18*	*7/18/18*	*7/18/18*	
VOCs, EPA Method 8260c (ug/l)						
Dichlorodifluoromethane	ND<5	ND<5	ND<5	ND<5	ND<5	1000
Chloromethane	ND<2	ND<2	ND<2	ND<2	ND<2	30
Vinyl Chloride	ND<2	ND<2	ND<2	ND<2	ND<2	2
Bromomethane	ND<2	ND<2	ND<2	ND<2	ND<2	10
Chloroethane	ND<5	ND<5	ND<5	ND<5	ND<5	NA
Trichlorofluoromethane	ND<5	ND<5	ND<5	ND<5	ND<5	2100
Diethyl Ether	ND<5	ND<5	ND<5	ND<5	ND<5	NA
Acetone	**13**	**78**	ND<10	ND<10	ND<10	700
1 ,1-Dichloroethene	ND<1	ND<1	ND<1	ND<1	ND<1	7
Methylene chloride	ND<5	ND<5	ND<5	ND<5	ND<5	5
Carbon disulfide	ND<5	ND<5	ND<5	ND<5	ND<5	NA
Methyl-t-butyl ether (MTBE)	ND<5	ND<5	ND<5	ND<5	ND<5	40
trans-1,2-Dichloroethene	ND<2	ND<2	ND<2	ND<2	ND<2	100
1,1-Dichloroethane	ND<2	ND<2	ND<2	ND<2	ND<2	70
2,2-Dichloropropane	ND<2	ND<2	ND<2	ND<2	ND<2	NA
cis-1,2-Dichloroethene	ND<2	ND<2	ND<2	ND<2	ND<2	70
2-Butanone(MEK)	ND<10	ND<10	ND<10	ND<10	ND<10	4200
Bromochloromethane	ND<2	ND<2	ND<2	ND<2	ND<2	90
Tetrahydrofuran(THF)	ND<10	ND<10	ND<10	ND<10	ND<10	NA
Chloroform	ND<2	ND<2	ND<2	ND<2	ND<2	80*
1,1,1-Trichloroethane	ND<2	ND<2	ND<2	ND<2	ND<2	200
Carbon tetrachloride	ND<2	ND<2	ND<2	ND<2	ND<2	5
1 ,1-Dichloropropene	ND<2	ND<2	ND<2	ND<2	ND<2	NA
Benzene	ND<1	ND<1	ND<1	ND<1	ND<1	5
1,2-Dichloroethane	ND<2	ND<2	ND<2	ND<2	ND<2	5
Trichloroethene (TCE)	ND<2	ND<2	ND<2	ND<2	ND<2	5
1,2-Dichloropropane	ND<2	ND<2	ND<2	ND<2	ND<2	5
Dibromomethane	ND<2	ND<2	ND<2	ND<2	ND<2	NA
Bromodichloromethane	ND<1	ND<1	ND<1	ND<1	ND<1	80*
4-Methyl-2-pentanone(MIBK)	ND<10	ND<10	ND<10	ND<10	ND<10	560
cis-1,3-Dichloropropene	ND<1	ND<1	ND<1	ND<1	ND<1	0.5
Toluene	ND<1	ND<1	ND<1	ND<1	ND<1	1000
trans-1,3-Dichloropropene	ND<1	ND<1	ND<1	ND<1	ND<1	0.5
1,1,2-Trichloroethane	ND<2	ND<2	ND<2	ND<2	ND<2	5
2-Hexanone	ND<10	ND<10	ND<10	ND<10	ND<10	NA
Tetrachloroethene (PCE)	ND<2	ND<2	ND<2	ND<2	ND<2	5
1,3-Dichloropropane	ND<2	ND<2	ND<2	ND<2	ND<2	NA

Groundwater Enforcement Standard from Groundwater Protection Rule and Strategy, 12/16

ND<xx = Not Detected< Detection Limit

Results reported above detection limits are indicated in bold

Detection limits and reported concentrations or above the enforcement standard are shaded

NA = No current enforcement standard

* means the indicated enforcement standard is for total trihalomethanes

Brownfields Phase II Environmental Site Assessment
Groundwater Sampling Data Summary
Main and Congress Street

Groundwater Sample *Sample Date*	*MW-1* *7/18/18*	*MW-2* *7/18/18*	*MW-3* *7/18/18*	*MW-4* *7/18/18*	*Duplicate* *7/18/18*	VGES
VOCs, EPA Method 8260c (ug/l)						
Dibromochloromethane	ND<2	ND<2	ND<2	ND<2	ND<2	80*
1,2-Dibromoethane(EDB)	ND<1	ND<1	ND<1	ND<1	ND<1	0.05
Chlorobenzene	ND<2	ND<2	ND<2	ND<2	ND<2	100
1,1,1,2-Tetrachloroethane	ND<2	ND<2	ND<2	ND<2	ND<2	70
Ethylbenzene	ND<1	ND<1	ND<1	ND<1	ND<1	700
mp-Xylene	ND<1	ND<1	ND<1	ND<1	ND<1	10000
o-Xylene	ND<1	ND<1	ND<1	ND<1	ND<1	10000
Styrene	ND<1	ND<1	ND<1	ND<1	ND<1	100
Bromoform	ND<2	ND<2	ND<2	ND<2	ND<2	80*
IsoPropylbenzene	ND<1	ND<1	ND<1	ND<1	ND<1	NA
Bromobenzene	ND<2	ND<2	ND<2	ND<2	ND<2	NA
1,1,2,2-Tetrachloroethane	ND<2	ND<2	ND<2	ND<2	ND<2	NA
1,2,3-Trichloropropane	ND<2	ND<2	ND<2	ND<2	ND<2	5
n-Propylbenzene	ND<1	ND<1	ND<1	ND<1	ND<1	NA
2-Chlorotoluene	ND<2	ND<2	ND<2	ND<2	ND<2	100
4-Chlorotoluene	ND<2	ND<2	ND<2	ND<2	ND<2	100
1,3,5-trimethylbenzene	ND<1	ND<1	ND<1	ND<1	ND<1	4
tert-Butylbenzene	ND<1	ND<1	ND<1	ND<1	ND<1	NA
1,2,4-trimethylbenzene	**1.8**	ND<1	ND<1	ND<1	ND<1	5
sec-Butylbenzene	ND<1	ND<1	ND<1	ND<1	ND<1	NA
1,3-Dichlorobenzene	ND<1	ND<1	ND<1	ND<1	ND<1	600
p-Isopropyltoluene	ND<1	ND<1	ND<1	ND<1	ND<1	NA
1,4-Dichlorobenzene	ND<1	ND<1	ND<1	ND<1	ND<1	75
1,2-Dichlorobenzene	ND<1	ND<1	ND<1	ND<1	ND<1	600
n-Butylbenzene	ND<1	ND<1	ND<1	ND<1	ND<1	NA
1,2-Dibromo-3-chloropropane	ND<2	ND<2	ND<2	ND<2	ND<2	0.2
1,3,5-Trichlorobenzene	ND<1	ND<1	ND<1	ND<1	ND<1	40
1,2,4-Trichlorobenzene	ND<1	ND<1	ND<1	ND<1	ND<1	70
Hexachlorobutadiene	ND<1	ND<1	ND<1	ND<1	ND<1	NA
Naphthalene	ND<5	ND<5	ND<5	ND<5	ND<5	20
1,2,3-Trichlorobenzene	ND<1	ND<1	ND<1	ND<1	ND<1	NA
Total Reported VOCs	**15**	**78**	ND	ND	ND	

Groundwater Enforcement Standard from Groundwater Protection Rule and Strategy, 12/16

ND<xx = Not Detected< Detection Limit

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Brownfields Phase II Environmental Site Assessment
Groundwater Sampling Data Summary
Main and Congress Street

Groundwater Sample *Sample Date*	*MW-1* *7/18/18*	*MW-2* *7/18/18*	*MW-3* *7/18/18*	*MW-4* *7/18/18*	*Duplicate* *7/18/18*	VGES
TOTAL METALS, EPA Method 6020a (mg/l)						
Total Arsenic	**0.012**	**0.0039**	ND<0.001	**0.0022**	**0.0020**	0.010
Total Barium	**0.29**	**0.13**	**0.21**	**0.19**	**0.19**	2
Total Cadmium	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	0.005
Total Chromium	**0.017**	ND<0.001	ND<0.001	**0.0034**	**0.0031**	0.100
Total Lead	**0.15**	**0.0018**	ND<0.001	**0.0019**	**0.0018**	0.015
Total Mercury	0.00029	ND<0.0001	ND<0.0001	ND<0.0001	ND<0.0001	0.002
Total Selenium	**0.015**	**0.0066**	**0.0032**	**0.0066**	**0.0054**	0.05
Total Sliver	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	0.1

Groundwater Enforcement Standard from Groundwater Protection Rule and Strategy, 12/16

ND<xx = Not Detected< Detection Limit

Results reported above detection limits are indicated in bold

Detection limits and reported concentrations or above the enforcement standard are shaded

NA = No current enforcement standard

Brownfields Phase II Environmental Site Assessment
Subslab Vapor Sampling Summary
Main and Congress Redevelopment Project

Analyte Category/Compound	Subslab-1 Concentration ug/m^3	Data Qualifier	Subslab-2 Reported Concentration ug/m^3	Data Qualifier	Subslab-3 Reported Concentration ug/m^3	Data Qualifier	Subslab-4 Reported Concentration ug/m^3	Data Qualifier	Ambient Air Reported Concentration ug/m^3	Data Qualifier	I-Rule VI Screening Values, Sub-Slab Soil Gas (residential, ug/m3)	I-Rule VI Screening Values, Sub-Slab Soil Gas (industrial, ug/m3)
Sample Date:	7/18/18		7/18/18		7/18/18		7/18/18		7/18/18			
Propene	**45**		**63**		**4.1**		**4.3**		**0.92**	J	NA	NA
Freon12(Dichlorodifluoromethane)	**2.4**		**2.2**		**2.3**		**2.3**		**2.2**		3,500	15,000
Chloromethane (methyl chloride)	ND<0.33		ND<0.36		ND<0.33		ND<0.34		**0.31**	J	3,100	13,000
Freon 114 (1,2-Dichloro-1,1,2,2-tetrafluoroethane)	ND<0.84		ND<0.93		ND<0.84		ND<0.86		ND<1.0		NA	NA
Vinyl Chloride	**0.097**	J	**0.20**		ND<0.17		ND<0.17		ND<0.21		3.7	62
1,3-Butadiene	ND<0.34		ND<0.38		ND<0.35		ND<0.35		ND<0.43		3.1	14
Bromomethane	ND<0.33		**0.96**		ND<0.33		ND<0.34		ND<0.41		170	730
Chloroethane (ethyl chloride)	ND<0.33		ND<0.36		ND<0.33		ND<0.34		ND<0.41		350,000	1,500,000
Ethanol	**230**		**380**		**70**		**110**		**6.9**	J	NA	NA
Acetonitrile	**0.57**	J	**1.8**		**0.65**	J	**0.34**	J	**0.60**	J	2,100	8,800
Acrolein	**1.6**	J	**3.1**		**1.6**	J	**0.99**	J	**0.81**	J	0.7	2.9
Acetone	**160**		**120**		**94**		**74**		**13**		1,100,000	4,500,000
Trichlorofluoromethane (Freon 11)	**1.6**		**1.5**		**1.5**		**1.4**		**1.1**		NA	NA
Isopropyl Alcohol (2-Propanol)	**100**		**180**		**8.3**		**10**		**1.5**	J	7,000	29,000
Acrylonitrile	ND<0.87		**0.21**	J	ND<0.87		ND<0.89		ND<1.1		1.4	6.0
1,1-Dichloroethene	ND<0.18		ND<0.20		ND<0.18		ND<0.18		ND<0.23		7,000	29,000
2-Methyl-2-Propanol (tert-butyl Alcohol)	**1.8**		**17**		**1.8**	J	**0.60**	J	ND<2.3		NA	NA
Methylene Chloride	ND<0.87		ND<0.96		ND<0.87		ND<0.89		ND<1.1		3,400	41,000
3-Chloro-1-propene (Allyl Chloride)	ND<0.87		ND<0.96		ND<0.87		ND<0.89		ND<1.1		16	68
Trichlorotrifluoroethane	**0.45**	J	**0.50**	J	**0.49**	J	**0.51**	J	**0.43**	J	1,000,000	4,400,000
Carbon disulfide	**8.5**		**1.4**	J	**0.66**	J	**0.28**	J	ND<2.3		24,000	100,000
trans-1,2-Dichloroethene	ND<0.18		**0.22**		ND<0.18		ND<0.18		ND<0.23		NA	NA
1,1-Dichloroethane	ND<0.16		ND<0.18		ND<0.17		ND<0.17		ND<0.21		58	260
Methyl tert-Butyl Ether (MTBE)	ND<0.89		ND<0.98		ND<0.89		ND<0.91		ND<1.1		360	1,600
Vinyl Acetate	**3.8**	J	**6.1**	J	**2.6**	J	**2.5**	J	ND<11		7,000	29,000
Methyl Ethyl Ketone (2-butanone)	**3.8**		**5.8**		**3.8**		**2.6**		**2.7**		170,000	730,000
cis-1,2-Dichloroethene	ND<0.18		ND<0.20		ND<0.18		ND<0.18		ND<0.23		NA	NA
Diisopropyl Ether	ND<0.87		ND<0.96		ND<0.87		ND<0.89		ND<1.1		730	3,100
Ethyl Acetate	**2.0**		**2.3**		**1.2**		**0.54**	J	**1.7**	J	2,400	10,000
n-hexane	**0.43**	J	**0.95**	J	**0.18**	J	**0.26**	J	**0.25**	J	24,000	100,000
Chloroform	**0.49**		**1.1**		**1.4**		ND<0.18		ND<0.23		4.1	18
Tetrahydrofuran	**4.9**		**6.0**		**0.25**	J	**0.22**	J	ND<1.1		70,000	290,000
Ethyl tert-Butyl Ether	ND<0.87		ND<0.96		ND<0.87		ND<0.89		ND<1.1		NA	NA
1,2-Dichloroethane	**0.13**	J	ND<0.20		ND<0.18		ND<0.18		ND<0.23		3.6	16
1,1,1-Trichloroethane	ND<0.18		**0.16**	J	**0.13**	J	ND<0.18		ND<0.23		170,000	730,000
Isopropyl Acetate	ND<1.8		ND<2.0		ND<1.8		ND<1.8		ND<2.3		NA	NA
1-Butanol	**9.4**		**25**		**4.5**		**12**		**17**		NA	NA
Benzene	**0.54**		**0.78**		**1.2**		**0.19**		**0.25**		4.3	35
Carbon Tetrachloride	**0.42**		**0.34**		**20**		ND<0.18		**0.33**		16	68
Cyclohexane	ND<1.8		**0.34**	J	ND<1.8		ND<1.8		ND<2.3		35,000	150,000
tert-Amyl Methyl Ether	ND<0.87		ND<0.96		ND<0.87		ND<0.89		ND<1.1		NA	NA
1,2-Dichloropropane	ND<0.18		ND<0.20		ND<0.18		ND<0.18		ND<0.23		9.4	41
Bromodichloromethane	ND<0.18		ND<0.20		ND<0.18		ND<0.18		ND<0.23		2.5	11
Trichloroethene	ND<0.18		ND<0.20		ND<0.18		ND<0.18		ND<0.23		6.7	23
1,4-Dioxane (Dioxane)	ND<0.87		**2.1**		**0.62**	J	**0.41**	J	ND<1.1		19	82
2,2,4-Trimethylpentane (Isooctane)	**0.21**	J	**0.25**	J	ND<0.87		ND<0.89		ND<1.1		NA	NA
Methyl Methacrylate	ND<1.8		ND<2.0		ND<1.8		ND<1.8		ND<2.3		24,000	10,000
n-heptane	**0.41**	J	**0.83**	J	**0.17**	J	**0.28**	J	ND<1.1		NA	NA

Notes:
ND<X means compound not present above MRL indicated; J=estimated concentration less than the MRL but greater than or equal to the MDL.
IROCP = July 2017 Vermont DEC Investigation and Remediation of Contaminated Properties Rule
NA = Not Available (no guidance level)
Reporting limits in excess of or equal to DEC residential sub-slab soil gas screening values are shaded

Brownfields Phase II Environmental Site Assessment
Subslab Vapor Sampling Summary
Main and Congress Redevelopment Project

Analyte Category/Compound	Subslab-1 Concentration ug/m^3	Data Qualifier	Subslab-2 Reported Concentration ug/m^3	Data Qualifier	Subslab-3 Reported Concentration ug/m^3	Data Qualifier	Subslab-4 Reported Concentration ug/m^3	Data Qualifier	Ambient Air Reported Concentration ug/m^3 7/18/18	Data Qualifier	I-Rule VI Screening Values, Sub-Slab Soil Gas (residential, ug/m3)	I-Rule VI Screening Values, Sub-Slab Soil Gas (industrial, ug/m3)
cis-1,3-Dichloropropene	ND<0.92		ND<1.0		ND<0.92		ND<0.94		ND<1.1		NA	100
Methyl Isobutyl Ketone (4-methyl-2-Pentanone)	**1.6**		**4.6**		**1.9**		**0.33**	J	**0.19**	J	100,000	440,000
trans-1,3-Dichloropropene	ND<0.87		ND<0.96		ND<0.87		**0.23**	J	ND<1.1		NA	100
1,1,2-Trichloroethane	ND<0.18		ND<0.20		ND<0.18		ND<0.18		ND<0.23		5.8	26
Toluene	**4.3**		**4.2**		**2.1**		**1.1**		**0.83**	J	170,000	730,000
Methyl Butyl Ketone (2-Hexanone)	**0.60**	J	**0.96**	J	**0.52**	J	**0.34**	J	**0.39**	J	1,000	4,400
Dibromochloromethane	ND<0.18		ND<0.20		ND<0.18		ND<0.18		ND<0.23		NA	NA
1,2-Dibromoethane (ethylene dibromide)	ND<0.18		ND<0.20		ND<0.18		ND<0.18		ND<0.23		0.16	0.68
n-Butyl Acetate	**0.86**	J	**1.1**		**0.48**	J	**0.37**	J	ND<1.1		NA	NA
n-Octane	**0.92**		**1.2**		**0.44**	J	**0.37**	J	ND<1.1		NA	NA
Tetrachloroethene	ND<0.18		ND<0.20		**0.22**		**0.44**		**0.15**	J	21	170
Chlorobenzene	**0.13**	J	**0.16**	J	ND<0.87		ND<0.89		ND<1.1		1,700	7,300
Ethylbenzene	**1.4**		**1.6**		**1.0**		**0.77**	J	ND<1.1		37	160
m,p- Xylenes	**5.0**		**5.7**		**3.5**		**2.0**		**0.36**	J	3,500	15,000
Bromoform	ND<0.87		ND<0.96		ND<0.87		ND<0.89		ND<1.1		85	370
Styrene	**1.0**		**1.2**		**0.56**	J	**0.47**	J	ND<1.1		35,000	150,000
o- Xylenes	**2.1**		**2.5**		**1.6**		**0.83**	J	ND<1.1		3,500	15,000
n-Nonane	**2.4**		**2.3**		**0.72**	J	**0.83**	J	ND<1.1		700	2,900
1,1,2,2-Tetrachloroethane	ND<0.18		ND<0.20		ND<0.18		ND<0.18		ND<0.23		1.6	7.0
Isopropylbenzene (cumene)	**0.17**	J	**0.19**	J	ND<0.87		ND<0.89		ND<1.1		14,000	58,000
alpha-Pinene	**6.9**		**8.0**		**2.9**		**1.5**		**0.31**	J	NA	NA
n-propylbenzene	**0.43**	J	**0.51**	J	**0.31**	J	**0.24**	J	ND<1.1		35,000	150,000
3-Ethyltoluene	**1.3**		**1.6**		**0.96**		**0.74**		ND<1.1		NA	NA
4-Ethyltoluene	**0.59**	J	**0.71**	J	**0.46**	J	**0.36**	J	ND<1.1		NA	NA
1,3,5-Trimethylbenzene	**0.71**	J	**0.84**	J	**0.44**	J	**0.39**	J	ND<1.1		NA	NA
alpha-Methylstyrene	ND<0.85		ND<0.95		ND<0.86		ND<0.87		ND<1.1		NA	NA
2-Ethyltoluene	**0.50**	J	**0.59**	J	**0.34**	J	**0.31**	J	ND<1.1		NA	NA
1,2,4-Trimethylbenzene	**2.6**		**3.2**		**1.5**		**1.8**		**0.16**	J	240	1,000
n-Decane	**6.3**		**5.7**		**1.8**		**3.0**		**0.18**	J	NA	NA
Benzyl Chloride	ND<1.8		ND<2.0		ND<1.8		ND<1.8		ND<2.3		1.9	8.3
1,3-Dichlorobenzene	**2.2**		**3.4**		ND<0.89		ND<0.91		ND<1.1		NA	NA
1,4-Dichlorobenzene	ND<0.87		ND<0.96		ND<0.87		ND<0.89		ND<1.1		8.5	37
sec-Butylbenzene	ND<0.87		ND<0.96		ND<0.87		ND<0.89		ND<1.1		NA	NA
(4) p-Isopropyltoluene (p-Cymene)	**0.62**	J	**0.54**	J	**0.28**	J	**0.28**	J	ND<1.0		NA	NA
1,2,3-Trimethylbenzene	**0.72**	J	**0.90**	J	**0.36**	J	**0.56**	J	ND<1.0		5.2	22
1,2-Dichlorobenzene	ND<0.89		ND<0.98		ND<0.89		ND<0.91		ND<1.1		7,000	29,000
d-Limonene	**5.7**		**7.3**		**3.3**		**4.4**		**0.25**	J	NA	NA
1,2-Dibromo-3-Chloropropane	ND<0.87		ND<0.96		ND<0.87		ND<0.89		ND<1.1		0.0056	0.068
n-Undecane (hendecane)	ND<0.87		ND<0.96		ND<0.87		**3.6**		ND<1.1		NA	NA
1,2,4-Trichlorobenzene	ND<0.90		ND<1.0		ND<0.91		ND<0.92		ND<1.1		70	290
Naphthalene	**1.0**		**1.2**		**1.4**		**1.1**		ND<1.1		1.0	8.0
n-Dodecane	**2.6**		**3.4**		ND<0.87		**3.2**		**0.64**	J	NA	NA
Hexachlorobutadiene	ND<0.87		ND<0.96		ND<0.87		ND<0.89		ND<1.1		4.3	19
Cyclohexanone	**2.7**		**2.9**		**1.2**		**1.0**		**0.51**	J	730	3,100
tert-butylbenzene	ND<0.87		**0.41**	J	**0.20**	J	**0.24**	J	ND<1.1		NA	NA
n-Butylbenzene	ND<0.87		ND<0.96		ND<0.87		ND<0.89		ND<1.1		NA	NA
Total Reported VOCs	**634**		**891**		**249**		**253**		**53**			

Notes:
ND<X means compound not present above MRL indicated; J=estimated concentration less than the MRL but greater than or equal to the MDL.
IROCP = July 2017 Vermont DEC Investigation and Remediation of Contaminated Properties Rule
NA = Not Available (no guidance level)
Reporting limits in excess of or equal to DEC residential sub-slab soil gas screening values are shaded

Relative Percent Difference Calculations
Main and Congress Street
St. Albans, Vermont

Soil Sample	*SB-1d*	*Duplicate*	*Relative Percent Difference (%)*
Sample Depth (ft.)	*2-10'*		
PID reading (ppm)	*0.3*		
Sample Date	*7/9/18*		
VOCs, EPA Method 8260C (mg/kg)			
Dichlorodifluoromethane	ND<0.1	ND<0.1	-
Chloromethane	ND<0.1	ND<0.1	-
Vinyl Chloride	ND<0.1	ND<0.1	-
Bromomethane	ND<0.2	ND<0.2	-
Chloroethane	ND<0.1	ND<0.1	-
Trichlorofluoromethane	ND<0.1	ND<0.1	-
Diethyl Ether	ND<0.05	ND<0.05	-
Acetone	ND<2	ND<2	-
1 ,1-Dichloroethene	ND<0.05	ND<0.05	-
Methylene chloride	ND<0.1	ND<0.1	-
Carbon disulfide	ND<0.1	ND<0.1	-
MTBE	ND<0.1	ND<0.1	-
trans-1,2-Dichloroethene	ND<0.05	ND<0.05	-
1,1-Dichloroethane	ND<0.05	ND<0.05	-
2,2-Dichloropropane	ND<0.05	ND<0.05	-
cis-1,2-Dichloroethene	ND<0.05	ND<0.05	-
2-Butanone(MEK)	ND<0.5	ND<0.5	-
Bromochloromethane	ND<0.05	ND<0.05	-
Tetrahydrofuran(THF)	ND<0.5	ND<0.5	-
Chloroform	ND<0.05	ND<0.05	-
1,1,1-Trichloroethane	ND<0.05	ND<0.05	-
Carbon tetrachloride	ND<0.05	ND<0.05	-
1 ,1-Dichloropropene	ND<0.05	ND<0.05	-
Benzene	ND<0.05	ND<0.05	-
1,2-Dichloroethane	ND<0.05	ND<0.05	-
Trichloroethene (TCE)	ND<0.05	ND<0.05	-
1,2-Dichloropropane	ND<0.05	ND<0.05	-
Dibromomethane	ND<0.05	ND<0.05	-
Bromodichloromethane	ND<0.05	ND<0.05	-
4-Methyl-2-pentanone(MIBK)	ND<0.5	ND<0.5	-
cis-1,3-Dichloropropene	ND<0.05	ND<0.05	-
Toluene	ND<0.05	ND<0.05	-
trans-1,3-Dichloropropene	ND<0.05	ND<0.05	-

Relative Percent Difference Calculations
Main and Congress Street
St. Albans, Vermont

Soil Sample	*SB-1d*	*Duplicate*	*Relative*
Sample Depth (ft.)	*2-10'*		*Percent*
PID reading (ppm)	*0.3*		*Difference*
Sample Date	*7/9/18*		*(%)*
VOCs, EPA Method 8260C (mg/kg)			
1,1,2-Trichloroethane	ND<0.05	ND<0.05	-
2-Hexanone	ND<0.1	ND<0.1	-
Tetrachloroethene (PCE)	ND<0.05	ND<0.05	-
1,3-Dichloropropane	ND<0.05	ND<0.05	-
Dibromochloromethane	ND<0.05	ND<0.05	-
1,2-Dibromoethane(EDB)	ND<0.05	ND<0.05	-
Chlorobenzene	ND<0.05	ND<0.05	-
1,1,1,2-Tetrachloroethane	ND<0.05	ND<0.05	-
Ethylbenzene	ND<0.05	ND<0.05	-
mp-Xylene	ND<0.05	ND<0.05	-
o-Xylene	ND<0.05	ND<0.05	-
Styrene	ND<0.05	ND<0.05	-
Bromoform	ND<0.05	ND<0.05	-
IsoPropylbenzene	ND<0.05	ND<0.05	-
Bromobenzene	ND<0.05	ND<0.05	-
1,1,2,2-Tetrachloroethane	ND<0.05	ND<0.05	-
1,2,3-Trichloropropane	ND<0.05	ND<0.05	-
n-Propylbenzene	ND<0.05	ND<0.05	-
2-Chlorotoluene	ND<0.05	ND<0.05	-
4-Chlorotoluene	ND<0.05	ND<0.05	-
1,3,5-trimethylbenzene	ND<0.05	ND<0.05	-
tert-Butylbenzene	ND<0.05	ND<0.05	-
1,2,4-trimethylbenzene	ND<0.05	ND<0.05	-
sec-Butylbenzene	ND<0.05	ND<0.05	-
1,3-Dichlorobenzene	ND<0.05	ND<0.05	-
p-Isopropyltoluene	ND<0.05	ND<0.05	-
1,4-Dichlorobenzene	ND<0.05	ND<0.05	-
1,2-Dichlorobenzene	ND<0.05	ND<0.05	-
n-Butylbenzene	ND<0.05	ND<0.05	-
1,2-Dibromo-3-chloropropane	ND<0.05	ND<0.05	-
1,2,4-Trichlorobenzene	ND<0.05	ND<0.05	-
Hexachlorobutadiene	ND<0.05	ND<0.05	-
Naphthalene	ND<0.1	ND<0.1	-
1,2,3-Trichlorobenzene	ND<0.05	ND<0.05	-

Relative Percent Difference Calculations
Main and Congress Street
St. Albans, Vermont

Soil Sample	*SB-1d*	*Duplicate*	*Relative*
Sample Depth (ft.)	*2-10'*		*Percent*
PID reading (ppm)	*0.3*		*Difference*
Sample Date	*7/9/18*		*(%)*
PAH EPA Method 8270 (mg/kg)			
Naphthalene	**0.026**	**0.029**	5.5
2-Methylnaphthalene	ND<0.008	ND<0.008	-
1-Methylnaphthalene	ND<0.008	ND<0.008	-
Acenaphthylene	**0.043**	**0.045**	2.3
Acenaphthene	ND<0.008	ND<0.008	-
Fluorene	ND<0.008	ND<0.008	-
Phenanthrene	**0.11**	**0.10**	4.8
Anthracene	**0.037**	**0.032**	7.2
Fluoranthene	**0.40**	**0.38**	2.6
Pyrene	**0.36**	**0.30**	9.1
Benzo(a)anthracene	**0.28**	**0.23**	9.8
Chrysene	**0.28**	**0.25**	5.7
Benzo(b)fluoranthene	**0.33**	**0.36**	4.3
Benzo(k)fluoranthene	**0.14**	**0.13**	3.7
Benzo(a)pyrene	**0.28**	**0.25**	5.7
Indeno(1,2,3-cd)pyrene	**0.19**	**0.092**	34.8
Dibenz(a,h)anthracene	**0.048**	**0.025**	31.5
Benzo(g,h,i)perylene	**0.16**	**0.069**	39.7
Total Reported PAHs	**2.68**	**2.29**	7.9

Soil Sample	*SB-1d*	*Duplicate*	Relative
Sample Depth (ft.)	*2-10'*		Percent
PID reading (ppm)	*0.3*		Difference
Sample Date	*7/9/18*		(%)
TOTAL METALS, EPA Method 6020 (mg/kg, dry)			
Total Arsenic	**8.5**	**10**	8.1
Total Barium	**110**	**150**	15.4
Total Cadmium	ND<0.5	**0.63**	-
Total Chromium	**19**	**23**	9.5
Total Lead	**220**	**270**	10.2
Total Mercury	**0.67**	**0.73**	4.3
Total Selenium	**2.1**	**1.4**	20.0
Total Silver	ND<0.5	ND<0.5	-

Relative Percent Difference Calculations
Main and Congress , St. Albans, Vermont

Groundwater Sample	*MW-4*	*Duplicate*	*RPD*
VOCs, EPA Method 8260C (ug/l)			
Dichlorodifluoromethane	ND<5	ND<5	-
Chloromethane	ND<2	ND<2	-
Vinyl Chloride	ND<2	ND<2	-
Bromomethane	ND<2	ND<2	-
Chloroethane	ND<5	ND<5	-
Trichlorofluoromethane	ND<5	ND<5	-
Diethyl Ether	ND<5	ND<5	-
Acetone	ND<10	ND<10	-
1 ,1-Dichloroethene	ND<1	ND<1	-
Methylene chloride	ND<5	ND<5	-
Carbon disulfide	ND<5	ND<5	-
Methyl-t-butyl ether (MTBE)	ND<5	ND<5	-
trans-1,2-Dichloroethene	ND<2	ND<2	-
1,1-Dichloroethane	ND<2	ND<2	-
2,2-Dichloropropane	ND<2	ND<2	-
cis-1,2-Dichloroethene	ND<2	ND<2	-
2-Butanone(MEK)	ND<10	ND<10	-
Bromochloromethane	ND<2	ND<2	-
Tetrahydrofuran(THF)	ND<10	ND<10	-
Chloroform	ND<2	ND<2	-
1,1,1-Trichloroethane	ND<2	ND<2	-
Carbon tetrachloride	ND<2	ND<2	-
1 ,1-Dichloropropene	ND<2	ND<2	-
Benzene	ND<1	ND<1	-
1,2-Dichloroethane	ND<2	ND<2	-
Trichloroethene (TCE)	ND<2	ND<2	-
1,2-Dichloropropane	ND<2	ND<2	-
Dibromomethane	ND<2	ND<2	-
Bromodichloromethane	ND<1	ND<1	-
4-Methyl-2-pentanone(MIBK)	ND<10	ND<10	-
cis-1,3-Dichloropropene	ND<1	ND<1	-
Toluene	ND<1	ND<1	-
trans-1,3-Dichloropropene	ND<1	ND<1	-
1,1,2-Trichloroethane	ND<2	ND<2	-
2-Hexanone	ND<10	ND<10	-
Tetrachloroethene (PCE)	ND<2	ND<2	-
1,3-Dichloropropane	ND<2	ND<2	-
Dibromochloromethane	ND<2	ND<2	-
1,2-Dibromoethane(EDB)	ND<1	ND<1	-
Chlorobenzene	ND<2	ND<2	-
1,1,1,2-Tetrachloroethane	ND<2	ND<2	-

Relative Percent Difference Calculations
Main and Congress , St. Albans, Vermont

Groundwater Sample	*MW-4*	*Duplicate*	*RPD*
Ethylbenzene	ND<1	ND<1	-
mp-Xylene	ND<1	ND<1	-
o-Xylene	ND<1	ND<1	-
Styrene	ND<1	ND<1	-
Bromoform	ND<2	ND<2	-
IsoPropylbenzene	ND<1	ND<1	-
Bromobenzene	ND<2	ND<2	-
1,1,2,2-Tetrachloroethane	ND<2	ND<2	-
1,2,3-Trichloropropane	ND<2	ND<2	-
n-Propylbenzene	ND<1	ND<1	-
2-Chlorotoluene	ND<2	ND<2	-
4-Chlorotoluene	ND<2	ND<2	-
1,3,5-trimethylbenzene	ND<1	ND<1	-
tert-Butylbenzene	ND<1	ND<1	-
1,2,4-trimethylbenzene	ND<1	ND<1	-
sec-Butylbenzene	ND<1	ND<1	-
1,3-Dichlorobenzene	ND<1	ND<1	-
p-Isopropyltoluene	ND<1	ND<1	-
1,4-Dichlorobenzene	ND<1	ND<1	-
1,2-Dichlorobenzene	ND<1	ND<1	-
n-Butylbenzene	ND<1	ND<1	-
1,2-Dibromo-3-chloropropane	ND<2	ND<2	-
1,3,5-Trichlorobenzene	ND<1	ND<1	-
1,2,4-Trichlorobenzene	ND<1	ND<1	-
Hexachlorobutadiene	ND<1	ND<1	-
Naphthalene	ND<5	ND<5	-
1,2,3-Trichlorobenzene	ND<1	ND<1	-
Total Reported VOCs	ND	ND	-
TOTAL METALS, EPA Method 200.8 (mg/l)			
Total Arsenic	**0.0022**	**0.0020**	4.8
Total Barium	**0.19**	**0.19**	0.0
Total Cadmium	ND<0.001	ND<0.001	-
Total Chromium	**0.0034**	**0.0031**	4.6
Total Lead	**0.0019**	**0.0018**	2.7
Total Mercury	ND<0.001	ND<0.001	-
Total Selenium	**0.0066**	**0.0054**	10.0
Total Sliver	ND<0.001	ND<0.001	-

Liquid Level Monitoring Data
Brownfields Phase II ESA
Main and Congress Redevelopment
St. Albans, Vermont

Measurement Date: July 18, 2018

Well I.D.	Top of Casing Elevation	Depth To Product btoc	Depth To Water btoc	Product Thickness	Specific Gravity Of Product	Water Equivalent	Corrected Depth To Water	Corrected Water Table Elevation
MW-1	93.20	-	7.98	-	-	-	-	85.22
MW-2	93.95	-	8.71	-	-	-	-	85.24
MW-3	99.70	-	8.60	-	-	-	-	91.10
MW-4	100.48	-	8.26	-	-	-	-	92.22

Notes:
All Values Reported in Feet
btoc - Below Top of Casing
Elevation data relative to 100' at northeast corner of 12 Congress St

APPENDIX E

Laboratory Analytical Reports

Eastern Analytical, Inc.

professional laboratory and drilling services

Angela Emerson
LE Environmental LLC
21 North Main Street #1
Waterbury , VT 05676

ACCREDITED IN ACCORDANCE WITH nelac

Subject: Laboratory Report

Eastern Analytical, Inc. ID: 184154
Client Identification: Main and Congress | 18-112
Date Received: 7/11/2018

Dear Ms. Emerson :

Enclosed please find the laboratory report for the above identified project. All analyses were performed in accordance with our QA/QC Program. Unless otherwise stated, holding times, preservation techniques, container types, and sample conditions adhered to EPA Protocol. Samples which were collected by Eastern Analytical, Inc. (EAI) were collected in accordance with approved EPA procedures. Eastern Analytical, Inc. certifies that the enclosed test results meet all requirements of NELAP and other applicable state certifications. Please refer to our website at www.easternanalytical.com for a copy of our NELAP certificate and accredited parameters.

The following standard abbreviations and conventions apply to all EAI reports:

Solid samples are reported on a dry weight basis, unless otherwise noted
< : "less than" followed by the reporting limit
> : "greater than" followed by the reporting limit
%R : % Recovery

Eastern Analytical Inc. maintains certification in the following states: Connecticut (PH-0492), Maine (NH005), Massachusetts (M-NH005), New Hampshire/NELAP (1012), Rhode Island (269), Vermont (VT1012) and New York (12072).

The following information is contained within this report: Sample Conditions summary, Analytical Results/Data, Quality Control data (if requested) and copies of the Chain of Custody. This report may not be reproduced except in full, without the the written approval of the laboratory.

If you have any questions regarding the results contained within, please feel free to directly contact me or the chemist(s) who performed the testing in question. Unless otherwise requested, we will dispose of the sample (s) 30 days from the sample receipt date.

We appreciate this opportunity to be of service and look forward to your continued patronage.

Sincerely,

Lorraine Olashaw — Lorraine Olashaw, Lab Director

7.26.18 — Date

27 — # of pages (excluding cover letter)

SAMPLE CONDITIONS PAGE

EAI ID#: **184154**

Client: **LE Environmental LLC**

Client Designation: **Main and Congress | 18-112**

Temperature upon receipt (°C): 2.7 **Received on ice or cold packs (Yes/No): Y**

Acceptable temperature range (°C): 0-6

Lab ID	Sample ID	Date Received	Date Sampled	Sample Matrix	% Dry Weight	Exceptions/Comments (other than thermal preservation)
184154.01	SB-1s	7/11/18	7/9/18	soil	96.7	Adheres to Sample Acceptance Policy
184154.02	SB-1d	7/11/18	7/9/18	soil	86.4	Adheres to Sample Acceptance Policy
184154.03	SB-2s	7/11/18	7/9/18	soil	95.8	Adheres to Sample Acceptance Policy
184154.04	SB-3s	7/11/18	7/9/18	soil	88.0	Adheres to Sample Acceptance Policy
184154.05	SB-3d	7/11/18	7/9/18	soil	88.1	Adheres to Sample Acceptance Policy
184154.06	SB-4s	7/11/18	7/9/18	soil	89.3	Adheres to Sample Acceptance Policy
184154.07	SB-4d	7/11/18	7/9/18	soil	89.0	Adheres to Sample Acceptance Policy
184154.08	SB-5s	7/11/18	7/9/18	soil	89.0	Adheres to Sample Acceptance Policy
184154.09	SB-6s	7/11/18	7/9/18	soil	93.1	Adheres to Sample Acceptance Policy
184154.1	SB-7s	7/11/18	7/9/18	soil	82.5	Adheres to Sample Acceptance Policy
184154.11	SB-7d	7/11/18	7/9/18	soil	81.6	Adheres to Sample Acceptance Policy
184154.12	SB-8s	7/11/18	7/9/18	soil	91.4	Adheres to Sample Acceptance Policy
184154.13	Duplicate	7/11/18	7/9/18	soil	87.7	Adheres to Sample Acceptance Policy
184154.14	Trip Blank	7/11/18	7/9/18	soil	100.0	Adheres to Sample Acceptance Policy

Samples were properly preserved and the pH measured when applicable unless otherwise noted. Analysis of solids for pH, Flashpoint, Ignitability, Paint Filter, Corrosivity, Conductivity and Specific Gravity are reported on an "as received" basis.
Immediate analyses, pH, Total Residual Chlorine, Dissolved Oxygen and Sulfite, performed at the laboratory were run outside of the recommended 15 minute hold time.
All results contained in this report relate only to the above listed samples.
References include:
1) EPA 600/4-79-020, 1983
2) Standard Methods for Examination of Water and Wastewater,20th Edition, 1998 and 22nd Edition, 2012
3) Test Methods for Evaluating Solid Waste SW 846 3rd Edition including updates IVA and IVB
4) Hach Water Analysis Handbook, 2nd edition, 1992

LABORATORY REPORT

EAI ID#: **184154**

Client: **LE Environmental LLC**

Client Designation: **Main and Congress | 18-112**

Sample ID:	SB-1s	SB-1d	SB-2s	SB-3s	SB-3d	SB-4s	SB-4d
Lab Sample ID:	184154.01	184154.02	184154.03	184154.04	184154.05	184154.06	184154.07
Matrix:	soil	soil	soil	soil	soil	soil	soil
Date Sampled:	7/9/18	7/9/18	7/9/18	7/9/18	7/9/18	7/9/18	7/9/18
Date Received:	7/11/18	7/11/18	7/11/18	7/11/18	7/11/18	7/11/18	7/11/18
Units:	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Date of Analysis:	7/13/18	7/13/18	7/13/18	7/13/18	7/13/18	7/14/18	7/14/18
Analyst:	VG	VG	VG	VG	VG	VG	VG
Method:	8260C	8260C	8260C	8260C	8260C	8260C	8260C
Dilution Factor:	1	1	1	1	1	1	1
Dichlorodifluoromethane	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Chloromethane	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Vinyl chloride	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Bromomethane	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Chloroethane	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Trichlorofluoromethane	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Diethyl Ether	< 0.05	< 0.05	< 0.05	< 0.06	< 0.05	< 0.06	< 0.05
Acetone	< 2	< 2	< 2	< 2	< 2	< 2	< 2
1,1-Dichloroethene	< 0.05	< 0.05	< 0.05	< 0.06	< 0.05	< 0.06	< 0.05
Methylene chloride	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Carbon disulfide	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Methyl-t-butyl ether(MTBE)	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
trans-1,2-Dichloroethene	< 0.05	< 0.05	< 0.05	< 0.06	< 0.05	< 0.06	< 0.05
1,1-Dichloroethane	< 0.05	< 0.05	< 0.05	< 0.06	< 0.05	< 0.06	< 0.05
2,2-Dichloropropane	< 0.05	< 0.05	< 0.05	< 0.06	< 0.05	< 0.06	< 0.05
cis-1,2-Dichloroethene	< 0.05	< 0.05	< 0.05	< 0.06	< 0.05	< 0.06	< 0.05
2-Butanone(MEK)	< 0.5	< 0.5	< 0.5	< 0.6	< 0.5	< 0.6	< 0.5
Bromochloromethane	< 0.05	< 0.05	< 0.05	< 0.06	< 0.05	< 0.06	< 0.05
Tetrahydrofuran(THF)	< 0.5	< 0.5	< 0.5	< 0.6	< 0.5	< 0.6	< 0.5
Chloroform	< 0.05	< 0.05	< 0.05	< 0.06	< 0.05	< 0.06	< 0.05
1,1,1-Trichloroethane	< 0.05	< 0.05	< 0.05	< 0.06	< 0.05	< 0.06	< 0.05
Carbon tetrachloride	< 0.05	< 0.05	< 0.05	< 0.06	< 0.05	< 0.06	< 0.05
1,1-Dichloropropene	< 0.05	< 0.05	< 0.05	< 0.06	< 0.05	< 0.06	< 0.05
Benzene	< 0.05	< 0.05	< 0.05	< 0.06	< 0.05	< 0.06	< 0.05
1,2-Dichloroethane	< 0.05	< 0.05	< 0.05	< 0.06	< 0.05	< 0.06	< 0.05
Trichloroethene	< 0.05	< 0.05	< 0.05	< 0.06	< 0.05	< 0.06	< 0.05
1,2-Dichloropropane	< 0.05	< 0.05	< 0.05	< 0.06	< 0.05	< 0.06	< 0.05
Dibromomethane	< 0.05	< 0.05	< 0.05	< 0.06	< 0.05	< 0.06	< 0.05
Bromodichloromethane	< 0.05	< 0.05	< 0.05	< 0.06	< 0.05	< 0.06	< 0.05
4-Methyl-2-pentanone(MIBK)	< 0.5	< 0.5	< 0.5	< 0.6	< 0.5	< 0.6	< 0.5
cis-1,3-Dichloropropene	< 0.05	< 0.05	< 0.05	< 0.06	< 0.05	< 0.06	< 0.05
Toluene	< 0.05	< 0.05	< 0.05	< 0.06	< 0.05	< 0.06	< 0.05
trans-1,3-Dichloropropene	< 0.05	< 0.05	< 0.05	< 0.06	< 0.05	< 0.06	< 0.05
1,1,2-Trichloroethane	< 0.05	< 0.05	< 0.05	< 0.06	< 0.05	< 0.06	< 0.05
2-Hexanone	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Tetrachloroethene	< 0.05	< 0.05	< 0.05	< 0.06	< 0.05	< 0.06	< 0.05
1,3-Dichloropropane	< 0.05	< 0.05	< 0.05	< 0.06	< 0.05	< 0.06	< 0.05
Dibromochloromethane	< 0.05	< 0.05	< 0.05	< 0.06	< 0.05	< 0.06	< 0.05
1,2-Dibromoethane(EDB)	< 0.05	< 0.05	< 0.05	< 0.06	< 0.05	< 0.06	< 0.05
Chlorobenzene	< 0.05	< 0.05	< 0.05	< 0.06	< 0.05	< 0.06	< 0.05
1,1,1,2-Tetrachloroethane	< 0.05	< 0.05	< 0.05	< 0.06	< 0.05	< 0.06	< 0.05
Ethylbenzene	< 0.05	< 0.05	< 0.05	< 0.06	< 0.05	< 0.06	< 0.05
mp-Xylene	< 0.05	< 0.05	< 0.05	< 0.06	< 0.05	< 0.06	< 0.05
o-Xylene	< 0.05	< 0.05	< 0.05	< 0.06	< 0.05	< 0.06	< 0.05
Styrene	< 0.05	< 0.05	< 0.05	< 0.06	< 0.05	< 0.06	< 0.05
Bromoform	< 0.05	< 0.05	< 0.05	< 0.06	< 0.05	< 0.06	< 0.05
IsoPropylbenzene	< 0.05	< 0.05	< 0.05	< 0.06	< 0.05	< 0.06	< 0.05

LABORATORY REPORT

EAI ID#: **184154**

Client: **LE Environmental LLC**

Client Designation: **Main and Congress | 18-112**

Sample ID:	SB-1s	SB-1d	SB-2s	SB-3s	SB-3d	SB-4s	SB-4d
Lab Sample ID:	184154.01	184154.02	184154.03	184154.04	184154.05	184154.06	184154.07
Matrix:	soil	soil	soil	soil	soil	soil	soil
Date Sampled:	7/9/18	7/9/18	7/9/18	7/9/18	7/9/18	7/9/18	7/9/18
Date Received:	7/11/18	7/11/18	7/11/18	7/11/18	7/11/18	7/11/18	7/11/18
Units:	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Date of Analysis:	7/13/18	7/13/18	7/13/18	7/13/18	7/13/18	7/14/18	7/14/18
Analyst:	VG	VG	VG	VG	VG	VG	VG
Method:	8260C	8260C	8260C	8260C	8260C	8260C	8260C
Dilution Factor:	1	1	1	1	1	1	1
Bromobenzene	< 0.05	< 0.05	< 0.05	< 0.06	< 0.05	< 0.06	< 0.05
1,1,2,2-Tetrachloroethane	< 0.05	< 0.05	< 0.05	< 0.06	< 0.05	< 0.06	< 0.05
1,2,3-Trichloropropane	< 0.05	< 0.05	< 0.05	< 0.06	< 0.05	< 0.06	< 0.05
n-Propylbenzene	< 0.05	< 0.05	< 0.05	< 0.06	< 0.05	< 0.06	< 0.05
2-Chlorotoluene	< 0.05	< 0.05	< 0.05	< 0.06	< 0.05	< 0.06	< 0.05
4-Chlorotoluene	< 0.05	< 0.05	< 0.05	< 0.06	< 0.05	< 0.06	< 0.05
1,3,5-Trimethylbenzene	< 0.05	< 0.05	< 0.05	< 0.06	< 0.05	< 0.06	< 0.05
tert-Butylbenzene	< 0.05	< 0.05	< 0.05	< 0.06	< 0.05	< 0.06	< 0.05
1,2,4-Trimethylbenzene	< 0.05	< 0.05	< 0.05	< 0.06	< 0.05	< 0.06	< 0.05
sec-Butylbenzene	< 0.05	< 0.05	< 0.05	< 0.06	< 0.05	< 0.06	< 0.05
1,3-Dichlorobenzene	< 0.05	< 0.05	< 0.05	< 0.06	< 0.05	< 0.06	< 0.05
p-Isopropyltoluene	< 0.05	< 0.05	< 0.05	< 0.06	< 0.05	< 0.06	< 0.05
1,4-Dichlorobenzene	< 0.05	< 0.05	< 0.05	< 0.06	< 0.05	< 0.06	< 0.05
1,2-Dichlorobenzene	< 0.05	< 0.05	< 0.05	< 0.06	< 0.05	< 0.06	< 0.05
n-Butylbenzene	< 0.05	< 0.05	< 0.05	< 0.06	< 0.05	< 0.06	< 0.05
1,2-Dibromo-3-chloropropane	< 0.05	< 0.05	< 0.05	< 0.06	< 0.05	< 0.06	< 0.05
1,2,4-Trichlorobenzene	< 0.05	< 0.05	< 0.05	< 0.06	< 0.05	< 0.06	< 0.05
Hexachlorobutadiene	< 0.05	< 0.05	< 0.05	< 0.06	< 0.05	< 0.06	< 0.05
Naphthalene	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
1,2,3-Trichlorobenzene	< 0.05	< 0.05	< 0.05	< 0.06	< 0.05	< 0.06	< 0.05
4-Bromofluorobenzene (surr)	**94 %R**	**95 %R**	**96 %R**	**97 %R**	**95 %R**	**95 %R**	**92 %R**
1,2-Dichlorobenzene-d4 (surr)	**104 %R**	**105 %R**	**103 %R**	**107 %R**	**104 %R**	**102 %R**	**102 %R**
2,5-Dibromotoluene (surr)	**96 %R**	**146 %R**	**64 %R**	**106 %R**	**136 %R**	**98 %R**	**103 %R**
Toluene-d8 (surr)	**93 %R**	**93 %R**	**94 %R**	**93 %R**	**93 %R**	**94 %R**	**93 %R**

LABORATORY REPORT

EAI ID#: **184154**

Client: **LE Environmental LLC**

Client Designation: **Main and Congress | 18-112**

Sample ID:	SB-5s	SB-6s	SB-7s	SB-7d	SB-8s	Duplicate	Trip Blank
Lab Sample ID:	184154.08	184154.09	184154.1	184154.11	184154.12	184154.13	184154.14
Matrix:	soil	soil	soil	soil	soil	soil	soil
Date Sampled:	7/9/18	7/9/18	7/9/18	7/9/18	7/9/18	7/9/18	7/9/18
Date Received:	7/11/18	7/11/18	7/11/18	7/11/18	7/11/18	7/11/18	7/11/18
Units:	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Date of Analysis:	7/14/18	7/14/18	7/14/18	7/14/18	7/14/18	7/14/18	7/14/18
Analyst:	VG	VG	VG	VG	VG	VG	VG
Method:	8260C	8260C	8260C	8260C	8260C	8260C	8260C
Dilution Factor:	1	1	1	1	1	1	1
Dichlorodifluoromethane	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Chloromethane	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Vinyl chloride	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Bromomethane	< 0.2	< 0.2	< 0.3	< 0.2	< 0.2	< 0.2	< 0.2
Chloroethane	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Trichlorofluoromethane	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Diethyl Ether	< 0.05	< 0.05	< 0.07	< 0.06	< 0.05	< 0.05	< 0.05
Acetone	< 2	< 2	< 3	< 2	< 2	< 2	< 2
1,1-Dichloroethene	< 0.05	< 0.05	< 0.07	< 0.06	< 0.05	< 0.05	< 0.05
Methylene chloride	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Carbon disulfide	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Methyl-t-butyl ether(MTBE)	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
trans-1,2-Dichloroethene	< 0.05	< 0.05	< 0.07	< 0.06	< 0.05	< 0.05	< 0.05
1,1-Dichloroethane	< 0.05	< 0.05	< 0.07	< 0.06	< 0.05	< 0.05	< 0.05
2,2-Dichloropropane	< 0.05	< 0.05	< 0.07	< 0.06	< 0.05	< 0.05	< 0.05
cis-1,2-Dichloroethene	< 0.05	< 0.05	< 0.07	< 0.06	< 0.05	< 0.05	< 0.05
2-Butanone(MEK)	< 0.5	< 0.5	< 0.7	< 0.6	< 0.5	< 0.5	< 0.5
Bromochloromethane	< 0.05	< 0.05	< 0.07	< 0.06	< 0.05	< 0.05	< 0.05
Tetrahydrofuran(THF)	< 0.5	< 0.5	< 0.7	< 0.6	< 0.5	< 0.5	< 0.5
Chloroform	< 0.05	< 0.05	< 0.07	< 0.06	< 0.05	< 0.05	< 0.05
1,1,1-Trichloroethane	< 0.05	< 0.05	< 0.07	< 0.06	< 0.05	< 0.05	< 0.05
Carbon tetrachloride	< 0.05	< 0.05	< 0.07	< 0.06	< 0.05	< 0.05	< 0.05
1,1-Dichloropropene	< 0.05	< 0.05	< 0.07	< 0.06	< 0.05	< 0.05	< 0.05
Benzene	< 0.05	< 0.05	< 0.07	< 0.06	< 0.05	< 0.05	< 0.05
1,2-Dichloroethane	< 0.05	< 0.05	< 0.07	< 0.06	< 0.05	< 0.05	< 0.05
Trichloroethene	< 0.05	< 0.05	< 0.07	< 0.06	< 0.05	< 0.05	< 0.05
1,2-Dichloropropane	< 0.05	< 0.05	< 0.07	< 0.06	< 0.05	< 0.05	< 0.05
Dibromomethane	< 0.05	< 0.05	< 0.07	< 0.06	< 0.05	< 0.05	< 0.05
Bromodichloromethane	< 0.05	< 0.05	< 0.07	< 0.06	< 0.05	< 0.05	< 0.05
4-Methyl-2-pentanone(MIBK)	< 0.5	< 0.5	< 0.7	< 0.6	< 0.5	< 0.5	< 0.5
cis-1,3-Dichloropropene	< 0.05	< 0.05	< 0.07	< 0.06	< 0.05	< 0.05	< 0.05
Toluene	< 0.05	< 0.05	< 0.07	< 0.06	< 0.05	< 0.05	< 0.05
trans-1,3-Dichloropropene	< 0.05	< 0.05	< 0.07	< 0.06	< 0.05	< 0.05	< 0.05
1,1,2-Trichloroethane	< 0.05	< 0.05	< 0.07	< 0.06	< 0.05	< 0.05	< 0.05
2-Hexanone	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Tetrachloroethene	< 0.05	< 0.05	< 0.07	< 0.06	< 0.05	< 0.05	< 0.05
1,3-Dichloropropane	< 0.05	< 0.05	< 0.07	< 0.06	< 0.05	< 0.05	< 0.05
Dibromochloromethane	< 0.05	< 0.05	< 0.07	< 0.06	< 0.05	< 0.05	< 0.05
1,2-Dibromoethane(EDB)	< 0.05	< 0.05	< 0.07	< 0.06	< 0.05	< 0.05	< 0.05
Chlorobenzene	< 0.05	< 0.05	< 0.07	< 0.06	< 0.05	< 0.05	< 0.05
1,1,1,2-Tetrachloroethane	< 0.05	< 0.05	< 0.07	< 0.06	< 0.05	< 0.05	< 0.05
Ethylbenzene	< 0.05	< 0.05	< 0.07	< 0.06	< 0.05	< 0.05	< 0.05
mp-Xylene	< 0.05	**0.057**	< 0.07	< 0.06	< 0.05	< 0.05	< 0.05
o-Xylene	< 0.05	**0.073**	< 0.07	< 0.06	< 0.05	< 0.05	< 0.05
Styrene	< 0.05	< 0.05	< 0.07	< 0.06	< 0.05	< 0.05	< 0.05
Bromoform	< 0.05	< 0.05	< 0.07	< 0.06	< 0.05	< 0.05	< 0.05
IsoPropylbenzene	< 0.05	< 0.05	< 0.07	< 0.06	< 0.05	< 0.05	< 0.05

LABORATORY REPORT

EAI ID#: **184154**

Client: **LE Environmental LLC**

Client Designation: **Main and Congress | 18-112**

Sample ID:	SB-5s	SB-6s	SB-7s	SB-7d	SB-8s	Duplicate	Trip Blank
Lab Sample ID:	184154.08	184154.09	184154.1	184154.11	184154.12	184154.13	184154.14
Matrix:	soil	soil	soil	soil	soil	soil	soil
Date Sampled:	7/9/18	7/9/18	7/9/18	7/9/18	7/9/18	7/9/18	7/9/18
Date Received:	7/11/18	7/11/18	7/11/18	7/11/18	7/11/18	7/11/18	7/11/18
Units:	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Date of Analysis:	7/14/18	7/14/18	7/14/18	7/14/18	7/14/18	7/14/18	7/14/18
Analyst:	VG	VG	VG	VG	VG	VG	VG
Method:	8260C	8260C	8260C	8260C	8260C	8260C	8260C
Dilution Factor:	1	1	1	1	1	1	1
Bromobenzene	< 0.05	< 0.05	< 0.07	< 0.06	< 0.05	< 0.05	< 0.05
1,1,2,2-Tetrachloroethane	< 0.05	< 0.05	< 0.07	< 0.06	< 0.05	< 0.05	< 0.05
1,2,3-Trichloropropane	< 0.05	< 0.05	< 0.07	< 0.06	< 0.05	< 0.05	< 0.05
n-Propylbenzene	< 0.05	< 0.05	< 0.07	< 0.06	< 0.05	< 0.05	< 0.05
2-Chlorotoluene	< 0.05	< 0.05	< 0.07	< 0.06	< 0.05	< 0.05	< 0.05
4-Chlorotoluene	< 0.05	< 0.05	< 0.07	< 0.06	< 0.05	< 0.05	< 0.05
1,3,5-Trimethylbenzene	< 0.05	< 0.05	< 0.07	< 0.06	< 0.05	< 0.05	< 0.05
tert-Butylbenzene	< 0.05	< 0.05	< 0.07	< 0.06	< 0.05	< 0.05	< 0.05
1,2,4-Trimethylbenzene	< 0.05	< 0.05	< 0.07	< 0.06	< 0.05	< 0.05	< 0.05
sec-Butylbenzene	< 0.05	< 0.05	< 0.07	< 0.06	< 0.05	< 0.05	< 0.05
1,3-Dichlorobenzene	< 0.05	< 0.05	< 0.07	< 0.06	< 0.05	< 0.05	< 0.05
p-Isopropyltoluene	< 0.05	< 0.05	< 0.07	< 0.06	< 0.05	< 0.05	< 0.05
1,4-Dichlorobenzene	< 0.05	< 0.05	< 0.07	< 0.06	< 0.05	< 0.05	< 0.05
1,2-Dichlorobenzene	< 0.05	< 0.05	< 0.07	< 0.06	< 0.05	< 0.05	< 0.05
n-Butylbenzene	< 0.05	< 0.05	< 0.07	< 0.06	< 0.05	< 0.05	< 0.05
1,2-Dibromo-3-chloropropane	< 0.05	< 0.05	< 0.07	< 0.06	< 0.05	< 0.05	< 0.05
1,2,4-Trichlorobenzene	< 0.05	< 0.05	< 0.07	< 0.06	< 0.05	< 0.05	< 0.05
Hexachlorobutadiene	< 0.05	< 0.05	< 0.07	< 0.06	< 0.05	< 0.05	< 0.05
Naphthalene	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
1,2,3-Trichlorobenzene	< 0.05	< 0.05	< 0.07	< 0.06	< 0.05	< 0.05	< 0.05
4-Bromofluorobenzene (surr)	**98 %R**	**97 %R**	**96 %R**	**94 %R**	**95 %R**	**96 %R**	**96 %R**
1,2-Dichlorobenzene-d4 (surr)	**103 %R**	**100 %R**	**104 %R**	**105 %R**	**101 %R**	**105 %R**	**103 %R**
2,5-Dibromotoluene (surr)	**116 %R**	**75 %R**	**103 %R**	**140 %R**	**129 %R**	**143 %R**	**115 %R**
Toluene-d8 (surr)	**97 %R**	**95 %R**	**92 %R**	**94 %R**	**92 %R**	**94 %R**	**94 %R**

QC REPORT

EAI ID#: **184154**

Client: **LE Environmental LLC**

Client Designation: **Main and Congress | 18-112**

Parameter Name	Blank	LCS	LCSD	Analysis Date	Units	Limits	RPD	Method
Dichlorodifluoromethane	< 0.1			7/13/2018	mg/kg			8260C
Chloromethane	< 0.1			7/13/2018	mg/kg			8260C
Vinyl chloride	< 0.1			7/13/2018	mg/kg			8260C
Bromomethane	< 0.2			7/13/2018	mg/kg			8260C
Chloroethane	< 0.1			7/13/2018	mg/kg			8260C
Trichlorofluoromethane	< 0.1			7/13/2018	mg/kg			8260C
Diethyl Ether	< 0.05			7/13/2018	mg/kg			8260C
Acetone	< 2			7/13/2018	mg/kg			8260C
1,1-Dichloroethene	< 0.05	0.84 (84 %R)	0.76 (76 %R) (10 RPD)	7/13/2018	mg/kg	59 - 172	20	8260C
tert-Butyl Alcohol (TBA)	< 2			7/13/2018	mg/kg			8260C
Methylene chloride	< 0.1			7/13/2018	mg/kg			8260C
Carbon disulfide	< 0.1			7/13/2018	mg/kg			8260C
Methyl-t-butyl ether(MTBE)	< 0.1			7/13/2018	mg/kg			8260C
Ethyl-t-butyl ether(ETBE)	< 0.1			7/13/2018	mg/kg			8260C
Isopropyl ether(DIPE)	< 0.1			7/13/2018	mg/kg			8260C
tert-amyl methyl ether(TAME)	< 0.1			7/13/2018	mg/kg			8260C
trans-1,2-Dichloroethene	< 0.05			7/13/2018	mg/kg			8260C
1,1-Dichloroethane	< 0.05			7/13/2018	mg/kg			8260C
2,2-Dichloropropane	< 0.05			7/13/2018	mg/kg			8260C
cis-1,2-Dichloroethene	< 0.05			7/13/2018	mg/kg			8260C
2-Butanone(MEK)	< 0.5			7/13/2018	mg/kg			8260C
Bromochloromethane	< 0.05			7/13/2018	mg/kg			8260C
Tetrahydrofuran(THF)	< 0.5			7/13/2018	mg/kg			8260C
Chloroform	< 0.05			7/13/2018	mg/kg			8260C
1,1,1-Trichloroethane	< 0.05			7/13/2018	mg/kg			8260C
Carbon tetrachloride	< 0.05			7/13/2018	mg/kg			8260C
1,1-Dichloropropene	< 0.05			7/13/2018	mg/kg			8260C
Benzene	< 0.05	1.0 (101 %R)	0.94 (94 %R) (7 RPD)	7/13/2018	mg/kg	66 - 142	20	8260C
1,2-Dichloroethane	< 0.05			7/13/2018	mg/kg			8260C
Trichloroethene	< 0.05	1.0 (101 %R)	0.92 (92 %R) (9 RPD)	7/13/2018	mg/kg	62 - 137	20	8260C
1,2-Dichloropropane	< 0.05			7/13/2018	mg/kg			8260C
Dibromomethane	< 0.05			7/13/2018	mg/kg			8260C
Bromodichloromethane	< 0.05			7/13/2018	mg/kg			8260C
1,4-Dioxane	< 3			7/13/2018	mg/kg			8260C
4-Methyl-2-pentanone(MIBK)	< 0.5			7/13/2018	mg/kg			8260C
cis-1,3-Dichloropropene	< 0.05			7/13/2018	mg/kg			8260C
Toluene	< 0.05	1.0 (100 %R)	0.91 (91 %R) (9 RPD)	7/13/2018	mg/kg	59 - 139	20	8260C
trans-1,3-Dichloropropene	< 0.05			7/13/2018	mg/kg			8260C
1,1,2-Trichloroethane	< 0.05			7/13/2018	mg/kg			8260C
2-Hexanone	< 0.1			7/13/2018	mg/kg			8260C
Tetrachloroethene	< 0.05			7/13/2018	mg/kg			8260C
1,3-Dichloropropane	< 0.05			7/13/2018	mg/kg			8260C
Dibromochloromethane	< 0.05			7/13/2018	mg/kg			8260C
1,2-Dibromoethane(EDB)	< 0.05			7/13/2018	mg/kg			8260C
Chlorobenzene	< 0.05	1.0 (100 %R)	0.91 (91 %R) (9 RPD)	7/13/2018	mg/kg	60 - 133	20	8260C
1,1,1,2-Tetrachloroethane	< 0.05			7/13/2018	mg/kg			8260C

QC REPORT

EAI ID#: **184154**

Client: **LE Environmental LLC**

Client Designation: **Main and Congress | 18-112**

Parameter Name	Blank	LCS	LCSD	Analysis Date	Units	Limits	RPD	Method
Ethylbenzene	< 0.05			7/13/2018	mg/kg			8260C
mp-Xylene	< 0.05			7/13/2018	mg/kg			8260C
o-Xylene	< 0.05			7/13/2018	mg/kg			8260C
Styrene	< 0.05			7/13/2018	mg/kg			8260C
Bromoform	< 0.05			7/13/2018	mg/kg			8260C
IsoPropylbenzene	< 0.05			7/13/2018	mg/kg			8260C
Bromobenzene	< 0.05			7/13/2018	mg/kg			8260C
1,1,2,2-Tetrachloroethane	< 0.05			7/13/2018	mg/kg			8260C
1,2,3-Trichloropropane	< 0.05			7/13/2018	mg/kg			8260C
n-Propylbenzene	< 0.05			7/13/2018	mg/kg			8260C
2-Chlorotoluene	< 0.05			7/13/2018	mg/kg			8260C
4-Chlorotoluene	< 0.05			7/13/2018	mg/kg			8260C
1,3,5-Trimethylbenzene	< 0.05			7/13/2018	mg/kg			8260C
tert-Butylbenzene	< 0.05			7/13/2018	mg/kg			8260C
1,2,4-Trimethylbenzene	< 0.05			7/13/2018	mg/kg			8260C
sec-Butylbenzene	< 0.05			7/13/2018	mg/kg			8260C
1,3-Dichlorobenzene	< 0.05			7/13/2018	mg/kg			8260C
p-Isopropyltoluene	< 0.05			7/13/2018	mg/kg			8260C
1,4-Dichlorobenzene	< 0.05			7/13/2018	mg/kg			8260C
1,2-Dichlorobenzene	< 0.05			7/13/2018	mg/kg			8260C
n-Butylbenzene	< 0.05			7/13/2018	mg/kg			8260C
1,2-Dibromo-3-chloropropane	< 0.05			7/13/2018	mg/kg			8260C
1,3,5-Trichlorobenzene	< 0.05			7/13/2018	mg/kg			8260C
1,2,4-Trichlorobenzene	< 0.05			7/13/2018	mg/kg			8260C
Hexachlorobutadiene	< 0.05			7/13/2018	mg/kg			8260C
Naphthalene	< 0.1			7/13/2018	mg/kg			8260C
1,2,3-Trichlorobenzene	< 0.05			7/13/2018	mg/kg			8260C
4-Bromofluorobenzene (surr)	88 %R	94 %R	94 %R	7/13/2018	% Rec	70 - 130	20	8260C
1,2-Dichlorobenzene-d4 (surr)	102 %R	102 %R	101 %R	7/13/2018	% Rec	70 - 130	20	8260C
2,5-Dibromotoluene (surr)	114 %R	107 %R	102 %R	7/13/2018	% Rec	40 - 160	20	8260C
Toluene-d8 (surr)	94 %R	94 %R	94 %R	7/13/2018	% Rec	70 - 130	20	8260C
1,2-Dichloroethane-d4 (surr)	92 %R	98 %R	96 %R	7/13/2018	% Rec	70 - 130	20	8260C

Samples were extracted and analyzed within holding time limits.
Instrumentation was calibrated in accordance with the method requirements.
The method blanks were free of contamination at the reporting limits.
Sample surrogate recoveries met the above stated criteria.
The associated matrix spikes and/or Laboratory Control Samples met acceptance criteria.
There were no exceptions in the analyses, unless noted.
*/! Flagged analyte recoveries deviated from the QA/QC limits. Unless noted below, flagged analytes that exceed acceptance limits in the Quality Control sample were not detected in the field samples.
Analytes that exceed limits high but are not detected in the field samples do not impact the data. For analytes that show low recovery and are not detected in the field samples, a low point calibration standard has been analyzed to support the reporting limit.

LABORATORY REPORT

EAI ID#: **184154**

Client: **LE Environmental LLC**

Client Designation: **Main and Congress | 18-112**

Client Sample ID:	SB-1s
Lab Sample ID:	184154.01
Matrix:	soil
Date Sampled:	7/9/18
Date Received:	7/11/18
Date Prepared:	7/12/18
Units	mg/kg
Method	8270D
Analyst	JMR

	Results	Dilution Factor	Date Analyzed	TEF	TEQ
Naphthalene	**0.022**	1	7/13/18		
2-Methylnaphthalene	**0.011**	1	7/13/18		
1-Methylnaphthalene	< 0.007	1	7/13/18		
Acenaphthylene	**0.042**	1	7/13/18		
Acenaphthene	< 0.007	1	7/13/18		
Fluorene	**0.0074**	1	7/13/18		
Phenanthrene	**0.14**	1	7/13/18		
Anthracene	**0.030**	1	7/13/18		
Fluoranthene	**0.35**	1	7/13/18		
Pyrene	**0.30**	1	7/13/18		
Benzo[a]anthracene	**0.18**	1	7/13/18	0.1	.018
Chrysene	**0.22**	1	7/13/18	0.001	.00022
Benzo[b]fluoranthene	**0.28**	1	7/13/18	0.1	.028
Benzo[k]fluoranthene	**0.10**	1	7/13/18	0.01	.001
Benzo[a]pyrene	**0.21**	1	7/13/18	1	.21
Indeno[1,2,3-cd]pyrene	**0.16**	1	7/13/18	0.1	.016
Dibenz[a,h]anthracene	**0.039**	1	7/13/18	1	.039
Benzo[g,h,i]perylene	**0.15**	1	7/13/18		
p-Terphenyl-D14 (surr)	**84 %R**		7/13/18		

TEF: Toxicity Equivalent Factor
TEQ: Toxicity Equivalence to Benzo[a]pyrene
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LABORATORY REPORT

EAI ID#: **184154**

Client: **LE Environmental LLC**

Client Designation: **Main and Congress | 18-112**

Client Sample ID:	SB-1d
Lab Sample ID:	184154.02
Matrix:	soil
Date Sampled:	7/9/18
Date Received:	7/11/18
Date Prepared:	7/12/18
Units	mg/kg
Method	8270D
Analyst	JMR

	Results	Dilution Factor	Date Analyzed	TEF	TEQ
Naphthalene	**0.026**	1	7/13/18		
2-Methylnaphthalene	< 0.008	1	7/13/18		
1-Methylnaphthalene	< 0.008	1	7/13/18		
Acenaphthylene	**0.043**	1	7/13/18		
Acenaphthene	< 0.008	1	7/13/18		
Fluorene	< 0.008	1	7/13/18		
Phenanthrene	**0.11**	1	7/13/18		
Anthracene	**0.037**	1	7/13/18		
Fluoranthene	**0.40**	1	7/13/18		
Pyrene	**0.36**	1	7/13/18		
Benzo[a]anthracene	**0.28**	1	7/13/18	0.1	.028
Chrysene	**0.28**	1	7/13/18	0.001	.00028
Benzo[b]fluoranthene	**0.33**	1	7/13/18	0.1	.033
Benzo[k]fluoranthene	**0.14**	1	7/13/18	0.01	.0014
Benzo[a]pyrene	**0.28**	1	7/13/18	1	.28
Indeno[1,2,3-cd]pyrene	**0.19**	1	7/13/18	0.1	.019
Dibenz[a,h]anthracene	**0.048**	1	7/13/18	1	.048
Benzo[g,h,i]perylene	**0.16**	1	7/13/18		
p-Terphenyl-D14 (surr)	**75 %R**		7/13/18		

TEF: Toxicity Equivalent Factor
TEQ: Toxicity Equivalence to Benzo[a]pyrene
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LABORATORY REPORT

EAI ID#: **184154**

Client: **LE Environmental LLC**

Client Designation: **Main and Congress | 18-112**

Client Sample ID:	SB-2s
Lab Sample ID:	184154.03
Matrix:	soil
Date Sampled:	7/9/18
Date Received:	7/11/18
Date Prepared:	7/12/18
Units	mg/kg
Method	8270D
Analyst	JMR

	Results	Dilution Factor	Date Analyzed	TEF	TEQ
Naphthalene	**0.018**	1	7/13/18		
2-Methylnaphthalene	< 0.007	1	7/13/18		
1-Methylnaphthalene	< 0.007	1	7/13/18		
Acenaphthylene	< 0.007	1	7/13/18		
Acenaphthene	< 0.007	1	7/13/18		
Fluorene	< 0.007	1	7/13/18		
Phenanthrene	**0.019**	1	7/13/18		
Anthracene	< 0.007	1	7/13/18		
Fluoranthene	**0.031**	1	7/13/18		
Pyrene	**0.024**	1	7/13/18		
Benzo[a]anthracene	**0.016**	1	7/13/18	0.1	.0016
Chrysene	**0.017**	1	7/13/18	0.001	.000017
Benzo[b]fluoranthene	**0.021**	1	7/13/18	0.1	.0021
Benzo[k]fluoranthene	**0.0075**	1	7/13/18	0.01	.000075
Benzo[a]pyrene	**0.015**	1	7/13/18	1	.015
Indeno[1,2,3-cd]pyrene	**0.012**	1	7/13/18	0.1	.0012
Dibenz[a,h]anthracene	< 0.007	1	7/13/18	1	< .007
Benzo[g,h,i]perylene	**0.012**	1	7/13/18		
p-Terphenyl-D14 (surr)	**66 %R**		7/13/18		

TEF: Toxicity Equivalent Factor

TEQ: Toxicity Equivalence to Benzo[a]pyrene

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LABORATORY REPORT

EAI ID#: **184154**

Client: **LE Environmental LLC**

Client Designation: **Main and Congress | 18-112**

Client Sample ID:	SB-3s
Lab Sample ID:	184154.04
Matrix:	soil
Date Sampled:	7/9/18
Date Received:	7/11/18
Date Prepared:	7/12/18
Units	mg/kg
Method	8270D
Analyst	JMR

	Results	Dilution Factor	Date Analyzed	TEF	TEQ
Naphthalene	**0.033**	1	7/13/18		
2-Methylnaphthalene	**0.0095**	1	7/13/18		
1-Methylnaphthalene	< 0.008	1	7/13/18		
Acenaphthylene	**0.091**	1	7/13/18		
Acenaphthene	**0.012**	1	7/13/18		
Fluorene	**0.021**	1	7/13/18		
Phenanthrene	**0.47**	1	7/13/18		
Anthracene	**0.11**	1	7/13/18		
Fluoranthene	**1.2**	1	7/13/18		
Pyrene	**1.0**	1	7/13/18		
Benzo[a]anthracene	**0.60**	1	7/13/18	0.1	.06
Chrysene	**0.65**	1	7/13/18	0.001	.00065
Benzo[b]fluoranthene	**0.69**	1	7/13/18	0.1	.069
Benzo[k]fluoranthene	**0.27**	1	7/13/18	0.01	.0027
Benzo[a]pyrene	**0.59**	1	7/13/18	1	.59
Indeno[1,2,3-cd]pyrene	**0.38**	1	7/13/18	0.1	.038
Dibenz[a,h]anthracene	**0.091**	1	7/13/18	1	.091
Benzo[g,h,i]perylene	**0.31**	1	7/13/18		
p-Terphenyl-D14 (surr)	**63 %R**		7/13/18		

TEF: Toxicity Equivalent Factor
TEQ: Toxicity Equivalence to Benzo[a]pyrene
The TEF factors set forth in this report are taken from the following EPA document: "Mid- Atlantic Risk Assessment User's Guide: November 2013". This guidance document sets forth a recommended, but not mandatory approach based upon currently available information with respect to risk assessment for response actions at CERCLA sites. This document does not establish binding rules. This document contains the most current TEF values per VT IROCP.

LABORATORY REPORT

EAI ID#: **184154**

Client: **LE Environmental LLC**

Client Designation: **Main and Congress | 18-112**

Client Sample ID:	SB-3d
Lab Sample ID:	184154.05
Matrix:	soil
Date Sampled:	7/9/18
Date Received:	7/11/18
Date Prepared:	7/12/18
Units	mg/kg
Method	8270D
Analyst	JMR

	Results	Dilution Factor	Date Analyzed	TEF	TEQ
Naphthalene	< 0.008	1	7/13/18		
2-Methylnaphthalene	< 0.008	1	7/13/18		
1-Methylnaphthalene	< 0.008	1	7/13/18		
Acenaphthylene	< 0.008	1	7/13/18		
Acenaphthene	< 0.008	1	7/13/18		
Fluorene	< 0.008	1	7/13/18		
Phenanthrene	< 0.008	1	7/13/18		
Anthracene	< 0.008	1	7/13/18		
Fluoranthene	< 0.008	1	7/13/18		
Pyrene	< 0.008	1	7/13/18		
Benzo[a]anthracene	< 0.008	1	7/13/18	0.1	< .0008
Chrysene	< 0.008	1	7/13/18	0.001	< .00000
Benzo[b]fluoranthene	< 0.008	1	7/13/18	0.1	< .0008
Benzo[k]fluoranthene	< 0.008	1	7/13/18	0.01	< .00008
Benzo[a]pyrene	< 0.008	1	7/13/18	1	< .008
Indeno[1,2,3-cd]pyrene	< 0.008	1	7/13/18	0.1	< .0008
Dibenz[a,h]anthracene	< 0.008	1	7/13/18	1	< .008
Benzo[g,h,i]perylene	< 0.008	1	7/13/18		
p-Terphenyl-D14 (surr)	**62 %R**		7/13/18		

TEF: Toxicity Equivalent Factor

TEQ: Toxicity Equivalence to Benzo[a]pyrene

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LABORATORY REPORT

EAI ID#: **184154**

Client: **LE Environmental LLC**

Client Designation: **Main and Congress | 18-112**

Client Sample ID:	SB-4s
Lab Sample ID:	184154.06
Matrix:	soil
Date Sampled:	7/9/18
Date Received:	7/11/18
Date Prepared:	7/12/18
Units	mg/kg
Method	8270D
Analyst	JMR

	Results	Dilution Factor	Date Analyzed	TEF	TEQ
Naphthalene	**0.019**	1	7/13/18		
2-Methylnaphthalene	**0.015**	1	7/13/18		
1-Methylnaphthalene	**0.011**	1	7/13/18		
Acenaphthylene	**0.052**	1	7/13/18		
Acenaphthene	**0.011**	1	7/13/18		
Fluorene	**0.015**	1	7/13/18		
Phenanthrene	**0.26**	1	7/13/18		
Anthracene	**0.048**	1	7/13/18		
Fluoranthene	**0.46**	1	7/13/18		
Pyrene	**0.43**	1	7/13/18		
Benzo[a]anthracene	**0.21**	1	7/13/18	0.1	.021
Chrysene	**0.29**	1	7/13/18	0.001	.00029
Benzo[b]fluoranthene	**0.31**	1	7/13/18	0.1	.031
Benzo[k]fluoranthene	**0.11**	1	7/13/18	0.01	.0011
Benzo[a]pyrene	**0.24**	1	7/13/18	1	.24
Indeno[1,2,3-cd]pyrene	**0.19**	1	7/13/18	0.1	.019
Dibenz[a,h]anthracene	**0.045**	1	7/13/18	1	.045
Benzo[g,h,i]perylene	**0.18**	1	7/13/18		
p-Terphenyl-D14 (surr)	**80 %R**		7/13/18		

TEF: Toxicity Equivalent Factor
TEQ: Toxicity Equivalence to Benzo[a]pyrene
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LABORATORY REPORT

EAI ID#: **184154**

Client: **LE Environmental LLC**

Client Designation: **Main and Congress | 18-112**

Client Sample ID:	SB-4d
Lab Sample ID:	184154.07
Matrix:	soil
Date Sampled:	7/9/18
Date Received:	7/11/18
Date Prepared:	7/12/18
Units	mg/kg
Method	8270D
Analyst	JMR

	Results	Dilution Factor	Date Analyzed	TEF	TEQ
Naphthalene	< 0.008	1	7/13/18		
2-Methylnaphthalene	< 0.008	1	7/13/18		
1-Methylnaphthalene	< 0.008	1	7/13/18		
Acenaphthylene	< 0.008	1	7/13/18		
Acenaphthene	< 0.008	1	7/13/18		
Fluorene	< 0.008	1	7/13/18		
Phenanthrene	< 0.008	1	7/13/18		
Anthracene	< 0.008	1	7/13/18		
Fluoranthene	< 0.008	1	7/13/18		
Pyrene	< 0.008	1	7/13/18		
Benzo[a]anthracene	< 0.008	1	7/13/18	0.1	< .0008
Chrysene	< 0.008	1	7/13/18	0.001	< .00000
Benzo[b]fluoranthene	< 0.008	1	7/13/18	0.1	< .0008
Benzo[k]fluoranthene	< 0.008	1	7/13/18	0.01	< .00008
Benzo[a]pyrene	< 0.008	1	7/13/18	1	< .008
Indeno[1,2,3-cd]pyrene	< 0.008	1	7/13/18	0.1	< .0008
Dibenz[a,h]anthracene	< 0.008	1	7/13/18	1	< .008
Benzo[g,h,i]perylene	< 0.008	1	7/13/18		
p-Terphenyl-D14 (surr)	**68 %R**		7/13/18		

TEF: Toxicity Equivalent Factor
TEQ: Toxicity Equivalence to Benzo[a]pyrene
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LABORATORY REPORT

EAI ID#: **184154**

Client: **LE Environmental LLC**

Client Designation: **Main and Congress | 18-112**

Client Sample ID:	SB-5s
Lab Sample ID:	184154.08
Matrix:	soil
Date Sampled:	7/9/18
Date Received:	7/11/18
Date Prepared:	7/12/18
Units	mg/kg
Method	8270D
Analyst	JMR

	Results	Dilution Factor	Date Analyzed	TEF	TEQ
Naphthalene	**0.077**	1	7/13/18		
2-Methylnaphthalene	**0.050**	1	7/13/18		
1-Methylnaphthalene	**0.033**	1	7/13/18		
Acenaphthylene	**0.16**	1	7/13/18		
Acenaphthene	**0.019**	1	7/13/18		
Fluorene	**0.037**	1	7/13/18		
Phenanthrene	**0.61**	1	7/13/18		
Anthracene	**0.13**	1	7/13/18		
Fluoranthene	**1.2**	1	7/13/18		
Pyrene	**0.93**	1	7/13/18		
Benzo[a]anthracene	**0.60**	1	7/13/18	0.1	.06
Chrysene	**0.74**	1	7/13/18	0.001	.00074
Benzo[b]fluoranthene	**0.93**	1	7/13/18	0.1	.093
Benzo[k]fluoranthene	**0.33**	1	7/13/18	0.01	.0033
Benzo[a]pyrene	**0.67**	1	7/13/18	1	.67
Indeno[1,2,3-cd]pyrene	**0.31**	1	7/13/18	0.1	.031
Dibenz[a,h]anthracene	**0.079**	1	7/13/18	1	.079
Benzo[g,h,i]perylene	**0.25**	1	7/13/18		
p-Terphenyl-D14 (surr)	**73 %R**		7/13/18		

TEF: Toxicity Equivalent Factor
TEQ: Toxicity Equivalence to Benzo[a]pyrene
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LABORATORY REPORT

EAI ID#: **184154**

Client: **LE Environmental LLC**

Client Designation: **Main and Congress | 18-112**

Client Sample ID:	SB-6s
Lab Sample ID:	184154.09
Matrix:	soil
Date Sampled:	7/9/18
Date Received:	7/11/18
Date Prepared:	7/12/18
Units	mg/kg
Method	8270D
Analyst	JMR

	Results	Dilution Factor	Date Analyzed	TEF	TEQ
Naphthalene	**0.14**	1	7/13/18		
2-Methylnaphthalene	**0.14**	1	7/13/18		
1-Methylnaphthalene	**0.17**	1	7/13/18		
Acenaphthylene	**1.2**	1	7/13/18		
Acenaphthene	**0.057**	1	7/13/18		
Fluorene	**0.23**	1	7/13/18		
Phenanthrene	**3.5**	1	7/13/18		
Anthracene	**0.64**	1	7/13/18		
Fluoranthene	**4.5**	1	7/13/18		
Pyrene	**3.2**	1	7/13/18		
Benzo[a]anthracene	**1.7**	1	7/13/18	0.1	.17
Chrysene	**2.9**	1	7/13/18	0.001	.0029
Benzo[b]fluoranthene	**4.1**	1	7/13/18	0.1	.41
Benzo[k]fluoranthene	**1.4**	1	7/13/18	0.01	.014
Benzo[a]pyrene	**2.2**	1	7/13/18	1	2.2
Indeno[1,2,3-cd]pyrene	**0.91**	1	7/13/18	0.1	.091
Dibenz[a,h]anthracene	**0.22**	1	7/13/18	1	.22
Benzo[g,h,i]perylene	**0.78**	1	7/13/18		
p-Terphenyl-D14 (surr)	**63 %R**		7/13/18		

TEF: Toxicity Equivalent Factor
TEQ: Toxicity Equivalence to Benzo[a]pyrene
The TEF factors set forth in this report are taken from the following EPA document: "Mid- Atlantic Risk Assessment User's Guide: November 2013". This guidance document sets forth a recommended, but not mandatory approach based upon currently available information with respect to risk assessment for response actions at CERCLA sites. This document does not establish binding rules. This document contains the most current TEF values per VT IROCP.

LABORATORY REPORT

EAI ID#: **184154**

Client: **LE Environmental LLC**

Client Designation: **Main and Congress | 18-112**

Client Sample ID:	SB-7s
Lab Sample ID:	184154.1
Matrix:	soil
Date Sampled:	7/9/18
Date Received:	7/11/18
Date Prepared:	7/12/18
Units	mg/kg
Method	8270D
Analyst	JMR

	Results	Dilution Factor	Date Analyzed	TEF	TEQ
Naphthalene	**0.011**	1	7/13/18		
2-Methylnaphthalene	**0.0083**	1	7/13/18		
1-Methylnaphthalene	**0.0082**	1	7/13/18		
Acenaphthylene	**0.048**	1	7/13/18		
Acenaphthene	< 0.008	1	7/13/18		
Fluorene	**0.0096**	1	7/13/18		
Phenanthrene	**0.11**	1	7/13/18		
Anthracene	**0.023**	1	7/13/18		
Fluoranthene	**0.21**	1	7/13/18		
Pyrene	**0.18**	1	7/13/18		
Benzo[a]anthracene	**0.098**	1	7/13/18	0.1	.0098
Chrysene	**0.14**	1	7/13/18	0.001	.00014
Benzo[b]fluoranthene	**0.20**	1	7/13/18	0.1	.02
Benzo[k]fluoranthene	**0.071**	1	7/13/18	0.01	.00071
Benzo[a]pyrene	**0.13**	1	7/13/18	1	.13
Indeno[1,2,3-cd]pyrene	**0.054**	1	7/13/18	0.1	.0054
Dibenz[a,h]anthracene	**0.015**	1	7/13/18	1	.015
Benzo[g,h,i]perylene	**0.060**	1	7/13/18		
p-Terphenyl-D14 (surr)	**53 %R**		7/13/18		

TEF: Toxicity Equivalent Factor
TEQ: Toxicity Equivalence to Benzo[a]pyrene
The TEF factors set forth in this report are taken from the following EPA document: "Mid- Atlantic Risk Assessment User's Guide: November 2013". This guidance document sets forth a recommended, but not mandatory approach based upon currently available information with respect to risk assessment for response actions at CERCLA sites. This document does not establish binding rules. This document contains the most current TEF values per VT IROCP.

LABORATORY REPORT

EAI ID#: **184154**

Client: **LE Environmental LLC**

Client Designation: **Main and Congress | 18-112**

Client Sample ID:	SB-7d
Lab Sample ID:	184154.11
Matrix:	soil
Date Sampled:	7/9/18
Date Received:	7/11/18
Date Prepared:	7/12/18
Units	mg/kg
Method	8270D
Analyst	JMR

	Results	Dilution Factor	Date Analyzed	TEF	TEQ
Naphthalene	**0.027**	1	7/14/18		
2-Methylnaphthalene	**0.010**	1	7/14/18		
1-Methylnaphthalene	**0.0092**	1	7/14/18		
Acenaphthylene	**0.046**	1	7/14/18		
Acenaphthene	< 0.008	1	7/14/18		
Fluorene	< 0.008	1	7/14/18		
Phenanthrene	**0.14**	1	7/14/18		
Anthracene	**0.037**	1	7/14/18		
Fluoranthene	**0.43**	1	7/14/18		
Pyrene	**0.33**	1	7/14/18		
Benzo[a]anthracene	**0.22**	1	7/14/18	0.1	.022
Chrysene	**0.30**	1	7/14/18	0.001	.0003
Benzo[b]fluoranthene	**0.37**	1	7/14/18	0.1	.037
Benzo[k]fluoranthene	**0.13**	1	7/14/18	0.01	.0013
Benzo[a]pyrene	**0.24**	1	7/14/18	1	.24
Indeno[1,2,3-cd]pyrene	**0.094**	1	7/14/18	0.1	.0094
Dibenz[a,h]anthracene	**0.026**	1	7/14/18	1	.026
Benzo[g,h,i]perylene	**0.075**	1	7/14/18		
p-Terphenyl-D14 (surr)	**53 %R**		7/14/18		

TEF: Toxicity Equivalent Factor
TEQ: Toxicity Equivalence to Benzo[a]pyrene
The TEF factors set forth in this report are taken from the following EPA document: "Mid- Atlantic Risk Assessment User's Guide: November 2013". This guidance document sets forth a recommended, but not mandatory approach based upon currently available information with respect to risk assessment for response actions at CERCLA sites. This document does not establish binding rules. This document contains the most current TEF values per VT IROCP.

LABORATORY REPORT

EAI ID#: **184154**

Client: **LE Environmental LLC**

Client Designation: **Main and Congress | 18-112**

Client Sample ID:	SB-8s
Lab Sample ID:	184154.12
Matrix:	soil
Date Sampled:	7/9/18
Date Received:	7/11/18
Date Prepared:	7/12/18
Units	mg/kg
Method	8270D
Analyst	JMR

	Results	Dilution Factor	Date Analyzed	TEF	TEQ
Naphthalene	**0.11**	1	7/14/18		
2-Methylnaphthalene	**0.032**	1	7/14/18		
1-Methylnaphthalene	**0.021**	1	7/14/18		
Acenaphthylene	**0.34**	1	7/14/18		
Acenaphthene	**0.016**	1	7/14/18		
Fluorene	**0.025**	1	7/14/18		
Phenanthrene	**0.35**	1	7/14/18		
Anthracene	**0.15**	1	7/14/18		
Fluoranthene	**1.5**	1	7/14/18		
Pyrene	**1.2**	1	7/14/18		
Benzo[a]anthracene	**1.3**	1	7/14/18	0.1	.13
Chrysene	**1.5**	1	7/14/18	0.001	.0015
Benzo[b]fluoranthene	**2.7**	1	7/14/18	0.1	.27
Benzo[k]fluoranthene	**1.1**	1	7/14/18	0.01	.011
Benzo[a]pyrene	**1.8**	1	7/14/18	1	1.8
Indeno[1,2,3-cd]pyrene	**0.68**	1	7/14/18	0.1	.068
Dibenz[a,h]anthracene	**0.17**	1	7/14/18	1	.17
Benzo[g,h,i]perylene	**0.54**	1	7/14/18		
p-Terphenyl-D14 (surr)	**63 %R**		7/14/18		

TEF: Toxicity Equivalent Factor

TEQ: Toxicity Equivalence to Benzo[a]pyrene

The TEF factors set forth in this report are taken from the following EPA document: "Mid- Atlantic Risk Assessment User's Guide: November 2013". This guidance document sets forth a recommended, but not mandatory approach based upon currently available information with respect to risk assessment for response actions at CERCLA sites. This document does not establish binding rules. This document contains the most current TEF values per VT IROCP.

LABORATORY REPORT

EAI ID#: **184154**

Client: **LE Environmental LLC**

Client Designation: **Main and Congress | 18-112**

Client Sample ID:	Duplicate
Lab Sample ID:	184154.13
Matrix:	soil
Date Sampled:	7/9/18
Date Received:	7/11/18
Date Prepared:	7/12/18
Units	mg/kg
Method	8270D
Analyst	JMR

	Results	Dilution Factor	Date Analyzed	TEF	TEQ
Naphthalene	**0.029**	1	7/14/18		
2-Methylnaphthalene	< 0.008	1	7/14/18		
1-Methylnaphthalene	< 0.008	1	7/14/18		
Acenaphthylene	**0.045**	1	7/14/18		
Acenaphthene	< 0.008	1	7/14/18		
Fluorene	< 0.008	1	7/14/18		
Phenanthrene	**0.10**	1	7/14/18		
Anthracene	**0.032**	1	7/14/18		
Fluoranthene	**0.38**	1	7/14/18		
Pyrene	**0.30**	1	7/14/18		
Benzo[a]anthracene	**0.23**	1	7/14/18	0.1	.023
Chrysene	**0.25**	1	7/14/18	0.001	.00025
Benzo[b]fluoranthene	**0.36**	1	7/14/18	0.1	.036
Benzo[k]fluoranthene	**0.13**	1	7/14/18	0.01	.0013
Benzo[a]pyrene	**0.25**	1	7/14/18	1	.25
Indeno[1,2,3-cd]pyrene	**0.092**	1	7/14/18	0.1	.0092
Dibenz[a,h]anthracene	**0.025**	1	7/14/18	1	.025
Benzo[g,h,i]perylene	**0.069**	1	7/14/18		
p-Terphenyl-D14 (surr)	**62 %R**		7/14/18		

TEF: Toxicity Equivalent Factor
TEQ: Toxicity Equivalence to Benzo[a]pyrene
The TEF factors set forth in this report are taken from the following EPA document: "Mid- Atlantic Risk Assessment User's Guide: November 2013". This guidance document sets forth a recommended, but not mandatory approach based upon currently available information with respect to risk assessment for response actions at CERCLA sites. This document does not establish binding rules. This document contains the most current TEF values per VT IROCP.

QC REPORT

EAI ID#: **184154**

Client: **LE Environmental LLC**

Batch ID: 636668-91466/S071118PAH1

Client Designation: **Main and Congress | 18-112**

Parameter Name	Blank	LCS	LCSD	Analysis Date	Units	Limits	RPD	Method
Naphthalene	< 0.007	1.2 (72 %R)	1.1 (67 %R) (8 RPD)	7/12/2018	mg/kg	40 - 140	30	8270D
2-Methylnaphthalene	< 0.007	1.4 (81 %R)	1.2 (75 %R) (8 RPD)	7/12/2018	mg/kg	40 - 140	30	8270D
1-Methylnaphthalene	< 0.007	1.3 (77 %R)	1.2 (72 %R) (7 RPD)	7/12/2018	mg/kg	40 - 140	30	8270D
Acenaphthylene	< 0.007	1.3 (75 %R)	1.2 (71 %R) (6 RPD)	7/12/2018	mg/kg	40 - 140	30	8270D
Acenaphthene	< 0.007	1.3 (76 %R)	1.2 (72 %R) (5 RPD)	7/12/2018	mg/kg	40 - 140	30	8270D
Fluorene	< 0.007	1.3 (81 %R)	1.3 (75 %R) (7 RPD)	7/12/2018	mg/kg	40 - 140	30	8270D
Phenanthrene	< 0.007	1.3 (79 %R)	1.2 (74 %R) (7 RPD)	7/12/2018	mg/kg	40 - 140	30	8270D
Anthracene	< 0.007	1.3 (80 %R)	1.2 (74 %R) (7 RPD)	7/12/2018	mg/kg	40 - 140	30	8270D
Fluoranthene	< 0.007	1.4 (82 %R)	1.3 (77 %R) (6 RPD)	7/12/2018	mg/kg	40 - 140	30	8270D
Pyrene	< 0.007	1.4 (84 %R)	1.3 (79 %R) (6 RPD)	7/12/2018	mg/kg	40 - 140	30	8270D
Benzo[a]anthracene	< 0.007	1.3 (79 %R)	1.2 (74 %R) (7 RPD)	7/12/2018	mg/kg	40 - 140	30	8270D
Chrysene	< 0.007	1.5 (88 %R)	1.4 (81 %R) (8 RPD)	7/12/2018	mg/kg	40 - 140	30	8270D
Benzo[b]fluoranthene	< 0.007	1.4 (87 %R)	1.4 (81 %R) (7 RPD)	7/12/2018	mg/kg	40 - 140	30	8270D
Benzo[k]fluoranthene	< 0.007	1.5 (88 %R)	1.4 (81 %R) (8 RPD)	7/12/2018	mg/kg	40 - 140	30	8270D
Benzo[a]pyrene	< 0.007	1.5 (87 %R)	1.4 (81 %R) (7 RPD)	7/12/2018	mg/kg	40 - 140	30	8270D
Indeno[1,2,3-cd]pyrene	< 0.007	1.5 (89 %R)	1.4 (81 %R) (9 RPD)	7/12/2018	mg/kg	40 - 140	30	8270D
Dibenz[a,h]anthracene	< 0.007	1.5 (90 %R)	1.4 (83 %R) (8 RPD)	7/12/2018	mg/kg	40 - 140	30	8270D
Benzo[g,h,i]perylene	< 0.007	1.4 (86 %R)	1.3 (80 %R) (7 RPD)	7/12/2018	mg/kg	40 - 140	30	8270D
p-Terphenyl-D14 (surr)	89 %R	92 %R	87 %R	7/12/2018	mg/kg	30 - 130		8270D

Samples were extracted and analyzed within holding time limits.
Instrumentation was calibrated in accordance with the method requirements.
The method blanks were free of contamination at the reporting limits.
Sample surrogate recoveries met the above stated criteria.
The associated matrix spikes and/or Laboratory Control Samples met acceptance criteria.
There were no exceptions in the analyses, unless noted.
*/! Flagged analyte recoveries deviated from the QA/QC limits. Unless noted below, flagged analytes that exceed acceptance limits in the Quality Control sample were not detected in the field samples.

LABORATORY REPORT

EAI ID#: **184154**

Client: **LE Environmental LLC**

Client Designation: **Main and Congress | 18-112**

Sample ID:	SB-1s	SB-2s	SB-3d	SB-4d					
Lab Sample ID:	184154.01	184154.03	184154.05	184154.07					
Matrix:	soil	soil	soil	soil					
Date Sampled:	7/9/18	7/9/18	7/9/18	7/9/18	**Analytical Matrix**	**Units**	**Date of Analysis**	**Method**	**Analyst**
Date Received:	7/11/18	7/11/18	7/11/18	7/11/18					
Arsenic	**2.9**	**4.7**	**5.3**	**6.8**	SolTotDry	mg/kg	7/13/18	6020	DS
Barium	**39**	**36**	**66**	**92**	SolTotDry	mg/kg	7/13/18	6020	DS
Cadmium	< 0.5	< 0.5	< 0.5	< 0.5	SolTotDry	mg/kg	7/13/18	6020	DS
Chromium	**6.8**	**11**	**21**	**22**	SolTotDry	mg/kg	7/13/18	6020	DS
Lead	**66**	**11**	**11**	**21**	SolTotDry	mg/kg	7/13/18	6020	DS
Mercury	< 0.1	< 0.1	< 0.1	< 0.1	SolTotDry	mg/kg	7/13/18	6020	DS
Selenium	< 0.5	**1.3**	**1.7**	**1.8**	SolTotDry	mg/kg	7/13/18	6020	DS
Silver	< 0.5	< 0.5	< 0.5	< 0.5	SolTotDry	mg/kg	7/13/18	6020	DS

Sample ID:	SB-7s					
Lab Sample ID:	184154.1					
Matrix:	soil					
Date Sampled:	7/9/18	**Analytical Matrix**	**Units**	**Date of Analysis**	**Method**	**Analyst**
Date Received:	7/11/18					
Arsenic	**16**	SolTotDry	mg/kg	7/13/18	6020	DS
Barium	**52**	SolTotDry	mg/kg	7/13/18	6020	DS
Cadmium	< 0.5	SolTotDry	mg/kg	7/13/18	6020	DS
Chromium	**11**	SolTotDry	mg/kg	7/13/18	6020	DS
Lead	**50**	SolTotDry	mg/kg	7/13/18	6020	DS
Mercury	**0.16**	SolTotDry	mg/kg	7/13/18	6020	DS
Selenium	**1.2**	SolTotDry	mg/kg	7/13/18	6020	DS
Silver	< 0.5	SolTotDry	mg/kg	7/13/18	6020	DS

LABORATORY REPORT

EAI ID#: **184154**

Client: **LE Environmental LLC**

Client Designation: **Main and Congress | 18-112**

Sample ID:	SB-1d	SB-3s	SB-4s	SB-6s					
Lab Sample ID:	184154.02	184154.04	184154.06	184154.09					
Matrix:	soil	soil	soil	soil					
Date Sampled:	7/9/18	7/9/18	7/9/18	7/9/18	**Analytical Matrix**	**Units**	**Date of Analysis**	**Method**	**Analyst**
Date Received:	7/11/18	7/11/18	7/11/18	7/11/18					
Arsenic	**8.5**	**7.0**	**10**	**7.2**	SolTotDry	mg/kg	7/13/18	6020	DS
Barium	**110**	**130**	**110**	**77**	SolTotDry	mg/kg	7/13/18	6020	DS
Cadmium	< 0.5	< 0.5	< 0.5	< 0.5	SolTotDry	mg/kg	7/13/18	6020	DS
Chromium	**19**	**19**	**15**	**13**	SolTotDry	mg/kg	7/13/18	6020	DS
Lead	**220**	**430**	**530**	**230**	SolTotDry	mg/kg	7/13/18	6020	DS
Mercury	**0.67**	**0.24**	< 0.1	**0.18**	SolTotDry	mg/kg	7/13/18	6020	DS
Selenium	**2.1**	**1.8**	**1.8**	**0.67**	SolTotDry	mg/kg	7/13/18	6020	DS
Silver	< 0.5	< 0.5	< 0.5	< 0.5	SolTotDry	mg/kg	7/13/18	6020	DS
Lead	< 0.5	< 0.5	< 0.5	< 0.5	TCLPsolid	mg/L	7/24/18	6020	DS

Sample ID:	SB-7d	SB-8s	Duplicate					
Lab Sample ID:	184154.11	184154.12	184154.13					
Matrix:	soil	soil	soil					
Date Sampled:	7/9/18	7/9/18	7/9/18	**Analytical Matrix**	**Units**	**Date of Analysis**	**Method**	**Analyst**
Date Received:	7/11/18	7/11/18	7/11/18					
Arsenic	**21**	**6.6**	**10**	SolTotDry	mg/kg	7/13/18	6020	DS
Barium	**240**	**78**	**150**	SolTotDry	mg/kg	7/13/18	6020	DS
Cadmium	< 0.5	< 0.5	**0.63**	SolTotDry	mg/kg	7/13/18	6020	DS
Chromium	**26**	**17**	**23**	SolTotDry	mg/kg	7/13/18	6020	DS
Lead	**120**	**150**	**270**	SolTotDry	mg/kg	7/13/18	6020	DS
Mercury	**0.40**	**0.45**	**0.73**	SolTotDry	mg/kg	7/13/18	6020	DS
Selenium	**1.4**	**1.4**	**1.4**	SolTotDry	mg/kg	7/13/18	6020	DS
Silver	< 0.5	< 0.5	< 0.5	SolTotDry	mg/kg	7/13/18	6020	DS
Lead	< 0.5	< 0.5	< 0.5	TCLPsolid	mg/L	7/24/18	6020	DS

LABORATORY REPORT

EAI ID#: **184154**

Client: **LE Environmental LLC**

Client Designation: **Main and Congress | 18-112**

Sample ID: SB-5s

Lab Sample ID: 184154.08
Matrix: soil
Date Sampled: 7/9/18
Date Received: 7/11/18

		Analytical Matrix	Units	Date of Analysis	Method	Analyst
Arsenic	**71**	SolTotDry	mg/kg	7/13/18	6020	DS
Barium	**130**	SolTotDry	mg/kg	7/13/18	6020	DS
Cadmium	**0.81**	SolTotDry	mg/kg	7/13/18	6020	DS
Chromium	**24**	SolTotDry	mg/kg	7/13/18	6020	DS
Lead	**240**	SolTotDry	mg/kg	7/13/18	6020	DS
Mercury	**8.9**	SolTotDry	mg/kg	7/13/18	6020	DS
Selenium	**0.7**	SolTotDry	mg/kg	7/13/18	6020	DS
Silver	< 0.5	SolTotDry	mg/kg	7/13/18	6020	DS
Lead	< 0.5	TCLPsolid	mg/L	7/24/18	6020	DS
Mercury	< 0.01	TCLPsolid	mg/L	7/24/18	6020	DS

QC REPORT

EAI ID#: **184154**

Client: **LE Environmental LLC**

Client Designation: **Main and Congress | 18-112**

Parameter Name	Blank	LCS	LCSD	Units	Date of Analysis	Limits	RPD	Method
Arsenic	< 0.5	38 (96 %R)	NA	mg/kg	7/13/18	80 - 120	20	6020
Barium	< 0.5	39 (97 %R)	NA	mg/kg	7/13/18	80 - 120	20	6020
Cadmium	< 0.5	38 (94 %R)	NA	mg/kg	7/13/18	80 - 120	20	6020
Chromium	< 0.5	38 (94 %R)	NA	mg/kg	7/13/18	80 - 120	20	6020
Lead	< 0.5	37 (92 %R)	NA	mg/kg	7/13/18	80 - 120	20	6020
Lead	< 0.5	1.0 (102 %R)	NA	mg/L	7/24/18	80 - 120	20	6020
Mercury	< 0.1	0.34 (85 %R)	NA	mg/kg	7/13/18	80 - 120	20	6020
Mercury	< 0.01	0.10 (102 %R)	NA	mg/L	7/24/18	80 - 120	20	6020
Selenium	< 0.5	36 (89 %R)	NA	mg/kg	7/13/18	80 - 120	20	6020
Silver	< 0.5	39 (97 %R)	NA	mg/kg	7/13/18	80 - 120	20	6020

Samples were analyzed within holding times unless noted on the sample results page.
Instrumentation was calibrated in accordance with the method requirements.
The method blanks were free of contamination at the reporting limits.
The associated matrix spikes and/or Laboratory Control Samples met the above stated criteria.
Exceptions to the above statements are flagged or noted above or on the QC Narrative page.
*/! Flagged analyte recoveries deviated from the QA/QC limits.

Eastern Analytical, Inc. www.easternanalytical.com | 800.287.0525 | customerservice@easternanalytical.com

CHAIN-OF-CUSTODY RECORD

184154

BOLD FIELDS REQUIRED. PLEASE CIRCLE REQUESTED ANALYSIS.

Sample I.D.	Sampling Date/Time *If Composite, Indicate Both Start & Finish Date/Time	Matrix (see below)	Grab/*Composite	VOC: 524.2 524.2 BTEX / 524.2 MTBE only / 8260 / 624 VTICs / 1,4 Dioxane	VOC: 8021 BTEX / HALOS	VOC: 8015 GRO / MAVPH	SVOC: 8270 / 625 SVTICs / EDB / DBCP / ABN A / BN C / PAH	SVOC: TPH8100 / L1 / L2	SVOC: 8015 DRO / MAEPH	SVOC: PEST 608 / PEST 8081 / PCB 608 / PCB 8082	SVOC: Oil & Grease 1664 / TPH 1664	TCLP: TCLP 311 / VOC / ABN / Pest / Herb / Metals	Metals: Dissolved Metals (list below)	Metals: Total Metals (list below)	Inorganics: TS / TSS / TDS / Spec. Con.	Inorganics: Br / Cl / F / SO_4 / NO_2 / NO_3 / NO_2-NO_3	Inorganics: BOD / CBOD / T. Alk.	Inorganics: TKN / NH_3 / T. Phos. / O. Phos.	Inorganics: pH / T. Rel. Chlorine	Inorganics: COD / Phenols / TOC / DOC	Inorganics: Total Cyanide / Total Sulfide	Inorganics: Reactive Cyanide / Reactive Sulfide / Flashpoint / Ignitability	Micro: Total Coliform / Fecal Coliform / E. Coli	Micro: Enterococci / Heterotrophic Plate Count	Other	Other	Other	# of Containers	Notes MeOH Vial #
SB-1s	7/9/18; 0835	S	G		X		X							X															3	46025
SB-1d	7/9/18; 0900	S	C		X		X					*		X															3	46078
SB-2s	7/9/18; 0930	S	G		X		X							X															3	46024
SB-3s	7/9/18; 1215	S	G		X		X					*		X															3	46016
SB-3d	7/9/18; 1230	S	C		X		X							X															3	46029
SB-4s	7/9/18; 1030	S	G		X		X					*		X															3	46004
SB-4d	7/9/18; 1045	S	C		X		X							X															3	46006
SB-5s	7/9/18; 1410	S	G		X		X					**		X															3	46005
SB-6s	7/9/18; 1515	S	G		X		X					*		X															3	46007
SB-7s	7/9/18; 1500	S	G		X		X							X															3	46019

Matrix: A-Air; S-Soil; GW-Ground Water; SW-Surface Water; DW-Drinking Water; WW-Waste Water

Preservative: H-HCL; N-HNO_3; S-H_2SO_4; Na-NaOH; M-MEOH

Project Manager: Angela Emerson
Company: LE Environmental LLC
Address: 21 N. Main St
City: Waterbury **State:** VT **Zip:** 05676
Phone: (802) 917-2001 **Ext.:**
Fax: —
E-Mail: angela@leenv.net
Site Name: Main and Congress
Project #: 18-112
State: NH MA ME (VT) **Other:**
Regulatory Program: NPDES: RGP POTW Stormwater or GWP, Oil Fund, (Brownfield) or Other:
Quote #: **PO #:**

Date Needed: Normal TAT

QA/QC
Reporting Level
A B C
OR
Presumptive Certainty

Reporting Options
Prelims: (Yes) or No

Electronic Options
E-Mail (PDF) Equis Excel

Temp. 27 °C
Ice? (Yes) No

Sampler(s): Angela Emerson

Relinquished By:	Date:	Time:	Received By:
Angela Emerson	7/10/18	1100	H. Larsen
Herb Larsen	7-11	1415	[illegible]

Metals: (8 RCRA) 13 PP Fe, Mn Pb, Cu
Other Metals:
Samples Field Filtered? ☐ Yes ☐ No
Notes: (ie: Special Detection Limits, Billing Info, If Different)

*TCLP Pb

**TCLP Pb & Hg

per customer request. AOB 7/26/18

Site History:
Suspected Contamination:
Field Readings:

Eastern Analytical, Inc.
professional laboratory and drilling services
25 Chenell Drive | Concord, NH 03301 | Tel: 603.228.0525 | 1.800.287.0525 | E-Mail: CustomerService@EasternAnalytical.com | www.EasternAnalytical.com

(WHITE: Original GREEN: Project Manager)

Chain-of-Custody Record

Bold Fields Required. Please Circle Requested Analysis.

184154

Sample I.D.	Sampling Date/Time *If Composite, Indicate Both Start & Finish Date/Time	Matrix (see below)	Grab/*Composite	VOC: 524.2 / 524.2 BTEX	VOC: 524.2 MTBE only	VOC: 624 / 8260 VTICs	VOC: 1, 4 Dioxane	VOC: 8021 BTEX Halos	VOC: 8015 GRO MAVPH	SVOC: 8270 / 625 SVTICs EDB DBCP	SVOC: ABN A BN PAH	SVOC: TPH8100 L1 L2	SVOC: 8015 DRO MAEPH	SVOC: PEST 608 / PEST 8081 PCB 608 / PCB 8082	SVOC: Oil & Grease 1664 TPH 1664	TCLP: 1311 ABN Metals	TCLP: VOC Pest Herb	Metals: Dissolved Metals (List Below)	Metals: Total Metals (List Below)	Inorganics: TS TSS TDS Spec. Con.	Inorganics: Br Cl F SO_4 NO_2 NO_3 NO_2NO_3	Inorganics: BOD CBOD T. Alk.	Inorganics: TKN NH_3 T. Phos. O. Phos.	Inorganics: pH T. Res. Chlorine	Inorganics: COD Phenols TOC DOC	Inorganics: Total Cyanide Total Sulfide	Inorganics: Reactive Cyanide Reactive Sulfide Flashpoint Ignitability	Micro: Total Coliform E. Coli Fecal Coliform	Micro: Enterococci Heterotrophic Plate Count	Other	# of Containers	Notes MeOH Vial #
SB-7d	7/9/18 ; 1510	S	C			X				X						*			X												3	46017
SB-85	7/9/18 ; 1530	S	G			X				X						*			X												3	46009
Duplicate	7/9/18 ; 0900	S	C			X				X						*			X												3	46015

Matrix: A-Air; S-Soil; GW-Ground Water; SW-Surface Water; DW-Drinking Water; WW-Waste water

Preservative: H-HCL; N-HNO_3; S-H_2SO_4; Na-NaOH; M-MEOH

Project Manager: Angela Emerson
Company: LE Environmental LLC
Address: 21 N. Main St.
City: Waterbury **State:** VT **Zip:** 05676
Phone: (802) 917-2001 **Ext.:**
Fax: —
E-Mail: angela@leenv.net
Site Name: Main and Congress
Project #: 18-112
State: NH MA ME (VT) **Other:**
Regulatory Program: NPDES: ~~RGP~~ ~~POTW~~ Stormwater or GWP, Oil Fund, (Brownfield) or Other:
Quote #: **PO #:**

Date Needed: Normal TAT

QA/QC Reporting Level
A B C
OR
Presumptive Certainty

Reporting Options
Prelim: (Yes) or No

Electronic Options
E-Mail (PDF) Equis Excel

Temp. 2.7 °C
Ice? (Yes) No

Sampler(s): Angela Emerson

Relinquished By:	Date:	Time:	Received By:
Angela Emerson	7/10/18	11:00	H Larsen
Herb Larsen	7/11	1415	[illegible]

Metals: (8 RCRA) 13 PP Fe, Mn Pb, Cu
Other Metals:
Samples Field Filtered? ☐ Yes ☐ No
Notes: (ie: Special Detection Limits, Billing Info, If Different)

*TCLP Pb per customer request. ADB 7/26/18

Site History:
Suspected Contamination:
Field Readings:

Eastern Analytical, Inc.
professional laboratory and drilling services
25 Chenell Drive | Concord, NH 03301 | Tel: 603.228.0525 | 1.800.287.0525 | E-Mail: CustomerService@EasternAnalytical.com | www.EasternAnalytical.com

(White: Original Green: Project Manager)

Eastern Analytical, Inc.

professional laboratory and drilling services

Angela Emerson
LE Environmental LLC
21 North Main Street #1
Waterbury , VT 05676

Subject: Laboratory Report

Eastern Analytical, Inc. ID: 184528
Client Identification: Main & Congress | 18-112
Date Received: 7/20/2018

Dear Ms. Emerson :

Enclosed please find the laboratory report for the above identified project. All analyses were performed in accordance with our QA/QC Program. Unless otherwise stated, holding times, preservation techniques, container types, and sample conditions adhered to EPA Protocol. Samples which were collected by Eastern Analytical, Inc. (EAI) were collected in accordance with approved EPA procedures. Eastern Analytical, Inc. certifies that the enclosed test results meet all requirements of NELAP and other applicable state certifications. Please refer to our website at www.easternanalytical.com for a copy of our NELAP certificate and accredited parameters.

The following standard abbreviations and conventions apply to all EAI reports:

Solid samples are reported on a dry weight basis, unless otherwise noted
< : "less than" followed by the reporting limit
> : "greater than" followed by the reporting limit
%R : % Recovery

Eastern Analytical Inc. maintains certification in the following states: Connecticut (PH-0492), Maine (NH005), Massachusetts (M-NH005), New Hampshire/NELAP (1012), Rhode Island (269), Vermont (VT1012) and New York (12072).

The following information is contained within this report: Sample Conditions summary, Analytical Results/Data, Quality Control data (if requested) and copies of the Chain of Custody. This report may not be reproduced except in full, without the the written approval of the laboratory.

If you have any questions regarding the results contained within, please feel free to directly contact me or the chemist(s) who performed the testing in question. Unless otherwise requested, we will dispose of the sample (s) 30 days from the sample receipt date.

We appreciate this opportunity to be of service and look forward to your continued patronage.

Sincerely,

Lorraine Olashaw, Lab Director | 7.31.18 Date | 8 # of pages (excluding cover letter)

SAMPLE CONDITIONS PAGE

EAI ID#: **184528**

Client: **LE Environmental LLC**

Client Designation: **Main & Congress | 18-112**

Temperature upon receipt (°C): 1.2 **Received on ice or cold packs (Yes/No): Y**

Acceptable temperature range (°C): 0-6

Lab ID	Sample ID	Date Received	Date Sampled	Sample Matrix	% Dry Weight	Exceptions/Comments (other than thermal preservation)
184528.01	MW-1	7/20/18	7/18/18	aqueous		Adheres to Sample Acceptance Policy
184528.02	MW-2	7/20/18	7/18/18	aqueous		Adheres to Sample Acceptance Policy
184528.03	MW-3	7/20/18	7/18/18	aqueous		Adheres to Sample Acceptance Policy
184528.04	MW-4	7/20/18	7/18/18	aqueous		Adheres to Sample Acceptance Policy
184528.05	Dup	7/20/18	7/18/18	aqueous		Adheres to Sample Acceptance Policy
184528.06	Trip Blank	7/20/18	6/22/18	aqueous		Adheres to Sample Acceptance Policy

Samples were properly preserved and the pH measured when applicable unless otherwise noted. Analysis of solids for pH, Flashpoint, Ignitability, Paint Filter, Corrosivity, Conductivity and Specific Gravity are reported on an "as received" basis.
Immediate analyses, pH, Total Residual Chlorine, Dissolved Oxygen and Sulfite, performed at the laboratory were run outside of the recommended 15 minute hold time.
All results contained in this report relate only to the above listed samples.
References include:
1) EPA 600/4-79-020, 1983
2) Standard Methods for Examination of Water and Wastewater,20th Edition, 1998 and 22nd Edition, 2012
3) Test Methods for Evaluating Solid Waste SW 846 3rd Edition including updates IVA and IVB
4) Hach Water Analysis Handbook, 2nd edition, 1992

LABORATORY REPORT

EAI ID#: **184528**

Client: **LE Environmental LLC**

Client Designation: **Main & Congress | 18-112**

Sample ID:	MW-1	MW-2	MW-3	MW-4	Dup	Trip Blank
Lab Sample ID:	184528.01	184528.02	184528.03	184528.04	184528.05	184528.06
Matrix:	aqueous	aqueous	aqueous	aqueous	aqueous	aqueous
Date Sampled:	7/18/18	7/18/18	7/18/18	7/18/18	7/18/18	6/22/18
Date Received:	7/20/18	7/20/18	7/20/18	7/20/18	7/20/18	7/20/18
Units:	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Date of Analysis:	7/28/18	7/28/18	7/28/18	7/28/18	7/28/18	7/28/18
Analyst:	BAM	BAM	BAM	BAM	BAM	BAM
Method:	8260C	8260C	8260C	8260C	8260C	8260C
Dilution Factor:	1	1	1	1	1	1
Dichlorodifluoromethane	< 5	< 5	< 5	< 5	< 5	< 5
Chloromethane	< 2	< 2	< 2	< 2	< 2	< 2
Vinyl chloride	< 2	< 2	< 2	< 2	< 2	< 2
Bromomethane	< 2	< 2	< 2	< 2	< 2	< 2
Chloroethane	< 5	< 5	< 5	< 5	< 5	< 5
Trichlorofluoromethane	< 5	< 5	< 5	< 5	< 5	< 5
Diethyl Ether	< 5	< 5	< 5	< 5	< 5	< 5
Acetone	**13**	**78**	< 10	< 10	< 10	< 10
1,1-Dichloroethene	< 1	< 1	< 1	< 1	< 1	< 1
Methylene chloride	< 5	< 5	< 5	< 5	< 5	< 5
Carbon disulfide	< 2	< 2	< 2	< 2	< 2	< 2
Methyl-t-butyl ether(MTBE)	< 1	< 1	< 1	< 1	< 1	< 1
trans-1,2-Dichloroethene	< 1	< 1	< 1	< 1	< 1	< 1
1,1-Dichloroethane	< 1	< 1	< 1	< 1	< 1	< 1
2,2-Dichloropropane	< 1	< 1	< 1	< 1	< 1	< 1
cis-1,2-Dichloroethene	< 1	< 1	< 1	< 1	< 1	< 1
2-Butanone(MEK)	< 10	< 10	< 10	< 10	< 10	< 10
Bromochloromethane	< 1	< 1	< 1	< 1	< 1	< 1
Tetrahydrofuran(THF)	< 10	< 10	< 10	< 10	< 10	< 10
Chloroform	< 1	< 1	< 1	< 1	< 1	< 1
1,1,1-Trichloroethane	< 1	< 1	< 1	< 1	< 1	< 1
Carbon tetrachloride	< 1	< 1	< 1	< 1	< 1	< 1
1,1-Dichloropropene	< 1	< 1	< 1	< 1	< 1	< 1
Benzene	< 1	< 1	< 1	< 1	< 1	< 1
1,2-Dichloroethane	< 1	< 1	< 1	< 1	< 1	< 1
Trichloroethene	< 1	< 1	< 1	< 1	< 1	< 1
1,2-Dichloropropane	< 1	< 1	< 1	< 1	< 1	< 1
Dibromomethane	< 1	< 1	< 1	< 1	< 1	< 1
Bromodichloromethane	< 1	< 1	< 1	< 1	< 1	< 1
4-Methyl-2-pentanone(MIBK)	< 10	< 10	< 10	< 10	< 10	< 10
cis-1,3-Dichloropropene	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Toluene	< 1	< 1	< 1	< 1	< 1	< 1
trans-1,3-Dichloropropene	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
1,1,2-Trichloroethane	< 1	< 1	< 1	< 1	< 1	< 1
2-Hexanone	< 10	< 10	< 10	< 10	< 10	< 10
Tetrachloroethene	< 1	< 1	< 1	< 1	< 1	< 1
1,3-Dichloropropane	< 1	< 1	< 1	< 1	< 1	< 1
Dibromochloromethane	< 1	< 1	< 1	< 1	< 1	< 1
1,2-Dibromoethane(EDB)	< 1	< 1	< 1	< 1	< 1	< 1
Chlorobenzene	< 1	< 1	< 1	< 1	< 1	< 1
1,1,1,2-Tetrachloroethane	< 1	< 1	< 1	< 1	< 1	< 1
Ethylbenzene	< 1	< 1	< 1	< 1	< 1	< 1
mp-Xylene	< 1	< 1	< 1	< 1	< 1	< 1
o-Xylene	< 1	< 1	< 1	< 1	< 1	< 1
Styrene	< 1	< 1	< 1	< 1	< 1	< 1
Bromoform	< 2	< 2	< 2	< 2	< 2	< 2
IsoPropylbenzene	< 1	< 1	< 1	< 1	< 1	< 1

Eastern Analytical, Inc. www.easternanalytical.com | 800.287.0525 | customerservice@easternanalytical.com

LABORATORY REPORT

EAI ID#: **184528**

Client: **LE Environmental LLC**

Client Designation: **Main & Congress | 18-112**

Sample ID:	MW-1	MW-2	MW-3	MW-4	Dup	Trip Blank
Lab Sample ID:	184528.01	184528.02	184528.03	184528.04	184528.05	184528.06
Matrix:	aqueous	aqueous	aqueous	aqueous	aqueous	aqueous
Date Sampled:	7/18/18	7/18/18	7/18/18	7/18/18	7/18/18	6/22/18
Date Received:	7/20/18	7/20/18	7/20/18	7/20/18	7/20/18	7/20/18
Units:	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Date of Analysis:	7/28/18	7/28/18	7/28/18	7/28/18	7/28/18	7/28/18
Analyst:	BAM	BAM	BAM	BAM	BAM	BAM
Method:	8260C	8260C	8260C	8260C	8260C	8260C
Dilution Factor:	1	1	1	1	1	1
Bromobenzene	< 1	< 1	< 1	< 1	< 1	< 1
1,1,2,2-Tetrachloroethane	< 1	< 1	< 1	< 1	< 1	< 1
1,2,3-Trichloropropane	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
n-Propylbenzene	< 1	< 1	< 1	< 1	< 1	< 1
2-Chlorotoluene	< 1	< 1	< 1	< 1	< 1	< 1
4-Chlorotoluene	< 1	< 1	< 1	< 1	< 1	< 1
1,3,5-Trimethylbenzene	< 1	< 1	< 1	< 1	< 1	< 1
tert-Butylbenzene	< 1	< 1	< 1	< 1	< 1	< 1
1,2,4-Trimethylbenzene	**1.8**	< 1	< 1	< 1	< 1	< 1
sec-Butylbenzene	< 1	< 1	< 1	< 1	< 1	< 1
1,3-Dichlorobenzene	< 1	< 1	< 1	< 1	< 1	< 1
p-Isopropyltoluene	< 1	< 1	< 1	< 1	< 1	< 1
1,4-Dichlorobenzene	< 1	< 1	< 1	< 1	< 1	< 1
1,2-Dichlorobenzene	< 1	< 1	< 1	< 1	< 1	< 1
n-Butylbenzene	< 1	< 1	< 1	< 1	< 1	< 1
1,2-Dibromo-3-chloropropane	< 1	< 1	< 1	< 1	< 1	< 1
1,2,4-Trichlorobenzene	< 1	< 1	< 1	< 1	< 1	< 1
Hexachlorobutadiene	< 1	< 1	< 1	< 1	< 1	< 1
Naphthalene	< 5	< 5	< 5	< 5	< 5	< 5
1,2,3-Trichlorobenzene	< 1	< 1	< 1	< 1	< 1	< 1
4-Bromofluorobenzene (surr)	**103 %R**	**102 %R**	**101 %R**	**101 %R**	**99 %R**	**97 %R**
1,2-Dichlorobenzene-d4 (surr)	**100 %R**	**101 %R**	**101 %R**	**101 %R**	**101 %R**	**103 %R**
Toluene-d8 (surr)	**101 %R**	**102 %R**	**104 %R**	**102 %R**	**101 %R**	**102 %R**

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QC REPORT

EAI ID#: **184528**

Client: **LE Environmental LLC**

Client Designation: **Main & Congress | 18-112**

Parameter Name	Blank	LCS	LCSD	Analysis Date	Units	Limits	RPD	Method
Dichlorodifluoromethane	< 5	17 (85 %R)	16 (80 %R) (6 RPD)	7/28/2018	ug/L	40 - 160	20	8260C
Chloromethane	< 2	19 (96 %R)	18 (91 %R) (5 RPD)	7/28/2018	ug/L	40 - 160	20	8260C
Vinyl chloride	< 2	17 (87 %R)	17 (83 %R) (5 RPD)	7/28/2018	ug/L	70 - 130	20	8260C
Bromomethane	< 2	12 (62 %R)	14 (71 %R) (13 RPD)	7/28/2018	ug/L	40 - 160	20	8260C
Chloroethane	< 5	* 29 (143 %R)	* 27 (134 %R) (7 RPD)	7/28/2018	ug/L	70 - 130	20	8260C
Trichlorofluoromethane	< 5	24 (119 %R)	23 (115 %R) (4 RPD)	7/28/2018	ug/L	70 - 130	20	8260C
Diethyl Ether	< 5	* 27 (133 %R)	25 (123 %R) (8 RPD)	7/28/2018	ug/L	70 - 130	20	8260C
Acetone	< 10	25 (127 %R)	25 (126 %R) (0 RPD)	7/28/2018	ug/L	40 - 160	20	8260C
1,1-Dichloroethene	< 1	21 (103 %R)	20 (101 %R) (3 RPD)	7/28/2018	ug/L	70 - 130	20	8260C
Methylene chloride	< 5	23 (116 %R)	22 (110 %R) (5 RPD)	7/28/2018	ug/L	70 - 130	20	8260C
Carbon disulfide	< 2	24 (121 %R)	23 (114 %R) (6 RPD)	7/28/2018	ug/L	70 - 130	20	8260C
Methyl-t-butyl ether(MTBE)	< 1	22 (108 %R)	21 (103 %R) (4 RPD)	7/28/2018	ug/L	70 - 130	20	8260C
trans-1,2-Dichloroethene	< 1	19 (95 %R)	18 (90 %R) (5 RPD)	7/28/2018	ug/L	70 - 130	20	8260C
1,1-Dichloroethane	< 1	20 (102 %R)	19 (97 %R) (5 RPD)	7/28/2018	ug/L	70 - 130	20	8260C
2,2-Dichloropropane	< 1	* 13 (64 %R)	* 12 (61 %R) (5 RPD)	7/28/2018	ug/L	70 - 130	20	8260C
cis-1,2-Dichloroethene	< 1	20 (102 %R)	20 (99 %R) (4 RPD)	7/28/2018	ug/L	70 - 130	20	8260C
2-Butanone(MEK)	< 10	21 (107 %R)	21 (103 %R) (4 RPD)	7/28/2018	ug/L	40 - 160	20	8260C
Bromochloromethane	< 1	20 (100 %R)	19 (96 %R) (4 RPD)	7/28/2018	ug/L	70 - 130	20	8260C
Tetrahydrofuran(THF)	< 10	22 (108 %R)	20 (100 %R) (7 RPD)	7/28/2018	ug/L	70 - 130	20	8260C
Chloroform	< 1	22 (109 %R)	21 (104 %R) (5 RPD)	7/28/2018	ug/L	70 - 130	20	8260C
1,1,1-Trichloroethane	< 1	18 (92 %R)	18 (89 %R) (3 RPD)	7/28/2018	ug/L	70 - 130	20	8260C
Carbon tetrachloride	< 1	17 (87 %R)	16 (82 %R) (6 RPD)	7/28/2018	ug/L	70 - 130	20	8260C
1,1-Dichloropropene	< 1	20 (100 %R)	19 (96 %R) (4 RPD)	7/28/2018	ug/L	70 - 130	20	8260C
Benzene	< 1	21 (107 %R)	20 (102 %R) (5 RPD)	7/28/2018	ug/L	70 - 130	20	8260C
1,2-Dichloroethane	< 1	23 (113 %R)	21 (107 %R) (6 RPD)	7/28/2018	ug/L	70 - 130	20	8260C
Trichloroethene	< 1	21 (104 %R)	20 (98 %R) (6 RPD)	7/28/2018	ug/L	70 - 130	20	8260C
1,2-Dichloropropane	< 1	21 (107 %R)	21 (103 %R) (3 RPD)	7/28/2018	ug/L	70 - 130	20	8260C
Dibromomethane	< 1	22 (108 %R)	21 (105 %R) (3 RPD)	7/28/2018	ug/L	70 - 130	20	8260C
Bromodichloromethane	< 1	22 (111 %R)	21 (107 %R) (3 RPD)	7/28/2018	ug/L	70 - 130	20	8260C
4-Methyl-2-pentanone(MIBK)	< 10	21 (104 %R)	20 (99 %R) (4 RPD)	7/28/2018	ug/L	40 - 160	20	8260C
cis-1,3-Dichloropropene	< 0.5	18 (92 %R)	18 (88 %R) (4 RPD)	7/28/2018	ug/L	70 - 130	20	8260C
Toluene	< 1	21 (107 %R)	20 (102 %R) (5 RPD)	7/28/2018	ug/L	70 - 130	20	8260C
trans-1,3-Dichloropropene	< 0.5	17 (83 %R)	16 (80 %R) (5 RPD)	7/28/2018	ug/L	70 - 130	20	8260C
1,1,2-Trichloroethane	< 1	22 (110 %R)	21 (104 %R) (5 RPD)	7/28/2018	ug/L	70 - 130	20	8260C
2-Hexanone	< 10	22 (110 %R)	21 (106 %R) (5 RPD)	7/28/2018	ug/L	40 - 160	20	8260C
Tetrachloroethene	< 1	20 (100 %R)	19 (94 %R) (6 RPD)	7/28/2018	ug/L	70 - 130	20	8260C
1,3-Dichloropropane	< 1	21 (106 %R)	20 (102 %R) (5 RPD)	7/28/2018	ug/L	70 - 130	20	8260C
Dibromochloromethane	< 1	21 (103 %R)	20 (98 %R) (5 RPD)	7/28/2018	ug/L	70 - 130	20	8260C
1,2-Dibromoethane(EDB)	< 1	21 (103 %R)	20 (100 %R) (3 RPD)	7/28/2018	ug/L	70 - 130	20	8260C
Chlorobenzene	< 1	21 (106 %R)	21 (103 %R) (3 RPD)	7/28/2018	ug/L	70 - 130	20	8260C
1,1,1,2-Tetrachloroethane	< 1	20 (98 %R)	18 (92 %R) (6 RPD)	7/28/2018	ug/L	70 - 130	20	8260C
Ethylbenzene	< 1	21 (105 %R)	20 (101 %R) (5 RPD)	7/28/2018	ug/L	70 - 130	20	8260C
mp-Xylene	< 1	38 (96 %R)	36 (90 %R) (6 RPD)	7/28/2018	ug/L	70 - 130	20	8260C
o-Xylene	< 1	21 (104 %R)	20 (99 %R) (5 RPD)	7/28/2018	ug/L	70 - 130	20	8260C
Styrene	< 1	21 (107 %R)	20 (102 %R) (6 RPD)	7/28/2018	ug/L	70 - 130	20	8260C
Bromoform	< 2	19 (97 %R)	18 (90 %R) (7 RPD)	7/28/2018	ug/L	70 - 130	20	8260C

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QC REPORT

EAI ID#: **184528**

Client: **LE Environmental LLC**

Client Designation: **Main & Congress | 18-112**

Parameter Name	Blank	LCS	LCSD	Analysis Date	Units	Limits	RPD	Method
IsoPropylbenzene	< 1	21 (107 %R)	20 (102 %R) (4 RPD)	7/28/2018	ug/L	70 - 130	20	8260C
Bromobenzene	< 1	20 (99 %R)	19 (95 %R) (4 RPD)	7/28/2018	ug/L	70 - 130	20	8260C
1,1,2,2-Tetrachloroethane	< 1	21 (105 %R)	20 (101 %R) (4 RPD)	7/28/2018	ug/L	70 - 130	20	8260C
1,2,3-Trichloropropane	< 0.5	20 (102 %R)	20 (99 %R) (3 RPD)	7/28/2018	ug/L	70 - 130	20	8260C
n-Propylbenzene	< 1	20 (99 %R)	19 (97 %R) (2 RPD)	7/28/2018	ug/L	70 - 130	20	8260C
2-Chlorotoluene	< 1	20 (100 %R)	19 (97 %R) (3 RPD)	7/28/2018	ug/L	70 - 130	20	8260C
4-Chlorotoluene	< 1	20 (102 %R)	20 (98 %R) (4 RPD)	7/28/2018	ug/L	70 - 130	20	8260C
1,3,5-Trimethylbenzene	< 1	21 (103 %R)	20 (99 %R) (3 RPD)	7/28/2018	ug/L	70 - 130	20	8260C
tert-Butylbenzene	< 1	20 (98 %R)	19 (95 %R) (4 RPD)	7/28/2018	ug/L	70 - 130	20	8260C
1,2,4-Trimethylbenzene	< 1	21 (105 %R)	20 (101 %R) (4 RPD)	7/28/2018	ug/L	70 - 130	20	8260C
sec-Butylbenzene	< 1	20 (102 %R)	20 (100 %R) (2 RPD)	7/28/2018	ug/L	70 - 130	20	8260C
1,3-Dichlorobenzene	< 1	20 (101 %R)	20 (99 %R) (2 RPD)	7/28/2018	ug/L	70 - 130	20	8260C
p-Isopropyltoluene	< 1	20 (102 %R)	20 (99 %R) (3 RPD)	7/28/2018	ug/L	70 - 130	20	8260C
1,4-Dichlorobenzene	< 1	20 (102 %R)	20 (98 %R) (4 RPD)	7/28/2018	ug/L	70 - 130	20	8260C
1,2-Dichlorobenzene	< 1	20 (102 %R)	20 (99 %R) (3 RPD)	7/28/2018	ug/L	70 - 130	20	8260C
n-Butylbenzene	< 1	21 (103 %R)	20 (98 %R) (5 RPD)	7/28/2018	ug/L	70 - 130	20	8260C
1,2-Dibromo-3-chloropropane	< 1	19 (95 %R)	17 (87 %R) (9 RPD)	7/28/2018	ug/L	70 - 130	20	8260C
1,2,4-Trichlorobenzene	< 1	19 (93 %R)	18 (89 %R) (4 RPD)	7/28/2018	ug/L	70 - 130	20	8260C
Hexachlorobutadiene	< 1	16 (81 %R)	16 (80 %R) (2 RPD)	7/28/2018	ug/L	70 - 130	20	8260C
Naphthalene	< 5	20 (101 %R)	19 (96 %R) (5 RPD)	7/28/2018	ug/L	70 - 130	20	8260C
1,2,3-Trichlorobenzene	< 1	19 (94 %R)	18 (91 %R) (3 RPD)	7/28/2018	ug/L	70 - 130	20	8260C
4-Bromofluorobenzene (surr)	99 %R	102 %R	104 %R	7/28/2018	% Rec	70 - 130	50	8260C
1,2-Dichlorobenzene-d4 (surr)	104 %R	101 %R	103 %R	7/28/2018	% Rec	70 - 130	50	8260C
Toluene-d8 (surr)	103 %R	102 %R	102 %R	7/28/2018	% Rec	70 - 130	50	8260C

Samples were extracted and analyzed within holding time limits.
Instrumentation was calibrated in accordance with the method requirements.
The method blanks were free of contamination at the reporting limits.
Sample surrogate recoveries met the above stated criteria.
The associated matrix spikes and/or Laboratory Control Samples met acceptance criteria.
There were no exceptions in the analyses, unless noted.
*/! Flagged analyte recoveries deviated from the QA/QC limits. Unless noted below, flagged analytes that exceed acceptance limits in the Quality Control sample were not detected in the field samples.
Analytes that exceed limits high but are not detected in the field samples do not impact the data. For analytes that show low recovery and are not detected in the field samples, a low point calibration standard has been analyzed to support the reporting limit.

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LABORATORY REPORT

EAI ID#: **184528**

Client: **LE Environmental LLC**

Client Designation: **Main & Congress | 18-112**

Sample ID:	MW-1	MW-2	MW-3	MW-4					
Lab Sample ID:	184528.01	184528.02	184528.03	184528.04					
Matrix:	aqueous	aqueous	aqueous	aqueous					
Date Sampled:	7/18/18	7/18/18	7/18/18	7/18/18	**Analytical Matrix**	**Units**	**Date of Analysis**	**Method**	**Analyst**
Date Received:	7/20/18	7/20/18	7/20/18	7/20/18					
Arsenic	**0.012**	**0.0039**	< 0.001	**0.0022**	AqTot	mg/L	7/24/18	6020	DS
Barium	**0.29**	**0.13**	**0.21**	**0.19**	AqTot	mg/L	7/24/18	6020	DS
Cadmium	< 0.001	< 0.001	< 0.001	< 0.001	AqTot	mg/L	7/24/18	6020	DS
Chromium	**0.017**	< 0.001	< 0.001	**0.0034**	AqTot	mg/L	7/24/18	6020	DS
Lead	**0.15**	**0.0018**	< 0.001	**0.0019**	AqTot	mg/L	7/24/18	6020	DS
Mercury	**0.00029**	< 0.0001	< 0.0001	< 0.0001	AqTot	mg/L	7/24/18	6020	DS
Selenium	**0.015**	**0.0066**	**0.0032**	**0.0066**	AqTot	mg/L	7/24/18	6020	DS
Silver	< 0.001	< 0.001	< 0.001	< 0.001	AqTot	mg/L	7/24/18	6020	DS

Sample ID:	Dup					
Lab Sample ID:	184528.05					
Matrix:	aqueous					
Date Sampled:	7/18/18	**Analytical Matrix**	**Units**	**Date of Analysis**	**Method**	**Analyst**
Date Received:	7/20/18					
Arsenic	**0.0020**	AqTot	mg/L	7/24/18	6020	DS
Barium	**0.19**	AqTot	mg/L	7/24/18	6020	DS
Cadmium	< 0.001	AqTot	mg/L	7/24/18	6020	DS
Chromium	**0.0031**	AqTot	mg/L	7/24/18	6020	DS
Lead	**0.0018**	AqTot	mg/L	7/24/18	6020	DS
Mercury	< 0.0001	AqTot	mg/L	7/24/18	6020	DS
Selenium	**0.0054**	AqTot	mg/L	7/24/18	6020	DS
Silver	< 0.001	AqTot	mg/L	7/24/18	6020	DS

QC REPORT

EAI ID#: **184528**

Client: **LE Environmental LLC**

Client Designation: **Main & Congress | 18-112**

Parameter Name	Blank	LCS	LCSD	Units	Date of Analysis	Limits	RPD	Method
Arsenic	< 0.001	1.1 (106 %R)	NA	mg/L	7/24/18	80 - 120	20	6020
Barium	< 0.001	1.1 (108 %R)	NA	mg/L	7/24/18	80 - 120	20	6020
Cadmium	< 0.001	1.0 (105 %R)	NA	mg/L	7/24/18	80 - 120	20	6020
Chromium	< 0.001	1.1 (109 %R)	NA	mg/L	7/24/18	80 - 120	20	6020
Lead	< 0.001	1.0 (103 %R)	NA	mg/L	7/24/18	80 - 120	20	6020
Mercury	< 0.0001	0.0010 (103 %R)	NA	mg/L	7/24/18	80 - 120	20	6020
Selenium	< 0.001	1.1 (105 %R)	NA	mg/L	7/24/18	80 - 120	20	6020
Silver	< 0.001	0.012 (115 %R)	NA	mg/L	7/24/18	80 - 120	20	6020

Samples were analyzed within holding times unless noted on the sample results page.
Instrumentation was calibrated in accordance with the method requirements.
The method blanks were free of contamination at the reporting limits.
The associated matrix spikes and/or Laboratory Control Samples met the above stated criteria.
Exceptions to the above statements are flagged or noted above or on the QC Narrative page.
*/! Flagged analyte recoveries deviated from the QA/QC limits.

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Page 1 of 1

184528

CHAIN-OF-CUSTODY RECORD

BOLD FIELDS REQUIRED. PLEASE CIRCLE REQUESTED ANALYSIS.

Sample I.D.	Sampling Date/Time *If Composite, Indicate Both Start & Finish Date/Time	Matrix (see below)	Grab/*Composite	VOC: 524.2 524.2 BTEX / 524.2 MTBE only / 624 / 8260 / VTICs / 1, 4 Dioxane	VOC: 8021 BTEX / HALOS	VOC: 8015 GRO / MAVPH	SVOC: 8270 ABN / 625 A / SVTICs BN / EDB PAH / DBCP	SVOC: TPH8100 / L1 / L2	SVOC: 8015 DRO / MAEPH	SVOC: PEST 608 / PEST 8081 / PCB 608 / PCB 8082	SVOC: Oil & Grease 1664 / TPH 1664	TCLP: TCLP 1311 VOC / ABN Pest / Metals Herb	Metals: Dissolved Metals (List Below)	Metals: Total Metals (List Below)	Inorganics: TS / TSS / TDS / Spec. Con.	Inorganics: Br / Cl / F / SO_4 / NO_2 / NO_3 / NO_2NO_2	Inorganics: BOD / CBOD / T. Alk.	Inorganics: TKN / NH_3 / T. Phos. / O. Phos.	Inorganics: pH / T. Res. Chlorine	Inorganics: COD / Phenols / TOC / DOC	Inorganics: Total Cyanide / Total Sulfide	Inorganics: Reactive Cyanide / Reactive Sulfide / Flashpoint / Ignitability	Micro: Total Coliform / E. Coli / Fecal Coliform	Micro: Enterococci / Heterotrophic Plate Count	Other	Other	Other	# of Containers	Notes MeOH Vial #
MW-1	7/18/18/1120	GW	G		X									X														3	
MW-2	7/18/18/1245	GW	G		X									X														3	
MW-3	7/18/18/1425	GW	G		X									X														3	
MW-4	7/18/18/1348	GW	G		X									X														3	
Dup	7/18/18/1348	GW	G		X									X														3	
Trip Blank	6/22/18/1130	GW	G		X									X														3	

Matrix: A-Air; S-Soil; GW-Ground Water; SW-Surface Water; DW-Drinking Water; WW-Waste Water

Preservative: H-HCL; N-HNO_3; S-H_2SO_4; Na-NaOH; M-MEOH

Project Manager: Angela Emerson
Company: LE Environmental LLC
Address: 21 N. Main St.
City: Waterbury **State:** VT **Zip:** 05676
Phone: (802) 917-2001 **Ext.:**
Fax: N/A
E-Mail: angela@kenv.net
Site Name: ~~18-112~~ Main + Congress
Project #: 18-112
State: NH MA ME (VT) **Other:**
Regulatory Program: NPDES: RGP POTW Stormwater or GWP, Oil Fund: (Brownfield) or Other:
Quote #: **PO #:**

Date Needed: Normal TAT

QA/QC
Reporting Level
A B C
OR
Presumptive Certainty

Reporting Options
Prelims: Yes or No

Electronic Options
(E-Mail) PDF Equis Excel

Temp. 1.2 °C
Ice? (Yes) No

Sampler(s): Angela Emerson

Relinquished By:	Date:	Time:	Received By:
[signature]	7-20-18	10:50	[signature]
[signature]	7-20-18	13:15	[signature]

Metals: (8 RCRA) 13 PP Fe, Mn Pb, Cu
Other Metals:
Samples Field Filtered? ☐ Yes ☐ No
Notes: (ie: Special Detection Limits, Billing Info, If Different)

Site History:
Suspected Contamination:
Field Readings:

Eastern Analytical, Inc.
professional laboratory and drilling services
25 Chenell Drive | Concord, NH 03301 | Tel: 603.228.0525 | 1.800.287.0525 | E-Mail: CustomerService@EasternAnalytical.com | www.EasternAnalytical.com

(WHITE: Original GREEN: Project Manager)

Eastern Analytical, Inc.

professional laboratory and drilling services

Angela Emerson
LE Environmental LLC
21 North Main Street #1
Waterbury , VT 05676

Subject: Laboratory Report

Eastern Analytical, Inc. ID:	184530
Client Identification:	Main and Congress | 18-112
Date Received:	7/20/2018

Dear Ms Emerson :

Enclosed please find the report of analysis for the above identified project.
As discussed, analyses were subcontracted and are listed as follows:

Analysis:	Subcontract - Air VOC TO15 Low Level in SUMMA (75 Compound List) ALSCA
Subcontractor Lab:	ALS Environmental

A complete copy of the report is attached. This report may not be reproduced except in full, without the written approval of the laboratory.

We appreciate this opportunity to be of service and look forward to your continued patronage.

Sincerely,

Lorraine Olashaw	8-7-18	42
Lorraine Olashaw, Lab Director	Date	# of pages (excluding cover letter)

SAMPLE CONDITIONS PAGE

EAI ID#: **184530**

Client: **LE Environmental LLC**

Client Designation: **Main and Congress | 18-112**

Temperature upon receipt (°C): NA **Received on ice or cold packs (Yes/No): Y**

Acceptable temperature range (°C): 0-6

Lab ID	Sample ID	Date Received	Date Sampled	Sample Matrix	% Dry Weight	Exceptions/Comments (other than thermal preservation)
184530.01	Subslab-1	7/20/18	7/18/18	air		Adheres to Sample Acceptance Policy
184530.02	Subslab-2	7/20/18	7/18/18	air		Adheres to Sample Acceptance Policy
184530.03	Subslab-3	7/20/18	7/18/18	air		Adheres to Sample Acceptance Policy
184530.04	Subslab-4	7/20/18	7/18/18	air		Adheres to Sample Acceptance Policy
184530.05	Outdoor Ambient-1	7/20/18	7/18/18	air		Adheres to Sample Acceptance Policy

Samples were properly preserved and the pH measured when applicable unless otherwise noted. Analysis of solids for pH, Flashpoint, Ignitability, Paint Filter, Corrosivity, Conductivity and Specific Gravity are reported on an "as received" basis.
Immediate analyses, pH, Total Residual Chlorine, Dissolved Oxygen and Sulfite, performed at the laboratory were run outside of the recommended 15 minute hold time.
All results contained in this report relate only to the above listed samples.
References include:
1) EPA 600/4-79-020, 1983
2) Standard Methods for Examination of Water and Wastewater,20th Edition, 1998 and 22nd Edition, 2012
3) Test Methods for Evaluating Solid Waste SW 846 3rd Edition including updates IVA and IVB
4) Hach Water Analysis Handbook, 2nd edition, 1992

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www.alsglobal.com

LABORATORY REPORT

August 6, 2018

Front Office
Eastern Analytical, Inc.
25 Chenell Drive
Concord, NH 03301

RE: 184530

Dear Front Office:

Enclosed are the results of the samples submitted to our laboratory on July 23, 2018. For your reference, these analyses have been assigned our service request number P1803812.

All analyses were performed according to our laboratory's NELAP and DoD-ELAP-approved quality assurance program. The test results meet requirements of the current NELAP and DoD-ELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP and DoD-ELAP-accredited analytes, refer to the certifications section at www.alsglobal.com. Results are intended to be considered in their entirety and apply only to the samples analyzed and reported herein.

If you have any questions, please call me at (805) 526-7161.

Respectfully submitted,

ALS | Environmental

Samantha Henningsen

By Samantha Henningsen at 12:31 pm, Aug 06, 2018

For Sue Anderson
Project Manager

2655 Park Center Dr., Suite A
Simi Valley, CA 93065
T: +1 805 526 7161
F: +1 805 526 7270
www.alsglobal.com

Client: Eastern Analytical, Inc.
Project: 184530

Service Request No: P1803812

CASE NARRATIVE

The samples were received intact under chain of custody on July 23, 2018 and were stored in accordance with the analytical method requirements. Please refer to the sample acceptance check form for additional information. The results reported herein are applicable only to the condition of the samples at the time of sample receipt.

Volatile Organic Compound Analysis

The samples were analyzed for volatile organic compounds in accordance with EPA Method TO-15 from the Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air, Second Edition (EPA/625/R-96/010b), January, 1999. This procedure is described in laboratory SOP VOA-TO15. The analytical system was comprised of a gas chromatograph / mass spectrometer (GC/MS) interfaced to a whole-air preconcentrator. This method is included on the laboratory's NELAP and DoD-ELAP scope of accreditation. Any analytes flagged with an X are not included on the NELAP or DoD-ELAP accreditation.

The containers were cleaned, prior to sampling, down to the method reporting limit (MRL) reported for this project. For projects requiring DoD QSM 5.1 compliance canisters were cleaned to <1/2 the MRL. Please note, projects which require reporting below the MRL could have results between the MRL and method detection limit (MDL) that are biased high.

The results of analyses are given in the attached laboratory report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for utilization of less than the complete report.

Use of ALS Environmental (ALS)'s Name. Client shall not use ALS's name or trademark in any marketing or reporting materials, press releases or in any other manner ("Materials") whatsoever and shall not attribute to ALS any test result, tolerance or specification derived from ALS's data ("Attribution") without ALS's prior written consent, which may be withheld by ALS for any reason in its sole discretion. To request ALS's consent, Client shall provide copies of the proposed Materials or Attribution and describe in writing Client's proposed use of such Materials or Attribution. If ALS has not provided written approval of the Materials or Attribution within ten (10) days of receipt from Client, Client's request to use ALS's name or trademark in any Materials or Attribution shall be deemed denied. ALS may, in its discretion, reasonably charge Client for its time in reviewing Materials or Attribution requests. Client acknowledges and agrees that the unauthorized use of ALS's name or trademark may cause ALS to incur irreparable harm for which the recovery of money damages will be inadequate. Accordingly, Client acknowledges and agrees that a violation shall justify preliminary injunctive relief. For questions contact the laboratory.

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Simi Valley, CA 93065
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www.alsglobal.com

ALS Environmental – Simi Valley

CERTIFICATIONS, ACCREDITATIONS, AND REGISTRATIONS

Agency	Web Site	Number
Alaska DEC	http://dec.alaska.gov/eh/lab.aspx	17-019
Arizona DHS	http://www.azdhs.gov/preparedness/state-laboratory/lab-licensure-certification/index.php#laboratory-licensure-home	AZ0694
Florida DOH (NELAP)	http://www.floridahealth.gov/licensing-and-regulation/environmental-laboratories/index.html	E871020
Louisiana DEQ (NELAP)	http://www.deq.louisiana.gov/page/la-lab-accreditation	05071
Maine DHHS	http://www.maine.gov/dhhs/mecdc/environmental-health/dwp/professionals/labCert.shtml	2016036
Minnesota DOH (NELAP)	http://www.health.state.mn.us/accreditation	1347317
New Jersey DEP (NELAP)	http://www.nj.gov/dep/enforcement/oqa.html	CA009
New York DOH (NELAP)	http://www.wadsworth.org/labcert/elap/elap.html	11221
Oregon PHD (NELAP)	http://www.oregon.gov/oha/ph/LaboratoryServices/EnvironmentalLaboratoryAccreditation/Pages/index.aspx	4068-005
Pennsylvania DEP	http://www.dep.pa.gov/Business/OtherPrograms/Labs/Pages/Laboratory-Accreditation-Program.aspx	68-03307 (Registration)
PJLA (DoD ELAP)	http://www.pjlabs.com/search-accredited-labs	65818 (Testing)
Texas CEQ (NELAP)	http://www.tceq.texas.gov/agency/qa/env_lab_accreditation.html	T104704413-18-9
Utah DOH (NELAP)	http://health.utah.gov/lab/lab_cert_env	CA016272017-8
Washington DOE	http://www.ecy.wa.gov/programs/eap/labs/lab-accreditation.html	C946

Analyses were performed according to our laboratory's NELAP and DoD-ELAP approved quality assurance program. A complete listing of specific NELAP and DoD-ELAP certified analytes can be found in the certifications section at www.alsglobal.com, or at the accreditation body's website.

Each of the certifications listed above have an explicit Scope of Accreditation that applies to specific matrices/methods/analytes; therefore, please contact the laboratory for information corresponding to a particular certification.

ALS ENVIRONMENTAL

DETAIL SUMMARY REPORT

Client: Eastern Analytical, Inc.
Project ID: 184530

Service Request: P1803812

Date Received: 7/23/2018
Time Received: 09:30

Client Sample ID	Lab Code	Matrix	Date Collected	Time Collected	Container ID	Pi1 (psig)	Pf1 (psig)	TO-15 - VOC Cans
Subslab-1	P1803812-001	Air	7/18/2018	14:03	SC01874	-3.22	4.11	X
Subslab-2	P1803812-002	Air	7/18/2018	13:59	SC01854	-4.39	4.02	X
Subslab-3	P1803812-003	Air	7/18/2018	12:16	SC00008	-3.05	4.50	X
Subslab-4	P1803812-004	Air	7/18/2018	11:39	AC01178	-3.59	3.94	X
Outdoor Ambient-1	P1803812-005	Air	7/18/2018	12:22	SC00357	-4.61	6.02	X

Air - Chain of Custody Record & Analytical Service Request

9

P1803812

2655 Park Center Drive, Suite A
Simi Valley, California 93065
Phone (805) 526-7161
Fax (805) 526-7270

Requested Turnaround Time in Business Days (Surcharges) please circle
1 Day (100%) 2 Day (75%) 3 Day (50%) 4 Day (35%) 5 Day (25%) 10 Day-Standard

ALS Project No.

Company Name & Address (Reporting Information)
Eastern Analytical, Inc.
25 Chenell Drive
Concord, NH 03301

Project Name

Project Number: 184530

P.O. # / Billing Information: 48450

Project Manager: Front Office

Phone: 603-228-0525

Fax: 603-228-4591

Email Address for Result Reporting: customerservice@easternanalytical.com

Sampler (Print & Sign)

ALS Contact:

Analysis Method

Client Sample ID	Laboratory ID Number	Date Collected	Time Collected	Canister ID (Bar code # - AC, SC, etc.)	Flow Controller ID (Bar code # - FC #)	Canister Start Pressure "Hg	Canister End Pressure "Hg/psig	Sample Volume	TO-15 / VT IRULE, VI + Indoor Air		Comments e.g. Actual Preservative or specific instructions
Subslab-1		7/18/2018	14:03	SC01874	OA01135	30	-7	6L	X		
Subslab-2		7/18/2018	13:59	SC01854	OA01991	30	-8	6L	X		
Subslab-3		7/18/2018	12:16	SC00008	OA01429	30	-8.5	6L	X		
Subslab-4		7/18/2018	11:39	AC01178	OA01413	30	-9	6L	X		
Outdoor Ambient-1		7/18/2018	12:22	SC00357	FCA0068	30	-9	6L	X		

Report Tier Levels - please select

Tier I - Results (Default if not specified) ___ Tier III (Results + QC & Calibration Summaries) X

Tier II (Results + QC Summaries) Tier IV (Data Validation Package) 10% Surcharge ____

EDD required Yes / No

Type: _____ Units: _____

Chain of Custody Seal: (Circle) INTACT BROKEN ABSENT

Project Requirements (MRLs, QAPP): VT IRULE VI + Indoor Air

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
Chris Johnson	7/20/18	1500	FedEx		
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
				7/23/18	0930

Temperature ____ °C

ALS Environmental
Sample Acceptance Check Form

Client: Eastern Analytical, Inc. Work order: P1803812
Project: VT Air Sampling / 184530
Sample(s) received on: 7/23/18 Date opened: 7/23/18 by: AARON GONZALEZ

Note: This form is used for all samples received by ALS. The use of this form for custody seals is strictly meant to indicate presence/absence and not as an indication of compliance or nonconformity. Thermal preservation and pH will only be evaluated either at the request of the client and/or as required by the method/SOP.

		Yes	No	N/A
1	Were **sample containers** properly marked with client sample ID?	☒	☐	☐
2	Did **sample containers** arrive in good condition?	☒	☐	☐
3	Were **chain-of-custody** papers used and filled out?	☒	☐	☐
4	Did **sample container labels** and/or tags agree with custody papers?	☒	☐	☐
5	Was **sample volume** received adequate for analysis?	☒	☐	☐
6	Are samples within specified holding times?	☒	☐	☐
7	Was proper **temperature** (thermal preservation) of cooler at receipt adhered to?	☐	☒	☐
8	Were **custody seals** on outside of cooler/Box/Container?	☐	☒	☐
	Location of seal(s)? _____ Sealing Lid?	☐	☐	☒
	Were signature and date included?	☐	☐	☒
	Were seals intact?	☐	☐	☒
9	Do containers have appropriate **preservation**, according to method/SOP or Client specified information?	☐	☐	☒
	Is there a client indication that the submitted samples are **pH** preserved?	☐	☐	☒
	Were **VOA vials** checked for presence/absence of air bubbles?	☐	☐	☒
	Does the client/method/SOP require that the analyst check the sample pH and if necessary alter it?	☐	☐	☒
10	**Tubes:** Are the tubes capped and intact?	☐	☐	☒
11	**Badges:** Are the badges properly capped and intact?	☐	☐	☒
	Are dual bed badges separated and individually capped and intact?	☐	☐	☒

Lab Sample ID	Container Description	Required pH *	Received pH	Adjusted pH	VOA Headspace (Presence/Absence)	Receipt / Preservation Comments
P1803812-001.01	6.0 L Source Can					
P1803812-002.01	6.0 L Source Can					
P1803812-003.01	6.0 L Source Can					
P1803812-004.01	6.0 L Ambient Can					
P1803812-005.01	6.0 L Source Can					

Explain any discrepancies: (include lab sample ID numbers): _____

RSK - MEEPP, HCL (pH<2); RSK - CO2, (pH 5-8); Sulfur (pH>4)

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **Eastern Analytical, Inc.**
Client Sample ID: **Subslab-1**
Client Project ID: **184530**

ALS Project ID: P1803812
ALS Sample ID: P1803812-001

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16
Analyst: Wida Ang
Sample Type: 6.0 L Summa Canister
Test Notes:
Container ID: SC01874

Date Collected: 7/18/18
Date Received: 7/23/18
Date Analyzed: 7/31/18
Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -3.22 Final Pressure (psig): 4.11

Container Dilution Factor: 1.64

CAS #	Compound	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
115-07-1	Propene	**45**	0.85	0.21	**26**	0.50	0.12	
75-71-8	Dichlorodifluoromethane (CFC 12)	**2.4**	0.85	0.14	**0.49**	0.17	0.029	
74-87-3	Chloromethane	ND	0.33	0.14	ND	0.16	0.068	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	0.84	0.14	ND	0.12	0.020	
75-01-4	Vinyl Chloride	**0.097**	0.16	0.093	**0.038**	0.064	0.037	J
106-99-0	1,3-Butadiene	ND	0.34	0.14	ND	0.16	0.065	
74-83-9	Bromomethane	ND	0.33	0.12	ND	0.085	0.031	
75-00-3	Chloroethane	ND	0.33	0.11	ND	0.12	0.041	
64-17-5	Ethanol	**230**	8.7	0.61	**120**	4.6	0.32	
75-05-8	Acetonitrile	**0.57**	0.87	0.21	**0.34**	0.52	0.13	J
107-02-8	Acrolein	**1.6**	1.8	0.25	**0.69**	0.79	0.11	J
67-64-1	Acetone	**160**	8.7	2.0	**68**	3.7	0.83	
75-69-4	Trichlorofluoromethane (CFC 11)	**1.6**	0.87	0.13	**0.28**	0.15	0.024	
67-63-0	2-Propanol (Isopropyl Alcohol)	**100**	3.4	0.36	**41**	1.4	0.15	
107-13-1	Acrylonitrile	ND	0.87	0.18	ND	0.40	0.083	
75-35-4	1,1-Dichloroethene	ND	0.18	0.12	ND	0.046	0.031	
75-65-0	2-Methyl-2-Propanol(tert-Butyl Alcohol)	**1.8**	1.8	0.26	**0.60**	0.60	0.087	
75-09-2	Methylene Chloride	ND	0.87	0.25	ND	0.25	0.071	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	0.87	0.12	ND	0.28	0.038	
76-13-1	Trichlorotrifluoroethane (CFC 113)	**0.45**	0.87	0.12	**0.059**	0.11	0.016	J
75-15-0	Carbon Disulfide	**8.5**	1.8	0.26	**2.7**	0.58	0.084	
156-60-5	trans-1,2-Dichloroethene	ND	0.18	0.12	ND	0.046	0.031	
75-34-3	1,1-Dichloroethane	ND	0.16	0.13	ND	0.041	0.032	
1634-04-4	Methyl tert-Butyl Ether	ND	0.89	0.10	ND	0.25	0.029	

ND = Compound was analyzed for, but not detected above the laboratory detection limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
J = The result is an estimated concentration that is less than the MRL but greater than or equal to the MDL.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **Eastern Analytical, Inc.**
Client Sample ID: **Subslab-1**
Client Project ID: **184530**

ALS Project ID: P1803812
ALS Sample ID: P1803812-001

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16
Analyst: Wida Ang
Sample Type: 6.0 L Summa Canister
Test Notes:
Container ID: SC01874

Date Collected: 7/18/18
Date Received: 7/23/18
Date Analyzed: 7/31/18
Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -3.22 Final Pressure (psig): 4.11

Container Dilution Factor: 1.64

CAS #	Compound	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
108-05-4	Vinyl Acetate	**3.8**	8.7	2.0	**1.1**	2.5	0.56	**J**
78-93-3	2-Butanone (MEK)	**3.8**	1.8	0.18	**1.3**	0.61	0.061	
156-59-2	cis-1,2-Dichloroethene	ND	0.18	0.12	ND	0.046	0.031	
108-20-3	Diisopropyl Ether	ND	0.87	0.11	ND	0.21	0.027	
141-78-6	Ethyl Acetate	**2.0**	1.8	0.46	**0.56**	0.50	0.13	
110-54-3	n-Hexane	**0.43**	0.87	0.18	**0.12**	0.25	0.051	**J**
67-66-3	Chloroform	**0.49**	0.18	0.12	**0.10**	0.037	0.024	
109-99-9	Tetrahydrofuran (THF)	**4.9**	0.87	0.11	**1.7**	0.29	0.037	
637-92-3	Ethyl tert-Butyl Ether	ND	0.87	0.10	ND	0.21	0.025	
107-06-2	1,2-Dichloroethane	**0.13**	0.18	0.097	**0.031**	0.045	0.024	**J**
71-55-6	1,1,1-Trichloroethane	ND	0.18	0.11	ND	0.033	0.020	
108-21-4	Isopropyl Acetate	ND	1.8	0.28	ND	0.43	0.067	
71-36-3	1-Butanol	**9.4**	1.8	0.23	**3.1**	0.60	0.076	
71-43-2	Benzene	**0.54**	0.18	0.13	**0.17**	0.056	0.040	
56-23-5	Carbon Tetrachloride	**0.42**	0.18	0.12	**0.067**	0.029	0.019	
110-82-7	Cyclohexane	ND	1.8	0.25	ND	0.52	0.071	
994-05-8	tert-Amyl Methyl Ether	ND	0.87	0.11	ND	0.21	0.026	
78-87-5	1,2-Dichloropropane	ND	0.18	0.11	ND	0.039	0.023	
75-27-4	Bromodichloromethane	ND	0.18	0.13	ND	0.027	0.019	
79-01-6	Trichloroethene	ND	0.18	0.12	ND	0.034	0.022	
123-91-1	1,4-Dioxane	ND	0.87	0.10	ND	0.24	0.029	
540-84-1	2,2,4-Trimethylpentane (Isooctane)	**0.21**	0.87	0.13	**0.045**	0.19	0.028	**J**
80-62-6	Methyl Methacrylate	ND	1.8	0.31	ND	0.44	0.076	
142-82-5	n-Heptane	**0.41**	0.87	0.14	**0.10**	0.21	0.034	**J**

ND = Compound was analyzed for, but not detected above the laboratory detection limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
J = The result is an estimated concentration that is less than the MRL but greater than or equal to the MDL.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **Eastern Analytical, Inc.**
Client Sample ID: **Subslab-1**
Client Project ID: **184530**

ALS Project ID: P1803812
ALS Sample ID: P1803812-001

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16
Analyst: Wida Ang
Sample Type: 6.0 L Summa Canister
Test Notes:
Container ID: SC01874

Date Collected: 7/18/18
Date Received: 7/23/18
Date Analyzed: 7/31/18
Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -3.22 Final Pressure (psig): 4.11

Container Dilution Factor: 1.64

CAS #	Compound	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
10061-01-5	cis-1,3-Dichloropropene	ND	0.92	0.14	ND	0.20	0.030	
108-10-1	4-Methyl-2-pentanone	**1.6**	0.87	0.12	**0.39**	0.21	0.029	
10061-02-6	trans-1,3-Dichloropropene	ND	0.87	0.18	ND	0.19	0.040	
79-00-5	1,1,2-Trichloroethane	ND	0.18	0.089	ND	0.033	0.016	
108-88-3	Toluene	**4.3**	0.87	0.11	**1.1**	0.23	0.028	
591-78-6	2-Hexanone	**0.60**	0.87	0.11	**0.15**	0.21	0.026	**J**
124-48-1	Dibromochloromethane	ND	0.18	0.11	ND	0.021	0.013	
106-93-4	1,2-Dibromoethane	ND	0.18	0.10	ND	0.023	0.013	
123-86-4	n-Butyl Acetate	**0.86**	0.87	0.12	**0.18**	0.18	0.025	**J**
111-65-9	n-Octane	**0.92**	0.87	0.20	**0.20**	0.19	0.042	
127-18-4	Tetrachloroethene	ND	0.18	0.11	ND	0.027	0.017	
108-90-7	Chlorobenzene	**0.13**	0.87	0.12	**0.028**	0.19	0.025	**J**
100-41-4	Ethylbenzene	**1.4**	0.87	0.12	**0.33**	0.20	0.028	
179601-23-1	m,p-Xylenes	**5.0**	1.8	0.23	**1.2**	0.42	0.053	
75-25-2	Bromoform	ND	0.87	0.18	ND	0.084	0.017	
100-42-5	Styrene	**1.0**	0.87	0.14	**0.25**	0.20	0.033	
95-47-6	o-Xylene	**2.1**	0.87	0.13	**0.49**	0.20	0.029	
111-84-2	n-Nonane	**2.4**	0.87	0.15	**0.45**	0.17	0.028	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.18	0.12	ND	0.026	0.018	
98-82-8	Cumene	**0.17**	0.87	0.13	**0.034**	0.18	0.026	**J**
80-56-8	alpha-Pinene	**6.9**	0.85	0.13	**1.2**	0.15	0.024	
103-65-1	n-Propylbenzene	**0.43**	0.87	0.13	**0.087**	0.18	0.026	**J**
620-14-4	3-Ethyltoluene	**1.3**	0.87	0.12	**0.26**	0.18	0.024	

ND = Compound was analyzed for, but not detected above the laboratory detection limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
J = The result is an estimated concentration that is less than the MRL but greater than or equal to the MDL.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **Eastern Analytical, Inc.**
Client Sample ID: **Subslab-1**
Client Project ID: **184530**

ALS Project ID: P1803812
ALS Sample ID: P1803812-001

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16
Analyst: Wida Ang
Sample Type: 6.0 L Summa Canister
Test Notes:
Container ID: SC01874

Date Collected: 7/18/18
Date Received: 7/23/18
Date Analyzed: 7/31/18
Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -3.22 Final Pressure (psig): 4.11

Container Dilution Factor: 1.64

CAS #	Compound	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
622-96-8	4-Ethyltoluene	**0.59**	0.85	0.14	**0.12**	0.17	0.028	**J**
108-67-8	1,3,5-Trimethylbenzene	**0.71**	0.85	0.13	**0.14**	0.17	0.026	**J**
98-83-9	alpha-Methylstyrene	ND	0.85	0.14	ND	0.18	0.029	
611-14-3	2-Ethyltoluene	**0.50**	0.87	0.11	**0.10**	0.18	0.023	**J**
95-63-6	1,2,4-Trimethylbenzene	**2.6**	0.87	0.12	**0.53**	0.18	0.025	
124-18-5	n-Decane	**6.3**	0.87	0.12	**1.1**	0.15	0.020	
100-44-7	Benzyl Chloride	ND	1.8	0.20	ND	0.35	0.038	
541-73-1	1,3-Dichlorobenzene	**2.2**	0.89	0.13	**0.37**	0.15	0.022	
106-46-7	1,4-Dichlorobenzene	ND	0.87	0.13	ND	0.14	0.022	
135-98-8	sec-Butylbenzene	ND	0.87	0.12	ND	0.16	0.022	
99-87-6	4-Isopropyltoluene (p-Cymene)	**0.62**	0.84	0.13	**0.11**	0.15	0.024	**J**
526-73-8	1,2,3-Trimethylbenzene	**0.72**	0.84	0.12	**0.15**	0.17	0.024	**J**
95-50-1	1,2-Dichlorobenzene	ND	0.89	0.13	ND	0.15	0.022	
5989-27-5	d-Limonene	**5.7**	0.82	0.18	**1.0**	0.15	0.032	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.87	0.16	ND	0.090	0.017	
1120-21-4	n-Undecane	ND	0.87	0.23	ND	0.14	0.036	
120-82-1	1,2,4-Trichlorobenzene	ND	0.90	0.21	ND	0.12	0.029	
91-20-3	Naphthalene	**1.0**	0.87	0.21	**0.19**	0.17	0.041	
112-40-3	n-Dodecane	**2.6**	0.87	0.25	**0.37**	0.12	0.035	
87-68-3	Hexachlorobutadiene	ND	0.87	0.18	ND	0.082	0.017	
108-94-1	Cyclohexanone	**2.7**	0.85	0.14	**0.68**	0.21	0.034	
98-06-6	tert-Butylbenzene	ND	0.87	0.13	ND	0.16	0.024	
104-51-8	n-Butylbenzene	ND	0.87	0.13	ND	0.16	0.023	

ND = Compound was analyzed for, but not detected above the laboratory detection limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
J = The result is an estimated concentration that is less than the MRL but greater than or equal to the MDL.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **Eastern Analytical, Inc.**
Client Sample ID: **Subslab-2**
Client Project ID: **184530**

ALS Project ID: P1803812
ALS Sample ID: P1803812-002

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16
Analyst: Wida Ang
Sample Type: 6.0 L Summa Canister
Test Notes:
Container ID: SC01854

Date Collected: 7/18/18
Date Received: 7/23/18
Date Analyzed: 8/1/18
Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -4.39 Final Pressure (psig): 4.02

Container Dilution Factor: 1.82

CAS #	Compound	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
115-07-1	Propene	**63**	0.95	0.24	**37**	0.55	0.14	
75-71-8	Dichlorodifluoromethane (CFC 12)	**2.2**	0.95	0.16	**0.45**	0.19	0.032	
74-87-3	Chloromethane	ND	0.36	0.16	ND	0.18	0.076	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	0.93	0.15	ND	0.13	0.022	
75-01-4	Vinyl Chloride	**0.20**	0.18	0.10	**0.078**	0.071	0.041	
106-99-0	1,3-Butadiene	ND	0.38	0.16	ND	0.17	0.072	
74-83-9	Bromomethane	**0.96**	0.36	0.13	**0.25**	0.094	0.035	
75-00-3	Chloroethane	ND	0.36	0.12	ND	0.14	0.046	
64-17-5	Ethanol	**380**	9.6	0.67	**200**	5.1	0.36	
75-05-8	Acetonitrile	**1.8**	0.96	0.24	**1.1**	0.57	0.14	
107-02-8	Acrolein	**3.1**	2.0	0.27	**1.3**	0.87	0.12	
67-64-1	Acetone	**120**	9.6	2.2	**52**	4.1	0.92	
75-69-4	Trichlorofluoromethane (CFC 11)	**1.5**	0.96	0.15	**0.26**	0.17	0.026	
67-63-0	2-Propanol (Isopropyl Alcohol)	**180**	3.8	0.40	**72**	1.6	0.16	
107-13-1	Acrylonitrile	**0.21**	0.96	0.20	**0.097**	0.44	0.092	**J**
75-35-4	1,1-Dichloroethene	ND	0.20	0.13	ND	0.051	0.034	
75-65-0	2-Methyl-2-Propanol(tert-Butyl Alcohol)	**17**	2.0	0.29	**5.6**	0.66	0.096	
75-09-2	Methylene Chloride	ND	0.96	0.27	ND	0.28	0.079	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	0.96	0.13	ND	0.31	0.042	
76-13-1	Trichlorotrifluoroethane (CFC 113)	**0.50**	0.96	0.14	**0.065**	0.13	0.018	**J**
75-15-0	Carbon Disulfide	**1.4**	2.0	0.29	**0.44**	0.64	0.094	**J**
156-60-5	trans-1,2-Dichloroethene	**0.22**	0.20	0.13	**0.056**	0.051	0.034	
75-34-3	1,1-Dichloroethane	ND	0.18	0.14	ND	0.045	0.035	
1634-04-4	Methyl tert-Butyl Ether	ND	0.98	0.11	ND	0.27	0.032	

ND = Compound was analyzed for, but not detected above the laboratory detection limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
J = The result is an estimated concentration that is less than the MRL but greater than or equal to the MDL.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **Eastern Analytical, Inc.**
Client Sample ID: **Subslab-2**
Client Project ID: **184530**

ALS Project ID: P1803812
ALS Sample ID: P1803812-002

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16
Analyst: Wida Ang
Sample Type: 6.0 L Summa Canister
Test Notes:
Container ID: SC01854

Date Collected: 7/18/18
Date Received: 7/23/18
Date Analyzed: 8/1/18
Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -4.39 Final Pressure (psig): 4.02

Container Dilution Factor: 1.82

CAS #	Compound	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
108-05-4	Vinyl Acetate	**6.1**	9.6	2.2	**1.7**	2.7	0.62	**J**
78-93-3	2-Butanone (MEK)	**5.8**	2.0	0.20	**2.0**	0.68	0.068	
156-59-2	cis-1,2-Dichloroethene	ND	0.20	0.14	ND	0.051	0.034	
108-20-3	Diisopropyl Ether	ND	0.96	0.13	ND	0.23	0.030	
141-78-6	Ethyl Acetate	**2.3**	2.0	0.51	**0.65**	0.56	0.14	
110-54-3	n-Hexane	**0.95**	0.96	0.20	**0.27**	0.27	0.057	**J**
67-66-3	Chloroform	**1.1**	0.20	0.13	**0.23**	0.041	0.026	
109-99-9	Tetrahydrofuran (THF)	**6.0**	0.96	0.12	**2.0**	0.33	0.041	
637-92-3	Ethyl tert-Butyl Ether	ND	0.96	0.12	ND	0.23	0.028	
107-06-2	1,2-Dichloroethane	ND	0.20	0.11	ND	0.049	0.027	
71-55-6	1,1,1-Trichloroethane	**0.16**	0.20	0.12	**0.029**	0.037	0.022	**J**
108-21-4	Isopropyl Acetate	ND	2.0	0.31	ND	0.48	0.074	
71-36-3	1-Butanol	**25**	2.0	0.25	**8.3**	0.66	0.084	
71-43-2	Benzene	**0.78**	0.20	0.14	**0.24**	0.063	0.044	
56-23-5	Carbon Tetrachloride	**0.34**	0.20	0.13	**0.054**	0.032	0.021	
110-82-7	Cyclohexane	**0.34**	2.0	0.27	**0.10**	0.58	0.079	**J**
994-05-8	tert-Amyl Methyl Ether	ND	0.96	0.12	ND	0.23	0.028	
78-87-5	1,2-Dichloropropane	ND	0.20	0.12	ND	0.043	0.026	
75-27-4	Bromodichloromethane	ND	0.20	0.14	ND	0.030	0.021	
79-01-6	Trichloroethene	ND	0.20	0.13	ND	0.037	0.024	
123-91-1	1,4-Dioxane	**2.1**	0.96	0.11	**0.57**	0.27	0.032	
540-84-1	2,2,4-Trimethylpentane (Isooctane)	**0.25**	0.96	0.15	**0.053**	0.21	0.031	**J**
80-62-6	Methyl Methacrylate	ND	2.0	0.35	ND	0.49	0.084	
142-82-5	n-Heptane	**0.83**	0.96	0.15	**0.20**	0.24	0.038	**J**

ND = Compound was analyzed for, but not detected above the laboratory detection limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
J = The result is an estimated concentration that is less than the MRL but greater than or equal to the MDL.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **Eastern Analytical, Inc.**
Client Sample ID: **Subslab-2**
Client Project ID: **184530**

ALS Project ID: P1803812
ALS Sample ID: P1803812-002

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16
Analyst: Wida Ang
Sample Type: 6.0 L Summa Canister
Test Notes:
Container ID: SC01854

Date Collected: 7/18/18
Date Received: 7/23/18
Date Analyzed: 8/1/18
Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -4.39 Final Pressure (psig): 4.02

Container Dilution Factor: 1.82

CAS #	Compound	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.15	ND	0.22	0.033	
108-10-1	4-Methyl-2-pentanone	**4.6**	0.96	0.13	**1.1**	0.24	0.032	
10061-02-6	trans-1,3-Dichloropropene	ND	0.96	0.20	ND	0.21	0.044	
79-00-5	1,1,2-Trichloroethane	ND	0.20	0.098	ND	0.037	0.018	
108-88-3	Toluene	**4.2**	0.96	0.12	**1.1**	0.26	0.031	
591-78-6	2-Hexanone	**0.96**	0.96	0.12	**0.23**	0.24	0.029	J
124-48-1	Dibromochloromethane	ND	0.20	0.13	ND	0.024	0.015	
106-93-4	1,2-Dibromoethane	ND	0.20	0.11	ND	0.026	0.015	
123-86-4	n-Butyl Acetate	**1.1**	0.96	0.13	**0.23**	0.20	0.028	
111-65-9	n-Octane	**1.2**	0.96	0.22	**0.25**	0.21	0.047	
127-18-4	Tetrachloroethene	ND	0.20	0.13	ND	0.030	0.019	
108-90-7	Chlorobenzene	**0.16**	0.96	0.13	**0.034**	0.21	0.028	J
100-41-4	Ethylbenzene	**1.6**	0.96	0.14	**0.37**	0.22	0.031	
179601-23-1	m,p-Xylenes	**5.7**	2.0	0.25	**1.3**	0.46	0.059	
75-25-2	Bromoform	ND	0.96	0.20	ND	0.093	0.019	
100-42-5	Styrene	**1.2**	0.96	0.16	**0.29**	0.23	0.037	
95-47-6	o-Xylene	**2.5**	0.96	0.14	**0.57**	0.22	0.032	
111-84-2	n-Nonane	**2.3**	0.96	0.16	**0.44**	0.18	0.031	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.20	0.13	ND	0.029	0.020	
98-82-8	Cumene	**0.19**	0.96	0.14	**0.039**	0.20	0.029	J
80-56-8	alpha-Pinene	**8.0**	0.95	0.15	**1.4**	0.17	0.027	
103-65-1	n-Propylbenzene	**0.51**	0.96	0.14	**0.10**	0.20	0.029	J
620-14-4	3-Ethyltoluene	**1.6**	0.96	0.13	**0.32**	0.20	0.027	

ND = Compound was analyzed for, but not detected above the laboratory detection limit.
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J = The result is an estimated concentration that is less than the MRL but greater than or equal to the MDL.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **Eastern Analytical, Inc.**
Client Sample ID: **Subslab-2**
Client Project ID: **184530**

ALS Project ID: P1803812
ALS Sample ID: P1803812-002

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16
Analyst: Wida Ang
Sample Type: 6.0 L Summa Canister
Test Notes:
Container ID: SC01854

Date Collected: 7/18/18
Date Received: 7/23/18
Date Analyzed: 8/1/18
Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -4.39 Final Pressure (psig): 4.02

Container Dilution Factor: 1.82

CAS #	Compound	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
622-96-8	4-Ethyltoluene	**0.71**	0.95	0.15	**0.14**	0.19	0.031	**J**
108-67-8	1,3,5-Trimethylbenzene	**0.84**	0.95	0.14	**0.17**	0.19	0.029	**J**
98-83-9	alpha-Methylstyrene	ND	0.95	0.15	ND	0.20	0.032	
611-14-3	2-Ethyltoluene	**0.59**	0.96	0.12	**0.12**	0.20	0.025	**J**
95-63-6	1,2,4-Trimethylbenzene	**3.2**	0.96	0.13	**0.64**	0.20	0.027	
124-18-5	n-Decane	**5.7**	0.96	0.13	**0.98**	0.17	0.023	
100-44-7	Benzyl Chloride	ND	2.0	0.22	ND	0.39	0.042	
541-73-1	1,3-Dichlorobenzene	**3.4**	0.98	0.15	**0.57**	0.16	0.024	
106-46-7	1,4-Dichlorobenzene	ND	0.96	0.15	ND	0.16	0.025	
135-98-8	sec-Butylbenzene	ND	0.96	0.13	ND	0.18	0.024	
99-87-6	4-Isopropyltoluene (p-Cymene)	**0.54**	0.93	0.15	**0.099**	0.17	0.027	**J**
526-73-8	1,2,3-Trimethylbenzene	**0.90**	0.93	0.13	**0.18**	0.19	0.027	**J**
95-50-1	1,2-Dichlorobenzene	ND	0.98	0.14	ND	0.16	0.024	
5989-27-5	d-Limonene	**7.3**	0.91	0.20	**1.3**	0.16	0.036	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.96	0.18	ND	0.10	0.019	
1120-21-4	n-Undecane	ND	0.96	0.25	ND	0.15	0.040	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.24	ND	0.13	0.032	
91-20-3	Naphthalene	**1.2**	0.96	0.24	**0.22**	0.18	0.045	
112-40-3	n-Dodecane	**3.4**	0.96	0.27	**0.50**	0.14	0.039	
87-68-3	Hexachlorobutadiene	ND	0.96	0.20	ND	0.090	0.019	
108-94-1	Cyclohexanone	**2.9**	0.95	0.15	**0.73**	0.24	0.038	
98-06-6	tert-Butylbenzene	**0.41**	0.96	0.15	**0.076**	0.18	0.027	**J**
104-51-8	n-Butylbenzene	ND	0.96	0.14	ND	0.18	0.026	

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J = The result is an estimated concentration that is less than the MRL but greater than or equal to the MDL.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **Eastern Analytical, Inc.**
Client Sample ID: **Subslab-3**
Client Project ID: **184530**

ALS Project ID: P1803812
ALS Sample ID: P1803812-003

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16
Analyst: Wida Ang
Sample Type: 6.0 L Summa Canister
Test Notes:
Container ID: SC00008

Date Collected: 7/18/18
Date Received: 7/23/18
Date Analyzed: 8/1/18
Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -3.05 Final Pressure (psig): 4.50

Container Dilution Factor: 1.65

CAS #	Compound	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
115-07-1	Propene	**4.1**	0.86	0.21	**2.4**	0.50	0.12	
75-71-8	Dichlorodifluoromethane (CFC 12)	**2.3**	0.86	0.14	**0.47**	0.17	0.029	
74-87-3	Chloromethane	ND	0.33	0.14	ND	0.16	0.069	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	0.84	0.14	ND	0.12	0.020	
75-01-4	Vinyl Chloride	ND	0.17	0.094	ND	0.065	0.037	
106-99-0	1,3-Butadiene	ND	0.35	0.15	ND	0.16	0.066	
74-83-9	Bromomethane	ND	0.33	0.12	ND	0.085	0.031	
75-00-3	Chloroethane	ND	0.33	0.11	ND	0.13	0.041	
64-17-5	Ethanol	**70**	8.7	0.61	**37**	4.6	0.32	
75-05-8	Acetonitrile	**0.65**	0.87	0.21	**0.39**	0.52	0.13	J
107-02-8	Acrolein	**1.6**	1.8	0.25	**0.69**	0.79	0.11	J
67-64-1	Acetone	**94**	8.7	2.0	**40**	3.7	0.83	
75-69-4	Trichlorofluoromethane (CFC 11)	**1.5**	0.87	0.13	**0.26**	0.16	0.024	
67-63-0	2-Propanol (Isopropyl Alcohol)	**8.3**	3.5	0.36	**3.4**	1.4	0.15	
107-13-1	Acrylonitrile	ND	0.87	0.18	ND	0.40	0.084	
75-35-4	1,1-Dichloroethene	ND	0.18	0.12	ND	0.046	0.031	
75-65-0	2-Methyl-2-Propanol(tert-Butyl Alcohol)	**1.8**	1.8	0.26	**0.59**	0.60	0.087	J
75-09-2	Methylene Chloride	ND	0.87	0.25	ND	0.25	0.071	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	0.87	0.12	ND	0.28	0.038	
76-13-1	Trichlorotrifluoroethane (CFC 113)	**0.49**	0.87	0.13	**0.064**	0.11	0.016	J
75-15-0	Carbon Disulfide	**0.66**	1.8	0.26	**0.21**	0.58	0.085	J
156-60-5	trans-1,2-Dichloroethene	ND	0.18	0.12	ND	0.046	0.031	
75-34-3	1,1-Dichloroethane	ND	0.17	0.13	ND	0.041	0.032	
1634-04-4	Methyl tert-Butyl Ether	ND	0.89	0.10	ND	0.25	0.029	

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ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **Eastern Analytical, Inc.**
Client Sample ID: **Subslab-3**
Client Project ID: **184530**

ALS Project ID: P1803812
ALS Sample ID: P1803812-003

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16
Analyst: Wida Ang
Sample Type: 6.0 L Summa Canister
Test Notes:
Container ID: SC00008

Date Collected: 7/18/18
Date Received: 7/23/18
Date Analyzed: 8/1/18
Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -3.05 Final Pressure (psig): 4.50

Container Dilution Factor: 1.65

CAS #	Compound	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
108-05-4	Vinyl Acetate	**2.6**	8.7	2.0	**0.74**	2.5	0.56	**J**
78-93-3	2-Butanone (MEK)	**3.8**	1.8	0.18	**1.3**	0.62	0.062	
156-59-2	cis-1,2-Dichloroethene	ND	0.18	0.12	ND	0.046	0.031	
108-20-3	Diisopropyl Ether	ND	0.87	0.12	ND	0.21	0.028	
141-78-6	Ethyl Acetate	**1.2**	1.8	0.46	**0.33**	0.50	0.13	**J**
110-54-3	n-Hexane	**0.18**	0.87	0.18	**0.052**	0.25	0.052	**J**
67-66-3	Chloroform	**1.4**	0.18	0.12	**0.29**	0.037	0.024	
109-99-9	Tetrahydrofuran (THF)	**0.25**	0.87	0.11	**0.086**	0.30	0.037	**J**
637-92-3	Ethyl tert-Butyl Ether	ND	0.87	0.11	ND	0.21	0.025	
107-06-2	1,2-Dichloroethane	ND	0.18	0.097	ND	0.045	0.024	
71-55-6	1,1,1-Trichloroethane	**0.13**	0.18	0.11	**0.023**	0.033	0.020	**J**
108-21-4	Isopropyl Acetate	ND	1.8	0.28	ND	0.43	0.067	
71-36-3	1-Butanol	**4.5**	1.8	0.23	**1.5**	0.60	0.076	
71-43-2	Benzene	**1.2**	0.18	0.13	**0.36**	0.057	0.040	
56-23-5	Carbon Tetrachloride	**20**	0.18	0.12	**3.1**	0.029	0.019	
110-82-7	Cyclohexane	ND	1.8	0.25	ND	0.53	0.072	
994-05-8	tert-Amyl Methyl Ether	ND	0.87	0.11	ND	0.21	0.026	
78-87-5	1,2-Dichloropropane	ND	0.18	0.11	ND	0.039	0.024	
75-27-4	Bromodichloromethane	ND	0.18	0.13	ND	0.027	0.019	
79-01-6	Trichloroethene	ND	0.18	0.12	ND	0.034	0.022	
123-91-1	1,4-Dioxane	**0.62**	0.87	0.10	**0.17**	0.24	0.029	**J**
540-84-1	2,2,4-Trimethylpentane (Isooctane)	ND	0.87	0.13	ND	0.19	0.028	
80-62-6	Methyl Methacrylate	ND	1.8	0.31	ND	0.44	0.077	
142-82-5	n-Heptane	**0.17**	0.87	0.14	**0.043**	0.21	0.034	**J**

ND = Compound was analyzed for, but not detected above the laboratory detection limit.
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ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **Eastern Analytical, Inc.**
Client Sample ID: **Subslab-3**
Client Project ID: **184530**

ALS Project ID: P1803812
ALS Sample ID: P1803812-003

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16
Analyst: Wida Ang
Sample Type: 6.0 L Summa Canister
Test Notes:
Container ID: SC00008

Date Collected: 7/18/18
Date Received: 7/23/18
Date Analyzed: 8/1/18
Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -3.05 Final Pressure (psig): 4.50

Container Dilution Factor: 1.65

CAS #	Compound	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
10061-01-5	cis-1,3-Dichloropropene	ND	0.92	0.14	ND	0.20	0.030	
108-10-1	4-Methyl-2-pentanone	**1.9**	0.87	0.12	**0.46**	0.21	0.029	
10061-02-6	trans-1,3-Dichloropropene	ND	0.87	0.18	ND	0.19	0.040	
79-00-5	1,1,2-Trichloroethane	ND	0.18	0.089	ND	0.033	0.016	
108-88-3	Toluene	**2.1**	0.87	0.11	**0.56**	0.23	0.028	
591-78-6	2-Hexanone	**0.52**	0.87	0.11	**0.13**	0.21	0.027	J
124-48-1	Dibromochloromethane	ND	0.18	0.12	ND	0.021	0.014	
106-93-4	1,2-Dibromoethane	ND	0.18	0.10	ND	0.024	0.013	
123-86-4	n-Butyl Acetate	**0.48**	0.87	0.12	**0.10**	0.18	0.025	J
111-65-9	n-Octane	**0.44**	0.87	0.20	**0.094**	0.19	0.042	J
127-18-4	Tetrachloroethene	**0.22**	0.18	0.11	**0.032**	0.027	0.017	
108-90-7	Chlorobenzene	ND	0.87	0.12	ND	0.19	0.025	
100-41-4	Ethylbenzene	**1.0**	0.87	0.12	**0.23**	0.20	0.029	
179601-23-1	m,p-Xylenes	**3.5**	1.8	0.23	**0.81**	0.42	0.053	
75-25-2	Bromoform	ND	0.87	0.18	ND	0.085	0.018	
100-42-5	Styrene	**0.56**	0.87	0.14	**0.13**	0.21	0.033	J
95-47-6	o-Xylene	**1.6**	0.87	0.13	**0.37**	0.20	0.029	
111-84-2	n-Nonane	**0.72**	0.87	0.15	**0.14**	0.17	0.028	J
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.18	0.12	ND	0.026	0.018	
98-82-8	Cumene	ND	0.87	0.13	ND	0.18	0.026	
80-56-8	alpha-Pinene	**2.9**	0.86	0.14	**0.52**	0.15	0.024	
103-65-1	n-Propylbenzene	**0.31**	0.87	0.13	**0.062**	0.18	0.026	J
620-14-4	3-Ethyltoluene	**0.96**	0.87	0.12	**0.20**	0.18	0.024	

ND = Compound was analyzed for, but not detected above the laboratory detection limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
J = The result is an estimated concentration that is less than the MRL but greater than or equal to the MDL.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **Eastern Analytical, Inc.**
Client Sample ID: **Subslab-3** ALS Project ID: P1803812
Client Project ID: **184530** ALS Sample ID: P1803812-003

Test Code: EPA TO-15 Date Collected: 7/18/18
Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16 Date Received: 7/23/18
Analyst: Wida Ang Date Analyzed: 8/1/18
Sample Type: 6.0 L Summa Canister Volume(s) Analyzed: 1.00 Liter(s)
Test Notes:
Container ID: SC00008

Initial Pressure (psig): -3.05 Final Pressure (psig): 4.50

Container Dilution Factor: 1.65

CAS #	Compound	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
622-96-8	4-Ethyltoluene	**0.46**	0.86	0.14	**0.094**	0.17	0.029	**J**
108-67-8	1,3,5-Trimethylbenzene	**0.44**	0.86	0.13	**0.090**	0.17	0.026	**J**
98-83-9	alpha-Methylstyrene	ND	0.86	0.14	ND	0.18	0.029	
611-14-3	2-Ethyltoluene	**0.34**	0.87	0.11	**0.069**	0.18	0.023	**J**
95-63-6	1,2,4-Trimethylbenzene	**1.5**	0.87	0.12	**0.31**	0.18	0.025	
124-18-5	n-Decane	**1.8**	0.87	0.12	**0.31**	0.15	0.020	
100-44-7	Benzyl Chloride	ND	1.8	0.20	ND	0.35	0.038	
541-73-1	1,3-Dichlorobenzene	ND	0.89	0.13	ND	0.15	0.022	
106-46-7	1,4-Dichlorobenzene	ND	0.87	0.14	ND	0.15	0.023	
135-98-8	sec-Butylbenzene	ND	0.87	0.12	ND	0.16	0.022	
99-87-6	4-Isopropyltoluene (p-Cymene)	**0.28**	0.84	0.13	**0.052**	0.15	0.024	**J**
526-73-8	1,2,3-Trimethylbenzene	**0.36**	0.84	0.12	**0.073**	0.17	0.025	**J**
95-50-1	1,2-Dichlorobenzene	ND	0.89	0.13	ND	0.15	0.022	
5989-27-5	d-Limonene	**3.3**	0.83	0.18	**0.58**	0.15	0.033	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.87	0.17	ND	0.091	0.017	
1120-21-4	n-Undecane	ND	0.87	0.23	ND	0.14	0.036	
120-82-1	1,2,4-Trichlorobenzene	ND	0.91	0.21	ND	0.12	0.029	
91-20-3	Naphthalene	**1.4**	0.87	0.21	**0.26**	0.17	0.041	
112-40-3	n-Dodecane	ND	0.87	0.25	ND	0.13	0.036	
87-68-3	Hexachlorobutadiene	ND	0.87	0.18	ND	0.082	0.017	
108-94-1	Cyclohexanone	**1.2**	0.86	0.14	**0.30**	0.21	0.034	
98-06-6	tert-Butylbenzene	**0.20**	0.87	0.13	**0.037**	0.16	0.024	**J**
104-51-8	n-Butylbenzene	ND	0.87	0.13	ND	0.16	0.023	

ND = Compound was analyzed for, but not detected above the laboratory detection limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
J = The result is an estimated concentration that is less than the MRL but greater than or equal to the MDL.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **Eastern Analytical, Inc.**
Client Sample ID: **Subslab-4**
Client Project ID: **184530**

ALS Project ID: P1803812
ALS Sample ID: P1803812-004

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16
Analyst: Wida Ang
Sample Type: 6.0 L Summa Canister
Test Notes:
Container ID: AC01178

Date Collected: 7/18/18
Date Received: 7/23/18
Date Analyzed: 8/1/18
Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -3.59 Final Pressure (psig): 3.94

Container Dilution Factor: 1.68

CAS #	Compound	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
115-07-1	Propene	**4.3**	0.87	0.22	**2.5**	0.51	0.13	
75-71-8	Dichlorodifluoromethane (CFC 12)	**2.3**	0.87	0.15	**0.47**	0.18	0.030	
74-87-3	Chloromethane	ND	0.34	0.14	ND	0.16	0.070	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	0.86	0.14	ND	0.12	0.020	
75-01-4	Vinyl Chloride	ND	0.17	0.096	ND	0.066	0.037	
106-99-0	1,3-Butadiene	ND	0.35	0.15	ND	0.16	0.067	
74-83-9	Bromomethane	ND	0.34	0.12	ND	0.087	0.032	
75-00-3	Chloroethane	ND	0.34	0.11	ND	0.13	0.042	
64-17-5	Ethanol	**110**	8.9	0.62	**56**	4.7	0.33	
75-05-8	Acetonitrile	**0.34**	0.89	0.22	**0.20**	0.53	0.13	**J**
107-02-8	Acrolein	**0.99**	1.8	0.25	**0.43**	0.81	0.11	**J**
67-64-1	Acetone	**74**	8.9	2.0	**31**	3.7	0.85	
75-69-4	Trichlorofluoromethane (CFC 11)	**1.4**	0.89	0.14	**0.24**	0.16	0.024	
67-63-0	2-Propanol (Isopropyl Alcohol)	**10**	3.5	0.37	**4.2**	1.4	0.15	
107-13-1	Acrylonitrile	ND	0.89	0.18	ND	0.41	0.085	
75-35-4	1,1-Dichloroethene	ND	0.18	0.12	ND	0.047	0.031	
75-65-0	2-Methyl-2-Propanol(tert-Butyl Alcohol)	**0.60**	1.8	0.27	**0.20**	0.61	0.089	**J**
75-09-2	Methylene Chloride	ND	0.89	0.25	ND	0.26	0.073	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	0.89	0.12	ND	0.28	0.039	
76-13-1	Trichlorotrifluoroethane (CFC 113)	**0.51**	0.89	0.13	**0.066**	0.12	0.017	**J**
75-15-0	Carbon Disulfide	**0.28**	1.8	0.27	**0.091**	0.59	0.086	**J**
156-60-5	trans-1,2-Dichloroethene	ND	0.18	0.12	ND	0.047	0.031	
75-34-3	1,1-Dichloroethane	ND	0.17	0.13	ND	0.042	0.032	
1634-04-4	Methyl tert-Butyl Ether	ND	0.91	0.11	ND	0.25	0.029	

ND = Compound was analyzed for, but not detected above the laboratory detection limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
J = The result is an estimated concentration that is less than the MRL but greater than or equal to the MDL.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **Eastern Analytical, Inc.**
Client Sample ID: **Subslab-4**
Client Project ID: **184530**

ALS Project ID: P1803812
ALS Sample ID: P1803812-004

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16
Analyst: Wida Ang
Sample Type: 6.0 L Summa Canister
Test Notes:
Container ID: AC01178

Date Collected: 7/18/18
Date Received: 7/23/18
Date Analyzed: 8/1/18
Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -3.59 Final Pressure (psig): 3.94

Container Dilution Factor: 1.68

CAS #	Compound	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
108-05-4	Vinyl Acetate	**2.5**	8.9	2.0	**0.70**	2.5	0.57	**J**
78-93-3	2-Butanone (MEK)	**2.6**	1.8	0.18	**0.88**	0.63	0.063	
156-59-2	cis-1,2-Dichloroethene	ND	0.18	0.13	ND	0.047	0.032	
108-20-3	Diisopropyl Ether	ND	0.89	0.12	ND	0.21	0.028	
141-78-6	Ethyl Acetate	**0.54**	1.8	0.47	**0.15**	0.51	0.13	**J**
110-54-3	n-Hexane	**0.26**	0.89	0.18	**0.072**	0.25	0.052	**J**
67-66-3	Chloroform	ND	0.18	0.12	ND	0.038	0.024	
109-99-9	Tetrahydrofuran (THF)	**0.22**	0.89	0.11	**0.075**	0.30	0.038	**J**
637-92-3	Ethyl tert-Butyl Ether	ND	0.89	0.11	ND	0.21	0.026	
107-06-2	1,2-Dichloroethane	ND	0.18	0.099	ND	0.046	0.024	
71-55-6	1,1,1-Trichloroethane	ND	0.18	0.11	ND	0.034	0.020	
108-21-4	Isopropyl Acetate	ND	1.8	0.29	ND	0.44	0.068	
71-36-3	1-Butanol	**12**	1.8	0.24	**4.0**	0.61	0.078	
71-43-2	Benzene	**0.19**	0.18	0.13	**0.061**	0.058	0.041	
56-23-5	Carbon Tetrachloride	ND	0.18	0.12	ND	0.029	0.020	
110-82-7	Cyclohexane	ND	1.8	0.25	ND	0.54	0.073	
994-05-8	tert-Amyl Methyl Ether	ND	0.89	0.11	ND	0.21	0.026	
78-87-5	1,2-Dichloropropane	ND	0.18	0.11	ND	0.040	0.024	
75-27-4	Bromodichloromethane	ND	0.18	0.13	ND	0.028	0.019	
79-01-6	Trichloroethene	ND	0.18	0.12	ND	0.034	0.023	
123-91-1	1,4-Dioxane	**0.41**	0.89	0.11	**0.11**	0.25	0.029	**J**
540-84-1	2,2,4-Trimethylpentane (Isooctane)	ND	0.89	0.13	ND	0.19	0.029	
80-62-6	Methyl Methacrylate	ND	1.8	0.32	ND	0.45	0.078	
142-82-5	n-Heptane	**0.28**	0.89	0.14	**0.067**	0.22	0.035	**J**

ND = Compound was analyzed for, but not detected above the laboratory detection limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
J = The result is an estimated concentration that is less than the MRL but greater than or equal to the MDL.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **Eastern Analytical, Inc.**
Client Sample ID: **Subslab-4**
Client Project ID: **184530**

ALS Project ID: P1803812
ALS Sample ID: P1803812-004

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16
Analyst: Wida Ang
Sample Type: 6.0 L Summa Canister
Test Notes:
Container ID: AC01178

Date Collected: 7/18/18
Date Received: 7/23/18
Date Analyzed: 8/1/18
Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -3.59 Final Pressure (psig): 3.94

Container Dilution Factor: 1.68

CAS #	Compound	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
10061-01-5	cis-1,3-Dichloropropene	ND	0.94	0.14	ND	0.21	0.031	
108-10-1	4-Methyl-2-pentanone	**0.33**	0.89	0.12	**0.081**	0.22	0.030	**J**
10061-02-6	trans-1,3-Dichloropropene	**0.23**	0.89	0.18	**0.050**	0.20	0.041	**J**
79-00-5	1,1,2-Trichloroethane	ND	0.18	0.091	ND	0.034	0.017	
108-88-3	Toluene	**1.1**	0.89	0.11	**0.30**	0.24	0.029	
591-78-6	2-Hexanone	**0.34**	0.89	0.11	**0.084**	0.22	0.027	**J**
124-48-1	Dibromochloromethane	ND	0.18	0.12	ND	0.022	0.014	
106-93-4	1,2-Dibromoethane	ND	0.18	0.10	ND	0.024	0.014	
123-86-4	n-Butyl Acetate	**0.37**	0.89	0.12	**0.078**	0.19	0.026	**J**
111-65-9	n-Octane	**0.37**	0.89	0.20	**0.079**	0.19	0.043	**J**
127-18-4	Tetrachloroethene	**0.44**	0.18	0.12	**0.065**	0.027	0.017	
108-90-7	Chlorobenzene	ND	0.89	0.12	ND	0.19	0.026	
100-41-4	Ethylbenzene	**0.77**	0.89	0.13	**0.18**	0.21	0.029	**J**
179601-23-1	m,p-Xylenes	**2.0**	1.8	0.24	**0.46**	0.43	0.054	
75-25-2	Bromoform	ND	0.89	0.18	ND	0.086	0.018	
100-42-5	Styrene	**0.47**	0.89	0.14	**0.11**	0.21	0.034	**J**
95-47-6	o-Xylene	**0.83**	0.89	0.13	**0.19**	0.21	0.030	**J**
111-84-2	n-Nonane	**0.83**	0.89	0.15	**0.16**	0.17	0.029	**J**
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.18	0.12	ND	0.027	0.018	
98-82-8	Cumene	ND	0.89	0.13	ND	0.18	0.026	
80-56-8	alpha-Pinene	**1.5**	0.87	0.14	**0.27**	0.16	0.025	
103-65-1	n-Propylbenzene	**0.24**	0.89	0.13	**0.049**	0.18	0.026	**J**
620-14-4	3-Ethyltoluene	**0.74**	0.89	0.12	**0.15**	0.18	0.025	**J**

ND = Compound was analyzed for, but not detected above the laboratory detection limit.
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J = The result is an estimated concentration that is less than the MRL but greater than or equal to the MDL.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **Eastern Analytical, Inc.**
Client Sample ID: **Subslab-4**
Client Project ID: **184530**

ALS Project ID: P1803812
ALS Sample ID: P1803812-004

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16
Analyst: Wida Ang
Sample Type: 6.0 L Summa Canister
Test Notes:
Container ID: AC01178

Date Collected: 7/18/18
Date Received: 7/23/18
Date Analyzed: 8/1/18
Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -3.59 Final Pressure (psig): 3.94

Container Dilution Factor: 1.68

CAS #	Compound	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
622-96-8	4-Ethyltoluene	**0.36**	0.87	0.14	**0.074**	0.18	0.029	**J**
108-67-8	1,3,5-Trimethylbenzene	**0.39**	0.87	0.13	**0.079**	0.18	0.026	**J**
98-83-9	alpha-Methylstyrene	ND	0.87	0.14	ND	0.18	0.030	
611-14-3	2-Ethyltoluene	**0.31**	0.89	0.11	**0.064**	0.18	0.023	**J**
95-63-6	1,2,4-Trimethylbenzene	**1.8**	0.89	0.12	**0.38**	0.18	0.025	
124-18-5	n-Decane	**3.0**	0.89	0.12	**0.52**	0.15	0.021	
100-44-7	Benzyl Chloride	ND	1.8	0.20	ND	0.36	0.039	
541-73-1	1,3-Dichlorobenzene	ND	0.91	0.13	ND	0.15	0.022	
106-46-7	1,4-Dichlorobenzene	ND	0.89	0.14	ND	0.15	0.023	
135-98-8	sec-Butylbenzene	ND	0.89	0.12	ND	0.16	0.022	
99-87-6	4-Isopropyltoluene (p-Cymene)	**0.28**	0.86	0.14	**0.051**	0.16	0.025	**J**
526-73-8	1,2,3-Trimethylbenzene	**0.56**	0.86	0.12	**0.11**	0.17	0.025	**J**
95-50-1	1,2-Dichlorobenzene	ND	0.91	0.13	ND	0.15	0.022	
5989-27-5	d-Limonene	**4.4**	0.84	0.18	**0.78**	0.15	0.033	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.89	0.17	ND	0.092	0.017	
1120-21-4	n-Undecane	**3.6**	0.89	0.24	**0.56**	0.14	0.037	
120-82-1	1,2,4-Trichlorobenzene	ND	0.92	0.22	ND	0.12	0.029	
91-20-3	Naphthalene	**1.1**	0.89	0.22	**0.21**	0.17	0.042	
112-40-3	n-Dodecane	**3.2**	0.89	0.25	**0.46**	0.13	0.036	
87-68-3	Hexachlorobutadiene	ND	0.89	0.18	ND	0.084	0.017	
108-94-1	Cyclohexanone	**1.0**	0.87	0.14	**0.26**	0.22	0.035	
98-06-6	tert-Butylbenzene	**0.24**	0.89	0.13	**0.044**	0.16	0.024	**J**
104-51-8	n-Butylbenzene	ND	0.89	0.13	ND	0.16	0.024	

ND = Compound was analyzed for, but not detected above the laboratory detection limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
J = The result is an estimated concentration that is less than the MRL but greater than or equal to the MDL.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **Eastern Analytical, Inc.**
Client Sample ID: **Outdoor Ambient-1**
Client Project ID: **184530**

ALS Project ID: P1803812
ALS Sample ID: P1803812-005

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16
Analyst: Wida Ang
Sample Type: 6.0 L Summa Canister
Test Notes:
Container ID: SC00357

Date Collected: 7/18/18
Date Received: 7/23/18
Date Analyzed: 8/1/18
Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -4.61 Final Pressure (psig): 6.02

Container Dilution Factor: 2.05

CAS #	Compound	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
115-07-1	Propene	**0.92**	1.1	0.27	**0.54**	0.62	0.15	J
75-71-8	Dichlorodifluoromethane (CFC 12)	**2.2**	1.1	0.18	**0.45**	0.22	0.036	
74-87-3	Chloromethane	**0.31**	0.41	0.18	**0.15**	0.20	0.085	J
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	1.0	0.17	ND	0.15	0.025	
75-01-4	Vinyl Chloride	ND	0.21	0.12	ND	0.080	0.046	
106-99-0	1,3-Butadiene	ND	0.43	0.18	ND	0.19	0.082	
74-83-9	Bromomethane	ND	0.41	0.15	ND	0.11	0.039	
75-00-3	Chloroethane	ND	0.41	0.14	ND	0.16	0.051	
64-17-5	Ethanol	**6.9**	11	0.76	**3.6**	5.8	0.40	J
75-05-8	Acetonitrile	**0.60**	1.1	0.27	**0.36**	0.65	0.16	J
107-02-8	Acrolein	**0.81**	2.3	0.31	**0.35**	0.98	0.13	J
67-64-1	Acetone	**13**	11	2.5	**5.3**	4.6	1.0	
75-69-4	Trichlorofluoromethane (CFC 11)	**1.1**	1.1	0.17	**0.20**	0.19	0.030	
67-63-0	2-Propanol (Isopropyl Alcohol)	**1.5**	4.3	0.45	**0.61**	1.8	0.18	J
107-13-1	Acrylonitrile	ND	1.1	0.23	ND	0.50	0.10	
75-35-4	1,1-Dichloroethene	ND	0.23	0.15	ND	0.057	0.038	
75-65-0	2-Methyl-2-Propanol(Tert-Butyl Alcohol)	ND	2.3	0.33	ND	0.74	0.11	
75-09-2	Methylene Chloride	ND	1.1	0.31	ND	0.31	0.089	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	1.1	0.15	ND	0.35	0.047	
76-13-1	Trichlorotrifluoroethane (CFC 113)	**0.43**	1.1	0.16	**0.057**	0.14	0.020	J
75-15-0	Carbon Disulfide	ND	2.3	0.33	ND	0.72	0.11	
156-60-5	trans-1,2-Dichloroethene	ND	0.23	0.15	ND	0.057	0.038	
75-34-3	1,1-Dichloroethane	ND	0.21	0.16	ND	0.051	0.040	
1634-04-4	Methyl tert-Butyl Ether	ND	1.1	0.13	ND	0.31	0.036	

ND = Compound was analyzed for, but not detected above the laboratory detection limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
J = The result is an estimated concentration that is less than the MRL but greater than or equal to the MDL.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **Eastern Analytical, Inc.**
Client Sample ID: **Outdoor Ambient-1** ALS Project ID: P1803812
Client Project ID: **184530** ALS Sample ID: P1803812-005

Test Code: EPA TO-15 Date Collected: 7/18/18
Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16 Date Received: 7/23/18
Analyst: Wida Ang Date Analyzed: 8/1/18
Sample Type: 6.0 L Summa Canister Volume(s) Analyzed: 1.00 Liter(s)
Test Notes:
Container ID: SC00357

Initial Pressure (psig): -4.61 Final Pressure (psig): 6.02

Container Dilution Factor: 2.05

CAS #	Compound	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
108-05-4	Vinyl Acetate	ND	11	2.5	ND	3.1	0.70	
78-93-3	2-Butanone (MEK)	**2.7**	2.3	0.23	**0.92**	0.76	0.076	
156-59-2	cis-1,2-Dichloroethene	ND	0.23	0.15	ND	0.057	0.039	
108-20-3	Diisopropyl Ether	ND	1.1	0.14	ND	0.26	0.034	
141-78-6	Ethyl Acetate	**1.7**	2.3	0.57	**0.47**	0.63	0.16	**J**
110-54-3	n-Hexane	**0.25**	1.1	0.23	**0.072**	0.31	0.064	**J**
67-66-3	Chloroform	ND	0.23	0.15	ND	0.046	0.030	
109-99-9	Tetrahydrofuran (THF)	ND	1.1	0.14	ND	0.37	0.047	
637-92-3	Ethyl tert-Butyl Ether	ND	1.1	0.13	ND	0.26	0.031	
107-06-2	1,2-Dichloroethane	ND	0.23	0.12	ND	0.056	0.030	
71-55-6	1,1,1-Trichloroethane	ND	0.23	0.14	ND	0.041	0.025	
108-21-4	Isopropyl Acetate	ND	2.3	0.35	ND	0.54	0.083	
71-36-3	1-Butanol	**17**	2.3	0.29	**5.4**	0.74	0.095	
71-43-2	Benzene	**0.25**	0.23	0.16	**0.077**	0.071	0.049	
56-23-5	Carbon Tetrachloride	**0.33**	0.23	0.15	**0.052**	0.036	0.024	
110-82-7	Cyclohexane	ND	2.3	0.31	ND	0.66	0.089	
994-05-8	tert-Amyl Methyl Ether	ND	1.1	0.13	ND	0.26	0.032	
78-87-5	1,2-Dichloropropane	ND	0.23	0.14	ND	0.049	0.029	
75-27-4	Bromodichloromethane	ND	0.23	0.16	ND	0.034	0.024	
79-01-6	Trichloroethene	ND	0.23	0.15	ND	0.042	0.027	
123-91-1	1,4-Dioxane	ND	1.1	0.13	ND	0.30	0.036	
540-84-1	2,2,4-Trimethylpentane (Isooctane)	ND	1.1	0.16	ND	0.23	0.035	
80-62-6	Methyl Methacrylate	ND	2.3	0.39	ND	0.55	0.095	
142-82-5	n-Heptane	ND	1.1	0.17	ND	0.27	0.043	

ND = Compound was analyzed for, but not detected above the laboratory detection limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
J = The result is an estimated concentration that is less than the MRL but greater than or equal to the MDL.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **Eastern Analytical, Inc.**
Client Sample ID: **Outdoor Ambient-1**
Client Project ID: **184530**

ALS Project ID: P1803812
ALS Sample ID: P1803812-005

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16
Analyst: Wida Ang
Sample Type: 6.0 L Summa Canister
Test Notes:
Container ID: SC00357

Date Collected: 7/18/18
Date Received: 7/23/18
Date Analyzed: 8/1/18
Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -4.61 Final Pressure (psig): 6.02

Container Dilution Factor: 2.05

CAS #	Compound	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
10061-01-5	cis-1,3-Dichloropropene	ND	1.1	0.17	ND	0.25	0.037	
108-10-1	4-Methyl-2-pentanone	**0.19**	1.1	0.15	**0.047**	0.27	0.037	**J**
10061-02-6	trans-1,3-Dichloropropene	ND	1.1	0.23	ND	0.24	0.050	
79-00-5	1,1,2-Trichloroethane	ND	0.23	0.11	ND	0.041	0.020	
108-88-3	Toluene	**0.83**	1.1	0.13	**0.22**	0.29	0.035	**J**
591-78-6	2-Hexanone	**0.39**	1.1	0.14	**0.095**	0.27	0.033	**J**
124-48-1	Dibromochloromethane	ND	0.23	0.14	ND	0.026	0.017	
106-93-4	1,2-Dibromoethane	ND	0.23	0.13	ND	0.029	0.017	
123-86-4	n-Butyl Acetate	ND	1.1	0.15	ND	0.23	0.032	
111-65-9	n-Octane	ND	1.1	0.25	ND	0.23	0.053	
127-18-4	Tetrachloroethene	**0.15**	0.23	0.14	**0.021**	0.033	0.021	**J**
108-90-7	Chlorobenzene	ND	1.1	0.15	ND	0.24	0.032	
100-41-4	Ethylbenzene	ND	1.1	0.15	ND	0.25	0.035	
179601-23-1	m,p-Xylenes	**0.36**	2.3	0.29	**0.084**	0.52	0.066	**J**
75-25-2	Bromoform	ND	1.1	0.23	ND	0.11	0.022	
100-42-5	Styrene	ND	1.1	0.18	ND	0.26	0.041	
95-47-6	o-Xylene	ND	1.1	0.16	ND	0.25	0.036	
111-84-2	n-Nonane	ND	1.1	0.18	ND	0.21	0.035	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.23	0.15	ND	0.033	0.022	
98-82-8	Cumene	ND	1.1	0.16	ND	0.22	0.032	
80-56-8	alpha-Pinene	**0.31**	1.1	0.17	**0.056**	0.19	0.030	**J**
103-65-1	n-Propylbenzene	ND	1.1	0.16	ND	0.22	0.032	
620-14-4	3-Ethyltoluene	ND	1.1	0.15	ND	0.22	0.030	

ND = Compound was analyzed for, but not detected above the laboratory detection limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
J = The result is an estimated concentration that is less than the MRL but greater than or equal to the MDL.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **Eastern Analytical, Inc.**
Client Sample ID: **Outdoor Ambient-1**
Client Project ID: **184530**

ALS Project ID: P1803812
ALS Sample ID: P1803812-005

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16
Analyst: Wida Ang
Sample Type: 6.0 L Summa Canister
Test Notes:
Container ID: SC00357

Date Collected: 7/18/18
Date Received: 7/23/18
Date Analyzed: 8/1/18
Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -4.61 Final Pressure (psig): 6.02

Container Dilution Factor: 2.05

CAS #	Compound	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
622-96-8	4-Ethyltoluene	ND	1.1	0.17	ND	0.22	0.035	
108-67-8	1,3,5-Trimethylbenzene	ND	1.1	0.16	ND	0.22	0.032	
98-83-9	alpha-Methylstyrene	ND	1.1	0.17	ND	0.22	0.036	
611-14-3	2-Ethyltoluene	ND	1.1	0.14	ND	0.22	0.028	
95-63-6	1,2,4-Trimethylbenzene	**0.16**	1.1	0.15	**0.033**	0.22	0.031	**J**
124-18-5	n-Decane	**0.18**	1.1	0.15	**0.031**	0.19	0.025	**J**
100-44-7	Benzyl Chloride	ND	2.3	0.25	ND	0.44	0.048	
541-73-1	1,3-Dichlorobenzene	ND	1.1	0.16	ND	0.18	0.027	
106-46-7	1,4-Dichlorobenzene	ND	1.1	0.17	ND	0.18	0.028	
135-98-8	sec-Butylbenzene	ND	1.1	0.15	ND	0.20	0.027	
99-87-6	4-Isopropyltoluene (p-Cymene)	ND	1.0	0.17	ND	0.19	0.030	
526-73-8	1,2,3-Trimethylbenzene	ND	1.0	0.15	ND	0.21	0.030	
95-50-1	1,2-Dichlorobenzene	ND	1.1	0.16	ND	0.18	0.027	
5989-27-5	d-Limonene	**0.25**	1.0	0.23	**0.045**	0.18	0.040	**J**
96-12-8	1,2-Dibromo-3-chloropropane	ND	1.1	0.21	ND	0.11	0.021	
1120-21-4	n-Undecane	ND	1.1	0.29	ND	0.17	0.045	
120-82-1	1,2,4-Trichlorobenzene	ND	1.1	0.27	ND	0.15	0.036	
91-20-3	Naphthalene	ND	1.1	0.27	ND	0.21	0.051	
112-40-3	n-Dodecane	**0.64**	1.1	0.31	**0.092**	0.16	0.044	**J**
87-68-3	Hexachlorobutadiene	ND	1.1	0.23	ND	0.10	0.021	
108-94-1	Cyclohexanone	**0.51**	1.1	0.17	**0.13**	0.27	0.042	**J**
98-06-6	tert-Butylbenzene	ND	1.1	0.16	ND	0.20	0.030	
104-51-8	n-Butylbenzene	ND	1.1	0.16	ND	0.20	0.029	

ND = Compound was analyzed for, but not detected above the laboratory detection limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
J = The result is an estimated concentration that is less than the MRL but greater than or equal to the MDL.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **Eastern Analytical, Inc.**
Client Sample ID: **Method Blank**
Client Project ID: **184530**

ALS Project ID: P1803812
ALS Sample ID: P180731-MB

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16
Analyst: Wida Ang
Sample Type: 6.0 L Summa Canister
Test Notes:

Date Collected: NA
Date Received: NA
Date Analyzed: 7/31/18
Volume(s) Analyzed: 1.00 Liter(s)

Container Dilution Factor: 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
115-07-1	Propene	ND	0.52	0.13	ND	0.30	0.076	
75-71-8	Dichlorodifluoromethane (CFC 12)	ND	0.52	0.087	ND	0.11	0.018	
74-87-3	Chloromethane	ND	0.20	0.086	ND	0.097	0.042	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	0.51	0.084	ND	0.073	0.012	
75-01-4	Vinyl Chloride	ND	0.10	0.057	ND	0.039	0.022	
106-99-0	1,3-Butadiene	ND	0.21	0.088	ND	0.095	0.040	
74-83-9	Bromomethane	ND	0.20	0.074	ND	0.052	0.019	
75-00-3	Chloroethane	ND	0.20	0.066	ND	0.076	0.025	
64-17-5	Ethanol	ND	5.3	0.37	ND	2.8	0.20	
75-05-8	Acetonitrile	ND	0.53	0.13	ND	0.32	0.077	
107-02-8	Acrolein	ND	1.1	0.15	ND	0.48	0.065	
67-64-1	Acetone	ND	5.3	1.2	ND	2.2	0.51	
75-69-4	Trichlorofluoromethane (CFC 11)	ND	0.53	0.081	ND	0.094	0.014	
67-63-0	2-Propanol (Isopropyl Alcohol)	ND	2.1	0.22	ND	0.85	0.090	
107-13-1	Acrylonitrile	ND	0.53	0.11	ND	0.24	0.051	
75-35-4	1,1-Dichloroethene	ND	0.11	0.074	ND	0.028	0.019	
75-65-0	2-Methyl-2-Propanol(tert-Butyl Alcohol)	ND	1.1	0.16	ND	0.36	0.053	
75-09-2	Methylene Chloride	ND	0.53	0.15	ND	0.15	0.043	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	0.53	0.072	ND	0.17	0.023	
76-13-1	Trichlorotrifluoroethane (CFC 113)	ND	0.53	0.076	ND	0.069	0.0099	
75-15-0	Carbon Disulfide	ND	1.1	0.16	ND	0.35	0.051	
156-60-5	trans-1,2-Dichloroethene	ND	0.11	0.074	ND	0.028	0.019	
75-34-3	1,1-Dichloroethane	ND	0.10	0.078	ND	0.025	0.019	
1634-04-4	Methyl tert-Butyl Ether	ND	0.54	0.063	ND	0.15	0.017	

ND = Compound was analyzed for, but not detected above the laboratory detection limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **Eastern Analytical, Inc.**
Client Sample ID: **Method Blank**
Client Project ID: **184530**

ALS Project ID: P1803812
ALS Sample ID: P180731-MB

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16
Analyst: Wida Ang
Sample Type: 6.0 L Summa Canister
Test Notes:

Date Collected: NA
Date Received: NA
Date Analyzed: 7/31/18
Volume(s) Analyzed: 1.00 Liter(s)

Container Dilution Factor: 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
108-05-4	Vinyl Acetate	ND	5.3	1.2	ND	1.5	0.34	
78-93-3	2-Butanone (MEK)	ND	1.1	0.11	ND	0.37	0.037	
156-59-2	cis-1,2-Dichloroethene	ND	0.11	0.075	ND	0.028	0.019	
108-20-3	Diisopropyl Ether	ND	0.53	0.070	ND	0.13	0.017	
141-78-6	Ethyl Acetate	ND	1.1	0.28	ND	0.31	0.078	
110-54-3	n-Hexane	ND	0.53	0.11	ND	0.15	0.031	
67-66-3	Chloroform	ND	0.11	0.071	ND	0.023	0.015	
109-99-9	Tetrahydrofuran (THF)	ND	0.53	0.067	ND	0.18	0.023	
637-92-3	Ethyl tert-Butyl Ether	ND	0.53	0.064	ND	0.13	0.015	
107-06-2	1,2-Dichloroethane	ND	0.11	0.059	ND	0.027	0.015	
71-55-6	1,1,1-Trichloroethane	ND	0.11	0.066	ND	0.020	0.012	
108-21-4	Isopropyl Acetate	ND	1.1	0.17	ND	0.26	0.041	
71-36-3	1-Butanol	ND	1.1	0.14	ND	0.36	0.046	
71-43-2	Benzene	ND	0.11	0.077	ND	0.034	0.024	
56-23-5	Carbon Tetrachloride	ND	0.11	0.074	ND	0.017	0.012	
110-82-7	Cyclohexane	ND	1.1	0.15	ND	0.32	0.044	
994-05-8	tert-Amyl Methyl Ether	ND	0.53	0.065	ND	0.13	0.016	
78-87-5	1,2-Dichloropropane	ND	0.11	0.066	ND	0.024	0.014	
75-27-4	Bromodichloromethane	ND	0.11	0.077	ND	0.016	0.011	
79-01-6	Trichloroethene	ND	0.11	0.072	ND	0.020	0.013	
123-91-1	1,4-Dioxane	ND	0.53	0.063	ND	0.15	0.017	
540-84-1	2,2,4-Trimethylpentane (Isooctane)	ND	0.53	0.080	ND	0.11	0.017	
80-62-6	Methyl Methacrylate	ND	1.1	0.19	ND	0.27	0.046	
142-82-5	n-Heptane	ND	0.53	0.085	ND	0.13	0.021	

ND = Compound was analyzed for, but not detected above the laboratory detection limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **Eastern Analytical, Inc.**
Client Sample ID: **Method Blank**
Client Project ID: **184530**

ALS Project ID: P1803812
ALS Sample ID: P180731-MB

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16
Analyst: Wida Ang
Sample Type: 6.0 L Summa Canister
Test Notes:

Date Collected: NA
Date Received: NA
Date Analyzed: 7/31/18
Volume(s) Analyzed: 1.00 Liter(s)

Container Dilution Factor: 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
10061-01-5	cis-1,3-Dichloropropene	ND	0.56	0.083	ND	0.12	0.018	
108-10-1	4-Methyl-2-pentanone	ND	0.53	0.073	ND	0.13	0.018	
10061-02-6	trans-1,3-Dichloropropene	ND	0.53	0.11	ND	0.12	0.024	
79-00-5	1,1,2-Trichloroethane	ND	0.11	0.054	ND	0.020	0.0099	
108-88-3	Toluene	ND	0.53	0.065	ND	0.14	0.017	
591-78-6	2-Hexanone	ND	0.53	0.066	ND	0.13	0.016	
124-48-1	Dibromochloromethane	ND	0.11	0.070	ND	0.013	0.0082	
106-93-4	1,2-Dibromoethane	ND	0.11	0.062	ND	0.014	0.0081	
123-86-4	n-Butyl Acetate	ND	0.53	0.073	ND	0.11	0.015	
111-65-9	n-Octane	ND	0.53	0.12	ND	0.11	0.026	
127-18-4	Tetrachloroethene	ND	0.11	0.069	ND	0.016	0.010	
108-90-7	Chlorobenzene	ND	0.53	0.071	ND	0.12	0.015	
100-41-4	Ethylbenzene	ND	0.53	0.075	ND	0.12	0.017	
179601-23-1	m,p-Xylenes	ND	1.1	0.14	ND	0.25	0.032	
75-25-2	Bromoform	ND	0.53	0.11	ND	0.051	0.011	
100-42-5	Styrene	ND	0.53	0.086	ND	0.12	0.020	
95-47-6	o-Xylene	ND	0.53	0.077	ND	0.12	0.018	
111-84-2	n-Nonane	ND	0.53	0.089	ND	0.10	0.017	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.11	0.074	ND	0.016	0.011	
98-82-8	Cumene	ND	0.53	0.077	ND	0.11	0.016	
80-56-8	alpha-Pinene	ND	0.52	0.082	ND	0.093	0.015	
103-65-1	n-Propylbenzene	ND	0.53	0.077	ND	0.11	0.016	
620-14-4	3-Ethyltoluene	ND	0.53	0.072	ND	0.11	0.015	

ND = Compound was analyzed for, but not detected above the laboratory detection limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **Eastern Analytical, Inc.**
Client Sample ID: **Method Blank**
Client Project ID: **184530**

ALS Project ID: P1803812
ALS Sample ID: P180731-MB

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16
Analyst: Wida Ang
Sample Type: 6.0 L Summa Canister
Test Notes:

Date Collected: NA
Date Received: NA
Date Analyzed: 7/31/18
Volume(s) Analyzed: 1.00 Liter(s)

Container Dilution Factor: 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
622-96-8	4-Ethyltoluene	ND	0.52	0.085	ND	0.11	0.017	
108-67-8	1,3,5-Trimethylbenzene	ND	0.52	0.077	ND	0.11	0.016	
98-83-9	alpha-Methylstyrene	ND	0.52	0.085	ND	0.11	0.018	
611-14-3	2-Ethyltoluene	ND	0.53	0.068	ND	0.11	0.014	
95-63-6	1,2,4-Trimethylbenzene	ND	0.53	0.074	ND	0.11	0.015	
124-18-5	n-Decane	ND	0.53	0.072	ND	0.091	0.012	
100-44-7	Benzyl Chloride	ND	1.1	0.12	ND	0.21	0.023	
541-73-1	1,3-Dichlorobenzene	ND	0.54	0.080	ND	0.090	0.013	
106-46-7	1,4-Dichlorobenzene	ND	0.53	0.082	ND	0.088	0.014	
135-98-8	sec-Butylbenzene	ND	0.53	0.073	ND	0.097	0.013	
99-87-6	4-Isopropyltoluene (p-Cymene)	ND	0.51	0.081	ND	0.093	0.015	
526-73-8	1,2,3-Trimethylbenzene	ND	0.51	0.073	ND	0.10	0.015	
95-50-1	1,2-Dichlorobenzene	ND	0.54	0.079	ND	0.090	0.013	
5989-27-5	d-Limonene	ND	0.50	0.11	ND	0.090	0.020	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.53	0.10	ND	0.055	0.010	
1120-21-4	n-Undecane	ND	0.53	0.14	ND	0.083	0.022	
120-82-1	1,2,4-Trichlorobenzene	ND	0.55	0.13	ND	0.074	0.018	
91-20-3	Naphthalene	ND	0.53	0.13	ND	0.10	0.025	
112-40-3	n-Dodecane	ND	0.53	0.15	ND	0.076	0.022	
87-68-3	Hexachlorobutadiene	ND	0.53	0.11	ND	0.050	0.010	
108-94-1	Cyclohexanone	ND	0.52	0.083	ND	0.13	0.021	
98-06-6	tert-Butylbenzene	ND	0.53	0.080	ND	0.097	0.015	
104-51-8	n-Butylbenzene	ND	0.53	0.077	ND	0.097	0.014	

ND = Compound was analyzed for, but not detected above the laboratory detection limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

SURROGATE SPIKE RECOVERY RESULTS

Client: **Eastern Analytical, Inc.**
Client Project ID: **184530**

ALS Project ID: P1803812

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16
Analyst: Wida Ang
Sample Type: 6.0 L Summa Canister(s)
Test Notes:

Date(s) Collected: 7/18/18
Date(s) Received: 7/23/18
Date(s) Analyzed: 7/31 - 8/1/18

Client Sample ID	ALS Sample ID	1,2-Dichloroethane-d4 Percent Recovered	Toluene-d8 Percent Recovered	Bromofluorobenzene Percent Recovered	Acceptance Limits	Data Qualifier
Method Blank	P180731-MB	**105**	**93**	**102**	70-130	
Lab Control Sample	P180731-LCS	**104**	**92**	**101**	70-130	
Subslab-1	P1803812-001	**103**	**93**	**100**	70-130	
Subslab-2	P1803812-002	**102**	**93**	**100**	70-130	
Subslab-3	P1803812-003	**104**	**94**	**100**	70-130	
Subslab-4	P1803812-004	**103**	**94**	**100**	70-130	
Outdoor Ambient-1	P1803812-005	**104**	**94**	**100**	70-130	

Surrogate percent recovery is verified and accepted based on the on-column result.
Reported results are shown in concentration units and as a result of the calculation, may vary slightly from the on-column percent recovery.

ALS ENVIRONMENTAL

LABORATORY CONTROL SAMPLE SUMMARY

Client: **Eastern Analytical, Inc.**
Client Sample ID: **Lab Control Sample**
Client Project ID: **184530**

ALS Project ID: P1803812
ALS Sample ID: P180731-LCS

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16
Analyst: Wida Ang
Sample Type: 6.0 L Summa Canister
Test Notes:

Date Collected: NA
Date Received: NA
Date Analyzed: 7/31/18
Volume(s) Analyzed: 0.125 Liter(s)

CAS #	Compound	Spike Amount µg/m³	Result µg/m³	% Recovery	ALS Acceptance Limits	Data Qualifier
115-07-1	Propene	210	**177**	**84**	54-133	
75-71-8	Dichlorodifluoromethane (CFC 12)	213	**168**	**79**	64-115	
74-87-3	Chloromethane	210	**174**	**83**	47-140	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	211	**167**	**79**	60-112	
75-01-4	Vinyl Chloride	211	**183**	**87**	63-127	
106-99-0	1,3-Butadiene	210	**190**	**90**	57-149	
74-83-9	Bromomethane	210	**171**	**81**	63-132	
75-00-3	Chloroethane	210	**174**	**83**	68-129	
64-17-5	Ethanol	1,040	**873**	**84**	62-131	
75-05-8	Acetonitrile	210	**170**	**81**	56-136	
107-02-8	Acrolein	209	**177**	**85**	60-132	
67-64-1	Acetone	1,050	**824**	**78**	63-124	
75-69-4	Trichlorofluoromethane (CFC 11)	208	**165**	**79**	65-113	
67-63-0	2-Propanol (Isopropyl Alcohol)	422	**352**	**83**	62-135	
107-13-1	Acrylonitrile	212	**179**	**84**	68-138	
75-35-4	1,1-Dichloroethene	213	**173**	**81**	72-118	
75-65-0	2-Methyl-2-Propanol(tert-Butyl Alcohol)	427	**346**	**81**	61-128	
75-09-2	Methylene Chloride	213	**168**	**79**	67-116	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	212	**192**	**91**	61-143	
76-13-1	Trichlorotrifluoroethane (CFC 113)	214	**166**	**78**	68-113	
75-15-0	Carbon Disulfide	214	**168**	**79**	68-120	
156-60-5	trans-1,2-Dichloroethene	214	**184**	**86**	71-125	
75-34-3	1,1-Dichloroethane	212	**175**	**83**	68-118	
1634-04-4	Methyl tert-Butyl Ether	213	**175**	**82**	60-123	

Laboratory Control Sample percent recovery is verified and accepted based on the on-column result.
Reported results are shown in concentration units and as a result of the calculation, may vary slightly.

ALS ENVIRONMENTAL

LABORATORY CONTROL SAMPLE SUMMARY

Client: **Eastern Analytical, Inc.**
Client Sample ID: **Lab Control Sample** ALS Project ID: P1803812
Client Project ID: **184530** ALS Sample ID: P180731-LCS

Test Code: EPA TO-15 Date Collected: NA
Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16 Date Received: NA
Analyst: Wida Ang Date Analyzed: 7/31/18
Sample Type: 6.0 L Summa Canister Volume(s) Analyzed: 0.125 Liter(s)
Test Notes:

CAS #	Compound	Spike Amount µg/m³	Result µg/m³	% Recovery	ALS Acceptance Limits	Data Qualifier
108-05-4	Vinyl Acetate	1,060	**967**	**91**	73-135	
78-93-3	2-Butanone (MEK)	212	**179**	**84**	70-129	
156-59-2	cis-1,2-Dichloroethene	212	**181**	**85**	69-121	
108-20-3	Diisopropyl Ether	213	**168**	**79**	65-117	
141-78-6	Ethyl Acetate	426	**362**	**85**	66-140	
110-54-3	n-Hexane	213	**169**	**79**	61-124	
67-66-3	Chloroform	212	**170**	**80**	69-113	
109-99-9	Tetrahydrofuran (THF)	212	**175**	**83**	66-121	
637-92-3	Ethyl tert-Butyl Ether	212	**176**	**83**	69-120	
107-06-2	1,2-Dichloroethane	212	**176**	**83**	62-120	
71-55-6	1,1,1-Trichloroethane	212	**170**	**80**	65-116	
108-21-4	Isopropyl Acetate	426	**357**	**84**	70-126	
71-36-3	1-Butanol	426	**336**	**79**	62-141	
71-43-2	Benzene	213	**170**	**80**	66-111	
56-23-5	Carbon Tetrachloride	214	**173**	**81**	64-122	
110-82-7	Cyclohexane	425	**351**	**83**	69-115	
994-05-8	tert-Amyl Methyl Ether	212	**179**	**84**	68-119	
78-87-5	1,2-Dichloropropane	212	**180**	**85**	69-121	
75-27-4	Bromodichloromethane	214	**179**	**84**	69-123	
79-01-6	Trichloroethene	212	**169**	**80**	69-112	
123-91-1	1,4-Dioxane	213	**175**	**82**	74-123	
540-84-1	2,2,4-Trimethylpentane (Isooctane)	212	**178**	**84**	67-120	
80-62-6	Methyl Methacrylate	424	**361**	**85**	75-125	
142-82-5	n-Heptane	213	**176**	**83**	68-118	

Laboratory Control Sample percent recovery is verified and accepted based on the on-column result.
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ALS ENVIRONMENTAL

LABORATORY CONTROL SAMPLE SUMMARY

Client: **Eastern Analytical, Inc.**
Client Sample ID: **Lab Control Sample**
Client Project ID: **184530**

ALS Project ID: P1803812
ALS Sample ID: P180731-LCS

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16
Analyst: Wida Ang
Sample Type: 6.0 L Summa Canister
Test Notes:

Date Collected: NA
Date Received: NA
Date Analyzed: 7/31/18
Volume(s) Analyzed: 0.125 Liter(s)

CAS #	Compound	Spike Amount µg/m³	Result µg/m³	% Recovery	ALS Acceptance Limits	Data Qualifier
10061-01-5	cis-1,3-Dichloropropene	208	**185**	**89**	74-129	
108-10-1	4-Methyl-2-pentanone	213	**181**	**85**	66-138	
10061-02-6	trans-1,3-Dichloropropene	213	**191**	**90**	75-130	
79-00-5	1,1,2-Trichloroethane	212	**173**	**82**	73-117	
108-88-3	Toluene	211	**152**	**72**	66-114	
591-78-6	2-Hexanone	211	**166**	**79**	58-146	
124-48-1	Dibromochloromethane	212	**164**	**77**	67-130	
106-93-4	1,2-Dibromoethane	211	**159**	**75**	70-127	
123-86-4	n-Butyl Acetate	215	**169**	**79**	62-140	
111-65-9	n-Octane	212	**167**	**79**	65-121	
127-18-4	Tetrachloroethene	212	**154**	**73**	62-119	
108-90-7	Chlorobenzene	212	**159**	**75**	66-115	
100-41-4	Ethylbenzene	212	**159**	**75**	69-117	
179601-23-1	m,p-Xylenes	424	**318**	**75**	67-117	
75-25-2	Bromoform	212	**165**	**78**	67-135	
100-42-5	Styrene	211	**166**	**79**	70-128	
95-47-6	o-Xylene	211	**158**	**75**	67-118	
111-84-2	n-Nonane	212	**170**	**80**	61-127	
79-34-5	1,1,2,2-Tetrachloroethane	212	**163**	**77**	70-125	
98-82-8	Cumene	212	**159**	**75**	68-116	
80-56-8	alpha-Pinene	213	**166**	**78**	69-122	
103-65-1	n-Propylbenzene	214	**164**	**77**	70-118	
620-14-4	3-Ethyltoluene	212	**164**	**77**	68-117	

Laboratory Control Sample percent recovery is verified and accepted based on the on-column result.
Reported results are shown in concentration units and as a result of the calculation, may vary slightly.

ALS ENVIRONMENTAL

LABORATORY CONTROL SAMPLE SUMMARY

Client: **Eastern Analytical, Inc.**
Client Sample ID: **Lab Control Sample**
Client Project ID: **184530**

ALS Project ID: P1803812
ALS Sample ID: P180731-LCS

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16
Analyst: Wida Ang
Sample Type: 6.0 L Summa Canister
Test Notes:

Date Collected: NA
Date Received: NA
Date Analyzed: 7/31/18
Volume(s) Analyzed: 0.125 Liter(s)

CAS #	Compound	Spike Amount µg/m³	Result µg/m³	% Recovery	ALS Acceptance Limits	Data Qualifier
622-96-8	4-Ethyltoluene	211	**161**	**76**	69-124	
108-67-8	1,3,5-Trimethylbenzene	212	**161**	**76**	65-117	
98-83-9	alpha-Methylstyrene	212	**169**	**80**	71-132	
611-14-3	2-Ethyltoluene	214	**163**	**76**	67-119	
95-63-6	1,2,4-Trimethylbenzene	212	**163**	**77**	67-124	
124-18-5	n-Decane	213	**178**	**84**	63-129	
100-44-7	Benzyl Chloride	212	**193**	**91**	75-142	
541-73-1	1,3-Dichlorobenzene	212	**162**	**76**	70-124	
106-46-7	1,4-Dichlorobenzene	214	**162**	**76**	63-124	
135-98-8	sec-Butylbenzene	213	**165**	**77**	68-119	
99-87-6	4-Isopropyltoluene (p-Cymene)	213	**162**	**76**	65-122	
526-73-8	1,2,3-Trimethylbenzene	213	**167**	**78**	66-128	
95-50-1	1,2-Dichlorobenzene	214	**165**	**77**	66-125	
5989-27-5	d-Limonene	213	**175**	**82**	64-135	
96-12-8	1,2-Dibromo-3-chloropropane	210	**175**	**83**	73-136	
1120-21-4	n-Undecane	214	**187**	**87**	67-135	
120-82-1	1,2,4-Trichlorobenzene	218	**184**	**84**	70-141	
91-20-3	Naphthalene	209	**194**	**93**	71-146	
112-40-3	n-Dodecane	215	**191**	**89**	69-152	
87-68-3	Hexachlorobutadiene	212	**161**	**76**	63-126	
108-94-1	Cyclohexanone	209	**152**	**73**	58-138	
98-06-6	tert-Butylbenzene	212	**160**	**75**	65-121	
104-51-8	n-Butylbenzene	213	**171**	**80**	71-125	

Laboratory Control Sample percent recovery is verified and accepted based on the on-column result.
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Response Factor Report GCMS-16

Method Path : I:\MS16\METHODS\
Method File : R16071718.M
Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
Last Update : Tue Jul 17 14:27:32 2018
Response Via : Initial Calibration

Calibration Files
0.10=07171807.D 0.20=07171808.D 0.40=07171809.D 1.0 =07171810.D 5.0 =07171811.D 25 =07171812.D 50 =07171813.D
100 =07171814.D

		Compound	0.10	0.20	0.40	1.0	5.0	25	50	100	Avg	%RSD
1)	IR	Bromochloromethane...	----------ISTD----------									
2)	T	Propene		1.429	1.456	1.494	1.420	1.098	1.079	1.079	1.294	15.18
3)	T	Dichlorodifluo...	3.025	2.630	2.739	2.592	2.465	2.126	2.000	1.825	2.425	16.78
4)	T	Chloromethane	2.349	2.114	2.083	1.803	1.692	1.663	1.446	0.996	1.768	24.12
5)	T	1,2-Dichloro-1...	1.699	1.493	1.546	1.458	1.382	1.273	1.207	1.165	1.403	12.97
6)	T	Vinyl Chloride	2.209	1.989	2.045	1.896	1.818	1.653	1.559	1.464	1.829	13.99
7)	T	1,3-Butadiene	1.548	1.398	1.364	1.308	1.289	1.222	1.154	1.068	1.294	11.55
8)	T	Bromomethane	1.601	1.393	1.435	1.310	1.275	1.173	1.118	1.065	1.296	13.77
9)	T	Chloroethane	1.215	1.042	1.085	1.014	1.012	0.860	0.816	0.765	0.976	15.46
10)	T	Ethanol			0.994	0.917	0.972	0.752	0.696	0.627	0.826	18.76
11)	T	Acetonitrile		2.697	2.779	2.652	2.590	1.986	1.879	1.774	2.337	18.64
12)	T	Acrolein		0.804	0.897	0.889	0.941	0.730	0.700	0.662	0.803	13.55
13)	T	Acetone		1.136	1.164	1.138	1.125	0.803	0.728	0.636	0.962	23.81
14)	T	Trichlorofluor...	2.535	2.218	2.306	2.226	2.224	1.823	1.757	1.698	2.098	14.33
15)	T	2-Propanol (Is...		3.295	3.458	3.289	3.466	2.735	2.395	1.809	2.921	21.69
16)	T	Acrylonitrile	2.037	1.840	1.925	1.971	1.930	1.540	1.469	1.399	1.764	14.32
17)	T	1,1-Dichloroet...	1.612	1.359	1.437	1.362	1.349	1.178	1.141	1.095	1.317	13.02
18)	T	2-Methyl-2-Pro...		3.383	3.515	3.482	3.377	2.832	2.651	1.922	3.023	19.54
19)	T	Methylene Chlo...	1.832	1.552	1.573	1.494	1.383	1.216	1.167	1.095	1.414	17.50
20)	T	3-Chloro-1-pro...	2.087	1.793	1.871	1.843	1.738	1.523	1.450	1.345	1.706	14.51
21)	T	Trichlorotrifl...	1.596	1.381	1.423	1.341	1.302	1.149	1.124	1.075	1.299	13.49
22)	T	Carbon Disulfide			5.821	5.652	5.232	4.447	4.249	3.960	4.894	15.93
23)	T	trans-1,2-Dich...	2.193	1.887	2.030	1.869	1.738	1.583	1.525	1.439	1.783	14.59
24)	T	1,1-Dichloroet...	2.894	2.451	2.575	2.470	2.207	1.982	1.897	1.789	2.283	16.65
25)	T	Methyl tert-Bu...	4.516	4.035	4.241	4.149	3.703	3.319	3.214	3.006	3.773	14.49
26)	T	Vinyl Acetate	0.294	0.291	0.308	0.302	0.291	0.270	0.254	0.225	0.279	10.08
27)	T	2-Butanone (MEK)	1.050	0.962	1.015	1.005	0.898	0.793	0.766	0.717	0.901	14.14
28)	T	cis-1,2-Dichlo...	2.084	1.835	1.964	1.866	1.670	1.509	1.446	1.372	1.718	15.07
29)	T	Diisopropyl Ether		1.182	1.216	1.168	1.037	0.891	0.836	0.755	1.012	18.36
30)	T	Ethyl Acetate	0.538	0.503	0.548	0.538	0.486	0.414	0.382	0.332	0.468	17.44
31)	T	n-Hexane		2.288	2.471	2.431	2.008	1.625	1.543	1.365	1.961	23.11
32)	T	Chloroform	2.756	2.322	2.490	2.381	2.149	1.934	1.857	1.760	2.206	15.56
33)	S	1,2-Dichloroet...	1.198	1.205	1.219	1.168	1.208	1.209	1.201	1.196	1.201	1.26
34)	T	Tetrahydrofura...	1.164	0.947	1.022	0.950	0.881	0.788	0.761	0.716	0.904	16.48
35)	T	Ethyl tert-But...	1.853	1.621	1.707	1.587	1.505	1.359	1.308	1.229	1.521	13.97
36)	T	1,2-Dichloroet...	1.804	1.561	1.671	1.584	1.453	1.310	1.279	1.225	1.486	13.79
37)	IR	1,4-Difluorobenzen...	----------ISTD----------									
38)	T	1,1,1-Trichlor...	0.542	0.458	0.483	0.460	0.424	0.390	0.377	0.362	0.437	13.84
39)	T	Isopropyl Acetate	0.240	0.211	0.224	0.214	0.194	0.169	0.156	0.140	0.194	18.20
40)	T	1-Butanol		0.334	0.369	0.360	0.354	0.271	0.251	0.215	0.308	19.92
41)	T	Benzene	1.736	1.455	1.480	1.374	1.218	1.080	1.015	0.886	1.281	22.02
42)	T	Carbon Tetrach...	0.453	0.410	0.417	0.407	0.375	0.352	0.341	0.329	0.385	11.17

WA 7/18/18

Method Path : I:\MS16\METHODS\
Method File : R16071718.M
Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)

43)	T	Cyclohexane	0.593	0.515	0.535	0.507	0.454	0.404	0.377	0.336	0.465	18.83
44)	T	tert-Amyl Meth...	1.062	0.920	0.958	0.930	0.848	0.772	0.736	0.676	0.863	14.93
45)	T	1,2-Dichloropr...	0.383	0.326	0.350	0.333	0.296	0.266	0.254	0.237	0.306	16.68
46)	T	Bromodichlorom...	0.461	0.414	0.434	0.422	0.391	0.361	0.349	0.327	0.395	11.69
47)	T	Trichloroethene	0.457	0.388	0.404	0.392	0.351	0.320	0.309	0.290	0.364	15.54
48)	T	1,4-Dioxane	0.309	0.282	0.295	0.282	0.264	0.239	0.227	0.206	0.263	13.58
49)	T	2,2,4-Trimethy...	1.657	1.401	1.465	1.383	1.218	1.081	1.002	0.889	1.262	20.59
50)	T	Methyl Methacr...	0.148	0.131	0.142	0.139	0.131	0.118	0.114	0.105	0.128	11.57
51)	T	n-Heptane		0.325	0.346	0.329	0.284	0.245	0.234	0.218	0.283	18.18
52)	T	cis-1,3-Dichlo...	0.569	0.499	0.535	0.546	0.485	0.446	0.429	0.400	0.489	12.30
53)	T	4-Methyl-2-pen...	0.329	0.295	0.319	0.325	0.285	0.252	0.236	0.210	0.281	15.78
54)	T	trans-1,3-Dich...	0.458	0.419	0.462	0.475	0.428	0.406	0.392	0.373	0.427	8.46
55)	T	1,1,2-Trichlor...	0.381	0.333	0.351	0.352	0.307	0.281	0.270	0.252	0.316	14.46
56)	IR	Chlorobenzene-d5 (...	----------ISTD----------									
57)	S	Toluene-d8 (SS2)	2.044	2.058	1.996	2.043	2.060	2.052	2.077	2.088	2.052	1.35
58)	T	Toluene		3.648	3.522	3.418	3.142	2.779	2.692	2.461	3.095	14.79
59)	T	2-Hexanone	1.814	1.600	1.753	1.772	1.570	1.366	1.292	1.161	1.541	15.79
60)	T	Dibromochlorom...	1.014	0.930	0.962	0.925	0.920	0.856	0.841	0.802	0.906	7.66
61)	T	1,2-Dibromoethane	1.028	0.926	0.969	0.937	0.893	0.822	0.799	0.758	0.891	10.31
62)	T	n-Butyl Acetate	2.050	1.809	1.968	1.894	1.771	1.551	1.464	1.313	1.728	15.01
63)	T	n-Octane	0.742	0.690	0.707	0.665	0.609	0.529	0.502	0.451	0.612	17.43
64)	T	Tetrachloroethene	1.195	1.061	1.066	0.977	0.956	0.864	0.845	0.793	0.970	13.87
65)	T	Chlorobenzene	2.670	2.318	2.374	2.257	2.132	1.922	1.853	1.752	2.160	14.20
66)	T	Ethylbenzene	4.372	3.823	3.913	3.805	3.535	3.160	3.013	2.737	3.545	15.25
67)	T	m- & p-Xylenes	3.373	2.915	2.969	2.880	2.658	2.355	2.215	1.964	2.666	17.32
68)	T	Bromoform	0.850	0.796	0.808	0.799	0.822	0.792	0.776	0.740	0.798	4.05
69)	T	Styrene	2.522	2.241	2.383	2.323	2.286	2.083	1.977	1.787	2.200	10.80
70)	T	o-Xylene	3.456	2.992	3.032	2.931	2.724	2.405	2.247	1.974	2.720	17.78
71)	T	n-Nonane	1.647	1.493	1.606	1.559	1.336	1.137	1.019	0.856	1.332	22.26
72)	T	1,1,2,2-Tetrac...	1.628	1.474	1.518	1.508	1.395	1.238	1.146	0.989	1.362	15.97
73)	S	Bromofluoroben...	0.817	0.808	0.784	0.782	0.820	0.822	0.818	0.814	0.808	1.97
74)	T	Cumene	4.653	3.903	3.985	3.805	3.596	3.199	3.008	2.654	3.600	17.56
75)	T	alpha-Pinene	2.103	1.922	1.971	1.885	1.846	1.670	1.574	1.409	1.797	12.72
76)	T	n-Propylbenzene	5.288	4.631	4.762	4.354	4.253	3.745	3.494	3.032	4.195	17.52
77)	T	3-Ethyltoluene	4.316	3.837	3.926	3.634	3.571	3.385	3.040	2.807	3.565	13.64
78)	T	4-Ethyltoluene	4.320	3.725	3.778	3.514	3.413	2.804	2.713	2.278	3.318	20.19
79)	T	1,3,5-Trimethy...	3.623	3.157	3.175	2.954	2.896	2.589	2.420	2.158	2.871	16.32
80)	T	alpha-Methylst...	1.754	1.585	1.665	1.610	1.639	1.511	1.410	1.259	1.554	10.12
81)	T	2-Ethyltoluene	4.344	3.787	3.851	3.541	3.454	3.029	2.817	2.479	3.413	17.83
82)	T	1,2,4-Trimethy...	3.485	3.107	3.185	2.855	2.933	2.560	2.335	2.005	2.808	17.23
83)	T	n-Decane	1.795	1.599	1.698	1.460	1.472	1.263	1.144	0.967	1.425	19.85
84)	T	Benzyl Chloride	2.165	2.044	2.242	2.110	2.495	2.332	2.210	1.954	2.194	7.72
85)	T	1,3-Dichlorobe...	2.226	1.987	2.021	1.792	1.861	1.651	1.527	1.366	1.804	15.61
86)	T	1,4-Dichlorobe...	2.250	2.029	1.983	1.793	1.870	1.685	1.588	1.426	1.828	14.40
87)	T	sec-Butylbenzene	4.818	4.272	4.396	3.949	3.962	3.454	3.149	2.719	3.840	18.05
88)	T	4-Isopropyltol...	4.420	3.970	4.131	3.668	3.754	3.208	2.877	2.417	3.556	18.96
89)	T	1,2,3-Trimethy...	3.467	3.146	3.176	2.855	2.953	2.566	2.323	1.993	2.810	17.36
90)	T	1,2-Dichlorobe...	2.182	1.872	1.891	1.718	1.765	1.540	1.400	1.221	1.699	17.92
91)	T	d-Limonene	1.269	1.182	1.214	1.124	1.142	0.990	0.870	0.719	1.064	17.77
92)	T	1,2-Dibromo-3-...	0.667	0.624	0.663	0.633	0.691	0.637	0.616	0.570	0.638	5.81
93)	T	n-Undecane	1.705	1.500	1.539	1.467	1.617	1.372	1.234	1.030	1.433	15.15
94)	T	1,2,4-Trichlor...	1.316	1.139	1.162	1.088	1.469	1.330	1.275	1.167	1.243	10.18

Method Path : I:\MS16\METHODS\
Method File : R16071718.M
Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)

95)	T	Naphthalene			2.997	2.755	4.763	4.104	3.809	3.267	3.616	20.83
96)	T	n-Dodecane	1.284	1.193	1.317	1.270	1.636	1.377	1.232	1.026	1.292	13.42
97)	T	Hexachlorobuta...	1.060	0.942	0.925	0.864	0.941	0.853	0.821	0.754	0.895	10.39
98)	T	Cyclohexanone	1.304	1.181	1.220	1.217	1.127	0.977	0.924	0.829	1.097	15.28
99)	T	tert-Butylbenzene	3.598	3.181	3.230	2.884	2.874	2.482	2.257	1.941	2.806	19.57
100)	T	n-Butylbenzene	3.608	3.291	3.365	3.042	3.199	2.800	2.568	2.203	3.009	15.33

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File: I:\MS16\DATA\2018 07\31\07311828.D
Acq On : 31 Jul 2018 20:28 Operator: WA
Sample : CCV2 R16073118 25ng
Misc : S31-04201801/S31-07091803 (8/7)
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Aug 01 06:28:22 2018
Quant Method : I:\MS16\METHODS\R16071718.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Tue Jul 17 14:27:32 2018
Response via : Initial Calibration
DataAcq Meth:TO15.M

WA 8/1/18

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.33min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	IR	Bromochloromethane (IS1)	1.000	1.000	0.0	127	-0.01
2	T	Propene	1.351	1.153	14.7	133	0.00
3	T	Dichlorodifluoromethane (CF	2.425	2.018	16.8	120	-0.01
4	T	Chloromethane	1.768	1.619	8.4	123	-0.01
5	T	1,2-Dichloro-1,1,2,2-tetraf	1.403	1.181	15.8	118	-0.01
6	T	Vinyl Chloride	1.829	1.687	7.8	129	-0.01
7	T	1,3-Butadiene	1.294	1.245	3.8	129	-0.02
8	T	Bromomethane	1.296	1.112	14.2	120	-0.02
9	T	Chloroethane	0.976	0.856	12.3	126	-0.02
10	T	Ethanol	0.894	0.789	11.7	133	-0.07
11	T	Acetonitrile	2.423	2.091	13.7	133	-0.05
12	T	Acrolein	0.828	0.736	11.1	128	-0.03
13	T	Acetone	1.007	0.821	18.5	129	-0.04
14	T	Trichlorofluoromethane	2.098	1.723	17.9	120	-0.02
15	T	2-Propanol (Isopropanol)	3.030	2.787	8.0	129	-0.05
16	T	Acrylonitrile	1.764	1.579	10.5	130	-0.03
17	T	1,1-Dichloroethene	1.317	1.124	14.7	121	-0.02
18	T	2-Methyl-2-Propanol (tert-B	3.135	2.856	8.9	128	-0.05
19	T	Methylene Chloride	1.414	1.178	16.7	123	-0.02
20	T	3-Chloro-1-propene (Allyl C	1.706	1.590	6.8	132	-0.02
21	T	Trichlorotrifluoroethane	1.299	1.063	18.2	117	-0.01
22	T	Carbon Disulfide	5.278	4.365	17.3	124	-0.02
23	T	trans-1,2-Dichloroethene	1.783	1.593	10.7	127	-0.01
24	T	1,1-Dichloroethane	2.283	1.979	13.3	126	-0.02
25	T	Methyl tert-Butyl Ether	3.773	3.277	13.1	125	-0.01
26	T	Vinyl Acetate	0.279	0.270	3.2	127	-0.02
27	T	2-Butanone (MEK)	0.901	0.806	10.5	129	-0.02
28	T	cis-1,2-Dichloroethene	1.718	1.539	10.4	129	-0.01
29	T	Diisopropyl Ether	1.074	0.885	17.6	126	-0.02
30	T	Ethyl Acetate	0.468	0.416	11.1	127	-0.02
31	T	n-Hexane	2.055	1.686	18.0	131	0.00
32	T	Chloroform	2.206	1.870	15.2	122	-0.02
33	S	1,2-Dichloroethane-d4(SS1)	1.201	1.256	-4.6	132	-0.01
34	T	Tetrahydrofuran (THF)	0.904	0.785	13.2	126	-0.01
35	T	Ethyl tert-Butyl Ether	1.521	1.331	12.5	124	0.00
36	T	1,2-Dichloroethane	1.486	1.305	12.2	126	-0.01
37	IR	1,4-Difluorobenzene (IS2)	1.000	1.000	0.0	126	0.00
38	T	1,1,1-Trichloroethane	0.437	0.371	15.1	120	0.00
39	T	Isopropyl Acetate	0.194	0.170	12.4	127	-0.01
40	T	1-Butanol	0.317	0.290	8.5	135	-0.03
41	T	Benzene	1.281	1.070	16.5	125	-0.01
42	T	Carbon Tetrachloride	0.385	0.333	13.5	119	-0.01
43	T	Cyclohexane	0.465	0.404	13.1	126	-0.01
44	T	tert-Amyl Methyl Ether	0.863	0.776	10.1	127	0.00
45	T	1,2-Dichloropropane	0.306	0.272	11.1	129	-0.01
46	T	Bromodichloromethane	0.395	0.347	12.2	121	-0.01
47	T	Trichloroethene	0.364	0.303	16.8	120	0.00
48	T	1,4-Dioxane	0.263	0.230	12.5	122	0.00
49	T	2,2,4-Trimethylpentane (Iso	1.262	1.111	12.0	130	0.00
50	T	Methyl Methacrylate	0.128	0.115	10.2	123	-0.01
51	T	n-Heptane	0.296	0.254	14.2	131	0.00
52	T	cis-1,3-Dichloropropene	0.489	0.449	8.2	127	0.00
53	T	4-Methyl-2-pentanone	0.281	0.260	7.5	130	0.00
54	T	trans-1,3-Dichloropropene	0.427	0.404	5.4	126	0.00

Evaluate Continuing Calibration Report

Data File: I:\MS16\DATA\2018 07\31\07311828.D
Acq On : 31 Jul 2018 20:28 Operator: WA
Sample : CCV2 R16073118 25ng
Misc : S31-04201801/S31-07091803 (8/7)
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Aug 01 06:28:22 2018
Quant Method : I:\MS16\METHODS\R16071718.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Tue Jul 17 14:27:32 2018
Response via : Initial Calibration
DataAcq Meth:TO15.M

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.33min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
55	T	1,1,2-Trichloroethane	0.316	0.269	14.9	121	0.00
56	IR	Chlorobenzene-d5 (IS3)	1.000	1.000	0.0	139	0.00
57	S	Toluene-d8 (SS2)	2.052	1.898	7.5	129	0.00
58	T	Toluene	3.272	2.477	24.3	124	0.00
59	T	2-Hexanone	1.541	1.329	13.8	136	-0.01
60	T	Dibromochloromethane	0.906	0.738	18.5	120	0.00
61	T	1,2-Dibromoethane	0.891	0.704	21.0	119	0.00
62	T	n-Butyl Acetate	1.728	1.504	13.0	135	0.00
63	T	n-Octane	0.612	0.504	17.6	133	0.00
64	T	Tetrachloroethene	0.970	0.736	24.1	119	0.00
65	T	Chlorobenzene	2.160	1.692	21.7	123	0.00
66	T	Ethylbenzene	3.545	2.811	20.7	124	0.00
67	T	m- & p-Xylenes	2.666	2.093	21.5	124	0.00
68	T	Bromoform	0.798	0.661	17.2	116	0.00
69	T	Styrene	2.200	1.826	17.0	122	0.00
70	T	o-Xylene	2.720	2.137	21.4	124	0.00
71	T	n-Nonane	1.332	1.123	15.7	138	0.00
72	T	1,1,2,2-Tetrachloroethane	1.362	1.116	18.1	126	0.00
73	S	Bromofluorobenzene (SS3)	0.808	0.821	-1.6	139	0.00
74	T	Cumene	3.600	2.838	21.2	124	0.00
75	T	alpha-Pinene	1.797	1.482	17.5	124	0.00
76	T	n-Propylbenzene	4.195	3.377	19.5	126	0.00
77	T	3-Ethyltoluene	3.565	2.978	16.5	123	0.00
78	T	4-Ethyltoluene	3.318	2.578	22.3	128	0.00
79	T	1,3,5-Trimethylbenzene	2.871	2.317	19.3	125	0.00
80	T	alpha-Methylstyrene	1.554	1.320	15.1	122	0.00
81	T	2-Ethyltoluene	3.413	2.757	19.2	127	0.00
82	T	1,2,4-Trimethylbenzene	2.808	2.310	17.7	126	0.00
83	T	n-Decane	1.425	1.258	11.7	139	0.00
84	T	Benzyl Chloride	2.194	2.082	5.1	124	0.00
85	T	1,3-Dichlorobenzene	1.804	1.440	20.2	122	0.00
86	T	1,4-Dichlorobenzene	1.828	1.469	19.6	122	0.00
87	T	sec-Butylbenzene	3.840	3.146	18.1	127	0.00
88	T	4-Isopropyltoluene (p-Cymen	3.556	2.900	18.4	126	0.00
89	T	1,2,3-Trimethylbenzene	2.810	2.326	17.2	126	0.00
90	T	1,2-Dichlorobenzene	1.699	1.357	20.1	123	0.00
91	T	d-Limonene	1.064	0.958	10.0	135	0.00
92	T	1,2-Dibromo-3-Chloropropane	0.638	0.553	13.3	121	0.00
93	T	n-Undecane	1.433	1.370	4.4	139	0.00
94	T	1,2,4-Trichlorobenzene	1.243	1.099	11.6	115	0.00
95	T	Naphthalene	3.495	3.530	-1.0	120	0.00
96	T	n-Dodecane	1.292	1.387	-7.4	140	0.00
97	T	Hexachlorobutadiene	0.895	0.713	20.3	116	0.00
98	T	Cyclohexanone	1.097	0.942	14.1	134	-0.01
99	T	tert-Butylbenzene	2.806	2.231	20.5	125	0.00
100	T	n-Butylbenzene	3.009	2.579	14.3	128	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Air - Chain of Custody Record & Analytical Service Request

184530

42

2655 Park Center Drive, Suite A
Simi Valley, California 93065
Phone (805) 526-7161
Fax (805) 526-7270

Requested Turnaround Time in Business Days (Surcharges) please circle
1 Day (100%) 2 Day (75%) 3 Day (50%) 4 Day (35%) 5 Day (25%) 10-Day-Standard

ALS Project No

Company Name & Address (Reporting Information): LE Environmental LLC, 21 N. Main St, Waterbury, VT 05676

Project Name: Main and Congress

Project Number: 18-112

Project Manager: Angela Emerson

P.O. # / Billing Information: 18-112

Phone: 802-917-2001

Fax: N/A

Email Address for Result Reporting: angela@leenv.net

Sampler (Print & Sign): Angela Emerson / Angela Emerson

ALS Contact:

Analysis Method

Client Sample ID	Laboratory ID Number	Date Collected	Time Collected	Canister ID (Bar code # - AC, SC, etc.)	Flow Controller ID (Bar code # - FC #)	Canister Start Pressure "Hg	Canister End Pressure "Hg/psig	Sample Volume	Analysis Method		Comments e.g. Actual Preservative or specific instructions
Subslab-1		7/18/18	1206-1403	SC01874	OA01135	-30"	-7"		TO-15		
Subslab-2		↓	1158-1359	SC01854	OA01991	-30"	-8"		TO-15		
Subslab-3		↓	1017-1216	SC00008	OA01429	-30"	-8.5"		TO-15		
Subslab-4		↓	0943-1139	~~003024~~ SC01178	OA01413	-30"	-9"		TO-15		
Outdoor Ambient-1		↓	1020-1222	SC00357	FCA0068	-30"	-9"		TO-15		

Report Tier Levels - please select

Tier I - Results (Default in not specified) ____
Tier II (Results + QC Summaries ____
Tier III (Results + QC & Calibration Summaries) ✓
Tier IV (Date Validation Package) 10% Surcharge ____

EDD required YES / No
Type: ____ Units: ____

Chain of Custody Seal: (Circle)
INTACT BROKEN ABSENT

Project Requirements (MRLs, QAPP): VT IRULE VI + Indoor Air

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
Angela Emerson	7/20/18	10:50	[illegible]	7-2018	10:50
[illegible]	7-20-18	13:15	[illegible]	7/20/18	13:15

Cooler / Blank Temperature ____ °C

Eastern Analytical, Inc.

professional laboratory and drilling services

Angela Emerson
LE Environmental LLC
21 North Main Street #1
Waterbury , VT 05676

Subject: Laboratory Report

Eastern Analytical, Inc. ID: 185224
Client Identification: Main and Congress | 18-112
Date Received: 8/8/2018

Dear Ms. Emerson :

Enclosed please find the laboratory report for the above identified project. All analyses were performed in accordance with our QA/QC Program. Unless otherwise stated, holding times, preservation techniques, container types, and sample conditions adhered to EPA Protocol. Samples which were collected by Eastern Analytical, Inc. (EAI) were collected in accordance with approved EPA procedures. Eastern Analytical, Inc. certifies that the enclosed test results meet all requirements of NELAP and other applicable state certifications. Please refer to our website at www.easternanalytical.com for a copy of our NELAP certificate and accredited parameters.

The following standard abbreviations and conventions apply to all EAI reports:

Solid samples are reported on a dry weight basis, unless otherwise noted
< : "less than" followed by the reporting limit
> : "greater than" followed by the reporting limit
%R : % Recovery

Eastern Analytical Inc. maintains certification in the following states: Connecticut (PH-0492), Maine (NH005), Massachusetts (M-NH005), New Hampshire/NELAP (1012), Rhode Island (269), Vermont (VT1012) and New York (12072).

The following information is contained within this report: Sample Conditions summary, Analytical Results/Data, Quality Control data (if requested) and copies of the Chain of Custody. This report may not be reproduced except in full, without the the written approval of the laboratory.

If you have any questions regarding the results contained within, please feel free to directly contact me or the chemist(s) who performed the testing in question. Unless otherwise requested, we will dispose of the sample (s) 30 days from the sample receipt date.

We appreciate this opportunity to be of service and look forward to your continued patronage.

Sincerely,

Lorraine Olashaw, Lab Director | 8.16.18 Date | 3 # of pages (excluding cover letter)

LABORATORY REPORT

EAI ID#: **185224**

Client: **LE Environmental LLC**

Client Designation: **Main and Congress | 18-112**

Sample ID:	85 Main	87-91 Main	10 Congress	10 Maiden					
Lab Sample ID:	185224.01	185224.02	185224.03	185224.04					
Matrix:	solid	solid	solid	solid					
Date Sampled:	8/2/18	8/2/18	8/2/18	8/2/18	**Analytical Matrix**	**Units**	**Date of Analysis**	**Method**	**Analyst**
Date Received:	8/8/18	8/8/18	8/8/18	8/8/18					
Lead	< 0.5	**9.7**	< 0.5	< 0.5	TCLPsolid	mg/L	8/14/18	6020	DS

QC REPORT

EAI ID#: **185224**

Client: **LE Environmental LLC**

Client Designation: **Main and Congress | 18-112**

Parameter Name	Blank	LCS	LCSD	Units	Date of Analysis	Limits	RPD	Method
Lead	< 0.5	1.0 (101 %R)	NA	mg/L	8/14/18	80 - 120	20	6020
Lead	< 0.5	1.0 (102 %R)	NA	mg/L	8/14/18	80 - 120	20	6020

Samples were analyzed within holding times unless noted on the sample results page.
Instrumentation was calibrated in accordance with the method requirements.
The method blanks were free of contamination at the reporting limits.
The associated matrix spikes and/or Laboratory Control Samples met the above stated criteria.
Exceptions to the above statements are flagged or noted above or on the QC Narrative page.
*/! Flagged analyte recoveries deviated from the QA/QC limits.

Eastern Analytical, Inc. www.easternanalytical.com | 800.287.0525 | customerservice@easternanalytical.com

Page 1 of 1

Chain-of-Custody Record

Bold Fields Required. Please Circle Requested Analysis.

185224

Sample I.D.	Sampling Date/Time *If Composite, Indicate Both Start & Finish Date/Time	Matrix (see below)	Grab/*Composite	VOC: 524.2 BTEX; 524.2 MTBE only; 8260 624 1, 4 Dioxane; VTICs	VOC: 8021 BTEX HALOS; 8015 GRO MAVPH	SVOC: 8270 625 SVTICs EDB DBCP ABN A BN PAH	SVOC: TPH8100 L1 L2; 8015 DRO MAEPH	SVOC: PEST 608 PCB 608 PEST 8081 PCB 8082; Oil & Grease 1664 TPH 1664	TCLP: TCLP 1311 ABN Metals VOC Pest Herb	Metals: Dissolved Metals (List Below); Total Metals (List Below)	Inorganics: TS TSS TDS Spec. Con.; Br Cl F SO_4 NO_2 NO_3 NO_2NO_3	Inorganics: BOD C8OD T. Alk.; TKN NH_3 T. Phos. O. Phos.	Inorganics: pH T. Res. Chlorine; COD Phenols TOC DOC	Inorganics: Total Cyanide Total Sulfide; Reactive Cyanide Reactive Sulfide Flashpoint Ignitability	Micro: Total Coliform E. Coli Fecal Coliform; Enterococci Heterotrophic Plate Count	# of Containers	Notes MeOH Vial #
85 Main	8/2/18; 0930	B	C						X							1	
87-91 Main	8/2/18, 1000	B	C						X							1	
10 Congress	8/2/18, 1030	B	C						X							1	
10 Maiden	8/2/18; 1100	B	C						X							1	

Matrix: A-Air; S-Soil; GW-Ground Water; SW-Surface Water; DW-Drinking Water; WW-Waste water B-Building Materials
Preservative: H-HCL; N-HNO_3; S-H_2SO_4; Na-NaOH; M-MEOH

Project Manager: Angela Emerson
Company: UE Environmental LLC
Address: 21 N. Main St, Unit #1
City: Waterbury State: VT Zip: 05676
Phone: (802) 917-2001 Ext.:
Fax: —
E-Mail: angela@leanv.net
Site Name: Main and Congress
Project #: 18-112
State: NH MA ME (VT) Other:
Regulatory Program: NPDES: RGP POTW Stormwater or GWP, Oil Fund, Brownfield or Other:
Quote #: PO #:

Date Needed: Normal TAT

QA/QC Reporting Level: A B C or Presumptive Certainty

Reporting Options: Prelim: (Yes) or No

Electronic Options: E-Mail (PDF) Equis Excel

Temp. 4.7 °C
Ice? (Yes) No

Sampler(s): Angela Emerson

Relinquished By:	Date:	Time:	Received By:
Angela Emerson	8/8/18	13:05	T. Thompson
T. Thompson	8-8-18	14:35	[illegible]

Metals: 8 RCRA 13 PP Fe, Mn Pb, Cu
Other Metals: TCLP Lead
Samples Field Filtered? ☐ Yes ☐ No
Notes: (ie: Special Detection Limits, Billing Info, If Different)

Site History:
Suspected Contamination:
Field Readings:

Eastern Analytical, Inc.

professional laboratory and drilling services

Angela Emerson
LE Environmental LLC
21 North Main Street #1
Waterbury , VT 05676

Subject: Laboratory Report

Eastern Analytical, Inc. ID: 185808
Client Identification: Main and Congress | 18-112
Date Received: 8/23/2018

Dear Ms. Emerson :

Enclosed please find the laboratory report for the above identified project. All analyses were performed in accordance with our QA/QC Program. Unless otherwise stated, holding times, preservation techniques, container types, and sample conditions adhered to EPA Protocol. Samples which were collected by Eastern Analytical, Inc. (EAI) were collected in accordance with approved EPA procedures. Eastern Analytical, Inc. certifies that the enclosed test results meet all requirements of NELAP and other applicable state certifications. Please refer to our website at www.easternanalytical.com for a copy of our NELAP certificate and accredited parameters.

The following standard abbreviations and conventions apply to all EAI reports:

Solid samples are reported on a dry weight basis, unless otherwise noted
< : "less than" followed by the reporting limit
> : "greater than" followed by the reporting limit
%R : % Recovery

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The following information is contained within this report: Sample Conditions summary, Analytical Results/Data, Quality Control data (if requested) and copies of the Chain of Custody. This report may not be reproduced except in full, without the the written approval of the laboratory.

If you have any questions regarding the results contained within, please feel free to directly contact me or the chemist(s) who performed the testing in question. Unless otherwise requested, we will dispose of the sample (s) 30 days from the sample receipt date.

We appreciate this opportunity to be of service and look forward to your continued patronage.

Sincerely,

Lorraine Olashaw, Lab Director

8.30.18
Date

4
# of pages (excluding cover letter)

SAMPLE CONDITIONS PAGE

EAI ID#: **185808**

Client: **LE Environmental LLC**

Client Designation: **Main and Congress | 18-112**

Temperature upon receipt (°C): 2.3 **Received on ice or cold packs (Yes/No): Y**

Acceptable temperature range (°C): 0-6

Lab ID	Sample ID	Date Received	Date Sampled	Sample Matrix	% Dry Weight	Exceptions/Comments (other than thermal preservation)
185808.01	87-91 Main	8/23/18	8/22/18	solid		Adheres to Sample Acceptance Policy

Samples were properly preserved and the pH measured when applicable unless otherwise noted. Analysis of solids for pH, Flashpoint, Ignitability, Paint Filter, Corrosivity, Conductivity and Specific Gravity are reported on an "as received" basis.
Immediate analyses, pH, Total Residual Chlorine, Dissolved Oxygen and Sulfite, performed at the laboratory were run outside of the recommended 15 minute hold time.
All results contained in this report relate only to the above listed samples.
References include:
1) EPA 600/4-79-020, 1983
2) Standard Methods for Examination of Water and Wastewater, 20th, 21st, 22nd & 23rd Edition or noted Revision year.
3) Test Methods for Evaluating Solid Waste SW 846 3rd Edition including updates IVA and IVB
4) Hach Water Analysis Handbook, 4th edition, 1992

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LABORATORY REPORT

EAI ID#: **185808**

Client: **LE Environmental LLC**

Client Designation: **Main and Congress | 18-112**

Sample ID: 87-91 Main

Lab Sample ID: 185808.01
Matrix: solid
Date Sampled: 8/22/18
Date Received: 8/23/18

		Analytical Matrix	Units	Date of Analysis	Method	Analyst
Lead	**2.3**	TCLPsolid	mg/L	8/28/18	6020	DS

QC REPORT

EAI ID#: **185808**

Client: **LE Environmental LLC**

Client Designation: **Main and Congress | 18-112**

Parameter Name	Blank	LCS	LCSD		Units	Date of Analysis	Limits	RPD	Method
Lead	< 0.5	0.9 (94 %R)		NA	mg/L	8/28/18	80 - 120	20	6020

Samples were analyzed within holding times unless noted on the sample results page.
Instrumentation was calibrated in accordance with the method requirements.
The method blanks were free of contamination at the reporting limits.
The associated matrix spikes and/or Laboratory Control Samples met the above stated criteria.
Exceptions to the above statements are flagged or noted above or on the QC Narrative page.
*/! Flagged analyte recoveries deviated from the QA/QC limits.

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Page 1 of 1

Chain-of-Custody Record

185808

Bold Fields Required. Please Circle Requested Analysis.

Sample I.D.	Sampling Date/Time *If Composite, Indicate Both Start & Finish Date/Time	Matrix (see below)	Grab/*Composite	VOC: 524.2 BTEX; 524.2 MTBE only; 8260 624 VOCs; 1, 4 Dioxane	VOC: 8021 BTEX Halos	VOC: 8015 GRO MAVPH	SVOC: 8270 625 SVOCs EDB DBCP; ABN A BN PAH	SVOC: TPH8100 L1 L2	SVOC: 8015 DRO MAEPH	SVOC: PEST 608 PCB 608; PEST 8081 PCB 8082	SVOC: Oil & Grease 1664 TPH 1664	TCLP: TCLP 1311 ABN Metals; VOC Pest Herb	Metals: Dissolved Metals (List Below)	Metals: Total Metals (List Below)	Inorganics: TS TSS TDS Spec. Con.	Inorganics: Br Cl F SO_4; NO_2 NO_3 NO_3NO_2	Inorganics: BOD CBOD T. Alk.	Inorganics: TKN NH_3 T. Phos. O. Phos.	Inorganics: pH T. Res. Chlorine	Inorganics: COD Phenols TOC DOC	Inorganics: Total Cyanide Total Sulfide	Inorganics: Reactive Cyanide Reactive Sulfide Flashpoint Ignitability	Micro: Total Coliform E. Coli; Fecal Coliform	Micro: Enterococci Heterotrophic Plate Count	Other	Other	Other	# of Containers	Notes MeOH Vial #
87-91 Main	8/22/18; 0950-1104	B	C									X																1	

Matrix: A-Air; S-Soil; GW-Ground Water; SW-Surface Water; DW-Drinking Water; WW-Waste water B-Building Materials

Preservative: H-HCL; N-HNO_3; S-H_2SO_4; Na-NaOH; M-MEOH

Project Manager: Angela Emerson

Company: LE Environmental LLC

Address: 21 N. Main Street, Unit #1

City: Waterbury State: VT Zip: 05676

Phone: (802) 917-2001 Ext.:

Fax: —

E-Mail: angela@leenv.net

Site Name: Main and Congress

Project #: 18-112

State: NH MA ME (VT) Other:

Regulatory Program: NPDES: RGP POTW Stormwater or GWP, Oil Fund, Brownfield or Other:

Quote #: PO #:

Date Needed: 5 Day TAT

QA/QC Reporting Level: A B C OR MA MCP

Reporting Options: Prelims: Yes or No

Electronic Options: E-Mail PDF Equis Excel

Temp. 2.3 °C

Ice? (Yes) No

Sampler(s): Angela Emerson

Relinquished By:	Date:	Time:	Received By:
Angela Emerson	8/23/18	12:58	Lisa Brown
Lisa Brown	8-23-18	15:50	[illegible]

Metals: 8 RCRA 13 PP Fe, Mn Pb, Cu

Other Metals: TCLP Lead

Samples Field Filtered? ☐ Yes ☐ No

Notes: (ie: Special Detection Limits, Billing Info, If Different)

Site History:

Suspected Contamination:

Field Readings:

Eastern Analytical, Inc.
professional laboratory and drilling services
25 Chenell Drive | Concord, NH 03301 | Tel: 603.228.0525 | 1.800.287.0525 | E-Mail: CustomerService@EasternAnalytical.com | www.EasternAnalytical.com

(White: Original Green: Project Manager)

APPENDIX F

Geophysical Investigation Report

GPR Survey Report

Site:

Commercial Property
North Main Street
St. Albans, Vermont

Prepared For:

Angela Emerson
LE Environmental
21 North Main Street #1
Waterbury, Vermont 05676

Prepared By:

Chris Ingram
Subterra Locating Services
77 Vermont Avenue
Colchester, VT 05446
802.557.8354
Chris@SubterraVT.com

June 21, 2018

Subterra Locating Services (Subterra) was contracted by LE Environmental (Client) to perform a ground penetrating radar (GPR) survey at the subject property to search for a possible underground storage tank (UST). This inspection was performed on June 13, 2018. The Client presented an area of interest along the east side of North Main Street in an alleyway between two buildings where a potential former UST was suspected.

*Disclaimer – GPR interpretation is subject to the information provided by the Client and site personnel, plans and maps, general site observations, and limiting and restrictive conditions. The following report is an overview of our best evaluation of the collected radar images based on the above conditions. If more details are discovered, our conclusions may be subject to modification.

Site Location Map

Report Findings:

- A three-dimensional GPR survey was performed in a grid measuring 6’ x 56’ in the alley where a possible UST was believed to be. A weak reflection was identified along the northern end of the grid (on the corner of the building) but is believed to represent surface water and road salt infiltration through an unpaved section of pavement or possible utility infrastructure; the shape, size and depth of this anomaly are not consistent with a buried UST. It is possible that due to the spatial restrictions of our equipment in the alley that this anomaly represents the end of a buried tank and the remainder exists under the existing building. A metal detector was utilized across the survey area; however, this sweep revealed a multitude of small, shallow metal targets in the asphalt which interfered with our ability to resolve any potential larger, deeper targets. A linear mound in the asphalt was observed transecting the middle of the survey grid; however, this feature is believed to be related to a 6” water line that services the commercial space along the southern end of the grid (per on-site observations and Client conversation with the City Water Department). No other GPR anomalies or metallic responses were noted during our investigation. Although this survey is not 100% conclusive whether or not a UST resides in the area, it is our belief that a tank is not present. We recommend the Client be on-site during any future excavation or redevelopment activities in the event that a UST is encountered.

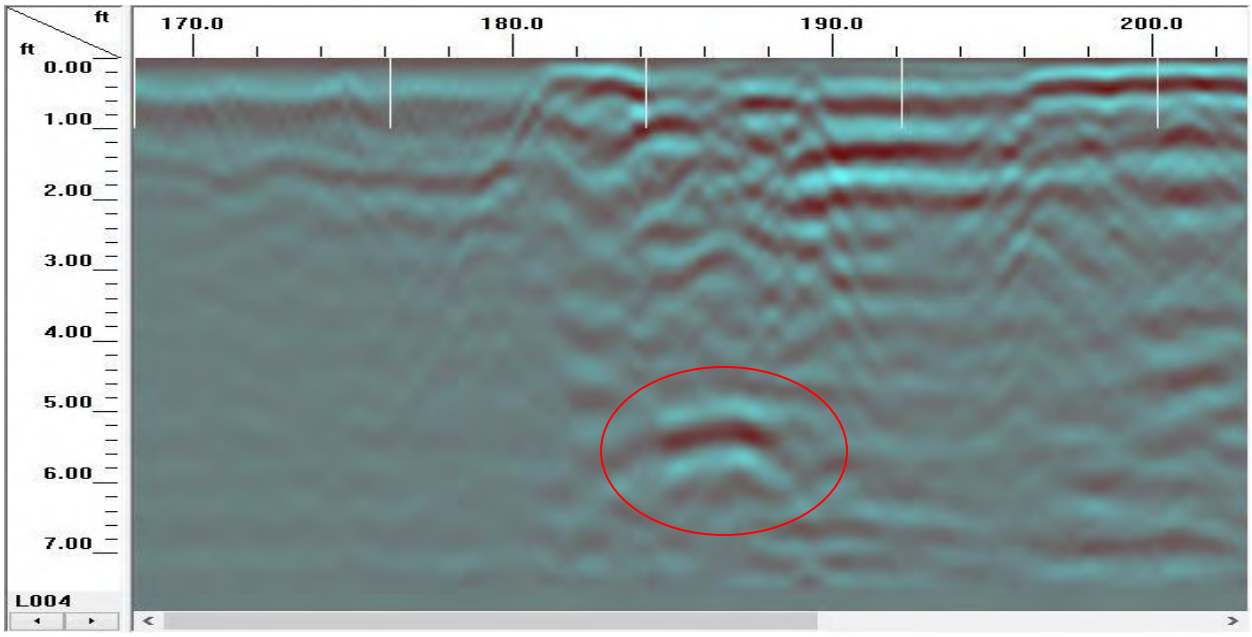


Photo 1 – 2D image of anomaly, long axis.

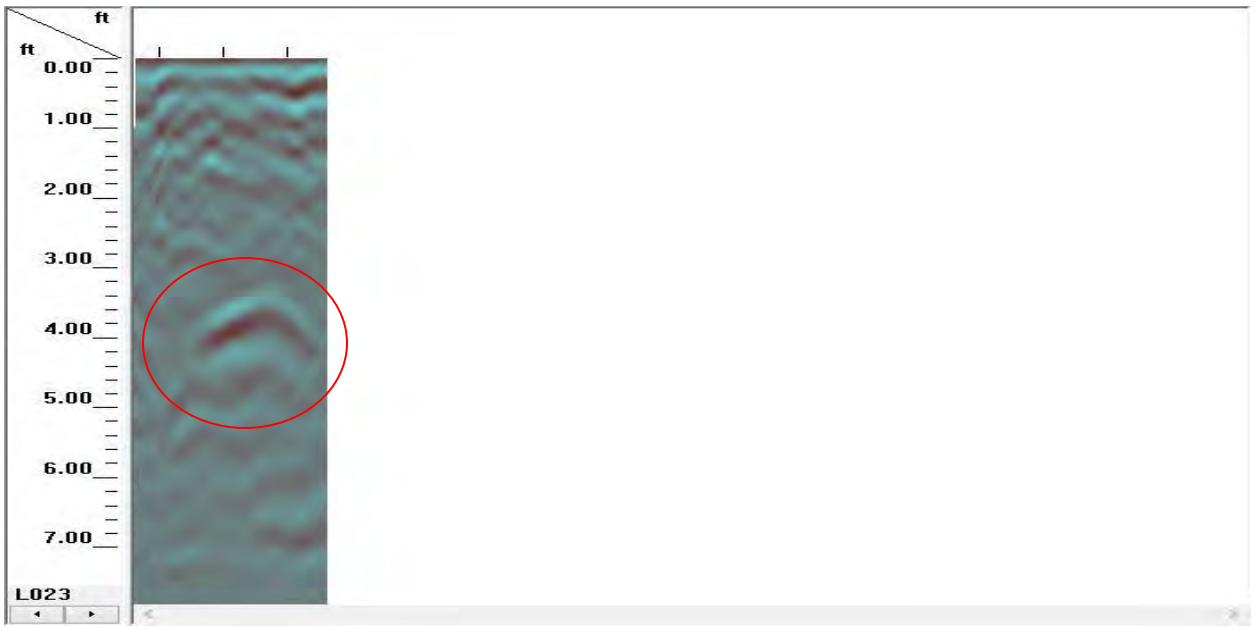


Photo 2 – 2D image of anomaly, short axis.

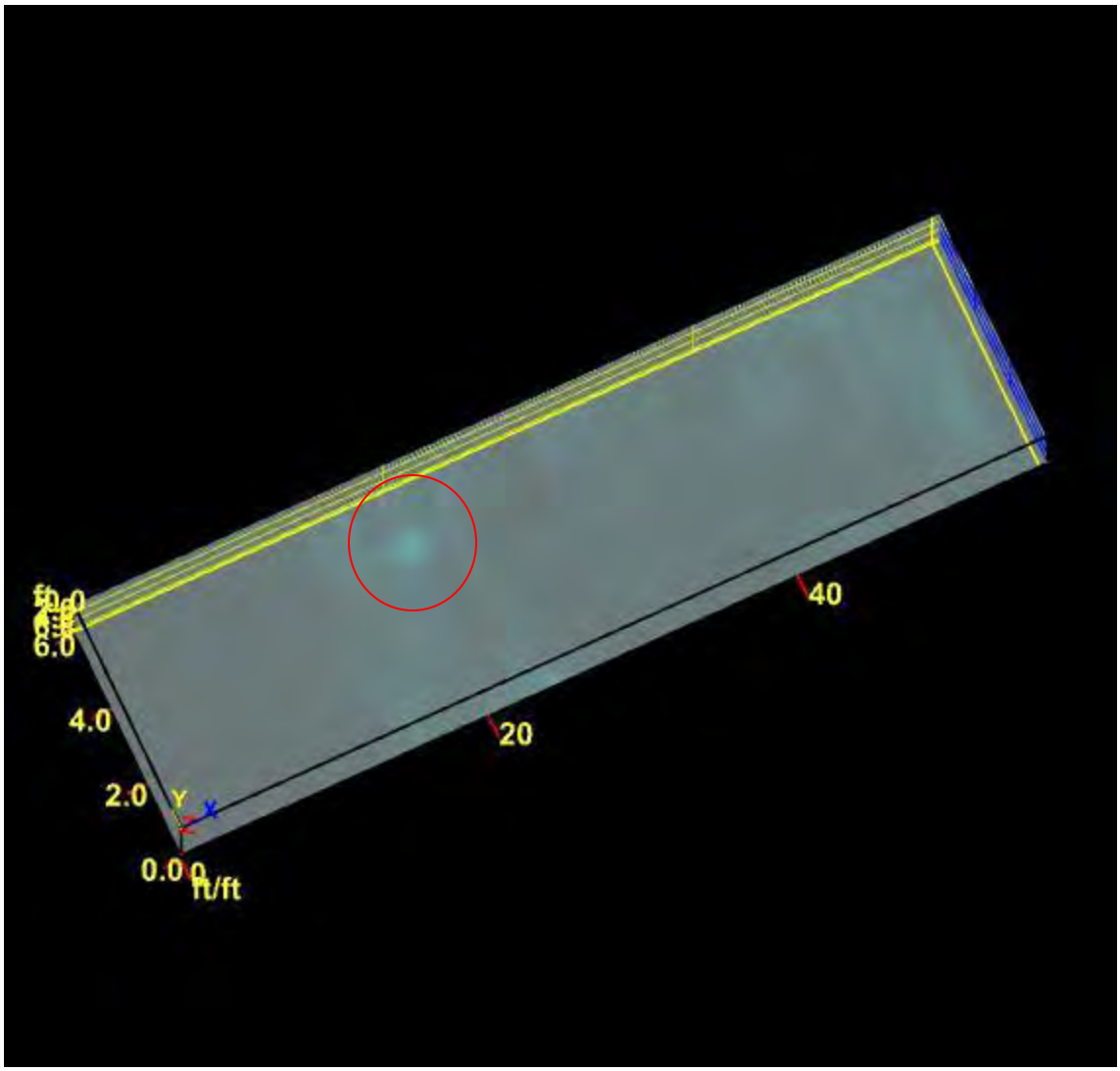


Photo 3 – 3D image of anomaly, top down view.

APPENDIX G

Asbestos Inspection Reports

ASBESTOS INSPECTION REPORT

of

Residential/Commercial Structure
83-87 No. Main Street
St. Albans, Vermont

Prepared for:

LE Environmental, Inc.
21 North Main Street
Waterbury, Vermont 05679

6 July, 2018

KDAI Project No: 14186-015

KD ASSOCIATES, INC.
Environmental Consulting & Contracting
41 IDX Drive, Suite 209, South Burlington, Vermont 05403-7757 (802) 862-7490

INTRODUCTION

K-D Associates, Inc. inspected and collected samples of suspect building materials for the presence of asbestos from the vacant residential/commercial structure located at 83-87 No. Main Street, St. Albans, VT. The survey was designed and conducted to satisfy the pre-demolition requirements of EPA 40 CFR 61, Subpart M, National Emission Standards for Hazardous Air Pollutants (NESHAP), Occupational Safety and Health Administration (OSHA), and the Vermont Regulations for Asbestos Control (VRAC) (V.S.A. Title 18, Chapter 26). The inspection was conducted on June 27, 2018.

Multiple samples of each suspect material were collected per homogeneous area. The number of samples was guided by the sampling requirements of the EPA Asbestos Hazard Emergency Response Act (AHERA). Each sample was sealed in a distinct sampling bag, labeled, and transported under a chain-of-custody to the laboratory for analysis.

All samples were analyzed by Polarized Light Microscopy (PLM) until either a positive sample was found in a material type or all samples were analyzed. Asbestos-Containing Material (ACM) as defined by the EPA and the State of Vermont are materials with an asbestos concentration of greater than one percent (>1%). Laboratory analysis was performed by PLM using EPA Method 600/R-93/116 (point-counted when positive at less than 10%). When one sample in a material type is found to contain asbestos in a concentration greater than one percent (>1%), the remaining samples in that group are not analyzed (positive stop). Complete laboratory results are attached.

FINDINGS

In summary, asbestos was detected in the following materials:

Sample ID	Material Description	Location	Percent & Asbestos Type	Approximate Quantity
18MB178-73 18MB178-74	9" by 9" vinyl floor tile Associated mastic	First floor	6% Chrysotile 9% Chrysotile	1,536 sq. ft.
18MB178-95 18MB178-96	12" by 12" vinyl floor tile Associated mastic	First floor	6% Chrysotile 15% Chrysotile	400 sq. ft.
18MB178-103 18MB178-104	9" by 9" vinyl floor tile Associated mastic	First floor, hallway and bath	5% Chrysotile 10% Chrysotile	156 sq. ft.
18MB178-111	Sink undercoating	Second floor, Apt. 1	15% Chrysotile	3 sq. ft.
18MB178-115	Paneling adhesive	Second floor, Apt. 2	5% Chrysotile	Not quantified
18MB178-129	Sink undercoating	Second floor, Apt. 3	6% Chrysotile	3 sq. ft.

The following materials were analyzed and found to be non-asbestos containing materials:

Sample ID	Material Description	Location
18MB178-77, 78	Carpet adhesive	First floor, Retail area

18MB178-79, 80	Sheet vinyl flooring (tile replacement)	First floor, Retail area
18MB178-81, 82, 83	Gypsum board	First floor, walls throughout
18MB178-84, 85, 86	Joint compound	First floor, walls throughout
18MB178-87, 88	Pressed board	First floor, behind electrical panel
18MB178-89, 91 18MB178-90. 92	Vinyl baseboard, black Associated adhesive	First floor, display area
18MB178-97, 98	Blown-in insulation	Throughout
18MB178-99, 100	Carpet adhesive	First floor, Retail area
18MB178-101, 102	Sink undercoating	First floor
18MB178-107, 108	12" by 12" ceiling tile	First floor
18MB178-109, 110	Carpet adhesive	Second floor, Apt. 1
18MB178-113, 114	2' by 2' suspended ceiling tile	Second floor, Apt. 1
18MB178-117, 118	Original plaster	Second floor, Apt. 1
18MB178-119, 120	Paneling adhesive	Second floor, Apt. 2
18MB178-121, 122	Pressed board	Second floor, Apt, 2, behind gypsum bd.
18MB178-123, 125 18MB178-124, 126	Vinyl stair tread, grey Associated adhesive	First floor to second floor
18MB178-127, 128	Sheet vinyl flooring	Second floor, Apt. 3, kitchen/bath
18MB178-131, 132	Gypsum board	Second floor, Apt. 3, walls
18MB178-133, 134	Joint compound	Second floor, Apt. 3, walls
18MB178-135, 136	Asphalt shingle roofing	Exterior

RESULTS / CONCLUSIONS

The results of this pre-demolition asbestos inspection at the commercial/residential structure located at 83-87 No. Main Street in St. Albans, VT has identified six building material that contains asbestos in a concentration greater than one percent (>1%). The Vermont Regulations for Asbestos Control (VRAC) and National Emission Standards for Hazardous Air Pollutants (NESHAP) requires that ACMs be removed by a Vermont-Licensed Asbestos Abatement Contractor prior to demolition or if renovation activities will disturb these materials. Each of these agencies also has notification requirements 10 workdays prior to abatement and/or demolition activities.

An effort was made to find materials hidden from casual view, however additional suspect materials may be present in concealed or inaccessible spaces. Any other suspect materials found during renovation/demolition activities, not specifically sampled/identified in this survey should be presumed to be positive for asbestos until they can be sampled and laboratory analysis shows otherwise.

This report is not intended to be used as a bid document or specification for the purpose of abatement estimating. The quantities associated with the above materials are approximated and are not intended to be used for abatement cost estimation.

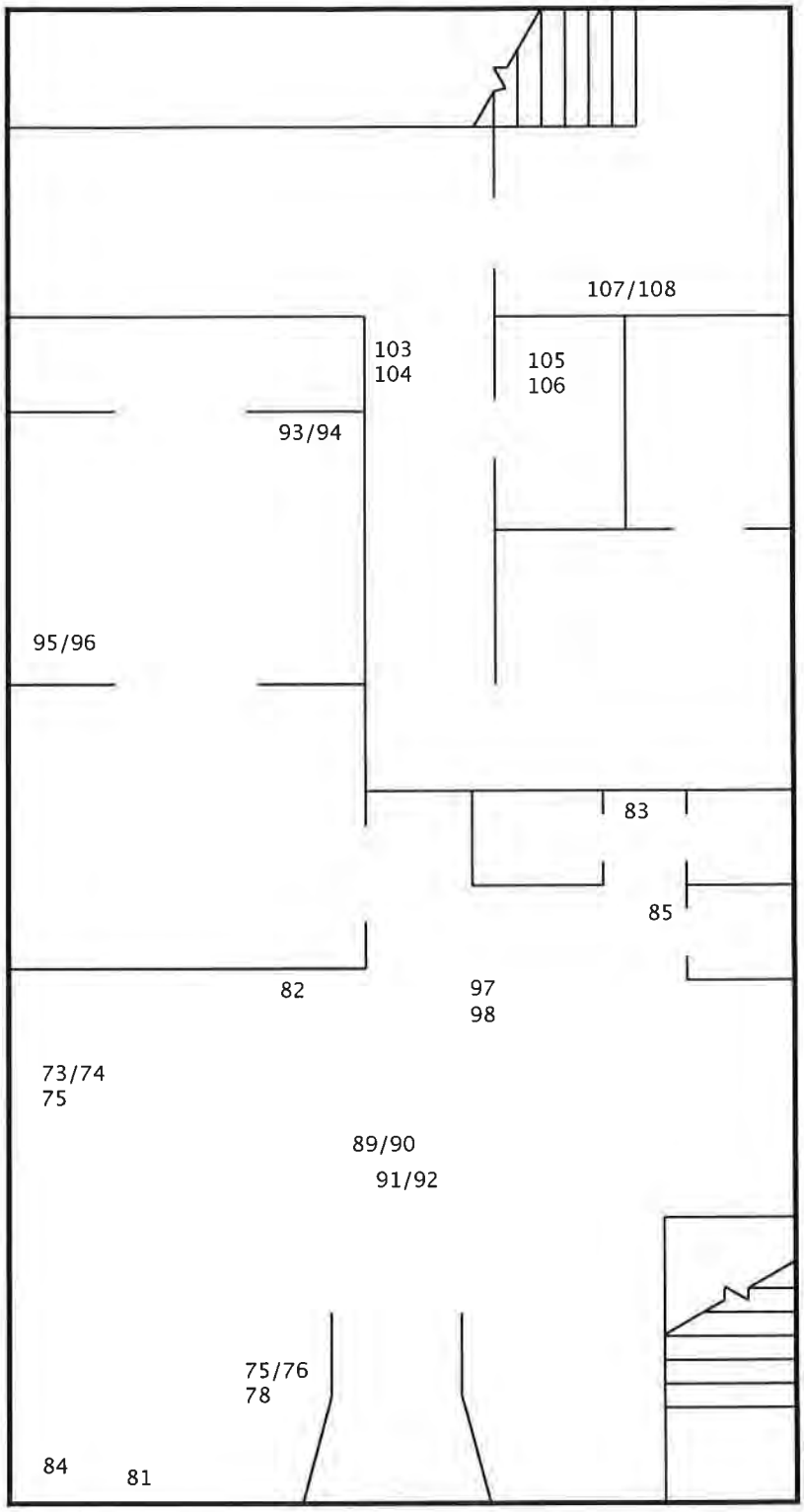
Please do not hesitate to call if you have any questions or need additional information.

Respectfully,

John P. Madigan
VT Asbestos Inspector #MP706704

Enclosure

14186-015



First Floor

Main Street

Asbestos Inspection Sampling Locations
83 - 87 North Main Street
St. Albans, VT

NOT TO SCALE

14186-015

KD ASSOCIATES, INC.
ENVIRONMENTAL CONSULTING AND CONTRACTING

EMSL Analytical, Inc.
161 John Roberts Road South Portland, ME 04106
Tel/Fax: (207) 517-6921 / (207) 517-6922
http://www.EMSL.com / portlandlab@emsl.com

EMSL Order: 621801225
Customer ID: KDAI50
Customer PO:
Project ID:

Attention: John Madigan
KD Associates, Inc.
41 IDX Drive
Suite 209
South Burlington, VT 05403-7757
Project: 14186-015 / 83-87 N. Main St, St. Albans, VT

Phone: (802) 862-7490
Fax: (802) 660-2462
Received Date: 06/29/2018 10:00 AM
Analysis Date: 07/02/2018 - 07/03/2018
Collected Date:

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos % Fibrous	Non-Asbestos % Non-Fibrous	Asbestos % Type
18MB178-73 *621801225-0001*	1st Floor - 9 x 9 Floor Tile	Tan Non-Fibrous Homogeneous		94% Non-fibrous (Other)	6% Chrysotile
18MB178-74 *621801225-0002*	1st Floor - Associated Mastic	Black Non-Fibrous Homogeneous		91% Non-fibrous (Other)	9% Chrysotile
18MB178-75 *621801225-0003*	1st Floor - 9 x 9 Floor Tile				Positive Stop (Not Analyzed)
18MB178-76 *621801225-0004*	1st Floor - Associated Mastic				Positive Stop (Not Analyzed)
18MB178-77 *621801225-0005*	1st Floor - Carpet Glue, Gold	Gold Non-Fibrous Homogeneous	15% Cellulose 10% Synthetic	75% Non-fibrous (Other)	None Detected
18MB178-78 *621801225-0006*	1st Floor - Carpet Glue, Gold	Gold Non-Fibrous Homogeneous	10% Cellulose 10% Synthetic	80% Non-fibrous (Other)	None Detected
18MB178-79 *621801225-0007*	1st Floor - Sheet Vinyl Flooring, Gold	Gold Fibrous Homogeneous	60% Cellulose	40% Non-fibrous (Other)	None Detected
18MB178-80 *621801225-0008*	1st Floor - Sheet Vinyl Flooring, Gold	Gold Fibrous Homogeneous	60% Cellulose	40% Non-fibrous (Other)	None Detected
18MB178-81 *621801225-0009*	1st Floor - Gypsum Board	White Non-Fibrous Homogeneous	6% Cellulose	94% Non-fibrous (Other)	None Detected
18MB178-82 *621801225-0010*	1st Floor - Gypsum Board	White Non-Fibrous Homogeneous	6% Cellulose	94% Non-fibrous (Other)	None Detected
18MB178-83 *621801225-0011*	1st Floor - Gypsum Board	Gray Non-Fibrous Homogeneous	8% Cellulose	92% Non-fibrous (Other)	None Detected
18MB178-84 *621801225-0012*	1st Floor - Joint Compound	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
18MB178-85 *621801225-0013*	1st Floor - Joint Compound	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
18MB178-86 *621801225-0014*	1st Floor - Joint Compound	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
18MB178-87 *621801225-0015*	1st Floor - Pressed Board	Brown Fibrous Homogeneous	98% Cellulose	2% Non-fibrous (Other)	None Detected
18MB178-88 *621801225-0016*	1st Floor - Pressed Board	Brown Fibrous Homogeneous	98% Cellulose	2% Non-fibrous (Other)	None Detected

Initial report from: 07/03/2018 14:48:52

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161 John Roberts Road South Portland, ME 04106
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http://www.EMSL.com / portlandlab@emsl.com

EMSL Order: 621801225
Customer ID: KDAI50
Customer PO:
Project ID:

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

			Non-Asbestos		Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
18MB178-89 *621801225-0017*	1st Floor - Vinyl Baseboard, Black	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
18MB178-90 *621801225-0018*	1st Floor - Adhesive	Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
18MB178-91 *621801225-0019*	1st Floor - Vinyl Baseboard, Black	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
18MB178-92 *621801225-0020*	1st Floor - Adhesive	Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
18MB178-93 *621801225-0021*	1st Floor - 12 x 12 Floor Tile	Tan Non-Fibrous Homogeneous		94% Non-fibrous (Other)	6% Chrysotile
18MB178-94 *621801225-0022*	1st Floor - Associated Mastic	Black Non-Fibrous Homogeneous		85% Non-fibrous (Other)	15% Chrysotile
18MB178-95 *621801225-0023*	1st Floor - 12 x 12 Floor Tile				Positive Stop (Not Analyzed)
18MB178-96 *621801225-0024*	1st Floor - Associated Mastic				Positive Stop (Not Analyzed)
18MB178-97 *621801225-0025*	1st Floor - Blown-In Insulation	Gray/Tan Fibrous Homogeneous	98% Cellulose	2% Non-fibrous (Other)	None Detected
18MB178-98 *621801225-0026*	1st Floor - Blown-In Insulation	Gray/Tan Fibrous Homogeneous	98% Cellulose	2% Non-fibrous (Other)	None Detected
18MB178-99 *621801225-0027*	1st Floor - Carpet Glue, Black	Black Non-Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
18MB178-100 *621801225-0028*	1st Floor - Carpet Glue, Black	Black Non-Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
18MB178-101 *621801225-0029*	1st Floor - Sink Undercoating, Black	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
18MB178-102 *621801225-0030*	1st Floor - Sink Undercoating, Black	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
18MB178-103 *621801225-0031*	1st Floor - 9 x 9 Floor Tile, Grey	Tan Non-Fibrous Homogeneous		95% Non-fibrous (Other)	5% Chrysotile
18MB178-104 *621801225-0032*	1st Floor - Associated Mastic	Black Non-Fibrous Homogeneous		90% Non-fibrous (Other)	10% Chrysotile
18MB178-105 *621801225-0033*	1st Floor - 9 x 9 Floor Tile, Grey				Positive Stop (Not Analyzed)
18MB178-106 *621801225-0034*	1st Floor - Associated Mastic				Positive Stop (Not Analyzed)
18MB178-107 *621801225-0035*	1st Floor - 12 x 12 Ceiling Tile	Brown Fibrous Homogeneous	98% Cellulose	2% Non-fibrous (Other)	None Detected

Initial report from: 07/03/2018 14:48:52

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Tel/Fax: (207) 517-6921 / (207) 517-6922
http://www.EMSL.com / portlandlab@emsl.com

EMSL Order: 621801225
Customer ID: KDAI50
Customer PO:
Project ID:

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos % Fibrous	Non-Asbestos % Non-Fibrous	Asbestos % Type
18MB178-108 621801225-0036	1st Floor - 12 x 12 Ceiling Tile	Brown Fibrous Homogeneous	98% Cellulose	2% Non-fibrous (Other)	None Detected
18MB178-109 621801225-0037	Apt. 1 - Carpet Glue	Tan Non-Fibrous Homogeneous	7% Cellulose	93% Non-fibrous (Other)	None Detected
18MB178-110 621801225-0038	Apt. 1 - Carpet Glue	Tan Non-Fibrous Homogeneous	8% Cellulose	92% Non-fibrous (Other)	None Detected
18MB178-111 621801225-0039	Apt. 1 - Sink Undercoating	White Non-Fibrous Homogeneous		85% Non-fibrous (Other)	15% Chrysotile
18MB178-112 621801225-0040	Apt. 1 - Sink Undercoating				Positive Stop (Not Analyzed)
18MB178-113 621801225-0041	Apt. 1 - Suspended Ceiling Tile, 2 x 2	Gray Fibrous Homogeneous	50% Cellulose 45% Min. Wool	5% Non-fibrous (Other)	None Detected
18MB178-114 621801225-0042	Apt. 1 - Suspended Ceiling Tile, 2 x 2	Gray Fibrous Homogeneous	50% Cellulose 45% Min. Wool	5% Non-fibrous (Other)	None Detected
18MB178-115 621801225-0043	Apt. 1 - Paneling Adhesive	Black Non-Fibrous Homogeneous		95% Non-fibrous (Other)	5% Chrysotile
18MB178-116 621801225-0044	Apt. 1 - Paneling Adhesive				Positive Stop (Not Analyzed)
18MB178-117 621801225-0045	Apt. 1 - Plaster	Gray Fibrous Homogeneous	15% Synthetic	85% Non-fibrous (Other)	None Detected
18MB178-118 621801225-0046	Apt. 1 - Plaster	Gray Fibrous Homogeneous	15% Synthetic	85% Non-fibrous (Other)	None Detected
18MB178-119 621801225-0047	Apt. 2 - Paneling Adhesive	Tan Non-Fibrous Homogeneous	20% Cellulose	80% Non-fibrous (Other)	None Detected
18MB178-120 621801225-0048	Apt. 2 - Paneling Adhesive	Tan Non-Fibrous Homogeneous	20% Cellulose	80% Non-fibrous (Other)	None Detected
18MB178-121 621801225-0049	Apt. 2 - Pressed Board Behind G.B.	Brown Fibrous Homogeneous	98% Cellulose	2% Non-fibrous (Other)	None Detected
18MB178-122 621801225-0050	Apt. 2 - Pressed Board Behind G.B.	Brown Fibrous Homogeneous	98% Cellulose	2% Non-fibrous (Other)	None Detected
18MB178-123 621801225-0051	Stairwell - Vinyl Stair Tread	Brown Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
18MB178-124 621801225-0052	Stairwell - Adhesive	Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
18MB178-125 621801225-0053	Stairwell - Vinyl Stair Tread	Brown Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
18MB178-126 621801225-0054	Stairwell - Adhesive	Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected

Initial report from: 07/03/2018 14:48:52

EMSL Analytical, Inc.
161 John Roberts Road South Portland, ME 04106
Tel/Fax: (207) 517-6921 / (207) 517-6922
http://www EMSL com / portlandlab@emsl com

EMSL Order: 621801225
Customer ID: KDAI50
Customer PO:
Project ID:

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

			Non-Asbestos		Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
18MB178-127 *621801225-0055*	Apt 3 - Sheet Vinyl Flooring, Kitchen	Brown/Tan Fibrous Homogeneous	60% Cellulose	40% Non-fibrous (Other)	None Detected
18MB178-128 *621801225-0056*	Apt 3 - Sheet Vinyl Flooring, Kitchen	Brown/Tan Fibrous Homogeneous	65% Cellulose	35% Non-fibrous (Other)	None Detected
18MB178-129 *621801225-0057*	Apt. 3 - Sink Undercoating	Black Non-Fibrous Homogeneous		94% Non-fibrous (Other)	6% Chrysotile
18MB178-130 *621801225-0058*	Apt 3 - Sink Undercoating				Positive Stop (Not Analyzed)
18MB178-131 *621801225-0059*	Apt 3 - Gypsum Board	Gray/White Non-Fibrous Homogeneous	5% Cellulose	95% Non-fibrous (Other)	None Detected
18MB178-132 *621801225-0060*	Apt 3 - Gypsum Board	Gray/White Non-Fibrous Homogeneous	6% Cellulose	94% Non-fibrous (Other)	None Detected
18MB178-133 *621801225-0061*	Apt. 3 - Joint Compound	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
18MB178-134 *621801225-0062*	Apt 3 - Joint Compound	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected

Report Comment: **VT CERT# PB729903**

Analyst(s)
Zackary Carbee (53)

Christina Lentz, Laboratory Manager
or Other Approved Signatory

EMSL maintains liability limited to cost of analysis. The above analyses were performed in general compliance with Appendix E to Subpart E of 40 CFR (previously EPA 600/M4-82-020 "Interim Method"), but augmented with procedures outlined in the 1993 ("final") version of the method This report relates only to the samples reported above, and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations Interpretation and use of test results are the responsibility of the client All samples received in acceptable condition unless otherwise noted This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST or any agency of the federal government EMSL recommends gravimetric reduction for all non-friable organically bound materials prior to analysis Estimation of uncertainty is available on request

Samples analyzed by EMSL Analytical, Inc South Portland, ME NVLAP Lab Code 500094-0, MA AA000236, VT AL197271, ME LM-0039, CT PH-0346

Initial report from: 07/03/2018 14:48:52

KD ASSOCIATES, INC.
ENVIRONMENTAL CONSULTING AND CONTRACTING

Laboratory Results

Report Date: 7/10/2018

LE Environmental LLC
21 North Main Street
Waterbury, VT 05676

Date Received: 6/27/2018
Sample Location: 83-87 North Main Street
St. Albans, Vermont

Customer No.: 14186
Lab Reference No.: 18419
Number Samples Analyzed: 2

Analysis for asbestos type and quantity (visual area estimate and/or point counting) was performed by EPA test method 600/R-93/116, utilizing Polarized Light Microscopy (PLM) and dispersion staining techniques.

Lab No.	Sample Identification	Result
B-18-2660	18MB178-135 Asphalt single roofing, exterior	No Asbestos Detected
B-18-2661	18MB178-136 Asphalt single roofing, exterior	No Asbestos Detected

Bryan Schultz
Laboratory Manager

Laboratory Certifications: Vermont #AL278811
Analyst: Bryan Schultz, #PB487404

The results listed above relate only to the items/samples tested. Samples received in good condition unless otherwise noted. K-D Associates assumes no responsibility or liability for the manner in which these results are used or interpreted. The accuracy of PLM may be limited in the analysis of certain sample materials. For PLM results that are "negative" or positive at less than one percent, re-analysis by another analytical method may be appropriate.

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email: kdai@kdassociates.com · website: www.kdassociatesinc.com

ASBESTOS INSPECTION REPORT

of

Residential/Commercial Structure
89 No. Main Street
St. Albans, Vermont

Prepared for:

LE Environmental, Inc.
21 North Main Street
Waterbury, Vermont 05679

9 July, 2018

KDAI Project No: 14186-015

KD ASSOCIATES, INC.
Environmental Consulting & Contracting
41 IDX Drive, Suite 209, South Burlington, Vermont 05403-7757 (802) 862-7490

INTRODUCTION

K-D Associates, Inc. inspected and collected samples of suspect building materials for the presence of asbestos from the vacant residential/commercial structure located at 89 No. Main Street, St. Albans, VT. The survey was designed and conducted to satisfy the pre-demolition requirements of EPA 40 CFR 61, Subpart M, National Emission Standards for Hazardous Air Pollutants (NESHAP), Occupational Safety and Health Administration (OSHA), and the Vermont Regulations for Asbestos Control (VRAC) (V.S.A. Title 18, Chapter 26). The inspection was conducted on June 27, 2018.

Multiple samples of each suspect material were collected per homogeneous area. The number of samples was guided by the sampling requirements of the EPA Asbestos Hazard Emergency Response Act (AHERA). Each sample was sealed in a distinct sampling bag, labeled, and transported under a chain-of-custody to the laboratory for analysis.

All samples were analyzed by Polarized Light Microscopy (PLM) until either a positive sample was found in a material type or all samples were analyzed. Asbestos-Containing Material (ACM) as defined by the EPA and the State of Vermont are materials with an asbestos concentration of greater than one percent (>1%). Laboratory analysis was performed by PLM using EPA Method 600/R-93/116 (point-counted when positive at less than 10%). When one sample in a material type is found to contain asbestos in a concentration greater than one percent (>1%), the remaining samples in that group are not analyzed (positive stop). Complete laboratory results are attached.

FINDINGS

In summary, asbestos was detected in the following materials:

Sample ID	Material Description	Location	Percent & Asbestos Type	Approximate Quantity
18MB178-10 18MB178-11	Sheet vinyl flooring, tan Associated mastic	First floor	25% Chrysotile 6% Chrysotile	20 sq. ft.
18MB178-14	Pipe insulation	First floor, left side	70% Chrysotile	25 ln. ft.
18MB178-55	Sheet vinyl flooring, brown	Front bedroom, Apt. 3	65% Chrysotile	152 sq. ft.
18MB178-71	Roof tar, sealant	Exterior, main roof	12% Chrysotile	9 sq. ft.

The following materials were analyzed and found to be non-asbestos containing materials:

Sample ID	Material Description	Location
18MB178-01, 02, 03, 04, 05, 06	Gypsum board	Walls and ceilings throughout
18MB178-79, 80	Joint compound	First floor, Retail area
18MB178-07, 08, 09	Carpet adhesive	First floor, Retail area

18MB178-17, 18	Paneling adhesive	First floor, left side room
18MB178-19, 20	Window caulking	Exterior
18MB178-21, 22	Vinyl stair tread	Stairs to second floor
18MB178-23, 25 18MB178-24, 26	Sheet vinyl flooring, tan Associated adhesive	First floor bathroom
18MB178-27, 28	12" by 12" vinyl floor tile, blue	Second floor, Apt. 1, closet and bathroom
18MB178-29, 30	Plaster	Second floor, Apt. 1
18MB178-31, 32	Sheet vinyl flooring, tan	Second floor, Apt. 1, kitchen counter top
18MB178-33, 34	Sink undercoating	Second floor, Apt. 1, kitchen
18MB178-35, 36	Sheet vinyl flooring, beige	Second floor, Apt. 1, kitchen remnant
18MB178-37, 39 18MB178-38, 40	Sheet vinyl flooring, tan Associated adhesive	Second floor, Apt. 2, kitchen, bathroom
18MB178-41, 43 18MB178-42, 44	Vinyl baseboard, black Associated adhesive	Second floor, Apt. 2, bathroom
18MB178-45, 46	Plaster	Second floor, Apt, 2
18MB178-47, 48	Blown-in insulation	Attic
18MB178-49, 50	Roll roofing	Lower roof
18MB178-51, 52	Tar sealant	Lower roof
18MB178-53, 54	Mastic, black	Second floor, Apt. 2, closet
18MB178-57, 58	Sheet vinyl flooring, grey	Second floor, Apt. 3, bathroom
18MB178-59, 60	12" by 12" vinyl floor tile, brown Top layer	Second floor, Apt. 3, kitchen
18MB178-61, 62	Sheet vinyl flooring, beige Bottom layer	Second floor, Apt. 3, kitchen
18MB178-63, 64	Sheet vinyl flooring, blue/white	Second floor, Apt. 3, back bedroom
18MB178-65, 66	Gypsum board	Second floor, Apt. 3
18MB178-67, 68	Joint compound	Second floor, Apt. 3
18MB178-69, 70	Asphalt shingle	Exterior

RESULTS / CONCLUSIONS

The results of this pre-demolition asbestos inspection at the Residential/commercial structure located at 89 No. Main Street in St. Albans, Vermont has identified four building materials that contain asbestos in a concentration greater than one percent (>1%). The Vermont Regulations for Asbestos Control (VRAC) and National Emission Standards for Hazardous Air Pollutants (NESHAP) require that ACM's be removed by a Vermont-Licensed Asbestos Abatement Contractor prior to demolition or if renovation activities will disturb these materials. Each of

these agencies also has notification requirements 10 work days prior to abatement and/or demolition activities.

An effort was made to find materials hidden from casual view, however additional suspect materials may be present in concealed or inaccessible spaces. Any other suspect materials found during renovation/demolition activities, not specifically sampled/identified in this survey should be presumed to be positive for asbestos until they can be sampled and laboratory analysis shows otherwise.

This report is not intended to be used as a bid document or specification for the purpose of abatement estimating. The quantities associated with the above materials are approximated and are not intended to be used for abatement cost estimation.

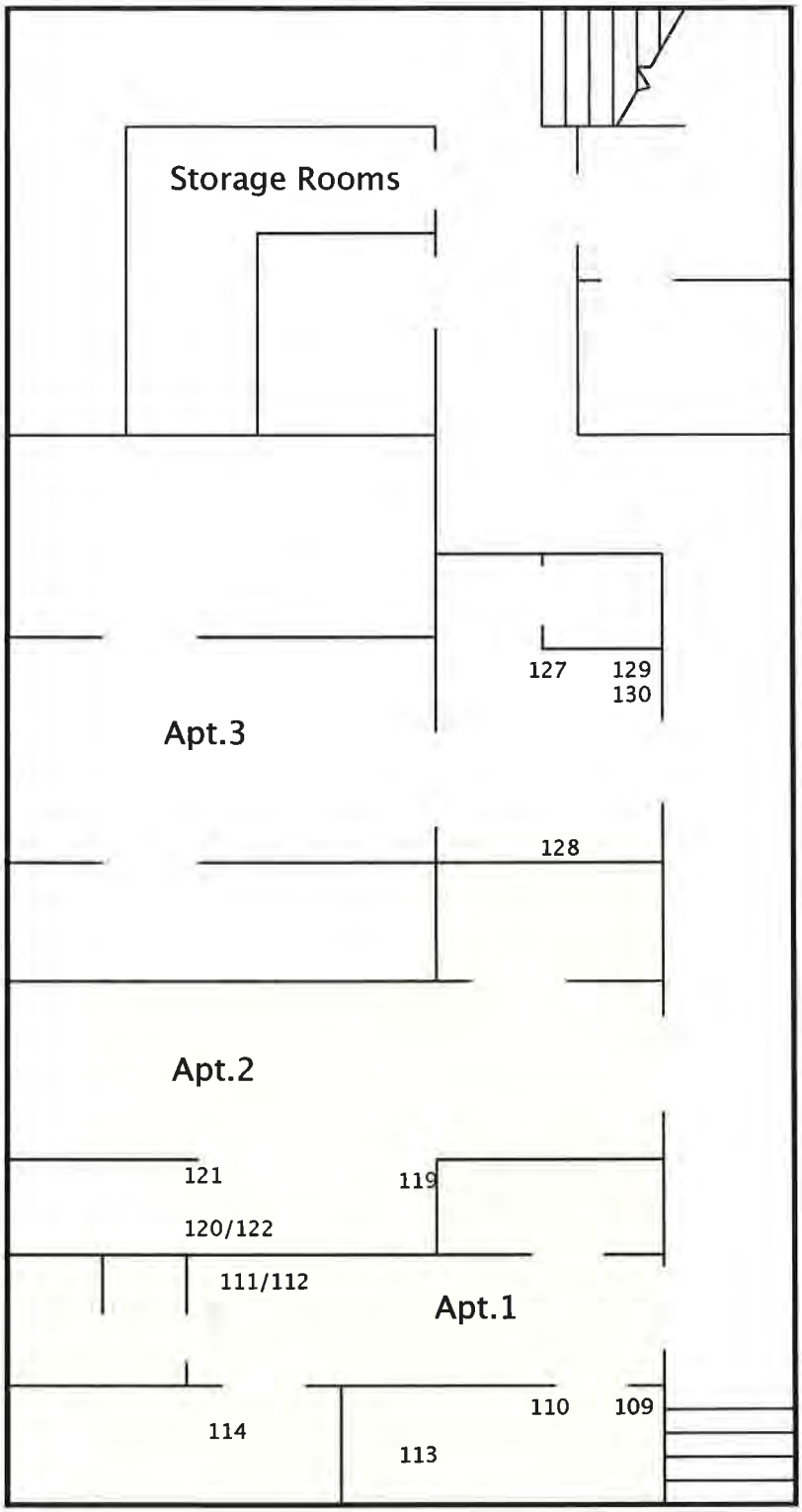
Please do not hesitate to call if you have any questions or need additional information.

Respectfully,

John P. Madigan
VT Asbestos Inspector #MP706704

Enclosure

14186-015



Second Floor

Main Street

KD ASSOCIATES, INC.
ENVIRONMENTAL CONSULTING AND CONTRACTING

Asbestos Inspection Sampling Locations
83 - 87 North Main Street
St. Albans, VT

NOT TO SCALE	14186-015

EMSL Analytical, Inc.
161 John Roberts Road South Portland, ME 04106
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http://www EMSL com / portlandlab@emsl com

EMSL Order: 621801224
Customer ID: KDAI50
Customer PO:
Project ID:

Attention: John Madigan
KD Associates, Inc.
41 IDX Drive
Suite 209
South Burlington, VT 05403-7757
Project: 14186-015 / 89 N. Main St, St. Albans, VT

Phone: (802) 862-7490
Fax: (802) 660-2462
Received Date: 06/29/2018 10:00 AM
Analysis Date: 07/03/2018 - 07/09/2018
Collected Date:

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos % Fibrous	Non-Asbestos % Non-Fibrous	Asbestos % Type
18MB178-01 *621801224-0001*	1st Floor - Gypsum Board	Gray/White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
18MB178-02 *621801224-0002*	1st Floor - Gypsum Board	Gray/White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
18MB178-03 *621801224-0003*	1st Floor - Gypsum Board	Gray/White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
18MB178-04 *621801224-0004*	1st Floor - Joint Compound	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
18MB178-05 *621801224-0005*	1st Floor - Joint Compound	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
18MB178-06 *621801224-0006*	1st Floor - Joint Compound	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
18MB178-07 *621801224-0007*	1st Floor - Carpet Adhesive	Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
18MB178-08 *621801224-0008*	1st Floor - Carpet Adhesive	Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
18MB178-09 *621801224-0009*	1st Floor - Carpet Adhesive	Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
18MB178-10 *621801224-0010*	1st Floor - Sheet Vinyl Flooring	Tan Non-Fibrous Homogeneous		75% Non-fibrous (Other)	25% Chrysotile
18MB178-11 *621801224-0011* *Result includes a small amount of inseparable attached material - sheet flooring backing*	1st Floor - Adhesive	Yellow Fibrous Homogeneous		94% Non-fibrous (Other)	6% Chrysotile
18MB178-12 *621801224-0012*	1st Floor - Sheet Vinyl Flooring				Positive Stop (Not Analyzed)
18MB178-13 *621801224-0013*	1st Floor - Adhesive				Positive Stop (Not Analyzed)
18MB178-14 *621801224-0014*	1st Floor - Pipe Insulation	Gray Fibrous Homogeneous		30% Non-fibrous (Other)	70% Chrysotile
18MB178-15 *621801224-0015*	1st Floor - Pipe Insulation				Positive Stop (Not Analyzed)
18MB178-16 *621801224-0016*	1st Floor - Pipe Insulation				Positive Stop (Not Analyzed)

Initial report from: 07/09/2018 11:32:43

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http://www.EMSL.com / portlandlab@emsl.com

EMSL Order: 621801224
Customer ID: KDAI50
Customer PO:
Project ID:

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos % Fibrous	Non-Asbestos % Non-Fibrous	Asbestos % Type
18MB178-17 *621801224-0017*	1st Floor - Adhesive on Paneling	Yellow Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
18MB178-18 *621801224-0018*	1st Floor - Adhesive on Paneling	Yellow Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
18MB178-19 *621801224-0019*	Exterior - Window Caulking	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
18MB178-20 *621801224-0020*	Exterior - Window Caulking	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
18MB178-21 *621801224-0021*	Stairwell - Stair Tread Covering	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
18MB178-22 *621801224-0022*	Stairwell - Stair Tread Covering	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
18MB178-23 *621801224-0023*	Apt 1 - Sheet Vinyl Flooring, Bath	Tan Fibrous Homogeneous	60% Cellulose	40% Non-fibrous (Other)	None Detected
18MB178-24 *621801224-0024*	Apt. 1 - Adhesive	Yellow Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
18MB178-25 *621801224-0025*	Apt 1 - Sheet Vinyl Flooring, Bath	Tan Fibrous Homogeneous	65% Cellulose	35% Non-fibrous (Other)	None Detected
18MB178-26 *621801224-0026*	Apt. 1 - Adhesive	Yellow Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
18MB178-27 *621801224-0027*	Apt 1 - 12 x 12 Floor Tile, Blue	Black/Blue Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
18MB178-28 *621801224-0028*	Apt. 1 - 12 x 12 Floor Tile, Blue	Black/Blue Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
18MB178-29 *621801224-0029*	Apt 1 - Plaster	Gray Non-Fibrous Homogeneous	3% Cellulose	97% Non-fibrous (Other)	None Detected
18MB178-30 *621801224-0030*	Apt 1 - Plaster	Gray Non-Fibrous Homogeneous	4% Cellulose	96% Non-fibrous (Other)	None Detected
18MB178-31 *621801224-0031*	Apt 1 - Sheet Vinyl, Kitchen Countertop	Tan/Black Fibrous Homogeneous	50% Cellulose	50% Non-fibrous (Other)	None Detected
18MB178-32 *621801224-0032*	Apt 1 - Sheet Vinyl, Kitchen Countertop	Tan/Black Fibrous Homogeneous	50% Cellulose	50% Non-fibrous (Other)	None Detected
18MB178-33 *621801224-0033*	Apt 1 - Sink Undercoating	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
18MB178-34 *621801224-0034*	Apt 1 - Sink Undercoating	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
18MB178-35 *621801224-0035*	Apt 1 - Sheet Vinyl Flooring, Kitchen	Brown Fibrous Homogeneous	60% Cellulose	40% Non-fibrous (Other)	None Detected

Initial report from: 07/09/2018 11:32:43

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EMSL Order: 621801224
Customer ID: KDAI50
Customer PO:
Project ID:

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

			Non-Asbestos		Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
18MB178-36 *621801224-0036*	Apt 1 - Sheet Vinyl Flooring, Kitchen	Brown Non-Fibrous Homogeneous	60% Cellulose	40% Non-fibrous (Other)	None Detected
18MB178-37 *621801224-0037*	Apt 2 - Sheet Vinyl Flooring, Bathroom	Tan Fibrous Homogeneous	65% Cellulose	35% Non-fibrous (Other)	None Detected
18MB178-38 *621801224-0038*	Apt 2 - Adhesive	Yellow Non-Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
18MB178-39 *621801224-0039*	Apt 2 - Sheet Vinyl Flooring, Bathroom	Tan Fibrous Homogeneous	60% Cellulose	40% Non-fibrous (Other)	None Detected
18MB178-40 *621801224-0040*	Apt 2 - Adhesive	Yellow Non-Fibrous Homogeneous	8% Cellulose	92% Non-fibrous (Other)	None Detected
18MB178-41 *621801224-0041*	Apt 2 - Vinyl Baseboard, Black	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
18MB178-42 *621801224-0042*	Apt 2 - Adhesive	Yellow Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
18MB178-43 *621801224-0043*	Apt 2 - Vinyl Baseboard, Black	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
18MB178-44 *621801224-0044*	Apt 2 - Adhesive	Yellow Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
18MB178-45 *621801224-0045*	Apt 2 - Plaster	Gray Non-Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
18MB178-46 *621801224-0046*	Apt 2 - Plaster	Gray Non-Fibrous Homogeneous	12% Cellulose	88% Non-fibrous (Other)	None Detected
18MB178-47 *621801224-0047*	Attic - Blown-In Insulation	Gray Fibrous Homogeneous	98% Cellulose	2% Non-fibrous (Other)	None Detected
18MB178-48 *621801224-0048*	Attic - Blown-In Insulation	Gray Fibrous Homogeneous	98% Cellulose	2% Non-fibrous (Other)	None Detected
18MB178-49 *621801224-0049*	Roof - Roll Roofing	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
18MB178-50 *621801224-0050*	Roof - Roll Roofing	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
18MB178-51 *621801224-0051*	Roof - Tar Sealant	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
18MB178-52 *621801224-0052*	Roof - Tar Sealant	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
18MB178-53 *621801224-0053*	Apt 2 - Mastic	Tan/Black Fibrous Homogeneous	20% Cellulose 10% Synthetic	70% Non-fibrous (Other)	None Detected
18MB178-54 *621801224-0054*	Apt 2 - Mastic	Black Fibrous Homogeneous	20% Cellulose 15% Synthetic	65% Non-fibrous (Other)	None Detected

Initial report from: 07/09/2018 11:32:43

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EMSL Order: 621801224
Customer ID: KDAI50
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Project ID:

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos % Fibrous	Non-Asbestos % Non-Fibrous	Asbestos % Type
18MB178-55 *621801224-0055*	Apt. 3 - Sheet Vinyl Flooring, Brown	Tan Fibrous Homogeneous		35% Non-fibrous (Other)	65% Chrysotile
18MB178-56 *621801224-0056*	Apt. 3 - Sheet Vinyl Flooring, Brown				Positive Stop (Not Analyzed)
18MB178-57 *621801224-0057*	Apt. 3 - Sheet Vinyl Flooring, Grey	Gray Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
18MB178-58 *621801224-0058*	Apt. 3 - Sheet Vinyl Flooring, Grey	Gray Fibrous Homogeneous	15% Cellulose	85% Non-fibrous (Other)	None Detected
18MB178-59 *621801224-0059*	Apt. 3 - 12 x 12 Floor Tile, Kitchen	Brown/Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
18MB178-60 *621801224-0060*	Apt. 3 - 12 x 12 Floor Tile, Kitchen	Brown/Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
18MB178-61 *621801224-0061*	Apt. 3 - Sheet Vinyl Flooring, Kitchen	Tan Fibrous Homogeneous	65% Cellulose	35% Non-fibrous (Other)	None Detected
18MB178-62 *621801224-0062*	Apt. 3 - Sheet Vinyl Flooring, Kitchen	Tan Fibrous Homogeneous	65% Cellulose	35% Non-fibrous (Other)	None Detected
18MB178-63 *621801224-0063*	Apt. 3 - Sheet Vinyl Flooring, Blue/White	White/Blue Fibrous Homogeneous	50% Cellulose	50% Non-fibrous (Other)	None Detected
18MB178-64 *621801224-0064*	Apt. 3 - Sheet Vinyl Flooring, Blue/White	White/Silver Fibrous Homogeneous	65% Cellulose	35% Non-fibrous (Other)	None Detected
18MB178-65 *621801224-0065*	Apt. 3 - Gypsum Board	Gray Fibrous Homogeneous	20% Cellulose	80% Non-fibrous (Other)	None Detected
18MB178-66 *621801224-0066*	Apt. 3 - Gypsum Board	Gray Non-Fibrous Homogeneous	15% Cellulose	85% Non-fibrous (Other)	None Detected
18MB178-67 *621801224-0067*	Apt. 3 - Joint Compound	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
18MB178-68 *621801224-0068*	Apt. 3 - Joint Compound	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
18MB178-69 *621801224-0069*	Roof - Asphalt Shingle, Upper Roof	Black Fibrous Homogeneous	15% Glass	85% Non-fibrous (Other)	None Detected
18MB178-70 *621801224-0070*	Roof - Asphalt Shingle, Upper Roof	Black Fibrous Homogeneous	20% Glass	80% Non-fibrous (Other)	None Detected
18MB178-71 *621801224-0071*	Roof - Tar Sealant, Upper Roof	Black Non-Fibrous Homogeneous		88% Non-fibrous (Other)	12% Chrysotile
18MB178-72 *621801224-0072*	Roof - Tar Sealant, Upper Roof				Positive Stop (Not Analyzed)

Report Comment: **VT CERT # PB729903**

Initial report from: 07/09/2018 11:32:43

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EMSL Order:	621801224
Customer ID:	KDAI50
Customer PO:	
Project ID:	

Analyst(s)
Zackary Carbee (66)

Christina Lentz, Laboratory Manager
or Other Approved Signatory

EMSL maintains liability limited to cost of analysis. The above analyses were performed in general compliance with Appendix E to Subpart E of 40 CFR (previously EPA 600/M4-82-020 "Interim Method"), but augmented with procedures outlined in the 1993 ("final") version of the method. This report relates only to the samples reported above, and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. Interpretation and use of test results are the responsibility of the client. All samples received in acceptable condition unless otherwise noted. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST or any agency of the federal government. EMSL recommends gravimetric reduction for all non-friable organically bound materials prior to analysis. Estimation of uncertainty is available on request.

Samples analyzed by EMSL Analytical, Inc. South Portland, ME NVLAP Lab Code 500094-0, MA AA000236, VT AL197271, ME LM-0039, CT PH-0346

Initial report from: 07/09/2018 11:32:43

ASBESTOS INSPECTION REPORT

of

Commercial Structure
10 Congress Street
St. Albans, Vermont

Prepared for:

LE Environmental, Inc.
21 North Main Street
Waterbury, Vermont 05679

6 August, 2018

KDAI Project No: 14186-015

KD ASSOCIATES, INC.
Environmental Consulting & Contracting
41 IDX Drive, Suite 209, South Burlington, Vermont 05403-7757 (802) 862-7490

INTRODUCTION

K-D Associates, Inc. inspected and collected samples of suspect building materials for the presence of asbestos from the commercial structure located at 10 Congress Street, St. Albans, VT. The survey was designed and conducted to satisfy the pre-demolition requirements of EPA 40 CFR 61, Subpart M, National Emission Standards for Hazardous Air Pollutants (NESHAP), Occupational Safety and Health Administration (OSHA), and the Vermont Regulations for Asbestos Control (VRAC) (V.S.A. Title 18, Chapter 26). The inspection was conducted on July 18, 2018.

Multiple samples of each suspect material were collected per homogeneous area. The number of samples was guided by the sampling requirements of the EPA Asbestos Hazard Emergency Response Act (AHERA). Each sample was sealed in a distinct sampling bag, labeled, and transported under a chain-of-custody to the laboratory for analysis.

All samples were analyzed by Polarized Light Microscopy (PLM) until either a positive sample was found in a material type or all samples were analyzed. Asbestos-Containing Material (ACM) as defined by the EPA and the State of Vermont are materials with an asbestos concentration of greater than one percent (>1%). Laboratory analysis was performed by PLM using EPA Method 600/R-93/116 (point-counted when positive at less than 10%). When one sample in a material type is found to contain asbestos in a concentration greater than one percent (>1%), the remaining samples in that group are not analyzed (positive stop). Complete laboratory results are attached.

FINDINGS

In summary, asbestos was detected in the following materials:

Sample ID	Material Description	Location	Percent & Asbestos Type	Approximate Quantity
18MB199-200	9" by 9" vinyl floor tile brown, bottom layer	First floor	9.5% Chrysotile	550 sq. ft.
18MB199-204	Sheet vinyl flooring, brown	First floor	30% Chrysotile	100 sq. ft.
18MB199-214	Vinyl floor tile, blue	First floor, beneath carpet	7.8% Chrysotile	144 sq. ft.
18MB199-218	Vinyl floor tile, grey	First floor, beneath carpet	10.8% Chrysotile	144 sq. ft.
18MB199-222	Vinyl floor tile, green	First floor, beneath carpet	12.5% Chrysotile	144 sq. ft.
18MB199-226	Vinyl floor tile, tan	First floor, bathroom	11.8% Chrysotile	32 sq. ft.
18MB199-230	Vinyl floor tile, green and grey	First floor	9.8% Chrysotile	850 sq. ft.
18MB199-238	Sheet vinyl flooring, flower pattern	Second floor, closet	25% Chrysotile	10 sq. ft.

The following materials were analyzed and found to be non-asbestos containing materials:

Sample ID	Material Description	Location
18MB199-201, 203	Adhesive associated with 9" by 9" vinyl floor tile, brown	First floor
18MB199-205, 207	Adhesive associated with sheet vinyl flooring, brown, first floor	First floor
18MB199-208, 209, 210	Gypsum board	First floor walls and ceilings
18MB199-211, 212, 213	Joint compound	First floor walls and ceilings
18MB199-215, 217	Adhesive associated with vinyl floor tile, blue	First floor
18MB199-219, 221	Adhesive associated with vinyl floor tile, grey	First floor
18MB199-223, 225	Adhesive associated with vinyl floor tile, green	First floor
18MB199-227, 229	Adhesive associated with vinyl floor tile, tan	First floor bathroom
18MB199-231, 233	Adhesive associated with vinyl floor tile, green and grey	First floor
18MB199-234, 235	1' by 2' ceiling tile	First floor, throughout
18MB199-236, 237	12" by 12" vinyl floor tile, self stick, white	Second floor, bathroom
18MB199-239, 241	Adhesive associated with sheet vinyl flooring, brown, first floor	First floor
18MB199-242, 243	Building paper	Second floor, behind paneling
18MB199-244, 245, 246	Plaster	Second floor walls and ceilings
18MB199-248, 249	Roofing paper	Beneath slate
18MB199-250, 251, 252, 253	Sheet vinyl flooring, brown and associated adhesive	Second floor, kitchen
18MB199-254, 255	Asphalt shingle roofing	Exterior
18MB199-256, 257	Window glazing	Exterior
18MB199-258, 259	Foundation coating	Exterior

RESULTS / CONCLUSIONS

The results of this pre-demolition asbestos inspection at the commercial structure located at 10 Congress Street in St. Albans, Vermont has identified eight building materials that contain asbestos in a concentration greater than one percent (>1%). The Vermont Regulations for Asbestos Control (VRAC) and National Emission Standards for Hazardous Air Pollutants (NESHAP) require that ACM's be removed by a Vermont-Licensed Asbestos Abatement Contractor prior to demolition or if renovation activities will disturb these materials. Each of these agencies also has notification requirements 10 work days prior to abatement and/or demolition activities.

An effort was made to find materials hidden from casual view, however additional suspect materials may be present in concealed or inaccessible spaces. Any other suspect materials found during renovation/demolition activities, not specifically sampled/identified in this survey should be presumed to be positive for asbestos until they can be sampled and laboratory analysis shows otherwise.

This report is not intended to be used as a bid document or specification for the purpose of abatement estimating. The quantities associated with the above materials are approximated and are not intended to be used for abatement cost estimation.

Please do not hesitate to call if you have any questions or need additional information.

Respectfully,

John P. Madigan
VT Asbestos Inspector #MP706704

Enclosure

🗁 14186-015

KD ASSOCIATES, INC.
ENVIRONMENTAL CONSULTING AND CONTRACTING

Laboratory Results

Report Date: 8/1/2018

LE Environmental LLC
21 North Main Street
Waterbury, VT 05676

Date Received: 7/18/2018
Sample Location: 10 Congress Street
St. Albans, Vermont

Customer No.: 14186
Lab Reference No.: 18455
Number Samples Analyzed: 52

Analysis for asbestos type and quantity (visual area estimate and/or point counting) was performed by EPA test method 600/R-93/116, utilizing Polarized Light Microscopy (PLM) and dispersion staining techniques.

Lab No.	Sample Identification	Result
B-18-3179	18MB199-200 9 x 9 vinyl floor tile, brown, bottom layer, first floor	Positive for Asbestos 9.5% Chrysotile
B-18-3180	18MB199-201 Adhesive associated with above sample	No Asbestos Detected
B-18-3181	18MB199-202 9 x 9 vinyl floor tile, brown, bottom layer, first floor	Not Analyzed
B-18-3182	18MB199-203 Adhesive associated with above sample	No Asbestos Detected
B-18-3183	18MB199-204 Sheet vinyl flooring, brown, first floor	Positive for Asbestos 30% Chrysotile
B-18-3184	18MB199-205 Adhesive associated with above sample	No Asbestos Detected
B-18-3185	18MB199-206 Sheet vinyl flooring, brown, first floor	Not Analyzed
B-18-3186	18MB199-207 Adhesive associated with above sample	No Asbestos Detected
B-18-3187	18MB199-208 Gypsum board, first floor	No Asbestos Detected
B-18-3188	18MB199-209 Gypsum board, first floor	No Asbestos Detected
B-18-3189	18MB199-210 Gypsum board, first floor	No Asbestos Detected
B-18-3190	18MB199-211 Joint compound, first floor	No Asbestos Detected
B-18-3191	18MB199-212 Joint compound, first floor	No Asbestos Detected
B-18-3192	18MB199-213 Joint compound, first floor	No Asbestos Detected
B-18-3193	18MB199-214 Vinyl floor tile, blue, first floor	Positive for Asbestos 7.8% Chrysotile
B-18-3194	18MB199-215 Adhesive associated with above sample	No Asbestos Detected
B-18-3195	18MB199-216 Vinyl floor tile, blue, first floor	Not Analyzed
B-18-3196	18MB199-217 Adhesive associated with above sample	No Asbestos Detected

The results listed above relate only to the items/samples tested. Samples received in good condition unless otherwise noted. K-D Associates assumes no responsibility or liability for the manner in which these results are used or interpreted. The accuracy of PLM may be limited in the analysis of certain sample materials. For PLM results that are "negative" or positive at less than one percent, re-analysis by another analytical method may be appropriate.

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B-18-3197	18MB199-218	Vinyl floor tile, grey, first floor	Positive for Asbestos 10.8% Chrysotile
B-18-3198	18MB199-219	Adhesive associated with above sample	No Asbestos Detected
B-18-3199	18MB199-220	Vinyl floor tile, grey, first floor	Not Analyzed
B-18-3200	18MB199-221	Adhesive associated with above sample	No Asbestos Detected
B-18-3201	18MB199-222	Vinyl floor tile, green, first floor	Positive for Asbestos 12.5% Chrysotile
B-18-3202	18MB199-223	Adhesive associated with above sample	No Asbestos Detected
B-18-3203	18MB199-224	Vinyl floor tile, green, first floor	Not Analyzed
B-18-3204	18MB199-225	Adhesive associated with above sample	No Asbestos Detected
B-18-3205	18MB199-226	Vinyl floor tile, tan, bathroom, first floor	Positive for Asbestos 11.8% Chrysotile
B-18-3206	18MB199-227	Adhesive associated with above sample	No Asbestos Detected
B-18-3207	18MB199-228	Vinyl floor tile, tan, bathroom, first floor	Not Analyzed
B-18-3208	18MB199-229	Adhesive associated with above sample	No Asbestos Detected
B-18-3209	18MB199-230	Vinyl floor tile, green & grey, first floor	Positive for Asbestos 9.8% Chrysotile
B-18-3210	18MB199-231	Adhesive associated with above sample	No Asbestos Detected
B-18-3211	18MB199-232	Vinyl floor tile, green & grey, first floor	Not Analyzed
B-18-3212	18MB199-233	Adhesive associated with above sample	No Asbestos Detected
B-18-3213	18MB199-234	1 x 2 ceiling tile, throughout, first floor	No Asbestos Detected
B-18-3214	18MB199-235	1 x 2 ceiling tile, throughout, first floor	No Asbestos Detected
B-18-3215	18MB199-236	12 x 12 vinyl floor tile, white, self-stick, bathroom, second floor	No Asbestos Detected
B-18-3216	18MB199-237	12 x 12 vinyl floor tile, white, self-stick, bathroom, second floor	No Asbestos Detected
B-18-3217	18MB199-238	Sheet vinyl flooring, flower pattern, closet, second floor	Positive for Asbestos 25% Chrysotile
B-18-3218	18MB199-239	Adhesive associated with above sample	No Asbestos Detected
B-18-3219	18MB199-240	Sheet vinyl flooring, flower pattern, closet, second floor	Not Analyzed
B-18-3220	18MB199-241	Adhesive associated with above sample, second floor	No Asbestos Detected
B-18-3221	18MB199-242	Building paper, behind wall paneling, second floor	No Asbestos Detected
B-18-3222	18MB199-243	Building paper, behind wall paneling, second floor	No Asbestos Detected
B-18-3223	18MB199-244	Plaster walls, second floor	No Asbestos Detected
B-18-3224	18MB199-245	Plaster walls, second floor	No Asbestos Detected
B-18-3225	18MB199-246	Plaster walls, second floor	No Asbestos Detected
B-18-3226	18MB199-247	Plaster walls, second floor	No Asbestos Detected
B-18-3227	18MB199-248	Roofing paper, exterior	No Asbestos Detected

The results listed above relate only to the items/samples tested. Samples received in good condition unless otherwise noted. K-D Associates assumes no responsibility or liability for the manner in which these results are used or interpreted. The accuracy of PLM may be limited in the analysis of certain sample materials. For PLM results that are "negative" or positive at less than one percent, re-analysis by another analytical method may be appropriate.

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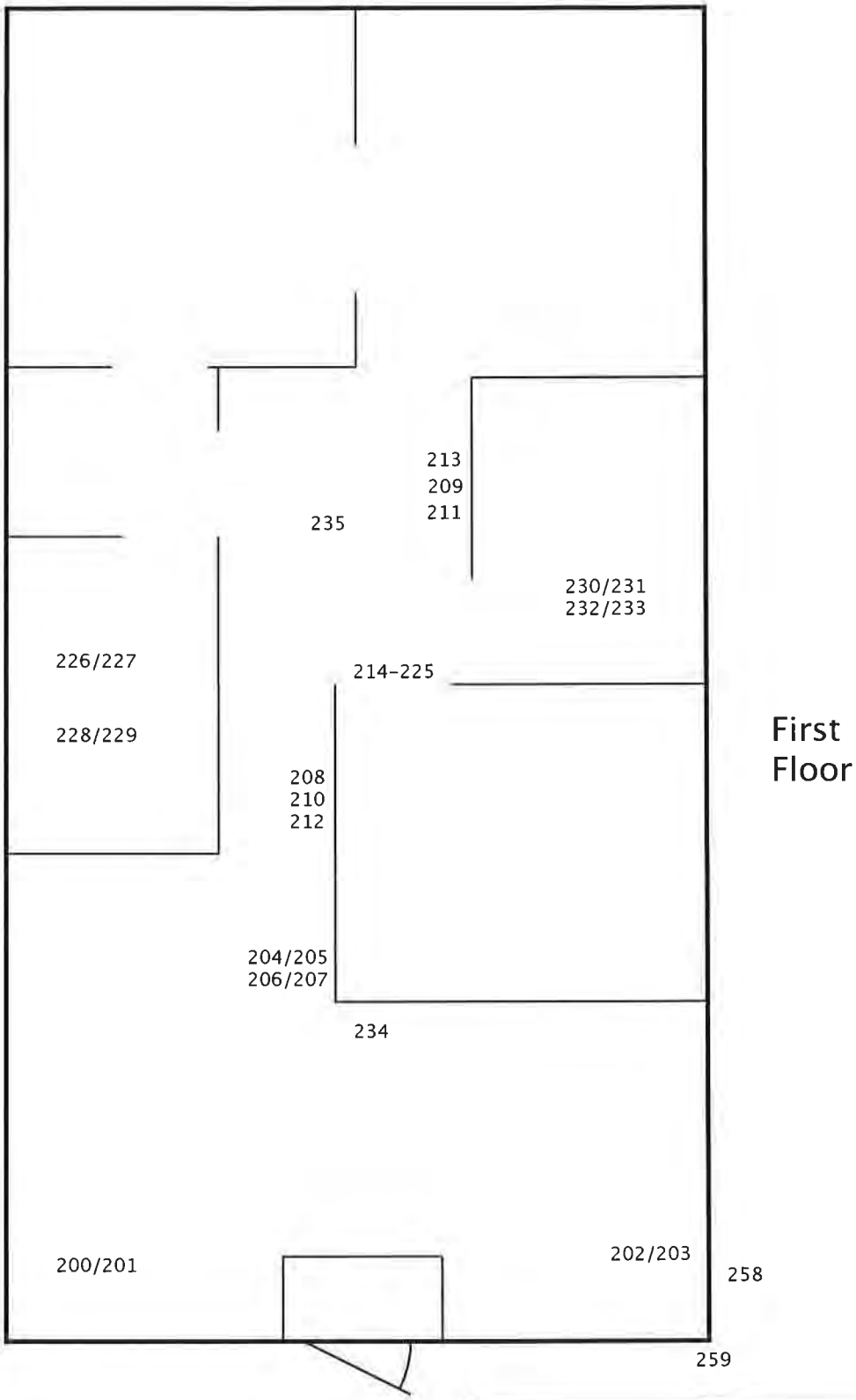
B-18-3228	18MB199-249	Roofing paper, exterior	No Asbestos Detected
B-18-3229	18MB199-250	Sheet vinyl flooring, kitchen, second floor	No Asbestos Detected
B-18-3230	18MB199-251	Adhesive associated with above sample	No Asbestos Detected
B-18-3231	18MB199-252	Sheet vinyl flooring, kitchen, second floo	No Asbestos Detected
B-18-3232	18MB199-253	Adhesive associated with above sample	No Asbestos Detected
B-18-3233	18MB199-254	Asphalt shingle roofing, exterior	No Asbestos Detected
B-18-3234	18MB199-255	Asphalt shingle roofing, exterior	No Asbestos Detected
B-18-3235	18MB199-256	Window glazing, exterior	No Asbestos Detected
B-18-3236	18MB199-257	Window glazing, exterior	No Asbestos Detected
B-18-3237	18MB199-258	Foundation coating, exterior	No Asbestos Detected
B-18-3238	18MB199-259	Foundation coating, exterior	No Asbestos Detected

Bryan Schultz
Laboratory Manager

Laboratory Certifications: Vermont #AL278811
Analyst: Bryan Schultz, #PB487404

The results listed above relate only to the items/samples tested. Samples received in good condition unless otherwise noted. K-D Associates assumes no responsibility or liability for the manner in which these results are used or interpreted. The accuracy of PLM may be limited in the analysis of certain sample materials. For PLM results that are "negative" or positive at less than one percent, re-analysis by another analytical method may be appropriate.

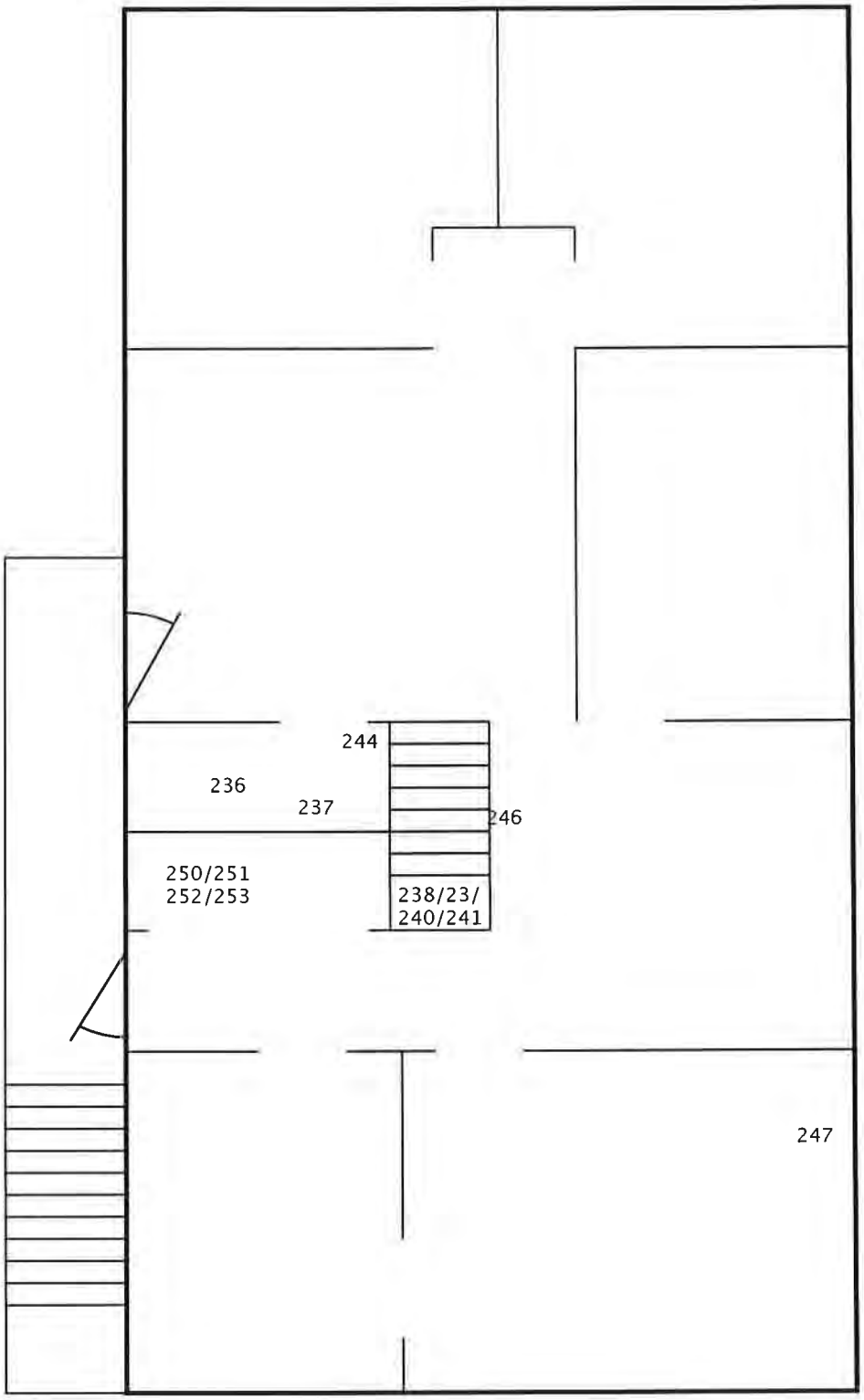


KD ASSOCIATES, INC.
ENVIRONMENTAL CONSULTING AND CONTRACTING

Asbestos Inspection Sampling Locations
10 Congress Street
St. Albans, VT

NOT TO SCALE

14186-015



Second Floor

Congress Street

KD ASSOCIATES, INC.
ENVIRONMENTAL CONSULTING AND CONTRACTING

Asbestos Inspection Sampling Locations
10 Congress Street
St. Albans, VT

NOT TO SCALE

14186-015

ASBESTOS INSPECTION REPORT

of

Commercial Structure
10 Maiden Lane
St. Albans, Vermont

Prepared for:

LE Environmental, Inc.
21 North Main Street
Waterbury, Vermont 05679

6 August, 2018

KDAI Project No: 14186-015

KD ASSOCIATES, INC.
Environmental Consulting & Contracting
41 IDX Drive, Suite 209, South Burlington, Vermont 05403-7757 (802) 862-7490

INTRODUCTION

K-D Associates, Inc. inspected and collected samples of suspect building materials for the presence of asbestos from the residential structure located at 10 Maiden Lane, St. Albans, VT. The survey was designed and conducted to satisfy the pre-demolition requirements of EPA 40 CFR 61, Subpart M, National Emission Standards for Hazardous Air Pollutants (NESHAP), Occupational Safety and Health Administration (OSHA), and the Vermont Regulations for Asbestos Control (VRAC) (V.S.A. Title 18, Chapter 26). The inspection was conducted on July 18, 2018.

Multiple samples of each suspect material were collected per homogeneous area. The number of samples was guided by the sampling requirements of the EPA Asbestos Hazard Emergency Response Act (AHERA). Each sample was sealed in a distinct sampling bag, labeled, and transported under a chain-of-custody to the laboratory for analysis.

All samples were analyzed by Polarized Light Microscopy (PLM) until either a positive sample was found in a material type or all samples were analyzed. Asbestos-Containing Material (ACM) as defined by the EPA and the State of Vermont are materials with an asbestos concentration of greater than one percent (>1%). Laboratory analysis was performed by PLM using EPA Method 600/R-93/116 (point-counted when positive at less than 10%). When one sample in a material type is found to contain asbestos in a concentration greater than one percent (>1%), the remaining samples in that group are not analyzed (positive stop). Complete laboratory results are attached.

FINDINGS

In summary, asbestos was detected in the following materials:

Sample ID	Material Description	Location	Percent & Asbestos Type	Approximate Quantity
18MB199-09	Sink coating	Unit 16, kitchen	2.5% Chrysotile	3 sq. ft.
18MB199-31	9" by 9" Vinyl floor tile, brown	Unit 9, kitchen, bottom layer	9.8% Chrysotile	72 sq. ft.
18MB199-53	Sink coating	Unit 2, kitchen	1.5% Chrysotile	3 sq. ft.
18MB199-61	9" by 9" Vinyl floor tile, brown	Utility room	10.8% Chrysotile	50 sq. ft.
18MB199-53	Sink coating	Unit 8, kitchen	1.5% Chrysotile	3 sq. ft.
18MB199-147	Corrugated pipe insulation	Basement, mechanical room	80% Chrysotile	3 ln. ft.
18MB199-150	Mudded joint fitting	Basement, mechanical room	90% Chrysotile	4 MJF
18MB199-156	Refractory cement at thimble	Basement, mechanical room	10.5% Chrysotile	2 sq. ft.
18MB199-198	Paper remnant on floor	Second floor, hallway	60% Chrysotile	Not quantified
18MB199-200, 201	Sink coating	Unit 8, kitchen	0.5% Chrysotile*	Not quantified

* A regulated asbestos-containing material (ACM) as defined by the EPA and the State of Vermont are materials with an asbestos concentration of greater than one percent (>1%). "Trace" concentrations of asbestos are defined as samples containing no asbestos points out of the 400 points in the point-count method, however asbestos is positively identified within the material.

There is no asbestos licensing or asbestos disposal requirements for the removal of materials containing one percent or less asbestos. The OSHA standard contains engineering controls and work practices that apply to certain work activities involving only installed building materials that meet the definition of ACM.

The following materials were analyzed and found to be non-asbestos containing materials:

Sample ID	Material Description	Location
18MB199-01, 02	Grout associated with ceramic tile	Unit 6, throughout
18MB199-03, 04	Gypsum board	Various walls and ceilings throughout
18MB199-05, 06	Joint compound	Various walls and ceilings throughout
18MB199-07, 08	Adhesive on wall panels	Unit 16, bathroom
18MB199-11, 12, 13, 14	Sheet vinyl flooring (white) and associated adhesive	Unit 7, kitchen
18MB199-15, 16, 17, 18	Sheet vinyl flooring (white) and associated adhesive	Unit 7, bathroom
18MB199-19, 20	Plaster	Unit 7, walls throughout
18MB199-21, 22	Backer board behind plaster	Unit 7, walls throughout
18MB199-23. 24, 25, 26	Sheet vinyl flooring (white) and associated adhesive	Unit 9, bathroom
18MB199-27, 28	Adhesive on wall panels	Unit 9, bathroom
18MB199-29, 30	12" by 12" vinyl floor tile, self stick, top layer	Unit 9, kitchen
18MB199-32, 34	Adhesive associated with 9" by 9" vinyl floor tile, brown	Unit 9, kitchen
18MB199-35, 36, 37, 38	Sheet vinyl flooring (tan) and associated adhesive	Unit 3, kitchen
18MB199-39, 40, 41, 42	Sheet vinyl flooring (grey) and associated adhesive	Unit 3, bathroom
18MB199-43, 44, 45, 46	Sheet vinyl flooring (grey) and associated adhesive	Unit 6, kitchen
18MB199-47, 48	12" by 12" vinyl floor tile, self stick, top layer, green marble pattern	Unit 6, bathroom
18MB199-49, 50, 51, 52	Sheet vinyl flooring (beige) and associated adhesive, bottom layer	Unit 6, bathroom
18MB199-55, 56	Grout associated with ceramic tile	Unit 2, kitchen
18MB199-57, 58	Grout associated with ceramic tile	Unit 2, bathroom
18MB199-59, 60	Grout associated with ceramic tile	Unit 2, main room

18MB199-62, 64	Adhesive associated with 9" by 9" vinyl floor tile, brown	Basement, utility room
18MB199-65, 66, 67, 68	Sheet vinyl flooring (brown) and associated adhesive	Unit 8, kitchen
18MB199-71, 72, 73, 74	Sheet vinyl flooring (tan) and associated adhesive	Unit 8, bathroom
18MB199-75, 76	Sink coating	Unit 21, kitchen
18MB199-77, 78	Suspended ceiling tile	Unit 21, throughout
18MB199-79, 80	Carpet adhesive, yellow	Unit 23, throughout
18MB199-81, 82	Suspended ceiling tile	Unit 23, throughout
18MB199-83, 84, 85, 86	Sheet vinyl flooring (white) and associated adhesive	Unit 12, bathroom
18MB199-87, 88, 89, 90	Vinyl baseboard (brown) and associated adhesive	Unit 12, kitchen
18MB199-91, 92, 93, 94	Sheet vinyl flooring (green tile) and associated adhesive, top layer	Unit 12, kitchen
18MB199-95, 96, 97, 98	Sheet vinyl flooring and associated adhesive, middle layer	Unit 12, kitchen
18MB199-99, 100	Vinyl floor tile, bottom layer	Unit 12, kitchen
18MB199-101, 102, 103, 104	Sheet vinyl flooring (white) and associated adhesive	Unit 14, bathroom
18MB199-105, 106, 107, 108	Vinyl baseboard and associated adhesive	Unit 14, bathroom
18MB199-109, 110	Sheet vinyl flooring, counter top	Unit 13, kitchen
18MB199-111, 112, 113, 114	Sheet vinyl flooring (brown) and associated adhesive, top layer	Unit 13, bathroom
18MB199-115, 116, 117, 118	Sheet vinyl flooring (brown) and associated adhesive, bottom layer	Unit 13, bathroom
18MB199-119, 120, 121, 122	Sheet vinyl flooring (green) and associated adhesive	Unit 18, bathroom
18MB199-123, 124, 125, 126	Sheet vinyl flooring (white) and associated adhesive, top layer	Unit 13, kitchen
18MB199-127, 128, 129, 130	Sheet vinyl flooring (grey) and associated adhesive, top layer	Unit 17, kitchen and bathroom
18MB199-131, 132, 133, 134	Sheet vinyl flooring (grey) and associated adhesive	Unit 20, bathroom
18MB199-135, 136	Sink coating, white	Unit 19, kitchen
18MB199-137, 138, 139, 140	Sheet vinyl flooring (beige) and associated adhesive	Unit 11, bathroom
18MB199-141, 142, 143, 144	Sheet vinyl flooring (grey) and associated adhesive	Unit 11, kitchen
18MB199-145, 146	Cement panel	Mechanical room, basement
18MB199-153, 154	Plaster on metal lath	Unit 19, kitchen
18MB199-157, 158, 159, 160	Sheet vinyl flooring (white and yellow) and associated adhesive	Unit 4, kitchen and bathroom
18MB199-161, 162, 163, 164	Sheet vinyl flooring (beige) and associated adhesive	Unit 5, bathroom

18MB199-165, 166, 167, 168	Sheet vinyl flooring (grey and beige) and associated adhesive	Unit 5, kitchen
18MB199-169, 170, 171, 172	Sheet vinyl flooring (beige) and associated adhesive	Unit 22, kitchen
18MB199-173, 174, 175, 176	Sheet vinyl flooring (beige) and associated adhesive	Unit 22, bathroom
18MB199-177, 178	Asphalt shingle roofing	Exterior
18MB199-179, 180	Vinyl stair treads, grey	Common hallways
18MB199-181, 182	Cement panel	Exterior
18MB199-183, 184	Carpet adhesive	Common hallways
18MB199-185, 186, 187, 188, 189	Plaster	Throughout
18MB199-190, 191, 192, 193	Sheet vinyl flooring (pebble pattern) and associated adhesive, beneath carpet	Common hallway, second floor
18MB199-194, 195	Joint compound	Laundry room
18MB199-196, 197	Gypsum board	Laundry room

RESULTS / CONCLUSIONS

The results of this pre-demolition asbestos inspection at the commercial structure located at 10 Maiden Lane in St. Albans, Vermont has identified ten building materials that contain asbestos in a concentration greater than one percent (>1%). The Vermont Regulations for Asbestos Control (VRAC) and National Emission Standards for Hazardous Air Pollutants (NESHAP) require that ACM's be removed by a Vermont-Licensed Asbestos Abatement Contractor prior to demolition or if renovation activities will disturb these materials. Each of these agencies also has notification requirements 10 work days prior to abatement and/or demolition activities.

An effort was made to find materials hidden from casual view, however additional suspect materials may be present in concealed or inaccessible spaces. Any other suspect materials found during renovation/demolition activities, not specifically sampled/identified in this survey should be presumed to be positive for asbestos until they can be sampled and laboratory analysis shows otherwise. Because the building was still occupied at the time of this survey, destructive sampling was limited. Additional sampling may be required prior to demolition to insure that all materials have been sampled including materials that may be present within walls or above ceilings, in the attic, beneath additional layers of sub floor, and in Unit 10, which was not available.

This report is not intended to be used as a bid document or specification for the purpose of abatement estimating. The quantities associated with the above materials are approximated and are not intended to be used for abatement cost estimation.

Please do not hesitate to call if you have any questions or need additional information.

Respectfully,

John P. Madigan
VT Asbestos Inspector #MP706704

Enclosure

14186-015

KD ASSOCIATES, INC.
ENVIRONMENTAL CONSULTING AND CONTRACTING

Laboratory Results

Report Date: 7/31/2018

LE Environmental LLC
21 North Main Street
Waterbury, VT 05676

Date Received: 7/18/2018
Sample Location: 10 Maiden Lane
St. Albans, Vermont

Customer No.: 14186
Lab Reference No.: 18454
Number Samples Analyzed: 190

Analysis for asbestos type and quantity (visual area estimate and/or point counting) was performed by EPA test method 600/R-93/116, utilizing Polarized Light Microscopy (PLM) and dispersion staining techniques.

Lab No.	Sample Identification		Result
B-18-2980	18BM199-01	Grout, 12 x 12 ceramic tile, throughout unit 6	No Asbestos Detected
B-18-2981	18BM199-02	Grout, 12 x 12 ceramic tile, throughout unit 6	No Asbestos Detected
B-18-2982	18BM199-03	Gypsum board, throughout, unit 16	No Asbestos Detected
B-18-2983	18BM199-04	Gypsum board, throughout, unit 16	No Asbestos Detected
B-18-2984	18BM199-05	Joint compound, throughout, unit 16	No Asbestos Detected
B-18-2985	18BM199-06	Joint compound, throughout, unit 16	No Asbestos Detected
B-18-2986	18BM199-07	Wall panel adhesive, bathroom, unit 16	No Asbestos Detected
B-18-2987	18BM199-08	Wall panel adhesive, bathroom, unit 16	No Asbestos Detected
B-18-2988	18BM199-09	Sink coating, kitchen, unit 16	Positive for Asbestos 2.5% Chrysotile
B-18-2989	18BM199-10	Sink coating, kitchen, unit 16	Not Analyzed
B-18-2990	18BM199-11	Sheet vinyl flooring, white, kitchen, unit 7	No Asbestos Detected
B-18-2991	18BM199-12	Adhesive associated with above sample	No Asbestos Detected
B-18-2992	18BM199-13	Sheet vinyl flooring, white, kitchen, unit 7	No Asbestos Detected
B-18-2993	18BM199-14	Adhesive associated with above sample	No Asbestos Detected
B-18-2994	18BM199-15	Sheet vinyl flooring, white, bathroom, unit 7	No Asbestos Detected
B-18-2995	18BM199-16	Adhesive associated with above sample	No Asbestos Detected
B-18-2996	18BM199-17	Sheet vinyl flooring, white, bathroom, unit 7	No Asbestos Detected
B-18-2997	18BM199-18	Adhesive associated with above sample	No Asbestos Detected
B-18-2998	18BM199-19	Plaster walls, throughout, unit 7	No Asbestos Detected
B-18-2999	18BM199-20	Plaster walls, throughout, unit 7	No Asbestos Detected
B-18-3000	18BM199-21	Gypsum backer board, throughout unit 7	No Asbestos Detected

The results listed above relate only to the items/samples tested. Samples received in good condition unless otherwise noted. K-D Associates assumes no responsibility or liability for the manner in which these results are used or interpreted. The accuracy of PLM may be limited in the analysis of certain sample materials. For PLM results that are "negative" or positive at less than one percent, re-analysis by another analytical method may be appropriate.

B-18-3001	18BM199-22	Gypsum backer board, throughout unit 7	No Asbestos Detected
B-18-3002	18BM199-23	Sheet vinyl flooring, white, bathroom, unit 9	No Asbestos Detected
B-18-3003	18BM199-24	Adhesive associated with above sample	No Asbestos Detected
B-18-3004	18BM199-25	Sheet vinyl flooring, white, bathroom, unit 9	No Asbestos Detected
B-18-3005	18BM199-26	Adhesive associated with above sample	No Asbestos Detected
B-18-3006	18BM199-27	Panel adhesive, bathroom, unit 9	No Asbestos Detected
B-18-3007	18BM199-28	Panel adhesive, bathroom, unit 9	No Asbestos Detected
B-18-3008	18BM199-29	12 x 12 vinyl floor tile, self stick, top layer, kitchen, unit 9	No Asbestos Detected
B-18-3009	18BM199-30	12 x 12 vinyl floor tile, self stick, top layer, kitchen, unit 9	No Asbestos Detected
B-18-3010	18BM199-31	Vinyl floor tile, brown, bottom layer, kitchen, unit 9	Positive for Asbestos 9.8% Chrysotile
B-18-3011	18BM199-32	Adhesive associated with above sample	No Asbestos Detected
B-18-3012	18BM199-33	Vinyl floor tile, brown, bottom layer, kitchen, unit 9	Not Analyzed
B-18-3013	18BM199-34	Adhesive associated with above sample	No Asbestos Detected
B-18-3014	18BM199-35	Sheet vinyl flooring, tan, kitchen, unit 3	No Asbestos Detected
B-18-3015	18BM199-36	Adhesive associated with above sample	No Asbestos Detected
B-18-3016	18BM199-37	Sheet vinyl flooring, tan, kitchen, unit 3	No Asbestos Detected
B-18-3017	18BM199-38	Adhesive associated with above sample	No Asbestos Detected
B-18-3018	18BM199-39	Sheet vinyl flooring, grey, bathroom, unit 3	No Asbestos Detected
B-18-3019	18BM199-40	Adhesive associated with above sample	No Asbestos Detected
B-18-3020	18BM199-41	Sheet vinyl flooring, grey, bathroom, unit 3	No Asbestos Detected
B-18-3021	18BM199-42	Adhesive associated with above sample	No Asbestos Detected
B-18-3022	18BM199-43	Sheet vinyl flooring, grey, kitchen, unit 6	No Asbestos Detected
B-18-3023	18BM199-44	Adhesive associated with above sample	No Asbestos Detected
B-18-3024	18BM199-45	Sheet vinyl flooring, grey, kitchen, unit 6	No Asbestos Detected
B-18-3025	18BM199-46	Adhesive associated with above sample	No Asbestos Detected
B-18-3026	18BM199-47	12 x 12 vinyl floor tile, green marble, self-stick, top layer, bathroom unit 6	No Asbestos Detected
B-18-3027	18BM199-48	12 x 12 vinyl floor tile, green marble, self-stick, top layer, bathroom unit 6	No Asbestos Detected
B-18-3028	18BM199-49	Sheet vinyl flooring, beige, bottom layer, bathroom, unit 6	No Asbestos Detected
B-18-3029	18BM199-50	Adhesive associated with above sample	No Asbestos Detected
B-18-3030	18BM199-51	Sheet vinyl flooring, beige, bottom layer, bathroom, unit 6	No Asbestos Detected
B-18-3031	18BM199-52	Adhesive associated with above sample	No Asbestos Detected
B-18-3032	18BM199-53	Sink coating, kitchen, unit 2	Positive for Asbestos 1.5% Chrysotile
B-18-3033	18BM199-54	Sink coating, kitchen, unit 2	Not Analyzed
B-18-3034	18BM199-55	Grout, ceramic tile, kitchen, unit 2	No Asbestos Detected

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B-18-3035	18BM199-56	Grout, ceramic tile, kitchen, unit 2	No Asbestos Detected
B-18-3036	18BM199-57	Grout, ceramic tile, bathroom, unit 2	No Asbestos Detected
B-18-3037	18BM199-58	Grout, ceramic tile, bathroom, unit 2	No Asbestos Detected
B-18-3038	18BM199-59	Grout, ceramic tile, main room, unit 2	No Asbestos Detected
B-18-3039	18BM199-60	Grout, ceramic tile, main room, unit 2	No Asbestos Detected
B-18-3040	18BM199-61	9 x 9 vinyl floor tile, brown, utility room	Positive for Asbestos 10.8% Chrysotile
B-18-3041	18BM199-62	Adhesive associated with above sample	No Asbestos Detected
B-18-3042	18BM199-63	9 x 9 vinyl floor tile, brown, utility room	Not Analyzed
B-18-3043	18BM199-64	Adhesive associated with above sample	No Asbestos Detected
B-18-3044	18BM199-65	Sheet vinyl flooring, brown, kitchen, unit 8	No Asbestos Detected
B-18-3045	18BM199-66	Adhesive associated with above sample	No Asbestos Detected
B-18-3046	18BM199-67	Sheet vinyl flooring, brown, kitchen, unit 8	No Asbestos Detected
B-18-3047	18BM199-68	Adhesive associated with above sample	No Asbestos Detected
B-18-3048	18BM199-69	Sink coating, kitchen, unit 8	Positive for Asbestos 1.8% Chrysotile
B-18-3049	18BM199-70	Sink coating, kitchen, unit 8	Not Analyzed
B-18-3050	18BM199-71	Sheet vinyl flooring, tan, bathroom, unit 8	No Asbestos Detected
B-18-3051	18BM199-72	Adhesive associated with above sample	No Asbestos Detected
B-18-3052	18BM199-73	Sheet vinyl flooring, tan, bathroom, unit 8	No Asbestos Detected
B-18-3053	18BM199-74	Adhesive associated with above sample	No Asbestos Detected
B-18-3054	18BM199-75	Sink coating, kitchen, unit 21	No Asbestos Detected
B-18-3055	18BM199-76	Sink coating, kitchen, unit 21	No Asbestos Detected
B-18-3056	18BM199-77	Suspended ceiling tile, throughout, unit 21	No Asbestos Detected
B-18-3057	18BM199-78	Suspended ceiling tile, throughout, unit 21	No Asbestos Detected
B-18-3058	18BM199-79	Carpet adhesive, yellow, throughout, unit 23	No Asbestos Detected
B-18-3059	18BM199-80	Carpet adhesive, yellow, throughout, unit 23	No Asbestos Detected
B-18-3060	18BM199-81	Suspended ceiling tile, throughout, unit 23	No Asbestos Detected
B-18-3061	18BM199-82	Suspended ceiling tile, throughout, unit 23	No Asbestos Detected
B-18-3062	18BM199-83	Sheet vinyl flooring, white, bathroom, unit 12	No Asbestos Detected
B-18-3063	18BM199-84	Adhesive associated with above sample	No Asbestos Detected
B-18-3064	18BM199-85	Sheet vinyl flooring, white, bathroom, unit 12	No Asbestos Detected
B-18-3065	18BM199-86	Adhesive associated with above sample	No Asbestos Detected
B-18-3066	18BM199-87	Vinyl baseboard, brown, kitchen, unit 12	No Asbestos Detected
B-18-3067	18BM199-88	Adhesive associated with above sample	No Asbestos Detected
B-18-3068	18BM199-89	Vinyl baseboard, brown, kitchen, unit 12	No Asbestos Detected
B-18-3069	18BM199-90	Adhesive associated with above sample	No Asbestos Detected

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B-18-3070	18BM199-91 Sheet vinyl flooring, green tile pattern, top layer, kitchen, unit 12	No Asbestos Detected
B-18-3071	18BM199-92 Adhesive associated with above sample	No Asbestos Detected
B-18-3072	18BM199-93 Sheet vinyl flooring, green tile pattern, top layer, kitchen, unit 12	No Asbestos Detected
B-18-3073	18BM199-94 Adhesive associated with above sample	No Asbestos Detected
B-18-3074	18BM199-95 Sheet vinyl flooring, middle layer, kitchen, unit 12	No Asbestos Detected
B-18-3075	18BM199-96 Adhesive associated with above sample	No Asbestos Detected
B-18-3076	18BM199-97 Sheet vinyl flooring, middle layer, kitchen, unit 12	No Asbestos Detected
B-18-3077	18BM199-98 Adhesive associated with above sample	No Asbestos Detected
B-18-3078	18BM199-99 Floor tile, bottom layer, kitchen, unit 12	No Asbestos Detected
B-18-3079	18BM199-100 Floor tile, bottom layer, kitchen, unit 12	No Asbestos Detected
B-18-3080	18BM199-101 Sheet vinyl flooring, white, bathroom, unit 14	No Asbestos Detected
B-18-3081	18BM199-102 Adhesive associated with above sample	No Asbestos Detected
B-18-3082	18BM199-103 Sheet vinyl flooring, white, bathroom, unit 14	No Asbestos Detected
B-18-3083	18BM199-104 Adhesive associated with above sample	No Asbestos Detected
B-18-3084	18BM199-105 Vinyl baseboard, bathroom, unit 14	No Asbestos Detected
B-18-3085	18BM199-106 Adhesive associated with above sample	No Asbestos Detected
B-18-3086	18BM199-107 Vinyl baseboard, bathroom, unit 14	No Asbestos Detected
B-18-3087	18BM199-108 Adhesive associated with above sample	No Asbestos Detected
B-18-3088	18BM199-109 Sheet vinyl, kitchen counter top, unit 13	No Asbestos Detected
B-18-3089	18BM199-110 Sheet vinyl, kitchen counter top, unit 13	No Asbestos Detected
B-18-3090	18BM199-111 Sheet vinyl flooring, brown, top layer, bathroom, unit 13	No Asbestos Detected
B-18-3091	18BM199-112 Adhesive associated with above sample	No Asbestos Detected
B-18-3092	18BM199-113 Sheet vinyl flooring, brown, top layer, bathroom, unit 13	No Asbestos Detected
B-18-3093	18BM199-114 Adhesive associated with above sample	No Asbestos Detected
B-18-3094	18BM199-115 Sheet vinyl flooring, brown, bottom layer, bathroom, unit 13	No Asbestos Detected
B-18-3095	18BM199-116 Adhesive associated with above sample	No Asbestos Detected
B-18-3096	18BM199-117 Sheet vinyl flooring, brown, bottom layer, bathroom, unit 13	No Asbestos Detected
B-18-3097	18BM199-118 Adhesive associated with above sample	No Asbestos Detected
B-18-3098	18BM199-119 Sheet vinyl flooring, green, bathroom, unit 18	No Asbestos Detected
B-18-3099	18BM199-120 Adhesive associated with above sample	No Asbestos Detected
B-18-3100	18BM199-121 Sheet vinyl flooring, green, bathroom, unit 18	No Asbestos Detected
B-18-3101	18BM199-122 Adhesive associated with above sample	No Asbestos Detected
B-18-3102	18BM199-123 Sheet vinyl flooring, white, kitchen, top layer, unit 18	No Asbestos Detected
B-18-3103	18BM199-124 Adhesive associated with above sample	No Asbestos Detected
B-18-3104	18BM199-125 Sheet vinyl flooring, white, kitchen, top layer, unit 18	No Asbestos Detected

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B-18-3105	18BM199-126 Adhesive associated with above sample	No Asbestos Detected
B-18-3106	18BM199-127 Sheet vinyl flooring, grey, kitchen & bathroom, unit 17	No Asbestos Detected
B-18-3107	18BM199-128 Adhesive associated with above sample	No Asbestos Detected
B-18-3108	18BM199-129 Sheet vinyl flooring, grey, kitchen & bathroom, unit 17	No Asbestos Detected
B-18-3109	18BM199-130 Adhesive associated with above sample	No Asbestos Detected
B-18-3110	18BM199-131 Sheet vinyl flooring, grey, bathroom, unit 20	No Asbestos Detected
B-18-3111	18BM199-132 Adhesive associated with above sample	No Asbestos Detected
B-18-3112	18BM199-133 Sheet vinyl flooring, grey, bathroom, unit 20	No Asbestos Detected
B-18-3113	18BM199-134 Adhesive associated with above sample	No Asbestos Detected
B-18-3114	18BM199-135 Sink coating, white, kitchen, unit 19	No Asbestos Detected
B-18-3115	18BM199-136 Sink coating, white, kitchen, unit 19	No Asbestos Detected
B-18-3116	18BM199-137 Sheet vinyl flooring, beige, bathroom, unit 11	No Asbestos Detected
B-18-3117	18BM199-138 Adhesive associated with above sample	No Asbestos Detected
B-18-3118	18BM199-139 Sheet vinyl flooring, beige, bathroom, unit 11	No Asbestos Detected
B-18-3119	18BM199-140 Adhesive associated with above sample	No Asbestos Detected
B-18-3120	18BM199-141 Sheet vinyl flooring, grey, kitchen, unit 11	No Asbestos Detected
B-18-3121	18BM199-142 Adhesive associated with above sample	No Asbestos Detected
B-18-3122	18BM199-143 Sheet vinyl flooring, grey, kitchen, unit 11	No Asbestos Detected
B-18-3123	18BM199-144 Adhesive associated with above sample	No Asbestos Detected
B-18-3124	18BM199-145 Cement panel, mechanical room	No Asbestos Detected
B-18-3125	18BM199-146 Cement panel, mechanical room	No Asbestos Detected
B-18-3126	18BM199-147 Corrugated pipe insulation, mechanical room	Positive for Asbestos 80% Chrysotile
B-18-3127	18BM199-148 Corrugated pipe insulation, mechanical room	Not Analyzed
B-18-3128	18BM199-149 Corrugated pipe insulation, mechanical room	Not Analyzed
B-18-3129	18BM199-150 Mudded joint fitting, mechanical room	Positive for Asbestos 90% Chrysotile
B-18-3130	18BM199-151 Mudded joint fitting, mechanical room	Not Analyzed
B-18-3131	18BM199-152 Mudded joint fitting, mechanical room	Not Analyzed
B-18-3132	18BM199-153 Plaster on metal lath, mechanical room	No Asbestos Detected
B-18-3133	18BM199-154 Plaster on metal lath, mechanical room	No Asbestos Detected
B-18-3134	18BM199-155 Refractory at thimble, mechanical room	Positive for Asbestos 10.5% Chrysotile
B-18-3135	18BM199-156 Refractory at thimble, mechanical room	Not Analyzed
B-18-3136	18BM199-157 Sheet vinyl flooring, white & yellow, bathroom & kitchen, unit 4	No Asbestos Detected
B-18-3137	18BM199-158 Adhesive associated with above sample	No Asbestos Detected

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B-18-3138	18BM199-159 Sheet vinyl flooring, white & yellow, bathroom & kitchen, unit 4	No Asbestos Detected
B-18-3139	18BM199-160 Adhesive associated with above sample	No Asbestos Detected
B-18-3140	18BM199-161 Sheet vinyl flooring, beige, bathroom, unit 5	No Asbestos Detected
B-18-3141	18BM199-162 Adhesive associated with above sample	No Asbestos Detected
B-18-3142	18BM199-163 Sheet vinyl flooring, beige, bathroom, unit 5	No Asbestos Detected
B-18-3143	18BM199-164 Adhesive associated with above sample	No Asbestos Detected
B-18-3144	18BM199-165 Sheet vinyl flooring, grey & beige, kitchen, unit 5	No Asbestos Detected
B-18-3145	18BM199-166 Adhesive associated with above sample	No Asbestos Detected
B-18-3146	18BM199-167 Sheet vinyl flooring, grey & beige, kitchen, unit 5	No Asbestos Detected
B-18-3147	18BM199-168 Adhesive associated with above sample	No Asbestos Detected
B-18-3148	18BM199-169 Sheet vinyl flooring, white, kitchen, unit 22	No Asbestos Detected
B-18-3149	18BM199-170 Adhesive associated with above sample	No Asbestos Detected
B-18-3150	18BM199-171 Sheet vinyl flooring, white, kitchen, unit 22	No Asbestos Detected
B-18-3151	18BM199-172 Adhesive associated with above sample	No Asbestos Detected
B-18-3152	18BM199-173 Sheet vinyl flooring, grey, bathroom, unit 22	No Asbestos Detected
B-18-3153	18BM199-174 Adhesive associated with above sample	No Asbestos Detected
B-18-3154	18BM199-175 Sheet vinyl flooring, grey, bathroom, unit 22	No Asbestos Detected
B-18-3155	18BM199-176 Adhesive associated with above sample	No Asbestos Detected
B-18-3156	18BM199-177 Asphalt shingle roofing, exterior	No Asbestos Detected
B-18-3157	18BM199-178 Asphalt shingle roofing, exterior	No Asbestos Detected
B-18-3158	18BM199-179 Vinyl stair treads, grey, common hallway	No Asbestos Detected
B-18-3159	18BM199-180 Vinyl stair treads, grey, common hallway	No Asbestos Detected
B-18-3160	18BM199-181 Window glazing, exterior	No Asbestos Detected
B-18-3161	18BM199-182 Window glazing, exterior	No Asbestos Detected
B-18-3162	18BM199-183 Carpet adhesive, common hallway	No Asbestos Detected
B-18-3163	18BM199-184 Carpet adhesive, common hallway	No Asbestos Detected
B-18-3164	18BM199-185 Plaster, throughout	No Asbestos Detected
B-18-3165	18BM199-186 Plaster, throughout	No Asbestos Detected
B-18-3166	18BM199-187 Plaster, throughout	No Asbestos Detected
B-18-3167	18BM199-188 Plaster, throughout	No Asbestos Detected
B-18-3168	18BM199-189 Plaster, throughout	No Asbestos Detected
B-18-3169	18BM199-190 Sheet vinyl flooring, pebble pattern, beneath carpet, common hallway	No Asbestos Detected
B-18-3170	18BM199-191 Adhesive associated with above sample	No Asbestos Detected
B-18-3171	18BM199-192 Sheet vinyl flooring, pebble pattern, beneath carpet, common hallway	No Asbestos Detected
B-18-3172	18BM199-193 Adhesive associated with above sample	No Asbestos Detected

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B-18-3173	18BM199-194 Joint compound, laundry room	No Asbestos Detected
B-18-3174	18BM199-195 Joint compound, laundry room	No Asbestos Detected
B-18-3175	18BM199-196 Gypsum board, laundry room	No Asbestos Detected
B-18-3176	18BM199-197 Gypsum board, laundry room	No Asbestos Detected
B-18-3177	18BM199-198 Paper remnant on floor, hallway	Positive for Asbestos 60% Chrysotile
B-18-3178	18BM199-199 Paper remnant on floor, hallway	Not Analyzed
B-18-3274	18MB199-200 Adhesive to vinyl stair treads (sample-179)	Positive for Asbestos 0.5% Chrysotile
B-18-3275	18MB199-201 Adhesive to vinyl stair treads (sample-180)	Positive for Asbestos 0.3% Chrysotile

Bryan Schultz
Laboratory Manager

Laboratory Certifications: Vermont #AL278811
Analyst: Bryan Schultz, #PB487404

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