



Final PCB Risk-Based Cleanup and Disposal Application

**8MK Property
12700 West 8 Mile Road
Oak Park, Oakland County, Michigan**

Project Number 22-2554

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Prepared for:

**ATE Mile, LLC
Anil Thakady, Treasurer
90 North Main Street
Clarkston, Michigan**

Prepared by:

**Applied Environmental
1210 North Maple Road
Ann Arbor, MI 48103
734-975-1970**



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1.0 INTRODUCTION

Applied Environmental on behalf of ATE Mile, LLC, the Developer and Owner of the subject property, has prepared this PCB Risk-Based Cleanup and Disposal Application (Application) to request United States Environmental Protection Agency (EPA) approval for cleanup of PCBs at specific locations at the subject property. The Application and associated site assessments activities are being conducted under a Brownfield Grant #2019-2402 administered by the Michigan Department of Environment, Great Lakes, and Energy (EGLE) and the City of Oak Park, dated August 28, 2019, which was extended through August 28, 2022 due to the Covid 19 pandemic, and extended a second time with a close out date of August 28, 2023.

The subject property is located at 12700 8 Mile Road in Oak Park, Oakland County, Michigan. The subject property consists of a 4.59-acre parcel that is developed with one, one-story 5,325 square foot building with a partial basement previously used as the broadcasting studios and offices of WWJ Radio AM 950 from the 1930s through the 1990s. The structure is currently vacant and its property is zoned PTRED – Planned Technical. The subject property is currently owned by ATE Mile LLC who purchased the property on January 16, 2020 with the intent to redevelop the existing 4.59-acre parcel and building into a restaurant and event space. Refer to **Figure 1** for a Site Location Map.

This Application seeks to return the impacted portions of the subject property to its highest and best use as a high-occupancy commercial site. A cleanup of the subject property is in the best interest to the state and local agencies and the community as it will put the subject property back into use, provide jobs and increase tax revenue. This Application details a cleanup approach for PCB contamination which utilizes both a self-implementing (exterior soils) and a risk-based cleanup alternative (building interior) as set forth in 40 CFR 761.61 (a) and (c).

At some point while the building was vacant (approximately 2014), a power outage occurred causing the basement sump pump to stop working which allowed the basement to flood. Two 4,800-volt electrical transformers located in the southwest corner of the basement of the subject building shorted out due to coming into contact with the water, and as a result, exploded causing a release of transformer oil containing PCBs. The basement flood water was pumped from the basement by a maintenance contractor onto the grass area located northwest of the subject building. Refer to Figure 2 – Site Map for the location of where basement flood water was pumped. It is not documented exactly when the power outage occurred, how long the water remained in the basement prior to discovery, or when the maintenance contractor pumped the water from the basement.

Investigations of the PCB impacted media at the subject property conducted in 2014, 2015, 2020, and 2022 identified the location of impacts, the impacted media, and the maximum PCB levels in each media as follows:

- Soils: 1.33 mg/kg (parts per million) total PCBs in GP-11
- Groundwater: Not impacted by PCBs in excess of the method detection limit (MDL)
- Interior basement building materials (brick or concrete wall; concrete ceiling): 336 mg/kg total PCBs in Wall Sample #3

1.1 DESCRIPTION OF CLEANUP OPTIONS

ATE Mile LLC proposes to use two different cleanup/remedial methods depending on the impacted media to address the PCB impacts. ATE Mile LLC proposes to utilize EPA's PCB Cleanup Levels for High Occupancy Areas (1.0 mg/Kg – 1,000 ug/Kg) as the cleanup goals for this project.

PCB-impacted soils will be excavated and disposed offsite to a licensed Toxic Substance Control Act (TSCA) landfill with the goal of remediating the PCBs in soils to below the High Occupancy Level (1.0 mg/kg). PCB-impacted building materials within the basement of the subject building will be addressed by removal and proper disposal of the concrete floor, mechanically scarifying the walls and ceiling, followed by triple power wash of walls and ceiling, whereupon additional bulk sampling will be conducted to determine if further scarification and power washing will be needed, and finally encapsulating the walls and ceiling with an impermeable primer and coating. Upon successful encapsulation of the exposed surfaces within the basement of the subject building, a long-term periodic inspection/maintenance program of the encapsulated surfaces along with periodic wipe samples of the encapsulated surfaces, and periodic indoor air sampling will be put in place to ensure that the remaining encapsulated PCBs pose no exposure risk to the occupants.

2.0 SITE DESCRIPTION

The subject property is located at 12700 8 Mile Road in the City of Oak Park, Oakland County, Michigan. The subject property consists of a 4.59-acre parcel that is developed with one 5,325 square foot one-story building with a partial basement located under the central portion of the subject building. The building was constructed in 1938 and is centrally located on the subject property while the remainder of the property is developed with an asphalt drive, small parking lot and a manicured lawn. The subject building is currently unoccupied, but was previously used as the broadcasting studios and offices of WWJ Radio AM 950 from 1938 through the 1990s. ATE Mile, LLC, the Developer/Owner, intends to redevelop the existing 4.59-acre parcel and building into a restaurant and event space.

Surrounding property use consists of a retail gas station, used car sales operation, used restaurant equipment sales business, and new auto parts store to the south beyond 8 Mile Road, an industrial facility that manufactures industrial gauges to the west, broadcast studio and transmitter tower of WUDL Channel 19 to the north, and a Baymont Inn by Wyndham hotel to the east beyond Meyer Road.

The subject property is serviced by natural gas, electricity, public water, and public sewer. There are no surface water bodies on the property nor is it proximal to a permanent body of surface water. Stormwater at the subject property flows off the paved areas to the adjoining grass and landscaped area where it infiltrates the subsurface. There is one catch basin in the asphalt paved area directly north of the subject building. The interior of the catch basin was observed to be filled with sediment and does not appear to be functional. Typical weather patterns in the area of the subject property consist of prevailing westerly winds with an annual average precipitation of approximately 33 inches with an average high and low temperatures of 85 degrees Fahrenheit and 66 degrees Fahrenheit, respectively, in July and an average high and low temperatures of 32 degrees Fahrenheit and 18 degrees Fahrenheit, respectively in January.

Subsurface soils at the subject property consist primarily of a fine-grained sand layer to depths ranging from approximately 4 to 6 feet below ground surface (bgs) underlain by a brown to gray clay formation extending to the maximum explored depth of 20 feet bgs. Groundwater was intermittently encountered in the sand layer perched above the clay formation at depths ranging from 3 to 4.5 feet bgs.

The source of PCBs at the subject property was from two 4,800-volt electrical transformers located within the basement of the subject building, which shorted out from water entering the basement due to a power outage in 2014, which caused the sump pump located in the northeast corner of the basement to cease operating and the basement to flood. As a result, when the water came into contact with the transformers, they shorted out and exploded causing a release of transformer oil containing PCBs. Flood water from the basement was unknowingly pumped by a maintenance contractor using a gas-powered pump onto the grass area located approximately 70 to 80 feet northwest of the subject building. It is not documented exactly when the power outage occurred, how long the release remained in the basement prior to discovery, or when the maintenance contractor pumped water from the basement. The concentrations of PCBs in the dielectric fluid within the basement transformers was not known or documented, however in 2017, DTE Energy was contacted and the transformers were subsequently removed from the property.

No other contaminants (i.e., volatile organic compounds [VOCs]) were detected in the soil or groundwater samples submitted for laboratory analysis from any of the investigations conducted at the subject property.

There are no threatened or endangered species on the subject property. The subject property is not listed on the National or State Registry of Historic or Cultural Landmarks. There are no potentially impacted environments or receptors on or adjoining the subject property. There are no crops, livestock, wetlands, or waterways on the subject property. There are no sensitive receptors such as children on the subject property.

3.0 PCB CLEANUP SITE

The "cleanup site" as defined in 40 CFR 761.3 being addressed in this Application consists of the subject property as depicted on **Figures 1 and 2**. Based on the results of previous investigations discussed in **Section 5** of this Application, the extent of PCB contamination has been defined and was found not to extend off-site, therefore there is no need for investigation and cleanup beyond the property boundary.

4.0 PROPOSED RISK-BASED PCB CLEANUP LEVELS

Applicant proposes to utilize EPA's PCB Cleanup Levels for High Occupancy Areas (1.0 mg/Kg) for both the exterior soil excavation area and the interior building materials within the basement that undergo power washing, scarification, and encapsulation for this project.

5.0 SITE CHARACTERIZATION AND DATA GAPS

As part of the redevelopment, Applied Environmental has conducted several investigations at the subject property as part of an EGLE Brownfield workplan dated April 22, 2020. Summaries of the previous investigations are presented below.

5.1 Remedial Action Completion Report – March 2015

Terracon Consultants, Inc. (Terracon) was contracted in December of 2014 to conduct an initial site visit and collect soil and water samples to determine impact following the pumping of the basement floodwater to the grass area to the northwest of the building. According to their Remedial Action Completion Report dated March 23, 2015, Terracon completed the following remedial activities: 1) the collection of water samples from the water remaining in the basement, 2) the collection of soil samples for analysis of PCBs from the grass area where basement floodwater had been pumped, 3) the removal and disposal of remaining floodwater from the basement, 4) the pressure washing of wall and floor surfaces within the basement, 5) the removal of remaining oil within the transformers, and 6) the excavation of exterior soil visually impacted by the basement water previously discharged by maintenance personnel.

A total of six samples were collected by Terracon which included one water sample from the basement, one sample from the oil layer from the basement, one oil residue sample on the stairway to the basement, one tar sample located below the Potheads in the transformer room in the basement, one discolored sediment sample from the asphalt pavement outside of the garage along the north side of the building, and one visibly impacted soil sample in the grassy area to the northwest of the building.

PCBs (mg/kg or mg/L)	Grassy Area Soil	Discolored Sediment - Asphalt Area	Oil Residue Stairway	Tar Below Potheads	Oil Layer Basement Water	Basement Water
Total PCBs	0.033	0.700	1.4	<1.0	16	0.0021

Results of the initial soil sampling indicated that soil concentrations were above the laboratory method detection limits (MDLs), but below the Toxic Substance Control Act (TSCA) 40 CFR761.61 PCB Remediation Waste Standard of 1.0 mg/Kg. Two samples of the basement water (one from the oil layer and one from the water) were collected and analyzed for PCBs by EPA Method 8082. The analytical results of the oil layer indicated a concentration of 16 mg/L and the results from the water had a concentration of 0.0021 mg/L.

According to the report, on December 16, 2014, a Terracon representative mobilized to the site and began to pump accumulated water from the basement utilizing a vacuum truck. Once the water was removed, a hot water pressure washer was used to remove the oily residue from the walls, floors and transformers in the basement. The transformers were opened and the remaining oil within the transformers was removed and interior components washed. On December 19, 2014, Terracon excavated an area of approximately 30 x 50 feet to a depth of 4 to 6 inches. Approximately 20 cubic yards of soil was placed in a roll-off container prior to disposal. The area was graded and seeded following the excavation. EQ Industrial Services transported

approximately 10,884-gallons of waste water and 20 cubic yards of soil to the EQ Detroit, Inc. facility in Detroit, Michigan for disposal under proper manifest. Refer to **Appendix 1** for a copy of the Terracon Remedial Action Completion Report.

5.2 Phase II ESA – December 2015

In December 2015, as part of a real estate transaction, Applied Environmental was retained to complete a Phase II ESA to evaluate the following Recognized Environmental Conditions (RECs) identified in a Phase I ESA dated October 21, 2015 completed by ABF Environmental.

- The west adjoining property located at 12950 West 8 Mile Road is listed as having a Baseline Environmental Assessment (BEA); and
- Exterior soil sampling related to the pumping of water accumulated in the basement were collected prior to soil excavation activities. According to the Terracon report, it does not appear that verification soil samples were collected following the soil removal activities and residual PCB contamination may be present.

A Phase II ESA was conducted on December 9, 2015, which consisted of advancing a total of seventeen soil borings (GP-1 through GP-17) to assess the following areas:

- Soil borings GP-1 and GP-2: to evaluate previous identified surface staining in the asphalt paved area immediately northwest of the subject building;
- GP-3 to GP-14: within and around the former PCB impacted soil excavation area where basement floodwater was initially discharged by maintenance personnel; and
- GP-15 to GP-17: along the west property boundary to evaluate an adjoining BEA site.

In addition, Applied Environmental also collected five concrete samples (CF-1 through CF-5) from the basement floor and basement access pit (north side of subject building) to evaluate the potential presence of residual PCBs. Discrete concrete samples were collected by chipping a portion of the concrete floor from approximately one-half to 2-inches and placing the portions of concrete into laboratory provided 4-oz glass jars.

Two soil borings (GP-1 and GP-2) within the asphalt pavement area northwest of the subject building, twelve soil borings (GP-3 through GP-14) within the former PCB impacted soil excavation area, and three soil borings (GP-15 through GP-17) along the western border of the property were performed to depths ranging from 4 to 16 feet bgs. One groundwater sample using a temporary one-inch diameter monitoring well was collected from the GP-16 soil boring location.

A total of 14 soil samples and one groundwater sample were submitted to an independent laboratory for the following analysis: GP-1 through GP-14 were analyzed for PCBs by EPA Method 8082A, GP-15 and GP-17 were analyzed for volatile organic compounds (VOCs) by EPA Method 8260/5035, polynuclear aromatic hydrocarbons (PNAs) by EPA Method 8270 and PCBs by EPA Method 8082A, and GP-16 was analyzed for VOCs by EPA Method 8260/5035 and PNAs by EPA Method 8270. All concrete samples from the basement floor were analyzed for PCBs by EPA Method 8082A. The groundwater sample was analyzed for VOCs and PNAs by EPA Method 8260 and 8270, respectively. The laboratory analytical results indicated that PCBs

were only reported in the soil sample collected from GP-11 (1') at a concentration of 1.33 mg/Kg, and in four concrete samples (CF-1-SW, CF-2-SE, CF-3-NW, CF-4-NE, CF-5) at concentrations of 0.560 mg/Kg, 14.5 mg/Kg, 2.07 mg/Kg, 2.5 mg/Kg, and 0.360 mg/Kg, respectively.

PCBs were reported in one exterior soil sample (GP-11) and three concrete core samples (CF-2-SE, CF-3-NW, and CF-4-NE) at concentrations that exceeded the EPA's TSCA High Occupancy Threshold (i.e., cleanup criteria) of 1.0 mg/Kg. Refer to **Figure 3** for a map showing the Phase II ESA Soil Sampling Locations and Analytical Results and Figure 4 for a map showing the Phase II ESA Basement Concrete Sampling Locations and Analytical Results. Also, refer to Table 1 and Table 2 for a Summary of Soil and Groundwater Laboratory Analytical Results and Summary of Basement Concrete Floor Laboratory Analytical Results, respectively.

December 2015 Phase II ESA PCB Exceedances in Soil

Soil Boring Location	PCB Concentrations (mg/Kg)
GP-11	1.33

December 2015 Phase II ESA Basement Concrete Floor PCB Exceedances

Soil Boring Location	PCB Concentrations (mg/Kg)
CF-2-SE	14.5
CF-3-NW	2.07
CF-4-NE	2.5

A High Occupancy Area is defined in 40 CFR Part 761 as any area where PCB remediation waste has been disposed on-site (including but not limited to any building, any floor/wall of the building, any enclosed space within the building), and where annual occupancy for any individual not wearing dermal and respiratory protection for a calendar year is: 840 hours or more (an average of 16.8 hours or more per week) for non-porous surfaces and 335 hours or more (an average of 6.7 hours or more per week) for bulk PCB remediation waste. The High Occupancy Threshold was used for comparison because this property will be redeveloped as a restaurant with both seating and food preparation areas to be located in the basement.

5.3 Revised EGLE Brownfield Grant Work Plan – April 2020

Upon ATE Mile LLC receiving the EGLE Brownfield Grant in August 28, 2019, and based on the proposed use of the subject property as a restaurant and the exceedances of the EPA TSCA High Occupancy Threshold value, the following scope of work was developed to collect additional information regarding the extent of PCB contamination in exterior soils and well as inside the basement of the subject building.

Per the scope of work outlined in the April 2020 Revised EGLE Brownfield Grant Work Plan, additional site characterization was completed at the subject property in an attempt to 1) define the extent of the PCB contamination in both the basement and at the exterior of the subject building where soils were previously excavated, 2) determine if PCB impacted soils are present

underneath the concrete slab of the basement, 3) determine if groundwater had been impacted by PCBs around the perimeter of the subject building, and 4) develop a better understanding of the site geology/hydrogeology.

To further characterize the geology and hydrogeology in the areas of concern, as well as delineate the extent of PCB contamination at the subject property, Applied Environmental conducted additional soil borings adjacent and exterior to the basement structure of the subject building. This was intended to provide a better understanding of the subsurface geology, the absence/presence of groundwater along the perimeter of the subject building, the mechanism for flooding in the basement and to identify areas where response activities/remediation may be required.

In addition to the exterior delineation soil borings, Applied Environmental completed four “deeper” soil borings to 20 feet bgs immediately adjacent to the subject building to the east (which is the inferred direction of groundwater flow across the site according to the ABF Phase I ESA report for the site dated October 21, 2015), as well as west, north, and south to characterize the soils and determine the absence/presence of groundwater immediately adjacent to the basement of the building. Soil samples from these borings were submitted for laboratory analysis of PCBs and VOCs.

Based on the soils encountered on the western portion of the subject property during the December 2015 Phase II ESA, a competent clay layer was expected to be encountered in the area of the exterior borings. As such, Applied Environmental collected soil samples above this competent clay layer and from a depth corresponding to the bottom of the basement slab (i.e., 8.5 feet bgs) for laboratory analysis. Soil samples from these borings were submitted for laboratory analysis for PCBs and VOCs.

The perimeter borings were also completed as semi-permanent groundwater monitoring wells utilizing two-inch diameter five-foot length 0.010 slotted PVC screens set to bisect the water table so that groundwater samples could be collected and the localized groundwater flow direction in the vicinity of the subject building determined. If sufficient water was not encountered to suggest the presence of a water table during the advancement of these borings, monitoring well screens would then be installed to the top of the competent clay layer so that perched water could be sampled. Groundwater sampling was performed using low flow sampling protocols. Groundwater samples were submitted for laboratory analysis of PCBs and VOCs.

The 2015 laboratory analytical results from the basement concrete slab samples revealed that the basement concrete slab had been impacted by PCBs, and it was not known if soils below the concrete slab were impacted by the release. To evaluate the soils below the basement concrete floor, Applied Environmental completed hand-auger soil borings adjacent to each of the concrete samples collected in December 2015 exhibiting elevated PCB concentrations. Five additional hand auger boring locations were proposed and were positioned such that they, along with the four aforementioned borings would be advanced adjacent to the 2015 concrete samples to create a 3 x 3 boring grid pattern across the basement. This grid pattern was intended to generally define the vertical and horizontal extent of potential impact from the release beneath the concrete floor of the basement. Applied Environmental proposed to collect soil samples at 0, 2, and 4 feet below the concrete floor from these borings.

The two shallowest soil samples (i.e., 0 and 2 feet below the bottom of the concrete slab floor) collected from the hand auger borings were submitted for laboratory analysis of PCBs and VOCs. All deeper samples would be placed on hold following

extraction at the laboratory. Should laboratory analytical results indicate that further vertical delineation was necessary, the deeper soil samples would then be authorized for analysis for PCBs and VOCs (as needed).

Destructive sampling was completed to evaluate the impact of the PCB release on the interior basement walls. Sampling was completed in accordance with the EPA Standard Operating Procedure (SOP) for Sampling Porous Surfaces for PCBs (May 2011). A steel chisel and hammer were used to obtain the samples. The samples were collected from just below the floodwater line-stained areas of each main interior basement wall. Three (3) samples were collected from each of the northern and southern walls and two (2) samples were collected from each of the eastern and western walls. A total of ten (10) wall samples were submitted for laboratory analysis for PCBs and VOCs. Analytical results from the wall samples were used to develop an appropriate encapsulation and/or mitigation strategy.

Lastly, the sump present in the northeast corner of the basement was inspected to ascertain design details such as construction, depth, volume, and discharge destination. A scaled map of the basement layout was prepared showing sump and former transformer locations, along with all basement sample locations. Water from within the sump pit was sampled and submitted for laboratory analysis of PCBs and VOCs.

5.4 Summary of Due Care Investigation Report - January 2021

During the second half of 2020, Applied Environmental conducted four (4) sampling investigations/events at the subject property to complete the scope of work described above. These events consisted of the following investigations at the subject property:

1. Subsurface investigation conducted at the exterior of the subject building and installation of four monitoring wells in late July 2020;
2. Sampling of newly installed groundwater monitoring wells in late August 2020;
3. Sampling of subject building basement brick walls and sampling of soils below the concrete basement floor in late August 2020; and,
4. Additional subsurface sampling at the exterior of the subject building to complete delineation of PCB-impacts to shallow soils in late September 2020.

These tasks are described in detail in the following sections.

Exterior Subsurface Investigation

On July 28, 2020, Applied Environmental mobilized to the subject property to install additional soil borings at the exterior of the subject building to attempt to delineate the horizontal and vertical extent of PCB impacted soil outward from GP-11 in the area previously excavated by Terracon in 2014, and to further characterize the subsurface geology and hydrogeology.

The July 28, 2020 mobilization consisted of completing a ground penetrating radar (GPR) investigation to clear boring locations prior to commencing the subsurface investigation followed by advancing eleven soil borings on the subject property designated

as GP-11A, and GP-15 through GP-24 as depicted on **Figure 5 – Exterior Soil Boring Locations and Analytical Results – July 2020**.

Soil borings GP-11A through GP-20 were advanced to depths of 6 feet bgs to delineate the horizontal and vertical extent of PCB impacts above the high occupancy threshold detected in soil boring GP-11 in 2015. GP-21 through GP-24 were advanced, one boring on each side the subject building, to depths of 20 feet bgs to evaluate the deeper lithology and the absence/presence of groundwater in the vicinity of the building structure. These deeper soil borings were converted into permanent groundwater monitoring wells (MW-1 through MW-4).

The soil borings were advanced utilizing a Geoprobe®, which is a hydraulically powered, percussion-probing machine that drives a sampling tool to obtain continuous soil cores or discrete samples. The soil sampler is 60 inches long by 1.5-inch inner diameter with a plastic liner inside to retain the soil. The sampler and liner are pushed to the desired depth, the sampler and drive rods are removed from the hole, and then the soil and liner are extracted. The liner is taken out of the sampler and cut to observe and sample the soil contained within. During the completion of the borings, soil samples were collected in continuous two-foot intervals for field screening evaluation and were characterized based on visual and olfactory observations.

Subsurface soils at the exterior of the subject property building consisted primarily of a fine-grained sand layer directly beneath surface cover extending to depths ranging from 4 feet bgs to 6 feet bgs underlain by a brown to gray clay formation to the maximum explored depth of 20 feet bgs. Shallow groundwater was encountered at depths ranging from 3 to 4.5 feet bgs in the sand layer “perched” directly above the clay formation. Groundwater was not encountered at the GP-15, GP-16, GP-22, or GP-23 soil boring locations. Refer to **Appendix 2** for the soil boring logs.

Per the April 2020 Revised EGLE Brownfield Grant Workplan, surficial soil samples along with deeper soil samples at depths of 2, 4 and 6 feet were collected from GP-11A, and GP-15 through GP-20. Only surficial soil samples were analyzed at the laboratory and based on the results of the analysis, deeper samples were authorized as needed to provide vertical delineation. To prevent holding time expiration, the laboratory was instructed to complete the PCB extraction on the samples using EPA Method 3550. Per the April 2020 Revised EGLE Brownfield Grant Work Plan, soil samples from GP-21 through GP-24 were to be collected for laboratory analysis from directly above the competent clay formation and from a depth corresponding to the bottom of the basement slab at approximately 8.5 feet. However, due to the presence of perched water residing atop the clay formation, soil samples were collected from directly above the saturated zone (4-4.5 feet at GP-21 through GP-23, and 2.5-3 feet at GP-24) and at 8.5 feet. All soil samples were submitted to Quantum Laboratories in Wixom, Michigan for analysis of VOCs by EPA Method 8260/5035 and PCBs by EPA Method 8082A.

Exterior Subsurface Investigation – Soil Analytical Results

The laboratory analytical results of the soil samples revealed that all soil samples did not exceed the laboratory Method Detection Limits (MDLs) for VOCs or PCBs, with the exception of the surficial samples from GP-16, GP-17, and GP-18, which

had detections of total PCBs. Of these three samples, only the surficial sample from GP-18 (1.11 mg/kg) yielded a detection of total PCBs exceeding the EPA TSCA High Occupancy Threshold criteria of 1.0 mg/kg.

Based on the reported presence of PCBs in the surficial soil samples from GP-16, GP-17 and GP-18, per the April 2020 Revised Work Plan, Applied Environmental instructed the laboratory to analyze deeper samples that were on hold from the 2-foot interval from these locations to provide vertical delineation. The laboratory analytical results of the 2-foot interval from the GP-16, GP-17 and GP-18 locations revealed that PCBs were not reported above their laboratory MDLs in any of the samples.

Applied Environmental returned to the site on September 25, 2020, to complete two (2) additional hand auger borings (GP-25 and GP-26) to the north of GP-18 to define the horizontal extent of PCBs. Surficial soil samples and samples from 2 feet were collected. The surficial soil samples were analyzed for PCBs by EPA Method 8082A and the samples from 2 feet were placed on hold pending results from the surface samples. The laboratory analytical results revealed that PCBs were reported in the surface sample collected from GP-25 at a concentration of 0.764 mg/kg which is below the EPA TSCA High Occupancy Threshold criteria of 1.0 mg/kg. PCBs were not reported above their laboratory MDLs in the surface sample collected from GP-26. Based on the reported presence of PCBs in the surficial soil samples from GP-25, per the April 2020 Revised Work Plan, Applied Environmental instructed the laboratory to analyze the deeper samples that were on hold from the 2-foot interval to provide vertical delineation. The laboratory analytical results of the 2-foot interval from the GP-25 location revealed that PCBs were not reported above their laboratory MDLs in the sample. Soil analytical results are reported in Table 1 and on **Figure 6 – Exterior Soil Boring Locations and Analytical Results – September 2020**.

Exterior Subsurface Investigation – Groundwater Sampling

Following the completion of the soil borings, GP-21 through GP-24 were converted into permanent monitoring wells (sequentially MW-1 through MW-4). The monitoring wells were constructed of two-inch diameter PVC with 5-foot length, 0.010 slotted screens, which were installed into the top of the clay formation. Refer to **Appendix 2** for the monitoring well construction diagrams.

On August 20, 2020, Applied Environmental was on-site to survey the north top-of-casing elevation of the monitoring wells using a benchmark relative to 100 feet. Depth to water measurements from each of the monitoring wells were collected using an electronic interface probe with the exception of MW-3 which was dry. The interface probe was decontaminated in an alconox solution with a distilled water rinse prior to the collection of each well measurement. Utilizing the north top-of-casing elevations along with the depth to water measurements from the three remaining monitoring wells, Applied Environmental determined that the localized groundwater flow was to the northeast as depicted on **Figure 7**.

On August 20, 2020, following the collection of depth to water measurements, Applied Environmental collected groundwater samples from the newly installed monitoring wells using the U.S. EPA Low Flow Groundwater Sampling Procedures which consisted of utilizing a peristaltic pump and controller connected to a YSI multi-parameter meter through an in-line flow cell. The following water quality parameters were documented during the low flow process: temperature, pH, conductivity, oxidation

reduction potential, dissolved oxygen and turbidity. Water quality readings were collected approximately every three minutes until parameters stabilized within the following criteria prior to sampling: +/-0.1 for pH, +/-3% for conductivity, +/-10mV for redox potential, +/-10% for dissolved oxygen and +/-10% for turbidity. In addition, during pumping the static water level was monitored so drawdown would not exceed 0.3 feet. Low flow stabilization data is included within the January 2021 Summary of Due Care Investigation Report in **Appendix 4**.

As stated above, MW-3 was dry so a groundwater sample could not be collected. In addition, MW-4 went dry during the low flow sampling process and did not recover to yield sufficient groundwater for sampling, therefore a groundwater sample could not be collected for laboratory analysis. A total of two (2) groundwater samples (MW-1 and MW-2) along with one (1) trip blank, one (1) field blank and one (1) duplicate sample from MW-1 for quality assurance/quality control (QA/QC) purposes were collected and submitted to Quantum Laboratories in Wixom, Michigan for analysis of VOCs by EPA Method 8260 and PCBs by EPA Method 8082.

Exterior Subsurface Investigation – Groundwater Sampling Results

The groundwater laboratory analytical results revealed that no VOCs or PCBs were reported above their respective laboratory MDLs in the groundwater or QA/QC samples analyzed. Groundwater analytical results are reported in Table 1 and on **Figure 8**.

Interior Subsurface Investigation

On July 28, 2020, Applied Environmental completed nine hand auger borings (HA-1 through HA-9) in the basement of the subject building to determine if PCBs were present in the soil below the PCB-impacted concrete floor. Four of the hand auger borings were advanced in locations adjacent to each of the concrete samples collected in December 2015 exhibiting elevated PCB concentrations. The five other hand auger borings were situated in the basement such that they, along with the four initial borings, were advanced adjacent to the 2015 concrete samples to create a 3 x 3 boring grid pattern. This grid pattern was intended to generally define the lateral extent of impact to soil beneath the concrete floor in the basement area, if any. From the basement hand auger soil borings, Applied Environmental collected soil samples at 0, 2, and 4 feet below the base of the concrete floor.

Hand auger boring locations in the basement were cored used a concrete core machine. The concrete floor in the basement was found to be 8-inches thick. Subsurface soils under the concrete slab of the subject property building consisted of a gray clay formation with trace amounts of silt to the maximum depth of the hand auger borings at 4 ft below the base of the concrete floor. Groundwater was not encountered at any of the hand auger boring locations to the maximum depth.

Per the April 2020 Revised Workplan, only the two (2) shallower soil samples (i.e., 0 and 2 feet below the base of the concrete slab floor) from each of the hand auger boring locations were submitted for laboratory analysis (18 samples total) and based on the results of the analysis, deeper samples would be authorized as needed to provide vertical delineation. To prevent holding time expiration, the laboratory was instructed to complete the PCB extraction of the samples using EPA Method 3550. All soil

samples were submitted to Quantum Laboratories in Wixom, Michigan for analysis of VOCs by EPA Method 8260/5035 and PCBs by EPA Method 8082A.

Interior Subsurface Investigation – Soil Analytical Results

The laboratory analytical results of the interior hand auger soil samples revealed that no VOCs or PCBs were reported above their respective laboratory MDLs in any of the soil samples analyzed. Soil analytical results from the interior investigation are reported in Table 1 and depicted on **Figure 9**. The laboratory reports are included in **Appendix 2**.

Interior Wall Sampling

Along with the hand auger investigation below the basement floor, sampling of the basement concrete and/or brick walls was completed on July 29, 2020 to evaluate the impact of the PCB release on the interior basement walls. Sampling was completed in accordance with the U.S. EPA Standard Operating Procedure (SOP) for Sampling Porous Surfaces for PCBs (May 2011). A steel chisel and hammer were used to obtain the samples from the concrete and/or brick basement walls and were collected from the stained areas representing the flood line of each main exterior or interior wall. Three (3) samples were collected from each of the northern and southern walls, and two (2) samples each were collected from the eastern and western walls for a total of ten (10) wall samples. The wall samples were submitted to Quantum Laboratories for laboratory analysis of VOCs by EPA Method 5035/8260 and PCBs per EPA Method 8082A. The locations of the wall samples along with their analytical results are depicted on **Figure 10**.

Interior Wall Sampling - Analytical Results

The laboratory analytical results revealed that no VOCs were reported above their respective laboratory MDLs in any of the wall samples analyzed. PCBs were reported at concentrations that exceeded the TSCA High Occupancy Threshold of 1.0 mg/Kg at each of the sampling locations except for Wall Samples 8 and 10, where PCBs were reported above laboratory MDLs but below the TSCA High Occupancy Threshold. The laboratory analytical results are reported in Table 2 and depicted on **Figure 10**.

July 2020 Basement Wall Samples PCB Exceedances

Sampling Location	PCB Concentrations (mg/kg)
Wall Sample 1	5.62
Wall Sample 2	135
Wall Sample 3	336
Wall Sample 4	4.92
Wall Sample 5	4.41
Wall Sample 6	1.12
Wall Sample 7	146
Wall Sample 9	1.57

Basement Sump Evaluation and Sampling

On July 29, 2020, Applied Environmental evaluated the sump located in the northeast corner of the basement. The basement sump is a concrete vault extending approximately 6 to 7 feet below the basement. Applied Environmental observed a total of three (3) inlet pipes into the sump. One (1) was on the north wall of the sump at a depth of approximately 2 feet and two (2) were on the west wall of the sump both at a depth of approximately 3 feet. The water observed within the sump was cloudy and turbid with no visual evidence of oil or sheen. The sump discharges to the City of Oak Park combined system that is an extension of the City of Detroit system, and therefore discharges to the Detroit Wastewater Treatment Plant. One (1) sample was collected of the sump water and submitted to Quantum Laboratories for analysis of VOCs by EPA Method 8260 and PCBs of EPA Method 8082A.

Basement Sump Water Sampling - Analytical Results

The laboratory analytical results of the sump water revealed that no VOCs or PCBs were reported above their respective laboratory MDLs. The laboratory analytical results are reported in Table 2 and depicted on **Figure 10**.

Conclusions

Based upon the completion of the scope of work outlined in the April 2020 Revised EGLE Brownfield Grant Work Plan, Applied Environmental concluded the following:

1. Subsurface soils at the subject property consists primarily of a fine-grained sand layer directly beneath the surface cover to depths ranging from 4 to 6 feet bgs underlain by a brown to gray clay formation extending to a maximum explored depth of at least 20 feet bgs;
2. Soils beneath the subject building and in previously investigated exterior locations have not been impacted by VOCs;
3. Soils beneath the subject building not have been impacted by PCBs;
4. The extent of PCB impacts to soils to the northwest of the subject building have been delineated to below the TSCA High Occupancy Threshold of 1.0 mg/Kg;
5. Groundwater at the subject property (when encountered) is perched in nature, exhibits a northeasterly gradient, and has not been impacted by VOCs or PCBs; and,
6. The basement walls of the subject building have been impacted by PCBs in excess of the U.S. EPA TSCA High Occupancy Threshold of 1.0 mg/Kg.

A full copy of the January 2021 Summary of Due Care Investigation Report is contained in **Appendix 4**.

5.5 Additional PCB Delineation Activities – May 2022

Based upon EPA's review of the January 2021 Summary of Due Care Investigation Report, data gaps were identified by EPA, which they recommended addressing prior to the completing the Risk-Based PCB Cleanup Application.

The following additional EPA requested delineation activities were conducted on the subject property per the EPA Approved Additional Delineation Activities Work Plan completed by Applied Environmental dated May 4, 2022:

1. Collection of additional exterior shallow and surficial soil samples in order to further delineate impacts by PCBs;
2. Collection of additional basement wall samples above the historic floodwater line and the collection of ceiling building material samples; and
3. Collection of indoor air samples over a 12-hour period which equates to a typical work shift and therefore a potential exposure in a restaurant scenario.

These tasks are described in detail in a report submitted by Applied Environmental to EPA, dated August 12, 2022, which is summarized below. A copy of the Summary of Additional Delineation Activities Report is included in **Appendix 5**.

Additional Exterior Soil Sampling

As requested by EPA, Applied Environmental collected additional shallow soil samples for the analysis of PCBs at the exterior of the subject property building to further assess the horizontal and vertical extent of PCBs in the area of the previously sampled GP-1, GP-2, GP-11, and GP-18 soil boring locations. In addition, surface soil samples were collected outside of the former excavation area to the northwest, west, and south to verify that no impacts of PCBs were present.

On May 26, 2022, Applied Environmental advanced thirteen (13) additional hand auger borings (HA-27 through HA-39) to depths of 2 feet bgs. Hand auger borings HA-27 through HA-31 were completed off the edge of the asphalt paved surface in the areas directly north and northeast of the boring locations GP-1 and GP-2. Hand auger borings HA-32 through HA-39 were completed to provide additional delineation from previously sampled GP-1, GP-2, GP-11, and GP-18 soil boring locations. Shallow soil samples were collected directly from the hand auger bucket from the upper portions (i.e., top 6") of the 0'-1' bgs and the 1'-2' bgs intervals. An additional sample was collected from the lower portion of the 1'-2' bgs interval and placed on hold at the laboratory in case further analysis was required to determine the vertical extent of contamination. In addition, Applied Environmental collected eight (8) surface samples (Surface 1 through Surface 8) using a steel shovel to the northwest, west, and south of the former excavation area. Subsurface soils encountered during sample collection generally consisted of a brown, moist, fine to medium-grained sand from just below the surface to the maximum explored depth of 2 feet bgs. The steel shovel was decontaminated prior to and after each sampling location in analconox solution followed by a distilled water rinse.

A total of 34 soil samples, two duplicate soil samples (Duplicate 1 and 2), and one equipment rinsate blank (Field Rinsate 1) were collected into laboratory provided 4-oz glass jars or 1 Liter glass amber jar and submitted to Quantum Laboratories in Wixom, Michigan for laboratory analysis of PCBs in accordance with EPA Method 8082A as outlined in the laboratory-supplied

SOPs for EPA Method 8082A. All soil samples were collected in accordance with EPA's Laboratory Services and Applied Division Operating Procedure Soil Sampling, LSASDPROC-300-R4, Effective Date June 11, 2020.

Additional Exterior Subsurface Investigation – Soil Analytical Results

The laboratory analytical results for the shallow and surficial exterior soil samples indicated that reported concentrations of PCBs were below laboratory MDLs in each of the soil samples submitted for laboratory analysis, with the exception of the HA-35 (0-1') sampling location with a PCB concentration of 0.878 mg/kg which is below the EPA TSCA High Occupancy Threshold of 1.0 mg/kg. The sampling locations and laboratory analytical results are shown on Figures – **Figure 11** – Shallow and Surficial Soil Sampling Locations with Analytical Results. Also refer to Tables 2 and **Appendix 3**: Laboratory Reports.

Additional Interior Basement Wall and Ceiling Building Materials Sampling

As requested by EPA, Applied Environmental collected additional basement building wall samples above the historic floodwater line to complete delineation of PCB-impacts on each of the basement walls. In addition, Applied Environmental also collected ceiling building material samples to evaluate if these materials were impacted by the 2014 PCB release. It should be noted that, due to the composition and accessibility restraints of the ceiling building materials, Applied Environmental utilized the standard wipe test for all ceiling sample locations, as specified in 40 CFR 761.123. Interior basement wall and ceiling building material sampling was conducted in accordance with the EPA SOP for Sampling Porous Surfaces for PCBs (May 2011).

On May 27, 2022, destructive sampling of the basement building walls above the historic floodwater line was completed by Applied Environmental using a steel chisel and hammer. All basement building wall samples were collected approximately 7 feet from the floor and concrete/brick chips were placed into laboratory provided 4-oz glass jars. A total of 10 basement building wall samples (Wall Sample 11 through Wall Sample 20) and one duplicate sample (Duplicate 4) were collected. In addition, 10 ceiling wipe samples (CS-1 through CS-10) and one duplicate sample (Duplicate 3) were collected utilizing the standard wipe test, as specified in 40 CFR 761.123. The basement building wall, ceiling wipe samples, and one equipment rinsate blank (Field Rinsate 2) were submitted to Quantum Laboratories in Wixom, Michigan for laboratory analysis of PCBs in accordance with EPA Method 8082 and 40 CFR 761.272 as outlined in the laboratory-supplied SOPs for US EPA Method 8082.

Additional Interior Wall Sampling - Analytical Results

The laboratory analytical results for the basement building wall samples indicated that PCBs were reported at concentrations that exceeded the TSCA High Occupancy Threshold of 1.0 mg/kg in all of the wall samples submitted for laboratory analysis. In addition, PCBs were reported above laboratory MDLs at each ceiling wipe sample location; however only the CS-2 (10.2 µg/100cm²) location exceeded the 10 µg/100cm² threshold. The laboratory analytical results and sampling locations are reported on **Figure 12** – Basement Wall Sample Locations Above the Historic Floodwater Line with Analytical Results and **Figure 13** – Basement Ceiling Wipe Sample Locations with Analytical Results. Also refer to Tables and **Appendix 3**: Laboratory Reports.

May 2022 Additional Basement Wall Samples PCB Exceedances

Sampling Location	PCB Concentrations (mg/kg)
Wall Sample 11	2.5
Wall Sample 12	39.5
Wall Sample 13	397
Wall Sample 14	32.8
Wall Sample 15	4.58
Wall Sample 16	222
Wall Sample 17	1.18
Wall Sample 18	1.51
Wall Sample 19	1.59
Wall Sample 20	1.72

Indoor Air Sampling

As requested by EPA, Applied Environmental collected baseline indoor air samples for the presence of PCBs prior to any renovation/remediation activities within the subject building. Per Ms. Bhooma Sundar, Toxicologist with EPA Region V, indoor air samples were collected over a 12-hour period which equates to a typical work shift and therefore an exposure in a restaurant scenario.

On June 1, 2022, Applied Environmental collected a total of three indoor air samples, one on the ground floor (AS-1), and two in the basement (AS-2 and AS-3) of the subject building. In addition, one duplicate air sample (Duplicate 1-Air) was collected within the basement as well as an additional air sample (AS-4) along the exterior of the subject building to establish a control.

The air samples were collected in accordance with *Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air Second Edition Compendium Method TO-10A, EPA/625/R-96/010b*, dated January 1999. A sampling rate of 1 liter/minute was utilized as the most conservative of the sampling rate ranges (i.e., 1 to 5 liters/minute) described in the Method TO-10A document. All air samples, as well as the duplicate air sample and one field blank, were placed back in their original cartridge containers and shipped under chain-of-custody to Pace New England Laboratories of East Longmeadow, Massachusetts for laboratory analysis of PCBs in accordance with EPA Method TO-10A. The following table outlines the indoor air sampling locations, sampling rate, and analytical parameters:

Sample ID	Sample Location	Sampling Rate (liters/minute)	Analytical Parameter
AS-1	Central portion of the ground floor north of the front entryway.	1	PCBs
AS-2	Northeastern portion of the basement near a water heater to the east of the furnace.	1	PCBs
AS-3	Southern portion of the basement on a work bench.	1	PCBs
Duplicate 1-Air	Southern portion of the basement on a work bench.	1	PCBs
AS-4	Northwestern exterior of the subject building near the access pit entryway.	1	PCBs

Indoor Air Sampling – Analytical Results

The laboratory analytical results for the indoor air samples indicated that PCB Aroclor-1248 (0.083 µg/m³) and PCB Aroclor-1254 (0.078 µg/m³) were reported in the AS-1 indoor air sample collected on the ground floor as well as Aroclor-1254 (0.088 µg/m³) in the AS-2 indoor air sample collected within the basement. Both locations exceed the Site-Specific Indoor Worker Regional Screening Levels (RSLs) for air of 0.0289 µg/m³ at a one in a million excess cancer risk as provided in the EPA comment letter dated November 9, 2021. The indoor air PCB concentrations detected at AS-1 and AS-2 do not exceed the excess cancer risk of 1 in 100,000 (0.289 µg/m³) which would warrant corrective actions. The laboratory analytical results for the indoor air samples are reported in **Appendix 3: Laboratory Reports**.

Conclusions

Based upon the completion of the scope of work outlined in the May 2022 Additional Delineation Activities Work Plan, Applied Environmental concludes the following:

1. No PCB-impacted soils were identified within the shallow soil samples collected off the edge of the asphalt paved surface in the areas directly north and northeast of the previously sampled GP-1 and GP-2.
2. No PCB-impacted soils were identified within the shallow soil samples collected to provide additional delineation at and around GP-11 and GP-18 soil boring locations, with the exception of the HA-35 (0-1') hand auger boring location having a PCB concentration of 0.878 mg/kg.
3. No PCB-impacted soils were identified within the surficial soil samples collected outside of the former excavation area to the northwest, west, and south.
4. The basement building wall samples above the historic floodwater line have been impacted by PCBs in excess of the EPA TSCA High Occupancy Threshold of 1.0 mg/kg at each of the sampling locations.
5. PCBs were reported above laboratory MDLs at each ceiling wipe sample location; however only the CS-2 (10.2 µg/100cm²) location exceeded the 10 µg/100cm² threshold.

A copy of the Summary of Additional Delineation Activities report is included in **Appendix 4**.

5.6 Additional PCB Delineation Activities Addendum – October 2022

Applied Environmental provided an addendum for the Summary of Additional Delineation Activities Report issued on August 22, 2022 to provide the requested additional information regarding the groundwater and basement sump analytical results from the Due Care investigations conducted in 2020. An additional discussion regarding data quality for the additional delineation activities conducted in May and June 2022 was also included in the addendum.

The additional information regarding the groundwater and basement sump evaluation and analytical results conducted in 2020 were discussed in Section 5.4 of this report.

Data Quality – Additional Delineation Activities

The following data quality issues were encountered over the course of the additional delineation activities sampling conducted in May and June 2022:

Indoor Air Samples

The initial baseline indoor air samples were collected on June 1, 2022 and shipped under chain-of-custody to Pace New England Laboratories of East Longmeadow, Massachusetts. The indoor air samples were analyzed for PCBs in accordance with EPA Method TO-10A. Pace Laboratories utilized a reporting limit (RL) of 0.056 $\mu\text{g}/\text{cm}^3$ when conducting the PCB analysis. According to the EPA comment letter dated November 9, 2021, Method TO-10A can detect down to 10 ng/cm^3 and should be utilized for the indoor air sample PCB analysis. Since the RL (0.056 $\mu\text{g}/\text{cm}^3$) utilized by Pace Laboratories is above the EPA recommended screening level (0.0289 $\mu\text{g}/\text{cm}^3$) the potential exists for one or more compounds to be present within the baseline indoor air samples above the screening level, but not reported within the analytical results. To ensure the required reporting limit for the TO-10A Method is met by the laboratory, Applied Environmental will discuss with the laboratory manager prior to the delivery of the next round of indoor air samples the reporting limit requirements and will also designate on the chain-of-custody the reporting limit needed for this set of data.

A full copy of the Additional PCB Delineation Activities Addendum is contained in **Appendix 5**

6.0 APPLICATION AND CLEANUP PLAN AND ALTERNATIVE ANALYSIS

The proposed work described in this Application is limited to remediation of PCB impacted soil and interior basement building materials at the subject property. The proposed remedial actions are described in detail in the following sections. Per the risk-based disposal approval regulations found in 40 CFR 761.61(c), “any person wishing to sample, cleanup, dispose of PCB remediation waste in a manner other than prescribed in [40 CFR 761.61(a) or 40 CFR 761.61(b)], or store PCB remediation waste in a manner other than prescribed in 40 CFR 761.65, must apply in writing to the Regional Administrator in the Region where the sampling, cleanup, disposal, or storage site is located”. Each application must include information described in the notification required by paragraph 40 CFR 761.61(a)(3). EPA may request other information that it believes necessary to evaluate the application. No person may conduct cleanup activities under this paragraph prior to obtaining written approval by EPA. EPA will issue a written decision on each application for a risk-based method for remediation waste. EPA will approve such an application if it finds that the method will not pose an unreasonable risk of injury to health of the environment.

The only other alternative considered was a cleanup plan that meets the requirements of 40 CFR 761.61(a), Self-Implementing On-Site Cleanup and Disposal of PCB Remediation Waste of both PCB-impacted areas, which include 1) the exterior soil area and 2) the interior basement building materials. The cleanup objective is the High-Occupancy Level of 1.0 mg/kg, therefore, based on the horizontal and vertical delineation of the exterior soil area, this cleanup objective should easily be achievable and in essence can fall under the self-implementing cleanup approach. The interior basement building materials has some inherent challenges to conducting a self-implementing cleanup approach. The PCB-impacted load bearing foundation walls or ceiling in the basement cannot physically be removed without establishing extensive additional foundation support during section removal, new concrete form placement and re-pouring, and associated worker safety issues. Ultimately, the physical removal of load bearing foundation walls and ceiling in the basement is not a feasible option.

The cleanup objective for the exterior PCB-impacted soils is to excavate and dispose of PCB-impacted soil from the exterior soil area to below the High-Occupancy Level of 1.0 mg/kg using a self-implementing approach. The cleanup objective for the interior basement building materials is also to below the High-Occupancy Level of 1.0 mg/kg. This will be attempted through removal of the PCB-impacted basement concrete floor and non-load bearing walls specified in the basement demolition plan (Appendix 7), mechanical scarification of remaining basement building materials (walls and ceiling), following by scrubbing surfaces using a PCB reducing surfactant (walls and ceiling), followed by power washing, and ultimately encapsulation of the remaining basement building materials (walls and ceiling) using an epoxy coating (RetroCoat®).

6.1 REMEDIAL ACTIVITIES PCB-IMPACTED MEDIA

Applied Environmental is proposing the following methods to address the PCB-impacted media, which consist of concrete and brick building materials found within the basement of the subject building, as well as soils found northwest of the subject building.

The proposed remedial approach includes the excavation and off-site disposal of the identified PCB-impacted soils with concentrations greater than 1.0 mg/kg. Two areas of impacted soil (total PCBs > 1 mg/kg) have been identified for remediation (GP-11 and GP-18). Prior to initiation of cleanup activities, public outreach will be completed to inform local residents, tenants, and businesses of the presence of PCB contamination site soils and the proposed remedial activities for the subject property. Public outreach will consist of publishing a brief fact sheet in a local newspaper.

6.1.1 PRE-REMEDIATION/SITE PREPARATION

To proceed with the proposed remedial activities, several tasks must be completed. The tasks include excavation area identification and appropriate permitting, where applicable, waste characterization sampling, disposal facility profile and approval, preparation of waste disposal manifests, entry and exit routes to and from the site, health and safety, worker protection, and the daily visible inspection of the perimeter of the property to ensure the site is secure from trespassers. A mandatory health and safety meeting will be conducted at the beginning of each work day to review necessary worker protection and specific information about the activities to be performed on that day.

6.1.2 WASTE CHARACTERIZATION SAMPLING AND DISPOSAL

Existing laboratory analytical results obtained during previous investigations will be used for waste characterization, whenever possible. Otherwise, additional representative soil samples will be collected by Applied Environmental in accordance with the disposal facility requirements and federal regulations 40 CFR 761.286, 761.286, and 761.292. Approval from the disposal facility is required prior to excavation work commencing.

6.1.3 LAYOUT OF SOIL EXCAVATION AREA

Prior to any work being conducted on the subject property, the exterior excavation area will be properly identified. Excavation area will be located by means of field measurement and the extent of excavation will be marked with flags or stakes. Excavation depth will be identified on the selected marker and will be reviewed and communicated during the daily health and safety meetings. Prior to excavation, underground utilities will be identified and a MISSDIG ticket number will be obtained. A private underground locating company may be used in addition to MISSDIG to supplement and identified potential underground utilities not marked by MISSDIG. MISSDIG and any private locating markings will be maintained throughout the duration of the project. In the event that a work stoppage exceeds 30 days, a new MISSDIG ticket and/or private locate must be obtained.

6.1.4 EXCAVATION OF PCB-IMPACTED SOIL

The proposed area of excavation was developed based on the concentrations of PCBs observed during the site characterization activities. The exterior soil excavation area is located approximately 42 feet north and 57 feet west of the northwest corner of the subject building and will consist of soils identified by PCB concentrations greater than 1.0 mg/kg. These areas include GP-11 (1') and GP-18 (surface) having an approximate excavation area of 40 feet x 20 feet and having a depth of 2 feet having an estimated volume of 60 cubic yards or 90 tons. The proposed extent of the excavation is depicted on **Figure 13 – Proposed Extent of Remedial Excavation for PCB-Impacted Soils**.

Applied Environmental will retain a contractor experienced with PCB remediation projects to excavate, load, and transport under waste manifest, PCB-impacted soils for disposal at US Ecology's Wayne Disposal Inc. RCRA/TSCA Landfill. All excavated soils will be loaded directly into trucks and not staged on-site at any time. Open excavation areas that have to be left overnight will be covered with 10 mil plastic sheeting, and secured with concrete block to prevent movement. The area surrounding the excavation will be enclosed by silt fencing and managed under a Construction Stormwater Permit as required by the National Pollution Discharge Elimination System (NPDES) under the Clean Water Act (CWA) to ensure that any sediment from stormwater runoff is contained and prevented from impacting unimpacted areas or from being discharged from the subject

property. Also, during excavation activities, air monitoring for fugitive dust will be conducted via real-time air monitoring stations set up on the perimeters of the work areas. See Section 10 for additional information. Based on the location and extent of the proposed excavation area, it is not anticipated that excavation equipment, trucking or support vehicles will come in contact with the excavation or PCB-impacted soil, other than the excavation equipment bucket. However, in the event that any equipment or vehicles come in contact with PCB-impacted soil, their wheels/tracks/buckets shall be swept clean of soil, which will be collected and containerized for offsite disposal, prior to leaving the subject property. See Section 8.2 for decontamination procedures.

6.1.5 VERIFICATION SAMPLING

Verification samples will be collected following the excavation activities. Verification sampling will be performed prior to site restoration, to confirm complete removal of PCB-impacted soils with PCB concentrations of greater than 1.0 mg/kg. Verification sampling involves the following steps: identifying sample locations, sample collection, laboratory analysis, data review and if required, additional sampling.

6.1.6 VERIFICATION SAMPLING FIELD METHODOLOGY

Verification samples will be collected as follows:

- One sidewall sample will be collected from the bottom of each sidewall for every 20 linear feet of the sidewall;
- One sidewall sample will be collected from the same depth as the original exceedances (surface and one foot) for every 20 linear feet of the sidewall; and
- One sample from the excavation floor for every 25 square feet of excavation bottom area.

Discrete soil samples will be collected by field personnel using a hand trowel and placed directly into laboratory provided 4-oz. glass jars in accordance with Applied Environmentals' April 2022 Quality Assurance Project Plan (QAPP). Based on the proposed excavation dimensions, a total of 6 sidewall and 32 excavation floor samples are anticipated to be collected. Though not anticipated due to the previous delineation activities, excavation and additional verification sampling will be continued until laboratory analytical results demonstrate that PCB concentrations in the excavation limits are less than 1.0 mg/kg.

6.1.7 LABORATORY METHODOLOGY

All verification samples will be submitted to Quantum Laboratories in Wixom, Michigan using proper chain-of-custody procedures for analysis of PCBs by EPA Method 8082A in accordance with *40 CFR Subpart O – Sampling To Verify Completion of Self-Implementing Cleanup and On-Site Disposal of Bulk PCB Remediation Waste and Porous Surfaces in Accordance With § 761.61(a)(6)*. Samples will be extracted using EPA Method 3550.

QA/QC samples will be collected in according the Applied Environmentals' April 2022 QAPP, which will consist of a trip blank, field blank, duplicate and matrix spike/matrix duplicate (MS/MSD) samples and will be collected at a frequency of one per twenty samples for quality control purposes.

6.1.8 BACKFILL/SITE RESTORATION

Following receipt of the laboratory analytical results and demonstration that PCB concentrations are less than 1.0 mg/kg, Applied Environmental will instruct the excavation contractor to backfill the excavation to pre-remediation existing grade with “clean fill” soil with a top layer of topsoil and compact utilizing on-site heavy equipment. Once backfill is complete, the excavated area will be covered with hydroseed to re-establish a cover of vegetation to reduce/eliminate erosion.

This section describes the plan for backfilling the excavation and the source and analytical testing requirements for backfill or “clean fill” material. Backfill material will consist of clean fill and determined as follows. Documentation will be obtained confirming the clean fill material is not clean gravel, rock or stone, or recycled concrete or brick. Backfill imported to the subject property will be subject to chemical testing in accordance with the recommended frequency outlined below.

Recommended Number of Soil Samples for Soil Imported to the Subject Property			
	VOCs & PCBs	SVOCs, Inorganics & Pesticides	
Soil Quantity (cubic yards)	Discrete Samples	Composite Samples	Discrete/Composite Samples
0-50	1	1	3-5 discrete samples from different locations in the fill material will comprise a composite sample
50-100	2	1	
100-200	3	1	

6.2 PCB-IMPACTED BUILDING MATERIALS

PCB-Impacted building materials (i.e., concrete and brick walls, as well as the concrete floor and ceiling) identified in the basement of the subject building will be addressed by the following multi-step remediation process.

6.2.1 Limited Demolition Activities and Preparation of Surfaces

Prior to interior remedial activities, demolition of unused heating, ventilation/air conditioning (HVAC) equipment, electrical lines/equipment, specific non-loading bearing basement walls and general debris from the removal from the basement will occur. Interior the basement concrete floor will then be thoroughly swept in preparation for the remedial task. Dust and debris will be placed into new open top 55-gallon Department of Transportation (DOT) steel drums with appropriate waste labeling for off-site disposal. Demolition debris from the basement including unused HVAC equipment, electrical lines/equipment, and specific interior non-loading bearing basement wall material will be stored in roll-off boxes prior to transport. All demolition debris from the basement will be transported for off-site disposal at US Ecology Wayne Disposal facility in Van Buren Township, Michigan.

6.2.2 Scarification

Following the limited demolition and basement surfaces preparation, the surface area of the ceiling and remaining walls will be either mechanically scarified utilizing metal blades attached to a drum or sand blasted where the drum-type system will not reach to a depth of approximately 0.50 inches to reduce the impact by PCBs on these surfaces. Following scarification, all surfaces will be swept and then vacuumed with a high efficiency particulate air (HEPA) equipped filter. Spent scarification and sand blasting media waste will be transferred into 55-gallon DOT steel drums with appropriate waste labeling for off-site disposal following

appropriate waste profiling. Scarification and sand blast waste will be transported for off-site disposal at US Ecology Wayne Disposal facility in Van Buren Township, Michigan.

6.2.3 Power Washing and Decontamination of Surfaces

Following scarification of the basement surfaces, remedial activities will proceed to the cleaning/decontamination process consisting of a triple wash and rinse using Less Than 10⁶ Solution (a PCB reduction surfactant). Less Than 10⁶ Solution reduces PCB contamination from concrete, brick and other masonry surfaces by an average of 90% per application with a dwell time of fifteen minutes for surface reduction, and average of 60% per application to depths of 1 ½ inches on porous surface after one hour dwell time. Less Than 10⁶ Solution will be applied such that the walls and ceiling remain wet for the fifteen minutes required for the surfactant to activate the reduction process for surface reduction. Walls and ceiling surface areas will be scrubbed with hard bristle brushes for at least five minutes and then wiped for at least one minute using a pad soaked in the detergent mixture. The excess water and detergent will then be vacuumed using PCB dedicated shop vacuums after the set time has expired. The areas will be wiped with a pad soaked with water, which will be collected into new open top DOT 55-gallon steel drums with appropriate waste labeling for ultimate transportation and disposal at US Ecology Wayne Disposal facility in Van Buren Township, Michigan. The wash and rinse process will be repeated two (2) more times as described above, with the exception of the Less Than 10⁶ Solution application will remain on surface for one hour to allow for penetration into the porous surface. All PCB-contaminated debris and rinse water will be transferred into DOT 55-gallon drums and left on-site for a later waste pick up and transportation to ERG Environmental Services (ERG's) Bowling Green, Ohio processing facility for disposal.

Following the power washing and decontamination procedure described above, sampling of the basement surfaces will be completed to evaluate the remaining PCB impacts to these areas. Sampling will be conducted using Subpart O – *Sampling to Verify Completion of Self-Implementing Cleanup and On-site Disposal of Bulk PCB Remediation Waste and Porous Surfaces in Accordance with §761.61(a)(6)*. For the purpose of establishing a grid, the basement walls and ceiling will be considered two separate areas. Composite sampling will be performed across nine (9) subsamples collected from individual 5' by 5' grids. The basement walls have the following dimension: 1) east and west walls: 60 feet in length and 12 feet high, and 2) north and south walls: 65 feet in length and 12 feet high. When the grid is overlaid over these areas, it yields ten (10) total samples for the east and west walls and eight (8) total samples for the north and south walls. The dimensions of the ceiling is 65' by 60' and when the grid is overlaid over this area, it yield a total of twenty (20) samples.

Sampling will be completed per the April 2022 QAPP with destructive (bulk) sampling of building materials being utilized on the walls and ceiling. If certain areas of the basement surfaces cannot be safely accessed to use destructive sampling equipment, then a standard wipe test in accordance with the EPA SOP for Sampling Porous Surfaces for PCBs (May 2011) will be used in those areas. In addition, one field equipment rinsate blank per field day and one duplicate building material sample per ten samples will be collected for QA/QC purposes. Appropriate decontamination of the sampling equipment will be conducted between sample locations.

Due to the hardness of the ceiling materials, there is a potential that bulk samples cannot be collected. In this case, the Subpart P approach, *Sampling Non-Porous Surface for Measurement-Based Use, Reuse, and On-Site or Off-site Disposal Under §761.61(a)(6)* will be used for composite sampling over large flat surfaces.

All building material samples, as well as the QA/QC samples, will be placed into laboratory-provided 4-oz. glass jars and stored in a cooler on ice under chain-of-custody prior to submittal to the laboratory. All building material and QA/QC samples will be submitted to Quantum Laboratories in Wixom, Michigan for laboratory analysis of PCBs in accordance with EPA Method 8082A. Samples will be extracted using EPA Method 3550.

Sample results will be reviewed to determine that the scarification and power washing procedures have reduced PCB concentrations to below the target cleanup level of 1.0 mg/kg. If sample results indicate that PCB concentrations on the walls and/or ceiling remain above the target cleanup level of 1.0 mg/kg, then the area(s) will undergo additional scarification, power washing and resampling following the same procedure as described above up to a maximum of three additional times. If after additional sampling PCB concentrations remain above the target cleanup level of 1.0 mg/kg, the remaining PCB-impacted surfaces will be encapsulated following the procedures described in Section 6.2.5. If decontamination efforts reduce PCB concentrations to below the target cleanup level and the cleanup goals are met, encapsulation will not be performed. Applied Environmental will share confirmation sampling data for evaluation/discussion with the EPA after it is received and before the final completion report is submitted.

6.2.4 Removal of PCB-Impacted Concrete Basement Floor

Once power washing and decontamination procedures are completed, the basement concrete floor will be removed by use a concrete saw and jackhammers utilizing wet methods to minimize the production of airborne dust. Concrete pieces will be transferred from basement and placed into lined roll-off boxes which will be situated along the north exterior of the subject building. Roll-off boxes will be covered with a weatherproof tarp that will be secured over each box at the end of each work day. The area will then be prepared and a new concrete floor will be poured and allowed to cure for approximately 48 hours prior to encapsulation of the walls and ceiling. All demolition debris from the basement will be transported for off-site disposal at US Ecology Wayne Disposal facility in Van Buren Township, Michigan. All PCB-contaminated water accumulated during the saw cutting and jackhammering will be vacuumed using PCB dedicated shop vacuums. Waste water will be transferred into DOT 55-gallon drums and left on-site for a later waste pick up and transportation to ERG Environmental Services (ERG's) Bowling Green, Ohio processing facility for disposal.

6.2.5 Encapsulation of Basement Surfaces

Following review of the laboratory data to confirm that at a minimum concentrations of PCBs surface building materials have been reduced to levels lower than previous investigations and the new basement concrete floor has been poured and allowed to cure, Applied Environmental's contractor will proceed to encapsulate the walls and ceiling of the basement of the subject building.

Encapsulation will consist of the process outlined as follows:

1. Cover and protect the area as needed.
2. Mechanically clean and etch the surfaces that are to be coated.
3. Fill in any large cracks or spalled areas with RetroCoat™ Gel.
4. Wipe down and hand sand surfaces to remove any loose material and vacuum for a final preparation.
5. Apply Tnemec Series 218 Mortarclad Epoxy Modified Cementitious Mortar to the walls and ceilings to fill in pour spaces and voids.
6. Apply a 6-millimeter layer primer coat of RetroCoat™ AV Primer to the surface areas.
7. Apply two, 8 to 10 millimeter coats of RetroCoat™ to the basement surface areas.
8. Perform a spark test to check for and repair any pinholes within the coating per the manufacturer's specifications.
9. Remove the protective coverings.

To clarify on step 8 above. The spark test is not a test required by the manufacturer or the product specification but is used by the application company as a quality check. The application company conducts this test when they apply tank linings and specialty coatings and have also found it a very useful test for the application of the RetroCoat system. The spark test is used to check for and repair any pinholes or light application spots during the coating process. The spark test helps to ensure a sealed surface to fully prevent vapors from penetrating the coating. The application company uses an Elcometer Model 236 DC Portable Holiday tester to conduct the test. It sends a low voltage current through a wire brush across the coating. If there are any pinholes, the current travels through the concrete which sets off an audible alarm and will give off a small visual spark at the pinhole location(s). The application company then will mark any spots identified and re-coat.

The primer coat and RetroCoat encapsulant will be applied in contrasting colors such that wear of the top layer may be more easily observed during the periodic inspections outlined in the Long-Term Monitoring and Maintenance Plan.

The Retro-Coat™ system, as well as being an encapsulant, is also a vapor barrier that will reduce or eliminate the off-gassing of remaining PCBs from basement building materials to the indoor air.

Copies of the information sheets as well as the Safety Data Sheets components for the Retro-Coat™ system, Tnemec Series 218 Mortarclad Epoxy Modified Cementitious Mortar, as well as the Less Than 10® Solution power wash solution are included in **Appendix 8**.

6.2.6 Post Encapsulation Sampling

Following an appropriate cure time for the Retro-Coat™ products, sampling of the basement surfaces will be completed to evaluate the effectiveness of the encapsulation. Approximately thirty-eight (38) samples of building materials from the basement surfaces will be collected to assess PCB-concentrations basement building surface prior to proceeding with encapsulation as described in Section 6.2.3 of the PCB Cleanup Application. Specifically, "biased" samples will be collected from the basement

surfaces in locations biased towards areas where residual PCB contamination may remain after remedial activities are concluded. Based on the results of the post remedial/pre-encapsulation confirmation sampling, sampling bias will be adjusted as needed.

Sampling will be completed via a standard wipe test in accordance with the EPA SOP for Sampling Porous Surfaces for PCBs (May 2011). All building material wipe samples, as well as the QA/QC samples, will be placed in 4-oz. glass laboratory-provided sampling containers and stored in a cooler on ice under chain-of-custody prior to submittal to the laboratory. All building material and QA/QC samples will then be submitted to Quantum Laboratories in Wixom, Michigan for extraction by EPA Method 3550 and analyzed for PCBs in accordance with EPA Method 8082A.

In addition to the post-encapsulation basement surfaces sampling, a second round of indoor air sampling will be conducted after completion of remedial activities within the subject building as specified in and following the sampling/analytical protocols in the April 2022 QAPP. Approximately one to two weeks following the encapsulation activities, Applied Environmental will collect a total of three indoor air samples, one on the ground floor, and two in the basement of the subject building. In addition, one duplicate air sample will be collected within the basement as well as an additional air sample along the exterior of the subject building to establish a control.

The air samples will be collected in accordance with *Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air Second Edition Compendium Method TO-10A, EPA/625/R-96/010b*, dated January 1999. A sampling rate of 1 liter/minute will be utilized as the most conservative of the sampling rate ranges (i.e., 1 to 5 liters/minute) described in the Method TO-10A document. All air samples, as well as the duplicate air sample and one field blank, will be placed back in their original cartridge containers and shipped under chain-of-custody to Pace New England Laboratories of East Longmeadow, Massachusetts for laboratory analysis of PCBs in accordance with EPA Method TO-10A.

To ensure the required reporting limit for the TO-10A Method is met by the laboratory, Applied Environmental will discuss with the laboratory manager prior to the delivery of indoor air samples, the reporting limit requirements and will designate on the chain-of-custody the reporting limit needed for this set of data.

7.0 POST REMEDIATION INSPECTION PLAN

Applied Environmental has prepared a post-remediation inspection plan to fulfill the property owner's continuing obligations. The subject property owners will use and maintain the encapsulated surfaces as an exposure barrier through the implementation of an inspection program and an operation, monitoring (inspections), and maintenance plan. Maintenance of the encapsulated surface barriers as an adequate exposure barrier will be managed through routine inspection and prompt repair. These inspections and/or repairs of the encapsulated surfaces will be documented on forms to be retained onsite by the owner subject property. The post remediation inspection plan also includes periodic wipe sampling of basement encapsulated surfaces as well as periodic indoor air sampling to verify that PCB indoor air concentrations remain below the EPA provided exceed the excess

cancer risk of 1 in 100,000 (0.289 µg/m³) which would warrant corrective actions. Refer to **Appendix 9** for the PCB Long-Term Monitoring and Maintenance Plan.

8.0 TRANSPORTATION

All trucks transporting PCB-impacted soil and building materials from the subject property for off-site disposal are required to comply with Michigan Department of Transportation (MDOT) Hazardous Materials Regulations 49 CFR Parts 171 through 177, and Part 111 of the NREPA, Michigan Public Act 451 of 1994, as amended (MCL 324.11101 *et seq*, R 299.9101). All trucks carrying/transporting hazardous soil or other remediation-derived waste for off-site disposal will be labeled and manifested prior to leaving the subject property. The transport manifests will be consistent with 40 CFR Part 263 “Standards Applicable to Transporters of Hazardous Waste” and Part 138 of NREPA 451 of 1994, as amended. Only transporters licensed and permitted by the EPA, MDOT, and the State of Michigan will be used for the transport of PCB-impacted soil and building materials. Transporters will be required to be licensed in the appropriate states or provinces as well as comply with other applicable federal laws, including MDOT requirements, if hazardous soil and building materials are disposed outside the State of Michigan. Transport vehicles will be equipped with a weatherproof tarp that will be secured over each shipment prior to leaving the subject property or upon placement of waste within the container. The only exemption will be made for enclosed transport units. Following tarping, each transport vehicle will be visually inspected and directed to the truck wash station for decontamination, if warranted, to check that no loose, impacted soils are inadvertently tracked off-site. Particular attention will be paid to removing materials from tires, undercarriages, and portions of vehicles which may have been in contact with impacted soil during loading operations. Please note that based on the location and extent of the proposed excavation area, it is not anticipated that excavation equipment, trucking or support vehicles will not come in contact with the excavation or PCB-impacted soil. However, in the event that any equipment or vehicles come in contact with PCB-impacted soil, the decontamination procedures in 8.2 will be initiated.

Truck transport routes for PCB-impacted soil and building debris will be as follows: PCB-impacted soil and building materials will be transported from the subject property to US Ecology’s Wayne Disposal Inc. RCRA/TSCA Landfill (Wayne Disposal) located in Van Buren Township, Michigan. All trucks will utilize 8 Mile Road (M-102) to enter and exit the subject property. Upon exiting the subject property, trucks will proceed west bound on 8 Mile Road (M-102) to southbound Southfield Freeway (M-39). Trucks will continue on south on the Southfield Freeway (M-39) to westbound Interstate 94 (I-94). Trucks will exit I-94 at Belleville Road (exit 190) and turn right onto Belleville Road. Trucks will then take the I-94 Service Drive to US Ecology located at 49350 N. I-94 Service Drive.

Truck transport routes for remedial rinsate and decontamination water will be as follows: Remedial rinsate and decontamination water will be transported from the subject property to ERG Environmental Services processing facility in Bowling Green, Ohio. Upon exiting the subject property, trucks will proceed west bound on 8 Mile Road (M-102) to southbound Southfield Freeway (M-39). Trucks will continue on south on the Southfield Freeway (M-39) to westbound Interstate 75 (I-75). Trucks will continue on I-75 into Ohio and exit I-75 at Bowling Green Road/Wooster Street (exit 181) and head east on Wooster Street. Trucks will continue on Wooster Street to N. Dunbridge Road and head north (left), take to Woodland Court east (right) to ERG Environmental Services at 527 E. Woodland Court.

All trucks loaded with PCB-impacted soils, building materials and/or remedial rinsate/decontamination water will exit the subject property using only these approved truck routes. These are the most appropriate routes and takes into account: a) limiting transport through residential areas; b) use of city mapped truck routes; c) prohibiting off-site queuing of trucks entering the subject property; d) limiting total distance to major highways; e) promoting safety in access to highways; and f) overall safety in transport. Egress points for trucks and equipment transport from the subject property will be kept clean of dirt and other materials during the remediation activities. Queuing of trucks will be performed on-site in order to minimize off-site disturbance. Off-site queuing of trucks will be prohibited.

8.1 DISPOSAL

PCB-impacted soils and building materials (where applicable) with concentrations greater than 1.0 mg/kg will be removed and transported off-site to a licensed disposal facility in accordance with 40 CFR 761.61(a)(5)(i)(B)(2)(ii). Impacted soils classified as hazardous waste will be disposed of at a hazardous waste landfill in accordance with 40 CFR 761.61(a)(5)(i)(B)(2)(iii). Impacted soils classified as hazardous waste and/or ≥ 50 mg/kg will be managed per the cited regulation. Disposal facilities are identified as US Ecology's Wayne Disposal Inc. RCRA/TSCA Landfill (Wayne Disposal) located in Van Buren Township, Michigan and ERG Environmental Services processing facility in Bowling Green, Ohio.

8.2 DECONTAMINATION

Efforts will be made to avoid tracking contaminated media from areas containing PCB impacts. To minimize the potential for cross contamination, exacerbation and reduce the extent of decontamination warranted, the following work practices will be implemented:

1. Effort will be made to advance the excavation face toward the excavator such that the tracks/tires on the machine do not come into contact with the impacted media.
2. Effort will be made to minimize the amount of equipment and machinery that comes into contact with the contaminated soils. The PCB-impacted soil excavation area is situated in an area that is grass covered adjacent to an asphalt driveway. Trucks being loaded with PCB-impacted soil will be situated on the asphalt paved driveway.
3. The heavy equipment operator will fill only $\frac{3}{4}$ of the bucket and shake the bucket prior to turning the machine to minimize spillage and material falling off as the machine is turned/swung.
4. 10-mil polyethylene sheeting will be placed between the excavation and truck loading area such that potential spillage from the bucket does not come in contact with areas outside the excavation area.
5. Following excavation of the PCB-impacted soil area, equipment that comes into contact with PCB-impacted soil will be decontaminated according to the procedures outlined below.

Standard wipe sampling will be conducted at the completion of the excavation. Once wipe sampling demonstrates sufficient decontamination, excavation equipment will be allowed to leave the subject property. A decontamination pad of sufficient size to accommodate the placement of equipment requiring decontamination will be constructed on-site near the exit/entrance of the site. The pad will be constructed of a minimum of 20-mil (or two layers of ten mil) polyethylene sheeting draped over a soil berm or hay bales to capture decontamination liquids. The pad will be sloped to one corner to allow collection of and facilitate removal and containerizing liquids. Water used for decontamination will be containerized in 55-gallon steel drums or temporary storage containers for proper off-site disposal. Equipment decontamination will be conducted using a double wash/rinse procedure, modified from 40 CFR 761.79, Subpart S, Double Wash/Rinse Method for Decontaminating Non-Porous Surface. The modified

wash/rinse procedure will use Alconox® (or equivalent) detergent for decontamination, rather than the organic solvent wash/rinse because oily substances are not anticipated. Only those portions of equipment that come in contact with contaminated media will be decontaminated. Decontamination will be performed before the equipment is removed from the site at the completion of the project tasks. The modified decontamination procedure is as follows:

1. Remove loose soil and debris with a coarse bristle brush or power washer within the exclusion zone and outside of the decon pad.
2. Move equipment onto the decon pad.
3. Wash with a solution of Alconox® (or equivalent) and potable water.
4. Complete high-pressure steam clean rinse with potable water.
5. Repeat steps 3 and 4 twice.

Persons conducting decontamination activities will wear suitable personnel protective equipment (PPE) to protect against skin contact and inhalation of PCBs. Decontamination wastes, which contain no free liquids (not anticipated), will be minimal in volume and will be managed accordingly.

Waste characterization of decontamination waste generated from cleanup activities will be performed to document and confirm that PCB concentrations are less than 50 mg/kg prior to transport and disposal at ERG Bowling Green Facility. As such, decontamination wastes generated from the PCB-impacted soil will be disposed as waste containing PCBs. Written record of the decontamination procedures will be retained for a minimum of three years, as required. Because the proposed decontamination method deviates from the double wash/rinse procedure as presented in 40 CFR 761.79, Subpart S, standard wipe sampling will be completed to confirm decontamination completeness in accordance with the procedures outlined in 40 CFR Part 761, Subpart O. Wipe samples will be completed at a rate of three (3) wipe samples for each type of equipment that comes in contact with contaminated media. Field blanks and duplicate samples will also be collected, as appropriate. Samples will be extracted using EPA Method 3550 and analyzed for PCBs by EPA Method 8082A. Sample results will be compared to a decontamination standard of 10 micrograms per square centimeter ($\mu\text{g}/100\text{ cm}^2$). If wipe sampling indicates that decontamination was insufficient at removing contamination as evidenced by exceedances of this standard, the decontamination procedure will be repeated or modified and additional wipe sampling will be completed until sampling demonstrates results below the standard.

9.0 CONTINGENCY PLANS

Contingency plans have been developed to deal with unanticipated deviations from the Application and to guide the remedial work should higher PCB concentrations and/or wider distribution of PCBs are identified during cleanup and following verification sampling.

9.1 Elevated PCB Concentrations or Increased Distribution

In the event that PCB-impacted soils with concentrations greater than 1.0 mg/kg are encountered or distributed in a wider area than anticipated following initial verification sampling, the excavation will be advanced until verification sampling results demonstrate that cleanup activities have been successful and remaining PCB concentrations are below 1.0 mg/kg. The requirements for additional rounds of verification sampling are outlined in Section 6.1.6 and is consistent with the procedure for

the initial round sample methodology. Any over-excavation PCB-impacted soil with concentrations greater than 1.0 mg/kg will be excavated and disposed of in accordance with Section 8.1.

9.2 Control of Potential Oil or Hazardous Material Spills

Potential sources of oil or hazardous materials spills, and accidental discharge or system malfunction/failure associated with the remedial activities include the following:

- Accidental discharge from stockpiled soil.
- Accidental fuel or oil releases from equipment.

The following design and control features will be implemented to prevent accidental discharge from stockpiled soils:

- Excavated PCB-impacted soil is intended to be live loaded onto trucks for transport to the off-site disposal facility, in the event the on-site conditions dictate otherwise and the soil needs to be temporarily stockpiled, this procedure will be utilized.
- Any temporarily stockpiled soils will be placed on a layer of 10-mil polyethylene sheeting and covered with at least one layer of 10-mil polyethylene sheeting at the end of each day. Hay bales will be deployed around the perimeter of the soil stockpile to control runoff to the adjacent properties and/or storm drain system.
- A spill control kit with adsorbent booms, pads, and granular absorbents will be available on-site during remedial activities.

9.3 Prevent Deleterious Impact – SWPPP Preparation

To prevent deleterious off-site impact, a stormwater pollution prevention plan (SWPPP) will be prepared in addition to the air monitoring described in Section 10.1 and the decontamination procedure outlined in Section 8.2.

9.4 Institutional Controls

In the event that remedial efforts in the basement of the building results in PCBs remaining on basement walls and/or ceiling materials above the cleanup goals, surfaces will be encapsulated as described in Section 6.2.5, and an Institutional Control will be implemented to indicate contained PCB concentrations remains within the basement of the building at the property. The Institutional Control will be in the form of a deed restriction with language that all current and future owners must maintain the protective coating. The deed restriction will be filed with the Oakland County Register of Deeds.

10.0 SITE MONITORING

10.1 Air Monitoring Plan

Soil excavation activities have the potential to generate fugitive dust. The primary dust control technique will be the application of a fine water spray. Particulate air monitoring will be performed during excavation activities to evaluate fugitive dust generated by excavating. An air monitoring program will be prepared to provide for real-time air monitoring of particulates at the downwind perimeter of the work area during the remedial excavation. The particulate monitoring will use visual assessment as well as real-

time monitoring equipment capable of measuring particulate matter less than ten (10) micrometers in size (PM-10) and capable of integrating over a period of 15 minutes (or less) for comparison to the airborne action level. Sampling stations will be situated upwind and downwind of the largest producing activity occurring at the subject property at the boundary of the work zone. The sampling locations will be periodically adjusted to account for observed changes in wind direction. Instruments will be calibrated in accordance with the Health and Safety Plan and the instrument manufacturer's guidelines.

Each set of equipment will be equipped with audible alarms to indicate any exceedance(s) of the action levels. The downwind action level is 100 $\mu\text{g}/\text{m}^3$ greater than background (as measured from the upwind station) and measured over a 15-minute average. If particulate levels are detected in excess of this value or if fugitive dust is observed leaving the subject property, dust suppression techniques will then be implemented to reduce the generation of fugitive dust and corrective action taken to protect site personnel and reduce the potential for airborne contaminant migration. Work may resume under the condition that dust suppression and other measures are undertaken and particulate levels do not exceed 150 $\mu\text{g}/\text{m}^3$ (15-minute average) above the upwind level and provided no visible dust is observed leaving the subject property.

Air monitoring of particulate concentrations will be documented using an air monitoring field form. This form will be completed on a daily basis and records of this form will be available for regulatory agency review upon request. Response actions to observed exceedances of action levels will be documented using a field form that will be available for regulatory agency review upon request.

10.2 Health and Safety Plan

A site-specific Health and Safety Plan (HASP) will be required by the remediation contractor and any other support contractors or on-site personnel. The HASP will be developed prior to the start of the remedial activities. The HASP should comply with all applicable federal, state and local regulations and signed copy will be maintained on-site at all times through the duration of the remedial activities.

11.0 FINAL REPORT

Following completion of remedial activities, a final report will be completed documenting all remedial activities conducted. The report will include a description of work completed, quantities of excavated PCB-impacted soils, quantities of backfill materials, quantities of PCB-impacted building materials removed, a summary of all verification sampling performed, laboratory analytical results, tables comparing laboratory analytical results to applicable criteria, and waste manifests.

12.0 SCHEDULE

The following provides an anticipated schedule for the cleanup work specified in the Application:

Major Milestones	Duration
EPA Approval of Risk-Based Application	15-30 days
Issuance/Acceptance of USEPA Approval Letter	15 days
30-Day Public Comment Period	30 days
Submittal of EGLE Brownfield Work Plan	5 days
EGLE Approval of Brownfield Work Plan	7-14 days
Contractor Mobilization	15-30 days
Remedial Activities	5-8 weeks
Remedial Activities Closeout Report	4 weeks

The overall progress of cleanup activities will be dependent upon a number of factors including, but not limited to: Agency review periods, weather conditions at the time of remedial activities, etc. The Agencies will be notified at least 7 days prior to the initiation of field activities to be conducted in support of cleanup efforts.

13.0 OWNER CERTIFICATION

The cleanup site is located at 12700 8 Mile Road, Oak Park, Oakland County, Michigan and is owner by ATE Mile, LLC. This PCB Remediation Application outlining a risk-based cleanup and disposal approach will be implemented under the supervision of Applied Environmental. The sampling plans, sample collection procedures, sample preparation procedures, extraction procedures, and instrumental/chemical analysis procedures used to assess or characterize the PCB contamination at the cleanup site are outlined in the Application and will be available for EPA inspection at the ATE Mile LLC main office at 90 N. Main Street, Clarkston, MI per 40 CFR 761.61(a)(3)(i)(E).

Under civil and criminal penalties of law for the making or submission of false or fraudulent statements or representations (18U.S.C. 1001 and 15U.S.C. 2615), I certify that the information contained in or accompanying this document is true, accurate, and complete. As to the identified section(s) of this document for which I cannot personally verify truth and accuracy, I certify as the company official having supervisory responsibility for the persons who, acting under my direct instructions, made the verification that this information is true, accurate, and complete.

Signed By:



Owner

CONCLUSIONS

This is a Risk-Based PCB Cleanup Application for review by EPA to provided comments and suggested changes prior submitting a final Risk-Based PCB Cleanup Application for formal approval by EPA.

We appreciate your response and feedback following your review of this Application. If you have any questions or required any additional information, please contact us at 734-975-1970.

Respectfully,



Michael Gatien
Principal, Senior Project Manager
Applied Environmental





Jason Vertrees
President
Applied Environmental

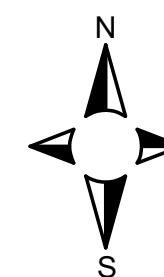
ECC: Peter Ramanauskas, EPA Region V
Bhooma Sundar, EPA Region V
Michelle Bakun, EGLE
Kimberly Marrone, City of Oak Park
Anne Jamieson-Urena, Jamieson Development Consulting

FIGURES



**Figure 1
Site Location Map**

 <p>APPLIED ENVIRONMENTAL</p> <p>1210 North Maple Rd. Ann Arbor, MI 48103 (734) 975-1970</p>	<p>8MK Project – PCB Remediation and Redevelopment 12700 8 Mile Road, Oak Park, MI 48237</p> <p>AE Project No. 23-2554</p>	 <p>North</p> <p>Source: Oakland County Property Gateway</p>
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Scale: 1" = 60'

HEAVILY VEGETATED AND TREED AREA

HEAVILY VEGETATED AND TREED AREA

AREA OF FORMER SOIL REMEDIATION/REMOVAL

CONCRETE PAD

FORMER WELL PIT (5 FEET DEEP)

ASPHALT

HEAVILY VEGETATED AND TREED AREA

Legend

 STORMWATER CATCH BASIN

GRASS

STORAGE AREA

SUBJECT BUILDING

GRASS

GRASS

GRASS

ASPHALT

GRASS

CONCRETE SIDEWALK

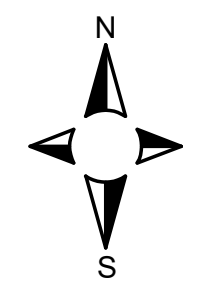
GRASS

FIGURE 2

SITE MAP

EIGHT MILE ROAD

<i>APPLIED ENVIRONMENTAL</i>		
DEPT: ENVIRONMENTAL	TITLE: SITE MAP	DATE: 8/5/22
PROJECT MGR: M. SCHROEDER	CLIENT: ATE MILE, LLC	PROJ. NUMBER: 23-2554



Scale: 1" = 30'

Legend

- GP-11A SOIL BORING COMPLETED BY APPLIED ENV. 7/28/20
- GP-21/
MW-1 SOIL BORING/MONITORING WELL COMPLETED BY APPLIED ENV. 12/9/15
- GP-1 SOIL BORING COMPLETED BY APPLIED ENV. 12/9/15

All Results in mg/kg.
 VOCs = Volatile Organic Compounds
 PCBs = Polychlorinated Biphenyls
 MDLs = Laboratory Method Detection Limit

Red Colored PCB Concentrations Indicate Levels Exceeding the EPA High Occupancy Threshold of 1.0 mg/kg.

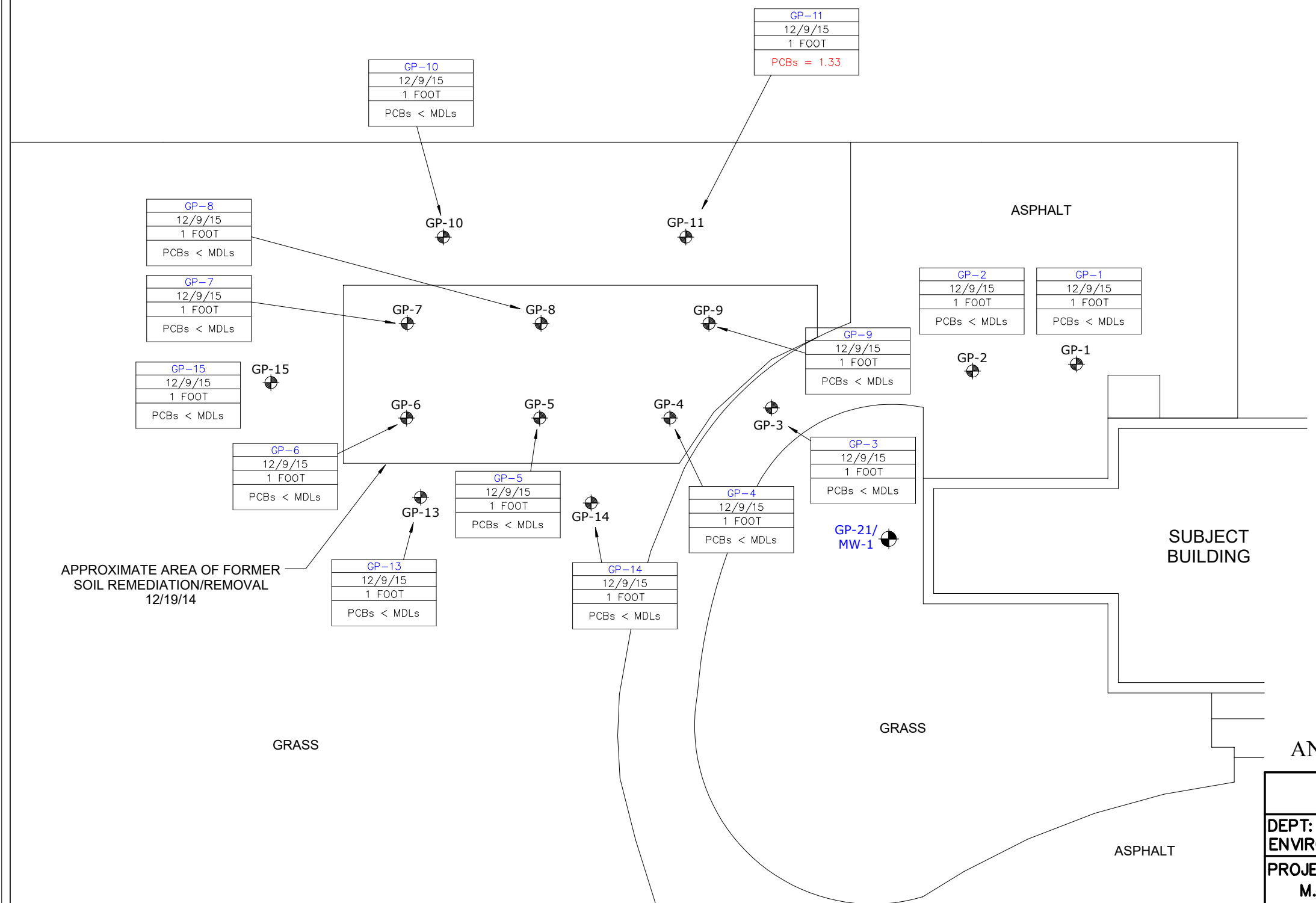
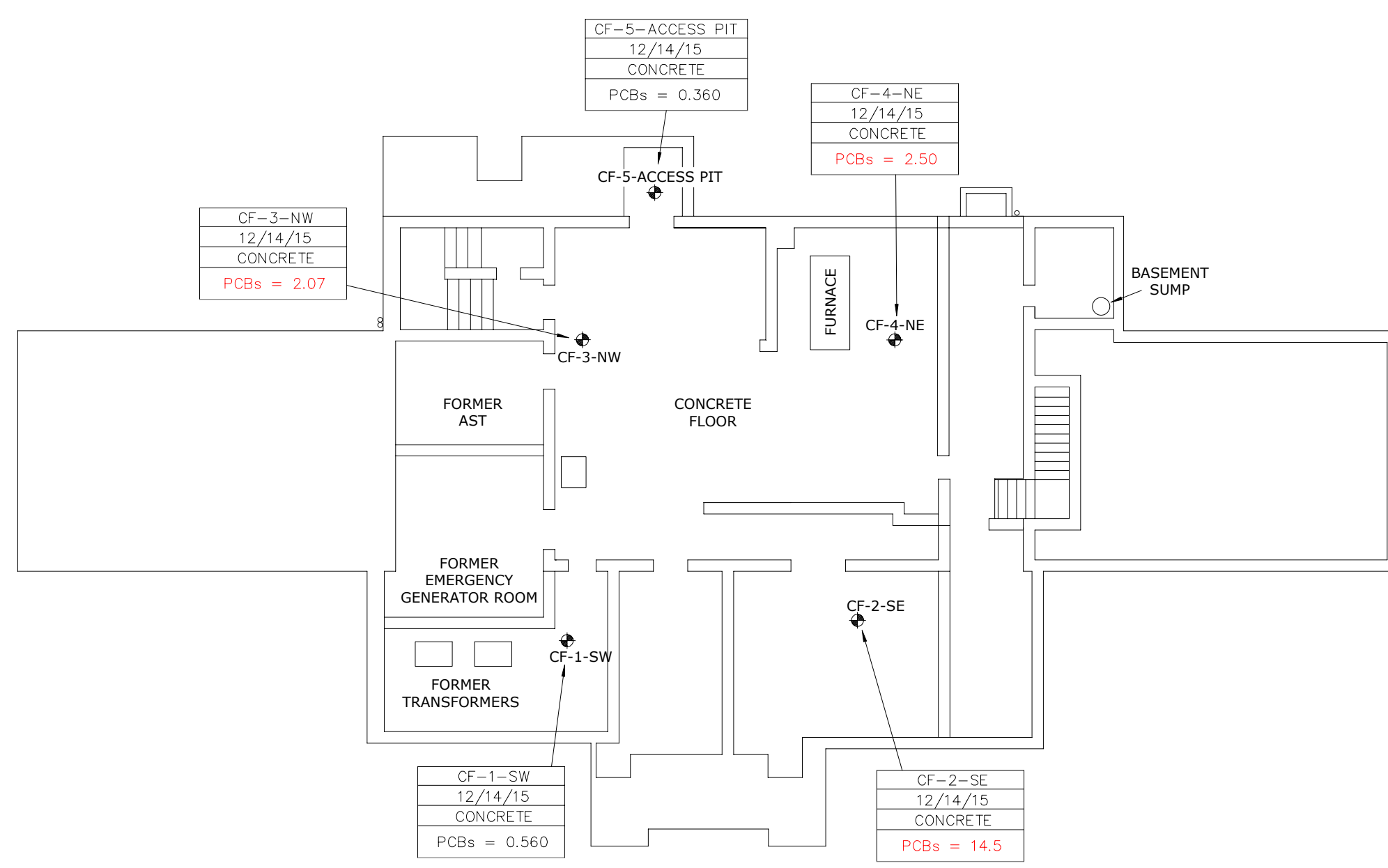
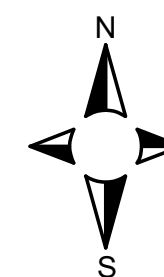


FIGURE 3

PHASE II SOIL SAMPLING LOCATIONS AND ANALYTICAL RESULTS - DECEMBER 2015

APPLIED ENVIRONMENTAL		
DEPT: ENVIRONMENTAL	TITLE: EXTERIOR SOIL RESULTS	DATE: 7/28/20
PROJECT MGR: M. GATIEN	CLIENT: ATE MILE, LLC	PROJ. NUMBER: 20-2554



Legend

CF-1 CONCRETE FLOOR CORE SAMPLE LOCATION

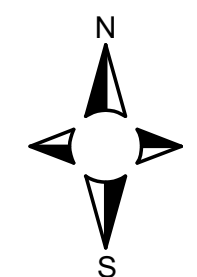
All Results in mg/kg.
 VOCs = Volatile Organic Compounds
 PCBs = Polychlorinated Biphenyls
 MDLs = Laboratory Method Detection Limit

Red Colored PCB Concentrations Indicate Levels Exceeding the EPA High Occupancy Threshold of 1.0 mg/kg.

FIGURE 4

PHASE II ESA BASEMENT CONCRETE SAMPLING LOCATIONS AND ANALYTICAL RESULTS - DECEMBER 2015

APPLIED ENVIRONMENTAL		
DEPT: ENVIRONMENTAL	TITLE: CONCRETE SAMPLES	DATE: 11/6/18
PROJECT MGR: M. GATIEN	CLIENT: ATE MILE, LLC	PROJ. NUMBER: 23-2554



Scale: 1" = 30'

Legend

- GP-11A SOIL BORING COMPLETED BY APPLIED ENV. 7/28/20
- GP-21/
MW-1 SOIL BORING/MONITORING WELL COMPLETED BY APPLIED ENV. 12/9/15
- GP-1 SOIL BORING COMPLETED BY APPLIED ENV. 12/9/15

All Results in mg/kg.
 VOCs = Volatile Organic Compounds
 PCBs = Polychlorinated Biphenyls
 MDLs = Laboratory Method Detection Limit

Red Colored PCB Concentrations Indicate Levels Exceeding the EPA High Occupancy Threshold of 1.0 mg/kg.

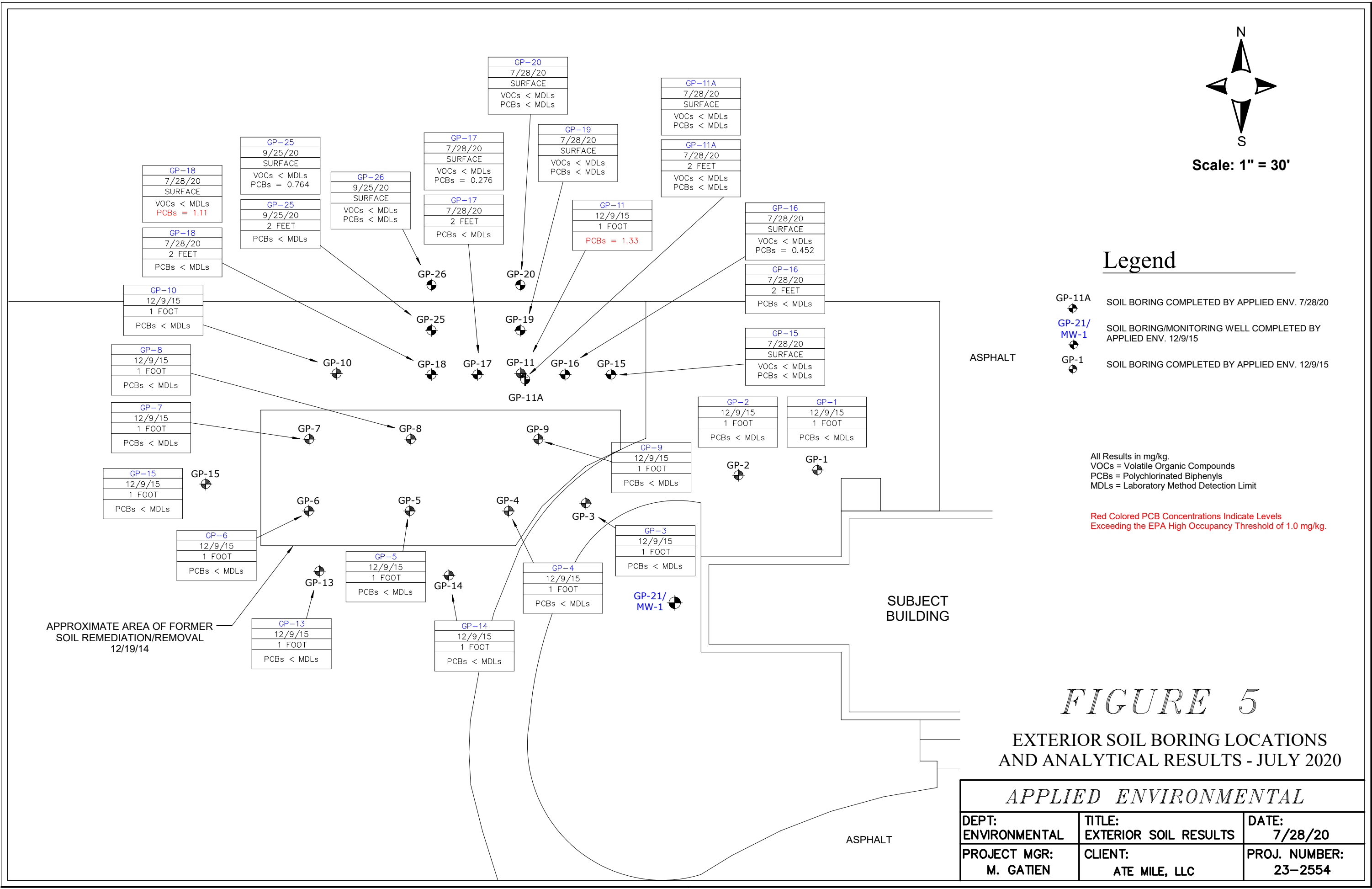
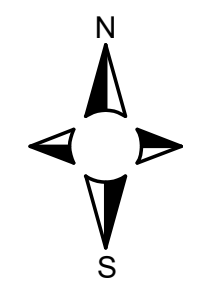


FIGURE 5
 EXTERIOR SOIL BORING LOCATIONS AND ANALYTICAL RESULTS - JULY 2020

APPLIED ENVIRONMENTAL		
DEPT: ENVIRONMENTAL	TITLE: EXTERIOR SOIL RESULTS	DATE: 7/28/20
PROJECT MGR: M. GATIEN	CLIENT: ATE MILE, LLC	PROJ. NUMBER: 23-2554



Scale: 1" = 30'

GP-25	GP-26
9/25/20	9/25/20
SURFACE	SURFACE
VOCs < MDLs	VOCs < MDLs
PCBs = 0.764	PCBs < MDLs

GP-25
9/25/20
2 FEET
PCBs < MDLs

Legend

- GP-11A SOIL BORING COMPLETED BY APPLIED ENV. 7/28/20
- GP-21/
MW-1 SOIL BORING/MONITORING WELL COMPLETED BY APPLIED ENV. 12/9/15
- GP-1 SOIL BORING COMPLETED BY APPLIED ENV. 12/9/15

All Results in mg/kg.
 VOCs = Volatile Organic Compounds
 PCBs = Polychlorinated Biphenyls
 MDLs = Laboratory Method Detection Limit

Red Colored PCB Concentrations Indicate Levels Exceeding the EPA High Occupancy Threshold of 1.0 mg/kg.

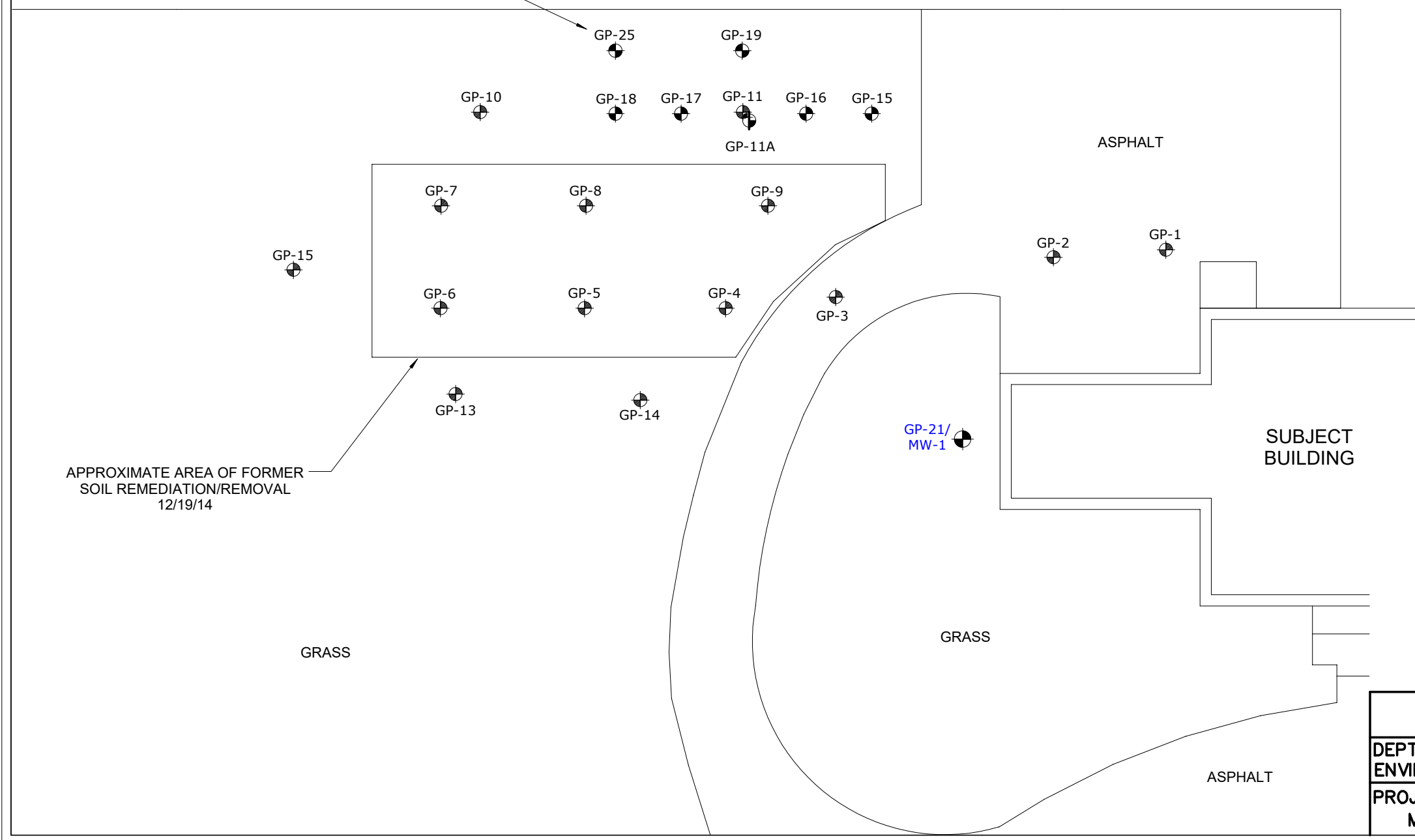
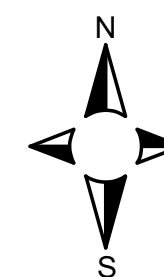


FIGURE 6
 EXTERIOR SOIL BORING LOCATIONS
 AND ANALYTICAL RESULTS - SEPT 2020

APPLIED ENVIRONMENTAL		
DEPT: ENVIRONMENTAL	TITLE: EXTERIOR SOIL RESULTS	DATE: 7/28/20
PROJECT MGR: M. GATIEN	CLIENT: ATE MILE, LLC	PROJ. NUMBER: 23-2554








Scale: 1" = 30'

HEAVILY VEGETATED AND TREED AREA

HEAVILY VEGETATED AND TREED AREA

Legend

- 
 MONITORING WELL WITH STATIC WATER ELEVATION IN FEET
- 
 GROUNDWATER GRADIENT CONTOUR
- 
 LOCALIZED GROUNDWATER FLOW DIRECTION
- 
 SOIL BORING COMPLETED BY APPLIED ENV. 7/28/20
- 
 SOIL BORING COMPLETED BY APPLIED ENV. 12/9/15

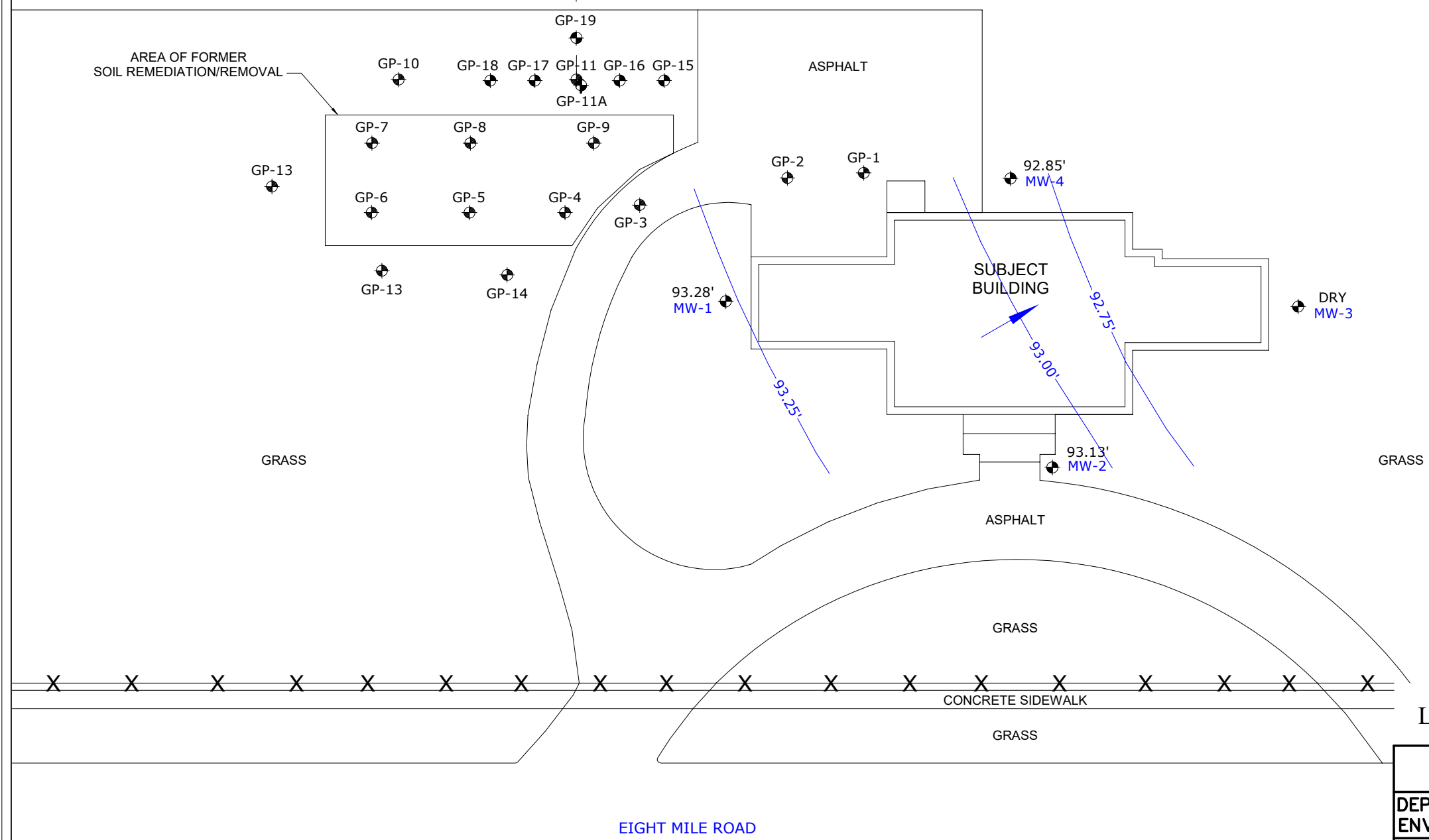
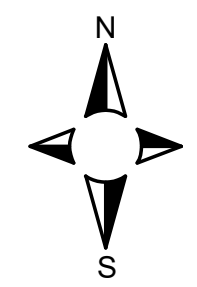


FIGURE 7

LOCALIZED GROUNDWATER FLOW DIRECTION

APPLIED ENVIRONMENTAL		
DEPT: ENVIRONMENTAL	TITLE: GROUNDWATER FLOW	DATE: 8/20/20
PROJECT MGR: M. GATIEN	CLIENT: ATE MILE, LLC	PROJ. NUMBER: 23-2554



Scale: 1" = 30'

HEAVILY VEGETATED AND TREED AREA

HEAVILY VEGETATED AND TREED AREA

Legend

- 93.28'
MW-1 MONITORING WELL WITH STATIC WATER ELEVATION IN FEET
- 93.25' GROUNDWATER GRADIENT CONTOUR
- LOCALIZED GROUNDWATER FLOW DIRECTION
- GP-11A SOIL BORING COMPLETED BY APPLIED ENV. 7/28/20
- GP-1 SOIL BORING COMPLETED BY APPLIED ENV. 12/9/15

All Groundwater Results in ug/L
 MDL - Laboratory Method Detection Limit
 VOCs - Volatile Organic Compounds
 PCBs - Polychlorinated Biphenyls

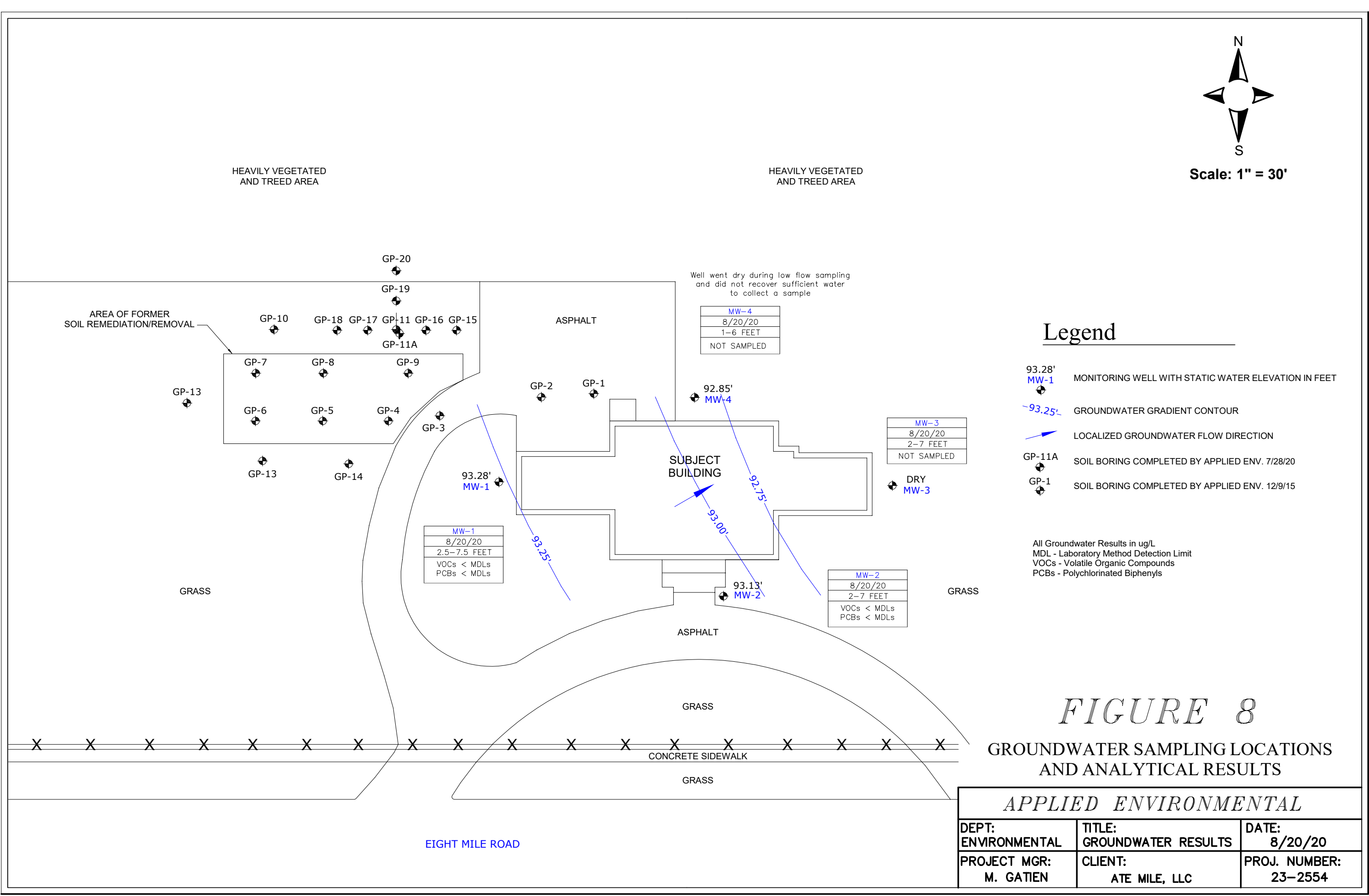
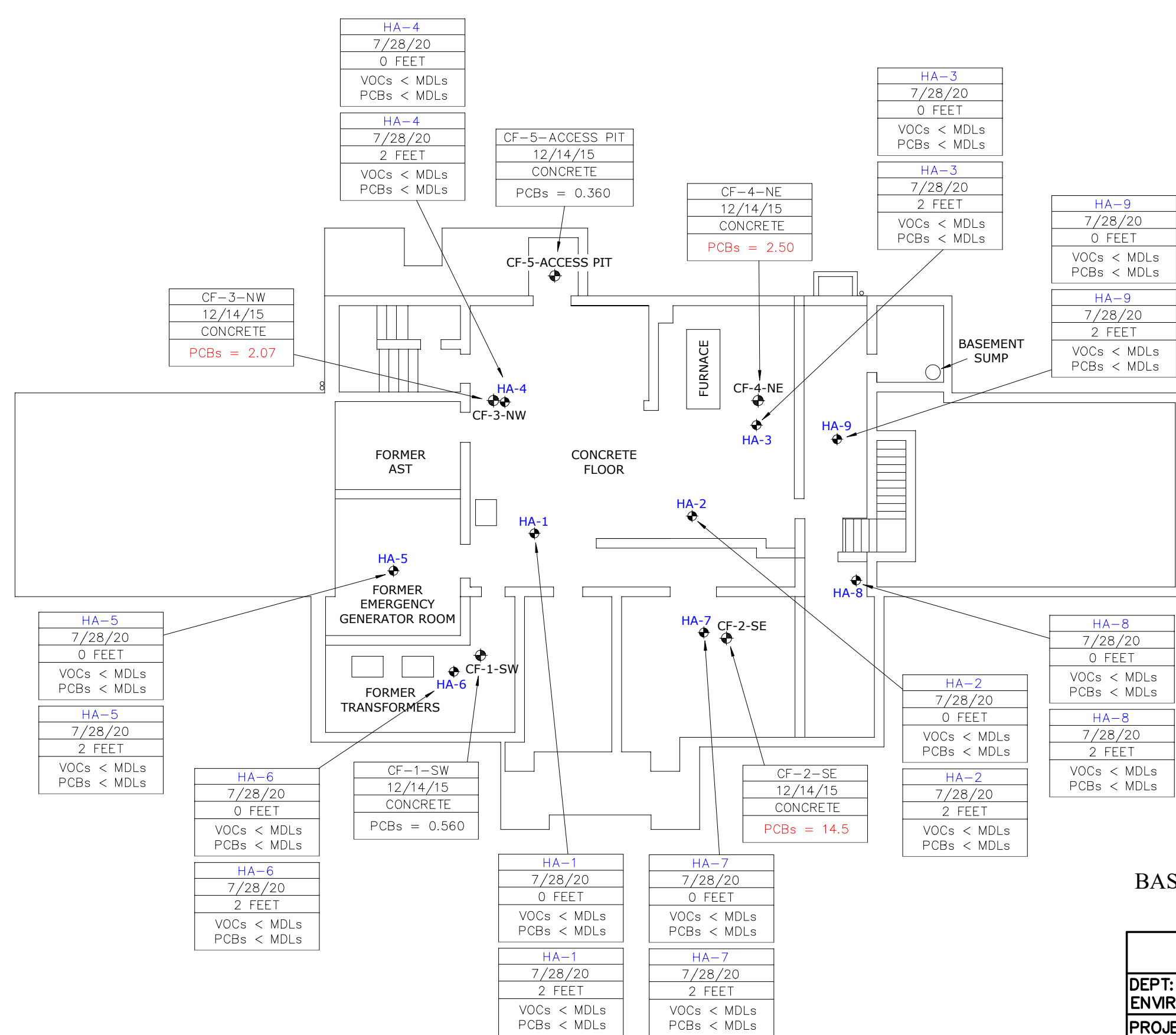
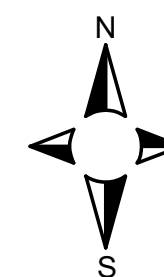


FIGURE 8
 GROUNDWATER SAMPLING LOCATIONS AND ANALYTICAL RESULTS

APPLIED ENVIRONMENTAL		
DEPT: ENVIRONMENTAL	TITLE: GROUNDWATER RESULTS	DATE: 8/20/20
PROJECT MGR: M. GATIEN	CLIENT: ATE MILE, LLC	PROJ. NUMBER: 23-2554



Legend

- HA-1 HAND AUGER BORING LOCATION COMPLETED BY APPLIED 7/28 & 29/2020
- CF-1 CONCRETE FLOOR CORE SAMPLE LOCATION

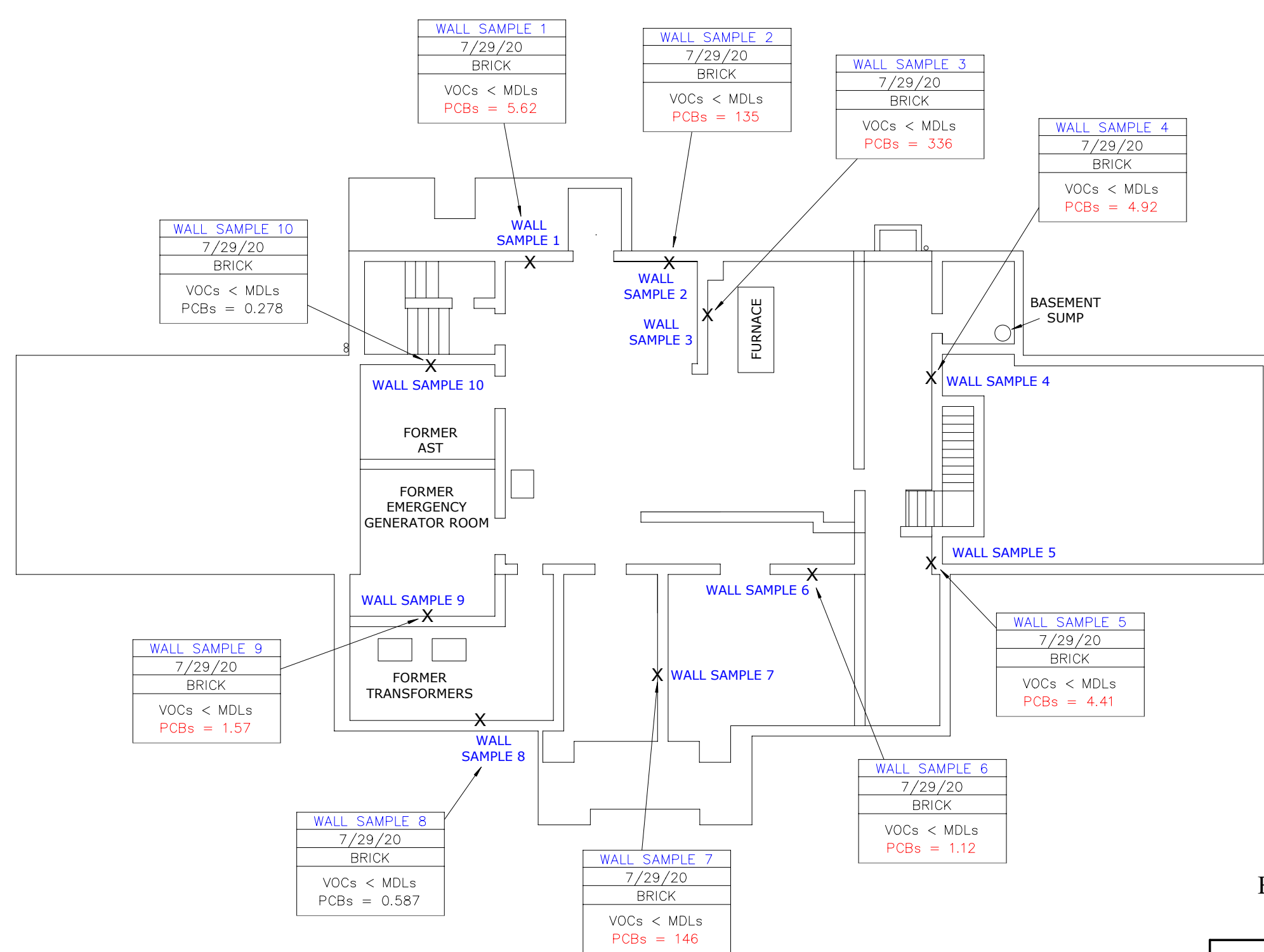
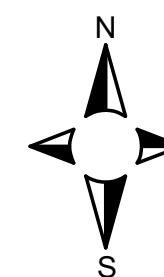
All Results in mg/kg.
 VOCs = Volatile Organic Compounds
 PCBs = Polychlorinated Biphenyls
 MDLs = Laboratory Method Detection Limit

Red Colored PCB Concentrations Indicate Levels Exceeding the EPA High Occupancy Threshold of 1.0 mg/kg.

FIGURE 9

BASEMENT HAND AUGER BORING LOCATIONS AND ANALYTICAL RESULTS

<i>APPLIED ENVIRONMENTAL</i>		
DEPT: ENVIRONMENTAL	TITLE: CONCRETE SAMPLES	DATE: 11/6/18
PROJECT MGR: M. GATIEN	CLIENT: ATE MILE, LLC	PROJ. NUMBER: 23-2554



Legend

X BASEMENT WALL SAMPLE LOCATION

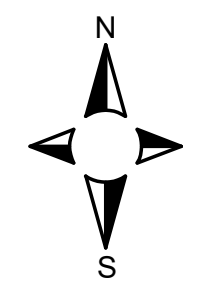
All Results in mg/kg.
 VOCs = Volatile Organic Compounds
 PCBs = Polychlorinated Biphenyls
 MDLs = Laboratory Method Detection Limit

Red Colored PCB Concentrations Indicate Levels Exceeding the EPA High Occupancy Threshold of 1.0 mg/kg.

FIGURE 10

BASEMENT WALL SAMPLE LOCATIONS AND ANALYTICAL RESULTS

APPLIED ENVIRONMENTAL		
DEPT: ENVIRONMENTAL	TITLE: BASEMENT WALL SAMPLING	DATE: 5/27/22
PROJECT MGR: M. SCHROEDER	CLIENT: ATE MILE, LLC	PROJ. NUMBER: 23-2554



Scale: 1" = 30'

Legend

- GP-1 SOIL BORING COMPLETED BY APPLIED ENV. 12/9/15
- GP-11A SOIL BORING COMPLETED BY APPLIED ENV. 7/28/20
- GP-18 SOIL BORING COMPLETED BY APPLIED ENV. 7/28/20
- HA-27 SHALLOW SOIL SAMPLE COLLECTED BY APPLIED ENV. 5/26/2022
- Surface 1 SURFACE SOIL SAMPLE COLLECTED BY APPLIED ENV. 5/26/2022

All Results in mg/kg.
 VOCs = Volatile Organic Compounds
 PCBs = Polychlorinated Biphenyls
 MDLs = Laboratory Method Detection Limit

Red Colored PCB Concentrations Indicate Levels Exceeding the EPA High Occupancy Threshold of 1.0 mg/kg.

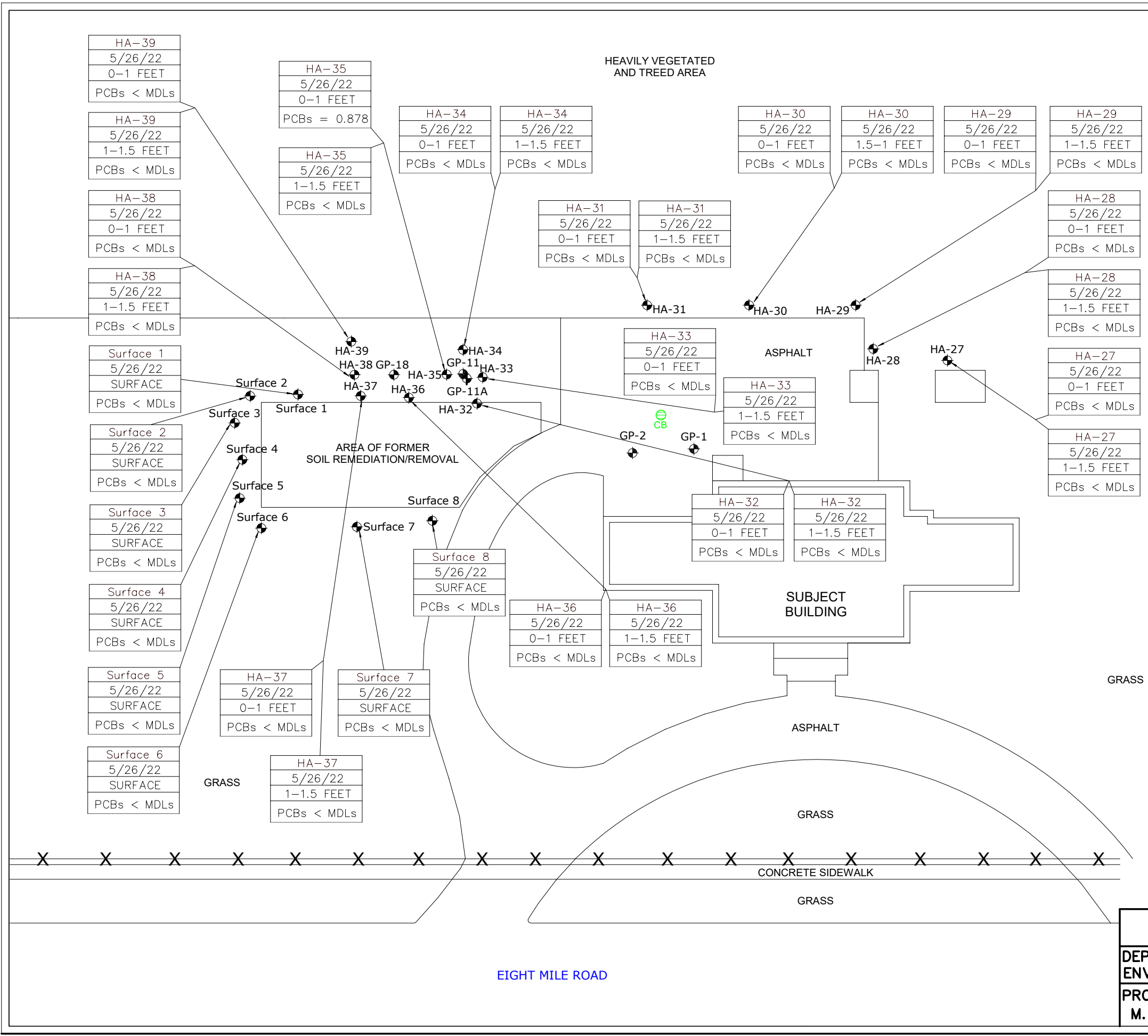
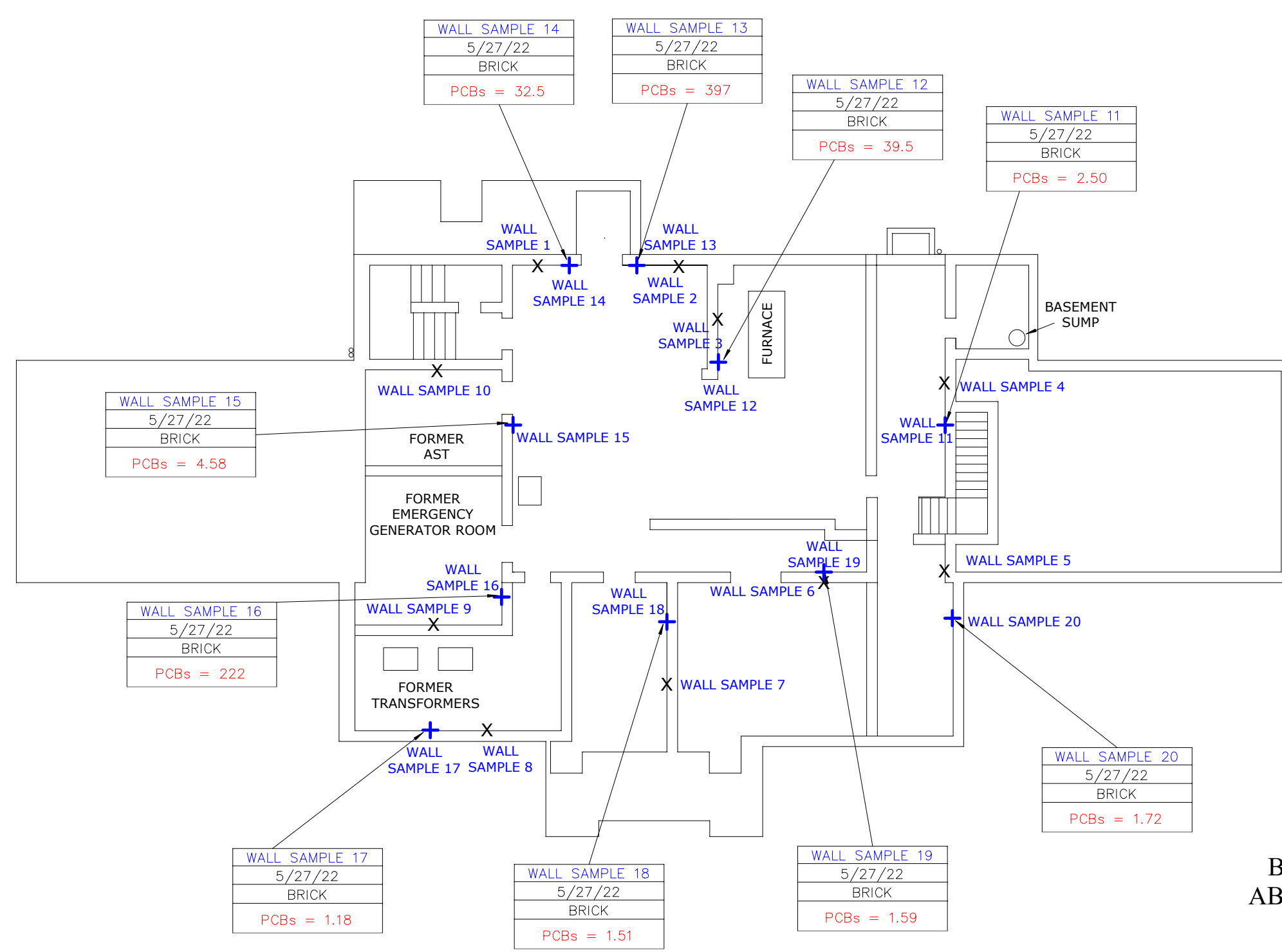
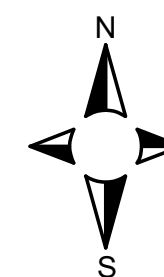


FIGURE 11
 EXTERIOR SOIL BORING LOCATIONS
 AND ANALYTICAL RESULTS - MAY 2022

APPLIED ENVIRONMENTAL		
DEPT: ENVIRONMENTAL	TITLE: SOIL BORING LOCATIONS	DATE: 5/26/2022
PROJECT MGR: M. SCHROEDER	CLIENT: ATE MILE, LLC	PROJ. NUMBER: 23-2554



Legend

- X BASEMENT WALL SAMPLE LOCATION
- + ADDITIONAL WALL SAMPLE LOCATION ABOVE THE HISTORIC FLOODWATER LINE

All Results in mg/kg.
 VOCs = Volatile Organic Compounds
 PCBs = Polychlorinated Biphenyls
 MDLs = Laboratory Method Detection Limit

Red Colored PCB Concentrations Indicate Levels Exceeding the EPA High Occupancy Threshold of 1.0 mg/kg.

FIGURE 12
 BASEMENT WALL SAMPLE LOCATIONS ABOVE THE HISTORIC FLOODWATER LINE WITH ANALYTICAL RESULTS

APPLIED ENVIRONMENTAL		
DEPT: ENVIRONMENTAL	TITLE: BASEMENT WALL SAMPLING	DATE: 5/27/22
PROJECT MGR: M. SCHROEDER	CLIENT: ATE MILE, LLC	PROJ. NUMBER: 22-2554

WALL SAMPLE 14
5/27/22
BRICK
PCBs = 32.5

WALL SAMPLE 13
5/27/22
BRICK
PCBs = 397

WALL SAMPLE 12
5/27/22
BRICK
PCBs = 39.5

WALL SAMPLE 11
5/27/22
BRICK
PCBs = 2.50

WALL SAMPLE 15
5/27/22
BRICK
PCBs = 4.58

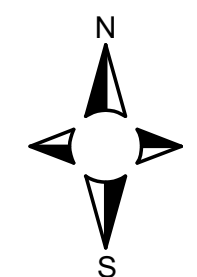
WALL SAMPLE 16
5/27/22
BRICK
PCBs = 222

WALL SAMPLE 17
5/27/22
BRICK
PCBs = 1.18

WALL SAMPLE 18
5/27/22
BRICK
PCBs = 1.51

WALL SAMPLE 19
5/27/22
BRICK
PCBs = 1.59

WALL SAMPLE 20
5/27/22
BRICK
PCBs = 1.72



Scale: 1" = 30'

Legend

- GP-11A SOIL BORING COMPLETED BY APPLIED ENV. 7/28/20
- GP-21/
MW-1 SOIL BORING/MONITORING WELL COMPLETED BY APPLIED ENV. 12/9/15
- GP-1 SOIL BORING COMPLETED BY APPLIED ENV. 12/9/15

All Results in mg/kg.
 VOCs = Volatile Organic Compounds
 PCBs = Polychlorinated Biphenyls
 MDLs = Laboratory Method Detection Limit

Red Colored PCB Concentrations Indicate Levels Exceeding the EPA High Occupancy Threshold of 1.0 mg/kg.

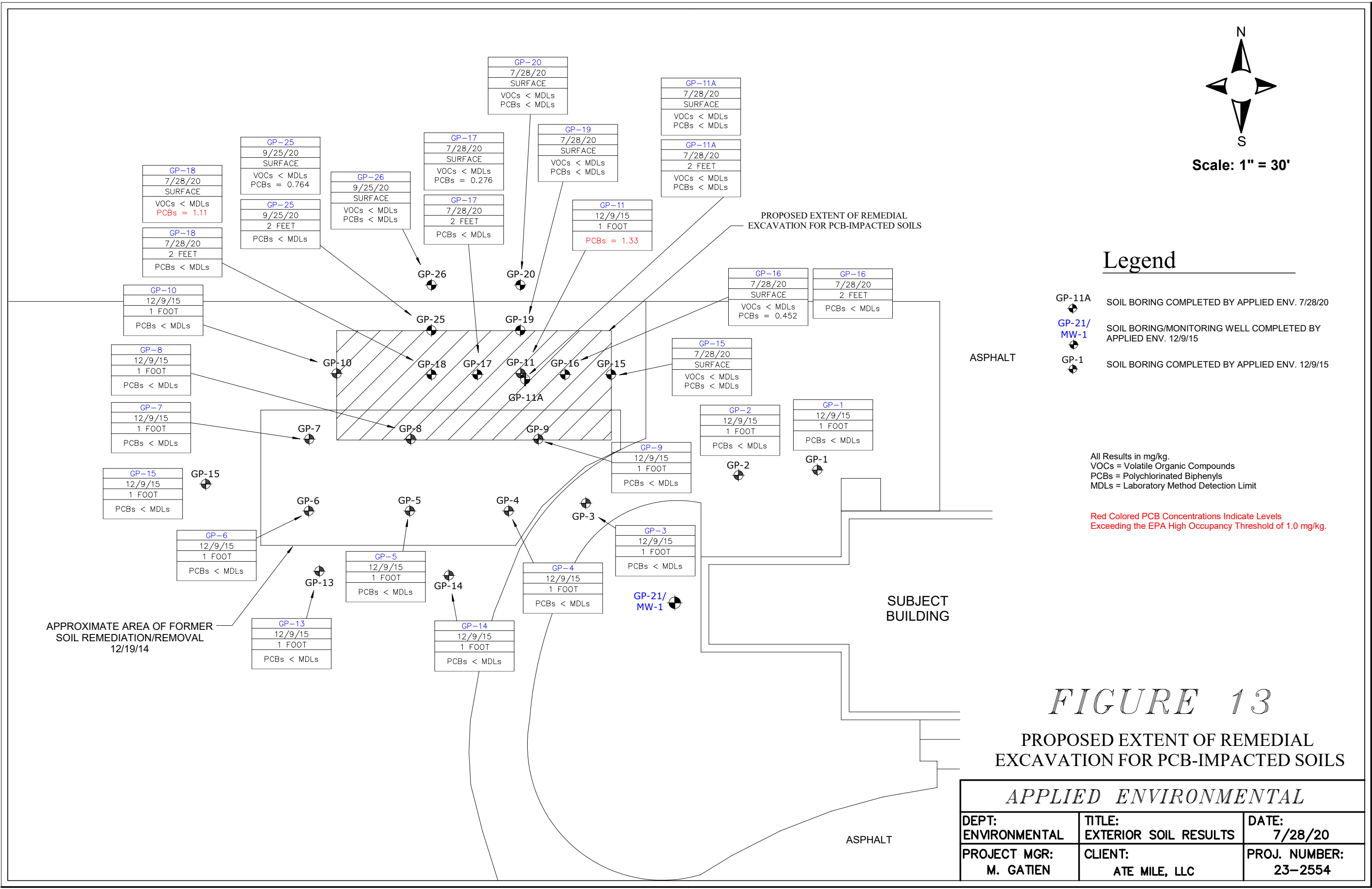


FIGURE 13
 PROPOSED EXTENT OF REMEDIAL EXCAVATION FOR PCB-IMPACTED SOILS

APPLIED ENVIRONMENTAL		
DEPT: ENVIRONMENTAL	TITLE: EXTERIOR SOIL RESULTS	DATE: 7/28/20
PROJECT MGR: M. GATIEN	CLIENT: ATE MILE, LLC	PROJ. NUMBER: 23-2554

TABLES

TABLE 1

TABLE 2



Table 2
 Basement Building Concrete Floor Analytical Results
 8MK Project
 12700 8 Mile Road, Oak Park, MI 48237
 December 14, 2015

			Lab ID	8746-1	8746-2	8746-3	8746-4	9746-5
Parameters*	Chemical Abstract Service Number	TSCA High Occupancy Threshold	Sample ID	CF-1-SW	CF-2-SE	CF-3-NW	CF-4-NE	CF-5-Access Pit
			Collection Date	12/14/15	12/14/15	12/14/15	12/14/15	12/14/15
<i>*(Refer to detailed laboratory report for method reference data)</i>								
PCBs, ug/Kg								
PCB, Aroclor 1016	12674-11-2	1,000		< 100	< 100	< 100	< 100	< 100
PCB, Aroclor 1221	11104-28-2	1,000		< 100	< 100	< 100	< 100	< 100
PCB, Aroclor 1232	11141-16-5	1,000		< 100	< 100	< 100	< 100	< 100
PCB, Aroclor 1242	53469-21-9	1,000		< 100	< 100	< 100	< 100	< 100
PCB, Aroclor 1248	12672-29-6	1,000		< 100	< 100	< 100	< 100	< 100
PCB, Aroclor 1254	11097-69-1	1,000		560	14,500	2,070	2,500	360
PCB, Aroclor 1260	11096-82-5	1,000		< 100	< 100	< 100	< 100	< 100
Total PCBs (J, T)	1336-36-3	1,000		560	14,500	2,070	2,500	360

All concentrations in µg/kg

shading indicates criterion has been exceeded

< : chemical not detected above Method Detection Limit (MDL)

* duplicate of Wall Sample 13

All samples collected approximately 7 feet from the floor



Table 2
 Basement Building Wall Analytical Results
 Above the Historic Floodwater Line
 8MK Project - Summary of Additional Delineation Activities
 12700 8 Mile Road, Oak Park, MI 48237

			Lab ID	12338-63	12338-64	12338-65	12338-66	12338-67	12338-68	12338-69	12338-70	12338-71	12338-72	12338-73
Parameters*	Chemical Abstract Service Number	TSCA High Occupancy Threshold	Sample ID	Wall Sample 11	Wall Sample 12	Wall Sample 13	Wall Sample 14	Wall Sample 15	Duplicate 4*	Wall Sample 16	Wall Sample 17	Wall Sample 18	Wall Sample 19	Wall Sample 20
			Collection Date	5/27/22	5/27/22	5/27/22	5/27/22	5/27/22	5/27/22	5/27/22	5/27/22	5/27/22	5/27/22	5/27/22
*(Refer to detailed laboratory report for method reference data)														
PCBs, ug/Kg														
PCB, Aroclor 1016	12674-11-2	1,000		< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100
PCB, Aroclor 1221	11104-28-2	1,000		< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100
PCB, Aroclor 1232	11141-16-5	1,000		< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100
PCB, Aroclor 1242	53469-21-9	1,000		< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100
PCB, Aroclor 1248	12672-29-6	1,000		< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100
PCB, Aroclor 1254	11097-69-1	1,000		2,500	39,500	397,000	32,800	4,580	349,000	222,000	1,180	1,510	1,590	1,720
PCB, Aroclor 1260	11096-82-5	1,000		< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100
Total PCBs (J, T)	1336-36-3	1,000		2,500	39,500	397,000	32,800	4,580	349,000	222,000	1,180	1,510	1,590	1,720

All concentrations in µg/kg

shading indicates criterion has been exceeded

< : chemical not detected above Method Detection Limit (MDL)

* duplicate of Wall Sample 13

All samples collected approximately 7 feet from the floor



Table 2
 Basement Ceiling Wipe Sample Analytical Results
 8MK Project - Summary of Additional Delineation Activities
 12700 8 Mile Road, Oak Park, MI 48237

			Lab ID	12338-51	12338-52	12338-53	12338-54	12338-55	12338-56	12338-57	12338-58	12338-59	12338-60	12338-61
Parameters*	Chemical Abstract Service Number	Threshold of 10µg/100cm ²	Sample ID	CS-1	CS-2	CS-3	CS-4	CS-5	CS-6	CS-7	CS-8	CS-9	Duplicate 3*	CS-10
			Collection Date	5/27/22	5/27/22	5/27/22	5/27/22	5/27/22	5/27/22	5/27/22	5/27/22	5/27/22	5/27/22	5/27/22
*(Refer to detailed laboratory report for method reference data)														
PCBs, µg/100cm²														
PCB, Aroclor 1016	12674-11-2	10 µg/100cm ²		< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
PCB, Aroclor 1221	11104-28-2	10 µg/100cm ²		< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
PCB, Aroclor 1232	11141-16-5	10 µg/100cm ²		< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
PCB, Aroclor 1242	53469-21-9	10 µg/100cm ²		< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
PCB, Aroclor 1248	12672-29-6	10 µg/100cm ²		< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
PCB, Aroclor 1254	11097-69-1	10 µg/100cm ²		0.67	10.2	0.33	6.45	0.55	0.42	0.28	0.86	0.34	0.36	0.43
PCB, Aroclor 1260	11096-82-5	10 µg/100cm ²		< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Total PCBs (J, T)	1336-36-3	10 µg/100cm ²		< 1.40	10.2	< 1.40	6.45	< 1.40	< 1.40	< 1.40	< 1.40	< 1.40	< 1.40	< 1.40

All concentrations in µg/10cm²

shading indicates criterion has been exceeded

< : chemical not detected above Method Detection Limit (MDL)

* duplicate of CS-5

TABLE 3



Table 1
 Shallow and Surficial Soil Analytical Results
 8MK Project - Summary of Additional Delineation Activities
 12700 8 Mile Road, Oak Park, MI 48237

			Lab ID	12338-1	12338-2	12338-4	12338-5	12338-7	12338-8	12338-10	12338-11	12338-13	12338-14	12338-16	12338-17	12338-19	12338-20
Parameters*	Chemical Abstract Service Number	TSCA High Occupancy Threshold	Sample ID	HA-27 0-1'	HA-27 1-1.5'	HA-28 0-1'	HA-28 1-1.5'	HA-29 0-1'	HA-29 1-1.5'	HA-30 0-1'	HA-30 1-1.5'	HA-31 0-1'	HA-31 1-1.5'	HA-32 0-1'	HA-32 1-1.5'	HA-33 0-1'	HA-33 1-1.5'
			Collection Date	5/26/22	5/26/22	5/26/22	5/26/22	5/26/22	5/26/22	5/26/22	5/26/22	5/26/22	5/26/22	5/26/22	5/26/22	5/26/22	5/26/22
*(Refer to detailed laboratory report for method reference data)																	
PCBs, ug/Kg																	
PCB, Aroclor 1016	12674-11-2	1,000		< 100	< 100	< 100	< 100	< 100	< 100	< 200	< 100	< 100	< 100	< 100	< 100	< 100	< 100
PCB, Aroclor 1221	11104-28-2	1,000		< 100	< 100	< 100	< 100	< 100	< 100	< 200	< 100	< 100	< 100	< 100	< 100	< 100	< 100
PCB, Aroclor 1232	11141-16-5	1,000		< 100	< 100	< 100	< 100	< 100	< 100	< 200	< 100	< 100	< 100	< 100	< 100	< 100	< 100
PCB, Aroclor 1242	53469-21-9	1,000		< 100	< 100	< 100	< 100	< 100	< 100	< 200	< 100	< 100	< 100	< 100	< 100	< 100	< 100
PCB, Aroclor 1248	12672-29-6	1,000		< 100	< 100	< 100	< 100	< 100	< 100	< 200	< 100	< 100	< 100	< 100	< 100	< 100	< 100
PCB, Aroclor 1254	11097-69-1	1,000		< 100	< 100	< 100	< 100	< 100	< 100	< 200	< 100	< 100	< 100	< 100	< 100	< 100	< 100
PCB, Aroclor 1260	11096-82-5	1,000		< 100	< 100	< 100	< 100	< 100	< 100	< 200	< 100	< 100	< 100	< 100	< 100	< 100	< 100
Total PCBs (J, T)	1336-36-3	1,000		< 700	< 700	< 700	< 700	< 700	< 700	< 1400	< 700	< 700	< 700	< 700	< 700	< 700	< 700

All concentrations in µg/kg

shading indicates criterion has been exceeded

< : chemical not detected above Method Detection Limit (MDL)

* duplicate of HA-33 (1-1.5')

** duplicate of Surface 2



Table 1
 Shallow and Surficial Soil Analytical Results
 8MK Project - Summary of Additional Delineation Activities
 12700 8 Mile Road, Oak Park, MI 48237

			Lab ID	12338-22	12338-23	12338-24	12338-26	12338-27	12338-29	12338-30	12338-33	12338-34	12338-36	12338-37	12338-39	12338-40	12338-42
Parameters*	Chemical Abstract Service Number	TSCA High Occupancy Threshold	Sample ID	Duplicate 1*	HA-34 0-1'	HA-34 1-1.5'	HA-35 0-1'	HA-35 1-1.5'	HA-36 0-1'	HA-36 1-1.5'	HA-37 0-1'	HA-37 1-1.5'	HA-38 0-1'	HA-38 1-1.5'	HA-39 0-1'	HA-39 1-1.5'	Surface 1
			Collection Date	5/26/22	5/26/22	5/26/22	5/26/22	5/26/22	5/26/22	5/26/22	5/26/22	5/26/22	5/26/22	5/26/22	5/26/22	5/26/22	5/26/22
*(Refer to detailed laboratory report for method reference data)																	
PCBs, ug/Kg																	
PCB, Aroclor 1016	12674-11-2	1,000		< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100
PCB, Aroclor 1221	11104-28-2	1,000		< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100
PCB, Aroclor 1232	11141-16-5	1,000		< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100
PCB, Aroclor 1242	53469-21-9	1,000		< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100
PCB, Aroclor 1248	12672-29-6	1,000		< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100
PCB, Aroclor 1254	11097-69-1	1,000		< 100	< 100	< 100	878	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100
PCB, Aroclor 1260	11096-82-5	1,000		< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100
Total PCBs (J, T)	1336-36-3	1,000		< 700	< 700	< 700	878	< 700	< 700	< 700	< 700	< 700	< 700	< 700	< 700	< 700	< 700

All concentrations in µg/kg

shading indicates criterion has been exceeded

< : chemical not detected above Method Detection Limit (MDL)

* duplicate of HA-33 (1-1.5')

** duplicate of Surface 2



Table 1
 Shallow and Surficial Soil Analytical Results
 8MK Project - Summary of Additional Delineation Activities
 12700 8 Mile Road, Oak Park, MI 48237

			Lab ID	12338-43	12338-44	12338-45	12338-46	12338-47	12338-48	12338-49	12338-50
Parameters*	Chemical Abstract Service Number	TSCA High Occupancy Threshold	Sample ID	Surface 2	Duplicate 2**	Surface 3	Surface 4	Surface 5	Surface 6	Surface 7	Surface 8
			Collection Date	5/26/22	5/26/22	5/26/22	5/26/22	5/26/22	5/26/22	5/26/22	5/26/22
*(Refer to detailed laboratory report for method reference data)											
PCBs, ug/Kg											
PCB, Aroclor 1016	12674-11-2	1,000		< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100
PCB, Aroclor 1221	11104-28-2	1,000		< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100
PCB, Aroclor 1232	11141-16-5	1,000		< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100
PCB, Aroclor 1242	53469-21-9	1,000		< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100
PCB, Aroclor 1248	12672-29-6	1,000		< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100
PCB, Aroclor 1254	11097-69-1	1,000		< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100
PCB, Aroclor 1260	11096-82-5	1,000		< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100
Total PCBs (J, T)	1336-36-3	1,000		< 700	< 700	< 700	< 700	< 700	< 700	< 700	< 700

All concentrations in µg/kg

shading indicates criterion has been exceeded

< : chemical not detected above Method Detection Limit (MDL)

* duplicate of HA-33 (1-1.5')

** duplicate of Surface 2

TABLE 4



Table 4
 Indoor Air Sample Analytical Results
 8MK Project - Summary of Additional Delineation Activities
 12700 8 Mile Road, Oak Park, MI 48237

			Lab ID	22F0223-01	22F0223-02	22F0223-03	22F0223-04	22F0223-05	22F0223-06
Parameters*	Chemical Abstract Service Number	Site-Specific Indoor Worker Regional Screening Levels (RSLs)	Sample ID	AS-1 Air	AS-2 Air	AS-3 Air	Duplicate 1-Air*	AS-4 Air	Field Blank Air
			Collection Date	6/1/22	6/1/22	6/1/22	6/1/22	6/1/22	6/1/22
<i>*(Refer to detailed laboratory report for method reference data)</i>									
PCBs, µg/m³									
PCB, Aroclor 1016	12674-11-2	2.89E-02		< 0.056	< 0.056	< 0.056	< 0.056	< 0.056	< 0.056
PCB, Aroclor 1221	11104-28-2	2.89E-02		< 0.056	< 0.056	< 0.056	< 0.056	< 0.056	< 0.056
PCB, Aroclor 1232	11141-16-5	2.89E-02		< 0.056	< 0.056	< 0.056	< 0.056	< 0.056	< 0.056
PCB, Aroclor 1242	53469-21-9	2.89E-02		< 0.056	< 0.056	< 0.056	< 0.056	< 0.056	< 0.056
PCB, Aroclor 1248	12672-29-6	2.89E-02		0.083	< 0.056	< 0.056	< 0.056	< 0.056	< 0.056
PCB, Aroclor 1254	11097-69-1	2.89E-02		0.078	0.088	< 0.056	0.070	< 0.056	< 0.056
PCB, Aroclor 1260	11096-82-5	2.89E-02		< 0.056	< 0.056	< 0.056	< 0.056	< 0.056	< 0.056
PCB, Aroclor 1262	37324-23-5	2.89E-02		< 0.056	< 0.056	< 0.056	< 0.056	< 0.056	< 0.056
PCB, Aroclor 1268	11100-14-4	2.89E-02		< 0.056	< 0.056	< 0.056	< 0.056	< 0.056	< 0.056

All concentrations in µg/10m³

shading indicates criterion has been exceeded

< : chemical not detected above Method Detection Limit (MDL)

* duplicate of AS-3

APPENDICES

***APPENDIX 1: MARCH 2015
TERRACON REMEDIAL ACTION COMPLETION REPORT***

Remedial Action Completion Report

AMERICAN TOWER CORPORATION
ATC SITE #282678 – DETROIT
20931 MEYERS ROAD
OAK PARK, OAKLAND COUNTY, MICHIGAN

March 23, 2015
Terracon Project No. N6147081



Prepared for:
American Tower Corporation
Phoenix, Arizona

Prepared by:
Terracon Consultants, Inc.
Cleveland, Ohio

Offices Nationwide
Employee-Owned

Established in 1965
terracon.com

Terracon

Geotechnical ● Environmental ● Construction Materials ● Facilities

March 23, 2015



American Tower Corporation
4686 East Van Buren Street, Suite 175
Phoenix, Arizona 85008

Attn: Mr. Scot Sandefur
P: (602) 284-0280
Email: Scot.Sandefur@AmericanTower.com

Re: Remedial Action Completion Report
ATC Site #282678
20931 Meyers Road
Oak Park, Oakland County, Michigan
Project No. N6147081

Dear Mr. Sandefur:

Terracon Consultants, Inc. (Terracon) is pleased to submit the remedial action completion report for the site referenced above.

Terracon appreciates this opportunity to provide environmental engineering services to American Tower Corporation. Should you have any questions or require additional information, please do not hesitate to contact our office.

Sincerely,
Terracon Consultants, Inc.

A handwritten signature in blue ink, appearing to read "Eric Lopez".

for:

Jaroslav Kaminski
Environmental Department Manager
Cleveland, Ohio Office

A handwritten signature in blue ink, appearing to read "David M. Matson".

David M. Matson, CHMM
Senior Associate / Client Manager
Tempe, Arizona Office



Terracon Consultants, Inc. 12460 Plaza Drive Cleveland, Ohio 44130
P (216) 459-8378 F (216) 459 8954 terracon.com

Geotechnical



Environmental



Construction Materials



Facilities

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Exhibit A-1 – Site Location Map

Exhibit A-2 – Site Diagram

Appendix B: Analytical Report and Chain of Custody Documentation

Appendix C: Waste Disposal Documentation

Appendix D: Photo Log

REMEDIAL ACTION COMPLETION REPORT
ATC SITE #282678
20931 MEYERS ROAD
OAK PARK, OAKLAND COUNTY, MICHIGAN
Terracon Project No. N6147081
March 23, 2015

1.0 INTRODUCTION

Terracon conducted sampling and remedial action activities at the ATC Site #282678 located at 20931 Meyers Road in Oak Park, Oakland County, Michigan. These services were conducted by Terracon in general accordance with our Proposal No. PN6140361, dated December 16, 2014, as authorized by ATC Purchase Order #68627, dated December 16, 2014. Services included an initial site visit to assess the situation at the site and collect soil and water samples necessary for future remedial action activities. Following the initial assessment, remedial action was conducted which included pumping and disposal of water accumulated in the basement of the facility, power washing of surfaces in the basement, disposal of the wash water, and excavation and disposal of visibly impacted soils located in the rear of the building (where water had previously been discharged from the basement by others).

According to the information provided by American Tower Corporation (ATC), Terracon understands that the following events occurred at the site:

- The building was unoccupied and during a power outage the basement flooded.
- As a result of the flooding, two 4,800 volt power transformers, located in the basement, shorted out and exploded. Transformer oil was released to the basement.
- A maintenance contractor for the property pumped water from the basement using a gas powered pump onto the grass in the rear of the property.
- Terracon was contacted by ATC to assess the situation at the site on November 6, 2014. On November 7, 2014, a Terracon representative traveled to the site to assess the condition of the reported transformer oil release and collect water and soil samples for laboratory analysis of polychlorinated biphenyls (PCBs).
- Laboratory analytical reports received by Terracon indicated that results for both water and soil had levels of PCBs below applicable action levels and the material could be disposed of as non-hazardous waste.

2.0 SITE DESCRIPTION

2.1 Site Description

The site is located at 20931 Meyers Road in Oak Park, Oakland County, Michigan and consists of an approximately 20.17-acre tract of land. The site is known as permanent parcel number 52-25-32-376-027 in Oakland County assessor's records. The Parent Tract is situated on the northwest corner of Eight Mile Road and Meyers Road and is mainly undeveloped land. The Project Site is situated in the southern portions of the site and is accessible from roads from Meyers Road. The Project Site currently supports one vacant building, paved drive and parking areas.

3.0 SCOPE OF SERVICES

Terracon's field effort was conducted to determine the presence or absence of contaminants associated with the transformer oil that was released from two transformers that exploded in the basement of the onsite building. The objective of the initial site visit was to evaluate the presence of PCBs above the potentially applicable or relevant regulatory standards in the transformer oil, water in the basement and on-site soils. Terracon was subsequently contracted to complete remedial action at the site.

3.1 Standard of Care

Terracon's services were performed in a manner consistent with generally accepted practices of the profession undertaken in similar studies in the same geographical area during the same time. Terracon makes no warranties, either express or implied, regarding the findings, conclusions, or recommendations. Please note that Terracon does not warrant the work of laboratories, regulatory agencies, or other third parties supplying information used in the preparation of the report.

3.2 Reliance

This report has been prepared for the exclusive use of American Tower Corporation and any authorization for use or reliance by any other party (except a governmental entity having jurisdiction over the site) is prohibited without the express written authorization of American Tower Corporation and Terracon. Any unauthorized distribution or reuse is at American Tower's sole risk. Notwithstanding the foregoing, reliance by authorized parties will be subject to the terms, conditions, and limitations stated in the proposal, this report, and Terracon's Agreement for Services. The limitation of liability defined in the terms and conditions is the

aggregate limit of Terracon’s liability to American Tower Corporation, and all relying parties unless otherwise agreed in writing.

4.0 FIELD ACTIVITIES

Terracon has a 100% commitment to the safety of all its employees. As such, and in accordance with our Incident and Injury Free® safety culture, Terracon prepared, prior to initiation of site work, a Health and Safety Plan (HASP) for the implementation of the site cleanup work. Project work was performed using United States Occupational Safety and Health Administration (OSHA) Level D work attire consisting of hard hats, safety glasses, protective gloves, and protective boots.

4.1 Initial Site Visit and Sample Collection

Terracon’s initial field activities were conducted on November 7, 2014. As part of the approved scope of work, a Terracon representative traveled to the site to assess the on-site situation as described by the ATC maintenance contractor and collect soil and water samples for laboratory analysis of PCBs. Material samples were collected that included soil, water, oily residue and tar like material. See Exhibit 2 for sample locations (Appendix A).

A total of six samples were collected which included one water sample from the basement; one oil layer sample from the basement; one oil residue sample on the stairway to the basement; one tar sample located below the Potheads; one discolored sediment sample from the asphalt pavement outside of the garage; and one visibly impacted soil sample in a grassy area with distressed vegetation.

Terracon placed the samples in laboratory-provided containers, recorded the sample information on each container label with indelible ink, and placed the sealed containers in an ice-filled cooler. A list of samples selected for analysis is summarized in Table 1 below.

Table 1: Sample Collection

PCB	TSCA Cleanup Level ppm	West Field (Soil) mg/Kg	Asphalt Pavement Staining (Soil) mg/Kg	Stairwell Staining (Oily Residue) mg/Kg	Basement Oil Layer (Oil) mg/Kg	Basement Water (Water) mg/L	Pot Head (Floor Tar) ppm
Total PCBs	≤ 25	0.033	0.70	1.4	16	0.0021	<1.0
Aroclor 1016	NS	NA	NA	NA	<1.0	<0.00020	<1.0
Aroclor 1221	NS	NA	NA	NA	<1.0	<0.00020	<1.0
Aroclor 1232	NS	NA	NA	NA	<1.0	<0.00020	<1.0

PCB	TSCA Cleanup Level ppm	West Field (Soil) mg/Kg	Asphalt Pavement Staining (Soil) mg/Kg	Stairwell Staining (Oily Residue) mg/Kg	Basement Oil Layer (Oil) mg/Kg	Basement Water (Water) mg/L	Pot Head (Floor Tar) ppm
Aroclor 1242	NS	NA	NA	NA	<1.0	<0.00020	<1.0
Aroclor 1248	NS	NA	NA	NA	<1.0	<0.00020	<1.0
Aroclor 1254	NS	NA	NA	NA	<1.0	<0.00020	<1.0
Aroclor 1260	NS	NA	NA	NA	16	0.0021	<1.0

Notes:
 TSCA – Toxic Substances Control Act
 PCB – Polychlorinated biphenyl
 NS – No Standard

4.2 Laboratory Analysis

The cooler containing the samples was delivered to Summit Environmental Technologies, Inc. in Cuyahoga Falls, Ohio, a National Environmental Laboratory Accreditation Program (NELAP)-accredited laboratory, for analysis. All samples were analyzed for PCBs via EPA Method 8082. The analytical report and chain-of-custody documentation is included in Appendix B.

4.3 Soil Sample Results

Based on the analytical results, concentrations of PCBs were detected above analytical method detection limits (MDLs) but below Toxic Substances Control Act (TSCA) 40CFR761.61 PCB Remediation Waste Standard.

5.0 REMEDIAL ACTIVITIES

5.1 Basement

On December 16, 2014 a Terracon representative mobilized to the site and began to pump accumulated water from the basement of the facility onto the grass in the rear of the building using an electric pump. Once the water level was approximately 2 to 4 inches deep, a vacuum truck was utilized to extract the remaining water. Once the water was removed, a hot water pressure washer was used to remove the oily residue from the walls, floors and transformers in the basement. The transformers were opened and the remaining oil within the transformers was removed and interior components washed.

5.2 Soil Excavation

On December 19, 2014, Terracon excavated an area of approximately 30 x 50 feet to a depth of 4 to 6 inches. This area was located in the rear of the building and exhibited visible staining and distressed vegetation resulting from the water and oil mixture that was pumped out of the basement. Approximately 20 yards of soil was placed in a roll-off container prior to disposal. Once the soil was excavated, the area was graded and seeded.

5.3 Waste Disposal

Upon completion of remediation activities and receipt of the waste characterization analytical results, Terracon contracted with EQ Detroit, Inc., a certified waste disposal facility located in Detroit, Michigan, for disposal of the generated waste water and excavated soil. EQ Industrial Services transported approximately 10,884-gallons of waste water under Waste Manifest Tracking Numbers (013374117JJK, 013374116JJK and 001884776JJK) and 20 yards of soil under a Waste Manifest Tracking Number (013374910JJK) to the EQ Detroit, Inc. facility at 1923 Fredrick Street in Detroit, Michigan for disposal as non-hazardous waste. A copy of the disposal manifest for both water and soil generated during the cleanup activities has been included in Appendix C.

6.0 CONCLUSIONS

Terracon conducted an initial site visit to assess the condition of the reported transformer oil release (due to the explosion of two 4,800 volt transformers in the basement of the facility) and collect water and soil samples for laboratory analysis of PCBs. Based on the analytical results, concentrations of PCBs were detected above analytical method detection limits (MDLs) but the concentrations did not exceed the TSCA PCB Remediation Standard.

Terracon mobilized to the site to perform remedial action activities which included pumping accumulated water from the basement of the facility; vacuuming the remainder of the water in the basement into a vac truck; pressure washing the oily residue from the walls, floors and transformers in the basement; and excavation and disposal of visibly impacted soil behind the rear of the building. Generated waste, including 10,884-gallons of water and 20 yards of soil, was disposed of a certified waste disposal facility in Detroit, Michigan.

APPENDIX A

Exhibit A1 – Site Location Map

Exhibit A2 – Site Diagram



TOPOGRAPHIC MAP IMAGE COURTESY OF
THE U.S. GEOLOGICAL SURVEY
QUADRANGLES INCLUDE: ROYAL OAK, MI
(1/1/1996).

DIAGRAM IS FOR GENERAL LOCATION ONLY,
AND IS NOT INTENDED FOR CONSTRUCTION
PURPOSES

Project Manager: JK
Drawn by: JK
Checked by: DM
Approved by: JK

Project No. N6147081
Scale: 1:24,000
File Name: A1
Date: 03/10/15

Terracon

12460 Plaza Dr.
Cleveland, OH 44130

SITE LOCATION

ATC SITE 28678
20931 Meyers Road
Oak Park, Oakland County, Michigan

Exhibit

A-1



AERIAL PHOTOGRAPHY PROVIDED BY MICROSOFT BING MAPS

DIAGRAM IS FOR GENERAL LOCATION ONLY, AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES

Project Manager:	JK
Drawn by:	JK
Checked by:	DM
Approved by:	JK

Project No.	N6147081
Scale:	AS SHOWN
File Name:	A2
Date:	3/10/15

Terracon

12460 Plaza Dr.
Cleveland, OH 44130

SITE PLAN

ATC SITE 28678
20931 Meyers Road
Oak Park, Oakland County, Michigan

Exhibit	A-2
---------	-----

APPENDIX B

Analytical Report and Chain of Custody Documentation



Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: <http://www.settek.com>

November 21, 2014

Jerry Kaminski
Terracon Consultants, Inc.
1414 East Schaaf Rd
Brooklyn Hts., OH 44131
TEL: (216) 459-8378
FAX: (216) 459-8954

RE: ATC

Order No.: 14111263

Dear Jerry Kaminski:

Summit Environmental Technologies, Inc. received 3 sample(s) on 11/14/2014 for the analyses presented in the following report.

There were no problems with the analytical events associated with this report unless noted in the Case Narrative.

Quality control data is within laboratory defined or method specified acceptance limits except where noted.

If you have any questions regarding these tests results, please feel free to call the laboratory.

Sincerely,

Dr. Mo Osman

Project Manager

3310 Win St.
Cuyahoga Falls, Ohio 44223

A2LA 0724.01, Alabama 41600, Arizona AZ0788, Arkansas 88-0735, California 07256CA, Colorado, Connecticut PH-0105, Delaware, Florida NELAC E87688, Georgia E87688 and 943, Idaho OH00923, Illinois 200061 and Reg.5, Indiana C-OH-13, Kansas E-10347, Kentucky (Underground Storage Tank) 3, Kentucky 90146, Louisiana 04061 and LA12004, Maine 2012015, Maryland 339, Massachusetts M-OPH923, Minnesota 409711, Montana CERT0099, New Hampshire 2996, New Jersey OH006, New York 11777, North Carolina 39705 and 631, Ohio Drinking Water 4170, Ohio VAP CL0052, Oklahoma 9940, Oregon OH200001, Pennsylvania 68-01335, Rhode Island LA000317, South Carolina 92016001, Tennessee TN04018, Texas T104704466-11-5, Region 8 8TMS-L, USDA/APHIS P330-11-00244, Utah OH009232011-1, Vermont VT-87688, Virginia 00440 and 1581, Washington C891, West Virginia 248 and 9957C and E87688, Wisconsin 399013010



Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: <http://www.settek.com>

Workorder
Sample Summary
WO#: **14111263**
21-Nov-14

CLIENT: Terracon Consultants, Inc.
Project: ATC

Lab SampleID	Client Sample ID	Tag No	Date Collected	Date Received	Matrix
14111263-001	West Field		11/7/2014 1:45:00 PM	11/14/2014 5:20:00 PM	Solid
14111263-002	Asphalt Stain (Garages)		11/7/2014 1:55:00 PM	11/14/2014 5:20:00 PM	Solid
14111263-003	Stairwell Stain		11/7/2014 2:05:00 PM	11/14/2014 5:20:00 PM	Solid



Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: <http://www.settek.com>

Case Narrative

WO#: 14111263
Date: 11/21/2014

CLIENT: Terracon Consultants, Inc.
Project: ATC

This report in its entirety consists of the documents listed below. All documents contain the Summit Environmental Technologies, Inc. Work Order Number assigned to this report.

Paginated Report including: Cover Letter, Case Narrative, Analytical Results, Applicable Quality Control Summary Reports and copies of the Chain of Custody Documents supplied with this sample set.

Concentrations reported with a J-Flag in the Qualifier Field are values below the Limit of Quantitation (LOQ) but greater than the established Method Detection Limit (MDL).

Method numbers, unless specified as SM (Standard Methods) or ASTM, are EPA methods.

Estimated uncertainty values are available upon request.

Any comments or problems with the analytical events associated with this report are noted below.

Original



SUMMIT
 ENVIRONMENTAL TECHNOLOGIES, INC
 Analytical Laboratories

Summit Environmental Technologies, Inc.
 3310 Win St.
 Cuyahoga Falls, Ohio 44223
 TEL: (330) 253-8211 FAX: (330) 253-4489
 Website: <http://www.settek.com>

WO#: 14111263
 Date Reported: 11/21/2014
 Company: Terracon Consultants, Inc.
 Address: 1414 East Schaaf Rd
 Brooklyn Hts. OH 44131
 Received: 11/14/2014
 Project#: ATC

Client ID#	Lab ID#	Collected Analyte	Result	Units	Matrix	Method	DF	RL	Run	Analyst
West Field	001	11/7/2014 Total PCBs	ND	mg/Kg	Solid	EPA 8082	1	0.033	11/20/2014	AKE

Client ID#	Lab ID#	Collected Analyte	Result	Units	Matrix	Method	DF	RL	Run	Analyst
Asphalt Stain (Garages)	002	11/7/2014 Total PCBs	0.70	mg/Kg	Solid	EPA 8082	1	0.033	11/20/2014	AKE

Client ID#	Lab ID#	Collected Analyte	Result	Units	Matrix	Method	DF	RL	Run	Analyst
Stairwell Stain	003	11/7/2014 Total PCBs	1.4	mg/Kg	Solid	EPA 8082	1	0.033	11/20/2014	AKE



Summit Environmental Technologies, Inc.

3310 Win Street
Cuyahoga Falls, Ohio 44223 Tel: 330.253.8211 Fax: 330.253.4489

Analysis Request/Chain of Custody

For Summit Environmental Technologies, Inc. use only

Page 1 of 1 SET No. _____

Company Name (Please Print) TERRACON		Project Name ATC		Grab	Composite	Matrix: S=Solid, L=Liquid, O=Oil SL=Sludge, A=Air, DW=Drinking Water	Preservative	Number of Containers PCB	Analytical Parameters and Methods														
Company Address 1414 SCAAF RD. BROOKLYN HTS. OH 44131		Project Address 20931 MEYER RD DAN FORD, ME																					
Client Phone No. 216-459-8378		Report to																					
Client Fax No. <input type="checkbox"/> Please Fax Results ✓		PO#																					
Client Email <input type="checkbox"/> Please Email Results ✓ JKOMINSKI@TERRACON.COM		Quote No.																					
Contact Person JERRY KOMINSKI		Check if Ohio VAP samples <input type="checkbox"/>																					
Sampled by G. BETSCHE S																							
#	Sample Identification	Date Collected	Time Collected																				

#	Sample Identification	Date Collected	Time Collected	Grab	Composite	Matrix	Preservative	Number of Containers	PCB									
1	WEST FIELD	11/7/14	1345	X		S	N/A	1	✓									
2	ASPHALT STAIN (RANGES)	11/7/14	1355	X		S	N/A	1	✓									
3	STAIRWELL STAIN	11/7/14	1405	X		S	N/A	1	✓									

1411263-001-003

Relinquished by:	Date	Time	Received by:	Date	Time
<i>[Signature]</i>	11/14/14	1720			
Received in lab by:	Date	Time	Rush Requested By:	Must be approved by lab manager	
<i>[Signature]</i>	11/14/14	1720			

Notes/Comments:

White and yellow pages should accompany samples to the laboratory. The client retains the pink page.

108522

Summit Environmental Technologies, Inc. Cooler Receipt Form

Client: Terracon Initials of person inspecting cooler and samples: SC
 Order Number: _____
 Date Received: 11-14-14 Time Received: 1720 Date cooler(s) opened and samples inspected: 11-14-14
 Number of Coolers/Boxes: 1 N/A
 Shipper: FED-EX UPS DHL Airborne US Postal Walk-in Pickup Other: _____
 Packaging: Peanuts Bubble Wrap Paper Foam None Other: _____
 Tape on cooler/box: _____
 Custody Seals intact: Y _____ N _____ N/A
 C-O-C in plastic: Y _____ N _____ N/A
 Ice _____ Blue ice _____ present / absent / melted N/A
 Sample Temperature: IR Gun #15020459 CF _____ °C _____ °C N/A
 Radiological Testing Instrument serial #35122 (see page 2 for scan results) Y _____ N _____ N/A
****Use 1 sheet per sample for Radiological Testing. If sample is HOT, the Radiological Safety Officer must be notified immediately.**
 C-O-C filled out properly Y _____ N _____ N/A
 Samples in separate bags Y _____ N _____ N/A
 Sample containers intact* Y _____ N _____ N/A
 *If no. list broken sample(s): _____
 Sample label(s) complete (ID, date, etc.) Y _____ N _____ N/A
 Label(s) agree with C-O-C Y _____ N _____ N/A
 Correct containers used Y _____ N _____ N/A
 Sufficient sample received Y _____ N _____ N/A
 Bubbles absent from 40 mL vials** Y _____ N _____ N/A
 ** Samples with bubbles <5mm are acceptable. Indicate bubble size if >5mm.
 Was client contacted about samples Y _____ N _____
 Will client send new samples Y _____ N _____
 Client contact: _____
 Date/Time: _____
 Logged in by: _____
 Comments: _____



Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: <http://www.settek.com>

November 11, 2014

Jerry Kaminski
Terracon Consultants, Inc.
1414 East Schaaf Rd
Brooklyn Hts., OH 44131
TEL: (216) 459-8378
FAX: (216) 459-8954

RE: ATC

Order No.: 14110687

Dear Jerry Kaminski:

Summit Environmental Technologies, Inc. received 1 sample(s) on 11/10/2014 for the analyses presented in the following report.

There were no problems with the analytical events associated with this report unless noted in the Case Narrative.

Quality control data is within laboratory defined or method specified acceptance limits except where noted.

If you have any questions regarding these tests results, please feel free to call the laboratory.

Sincerely,

Dr. Mo Osman

Project Manager

3310 Win St.
Cuyahoga Falls, Ohio 44223

A2LA 0724.01, Alabama 41600, Arizona AZ0788, Arkansas 88-0735, California 07256CA, Colorado, Connecticut PH-0105, Delaware, Florida NELAC E87688, Georgia E87688 and 943, Idaho OH00923, Illinois 200061 and Reg.5, Indiana C-OH-13, Kansas E-10347, Kentucky (Underground Storage Tank) 3, Kentucky 90146, Louisiana 04061 and LA12004, Maine 2012015, Maryland 339, Massachusetts M-OPH923, Minnesota 409711, Montana CERT0099, New Hampshire 2996, New Jersey OH006, New York 11777, North Carolina 39705 and 631, Ohio Drinking Water 4170, Ohio VAP CL0052, Oklahoma 9940, Oregon OH200001, Pennsylvania 68-01335, Rhode Island LA000317, South Carolina 92016001, Tennessee TN04018, Texas T104704466-11-5, Region 8 8TMS-L, USDA/APHIS P330-11-00244, Utah OH009232011-1, Vermont VT-87688, Virginia 00440 and 1581, Washington C891, West Virginia 248 and 9957C and E87688, Wisconsin 399013010



Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: <http://www.settek.com>

Workorder
Sample Summary
WO#: **14110687**
11-Nov-14

CLIENT: Terracon Consultants, Inc.
Project: ATC

Lab SampleID	Client Sample ID	Tag No	Date Collected	Date Received	Matrix
14110687-001	Pot Head (Floor Tar)		11/7/2014 2:25:00 PM	11/10/2014 12:30:00 PM	Solid



Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: <http://www.settek.com>

Case Narrative

WO#: 14110687
Date: 11/11/2014

CLIENT: Terracon Consultants, Inc.
Project: ATC

This report in its entirety consists of the documents listed below. All documents contain the Summit Environmental Technologies, Inc. Work Order Number assigned to this report.

Paginated Report including: Cover Letter, Case Narrative, Analytical Results, Applicable Quality Control Summary Reports and copies of the Chain of Custody Documents supplied with this sample set.

Concentrations reported with a J-Flag in the Qualifier Field are values below the Limit of Quantitation (LOQ) but greater than the established Method Detection Limit (MDL).

Method numbers, unless specified as SM (Standard Methods) or ASTM, are EPA methods.

Estimated uncertainty values are available upon request.

Any comments or problems with the analytical events associated with this report are noted below.

Original



Summit Environmental Technologies, Inc.
 3310 Win St.
 Cuyahoga Falls, Ohio 44223
 TEL: (330) 253-8211 FAX: (330) 253-4489
 Website: <http://www.settek.com>

WO#: 14110687
 Date Reported: 11/11/2014
 Company: Terracon Consultants, Inc.
 Address: 1414 East Schaaf Rd
 Brooklyn Hts. OH 44131
 Received: 11/10/2014
 Project#: ATC

Client ID#	Lab ID#	Collected	Analyte	Result	Units	Matrix	Method	DF	RL	Run	Analyst
Pot Head (Floor Tar)	001	11/7/2014	Aroclor 1016	< 1.0	ppm	Solid	EPA 8082	1	1.0	11/11/2014	AKE
Pot Head (Floor Tar)	001	11/7/2014	Aroclor 1221	< 1.0	ppm	Solid	EPA 8082	1	1.0	11/11/2014	AKE
Pot Head (Floor Tar)	001	11/7/2014	Aroclor 1232	< 1.0	ppm	Solid	EPA 8082	1	1.0	11/11/2014	AKE
Pot Head (Floor Tar)	001	11/7/2014	Aroclor 1242	< 1.0	ppm	Solid	EPA 8082	1	1.0	11/11/2014	AKE
Pot Head (Floor Tar)	001	11/7/2014	Aroclor 1248	< 1.0	ppm	Solid	EPA 8082	1	1.0	11/11/2014	AKE
Pot Head (Floor Tar)	001	11/7/2014	Aroclor 1254	< 1.0	ppm	Solid	EPA 8082	1	1.0	11/11/2014	AKE
Pot Head (Floor Tar)	001	11/7/2014	Aroclor 1260	< 1.0	ppm	Solid	EPA 8082	1	1.0	11/11/2014	AKE
Pot Head (Floor Tar)	001	11/7/2014	Total PCBs	< 1.0	ppm	Solid	EPA 8082	1	1.0	11/11/2014	AKE



Summit Environmental Technologies, Inc.
3310 Win Street
Cuyahoga Falls, Ohio 44223 Tel: 330.253.8211 Fax: 330.253.4489

Analysis Request/Chain of Custody

For Summit Environmental Technologies, Inc. use only
Page 1 of 1 SET No. _____

Company Name (Please Print) <i>TERRACON</i>		Project Name <i>ATC</i>		Grab Composite Matrix: S=Solid, L=Liquid, O=Oil SL=Sludges, A=Air, DW=Drinking Water Preservative Number of Containers <i>PCS</i>	Analytical Parameters and Methods						
Company Address <i>1414 SCHAAF RD BROOKLYN HTS OH 44131</i>		Project Address <i>20931 MEYERS RD. OAK PARK, MI</i>			Please Check Analytical Box						
Client Phone No. <i>216-459-8378</i>		Report to									
Client Fax No. <input checked="" type="checkbox"/> Please Fax Results		PO#									
Client Email <input checked="" type="checkbox"/> Please Email Results <i>JKaminski@TERRACON.com</i>		Quote No.									
Contact Person <i>JERRY KAMINSKI</i>											
Sampled by <i>G. BERTSCHMIS</i>		Check if Ohio VAP samples <input type="checkbox"/>									
#	Sample Identification	Date Collected	Time Collected								

1	POT HEAD (FLOOR TAR)	11/7/14	1125	X	S	N/A	1	X			

*14110687-001
RFR*

Relinquished by: <i>[Signature]</i>	Date <i>11/10/14</i>	Time	Received by:	Date	Time
Received in lab by: <i>[Signature]</i>	Date <i>11/10/14</i>	Time <i>1230</i>	Rush Requested By:	Date	Must be approved by lab manager

Notes/Comments: _____

White and yellow pages should accompany samples to the laboratory. The client retains the pink page. 108511

**Summit Environmental Technologies, Inc.
Cooler Receipt Form**

Client: Terracon Initials of person inspecting cooler and samples: SC
 Order Number: _____
 Date Received: 11-10-14 Time Received: 1230 Date cooler(s) opened and samples inspected: 11-10-14
 Number of Coolers/Boxes: _____ (N/A)
 Shipper: FEDEX UPS DHL Airborne US Postal Walk-in (Pickup) Other: _____
 Packaging: Peanuts Bubble Wrap Paper Foam (None) Other: _____
 Tape on cooler/box: _____ Y _____ N _____ (N/A)
 Custody Seals intact _____ Y _____ N _____ (N/A)
 C-O-C in plastic _____ Y _____ (N) _____ (N/A)
 Ice _____ Blue ice _____ present / absent / melted _____ (N/A)
 Sample Temperature IR Gun #16020459 CF _____ °C _____ °C _____ (N/A)
 Radiological Testing Instrument serial #35127 _____ Y _____ (N) _____ (N/A)
 (see page 2 for scan results)
 **Use 1 sheet per sample for Radiological Testing. If sample is HOT, the Radiological Safety Officer must be notified immediately.
 C-O-C filled out properly _____ (Y) _____ N _____ N/A
 Samples in separate bags _____ Y _____ (N) _____ N/A
 Sample containers intact* _____ (Y) _____ N _____ N/A
 *If no, list broken sample(s): _____

 Sample label(s) complete (ID, date, etc.) _____ (Y) _____ N _____ N/A
 Label(s) agree with C-O-C _____ (Y) _____ N _____ N/A
 Correct containers used _____ (Y) _____ N _____ N/A
 Sufficient sample received _____ (Y) _____ N _____ N/A
 Bubbles absent from 40 mL vials** _____ Y _____ N _____ N/A
 ** Samples with bubbles <6mm are acceptable. Indicate bubble size if >6mm. _____
 Was client contacted about samples _____ Y _____ N
 Will client send new samples _____ Y _____ N
 Client contact: _____
 Date/Time: _____
 Logged in by: _____
 Comments: _____

Summit Environmental Technologies, Inc.
Cooler Receipt Form

Client: Terracon Initials of person inspecting cooler and samples: SC
 Order Number: _____
 Date Received: 11-10-14 Time Received: 1030 Date coolers opened and samples inspected: 11-10-14
 Number of Coolers/Boxes: N/A
 Shipper: FED EX UPS DHL Airborne US Postal Walk-in Hydrex Other _____
 Packaging: Reusable Bubble Wrap Paper Foam None Other _____
 Tape on cooler/box: Y N
 Custody Seals intact: Y N N/A
 C-O-C in plastic: Y N N/A
 Ice: Blue ice present / absent / method N/A
 Sample Temperature: IR Gun #15360459 CF 40 °C N/A
 Radiological Testing: Instrument serial #32122 Y N N/A
 (see page 2 for scan results)
 **Use 1 sheet per sample for Radiological Testing. If sample is HOT, the Radiological Safety Officer must be notified immediately.

C-O-C filled out properly	<u>Y</u>	N	N/A
Samples in separate bags	Y	<u>N</u>	N/A
Sample containers intact**	<u>Y</u>	N	N/A
** If no, list broken sample(s)			

Sample label(s) complete (ID, date, etc.)	<u>Y</u>	N	N/A
Labels in agree with C-O-C	<u>Y</u>	N	N/A
Correct containers used	<u>Y</u>	N	N/A
Sufficient sample received	<u>Y</u>	N	N/A
Bubbles absent from 40 mL vials**	Y	N	N/A
** Samples with bubbles -Bubbles are acceptable. Indicate bubble size if >6mm			

Was client contacted about samples: Y N
 Will client send new samples: Y N
 Client contact: _____
 Date/Time: _____
 Logged in by: _____
 Comments: _____



Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: <http://www.settek.com>

November 12, 2014

Jerry Kaminski
Terracon Consultants, Inc.
1414 East Schaaf Rd
Brooklyn Hts., OH 44131
TEL: (216) 459-8378
FAX: (216) 459-8954

RE: ATC

Order No.: 14110634

Dear Jerry Kaminski:

Summit Environmental Technologies, Inc. received 2 sample(s) on 11/10/2014 for the analyses presented in the following report.

There were no problems with the analytical events associated with this report unless noted in the Case Narrative.

Quality control data is within laboratory defined or method specified acceptance limits except where noted.

If you have any questions regarding these tests results, please feel free to call the laboratory.

Sincerely,

Dr. Mo Osman

Project Manager

3310 Win St.
Cuyahoga Falls, Ohio 44223

A2LA 0724.01, Alabama 41600, Arizona AZ0788, Arkansas 88-0735, California 07256CA, Colorado, Connecticut PH-0105, Delaware, Florida NELAC E87688, Georgia E87688 and 943, Idaho OH00923, Illinois 200061 and Reg.5, Indiana C-OH-13, Kansas E-10347, Kentucky (Underground Storage Tank) 3, Kentucky 90146, Louisiana 04061 and LA12004, Maine 2012015, Maryland 339, Massachusetts M-OPH923, Minnesota 409711, Montana CERT0099, New Hampshire 2996, New Jersey OH006, New York 11777, North Carolina 39705 and 631, Ohio Drinking Water 4170, Ohio VAP CL0052, Oklahoma 9940, Oregon OH200001, Pennsylvania 68-01335, Rhode Island LA000317, South Carolina 92016001, Tennessee TN04018, Texas T104704466-11-5, Region 8 8TMS-L, USDA/APHIS P330-11-00244, Utah OH009232011-1, Vermont VT-87688, Virginia 00440 and 1581, Washington C891, West Virginia 248 and 9957C and E87688, Wisconsin 399013010



Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: <http://www.settek.com>

Workorder
Sample Summary
WO#: **14110634**
12-Nov-14

CLIENT: Terracon Consultants, Inc.
Project: ATC

Lab SampleID	Client Sample ID	Tag No	Date Collected	Date Received	Matrix
14110634-001	Top Layer (oil)		11/7/2014 2:35:00 PM	11/10/2014 12:30:00 PM	Oil
14110634-002	Bottom (water)		11/7/2014 2:35:00 PM	11/10/2014 12:30:00 PM	Non-Potable Water



Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: <http://www.settek.com>

Case Narrative

WO#: 14110634
Date: 11/12/2014

CLIENT: Terracon Consultants, Inc.
Project: ATC

This report in its entirety consists of the documents listed below. All documents contain the Summit Environmental Technologies, Inc. Work Order Number assigned to this report.

Paginated Report including: Cover Letter, Case Narrative, Analytical Results, Applicable Quality Control Summary Reports and copies of the Chain of Custody Documents supplied with this sample set.

Concentrations reported with a J-Flag in the Qualifier Field are values below the Limit of Quantitation (LOQ) but greater than the established Method Detection Limit (MDL).

Method numbers, unless specified as SM (Standard Methods) or ASTM, are EPA methods.

Estimated uncertainty values are available upon request.

Any comments or problems with the analytical events associated with this report are noted below.

Original



SUMMIT
ENVIRONMENTAL TECHNOLOGIES, INC
Analytical Laboratories

Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: <http://www.settek.com>

WO#: 14110634
Date Reported: 11/12/2014
Company: Terracon Consultants, Inc.
Address: 1414 East Schaaf Rd
Brooklyn Hts. OH 44131
Received: 11/10/2014
Project#: ATC

Client ID#	Lab ID#	Collected	Analyte	Result	Units	Matrix	Method	DF	RL	Run	Analyst
Top Layer (oil)	001	11/7/2014	Aroclor 1016	< 1.0	ppm	Oil	EPA 8082	1	1.0	11/11/2014	AKE
Top Layer (oil)	001	11/7/2014	Aroclor 1221	< 1.0	ppm	Oil	EPA 8082	1	1.0	11/11/2014	AKE
Top Layer (oil)	001	11/7/2014	Aroclor 1232	< 1.0	ppm	Oil	EPA 8082	1	1.0	11/11/2014	AKE
Top Layer (oil)	001	11/7/2014	Aroclor 1242	< 1.0	ppm	Oil	EPA 8082	1	1.0	11/11/2014	AKE
Top Layer (oil)	001	11/7/2014	Aroclor 1248	< 1.0	ppm	Oil	EPA 8082	1	1.0	11/11/2014	AKE
Top Layer (oil)	001	11/7/2014	Aroclor 1254	< 1.0	ppm	Oil	EPA 8082	1	1.0	11/11/2014	AKE
Top Layer (oil)	001	11/7/2014	Aroclor 1260	16	ppm	Oil	EPA 8082	1	1.0	11/11/2014	AKE
Top Layer (oil)	001	11/7/2014	Total PCBs	16	ppm	Oil	EPA 8082	1	1.0	11/11/2014	AKE

Client ID#	Lab ID#	Collected	Analyte	Result	Units	Matrix	Method	DF	RL	Run	Analyst
Bottom (water)	002	11/7/2014	Aroclor 1016	ND	mg/L	Non-Potable Water	EPA 8082	1	0.00020	11/12/2014	AKE
Bottom (water)	002	11/7/2014	Aroclor 1221	ND	mg/L	Non-Potable Water	EPA 8082	1	0.00020	11/12/2014	AKE
Bottom (water)	002	11/7/2014	Aroclor 1232	ND	mg/L	Non-Potable Water	EPA 8082	1	0.00020	11/12/2014	AKE
Bottom (water)	002	11/7/2014	Aroclor 1242	ND	mg/L	Non-Potable Water	EPA 8082	1	0.00020	11/12/2014	AKE
Bottom (water)	002	11/7/2014	Aroclor 1248	ND	mg/L	Non-Potable Water	EPA 8082	1	0.00020	11/12/2014	AKE
Bottom (water)	002	11/7/2014	Aroclor 1254	ND	mg/L	Non-Potable Water	EPA 8082	1	0.00020	11/12/2014	AKE
Bottom (water)	002	11/7/2014	Aroclor 1260	0.0021	mg/L	Non-Potable Water	EPA 8082	1	0.00020	11/12/2014	AKE
Bottom (water)	002	11/7/2014	Total PCBs	0.0021	mg/L	Non-Potable Water	EPA 8082	1	0.00020	11/12/2014	AKE



Summit Environmental Technologies, Inc.
 3310 Win Street
 Cuyahoga Falls, Ohio 44223 Tel: 330.253.8211 Fax: 330.253.4489

Analysis Request/Chain of Custody

For Summit Environmental Technologies, Inc. use only

Page 6 of 6 SET No. _____

Company Name (Please Print) TERRACON		Project Name ATC		Analytical Parameters and Methods Matrix: S=Solid, L=Liquid, O=Oil SL=Sludge, A=Air, DW=Drinking Water Number of Containers PCS			
Company Address 1414 SCHAAR RD Brooklyn HTS, OH 44131		Project Address 50931 MEYERS RD OAK CREEK MI					
Client Phone No. 216-459-8378		Report to					
Client Fax No. <input checked="" type="checkbox"/> Please Fax Results		PO#					
Client Email <input checked="" type="checkbox"/> Please Email Results J.Kaminski @ TERRACON.COM		Quote No.					
Contact Person JERRY KAMINSKI							
Sampled by G. BETSCH		Check if Ohio VAP samples <input type="checkbox"/>					

#	Sample Identification	Date Collected	Time Collected	Grab	Composite	Preservative	Number of Containers	Please Check Analytical Box <input checked="" type="checkbox"/>				
1	TOP Layer (oil)	11/7/14	1435	X	%L	N/A	1	X				
2	Bottom (water)	11/7/14	1435	X	%L	N/A		X				
14110634-001 002												
CSL												

Relinquished by: <i>[Signature]</i>	Date 11/10/14	Time	Received by:	Date	Time
Received in lab by: <i>[Signature]</i>	Date 11/10/14	Time 12:0	Rush Requested By:	Date	Must be approved by lab manager

Notes/Comments:
 * ANALYZE LAYERS SEPARATE
 From PCS

108510

White and yellow pages should accompany samples to the laboratory. The client retains the pink page.

**Summit Environmental Technologies, Inc.
Cooler Receipt Form**

Client: Terracon Initials of person inspecting cooler and samples: SC
Order Number: _____

Date Received: 11-10-14 Time Received: 1230 Date cooler(s) opened and samples inspected: 11-10-14

Number of Coolers/Boxes: N/A
Shipper: FED EX UPS DHL Airborne US Postal Walk-in Pickup Other: _____

Packaging: Peanuts Bubble Wrap Paper Foam None Other: _____

Tape on cooler/box: Y N

Custody Seals intact Y N N/A N/A

C-O-C in plastic Y N N/A

Ice _____ Blue ice _____ present / absent / melted N/A

Sample Temperature IR Gun #16020459 CF _____ °C _____ °C N/A

Radiological Testing Instrument serial #35127 Y N N/A
(see page 2 for scan results)

****Use 1 sheet per sample for Radiological Testing. If sample is HOT, the Radiological Safety Officer must be notified immediately.**

C-O-C filled out properly Y N N/A

Samples in separate bags Y N N/A

Sample containers intact* Y N N/A

*If no, list broken sample(s): _____

Sample label(s) complete (ID, date, etc.) Y N N/A

Label(s) agree with C-O-C Y N N/A

Correct containers used Y N N/A

Sufficient sample received Y N N/A

Bubbles absent from 40 mL vials** Y N N/A

** Samples with bubbles <6mm are acceptable. Indicate bubble size if >6mm. _____

Was client contacted about samples Y N

Will client send new samples Y N

Client contact: _____

Date/Time: _____

Logged in by: _____

Comments: _____

APPENDIX C

Waste Disposal Documentation

000006

Form 1042-SS (02-01-01) U.S. Income Tax Return for Foreign Source Income

Employer Identification Number: **04-5506** | Taxpayer's Name: **BARBARA MTS** | TIN: **013374910 JUN**

Address: **10000 1st Street, Suite 100, Phoenix, AZ 85001** | Telephone: **602-955-1100**

Employer: **Industrial Services** | EIN: **04-55061100** | Reporting Period: **01/01/01 - 12/31/01**

Signature: **[Signature]** | Title: **Owner**

Type of Income	U.S. Source Income (including Foreign-Sourced Income Subject to U.S. Tax)	Foreign Source Income		Total	Taxable	Tax
		Dividend	Other			
Dividend		20	Y			
Interest						
Capital Gain						
Other						

Signature: **[Signature]** | Title: **Owner**

Preparer: **[Signature]** | Title: **Owner**

Signature: **[Signature]** | Title: **Owner**

Signature: **[Signature]** | Title: **Owner**

Signature: **[Signature]** | Title: **Owner**

1123

NAME OF DECEDENT JACOB BLUM		DATE OF DEATH MAY 27 1954	
RESIDENCE OF DECEDENT 1234 Main St. New York, N.Y.		DATE OF FILING THIS RETURN JUN 15 1954	
NAME OF ESTATE JACOB BLUM ESTATE		DATE OF DEATH MAY 27 1954	
NAME OF ESTATE JACOB BLUM ESTATE		DATE OF FILING THIS RETURN JUN 15 1954	

NAME OF BENEFICIARY	PERCENTAGE	CLASSIFICATION	GROSS INCOME		NET INCOME	
			AMOUNT	TAX	AMOUNT	TAX
WIFE	50%	Surviving Spouse	10,000	1,000	5,000	500
CHILDREN	50%	Children	10,000	1,000	5,000	500

PROPERTY OF WHICH THE DECEDENT WAS THE OWNER AT THE TIME OF HIS DEATH

PROPERTY OF WHICH THE DECEDENT WAS THE OWNER AT THE TIME OF HIS DEATH

PROPERTY OF WHICH THE DECEDENT WAS THE OWNER AT THE TIME OF HIS DEATH

NAME OF BENEFICIARY	PERCENTAGE	CLASSIFICATION	AMOUNT	TAX
WIFE	50%	Surviving Spouse	10,000	1,000
CHILDREN	50%	Children	10,000	1,000

PROPERTY OF WHICH THE DECEDENT WAS THE OWNER AT THE TIME OF HIS DEATH

PROPERTY OF WHICH THE DECEDENT WAS THE OWNER AT THE TIME OF HIS DEATH

PROPERTY OF WHICH THE DECEDENT WAS THE OWNER AT THE TIME OF HIS DEATH

NAME OF BENEFICIARY	PERCENTAGE	CLASSIFICATION	AMOUNT	TAX
WIFE	50%	Surviving Spouse	10,000	1,000
CHILDREN	50%	Children	10,000	1,000

AP-3

Form 100-100-100

Name of Applicant		Date of Birth		Maiden Name																															
[Name]		[Date]		[Name]																															
Address of Applicant				Address of Spouse																															
[Address]				[Address]																															
Occupation of Applicant		Occupation of Spouse		Education of Applicant																															
[Occupation]		[Occupation]		[Education]																															
<table border="1"> <thead> <tr> <th>Year</th> <th>Month</th> <th>Day</th> <th>Hour</th> <th>Minute</th> <th>Second</th> </tr> </thead> <tbody> <tr> <td>[Year]</td> <td>[Month]</td> <td>[Day]</td> <td>[Hour]</td> <td>[Minute]</td> <td>[Second]</td> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>						Year	Month	Day	Hour	Minute	Second	[Year]	[Month]	[Day]	[Hour]	[Minute]	[Second]																		
Year	Month	Day	Hour	Minute	Second																														
[Year]	[Month]	[Day]	[Hour]	[Minute]	[Second]																														
<p>Signature of Applicant: _____</p> <p>Signature of Spouse: _____</p>																																			
<p>Name of Applicant: [Name]</p> <p>Name of Spouse: [Name]</p>																																			
<p>Address of Applicant: [Address]</p> <p>Address of Spouse: [Address]</p>																																			
<p>Occupation of Applicant: [Occupation]</p> <p>Occupation of Spouse: [Occupation]</p>																																			
<p>Education of Applicant: [Education]</p> <p>Education of Spouse: [Education]</p>																																			

Page 1 of 1



RECEIPT NO. 10074116 DATE 01/09/04	NAME JAMES W. SMITH JR. ADDRESS 10000 W. 10TH AVE. DENVER, CO 80231
---	--

TYPE OF SERVICE REPAIRS MAKE SAAB MODEL 900 YEAR 1993	MAKE SAAB MODEL 900 YEAR 1993 MAKE SAAB MODEL 900 YEAR 1993
--	--

MAKE SAAB MODEL 900 YEAR 1993 MAKE SAAB MODEL 900 YEAR 1993	MAKE SAAB MODEL 900 YEAR 1993 MAKE SAAB MODEL 900 YEAR 1993
--	--

MAKE SAAB MODEL 900 YEAR 1993 MAKE SAAB MODEL 900 YEAR 1993	MAKE SAAB MODEL 900 YEAR 1993 MAKE SAAB MODEL 900 YEAR 1993
--	--

DESCRIPTION	QUANTITY	UNIT	RATE	AMOUNT	TAXES
SAAB 900 1993	1	HR	\$100.00	\$100.00	

MAKE SAAB MODEL 900 YEAR 1993 MAKE SAAB MODEL 900 YEAR 1993	MAKE SAAB MODEL 900 YEAR 1993 MAKE SAAB MODEL 900 YEAR 1993
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MAKE SAAB MODEL 900 YEAR 1993 MAKE SAAB MODEL 900 YEAR 1993	MAKE SAAB MODEL 900 YEAR 1993 MAKE SAAB MODEL 900 YEAR 1993
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MAKE SAAB MODEL 900 YEAR 1993 MAKE SAAB MODEL 900 YEAR 1993	MAKE SAAB MODEL 900 YEAR 1993 MAKE SAAB MODEL 900 YEAR 1993
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MAKE SAAB MODEL 900 YEAR 1993 MAKE SAAB MODEL 900 YEAR 1993	MAKE SAAB MODEL 900 YEAR 1993 MAKE SAAB MODEL 900 YEAR 1993
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MAKE SAAB MODEL 900 YEAR 1993 MAKE SAAB MODEL 900 YEAR 1993	MAKE SAAB MODEL 900 YEAR 1993 MAKE SAAB MODEL 900 YEAR 1993
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MAKE SAAB MODEL 900 YEAR 1993 MAKE SAAB MODEL 900 YEAR 1993	MAKE SAAB MODEL 900 YEAR 1993 MAKE SAAB MODEL 900 YEAR 1993
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MAKE SAAB MODEL 900 YEAR 1993 MAKE SAAB MODEL 900 YEAR 1993	MAKE SAAB MODEL 900 YEAR 1993 MAKE SAAB MODEL 900 YEAR 1993
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MAKE SAAB MODEL 900 YEAR 1993 MAKE SAAB MODEL 900 YEAR 1993	MAKE SAAB MODEL 900 YEAR 1993 MAKE SAAB MODEL 900 YEAR 1993
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CERTIFICATE OF DISPOSAL

This certificate is to verify the wastes specified on Worksheet # RCRA 2006 048
 have been properly disposed of in accordance with all local, state and federal regulations.
 *Disposal of waste either (1) buried or (2) Processed in compliance of CERCLA act.

FACILITY NAME (Print name) ADDRESS PHONE NUMBER FAX NUMBER	<input checked="" type="checkbox"/> Waste Transfer Station (Print name) ADDRESS (Print name) PHONE NUMBER FAX NUMBER	<input type="checkbox"/> Other Disposal (Print name) ADDRESS PHONE NUMBER FAX NUMBER
--	--	---

Authorized Signature _____ *[Signature]*



THE ENVIRONMENTAL QUALITY COUNCIL - 4000 N. LINN BLDG DRIVE - BELLEVILLE, MISSOURI 63404

TEL: 636-337-2200

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APPENDIX D

Photo Log



Photo #1 View of Transformers in the Basement.

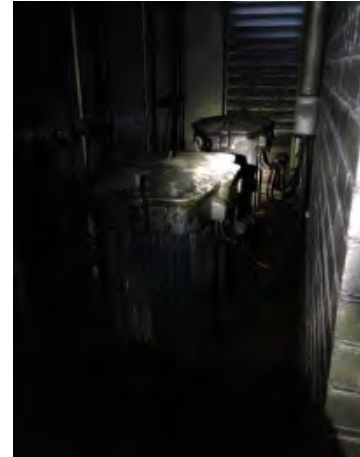


Photo #2 View of Transformers in the Basement



Photo #3 View of Transformers in the Basement.



Photo #4 View Pot Heads on the basement wall.



Photo #5 View of tar like material below the Pot Heads.



Photo #6 View of tar like material below the Pot Heads.



Photo #7 View of oil stained soil rear of the building



Photo #8 View oil stained pavement outside of the garage.



Photo #9 View oil stained pavement outside of the garage.



Photo #10 View of distressed vegetation and stained soil.



Photo #11 View of distressed vegetation and stained soil.



Photo #12 View of distressed vegetation and stained soil.

***APPENDIX 2: SOIL BORING LOGS/
MONITORING WELL CONSTRUCTION DIAGRAMS***

Boring Log GP-1		Project: 12700 W. Eight Mile Road Address: 12700 W. Eight Mile Road City: Oak Park State: MI 48237		Date Start: 12/9/2015 Date Comp.: 12/9/2015 Project Number: 15-2554PII			
Contractor/Driller: LaPointe Environmental, Inc.		Weather:		Ground Water Observations			
Scientist: Jeff Tait				Depth: Not Encountered			
Sampler type: Geoprobe Direct Push							
Boring Location: In asphalt area northwest of the subject building.				Time:			
Depth (ft)	Elev. (ft)	Sample Information				Sample Description	Stratum Description
		PID (ppm)	ID	Rec.	Interval (ft)		
1		0.0	GP1-1	4'	0-4	0 to 4" - ASPHALT	Asphalt
2		0.0				4" to 1' - Brown, moist SAND/GRAVEL mix	Sand/Gravel
3		0.0				1' to 4' - Dark brown, moist CLAY with some sand and a trace of gravel	Clay
4		0.0					
5						End of Boring at 4'	
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
GRANULAR SOILS		NOTES: Soil sample collected at 6"				Proportions used	
Bl/Ft	Density					Trace (0-10%), Little (10-20%), Some (20-30%), And (35-50%) With (amount of component not included)	
0-4	V. Loose	(734) 975-1970 1210 North Maple Road Ann Arbor MI 48103					
4-10	Loose						
10-30	M. Dense						
30-50	Dense						
>50	V. Dense						
COHESIVE SOILS							
Bl/Ft	Density						
<2	V. Soft						
2-4	Soft						
4-8	M. Stiff						
8-15	Stiff						
15-30	V. Stiff						
>30	Hard						
		APPLIED ENVIRONMENTAL					

Boring Log GP-2		Project: 12700 W. Eight Mile Road Address: 12700 W. Eight Mile Road City: Oak Park State: MI 48237		Date Start: 12/9/2015 Date Comp.: 12/9/2015 Project Number: 15-2554PII			
Contractor/Driller: LaPointe Environmental, Inc.		Weather:		Ground Water Observations			
Scientist: Jeff Tait				Depth: Not Encountered			
Sampler type: Geoprobe Direct Push							
Boring Location: In asphalt area northwest of the subject building, west of				Time:			
GP-1.							
Depth (ft)	Elev. (ft)	Sample Information				Sample Description	Stratum Description
		PID (ppm)	ID	Rec.	Interval (ft)		
1		0.0	GP2-1	4'	0-4	0 to 4" - ASPHALT	Asphalt
2		0.0				4" to 1' - Brown, moist SAND/GRAVEL mix	Sand/Gravel
3		0.0				1' to 4' - Brown, moist, fine to medium SAND	Sand
4		0.0					
5						End of Boring at 4'	
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
GRANULAR SOILS		NOTES: Soil sample collected at 6"				Proportions used	
Bl/Ft	Density					Trace (0-10%), Little (10-20%), Some (20-30%), And (35-50%) With (amount of component not included)	
0-4	V. Loose	(734) 975-1970					
4-10	Loose	1210 North Maple Road					
10-30	M. Dense	Ann Arbor MI 48103					
30-50	Dense	APPLIED ENVIRONMENTAL					
>50	V. Dense						
COHESIVE SOILS							
Bl/Ft	Density						
<2	V. Soft						
2-4	Soft						
4-8	M. Stiff						
8-15	Stiff						
15-30	V. Stiff						
>30	Hard						

Boring Log GP-3		Project: 12700 W. Eight Mile Road Address: 12700 W. Eight Mile Road City: Oak Park State: MI 48237		Date Start: 12/9/2015 Date Comp.: 12/9/2015 Project Number: 15-2554PII			
Contractor/Driller: LaPointe Environmental, Inc.		Weather:		Ground Water Observations			
Scientist: Jeff Tait				Depth: Not Encountered			
Sampler type: Geoprobe Direct Push							
Boring Location:			Time:				
Depth (ft)	Elev. (ft)	Sample Information				Sample Description	Stratum Description
		PID (ppm)	ID	Rec.	Interval (ft)		
1		0.0	GP3-1	4'	0-4	0 to 4" - ASPHALT 4" to 1' - Brown, moist SAND/GRAVEL mix 1' to 4' - Brown, moist, fine to medium SAND	Asphalt Sand/Gravel Sand
2		0.0					
3		0.0					
4		0.0					
5						End of Boring at 4'	
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
GRANULAR SOILS		NOTES: Soil sample collected at 6"				Proportions used	
Bl/Ft	Density					Trace (0-10%), Little (10-20%), Some (20-30%), And (35-50%) With (amount of component not included)	
0-4	V. Loose	(734) 975-1970					
4-10	Loose	1210 North Maple Road					
10-30	M. Dense	Ann Arbor MI 48103					
30-50	Dense	APPLIED ENVIRONMENTAL					
>50	V. Dense						
COHESIVE SOILS							
Bl/Ft	Density						
<2	V. Soft						
2-4	Soft						
4-8	M. Stiff						
8-15	Stiff						
15-30	V. Stiff						
>30	Hard						

Boring Log GP-4		Project: 12700 W. Eight Mile Road Address: 12700 W. Eight Mile Road City: Oak Park State: MI 48237		Date Start: 12/9/2015 Date Comp.: 12/9/2015 Project Number: 15-2554PII			
Contractor/Driller: LaPointe Environmental, Inc.		Weather:		Ground Water Observations			
Scientist: Jeff Tait				Depth: Not Encountered			
Sampler type: Geoprobe Direct Push							
Boring Location:				Time:			
Depth (ft)	Elev. (ft)	Sample Information				Sample Description	Stratum Description
		PID (ppm)	ID	Rec.	Interval (ft)		
1		0.0	GP4-1	4'	0-4	0 to 8" - TOPSOIL	Topsoil
2		0.0				8" to 4' - Brown, moist, fine to medium SAND	Sand
3		0.0					
4		0.0					
5						End of Boring at 4'	
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
GRANULAR SOILS		NOTES: Soil sample collected at 6"				Proportions used	
Bl/Ft	Density					Trace (0-10%), Little (10-20%), Some (20-30%), And (35-50%) With (amount of component not included)	
0-4	V. Loose					(734) 975-1970 1210 North Maple Road Ann Arbor MI 48103	
4-10	Loose						
10-30	M. Dense						
30-50	Dense						
>50	V. Dense						
COHESIVE SOILS							
Bl/Ft	Density						
<2	V. Soft						
2-4	Soft						
4-8	M. Stiff						
8-15	Stiff						
15-30	V. Stiff						
>30	Hard						
						APPLIED ENVIRONMENTAL	

Boring Log GP-5		Project: 12700 W. Eight Mile Road Address: 12700 W. Eight Mile Road City: Oak Park State: MI 48237		Date Start: 12/9/2015 Date Comp.: 12/9/2015 Project Number: 15-2554PII			
Contractor/Driller: LaPointe Environmental, Inc.		Weather:		Ground Water Observations			
Scientist: Jeff Tait				Depth: Not Encountered			
Sampler type: Geoprobe Direct Push							
Boring Location:				Time:			
Depth (ft)	Elev. (ft)	Sample Information				Sample Description	Stratum Description
		PID (ppm)	ID	Rec.	Interval (ft)		
1		0.0	GP5-1	4'	0-4	0 to 8" - TOPSOIL	Topsoil
2		0.0				8" to 4' - Brown, moist, fine to medium SAND	Sand
3		0.0					
4		0.0					
5						End of Boring at 4'	
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
GRANULAR SOILS		NOTES: Soil sample collected at 6"				Proportions used	
Bl/Ft	Density					Trace (0-10%), Little (10-20%), Some (20-30%), And (35-50%) With (amount of component not included)	
0-4	V. Loose					(734) 975-1970 1210 North Maple Road Ann Arbor MI 48103	
4-10	Loose						
10-30	M. Dense						
30-50	Dense						
>50	V. Dense						
COHESIVE SOILS							
Bl/Ft	Density						
<2	V. Soft						
2-4	Soft						
4-8	M. Stiff						
8-15	Stiff						
15-30	V. Stiff						
>30	Hard						
		APPLIED ENVIRONMENTAL					

Boring Log GP-6		Project: 12700 W. Eight Mile Road Address: 12700 W. Eight Mile Road City: Oak Park State: MI 48237		Date Start: 12/9/2015 Date Comp.: 12/9/2015 Project Number: 15-2554PII			
Contractor/Driller: LaPointe Environmental, Inc.		Weather:		Ground Water Observations			
Scientist: Jeff Tait				Depth: Not Encountered			
Sampler type: Geoprobe Direct Push							
Boring Location:				Time:			
Depth (ft)	Elev. (ft)	Sample Information				Sample Description	Stratum Description
		PID (ppm)	ID	Rec.	Interval (ft)		
1		0.0	GP6-1	4'	0-4	0 to 8" - TOPSOIL	Topsoil
2		0.0				8" to 4' - Brown, moist, fine to medium SAND	Sand
3		0.0					
4		0.0					
5						End of Boring at 4'	
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
GRANULAR SOILS		NOTES: Soil sample collected at 6"				Proportions used	
Bl/Ft	Density					Trace (0-10%), Little (10-20%), Some (20-30%), And (35-50%) With (amount of component not included)	
0-4	V. Loose					(734) 975-1970 1210 North Maple Road Ann Arbor MI 48103	
4-10	Loose						
10-30	M. Dense						
30-50	Dense						
>50	V. Dense						
COHESIVE SOILS							
Bl/Ft	Density						
<2	V. Soft						
2-4	Soft						
4-8	M. Stiff						
8-15	Stiff						
15-30	V. Stiff						
>30	Hard						
		APPLIED ENVIRONMENTAL					

Boring Log GP-7		Project: 12700 W. Eight Mile Road Address: 12700 W. Eight Mile Road City: Oak Park State: MI 48237		Date Start: 12/9/2015 Date Comp.: 12/9/2015 Project Number: 15-2554PII			
Contractor/Driller: LaPointe Environmental, Inc.		Weather:		Ground Water Observations			
Scientist: Jeff Tait				Depth: Not Encountered			
Sampler type: Geoprobe Direct Push							
Boring Location:				Time:			
Depth (ft)	Elev. (ft)	Sample Information				Sample Description	Stratum Description
		PID (ppm)	ID	Rec.	Interval (ft)		
1		0.0	GP7-1	4'	0-4	0 to 8" - TOPSOIL	Topsoil
2		0.0				8" to 4' - Brown, moist, fine to medium SAND	Sand
3		0.0					
4		0.0					
5						End of Boring at 4'	
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
GRANULAR SOILS		NOTES: Soil sample collected at 6"				Proportions used	
Bl/Ft	Density					Trace (0-10%), Little (10-20%), Some (20-30%), And (35-50%) With (amount of component not included)	
0-4	V. Loose					(734) 975-1970 1210 North Maple Road Ann Arbor MI 48103	
4-10	Loose						
10-30	M. Dense						
30-50	Dense						
>50	V. Dense						
COHESIVE SOILS							
Bl/Ft	Density						
<2	V. Soft						
2-4	Soft						
4-8	M. Stiff						
8-15	Stiff						
15-30	V. Stiff						
>30	Hard						
						APPLIED ENVIRONMENTAL	

Boring Log GP-8		Project: 12700 W. Eight Mile Road Address: 12700 W. Eight Mile Road City: Oak Park State: MI 48237		Date Start: 12/9/2015 Date Comp.: 12/9/2015 Project Number: 15-2554PII					
Contractor/Driller: LaPointe Environmental, Inc.		Weather:		Ground Water Observations					
Scientist: Jeff Tait				Depth: Not Encountered					
Sampler type: Geoprobe Direct Push									
Boring Location:				Time:					
Depth (ft)	Elev. (ft)	Sample Information				Sample Description	Stratum Description		
		PID (ppm)	ID	Rec.	Interval (ft)				
1		0.0	GP8-1	4'	0-4	0 to 8" - TOPSOIL	Topsoil		
2		0.0				8" to 4' - Brown, moist, fine to medium SAND	Sand		
3		0.0							
4		0.0							
5						End of Boring at 4'			
6									
7									
8									
9									
10									
11									
12									
13									
14									
15									
16									
17									
18									
19									
20									
GRANULAR SOILS		NOTES: Soil sample collected at 6"				Proportions used			
Bl/Ft	Density					(734) 975-1970 1210 North Maple Road Ann Arbor MI 48103			
0-4	V. Loose							APPLIED ENVIRONMENTAL	
4-10	Loose								
10-30	M. Dense								
30-50	Dense								
>50	V. Dense								
COHESIVE SOILS									
Bl/Ft	Density								
<2	V. Soft								
2-4	Soft								
4-8	M. Stiff								
8-15	Stiff								
15-30	V. Stiff								
>30	Hard								

Boring Log GP-9		Project: 12700 W. Eight Mile Road Address: 12700 W. Eight Mile Road City: Oak Park State: MI 48237		Date Start: 12/9/2015 Date Comp.: 12/9/2015 Project Number: 15-2554PII			
Contractor/Driller: LaPointe Environmental, Inc.		Weather:		Ground Water Observations			
Scientist: Jeff Tait				Depth: Not Encountered			
Sampler type: Geoprobe Direct Push							
Boring Location:			Time:				
Depth (ft)	Elev. (ft)	Sample Information				Sample Description	Stratum Description
		PID (ppm)	ID	Rec.	Interval (ft)		
1		0.0	GP9-1	4'	0-4	0 to 8" - TOPSOIL	Topsoil
2		0.0				8" to 4' - Brown, moist, fine to medium SAND	Sand
3		0.0					
4		0.0					
5						End of Boring at 4'	
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
GRANULAR SOILS		NOTES: Soil sample collected at 6"				Proportions used	
Bl/Ft	Density					Trace (0-10%), Little (10-20%), Some (20-30%), And (35-50%) With (amount of component not included)	
0-4	V. Loose	(734) 975-1970					
4-10	Loose	1210 North Maple Road					
10-30	M. Dense	Ann Arbor MI 48103					
30-50	Dense	APPLIED ENVIRONMENTAL					
>50	V. Dense						
COHESIVE SOILS							
Bl/Ft	Density						
<2	V. Soft						
2-4	Soft						
4-8	M. Stiff						
8-15	Stiff						
15-30	V. Stiff						
>30	Hard						

Boring Log GP-10		Project: 12700 W. Eight Mile Road Address: 12700 W. Eight Mile Road City: Oak Park State: MI 48237		Date Start: 12/9/2015 Date Comp.: 12/9/2015 Project Number: 15-2554PII			
Contractor/Driller: LaPointe Environmental, Inc.		Weather:		Ground Water Observations			
Scientist: Jeff Tait				Depth: Not Encountered			
Sampler type: Geoprobe Direct Push							
Boring Location:				Time:			
Depth (ft)	Elev. (ft)	Sample Information				Sample Description	Stratum Description
		PID (ppm)	ID	Rec.	Interval (ft)		
1		0.0	GP10-1	4'	0-4	0 to 8" - TOPSOIL	Topsoil
2		0.0				8" to 4' - Brown, moist, fine to medium SAND	Sand
3		0.0					
4		0.0					
5						End of Boring at 4'	
6							
7							
8							
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15							
16							
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18							
19							
20							
GRANULAR SOILS		NOTES: Soil sample collected at 6"				Proportions used	
Bl/Ft	Density					Trace (0-10%), Little (10-20%), Some (20-30%), And (35-50%) With (amount of component not included)	
0-4	V. Loose					(734) 975-1970 1210 North Maple Road Ann Arbor MI 48103	
4-10	Loose						
10-30	M. Dense						
30-50	Dense						
>50	V. Dense						
COHESIVE SOILS							
Bl/Ft	Density						
<2	V. Soft						
2-4	Soft						
4-8	M. Stiff						
8-15	Stiff						
15-30	V. Stiff						
>30	Hard						

Boring Log GP-11		Project: 12700 W. Eight Mile Road Address: 12700 W. Eight Mile Road City: Oak Park State: MI 48237		Date Start: 12/9/2015 Date Comp.: 12/9/2015 Project Number: 15-2554PII			
Contractor/Driller: LaPointe Environmental, Inc.		Weather:		Ground Water Observations			
Scientist: Jeff Tait				Depth: Not Encountered			
Sampler type: Geoprobe Direct Push							
Boring Location:				Time:			
Depth (ft)	Elev. (ft)	Sample Information				Sample Description	Stratum Description
		PID (ppm)	ID	Rec.	Interval (ft)		
1		0.0	GP11-1	4'	0-4	0 to 8" - TOPSOIL	Topsoil
2		0.0				8" to 4' - Brown, moist, fine to medium SAND	Sand
3		0.0					
4		0.0					
5						End of Boring at 4'	
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
GRANULAR SOILS		NOTES: Soil sample collected at 6"				Proportions used	
Bl/Ft	Density					Trace (0-10%), Little (10-20%), Some (20-30%), And (35-50%) With (amount of component not included)	
0-4	V. Loose					(734) 975-1970 1210 North Maple Road Ann Arbor MI 48103	
4-10	Loose						
10-30	M. Dense						
30-50	Dense						
>50	V. Dense						
COHESIVE SOILS							
Bl/Ft	Density						
<2	V. Soft					APPLIED ENVIRONMENTAL	
2-4	Soft						
4-8	M. Stiff						
8-15	Stiff						
15-30	V. Stiff						
>30	Hard						

Boring Log GP-12		Project: 12700 W. Eight Mile Road Address: 12700 W. Eight Mile Road City: Oak Park State: MI 48237		Date Start: 12/9/2015 Date Comp.: 12/9/2015 Project Number: 15-2554PII			
Contractor/Driller: LaPointe Environmental, Inc.		Weather:		Ground Water Observations			
Scientist: Jeff Tait				Depth: Not Encountered			
Sampler type: Geoprobe Direct Push							
Boring Location:				Time:			
Depth (ft)	Elev. (ft)	Sample Information				Sample Description	Stratum Description
		PID (ppm)	ID	Rec.	Interval (ft)		
1		0.0	GP12-1	4'	0-4	0 to 8" - TOPSOIL	Topsoil
2		0.0				8" to 4' - Brown, moist, fine to medium SAND	Sand
3		0.0					
4		0.0					
5						End of Boring at 4'	
6							
7							
8							
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10							
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15							
16							
17							
18							
19							
20							
GRANULAR SOILS		NOTES: Soil sample collected at 6"				Proportions used	
Bl/Ft	Density					Trace (0-10%), Little (10-20%), Some (20-30%), And (35-50%) With (amount of component not included)	
0-4	V. Loose					(734) 975-1970 1210 North Maple Road Ann Arbor MI 48103	
4-10	Loose						
10-30	M. Dense						
30-50	Dense						
>50	V. Dense						
COHESIVE SOILS							
Bl/Ft	Density						
<2	V. Soft						
2-4	Soft						
4-8	M. Stiff						
8-15	Stiff						
15-30	V. Stiff						
>30	Hard						

Boring Log GP-13		Project: 12700 W. Eight Mile Road Address: 12700 W. Eight Mile Road City: Oak Park State: MI 48237		Date Start: 12/9/2015 Date Comp.: 12/9/2015 Project Number: 15-2554PII			
Contractor/Driller: LaPointe Environmental, Inc.		Weather:		Ground Water Observations			
Scientist: Jeff Tait				Depth: Not Encountered			
Sampler type: Geoprobe Direct Push							
Boring Location:				Time:			
Depth (ft)	Elev. (ft)	Sample Information				Sample Description	Stratum Description
		PID (ppm)	ID	Rec.	Interval (ft)		
1		0.0	GP13-1	4'	0-4	0 to 8" - TOPSOIL	Topsoil
2		0.0				8" to 4' - Brown, moist, fine to medium SAND	Sand
3		0.0					
4		0.0					
5						End of Boring at 4'	
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
GRANULAR SOILS		NOTES: Soil sample collected at 6"				Proportions used	
Bl/Ft	Density					Trace (0-10%), Little (10-20%), Some (20-30%), And (35-50%) With (amount of component not included)	
0-4	V. Loose					(734) 975-1970 1210 North Maple Road Ann Arbor MI 48103	
4-10	Loose						
10-30	M. Dense						
30-50	Dense						
>50	V. Dense						
COHESIVE SOILS							
Bl/Ft	Density						
<2	V. Soft						
2-4	Soft						
4-8	M. Stiff						
8-15	Stiff						
15-30	V. Stiff						
>30	Hard						
		APPLIED ENVIRONMENTAL					

Boring Log GP-14		Project: 12700 W. Eight Mile Road Address: 12700 W. Eight Mile Road City: Oak Park State: MI 48237		Date Start: 12/9/2015 Date Comp.: 12/9/2015 Project Number: 15-2554PII			
Contractor/Driller: LaPointe Environmental, Inc.		Weather:		Ground Water Observations			
Scientist: Jeff Tait				Depth: Not Encountered			
Sampler type: Geoprobe Direct Push							
Boring Location:				Time:			
Depth (ft)	Elev. (ft)	Sample Information				Sample Description	Stratum Description
		PID (ppm)	ID	Rec.	Interval (ft)		
1		0.0	GP14-1	4'	0-4	0 to 8" - TOPSOIL	Topsoil
2		0.0				8" to 4' - Brown, moist, fine to medium SAND	Sand
3		0.0					
4		0.0					
5						End of Boring at 4'	
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
GRANULAR SOILS		NOTES: Soil sample collected at 6"				Proportions used	
Bl/Ft	Density					Trace (0-10%), Little (10-20%), Some (20-30%), And (35-50%) With (amount of component not included)	
0-4	V. Loose					(734) 975-1970 1210 North Maple Road Ann Arbor MI 48103	
4-10	Loose						
10-30	M. Dense						
30-50	Dense						
>50	V. Dense						
COHESIVE SOILS							
Bl/Ft	Density						
<2	V. Soft						
2-4	Soft						
4-8	M. Stiff						
8-15	Stiff						
15-30	V. Stiff						
>30	Hard						
		APPLIED ENVIRONMENTAL					

Boring Log GP-15	Project:	12700 W. Eight Mile Road	Date Start:	12/9/2015
	Address:	12700 W. Eight Mile Road	Date Comp.:	12/9/2015
	City: Oak Park State: MI	48237	Project Number:	15-2554PII
Contractor/Driller:		LaPointe Environmental, Inc.	Weather:	
Scientist:		Jeff Tait	Ground Water Observations	
Sampler type:		Geoprobe Direct Push	Depth: Not Encountered	
Boring Location:			Time:	

Depth (ft)	Elev. (ft)	Sample Information				Sample Description	Stratum Description
		PID (ppm)	ID	Rec.	Interval (ft)		
1		0.0	GP15-1	4'	0-4	0 to 6" - TOPSOIL	Topsoil
2		0.0				6" to 4' - Brown, moist, fine to medium SAND with a trace of gravel	Sand
3		0.0					
4		0.0					
5		0.0	GP15-2	4'	4-8	4' to 5.5' - Brown, moist, fine to medium SAND with a trace of gravel	
6		0.0				5.5' to 8' - Gray, moist CLAY with some silt and a trace of gravel	Clay
7		0.0					
8		0.0					
9		0.0	GP15-3	4'	8-12	8' to 12' - Gray, moist CLAY with some silt and a trace of gravel	
10		0.0					
11		0.0					
12		0.0					
13		0.0	GP15-4	4'	12-16	12' to 16' - Gray, moist CLAY with some silt and a trace of gravel	
14		0.0					
15		0.0					
16		0.0					
17						End of Boring at 16'	
18							
19							
20							

GRANULAR SOILS		NOTES: Soil sample collected at 6'	Proportions used	
Bl/Ft	Density		Trace (0-10%), Little (10-20%), Some (20-30%), And (35-50%) With (amount of component not included)	
0-4	V. Loose			
4-10	Loose			
10-30	M. Dense			
30-50	Dense			
>50	V. Dense		(734) 975-1970	
COHESIVE SOILS			1210 North Maple Road Ann Arbor MI 48103	
Bl/Ft	Density		APPLIED ENVIRONMENTAL	
<2	V. Soft			
2-4	Soft			
4-8	M. Stiff			
8-15	Stiff			
15-30	V. Stiff			
>30	Hard			

Boring Log GP-16	Project: 12700 W. Eight Mile Road	Date Start: 12/9/2015
	Address: 12700 W. Eight Mile Road	Date Comp.: 12/9/2015
	City: Oak Park State: MI 48237	Project Number: 15-2554PII
Contractor/Driller: LaPointe Environmental, Inc.		Weather:
Scientist: Jeff Tait		Ground Water Observations
Sampler type: Geoprobe Direct Push		Depth: Not Encountered
Boring Location:		Time:

Depth (ft)	Elev. (ft)	Sample Information				Sample Description	Stratum Description
		PID (ppm)	ID	Rec.	Interval (ft)		
1		0.0	GP16-1	4'	0-4	0 to 4" - TOPSOIL	Topsoil
2		0.0				4" to 3.5' - Brown, moist, fine to medium SAND	Sand
3		0.0					
4		0.0				3.5' to 4' - Brown, wet, fine to medium SAND	
5		0.0	GP16-2	4'	4-8	4' to 5.5' - Brown, wet, fine to medium SAND	
6		0.0				5.5' to 8' - Brown, moist CLAY with some silt and a trace of gravel	Clay
7		0.0					
8		0.0					
9		0.0	GP16-3	4'	8-12	8' to 12' - Brown, moist CLAY with some silt and a trace of gravel	
10		0.0					
11		0.0					
12		0.0					
13		0.0	GP16-4	4'	12-16	12' to 16' - Brown, moist CLAY with some silt and a trace of gravel	
14		0.0					
15		0.0					
16		0.0					
17						End of Boring at 16'	
18							
19							
20							

GRANULAR SOILS		NOTES: Groundwater sample collected via temporary well screen set from 2' to 7'	Proportions used
Bl/Ft	Density		Trace (0-10%), Little (10-20%), Some (20-30%), And (35-50%) With (amount of component not included)
0-4	V. Loose		(734) 975-1970 1210 North Maple Road Ann Arbor MI 48103
4-10	Loose		
10-30	M. Dense		APPLIED ENVIRONMENTAL
30-50	Dense		
>50	V. Dense		
COHESIVE SOILS			
Bl/Ft	Density		
<2	V. Soft		
2-4	Soft		
4-8	M. Stiff		
8-15	Stiff		
15-30	V. Stiff		
>30	Hard		

Boring Log GP-17	Project: 12700 W. Eight Mile Road	Date Start: 12/9/2015
	Address: 12700 W. Eight Mile Road	Date Comp.: 12/9/2015
	City: Oak Park State: MI 48237	Project Number: 15-2554PII
Contractor/Driller: LaPointe Environmental, Inc.	Weather:	Ground Water Observations
Scientist: Jeff Tait		Depth: Not Encountered
Sampler type: Geoprobe Direct Push		
Boring Location:		Time:

Depth (ft)	Elev. (ft)	Sample Information				Sample Description	Stratum Description
		PID (ppm)	ID	Rec.	Interval (ft)		
1		0.0	GP17-1	4'	0-4	0 to 8" - TOPSOIL	Topsoil
2		0.0				8" to 3' - Brown, moist, fine to medium SAND with a trace of gravel	Sand
3		0.0					
4		0.0				3' to 4' - Brown, moist CLAY with some silt and a trace of gravel	Clay
5		0.0	GP17-2	4'	4-8	4' to 5.5' - Brown, wet, fine to medium SAND with a trace of gravel	Sand
6		0.0				5.5' to 8' - Gray, moist CLAY with some silt and a trace of gravel	Clay
7		0.0					
8		0.0					
9		0.0	GP17-3	4'	8-12	8' to 12' - Gray, moist CLAY with some silt and a trace of gravel	
10		0.0					
11		0.0					
12		0.0					
13		0.0	GP17-4	4'	12-16	12' to 16' - Gray, moist CLAY with some silt and a trace of gravel	
14		0.0					
15		0.0					
16		0.0					
17						End of Boring at 16'	
18							
19							
20							

GRANULAR SOILS		NOTES: Soil sample collected at 6'	Proportions used
Bl/Ft	Density		Trace (0-10%), Little (10-20%), Some (20-30%), And (35-50%) With (amount of component not included)
0-4	V. Loose		(734) 975-1970
4-10	Loose		1210 North Maple Road
10-30	M. Dense		Ann Arbor MI 48103
30-50	Dense		APPLIED ENVIRONMENTAL
>50	V. Dense		
COHESIVE SOILS			
Bl/Ft	Density		
<2	V. Soft		
2-4	Soft		
4-8	M. Stiff		
8-15	Stiff		
15-30	V. Stiff		
>30	Hard		

Boring Log GP-11A		Project: 8MK Address: 12700 Eight Mile Road City: Oak Park State: MI Zip: 48237			Date Start: 7/28/2020 Date Comp.: 7/28/2020 Project Number: 20-2554		
Contractor/Driller: Alluvial Earth		Weather:		Ground Water Observations			
Scientist: Michael Gatien				Depth: ~ 4.5 Ft.			
Sampler type: 2" x 4' Sampler							
Boring Location: Next to previous GP-11 boring location for vertical delineation.				Time:			
Depth (ft)	Elev. (ft)	Sample Information				Sample Description	Stratum Description
		PID (ppm)	ID	Rec.	Interval (ft)		
1		0	GP11A-1	4'	0-4	0 to 1.5' - Black, moist TOPSOIL	Topsoil
2		0				1.5' to 4' - Brown, moist, fine SAND	Sand
3		0					
4		0					
5		0	GP11A-2	4'	4-8	4' to 5.5' - Brown, moist to wet, fine SAND with a trace of gravel	Clay
6		0				5.5' to 8' - Gray, moist CLAY with a trace of silt and gravel	
7		0					
8		0					
9						End of Boring at 8'	
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
GRANULAR SOILS		NOTES: Soil samples collected at 0', 2', 4', and 6'				Proportions used	
Bl/Ft	Density					Trace (0-10%), Little (10-20%), Some (20-30%), And (35-50%) With (amount of component not included)	
0-4	V. Loose					(734) 975-1970 1210 N. Maple Road Ann Arbor MI 48103	
4-10	Loose						
10-30	M. Dense						
30-50	Dense	APPLIED ENVIRONMENTAL					
>50	V. Dense						
COHESIVE SOILS							
Bl/Ft	Density						
<2	V. Soft						
2-4	Soft						
>30	Hard						

Boring Log GP-15		Project: 8MK Address: 12700 Eight Mile Road City: Oak Park State: MI Zip: 48237			Date Start: 7/28/2020 Date Comp.: 7/28/2020 Project Number: 20-2554		
Contractor/Driller: Alluvial Earth		Weather:			Ground Water Observations		
Scientist: Michael Gatien					Depth: Not encountered		
Sampler type: 2" x 4' Sampler							
Boring Location: 20 feet east of GP-11 and GP-11A.					Time:		
Depth (ft)	Elev. (ft)	Sample Information				Sample Description	Stratum Description
		PID (ppm)	ID	Rec.	Interval (ft)		
1		0	GP15-1	4'	0-4	0 to 1' - Black, moist TOPSOIL	Topsoil
2		0				1' to 4' - Brown, moist, fine SAND	Sand
3		0					
4		0					
5		0	GP15-2	4'	4-8	4' to 6' - Gray, moist CLAY with a trace of silt and gravel	Clay
6		0					
7						End of Boring at 6'	
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
GRANULAR SOILS		NOTES:				Proportions used Trace (0-10%), Little (10-20%), Some (20-30%), And (35-50%) With (amount of component not included) (734) 975-1970 1210 N. Maple Road Ann Arbor MI 48103	
Bl/Ft	Density	Soil samples collected at 0', 2', 4', and 6'					
0-4	V. Loose					APPLIED ENVIRONMENTAL	
4-10	Loose						
10-30	M. Dense						
30-50	Dense						
>50	V. Dense						
COHESIVE SOILS							
Bl/Ft	Density						
<2	V. Soft						
2-4	Soft						
>30	Hard						

Boring Log GP-16		Project: 8MK Address: 12700 Eight Mile Road City: Oak Park State: MI Zip: 48237			Date Start: 7/28/2020 Date Comp.: 7/28/2020 Project Number: 20-2554		
Contractor/Driller: Alluvial Earth		Weather:			Ground Water Observations		
Scientist: Michael Gatien					Depth: Not encountered		
Sampler type: 2" x 4' Sampler							
Boring Location: 10 feet east of GP-11 and GP-11A.					Time:		
Depth (ft)	Elev. (ft)	Sample Information				Sample Description	Stratum Description
		PID (ppm)	ID	Rec.	Interval (ft)		
1		0	GP16-1	4'	0-4	0 to 1' - Black, moist TOPSOIL	Topsoil
2		0				1' to 4' - Brown, moist, fine SAND	Sand
3		0					
4		0					
5		0	GP16-2	4'	4-8	4' to 5' - Brown, moist, fine SAND with a trace of gravel	
6		0				5' to 6' - Gray, moist CLAY with a trace of silt and gravel	Clay
7						End of Boring at 6'	
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
GRANULAR SOILS		NOTES:				Proportions used Trace (0-10%), Little (10-20%), Some (20-30%), And (35-50%) With (amount of component not included) (734) 975-1970 1210 N. Maple Road Ann Arbor MI 48103	
Bl/Ft	Density	Soil samples collected at 0', 2', 4', and 6'					
0-4	V. Loose					APPLIED ENVIRONMENTAL	
4-10	Loose						
10-30	M. Dense						
30-50	Dense						
>50	V. Dense						
COHESIVE SOILS							
Bl/Ft	Density						
<2	V. Soft						
2-4	Soft						
>30	Hard						

Boring Log GP-17		Project: 8MK Address: 12700 Eight Mile Road City: Oak Park State: MI Zip: 48237			Date Start: 7/28/2020 Date Comp.: 7/28/2020 Project Number: 20-2554		
Contractor/Driller: Alluvial Earth		Weather:			Ground Water Observations		
Scientist: Michael Gatien					Depth: ~ 4 Ft.		
Sampler type: 2" x 4' Sampler							
Boring Location: 10 feet west of GP-11 and GP-11A.					Time:		
Depth (ft)	Elev. (ft)	Sample Information				Sample Description	Stratum Description
		PID (ppm)	ID	Rec.	Interval (ft)		
1		0	GP17-1	4'	0-4	0 to 2' - Black, moist TOPSOIL	Topsoil
2		0					
3		0				2' to 4' - Brown, moist to wet, fine SAND	Sand
4		0					
5		0	GP17-2	4'	4-8	4' to 5' - Brown, wet, fine SAND with a trace of gravel	Clay
6		0				5' to 6' - Gray, moist CLAY with a trace of silt and gravel	
7						End of Boring at 6'	
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
GRANULAR SOILS		NOTES: Soil samples collected at 0', 2', 4', and 6'				Proportions used	
Bl/Ft	Density					Trace (0-10%), Little (10-20%), Some (20-30%), And (35-50%) With (amount of component not included)	
0-4	V. Loose					(734) 975-1970 1210 N. Maple Road Ann Arbor MI 48103	
4-10	Loose						
10-30	M. Dense						
30-50	Dense						
>50	V. Dense						
COHESIVE SOILS							
Bl/Ft	Density						
<2	V. Soft						
2-4	Soft						
>30	Hard						

APPLIED ENVIRONMENTAL

Boring Log GP-18		Project: 8MK			Date Start: 7/28/2020		
		Address: 12700 Eight Mile Road			Date Comp.: 7/28/2020		
		City: Oak Park State: MI Zip: 48237			Project Number: 20-2554		
Contractor/Driller: Alluvial Earth		Weather:		Ground Water Observations			
Scientist: Michael Gatien				Depth: ~ 4 Ft.			
Sampler type: 2" x 4' Sampler							
Boring Location: 20 feet west of GP-11 and GP-11A.				Time:			
Depth (ft)	Elev. (ft)	Sample Information				Sample Description	Stratum Description
		PID (ppm)	ID	Rec.	Interval (ft)		
1		0	GP18-1	4'	0-4	0 to 1' - Black, moist TOPSOIL	Topsoil
2		0				1' to 4' - Brown, moist to wet, fine SAND	Sand
3		0					
4		0					
5		0	GP18-2	4'	4-8	4' to 5' - Brown, wet, fine SAND with a trace of gravel	
6		0				5' to 6' - Gray, moist CLAY with a trace of silt and gravel	Clay
7						End of Boring at 6'	
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
GRANULAR SOILS		NOTES: Soil samples collected at 0', 2', 4', and 6'				Proportions used	
Bl/Ft	Density					Trace (0-10%), Little (10-20%), Some (20-30%), And (35-50%) With (amount of component not included)	
0-4	V. Loose					(734) 975-1970 1210 N. Maple Road Ann Arbor MI 48103	
4-10	Loose						
10-30	M. Dense						
30-50	Dense						
>50	V. Dense						
COHESIVE SOILS							
Bl/Ft	Density						
<2	V. Soft						
2-4	Soft						
>30	Hard						

APPLIED ENVIRONMENTAL

Boring Log GP-19		Project: 8MK		Date Start: 7/28/2020				
		Address: 12700 Eight Mile Road		Date Comp.: 7/28/2020				
		City: Oak Park State: MI Zip: 48237		Project Number: 20-2554				
Contractor/Driller: Alluvial Earth		Weather:		Ground Water Observations				
Scientist: Michael Gatien				Depth: ~ 4.5 Ft.				
Sampler type: 2" x 4' Sampler								
Boring Location: 10 feet north of GP-11 and GP-11A.				Time:				
Depth (ft)	Elev. (ft)	Sample Information				Sample Description	Stratum Description	
		PID (ppm)	ID	Rec.	Interval (ft)			
1		0	GP19-1	4'	0-4	0 to 1.5' - Black, moist TOPSOIL	Topsoil	
2		0				1.5' to 4' - Brown, moist, fine SAND	Sand	
3		0						
4		0						
5		0	GP19-2	4'	4-8	4' to 5' - Brown, wet, fine SAND with a trace of gravel	Clay	
6		0				5' to 6' - Gray, moist CLAY with a trace of silt and gravel		
7						End of Boring at 6'		
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
GRANULAR SOILS		NOTES: Soil samples collected at 0', 2', 4', and 6'				Proportions used Trace (0-10%), Little (10-20%), Some (20-30%), And (35-50%) With (amount of component not included) (734) 975-1970 1210 N. Maple Road Ann Arbor MI 48103		
Bl/Ft	Density							
0-4	V. Loose							
4-10	Loose							
10-30	M. Dense							
30-50	Dense							
>50	V. Dense							
COHESIVE SOILS								
Bl/Ft	Density							
<2	V. Soft							
2-4	Soft							
>30	Hard							
					APPLIED ENVIRONMENTAL			

Boring Log GP-20		Project: 8MK		Date Start: 7/28/2020			
		Address: 12700 Eight Mile Road		Date Comp.: 7/28/2020			
		City: Oak Park State: MI Zip: 48237		Project Number: 20-2554			
Contractor/Driller: Alluvial Earth		Weather:		Ground Water Observations			
Scientist: Michael Gatien				Depth: ~ 4.5 Ft.			
Sampler type: 2" x 4' Sampler							
Boring Location: 20 feet north of GP-11 and GP-11A.				Time:			
Depth (ft)	Elev. (ft)	Sample Information				Sample Description	Stratum Description
		PID (ppm)	ID	Rec.	Interval (ft)		
1		0	GP20-1	4'	0-4	0 to 1' - Black, moist TOPSOIL	Topsoil
2		0				1' to 4' - Brown, moist, fine SAND	Sand
3		0					
4		0					
5		0	GP20-2	4'	4-8	4' to 6' - Brown, moist to wet, fine SAND with a trace of gravel	
6		0				End of Boring at 6'	
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
GRANULAR SOILS		NOTES: Soil samples collected at 0', 2', 4', and 6'				Proportions used	
Bl/Ft	Density					Trace (0-10%), Little (10-20%), Some (20-30%), And (35-50%) With (amount of component not included)	
0-4	V. Loose						
4-10	Loose						
10-30	M. Dense						
30-50	Dense	(734) 975-1970					
>50	V. Dense	1210 N. Maple Road Ann Arbor MI 48103					
COHESIVE SOILS						APPLIED ENVIRONMENTAL	
Bl/Ft	Density						
<2	V. Soft						
2-4	Soft						
>30	Hard						

Boring Log GP-21/MW-1		Project: 8MK		Date Start: 7/28/2020			
		Address: 12700 Eight Mile Road		Date Comp.: 7/28/2020			
		City: Oak Park State: MI Zip: 48237		Project Number: 20-2554			
Contractor/Driller: Alluvial Earth		Weather:		Ground Water Observations			
Scientist: Michael Gatien				Depth: ~ 4.5 Ft.			
Sampler type: 2" x 4' Sampler							
Boring Location: 10 feet north and 10 feet west of the southwest corner of			Time:				
the subject building.							
Depth (ft)	Elev. (ft)	Sample Information				Sample Description	Stratum Description
		PID (ppm)	ID	Rec.	Interval (ft)		
1		0	GP21-1	4'	0-4	0 to 1' - Black, moist TOPSOIL	Topsoil
2		0				1' to 4' - Brown, moist, fine SAND	Sand
3		0					
4		0					
5		0	GP21-2	4'	4-8	4' to 6.5' - Brown, moist to wet, fine SAND with a trace of gravel	
6		0					Clay
7		0				6.5' to 8' - Gray, moist CLAY with a trace of silt and gravel	
8		0					
9		0	GP21-3	4'	8-12	8' to 12' - Gray, moist CLAY with a trace of silt and gravel	
10		0					12' to 16' - Gray, moist CLAY with a trace of silt and gravel
11		0					
12		0					
13		0	GP21-4	4'	12-16		
14		0					16' to 20' - Gray, moist CLAY with a trace of silt and gravel
15		0					
16		0					
17		0	GP21-5	4'	16-20		
18		0					
19		0					
20		0					
GRANULAR SOILS		NOTES:				Proportions used	
Bl/Ft	Density	Soil samples collected at 4-4.5' and 8.5'				Trace (0-10%), Little (10-20%),	
0-4	V. Loose					Some (20-30%), And (35-50%)	
4-10	Loose	Set two-inch PVC monitoring well from 2.5'-7.5'				With (amount of component not included)	
10-30	M. Dense					(734) 975-1970	
30-50	Dense					1210 N. Maple Road	
>50	V. Dense					Ann Arbor MI 48103	
COHESIVE SOILS						APPLIED ENVIRONMENTAL	
Bl/Ft	Density						
<2	V. Soft						
2-4	Soft						
>30	Hard						

Boring Log GP-22/MW-2		Project: 8MK		Date Start: 7/28/2020			
		Address: 12700 Eight Mile Road		Date Comp.: 7/28/2020			
		City: Oak Park State: MI Zip: 48237		Project Number: 20-2554			
Contractor/Driller: Alluvial Earth		Weather:		Ground Water Observations			
Scientist: Michael Gatien				Depth: ~ 4 Ft.			
Sampler type: 2" x 4' Sampler							
Boring Location: 23 feet west and 16 feet south of the southeast corner of				Time:			
the subject building.							
Depth (ft)	Elev. (ft)	Sample Information				Sample Description	Stratum Description
		PID (ppm)	ID	Rec.	Interval (ft)		
1		0	GP22-1	4'	0-4	0 to 1.5' - Black, moist TOPSOIL	Topsoil
2		0				1' to 4' - Brown, moist, fine SAND	Sand
3		0					
4		0					
5		0					
5		3.3	GP22-2	4'	4-8	4' to 4.5' - Brown, damp, fine SAND	Clay
6		0				4.5' to 8' - Gray, moist CLAY with a trace of silt and gravel	
7		0					
8		0					
9		0	GP22-3	4'	8-12	8' to 12' - Gray, moist CLAY with a trace of silt and gravel	
10		0					
11		0					
12		0					
13		0	GP22-4	4'	12-16	12' to 16' - Gray, moist CLAY with a trace of silt and gravel	
14		0					
15		0					
16		0					
17		0	GP22-5	4'	16-20	16' to 20' - Gray, moist CLAY with a trace of silt and gravel	
18		0					
19		0					
20		0					
GRANULAR SOILS		NOTES:				Proportions used Trace (0-10%), Little (10-20%), Some (20-30%), And (35-50%) With (amount of component not included)	
Bl/Ft	Density	Soil samples collected at 4.5-5" and 8.5'					
0-4	V. Loose	Set two-inch PVC monitoring well from 2'-7'				(734) 975-1970 1210 N. Maple Road Ann Arbor MI 48103	
4-10	Loose						
10-30	M. Dense					APPLIED ENVIRONMENTAL	
30-50	Dense						
>50	V. Dense						
COHESIVE SOILS							
Bl/Ft	Density						
<2	V. Soft						
2-4	Soft						
>30	Hard						

Boring Log GP-23/MW-3		Project: 8MK			Date Start: 7/28/2020		
		Address: 12700 Eight Mile Road			Date Comp.: 7/28/2020		
		City: Oak Park State: MI Zip: 48237			Project Number: 20-2554		
Contractor/Driller: Alluvial Earth		Weather:		Ground Water Observations			
Scientist: Michael Gatien				Depth: Not encountered			
Sampler type: 2" x 4' Sampler							
Boring Location: 7 feet south and 8 feet east of the northeast corner of the				Time:			
subject building.							
Depth (ft)	Elev. (ft)	Sample Information				Sample Description	Stratum Description
		PID (ppm)	ID	Rec.	Interval (ft)		
1		0	GP23-1	4'	0-4	0 to 4' - Brown, moist, fine SAND	Sand
2		0					
3		0					
4		0					
5		0.1	GP23-2	4'	4-8	4' to 5' - Brown, damp, fine SAND	Clay
6		0				5' to 8' - Gray, moist CLAY with a trace of silt and gravel	
7		0					
8		0					
9		0	GP23-3	4'	8-12	8' to 12' - Gray, moist CLAY with a trace of silt and gravel	
10		0					
11		0					
12		0					
13		0	GP23-4	4'	12-16	12' to 16' - Gray, moist CLAY with a trace of silt and gravel	
14		0					
15		0					
16		0					
17		0	GP23-5	4'	16-20	16' to 20' - Gray, moist CLAY with a trace of silt and gravel	
18		0					
19		0					
20		0					
GRANULAR SOILS		NOTES:				Proportions used	
Bl/Ft	Density	Soil samples collected at 4.5-5" and 8.5'				Trace (0-10%), Little (10-20%),	
0-4	V. Loose					Some (20-30%), And (35-50%)	
4-10	Loose	Set two-inch PVC monitoring well from 2'-7'				With (amount of component not included)	
10-30	M. Dense					(734) 975-1970	
30-50	Dense					1210 N. Maple Road	
>50	V. Dense					Ann Arbor MI 48103	
COHESIVE SOILS						APPLIED ENVIRONMENTAL	
Bl/Ft	Density						
<2	V. Soft						
2-4	Soft						
>30	Hard						

Boring Log GP-24/MW-4		Project: 8MK		Date Start: 7/28/2020			
		Address: 12700 Eight Mile Road		Date Comp.: 7/28/2020			
		City: Oak Park State: MI Zip: 48237		Project Number: 20-2554			
Contractor/Driller: Alluvial Earth		Weather:		Ground Water Observations			
Scientist: Michael Gatien				Depth: ~ 3 Ft.			
Sampler type: 2" x 4' Sampler							
Boring Location: 5 feet north and 52 feet east of the northwest corner of the				Time:			
subject building.							
Depth (ft)	Elev. (ft)	Sample Information				Sample Description	Stratum Description
		PID (ppm)	ID	Rec.	Interval (ft)		
1		0	GP23-1	4'	0-4	0 to 6" - ASPHALT	Asphalt
2		0				6" to 4' - Brown, moist to wet, fine SAND	Sand
3		0					
4		0					
5		0	GP23-2	4'	4-8	4' to 8' - Gray, moist CLAY with a trace of silt and gravel	Clay
6		0					
7		0					
8		0					
9		0	GP23-3	4'	8-12	8' to 12' - Gray, moist CLAY with a trace of silt and gravel	
10		0					
11		0					
12		0					
13		0	GP23-4	4'	12-16	12' to 16' - Gray, moist CLAY with a trace of silt and gravel	
14		0					
15		0					
16		0					
17		0	GP23-5	4'	16-20	16' to 20' - Gray, moist CLAY with a trace of silt and gravel	
18		0					
19		0					
20		0					
GRANULAR SOILS		NOTES:				Proportions used	
Bl/Ft	Density	Soil samples collected at 2.5-3' and 8.5'				Trace (0-10%), Little (10-20%),	
0-4	V. Loose					Some (20-30%), And (35-50%)	
4-10	Loose	Set two-inch PVC monitoring well from 1'-6'				With (amount of component not included)	
10-30	M. Dense					(734) 975-1970	
30-50	Dense					1210 N. Maple Road	
>50	V. Dense					Ann Arbor MI 48103	
COHESIVE SOILS						APPLIED ENVIRONMENTAL	
Bl/Ft	Density						
<2	V. Soft						
2-4	Soft						
>30	Hard						

Boring Log GP-25		Project: 8MK			Date Start: 9/25/2020		
		Address: 12700 Eight Mile Road			Date Comp.: 9/25/2020		
		City: Oak Park State: MI Zip: 48237			Project Number: 20-2554		
Contractor/Driller:		Not Applicable		Weather:	Ground Water Observations		
Scientist:		Michael Gatien		Depth:	Not encountered		
Sampler type:		Hand Auger					
Boring Location: 10 feet north of GP-18.				Time:			
Depth (ft)	Elev. (ft)	Sample Information				Sample Description	Stratum Description
		PID (ppm)	ID	Rec.	Interval (ft)		
1		0	GP25-1	4'	0-4	0 to 1' - Black, moist TOPSOIL	Topsoil
2		0				1' to 4' - Brown, moist, fine SAND	Sand
3		0					
4		0					
5						End of Boring at 4'	
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
GRANULAR SOILS		NOTES: Soil samples collected at 0' and 2'				Proportions used Trace (0-10%), Little (10-20%), Some (20-30%), And (35-50%) With (amount of component not included)	
Bl/Ft	Density						
0-4	V. Loose					(734) 975-1970 1210 N. Maple Road Ann Arbor MI 48103	
4-10	Loose						
10-30	M. Dense						
30-50	Dense	APPLIED ENVIRONMENTAL					
>50	V. Dense						
COHESIVE SOILS							
Bl/Ft	Density						
<2	V. Soft						
2-4	Soft						
>30	Hard						

Boring Log GP-26		Project: 8MK			Date Start: 9/25/2020		
		Address: 12700 Eight Mile Road			Date Comp.: 9/25/2020		
		City: Oak Park State: MI Zip: 48237			Project Number: 20-2554		
Contractor/Driller:		Not Applicable		Weather:	Ground Water Observations		
Scientist:		Michael Gatien		Depth:	Not encountered		
Sampler type:		Hand Auger					
Boring Location: 10 feet north of GP-26.				Time:			
Depth (ft)	Elev. (ft)	Sample Information				Sample Description	Stratum Description
		PID (ppm)	ID	Rec.	Interval (ft)		
1		0	GP26-1	4'	0-4	0 to 1' - Black, moist TOPSOIL	Topsoil
2		0				1' to 4' - Brown, moist, fine SAND	Sand
3		0					
4		0					
5		0					
6						End of Boring at 4'	
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
GRANULAR SOILS		NOTES: Soil samples collected at 0' and 2'				Proportions used Trace (0-10%), Little (10-20%), Some (20-30%), And (35-50%) With (amount of component not included)	
Bl/Ft	Density						
0-4	V. Loose						
4-10	Loose						
10-30	M. Dense					APPLIED ENVIRONMENTAL	
30-50	Dense						
>50	V. Dense						
COHESIVE SOILS							
Bl/Ft	Density						
<2	V. Soft						
2-4	Soft						
>30	Hard						

Boring Log HA-1		Project: 8MK Address: 12700 Eight Mile Road City: Oak Park State: MI Zip: 48237			Date Start: 7/28/2020 Date Comp.: 7/28/2020 Project Number: 20-2554		
Contractor/Driller: Alluvial Earth		Weather:			Ground Water Observations		
Scientist: Erin Hull					Depth: Not encountered		
Sampler type: 2" x 4' Sampler							
Boring Location:					Time:		
Depth (ft)	Elev. (ft)	Sample Information				Sample Description	Stratum Description
		PID (ppm)	ID	Rec.	Interval (ft)		
1		0	HA1-1	4'	0-4	0 to 8" - CONCRETE	Concrete
2		0				8" to 4' - Gray, moist CLAY with a trace of silt	Clay
3		0					
4		0					
5						End of Boring at 4'	
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
GRANULAR SOILS		NOTES: Soil samples collected at 0', 2' and 4'				Proportions used	
Bl/Ft	Density					Trace (0-10%), Little (10-20%), Some (20-30%), And (35-50%) With (amount of component not included)	
0-4	V. Loose					(734) 975-1970	
4-10	Loose					1210 N. Maple Road Ann Arbor MI 48103	
10-30	M. Dense					APPLIED ENVIRONMENTAL	
30-50	Dense						
>50	V. Dense						
COHESIVE SOILS							
Bl/Ft	Density						
<2	V. Soft						
2-4	Soft						
>30	Hard						

Boring Log HA-2		Project: 8MK Address: 12700 Eight Mile Road City: Oak Park State: MI Zip: 48237			Date Start: 7/28/2020 Date Comp.: 7/28/2020 Project Number: 20-2554		
Contractor/Driller: Alluvial Earth		Weather:		Ground Water Observations			
Scientist: Erin Hull				Depth: Not encountered			
Sampler type: 2" x 4' Sampler							
Boring Location:				Time:			
Depth (ft)	Elev. (ft)	Sample Information				Sample Description	Stratum Description
		PID (ppm)	ID	Rec.	Interval (ft)		
1		0	HA2-1	4'	0-4	0 to 8" - CONCRETE	Concrete
2		0				8" to 4' - Gray, moist CLAY with a trace of silt	Clay
3		0					
4		0					
5						End of Boring at 4'	
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
GRANULAR SOILS		NOTES: Soil samples collected at 0', 2' and 4'				Proportions used	
Bl/Ft	Density					Trace (0-10%), Little (10-20%), Some (20-30%), And (35-50%) With (amount of component not included)	
0-4	V. Loose					(734) 975-1970 1210 N. Maple Road Ann Arbor MI 48103	
4-10	Loose						
10-30	M. Dense						
30-50	Dense	APPLIED ENVIRONMENTAL					
>50	V. Dense						
COHESIVE SOILS							
Bl/Ft	Density						
<2	V. Soft						
2-4	Soft						
>30	Hard						

Boring Log HA-3		Project: 8MK Address: 12700 Eight Mile Road City: Oak Park State: MI Zip: 48237			Date Start: 7/28/2020 Date Comp.: 7/28/2020 Project Number: 20-2554		
Contractor/Driller: Alluvial Earth		Weather:		Ground Water Observations			
Scientist: Erin Hull				Depth: Not encountered			
Sampler type: 2" x 4' Sampler							
Boring Location:				Time:			
Depth (ft)	Elev. (ft)	Sample Information				Sample Description	Stratum Description
		PID (ppm)	ID	Rec.	Interval (ft)		
1		0	HA3-1	4'	0-4	0 to 8" - CONCRETE	Concrete
2		0				8" to 4' - Gray, moist CLAY with a trace of silt	Clay
3		0					
4		0					
5						End of Boring at 4'	
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
GRANULAR SOILS		NOTES: Soil samples collected at 0', 2' and 4'				Proportions used	
Bl/Ft	Density					Trace (0-10%), Little (10-20%), Some (20-30%), And (35-50%) With (amount of component not included)	
0-4	V. Loose						
4-10	Loose						
10-30	M. Dense						
30-50	Dense	(734) 975-1970					
>50	V. Dense	1210 N. Maple Road Ann Arbor MI 48103					
COHESIVE SOILS						APPLIED ENVIRONMENTAL	
Bl/Ft	Density						
<2	V. Soft						
2-4	Soft						
>30	Hard						

Boring Log HA-4		Project: 8MK Address: 12700 Eight Mile Road City: Oak Park State: MI Zip: 48237			Date Start: 7/28/2020 Date Comp.: 7/28/2020 Project Number: 20-2554		
Contractor/Driller: Alluvial Earth		Weather:		Ground Water Observations			
Scientist: Erin Hull				Depth: Not encountered			
Sampler type: 2" x 4' Sampler							
Boring Location:				Time:			
Depth (ft)	Elev. (ft)	Sample Information				Sample Description	Stratum Description
		PID (ppm)	ID	Rec.	Interval (ft)		
1		0	HA4-1	4'	0-4	0 to 8" - CONCRETE	Concrete
2		0				8" to 4' - Gray, moist CLAY with a trace of silt	Clay
3		0					
4		0					
5						End of Boring at 4'	
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
GRANULAR SOILS		NOTES: Soil samples collected at 0', 2' and 4'				Proportions used	
Bl/Ft	Density					Trace (0-10%), Little (10-20%), Some (20-30%), And (35-50%) With (amount of component not included)	
0-4	V. Loose						
4-10	Loose						
10-30	M. Dense						
30-50	Dense	(734) 975-1970					
>50	V. Dense	1210 N. Maple Road Ann Arbor MI 48103					
COHESIVE SOILS						APPLIED ENVIRONMENTAL	
Bl/Ft	Density						
<2	V. Soft						
2-4	Soft						
>30	Hard						

Boring Log HA-5		Project: 8MK Address: 12700 Eight Mile Road City: Oak Park State: MI Zip: 48237			Date Start: 7/28/2020 Date Comp.: 7/28/2020 Project Number: 20-2554		
Contractor/Driller: Alluvial Earth		Weather:			Ground Water Observations		
Scientist: Erin Hull					Depth: Not encountered		
Sampler type: 2" x 4' Sampler							
Boring Location:					Time:		
Depth (ft)	Elev. (ft)	Sample Information				Sample Description	Stratum Description
		PID (ppm)	ID	Rec.	Interval (ft)		
1		0	HA5-1	4'	0-4	0 to 8" - CONCRETE	Concrete
2		0				8" to 4' - Gray, moist CLAY with a trace of silt	Clay
3		0					
4		0					
5						End of Boring at 4'	
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
GRANULAR SOILS		NOTES: Soil samples collected at 0', 2' and 4'				Proportions used	
Bl/Ft	Density					Trace (0-10%), Little (10-20%), Some (20-30%), And (35-50%) With (amount of component not included)	
0-4	V. Loose					(734) 975-1970	
4-10	Loose					1210 N. Maple Road Ann Arbor MI 48103	
10-30	M. Dense					APPLIED ENVIRONMENTAL	
30-50	Dense						
>50	V. Dense						
COHESIVE SOILS							
Bl/Ft	Density						
<2	V. Soft						
2-4	Soft						
>30	Hard						

<h1 style="margin:0;">Boring Log</h1> <h2 style="margin:0;">HA-6</h2>		Project: 8MK		Date Start: 7/28/2020			
		Address: 12700 Eight Mile Road		Date Comp.: 7/28/2020			
		City: Oak Park State: MI Zip: 48237		Project Number: 20-2554			
Contractor/Driller: Alluvial Earth		Weather:		Ground Water Observations			
Scientist: Erin Hull				Depth: Not encountered			
Sampler type: 2" x 4' Sampler							
Boring Location:				Time:			
Depth (ft)	Elev. (ft)	Sample Information				Sample Description	Stratum Description
		PID (ppm)	ID	Rec.	Interval (ft)		
1		0	HA6-1	4'	0-4	0 to 8" - CONCRETE	Concrete
2		0				8" to 4' - Gray, moist CLAY with a trace of silt	Clay
3		0					
4		0					
5						End of Boring at 4'	
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
GRANULAR SOILS		NOTES: Soil samples collected at 0', 2' and 4'				Proportions used	
Bl/Ft	Density					Trace (0-10%), Little (10-20%), Some (20-30%), And (35-50%) With (amount of component not included) (734) 975-1970 1210 N. Maple Road Ann Arbor MI 48103	
0-4	V. Loose						
4-10	Loose						
10-30	M. Dense						
30-50	Dense						
>50	V. Dense						
COHESIVE SOILS							
Bl/Ft	Density						
<2	V. Soft						
2-4	Soft						
>30	Hard						

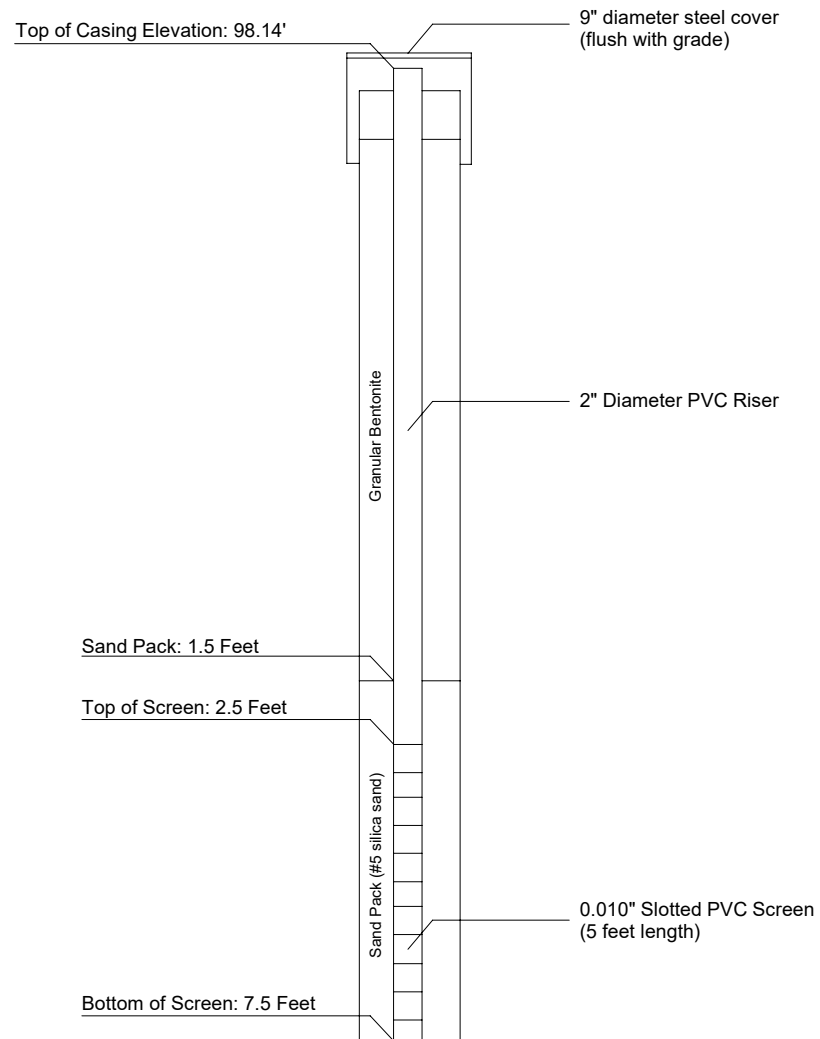
Boring Log HA-7		Project: 8MK Address: 12700 Eight Mile Road City: Oak Park State: MI Zip: 48237			Date Start: 7/29/2020 Date Comp.: 7/29/2020 Project Number: 20-2554		
Contractor/Driller: Alluvial Earth		Weather:		Ground Water Observations			
Scientist: Erin Hull				Depth: Not encountered			
Sampler type: 2" x 4' Sampler							
Boring Location:				Time:			
Depth (ft)	Elev. (ft)	Sample Information				Sample Description	Stratum Description
		PID (ppm)	ID	Rec.	Interval (ft)		
1		0	HA7-1	4'	0-4	0 to 8" - CONCRETE	Concrete
2		0				8" to 4' - Gray, moist CLAY with a trace of silt	Clay
3		0					
4		0					
5						End of Boring at 4'	
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
GRANULAR SOILS		NOTES: Soil samples collected at 0', 2' and 4'				Proportions used	
Bl/Ft	Density					Trace (0-10%), Little (10-20%), Some (20-30%), And (35-50%) With (amount of component not included)	
0-4	V. Loose					(734) 975-1970 1210 N. Maple Road Ann Arbor MI 48103	
4-10	Loose						
10-30	M. Dense						
30-50	Dense	APPLIED ENVIRONMENTAL					
>50	V. Dense						
COHESIVE SOILS							
Bl/Ft	Density						
<2	V. Soft						
2-4	Soft						
>30	Hard						

Boring Log HA-8		Project: 8MK Address: 12700 Eight Mile Road City: Oak Park State: MI Zip: 48237			Date Start: 7/29/2020 Date Comp.: 7/29/2020 Project Number: 20-2554		
Contractor/Driller: Alluvial Earth		Weather:			Ground Water Observations		
Scientist: Erin Hull					Depth: Not encountered		
Sampler type: 2" x 4' Sampler							
Boring Location:					Time:		
Depth (ft)	Elev. (ft)	Sample Information				Sample Description	Stratum Description
		PID (ppm)	ID	Rec.	Interval (ft)		
1		0	HA8-1	4'	0-4	0 to 8" - CONCRETE	Concrete
2		0				8" to 4' - Gray, moist CLAY with a trace of silt	Clay
3		0					
4		0					
5						End of Boring at 4'	
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
GRANULAR SOILS		NOTES: Soil samples collected at 0', 2' and 4'				Proportions used	
Bl/Ft	Density					Trace (0-10%), Little (10-20%), Some (20-30%), And (35-50%) With (amount of component not included)	
0-4	V. Loose					(734) 975-1970 1210 N. Maple Road Ann Arbor MI 48103	
4-10	Loose						
10-30	M. Dense						
30-50	Dense	APPLIED ENVIRONMENTAL					
>50	V. Dense						
COHESIVE SOILS							
Bl/Ft	Density						
<2	V. Soft						
2-4	Soft						
>30	Hard						

Boring Log HA-9		Project: 8MK		Date Start: 7/29/2020				
		Address: 12700 Eight Mile Road		Date Comp.: 7/29/2020				
		City: Oak Park State: MI Zip: 48237		Project Number: 20-2554				
Contractor/Driller: Alluvial Earth		Weather:		Ground Water Observations				
Scientist: Erin Hull				Depth: Not encountered				
Sampler type: 2" x 4' Sampler								
Boring Location:				Time:				
Depth (ft)	Elev. (ft)	Sample Information				Sample Description	Stratum Description	
		PID (ppm)	ID	Rec.	Interval (ft)			
1		0	HA9-1	4'	0-4	0 to 8" - CONCRETE	Concrete	
2		0				8" to 4' - Gray, moist CLAY with a trace of silt	Clay	
3		0						
4		0						
5						End of Boring at 4'		
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
GRANULAR SOILS		NOTES: Soil samples collected at 0', 2' and 4'				Proportions used		
Bl/Ft	Density					Trace (0-10%), Little (10-20%), Some (20-30%), And (35-50%) With (amount of component not included) (734) 975-1970 1210 N. Maple Road Ann Arbor MI 48103		
0-4	V. Loose							
4-10	Loose							
10-30	M. Dense							
30-50	Dense							
>50	V. Dense							
COHESIVE SOILS					APPLIED ENVIRONMENTAL			
Bl/Ft	Density							
<2	V. Soft							
2-4	Soft							
>30	Hard							

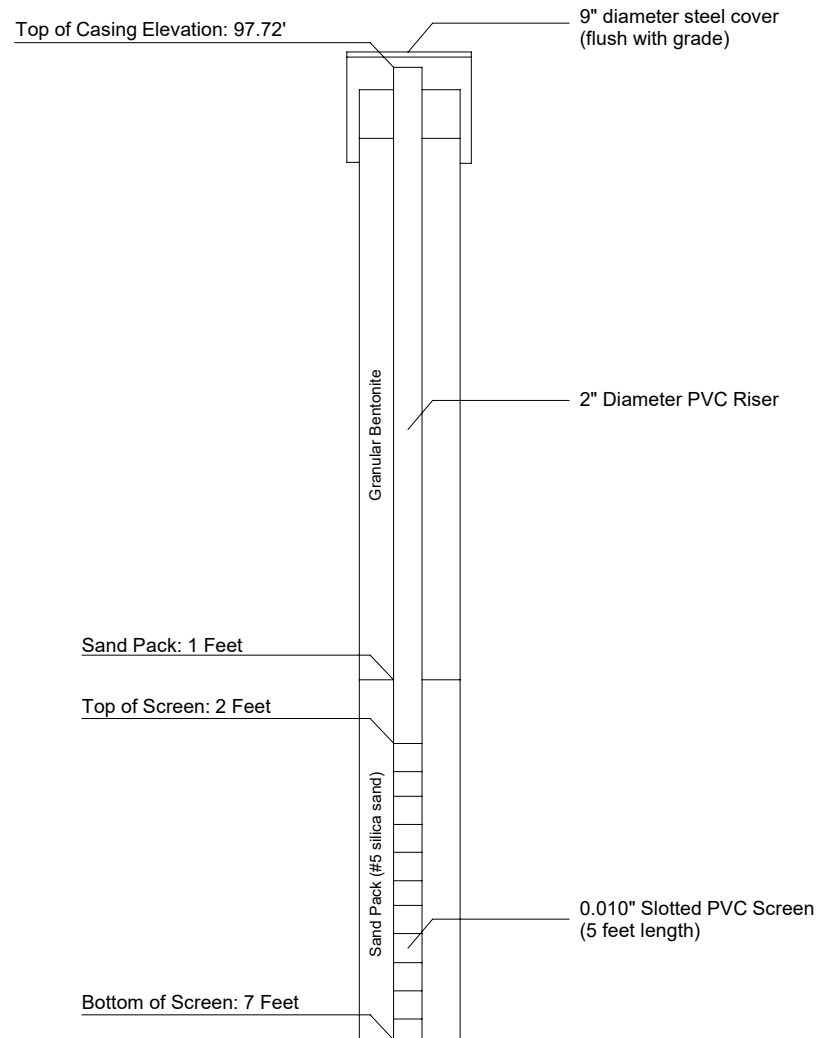
MONITORING WELL CONSTRUCTION DIAGRAM

MONITORING WELL No: GP-21/MW-1
DATE INSTALLED: 7/28/20
INSTALLED BY: ALLUVIAL EARTH, INC.
SCREENED INTERVAL: 2.5-7.5 Feet
TOTAL WELL DEPTH: 7.5 Feet
OBSERVED GROUNDWATER
LEVEL DURING BORING: ~4.5 Feet
DEPTH TO GROUNDWATER
MEASUREMENT: 4.86 Feet



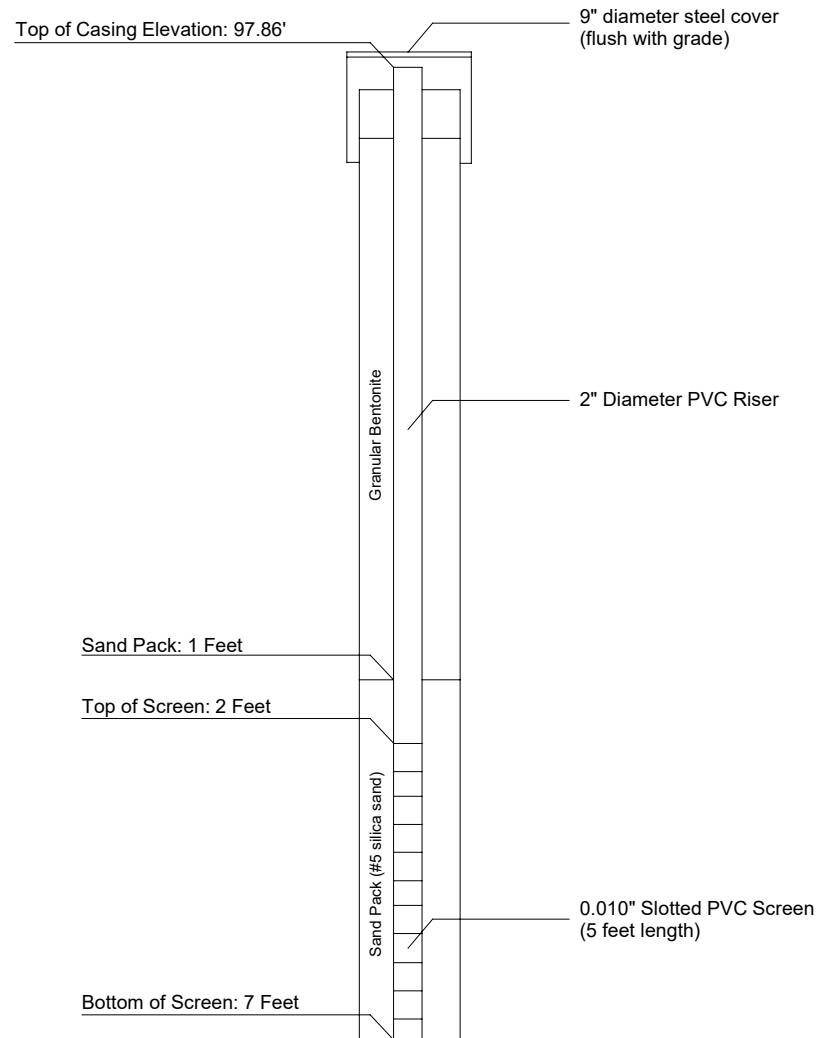
MONITORING WELL CONSTRUCTION DIAGRAM

MONITORING WELL No: GP-22/MW-2
DATE INSTALLED: 7/28/20
INSTALLED BY: ALLUVIAL EARTH, INC.
SCREENED INTERVAL: 2-7 Feet
TOTAL WELL DEPTH: 7 Feet
OBSERVED GROUNDWATER
LEVEL DURING BORING: ~4 Feet
DEPTH TO GROUNDWATER
MEASUREMENT: 4.56 Feet



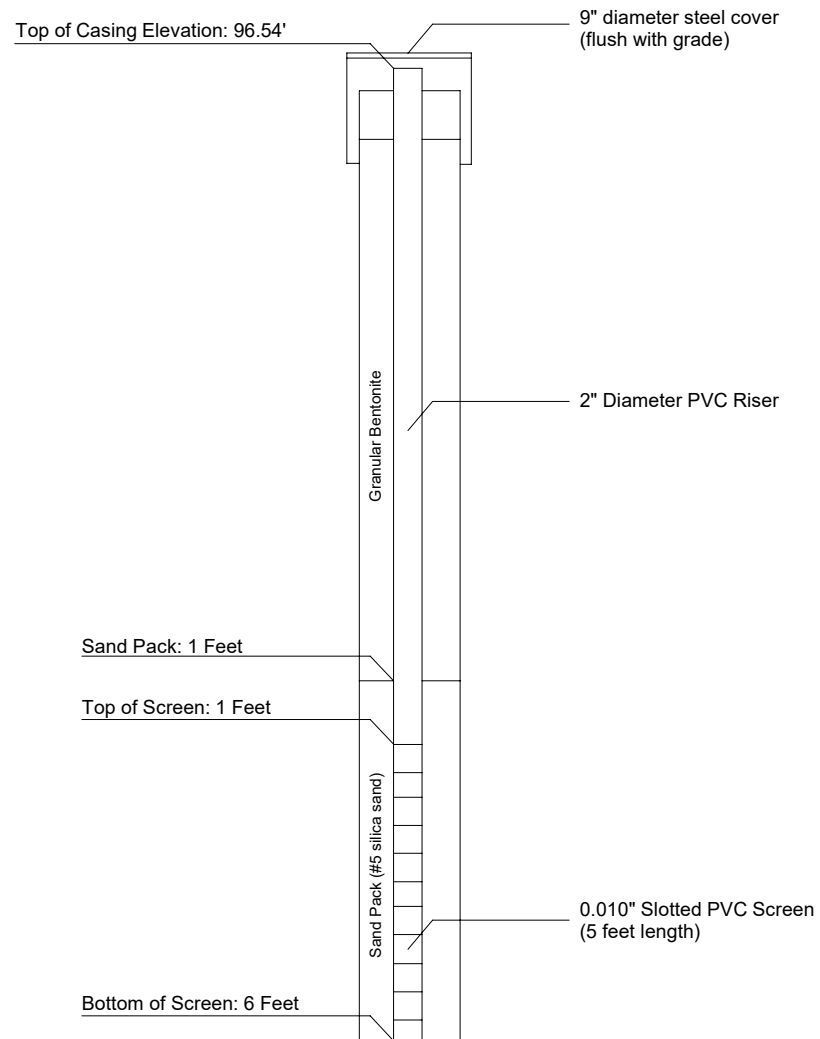
MONITORING WELL CONSTRUCTION DIAGRAM

MONITORING WELL No: GP-23/MW-3
DATE INSTALLED: 7/28/20
INSTALLED BY: ALLUVIAL EARTH, INC.
SCREENED INTERVAL: 2-7 Feet
TOTAL WELL DEPTH: 7 Feet
OBSERVED GROUNDWATER
LEVEL DURING BORING: ~4 Feet
DEPTH TO GROUNDWATER
MEASUREMENT: 6.53 Feet



MONITORING WELL CONSTRUCTION DIAGRAM

MONITORING WELL No: GP-24/MW-4
DATE INSTALLED: 7/28/20
INSTALLED BY: ALLUVIAL EARTH, INC.
SCREENED INTERVAL: 1-6 Feet
TOTAL WELL DEPTH: 6 Feet
OBSERVED GROUNDWATER
LEVEL DURING BORING: ~3 Feet
DEPTH TO GROUNDWATER
MEASUREMENT: 3.69 Feet



APPENDIX 3: LABORATORY ANALYTICAL RESULTS

LABORATORY RESULTS – DECEMBER 2015

ANALYTICAL REPORT

For: Applied Environmental, Inc.
1210 N. Maple Rd
Ann Arbor MI 48103-2842

Report Number: 8738
Report Date: December 17, 2015
Project Name: 12700 8 Mile Rd
Project Number: 15-2554
Page: 1 of 21

Attn: Mr. Mike Gatien
Mr. Jeff Tait

734-975-1970 Fax: 734-975-1973

Sample Description

Seventeen (17) samples reported to be Soil (16) and Water (1) and identified as "12700 8 Mile Rd", 12/9/15, Grab and:

- | | |
|--------------------|--------------------------|
| 1. GP-1, 1' (Soil) | 10. GP-10, 1' (Soil) |
| 2. GP-2, 1' (Soil) | 11. GP-11, 1' (Soil) |
| 3. GP-3, 1' (Soil) | 12. GP-12, 1' (Soil) |
| 4. GP-4, 1' (Soil) | 13. GP-13, 1' (Soil) |
| 5. GP-5, 1' (Soil) | 14. GP-14, 1' (Soil) |
| 6. GP-6, 1' (Soil) | 15. GP-15, 6' (Soil) |
| 7. GP-7, 1' (Soil) | 16. GP-16, 2'-7' (Water) |
| 8. GP-8, 1' (Soil) | 17. GP-17, 6' (Soil) |
| 9. GP-9, 1' (Soil) | |

Analysis Requested

Chemical Analysis per SW-846 (SW) for:

1. Volatile Organic Compounds (VOC), Methods 8260B and 5035 (Soil) (Samples 15, 16 and 17)
2. Polynuclear Aromatic Hydrocarbons (PNA), Method 8270C (Samples 15, 16 and 17)
3. Polychlorinated Biphenyls (PCB), Method 8082 (Samples 1-15 and 17)

Analytical Results

Sample Description:		GP-1, 1', 12/9/15				
Laboratory ID:	8738-1	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	12/14/15	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	12/14/15	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	12/14/15	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	12/14/15	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	12/14/15	DS	
Aroclor 1254	Not Detected	100	µg/Kg, dry wt.	12/14/15	DS	
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	12/14/15	DS	
Polychlorinated biphenyls (Total)	Not Detected	700	µg/Kg, dry wt.	12/14/15	DS	
Surrogate Standards						
Tetrachloro-m-xylene	94.3%	-	% Recovery	12/14/15	DS	
Decachlorobiphenyl	124%	-	% Recovery	12/14/15	DS	
Analysis Information						
Dry Weight Solids	83.0%	-	% by weight	12/11/15	DS	
PCB Extraction	Completed	-	-	12/11/15	DS	

Sample Description:		GP-2, 1', 12/9/15				
Laboratory ID:	8738-2	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	12/14/15	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	12/14/15	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	12/14/15	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	12/14/15	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	12/14/15	DS	
Aroclor 1254	Not Detected	100	µg/Kg, dry wt.	12/14/15	DS	
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	12/14/15	DS	
Polychlorinated biphenyls (Total)	Not Detected	700	µg/Kg, dry wt.	12/14/15	DS	
Surrogate Standards						
Tetrachloro-m-xylene	94.1%	-	% Recovery	12/14/15	DS	
Decachlorobiphenyl	111%	-	% Recovery	12/14/15	DS	
Analysis Information						
Dry Weight Solids	83.0%	-	% by weight	12/11/15	DS	
PCB Extraction	Completed	-	-	12/11/15	DS	

Sample Description:		GP-3, 1', 12/9/15				
Laboratory ID:	8738-3	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	12/14/15	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	12/14/15	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	12/14/15	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	12/14/15	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	12/14/15	DS	
Aroclor 1254	Not Detected	100	µg/Kg, dry wt.	12/14/15	DS	
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	12/14/15	DS	
Polychlorinated biphenyls (Total)	Not Detected	700	µg/Kg, dry wt.	12/14/15	DS	
Surrogate Standards						
Tetrachloro-m-xylene	87.9%	-	% Recovery	12/14/15	DS	
Decachlorobiphenyl	109%	-	% Recovery	12/14/15	DS	
Analysis Information						
Dry Weight Solids	81.3%	-	% by weight	12/11/15	DS	
PCB Extraction	Completed	-	-	12/11/15	DS	

Sample Description:		GP-4, 1', 12/9/15				
Laboratory ID:	8738-4	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	12/14/15	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	12/14/15	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	12/14/15	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	12/14/15	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	12/14/15	DS	
Aroclor 1254	Not Detected	100	µg/Kg, dry wt.	12/14/15	DS	
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	12/14/15	DS	
Polychlorinated biphenyls (Total)	Not Detected	700	µg/Kg, dry wt.	12/14/15	DS	
Surrogate Standards						
Tetrachloro-m-xylene	92.6%	-	% Recovery	12/14/15	DS	
Decachlorobiphenyl	106%	-	% Recovery	12/14/15	DS	
Analysis Information						
Dry Weight Solids	89.6%	-	% by weight	12/11/15	DS	
PCB Extraction	Completed	-	-	12/11/15	DS	

Sample Description:		GP-5, 1', 12/9/15				
Laboratory ID:	8738-5	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	12/14/15	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	12/14/15	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	12/14/15	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	12/14/15	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	12/14/15	DS	
Aroclor 1254	Not Detected	100	µg/Kg, dry wt.	12/14/15	DS	
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	12/14/15	DS	
Polychlorinated biphenyls (Total)	Not Detected	700	µg/Kg, dry wt.	12/14/15	DS	
Surrogate Standards						
Tetrachloro-m-xylene	86.5%	-	% Recovery	12/14/15	DS	
Decachlorobiphenyl	120%	-	% Recovery	12/14/15	DS	
Analysis Information						
Dry Weight Solids	83.6%	-	% by weight	12/11/15	DS	
PCB Extraction	Completed	-	-	12/11/15	DS	

Sample Description:		GP-6, 1', 12/9/15				
Laboratory ID:	8738-6	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	12/14/15	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	12/14/15	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	12/14/15	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	12/14/15	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	12/14/15	DS	
Aroclor 1254	Not Detected	100	µg/Kg, dry wt.	12/14/15	DS	
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	12/14/15	DS	
Polychlorinated biphenyls (Total)	Not Detected	700	µg/Kg, dry wt.	12/14/15	DS	
Surrogate Standards						
Tetrachloro-m-xylene	69.7%	-	% Recovery	12/14/15	DS	
Decachlorobiphenyl	95.5%	-	% Recovery	12/14/15	DS	
Analysis Information						
Dry Weight Solids	88.5%	-	% by weight	12/11/15	DS	
PCB Extraction	Completed	-	-	12/11/15	DS	

Sample Description:		GP-7, 1', 12/9/15				
Laboratory ID:	8738-7	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	12/14/15	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	12/14/15	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	12/14/15	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	12/14/15	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	12/14/15	DS	
Aroclor 1254	Not Detected	100	µg/Kg, dry wt.	12/14/15	DS	
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	12/14/15	DS	
Polychlorinated biphenyls (Total)	Not Detected	700	µg/Kg, dry wt.	12/14/15	DS	
Surrogate Standards						
Tetrachloro-m-xylene	60.5%	-	% Recovery	12/14/15	DS	
Decachlorobiphenyl	77.7%	-	% Recovery	12/14/15	DS	
Analysis Information						
Dry Weight Solids	85.2%	-	% by weight	12/11/15	DS	
PCB Extraction	Completed	-	-	12/11/15	DS	

Sample Description:		GP-8, 1', 12/9/15				
Laboratory ID:	8738-8	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	12/14/15	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	12/14/15	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	12/14/15	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	12/14/15	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	12/14/15	DS	
Aroclor 1254	Not Detected	100	µg/Kg, dry wt.	12/14/15	DS	
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	12/14/15	DS	
Polychlorinated biphenyls (Total)	Not Detected	700	µg/Kg, dry wt.	12/14/15	DS	
Surrogate Standards						
Tetrachloro-m-xylene	77.5%	-	% Recovery	12/14/15	DS	
Decachlorobiphenyl	103%	-	% Recovery	12/14/15	DS	
Analysis Information						
Dry Weight Solids	78.7%	-	% by weight	12/11/15	DS	
PCB Extraction	Completed	-	-	12/11/15	DS	

Sample Description:		GP-9, 1', 12/9/15				
Laboratory ID:	8738-9	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	12/14/15	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	12/14/15	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	12/14/15	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	12/14/15	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	12/14/15	DS	
Aroclor 1254	Not Detected	100	µg/Kg, dry wt.	12/14/15	DS	
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	12/14/15	DS	
Polychlorinated biphenyls (Total)	Not Detected	700	µg/Kg, dry wt.	12/14/15	DS	
Surrogate Standards						
Tetrachloro-m-xylene	97.5%	-	% Recovery	12/14/15	DS	
Decachlorobiphenyl	115%	-	% Recovery	12/14/15	DS	
Analysis Information						
Dry Weight Solids	75.6%	-	% by weight	12/11/15	DS	
PCB Extraction	Completed	-	-	12/11/15	DS	

Sample Description:		GP-10, 1', 12/9/15				
Laboratory ID:	8738-10	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	12/14/15	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	12/14/15	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	12/14/15	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	12/14/15	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	12/14/15	DS	
Aroclor 1254	Not Detected	100	µg/Kg, dry wt.	12/14/15	DS	
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	12/14/15	DS	
Polychlorinated biphenyls (Total)	Not Detected	700	µg/Kg, dry wt.	12/14/15	DS	
Surrogate Standards						
Tetrachloro-m-xylene	89.3%	-	% Recovery	12/14/15	DS	
Decachlorobiphenyl	120%	-	% Recovery	12/14/15	DS	
Analysis Information						
Dry Weight Solids	91.3%	-	% by weight	12/11/15	DS	
PCB Extraction	Completed	-	-	12/11/15	DS	

Sample Description:		GP-11, 1', 12/9/15				
Laboratory ID:	8738-11	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	12/16/15	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	12/16/15	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	12/16/15	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	12/16/15	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	12/16/15	DS	
Aroclor 1254	1330	100	µg/Kg, dry wt.	12/16/15	DS	
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	12/16/15	DS	
Polychlorinated biphenyls (Total)	1330	700	µg/Kg, dry wt.	12/16/15	DS	
Surrogate Standards						
Tetrachloro-m-xylene	87.9%	-	% Recovery	12/16/15	DS	
Decachlorobiphenyl	116%	-	% Recovery	12/16/15	DS	
Analysis Information						
Dry Weight Solids	83.8%	-	% by weight	12/11/15	DS	
PCB Extraction	Completed	-	-	12/11/15	DS	

Sample Description:		GP-12, 1', 12/9/15				
Laboratory ID:	8738-12	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	12/16/15	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	12/16/15	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	12/16/15	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	12/16/15	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	12/16/15	DS	
Aroclor 1254	Not Detected	100	µg/Kg, dry wt.	12/16/15	DS	
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	12/16/15	DS	
Polychlorinated biphenyls (Total)	Not Detected	700	µg/Kg, dry wt.	12/16/15	DS	
Surrogate Standards						
Tetrachloro-m-xylene	70.0%	-	% Recovery	12/16/15	DS	
Decachlorobiphenyl	102%	-	% Recovery	12/16/15	DS	
Analysis Information						
Dry Weight Solids	86.1%	-	% by weight	12/11/15	DS	
PCB Extraction	Completed	-	-	12/11/15	DS	

Sample Description:		GP-13, 1', 12/9/15				
Laboratory ID:	8738-13	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	12/16/15	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	12/16/15	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	12/16/15	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	12/16/15	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	12/16/15	DS	
Aroclor 1254	Not Detected	100	µg/Kg, dry wt.	12/16/15	DS	
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	12/16/15	DS	
Polychlorinated biphenyls (Total)	Not Detected	700	µg/Kg, dry wt.	12/16/15	DS	
Surrogate Standards						
Tetrachloro-m-xylene	94.8%	-	% Recovery	12/16/15	DS	
Decachlorobiphenyl	132%	-	% Recovery	12/16/15	DS	
Analysis Information						
Dry Weight Solids	89.7%	-	% by weight	12/11/15	DS	
PCB Extraction	Completed	-	-	12/11/15	DS	

Sample Description:		GP-14, 1', 12/9/15				
Laboratory ID:	8738-14	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	12/16/15	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	12/16/15	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	12/16/15	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	12/16/15	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	12/16/15	DS	
Aroclor 1254	Not Detected	100	µg/Kg, dry wt.	12/16/15	DS	
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	12/16/15	DS	
Polychlorinated biphenyls (Total)	Not Detected	700	µg/Kg, dry wt.	12/16/15	DS	
Surrogate Standards						
Tetrachloro-m-xylene	60.4%	-	% Recovery	12/16/15	DS	
Decachlorobiphenyl	74.7%	-	% Recovery	12/16/15	DS	
Analysis Information						
Dry Weight Solids	88.5%	-	% by weight	12/11/15	DS	
PCB Extraction	Completed	-	-	12/11/15	DS	

Sample Description:	GP-15, 6', 12/9/15					
Laboratory ID:	8738-15	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
<i>Volatile Organic Compounds</i>						
Acetone	Not Detected	1000	µg/Kg, dry wt.	12/11/15	BD	
Benzene	Not Detected	50	µg/Kg, dry wt.	12/11/15	BD	
Bromobenzene	Not Detected	100	µg/Kg, dry wt.	12/11/15	BD	
Bromochloromethane	Not Detected	100	µg/Kg, dry wt.	12/11/15	BD	
Bromodichloromethane	Not Detected	100	µg/Kg, dry wt.	12/11/15	BD	
Bromoform	Not Detected	100	µg/Kg, dry wt.	12/11/15	BD	
Bromomethane	Not Detected	200	µg/Kg, dry wt.	12/11/15	BD	
2-Butanone (MEK)	Not Detected	750	µg/Kg, dry wt.	12/11/15	BD	
n-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	12/11/15	BD	
sec-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	12/11/15	BD	
tert-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	12/11/15	BD	
Carbon disulfide	Not Detected	250	µg/Kg, dry wt.	12/11/15	BD	
Carbon tetrachloride	Not Detected	50	µg/Kg, dry wt.	12/11/15	BD	
Chlorobenzene	Not Detected	50	µg/Kg, dry wt.	12/11/15	BD	
Chloroethane	Not Detected	250	µg/Kg, dry wt.	12/11/15	BD	
Chloroform	Not Detected	50	µg/Kg, dry wt.	12/11/15	BD	
Chloromethane	Not Detected	250	µg/Kg, dry wt.	12/11/15	BD	
2-Chlorotoluene	Not Detected	50	µg/Kg, dry wt.	12/11/15	BD	
4-Chlorotoluene	Not Detected	50	µg/Kg, dry wt.	12/11/15	BD	
Dibromochloromethane	Not Detected	100	µg/Kg, dry wt.	12/11/15	BD	
1,2-Dibromo-3-chloropropane	Not Detected	10	µg/Kg, dry wt.	12/11/15	BD	
Dibromomethane	Not Detected	250	µg/Kg, dry wt.	12/11/15	BD	
1,2-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	12/11/15	BD	
1,3-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	12/11/15	BD	
1,4-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	12/11/15	BD	
Dichlorodifluoromethane	Not Detected	250	µg/Kg, dry wt.	12/11/15	BD	
1,1-Dichloroethane	Not Detected	50	µg/Kg, dry wt.	12/11/15	BD	
1,2-Dichloroethane	Not Detected	50	µg/Kg, dry wt.	12/11/15	BD	
1,1-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	12/11/15	BD	
cis-1,2-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	12/11/15	BD	
trans-1,2-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	12/11/15	BD	
1,2-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	12/11/15	BD	
1,3-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	12/11/15	BD	
2,2-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	12/11/15	BD	
1,1-Dichloropropene	Not Detected	50	µg/Kg, dry wt.	12/11/15	BD	
cis-1,3-Dichloropropene	Not Detected	50	µg/Kg, dry wt.	12/11/15	BD	
continued						

Sample Description:	GP-15, 6', 12/9/15					
Laboratory ID:	8738-15	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
VOC's, Cont'd						
Ethylbenzene	Not Detected	50	µg/Kg, dry wt.	12/11/15	BD	
Ethylene Dibromide (1,2-Dibromoethane)	Not Detected	20	µg/Kg, dry wt.	12/11/15	BD	
Hexachlorobutadiene	Not Detected	50	µg/Kg, dry wt.	12/11/15	BD	
2-Hexanone	Not Detected	2500	µg/Kg, dry wt.	12/11/15	BD	
Isopropyl benzene	Not Detected	250	µg/Kg, dry wt.	12/11/15	BD	
4-Methyl-2-pentanone (MIBK)	Not Detected	2500	µg/Kg, dry wt.	12/11/15	BD	
Methyl-t-butyl ether (MTBE)	Not Detected	250	µg/Kg, dry wt.	12/11/15	BD	
Methylene chloride	Not Detected	250	µg/Kg, dry wt.	12/11/15	BD	
2-Methylnaphthalene	Not Detected	250	µg/Kg, dry wt.	12/11/15	BD	
Naphthalene	Not Detected	250	µg/Kg, dry wt.	12/11/15	BD	
n-Propylbenzene	Not Detected	100	µg/Kg, dry wt.	12/11/15	BD	
Styrene	Not Detected	50	µg/Kg, dry wt.	12/11/15	BD	
1,1,1,2-Tetrachloroethane	Not Detected	100	µg/Kg, dry wt.	12/11/15	BD	
1,1,2,2-Tetrachloroethane	Not Detected	50	µg/Kg, dry wt.	12/11/15	BD	
Tetrachloroethylene	Not Detected	50	µg/Kg, dry wt.	12/11/15	BD	
Tetrahydrofuran	Not Detected	1000	µg/Kg, dry wt.	12/11/15	BD	
Toluene	Not Detected	100	µg/Kg, dry wt.	12/11/15	BD	
1,2,3-Trichlorobenzene	Not Detected	250	µg/Kg, dry wt.	12/11/15	BD	
1,2,4-Trichlorobenzene	Not Detected	250	µg/Kg, dry wt.	12/11/15	BD	
1,1,1-Trichloroethane	Not Detected	50	µg/Kg, dry wt.	12/11/15	BD	
1,1,2-Trichloroethane	Not Detected	50	µg/Kg, dry wt.	12/11/15	BD	
Trichloroethylene	Not Detected	50	µg/Kg, dry wt.	12/11/15	BD	
Trichlorofluoromethane	Not Detected	100	µg/Kg, dry wt.	12/11/15	BD	
1,2,3-Trichloropropane	Not Detected	100	µg/Kg, dry wt.	12/11/15	BD	
1,2,4-Trimethylbenzene	Not Detected	100	µg/Kg, dry wt.	12/11/15	BD	
1,3,5-Trimethylbenzene	Not Detected	100	µg/Kg, dry wt.	12/11/15	BD	
Vinyl Acetate	Not Detected	5000	µg/Kg, dry wt.	12/11/15	BD	
Vinyl Chloride	Not Detected	40	µg/Kg, dry wt.	12/11/15	BD	
Xylene (Total)	Not Detected	150	µg/Kg, dry wt.	12/11/15	BD	
Surrogate Standards						
1,2-Dichloroethane-d4	104%	-	% Recovery	12/11/15	BD	
Toluene-d8	102%	-	% Recovery	12/11/15	BD	
4-Bromofluorobenzene	105%	-	% Recovery	12/11/15	BD	
continued						

Sample Description:	GP-15, 6', 12/9/15					
Laboratory ID:	8738-15	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PNA's						
Acenaphthene	Not Detected	330	µg/Kg, dry wt.	12/10/15	BD	
Acenaphthylene	Not Detected	330	µg/Kg, dry wt.	12/10/15	BD	
Anthracene	Not Detected	330	µg/Kg, dry wt.	12/10/15	BD	
Benzo(a)anthracene	Not Detected	330	µg/Kg, dry wt.	12/10/15	BD	
Benzo(b)fluoranthene	Not Detected	330	µg/Kg, dry wt.	12/10/15	BD	
Benzo(k)fluoranthene	Not Detected	330	µg/Kg, dry wt.	12/10/15	BD	
Benzo(g,h,i)perylene	Not Detected	330	µg/Kg, dry wt.	12/10/15	BD	
Benzo(a)pyrene	Not Detected	330	µg/Kg, dry wt.	12/10/15	BD	
Chrysene	Not Detected	330	µg/Kg, dry wt.	12/10/15	BD	
Dibenz(a,h)anthracene	Not Detected	330	µg/Kg, dry wt.	12/10/15	BD	
Fluoranthene	Not Detected	330	µg/Kg, dry wt.	12/10/15	BD	
Fluorene	Not Detected	330	µg/Kg, dry wt.	12/10/15	BD	
Indeno(1,2,3-cd)pyrene	Not Detected	330	µg/Kg, dry wt.	12/10/15	BD	
2-Methylnaphthalene	Not Detected	330	µg/Kg, dry wt.	12/10/15	BD	
Naphthalene	Not Detected	330	µg/Kg, dry wt.	12/10/15	BD	
Phenanthrene	Not Detected	330	µg/Kg, dry wt.	12/10/15	BD	
Pyrene	Not Detected	330	µg/Kg, dry wt.	12/10/15	BD	
Surrogate Standards						
Nitrobenzene-d5	63.8%	-	% Recovery	12/10/15	BD	
2-Fluorobiphenyl	68.7%	-	% Recovery	12/10/15	BD	
Terphenyl-d14	92.0%	-	% Recovery	12/10/15	BD	
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	12/16/15	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	12/16/15	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	12/16/15	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	12/16/15	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	12/16/15	DS	
Aroclor 1254	Not Detected	100	µg/Kg, dry wt.	12/16/15	DS	
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	12/16/15	DS	
Polychlorinated biphenyls (Total)	Not Detected	700	µg/Kg, dry wt.	12/16/15	DS	
Surrogate Standards						
Tetrachloro-m-xylene	56.1%	-	% Recovery	12/16/15	DS	
Decachlorobiphenyl	79.0%	-	% Recovery	12/16/15	DS	
Analysis Information						
Dry Weight Solids	85.5%	-	% by weight	12/11/15	DS	
PCB Extraction	Completed	-	-	12/10/15	BD	
PNA Extraction	Completed	-	-	12/11/15	DS	

Sample Description:	GP-16, 2'-7', 12/9/15					
Laboratory ID:	8738-16	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
<i>Volatile Organic Compounds</i>						
Acetone	Not Detected	50	µg/L	12/11/15	BD	
Benzene	Not Detected	1	µg/L	12/11/15	BD	
Bromobenzene	Not Detected	1	µg/L	12/11/15	BD	
Bromochloromethane	Not Detected	1	µg/L	12/11/15	BD	
Bromodichloromethane	Not Detected	1	µg/L	12/11/15	BD	
Bromoform	Not Detected	1	µg/L	12/11/15	BD	
Bromomethane	Not Detected	5	µg/L	12/11/15	BD	
2-Butanone (MEK)	Not Detected	25	µg/L	12/11/15	BD	
n-Butylbenzene	Not Detected	1	µg/L	12/11/15	BD	
sec-Butylbenzene	Not Detected	1	µg/L	12/11/15	BD	
tert-Butylbenzene	Not Detected	1	µg/L	12/11/15	BD	
Carbon disulfide	Not Detected	5	µg/L	12/11/15	BD	
Carbon tetrachloride	Not Detected	1	µg/L	12/11/15	BD	
Chlorobenzene	Not Detected	1	µg/L	12/11/15	BD	
Chloroethane	Not Detected	5	µg/L	12/11/15	BD	
Chloroform	Not Detected	1	µg/L	12/11/15	BD	
Chloromethane	Not Detected	5	µg/L	12/11/15	BD	
2-Chlorotoluene	Not Detected	5	µg/L	12/11/15	BD	
4-Chlorotoluene	Not Detected	5	µg/L	12/11/15	BD	
Dibromochloromethane	Not Detected	5	µg/L	12/11/15	BD	
1,2-Dibromo-3-chloropropane	Not Detected	0.2	µg/L	12/11/15	BD	
Dibromomethane	Not Detected	5	µg/L	12/11/15	BD	
1,2-Dichlorobenzene	Not Detected	1	µg/L	12/11/15	BD	
1,3-Dichlorobenzene	Not Detected	1	µg/L	12/11/15	BD	
1,4-Dichlorobenzene	Not Detected	1	µg/L	12/11/15	BD	
Dichlorodifluoromethane	Not Detected	5	µg/L	12/11/15	BD	
1,1-Dichloroethane	Not Detected	1	µg/L	12/11/15	BD	
1,2-Dichloroethane	Not Detected	1	µg/L	12/11/15	BD	
1,1-Dichloroethylene	Not Detected	1	µg/L	12/11/15	BD	
cis-1,2-Dichloroethylene	Not Detected	1	µg/L	12/11/15	BD	
trans-1,2-Dichloroethylene	Not Detected	1	µg/L	12/11/15	BD	
1,2-Dichloropropane	Not Detected	1	µg/L	12/11/15	BD	
1,3-Dichloropropane	Not Detected	1	µg/L	12/11/15	BD	
2,2-Dichloropropane	Not Detected	1	µg/L	12/11/15	BD	
1,1-Dichloropropene	Not Detected	1	µg/L	12/11/15	BD	
cis-1,3-Dichloropropene	Not Detected	1	µg/L	12/11/15	BD	
continued						

Sample Description:		GP-16, 2'-7', 12/9/15				
Laboratory ID:	8738-16	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
VOC's, Cont'd						
Ethylbenzene	Not Detected	1	µg/L	12/11/15	BD	
Ethylene Dibromide (1,2-Dibromoethane)	Not Detected	0.2	µg/L	12/11/15	BD	
Hexachlorobutadiene	Not Detected	0.2	µg/L	12/11/15	BD	
2-Hexanone	Not Detected	50	µg/L	12/11/15	BD	
Isopropyl benzene	Not Detected	5	µg/L	12/11/15	BD	
4-Methyl-2-pentanone (MIBK)	Not Detected	50	µg/L	12/11/15	BD	
Methyl-t-butyl ether (MTBE)	Not Detected	5	µg/L	12/11/15	BD	
Methylene chloride	Not Detected	5	µg/L	12/11/15	BD	
2-Methylnaphthalene	Not Detected	5	µg/L	12/11/15	BD	
Naphthalene	Not Detected	5	µg/L	12/11/15	BD	
n-Propyl benzene	Not Detected	1	µg/L	12/11/15	BD	
Styrene	Not Detected	1	µg/L	12/11/15	BD	
1,1,1,2-Tetrachloroethane	Not Detected	1	µg/L	12/11/15	BD	
1,1,2,2-Tetrachloroethane	Not Detected	1	µg/L	12/11/15	BD	
Tetrachloroethylene	Not Detected	1	µg/L	12/11/15	BD	
Tetrahydrofuran	Not Detected	90	µg/L	12/11/15	BD	
Toluene	Not Detected	1	µg/L	12/11/15	BD	
1,2,3-Trichlorobenzene	Not Detected	5	µg/L	12/11/15	BD	
1,2,4-Trichlorobenzene	Not Detected	5	µg/L	12/11/15	BD	
1,1,1-Trichloroethane	Not Detected	1	µg/L	12/11/15	BD	
1,1,2-Trichloroethane	Not Detected	1	µg/L	12/11/15	BD	
Trichloroethylene	Not Detected	1	µg/L	12/11/15	BD	
Trichlorofluoromethane	Not Detected	1	µg/L	12/11/15	BD	
1,2,3-Trichloropropane	Not Detected	1	µg/L	12/11/15	BD	
1,2,4-Trimethylbenzene	Not Detected	1	µg/L	12/11/15	BD	
1,3,5-Trimethylbenzene	Not Detected	1	µg/L	12/11/15	BD	
Vinyl Acetate	Not Detected	100	µg/L	12/11/15	BD	
Vinyl chloride	Not Detected	1	µg/L	12/11/15	BD	
Xylene (Total)	Not Detected	3	µg/L	12/11/15	BD	
Surrogate Standards						
1,2-Dichloroethane-d4	99.0%	-	% Recovery	12/11/15	BD	
Toluene-d8	101%	-	% Recovery	12/11/15	BD	
4-Bromofluorobenzene	103%	-	% Recovery	12/11/15	BD	
continued						

Sample Description:	GP-16, 2'-7', 12/9/15					
Laboratory ID:	8738-16	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
<i>PNA</i>s						
Acenaphthene	Not Detected	5	µg/L	12/10/15	BD	
Acenaphthylene	Not Detected	5	µg/L	12/10/15	BD	
Anthracene	Not Detected	5	µg/L	12/10/15	BD	
Benzo(a)anthracene	Not Detected	1	µg/L	12/10/15	BD	
Benzo(b)fluoranthene	Not Detected	1	µg/L	12/10/15	BD	
Benzo(k)fluoranthene	Not Detected	1	µg/L	12/10/15	BD	
Benzo(g,h,i)perylene	Not Detected	1	µg/L	12/10/15	BD	
Benzo(a)pyrene	Not Detected	1	µg/L	12/10/15	BD	
Chrysene	Not Detected	1	µg/L	12/10/15	BD	
Dibenz(a,h)anthracene	Not Detected	2	µg/L	12/10/15	BD	
Fluoranthene	Not Detected	1	µg/L	12/10/15	BD	
Fluorene	Not Detected	5	µg/L	12/10/15	BD	
Indeno(1,2,3-cd)pyrene	Not Detected	2	µg/L	12/10/15	BD	
2-Methylnaphthalene	Not Detected	5	µg/L	12/10/15	BD	
Naphthalene	Not Detected	5	µg/L	12/10/15	BD	
Phenanthrene	Not Detected	2	µg/L	12/10/15	BD	
Pyrene	Not Detected	5	µg/L	12/10/15	BD	
<i>Surrogate Standards</i>						
Nitrobenzene-d5	82.2%	-	% Recovery	12/10/15	BD	
2-Fluorobiphenyl	75.1%	-	% Recovery	12/10/15	BD	
Terphenyl-d14	96.8%	-	% Recovery	12/10/15	BD	
<i>Analysis Information</i>						
PNA Extraction	Completed	-	-	12/10/15	BD	

Sample Description:	GP-17, 6', 12/9/15					
Laboratory ID:	8738-17	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
<i>Volatile Organic Compounds</i>						
Acetone	Not Detected	1000	µg/Kg, dry wt.	12/11/15	BD	
Benzene	Not Detected	50	µg/Kg, dry wt.	12/11/15	BD	
Bromobenzene	Not Detected	100	µg/Kg, dry wt.	12/11/15	BD	
Bromochloromethane	Not Detected	100	µg/Kg, dry wt.	12/11/15	BD	
Bromodichloromethane	Not Detected	100	µg/Kg, dry wt.	12/11/15	BD	
Bromoform	Not Detected	100	µg/Kg, dry wt.	12/11/15	BD	
Bromomethane	Not Detected	200	µg/Kg, dry wt.	12/11/15	BD	
2-Butanone (MEK)	Not Detected	750	µg/Kg, dry wt.	12/11/15	BD	
n-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	12/11/15	BD	
sec-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	12/11/15	BD	
tert-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	12/11/15	BD	
Carbon disulfide	Not Detected	250	µg/Kg, dry wt.	12/11/15	BD	
Carbon tetrachloride	Not Detected	50	µg/Kg, dry wt.	12/11/15	BD	
Chlorobenzene	Not Detected	50	µg/Kg, dry wt.	12/11/15	BD	
Chloroethane	Not Detected	250	µg/Kg, dry wt.	12/11/15	BD	
Chloroform	Not Detected	50	µg/Kg, dry wt.	12/11/15	BD	
Chloromethane	Not Detected	250	µg/Kg, dry wt.	12/11/15	BD	
2-Chlorotoluene	Not Detected	50	µg/Kg, dry wt.	12/11/15	BD	
4-Chlorotoluene	Not Detected	50	µg/Kg, dry wt.	12/11/15	BD	
Dibromochloromethane	Not Detected	100	µg/Kg, dry wt.	12/11/15	BD	
1,2-Dibromo-3-chloropropane	Not Detected	10	µg/Kg, dry wt.	12/11/15	BD	
Dibromomethane	Not Detected	250	µg/Kg, dry wt.	12/11/15	BD	
1,2-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	12/11/15	BD	
1,3-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	12/11/15	BD	
1,4-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	12/11/15	BD	
Dichlorodifluoromethane	Not Detected	250	µg/Kg, dry wt.	12/11/15	BD	
1,1-Dichloroethane	Not Detected	50	µg/Kg, dry wt.	12/11/15	BD	
1,2-Dichloroethane	Not Detected	50	µg/Kg, dry wt.	12/11/15	BD	
1,1-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	12/11/15	BD	
cis-1,2-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	12/11/15	BD	
trans-1,2-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	12/11/15	BD	
1,2-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	12/11/15	BD	
1,3-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	12/11/15	BD	
2,2-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	12/11/15	BD	
1,1-Dichloropropene	Not Detected	50	µg/Kg, dry wt.	12/11/15	BD	
cis-1,3-Dichloropropene	Not Detected	50	µg/Kg, dry wt.	12/11/15	BD	
continued						

Sample Description:	GP-17, 6', 12/9/15					
Laboratory ID:	8738-17	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
VOC's, Cont'd						
Ethylbenzene	Not Detected	50	µg/Kg, dry wt.	12/11/15	BD	
Ethylene Dibromide (1,2-Dibromoethane)	Not Detected	20	µg/Kg, dry wt.	12/11/15	BD	
Hexachlorobutadiene	Not Detected	50	µg/Kg, dry wt.	12/11/15	BD	
2-Hexanone	Not Detected	2500	µg/Kg, dry wt.	12/11/15	BD	
Isopropyl benzene	Not Detected	250	µg/Kg, dry wt.	12/11/15	BD	
4-Methyl-2-pentanone (MIBK)	Not Detected	2500	µg/Kg, dry wt.	12/11/15	BD	
Methyl-t-butyl ether (MTBE)	Not Detected	250	µg/Kg, dry wt.	12/11/15	BD	
Methylene chloride	Not Detected	250	µg/Kg, dry wt.	12/11/15	BD	
2-Methylnaphthalene	Not Detected	250	µg/Kg, dry wt.	12/11/15	BD	
Naphthalene	Not Detected	250	µg/Kg, dry wt.	12/11/15	BD	
n-Propylbenzene	Not Detected	100	µg/Kg, dry wt.	12/11/15	BD	
Styrene	Not Detected	50	µg/Kg, dry wt.	12/11/15	BD	
1,1,1,2-Tetrachloroethane	Not Detected	100	µg/Kg, dry wt.	12/11/15	BD	
1,1,2,2-Tetrachloroethane	Not Detected	50	µg/Kg, dry wt.	12/11/15	BD	
Tetrachloroethylene	Not Detected	50	µg/Kg, dry wt.	12/11/15	BD	
Tetrahydrofuran	Not Detected	1000	µg/Kg, dry wt.	12/11/15	BD	
Toluene	Not Detected	100	µg/Kg, dry wt.	12/11/15	BD	
1,2,3-Trichlorobenzene	Not Detected	250	µg/Kg, dry wt.	12/11/15	BD	
1,2,4-Trichlorobenzene	Not Detected	250	µg/Kg, dry wt.	12/11/15	BD	
1,1,1-Trichloroethane	Not Detected	50	µg/Kg, dry wt.	12/11/15	BD	
1,1,2-Trichloroethane	Not Detected	50	µg/Kg, dry wt.	12/11/15	BD	
Trichloroethylene	Not Detected	50	µg/Kg, dry wt.	12/11/15	BD	
Trichlorofluoromethane	Not Detected	100	µg/Kg, dry wt.	12/11/15	BD	
1,2,3-Trichloropropane	Not Detected	100	µg/Kg, dry wt.	12/11/15	BD	
1,2,4-Trimethylbenzene	Not Detected	100	µg/Kg, dry wt.	12/11/15	BD	
1,3,5-Trimethylbenzene	Not Detected	100	µg/Kg, dry wt.	12/11/15	BD	
Vinyl Acetate	Not Detected	5000	µg/Kg, dry wt.	12/11/15	BD	
Vinyl Chloride	Not Detected	40	µg/Kg, dry wt.	12/11/15	BD	
Xylene (Total)	Not Detected	150	µg/Kg, dry wt.	12/11/15	BD	
Surrogate Standards						
1,2-Dichloroethane-d4	105%	-	% Recovery	12/11/15	BD	
Toluene-d8	101%	-	% Recovery	12/11/15	BD	
4-Bromofluorobenzene	96.4%	-	% Recovery	12/11/15	BD	
continued						

Sample Description:		GP-17, 6', 12/9/15				
Laboratory ID:	8738-17	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PNA's						
Acenaphthene	Not Detected	330	µg/Kg, dry wt.	12/10/15	BD	
Acenaphthylene	Not Detected	330	µg/Kg, dry wt.	12/10/15	BD	
Anthracene	Not Detected	330	µg/Kg, dry wt.	12/10/15	BD	
Benzo(a)anthracene	Not Detected	330	µg/Kg, dry wt.	12/10/15	BD	
Benzo(b)fluoranthene	Not Detected	330	µg/Kg, dry wt.	12/10/15	BD	
Benzo(k)fluoranthene	Not Detected	330	µg/Kg, dry wt.	12/10/15	BD	
Benzo(g,h,i)perylene	Not Detected	330	µg/Kg, dry wt.	12/10/15	BD	
Benzo(a)pyrene	Not Detected	330	µg/Kg, dry wt.	12/10/15	BD	
Chrysene	Not Detected	330	µg/Kg, dry wt.	12/10/15	BD	
Dibenz(a,h)anthracene	Not Detected	330	µg/Kg, dry wt.	12/10/15	BD	
Fluoranthene	Not Detected	330	µg/Kg, dry wt.	12/10/15	BD	
Fluorene	Not Detected	330	µg/Kg, dry wt.	12/10/15	BD	
Indeno(1,2,3-cd)pyrene	Not Detected	330	µg/Kg, dry wt.	12/10/15	BD	
2-Methylnaphthalene	Not Detected	330	µg/Kg, dry wt.	12/10/15	BD	
Naphthalene	Not Detected	330	µg/Kg, dry wt.	12/10/15	BD	
Phenanthrene	Not Detected	330	µg/Kg, dry wt.	12/10/15	BD	
Pyrene	Not Detected	330	µg/Kg, dry wt.	12/10/15	BD	
Surrogate Standards						
Nitrobenzene-d5	66.1%	-	% Recovery	12/10/15	BD	
2-Fluorobiphenyl	69.6%	-	% Recovery	12/10/15	BD	
Terphenyl-d14	93.8%	-	% Recovery	12/10/15	BD	
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	12/16/15	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	12/16/15	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	12/16/15	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	12/16/15	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	12/16/15	DS	
Aroclor 1254	Not Detected	100	µg/Kg, dry wt.	12/16/15	DS	
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	12/16/15	DS	
Polychlorinated biphenyls (Total)	Not Detected	700	µg/Kg, dry wt.	12/16/15	DS	
Surrogate Standards						
Tetrachloro-m-xylene	50.1%	-	% Recovery	12/16/15	DS	
Decachlorobiphenyl	69.0%	-	% Recovery	12/16/15	DS	
Analysis Information						
Dry Weight Solids	87.7%	-	% by weight	12/11/15	DS	
PCB Extraction	Completed	-	-	12/11/15	DS	
PNA Extraction	Completed	-	-	12/10/15	BD	

Quality Control

VOC Matrix Spike Data

Spiked Sample: 8735-10		Matrix: Soil		Units: ppb in extract					
Parameter	Sample Result	Spike Added	MS Result	MSD Result	MS % Rec.	MSD % Rec.	RPD	Data Qualifiers	
1,1-Dichloroethene	0.0	25	19	19	76	76	0.0		
Benzene	0.0	25	19	19	76	76	0.0		
Trichloroethene	0.0	25	20	20	80	80	0.0		
Toluene	0.0	25	21	20	84	80	4.9		
Chlorobenzene	0.0	25	20	19	80	76	5.1		

Spiked Sample: 8739 LCS		Matrix: Water		Units: ppb in solution					
Parameter	Sample Result	Spike Added	MS Result	MSD Result	MS % Rec.	MSD % Rec.	RPD	Data Qualifiers	
1,1-Dichloroethene	0.0	25	21	22	84	88	4.7		
Benzene	0.0	25	21	21	84	84	0.0		
Trichloroethene	0.0	25	21	21	84	84	0.0		
Toluene	0.0	25	21	21	84	84	0.0		
Chlorobenzene	0.0	25	20	21	80	84	4.9		

PNA Matrix Spike Data

Spiked Sample: 8734-2		Matrix: Soil		Units: ppm in extract					
Parameter	Sample Result	Spike Added	MS Result	MSD Result	MS % Rec.	MSD % Rec.	RPD	Data Qualifiers	
Acenaphthene	0.0	20	15	16	75	80	6.5		
Phenanthrene	0.0	20	17	17	85	85	0.0		
Fluoranthene	0.0	20	16	17	80	85	6.1		
Pyrene	0.0	20	18	19	90	95	5.4		
Chrysene	0.0	20	17	17	85	85	0.0		

Spiked Sample: 8734 LCS		Matrix: Water		Units: ppm in extract					
Parameter	Sample Result	Spike Added	MS Result	MSD Result	MS % Rec.	MSD % Rec.	RPD	Data Qualifiers	
Acenaphthene	0.0	20	18	17	90	85	5.7		
Phenanthrene	0.0	20	19	18	95	90	5.4		
Fluoranthene	0.0	20	20	18	100	90	10.5		
Pyrene	0.0	20	19	18	95	90	5.4		
Chrysene	0.0	20	19	17	95	85	11.1		

PCB Matrix Spike Data

Spiked Sample: 8738-6		Matrix: Soil		Units: ppm in extract					
Parameter	Sample Result	Spike Added	MS Result	MSD Result	MS % Rec.	MSD % Rec.	RPD	Data Qualifiers	
Aroclor 1260	0.000	0.200	0.213	0.247	107	124	14.7		


Case Narrative

All method protocols and quality control requirements were satisfied for all samples.

Notes

- (1) Quality Control Limits available upon request.
- (2) Results are applicable only to the sample tested.
- (3) All samples will be discarded after 30 days unless the laboratory receives other instructions.
- (4) Chain of Custody document attached.

QUANTUM LABORATORIES, INC.



David W. Starr
Analytical Chemistry Manager

QUANTUM LABORATORIES, INC.
 28221 Beck Road | Suite A-11
 Wixom, MI 48393
 248-348-TEST or 248-348-8378
 Fax: 248-348-7029

Women's Business Enterprise
 National Council
WBENC
 Cert. No. 2005111505

Quantum Laboratories, Inc.

CHAIN OF CUSTODY RECORD

CLIENT INFO

COMPANY: Applied Environmental
 ADDRESS: 1210 N. Maple Rd.
 CITY, STATE, ZIP: Ann Arbor, MI 48103
 TELEPHONE: 734-975-1970
 FAX: 734-975-1973
 CONTACT: m.licj@appliedenv.com
 ADDITIONAL PHONE: jefft@appliedenv.com
 EMAIL ADDRESS:

* SAMPLE TYPE: S=Soil, W=Water, D=Drinking Water, O=Oil/Organic, M=Mixed, V=Vapor, A=Air
 U=Unknown or Other

** GRAB/COMP: G=Grab Sample, C=Composite Sample

REPORT NO. (LAB USE): 8738 Page 1 of 2

P.O. NUMBER: 15-2554
 PROJECT NUMBER: 12700 8 Mile Rd.
 PROJECT NAME: A.T.
 SAMPLING LOCATION: Standard Rush By Date:

SAMPLES COLLECTED BY: A.T.
 TURN AROUND TIME: Standard Rush By Date:

SPECIAL INSTRUCTIONS:

PROJECT INFO

ANALYSIS REQUESTED

PCBs

LINE NO.	LAB USE	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	TIME SAMPLED	DATE SAMPLED	SAMPLE TYPE *	GRAB / COMP **	REMARKS / PRESERVATIVES
1		GP-1 (1')	1		12/9/15	S G	X	
2		GP-2 (1')	1			S G	X	
3		GP-3 (1')	1			S G	X	
4		GP-4 (1')	1			S G	X	
5		GP-5 (1')	1			S G	X	
6		GP-6 (1')	1			S G	X	
7		GP-7 (1')	1			S G	X	
8		GP-8 (1')	1			S G	X	
9		GP-9 (1')	1			S G	X	
10		GP-10 (1')	1			S G	X	

RELINQUISHED BY: [Signature]

ACCEPTED BY: [Signature]

TIME / DATE: 12.10.15

SAMPLE RECEIVED:
 Wet Ice
 Blue Ice

Distribution: White - Lab Copy Yellow - Client Report Pink - Sampler

Data Qualifiers: I Internal Standard results outside of acceptance limits
 S QC spike recovery outside of acceptance limits
 R RPD outside of acceptance limits

E Reporting limit is elevated
 D Result is from a dilution
 J Result should be considered estimated

M Matrix interference observed
 X Result by SIM Mode analysis
 C See Case Narrative

QUANTUM LABORATORIES, INC.
 28221 Beck Road | Suite A-11
 Wixom, MI 48393
 248-348-TEST or 248-348-8378
 Fax: 248-348-7029

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 National Council
WBENCO
 Cert. No. 2005111505



CHAIN OF CUSTODY RECORD

COMPANY	Applied Environmental
ADDRESS	1210 N. Maple Rd.
CITY, STATE, ZIP	Ann Arbor, MI 48103
TELEPHONE	734-975-1970
FAX	734-975-1973
CONTACT	mike.g@appliedenv.com
ADDITIONAL PHONE	jeff.t@appliedenv.com
EMAIL ADDRESS	

REPORT NO. (LAB USE)	8738	Page 2 of 2
P.O. NUMBER		
PROJECT NUMBER	15-2554	
PROJECT NAME	12700 8 Mile Rd.	
SAMPLING LOCATION		
SAMPLES COLLECTED BY	APT.	
TURN AROUND TIME	<input checked="" type="checkbox"/> Standard <input type="checkbox"/> Rush	<input type="checkbox"/> By Date:
SPECIAL INSTRUCTIONS		

* SAMPLE TYPE: S=Soil, W=Water, D=Drinking Water, O=Oil/Organic, M=Mixed, V=Vapor, A=Air
 U=Unknown or Other

** GRAB/COMP: G=Grab Sample, C=Composite Sample

LINE NO.	LAB USE	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	TIME SAMPLED	DATE SAMPLED	SAMPLE TYPE *	GRAB / COMP **	ANALYSIS REQUESTED	REMARKS / PRESERVATIVES
1	GP-11 (1')		1		12/4/15	S	G	PCBS	
2	GP-12 (1')		1			S	G	VOCs	
3	GP-13 (1')		1			S	G	PCBS	
4	GP-14 (1')		1			S	G	VOCs	
5	GP-15 (6')		2			S	G	PCBS	
6	GP-16 (2'-7')		3			WG	G	VOCs	
7	GP-17 (6')		2			S	G	PCBS	
8									
9									
10									

XFER	RELINQUISHED BY	TIME / DATE	ACCEPTED BY	SAMPLE RECEIVED
1	Mike G.	10:20 12.10.15	Jeff T.	<input type="checkbox"/> Wet Ice <input type="checkbox"/> Blue Ice
2	Mike G.	11:20 12.10.15	Jeff T.	
3				

Distribution: White - Lab Copy Yellow - Client Report Pink - Sampler

ANALYTICAL REPORT

For: Applied Environmental, Inc.
1210 N. Maple Rd
Ann Arbor MI 48103-2842

Report Number: 8725
Report Date: December 9, 2015
Project Name: 12700 W 8 Mile Rd
Project Number: 15-2554
Page: 1 of 7

Attn: Mr. Mike Gatien

734-975-1970

Fax: 734-975-1973

Sample Description

One (1) sample reported to be Water and identified as "12700 W 8 Mile Rd", Oak Park, MI, Basement Water, 10:45 AM, 12/3/15, Grab

Analysis Requested

Chemical Analysis per SW-846 (SW) for:

1. Volatile Organic Compounds (VOC), Method 8260B
2. Polynuclear Aromatic Hydrocarbons (PNA), Method 8270C
3. Polychlorinated Biphenyls (PCB), Method 8082

Analytical Results

Sample Description:		Basement Water, 10:45 AM, 12/3/15				
Laboratory ID:	8725-1	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
<i>Volatile Organic Compounds</i>						
Acetone	Not Detected	50	µg/L	12/04/15	BD	
Benzene	Not Detected	1	µg/L	12/04/15	BD	
Bromobenzene	Not Detected	1	µg/L	12/04/15	BD	
Bromochloromethane	Not Detected	1	µg/L	12/04/15	BD	
Bromodichloromethane	Not Detected	1	µg/L	12/04/15	BD	
Bromoform	Not Detected	1	µg/L	12/04/15	BD	
Bromomethane	Not Detected	5	µg/L	12/04/15	BD	
2-Butanone (MEK)	Not Detected	25	µg/L	12/04/15	BD	
n-Butylbenzene	Not Detected	1	µg/L	12/04/15	BD	
sec-Butylbenzene	Not Detected	1	µg/L	12/04/15	BD	
tert-Butylbenzene	Not Detected	1	µg/L	12/04/15	BD	
Carbon disulfide	Not Detected	5	µg/L	12/04/15	BD	
Carbon tetrachloride	Not Detected	1	µg/L	12/04/15	BD	
Chlorobenzene	Not Detected	1	µg/L	12/04/15	BD	
Chloroethane	Not Detected	5	µg/L	12/04/15	BD	
Chloroform	Not Detected	1	µg/L	12/04/15	BD	
Chloromethane	Not Detected	5	µg/L	12/04/15	BD	
2-Chlorotoluene	Not Detected	5	µg/L	12/04/15	BD	
4-Chlorotoluene	Not Detected	5	µg/L	12/04/15	BD	
Dibromochloromethane	Not Detected	5	µg/L	12/04/15	BD	
1,2-Dibromo-3-chloropropane	Not Detected	0.2	µg/L	12/04/15	BD	
Dibromomethane	Not Detected	5	µg/L	12/04/15	BD	
1,2-Dichlorobenzene	Not Detected	1	µg/L	12/04/15	BD	
1,3-Dichlorobenzene	Not Detected	1	µg/L	12/04/15	BD	
1,4-Dichlorobenzene	Not Detected	1	µg/L	12/04/15	BD	
Dichlorodifluoromethane	Not Detected	5	µg/L	12/04/15	BD	
1,1-Dichloroethane	Not Detected	1	µg/L	12/04/15	BD	
1,2-Dichloroethane	Not Detected	1	µg/L	12/04/15	BD	
1,1-Dichloroethylene	Not Detected	1	µg/L	12/04/15	BD	
cis-1,2-Dichloroethylene	Not Detected	1	µg/L	12/04/15	BD	
trans-1,2-Dichloroethylene	Not Detected	1	µg/L	12/04/15	BD	
1,2-Dichloropropane	Not Detected	1	µg/L	12/04/15	BD	
1,3-Dichloropropane	Not Detected	1	µg/L	12/04/15	BD	
2,2-Dichloropropane	Not Detected	1	µg/L	12/04/15	BD	
1,1-Dichloropropene	Not Detected	1	µg/L	12/04/15	BD	
cis-1,3-Dichloropropene	Not Detected	1	µg/L	12/04/15	BD	
continued						

Sample Description:		Basement Water, 10:45 AM, 12/3/15				
Laboratory ID:	8725-1	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
VOCs, cont'd						
Ethylbenzene	Not Detected	1	µg/L	12/04/15	BD	
Ethylene Dibromide (1,2-Dibromoethane)	Not Detected	0.2	µg/L	12/04/15	BD	
Hexachlorobutadiene	Not Detected	0.2	µg/L	12/04/15	BD	
2-Hexanone	Not Detected	50	µg/L	12/04/15	BD	
Isopropyl benzene	Not Detected	5	µg/L	12/04/15	BD	
4-Methyl-2-pentanone (MIBK)	Not Detected	50	µg/L	12/04/15	BD	
Methyl-t-butyl ether (MTBE)	Not Detected	5	µg/L	12/04/15	BD	
Methylene chloride	Not Detected	5	µg/L	12/04/15	BD	
2-Methylnaphthalene	Not Detected	5	µg/L	12/04/15	BD	
Naphthalene	Not Detected	5	µg/L	12/04/15	BD	
n-Propyl benzene	Not Detected	1	µg/L	12/04/15	BD	
Styrene	Not Detected	1	µg/L	12/04/15	BD	
1,1,1,2-Tetrachloroethane	Not Detected	1	µg/L	12/04/15	BD	
1,1,2,2-Tetrachloroethane	Not Detected	1	µg/L	12/04/15	BD	
Tetrachloroethylene	Not Detected	1	µg/L	12/04/15	BD	
Tetrahydrofuran	Not Detected	90	µg/L	12/04/15	BD	
Toluene	Not Detected	1	µg/L	12/04/15	BD	
1,2,3-Trichlorobenzene	Not Detected	5	µg/L	12/04/15	BD	
1,2,4-Trichlorobenzene	Not Detected	5	µg/L	12/04/15	BD	
1,1,1-Trichloroethane	Not Detected	1	µg/L	12/04/15	BD	
1,1,2-Trichloroethane	Not Detected	1	µg/L	12/04/15	BD	
Trichloroethylene	Not Detected	1	µg/L	12/04/15	BD	
Trichlorofluoromethane	Not Detected	1	µg/L	12/04/15	BD	
1,2,3-Trichloropropane	Not Detected	1	µg/L	12/04/15	BD	
1,2,4-Trimethylbenzene	Not Detected	1	µg/L	12/04/15	BD	
1,3,5-Trimethylbenzene	Not Detected	1	µg/L	12/04/15	BD	
Vinyl Acetate	Not Detected	100	µg/L	12/04/15	BD	
Vinyl chloride	Not Detected	1	µg/L	12/04/15	BD	
Xylene (Total)	Not Detected	3	µg/L	12/04/15	BD	
Surrogate Standards						
1,2-Dichloroethane-d4	104%	-	% Recovery	12/04/15	BD	
Toluene-d8	95.5%	-	% Recovery	12/04/15	BD	
4-Bromofluorobenzene	103%	-	% Recovery	12/04/15	BD	
continued						

Sample Description:		Basement Water, 10:45 AM, 12/3/15				
Laboratory ID:	8725-1	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
<i>PNA</i>s						
Acenaphthene	Not Detected	5	µg/L	12/08/15	BD	
Acenaphthylene	Not Detected	5	µg/L	12/08/15	BD	
Anthracene	Not Detected	5	µg/L	12/08/15	BD	
Benzo(a)anthracene	Not Detected	1	µg/L	12/08/15	BD	
Benzo(b)fluoranthene	Not Detected	1	µg/L	12/08/15	BD	
Benzo(k)fluoranthene	Not Detected	1	µg/L	12/08/15	BD	
Benzo(g,h,i)perylene	Not Detected	1	µg/L	12/08/15	BD	
Benzo(a)pyrene	Not Detected	1	µg/L	12/08/15	BD	
Chrysene	Not Detected	1	µg/L	12/08/15	BD	
Dibenz(a,h)anthracene	Not Detected	2	µg/L	12/08/15	BD	
Fluoranthene	Not Detected	1	µg/L	12/08/15	BD	
Fluorene	Not Detected	5	µg/L	12/08/15	BD	
Indeno(1,2,3-cd)pyrene	Not Detected	2	µg/L	12/08/15	BD	
2-Methylnaphthalene	Not Detected	5	µg/L	12/08/15	BD	
Naphthalene	Not Detected	5	µg/L	12/08/15	BD	
Phenanthrene	Not Detected	2	µg/L	12/08/15	BD	
Pyrene	Not Detected	5	µg/L	12/08/15	BD	
<i>Surrogate Standards</i>						
Nitrobenzene-d5	76.7%	-	% Recovery	12/08/15	BD	
2-Fluorobiphenyl	65.0%	-	% Recovery	12/08/15	BD	
Terphenyl-d14	97.4%	-	% Recovery	12/08/15	BD	
<i>PCBs</i>						
Aroclor 1016	Not Detected	0.2	µg/L	12/08/15	DS	
Aroclor 1221	Not Detected	0.2	µg/L	12/08/15	DS	
Aroclor 1232	Not Detected	0.2	µg/L	12/08/15	DS	
Aroclor 1242	Not Detected	0.2	µg/L	12/08/15	DS	
Aroclor 1248	Not Detected	0.2	µg/L	12/08/15	DS	
Aroclor 1254	Not Detected	0.2	µg/L	12/08/15	DS	
Aroclor 1260	Not Detected	0.2	µg/L	12/08/15	DS	
Polychlorinated biphenyls (Total)	Not Detected	2	µg/L	12/08/15	DS	
<i>Surrogate Standards</i>						
Tetrachloro-m-xylene	87.4%	-	% Recovery	12/08/15	DS	
Decachlorobiphenyl	101%	-	% Recovery	12/08/15	DS	
<i>Analysis Information</i>						
PCB Extraction	Completed	-	-	12/08/15	BD	
PNA Extraction	Completed	-	-	12/08/15	BD	

Quality Control

VOC Matrix Spike Data

Spiked Sample: 8721 LCS		Matrix: Water		Units: ppb in solution				Data
Parameter	Sample Result	Spike Added	MS Result	MSD Result	MS % Rec.	MSD % Rec.	RPD	Qualifiers
1,1-Dichloroethene	0.0	25	24	25	96	100	4.1	
Benzene	0.0	25	23	24	92	96	4.3	
Trichloroethene	0.0	25	24	24	96	96	0.0	
Toluene	0.0	25	25	26	100	104	3.9	
Chlorobenzene	0.0	25	23	25	92	100	8.3	

PNA Matrix Spike Data

Spiked Sample: 8725 LCS		Matrix: Water		Units: ppm in extract				Data
Parameter	Sample Result	Spike Added	MS Result	MSD Result	MS % Rec.	MSD % Rec.	RPD	Qualifiers
Acenaphthene	0.0	20	16	17	80	85	6.1	
Phenanthrene	0.0	20	17	18	85	90	5.7	
Fluoranthene	0.0	20	16	19	80	95	17.1	
Pyrene	0.0	20	17	17	85	85	0.0	
Chrysene	0.0	20	18	18	90	90	0.0	

PCB Matrix Spike Data

Spiked Sample: 8725 LCS		Matrix: Water		Units: ppm in extract				Data
Parameter	Sample Result	Spike Added	MS Result	MSD Result	MS % Rec.	MSD % Rec.	RPD	Qualifiers
Aroclor 1260	0.000	0.200	0.219	0.260	109	130	17.1	

Case Narrative

All method protocols and quality control requirements were satisfied for all samples.

Notes

- (1) Quality Control Limits available upon request.
- (2) Results are applicable only to the sample tested.
- (3) All samples will be discarded after 30 days unless the laboratory receives other instructions.
- (4) Chain of Custody document attached.

QUANTUM LABORATORIES, INC.



David W. Starr
Analytical Chemistry Manager

QUANTUM LABORATORIES, INC.
 28221 Beck Road | Suite A-11
 Wixom, MI 48393
 248-348-TEST or 248-348-8378
 Fax: 248-348-7029

Women's Business Enterprise
 National Council
WBENC
 Cert. No. 2005111505

Quantum Laboratories, Inc.
CHAIN OF CUSTODY RECORD

REPORT NO. (LAB USE)	8725	Page 1 of 1
P.O. NUMBER		
PROJECT NUMBER	15-2554	
PROJECT NAME	12700 W. 8 Mile Rd.	
SAMPLING LOCATION	BACK PARK, MI	
SAMPLES COLLECTED BY	M. GATIN	
TURN AROUND TIME	<input checked="" type="checkbox"/> Standard <input type="checkbox"/> Rush <input type="checkbox"/> By Date:	
SPECIAL INSTRUCTIONS		

COMPANY	Applied Environmental
ADDRESS	1210 N. Maple Rd.
CITY, STATE, ZIP	Ann Arbor MI 48103
TELEPHONE	734-975-1970
FAX	734-975-1973
CONTACT	Mike Gatin
ADDITIONAL PHONE	
EMAIL ADDRESS	Mikeg@appliedenv.com

* SAMPLE TYPE: S=Soil, W=Water, D=Drinking Water, O=Oil/Organic, M=Mixed, V=Vapor, A=Air
 U=Unknown or Other

** GRAB/COMP: G=Grab Sample, C=Composite Sample

LINE NO.	LAB USE	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	TIME SAMPLED	DATE SAMPLED	SAMPLE TYPE *	GRAB / COMP **	REMARKS / PRESERVATIVES
1		Basement water	4	12-3-15	10:45*	W	G	VOCs PNTs PCBs
2								
3								
4								
5								
6								
7								
8								
9								
10								

XFER	RELINQUISHED BY	TIME / DATE	ACCEPTED BY	SAMPLE RECEIVED
1	<i>[Signature]</i>	12/15 12:41:05	<i>[Signature]</i>	<input type="checkbox"/> Wet Ice <input type="checkbox"/> Blue Ice
2	<i>[Signature]</i>	12/15 2:30pm	<i>[Signature]</i>	
3				

Distribution: White - Lab Copy Yellow - Client Report Pink - Sampler

ANALYTICAL REPORT

For: Applied Environmental, Inc.
 1210 N. Maple Rd
 Ann Arbor MI 48103-2842

Report Number: 8746
 Report Date: December 16, 2015
 Project Name: Leoni
 Project Number: 15-2554
 Page: 1 of 5

Attn: Mr. Joe Hunter

734-975-1970 Fax: 734-975-1973

Sample Description

Five (5) samples reported to be Unknown and identified as "Leoni", 12/14/15, Grab and:

1. CF-1 - SW
2. CF-2 - SE
3. CF-3 - NW
4. CF-4 - NE
5. CF-5-Access Pit - North

Analysis Requested

Chemical Analysis per SW-846 (SW) for Polychlorinated Biphenyls (PCB), Method 8082

Analytical Results

Sample Description:		CF-1-SW, 12/14/15				
Laboratory ID:	8746-1	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	12/15/15	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	12/15/15	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	12/15/15	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	12/15/15	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	12/15/15	DS	
Aroclor 1254	560	100	µg/Kg, dry wt.	12/15/15	DS	
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	12/15/15	DS	
Polychlorinated biphenyls (Total)	Not Detected	700	µg/Kg, dry wt.	12/15/15	DS	
Surrogate Standards						
Tetrachloro-m-xylene	62.8%	-	% Recovery	12/15/15	DS	
Decachlorobiphenyl	94.1%	-	% Recovery	12/15/15	DS	
Analysis Information						
Dry Weight Solids	84.5%	-	% by weight	12/15/15	DS	
PCB Extraction	Completed	-	-	12/15/15	DS	

Sample Description:		CF-2-SE, 12/14/15				
Laboratory ID:	8746-2	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	12/15/15	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	12/15/15	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	12/15/15	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	12/15/15	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	12/15/15	DS	
Aroclor 1254	14500	100	µg/Kg, dry wt.	12/15/15	DS	
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	12/15/15	DS	
Polychlorinated biphenyls (Total)	14500	700	µg/Kg, dry wt.	12/15/15	DS	
Surrogate Standards						
Tetrachloro-m-xylene	97.0%	-	% Recovery	12/15/15	DS	
Decachlorobiphenyl	142%	-	% Recovery	12/15/15	DS	
Analysis Information						
Dry Weight Solids	72.9%	-	% by weight	12/15/15	DS	
PCB Extraction	Completed	-	-	12/15/15	DS	

Sample Description:		CF-3-NW, 12/14/15				
Laboratory ID:	8746-3	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	12/15/15	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	12/15/15	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	12/15/15	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	12/15/15	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	12/15/15	DS	
Aroclor 1254	2070	100	µg/Kg, dry wt.	12/15/15	DS	
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	12/15/15	DS	
Polychlorinated biphenyls (Total)	2070	700	µg/Kg, dry wt.	12/15/15	DS	
Surrogate Standards						
Tetrachloro-m-xylene	84.1%	-	% Recovery	12/15/15	DS	
Decachlorobiphenyl	133%	-	% Recovery	12/15/15	DS	
Analysis Information						
Dry Weight Solids	81.3%	-	% by weight	12/15/15	DS	
PCB Extraction	Completed	-	-	12/15/15	DS	

Sample Description: CF-4-NE, 12/14/15						
Laboratory ID:	8746-4	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	12/15/15	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	12/15/15	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	12/15/15	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	12/15/15	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	12/15/15	DS	
Aroclor 1254	2500	100	µg/Kg, dry wt.	12/15/15	DS	
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	12/15/15	DS	
Polychlorinated biphenyls (Total)	2500	700	µg/Kg, dry wt.	12/15/15	DS	
Surrogate Standards						
Tetrachloro-m-xylene	82.4%	-	% Recovery	12/15/15	DS	
Decachlorobiphenyl	95.5%	-	% Recovery	12/15/15	DS	
Analysis Information						
Dry Weight Solids	85.2%	-	% by weight	12/15/15	DS	
PCB Extraction	Completed	-	-	12/15/15	DS	

Sample Description: CF-5-Access Pit-North, 12/14/15						
Laboratory ID:	8746-5	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	12/15/15	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	12/15/15	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	12/15/15	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	12/15/15	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	12/15/15	DS	
Aroclor 1254	360	100	µg/Kg, dry wt.	12/15/15	DS	
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	12/15/15	DS	
Polychlorinated biphenyls (Total)	Not Detected	700	µg/Kg, dry wt.	12/15/15	DS	
Surrogate Standards						
Tetrachloro-m-xylene	106%	-	% Recovery	12/15/15	DS	
Decachlorobiphenyl	120%	-	% Recovery	12/15/15	DS	
Analysis Information						
Dry Weight Solids	85.8%	-	% by weight	12/15/15	DS	
PCB Extraction	Completed	-	-	12/15/15	DS	

Quality Control

PCB Matrix Spike Data

Spiked Sample: 8746-5		Matrix: Soil		Units: ppm in extract					
Parameter	Sample Result	Spike Added	MS Result	MSD Result	MS % Rec.	MSD % Rec.	RPD	Data Qualifiers	
Aroclor 1260	0.000	0.200	0.217	0.185	108	92	15.9		

Case Narrative

All method protocols and quality control requirements were satisfied for all samples.

Notes

- (1) Quality Control Limits available upon request.
- (2) Results are applicable only to the sample tested.
- (3) All samples will be discarded after 30 days unless the laboratory receives other instructions.
- (4) Chain of Custody document attached.

QUANTUM LABORATORIES, INC.



David W. Starr
Analytical Chemistry Manager

QUANTUM LABORATORIES, INC.
 28211 Beck Road | Suite A-11
 Wixom, MI 48393
 248-348-TEST or 248-348-8378
 Fax: 248-348-7029

Women's Business Enterprise
 National Council
WBENC
 Cert. No. 2005111505



CHAIN OF CUSTODY RECORD

PROJECT INFO

REPORT NO. (LAB USE) 8746 Page 1 of 1

P.O. NUMBER

PROJECT NUMBER 15-2554

PROJECT NAME Leoni

SAMPLING LOCATION

SAMPLES COLLECTED BY JWH

TURN AROUND TIME Standard Rush By Date: 12-16-15

SPECIAL INSTRUCTIONS

CLIENT INFO

COMPANY Applied Environmental

ADDRESS 1210 North Maple Rd.

CITY, STATE, ZIP Ann Arbor MI 48103

TELEPHONE 734-975-1970

FAX 734-975-1973

CONTACT Joe Hunter

ADDITIONAL PHONE 734-395-1818

EMAIL ADDRESS johunter@appliedenv.com

* SAMPLE TYPE: S=Soil, W=Water, D=Drinking Water, O=Oil/Organic, M=Mixed, V=Vapor, A=Air
 U=Unknown or Other

** GRAB/COMP: G=Grab Sample, C=Composite Sample

LINE NO.	LAB USE	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	TIME SAMPLED	DATE SAMPLED	SAMPLE TYPE *	GRAB / COMP **	REMARKS / PRESERVATIVES
1		CF-1 - SW	1		12-15-15	U	G	
2		CF-2 - SE	1					
3		CF-3 - NW	1					
4		CF-4 - NE	1					
5		CF-5 - Access Pit - North	1					
6								
7								
8								
9								
10								

XFER	RELINQUISHED BY	TIME / DATE	ACCEPTED BY	SAMPLE RECEIVED
1	<i>JWH</i>	12-15-15	<i>[Signature]</i>	<input type="checkbox"/> Wet Ice <input type="checkbox"/> Blue Ice
2	<i>[Signature]</i>	12-15-15 10:00	<i>[Signature]</i>	
3				

Distribution: White - Lab Copy Yellow - Client Report Pink - Sampler

Data Qualifiers: I Internal Standard results outside of acceptance limits
 S QC spike recovery outside of acceptance limits
 R RPD outside of acceptance limits

E Reporting limit is elevated
 D Result is from a dilution
 J Result should be considered estimated

M Matrix interference observed
 X Result by SIM Mode analysis
 C See Case Narrative

LABORATORY RESULTS – JULY – SEPTEMBER 2020

ANALYTICAL REPORT

For: Applied Environmental, Inc.
1210 N. Maple Rd
Ann Arbor MI 48103-2842

Report Number: 11200
Report Date: August 6, 2020
Project Name: 8 MK
Project Number: 20-2554
Page: 1 of 147
734-975-1970 Fax: 734-975-1973

Attn: Mr. Mike Gatien

Sample Description

Seventy-four (74) samples reported to be Soil (63), Concrete (10) and Water (1) and identified as "8 MK", Oak Park, MI", Grab and:

1. GP-11A, 0', 12:50 PM, 7/28/20
2. GP-11A, 2', 12:52 PM, 7/28/20
3. GP-11A, 4', 12:54 PM, 7/28/20 (HOLD)
4. GP-11A, 6', 12:56 PM, 7/28/20 (HOLD)
5. GP-15, 0', 1:00 PM, 7/28/20
6. GP-15, 2', 1:02 PM, 7/28/20 (HOLD)
7. GP-15, 4', 1:04 PM, 7/28/20 (HOLD)
8. GP-15, 6', 1:06 PM, 7/28/20 (HOLD)
9. GP-16, 0', 1:10 PM, 7/28/20
10. GP-16, 2', 1:12 PM, 7/28/20 (HOLD)
11. GP-16, 4', 1:14 PM, 7/28/20 (HOLD)
12. GP-16, 6', 1:16 PM, 7/28/20 (HOLD)
13. GP-17, 0', 1:20 PM, 7/28/20
14. GP-17, 2', 1:22 PM, 7/28/20 (HOLD)
15. GP-17, 4', 1:24 PM, 7/28/20 (HOLD)
16. GP-17, 6', 1:26 PM, 7/28/20 (HOLD)
17. GP-18, 0', 1:30 PM, 7/28/20
18. GP-18, 2', 1:32 PM, 7/28/20 (HOLD)
19. GP-18, 4', 1:34 PM, 7/28/20 (HOLD)
20. GP-18, 6', 1:36 PM, 7/28/20 (HOLD)
21. GP-19, 0', 1:40 PM, 7/28/20
22. GP-19, 2', 1:42 PM, 7/28/20 (HOLD)
23. GP-19, 4', 1:44 PM, 7/28/20 (HOLD)
24. GP-19, 6', 1:46 PM, 7/28/20 (HOLD)
25. GP-20, 0', 1:50 PM, 7/28/20
26. GP-20, 2', 1:52 PM, 7/28/20 (HOLD)
27. GP-20, 4', 1:54 PM, 7/28/20 (HOLD)
28. GP-20, 6', 1:56 PM, 7/28/20 (HOLD)
29. GP-21, 4-4.5', 1:31 PM, 7/28/20
30. GP-21, 8.5', 1:35 PM, 7/28/20
31. GP-22, 4.5-5', 2:15 PM, 7/28/20
32. GP-22, 8.5', 2:18 PM, 7/28/20
33. GP-23, 4.5-5', 3:00 PM, 7/28/20
34. GP-23, 8.5', 3:05 PM, 7/28/20
35. GP-24, 2.5-3', 4:30 PM, 7/28/20
36. GP-24, 8.5', 4:32 PM, 7/28/20
37. HA-1, 0', 2:05 PM, 7/28/20
38. HA-1, 2', 2:10 PM, 7/28/20
39. HA-1, 4', 2:15 PM, 7/28/20 (HOLD)
40. HA-2, 0', 2:20 PM, 7/28/20
41. HA-2, 2', 2:23 PM, 7/28/20
42. HA-2, 4', 2:25 PM, 7/28/20 (HOLD)
43. HA-3, 0', 2:40 PM, 7/28/20
44. HA-3, 2', 2:42 PM, 7/28/20
45. HA-3, 4', 2:45 PM, 7/28/20 (HOLD)
46. HA-4, 0', 2:52 PM, 7/28/20
47. HA-4, 2', 2:55 PM, 7/28/20
48. HA-4, 4', 2:57 PM, 7/28/20 (HOLD)
49. HA-5, 0', 3:16 PM, 7/28/20
50. HA-5, 2', 3:19 PM, 7/28/20

Sample Description, Cont'd

- | | |
|---------------------------------------|---------------------------------------|
| 51. HA-5, 4', 3:22 PM, 7/28/20 (HOLD) | 63. HA-9, 4', 9:50 AM, 7/29/20 (HOLD) |
| 52. HA-6, 0', 4:10 PM, 7/28/20 | 64. Wall Sample 1, 9:48 AM, 7/29/20 |
| 53. HA-6, 2', 4:15 PM, 7/28/20 | 65. Wall Sample 2, 10:05 AM, 7/29/20 |
| 54. HA-6, 4', 4:20 PM, 7/28/20 (HOLD) | 66. Wall Sample 3, 10:18 AM, 7/29/20 |
| 55. HA-7, 0', 9:05 AM, 7/29/20 | 67. Wall Sample 4, 10:32 AM, 7/29/20 |
| 56. HA-7, 2', 9:07 AM, 7/29/20 | 68. Wall Sample 5, 10:56 AM, 7/29/20 |
| 57. HA-7, 4', 9:10 AM, 7/29/20 (HOLD) | 69. Wall Sample 6, 11:07 AM, 7/29/20 |
| 58. HA-8, 0', 9:20 AM, 7/29/20 | 70. Wall Sample 7, 11:21 AM, 7/29/20 |
| 59. HA-8, 2', 9:23 AM, 7/29/20 | 71. Wall Sample 8, 11:47 AM, 7/29/20 |
| 60. HA-8, 4', 9:25 AM, 7/29/20 (HOLD) | 72. Wall Sample 9, 11:58 AM, 7/29/20 |
| 61. HA-9, 0', 9:43 AM, 7/29/20 | 73. Wall Sample 10, 12:05 PM, 7/29/20 |
| 62. HA-9, 2', 9:46 AM, 7/29/20 | 74. Sump, 11:30 AM, 7/29/20 (Water) |

Analysis Requested

Chemical Analysis per SW-846 (SW) for:

1. Volatile Organic Compounds (VOC), Methods 8260B and 5035 (Soil) (Samples 1, 2, 5, 9, 13, 17, 21, 25, 29-38, 40, 41, 43, 44, 46, 47, 49, 50, 52, 53, 55, 56, 58, 59, 61, 62 and 64-74)
2. Polychlorinated Biphenyls (PCB), Method 8082A (Samples 1, 2, 5, 9, 13, 17, 21, 25, 29-38, 40, 41, 43, 44, 46, 47, 49, 50, 52, 53, 55, 56, 58, 59, 61, 62 and 64-74)

Analytical Results

Sample Description:		GP-11A, 0', 12:50 PM , 7/28/20				
Laboratory ID:	11200-1	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
<i>Volatile Organic Compounds</i>						
Acetone	Not Detected	1,000	µg/Kg, dry wt.	07/30/20	BD	
Benzene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
Bromobenzene	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
Bromochloromethane	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
Bromodichloromethane	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
Bromoform	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
Bromomethane	Not Detected	200	µg/Kg, dry wt.	07/30/20	BD	
2-Butanone (MEK)	Not Detected	750	µg/Kg, dry wt.	07/30/20	BD	
n-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
sec-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
tert-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
Carbon disulfide	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
Carbon tetrachloride	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
Chlorobenzene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
Chloroethane	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
Chloroform	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
Chloromethane	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
2-Chlorotoluene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
4-Chlorotoluene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
Dibromochloromethane	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
1,2-Dibromo-3-chloropropane	Not Detected	10	µg/Kg, dry wt.	07/30/20	BD	
Dibromomethane	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
1,2-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
1,3-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
1,4-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
Dichlorodifluoromethane	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
1,1-Dichloroethane	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
1,2-Dichloroethane	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
1,1-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
cis-1,2-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
trans-1,2-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
1,2-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
1,3-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
2,2-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
1,1-Dichloropropene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
cis-1,3-Dichloropropene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
continued						

Data Qualifiers: I Internal Standard results outside of acceptance limits
 S QC spike recovery outside of acceptance limits
 R RPD outside of acceptance limits

E Reporting limit is elevated
 D Result is from a dilution
 J Result should be considered estimated

M Matrix interference observed
 F Matrix Spike four times rule applied
 C See Case Narrative

Sample Description:		GP-11A, 0', 12:50 PM , 7/28/20				
Laboratory ID:	11200-1	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
VOC's, Cont'd						
Ethylbenzene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
Ethylene Dibromide (1,2-Dibromoethane)	Not Detected	20	µg/Kg, dry wt.	07/30/20	BD	
Hexachlorobutadiene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
2-Hexanone	Not Detected	2,500	µg/Kg, dry wt.	07/30/20	BD	
Isopropyl benzene	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
4-Methyl-2-pentanone (MIBK)	Not Detected	2,500	µg/Kg, dry wt.	07/30/20	BD	
Methyl-t-butyl ether (MTBE)	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
Methylene chloride	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
2-Methylnaphthalene	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
Naphthalene	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
n-Propylbenzene	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
Styrene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
1,1,1,2-Tetrachloroethane	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
1,1,2,2-Tetrachloroethane	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
Tetrachloroethylene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
Tetrahydrofuran	Not Detected	1,000	µg/Kg, dry wt.	07/30/20	BD	
Toluene	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
1,2,3-Trichlorobenzene	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
1,2,4-Trichlorobenzene	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
1,1,1-Trichloroethane	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
1,1,2-Trichloroethane	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
Trichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
Trichlorofluoromethane	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
1,2,3-Trichloropropane	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
1,2,4-Trimethylbenzene	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
1,3,5-Trimethylbenzene	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
Vinyl Acetate	Not Detected	5,000	µg/Kg, dry wt.	07/30/20	BD	
Vinyl Chloride	Not Detected	40	µg/Kg, dry wt.	07/30/20	BD	
Xylene (Total)	Not Detected	150	µg/Kg, dry wt.	07/30/20	BD	
Surrogate Standards						
1,2-Dichloroethane-d4	98.3%	-	% Recovery	07/30/20	BD	
Toluene-d8	104%	-	% Recovery	07/30/20	BD	
4-Bromofluorobenzene	107%	-	% Recovery	07/30/20	BD	
continued						

Sample Description:		GP-11A, 0', 12:50 PM , 7/28/20				
Laboratory ID:	11200-1	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1254	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Polychlorinated biphenyls (Total)	Not Detected	700	µg/Kg, dry wt.	07/30/20	DS	
Surrogate Standards						
Tetrachloro-m-xylene	78.7%	-	% Recovery	07/30/20	DS	
Decachlorobiphenyl	90.7%	-	% Recovery	07/30/20	DS	
Analysis Information						
Dry Weight Solids	72.5%	-	% by weight	07/30/20	LP	
PCB Extraction	Completed	-	-	07/30/20	LB	

Sample Description:		GP-11A, 2', 12:52 PM , 7/28/20				
Laboratory ID:	11200-2	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
<i>Volatile Organic Compounds</i>						
Acetone	Not Detected	1,000	µg/Kg, dry wt.	07/30/20	BD	
Benzene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
Bromobenzene	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
Bromochloromethane	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
Bromodichloromethane	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
Bromoform	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
Bromomethane	Not Detected	200	µg/Kg, dry wt.	07/30/20	BD	
2-Butanone (MEK)	Not Detected	750	µg/Kg, dry wt.	07/30/20	BD	
n-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
sec-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
tert-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
Carbon disulfide	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
Carbon tetrachloride	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
Chlorobenzene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
Chloroethane	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
Chloroform	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
Chloromethane	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
2-Chlorotoluene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
4-Chlorotoluene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
Dibromochloromethane	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
1,2-Dibromo-3-chloropropane	Not Detected	10	µg/Kg, dry wt.	07/30/20	BD	
Dibromomethane	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
1,2-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
1,3-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
1,4-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
Dichlorodifluoromethane	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
1,1-Dichloroethane	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
1,2-Dichloroethane	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
1,1-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
cis-1,2-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
trans-1,2-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
1,2-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
1,3-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
2,2-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
1,1-Dichloropropene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
cis-1,3-Dichloropropene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
continued						

Sample Description:		GP-11A, 2', 12:52 PM , 7/28/20				
Laboratory ID:	11200-2	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
VOC's, Cont'd						
Ethylbenzene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
Ethylene Dibromide (1,2-Dibromoethane)	Not Detected	20	µg/Kg, dry wt.	07/30/20	BD	
Hexachlorobutadiene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
2-Hexanone	Not Detected	2,500	µg/Kg, dry wt.	07/30/20	BD	
Isopropyl benzene	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
4-Methyl-2-pentanone (MIBK)	Not Detected	2,500	µg/Kg, dry wt.	07/30/20	BD	
Methyl-t-butyl ether (MTBE)	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
Methylene chloride	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
2-Methylnaphthalene	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
Naphthalene	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
n-Propylbenzene	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
Styrene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
1,1,1,2-Tetrachloroethane	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
1,1,2,2-Tetrachloroethane	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
Tetrachloroethylene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
Tetrahydrofuran	Not Detected	1,000	µg/Kg, dry wt.	07/30/20	BD	
Toluene	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
1,2,3-Trichlorobenzene	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
1,2,4-Trichlorobenzene	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
1,1,1-Trichloroethane	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
1,1,2-Trichloroethane	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
Trichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
Trichlorofluoromethane	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
1,2,3-Trichloropropane	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
1,2,4-Trimethylbenzene	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
1,3,5-Trimethylbenzene	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
Vinyl Acetate	Not Detected	5,000	µg/Kg, dry wt.	07/30/20	BD	
Vinyl Chloride	Not Detected	40	µg/Kg, dry wt.	07/30/20	BD	
Xylene (Total)	Not Detected	150	µg/Kg, dry wt.	07/30/20	BD	
Surrogate Standards						
1,2-Dichloroethane-d4	99.0%	-	% Recovery	07/30/20	BD	
Toluene-d8	105%	-	% Recovery	07/30/20	BD	
4-Bromofluorobenzene	105%	-	% Recovery	07/30/20	BD	
continued						

Sample Description:		GP-11A, 2', 12:52 PM , 7/28/20				
Laboratory ID:	11200-2	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1254	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Polychlorinated biphenyls (Total)	Not Detected	700	µg/Kg, dry wt.	07/30/20	DS	
Surrogate Standards						
Tetrachloro-m-xylene	80.0%	-	% Recovery	07/30/20	DS	
Decachlorobiphenyl	77.1%	-	% Recovery	07/30/20	DS	
Analysis Information						
Dry Weight Solids	87.6%	-	% by weight	07/30/20	LP	
PCB Extraction	Completed	-	-	07/30/20	LB	

Sample Description:		GP-15, 0', 1:00 PM , 7/28/20				
Laboratory ID:	11200-5	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
<i>Volatile Organic Compounds</i>						
Acetone	Not Detected	1,000	µg/Kg, dry wt.	07/30/20	BD	
Benzene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
Bromobenzene	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
Bromochloromethane	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
Bromodichloromethane	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
Bromoform	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
Bromomethane	Not Detected	200	µg/Kg, dry wt.	07/30/20	BD	
2-Butanone (MEK)	Not Detected	750	µg/Kg, dry wt.	07/30/20	BD	
n-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
sec-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
tert-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
Carbon disulfide	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
Carbon tetrachloride	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
Chlorobenzene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
Chloroethane	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
Chloroform	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
Chloromethane	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
2-Chlorotoluene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
4-Chlorotoluene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
Dibromochloromethane	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
1,2-Dibromo-3-chloropropane	Not Detected	10	µg/Kg, dry wt.	07/30/20	BD	
Dibromomethane	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
1,2-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
1,3-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
1,4-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
Dichlorodifluoromethane	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
1,1-Dichloroethane	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
1,2-Dichloroethane	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
1,1-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
cis-1,2-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
trans-1,2-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
1,2-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
1,3-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
2,2-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
1,1-Dichloropropene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
cis-1,3-Dichloropropene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
continued						

Sample Description:		GP-15, 0', 1:00 PM , 7/28/20				
Laboratory ID:	11200-5	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
VOC's, Cont'd						
Ethylbenzene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
Ethylene Dibromide (1,2-Dibromoethane)	Not Detected	20	µg/Kg, dry wt.	07/30/20	BD	
Hexachlorobutadiene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
2-Hexanone	Not Detected	2,500	µg/Kg, dry wt.	07/30/20	BD	
Isopropyl benzene	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
4-Methyl-2-pentanone (MIBK)	Not Detected	2,500	µg/Kg, dry wt.	07/30/20	BD	
Methyl-t-butyl ether (MTBE)	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
Methylene chloride	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
2-Methylnaphthalene	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
Naphthalene	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
n-Propylbenzene	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
Styrene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
1,1,1,2-Tetrachloroethane	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
1,1,2,2-Tetrachloroethane	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
Tetrachloroethylene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
Tetrahydrofuran	Not Detected	1,000	µg/Kg, dry wt.	07/30/20	BD	
Toluene	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
1,2,3-Trichlorobenzene	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
1,2,4-Trichlorobenzene	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
1,1,1-Trichloroethane	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
1,1,2-Trichloroethane	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
Trichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
Trichlorofluoromethane	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
1,2,3-Trichloropropane	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
1,2,4-Trimethylbenzene	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
1,3,5-Trimethylbenzene	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
Vinyl Acetate	Not Detected	5,000	µg/Kg, dry wt.	07/30/20	BD	
Vinyl Chloride	Not Detected	40	µg/Kg, dry wt.	07/30/20	BD	
Xylene (Total)	Not Detected	150	µg/Kg, dry wt.	07/30/20	BD	
Surrogate Standards						
1,2-Dichloroethane-d4	107%	-	% Recovery	07/30/20	BD	
Toluene-d8	79.3%	-	% Recovery	07/30/20	BD	
4-Bromofluorobenzene	106%	-	% Recovery	07/30/20	BD	
continued						

Sample Description:		GP-15, 0', 1:00 PM , 7/28/20				
Laboratory ID:	11200-5	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1254	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Polychlorinated biphenyls (Total)	Not Detected	700	µg/Kg, dry wt.	07/30/20	DS	
Surrogate Standards						
Tetrachloro-m-xylene	89.8%	-	% Recovery	07/30/20	DS	
Decachlorobiphenyl	102%	-	% Recovery	07/30/20	DS	
Analysis Information						
Dry Weight Solids	75.8%	-	% by weight	07/30/20	LP	
PCB Extraction	Completed	-	-	07/30/20	LB	

Sample Description:		GP-16, 0', 1:10 PM , 7/28/20				
Laboratory ID:	11200-9	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
<i>Volatile Organic Compounds</i>						
Acetone	Not Detected	1,000	µg/Kg, dry wt.	07/30/20	BD	
Benzene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
Bromobenzene	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
Bromochloromethane	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
Bromodichloromethane	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
Bromoform	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
Bromomethane	Not Detected	200	µg/Kg, dry wt.	07/30/20	BD	
2-Butanone (MEK)	Not Detected	750	µg/Kg, dry wt.	07/30/20	BD	
n-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
sec-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
tert-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
Carbon disulfide	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
Carbon tetrachloride	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
Chlorobenzene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
Chloroethane	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
Chloroform	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
Chloromethane	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
2-Chlorotoluene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
4-Chlorotoluene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
Dibromochloromethane	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
1,2-Dibromo-3-chloropropane	Not Detected	10	µg/Kg, dry wt.	07/30/20	BD	
Dibromomethane	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
1,2-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
1,3-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
1,4-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
Dichlorodifluoromethane	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
1,1-Dichloroethane	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
1,2-Dichloroethane	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
1,1-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
cis-1,2-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
trans-1,2-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
1,2-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
1,3-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
2,2-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
1,1-Dichloropropene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
cis-1,3-Dichloropropene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
continued						

Sample Description:		GP-16, 0', 1:10 PM , 7/28/20				
Laboratory ID:	11200-9	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
VOC's, Cont'd						
Ethylbenzene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
Ethylene Dibromide (1,2-Dibromoethane)	Not Detected	20	µg/Kg, dry wt.	07/30/20	BD	
Hexachlorobutadiene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
2-Hexanone	Not Detected	2,500	µg/Kg, dry wt.	07/30/20	BD	
Isopropyl benzene	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
4-Methyl-2-pentanone (MIBK)	Not Detected	2,500	µg/Kg, dry wt.	07/30/20	BD	
Methyl-t-butyl ether (MTBE)	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
Methylene chloride	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
2-Methylnaphthalene	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
Naphthalene	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
n-Propylbenzene	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
Styrene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
1,1,1,2-Tetrachloroethane	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
1,1,2,2-Tetrachloroethane	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
Tetrachloroethylene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
Tetrahydrofuran	Not Detected	1,000	µg/Kg, dry wt.	07/30/20	BD	
Toluene	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
1,2,3-Trichlorobenzene	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
1,2,4-Trichlorobenzene	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
1,1,1-Trichloroethane	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
1,1,2-Trichloroethane	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
Trichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
Trichlorofluoromethane	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
1,2,3-Trichloropropane	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
1,2,4-Trimethylbenzene	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
1,3,5-Trimethylbenzene	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
Vinyl Acetate	Not Detected	5,000	µg/Kg, dry wt.	07/30/20	BD	
Vinyl Chloride	Not Detected	40	µg/Kg, dry wt.	07/30/20	BD	
Xylene (Total)	Not Detected	150	µg/Kg, dry wt.	07/30/20	BD	
Surrogate Standards						
1,2-Dichloroethane-d4	106%	-	% Recovery	07/30/20	BD	
Toluene-d8	102%	-	% Recovery	07/30/20	BD	
4-Bromofluorobenzene	119%	-	% Recovery	07/30/20	BD	
continued						

Sample Description:		GP-16, 0', 1:10 PM , 7/28/20				
Laboratory ID:	11200-9	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1254	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1260	452	100	µg/Kg, dry wt.	07/30/20	DS	
Polychlorinated biphenyls (Total)	Not Detected	700	µg/Kg, dry wt.	07/30/20	DS	
Surrogate Standards						
Tetrachloro-m-xylene	87.2%	-	% Recovery	07/30/20	DS	
Decachlorobiphenyl	101%	-	% Recovery	07/30/20	DS	
Analysis Information						
Dry Weight Solids	69.9%	-	% by weight	07/30/20	LP	
PCB Extraction	Completed	-	-	07/30/20	LB	

Sample Description:		GP-17, 0', 1:20 PM , 7/28/20				
Laboratory ID:	11200-13	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
<i>Volatile Organic Compounds</i>						
Acetone	Not Detected	1,000	µg/Kg, dry wt.	07/30/20	BD	
Benzene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
Bromobenzene	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
Bromochloromethane	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
Bromodichloromethane	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
Bromoform	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
Bromomethane	Not Detected	200	µg/Kg, dry wt.	07/30/20	BD	
2-Butanone (MEK)	Not Detected	750	µg/Kg, dry wt.	07/30/20	BD	
n-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
sec-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
tert-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
Carbon disulfide	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
Carbon tetrachloride	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
Chlorobenzene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
Chloroethane	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
Chloroform	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
Chloromethane	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
2-Chlorotoluene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
4-Chlorotoluene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
Dibromochloromethane	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
1,2-Dibromo-3-chloropropane	Not Detected	10	µg/Kg, dry wt.	07/30/20	BD	
Dibromomethane	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
1,2-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
1,3-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
1,4-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
Dichlorodifluoromethane	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
1,1-Dichloroethane	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
1,2-Dichloroethane	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
1,1-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
cis-1,2-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
trans-1,2-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
1,2-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
1,3-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
2,2-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
1,1-Dichloropropene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
cis-1,3-Dichloropropene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
continued						

Sample Description:		GP-17, 0', 1:20 PM , 7/28/20				
Laboratory ID:	11200-13	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
VOC's, Cont'd						
Ethylbenzene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
Ethylene Dibromide (1,2-Dibromoethane)	Not Detected	20	µg/Kg, dry wt.	07/30/20	BD	
Hexachlorobutadiene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
2-Hexanone	Not Detected	2,500	µg/Kg, dry wt.	07/30/20	BD	
Isopropyl benzene	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
4-Methyl-2-pentanone (MIBK)	Not Detected	2,500	µg/Kg, dry wt.	07/30/20	BD	
Methyl-t-butyl ether (MTBE)	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
Methylene chloride	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
2-Methylnaphthalene	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
Naphthalene	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
n-Propylbenzene	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
Styrene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
1,1,1,2-Tetrachloroethane	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
1,1,2,2-Tetrachloroethane	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
Tetrachloroethylene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
Tetrahydrofuran	Not Detected	1,000	µg/Kg, dry wt.	07/30/20	BD	
Toluene	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
1,2,3-Trichlorobenzene	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
1,2,4-Trichlorobenzene	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
1,1,1-Trichloroethane	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
1,1,2-Trichloroethane	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
Trichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
Trichlorofluoromethane	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
1,2,3-Trichloropropane	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
1,2,4-Trimethylbenzene	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
1,3,5-Trimethylbenzene	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
Vinyl Acetate	Not Detected	5,000	µg/Kg, dry wt.	07/30/20	BD	
Vinyl Chloride	Not Detected	40	µg/Kg, dry wt.	07/30/20	BD	
Xylene (Total)	Not Detected	150	µg/Kg, dry wt.	07/30/20	BD	
Surrogate Standards						
1,2-Dichloroethane-d4	120%	-	% Recovery	07/30/20	BD	
Toluene-d8	107%	-	% Recovery	07/30/20	BD	
4-Bromofluorobenzene	102%	-	% Recovery	07/30/20	BD	
continued						

Sample Description:		GP-17, 0', 1:20 PM , 7/28/20				
Laboratory ID:	11200-13	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1254	276	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Polychlorinated biphenyls (Total)	Not Detected	700	µg/Kg, dry wt.	07/30/20	DS	
Surrogate Standards						
Tetrachloro-m-xylene	89.6%	-	% Recovery	07/30/20	DS	
Decachlorobiphenyl	102%	-	% Recovery	07/30/20	DS	
Analysis Information						
Dry Weight Solids	77.4%	-	% by weight	07/30/20	LP	
PCB Extraction	Completed	-	-	07/30/20	LB	

Sample Description:		GP-18, 0', 1:30 PM , 7/28/20				
Laboratory ID:	11200-17	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
<i>Volatile Organic Compounds</i>						
Acetone	Not Detected	1,000	µg/Kg, dry wt.	07/30/20	BD	
Benzene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
Bromobenzene	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
Bromochloromethane	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
Bromodichloromethane	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
Bromoform	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
Bromomethane	Not Detected	200	µg/Kg, dry wt.	07/30/20	BD	
2-Butanone (MEK)	Not Detected	750	µg/Kg, dry wt.	07/30/20	BD	
n-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
sec-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
tert-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
Carbon disulfide	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
Carbon tetrachloride	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
Chlorobenzene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
Chloroethane	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
Chloroform	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
Chloromethane	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
2-Chlorotoluene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
4-Chlorotoluene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
Dibromochloromethane	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
1,2-Dibromo-3-chloropropane	Not Detected	10	µg/Kg, dry wt.	07/30/20	BD	
Dibromomethane	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
1,2-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
1,3-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
1,4-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
Dichlorodifluoromethane	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
1,1-Dichloroethane	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
1,2-Dichloroethane	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
1,1-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
cis-1,2-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
trans-1,2-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
1,2-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
1,3-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
2,2-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
1,1-Dichloropropene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
cis-1,3-Dichloropropene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
continued						

Data Qualifiers: I Internal Standard results outside of acceptance limits E Reporting limit is elevated M Matrix interference observed
 S QC spike recovery outside of acceptance limits D Result is from a dilution F Matrix Spike four times rule applied
 R RPD outside of acceptance limits J Result should be considered estimated C See Case Narrative

Sample Description:		GP-18, 0', 1:30 PM , 7/28/20				
Laboratory ID:	11200-17	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
VOC's, Cont'd						
Ethylbenzene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
Ethylene Dibromide (1,2-Dibromoethane)	Not Detected	20	µg/Kg, dry wt.	07/30/20	BD	
Hexachlorobutadiene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
2-Hexanone	Not Detected	2,500	µg/Kg, dry wt.	07/30/20	BD	
Isopropyl benzene	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
4-Methyl-2-pentanone (MIBK)	Not Detected	2,500	µg/Kg, dry wt.	07/30/20	BD	
Methyl-t-butyl ether (MTBE)	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
Methylene chloride	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
2-Methylnaphthalene	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
Naphthalene	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
n-Propylbenzene	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
Styrene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
1,1,1,2-Tetrachloroethane	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
1,1,2,2-Tetrachloroethane	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
Tetrachloroethylene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
Tetrahydrofuran	Not Detected	1,000	µg/Kg, dry wt.	07/30/20	BD	
Toluene	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
1,2,3-Trichlorobenzene	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
1,2,4-Trichlorobenzene	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
1,1,1-Trichloroethane	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
1,1,2-Trichloroethane	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
Trichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
Trichlorofluoromethane	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
1,2,3-Trichloropropane	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
1,2,4-Trimethylbenzene	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
1,3,5-Trimethylbenzene	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
Vinyl Acetate	Not Detected	5,000	µg/Kg, dry wt.	07/30/20	BD	
Vinyl Chloride	Not Detected	40	µg/Kg, dry wt.	07/30/20	BD	
Xylene (Total)	Not Detected	150	µg/Kg, dry wt.	07/30/20	BD	
Surrogate Standards						
1,2-Dichloroethane-d4	98.7%	-	% Recovery	07/30/20	BD	
Toluene-d8	99.8%	-	% Recovery	07/30/20	BD	
4-Bromofluorobenzene	98.3%	-	% Recovery	07/30/20	BD	
continued						

Sample Description:		GP-18, 0', 1:30 PM , 7/28/20				
Laboratory ID:	11200-17	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1254	1,110	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Polychlorinated biphenyls (Total)	1,110	700	µg/Kg, dry wt.	07/30/20	DS	
Surrogate Standards						
Tetrachloro-m-xylene	93.6%	-	% Recovery	07/30/20	DS	
Decachlorobiphenyl	97.7%	-	% Recovery	07/30/20	DS	
Analysis Information						
Dry Weight Solids	81.8%	-	% by weight	07/30/20	LP	
PCB Extraction	Completed	-	-	07/30/20	LB	

Sample Description:		GP-19, 0', 1:40 PM , 7/28/20				
Laboratory ID:	11200-21	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
<i>Volatile Organic Compounds</i>						
Acetone	Not Detected	1,000	µg/Kg, dry wt.	07/30/20	BD	
Benzene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
Bromobenzene	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
Bromochloromethane	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
Bromodichloromethane	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
Bromoform	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
Bromomethane	Not Detected	200	µg/Kg, dry wt.	07/30/20	BD	
2-Butanone (MEK)	Not Detected	750	µg/Kg, dry wt.	07/30/20	BD	
n-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
sec-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
tert-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
Carbon disulfide	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
Carbon tetrachloride	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
Chlorobenzene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
Chloroethane	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
Chloroform	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
Chloromethane	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
2-Chlorotoluene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
4-Chlorotoluene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
Dibromochloromethane	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
1,2-Dibromo-3-chloropropane	Not Detected	10	µg/Kg, dry wt.	07/30/20	BD	
Dibromomethane	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
1,2-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
1,3-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
1,4-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
Dichlorodifluoromethane	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
1,1-Dichloroethane	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
1,2-Dichloroethane	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
1,1-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
cis-1,2-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
trans-1,2-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
1,2-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
1,3-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
2,2-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
1,1-Dichloropropene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
cis-1,3-Dichloropropene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
continued						

Sample Description:		GP-19, 0', 1:40 PM , 7/28/20				
Laboratory ID:	11200-21	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
VOC's, Cont'd						
Ethylbenzene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
Ethylene Dibromide (1,2-Dibromoethane)	Not Detected	20	µg/Kg, dry wt.	07/30/20	BD	
Hexachlorobutadiene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
2-Hexanone	Not Detected	2,500	µg/Kg, dry wt.	07/30/20	BD	
Isopropyl benzene	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
4-Methyl-2-pentanone (MIBK)	Not Detected	2,500	µg/Kg, dry wt.	07/30/20	BD	
Methyl-t-butyl ether (MTBE)	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
Methylene chloride	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
2-Methylnaphthalene	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
Naphthalene	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
n-Propylbenzene	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
Styrene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
1,1,1,2-Tetrachloroethane	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
1,1,2,2-Tetrachloroethane	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
Tetrachloroethylene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
Tetrahydrofuran	Not Detected	1,000	µg/Kg, dry wt.	07/30/20	BD	
Toluene	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
1,2,3-Trichlorobenzene	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
1,2,4-Trichlorobenzene	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
1,1,1-Trichloroethane	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
1,1,2-Trichloroethane	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
Trichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
Trichlorofluoromethane	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
1,2,3-Trichloropropane	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
1,2,4-Trimethylbenzene	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
1,3,5-Trimethylbenzene	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
Vinyl Acetate	Not Detected	5,000	µg/Kg, dry wt.	07/30/20	BD	
Vinyl Chloride	Not Detected	40	µg/Kg, dry wt.	07/30/20	BD	
Xylene (Total)	Not Detected	150	µg/Kg, dry wt.	07/30/20	BD	
Surrogate Standards						
1,2-Dichloroethane-d4	112%	-	% Recovery	07/30/20	BD	
Toluene-d8	78.3%	-	% Recovery	07/30/20	BD	
4-Bromofluorobenzene	106%	-	% Recovery	07/30/20	BD	
continued						

Sample Description:		GP-19, 0', 1:40 PM , 7/28/20				
Laboratory ID:	11200-21	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1254	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Polychlorinated biphenyls (Total)	Not Detected	700	µg/Kg, dry wt.	07/30/20	DS	
Surrogate Standards						
Tetrachloro-m-xylene	85.8%	-	% Recovery	07/30/20	DS	
Decachlorobiphenyl	103%	-	% Recovery	07/30/20	DS	
Analysis Information						
Dry Weight Solids	75.4%	-	% by weight	07/30/20	LP	
PCB Extraction	Completed	-	-	07/30/20	LB	

Sample Description:		GP-20, 0', 1:50 PM , 7/28/20				
Laboratory ID:	11200-25	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
<i>Volatile Organic Compounds</i>						
Acetone	Not Detected	1,000	µg/Kg, dry wt.	07/30/20	BD	
Benzene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
Bromobenzene	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
Bromochloromethane	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
Bromodichloromethane	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
Bromoform	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
Bromomethane	Not Detected	200	µg/Kg, dry wt.	07/30/20	BD	
2-Butanone (MEK)	Not Detected	750	µg/Kg, dry wt.	07/30/20	BD	
n-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
sec-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
tert-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
Carbon disulfide	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
Carbon tetrachloride	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
Chlorobenzene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
Chloroethane	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
Chloroform	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
Chloromethane	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
2-Chlorotoluene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
4-Chlorotoluene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
Dibromochloromethane	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
1,2-Dibromo-3-chloropropane	Not Detected	10	µg/Kg, dry wt.	07/30/20	BD	
Dibromomethane	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
1,2-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
1,3-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
1,4-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
Dichlorodifluoromethane	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
1,1-Dichloroethane	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
1,2-Dichloroethane	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
1,1-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
cis-1,2-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
trans-1,2-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
1,2-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
1,3-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
2,2-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
1,1-Dichloropropene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
cis-1,3-Dichloropropene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
continued						

Sample Description:		GP-20, 0', 1:50 PM , 7/28/20				
Laboratory ID:	11200-25	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
VOC's, Cont'd						
Ethylbenzene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
Ethylene Dibromide (1,2-Dibromoethane)	Not Detected	20	µg/Kg, dry wt.	07/30/20	BD	
Hexachlorobutadiene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
2-Hexanone	Not Detected	2,500	µg/Kg, dry wt.	07/30/20	BD	
Isopropyl benzene	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
4-Methyl-2-pentanone (MIBK)	Not Detected	2,500	µg/Kg, dry wt.	07/30/20	BD	
Methyl-t-butyl ether (MTBE)	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
Methylene chloride	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
2-Methylnaphthalene	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
Naphthalene	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
n-Propylbenzene	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
Styrene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
1,1,1,2-Tetrachloroethane	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
1,1,2,2-Tetrachloroethane	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
Tetrachloroethylene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
Tetrahydrofuran	Not Detected	1,000	µg/Kg, dry wt.	07/30/20	BD	
Toluene	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
1,2,3-Trichlorobenzene	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
1,2,4-Trichlorobenzene	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
1,1,1-Trichloroethane	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
1,1,2-Trichloroethane	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
Trichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
Trichlorofluoromethane	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
1,2,3-Trichloropropane	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
1,2,4-Trimethylbenzene	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
1,3,5-Trimethylbenzene	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
Vinyl Acetate	Not Detected	5,000	µg/Kg, dry wt.	07/30/20	BD	
Vinyl Chloride	Not Detected	40	µg/Kg, dry wt.	07/30/20	BD	
Xylene (Total)	Not Detected	150	µg/Kg, dry wt.	07/30/20	BD	
Surrogate Standards						
1,2-Dichloroethane-d4	100%	-	% Recovery	07/30/20	BD	
Toluene-d8	104%	-	% Recovery	07/30/20	BD	
4-Bromofluorobenzene	105%	-	% Recovery	07/30/20	BD	
continued						

Sample Description:		GP-20, 0', 1:50 PM , 7/28/20				
Laboratory ID:	11200-25	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1254	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Polychlorinated biphenyls (Total)	Not Detected	700	µg/Kg, dry wt.	07/30/20	DS	
Surrogate Standards						
Tetrachloro-m-xylene	80.5%	-	% Recovery	07/30/20	DS	
Decachlorobiphenyl	95.8%	-	% Recovery	07/30/20	DS	
Analysis Information						
Dry Weight Solids	74.1%	-	% by weight	07/30/20	LP	
PCB Extraction	Completed	-	-	07/30/20	LB	

Sample Description:		GP-21, 4-4.5', 1:31 PM , 7/28/20				
Laboratory ID:	11200-29	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
<i>Volatile Organic Compounds</i>						
Acetone	Not Detected	1,000	µg/Kg, dry wt.	07/30/20	BD	
Benzene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
Bromobenzene	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
Bromochloromethane	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
Bromodichloromethane	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
Bromoform	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
Bromomethane	Not Detected	200	µg/Kg, dry wt.	07/30/20	BD	
2-Butanone (MEK)	Not Detected	750	µg/Kg, dry wt.	07/30/20	BD	
n-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
sec-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
tert-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
Carbon disulfide	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
Carbon tetrachloride	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
Chlorobenzene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
Chloroethane	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
Chloroform	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
Chloromethane	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
2-Chlorotoluene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
4-Chlorotoluene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
Dibromochloromethane	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
1,2-Dibromo-3-chloropropane	Not Detected	10	µg/Kg, dry wt.	07/30/20	BD	
Dibromomethane	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
1,2-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
1,3-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
1,4-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
Dichlorodifluoromethane	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
1,1-Dichloroethane	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
1,2-Dichloroethane	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
1,1-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
cis-1,2-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
trans-1,2-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
1,2-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
1,3-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
2,2-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
1,1-Dichloropropene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
cis-1,3-Dichloropropene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
continued						

Data Qualifiers: I Internal Standard results outside of acceptance limits E Reporting limit is elevated M Matrix interference observed
 S QC spike recovery outside of acceptance limits D Result is from a dilution F Matrix Spike four times rule applied
 R RPD outside of acceptance limits J Result should be considered estimated C See Case Narrative

Sample Description:		GP-21, 4-4.5', 1:31 PM , 7/28/20				
Laboratory ID:	11200-29	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
VOC's, Cont'd						
Ethylbenzene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
Ethylene Dibromide (1,2-Dibromoethane)	Not Detected	20	µg/Kg, dry wt.	07/30/20	BD	
Hexachlorobutadiene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
2-Hexanone	Not Detected	2,500	µg/Kg, dry wt.	07/30/20	BD	
Isopropyl benzene	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
4-Methyl-2-pentanone (MIBK)	Not Detected	2,500	µg/Kg, dry wt.	07/30/20	BD	
Methyl-t-butyl ether (MTBE)	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
Methylene chloride	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
2-Methylnaphthalene	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
Naphthalene	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
n-Propylbenzene	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
Styrene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
1,1,1,2-Tetrachloroethane	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
1,1,2,2-Tetrachloroethane	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
Tetrachloroethylene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
Tetrahydrofuran	Not Detected	1,000	µg/Kg, dry wt.	07/30/20	BD	
Toluene	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
1,2,3-Trichlorobenzene	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
1,2,4-Trichlorobenzene	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
1,1,1-Trichloroethane	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
1,1,2-Trichloroethane	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
Trichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
Trichlorofluoromethane	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
1,2,3-Trichloropropane	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
1,2,4-Trimethylbenzene	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
1,3,5-Trimethylbenzene	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
Vinyl Acetate	Not Detected	5,000	µg/Kg, dry wt.	07/30/20	BD	
Vinyl Chloride	Not Detected	40	µg/Kg, dry wt.	07/30/20	BD	
Xylene (Total)	Not Detected	150	µg/Kg, dry wt.	07/30/20	BD	
Surrogate Standards						
1,2-Dichloroethane-d4	97.3%	-	% Recovery	07/30/20	BD	
Toluene-d8	102%	-	% Recovery	07/30/20	BD	
4-Bromofluorobenzene	104%	-	% Recovery	07/30/20	BD	
continued						

Sample Description:		GP-21, 4-4.5', 1:31 PM , 7/28/20				
Laboratory ID:	11200-29	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1254	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Polychlorinated biphenyls (Total)	Not Detected	700	µg/Kg, dry wt.	07/30/20	DS	
Surrogate Standards						
Tetrachloro-m-xylene	74.9%	-	% Recovery	07/30/20	DS	
Decachlorobiphenyl	87.6%	-	% Recovery	07/30/20	DS	
Analysis Information						
Dry Weight Solids	87.8%	-	% by weight	07/30/20	LP	
PCB Extraction	Completed	-	-	07/30/20	LB	

Sample Description:		GP-21, 8.5', 1:35 PM , 7/28/20				
Laboratory ID:	11200-30	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
<i>Volatile Organic Compounds</i>						
Acetone	Not Detected	1,000	µg/Kg, dry wt.	07/30/20	BD	
Benzene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
Bromobenzene	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
Bromochloromethane	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
Bromodichloromethane	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
Bromoform	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
Bromomethane	Not Detected	200	µg/Kg, dry wt.	07/30/20	BD	
2-Butanone (MEK)	Not Detected	750	µg/Kg, dry wt.	07/30/20	BD	
n-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
sec-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
tert-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
Carbon disulfide	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
Carbon tetrachloride	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
Chlorobenzene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
Chloroethane	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
Chloroform	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
Chloromethane	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
2-Chlorotoluene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
4-Chlorotoluene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
Dibromochloromethane	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
1,2-Dibromo-3-chloropropane	Not Detected	10	µg/Kg, dry wt.	07/30/20	BD	
Dibromomethane	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
1,2-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
1,3-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
1,4-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
Dichlorodifluoromethane	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
1,1-Dichloroethane	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
1,2-Dichloroethane	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
1,1-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
cis-1,2-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
trans-1,2-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
1,2-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
1,3-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
2,2-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
1,1-Dichloropropene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
cis-1,3-Dichloropropene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
continued						

Data Qualifiers: I Internal Standard results outside of acceptance limits E Reporting limit is elevated M Matrix interference observed
 S QC spike recovery outside of acceptance limits D Result is from a dilution F Matrix Spike four times rule applied
 R RPD outside of acceptance limits J Result should be considered estimated C See Case Narrative

Sample Description:		GP-21, 8.5', 1:35 PM , 7/28/20				
Laboratory ID:	11200-30	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
VOC's, Cont'd						
Ethylbenzene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
Ethylene Dibromide (1,2-Dibromoethane)	Not Detected	20	µg/Kg, dry wt.	07/30/20	BD	
Hexachlorobutadiene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
2-Hexanone	Not Detected	2,500	µg/Kg, dry wt.	07/30/20	BD	
Isopropyl benzene	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
4-Methyl-2-pentanone (MIBK)	Not Detected	2,500	µg/Kg, dry wt.	07/30/20	BD	
Methyl-t-butyl ether (MTBE)	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
Methylene chloride	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
2-Methylnaphthalene	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
Naphthalene	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
n-Propylbenzene	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
Styrene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
1,1,1,2-Tetrachloroethane	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
1,1,2,2-Tetrachloroethane	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
Tetrachloroethylene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
Tetrahydrofuran	Not Detected	1,000	µg/Kg, dry wt.	07/30/20	BD	
Toluene	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
1,2,3-Trichlorobenzene	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
1,2,4-Trichlorobenzene	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
1,1,1-Trichloroethane	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
1,1,2-Trichloroethane	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
Trichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
Trichlorofluoromethane	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
1,2,3-Trichloropropane	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
1,2,4-Trimethylbenzene	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
1,3,5-Trimethylbenzene	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
Vinyl Acetate	Not Detected	5,000	µg/Kg, dry wt.	07/30/20	BD	
Vinyl Chloride	Not Detected	40	µg/Kg, dry wt.	07/30/20	BD	
Xylene (Total)	Not Detected	150	µg/Kg, dry wt.	07/30/20	BD	
Surrogate Standards						
1,2-Dichloroethane-d4	113%	-	% Recovery	07/30/20	BD	
Toluene-d8	108%	-	% Recovery	07/30/20	BD	
4-Bromofluorobenzene	104%	-	% Recovery	07/30/20	BD	
continued						

Sample Description:		GP-21, 8.5', 1:35 PM , 7/28/20				
Laboratory ID:	11200-30	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1254	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Polychlorinated biphenyls (Total)	Not Detected	700	µg/Kg, dry wt.	07/30/20	DS	
Surrogate Standards						
Tetrachloro-m-xylene	81.8%	-	% Recovery	07/30/20	DS	
Decachlorobiphenyl	102%	-	% Recovery	07/30/20	DS	
Analysis Information						
Dry Weight Solids	89.4%	-	% by weight	07/30/20	LP	
PCB Extraction	Completed	-	-	07/30/20	LB	

Sample Description:	GP-22, 4.5-5', 2:15 PM , 7/28/20					
Laboratory ID:	11200-31	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
<i>Volatile Organic Compounds</i>						
Acetone	Not Detected	1,000	µg/Kg, dry wt.	07/30/20	BD	
Benzene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
Bromobenzene	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
Bromochloromethane	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
Bromodichloromethane	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
Bromoform	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
Bromomethane	Not Detected	200	µg/Kg, dry wt.	07/30/20	BD	
2-Butanone (MEK)	Not Detected	750	µg/Kg, dry wt.	07/30/20	BD	
n-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
sec-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
tert-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
Carbon disulfide	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
Carbon tetrachloride	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
Chlorobenzene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
Chloroethane	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
Chloroform	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
Chloromethane	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
2-Chlorotoluene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
4-Chlorotoluene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
Dibromochloromethane	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
1,2-Dibromo-3-chloropropane	Not Detected	10	µg/Kg, dry wt.	07/30/20	BD	
Dibromomethane	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
1,2-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
1,3-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
1,4-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
Dichlorodifluoromethane	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
1,1-Dichloroethane	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
1,2-Dichloroethane	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
1,1-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
cis-1,2-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
trans-1,2-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
1,2-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
1,3-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
2,2-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
1,1-Dichloropropene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
cis-1,3-Dichloropropene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
continued						

Data Qualifiers: I Internal Standard results outside of acceptance limits E Reporting limit is elevated M Matrix interference observed
 S QC spike recovery outside of acceptance limits D Result is from a dilution F Matrix Spike four times rule applied
 R RPD outside of acceptance limits J Result should be considered estimated C See Case Narrative

Sample Description:		GP-22, 4.5-5', 2:15 PM , 7/28/20				
Laboratory ID:	11200-31	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
VOC's, Cont'd						
Ethylbenzene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
Ethylene Dibromide (1,2-Dibromoethane)	Not Detected	20	µg/Kg, dry wt.	07/30/20	BD	
Hexachlorobutadiene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
2-Hexanone	Not Detected	2,500	µg/Kg, dry wt.	07/30/20	BD	
Isopropyl benzene	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
4-Methyl-2-pentanone (MIBK)	Not Detected	2,500	µg/Kg, dry wt.	07/30/20	BD	
Methyl-t-butyl ether (MTBE)	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
Methylene chloride	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
2-Methylnaphthalene	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
Naphthalene	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
n-Propylbenzene	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
Styrene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
1,1,1,2-Tetrachloroethane	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
1,1,2,2-Tetrachloroethane	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
Tetrachloroethylene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
Tetrahydrofuran	Not Detected	1,000	µg/Kg, dry wt.	07/30/20	BD	
Toluene	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
1,2,3-Trichlorobenzene	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
1,2,4-Trichlorobenzene	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
1,1,1-Trichloroethane	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
1,1,2-Trichloroethane	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
Trichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
Trichlorofluoromethane	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
1,2,3-Trichloropropane	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
1,2,4-Trimethylbenzene	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
1,3,5-Trimethylbenzene	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
Vinyl Acetate	Not Detected	5,000	µg/Kg, dry wt.	07/30/20	BD	
Vinyl Chloride	Not Detected	40	µg/Kg, dry wt.	07/30/20	BD	
Xylene (Total)	Not Detected	150	µg/Kg, dry wt.	07/30/20	BD	
Surrogate Standards						
1,2-Dichloroethane-d4	112%	-	% Recovery	07/30/20	BD	
Toluene-d8	108%	-	% Recovery	07/30/20	BD	
4-Bromofluorobenzene	106%	-	% Recovery	07/30/20	BD	
continued						

Sample Description:		GP-22, 4.5-5', 2:15 PM , 7/28/20				
Laboratory ID:	11200-31	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	2,500	µg/Kg, dry wt.	07/30/20	DS	E, D, M
Aroclor 1221	Not Detected	2,500	µg/Kg, dry wt.	07/30/20	DS	E, D, M
Aroclor 1232	Not Detected	2,500	µg/Kg, dry wt.	07/30/20	DS	E, D, M
Aroclor 1242	Not Detected	2,500	µg/Kg, dry wt.	07/30/20	DS	E, D, M
Aroclor 1248	Not Detected	2,500	µg/Kg, dry wt.	07/30/20	DS	E, D, M
Aroclor 1254	Not Detected	2,500	µg/Kg, dry wt.	07/30/20	DS	E, D, M
Aroclor 1260	Not Detected	2,500	µg/Kg, dry wt.	07/30/20	DS	E, D, M
Polychlorinated biphenyls (Total)	Not Detected	17,500	µg/Kg, dry wt.	07/30/20	DS	E, D, M
Surrogate Standards						
Tetrachloro-m-xylene	93.5%	-	% Recovery	07/30/20	DS	
Decachlorobiphenyl	109%	-	% Recovery	07/30/20	DS	
Analysis Information						
Dry Weight Solids	88.5%	-	% by weight	07/30/20	LP	
PCB Extraction	Completed	-	-	07/30/20	LB	

Sample Description:		GP-22, 8.5', 2:18 PM , 7/28/20				
Laboratory ID:	11200-32	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
<i>Volatile Organic Compounds</i>						
Acetone	Not Detected	1,000	µg/Kg, dry wt.	07/30/20	BD	
Benzene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
Bromobenzene	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
Bromochloromethane	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
Bromodichloromethane	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
Bromoform	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
Bromomethane	Not Detected	200	µg/Kg, dry wt.	07/30/20	BD	
2-Butanone (MEK)	Not Detected	750	µg/Kg, dry wt.	07/30/20	BD	
n-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
sec-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
tert-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
Carbon disulfide	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
Carbon tetrachloride	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
Chlorobenzene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
Chloroethane	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
Chloroform	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
Chloromethane	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
2-Chlorotoluene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
4-Chlorotoluene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
Dibromochloromethane	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
1,2-Dibromo-3-chloropropane	Not Detected	10	µg/Kg, dry wt.	07/30/20	BD	
Dibromomethane	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
1,2-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
1,3-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
1,4-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
Dichlorodifluoromethane	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
1,1-Dichloroethane	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
1,2-Dichloroethane	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
1,1-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
cis-1,2-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
trans-1,2-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
1,2-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
1,3-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
2,2-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
1,1-Dichloropropene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
cis-1,3-Dichloropropene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
continued						

Sample Description:		GP-22, 8.5', 2:18 PM , 7/28/20				
Laboratory ID:	11200-32	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
VOC's, Cont'd						
Ethylbenzene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
Ethylene Dibromide (1,2-Dibromoethane)	Not Detected	20	µg/Kg, dry wt.	07/30/20	BD	
Hexachlorobutadiene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
2-Hexanone	Not Detected	2,500	µg/Kg, dry wt.	07/30/20	BD	
Isopropyl benzene	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
4-Methyl-2-pentanone (MIBK)	Not Detected	2,500	µg/Kg, dry wt.	07/30/20	BD	
Methyl-t-butyl ether (MTBE)	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
Methylene chloride	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
2-Methylnaphthalene	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
Naphthalene	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
n-Propylbenzene	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
Styrene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
1,1,1,2-Tetrachloroethane	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
1,1,2,2-Tetrachloroethane	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
Tetrachloroethylene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
Tetrahydrofuran	Not Detected	1,000	µg/Kg, dry wt.	07/30/20	BD	
Toluene	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
1,2,3-Trichlorobenzene	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
1,2,4-Trichlorobenzene	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
1,1,1-Trichloroethane	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
1,1,2-Trichloroethane	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
Trichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
Trichlorofluoromethane	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
1,2,3-Trichloropropane	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
1,2,4-Trimethylbenzene	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
1,3,5-Trimethylbenzene	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
Vinyl Acetate	Not Detected	5,000	µg/Kg, dry wt.	07/30/20	BD	
Vinyl Chloride	Not Detected	40	µg/Kg, dry wt.	07/30/20	BD	
Xylene (Total)	Not Detected	150	µg/Kg, dry wt.	07/30/20	BD	
Surrogate Standards						
1,2-Dichloroethane-d4	107%	-	% Recovery	07/30/20	BD	
Toluene-d8	104%	-	% Recovery	07/30/20	BD	
4-Bromofluorobenzene	105%	-	% Recovery	07/30/20	BD	
continued						

Sample Description:		GP-22, 8.5', 2:18 PM , 7/28/20				
Laboratory ID:	11200-32	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1254	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Polychlorinated biphenyls (Total)	Not Detected	700	µg/Kg, dry wt.	07/30/20	DS	
Surrogate Standards						
Tetrachloro-m-xylene	86.3%	-	% Recovery	07/30/20	DS	
Decachlorobiphenyl	98.6%	-	% Recovery	07/30/20	DS	
Analysis Information						
Dry Weight Solids	88.8%	-	% by weight	07/30/20	LP	
PCB Extraction	Completed	-	-	07/30/20	LB	

Sample Description:	GP-23, 4.5-5', 3:00 PM , 7/28/20					
Laboratory ID:	11200-33	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
<i>Volatile Organic Compounds</i>						
Acetone	Not Detected	1,000	µg/Kg, dry wt.	07/30/20	BD	
Benzene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
Bromobenzene	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
Bromochloromethane	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
Bromodichloromethane	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
Bromoform	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
Bromomethane	Not Detected	200	µg/Kg, dry wt.	07/30/20	BD	
2-Butanone (MEK)	Not Detected	750	µg/Kg, dry wt.	07/30/20	BD	
n-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
sec-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
tert-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
Carbon disulfide	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
Carbon tetrachloride	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
Chlorobenzene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
Chloroethane	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
Chloroform	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
Chloromethane	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
2-Chlorotoluene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
4-Chlorotoluene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
Dibromochloromethane	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
1,2-Dibromo-3-chloropropane	Not Detected	10	µg/Kg, dry wt.	07/30/20	BD	
Dibromomethane	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
1,2-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
1,3-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
1,4-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
Dichlorodifluoromethane	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
1,1-Dichloroethane	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
1,2-Dichloroethane	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
1,1-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
cis-1,2-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
trans-1,2-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
1,2-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
1,3-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
2,2-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
1,1-Dichloropropene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
cis-1,3-Dichloropropene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
continued						

Data Qualifiers: I Internal Standard results outside of acceptance limits E Reporting limit is elevated M Matrix interference observed
 S QC spike recovery outside of acceptance limits D Result is from a dilution F Matrix Spike four times rule applied
 R RPD outside of acceptance limits J Result should be considered estimated C See Case Narrative

Sample Description:		GP-23, 4.5-5', 3:00 PM , 7/28/20				
Laboratory ID:	11200-33	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
VOC's, Cont'd						
Ethylbenzene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
Ethylene Dibromide (1,2-Dibromoethane)	Not Detected	20	µg/Kg, dry wt.	07/30/20	BD	
Hexachlorobutadiene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
2-Hexanone	Not Detected	2,500	µg/Kg, dry wt.	07/30/20	BD	
Isopropyl benzene	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
4-Methyl-2-pentanone (MIBK)	Not Detected	2,500	µg/Kg, dry wt.	07/30/20	BD	
Methyl-t-butyl ether (MTBE)	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
Methylene chloride	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
2-Methylnaphthalene	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
Naphthalene	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
n-Propylbenzene	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
Styrene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
1,1,1,2-Tetrachloroethane	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
1,1,2,2-Tetrachloroethane	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
Tetrachloroethylene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
Tetrahydrofuran	Not Detected	1,000	µg/Kg, dry wt.	07/30/20	BD	
Toluene	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
1,2,3-Trichlorobenzene	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
1,2,4-Trichlorobenzene	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
1,1,1-Trichloroethane	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
1,1,2-Trichloroethane	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
Trichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
Trichlorofluoromethane	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
1,2,3-Trichloropropane	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
1,2,4-Trimethylbenzene	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
1,3,5-Trimethylbenzene	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
Vinyl Acetate	Not Detected	5,000	µg/Kg, dry wt.	07/30/20	BD	
Vinyl Chloride	Not Detected	40	µg/Kg, dry wt.	07/30/20	BD	
Xylene (Total)	Not Detected	150	µg/Kg, dry wt.	07/30/20	BD	
Surrogate Standards						
1,2-Dichloroethane-d4	97.5%	-	% Recovery	07/30/20	BD	
Toluene-d8	104%	-	% Recovery	07/30/20	BD	
4-Bromofluorobenzene	104%	-	% Recovery	07/30/20	BD	
continued						

Sample Description:		GP-23, 4.5-5', 3:00 PM , 7/28/20				
Laboratory ID:	11200-33	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1254	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Polychlorinated biphenyls (Total)	Not Detected	700	µg/Kg, dry wt.	07/30/20	DS	
Surrogate Standards						
Tetrachloro-m-xylene	90.5%	-	% Recovery	07/30/20	DS	
Decachlorobiphenyl	106%	-	% Recovery	07/30/20	DS	
Analysis Information						
Dry Weight Solids	95.8%	-	% by weight	07/30/20	LP	
PCB Extraction	Completed	-	-	07/30/20	LB	

Sample Description:		GP-23, 8.5', 3:05 PM , 7/28/20				
Laboratory ID:	11200-34	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
<i>Volatile Organic Compounds</i>						
Acetone	Not Detected	1,000	µg/Kg, dry wt.	07/30/20	BD	
Benzene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
Bromobenzene	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
Bromochloromethane	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
Bromodichloromethane	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
Bromoform	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
Bromomethane	Not Detected	200	µg/Kg, dry wt.	07/30/20	BD	
2-Butanone (MEK)	Not Detected	750	µg/Kg, dry wt.	07/30/20	BD	
n-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
sec-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
tert-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
Carbon disulfide	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
Carbon tetrachloride	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
Chlorobenzene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
Chloroethane	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
Chloroform	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
Chloromethane	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
2-Chlorotoluene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
4-Chlorotoluene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
Dibromochloromethane	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
1,2-Dibromo-3-chloropropane	Not Detected	10	µg/Kg, dry wt.	07/30/20	BD	
Dibromomethane	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
1,2-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
1,3-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
1,4-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
Dichlorodifluoromethane	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
1,1-Dichloroethane	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
1,2-Dichloroethane	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
1,1-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
cis-1,2-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
trans-1,2-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
1,2-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
1,3-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
2,2-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
1,1-Dichloropropene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
cis-1,3-Dichloropropene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
continued						

Sample Description:		GP-23, 8.5', 3:05 PM , 7/28/20				
Laboratory ID:	11200-34	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
VOC's, Cont'd						
Ethylbenzene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
Ethylene Dibromide (1,2-Dibromoethane)	Not Detected	20	µg/Kg, dry wt.	07/30/20	BD	
Hexachlorobutadiene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
2-Hexanone	Not Detected	2,500	µg/Kg, dry wt.	07/30/20	BD	
Isopropyl benzene	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
4-Methyl-2-pentanone (MIBK)	Not Detected	2,500	µg/Kg, dry wt.	07/30/20	BD	
Methyl-t-butyl ether (MTBE)	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
Methylene chloride	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
2-Methylnaphthalene	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
Naphthalene	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
n-Propylbenzene	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
Styrene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
1,1,1,2-Tetrachloroethane	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
1,1,2,2-Tetrachloroethane	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
Tetrachloroethylene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
Tetrahydrofuran	Not Detected	1,000	µg/Kg, dry wt.	07/30/20	BD	
Toluene	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
1,2,3-Trichlorobenzene	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
1,2,4-Trichlorobenzene	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
1,1,1-Trichloroethane	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
1,1,2-Trichloroethane	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
Trichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
Trichlorofluoromethane	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
1,2,3-Trichloropropane	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
1,2,4-Trimethylbenzene	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
1,3,5-Trimethylbenzene	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
Vinyl Acetate	Not Detected	5,000	µg/Kg, dry wt.	07/30/20	BD	
Vinyl Chloride	Not Detected	40	µg/Kg, dry wt.	07/30/20	BD	
Xylene (Total)	Not Detected	150	µg/Kg, dry wt.	07/30/20	BD	
Surrogate Standards						
1,2-Dichloroethane-d4	100%	-	% Recovery	07/30/20	BD	
Toluene-d8	104%	-	% Recovery	07/30/20	BD	
4-Bromofluorobenzene	104%	-	% Recovery	07/30/20	BD	
continued						

Sample Description:		GP-23, 8.5', 3:05 PM , 7/28/20				
Laboratory ID:	11200-34	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1254	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Polychlorinated biphenyls (Total)	Not Detected	700	µg/Kg, dry wt.	07/30/20	DS	
Surrogate Standards						
Tetrachloro-m-xylene	83.1%	-	% Recovery	07/30/20	DS	
Decachlorobiphenyl	99.2%	-	% Recovery	07/30/20	DS	
Analysis Information						
Dry Weight Solids	89.1%	-	% by weight	07/30/20	LP	
PCB Extraction	Completed	-	-	07/30/20	LB	

Sample Description:		GP-24, 2.5-3', 4:30 PM, 7/28/20				
Laboratory ID:	11200-35	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
<i>Volatile Organic Compounds</i>						
Acetone	Not Detected	1,000	µg/Kg, dry wt.	07/30/20	BD	
Benzene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
Bromobenzene	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
Bromochloromethane	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
Bromodichloromethane	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
Bromoform	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
Bromomethane	Not Detected	200	µg/Kg, dry wt.	07/30/20	BD	
2-Butanone (MEK)	Not Detected	750	µg/Kg, dry wt.	07/30/20	BD	
n-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
sec-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
tert-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
Carbon disulfide	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
Carbon tetrachloride	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
Chlorobenzene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
Chloroethane	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
Chloroform	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
Chloromethane	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
2-Chlorotoluene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
4-Chlorotoluene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
Dibromochloromethane	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
1,2-Dibromo-3-chloropropane	Not Detected	10	µg/Kg, dry wt.	07/30/20	BD	
Dibromomethane	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
1,2-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
1,3-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
1,4-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
Dichlorodifluoromethane	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
1,1-Dichloroethane	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
1,2-Dichloroethane	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
1,1-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
cis-1,2-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
trans-1,2-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
1,2-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
1,3-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
2,2-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
1,1-Dichloropropene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
cis-1,3-Dichloropropene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
continued						

Sample Description:		GP-24, 2.5-3', 4:30 PM, 7/28/20				
Laboratory ID:	11200-35	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
VOC's, Cont'd						
Ethylbenzene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
Ethylene Dibromide (1,2-Dibromoethane)	Not Detected	20	µg/Kg, dry wt.	07/30/20	BD	
Hexachlorobutadiene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
2-Hexanone	Not Detected	2,500	µg/Kg, dry wt.	07/30/20	BD	
Isopropyl benzene	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
4-Methyl-2-pentanone (MIBK)	Not Detected	2,500	µg/Kg, dry wt.	07/30/20	BD	
Methyl-t-butyl ether (MTBE)	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
Methylene chloride	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
2-Methylnaphthalene	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
Naphthalene	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
n-Propylbenzene	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
Styrene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
1,1,1,2-Tetrachloroethane	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
1,1,2,2-Tetrachloroethane	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
Tetrachloroethylene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
Tetrahydrofuran	Not Detected	1,000	µg/Kg, dry wt.	07/30/20	BD	
Toluene	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
1,2,3-Trichlorobenzene	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
1,2,4-Trichlorobenzene	Not Detected	250	µg/Kg, dry wt.	07/30/20	BD	
1,1,1-Trichloroethane	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
1,1,2-Trichloroethane	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
Trichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/30/20	BD	
Trichlorofluoromethane	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
1,2,3-Trichloropropane	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
1,2,4-Trimethylbenzene	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
1,3,5-Trimethylbenzene	Not Detected	100	µg/Kg, dry wt.	07/30/20	BD	
Vinyl Acetate	Not Detected	5,000	µg/Kg, dry wt.	07/30/20	BD	
Vinyl Chloride	Not Detected	40	µg/Kg, dry wt.	07/30/20	BD	
Xylene (Total)	Not Detected	150	µg/Kg, dry wt.	07/30/20	BD	
Surrogate Standards						
1,2-Dichloroethane-d4	113%	-	% Recovery	07/30/20	BD	
Toluene-d8	102%	-	% Recovery	07/30/20	BD	
4-Bromofluorobenzene	82.4%	-	% Recovery	07/30/20	BD	
continued						

Sample Description:		GP-24, 2.5-3', 4:30 PM, 7/28/20				
Laboratory ID:	11200-35	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1254	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Polychlorinated biphenyls (Total)	Not Detected	700	µg/Kg, dry wt.	07/30/20	DS	
Surrogate Standards						
Tetrachloro-m-xylene	96.0%	-	% Recovery	07/30/20	DS	
Decachlorobiphenyl	109%	-	% Recovery	07/30/20	DS	
Analysis Information						
Dry Weight Solids	86.5%	-	% by weight	07/30/20	LP	
PCB Extraction	Completed	-	-	07/30/20	LB	

Sample Description:		GP-24, 8.5', 4:32 PM , 7/28/20				
Laboratory ID:	11200-36	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
<i>Volatile Organic Compounds</i>						
Acetone	Not Detected	1,000	µg/Kg, dry wt.	07/31/20	BD	
Benzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Bromobenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Bromochloromethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Bromodichloromethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Bromoform	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Bromomethane	Not Detected	200	µg/Kg, dry wt.	07/31/20	BD	
2-Butanone (MEK)	Not Detected	750	µg/Kg, dry wt.	07/31/20	BD	
n-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
sec-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
tert-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Carbon disulfide	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
Carbon tetrachloride	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Chlorobenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Chloroethane	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
Chloroform	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Chloromethane	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
2-Chlorotoluene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
4-Chlorotoluene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Dibromochloromethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,2-Dibromo-3-chloropropane	Not Detected	10	µg/Kg, dry wt.	07/31/20	BD	
Dibromomethane	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
1,2-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,3-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,4-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Dichlorodifluoromethane	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
1,1-Dichloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,2-Dichloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,1-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
cis-1,2-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
trans-1,2-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,2-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,3-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
2,2-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,1-Dichloropropene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
cis-1,3-Dichloropropene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
continued						

Data Qualifiers: I Internal Standard results outside of acceptance limits E Reporting limit is elevated M Matrix interference observed
 S QC spike recovery outside of acceptance limits D Result is from a dilution F Matrix Spike four times rule applied
 R RPD outside of acceptance limits J Result should be considered estimated C See Case Narrative

Sample Description:		GP-24, 8.5', 4:32 PM , 7/28/20				
Laboratory ID:	11200-36	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
VOC's, Cont'd						
Ethylbenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Ethylene Dibromide (1,2-Dibromoethane)	Not Detected	20	µg/Kg, dry wt.	07/31/20	BD	
Hexachlorobutadiene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
2-Hexanone	Not Detected	2,500	µg/Kg, dry wt.	07/31/20	BD	
Isopropyl benzene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
4-Methyl-2-pentanone (MIBK)	Not Detected	2,500	µg/Kg, dry wt.	07/31/20	BD	
Methyl-t-butyl ether (MTBE)	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
Methylene chloride	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
2-Methylnaphthalene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
Naphthalene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
n-Propylbenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Styrene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,1,1,2-Tetrachloroethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,1,2,2-Tetrachloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Tetrachloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Tetrahydrofuran	Not Detected	1,000	µg/Kg, dry wt.	07/31/20	BD	
Toluene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,2,3-Trichlorobenzene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
1,2,4-Trichlorobenzene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
1,1,1-Trichloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,1,2-Trichloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Trichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Trichlorofluoromethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,2,3-Trichloropropane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,2,4-Trimethylbenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,3,5-Trimethylbenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Vinyl Acetate	Not Detected	5,000	µg/Kg, dry wt.	07/31/20	BD	
Vinyl Chloride	Not Detected	40	µg/Kg, dry wt.	07/31/20	BD	
Xylene (Total)	Not Detected	150	µg/Kg, dry wt.	07/31/20	BD	
Surrogate Standards						
1,2-Dichloroethane-d4	104%	-	% Recovery	07/31/20	BD	
Toluene-d8	103%	-	% Recovery	07/31/20	BD	
4-Bromofluorobenzene	118%	-	% Recovery	07/31/20	BD	
continued						

Sample Description:		GP-24, 8.5', 4:32 PM , 7/28/20				
Laboratory ID:	11200-36	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1254	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Polychlorinated biphenyls (Total)	Not Detected	700	µg/Kg, dry wt.	07/30/20	DS	
Surrogate Standards						
Tetrachloro-m-xylene	75.7%	-	% Recovery	07/30/20	DS	
Decachlorobiphenyl	92.2%	-	% Recovery	07/30/20	DS	
Analysis Information						
Dry Weight Solids	89.4%	-	% by weight	07/30/20	LP	
PCB Extraction	Completed	-	-	07/30/20	LB	

Sample Description:	HA-1, 0', 2:05 PM, 7/28/20					
Laboratory ID:	11200-37	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
<i>Volatile Organic Compounds</i>						
Acetone	Not Detected	1,000	µg/Kg, dry wt.	07/31/20	BD	
Benzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Bromobenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Bromochloromethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Bromodichloromethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Bromoform	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Bromomethane	Not Detected	200	µg/Kg, dry wt.	07/31/20	BD	
2-Butanone (MEK)	Not Detected	750	µg/Kg, dry wt.	07/31/20	BD	
n-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
sec-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
tert-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Carbon disulfide	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
Carbon tetrachloride	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Chlorobenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Chloroethane	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
Chloroform	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Chloromethane	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
2-Chlorotoluene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
4-Chlorotoluene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Dibromochloromethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,2-Dibromo-3-chloropropane	Not Detected	10	µg/Kg, dry wt.	07/31/20	BD	
Dibromomethane	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
1,2-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,3-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,4-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Dichlorodifluoromethane	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
1,1-Dichloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,2-Dichloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,1-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
cis-1,2-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
trans-1,2-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,2-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,3-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
2,2-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,1-Dichloropropene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
cis-1,3-Dichloropropene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
continued						

Sample Description:		HA-1, 0', 2:05 PM, 7/28/20				
Laboratory ID:	11200-37	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
VOC's, Cont'd						
Ethylbenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Ethylene Dibromide (1,2-Dibromoethane)	Not Detected	20	µg/Kg, dry wt.	07/31/20	BD	
Hexachlorobutadiene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
2-Hexanone	Not Detected	2,500	µg/Kg, dry wt.	07/31/20	BD	
Isopropyl benzene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
4-Methyl-2-pentanone (MIBK)	Not Detected	2,500	µg/Kg, dry wt.	07/31/20	BD	
Methyl-t-butyl ether (MTBE)	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
Methylene chloride	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
2-Methylnaphthalene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
Naphthalene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
n-Propylbenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Styrene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,1,1,2-Tetrachloroethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,1,2,2-Tetrachloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Tetrachloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Tetrahydrofuran	Not Detected	1,000	µg/Kg, dry wt.	07/31/20	BD	
Toluene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,2,3-Trichlorobenzene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
1,2,4-Trichlorobenzene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
1,1,1-Trichloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,1,2-Trichloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Trichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Trichlorofluoromethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,2,3-Trichloropropane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,2,4-Trimethylbenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,3,5-Trimethylbenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Vinyl Acetate	Not Detected	5,000	µg/Kg, dry wt.	07/31/20	BD	
Vinyl Chloride	Not Detected	40	µg/Kg, dry wt.	07/31/20	BD	
Xylene (Total)	Not Detected	150	µg/Kg, dry wt.	07/31/20	BD	
Surrogate Standards						
1,2-Dichloroethane-d4	101%	-	% Recovery	07/31/20	BD	
Toluene-d8	104%	-	% Recovery	07/31/20	BD	
4-Bromofluorobenzene	108%	-	% Recovery	07/31/20	BD	
continued						

Sample Description:		HA-1, 0', 2:05 PM, 7/28/20				
Laboratory ID:	11200-37	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1254	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Polychlorinated biphenyls (Total)	Not Detected	700	µg/Kg, dry wt.	07/30/20	DS	
Surrogate Standards						
Tetrachloro-m-xylene	99.2%	-	% Recovery	07/30/20	DS	
Decachlorobiphenyl	121%	-	% Recovery	07/30/20	DS	
Analysis Information						
Dry Weight Solids	84.6%	-	% by weight	07/30/20	LP	
PCB Extraction	Completed	-	-	07/30/20	LB	

Data Qualifiers: I Internal Standard results outside of acceptance limits
 S QC spike recovery outside of acceptance limits
 R RPD outside of acceptance limits
 E Reporting limit is elevated
 D Result is from a dilution
 J Result should be considered estimated
 M Matrix interference observed
 F Matrix Spike four times rule applied
 C See Case Narrative

Sample Description:	HA-1, 2', 2:10 PM, 7/28/20					
Laboratory ID:	11200-38	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
<i>Volatile Organic Compounds</i>						
Acetone	Not Detected	1,000	µg/Kg, dry wt.	07/31/20	BD	
Benzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Bromobenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Bromochloromethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Bromodichloromethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Bromoform	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Bromomethane	Not Detected	200	µg/Kg, dry wt.	07/31/20	BD	
2-Butanone (MEK)	Not Detected	750	µg/Kg, dry wt.	07/31/20	BD	
n-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
sec-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
tert-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Carbon disulfide	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
Carbon tetrachloride	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Chlorobenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Chloroethane	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
Chloroform	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Chloromethane	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
2-Chlorotoluene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
4-Chlorotoluene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Dibromochloromethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,2-Dibromo-3-chloropropane	Not Detected	10	µg/Kg, dry wt.	07/31/20	BD	
Dibromomethane	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
1,2-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,3-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,4-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Dichlorodifluoromethane	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
1,1-Dichloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,2-Dichloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,1-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
cis-1,2-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
trans-1,2-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,2-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,3-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
2,2-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,1-Dichloropropene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
cis-1,3-Dichloropropene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
continued						

Data Qualifiers: I Internal Standard results outside of acceptance limits E Reporting limit is elevated M Matrix interference observed
 S QC spike recovery outside of acceptance limits D Result is from a dilution F Matrix Spike four times rule applied
 R RPD outside of acceptance limits J Result should be considered estimated C See Case Narrative

Sample Description:		HA-1, 2', 2:10 PM, 7/28/20				
Laboratory ID:	11200-38	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
VOC's, Cont'd						
Ethylbenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Ethylene Dibromide (1,2-Dibromoethane)	Not Detected	20	µg/Kg, dry wt.	07/31/20	BD	
Hexachlorobutadiene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
2-Hexanone	Not Detected	2,500	µg/Kg, dry wt.	07/31/20	BD	
Isopropyl benzene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
4-Methyl-2-pentanone (MIBK)	Not Detected	2,500	µg/Kg, dry wt.	07/31/20	BD	
Methyl-t-butyl ether (MTBE)	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
Methylene chloride	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
2-Methylnaphthalene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
Naphthalene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
n-Propylbenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Styrene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,1,1,2-Tetrachloroethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,1,2,2-Tetrachloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Tetrachloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Tetrahydrofuran	Not Detected	1,000	µg/Kg, dry wt.	07/31/20	BD	
Toluene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,2,3-Trichlorobenzene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
1,2,4-Trichlorobenzene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
1,1,1-Trichloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,1,2-Trichloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Trichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Trichlorofluoromethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,2,3-Trichloropropane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,2,4-Trimethylbenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,3,5-Trimethylbenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Vinyl Acetate	Not Detected	5,000	µg/Kg, dry wt.	07/31/20	BD	
Vinyl Chloride	Not Detected	40	µg/Kg, dry wt.	07/31/20	BD	
Xylene (Total)	Not Detected	150	µg/Kg, dry wt.	07/31/20	BD	
Surrogate Standards						
1,2-Dichloroethane-d4	106%	-	% Recovery	07/31/20	BD	
Toluene-d8	102%	-	% Recovery	07/31/20	BD	
4-Bromofluorobenzene	107%	-	% Recovery	07/31/20	BD	
continued						

Sample Description:		HA-1, 2', 2:10 PM, 7/28/20				
Laboratory ID:	11200-38	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1254	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Polychlorinated biphenyls (Total)	Not Detected	700	µg/Kg, dry wt.	07/30/20	DS	
Surrogate Standards						
Tetrachloro-m-xylene	104%	-	% Recovery	07/30/20	DS	
Decachlorobiphenyl	114%	-	% Recovery	07/30/20	DS	
Analysis Information						
Dry Weight Solids	89.4%	-	% by weight	07/30/20	LP	
PCB Extraction	Completed	-	-	07/30/20	LB	

Sample Description:	HA-2, 0', 2:20 PM, 7/28/20					
Laboratory ID:	11200-40	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
<i>Volatile Organic Compounds</i>						
Acetone	Not Detected	1,000	µg/Kg, dry wt.	07/31/20	BD	
Benzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Bromobenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Bromochloromethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Bromodichloromethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Bromoform	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Bromomethane	Not Detected	200	µg/Kg, dry wt.	07/31/20	BD	
2-Butanone (MEK)	Not Detected	750	µg/Kg, dry wt.	07/31/20	BD	
n-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
sec-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
tert-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Carbon disulfide	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
Carbon tetrachloride	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Chlorobenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Chloroethane	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
Chloroform	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Chloromethane	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
2-Chlorotoluene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
4-Chlorotoluene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Dibromochloromethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,2-Dibromo-3-chloropropane	Not Detected	10	µg/Kg, dry wt.	07/31/20	BD	
Dibromomethane	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
1,2-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,3-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,4-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Dichlorodifluoromethane	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
1,1-Dichloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,2-Dichloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,1-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
cis-1,2-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
trans-1,2-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,2-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,3-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
2,2-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,1-Dichloropropene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
cis-1,3-Dichloropropene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
continued						

Data Qualifiers: I Internal Standard results outside of acceptance limits E Reporting limit is elevated M Matrix interference observed
 S QC spike recovery outside of acceptance limits D Result is from a dilution F Matrix Spike four times rule applied
 R RPD outside of acceptance limits J Result should be considered estimated C See Case Narrative

Sample Description:		HA-2, 0', 2:20 PM, 7/28/20				
Laboratory ID:	11200-40	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
VOC's, Cont'd						
Ethylbenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Ethylene Dibromide (1,2-Dibromoethane)	Not Detected	20	µg/Kg, dry wt.	07/31/20	BD	
Hexachlorobutadiene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
2-Hexanone	Not Detected	2,500	µg/Kg, dry wt.	07/31/20	BD	
Isopropyl benzene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
4-Methyl-2-pentanone (MIBK)	Not Detected	2,500	µg/Kg, dry wt.	07/31/20	BD	
Methyl-t-butyl ether (MTBE)	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
Methylene chloride	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
2-Methylnaphthalene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
Naphthalene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
n-Propylbenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Styrene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,1,1,2-Tetrachloroethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,1,2,2-Tetrachloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Tetrachloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Tetrahydrofuran	Not Detected	1,000	µg/Kg, dry wt.	07/31/20	BD	
Toluene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,2,3-Trichlorobenzene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
1,2,4-Trichlorobenzene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
1,1,1-Trichloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,1,2-Trichloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Trichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Trichlorofluoromethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,2,3-Trichloropropane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,2,4-Trimethylbenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,3,5-Trimethylbenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Vinyl Acetate	Not Detected	5,000	µg/Kg, dry wt.	07/31/20	BD	
Vinyl Chloride	Not Detected	40	µg/Kg, dry wt.	07/31/20	BD	
Xylene (Total)	Not Detected	150	µg/Kg, dry wt.	07/31/20	BD	
Surrogate Standards						
1,2-Dichloroethane-d4	113%	-	% Recovery	07/31/20	BD	
Toluene-d8	105%	-	% Recovery	07/31/20	BD	
4-Bromofluorobenzene	104%	-	% Recovery	07/31/20	BD	
continued						

Sample Description:	HA-2, 0', 2:20 PM, 7/28/20					
Laboratory ID:	11200-40	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1254	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Polychlorinated biphenyls (Total)	Not Detected	700	µg/Kg, dry wt.	07/30/20	DS	
Surrogate Standards						
Tetrachloro-m-xylene	82.3%	-	% Recovery	07/30/20	DS	
Decachlorobiphenyl	99.1%	-	% Recovery	07/30/20	DS	
Analysis Information						
Dry Weight Solids	84.5%	-	% by weight	07/30/20	LP	
PCB Extraction	Completed	-	-	07/30/20	LB	

Sample Description:		HA-2, 2', 2:23 PM, 7/28/20				
Laboratory ID:	11200-41	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
<i>Volatile Organic Compounds</i>						
Acetone	Not Detected	1,000	µg/Kg, dry wt.	07/31/20	BD	
Benzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Bromobenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Bromochloromethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Bromodichloromethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Bromoform	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Bromomethane	Not Detected	200	µg/Kg, dry wt.	07/31/20	BD	
2-Butanone (MEK)	Not Detected	750	µg/Kg, dry wt.	07/31/20	BD	
n-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
sec-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
tert-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Carbon disulfide	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
Carbon tetrachloride	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Chlorobenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Chloroethane	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
Chloroform	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Chloromethane	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
2-Chlorotoluene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
4-Chlorotoluene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Dibromochloromethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,2-Dibromo-3-chloropropane	Not Detected	10	µg/Kg, dry wt.	07/31/20	BD	
Dibromomethane	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
1,2-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,3-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,4-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Dichlorodifluoromethane	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
1,1-Dichloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,2-Dichloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,1-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
cis-1,2-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
trans-1,2-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,2-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,3-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
2,2-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,1-Dichloropropene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
cis-1,3-Dichloropropene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
continued						

Sample Description:		HA-2, 2', 2:23 PM, 7/28/20				
Laboratory ID:	11200-41	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
VOC's, Cont'd						
Ethylbenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Ethylene Dibromide (1,2-Dibromoethane)	Not Detected	20	µg/Kg, dry wt.	07/31/20	BD	
Hexachlorobutadiene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
2-Hexanone	Not Detected	2,500	µg/Kg, dry wt.	07/31/20	BD	
Isopropyl benzene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
4-Methyl-2-pentanone (MIBK)	Not Detected	2,500	µg/Kg, dry wt.	07/31/20	BD	
Methyl-t-butyl ether (MTBE)	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
Methylene chloride	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
2-Methylnaphthalene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
Naphthalene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
n-Propylbenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Styrene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,1,1,2-Tetrachloroethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,1,2,2-Tetrachloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Tetrachloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Tetrahydrofuran	Not Detected	1,000	µg/Kg, dry wt.	07/31/20	BD	
Toluene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,2,3-Trichlorobenzene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
1,2,4-Trichlorobenzene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
1,1,1-Trichloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,1,2-Trichloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Trichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Trichlorofluoromethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,2,3-Trichloropropane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,2,4-Trimethylbenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,3,5-Trimethylbenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Vinyl Acetate	Not Detected	5,000	µg/Kg, dry wt.	07/31/20	BD	
Vinyl Chloride	Not Detected	40	µg/Kg, dry wt.	07/31/20	BD	
Xylene (Total)	Not Detected	150	µg/Kg, dry wt.	07/31/20	BD	
Surrogate Standards						
1,2-Dichloroethane-d4	119%	-	% Recovery	07/31/20	BD	
Toluene-d8	104%	-	% Recovery	07/31/20	BD	
4-Bromofluorobenzene	107%	-	% Recovery	07/31/20	BD	
continued						

Sample Description:		HA-2, 2', 2:23 PM, 7/28/20				
Laboratory ID:	11200-41	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1254	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Polychlorinated biphenyls (Total)	Not Detected	700	µg/Kg, dry wt.	07/30/20	DS	
Surrogate Standards						
Tetrachloro-m-xylene	95.5%	-	% Recovery	07/30/20	DS	
Decachlorobiphenyl	120%	-	% Recovery	07/30/20	DS	
Analysis Information						
Dry Weight Solids	88.7%	-	% by weight	07/30/20	LP	
PCB Extraction	Completed	-	-	07/30/20	LB	

Sample Description:		HA-3, 0', 2:40 PM, 7/28/20				
Laboratory ID:	11200-43	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
<i>Volatile Organic Compounds</i>						
Acetone	Not Detected	1,000	µg/Kg, dry wt.	07/31/20	BD	
Benzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Bromobenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Bromochloromethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Bromodichloromethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Bromoform	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Bromomethane	Not Detected	200	µg/Kg, dry wt.	07/31/20	BD	
2-Butanone (MEK)	Not Detected	750	µg/Kg, dry wt.	07/31/20	BD	
n-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
sec-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
tert-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Carbon disulfide	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
Carbon tetrachloride	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Chlorobenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Chloroethane	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
Chloroform	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Chloromethane	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
2-Chlorotoluene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
4-Chlorotoluene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Dibromochloromethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,2-Dibromo-3-chloropropane	Not Detected	10	µg/Kg, dry wt.	07/31/20	BD	
Dibromomethane	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
1,2-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,3-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,4-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Dichlorodifluoromethane	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
1,1-Dichloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,2-Dichloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,1-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
cis-1,2-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
trans-1,2-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,2-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,3-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
2,2-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,1-Dichloropropene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
cis-1,3-Dichloropropene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
continued						

Data Qualifiers: I Internal Standard results outside of acceptance limits E Reporting limit is elevated M Matrix interference observed
 S QC spike recovery outside of acceptance limits D Result is from a dilution F Matrix Spike four times rule applied
 R RPD outside of acceptance limits J Result should be considered estimated C See Case Narrative

Sample Description:		HA-3, 0', 2:40 PM, 7/28/20				
Laboratory ID:	11200-43	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
VOC's, Cont'd						
Ethylbenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Ethylene Dibromide (1,2-Dibromoethane)	Not Detected	20	µg/Kg, dry wt.	07/31/20	BD	
Hexachlorobutadiene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
2-Hexanone	Not Detected	2,500	µg/Kg, dry wt.	07/31/20	BD	
Isopropyl benzene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
4-Methyl-2-pentanone (MIBK)	Not Detected	2,500	µg/Kg, dry wt.	07/31/20	BD	
Methyl-t-butyl ether (MTBE)	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
Methylene chloride	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
2-Methylnaphthalene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
Naphthalene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
n-Propylbenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Styrene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,1,1,2-Tetrachloroethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,1,2,2-Tetrachloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Tetrachloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Tetrahydrofuran	Not Detected	1,000	µg/Kg, dry wt.	07/31/20	BD	
Toluene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,2,3-Trichlorobenzene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
1,2,4-Trichlorobenzene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
1,1,1-Trichloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,1,2-Trichloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Trichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Trichlorofluoromethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,2,3-Trichloropropane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,2,4-Trimethylbenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,3,5-Trimethylbenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Vinyl Acetate	Not Detected	5,000	µg/Kg, dry wt.	07/31/20	BD	
Vinyl Chloride	Not Detected	40	µg/Kg, dry wt.	07/31/20	BD	
Xylene (Total)	Not Detected	150	µg/Kg, dry wt.	07/31/20	BD	
Surrogate Standards						
1,2-Dichloroethane-d4	104%	-	% Recovery	07/31/20	BD	
Toluene-d8	101%	-	% Recovery	07/31/20	BD	
4-Bromofluorobenzene	109%	-	% Recovery	07/31/20	BD	
continued						

Sample Description:		HA-3, 0', 2:40 PM, 7/28/20				
Laboratory ID:	11200-43	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1254	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Polychlorinated biphenyls (Total)	Not Detected	700	µg/Kg, dry wt.	07/30/20	DS	
Surrogate Standards						
Tetrachloro-m-xylene	88.8%	-	% Recovery	07/30/20	DS	
Decachlorobiphenyl	100%	-	% Recovery	07/30/20	DS	
Analysis Information						
Dry Weight Solids	83.1%	-	% by weight	07/30/20	LP	
PCB Extraction	Completed	-	-	07/30/20	LB	

Sample Description:		HA-3, 2', 2:42 PM, 7/28/20				
Laboratory ID:	11200-44	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
<i>Volatile Organic Compounds</i>						
Acetone	Not Detected	1,000	µg/Kg, dry wt.	07/31/20	BD	
Benzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Bromobenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Bromochloromethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Bromodichloromethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Bromoform	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Bromomethane	Not Detected	200	µg/Kg, dry wt.	07/31/20	BD	
2-Butanone (MEK)	Not Detected	750	µg/Kg, dry wt.	07/31/20	BD	
n-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
sec-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
tert-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Carbon disulfide	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
Carbon tetrachloride	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Chlorobenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Chloroethane	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
Chloroform	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Chloromethane	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
2-Chlorotoluene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
4-Chlorotoluene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Dibromochloromethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,2-Dibromo-3-chloropropane	Not Detected	10	µg/Kg, dry wt.	07/31/20	BD	
Dibromomethane	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
1,2-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,3-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,4-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Dichlorodifluoromethane	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
1,1-Dichloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,2-Dichloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,1-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
cis-1,2-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
trans-1,2-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,2-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,3-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
2,2-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,1-Dichloropropene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
cis-1,3-Dichloropropene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
continued						

Sample Description:		HA-3, 2', 2:42 PM, 7/28/20				
Laboratory ID:	11200-44	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
VOC's, Cont'd						
Ethylbenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Ethylene Dibromide (1,2-Dibromoethane)	Not Detected	20	µg/Kg, dry wt.	07/31/20	BD	
Hexachlorobutadiene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
2-Hexanone	Not Detected	2,500	µg/Kg, dry wt.	07/31/20	BD	
Isopropyl benzene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
4-Methyl-2-pentanone (MIBK)	Not Detected	2,500	µg/Kg, dry wt.	07/31/20	BD	
Methyl-t-butyl ether (MTBE)	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
Methylene chloride	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
2-Methylnaphthalene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
Naphthalene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
n-Propylbenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Styrene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,1,1,2-Tetrachloroethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,1,2,2-Tetrachloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Tetrachloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Tetrahydrofuran	Not Detected	1,000	µg/Kg, dry wt.	07/31/20	BD	
Toluene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,2,3-Trichlorobenzene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
1,2,4-Trichlorobenzene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
1,1,1-Trichloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,1,2-Trichloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Trichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Trichlorofluoromethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,2,3-Trichloropropane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,2,4-Trimethylbenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,3,5-Trimethylbenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Vinyl Acetate	Not Detected	5,000	µg/Kg, dry wt.	07/31/20	BD	
Vinyl Chloride	Not Detected	40	µg/Kg, dry wt.	07/31/20	BD	
Xylene (Total)	Not Detected	150	µg/Kg, dry wt.	07/31/20	BD	
Surrogate Standards						
1,2-Dichloroethane-d4	117%	-	% Recovery	07/31/20	BD	
Toluene-d8	103%	-	% Recovery	07/31/20	BD	
4-Bromofluorobenzene	76.0%	-	% Recovery	07/31/20	BD	
continued						

Sample Description:		HA-3, 2', 2:42 PM, 7/28/20				
Laboratory ID:	11200-44	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1254	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Polychlorinated biphenyls (Total)	Not Detected	700	µg/Kg, dry wt.	07/30/20	DS	
Surrogate Standards						
Tetrachloro-m-xylene	77.4%	-	% Recovery	07/30/20	DS	
Decachlorobiphenyl	94.8%	-	% Recovery	07/30/20	DS	
Analysis Information						
Dry Weight Solids	89.0%	-	% by weight	07/30/20	LP	
PCB Extraction	Completed	-	-	07/30/20	LB	

Sample Description:		HA-4, 0', 2:52 PM, 7/28/20				
Laboratory ID:	11200-46	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
<i>Volatile Organic Compounds</i>						
Acetone	Not Detected	1,000	µg/Kg, dry wt.	07/31/20	BD	
Benzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Bromobenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Bromochloromethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Bromodichloromethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Bromoform	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Bromomethane	Not Detected	200	µg/Kg, dry wt.	07/31/20	BD	
2-Butanone (MEK)	Not Detected	750	µg/Kg, dry wt.	07/31/20	BD	
n-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
sec-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
tert-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Carbon disulfide	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
Carbon tetrachloride	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Chlorobenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Chloroethane	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
Chloroform	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Chloromethane	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
2-Chlorotoluene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
4-Chlorotoluene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Dibromochloromethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,2-Dibromo-3-chloropropane	Not Detected	10	µg/Kg, dry wt.	07/31/20	BD	
Dibromomethane	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
1,2-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,3-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,4-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Dichlorodifluoromethane	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
1,1-Dichloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,2-Dichloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,1-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
cis-1,2-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
trans-1,2-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,2-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,3-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
2,2-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,1-Dichloropropene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
cis-1,3-Dichloropropene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
continued						

Sample Description:		HA-4, 0', 2:52 PM, 7/28/20				
Laboratory ID:	11200-46	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
VOC's, Cont'd						
Ethylbenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Ethylene Dibromide (1,2-Dibromoethane)	Not Detected	20	µg/Kg, dry wt.	07/31/20	BD	
Hexachlorobutadiene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
2-Hexanone	Not Detected	2,500	µg/Kg, dry wt.	07/31/20	BD	
Isopropyl benzene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
4-Methyl-2-pentanone (MIBK)	Not Detected	2,500	µg/Kg, dry wt.	07/31/20	BD	
Methyl-t-butyl ether (MTBE)	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
Methylene chloride	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
2-Methylnaphthalene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
Naphthalene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
n-Propylbenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Styrene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,1,1,2-Tetrachloroethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,1,2,2-Tetrachloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Tetrachloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Tetrahydrofuran	Not Detected	1,000	µg/Kg, dry wt.	07/31/20	BD	
Toluene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,2,3-Trichlorobenzene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
1,2,4-Trichlorobenzene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
1,1,1-Trichloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,1,2-Trichloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Trichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Trichlorofluoromethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,2,3-Trichloropropane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,2,4-Trimethylbenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,3,5-Trimethylbenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Vinyl Acetate	Not Detected	5,000	µg/Kg, dry wt.	07/31/20	BD	
Vinyl Chloride	Not Detected	40	µg/Kg, dry wt.	07/31/20	BD	
Xylene (Total)	Not Detected	150	µg/Kg, dry wt.	07/31/20	BD	
Surrogate Standards						
1,2-Dichloroethane-d4	120%	-	% Recovery	07/31/20	BD	
Toluene-d8	106%	-	% Recovery	07/31/20	BD	
4-Bromofluorobenzene	103%	-	% Recovery	07/31/20	BD	
continued						

Sample Description:		HA-4, 0', 2:52 PM, 7/28/20				
Laboratory ID:	11200-46	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1254	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Polychlorinated biphenyls (Total)	Not Detected	700	µg/Kg, dry wt.	07/30/20	DS	
Surrogate Standards						
Tetrachloro-m-xylene	91.6%	-	% Recovery	07/30/20	DS	
Decachlorobiphenyl	102%	-	% Recovery	07/30/20	DS	
Analysis Information						
Dry Weight Solids	86.6%	-	% by weight	07/30/20	LP	
PCB Extraction	Completed	-	-	07/30/20	LB	

Sample Description:	HA-4, 2', 2:55 PM, 7/28/20					
Laboratory ID:	11200-47	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
<i>Volatile Organic Compounds</i>						
Acetone	Not Detected	1,000	µg/Kg, dry wt.	07/31/20	BD	
Benzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Bromobenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Bromochloromethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Bromodichloromethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Bromoform	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Bromomethane	Not Detected	200	µg/Kg, dry wt.	07/31/20	BD	
2-Butanone (MEK)	Not Detected	750	µg/Kg, dry wt.	07/31/20	BD	
n-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
sec-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
tert-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Carbon disulfide	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
Carbon tetrachloride	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Chlorobenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Chloroethane	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
Chloroform	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Chloromethane	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
2-Chlorotoluene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
4-Chlorotoluene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Dibromochloromethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,2-Dibromo-3-chloropropane	Not Detected	10	µg/Kg, dry wt.	07/31/20	BD	
Dibromomethane	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
1,2-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,3-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,4-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Dichlorodifluoromethane	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
1,1-Dichloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,2-Dichloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,1-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
cis-1,2-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
trans-1,2-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,2-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,3-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
2,2-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,1-Dichloropropene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
cis-1,3-Dichloropropene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
continued						

Data Qualifiers: I Internal Standard results outside of acceptance limits E Reporting limit is elevated M Matrix interference observed
 S QC spike recovery outside of acceptance limits D Result is from a dilution F Matrix Spike four times rule applied
 R RPD outside of acceptance limits J Result should be considered estimated C See Case Narrative

Sample Description:		HA-4, 2', 2:55 PM, 7/28/20				
Laboratory ID:	11200-47	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
VOC's, Cont'd						
Ethylbenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Ethylene Dibromide (1,2-Dibromoethane)	Not Detected	20	µg/Kg, dry wt.	07/31/20	BD	
Hexachlorobutadiene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
2-Hexanone	Not Detected	2,500	µg/Kg, dry wt.	07/31/20	BD	
Isopropyl benzene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
4-Methyl-2-pentanone (MIBK)	Not Detected	2,500	µg/Kg, dry wt.	07/31/20	BD	
Methyl-t-butyl ether (MTBE)	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
Methylene chloride	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
2-Methylnaphthalene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
Naphthalene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
n-Propylbenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Styrene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,1,1,2-Tetrachloroethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,1,2,2-Tetrachloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Tetrachloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Tetrahydrofuran	Not Detected	1,000	µg/Kg, dry wt.	07/31/20	BD	
Toluene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,2,3-Trichlorobenzene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
1,2,4-Trichlorobenzene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
1,1,1-Trichloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,1,2-Trichloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Trichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Trichlorofluoromethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,2,3-Trichloropropane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,2,4-Trimethylbenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,3,5-Trimethylbenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Vinyl Acetate	Not Detected	5,000	µg/Kg, dry wt.	07/31/20	BD	
Vinyl Chloride	Not Detected	40	µg/Kg, dry wt.	07/31/20	BD	
Xylene (Total)	Not Detected	150	µg/Kg, dry wt.	07/31/20	BD	
Surrogate Standards						
1,2-Dichloroethane-d4	124%	-	% Recovery	07/31/20	BD	
Toluene-d8	105%	-	% Recovery	07/31/20	BD	
4-Bromofluorobenzene	105%	-	% Recovery	07/31/20	BD	
continued						

Sample Description:		HA-4, 2', 2:55 PM, 7/28/20				
Laboratory ID:	11200-47	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1254	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Polychlorinated biphenyls (Total)	Not Detected	700	µg/Kg, dry wt.	07/30/20	DS	
Surrogate Standards						
Tetrachloro-m-xylene	91.5%	-	% Recovery	07/30/20	DS	
Decachlorobiphenyl	113%	-	% Recovery	07/30/20	DS	
Analysis Information						
Dry Weight Solids	88.9%	-	% by weight	07/30/20	LP	
PCB Extraction	Completed	-	-	07/30/20	LB	

Sample Description:	HA-5, 0', 3:16 PM, 7/28/20					
Laboratory ID:	11200-49	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
<i>Volatile Organic Compounds</i>						
Acetone	Not Detected	1,000	µg/Kg, dry wt.	07/31/20	BD	
Benzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Bromobenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Bromochloromethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Bromodichloromethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Bromoform	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Bromomethane	Not Detected	200	µg/Kg, dry wt.	07/31/20	BD	
2-Butanone (MEK)	Not Detected	750	µg/Kg, dry wt.	07/31/20	BD	
n-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
sec-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
tert-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Carbon disulfide	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
Carbon tetrachloride	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Chlorobenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Chloroethane	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
Chloroform	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Chloromethane	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
2-Chlorotoluene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
4-Chlorotoluene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Dibromochloromethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,2-Dibromo-3-chloropropane	Not Detected	10	µg/Kg, dry wt.	07/31/20	BD	
Dibromomethane	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
1,2-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,3-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,4-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Dichlorodifluoromethane	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
1,1-Dichloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,2-Dichloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,1-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
cis-1,2-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
trans-1,2-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,2-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,3-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
2,2-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,1-Dichloropropene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
cis-1,3-Dichloropropene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
continued						

Data Qualifiers: I Internal Standard results outside of acceptance limits E Reporting limit is elevated M Matrix interference observed
 S QC spike recovery outside of acceptance limits D Result is from a dilution F Matrix Spike four times rule applied
 R RPD outside of acceptance limits J Result should be considered estimated C See Case Narrative

Sample Description:		HA-5, 0', 3:16 PM, 7/28/20				
Laboratory ID:	11200-49	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
VOC's, Cont'd						
Ethylbenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Ethylene Dibromide (1,2-Dibromoethane)	Not Detected	20	µg/Kg, dry wt.	07/31/20	BD	
Hexachlorobutadiene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
2-Hexanone	Not Detected	2,500	µg/Kg, dry wt.	07/31/20	BD	
Isopropyl benzene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
4-Methyl-2-pentanone (MIBK)	Not Detected	2,500	µg/Kg, dry wt.	07/31/20	BD	
Methyl-t-butyl ether (MTBE)	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
Methylene chloride	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
2-Methylnaphthalene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
Naphthalene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
n-Propylbenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Styrene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,1,1,2-Tetrachloroethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,1,2,2-Tetrachloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Tetrachloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Tetrahydrofuran	Not Detected	1,000	µg/Kg, dry wt.	07/31/20	BD	
Toluene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,2,3-Trichlorobenzene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
1,2,4-Trichlorobenzene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
1,1,1-Trichloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,1,2-Trichloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Trichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Trichlorofluoromethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,2,3-Trichloropropane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,2,4-Trimethylbenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,3,5-Trimethylbenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Vinyl Acetate	Not Detected	5,000	µg/Kg, dry wt.	07/31/20	BD	
Vinyl Chloride	Not Detected	40	µg/Kg, dry wt.	07/31/20	BD	
Xylene (Total)	Not Detected	150	µg/Kg, dry wt.	07/31/20	BD	
Surrogate Standards						
1,2-Dichloroethane-d4	114%	-	% Recovery	07/31/20	BD	
Toluene-d8	105%	-	% Recovery	07/31/20	BD	
4-Bromofluorobenzene	103%	-	% Recovery	07/31/20	BD	
continued						

Sample Description:		HA-5, 0', 3:16 PM, 7/28/20				
Laboratory ID:	11200-49	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1254	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Polychlorinated biphenyls (Total)	Not Detected	700	µg/Kg, dry wt.	07/31/20	DS	
Surrogate Standards						
Tetrachloro-m-xylene	91.2%	-	% Recovery	07/31/20	DS	
Decachlorobiphenyl	104%	-	% Recovery	07/31/20	DS	
Analysis Information						
Dry Weight Solids	84.2%	-	% by weight	07/30/20	LP	
PCB Extraction	Completed	-	-	07/31/20	LB	

Sample Description:	HA-5, 2', 3:19 PM, 7/28/20					
Laboratory ID:	11200-50	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
<i>Volatile Organic Compounds</i>						
Acetone	Not Detected	1,000	µg/Kg, dry wt.	07/31/20	BD	
Benzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Bromobenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Bromochloromethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Bromodichloromethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Bromoform	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Bromomethane	Not Detected	200	µg/Kg, dry wt.	07/31/20	BD	
2-Butanone (MEK)	Not Detected	750	µg/Kg, dry wt.	07/31/20	BD	
n-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
sec-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
tert-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Carbon disulfide	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
Carbon tetrachloride	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Chlorobenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Chloroethane	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
Chloroform	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Chloromethane	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
2-Chlorotoluene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
4-Chlorotoluene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Dibromochloromethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,2-Dibromo-3-chloropropane	Not Detected	10	µg/Kg, dry wt.	07/31/20	BD	
Dibromomethane	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
1,2-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,3-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,4-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Dichlorodifluoromethane	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
1,1-Dichloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,2-Dichloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,1-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
cis-1,2-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
trans-1,2-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,2-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,3-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
2,2-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,1-Dichloropropene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
cis-1,3-Dichloropropene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
continued						

Data Qualifiers: I Internal Standard results outside of acceptance limits E Reporting limit is elevated M Matrix interference observed
 S QC spike recovery outside of acceptance limits D Result is from a dilution F Matrix Spike four times rule applied
 R RPD outside of acceptance limits J Result should be considered estimated C See Case Narrative

Sample Description:	HA-5, 2', 3:19 PM, 7/28/20					
Laboratory ID:	11200-50	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
VOC's, Cont'd						
Ethylbenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Ethylene Dibromide (1,2-Dibromoethane)	Not Detected	20	µg/Kg, dry wt.	07/31/20	BD	
Hexachlorobutadiene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
2-Hexanone	Not Detected	2,500	µg/Kg, dry wt.	07/31/20	BD	
Isopropyl benzene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
4-Methyl-2-pentanone (MIBK)	Not Detected	2,500	µg/Kg, dry wt.	07/31/20	BD	
Methyl-t-butyl ether (MTBE)	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
Methylene chloride	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
2-Methylnaphthalene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
Naphthalene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
n-Propylbenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Styrene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,1,1,2-Tetrachloroethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,1,2,2-Tetrachloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Tetrachloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Tetrahydrofuran	Not Detected	1,000	µg/Kg, dry wt.	07/31/20	BD	
Toluene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,2,3-Trichlorobenzene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
1,2,4-Trichlorobenzene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
1,1,1-Trichloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,1,2-Trichloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Trichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Trichlorofluoromethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,2,3-Trichloropropane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,2,4-Trimethylbenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,3,5-Trimethylbenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Vinyl Acetate	Not Detected	5,000	µg/Kg, dry wt.	07/31/20	BD	
Vinyl Chloride	Not Detected	40	µg/Kg, dry wt.	07/31/20	BD	
Xylene (Total)	Not Detected	150	µg/Kg, dry wt.	07/31/20	BD	
Surrogate Standards						
1,2-Dichloroethane-d4	117%	-	% Recovery	07/31/20	BD	
Toluene-d8	103%	-	% Recovery	07/31/20	BD	
4-Bromofluorobenzene	105%	-	% Recovery	07/31/20	BD	
continued						

Sample Description:		HA-5, 2', 3:19 PM, 7/28/20				
Laboratory ID:	11200-50	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1254	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Polychlorinated biphenyls (Total)	Not Detected	700	µg/Kg, dry wt.	07/31/20	DS	
Surrogate Standards						
Tetrachloro-m-xylene	85.9%	-	% Recovery	07/31/20	DS	
Decachlorobiphenyl	93.8%	-	% Recovery	07/31/20	DS	
Analysis Information						
Dry Weight Solids	88.6%	-	% by weight	07/30/20	LP	
PCB Extraction	Completed	-	-	07/31/20	LB	

Sample Description:	HA-6, 0', 4:10 PM, 7/28/20					
Laboratory ID:	11200-52	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
<i>Volatile Organic Compounds</i>						
Acetone	Not Detected	1,000	µg/Kg, dry wt.	07/31/20	BD	
Benzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Bromobenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Bromochloromethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Bromodichloromethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Bromoform	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Bromomethane	Not Detected	200	µg/Kg, dry wt.	07/31/20	BD	
2-Butanone (MEK)	Not Detected	750	µg/Kg, dry wt.	07/31/20	BD	
n-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
sec-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
tert-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Carbon disulfide	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
Carbon tetrachloride	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Chlorobenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Chloroethane	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
Chloroform	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Chloromethane	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
2-Chlorotoluene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
4-Chlorotoluene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Dibromochloromethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,2-Dibromo-3-chloropropane	Not Detected	10	µg/Kg, dry wt.	07/31/20	BD	
Dibromomethane	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
1,2-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,3-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,4-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Dichlorodifluoromethane	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
1,1-Dichloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,2-Dichloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,1-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
cis-1,2-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
trans-1,2-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,2-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,3-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
2,2-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,1-Dichloropropene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
cis-1,3-Dichloropropene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
continued						

Data Qualifiers: I Internal Standard results outside of acceptance limits E Reporting limit is elevated M Matrix interference observed
 S QC spike recovery outside of acceptance limits D Result is from a dilution F Matrix Spike four times rule applied
 R RPD outside of acceptance limits J Result should be considered estimated C See Case Narrative

Sample Description:		HA-6, 0', 4:10 PM, 7/28/20				
Laboratory ID:	11200-52	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
VOC's, Cont'd						
Ethylbenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Ethylene Dibromide (1,2-Dibromoethane)	Not Detected	20	µg/Kg, dry wt.	07/31/20	BD	
Hexachlorobutadiene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
2-Hexanone	Not Detected	2,500	µg/Kg, dry wt.	07/31/20	BD	
Isopropyl benzene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
4-Methyl-2-pentanone (MIBK)	Not Detected	2,500	µg/Kg, dry wt.	07/31/20	BD	
Methyl-t-butyl ether (MTBE)	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
Methylene chloride	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
2-Methylnaphthalene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
Naphthalene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
n-Propylbenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Styrene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,1,1,2-Tetrachloroethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,1,2,2-Tetrachloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Tetrachloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Tetrahydrofuran	Not Detected	1,000	µg/Kg, dry wt.	07/31/20	BD	
Toluene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,2,3-Trichlorobenzene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
1,2,4-Trichlorobenzene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
1,1,1-Trichloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,1,2-Trichloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Trichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Trichlorofluoromethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,2,3-Trichloropropane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,2,4-Trimethylbenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,3,5-Trimethylbenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Vinyl Acetate	Not Detected	5,000	µg/Kg, dry wt.	07/31/20	BD	
Vinyl Chloride	Not Detected	40	µg/Kg, dry wt.	07/31/20	BD	
Xylene (Total)	Not Detected	150	µg/Kg, dry wt.	07/31/20	BD	
Surrogate Standards						
1,2-Dichloroethane-d4	120%	-	% Recovery	07/31/20	BD	
Toluene-d8	103%	-	% Recovery	07/31/20	BD	
4-Bromofluorobenzene	105%	-	% Recovery	07/31/20	BD	
continued						

Sample Description:		HA-6, 0', 4:10 PM, 7/28/20				
Laboratory ID:	11200-52	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1254	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Polychlorinated biphenyls (Total)	Not Detected	700	µg/Kg, dry wt.	07/31/20	DS	
Surrogate Standards						
Tetrachloro-m-xylene	91.2%	-	% Recovery	07/31/20	DS	
Decachlorobiphenyl	95.3%	-	% Recovery	07/31/20	DS	
Analysis Information						
Dry Weight Solids	82.6%	-	% by weight	07/30/20	LP	
PCB Extraction	Completed	-	-	07/31/20	LB	

Sample Description:	HA-6, 2', 4:15 PM, 7/28/20					
Laboratory ID:	11200-53	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
<i>Volatile Organic Compounds</i>						
Acetone	Not Detected	1,000	µg/Kg, dry wt.	07/31/20	BD	
Benzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Bromobenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Bromochloromethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Bromodichloromethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Bromoform	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Bromomethane	Not Detected	200	µg/Kg, dry wt.	07/31/20	BD	
2-Butanone (MEK)	Not Detected	750	µg/Kg, dry wt.	07/31/20	BD	
n-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
sec-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
tert-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Carbon disulfide	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
Carbon tetrachloride	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Chlorobenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Chloroethane	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
Chloroform	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Chloromethane	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
2-Chlorotoluene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
4-Chlorotoluene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Dibromochloromethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,2-Dibromo-3-chloropropane	Not Detected	10	µg/Kg, dry wt.	07/31/20	BD	
Dibromomethane	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
1,2-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,3-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,4-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Dichlorodifluoromethane	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
1,1-Dichloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,2-Dichloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,1-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
cis-1,2-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
trans-1,2-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,2-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,3-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
2,2-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,1-Dichloropropene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
cis-1,3-Dichloropropene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
continued						

Sample Description:		HA-6, 2', 4:15 PM, 7/28/20				
Laboratory ID:	11200-53	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
VOC's, Cont'd						
Ethylbenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Ethylene Dibromide (1,2-Dibromoethane)	Not Detected	20	µg/Kg, dry wt.	07/31/20	BD	
Hexachlorobutadiene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
2-Hexanone	Not Detected	2,500	µg/Kg, dry wt.	07/31/20	BD	
Isopropyl benzene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
4-Methyl-2-pentanone (MIBK)	Not Detected	2,500	µg/Kg, dry wt.	07/31/20	BD	
Methyl-t-butyl ether (MTBE)	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
Methylene chloride	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
2-Methylnaphthalene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
Naphthalene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
n-Propylbenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Styrene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,1,1,2-Tetrachloroethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,1,2,2-Tetrachloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Tetrachloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Tetrahydrofuran	Not Detected	1,000	µg/Kg, dry wt.	07/31/20	BD	
Toluene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,2,3-Trichlorobenzene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
1,2,4-Trichlorobenzene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
1,1,1-Trichloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,1,2-Trichloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Trichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Trichlorofluoromethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,2,3-Trichloropropane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,2,4-Trimethylbenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,3,5-Trimethylbenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Vinyl Acetate	Not Detected	5,000	µg/Kg, dry wt.	07/31/20	BD	
Vinyl Chloride	Not Detected	40	µg/Kg, dry wt.	07/31/20	BD	
Xylene (Total)	Not Detected	150	µg/Kg, dry wt.	07/31/20	BD	
Surrogate Standards						
1,2-Dichloroethane-d4	121%	-	% Recovery	07/31/20	BD	
Toluene-d8	105%	-	% Recovery	07/31/20	BD	
4-Bromofluorobenzene	105%	-	% Recovery	07/31/20	BD	
continued						

Sample Description:		HA-6, 2', 4:15 PM, 7/28/20				
Laboratory ID:	11200-53	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1254	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Polychlorinated biphenyls (Total)	Not Detected	700	µg/Kg, dry wt.	07/31/20	DS	
Surrogate Standards						
Tetrachloro-m-xylene	101%	-	% Recovery	07/31/20	DS	
Decachlorobiphenyl	108%	-	% Recovery	07/31/20	DS	
Analysis Information						
Dry Weight Solids	91.2%	-	% by weight	07/30/20	LP	
PCB Extraction	Completed	-	-	07/31/20	LB	

Sample Description:	HA-7, 0', 9:05 AM, 7/29/20					
Laboratory ID:	11200-55	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
<i>Volatile Organic Compounds</i>						
Acetone	Not Detected	1,000	µg/Kg, dry wt.	07/31/20	BD	
Benzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Bromobenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Bromochloromethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Bromodichloromethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Bromoform	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Bromomethane	Not Detected	200	µg/Kg, dry wt.	07/31/20	BD	
2-Butanone (MEK)	Not Detected	750	µg/Kg, dry wt.	07/31/20	BD	
n-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
sec-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
tert-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Carbon disulfide	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
Carbon tetrachloride	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Chlorobenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Chloroethane	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
Chloroform	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Chloromethane	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
2-Chlorotoluene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
4-Chlorotoluene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Dibromochloromethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,2-Dibromo-3-chloropropane	Not Detected	10	µg/Kg, dry wt.	07/31/20	BD	
Dibromomethane	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
1,2-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,3-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,4-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Dichlorodifluoromethane	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
1,1-Dichloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,2-Dichloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,1-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
cis-1,2-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
trans-1,2-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,2-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,3-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
2,2-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,1-Dichloropropene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
cis-1,3-Dichloropropene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
continued						

Data Qualifiers: I Internal Standard results outside of acceptance limits E Reporting limit is elevated M Matrix interference observed
 S QC spike recovery outside of acceptance limits D Result is from a dilution F Matrix Spike four times rule applied
 R RPD outside of acceptance limits J Result should be considered estimated C See Case Narrative

Sample Description:		HA-7, 0', 9:05 AM, 7/29/20				
Laboratory ID:	11200-55	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
VOC's, Cont'd						
Ethylbenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Ethylene Dibromide (1,2-Dibromoethane)	Not Detected	20	µg/Kg, dry wt.	07/31/20	BD	
Hexachlorobutadiene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
2-Hexanone	Not Detected	2,500	µg/Kg, dry wt.	07/31/20	BD	
Isopropyl benzene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
4-Methyl-2-pentanone (MIBK)	Not Detected	2,500	µg/Kg, dry wt.	07/31/20	BD	
Methyl-t-butyl ether (MTBE)	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
Methylene chloride	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
2-Methylnaphthalene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
Naphthalene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
n-Propylbenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Styrene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,1,1,2-Tetrachloroethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,1,2,2-Tetrachloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Tetrachloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Tetrahydrofuran	Not Detected	1,000	µg/Kg, dry wt.	07/31/20	BD	
Toluene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,2,3-Trichlorobenzene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
1,2,4-Trichlorobenzene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
1,1,1-Trichloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,1,2-Trichloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Trichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Trichlorofluoromethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,2,3-Trichloropropane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,2,4-Trimethylbenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,3,5-Trimethylbenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Vinyl Acetate	Not Detected	5,000	µg/Kg, dry wt.	07/31/20	BD	
Vinyl Chloride	Not Detected	40	µg/Kg, dry wt.	07/31/20	BD	
Xylene (Total)	Not Detected	150	µg/Kg, dry wt.	07/31/20	BD	
Surrogate Standards						
1,2-Dichloroethane-d4	126%	-	% Recovery	07/31/20	BD	
Toluene-d8	103%	-	% Recovery	07/31/20	BD	
4-Bromofluorobenzene	107%	-	% Recovery	07/31/20	BD	
continued						

Sample Description:		HA-7, 0', 9:05 AM, 7/29/20				
Laboratory ID:	11200-55	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1254	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Polychlorinated biphenyls (Total)	Not Detected	700	µg/Kg, dry wt.	07/31/20	DS	
Surrogate Standards						
Tetrachloro-m-xylene	104%	-	% Recovery	07/31/20	DS	
Decachlorobiphenyl	114%	-	% Recovery	07/31/20	DS	
Analysis Information						
Dry Weight Solids	84.9%	-	% by weight	07/30/20	LP	
PCB Extraction	Completed	-	-	07/31/20	LB	

Sample Description:	HA-7, 2', 9:07 AM, 7/29/20					
Laboratory ID:	11200-56	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
<i>Volatile Organic Compounds</i>						
Acetone	Not Detected	1,000	µg/Kg, dry wt.	07/31/20	BD	
Benzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Bromobenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Bromochloromethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Bromodichloromethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Bromoform	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Bromomethane	Not Detected	200	µg/Kg, dry wt.	07/31/20	BD	
2-Butanone (MEK)	Not Detected	750	µg/Kg, dry wt.	07/31/20	BD	
n-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
sec-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
tert-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Carbon disulfide	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
Carbon tetrachloride	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Chlorobenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Chloroethane	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
Chloroform	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Chloromethane	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
2-Chlorotoluene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
4-Chlorotoluene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Dibromochloromethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,2-Dibromo-3-chloropropane	Not Detected	10	µg/Kg, dry wt.	07/31/20	BD	
Dibromomethane	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
1,2-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,3-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,4-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Dichlorodifluoromethane	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
1,1-Dichloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,2-Dichloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,1-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
cis-1,2-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
trans-1,2-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,2-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,3-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
2,2-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,1-Dichloropropene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
cis-1,3-Dichloropropene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
continued						

Data Qualifiers: I Internal Standard results outside of acceptance limits E Reporting limit is elevated M Matrix interference observed
 S QC spike recovery outside of acceptance limits D Result is from a dilution F Matrix Spike four times rule applied
 R RPD outside of acceptance limits J Result should be considered estimated C See Case Narrative

Sample Description:	HA-7, 2', 9:07 AM, 7/29/20					
Laboratory ID:	11200-56	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
VOC's, Cont'd						
Ethylbenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Ethylene Dibromide (1,2-Dibromoethane)	Not Detected	20	µg/Kg, dry wt.	07/31/20	BD	
Hexachlorobutadiene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
2-Hexanone	Not Detected	2,500	µg/Kg, dry wt.	07/31/20	BD	
Isopropyl benzene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
4-Methyl-2-pentanone (MIBK)	Not Detected	2,500	µg/Kg, dry wt.	07/31/20	BD	
Methyl-t-butyl ether (MTBE)	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
Methylene chloride	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
2-Methylnaphthalene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
Naphthalene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
n-Propylbenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Styrene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,1,1,2-Tetrachloroethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,1,2,2-Tetrachloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Tetrachloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Tetrahydrofuran	Not Detected	1,000	µg/Kg, dry wt.	07/31/20	BD	
Toluene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,2,3-Trichlorobenzene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
1,2,4-Trichlorobenzene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
1,1,1-Trichloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,1,2-Trichloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Trichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Trichlorofluoromethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,2,3-Trichloropropane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,2,4-Trimethylbenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,3,5-Trimethylbenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Vinyl Acetate	Not Detected	5,000	µg/Kg, dry wt.	07/31/20	BD	
Vinyl Chloride	Not Detected	40	µg/Kg, dry wt.	07/31/20	BD	
Xylene (Total)	Not Detected	150	µg/Kg, dry wt.	07/31/20	BD	
Surrogate Standards						
1,2-Dichloroethane-d4	120%	-	% Recovery	07/31/20	BD	
Toluene-d8	103%	-	% Recovery	07/31/20	BD	
4-Bromofluorobenzene	102%	-	% Recovery	07/31/20	BD	
continued						

Sample Description:		HA-7, 2', 9:07 AM, 7/29/20				
Laboratory ID:	11200-56	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1254	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Polychlorinated biphenyls (Total)	Not Detected	700	µg/Kg, dry wt.	07/31/20	DS	
Surrogate Standards						
Tetrachloro-m-xylene	92.7%	-	% Recovery	07/31/20	DS	
Decachlorobiphenyl	114%	-	% Recovery	07/31/20	DS	
Analysis Information						
Dry Weight Solids	82.6%	-	% by weight	07/30/20	LP	
PCB Extraction	Completed	-	-	07/31/20	LB	

Sample Description:	HA-8, 0', 9:20 AM, 7/29/20					
Laboratory ID:	11200-58	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
<i>Volatile Organic Compounds</i>						
Acetone	Not Detected	1,000	µg/Kg, dry wt.	07/31/20	BD	
Benzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Bromobenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Bromochloromethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Bromodichloromethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Bromoform	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Bromomethane	Not Detected	200	µg/Kg, dry wt.	07/31/20	BD	
2-Butanone (MEK)	Not Detected	750	µg/Kg, dry wt.	07/31/20	BD	
n-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
sec-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
tert-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Carbon disulfide	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
Carbon tetrachloride	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Chlorobenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Chloroethane	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
Chloroform	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Chloromethane	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
2-Chlorotoluene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
4-Chlorotoluene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Dibromochloromethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,2-Dibromo-3-chloropropane	Not Detected	10	µg/Kg, dry wt.	07/31/20	BD	
Dibromomethane	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
1,2-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,3-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,4-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Dichlorodifluoromethane	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
1,1-Dichloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,2-Dichloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,1-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
cis-1,2-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
trans-1,2-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,2-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,3-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
2,2-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,1-Dichloropropene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
cis-1,3-Dichloropropene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
continued						

Data Qualifiers: I Internal Standard results outside of acceptance limits E Reporting limit is elevated M Matrix interference observed
 S QC spike recovery outside of acceptance limits D Result is from a dilution F Matrix Spike four times rule applied
 R RPD outside of acceptance limits J Result should be considered estimated C See Case Narrative

Sample Description:		HA-8, 0', 9:20 AM, 7/29/20				
Laboratory ID:	11200-58	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
VOC's, Cont'd						
Ethylbenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Ethylene Dibromide (1,2-Dibromoethane)	Not Detected	20	µg/Kg, dry wt.	07/31/20	BD	
Hexachlorobutadiene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
2-Hexanone	Not Detected	2,500	µg/Kg, dry wt.	07/31/20	BD	
Isopropyl benzene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
4-Methyl-2-pentanone (MIBK)	Not Detected	2,500	µg/Kg, dry wt.	07/31/20	BD	
Methyl-t-butyl ether (MTBE)	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
Methylene chloride	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
2-Methylnaphthalene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
Naphthalene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
n-Propylbenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Styrene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,1,1,2-Tetrachloroethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,1,2,2-Tetrachloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Tetrachloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Tetrahydrofuran	Not Detected	1,000	µg/Kg, dry wt.	07/31/20	BD	
Toluene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,2,3-Trichlorobenzene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
1,2,4-Trichlorobenzene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
1,1,1-Trichloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,1,2-Trichloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Trichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Trichlorofluoromethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,2,3-Trichloropropane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,2,4-Trimethylbenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,3,5-Trimethylbenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Vinyl Acetate	Not Detected	5,000	µg/Kg, dry wt.	07/31/20	BD	
Vinyl Chloride	Not Detected	40	µg/Kg, dry wt.	07/31/20	BD	
Xylene (Total)	Not Detected	150	µg/Kg, dry wt.	07/31/20	BD	
Surrogate Standards						
1,2-Dichloroethane-d4	120%	-	% Recovery	07/31/20	BD	
Toluene-d8	104%	-	% Recovery	07/31/20	BD	
4-Bromofluorobenzene	104%	-	% Recovery	07/31/20	BD	
continued						

Sample Description:		HA-8, 0', 9:20 AM, 7/29/20				
Laboratory ID:	11200-58	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1254	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Polychlorinated biphenyls (Total)	Not Detected	700	µg/Kg, dry wt.	07/31/20	DS	
Surrogate Standards						
Tetrachloro-m-xylene	92.0%	-	% Recovery	07/31/20	DS	
Decachlorobiphenyl	107%	-	% Recovery	07/31/20	DS	
Analysis Information						
Dry Weight Solids	84.1%	-	% by weight	07/30/20	LP	
PCB Extraction	Completed	-	-	07/31/20	LB	

Sample Description:		HA-8, 2', 9:23 AM, 7/29/20				
Laboratory ID:	11200-59	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
<i>Volatile Organic Compounds</i>						
Acetone	Not Detected	1,000	µg/Kg, dry wt.	07/31/20	BD	
Benzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Bromobenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Bromochloromethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Bromodichloromethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Bromoform	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Bromomethane	Not Detected	200	µg/Kg, dry wt.	07/31/20	BD	
2-Butanone (MEK)	Not Detected	750	µg/Kg, dry wt.	07/31/20	BD	
n-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
sec-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
tert-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Carbon disulfide	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
Carbon tetrachloride	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Chlorobenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Chloroethane	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
Chloroform	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Chloromethane	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
2-Chlorotoluene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
4-Chlorotoluene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Dibromochloromethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,2-Dibromo-3-chloropropane	Not Detected	10	µg/Kg, dry wt.	07/31/20	BD	
Dibromomethane	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
1,2-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,3-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,4-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Dichlorodifluoromethane	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
1,1-Dichloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,2-Dichloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,1-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
cis-1,2-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
trans-1,2-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,2-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,3-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
2,2-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,1-Dichloropropene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
cis-1,3-Dichloropropene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
continued						

Data Qualifiers: I Internal Standard results outside of acceptance limits E Reporting limit is elevated M Matrix interference observed
 S QC spike recovery outside of acceptance limits D Result is from a dilution F Matrix Spike four times rule applied
 R RPD outside of acceptance limits J Result should be considered estimated C See Case Narrative

Sample Description:		HA-8, 2', 9:23 AM, 7/29/20				
Laboratory ID:	11200-59	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
VOC's, Cont'd						
Ethylbenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Ethylene Dibromide (1,2-Dibromoethane)	Not Detected	20	µg/Kg, dry wt.	07/31/20	BD	
Hexachlorobutadiene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
2-Hexanone	Not Detected	2,500	µg/Kg, dry wt.	07/31/20	BD	
Isopropyl benzene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
4-Methyl-2-pentanone (MIBK)	Not Detected	2,500	µg/Kg, dry wt.	07/31/20	BD	
Methyl-t-butyl ether (MTBE)	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
Methylene chloride	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
2-Methylnaphthalene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
Naphthalene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
n-Propylbenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Styrene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,1,1,2-Tetrachloroethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,1,2,2-Tetrachloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Tetrachloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Tetrahydrofuran	Not Detected	1,000	µg/Kg, dry wt.	07/31/20	BD	
Toluene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,2,3-Trichlorobenzene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
1,2,4-Trichlorobenzene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
1,1,1-Trichloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,1,2-Trichloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Trichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Trichlorofluoromethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,2,3-Trichloropropane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,2,4-Trimethylbenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,3,5-Trimethylbenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Vinyl Acetate	Not Detected	5,000	µg/Kg, dry wt.	07/31/20	BD	
Vinyl Chloride	Not Detected	40	µg/Kg, dry wt.	07/31/20	BD	
Xylene (Total)	Not Detected	150	µg/Kg, dry wt.	07/31/20	BD	
Surrogate Standards						
1,2-Dichloroethane-d4	119%	-	% Recovery	07/31/20	BD	
Toluene-d8	102%	-	% Recovery	07/31/20	BD	
4-Bromofluorobenzene	107%	-	% Recovery	07/31/20	BD	
continued						

Sample Description:		HA-8, 2', 9:23 AM, 7/29/20				
Laboratory ID:	11200-59	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1254	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Polychlorinated biphenyls (Total)	Not Detected	700	µg/Kg, dry wt.	07/31/20	DS	
Surrogate Standards						
Tetrachloro-m-xylene	101%	-	% Recovery	07/31/20	DS	
Decachlorobiphenyl	116%	-	% Recovery	07/31/20	DS	
Analysis Information						
Dry Weight Solids	88.4%	-	% by weight	07/30/20	LP	
PCB Extraction	Completed	-	-	07/31/20	LB	

Sample Description:	HA-9, 0', 9:43 AM, 7/29/20					
Laboratory ID:	11200-61	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
<i>Volatile Organic Compounds</i>						
Acetone	Not Detected	1,000	µg/Kg, dry wt.	07/31/20	BD	
Benzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Bromobenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Bromochloromethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Bromodichloromethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Bromoform	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Bromomethane	Not Detected	200	µg/Kg, dry wt.	07/31/20	BD	
2-Butanone (MEK)	Not Detected	750	µg/Kg, dry wt.	07/31/20	BD	
n-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
sec-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
tert-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Carbon disulfide	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
Carbon tetrachloride	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Chlorobenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Chloroethane	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
Chloroform	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Chloromethane	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
2-Chlorotoluene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
4-Chlorotoluene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Dibromochloromethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,2-Dibromo-3-chloropropane	Not Detected	10	µg/Kg, dry wt.	07/31/20	BD	
Dibromomethane	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
1,2-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,3-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,4-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Dichlorodifluoromethane	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
1,1-Dichloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,2-Dichloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,1-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
cis-1,2-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
trans-1,2-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,2-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,3-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
2,2-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,1-Dichloropropene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
cis-1,3-Dichloropropene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
continued						

Data Qualifiers: I Internal Standard results outside of acceptance limits E Reporting limit is elevated M Matrix interference observed
 S QC spike recovery outside of acceptance limits D Result is from a dilution F Matrix Spike four times rule applied
 R RPD outside of acceptance limits J Result should be considered estimated C See Case Narrative

Sample Description:		HA-9, 0', 9:43 AM, 7/29/20				
Laboratory ID:	11200-61	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
VOC's, Cont'd						
Ethylbenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Ethylene Dibromide (1,2-Dibromoethane)	Not Detected	20	µg/Kg, dry wt.	07/31/20	BD	
Hexachlorobutadiene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
2-Hexanone	Not Detected	2,500	µg/Kg, dry wt.	07/31/20	BD	
Isopropyl benzene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
4-Methyl-2-pentanone (MIBK)	Not Detected	2,500	µg/Kg, dry wt.	07/31/20	BD	
Methyl-t-butyl ether (MTBE)	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
Methylene chloride	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
2-Methylnaphthalene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
Naphthalene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
n-Propylbenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Styrene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,1,1,2-Tetrachloroethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,1,2,2-Tetrachloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Tetrachloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Tetrahydrofuran	Not Detected	1,000	µg/Kg, dry wt.	07/31/20	BD	
Toluene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,2,3-Trichlorobenzene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
1,2,4-Trichlorobenzene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
1,1,1-Trichloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,1,2-Trichloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Trichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Trichlorofluoromethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,2,3-Trichloropropane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,2,4-Trimethylbenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,3,5-Trimethylbenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Vinyl Acetate	Not Detected	5,000	µg/Kg, dry wt.	07/31/20	BD	
Vinyl Chloride	Not Detected	40	µg/Kg, dry wt.	07/31/20	BD	
Xylene (Total)	Not Detected	150	µg/Kg, dry wt.	07/31/20	BD	
Surrogate Standards						
1,2-Dichloroethane-d4	117%	-	% Recovery	07/31/20	BD	
Toluene-d8	104%	-	% Recovery	07/31/20	BD	
4-Bromofluorobenzene	105%	-	% Recovery	07/31/20	BD	
continued						

Sample Description:		HA-9, 0', 9:43 AM, 7/29/20				
Laboratory ID:	11200-61	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1254	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Polychlorinated biphenyls (Total)	Not Detected	700	µg/Kg, dry wt.	07/31/20	DS	
Surrogate Standards						
Tetrachloro-m-xylene	94.5%	-	% Recovery	07/31/20	DS	
Decachlorobiphenyl	118%	-	% Recovery	07/31/20	DS	
Analysis Information						
Dry Weight Solids	84.9%	-	% by weight	07/30/20	LP	
PCB Extraction	Completed	-	-	07/31/20	LB	

Sample Description:	HA-9, 2', 9:46 AM, 7/29/20					
Laboratory ID:	11200-62	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
<i>Volatile Organic Compounds</i>						
Acetone	Not Detected	1,000	µg/Kg, dry wt.	07/31/20	BD	
Benzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Bromobenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Bromochloromethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Bromodichloromethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Bromoform	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Bromomethane	Not Detected	200	µg/Kg, dry wt.	07/31/20	BD	
2-Butanone (MEK)	Not Detected	750	µg/Kg, dry wt.	07/31/20	BD	
n-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
sec-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
tert-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Carbon disulfide	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
Carbon tetrachloride	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Chlorobenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Chloroethane	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
Chloroform	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Chloromethane	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
2-Chlorotoluene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
4-Chlorotoluene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Dibromochloromethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,2-Dibromo-3-chloropropane	Not Detected	10	µg/Kg, dry wt.	07/31/20	BD	
Dibromomethane	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
1,2-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,3-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,4-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Dichlorodifluoromethane	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
1,1-Dichloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,2-Dichloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,1-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
cis-1,2-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
trans-1,2-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,2-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,3-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
2,2-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,1-Dichloropropene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
cis-1,3-Dichloropropene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
continued						

Data Qualifiers: I Internal Standard results outside of acceptance limits E Reporting limit is elevated M Matrix interference observed
 S QC spike recovery outside of acceptance limits D Result is from a dilution F Matrix Spike four times rule applied
 R RPD outside of acceptance limits J Result should be considered estimated C See Case Narrative

Sample Description:		HA-9, 2', 9:46 AM, 7/29/20				
Laboratory ID:	11200-62	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
VOC's, Cont'd						
Ethylbenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Ethylene Dibromide (1,2-Dibromoethane)	Not Detected	20	µg/Kg, dry wt.	07/31/20	BD	
Hexachlorobutadiene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
2-Hexanone	Not Detected	2,500	µg/Kg, dry wt.	07/31/20	BD	
Isopropyl benzene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
4-Methyl-2-pentanone (MIBK)	Not Detected	2,500	µg/Kg, dry wt.	07/31/20	BD	
Methyl-t-butyl ether (MTBE)	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
Methylene chloride	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
2-Methylnaphthalene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
Naphthalene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
n-Propylbenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Styrene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,1,1,2-Tetrachloroethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,1,2,2-Tetrachloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Tetrachloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Tetrahydrofuran	Not Detected	1,000	µg/Kg, dry wt.	07/31/20	BD	
Toluene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,2,3-Trichlorobenzene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
1,2,4-Trichlorobenzene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
1,1,1-Trichloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,1,2-Trichloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Trichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Trichlorofluoromethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,2,3-Trichloropropane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,2,4-Trimethylbenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,3,5-Trimethylbenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Vinyl Acetate	Not Detected	5,000	µg/Kg, dry wt.	07/31/20	BD	
Vinyl Chloride	Not Detected	40	µg/Kg, dry wt.	07/31/20	BD	
Xylene (Total)	Not Detected	150	µg/Kg, dry wt.	07/31/20	BD	
Surrogate Standards						
1,2-Dichloroethane-d4	114%	-	% Recovery	07/31/20	BD	
Toluene-d8	105%	-	% Recovery	07/31/20	BD	
4-Bromofluorobenzene	104%	-	% Recovery	07/31/20	BD	
continued						

Sample Description:		HA-9, 2', 9:46 AM, 7/29/20				
Laboratory ID:	11200-62	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1254	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Polychlorinated biphenyls (Total)	Not Detected	700	µg/Kg, dry wt.	07/31/20	DS	
Surrogate Standards						
Tetrachloro-m-xylene	98.7%	-	% Recovery	07/31/20	DS	
Decachlorobiphenyl	107%	-	% Recovery	07/31/20	DS	
Analysis Information						
Dry Weight Solids	83.0%	-	% by weight	07/30/20	LP	
PCB Extraction	Completed	-	-	07/31/20	LB	

Sample Description:		Wall Sample 1, 9:48 AM, 7/29/20				
Laboratory ID:	11200-64	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
<i>Volatile Organic Compounds</i>						
Acetone	Not Detected	1,000	µg/Kg, dry wt.	07/31/20	BD	
Benzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Bromobenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Bromochloromethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Bromodichloromethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Bromoform	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Bromomethane	Not Detected	200	µg/Kg, dry wt.	07/31/20	BD	
2-Butanone (MEK)	Not Detected	750	µg/Kg, dry wt.	07/31/20	BD	
n-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
sec-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
tert-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Carbon disulfide	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
Carbon tetrachloride	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Chlorobenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Chloroethane	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
Chloroform	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Chloromethane	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
2-Chlorotoluene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
4-Chlorotoluene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Dibromochloromethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,2-Dibromo-3-chloropropane	Not Detected	10	µg/Kg, dry wt.	07/31/20	BD	
Dibromomethane	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
1,2-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,3-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,4-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Dichlorodifluoromethane	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
1,1-Dichloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,2-Dichloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,1-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
cis-1,2-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
trans-1,2-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,2-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,3-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
2,2-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,1-Dichloropropene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
cis-1,3-Dichloropropene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
continued						

Data Qualifiers: I Internal Standard results outside of acceptance limits E Reporting limit is elevated M Matrix interference observed
 S QC spike recovery outside of acceptance limits D Result is from a dilution F Matrix Spike four times rule applied
 R RPD outside of acceptance limits J Result should be considered estimated C See Case Narrative

Sample Description:		Wall Sample 1, 9:48 AM, 7/29/20				
Laboratory ID:	11200-64	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
VOC's, Cont'd						
Ethylbenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Ethylene Dibromide (1,2-Dibromoethane)	Not Detected	20	µg/Kg, dry wt.	07/31/20	BD	
Hexachlorobutadiene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
2-Hexanone	Not Detected	2,500	µg/Kg, dry wt.	07/31/20	BD	
Isopropyl benzene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
4-Methyl-2-pentanone (MIBK)	Not Detected	2,500	µg/Kg, dry wt.	07/31/20	BD	
Methyl-t-butyl ether (MTBE)	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
Methylene chloride	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
2-Methylnaphthalene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
Naphthalene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
n-Propylbenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Styrene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,1,1,2-Tetrachloroethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,1,2,2-Tetrachloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Tetrachloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Tetrahydrofuran	Not Detected	1,000	µg/Kg, dry wt.	07/31/20	BD	
Toluene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,2,3-Trichlorobenzene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
1,2,4-Trichlorobenzene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
1,1,1-Trichloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,1,2-Trichloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Trichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Trichlorofluoromethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,2,3-Trichloropropane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,2,4-Trimethylbenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,3,5-Trimethylbenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Vinyl Acetate	Not Detected	5,000	µg/Kg, dry wt.	07/31/20	BD	
Vinyl Chloride	Not Detected	40	µg/Kg, dry wt.	07/31/20	BD	
Xylene (Total)	Not Detected	150	µg/Kg, dry wt.	07/31/20	BD	
Surrogate Standards						
1,2-Dichloroethane-d4	119%	-	% Recovery	07/31/20	BD	
Toluene-d8	103%	-	% Recovery	07/31/20	BD	
4-Bromofluorobenzene	105%	-	% Recovery	07/31/20	BD	
continued						

Sample Description:		Wall Sample 1, 9:48 AM, 7/29/20				
Laboratory ID:	11200-64	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1254	5,620	100	µg/Kg, dry wt.	07/31/20	DS	D
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Polychlorinated biphenyls (Total)	5,620	700	µg/Kg, dry wt.	07/31/20	DS	D
Surrogate Standards						
Tetrachloro-m-xylene	108%	-	% Recovery	07/31/20	DS	
Decachlorobiphenyl	115%	-	% Recovery	07/31/20	DS	
Analysis Information						
Dry Weight Solids	96.1%	-	% by weight	07/30/20	LP	
PCB Extraction	Completed	-	-	07/31/20	LB	

Sample Description:		Wall Sample 2, 10:05 AM, 7/29/20				
Laboratory ID:	11200-65	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
<i>Volatile Organic Compounds</i>						
Acetone	Not Detected	1,000	µg/Kg, dry wt.	08/03/20	BD	
Benzene	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
Bromobenzene	Not Detected	100	µg/Kg, dry wt.	08/03/20	BD	
Bromochloromethane	Not Detected	100	µg/Kg, dry wt.	08/03/20	BD	
Bromodichloromethane	Not Detected	100	µg/Kg, dry wt.	08/03/20	BD	
Bromoform	Not Detected	100	µg/Kg, dry wt.	08/03/20	BD	
Bromomethane	Not Detected	200	µg/Kg, dry wt.	08/03/20	BD	
2-Butanone (MEK)	Not Detected	750	µg/Kg, dry wt.	08/03/20	BD	
n-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
sec-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
tert-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
Carbon disulfide	Not Detected	250	µg/Kg, dry wt.	08/03/20	BD	
Carbon tetrachloride	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
Chlorobenzene	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
Chloroethane	Not Detected	250	µg/Kg, dry wt.	08/03/20	BD	
Chloroform	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
Chloromethane	Not Detected	250	µg/Kg, dry wt.	08/03/20	BD	
2-Chlorotoluene	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
4-Chlorotoluene	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
Dibromochloromethane	Not Detected	100	µg/Kg, dry wt.	08/03/20	BD	
1,2-Dibromo-3-chloropropane	Not Detected	10	µg/Kg, dry wt.	08/03/20	BD	
Dibromomethane	Not Detected	250	µg/Kg, dry wt.	08/03/20	BD	
1,2-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	08/03/20	BD	
1,3-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	08/03/20	BD	
1,4-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	08/03/20	BD	
Dichlorodifluoromethane	Not Detected	250	µg/Kg, dry wt.	08/03/20	BD	
1,1-Dichloroethane	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
1,2-Dichloroethane	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
1,1-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
cis-1,2-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
trans-1,2-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
1,2-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
1,3-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
2,2-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
1,1-Dichloropropene	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
cis-1,3-Dichloropropene	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
continued						

Data Qualifiers: I Internal Standard results outside of acceptance limits E Reporting limit is elevated M Matrix interference observed
 S QC spike recovery outside of acceptance limits D Result is from a dilution F Matrix Spike four times rule applied
 R RPD outside of acceptance limits J Result should be considered estimated C See Case Narrative

Sample Description:		Wall Sample 2, 10:05 AM, 7/29/20				
Laboratory ID:	11200-65	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
VOC's, Cont'd						
Ethylbenzene	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
Ethylene Dibromide (1,2-Dibromoethane)	Not Detected	20	µg/Kg, dry wt.	08/03/20	BD	
Hexachlorobutadiene	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
2-Hexanone	Not Detected	2,500	µg/Kg, dry wt.	08/03/20	BD	
Isopropyl benzene	Not Detected	250	µg/Kg, dry wt.	08/03/20	BD	
4-Methyl-2-pentanone (MIBK)	Not Detected	2,500	µg/Kg, dry wt.	08/03/20	BD	
Methyl-t-butyl ether (MTBE)	Not Detected	250	µg/Kg, dry wt.	08/03/20	BD	
Methylene chloride	Not Detected	250	µg/Kg, dry wt.	08/03/20	BD	
2-Methylnaphthalene	Not Detected	250	µg/Kg, dry wt.	08/03/20	BD	
Naphthalene	Not Detected	250	µg/Kg, dry wt.	08/03/20	BD	
n-Propylbenzene	Not Detected	100	µg/Kg, dry wt.	08/03/20	BD	
Styrene	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
1,1,1,2-Tetrachloroethane	Not Detected	100	µg/Kg, dry wt.	08/03/20	BD	
1,1,2,2-Tetrachloroethane	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
Tetrachloroethylene	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
Tetrahydrofuran	Not Detected	1,000	µg/Kg, dry wt.	08/03/20	BD	
Toluene	Not Detected	100	µg/Kg, dry wt.	08/03/20	BD	
1,2,3-Trichlorobenzene	Not Detected	250	µg/Kg, dry wt.	08/03/20	BD	
1,2,4-Trichlorobenzene	Not Detected	250	µg/Kg, dry wt.	08/03/20	BD	
1,1,1-Trichloroethane	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
1,1,2-Trichloroethane	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
Trichloroethylene	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
Trichlorofluoromethane	Not Detected	100	µg/Kg, dry wt.	08/03/20	BD	
1,2,3-Trichloropropane	Not Detected	100	µg/Kg, dry wt.	08/03/20	BD	
1,2,4-Trimethylbenzene	Not Detected	100	µg/Kg, dry wt.	08/03/20	BD	
1,3,5-Trimethylbenzene	Not Detected	100	µg/Kg, dry wt.	08/03/20	BD	
Vinyl Acetate	Not Detected	5,000	µg/Kg, dry wt.	08/03/20	BD	
Vinyl Chloride	Not Detected	40	µg/Kg, dry wt.	08/03/20	BD	
Xylene (Total)	Not Detected	150	µg/Kg, dry wt.	08/03/20	BD	
Surrogate Standards						
1,2-Dichloroethane-d4	96.6%	-	% Recovery	08/03/20	BD	
Toluene-d8	103%	-	% Recovery	08/03/20	BD	
4-Bromofluorobenzene	104%	-	% Recovery	08/03/20	BD	
continued						

Sample Description:		Wall Sample 2, 10:05 AM, 7/29/20				
Laboratory ID:	11200-65	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1254	135,000	100	µg/Kg, dry wt.	07/31/20	DS	D
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Polychlorinated biphenyls (Total)	135,000	700	µg/Kg, dry wt.	07/31/20	DS	D
Surrogate Standards						
Tetrachloro-m-xylene	93.7%	-	% Recovery	07/31/20	DS	
Decachlorobiphenyl	109%	-	% Recovery	07/31/20	DS	
Analysis Information						
Dry Weight Solids	96.9%	-	% by weight	07/30/20	LP	
PCB Extraction	Completed	-	-	07/31/20	LB	

Sample Description:	Wall Sample 3, 10:18 AM, 7/29/20					
Laboratory ID:	11200-66	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
<i>Volatile Organic Compounds</i>						
Acetone	Not Detected	1,000	µg/Kg, dry wt.	08/03/20	BD	
Benzene	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
Bromobenzene	Not Detected	100	µg/Kg, dry wt.	08/03/20	BD	
Bromochloromethane	Not Detected	100	µg/Kg, dry wt.	08/03/20	BD	
Bromodichloromethane	Not Detected	100	µg/Kg, dry wt.	08/03/20	BD	
Bromoform	Not Detected	100	µg/Kg, dry wt.	08/03/20	BD	
Bromomethane	Not Detected	200	µg/Kg, dry wt.	08/03/20	BD	
2-Butanone (MEK)	Not Detected	750	µg/Kg, dry wt.	08/03/20	BD	
n-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
sec-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
tert-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
Carbon disulfide	Not Detected	250	µg/Kg, dry wt.	08/03/20	BD	
Carbon tetrachloride	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
Chlorobenzene	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
Chloroethane	Not Detected	250	µg/Kg, dry wt.	08/03/20	BD	
Chloroform	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
Chloromethane	Not Detected	250	µg/Kg, dry wt.	08/03/20	BD	
2-Chlorotoluene	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
4-Chlorotoluene	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
Dibromochloromethane	Not Detected	100	µg/Kg, dry wt.	08/03/20	BD	
1,2-Dibromo-3-chloropropane	Not Detected	10	µg/Kg, dry wt.	08/03/20	BD	
Dibromomethane	Not Detected	250	µg/Kg, dry wt.	08/03/20	BD	
1,2-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	08/03/20	BD	
1,3-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	08/03/20	BD	
1,4-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	08/03/20	BD	
Dichlorodifluoromethane	Not Detected	250	µg/Kg, dry wt.	08/03/20	BD	
1,1-Dichloroethane	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
1,2-Dichloroethane	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
1,1-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
cis-1,2-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
trans-1,2-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
1,2-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
1,3-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
2,2-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
1,1-Dichloropropene	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
cis-1,3-Dichloropropene	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
continued						

Data Qualifiers: I Internal Standard results outside of acceptance limits E Reporting limit is elevated M Matrix interference observed
 S QC spike recovery outside of acceptance limits D Result is from a dilution F Matrix Spike four times rule applied
 R RPD outside of acceptance limits J Result should be considered estimated C See Case Narrative

Sample Description:		Wall Sample 3, 10:18 AM, 7/29/20				
Laboratory ID:	11200-66	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
VOC's, Cont'd						
Ethylbenzene	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
Ethylene Dibromide (1,2-Dibromoethane)	Not Detected	20	µg/Kg, dry wt.	08/03/20	BD	
Hexachlorobutadiene	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
2-Hexanone	Not Detected	2,500	µg/Kg, dry wt.	08/03/20	BD	
Isopropyl benzene	Not Detected	250	µg/Kg, dry wt.	08/03/20	BD	
4-Methyl-2-pentanone (MIBK)	Not Detected	2,500	µg/Kg, dry wt.	08/03/20	BD	
Methyl-t-butyl ether (MTBE)	Not Detected	250	µg/Kg, dry wt.	08/03/20	BD	
Methylene chloride	Not Detected	250	µg/Kg, dry wt.	08/03/20	BD	
2-Methylnaphthalene	Not Detected	250	µg/Kg, dry wt.	08/03/20	BD	
Naphthalene	Not Detected	250	µg/Kg, dry wt.	08/03/20	BD	
n-Propylbenzene	Not Detected	100	µg/Kg, dry wt.	08/03/20	BD	
Styrene	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
1,1,1,2-Tetrachloroethane	Not Detected	100	µg/Kg, dry wt.	08/03/20	BD	
1,1,2,2-Tetrachloroethane	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
Tetrachloroethylene	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
Tetrahydrofuran	Not Detected	1,000	µg/Kg, dry wt.	08/03/20	BD	
Toluene	Not Detected	100	µg/Kg, dry wt.	08/03/20	BD	
1,2,3-Trichlorobenzene	Not Detected	250	µg/Kg, dry wt.	08/03/20	BD	
1,2,4-Trichlorobenzene	Not Detected	250	µg/Kg, dry wt.	08/03/20	BD	
1,1,1-Trichloroethane	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
1,1,2-Trichloroethane	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
Trichloroethylene	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
Trichlorofluoromethane	Not Detected	100	µg/Kg, dry wt.	08/03/20	BD	
1,2,3-Trichloropropane	Not Detected	100	µg/Kg, dry wt.	08/03/20	BD	
1,2,4-Trimethylbenzene	Not Detected	100	µg/Kg, dry wt.	08/03/20	BD	
1,3,5-Trimethylbenzene	Not Detected	100	µg/Kg, dry wt.	08/03/20	BD	
Vinyl Acetate	Not Detected	5,000	µg/Kg, dry wt.	08/03/20	BD	
Vinyl Chloride	Not Detected	40	µg/Kg, dry wt.	08/03/20	BD	
Xylene (Total)	Not Detected	150	µg/Kg, dry wt.	08/03/20	BD	
Surrogate Standards						
1,2-Dichloroethane-d4	93.9%	-	% Recovery	08/03/20	BD	
Toluene-d8	101%	-	% Recovery	08/03/20	BD	
4-Bromofluorobenzene	116%	-	% Recovery	08/03/20	BD	
continued						

Sample Description:		Wall Sample 3, 10:18 AM, 7/29/20				
Laboratory ID:	11200-66	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1254	336,000	100	µg/Kg, dry wt.	07/31/20	DS	D
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Polychlorinated biphenyls (Total)	336,000	700	µg/Kg, dry wt.	07/31/20	DS	D
Surrogate Standards						
Tetrachloro-m-xylene	105%	-	% Recovery	07/31/20	DS	
Decachlorobiphenyl	121%	-	% Recovery	07/31/20	DS	
Analysis Information						
Dry Weight Solids	98.0%	-	% by weight	07/30/20	LP	
PCB Extraction	Completed	-	-	07/31/20	LB	

Sample Description:		Wall Sample 4, 10:32 AM, 7/29/20				
Laboratory ID:	11200-67	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
<i>Volatile Organic Compounds</i>						
Acetone	Not Detected	1,000	µg/Kg, dry wt.	08/03/20	BD	
Benzene	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
Bromobenzene	Not Detected	100	µg/Kg, dry wt.	08/03/20	BD	
Bromochloromethane	Not Detected	100	µg/Kg, dry wt.	08/03/20	BD	
Bromodichloromethane	Not Detected	100	µg/Kg, dry wt.	08/03/20	BD	
Bromoform	Not Detected	100	µg/Kg, dry wt.	08/03/20	BD	
Bromomethane	Not Detected	200	µg/Kg, dry wt.	08/03/20	BD	
2-Butanone (MEK)	Not Detected	750	µg/Kg, dry wt.	08/03/20	BD	
n-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
sec-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
tert-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
Carbon disulfide	Not Detected	250	µg/Kg, dry wt.	08/03/20	BD	
Carbon tetrachloride	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
Chlorobenzene	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
Chloroethane	Not Detected	250	µg/Kg, dry wt.	08/03/20	BD	
Chloroform	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
Chloromethane	Not Detected	250	µg/Kg, dry wt.	08/03/20	BD	
2-Chlorotoluene	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
4-Chlorotoluene	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
Dibromochloromethane	Not Detected	100	µg/Kg, dry wt.	08/03/20	BD	
1,2-Dibromo-3-chloropropane	Not Detected	10	µg/Kg, dry wt.	08/03/20	BD	
Dibromomethane	Not Detected	250	µg/Kg, dry wt.	08/03/20	BD	
1,2-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	08/03/20	BD	
1,3-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	08/03/20	BD	
1,4-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	08/03/20	BD	
Dichlorodifluoromethane	Not Detected	250	µg/Kg, dry wt.	08/03/20	BD	
1,1-Dichloroethane	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
1,2-Dichloroethane	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
1,1-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
cis-1,2-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
trans-1,2-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
1,2-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
1,3-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
2,2-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
1,1-Dichloropropene	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
cis-1,3-Dichloropropene	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
continued						

Sample Description:		Wall Sample 4, 10:32 AM, 7/29/20				
Laboratory ID:	11200-67	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
VOC's, Cont'd						
Ethylbenzene	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
Ethylene Dibromide (1,2-Dibromoethane)	Not Detected	20	µg/Kg, dry wt.	08/03/20	BD	
Hexachlorobutadiene	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
2-Hexanone	Not Detected	2,500	µg/Kg, dry wt.	08/03/20	BD	
Isopropyl benzene	Not Detected	250	µg/Kg, dry wt.	08/03/20	BD	
4-Methyl-2-pentanone (MIBK)	Not Detected	2,500	µg/Kg, dry wt.	08/03/20	BD	
Methyl-t-butyl ether (MTBE)	Not Detected	250	µg/Kg, dry wt.	08/03/20	BD	
Methylene chloride	Not Detected	250	µg/Kg, dry wt.	08/03/20	BD	
2-Methylnaphthalene	Not Detected	250	µg/Kg, dry wt.	08/03/20	BD	
Naphthalene	Not Detected	250	µg/Kg, dry wt.	08/03/20	BD	
n-Propylbenzene	Not Detected	100	µg/Kg, dry wt.	08/03/20	BD	
Styrene	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
1,1,1,2-Tetrachloroethane	Not Detected	100	µg/Kg, dry wt.	08/03/20	BD	
1,1,2,2-Tetrachloroethane	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
Tetrachloroethylene	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
Tetrahydrofuran	Not Detected	1,000	µg/Kg, dry wt.	08/03/20	BD	
Toluene	Not Detected	100	µg/Kg, dry wt.	08/03/20	BD	
1,2,3-Trichlorobenzene	Not Detected	250	µg/Kg, dry wt.	08/03/20	BD	
1,2,4-Trichlorobenzene	Not Detected	250	µg/Kg, dry wt.	08/03/20	BD	
1,1,1-Trichloroethane	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
1,1,2-Trichloroethane	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
Trichloroethylene	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
Trichlorofluoromethane	Not Detected	100	µg/Kg, dry wt.	08/03/20	BD	
1,2,3-Trichloropropane	Not Detected	100	µg/Kg, dry wt.	08/03/20	BD	
1,2,4-Trimethylbenzene	Not Detected	100	µg/Kg, dry wt.	08/03/20	BD	
1,3,5-Trimethylbenzene	Not Detected	100	µg/Kg, dry wt.	08/03/20	BD	
Vinyl Acetate	Not Detected	5,000	µg/Kg, dry wt.	08/03/20	BD	
Vinyl Chloride	Not Detected	40	µg/Kg, dry wt.	08/03/20	BD	
Xylene (Total)	Not Detected	150	µg/Kg, dry wt.	08/03/20	BD	
Surrogate Standards						
1,2-Dichloroethane-d4	93.5%	-	% Recovery	08/03/20	BD	
Toluene-d8	101%	-	% Recovery	08/03/20	BD	
4-Bromofluorobenzene	108%	-	% Recovery	08/03/20	BD	
continued						

Sample Description:		Wall Sample 4, 10:32 AM, 7/29/20				
Laboratory ID:	11200-67	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1254	4,920	100	µg/Kg, dry wt.	07/31/20	DS	D
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Polychlorinated biphenyls (Total)	4,920	700	µg/Kg, dry wt.	07/31/20	DS	D
Surrogate Standards						
Tetrachloro-m-xylene	103%	-	% Recovery	07/31/20	DS	
Decachlorobiphenyl	121%	-	% Recovery	07/31/20	DS	
Analysis Information						
Dry Weight Solids	97.9%	-	% by weight	07/30/20	LP	
PCB Extraction	Completed	-	-	07/31/20	LB	

Sample Description:		Wall Sample 5, 10:56 AM, 7/29/20				
Laboratory ID:	11200-68	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
<i>Volatile Organic Compounds</i>						
Acetone	Not Detected	1,000	µg/Kg, dry wt.	08/03/20	BD	
Benzene	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
Bromobenzene	Not Detected	100	µg/Kg, dry wt.	08/03/20	BD	
Bromochloromethane	Not Detected	100	µg/Kg, dry wt.	08/03/20	BD	
Bromodichloromethane	Not Detected	100	µg/Kg, dry wt.	08/03/20	BD	
Bromoform	Not Detected	100	µg/Kg, dry wt.	08/03/20	BD	
Bromomethane	Not Detected	200	µg/Kg, dry wt.	08/03/20	BD	
2-Butanone (MEK)	Not Detected	750	µg/Kg, dry wt.	08/03/20	BD	
n-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
sec-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
tert-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
Carbon disulfide	Not Detected	250	µg/Kg, dry wt.	08/03/20	BD	
Carbon tetrachloride	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
Chlorobenzene	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
Chloroethane	Not Detected	250	µg/Kg, dry wt.	08/03/20	BD	
Chloroform	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
Chloromethane	Not Detected	250	µg/Kg, dry wt.	08/03/20	BD	
2-Chlorotoluene	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
4-Chlorotoluene	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
Dibromochloromethane	Not Detected	100	µg/Kg, dry wt.	08/03/20	BD	
1,2-Dibromo-3-chloropropane	Not Detected	10	µg/Kg, dry wt.	08/03/20	BD	
Dibromomethane	Not Detected	250	µg/Kg, dry wt.	08/03/20	BD	
1,2-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	08/03/20	BD	
1,3-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	08/03/20	BD	
1,4-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	08/03/20	BD	
Dichlorodifluoromethane	Not Detected	250	µg/Kg, dry wt.	08/03/20	BD	
1,1-Dichloroethane	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
1,2-Dichloroethane	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
1,1-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
cis-1,2-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
trans-1,2-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
1,2-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
1,3-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
2,2-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
1,1-Dichloropropene	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
cis-1,3-Dichloropropene	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
continued						

Data Qualifiers: I Internal Standard results outside of acceptance limits E Reporting limit is elevated M Matrix interference observed
 S QC spike recovery outside of acceptance limits D Result is from a dilution F Matrix Spike four times rule applied
 R RPD outside of acceptance limits J Result should be considered estimated C See Case Narrative

Sample Description:		Wall Sample 5, 10:56 AM, 7/29/20				
Laboratory ID:	11200-68	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
VOC's, Cont'd						
Ethylbenzene	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
Ethylene Dibromide (1,2-Dibromoethane)	Not Detected	20	µg/Kg, dry wt.	08/03/20	BD	
Hexachlorobutadiene	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
2-Hexanone	Not Detected	2,500	µg/Kg, dry wt.	08/03/20	BD	
Isopropyl benzene	Not Detected	250	µg/Kg, dry wt.	08/03/20	BD	
4-Methyl-2-pentanone (MIBK)	Not Detected	2,500	µg/Kg, dry wt.	08/03/20	BD	
Methyl-t-butyl ether (MTBE)	Not Detected	250	µg/Kg, dry wt.	08/03/20	BD	
Methylene chloride	Not Detected	250	µg/Kg, dry wt.	08/03/20	BD	
2-Methylnaphthalene	Not Detected	250	µg/Kg, dry wt.	08/03/20	BD	
Naphthalene	Not Detected	250	µg/Kg, dry wt.	08/03/20	BD	
n-Propylbenzene	Not Detected	100	µg/Kg, dry wt.	08/03/20	BD	
Styrene	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
1,1,1,2-Tetrachloroethane	Not Detected	100	µg/Kg, dry wt.	08/03/20	BD	
1,1,2,2-Tetrachloroethane	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
Tetrachloroethylene	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
Tetrahydrofuran	Not Detected	1,000	µg/Kg, dry wt.	08/03/20	BD	
Toluene	Not Detected	100	µg/Kg, dry wt.	08/03/20	BD	
1,2,3-Trichlorobenzene	Not Detected	250	µg/Kg, dry wt.	08/03/20	BD	
1,2,4-Trichlorobenzene	Not Detected	250	µg/Kg, dry wt.	08/03/20	BD	
1,1,1-Trichloroethane	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
1,1,2-Trichloroethane	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
Trichloroethylene	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
Trichlorofluoromethane	Not Detected	100	µg/Kg, dry wt.	08/03/20	BD	
1,2,3-Trichloropropane	Not Detected	100	µg/Kg, dry wt.	08/03/20	BD	
1,2,4-Trimethylbenzene	Not Detected	100	µg/Kg, dry wt.	08/03/20	BD	
1,3,5-Trimethylbenzene	Not Detected	100	µg/Kg, dry wt.	08/03/20	BD	
Vinyl Acetate	Not Detected	5,000	µg/Kg, dry wt.	08/03/20	BD	
Vinyl Chloride	Not Detected	40	µg/Kg, dry wt.	08/03/20	BD	
Xylene (Total)	Not Detected	150	µg/Kg, dry wt.	08/03/20	BD	
Surrogate Standards						
1,2-Dichloroethane-d4	102%	-	% Recovery	08/03/20	BD	
Toluene-d8	100%	-	% Recovery	08/03/20	BD	
4-Bromofluorobenzene	107%	-	% Recovery	08/03/20	BD	
continued						

Sample Description:		Wall Sample 5, 10:56 AM, 7/29/20				
Laboratory ID:	11200-68	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1254	4,410	100	µg/Kg, dry wt.	07/31/20	DS	D
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Polychlorinated biphenyls (Total)	4,410	700	µg/Kg, dry wt.	07/31/20	DS	D
Surrogate Standards						
Tetrachloro-m-xylene	117%	-	% Recovery	07/31/20	DS	
Decachlorobiphenyl	134%	-	% Recovery	07/31/20	DS	
Analysis Information						
Dry Weight Solids	95.2%	-	% by weight	07/30/20	LP	
PCB Extraction	Completed	-	-	07/31/20	LB	

Sample Description:		Wall Sample 6, 11:07 AM, 7/29/20				
Laboratory ID:	11200-69	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
Volatile Organic Compounds						
Acetone	Not Detected	1,000	µg/Kg, dry wt.	08/03/20	BD	
Benzene	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
Bromobenzene	Not Detected	100	µg/Kg, dry wt.	08/03/20	BD	
Bromochloromethane	Not Detected	100	µg/Kg, dry wt.	08/03/20	BD	
Bromodichloromethane	Not Detected	100	µg/Kg, dry wt.	08/03/20	BD	
Bromoform	Not Detected	100	µg/Kg, dry wt.	08/03/20	BD	
Bromomethane	Not Detected	200	µg/Kg, dry wt.	08/03/20	BD	
2-Butanone (MEK)	Not Detected	750	µg/Kg, dry wt.	08/03/20	BD	
n-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
sec-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
tert-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
Carbon disulfide	Not Detected	250	µg/Kg, dry wt.	08/03/20	BD	
Carbon tetrachloride	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
Chlorobenzene	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
Chloroethane	Not Detected	250	µg/Kg, dry wt.	08/03/20	BD	
Chloroform	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
Chloromethane	Not Detected	250	µg/Kg, dry wt.	08/03/20	BD	
2-Chlorotoluene	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
4-Chlorotoluene	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
Dibromochloromethane	Not Detected	100	µg/Kg, dry wt.	08/03/20	BD	
1,2-Dibromo-3-chloropropane	Not Detected	10	µg/Kg, dry wt.	08/03/20	BD	
Dibromomethane	Not Detected	250	µg/Kg, dry wt.	08/03/20	BD	
1,2-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	08/03/20	BD	
1,3-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	08/03/20	BD	
1,4-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	08/03/20	BD	
Dichlorodifluoromethane	Not Detected	250	µg/Kg, dry wt.	08/03/20	BD	
1,1-Dichloroethane	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
1,2-Dichloroethane	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
1,1-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
cis-1,2-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
trans-1,2-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
1,2-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
1,3-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
2,2-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
1,1-Dichloropropene	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
cis-1,3-Dichloropropene	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
continued						

Sample Description:		Wall Sample 6, 11:07 AM, 7/29/20				
Laboratory ID:	11200-69	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
VOC's, Cont'd						
Ethylbenzene	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
Ethylene Dibromide (1,2-Dibromoethane)	Not Detected	20	µg/Kg, dry wt.	08/03/20	BD	
Hexachlorobutadiene	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
2-Hexanone	Not Detected	2,500	µg/Kg, dry wt.	08/03/20	BD	
Isopropyl benzene	Not Detected	250	µg/Kg, dry wt.	08/03/20	BD	
4-Methyl-2-pentanone (MIBK)	Not Detected	2,500	µg/Kg, dry wt.	08/03/20	BD	
Methyl-t-butyl ether (MTBE)	Not Detected	250	µg/Kg, dry wt.	08/03/20	BD	
Methylene chloride	Not Detected	250	µg/Kg, dry wt.	08/03/20	BD	
2-Methylnaphthalene	Not Detected	250	µg/Kg, dry wt.	08/03/20	BD	
Naphthalene	Not Detected	250	µg/Kg, dry wt.	08/03/20	BD	
n-Propylbenzene	Not Detected	100	µg/Kg, dry wt.	08/03/20	BD	
Styrene	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
1,1,1,2-Tetrachloroethane	Not Detected	100	µg/Kg, dry wt.	08/03/20	BD	
1,1,2,2-Tetrachloroethane	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
Tetrachloroethylene	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
Tetrahydrofuran	Not Detected	1,000	µg/Kg, dry wt.	08/03/20	BD	
Toluene	Not Detected	100	µg/Kg, dry wt.	08/03/20	BD	
1,2,3-Trichlorobenzene	Not Detected	250	µg/Kg, dry wt.	08/03/20	BD	
1,2,4-Trichlorobenzene	Not Detected	250	µg/Kg, dry wt.	08/03/20	BD	
1,1,1-Trichloroethane	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
1,1,2-Trichloroethane	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
Trichloroethylene	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
Trichlorofluoromethane	Not Detected	100	µg/Kg, dry wt.	08/03/20	BD	
1,2,3-Trichloropropane	Not Detected	100	µg/Kg, dry wt.	08/03/20	BD	
1,2,4-Trimethylbenzene	Not Detected	100	µg/Kg, dry wt.	08/03/20	BD	
1,3,5-Trimethylbenzene	Not Detected	100	µg/Kg, dry wt.	08/03/20	BD	
Vinyl Acetate	Not Detected	5,000	µg/Kg, dry wt.	08/03/20	BD	
Vinyl Chloride	Not Detected	40	µg/Kg, dry wt.	08/03/20	BD	
Xylene (Total)	Not Detected	150	µg/Kg, dry wt.	08/03/20	BD	
Surrogate Standards						
1,2-Dichloroethane-d4	100%	-	% Recovery	08/03/20	BD	
Toluene-d8	102%	-	% Recovery	08/03/20	BD	
4-Bromofluorobenzene	106%	-	% Recovery	08/03/20	BD	
continued						

Sample Description:		Wall Sample 6, 11:07 AM, 7/29/20				
Laboratory ID:	11200-69	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1254	1,120	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Polychlorinated biphenyls (Total)	1,120	700	µg/Kg, dry wt.	07/31/20	DS	
Surrogate Standards						
Tetrachloro-m-xylene	109%	-	% Recovery	07/31/20	DS	
Decachlorobiphenyl	136%	-	% Recovery	07/31/20	DS	
Analysis Information						
Dry Weight Solids	99.3%	-	% by weight	07/30/20	LP	
PCB Extraction	Completed	-	-	07/31/20	LB	

Sample Description:	Wall Sample 7, 11:21 AM, 7/29/20					
Laboratory ID:	11200-70	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
<i>Volatile Organic Compounds</i>						
Acetone	Not Detected	1,000	µg/Kg, dry wt.	08/03/20	BD	
Benzene	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
Bromobenzene	Not Detected	100	µg/Kg, dry wt.	08/03/20	BD	
Bromochloromethane	Not Detected	100	µg/Kg, dry wt.	08/03/20	BD	
Bromodichloromethane	Not Detected	100	µg/Kg, dry wt.	08/03/20	BD	
Bromoform	Not Detected	100	µg/Kg, dry wt.	08/03/20	BD	
Bromomethane	Not Detected	200	µg/Kg, dry wt.	08/03/20	BD	
2-Butanone (MEK)	Not Detected	750	µg/Kg, dry wt.	08/03/20	BD	
n-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
sec-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
tert-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
Carbon disulfide	Not Detected	250	µg/Kg, dry wt.	08/03/20	BD	
Carbon tetrachloride	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
Chlorobenzene	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
Chloroethane	Not Detected	250	µg/Kg, dry wt.	08/03/20	BD	
Chloroform	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
Chloromethane	Not Detected	250	µg/Kg, dry wt.	08/03/20	BD	
2-Chlorotoluene	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
4-Chlorotoluene	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
Dibromochloromethane	Not Detected	100	µg/Kg, dry wt.	08/03/20	BD	
1,2-Dibromo-3-chloropropane	Not Detected	10	µg/Kg, dry wt.	08/03/20	BD	
Dibromomethane	Not Detected	250	µg/Kg, dry wt.	08/03/20	BD	
1,2-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	08/03/20	BD	
1,3-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	08/03/20	BD	
1,4-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	08/03/20	BD	
Dichlorodifluoromethane	Not Detected	250	µg/Kg, dry wt.	08/03/20	BD	
1,1-Dichloroethane	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
1,2-Dichloroethane	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
1,1-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
cis-1,2-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
trans-1,2-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
1,2-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
1,3-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
2,2-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
1,1-Dichloropropene	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
cis-1,3-Dichloropropene	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
continued						

Data Qualifiers: I Internal Standard results outside of acceptance limits E Reporting limit is elevated M Matrix interference observed
 S QC spike recovery outside of acceptance limits D Result is from a dilution F Matrix Spike four times rule applied
 R RPD outside of acceptance limits J Result should be considered estimated C See Case Narrative

Sample Description:	Wall Sample 7, 11:21 AM, 7/29/20					
Laboratory ID:	11200-70	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
VOC's, Cont'd						
Ethylbenzene	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
Ethylene Dibromide (1,2-Dibromoethane)	Not Detected	20	µg/Kg, dry wt.	08/03/20	BD	
Hexachlorobutadiene	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
2-Hexanone	Not Detected	2,500	µg/Kg, dry wt.	08/03/20	BD	
Isopropyl benzene	Not Detected	250	µg/Kg, dry wt.	08/03/20	BD	
4-Methyl-2-pentanone (MIBK)	Not Detected	2,500	µg/Kg, dry wt.	08/03/20	BD	
Methyl-t-butyl ether (MTBE)	Not Detected	250	µg/Kg, dry wt.	08/03/20	BD	
Methylene chloride	Not Detected	250	µg/Kg, dry wt.	08/03/20	BD	
2-Methylnaphthalene	Not Detected	250	µg/Kg, dry wt.	08/03/20	BD	
Naphthalene	Not Detected	250	µg/Kg, dry wt.	08/03/20	BD	
n-Propylbenzene	Not Detected	100	µg/Kg, dry wt.	08/03/20	BD	
Styrene	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
1,1,1,2-Tetrachloroethane	Not Detected	100	µg/Kg, dry wt.	08/03/20	BD	
1,1,2,2-Tetrachloroethane	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
Tetrachloroethylene	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
Tetrahydrofuran	Not Detected	1,000	µg/Kg, dry wt.	08/03/20	BD	
Toluene	Not Detected	100	µg/Kg, dry wt.	08/03/20	BD	
1,2,3-Trichlorobenzene	Not Detected	250	µg/Kg, dry wt.	08/03/20	BD	
1,2,4-Trichlorobenzene	Not Detected	250	µg/Kg, dry wt.	08/03/20	BD	
1,1,1-Trichloroethane	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
1,1,2-Trichloroethane	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
Trichloroethylene	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
Trichlorofluoromethane	Not Detected	100	µg/Kg, dry wt.	08/03/20	BD	
1,2,3-Trichloropropane	Not Detected	100	µg/Kg, dry wt.	08/03/20	BD	
1,2,4-Trimethylbenzene	Not Detected	100	µg/Kg, dry wt.	08/03/20	BD	
1,3,5-Trimethylbenzene	Not Detected	100	µg/Kg, dry wt.	08/03/20	BD	
Vinyl Acetate	Not Detected	5,000	µg/Kg, dry wt.	08/03/20	BD	
Vinyl Chloride	Not Detected	40	µg/Kg, dry wt.	08/03/20	BD	
Xylene (Total)	Not Detected	150	µg/Kg, dry wt.	08/03/20	BD	
Surrogate Standards						
1,2-Dichloroethane-d4	95.2%	-	% Recovery	08/03/20	BD	
Toluene-d8	102%	-	% Recovery	08/03/20	BD	
4-Bromofluorobenzene	106%	-	% Recovery	08/03/20	BD	
continued						

Sample Description:		Wall Sample 7, 11:21 AM, 7/29/20				
Laboratory ID:	11200-70	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1254	146,000	100	µg/Kg, dry wt.	07/31/20	DS	D
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Polychlorinated biphenyls (Total)	146,000	700	µg/Kg, dry wt.	07/31/20	DS	D
Surrogate Standards						
Tetrachloro-m-xylene	114%	-	% Recovery	07/31/20	DS	
Decachlorobiphenyl	134%	-	% Recovery	07/31/20	DS	
Analysis Information						
Dry Weight Solids	99.1%	-	% by weight	07/30/20	LP	
PCB Extraction	Completed	-	-	07/31/20	LB	

Sample Description:	Wall Sample 8, 11:47 AM, 7/29/20					
Laboratory ID:	11200-71	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
<i>Volatile Organic Compounds</i>						
Acetone	Not Detected	1,000	µg/Kg, dry wt.	08/03/20	BD	
Benzene	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
Bromobenzene	Not Detected	100	µg/Kg, dry wt.	08/03/20	BD	
Bromochloromethane	Not Detected	100	µg/Kg, dry wt.	08/03/20	BD	
Bromodichloromethane	Not Detected	100	µg/Kg, dry wt.	08/03/20	BD	
Bromoform	Not Detected	100	µg/Kg, dry wt.	08/03/20	BD	
Bromomethane	Not Detected	200	µg/Kg, dry wt.	08/03/20	BD	
2-Butanone (MEK)	Not Detected	750	µg/Kg, dry wt.	08/03/20	BD	
n-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
sec-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
tert-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
Carbon disulfide	Not Detected	250	µg/Kg, dry wt.	08/03/20	BD	
Carbon tetrachloride	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
Chlorobenzene	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
Chloroethane	Not Detected	250	µg/Kg, dry wt.	08/03/20	BD	
Chloroform	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
Chloromethane	Not Detected	250	µg/Kg, dry wt.	08/03/20	BD	
2-Chlorotoluene	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
4-Chlorotoluene	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
Dibromochloromethane	Not Detected	100	µg/Kg, dry wt.	08/03/20	BD	
1,2-Dibromo-3-chloropropane	Not Detected	10	µg/Kg, dry wt.	08/03/20	BD	
Dibromomethane	Not Detected	250	µg/Kg, dry wt.	08/03/20	BD	
1,2-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	08/03/20	BD	
1,3-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	08/03/20	BD	
1,4-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	08/03/20	BD	
Dichlorodifluoromethane	Not Detected	250	µg/Kg, dry wt.	08/03/20	BD	
1,1-Dichloroethane	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
1,2-Dichloroethane	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
1,1-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
cis-1,2-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
trans-1,2-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
1,2-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
1,3-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
2,2-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
1,1-Dichloropropene	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
cis-1,3-Dichloropropene	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
continued						

Data Qualifiers: I Internal Standard results outside of acceptance limits E Reporting limit is elevated M Matrix interference observed
 S QC spike recovery outside of acceptance limits D Result is from a dilution F Matrix Spike four times rule applied
 R RPD outside of acceptance limits J Result should be considered estimated C See Case Narrative

Sample Description:		Wall Sample 8, 11:47 AM, 7/29/20				
Laboratory ID:	11200-71	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
VOC's, Cont'd						
Ethylbenzene	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
Ethylene Dibromide (1,2-Dibromoethane)	Not Detected	20	µg/Kg, dry wt.	08/03/20	BD	
Hexachlorobutadiene	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
2-Hexanone	Not Detected	2,500	µg/Kg, dry wt.	08/03/20	BD	
Isopropyl benzene	Not Detected	250	µg/Kg, dry wt.	08/03/20	BD	
4-Methyl-2-pentanone (MIBK)	Not Detected	2,500	µg/Kg, dry wt.	08/03/20	BD	
Methyl-t-butyl ether (MTBE)	Not Detected	250	µg/Kg, dry wt.	08/03/20	BD	
Methylene chloride	Not Detected	250	µg/Kg, dry wt.	08/03/20	BD	
2-Methylnaphthalene	Not Detected	250	µg/Kg, dry wt.	08/03/20	BD	
Naphthalene	Not Detected	250	µg/Kg, dry wt.	08/03/20	BD	
n-Propylbenzene	Not Detected	100	µg/Kg, dry wt.	08/03/20	BD	
Styrene	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
1,1,1,2-Tetrachloroethane	Not Detected	100	µg/Kg, dry wt.	08/03/20	BD	
1,1,2,2-Tetrachloroethane	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
Tetrachloroethylene	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
Tetrahydrofuran	Not Detected	1,000	µg/Kg, dry wt.	08/03/20	BD	
Toluene	Not Detected	100	µg/Kg, dry wt.	08/03/20	BD	
1,2,3-Trichlorobenzene	Not Detected	250	µg/Kg, dry wt.	08/03/20	BD	
1,2,4-Trichlorobenzene	Not Detected	250	µg/Kg, dry wt.	08/03/20	BD	
1,1,1-Trichloroethane	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
1,1,2-Trichloroethane	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
Trichloroethylene	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
Trichlorofluoromethane	Not Detected	100	µg/Kg, dry wt.	08/03/20	BD	
1,2,3-Trichloropropane	Not Detected	100	µg/Kg, dry wt.	08/03/20	BD	
1,2,4-Trimethylbenzene	Not Detected	100	µg/Kg, dry wt.	08/03/20	BD	
1,3,5-Trimethylbenzene	Not Detected	100	µg/Kg, dry wt.	08/03/20	BD	
Vinyl Acetate	Not Detected	5,000	µg/Kg, dry wt.	08/03/20	BD	
Vinyl Chloride	Not Detected	40	µg/Kg, dry wt.	08/03/20	BD	
Xylene (Total)	Not Detected	150	µg/Kg, dry wt.	08/03/20	BD	
Surrogate Standards						
1,2-Dichloroethane-d4	96.3%	-	% Recovery	08/03/20	BD	
Toluene-d8	101%	-	% Recovery	08/03/20	BD	
4-Bromofluorobenzene	106%	-	% Recovery	08/03/20	BD	
continued						

Sample Description:		Wall Sample 8, 11:47 AM, 7/29/20				
Laboratory ID:	11200-71	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1254	587	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Polychlorinated biphenyls (Total)	Not Detected	700	µg/Kg, dry wt.	07/31/20	DS	
Surrogate Standards						
Tetrachloro-m-xylene	101%	-	% Recovery	07/31/20	DS	
Decachlorobiphenyl	135%	-	% Recovery	07/31/20	DS	
Analysis Information						
Dry Weight Solids	99.6%	-	% by weight	07/30/20	LP	
PCB Extraction	Completed	-	-	07/31/20	LB	

Sample Description:		Wall Sample 9, 11:58 AM, 7/29/20				
Laboratory ID:	11200-72	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
<i>Volatile Organic Compounds</i>						
Acetone	Not Detected	1,000	µg/Kg, dry wt.	08/03/20	BD	
Benzene	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
Bromobenzene	Not Detected	100	µg/Kg, dry wt.	08/03/20	BD	
Bromochloromethane	Not Detected	100	µg/Kg, dry wt.	08/03/20	BD	
Bromodichloromethane	Not Detected	100	µg/Kg, dry wt.	08/03/20	BD	
Bromoform	Not Detected	100	µg/Kg, dry wt.	08/03/20	BD	
Bromomethane	Not Detected	200	µg/Kg, dry wt.	08/03/20	BD	
2-Butanone (MEK)	Not Detected	750	µg/Kg, dry wt.	08/03/20	BD	
n-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
sec-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
tert-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
Carbon disulfide	Not Detected	250	µg/Kg, dry wt.	08/03/20	BD	
Carbon tetrachloride	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
Chlorobenzene	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
Chloroethane	Not Detected	250	µg/Kg, dry wt.	08/03/20	BD	
Chloroform	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
Chloromethane	Not Detected	250	µg/Kg, dry wt.	08/03/20	BD	
2-Chlorotoluene	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
4-Chlorotoluene	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
Dibromochloromethane	Not Detected	100	µg/Kg, dry wt.	08/03/20	BD	
1,2-Dibromo-3-chloropropane	Not Detected	10	µg/Kg, dry wt.	08/03/20	BD	
Dibromomethane	Not Detected	250	µg/Kg, dry wt.	08/03/20	BD	
1,2-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	08/03/20	BD	
1,3-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	08/03/20	BD	
1,4-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	08/03/20	BD	
Dichlorodifluoromethane	Not Detected	250	µg/Kg, dry wt.	08/03/20	BD	
1,1-Dichloroethane	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
1,2-Dichloroethane	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
1,1-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
cis-1,2-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
trans-1,2-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
1,2-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
1,3-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
2,2-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
1,1-Dichloropropene	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
cis-1,3-Dichloropropene	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
continued						

Data Qualifiers: I Internal Standard results outside of acceptance limits E Reporting limit is elevated M Matrix interference observed
 S QC spike recovery outside of acceptance limits D Result is from a dilution F Matrix Spike four times rule applied
 R RPD outside of acceptance limits J Result should be considered estimated C See Case Narrative

Sample Description:		Wall Sample 9, 11:58 AM, 7/29/20				
Laboratory ID:	11200-72	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
VOC's, Cont'd						
Ethylbenzene	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
Ethylene Dibromide (1,2-Dibromoethane)	Not Detected	20	µg/Kg, dry wt.	08/03/20	BD	
Hexachlorobutadiene	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
2-Hexanone	Not Detected	2,500	µg/Kg, dry wt.	08/03/20	BD	
Isopropyl benzene	Not Detected	250	µg/Kg, dry wt.	08/03/20	BD	
4-Methyl-2-pentanone (MIBK)	Not Detected	2,500	µg/Kg, dry wt.	08/03/20	BD	
Methyl-t-butyl ether (MTBE)	Not Detected	250	µg/Kg, dry wt.	08/03/20	BD	
Methylene chloride	Not Detected	250	µg/Kg, dry wt.	08/03/20	BD	
2-Methylnaphthalene	Not Detected	250	µg/Kg, dry wt.	08/03/20	BD	
Naphthalene	Not Detected	250	µg/Kg, dry wt.	08/03/20	BD	
n-Propylbenzene	Not Detected	100	µg/Kg, dry wt.	08/03/20	BD	
Styrene	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
1,1,1,2-Tetrachloroethane	Not Detected	100	µg/Kg, dry wt.	08/03/20	BD	
1,1,2,2-Tetrachloroethane	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
Tetrachloroethylene	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
Tetrahydrofuran	Not Detected	1,000	µg/Kg, dry wt.	08/03/20	BD	
Toluene	Not Detected	100	µg/Kg, dry wt.	08/03/20	BD	
1,2,3-Trichlorobenzene	Not Detected	250	µg/Kg, dry wt.	08/03/20	BD	
1,2,4-Trichlorobenzene	Not Detected	250	µg/Kg, dry wt.	08/03/20	BD	
1,1,1-Trichloroethane	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
1,1,2-Trichloroethane	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
Trichloroethylene	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
Trichlorofluoromethane	Not Detected	100	µg/Kg, dry wt.	08/03/20	BD	
1,2,3-Trichloropropane	Not Detected	100	µg/Kg, dry wt.	08/03/20	BD	
1,2,4-Trimethylbenzene	Not Detected	100	µg/Kg, dry wt.	08/03/20	BD	
1,3,5-Trimethylbenzene	Not Detected	100	µg/Kg, dry wt.	08/03/20	BD	
Vinyl Acetate	Not Detected	5,000	µg/Kg, dry wt.	08/03/20	BD	
Vinyl Chloride	Not Detected	40	µg/Kg, dry wt.	08/03/20	BD	
Xylene (Total)	Not Detected	150	µg/Kg, dry wt.	08/03/20	BD	
Surrogate Standards						
1,2-Dichloroethane-d4	108%	-	% Recovery	08/03/20	BD	
Toluene-d8	101%	-	% Recovery	08/03/20	BD	
4-Bromofluorobenzene	105%	-	% Recovery	08/03/20	BD	
continued						

Sample Description:		Wall Sample 9, 11:58 AM, 7/29/20				
Laboratory ID:	11200-72	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1254	1,570	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Polychlorinated biphenyls (Total)	1,570	700	µg/Kg, dry wt.	07/31/20	DS	
Surrogate Standards						
Tetrachloro-m-xylene	72.2%	-	% Recovery	07/31/20	DS	
Decachlorobiphenyl	86.9%	-	% Recovery	07/31/20	DS	
Analysis Information						
Dry Weight Solids	98.8%	-	% by weight	07/30/20	LP	
PCB Extraction	Completed	-	-	07/31/20	LB	

Sample Description:	Wall Sample 10, 12:05 PM, 7/29/20					
Laboratory ID:	11200-73	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
<i>Volatile Organic Compounds</i>						
Acetone	Not Detected	1,000	µg/Kg, dry wt.	08/03/20	BD	
Benzene	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
Bromobenzene	Not Detected	100	µg/Kg, dry wt.	08/03/20	BD	
Bromochloromethane	Not Detected	100	µg/Kg, dry wt.	08/03/20	BD	
Bromodichloromethane	Not Detected	100	µg/Kg, dry wt.	08/03/20	BD	
Bromoform	Not Detected	100	µg/Kg, dry wt.	08/03/20	BD	
Bromomethane	Not Detected	200	µg/Kg, dry wt.	08/03/20	BD	
2-Butanone (MEK)	Not Detected	750	µg/Kg, dry wt.	08/03/20	BD	
n-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
sec-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
tert-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
Carbon disulfide	Not Detected	250	µg/Kg, dry wt.	08/03/20	BD	
Carbon tetrachloride	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
Chlorobenzene	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
Chloroethane	Not Detected	250	µg/Kg, dry wt.	08/03/20	BD	
Chloroform	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
Chloromethane	Not Detected	250	µg/Kg, dry wt.	08/03/20	BD	
2-Chlorotoluene	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
4-Chlorotoluene	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
Dibromochloromethane	Not Detected	100	µg/Kg, dry wt.	08/03/20	BD	
1,2-Dibromo-3-chloropropane	Not Detected	10	µg/Kg, dry wt.	08/03/20	BD	
Dibromomethane	Not Detected	250	µg/Kg, dry wt.	08/03/20	BD	
1,2-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	08/03/20	BD	
1,3-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	08/03/20	BD	
1,4-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	08/03/20	BD	
Dichlorodifluoromethane	Not Detected	250	µg/Kg, dry wt.	08/03/20	BD	
1,1-Dichloroethane	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
1,2-Dichloroethane	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
1,1-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
cis-1,2-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
trans-1,2-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
1,2-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
1,3-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
2,2-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
1,1-Dichloropropene	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
cis-1,3-Dichloropropene	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
continued						

Data Qualifiers: I Internal Standard results outside of acceptance limits E Reporting limit is elevated M Matrix interference observed
 S QC spike recovery outside of acceptance limits D Result is from a dilution F Matrix Spike four times rule applied
 R RPD outside of acceptance limits J Result should be considered estimated C See Case Narrative

Sample Description:		Wall Sample 10, 12:05 PM, 7/29/20				
Laboratory ID:	11200-73	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
VOC's, Cont'd						
Ethylbenzene	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
Ethylene Dibromide (1,2-Dibromoethane)	Not Detected	20	µg/Kg, dry wt.	08/03/20	BD	
Hexachlorobutadiene	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
2-Hexanone	Not Detected	2,500	µg/Kg, dry wt.	08/03/20	BD	
Isopropyl benzene	Not Detected	250	µg/Kg, dry wt.	08/03/20	BD	
4-Methyl-2-pentanone (MIBK)	Not Detected	2,500	µg/Kg, dry wt.	08/03/20	BD	
Methyl-t-butyl ether (MTBE)	Not Detected	250	µg/Kg, dry wt.	08/03/20	BD	
Methylene chloride	Not Detected	250	µg/Kg, dry wt.	08/03/20	BD	
2-Methylnaphthalene	Not Detected	250	µg/Kg, dry wt.	08/03/20	BD	
Naphthalene	Not Detected	250	µg/Kg, dry wt.	08/03/20	BD	
n-Propylbenzene	Not Detected	100	µg/Kg, dry wt.	08/03/20	BD	
Styrene	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
1,1,1,2-Tetrachloroethane	Not Detected	100	µg/Kg, dry wt.	08/03/20	BD	
1,1,2,2-Tetrachloroethane	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
Tetrachloroethylene	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
Tetrahydrofuran	Not Detected	1,000	µg/Kg, dry wt.	08/03/20	BD	
Toluene	Not Detected	100	µg/Kg, dry wt.	08/03/20	BD	
1,2,3-Trichlorobenzene	Not Detected	250	µg/Kg, dry wt.	08/03/20	BD	
1,2,4-Trichlorobenzene	Not Detected	250	µg/Kg, dry wt.	08/03/20	BD	
1,1,1-Trichloroethane	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
1,1,2-Trichloroethane	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
Trichloroethylene	Not Detected	50	µg/Kg, dry wt.	08/03/20	BD	
Trichlorofluoromethane	Not Detected	100	µg/Kg, dry wt.	08/03/20	BD	
1,2,3-Trichloropropane	Not Detected	100	µg/Kg, dry wt.	08/03/20	BD	
1,2,4-Trimethylbenzene	Not Detected	100	µg/Kg, dry wt.	08/03/20	BD	
1,3,5-Trimethylbenzene	Not Detected	100	µg/Kg, dry wt.	08/03/20	BD	
Vinyl Acetate	Not Detected	5,000	µg/Kg, dry wt.	08/03/20	BD	
Vinyl Chloride	Not Detected	40	µg/Kg, dry wt.	08/03/20	BD	
Xylene (Total)	Not Detected	150	µg/Kg, dry wt.	08/03/20	BD	
Surrogate Standards						
1,2-Dichloroethane-d4	114%	-	% Recovery	08/03/20	BD	
Toluene-d8	103%	-	% Recovery	08/03/20	BD	
4-Bromofluorobenzene	107%	-	% Recovery	08/03/20	BD	
continued						

Sample Description:		Wall Sample 10, 12:05 PM, 7/29/20				
Laboratory ID:	11200-73	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1254	278	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Polychlorinated biphenyls (Total)	Not Detected	700	µg/Kg, dry wt.	07/31/20	DS	
Surrogate Standards						
Tetrachloro-m-xylene	72.2%	-	% Recovery	07/31/20	DS	
Decachlorobiphenyl	83.5%	-	% Recovery	07/31/20	DS	
Analysis Information						
Dry Weight Solids	90.8%	-	% by weight	07/30/20	LP	
PCB Extraction	Completed	-	-	07/31/20	LB	

Sample Description:	Sump, 11:30 AM, 7/29/20					
Laboratory ID:	11200-74	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
<i>Volatile Organic Compounds</i>						
Acetone	Not Detected	50	µg/L	07/31/20	BD	
Benzene	Not Detected	1	µg/L	07/31/20	BD	
Bromobenzene	Not Detected	1	µg/L	07/31/20	BD	
Bromochloromethane	Not Detected	1	µg/L	07/31/20	BD	
Bromodichloromethane	Not Detected	1	µg/L	07/31/20	BD	
Bromoform	Not Detected	1	µg/L	07/31/20	BD	
Bromomethane	Not Detected	5	µg/L	07/31/20	BD	
2-Butanone (MEK)	Not Detected	25	µg/L	07/31/20	BD	
n-Butylbenzene	Not Detected	1	µg/L	07/31/20	BD	
sec-Butylbenzene	Not Detected	1	µg/L	07/31/20	BD	
tert-Butylbenzene	Not Detected	1	µg/L	07/31/20	BD	
Carbon disulfide	Not Detected	5	µg/L	07/31/20	BD	
Carbon tetrachloride	Not Detected	1	µg/L	07/31/20	BD	
Chlorobenzene	Not Detected	1	µg/L	07/31/20	BD	
Chloroethane	Not Detected	5	µg/L	07/31/20	BD	
Chloroform	Not Detected	1	µg/L	07/31/20	BD	
Chloromethane	Not Detected	5	µg/L	07/31/20	BD	
2-Chlorotoluene	Not Detected	5	µg/L	07/31/20	BD	
4-Chlorotoluene	Not Detected	5	µg/L	07/31/20	BD	
Dibromochloromethane	Not Detected	5	µg/L	07/31/20	BD	
1,2-Dibromo-3-chloropropane	Not Detected	0.2	µg/L	07/31/20	BD	
Dibromomethane	Not Detected	5	µg/L	07/31/20	BD	
1,2-Dichlorobenzene	Not Detected	1	µg/L	07/31/20	BD	
1,3-Dichlorobenzene	Not Detected	1	µg/L	07/31/20	BD	
1,4-Dichlorobenzene	Not Detected	1	µg/L	07/31/20	BD	
Dichlorodifluoromethane	Not Detected	5	µg/L	07/31/20	BD	
1,1-Dichloroethane	Not Detected	1	µg/L	07/31/20	BD	
1,2-Dichloroethane	Not Detected	1	µg/L	07/31/20	BD	
1,1-Dichloroethylene	Not Detected	1	µg/L	07/31/20	BD	
cis-1,2-Dichloroethylene	Not Detected	1	µg/L	07/31/20	BD	
trans-1,2-Dichloroethylene	Not Detected	1	µg/L	07/31/20	BD	
1,2-Dichloropropane	Not Detected	1	µg/L	07/31/20	BD	
1,3-Dichloropropane	Not Detected	1	µg/L	07/31/20	BD	
2,2-Dichloropropane	Not Detected	1	µg/L	07/31/20	BD	
1,1-Dichloropropene	Not Detected	1	µg/L	07/31/20	BD	
cis-1,3-Dichloropropene	Not Detected	1	µg/L	07/31/20	BD	
continued						

Data Qualifiers: I Internal Standard results outside of acceptance limits E Reporting limit is elevated M Matrix interference observed
 S QC spike recovery outside of acceptance limits D Result is from a dilution F Matrix Spike four times rule applied
 R RPD outside of acceptance limits J Result should be considered estimated C See Case Narrative

Sample Description:		Sump, 11:30 AM, 7/29/20				
Laboratory ID:	11200-74	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
VOC's, Cont'd						
Ethylbenzene	Not Detected	1	µg/L	07/31/20	BD	
Ethylene Dibromide (1,2-Dibromoethane)	Not Detected	0.2	µg/L	07/31/20	BD	
Hexachlorobutadiene	Not Detected	0.2	µg/L	07/31/20	BD	
2-Hexanone	Not Detected	50	µg/L	07/31/20	BD	
Isopropyl benzene	Not Detected	5	µg/L	07/31/20	BD	
4-Methyl-2-pentanone (MIBK)	Not Detected	50	µg/L	07/31/20	BD	
Methyl-t-butyl ether (MTBE)	Not Detected	5	µg/L	07/31/20	BD	
Methylene chloride	Not Detected	5	µg/L	07/31/20	BD	
2-Methylnaphthalene	Not Detected	5	µg/L	07/31/20	BD	
Naphthalene	Not Detected	5	µg/L	07/31/20	BD	
n-Propyl benzene	Not Detected	1	µg/L	07/31/20	BD	
Styrene	Not Detected	1	µg/L	07/31/20	BD	
1,1,1,2-Tetrachloroethane	Not Detected	1	µg/L	07/31/20	BD	
1,1,2,2-Tetrachloroethane	Not Detected	1	µg/L	07/31/20	BD	
Tetrachloroethylene	Not Detected	1	µg/L	07/31/20	BD	
Tetrahydrofuran	Not Detected	90	µg/L	07/31/20	BD	
Toluene	Not Detected	1	µg/L	07/31/20	BD	
1,2,3-Trichlorobenzene	Not Detected	5	µg/L	07/31/20	BD	
1,2,4-Trichlorobenzene	Not Detected	5	µg/L	07/31/20	BD	
1,1,1-Trichloroethane	Not Detected	1	µg/L	07/31/20	BD	
1,1,2-Trichloroethane	Not Detected	1	µg/L	07/31/20	BD	
Trichloroethylene	Not Detected	1	µg/L	07/31/20	BD	
Trichlorofluoromethane	Not Detected	1	µg/L	07/31/20	BD	
1,2,3-Trichloropropane	Not Detected	1	µg/L	07/31/20	BD	
1,2,4-Trimethylbenzene	Not Detected	1	µg/L	07/31/20	BD	
1,3,5-Trimethylbenzene	Not Detected	1	µg/L	07/31/20	BD	
Vinyl Acetate	Not Detected	100	µg/L	07/31/20	BD	
Vinyl chloride	Not Detected	1	µg/L	07/31/20	BD	
Xylene (Total)	Not Detected	3	µg/L	07/31/20	BD	
Surrogate Standards						
1,2-Dichloroethane-d4	112%	-	% Recovery	07/31/20	BD	
Toluene-d8	106%	-	% Recovery	07/31/20	BD	
4-Bromofluorobenzene	103%	-	% Recovery	07/31/20	BD	
continued						

Sample Description:		Sump, 11:30 AM, 7/29/20				
Laboratory ID:	11200-74	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	0.2	µg/L	07/30/20	DS	
Aroclor 1221	Not Detected	0.2	µg/L	07/30/20	DS	
Aroclor 1232	Not Detected	0.2	µg/L	07/30/20	DS	
Aroclor 1242	Not Detected	0.2	µg/L	07/30/20	DS	
Aroclor 1248	Not Detected	0.2	µg/L	07/30/20	DS	
Aroclor 1254	Not Detected	0.2	µg/L	07/30/20	DS	
Aroclor 1260	Not Detected	0.2	µg/L	07/30/20	DS	
Polychlorinated biphenyls (Total)	Not Detected	2	µg/L	07/30/20	DS	
Surrogate Standards						
Tetrachloro-m-xylene	78.9%	-	% Recovery	07/30/20	DS	
Decachlorobiphenyl	85.0%	-	% Recovery	07/30/20	DS	
Analysis Information						
PCB Extraction	Completed	-	-	07/30/20	DS	

Quality Control

VOC Matrix Spike Data

Spiked Sample: 11198-1		Matrix: Soil		Units: ppb in extract				Data
Parameter	Sample Result	Spike Added	MS Result	MSD Result	MS % Rec.	MSD % Rec.	RPD	Qualifiers
1,1-Dichloroethene	0.0	25	26	23	104	92	12.2	
Benzene	0.0	25	25	28	100	112	11.3	
Trichloroethene	0.0	25	29	30	116	120	3.4	
Toluene	0.0	25	31	27	124	108	13.8	
Chlorobenzene	0.0	25	27	26	108	104	3.8	

Spiked Sample: 11200-65		Matrix: Soil		Units: ppb in extract				Data
Parameter	Sample Result	Spike Added	MS Result	MSD Result	MS % Rec.	MSD % Rec.	RPD	Qualifiers
1,1-Dichloroethene	0.0	25	23	19	92	76	19.0	
Benzene	0.0	25	27	25	108	100	7.7	
Trichloroethene	0.0	25	31	29	124	116	6.7	
Toluene	0.0	25	26	24	104	96	8.0	
Chlorobenzene	0.0	25	28	26	112	104	7.4	

Spiked Sample: 11207-2		Matrix: Soil		Units: ppb in solution				Data
Parameter	Sample Result	Spike Added	MS Result	MSD Result	MS % Rec.	MSD % Rec.	RPD	Qualifiers
1,1-Dichloroethene	0.0	25	32	32	128	128	0.0	
Benzene	0.0	25	25	25	100	100	0.0	
Trichloroethene	0.0	25	29	30	116	120	3.4	
Toluene	0.0	25	26	26	104	104	0.0	
Chlorobenzene	0.0	25	26	26	104	104	0.0	

Spiked Sample: 11199 LCS		Matrix: Water		Units: ppb in solution				Data
Parameter	Sample Result	Spike Added	MS Result	MSD Result	MS % Rec.	MSD % Rec.	RPD	Qualifiers
1,1-Dichloroethene	0.0	25	21	22	84	88	4.7	
Benzene	0.0	25	27	29	108	116	7.1	
Trichloroethene	0.0	25	27	29	108	116	7.1	
Toluene	0.0	25	25	27	100	108	7.7	
Chlorobenzene	0.0	25	24	26	96	104	8.0	

Quality Control, Cont'd

PCB Matrix Spike Data

Spiked Sample: 11200-1		Matrix: Soil		Units: ppm in extract				
Parameter	Sample Result	Spike Added	MS Result	MSD Result	MS % Rec.	MSD % Rec.	RPD	Data Qualifiers
Aroclor 1260	0.000	0.200	0.228	0.235	114	117	2.8	

Spiked Sample: 11200-21		Matrix: Soil		Units: ppm in extract				
Parameter	Sample Result	Spike Added	MS Result	MSD Result	MS % Rec.	MSD % Rec.	RPD	Data Qualifiers
Aroclor 1260	0.000	0.200	0.230	0.220	115	110	4.5	

Spiked Sample: 11200-25		Matrix: Soil		Units: ppm in extract				
Parameter	Sample Result	Spike Added	MS Result	MSD Result	MS % Rec.	MSD % Rec.	RPD	Data Qualifiers
Aroclor 1260	0.000	0.200	0.223	0.242	112	121	8.0	

Spiked Sample: 11200 LCS		Matrix: Water		Units: ppm in extract				
Parameter	Sample Result	Spike Added	MS Result	MSD Result	MS % Rec.	MSD % Rec.	RPD	Data Qualifiers
Aroclor 1260	0.000	0.200	0.179	0.194	89	97	8.4	

Case Narrative

All method protocols and quality control requirements were satisfied for all samples.

Notes

- (1) Quality Control Limits available upon request.
- (2) Results are applicable only to the sample tested.
- (3) All samples will be discarded after 30 days unless the laboratory receives other instructions.
- (4) Chain of Custody document attached.

QUANTUM LABORATORIES, INC.



David W. Starr
Analytical Chemistry Manager

QUANTUM LABORATORIES, INC.
 28221 Beck Road | Suite A-11
 Wixom, MI 48393
 248-348-TEST or 248-348-8378

Women's Business Enterprise
 National Council
WBENC
 Cert. No. 2005111505



CHAIN OF CUSTODY RECORD

CLIENT INFO	
COMPANY	APPLIED ENV.
ADDRESS	1210 N. Maple Rd
CITY, STATE, ZIP	Ann Arbor, MI
TELEPHONE	734-975-1970
FAX	
CONTACT	Mike Gatien
ADDITIONAL PHONE	
EMAIL ADDRESS	mikeg@appliedenv.com

* SAMPLE TYPE: S=Soil, W=Water, D=Drinking Water, O=Oil/Organic, M=Mixed, V=Vapor, A=Air
 U=Unknown or Other

** GRAB/COMP: G=Grab Sample, C=Composite Sample

PROJECT INFO	
REPORT NO. (LAB USE)	11200 Page 1 of 8
P.O. NUMBER	
PROJECT NUMBER	20-2554
PROJECT NAME	8 MK
SAMPLING LOCATION	Oak Park, MI
SAMPLES COLLECTED BY	Ms. Gatien / E. Hunt
TURN AROUND TIME	<input checked="" type="checkbox"/> Standard <input type="checkbox"/> Rush <input type="checkbox"/> By Date:
SPECIAL INSTRUCTIONS	

ANALYSIS REQUESTED	GRAB / COMP **	SAMPLE TYPE *	DATE SAMPLED	TIME SAMPLED	NUMBER OF CONTAINERS	SAMPLE IDENTIFICATION	LAB USE	REMARKS / PRESERVATIVES
PCBs	G	S	7-28-20	12:50P	2	GP-11A, 0'		
PCBs	G	S	7-28-20	12:52P	2	GP-11A, 2'		
	G	S	7-28-20	12:54P	2	GP-11A, 4'		Extract PCBs Put on Hold
	G	S	7-28-20	12:56P	2	GP-11A, 6'		Extract PCBs Put on Hold
	G	S	7-28-20	1:00P	2	GP-15, 0'		
	G	S	7-28-20	1:02P	2	GP-15, 2'		Extract PCBs Put on Hold
	G	S	7-28-20	1:04P	2	GP-15, 4'		Extract PCBs Put on Hold
	G	S	7-28-20	1:06P	2	GP-15, 6'		Extract PCBs Put on Hold
	G	S	7-28-20	1:10P	2	GP-16, 0'		
	G	S	7-28-20	1:12P	2	GP-16, 2'		Extract PCBs Put on Hold

SAMPLE RECEIVED
<input type="checkbox"/> Wet Ice
<input type="checkbox"/> Blue Ice

XFER	RELINQUISHED BY	TIME / DATE	ACCEPTED BY
1	<i>Mike Gatien</i>	8:40 7.30.20	<i>[Signature]</i>
2	<i>[Signature]</i>	10:30 7.30.20	<i>Louise August</i>
3			

Distribution: White - Lab Copy Yellow - Client Report Pink - Sampler

QUANTUM LABORATORIES, INC.
 28221 Beck Road | Suite A-11
 Wixom, MI 48393
 248-348-TEST or 248-348-8378

Women's Business Enterprise
 National Council
WBENC
 Cert. No. 2005111505



CHAIN OF CUSTODY RECORD

CLIENT INFO		APPLIED ENV.	
COMPANY	ADDRESS	1310 N. Maple Rd.	
CITY, STATE, ZIP	TELEPHONE	Ann Arbor, MI	
FAX	CONTACT	734-975-1970	
ADDITIONAL PHONE	ADDITIONAL PHONE	Mike Gation	
EMAIL ADDRESS	EMAIL ADDRESS	MIKEG@appliedenv.com	

* SAMPLE TYPE: S=Soil, W=Water, D=Drinking Water, O=Oil/Organic, M=Mixed, V=Vapor, A=Air
 U=Unknown or Other

** GRAB/COMP: G=Grab Sample, C=Composite Sample

PROJECT INFO		REPORT NO. (LAB USE)	11200	Page 2 of 8
P.O. NUMBER	PROJECT NUMBER	PROJECT NAME	20-2554	
SAMPLING LOCATION	SAMPLES COLLECTED BY	TURN AROUND TIME	8 MK	
SPECIAL INSTRUCTIONS			Oak Park, MI	
			M. Gation / E. Hunt	
			<input checked="" type="checkbox"/> Standard <input type="checkbox"/> Rush <input type="checkbox"/> By Date:	

ANALYSIS REQUESTED	GRAB / COMP **	SAMPLE TYPE *	NUMBER OF CONTAINERS	TIME SAMPLED	DATE SAMPLED	REMARKS / PRESERVATIVES
VOCs	G	S	2	1:14p	7-28-20	Extract PCBs PUT ON HOLD
	G	S	2	1:16p	7-28-20	Extract PCBs PUT ON HOLD
	G	S	2	1:20p	7-28-20	Extract PCBs PUT ON HOLD
	G	S	2	1:22p	7-28-20	Extract PCBs PUT ON HOLD
	G	S	2	1:24p	7-28-20	Extract PCBs PUT ON HOLD
	G	S	2	1:26p	7-28-20	Extract PCBs PUT ON HOLD
	G	S	2	1:30p	7-28-20	Extract PCBs PUT ON HOLD
	G	S	2	1:32p	7-28-20	Extract PCBs PUT ON HOLD
	G	S	2	1:34p	7-28-20	Extract PCBs PUT ON HOLD
	G	S	2	1:36p	7-28-20	Extract PCBs PUT ON HOLD

XFER	RELINQUISHED BY	TIME / DATE	ACCEPTED BY
	<i>[Signature]</i>	8:40 7:30:20	<i>[Signature]</i>
	<i>[Signature]</i>	9:30 9:30:20	<i>[Signature]</i>
1			
2			
3			

Distribution: White - Lab Copy Yellow - Client Report Pink - Sampler

Data Qualifiers: I Internal Standard results outside of acceptance limits
 S QC spike recovery outside of acceptance limits
 R RPD outside of acceptance limits
 E Reporting limit is elevated
 D Result is from a dilution
 J Result should be considered estimated
 M Matrix interference observed
 T Matrix Spike four times rule applied
 C See Case Narrative

QUANTUM LABORATORIES, INC.
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Quantum Laboratories, Inc.

CHAIN OF CUSTODY RECORD

REPORT NO. (LAB USE) 11200 Page 3 of 8

P.O. NUMBER

PROJECT NUMBER 20-2554

PROJECT NAME 8 MK

SAMPLING LOCATION Oak Park, MI

SAMPLES COLLECTED BY M. Gatin / E. Hull

TURN AROUND TIME Standard Rush By Date:

SPECIAL INSTRUCTIONS

CLIENT INFO

COMPANY APPLIED ENV.

ADDRESS 1210 N. MAPLE RD.

CITY, STATE, ZIP Ann Arbor, MI

TELEPHONE 734-975-1970

FAX

CONTACT

ADDITIONAL PHONE

EMAIL ADDRESS MIKES@APPLIEDENV.COM

* SAMPLE TYPE: S=Soil, W=Water, D=Drinking Water, O=Oil/Organic, M=Mixed, V=Vapor, A=Air
 U=Unknown or Other

** GRAB/COMP: G=Grab Sample, C=Composite Sample

LINE NO.	LAB USE	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	TIME SAMPLED	DATE SAMPLED	SAMPLE TYPE *	GRAB / COMP **	REMARKS / PRESERVATIVES
1	21	GP-19, 0'	2	1:40P	7-28-20	S	G	
2	22	GP-19, 2'	2	1:42P	7-28-20	S	G	Extract PCBs PUT ON HOLD
3	23	GP-19, 4'	2	1:44P	7-28-20	S	G	" "
4	24	GP-19, 6'	2	1:46P	7-28-20	S	G	" "
5	25	GP-20, 0'	2	1:50P	7-28-20	S	G	
6	26	GP-20, 2'	2	1:52P	7-28-20	S	G	
7	27	GP-20, 4'	2	1:54P	7-28-20	S	G	
8	28	GP-20, 6'	2	1:56P	7-28-20	S	G	Extract PCBs PUT ON HOLD
9	29	GP-21, 4-4.5'	2	1:31P	7-28-20	S	G	" "
10	30	GP-21, 8.5'	2	1:35P	7-28-20	S	G	" "

XFER	RELINQUISHED BY	TIME / DATE	ACCEPTED BY	SAMPLE RECEIVED
1	<i>M. Gatin</i>	8:40 7.28.20	<i>E. Hull</i>	<input type="checkbox"/> Wet Ice <input type="checkbox"/> Blue Ice
2	<i>E. Hull</i>	9:30 7.30.20	<i>Louise Bergquist</i>	
3				

Distribution: White - Lab Copy Yellow - Client Report Pink - Sampler

QUANTUM LABORATORIES, INC.
 28221 Beck Road | Suite A-11
 Wixom, MI 48393
 248-348-TEST or 248-348-8378



Quantum Laboratories, Inc.

CHAIN OF CUSTODY RECORD

REPORT NO. (LAB USE) **11200** Page **4** of **8**

P.O. NUMBER

PROJECT NUMBER **20-2554**

PROJECT NAME **8 MK**

SAMPLING LOCATION **OAK PARK, MI**

SAMPLES COLLECTED BY **M. Gration / E. Hull**

TURN AROUND TIME Standard Rush By Date:

SPECIAL INSTRUCTIONS

APPLIED ENV. **1210 N. MAPLE RD.**

ADDRESS **Ann Arbor, MI**

CITY, STATE, ZIP **734-975-1970**

TELEPHONE

FAX

CONTACT **MIKE GRATION**

ADDITIONAL PHONE

EMAIL ADDRESS **MIKE@APPLIEDENV.COM**

* SAMPLE TYPE: S=Soil, W=Water, D=Drinking Water, O=Oil/Organic, M=Mixed, V=Vapor, A=Air
 U=Unknown or Other

** GRAB/COMP: G=Grab Sample, C=Composite Sample

LINE NO.	LAB USE	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	TIME SAMPLED	DATE SAMPLED	SAMPLE TYPE *	GRAB / COMP **	REMARKS / PRESERVATIVES
1	31	GP-22, 4.5-5'	2	7-28-20 2:15P	7-28-20 2:15P	S	G	50% PCBs
2	32	GP-22, 8.5'	2	7-28-20 2:18P	7-28-20 2:18P	S	G	
3	33	GP-23, 4.5-5'	2	7-28-20 3:00P	7-28-20 3:00P	S	G	
4	34	GP-23, 8.5'	2	7-28-20 3:05P	7-28-20 3:05P	S	G	
5	35	GP-24, 2.5-3'	2	7-28-20 4:30P	7-28-20 4:30P	S	G	
6	36	GP-24, 8.5'	2	7-28-20 4:32P	7-28-20 4:32P	S	G	
7	37	HA-1, 0'	2	7-28-20 2:05P	7-28-20 2:05P	S	G	
8	38	HA-1, 2'	2	7-28-20 2:10P	7-28-20 2:10P	S	G	
9	39	HA-1, 4'	2	7-28-20 2:15P	7-28-20 2:15P	S	G	
10	40	HA-2, 0'	2	7-28-20 2:20P	7-28-20 2:20P	S	G	

XFER	RELINQUISHED BY	TIME / DATE	ACCEPTED BY	SAMPLE RECEIVED
1	<i>Mike Gration</i>	8:10 7.30.20	<i>[Signature]</i>	<input type="checkbox"/> Wet Ice <input type="checkbox"/> Blue Ice
2	<i>[Signature]</i>	9:30 7.30.20	<i>[Signature]</i>	
3				

Distribution: White - Lab Copy Yellow - Client Report Pink - Sampler

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 Wixom, MI 48393
 248-348-TEST or 248-348-8378



CHAIN OF CUSTODY RECORD

CLIENT INFO	
COMPANY	APPLIED ENV.
ADDRESS	1210 N. MAPLE RD
CITY, STATE, ZIP	ANN ARBOR, MI
TELEPHONE	734-975-1970
FAX	
CONTACT	MIKE GATIEN
ADDITIONAL PHONE	
EMAIL ADDRESS	MIKEG@APPLIEDENV.COM

* SAMPLE TYPE: S=Soil, W=Water, D=Drinking Water, O=Oil/Organic, M=Mixed, V=Vapor, A=Air
 U=Unknown or Other

** GRAB/COMP: G=Grab Sample, C=Composite Sample

PROJECT INFO		REPORT NO. (LAB USE)	11200	Page 5 of 8
P.O. NUMBER		PROJECT NUMBER	20-2554	
PROJECT NAME		SAMPLING LOCATION	8 MK	
SAMPLES COLLECTED BY		TURN AROUND TIME	DAK PARK, MI	
SPECIAL INSTRUCTIONS			M. Gatién / E. Hull	
			<input checked="" type="checkbox"/> Standard <input type="checkbox"/> Rush <input type="checkbox"/> By Date:	
ANALYSIS REQUESTED				

LINE NO.	LAB USE	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	TIME SAMPLED	DATE SAMPLED	SAMPLE TYPE *	GRAB / COMP **	REMARKS / PRESERVATIVES
1	41	HA-2, 2'	2	2:23P	7-28-20	S	G	X
2	42	HA-2, 4'	2	2:25P	7-28-20	S	G	X
3	43	HA-3, 0'	2	2:40P	7-28-20	S	G	X
4	44	HA-3, 2'	2	2:42P	7-28-20	S	G	X
5	45	HA-3, 4'	2	2:45P	7-28-20	S	G	X
6	46	HA-4, 0'	2	2:52P	7-28-20	S	G	X
7	47	HA-4, 2'	2	2:55P	7-28-20	S	G	X
8	48	HA-4, 4'	2	2:57P	7-28-20	S	G	X
9	49	HA-5, 0'	2	3:16P	7-28-20	S	G	X
10	50	HA-5, 2'	2	3:19P	7-28-20	S	G	X

XFER	RELINQUISHED BY	TIME / DATE	ACCEPTED BY	SAMPLE RECEIVED	
	<i>[Signature]</i>	8:40 7:30:20	<i>[Signature]</i>		<input type="checkbox"/> Wet Ice
	<i>[Signature]</i>	9:30 7:30:20	<i>[Signature]</i>		<input type="checkbox"/> Blue Ice

Distribution: White - Lab Copy Yellow - Client Report Pink - Sampler

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 Wixom, MI 48393
 248-348-TEST or 248-348-8378



CHAIN OF CUSTODY RECORD

CLIENT INFO	
COMPANY	APPLIED ENV.
ADDRESS	1210 N. Maple Rd.
CITY, STATE, ZIP	Ann Arbor, MI
TELEPHONE	734-975-1970
FAX	
CONTACT	Mike Gattien
ADDITIONAL PHONE	
EMAIL ADDRESS	MIKEG@appliedenv.com

* SAMPLE TYPE: S=Soil, W=Water, D=Drinking Water, O=Oil/Organic, M=Mixed, V=Vapor, A=Air
 U=Unknown or Other

** GRAB/COMP: G=Grab Sample, C=Composite Sample

REPORT NO. (LAB USE)	11200	Page 4 of 8
P.O. NUMBER		
PROJECT NUMBER	20-2554	
PROJECT NAME	8 MK	
SAMPLING LOCATION	Oak Park, MI	
SAMPLES COLLECTED BY	M. Gattien / E. Hull	
TURN AROUND TIME	<input checked="" type="checkbox"/> Standard <input type="checkbox"/> Rush <input type="checkbox"/> By Date:	
SPECIAL INSTRUCTIONS		

ANALYSIS REQUESTED

ANALYSIS REQUESTED	GRAB / COMP **	SAMPLE TYPE *	DATE SAMPLED	TIME SAMPLED	NUMBER OF CONTAINERS	SAMPLE IDENTIFICATION	LAB USE	REMARKS / PRESERVATIVES
VOCs PCBs	G	S	7-28-20	3:22p	2	HA-5, 4'	51	Extract PCBs PUT ON HOLD
	G	S	7-28-20	4:10p	2	HA-4, 0'	52	
	G	S	7-28-20	4:15p	2	HA-6, 2'	53	
	G	S	7-28-20	4:20p	2	HA-4, 4'	54	Extract PCBs PUT ON HOLD
	G	S	7-29-20	9:05A	2	HA-7, 0'	55	
	G	S	7-29-20	9:07A	2	HA-7, 2'	56	
	G	S	7-29-20	9:10A	2	HA-7, 4'	57	Extract PCBs PUT ON HOLD
	G	S	7-29-20	9:20A	2	HA-8, 0'	58	
	G	S	7-29-20	9:23A	2	HA-8, 2'	59	Extract PCBs PUT ON HOLD
	G	S	7-29-20	9:25A	2	HA-8, 4'	60	Extract PCBs PUT ON HOLD

XFER	RELINQUISHED BY	TIME / DATE	ACCEPTED BY	SAMPLE RECEIVED	
	<i>Mike Gattien</i>	8:40 7.30.20	<i>[Signature]</i>		<input type="checkbox"/> Wet Ice <input type="checkbox"/> Blue Ice
	<i>[Signature]</i>	9:30 7.30.20	<i>Deuse Bergquist</i>		
1					
2					
3					

Distribution: White - Lab Copy Yellow - Client Report Pink - Sampler

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 248-348-TEST or 248-348-8378



CHAIN OF CUSTODY RECORD

CLIENT INFO	
COMPANY	APPLIED ENV
ADDRESS	
CITY, STATE, ZIP	
TELEPHONE	
FAX	
CONTACT	MIKE GATLEN
ADDITIONAL PHONE	
EMAIL ADDRESS	

REPORT NO. (LAB USE)	11200	Page 7 of 8
P.O. NUMBER		
PROJECT NUMBER	90-2554	
PROJECT NAME		
SAMPLING LOCATION		
SAMPLES COLLECTED BY		
TURN AROUND TIME		<input type="checkbox"/> Standard <input type="checkbox"/> Rush <input type="checkbox"/> By Date:
SPECIAL INSTRUCTIONS		

* SAMPLE TYPE: S=Soil, W=Water, D=Drinking Water, O=Oil/Organic, M=Mixed, V=Vapor, A=Air
 U=Unknown or Other

** GRAB/COMP: G=Grab Sample, C=Composite Sample

LINE NO.	LAB USE	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	TIME SAMPLED	DATE SAMPLED	SAMPLE TYPE *	GRAB / COMP **	REMARKS / PRESERVATIVES
1	61	HA-9, 0'	2	9:43A	7-29-20	S	G	
2	62	HA-9, 2'	2	9:46A	7-29-20	S	G	
3	63	HA-9, 4'	2	9:50A	7-29-20	S	G	
4	64	HA-9, 6'						
5	65	HA-9, 8'						
6	64	WALL Sample 1	2	9:48A	7-29-20	U	G	
7	65	WALL Sample 2	2	10:05A	7-29-20	U	G	
8	66	WALL Sample 3	2	10:18A	7-29-20	U	G	
9	67	WALL Sample 4	2	10:32A	7-29-20	U	G	
10	68	WALL Sample 5	2	10:56A	7-29-20	U	G	

XFER	RELINQUISHED BY	ACCEPTED BY	SAMPLE RECEIVED	
	1	8:40 7:30:20		<input type="checkbox"/> Wet Ice
	2	9:30 7:30:20		<input type="checkbox"/> Blue Ice
3				

Distribution: White - Lab Copy Yellow - Client Report Pink - Sampler

Data Qualifiers: I Internal Standard results outside of acceptance limits
 S QC spike recovery outside of acceptance limits
 R RPD outside of acceptance limits
 E Reporting limit is elevated
 D Result is from a dilution
 J Result should be considered estimated
 M Matrix interference observed
 F Matrix Spike four times rule applied
 C See Case Narrative

QUANTUM LABORATORIES, INC.
 28221 Beck Road | Suite A-11
 Wixom, MI 48393
 248-348-TEST or 248-348-8378

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 Cert. No. 2005111505

Quantum Laboratories, Inc.

CHAIN OF CUSTODY RECORD

REPORT NO. (LAB USE) 11200 Page 8 of 8

P.O. NUMBER

PROJECT NUMBER 20-2554

PROJECT NAME

SAMPLING LOCATION

SAMPLES COLLECTED BY

TURN AROUND TIME Standard Rush By Date:

SPECIAL INSTRUCTIONS

COMPANY APPLIED ENV

ADDRESS

CITY, STATE, ZIP

TELEPHONE

FAX

CONTACT MIKE GATJEW

ADDITIONAL PHONE

EMAIL ADDRESS

* SAMPLE TYPE: S=Soil, W=Water, D=Drinking Water, O=Oil/Organic, M=Mixed, V=Vapor, A=Air
 U=Unknown or Other

** GRAB/COMP: G=Grab Sample, C=Composite Sample

LINE NO.	LAB USE	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	TIME SAMPLED	DATE SAMPLED	SAMPLE TYPE *	GRAB / COMP **	REMARKS / PRESERVATIVES
1	69	wall sample 6	2	11:07A	7-29-20	V	G	X
2	20	wall sample 7	2	11:21A	7-29-20	V	G	X
3	71	wall sample 8	2	11:47A	7-29-20	V	G	X
4	28	wall sample 9	2	11:58A	7-29-20	V	G	X
5	29	wall sample 10	2	12:05P	7-29-20	V	G	X
6	71	Swamp	3	11:30A	7-29-20	V	G	X
7								
8								
9								
10								

XFER	RELINQUISHED BY	TIME / DATE	ACCEPTED BY
1	<i>Mike Gatjew</i>	9:40 7-30-20	<i>[Signature]</i>
2	<i>[Signature]</i>	9:30 7-30-20	<i>Laura Bergquist</i>
3			

SAMPLE RECEIVED
 Wet Ice
 Blue Ice

Distribution: White - Lab Copy Yellow - Client Report Pink - Sampler

Data Qualifiers: I Internal Standard results outside of acceptance limits
 S QC spike recovery outside of acceptance limits
 R RPD outside of acceptance limits
 E Reporting limit is elevated
 D Result is from a dilution
 J Result should be considered estimated
 M Matrix interference observed
 T Matrix Spike four times rule applied
 C See Case Narrative

ANALYTICAL REPORT

For: Applied Environmental, Inc.
1210 N. Maple Rd
Ann Arbor MI 48103-2842

Report Number: 11219
Report Date: August 12, 2020
Project Name: 8 MK
Project Number: 20-2554
Page: 1 of 6
734-975-1970 Fax: 734-975-1973

Attn: Mr. Mike Gatien

Sample Description

Three (3) samples reported to be Soil and identified as "8 MK", Oak Park, MI, 7/28/20, Grab and:

1. GP-16, 2', 1:12 PM (Originally submitted as QLI sample number 11200-10)
2. GP-17, 2', 1:22 PM (Originally submitted as QLI sample number 11200-14)
3. GP-18, 2', 1:32 PM (Originally submitted as QLI sample number 11200-18)

Analysis Requested

Chemical Analysis per SW-846 (SW) for Polychlorinated Biphenyls (PCB), Method 8082A

Analytical Results

Sample Description:		GP-16, 2', 1:12 PM, 7/28/20				
Laboratory ID:	11200-10	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1254	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Polychlorinated biphenyls (Total)	Not Detected	700	µg/Kg, dry wt.	07/30/20	DS	
Surrogate Standards						
Tetrachloro-m-xylene	81.1%	-	% Recovery	07/30/20	DS	
Decachlorobiphenyl	93.4%	-	% Recovery	07/30/20	DS	
Analysis Information						
Dry Weight Solids	85.9%	-	% by weight	07/30/20	LP	
PCB Extraction	Completed	-	-	07/30/20	LB/ LP	

Sample Description:		GP-17, 2', 1:22 PM, 7/28/20				
Laboratory ID:	11200-14	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1254	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Polychlorinated biphenyls (Total)	Not Detected	700	µg/Kg, dry wt.	07/30/20	DS	
Surrogate Standards						
Tetrachloro-m-xylene	82.1%	-	% Recovery	07/30/20	DS	
Decachlorobiphenyl	109%	-	% Recovery	07/30/20	DS	
Analysis Information						
Dry Weight Solids	85.7%	-	% by weight	07/30/20	LP	
PCB Extraction	Completed	-	-	07/30/20	LB/ LP	

Sample Description:		GP-18, 2', 1:32 PM, 7/28/20				
Laboratory ID:	11200-18	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1254	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Polychlorinated biphenyls (Total)	Not Detected	700	µg/Kg, dry wt.	07/30/20	DS	
Surrogate Standards						
Tetrachloro-m-xylene	76.4%	-	% Recovery	07/30/20	DS	
Decachlorobiphenyl	97.4%	-	% Recovery	07/30/20	DS	
Analysis Information						
Dry Weight Solids	91.0%	-	% by weight	07/30/20	LP	
PCB Extraction	Completed	-	-	07/30/20	LB/ LP	

Data Qualifiers: I Internal Standard results outside of acceptance limits
 S QC spike recovery outside of acceptance limits
 R RPD outside of acceptance limits
 E Reporting limit is elevated
 D Result is from a dilution
 J Result should be considered estimated
 M Matrix interference observed
 F Matrix Spike four times rule applied
 C See Case Narrative

Quality Control

PCB Matrix Spike Data

Spiked Sample: 11200-25		Matrix: Soil		Units: ppm in extract				
Parameter	Sample Result	Spike Added	MS Result	MSD Result	MS % Rec.	MSD % Rec.	RPD	Data Qualifiers
Aroclor 1260	0.000	0.200	0.223	0.242	112	121	8.0	

Case Narrative

All method protocols and quality control requirements were satisfied for all samples.

Notes

- (1) Quality Control Limits available upon request.
- (2) Results are applicable only to the sample tested.
- (3) All samples will be discarded after 30 days unless the laboratory receives other instructions.
- (4) Chain of Custody document attached.

QUANTUM LABORATORIES, INC.



David W. Starr
Analytical Chemistry Manager

QUANTUM LABORATORIES, INC.
 28221 Beck Road | Suite A-11
 Wixom, MI 48393
 248-348-TEST or 248-348-8378

Women's Business Enterprise
 National Council



Cert. No. 2005111505

11219

REPORT NO. (LAB USE) 11200 Page 1 of 8

P.O. NUMBER

PROJECT NUMBER 20-2554

PROJECT NAME 8 MK

SAMPLING LOCATION Oak Park, MI

SAMPLES COLLECTED BY Ms. Gatien / E. Hull

TURN AROUND TIME Standard Rush By Date:

SPECIAL INSTRUCTIONS

CHAIN OF CUSTODY RECORD

COMPANY APPLIED ENV.

ADDRESS 1210 N. Maple Rd

CITY, STATE, ZIP Ann Arbor, MI

TELEPHONE 734-975-1970

FAX

CONTACT Mike Gatien

ADDITIONAL PHONE

EMAIL ADDRESS MikeG@appliedenv.com

* SAMPLE TYPE: S=Soil, W=Water, D=Drinking Water, O=Oil/Organic, M=Mixed, V=Vapor, A=Air
 U=Unknown or Other

** GRAB/COMP: G=Grab Sample, C=Composite Sample

LINE NO.	LAB USE	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	TIME SAMPLED	DATE SAMPLED	SAMPLE TYPE *	GRAB / COMP **	REMARKS / PRESERVATIVES
1		GP-11A, 0'	2	12:50 P	7-28-20	S	G	
2		GP-11A, 2'	2	12:52 P	7-28-20	S	G	
3		GP-11A, 4'	2	12:54 P	7-28-20	S	G	
4		GP-11A, 6'	2	12:56 P	7-28-20	S	G	
5		GP-15, 0'	2	1:00 P	7-28-20	S	G	
6		GP-15, 2'	2	1:02 P	7-28-20	S	G	
7		GP-15, 4'	2	1:04 P	7-28-20	S	G	
8		GP-15, 6'	2	1:06 P	7-28-20	S	G	
9		GP-16, 0'	2	1:10 P	7-28-20	S	G	
10		GP-16, 2'	2	1:12 P	7-28-20	S	G	

XFER	RELINQUISHED BY	TIME / DATE	ACCEPTED BY
1	<i>Shirley Crating</i>	8:40 7.30.20	<i>[Signature]</i>
2	<i>[Signature]</i>	10:30 7.30.20	<i>Louise Bergquist</i>
3			

SAMPLE RECEIVED
 Wet Ice
 Blue Ice

Distribution: White - Lab Copy Yellow - Client Report Pink - Sampler

Data Qualifiers: I Internal Standard results outside of acceptance limits
 S QC spike recovery outside of acceptance limits
 R RPD outside of acceptance limits
 E Reporting limit is elevated
 D Result is from a dilution
 J Result should be considered estimated
 M Matrix interference observed
 T Matrix Spike four times rule applied
 C See Case Narrative

QUANTUM LABORATORIES, INC.
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 Wixom, MI 48393
 248-348-TEST or 248-348-8378

Women's Business Enterprise
 National Council



Cert. No. 2005111505

11219

REPORT NO. (LAB USE) 11200 Page 2 of 8

P.O. NUMBER

PROJECT NUMBER 20-2554

PROJECT NAME 8 MK

SAMPLING LOCATION Oak Park, MI

SAMPLES COLLECTED BY M. Gation / E. Hunt

TURN AROUND TIME Standard Rush By Date:

SPECIAL INSTRUCTIONS

CHAIN OF CUSTODY RECORD

APPLIED ENV. APPLIED ENV.

ADDRESS 130 N. Maple Rd.

CITY, STATE, ZIP Ann Arbor, MI

TELEPHONE 734-975-1470

FAX

CONTACT Mike Gation

ADDITIONAL PHONE

EMAIL ADDRESS MikeG@appliedenv.com

* SAMPLE TYPE: S=Soil, W=Water, D=Drinking Water, O=Oil/Organic, M=Mixed, V=Vapor, A=Air
 U=Unknown or Other

** GRAB/COMP: G=Grab Sample, C=Composite Sample

LINE NO.	LAB USE	SAMPLE IDENTIFICATION	NUMBERS OF CONTAINERS	TIME SAMPLED	DATE SAMPLED	SAMPLE TYPE *	GRAB / COMP **	REMARKS / PRESERVATIVES
1		GP-16, 4'	2	1:14P	7-28-20	S	G	Extract PCBs PUT ON HOLD
2		GP-16, 6'	2	1:16P	7-28-20	S	G	Extract PCBs PUT ON HOLD
3		GP-17, 0'	2	1:20P	7-28-20	S	G	Extract PCBs PUT ON HOLD
4		GP-17, 3'	2	1:22P	7-28-20	S	G	Extract PCBs PUT ON HOLD
5		GP-17, 4'	2	1:24P	7-28-20	S	G	Extract PCBs PUT ON HOLD
6		GP-17, 4'	2	1:26P	7-28-20	S	G	Extract PCBs PUT ON HOLD
7		GP-18, 0'	2	1:30P	7-28-20	S	G	Extract PCBs PUT ON HOLD
8		GP-18, 2'	2	1:32P	7-28-20	S	G	Extract PCBs PUT ON HOLD
9		GP-18, 4'	2	1:34P	7-28-20	S	G	Extract PCBs PUT ON HOLD
10		GP-18, 6'	2	1:36P	7-28-20	S	G	Extract PCBs PUT ON HOLD

XFER	RELINQUISHED BY	TIME / DATE	ACCEPTED BY
1	<i>[Signature]</i>	8:40 7-30-20	<i>[Signature]</i>
2	<i>[Signature]</i>	9:30 7-30-20	<i>[Signature]</i>
3			

SAMPLE RECEIVED
 Wet Ice
 Blue Ice

ANALYTICAL REPORT

For: Applied Environmental, Inc.
1210 N. Maple Rd
Ann Arbor MI 48103-2842

Report Number: 11232
Report Date: August 26, 2020
Project Name: 12700 8 Mile Rd.
Project Number: 20-2554
Page: 1 of 17
734-975-1970 Fax: 734-975-1973

Attn: Mr. Mike Gatien

Sample Description

Five (5) samples reported to be Water and identified as "12700 8 Mile Rd.", Oak Park, MI, 8/20/20, Grab and:

1. MW-1, 11:25A
2. MW-2, 12:00P
3. Trip Blank, 10:20A
4. Field Blank, 10:45A
5. Duplicate, 11:25A

Analysis Requested

Chemical Analysis per SW-846 (SW) for:

1. Volatile Organic Compounds (VOC), Methods 8260B
2. Polychlorinated Biphenyls (PCB), Method 8082A

Analytical Results

Sample Description:		MW-1, 11:25A, 8/20/20				
Laboratory ID:	11232-1	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
<i>Volatile Organic Compounds</i>						
Acetone	Not Detected	50	µg/L	08/25/20	BD	
Benzene	Not Detected	1	µg/L	08/25/20	BD	
Bromobenzene	Not Detected	1	µg/L	08/25/20	BD	
Bromochloromethane	Not Detected	1	µg/L	08/25/20	BD	
Bromodichloromethane	Not Detected	1	µg/L	08/25/20	BD	
Bromoform	Not Detected	1	µg/L	08/25/20	BD	
Bromomethane	Not Detected	5	µg/L	08/25/20	BD	
2-Butanone (MEK)	Not Detected	25	µg/L	08/25/20	BD	
n-Butylbenzene	Not Detected	1	µg/L	08/25/20	BD	
sec-Butylbenzene	Not Detected	1	µg/L	08/25/20	BD	
tert-Butylbenzene	Not Detected	1	µg/L	08/25/20	BD	
Carbon disulfide	Not Detected	5	µg/L	08/25/20	BD	
Carbon tetrachloride	Not Detected	1	µg/L	08/25/20	BD	
Chlorobenzene	Not Detected	1	µg/L	08/25/20	BD	
Chloroethane	Not Detected	5	µg/L	08/25/20	BD	
Chloroform	Not Detected	1	µg/L	08/25/20	BD	
Chloromethane	Not Detected	5	µg/L	08/25/20	BD	
2-Chlorotoluene	Not Detected	5	µg/L	08/25/20	BD	
4-Chlorotoluene	Not Detected	5	µg/L	08/25/20	BD	
Dibromochloromethane	Not Detected	5	µg/L	08/25/20	BD	
1,2-Dibromo-3-chloropropane	Not Detected	0.2	µg/L	08/25/20	BD	
Dibromomethane	Not Detected	5	µg/L	08/25/20	BD	
1,2-Dichlorobenzene	Not Detected	1	µg/L	08/25/20	BD	
1,3-Dichlorobenzene	Not Detected	1	µg/L	08/25/20	BD	
1,4-Dichlorobenzene	Not Detected	1	µg/L	08/25/20	BD	
Dichlorodifluoromethane	Not Detected	5	µg/L	08/25/20	BD	
1,1-Dichloroethane	Not Detected	1	µg/L	08/25/20	BD	
1,2-Dichloroethane	Not Detected	1	µg/L	08/25/20	BD	
1,1-Dichloroethylene	Not Detected	1	µg/L	08/25/20	BD	
cis-1,2-Dichloroethylene	Not Detected	1	µg/L	08/25/20	BD	
trans-1,2-Dichloroethylene	Not Detected	1	µg/L	08/25/20	BD	
1,2-Dichloropropane	Not Detected	1	µg/L	08/25/20	BD	
1,3-Dichloropropane	Not Detected	1	µg/L	08/25/20	BD	
2,2-Dichloropropane	Not Detected	1	µg/L	08/25/20	BD	
1,1-Dichloropropene	Not Detected	1	µg/L	08/25/20	BD	
cis-1,3-Dichloropropene	Not Detected	1	µg/L	08/25/20	BD	
<i>continued</i>						

Sample Description:		MW-1, 11:25A, 8/20/20				
Laboratory ID:	11232-1	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
VOCs continued						
Ethylbenzene	Not Detected	1	µg/L	08/25/20	BD	
Ethylene Dibromide (1,2-Dibromoethane)	Not Detected	0.2	µg/L	08/25/20	BD	
Hexachlorobutadiene	Not Detected	0.2	µg/L	08/25/20	BD	
2-Hexanone	Not Detected	50	µg/L	08/25/20	BD	
Isopropyl benzene	Not Detected	5	µg/L	08/25/20	BD	
4-Methyl-2-pentanone (MIBK)	Not Detected	50	µg/L	08/25/20	BD	
Methyl-t-butyl ether (MTBE)	Not Detected	5	µg/L	08/25/20	BD	
Methylene chloride	Not Detected	5	µg/L	08/25/20	BD	
2-Methylnaphthalene	Not Detected	5	µg/L	08/25/20	BD	
Naphthalene	Not Detected	5	µg/L	08/25/20	BD	
n-Propyl benzene	Not Detected	1	µg/L	08/25/20	BD	
Styrene	Not Detected	1	µg/L	08/25/20	BD	
1,1,1,2-Tetrachloroethane	Not Detected	1	µg/L	08/25/20	BD	
1,1,2,2-Tetrachloroethane	Not Detected	1	µg/L	08/25/20	BD	
Tetrachloroethylene	Not Detected	1	µg/L	08/25/20	BD	
Tetrahydrofuran	Not Detected	90	µg/L	08/25/20	BD	
Toluene	Not Detected	1	µg/L	08/25/20	BD	
1,2,3-Trichlorobenzene	Not Detected	5	µg/L	08/25/20	BD	
1,2,4-Trichlorobenzene	Not Detected	5	µg/L	08/25/20	BD	
1,1,1-Trichloroethane	Not Detected	1	µg/L	08/25/20	BD	
1,1,2-Trichloroethane	Not Detected	1	µg/L	08/25/20	BD	
Trichloroethylene	Not Detected	1	µg/L	08/25/20	BD	
Trichlorofluoromethane	Not Detected	1	µg/L	08/25/20	BD	
1,2,3-Trichloropropane	Not Detected	1	µg/L	08/25/20	BD	
1,2,4-Trimethylbenzene	Not Detected	1	µg/L	08/25/20	BD	
1,3,5-Trimethylbenzene	Not Detected	1	µg/L	08/25/20	BD	
Vinyl Acetate	Not Detected	100	µg/L	08/25/20	BD	
Vinyl chloride	Not Detected	1	µg/L	08/25/20	BD	
Xylene (Total)	Not Detected	3	µg/L	08/25/20	BD	
Surrogate Standards						
1,2-Dichloroethane-d4	103%	-	% Recovery	08/25/20	BD	
Toluene-d8	99.4%	-	% Recovery	08/25/20	BD	
4-Bromofluorobenzene	108%	-	% Recovery	08/25/20	BD	
continued						

Data Qualifiers: I Internal Standard results outside of acceptance limits
 S QC spike recovery outside of acceptance limits
 R RPD outside of acceptance limits
 E Reporting limit is elevated
 D Result is from a dilution
 J Result should be considered estimated
 M Matrix interference observed
 F Matrix Spike four times rule applied
 C See Case Narrative

Sample Description:		MW-1, 11:25A, 8/20/20				
Laboratory ID:	11232-1	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	0.2	µg/L	08/25/20	DS	
Aroclor 1221	Not Detected	0.2	µg/L	08/25/20	DS	
Aroclor 1232	Not Detected	0.2	µg/L	08/25/20	DS	
Aroclor 1242	Not Detected	0.2	µg/L	08/25/20	DS	
Aroclor 1248	Not Detected	0.2	µg/L	08/25/20	DS	
Aroclor 1254	Not Detected	0.2	µg/L	08/25/20	DS	
Aroclor 1260	Not Detected	0.2	µg/L	08/25/20	DS	
Polychlorinated biphenyls (Total)	Not Detected	2	µg/L	08/25/20	DS	
Surrogate Standards						
Tetrachloro-m-xylene	81.4%	-	% Recovery	08/25/20	DS	
Decachlorobiphenyl	87.8%	-	% Recovery	08/25/20	DS	
Analysis Information						
PCB Extraction	Completed	-	-	08/21/20	LB	

Sample Description:	MW-2, 13:00p, 8/20/20					
Laboratory ID:	11232-2	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
<i>Volatile Organic Compounds</i>						
Acetone	Not Detected	50	µg/L	08/25/20	BD	
Benzene	Not Detected	1	µg/L	08/25/20	BD	
Bromobenzene	Not Detected	1	µg/L	08/25/20	BD	
Bromochloromethane	Not Detected	1	µg/L	08/25/20	BD	
Bromodichloromethane	Not Detected	1	µg/L	08/25/20	BD	
Bromoform	Not Detected	1	µg/L	08/25/20	BD	
Bromomethane	Not Detected	5	µg/L	08/25/20	BD	
2-Butanone (MEK)	Not Detected	25	µg/L	08/25/20	BD	
n-Butylbenzene	Not Detected	1	µg/L	08/25/20	BD	
sec-Butylbenzene	Not Detected	1	µg/L	08/25/20	BD	
tert-Butylbenzene	Not Detected	1	µg/L	08/25/20	BD	
Carbon disulfide	Not Detected	5	µg/L	08/25/20	BD	
Carbon tetrachloride	Not Detected	1	µg/L	08/25/20	BD	
Chlorobenzene	Not Detected	1	µg/L	08/25/20	BD	
Chloroethane	Not Detected	5	µg/L	08/25/20	BD	
Chloroform	Not Detected	1	µg/L	08/25/20	BD	
Chloromethane	Not Detected	5	µg/L	08/25/20	BD	
2-Chlorotoluene	Not Detected	5	µg/L	08/25/20	BD	
4-Chlorotoluene	Not Detected	5	µg/L	08/25/20	BD	
Dibromochloromethane	Not Detected	5	µg/L	08/25/20	BD	
1,2-Dibromo-3-chloropropane	Not Detected	0.2	µg/L	08/25/20	BD	
Dibromomethane	Not Detected	5	µg/L	08/25/20	BD	
1,2-Dichlorobenzene	Not Detected	1	µg/L	08/25/20	BD	
1,3-Dichlorobenzene	Not Detected	1	µg/L	08/25/20	BD	
1,4-Dichlorobenzene	Not Detected	1	µg/L	08/25/20	BD	
Dichlorodifluoromethane	Not Detected	5	µg/L	08/25/20	BD	
1,1-Dichloroethane	Not Detected	1	µg/L	08/25/20	BD	
1,2-Dichloroethane	Not Detected	1	µg/L	08/25/20	BD	
1,1-Dichloroethylene	Not Detected	1	µg/L	08/25/20	BD	
cis-1,2-Dichloroethylene	Not Detected	1	µg/L	08/25/20	BD	
trans-1,2-Dichloroethylene	Not Detected	1	µg/L	08/25/20	BD	
1,2-Dichloropropane	Not Detected	1	µg/L	08/25/20	BD	
1,3-Dichloropropane	Not Detected	1	µg/L	08/25/20	BD	
2,2-Dichloropropane	Not Detected	1	µg/L	08/25/20	BD	
1,1-Dichloropropene	Not Detected	1	µg/L	08/25/20	BD	
cis-1,3-Dichloropropene	Not Detected	1	µg/L	08/25/20	BD	
<i>continued</i>						

Data Qualifiers: I Internal Standard results outside of acceptance limits
 S QC spike recovery outside of acceptance limits
 R RPD outside of acceptance limits
 E Reporting limit is elevated
 D Result is from a dilution
 J Result should be considered estimated
 M Matrix interference observed
 F Matrix Spike four times rule applied
 C See Case Narrative

Sample Description:		MW-2, 13:00p, 8/20/20				
Laboratory ID:	11232-2	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
VOCs continued						
Ethylbenzene	Not Detected	1	µg/L	08/25/20	BD	
Ethylene Dibromide (1,2-Dibromoethane)	Not Detected	0.2	µg/L	08/25/20	BD	
Hexachlorobutadiene	Not Detected	0.2	µg/L	08/25/20	BD	
2-Hexanone	Not Detected	50	µg/L	08/25/20	BD	
Isopropyl benzene	Not Detected	5	µg/L	08/25/20	BD	
4-Methyl-2-pentanone (MIBK)	Not Detected	50	µg/L	08/25/20	BD	
Methyl-t-butyl ether (MTBE)	Not Detected	5	µg/L	08/25/20	BD	
Methylene chloride	Not Detected	5	µg/L	08/25/20	BD	
2-Methylnaphthalene	Not Detected	5	µg/L	08/25/20	BD	
Naphthalene	Not Detected	5	µg/L	08/25/20	BD	
n-Propyl benzene	Not Detected	1	µg/L	08/25/20	BD	
Styrene	Not Detected	1	µg/L	08/25/20	BD	
1,1,1,2-Tetrachloroethane	Not Detected	1	µg/L	08/25/20	BD	
1,1,2,2-Tetrachloroethane	Not Detected	1	µg/L	08/25/20	BD	
Tetrachloroethylene	Not Detected	1	µg/L	08/25/20	BD	
Tetrahydrofuran	Not Detected	90	µg/L	08/25/20	BD	
Toluene	Not Detected	1	µg/L	08/25/20	BD	
1,2,3-Trichlorobenzene	Not Detected	5	µg/L	08/25/20	BD	
1,2,4-Trichlorobenzene	Not Detected	5	µg/L	08/25/20	BD	
1,1,1-Trichloroethane	Not Detected	1	µg/L	08/25/20	BD	
1,1,2-Trichloroethane	Not Detected	1	µg/L	08/25/20	BD	
Trichloroethylene	Not Detected	1	µg/L	08/25/20	BD	
Trichlorofluoromethane	Not Detected	1	µg/L	08/25/20	BD	
1,2,3-Trichloropropane	Not Detected	1	µg/L	08/25/20	BD	
1,2,4-Trimethylbenzene	Not Detected	1	µg/L	08/25/20	BD	
1,3,5-Trimethylbenzene	Not Detected	1	µg/L	08/25/20	BD	
Vinyl Acetate	Not Detected	100	µg/L	08/25/20	BD	
Vinyl chloride	Not Detected	1	µg/L	08/25/20	BD	
Xylene (Total)	Not Detected	3	µg/L	08/25/20	BD	
Surrogate Standards						
1,2-Dichloroethane-d4	121%	-	% Recovery	08/25/20	BD	
Toluene-d8	97.1%	-	% Recovery	08/25/20	BD	
4-Bromofluorobenzene	102%	-	% Recovery	08/25/20	BD	
continued						

Sample Description:		MW-2, 13:00p, 8/20/20				
Laboratory ID:	11232-2	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	0.2	µg/L	08/25/20	DS	
Aroclor 1221	Not Detected	0.2	µg/L	08/25/20	DS	
Aroclor 1232	Not Detected	0.2	µg/L	08/25/20	DS	
Aroclor 1242	Not Detected	0.2	µg/L	08/25/20	DS	
Aroclor 1248	Not Detected	0.2	µg/L	08/25/20	DS	
Aroclor 1254	Not Detected	0.2	µg/L	08/25/20	DS	
Aroclor 1260	Not Detected	0.2	µg/L	08/25/20	DS	
Polychlorinated biphenyls (Total)	Not Detected	2	µg/L	08/25/20	DS	
Surrogate Standards						
Tetrachloro-m-xylene	88.9%	-	% Recovery	08/25/20	DS	
Decachlorobiphenyl	90.1%	-	% Recovery	08/25/20	DS	
Analysis Information						
PCB Extraction	Completed	-	-	08/21/20	LB	

Sample Description:	Trip Blank, 10:20A, 8/20/20					
Laboratory ID:	11232-3	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
<i>Volatile Organic Compounds</i>						
Acetone	Not Detected	50	µg/L	08/25/20	BD	
Benzene	Not Detected	1	µg/L	08/25/20	BD	
Bromobenzene	Not Detected	1	µg/L	08/25/20	BD	
Bromochloromethane	Not Detected	1	µg/L	08/25/20	BD	
Bromodichloromethane	Not Detected	1	µg/L	08/25/20	BD	
Bromoform	Not Detected	1	µg/L	08/25/20	BD	
Bromomethane	Not Detected	5	µg/L	08/25/20	BD	
2-Butanone (MEK)	Not Detected	25	µg/L	08/25/20	BD	
n-Butylbenzene	Not Detected	1	µg/L	08/25/20	BD	
sec-Butylbenzene	Not Detected	1	µg/L	08/25/20	BD	
tert-Butylbenzene	Not Detected	1	µg/L	08/25/20	BD	
Carbon disulfide	Not Detected	5	µg/L	08/25/20	BD	
Carbon tetrachloride	Not Detected	1	µg/L	08/25/20	BD	
Chlorobenzene	Not Detected	1	µg/L	08/25/20	BD	
Chloroethane	Not Detected	5	µg/L	08/25/20	BD	
Chloroform	Not Detected	1	µg/L	08/25/20	BD	
Chloromethane	Not Detected	5	µg/L	08/25/20	BD	
2-Chlorotoluene	Not Detected	5	µg/L	08/25/20	BD	
4-Chlorotoluene	Not Detected	5	µg/L	08/25/20	BD	
Dibromochloromethane	Not Detected	5	µg/L	08/25/20	BD	
1,2-Dibromo-3-chloropropane	Not Detected	0.2	µg/L	08/25/20	BD	
Dibromomethane	Not Detected	5	µg/L	08/25/20	BD	
1,2-Dichlorobenzene	Not Detected	1	µg/L	08/25/20	BD	
1,3-Dichlorobenzene	Not Detected	1	µg/L	08/25/20	BD	
1,4-Dichlorobenzene	Not Detected	1	µg/L	08/25/20	BD	
Dichlorodifluoromethane	Not Detected	5	µg/L	08/25/20	BD	
1,1-Dichloroethane	Not Detected	1	µg/L	08/25/20	BD	
1,2-Dichloroethane	Not Detected	1	µg/L	08/25/20	BD	
1,1-Dichloroethylene	Not Detected	1	µg/L	08/25/20	BD	
cis-1,2-Dichloroethylene	Not Detected	1	µg/L	08/25/20	BD	
trans-1,2-Dichloroethylene	Not Detected	1	µg/L	08/25/20	BD	
1,2-Dichloropropane	Not Detected	1	µg/L	08/25/20	BD	
1,3-Dichloropropane	Not Detected	1	µg/L	08/25/20	BD	
2,2-Dichloropropane	Not Detected	1	µg/L	08/25/20	BD	
1,1-Dichloropropene	Not Detected	1	µg/L	08/25/20	BD	
cis-1,3-Dichloropropene	Not Detected	1	µg/L	08/25/20	BD	
<i>continued</i>						

Data Qualifiers: I Internal Standard results outside of acceptance limits E Reporting limit is elevated M Matrix interference observed
 S QC spike recovery outside of acceptance limits D Result is from a dilution F Matrix Spike four times rule applied
 R RPD outside of acceptance limits J Result should be considered estimated C See Case Narrative

Sample Description:		Trip Blank, 10:20A, 8/20/20				
Laboratory ID:	11232-3	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
VOCs continued						
Ethylbenzene	Not Detected	1	µg/L	08/25/20	BD	
Ethylene Dibromide (1,2-Dibromoethane)	Not Detected	0.2	µg/L	08/25/20	BD	
Hexachlorobutadiene	Not Detected	0.2	µg/L	08/25/20	BD	
2-Hexanone	Not Detected	50	µg/L	08/25/20	BD	
Isopropyl benzene	Not Detected	5	µg/L	08/25/20	BD	
4-Methyl-2-pentanone (MIBK)	Not Detected	50	µg/L	08/25/20	BD	
Methyl-t-butyl ether (MTBE)	Not Detected	5	µg/L	08/25/20	BD	
Methylene chloride	Not Detected	5	µg/L	08/25/20	BD	
2-Methylnaphthalene	Not Detected	5	µg/L	08/25/20	BD	
Naphthalene	Not Detected	5	µg/L	08/25/20	BD	
n-Propyl benzene	Not Detected	1	µg/L	08/25/20	BD	
Styrene	Not Detected	1	µg/L	08/25/20	BD	
1,1,1,2-Tetrachloroethane	Not Detected	1	µg/L	08/25/20	BD	
1,1,2,2-Tetrachloroethane	Not Detected	1	µg/L	08/25/20	BD	
Tetrachloroethylene	Not Detected	1	µg/L	08/25/20	BD	
Tetrahydrofuran	Not Detected	90	µg/L	08/25/20	BD	
Toluene	Not Detected	1	µg/L	08/25/20	BD	
1,2,3-Trichlorobenzene	Not Detected	5	µg/L	08/25/20	BD	
1,2,4-Trichlorobenzene	Not Detected	5	µg/L	08/25/20	BD	
1,1,1-Trichloroethane	Not Detected	1	µg/L	08/25/20	BD	
1,1,2-Trichloroethane	Not Detected	1	µg/L	08/25/20	BD	
Trichloroethylene	Not Detected	1	µg/L	08/25/20	BD	
Trichlorofluoromethane	Not Detected	1	µg/L	08/25/20	BD	
1,2,3-Trichloropropane	Not Detected	1	µg/L	08/25/20	BD	
1,2,4-Trimethylbenzene	Not Detected	1	µg/L	08/25/20	BD	
1,3,5-Trimethylbenzene	Not Detected	1	µg/L	08/25/20	BD	
Vinyl Acetate	Not Detected	100	µg/L	08/25/20	BD	
Vinyl chloride	Not Detected	1	µg/L	08/25/20	BD	
Xylene (Total)	Not Detected	3	µg/L	08/25/20	BD	
Surrogate Standards						
1,2-Dichloroethane-d4	104%	-	% Recovery	08/25/20	BD	
Toluene-d8	97.7%	-	% Recovery	08/25/20	BD	
4-Bromofluorobenzene	105%	-	% Recovery	08/25/20	BD	

Data Qualifiers: I Internal Standard results outside of acceptance limits E Reporting limit is elevated M Matrix interference observed
 S QC spike recovery outside of acceptance limits D Result is from a dilution F Matrix Spike four times rule applied
 R RPD outside of acceptance limits J Result should be considered estimated C See Case Narrative

Sample Description:	Field Blank, 10:45A, 8/20/20					
Laboratory ID:	11232-4	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
<i>Volatile Organic Compounds</i>						
Acetone	Not Detected	50	µg/L	08/25/20	BD	
Benzene	Not Detected	1	µg/L	08/25/20	BD	
Bromobenzene	Not Detected	1	µg/L	08/25/20	BD	
Bromochloromethane	Not Detected	1	µg/L	08/25/20	BD	
Bromodichloromethane	Not Detected	1	µg/L	08/25/20	BD	
Bromoform	Not Detected	1	µg/L	08/25/20	BD	
Bromomethane	Not Detected	5	µg/L	08/25/20	BD	
2-Butanone (MEK)	Not Detected	25	µg/L	08/25/20	BD	
n-Butylbenzene	Not Detected	1	µg/L	08/25/20	BD	
sec-Butylbenzene	Not Detected	1	µg/L	08/25/20	BD	
tert-Butylbenzene	Not Detected	1	µg/L	08/25/20	BD	
Carbon disulfide	Not Detected	5	µg/L	08/25/20	BD	
Carbon tetrachloride	Not Detected	1	µg/L	08/25/20	BD	
Chlorobenzene	Not Detected	1	µg/L	08/25/20	BD	
Chloroethane	Not Detected	5	µg/L	08/25/20	BD	
Chloroform	Not Detected	1	µg/L	08/25/20	BD	
Chloromethane	Not Detected	5	µg/L	08/25/20	BD	
2-Chlorotoluene	Not Detected	5	µg/L	08/25/20	BD	
4-Chlorotoluene	Not Detected	5	µg/L	08/25/20	BD	
Dibromochloromethane	Not Detected	5	µg/L	08/25/20	BD	
1,2-Dibromo-3-chloropropane	Not Detected	0.2	µg/L	08/25/20	BD	
Dibromomethane	Not Detected	5	µg/L	08/25/20	BD	
1,2-Dichlorobenzene	Not Detected	1	µg/L	08/25/20	BD	
1,3-Dichlorobenzene	Not Detected	1	µg/L	08/25/20	BD	
1,4-Dichlorobenzene	Not Detected	1	µg/L	08/25/20	BD	
Dichlorodifluoromethane	Not Detected	5	µg/L	08/25/20	BD	
1,1-Dichloroethane	Not Detected	1	µg/L	08/25/20	BD	
1,2-Dichloroethane	Not Detected	1	µg/L	08/25/20	BD	
1,1-Dichloroethylene	Not Detected	1	µg/L	08/25/20	BD	
cis-1,2-Dichloroethylene	Not Detected	1	µg/L	08/25/20	BD	
trans-1,2-Dichloroethylene	Not Detected	1	µg/L	08/25/20	BD	
1,2-Dichloropropane	Not Detected	1	µg/L	08/25/20	BD	
1,3-Dichloropropane	Not Detected	1	µg/L	08/25/20	BD	
2,2-Dichloropropane	Not Detected	1	µg/L	08/25/20	BD	
1,1-Dichloropropene	Not Detected	1	µg/L	08/25/20	BD	
cis-1,3-Dichloropropene	Not Detected	1	µg/L	08/25/20	BD	
<i>continued</i>						

Data Qualifiers:	I Internal Standard results outside of acceptance limits	E Reporting limit is elevated	M Matrix interference observed
	S QC spike recovery outside of acceptance limits	D Result is from a dilution	F Matrix Spike four times rule applied
	R RPD outside of acceptance limits	J Result should be considered estimated	C See Case Narrative

Sample Description:		Field Blank, 10:45A, 8/20/20				
Laboratory ID:	11232-4	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
VOCs continued						
Ethylbenzene	Not Detected	1	µg/L	08/25/20	BD	
Ethylene Dibromide (1,2-Dibromoethane)	Not Detected	0.2	µg/L	08/25/20	BD	
Hexachlorobutadiene	Not Detected	0.2	µg/L	08/25/20	BD	
2-Hexanone	Not Detected	50	µg/L	08/25/20	BD	
Isopropyl benzene	Not Detected	5	µg/L	08/25/20	BD	
4-Methyl-2-pentanone (MIBK)	Not Detected	50	µg/L	08/25/20	BD	
Methyl-t-butyl ether (MTBE)	Not Detected	5	µg/L	08/25/20	BD	
Methylene chloride	Not Detected	5	µg/L	08/25/20	BD	
2-Methylnaphthalene	Not Detected	5	µg/L	08/25/20	BD	
Naphthalene	Not Detected	5	µg/L	08/25/20	BD	
n-Propyl benzene	Not Detected	1	µg/L	08/25/20	BD	
Styrene	Not Detected	1	µg/L	08/25/20	BD	
1,1,1,2-Tetrachloroethane	Not Detected	1	µg/L	08/25/20	BD	
1,1,2,2-Tetrachloroethane	Not Detected	1	µg/L	08/25/20	BD	
Tetrachloroethylene	Not Detected	1	µg/L	08/25/20	BD	
Tetrahydrofuran	Not Detected	90	µg/L	08/25/20	BD	
Toluene	Not Detected	1	µg/L	08/25/20	BD	
1,2,3-Trichlorobenzene	Not Detected	5	µg/L	08/25/20	BD	
1,2,4-Trichlorobenzene	Not Detected	5	µg/L	08/25/20	BD	
1,1,1-Trichloroethane	Not Detected	1	µg/L	08/25/20	BD	
1,1,2-Trichloroethane	Not Detected	1	µg/L	08/25/20	BD	
Trichloroethylene	Not Detected	1	µg/L	08/25/20	BD	
Trichlorofluoromethane	Not Detected	1	µg/L	08/25/20	BD	
1,2,3-Trichloropropane	Not Detected	1	µg/L	08/25/20	BD	
1,2,4-Trimethylbenzene	Not Detected	1	µg/L	08/25/20	BD	
1,3,5-Trimethylbenzene	Not Detected	1	µg/L	08/25/20	BD	
Vinyl Acetate	Not Detected	100	µg/L	08/25/20	BD	
Vinyl chloride	Not Detected	1	µg/L	08/25/20	BD	
Xylene (Total)	Not Detected	3	µg/L	08/25/20	BD	
Surrogate Standards						
1,2-Dichloroethane-d4	106%	-	% Recovery	08/25/20	BD	
Toluene-d8	96.6%	-	% Recovery	08/25/20	BD	
4-Bromofluorobenzene	104%	-	% Recovery	08/25/20	BD	
continued						

Sample Description:		Field Blank, 10:45A, 8/20/20				
Laboratory ID:	11232-4	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	0.2	µg/L	08/25/20	DS	
Aroclor 1221	Not Detected	0.2	µg/L	08/25/20	DS	
Aroclor 1232	Not Detected	0.2	µg/L	08/25/20	DS	
Aroclor 1242	Not Detected	0.2	µg/L	08/25/20	DS	
Aroclor 1248	Not Detected	0.2	µg/L	08/25/20	DS	
Aroclor 1254	Not Detected	0.2	µg/L	08/25/20	DS	
Aroclor 1260	Not Detected	0.2	µg/L	08/25/20	DS	
Polychlorinated biphenyls (Total)	Not Detected	2	µg/L	08/25/20	DS	
Surrogate Standards						
Tetrachloro-m-xylene	84.6%	-	% Recovery	08/25/20	DS	
Decachlorobiphenyl	72.7%	-	% Recovery	08/25/20	DS	
Analysis Information						
PCB Extraction	Completed	-	-	08/21/20	LB	

Sample Description:	Duplicate, 11:25A, 8/20/20					
Laboratory ID:	11232-5	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
<i>Volatile Organic Compounds</i>						
Acetone	Not Detected	50	µg/L	08/25/20	BD	
Benzene	Not Detected	1	µg/L	08/25/20	BD	
Bromobenzene	Not Detected	1	µg/L	08/25/20	BD	
Bromochloromethane	Not Detected	1	µg/L	08/25/20	BD	
Bromodichloromethane	Not Detected	1	µg/L	08/25/20	BD	
Bromoform	Not Detected	1	µg/L	08/25/20	BD	
Bromomethane	Not Detected	5	µg/L	08/25/20	BD	
2-Butanone (MEK)	Not Detected	25	µg/L	08/25/20	BD	
n-Butylbenzene	Not Detected	1	µg/L	08/25/20	BD	
sec-Butylbenzene	Not Detected	1	µg/L	08/25/20	BD	
tert-Butylbenzene	Not Detected	1	µg/L	08/25/20	BD	
Carbon disulfide	Not Detected	5	µg/L	08/25/20	BD	
Carbon tetrachloride	Not Detected	1	µg/L	08/25/20	BD	
Chlorobenzene	Not Detected	1	µg/L	08/25/20	BD	
Chloroethane	Not Detected	5	µg/L	08/25/20	BD	
Chloroform	Not Detected	1	µg/L	08/25/20	BD	
Chloromethane	Not Detected	5	µg/L	08/25/20	BD	
2-Chlorotoluene	Not Detected	5	µg/L	08/25/20	BD	
4-Chlorotoluene	Not Detected	5	µg/L	08/25/20	BD	
Dibromochloromethane	Not Detected	5	µg/L	08/25/20	BD	
1,2-Dibromo-3-chloropropane	Not Detected	0.2	µg/L	08/25/20	BD	
Dibromomethane	Not Detected	5	µg/L	08/25/20	BD	
1,2-Dichlorobenzene	Not Detected	1	µg/L	08/25/20	BD	
1,3-Dichlorobenzene	Not Detected	1	µg/L	08/25/20	BD	
1,4-Dichlorobenzene	Not Detected	1	µg/L	08/25/20	BD	
Dichlorodifluoromethane	Not Detected	5	µg/L	08/25/20	BD	
1,1-Dichloroethane	Not Detected	1	µg/L	08/25/20	BD	
1,2-Dichloroethane	Not Detected	1	µg/L	08/25/20	BD	
1,1-Dichloroethylene	Not Detected	1	µg/L	08/25/20	BD	
cis-1,2-Dichloroethylene	Not Detected	1	µg/L	08/25/20	BD	
trans-1,2-Dichloroethylene	Not Detected	1	µg/L	08/25/20	BD	
1,2-Dichloropropane	Not Detected	1	µg/L	08/25/20	BD	
1,3-Dichloropropane	Not Detected	1	µg/L	08/25/20	BD	
2,2-Dichloropropane	Not Detected	1	µg/L	08/25/20	BD	
1,1-Dichloropropene	Not Detected	1	µg/L	08/25/20	BD	
cis-1,3-Dichloropropene	Not Detected	1	µg/L	08/25/20	BD	
<i>continued</i>						

Data Qualifiers: I Internal Standard results outside of acceptance limits E Reporting limit is elevated M Matrix interference observed
 S QC spike recovery outside of acceptance limits D Result is from a dilution F Matrix Spike four times rule applied
 R RPD outside of acceptance limits J Result should be considered estimated C See Case Narrative

Sample Description:	Duplicate, 11:25A, 8/20/20					
Laboratory ID:	11232-5	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
VOCs continued						
Ethylbenzene	Not Detected	1	µg/L	08/25/20	BD	
Ethylene Dibromide (1,2-Dibromoethane)	Not Detected	0.2	µg/L	08/25/20	BD	
Hexachlorobutadiene	Not Detected	0.2	µg/L	08/25/20	BD	
2-Hexanone	Not Detected	50	µg/L	08/25/20	BD	
Isopropyl benzene	Not Detected	5	µg/L	08/25/20	BD	
4-Methyl-2-pentanone (MIBK)	Not Detected	50	µg/L	08/25/20	BD	
Methyl-t-butyl ether (MTBE)	Not Detected	5	µg/L	08/25/20	BD	
Methylene chloride	Not Detected	5	µg/L	08/25/20	BD	
2-Methylnaphthalene	Not Detected	5	µg/L	08/25/20	BD	
Naphthalene	Not Detected	5	µg/L	08/25/20	BD	
n-Propyl benzene	Not Detected	1	µg/L	08/25/20	BD	
Styrene	Not Detected	1	µg/L	08/25/20	BD	
1,1,1,2-Tetrachloroethane	Not Detected	1	µg/L	08/25/20	BD	
1,1,2,2-Tetrachloroethane	Not Detected	1	µg/L	08/25/20	BD	
Tetrachloroethylene	Not Detected	1	µg/L	08/25/20	BD	
Tetrahydrofuran	Not Detected	90	µg/L	08/25/20	BD	
Toluene	Not Detected	1	µg/L	08/25/20	BD	
1,2,3-Trichlorobenzene	Not Detected	5	µg/L	08/25/20	BD	
1,2,4-Trichlorobenzene	Not Detected	5	µg/L	08/25/20	BD	
1,1,1-Trichloroethane	Not Detected	1	µg/L	08/25/20	BD	
1,1,2-Trichloroethane	Not Detected	1	µg/L	08/25/20	BD	
Trichloroethylene	Not Detected	1	µg/L	08/25/20	BD	
Trichlorofluoromethane	Not Detected	1	µg/L	08/25/20	BD	
1,2,3-Trichloropropane	Not Detected	1	µg/L	08/25/20	BD	
1,2,4-Trimethylbenzene	Not Detected	1	µg/L	08/25/20	BD	
1,3,5-Trimethylbenzene	Not Detected	1	µg/L	08/25/20	BD	
Vinyl Acetate	Not Detected	100	µg/L	08/25/20	BD	
Vinyl chloride	Not Detected	1	µg/L	08/25/20	BD	
Xylene (Total)	Not Detected	3	µg/L	08/25/20	BD	
Surrogate Standards						
1,2-Dichloroethane-d4	122%	-	% Recovery	08/25/20	BD	
Toluene-d8	95.8%	-	% Recovery	08/25/20	BD	
4-Bromofluorobenzene	104%	-	% Recovery	08/25/20	BD	
continued						

Data Qualifiers: I Internal Standard results outside of acceptance limits E Reporting limit is elevated M Matrix interference observed
 S QC spike recovery outside of acceptance limits D Result is from a dilution F Matrix Spike four times rule applied
 R RPD outside of acceptance limits J Result should be considered estimated C See Case Narrative

Sample Description:		Duplicate, 11:25A, 8/20/20				
Laboratory ID:	11232-5	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	0.2	µg/L	08/25/20	DS	
Aroclor 1221	Not Detected	0.2	µg/L	08/25/20	DS	
Aroclor 1232	Not Detected	0.2	µg/L	08/25/20	DS	
Aroclor 1242	Not Detected	0.2	µg/L	08/25/20	DS	
Aroclor 1248	Not Detected	0.2	µg/L	08/25/20	DS	
Aroclor 1254	Not Detected	0.2	µg/L	08/25/20	DS	
Aroclor 1260	Not Detected	0.2	µg/L	08/25/20	DS	
Polychlorinated biphenyls (Total)	Not Detected	2	µg/L	08/25/20	DS	
Surrogate Standards						
Tetrachloro-m-xylene	83.8%	-	% Recovery	08/25/20	DS	
Decachlorobiphenyl	86.6%	-	% Recovery	08/25/20	DS	
Analysis Information						
PCB Extraction	Completed	-	-	08/21/20	LB	

Quality Control

VOC Matrix Spike Data

Spiked Sample: 11232 LCS		Matrix: Water		Units: ppb in solution				Data
Parameter	Sample Result	Spike Added	MS Result	MSD Result	MS % Rec.	MSD % Rec.	RPD	Qualifiers
1,1-Dichloroethene	0.0	25	27	29	108	116	7.1	
Benzene	0.0	25	20	20	80	80	0.0	
Trichloroethene	0.0	25	28	27	112	108	3.6	
Toluene	0.0	25	23	21	92	84	9.1	
Chlorobenzene	0.0	25	22	22	88	88	0.0	

PCB Matrix Spike Data

Spiked Sample: 11232 LCS		Matrix: Water		Units: ppm in extract				Data
Parameter	Sample Result	Spike Added	MS Result	MSD Result	MS % Rec.	MSD % Rec.	RPD	Qualifiers
Aroclor 1260	0.000	0.200	0.193	0.209	96	105	8.2	

Case Narrative

All method protocols and quality control requirements were satisfied for all samples.

Notes

- (1) Quality Control Limits available upon request.
- (2) Results are applicable only to the sample tested.
- (3) All samples will be discarded after 30 days unless the laboratory receives other instructions.
- (4) Chain of Custody document attached.

QUANTUM LABORATORIES, INC.



David W. Starr
Analytical Chemistry Manager

QUANTUM LABORATORIES, INC.
 28221 Beck Road | Suite A-11
 Wixom, MI 48393
 248-348-TEST or 248-348-8378

Women's Business Enterprise
 National Council
WBENC
 Cert. No. 2005111505



CHAIN OF CUSTODY RECORD

PROJECT INFO

REPORT NO. (LAB USE) 11232 Page 1 of 1

P.O. NUMBER

PROJECT NUMBER 20-2554

PROJECT NAME 12700 8 MILE RD.

SAMPLING LOCATION DAK PARK, MI

SAMPLES COLLECTED BY E. HULL

TURN AROUND TIME Standard Rush By Date:

SPECIAL INSTRUCTIONS

CLIENT INFO

COMPANY APPLIED ENV.

ADDRESS 1210 N. MARLE RD.

CITY, STATE, ZIP ANN ARBOR, MI

TELEPHONE 734-475-1970

FAX

CONTACT MIKE GATLEN

ADDITIONAL PHONE

EMAIL ADDRESS MIKEG@APPLIEDENV.COM

* SAMPLE TYPE: S=Soil, W=Water, D=Drinking Water, O=Oil/Organic, M=Mixed, V=Vapor, A=Air
 U=Unknown or Other

** GRAB/COMP: G=Grab Sample, C=Composite Sample

LINE NO.	LAB USE	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	TIME SAMPLED	DATE SAMPLED	SAMPLE TYPE *	GRAB / COMP **	REMARKS / PRESERVATIVES
1		MW-1	3	11:25 A	8-20-20	W G	X	
2		MW-2	3	12:00 P	8-20-20	W G	X	
3		MW-4	2	-	-			
4		TRIP BLANK	1	10:20 A	8-20-20	W G	X	
5		FIELD BLANK	3	10:45 A	8-20-20	W G	X	
6		DUPLICATE	3	11:25 A	8-20-20	W G	X	
7								
8								
9								
10								

RELINQUISHED BY M. G. GATLEN

ACCEPTED BY James Bergquist

TIME / DATE: 10:40 8-21-20

TIME / DATE: 11:37 8-21-20

SAMPLE RECEIVED

Wet Ice

Blue Ice

Distribution: White - Lab Copy Yellow - Client Report Pink - Sampler

Data Qualifiers: I Internal Standard results outside of acceptance limits
 S QC spike recovery outside of acceptance limits
 R RPD outside of acceptance limits
 E Reporting limit is elevated
 D Result is from a dilution
 J Result should be considered estimated
 M Matrix interference observed
 F Matrix Spike four times rule applied
 C See Case Narrative

ANALYTICAL REPORT

For: Applied Environmental, Inc.
 1210 N. Maple Rd
 Ann Arbor MI 48103-2842

Report Number: 11292
 Report Date: October 2, 2020
 Project Name: 12700 8 Mile Rd
 Project Number: 20-2554
 Page: 1 of 3

Attn: Mr. Mike Gatien

734-975-1970 Fax: 734-975-1973

Sample Description

One (1) sample reported to be Soil and identified as "12700 8 Mile Rd.", Oak Park, MI, GP-25, 2', 10:10, 9/25/20, Grab (Originally submitted as QLI sample number 11283-2)

Analysis Requested

Chemical Analysis per SW-846 (SW) for Polychlorinated Biphenyls (PCB), Method 8082A

Analytical Results

Sample Description:		GP-25', 2', 10:10, 9/25/20				
Laboratory ID:	11283-2	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	09/29/20	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	09/29/20	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	09/29/20	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	09/29/20	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	09/29/20	DS	
Aroclor 1254	Not Detected	100	µg/Kg, dry wt.	09/29/20	DS	
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	09/29/20	DS	
Polychlorinated biphenyls (Total)	Not Detected	700	µg/Kg, dry wt.	09/29/20	DS	
Surrogate Standards						
Tetrachloro-m-xylene	86.7%	-	% Recovery	09/29/20	DS	
Decachlorobiphenyl	88.1%	-	% Recovery	09/29/20	DS	
Analysis Information						
Dry Weight Solids	89.8%	-	% by weight	09/23/20	LB	
PCB Extraction	Completed	-	-	09/28/20	LB	

Quality Control

PCB Matrix Spike Data

Spiked Sample: 11283-3		Matrix: Soil		Units: ppm in extract					
Parameter	Sample Result	Spike Added	MS Result	MSD Result	MS % Rec.	MSD % Rec.	RPD	Data Qualifiers	
Aroclor 1260	0.000	0.200	0.212	0.220	106	110	3.7		

Case Narrative

All method protocols and quality control requirements were satisfied for all samples.

Notes

- (1) Quality Control Limits available upon request.
- (2) Results are applicable only to the sample tested.
- (3) All samples will be discarded after 30 days unless the laboratory receives other instructions.
- (4) Chain of Custody document attached.

QUANTUM LABORATORIES, INC.



David W. Starr
Analytical Chemistry Manager

QUANTUM LABORATORIES, INC.
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 248-348-TEST or 248-348-8378

Women's Business Enterprise
 National Council
WBENC
 Cert. No. 2005111505

11292

REPORT NO. (LAB USE) 11283 Page 1 of 1

P.O. NUMBER

PROJECT NUMBER 20-2554

PROJECT NAME 12700 8 Mile Rd

SAMPLING LOCATION Oak Park, MI

SAMPLES COLLECTED BY M. Gation

TURN AROUND TIME Standard Rush By Date:

SPECIAL INSTRUCTIONS See below

CLIENT INFO

COMPANY Applied Env.

ADDRESS 1210 N. Maple

CITY, STATE, ZIP Ann Arbor, MI

TELEPHONE 734-975-1970

FAX

CONTACT Mike Gation

ADDITIONAL PHONE

EMAIL ADDRESS mikes@appliedenv.com

* SAMPLE TYPE: S=Soil, W=Water, D=Drinking Water, O=Oil/Organic, M=Mixed, V=Vapor, A=Air
 U=Unknown or Other

** GRAB/COMP: G=Grab Sample, C=Composite Sample

LINE NO.	LAB USE	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	TIME SAMPLED	DATE SAMPLED	SAMPLE TYPE *	GRAB / COMP **	REMARKS / PRESERVATIVES
1		G-P-25, 0'	2	10:05	9-25-20	S	G	X
2		G-P-25, 2'	2	10:10	9-25-20	S	G	X
3		G-P-26, 0'	2	10:15	9-25-20	S	G	X
4		G-P-26, 2'	2	10:20	9-25-20	S	G	X
5								
6								
7								
8								
9								
10								

RELINQUISHED BY M. Gation TIME / DATE 11:20am 9-25-20 ACCEPTED BY [Signature]

SAMPLE RECEIVED Wet Ice Blue Ice

Distribution: White - Lab Copy Yellow - Client Report Pink - Sampler

ANALYTICAL REPORT

For: Applied Environmental, Inc.
1210 N. Maple Rd
Ann Arbor MI 48103-2842

Report Number: 11283
Report Date: October 2, 2020
Project Name: 12700 8 Mile Rd
Project Number: 20-2554
Page: 1 of 9
734-975-1970 Fax: 734-975-1973

Attn: Mr. Mike Gatien

Sample Description

Four (4) samples reported to be Soil and identified as "12700 8 Mile Rd.", Oak Park, MI, 9/25/20, Grab and:

1. GP-25, 0', 10:05
2. GP-25, 2', 10:10 (HOLD)
3. GP-26, 0', 10:15
4. GP-26, 2', 10:20 (HOLD)

Analysis Requested

Chemical Analysis per SW-846 (SW) for:

1. Volatile Organic Compounds (VOC), Methods 8260B and 5035 (Samples 1 and 3)
2. Polychlorinated Biphenyls (PCB), Method 8082A (Samples 1 and 3)

Analytical Results

Sample Description:		GP-25, 0', 10:05, 9/25/20				
Laboratory ID:	11283-1	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
<i>Volatile Organic Compounds</i>						
Acetone	Not Detected	1,000	µg/Kg, dry wt.	09/28/20	BD	
Benzene	Not Detected	50	µg/Kg, dry wt.	09/28/20	BD	
Bromobenzene	Not Detected	100	µg/Kg, dry wt.	09/28/20	BD	
Bromochloromethane	Not Detected	100	µg/Kg, dry wt.	09/28/20	BD	
Bromodichloromethane	Not Detected	100	µg/Kg, dry wt.	09/28/20	BD	
Bromoform	Not Detected	100	µg/Kg, dry wt.	09/28/20	BD	
Bromomethane	Not Detected	200	µg/Kg, dry wt.	09/28/20	BD	
2-Butanone (MEK)	Not Detected	750	µg/Kg, dry wt.	09/28/20	BD	
n-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	09/28/20	BD	
sec-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	09/28/20	BD	
tert-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	09/28/20	BD	
Carbon disulfide	Not Detected	250	µg/Kg, dry wt.	09/28/20	BD	
Carbon tetrachloride	Not Detected	50	µg/Kg, dry wt.	09/28/20	BD	
Chlorobenzene	Not Detected	50	µg/Kg, dry wt.	09/28/20	BD	
Chloroethane	Not Detected	250	µg/Kg, dry wt.	09/28/20	BD	
Chloroform	Not Detected	50	µg/Kg, dry wt.	09/28/20	BD	
Chloromethane	Not Detected	250	µg/Kg, dry wt.	09/28/20	BD	
2-Chlorotoluene	Not Detected	50	µg/Kg, dry wt.	09/28/20	BD	
4-Chlorotoluene	Not Detected	50	µg/Kg, dry wt.	09/28/20	BD	
Dibromochloromethane	Not Detected	100	µg/Kg, dry wt.	09/28/20	BD	
1,2-Dibromo-3-chloropropane	Not Detected	10	µg/Kg, dry wt.	09/28/20	BD	
Dibromomethane	Not Detected	250	µg/Kg, dry wt.	09/28/20	BD	
1,2-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	09/28/20	BD	
1,3-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	09/28/20	BD	
1,4-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	09/28/20	BD	
Dichlorodifluoromethane	Not Detected	250	µg/Kg, dry wt.	09/28/20	BD	
1,1-Dichloroethane	Not Detected	50	µg/Kg, dry wt.	09/28/20	BD	
1,2-Dichloroethane	Not Detected	50	µg/Kg, dry wt.	09/28/20	BD	
1,1-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	09/28/20	BD	
cis-1,2-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	09/28/20	BD	
trans-1,2-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	09/28/20	BD	
1,2-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	09/28/20	BD	
1,3-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	09/28/20	BD	
2,2-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	09/28/20	BD	
1,1-Dichloropropene	Not Detected	50	µg/Kg, dry wt.	09/28/20	BD	
cis-1,3-Dichloropropene	Not Detected	50	µg/Kg, dry wt.	09/28/20	BD	
continued						

Data Qualifiers: I Internal Standard results outside of acceptance limits
 S QC spike recovery outside of acceptance limits
 R RPD outside of acceptance limits

E Reporting limit is elevated
 D Result is from a dilution
 J Result should be considered estimated

M Matrix interference observed
 F Matrix Spike four times rule applied
 C See Case Narrative

Sample Description:	GP-25, 0', 10:05, 9/25/20					
Laboratory ID:	11283-1	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
VOC's, Cont'd						
Ethylbenzene	Not Detected	50	µg/Kg, dry wt.	09/28/20	BD	
Ethylene Dibromide (1,2-Dibromoethane)	Not Detected	20	µg/Kg, dry wt.	09/28/20	BD	
Hexachlorobutadiene	Not Detected	50	µg/Kg, dry wt.	09/28/20	BD	
2-Hexanone	Not Detected	2,500	µg/Kg, dry wt.	09/28/20	BD	
Isopropyl benzene	Not Detected	250	µg/Kg, dry wt.	09/28/20	BD	
4-Methyl-2-pentanone (MIBK)	Not Detected	2,500	µg/Kg, dry wt.	09/28/20	BD	
Methyl-t-butyl ether (MTBE)	Not Detected	250	µg/Kg, dry wt.	09/28/20	BD	
Methylene chloride	Not Detected	250	µg/Kg, dry wt.	09/28/20	BD	
2-Methylnaphthalene	Not Detected	250	µg/Kg, dry wt.	09/28/20	BD	
Naphthalene	Not Detected	250	µg/Kg, dry wt.	09/28/20	BD	
n-Propylbenzene	Not Detected	100	µg/Kg, dry wt.	09/28/20	BD	
Styrene	Not Detected	50	µg/Kg, dry wt.	09/28/20	BD	
1,1,1,2-Tetrachloroethane	Not Detected	100	µg/Kg, dry wt.	09/28/20	BD	
1,1,2,2-Tetrachloroethane	Not Detected	50	µg/Kg, dry wt.	09/28/20	BD	
Tetrachloroethylene	Not Detected	50	µg/Kg, dry wt.	09/28/20	BD	
Tetrahydrofuran	Not Detected	1,000	µg/Kg, dry wt.	09/28/20	BD	
Toluene	Not Detected	100	µg/Kg, dry wt.	09/28/20	BD	
1,2,3-Trichlorobenzene	Not Detected	250	µg/Kg, dry wt.	09/28/20	BD	
1,2,4-Trichlorobenzene	Not Detected	250	µg/Kg, dry wt.	09/28/20	BD	
1,1,1-Trichloroethane	Not Detected	50	µg/Kg, dry wt.	09/28/20	BD	
1,1,2-Trichloroethane	Not Detected	50	µg/Kg, dry wt.	09/28/20	BD	
Trichloroethylene	Not Detected	50	µg/Kg, dry wt.	09/28/20	BD	
Trichlorofluoromethane	Not Detected	100	µg/Kg, dry wt.	09/28/20	BD	
1,2,3-Trichloropropane	Not Detected	100	µg/Kg, dry wt.	09/28/20	BD	
1,2,4-Trimethylbenzene	Not Detected	100	µg/Kg, dry wt.	09/28/20	BD	
1,3,5-Trimethylbenzene	Not Detected	100	µg/Kg, dry wt.	09/28/20	BD	
Vinyl Acetate	Not Detected	5,000	µg/Kg, dry wt.	09/28/20	BD	
Vinyl Chloride	Not Detected	40	µg/Kg, dry wt.	09/28/20	BD	
Xylene (Total)	Not Detected	150	µg/Kg, dry wt.	09/28/20	BD	
Surrogate Standards						
1,2-Dichloroethane-d4	102%	-	% Recovery	09/28/20	BD	
Toluene-d8	96.1%	-	% Recovery	09/28/20	BD	
4-Bromofluorobenzene	107%	-	% Recovery	09/28/20	BD	
continued						

Sample Description:		GP-25, 0', 10:05, 9/25/20				
Laboratory ID:	11283-1	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	09/29/20	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	09/29/20	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	09/29/20	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	09/29/20	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	09/29/20	DS	
Aroclor 1254	764	100	µg/Kg, dry wt.	09/29/20	DS	
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	09/29/20	DS	
Polychlorinated biphenyls (Total)	764	700	µg/Kg, dry wt.	09/29/20	DS	
Surrogate Standards						
Tetrachloro-m-xylene	84.2%	-	% Recovery	09/29/20	DS	
Decachlorobiphenyl	88.8%	-	% Recovery	09/29/20	DS	
Analysis Information						
Dry Weight Solids	81.7%	-	% by weight	09/25/20	LB	
PCB Extraction	Completed	-	-	09/28/20	LB	

Sample Description:	GP-26, 0', 10:15, 9/25/20					
Laboratory ID:	11283-3	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
<i>Volatile Organic Compounds</i>						
Acetone	Not Detected	1,000	µg/Kg, dry wt.	09/28/20	BD	
Benzene	Not Detected	50	µg/Kg, dry wt.	09/28/20	BD	
Bromobenzene	Not Detected	100	µg/Kg, dry wt.	09/28/20	BD	
Bromochloromethane	Not Detected	100	µg/Kg, dry wt.	09/28/20	BD	
Bromodichloromethane	Not Detected	100	µg/Kg, dry wt.	09/28/20	BD	
Bromoform	Not Detected	100	µg/Kg, dry wt.	09/28/20	BD	
Bromomethane	Not Detected	200	µg/Kg, dry wt.	09/28/20	BD	
2-Butanone (MEK)	Not Detected	750	µg/Kg, dry wt.	09/28/20	BD	
n-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	09/28/20	BD	
sec-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	09/28/20	BD	
tert-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	09/28/20	BD	
Carbon disulfide	Not Detected	250	µg/Kg, dry wt.	09/28/20	BD	
Carbon tetrachloride	Not Detected	50	µg/Kg, dry wt.	09/28/20	BD	
Chlorobenzene	Not Detected	50	µg/Kg, dry wt.	09/28/20	BD	
Chloroethane	Not Detected	250	µg/Kg, dry wt.	09/28/20	BD	
Chloroform	Not Detected	50	µg/Kg, dry wt.	09/28/20	BD	
Chloromethane	Not Detected	250	µg/Kg, dry wt.	09/28/20	BD	
2-Chlorotoluene	Not Detected	50	µg/Kg, dry wt.	09/28/20	BD	
4-Chlorotoluene	Not Detected	50	µg/Kg, dry wt.	09/28/20	BD	
Dibromochloromethane	Not Detected	100	µg/Kg, dry wt.	09/28/20	BD	
1,2-Dibromo-3-chloropropane	Not Detected	10	µg/Kg, dry wt.	09/28/20	BD	
Dibromomethane	Not Detected	250	µg/Kg, dry wt.	09/28/20	BD	
1,2-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	09/28/20	BD	
1,3-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	09/28/20	BD	
1,4-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	09/28/20	BD	
Dichlorodifluoromethane	Not Detected	250	µg/Kg, dry wt.	09/28/20	BD	
1,1-Dichloroethane	Not Detected	50	µg/Kg, dry wt.	09/28/20	BD	
1,2-Dichloroethane	Not Detected	50	µg/Kg, dry wt.	09/28/20	BD	
1,1-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	09/28/20	BD	
cis-1,2-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	09/28/20	BD	
trans-1,2-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	09/28/20	BD	
1,2-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	09/28/20	BD	
1,3-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	09/28/20	BD	
2,2-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	09/28/20	BD	
1,1-Dichloropropene	Not Detected	50	µg/Kg, dry wt.	09/28/20	BD	
cis-1,3-Dichloropropene	Not Detected	50	µg/Kg, dry wt.	09/28/20	BD	
continued						

Data Qualifiers: I Internal Standard results outside of acceptance limits E Reporting limit is elevated M Matrix interference observed
 S QC spike recovery outside of acceptance limits D Result is from a dilution F Matrix Spike four times rule applied
 R RPD outside of acceptance limits J Result should be considered estimated C See Case Narrative

Sample Description:	GP-26, 0', 10:15, 9/25/20					
Laboratory ID:	11283-3	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
VOC's, Cont'd						
Ethylbenzene	Not Detected	50	µg/Kg, dry wt.	09/28/20	BD	
Ethylene Dibromide (1,2-Dibromoethane)	Not Detected	20	µg/Kg, dry wt.	09/28/20	BD	
Hexachlorobutadiene	Not Detected	50	µg/Kg, dry wt.	09/28/20	BD	
2-Hexanone	Not Detected	2,500	µg/Kg, dry wt.	09/28/20	BD	
Isopropyl benzene	Not Detected	250	µg/Kg, dry wt.	09/28/20	BD	
4-Methyl-2-pentanone (MIBK)	Not Detected	2,500	µg/Kg, dry wt.	09/28/20	BD	
Methyl-t-butyl ether (MTBE)	Not Detected	250	µg/Kg, dry wt.	09/28/20	BD	
Methylene chloride	Not Detected	250	µg/Kg, dry wt.	09/28/20	BD	
2-Methylnaphthalene	Not Detected	250	µg/Kg, dry wt.	09/28/20	BD	
Naphthalene	Not Detected	250	µg/Kg, dry wt.	09/28/20	BD	
n-Propylbenzene	Not Detected	100	µg/Kg, dry wt.	09/28/20	BD	
Styrene	Not Detected	50	µg/Kg, dry wt.	09/28/20	BD	
1,1,1,2-Tetrachloroethane	Not Detected	100	µg/Kg, dry wt.	09/28/20	BD	
1,1,2,2-Tetrachloroethane	Not Detected	50	µg/Kg, dry wt.	09/28/20	BD	
Tetrachloroethylene	Not Detected	50	µg/Kg, dry wt.	09/28/20	BD	
Tetrahydrofuran	Not Detected	1,000	µg/Kg, dry wt.	09/28/20	BD	
Toluene	Not Detected	100	µg/Kg, dry wt.	09/28/20	BD	
1,2,3-Trichlorobenzene	Not Detected	250	µg/Kg, dry wt.	09/28/20	BD	
1,2,4-Trichlorobenzene	Not Detected	250	µg/Kg, dry wt.	09/28/20	BD	
1,1,1-Trichloroethane	Not Detected	50	µg/Kg, dry wt.	09/28/20	BD	
1,1,2-Trichloroethane	Not Detected	50	µg/Kg, dry wt.	09/28/20	BD	
Trichloroethylene	Not Detected	50	µg/Kg, dry wt.	09/28/20	BD	
Trichlorofluoromethane	Not Detected	100	µg/Kg, dry wt.	09/28/20	BD	
1,2,3-Trichloropropane	Not Detected	100	µg/Kg, dry wt.	09/28/20	BD	
1,2,4-Trimethylbenzene	Not Detected	100	µg/Kg, dry wt.	09/28/20	BD	
1,3,5-Trimethylbenzene	Not Detected	100	µg/Kg, dry wt.	09/28/20	BD	
Vinyl Acetate	Not Detected	5,000	µg/Kg, dry wt.	09/28/20	BD	
Vinyl Chloride	Not Detected	40	µg/Kg, dry wt.	09/28/20	BD	
Xylene (Total)	Not Detected	150	µg/Kg, dry wt.	09/28/20	BD	
Surrogate Standards						
1,2-Dichloroethane-d4	103%	-	% Recovery	09/28/20	BD	
Toluene-d8	96.4%	-	% Recovery	09/28/20	BD	
4-Bromofluorobenzene	104%	-	% Recovery	09/28/20	BD	
continued						

Sample Description:		GP-2, 0', 10:15, 9/25/20				
Laboratory ID:	11283-3	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	09/29/20	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	09/29/20	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	09/29/20	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	09/29/20	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	09/29/20	DS	
Aroclor 1254	Not Detected	100	µg/Kg, dry wt.	09/29/20	DS	
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	09/29/20	DS	
Polychlorinated biphenyls (Total)	Not Detected	700	µg/Kg, dry wt.	09/29/20	DS	
Surrogate Standards						
Tetrachloro-m-xylene	94.2%	-	% Recovery	09/29/20	DS	
Decachlorobiphenyl	92.5%	-	% Recovery	09/29/20	DS	
Analysis Information						
Dry Weight Solids	73.3%	-	% by weight	09/25/20	LB	
PCB Extraction	Completed	-	-	09/28/20	LB	

Quality Control

VOC Matrix Spike Data

Spiked Sample: 11289-1		Matrix: Soil		Units: ppb in extract				RPD	Data Qualifiers
Parameter	Sample Result	Spike Added	MS Result	MSD Result	MS % Rec.	MSD % Rec.			
1,1-Dichloroethene	0.0	25	33	28	132	112	16.4		
Benzene	0.0	25	23	21	92	84	9.1		
Trichloroethene	0.0	25	26	23	104	92	12.2		
Toluene	0.0	25	24	21	96	84	13.3		
Chlorobenzene	0.0	25	25	22	100	88	12.8		

PCB Matrix Spike Data

Spiked Sample: 11283-3		Matrix: Soil		Units: ppm in extract				RPD	Data Qualifiers
Parameter	Sample Result	Spike Added	MS Result	MSD Result	MS % Rec.	MSD % Rec.			
Aroclor 1260	0.000	0.200	0.212	0.220	106	110	3.7		

Case Narrative

All method protocols and quality control requirements were satisfied for all samples.

Notes

- (1) Quality Control Limits available upon request.
- (2) Results are applicable only to the sample tested.
- (3) All samples will be discarded after 30 days unless the laboratory receives other instructions.
- (4) Chain of Custody document attached.

QUANTUM LABORATORIES, INC.



David W. Starr
Analytical Chemistry Manager

QUANTUM LABORATORIES, INC.
 28221 Beck Road | Suite A-11
 Wixom, MI 48393
 248-348-TEST or 248-348-8378



Quantum Laboratories, Inc.

CHAIN OF CUSTODY RECORD

CLIENT INFO	
COMPANY	Applied Env.
ADDRESS	1210 N. Maple
CITY, STATE, ZIP	Ann Arbor, MI
TELEPHONE	734-975-1970
FAX	
CONTACT	Mike Gatten
ADDITIONAL PHONE	
EMAIL ADDRESS	mikes@appliedenv.com

* SAMPLE TYPE: S=Soil, W=Water, D=Drinking Water, O=Oil/Organic, M=Mixed, V=Vapor, A=Air
 U=Unknown or Other

** GRAB/COMP: G=Grab Sample, C=Composite Sample

PROJECT INFO		REPORT NO. (LAB USE)	11283	Page 1 of 1
P.O. NUMBER		PROJECT NUMBER	20-2554	
PROJECT NAME		SAMPLING LOCATION	12700 8 Mile Rd	
SAMPLES COLLECTED BY			Oak Park MI	
TURN AROUND TIME			M. Gatten	
SPECIAL INSTRUCTIONS		<input checked="" type="checkbox"/> Standard	<input type="checkbox"/> Rush	<input type="checkbox"/> By Date:
ANALYSIS REQUESTED: See below				

LINE NO.	LAB USE	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	TIME SAMPLED	DATE SAMPLED	SAMPLE TYPE *	GRAB / COMP **	REMARKS / PRESERVATIVES
1		GP-25, 0'	2	10:05	9-25-20	S	G	X
2		GP-25, 2'	2	10:10	9-25-20	S	G	X
3		GP-26, 0'	2	10:15	9-25-20	S	G	X
4		GP-26, 2'	2	10:20	9-25-20	S	G	X
5								
6								
7								
8								
9								
10								

RELINQUISHED BY	TIME / DATE	ACCEPTED BY	SAMPLE RECEIVED
M. Gatten	11:20am 9-25-20	[Signature]	<input type="checkbox"/> Wet Ice <input type="checkbox"/> Blue Ice

Distribution: White - Lab Copy Yellow - Client Report Pink - Sampler

Data Qualifiers: I Internal Standard results outside of acceptance limits
 S QC spike recovery outside of acceptance limits
 R RPD outside of acceptance limits
 E Reporting limit is elevated
 D Result is from a dilution
 J Result should be considered estimated
 M Matrix interference observed
 T Matrix Spike four times rule applied
 C See Case Narrative

Sample Description:	HA-1, 0', 2:05 PM, 7/28/20					
Laboratory ID:	11200-37	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
<i>Volatile Organic Compounds</i>						
Acetone	Not Detected	1,000	µg/Kg, dry wt.	07/31/20	BD	
Benzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Bromobenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Bromochloromethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Bromodichloromethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Bromoform	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Bromomethane	Not Detected	200	µg/Kg, dry wt.	07/31/20	BD	
2-Butanone (MEK)	Not Detected	750	µg/Kg, dry wt.	07/31/20	BD	
n-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
sec-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
tert-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Carbon disulfide	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
Carbon tetrachloride	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Chlorobenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Chloroethane	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
Chloroform	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Chloromethane	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
2-Chlorotoluene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
4-Chlorotoluene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Dibromochloromethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,2-Dibromo-3-chloropropane	Not Detected	10	µg/Kg, dry wt.	07/31/20	BD	
Dibromomethane	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
1,2-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,3-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,4-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Dichlorodifluoromethane	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
1,1-Dichloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,2-Dichloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,1-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
cis-1,2-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
trans-1,2-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,2-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,3-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
2,2-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,1-Dichloropropene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
cis-1,3-Dichloropropene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
continued						

Sample Description:		HA-1, 0', 2:05 PM, 7/28/20				
Laboratory ID:	11200-37	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
VOC's, Cont'd						
Ethylbenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Ethylene Dibromide (1,2-Dibromoethane)	Not Detected	20	µg/Kg, dry wt.	07/31/20	BD	
Hexachlorobutadiene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
2-Hexanone	Not Detected	2,500	µg/Kg, dry wt.	07/31/20	BD	
Isopropyl benzene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
4-Methyl-2-pentanone (MIBK)	Not Detected	2,500	µg/Kg, dry wt.	07/31/20	BD	
Methyl-t-butyl ether (MTBE)	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
Methylene chloride	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
2-Methylnaphthalene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
Naphthalene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
n-Propylbenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Styrene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,1,1,2-Tetrachloroethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,1,2,2-Tetrachloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Tetrachloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Tetrahydrofuran	Not Detected	1,000	µg/Kg, dry wt.	07/31/20	BD	
Toluene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,2,3-Trichlorobenzene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
1,2,4-Trichlorobenzene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
1,1,1-Trichloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,1,2-Trichloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Trichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Trichlorofluoromethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,2,3-Trichloropropane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,2,4-Trimethylbenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,3,5-Trimethylbenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Vinyl Acetate	Not Detected	5,000	µg/Kg, dry wt.	07/31/20	BD	
Vinyl Chloride	Not Detected	40	µg/Kg, dry wt.	07/31/20	BD	
Xylene (Total)	Not Detected	150	µg/Kg, dry wt.	07/31/20	BD	
Surrogate Standards						
1,2-Dichloroethane-d4	101%	-	% Recovery	07/31/20	BD	
Toluene-d8	104%	-	% Recovery	07/31/20	BD	
4-Bromofluorobenzene	108%	-	% Recovery	07/31/20	BD	
continued						

Sample Description:		HA-1, 0', 2:05 PM, 7/28/20				
Laboratory ID:	11200-37	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1254	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Polychlorinated biphenyls (Total)	Not Detected	700	µg/Kg, dry wt.	07/30/20	DS	
Surrogate Standards						
Tetrachloro-m-xylene	99.2%	-	% Recovery	07/30/20	DS	
Decachlorobiphenyl	121%	-	% Recovery	07/30/20	DS	
Analysis Information						
Dry Weight Solids	84.6%	-	% by weight	07/30/20	LP	
PCB Extraction	Completed	-	-	07/30/20	LB	

Sample Description:	HA-1, 2', 2:10 PM, 7/28/20					
Laboratory ID:	11200-38	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
<i>Volatile Organic Compounds</i>						
Acetone	Not Detected	1,000	µg/Kg, dry wt.	07/31/20	BD	
Benzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Bromobenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Bromochloromethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Bromodichloromethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Bromoform	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Bromomethane	Not Detected	200	µg/Kg, dry wt.	07/31/20	BD	
2-Butanone (MEK)	Not Detected	750	µg/Kg, dry wt.	07/31/20	BD	
n-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
sec-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
tert-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Carbon disulfide	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
Carbon tetrachloride	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Chlorobenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Chloroethane	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
Chloroform	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Chloromethane	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
2-Chlorotoluene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
4-Chlorotoluene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Dibromochloromethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,2-Dibromo-3-chloropropane	Not Detected	10	µg/Kg, dry wt.	07/31/20	BD	
Dibromomethane	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
1,2-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,3-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,4-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Dichlorodifluoromethane	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
1,1-Dichloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,2-Dichloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,1-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
cis-1,2-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
trans-1,2-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,2-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,3-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
2,2-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,1-Dichloropropene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
cis-1,3-Dichloropropene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
continued						

Data Qualifiers: I Internal Standard results outside of acceptance limits E Reporting limit is elevated M Matrix interference observed
 S QC spike recovery outside of acceptance limits D Result is from a dilution F Matrix Spike four times rule applied
 R RPD outside of acceptance limits J Result should be considered estimated C See Case Narrative

Sample Description:	HA-1, 2', 2:10 PM, 7/28/20					
Laboratory ID:	11200-38	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
VOC's, Cont'd						
Ethylbenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Ethylene Dibromide (1,2-Dibromoethane)	Not Detected	20	µg/Kg, dry wt.	07/31/20	BD	
Hexachlorobutadiene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
2-Hexanone	Not Detected	2,500	µg/Kg, dry wt.	07/31/20	BD	
Isopropyl benzene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
4-Methyl-2-pentanone (MIBK)	Not Detected	2,500	µg/Kg, dry wt.	07/31/20	BD	
Methyl-t-butyl ether (MTBE)	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
Methylene chloride	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
2-Methylnaphthalene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
Naphthalene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
n-Propylbenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Styrene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,1,1,2-Tetrachloroethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,1,2,2-Tetrachloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Tetrachloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Tetrahydrofuran	Not Detected	1,000	µg/Kg, dry wt.	07/31/20	BD	
Toluene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,2,3-Trichlorobenzene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
1,2,4-Trichlorobenzene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
1,1,1-Trichloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,1,2-Trichloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Trichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Trichlorofluoromethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,2,3-Trichloropropane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,2,4-Trimethylbenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,3,5-Trimethylbenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Vinyl Acetate	Not Detected	5,000	µg/Kg, dry wt.	07/31/20	BD	
Vinyl Chloride	Not Detected	40	µg/Kg, dry wt.	07/31/20	BD	
Xylene (Total)	Not Detected	150	µg/Kg, dry wt.	07/31/20	BD	
Surrogate Standards						
1,2-Dichloroethane-d4	106%	-	% Recovery	07/31/20	BD	
Toluene-d8	102%	-	% Recovery	07/31/20	BD	
4-Bromofluorobenzene	107%	-	% Recovery	07/31/20	BD	
continued						

Sample Description:		HA-1, 2', 2:10 PM, 7/28/20				
Laboratory ID:	11200-38	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1254	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Polychlorinated biphenyls (Total)	Not Detected	700	µg/Kg, dry wt.	07/30/20	DS	
Surrogate Standards						
Tetrachloro-m-xylene	104%	-	% Recovery	07/30/20	DS	
Decachlorobiphenyl	114%	-	% Recovery	07/30/20	DS	
Analysis Information						
Dry Weight Solids	89.4%	-	% by weight	07/30/20	LP	
PCB Extraction	Completed	-	-	07/30/20	LB	

Sample Description:		HA-2, 0', 2:20 PM, 7/28/20				
Laboratory ID:	11200-40	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
<i>Volatile Organic Compounds</i>						
Acetone	Not Detected	1,000	µg/Kg, dry wt.	07/31/20	BD	
Benzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Bromobenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Bromochloromethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Bromodichloromethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Bromoform	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Bromomethane	Not Detected	200	µg/Kg, dry wt.	07/31/20	BD	
2-Butanone (MEK)	Not Detected	750	µg/Kg, dry wt.	07/31/20	BD	
n-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
sec-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
tert-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Carbon disulfide	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
Carbon tetrachloride	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Chlorobenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Chloroethane	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
Chloroform	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Chloromethane	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
2-Chlorotoluene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
4-Chlorotoluene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Dibromochloromethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,2-Dibromo-3-chloropropane	Not Detected	10	µg/Kg, dry wt.	07/31/20	BD	
Dibromomethane	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
1,2-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,3-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,4-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Dichlorodifluoromethane	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
1,1-Dichloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,2-Dichloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,1-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
cis-1,2-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
trans-1,2-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,2-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,3-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
2,2-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,1-Dichloropropene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
cis-1,3-Dichloropropene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
continued						

Sample Description:		HA-2, 0', 2:20 PM, 7/28/20				
Laboratory ID:	11200-40	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
VOC's, Cont'd						
Ethylbenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Ethylene Dibromide (1,2-Dibromoethane)	Not Detected	20	µg/Kg, dry wt.	07/31/20	BD	
Hexachlorobutadiene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
2-Hexanone	Not Detected	2,500	µg/Kg, dry wt.	07/31/20	BD	
Isopropyl benzene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
4-Methyl-2-pentanone (MIBK)	Not Detected	2,500	µg/Kg, dry wt.	07/31/20	BD	
Methyl-t-butyl ether (MTBE)	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
Methylene chloride	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
2-Methylnaphthalene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
Naphthalene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
n-Propylbenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Styrene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,1,1,2-Tetrachloroethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,1,2,2-Tetrachloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Tetrachloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Tetrahydrofuran	Not Detected	1,000	µg/Kg, dry wt.	07/31/20	BD	
Toluene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,2,3-Trichlorobenzene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
1,2,4-Trichlorobenzene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
1,1,1-Trichloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,1,2-Trichloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Trichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Trichlorofluoromethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,2,3-Trichloropropane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,2,4-Trimethylbenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,3,5-Trimethylbenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Vinyl Acetate	Not Detected	5,000	µg/Kg, dry wt.	07/31/20	BD	
Vinyl Chloride	Not Detected	40	µg/Kg, dry wt.	07/31/20	BD	
Xylene (Total)	Not Detected	150	µg/Kg, dry wt.	07/31/20	BD	
Surrogate Standards						
1,2-Dichloroethane-d4	113%	-	% Recovery	07/31/20	BD	
Toluene-d8	105%	-	% Recovery	07/31/20	BD	
4-Bromofluorobenzene	104%	-	% Recovery	07/31/20	BD	
continued						

Sample Description:		HA-2, 0', 2:20 PM, 7/28/20				
Laboratory ID:	11200-40	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1254	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Polychlorinated biphenyls (Total)	Not Detected	700	µg/Kg, dry wt.	07/30/20	DS	
Surrogate Standards						
Tetrachloro-m-xylene	82.3%	-	% Recovery	07/30/20	DS	
Decachlorobiphenyl	99.1%	-	% Recovery	07/30/20	DS	
Analysis Information						
Dry Weight Solids	84.5%	-	% by weight	07/30/20	LP	
PCB Extraction	Completed	-	-	07/30/20	LB	

Sample Description:	HA-2, 2', 2:23 PM, 7/28/20					
Laboratory ID:	11200-41	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
<i>Volatile Organic Compounds</i>						
Acetone	Not Detected	1,000	µg/Kg, dry wt.	07/31/20	BD	
Benzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Bromobenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Bromochloromethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Bromodichloromethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Bromoform	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Bromomethane	Not Detected	200	µg/Kg, dry wt.	07/31/20	BD	
2-Butanone (MEK)	Not Detected	750	µg/Kg, dry wt.	07/31/20	BD	
n-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
sec-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
tert-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Carbon disulfide	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
Carbon tetrachloride	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Chlorobenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Chloroethane	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
Chloroform	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Chloromethane	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
2-Chlorotoluene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
4-Chlorotoluene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Dibromochloromethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,2-Dibromo-3-chloropropane	Not Detected	10	µg/Kg, dry wt.	07/31/20	BD	
Dibromomethane	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
1,2-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,3-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,4-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Dichlorodifluoromethane	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
1,1-Dichloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,2-Dichloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,1-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
cis-1,2-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
trans-1,2-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,2-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,3-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
2,2-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,1-Dichloropropene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
cis-1,3-Dichloropropene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
continued						

Data Qualifiers: I Internal Standard results outside of acceptance limits E Reporting limit is elevated M Matrix interference observed
 S QC spike recovery outside of acceptance limits D Result is from a dilution F Matrix Spike four times rule applied
 R RPD outside of acceptance limits J Result should be considered estimated C See Case Narrative

Sample Description:		HA-2, 2', 2:23 PM, 7/28/20				
Laboratory ID:	11200-41	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
VOC's, Cont'd						
Ethylbenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Ethylene Dibromide (1,2-Dibromoethane)	Not Detected	20	µg/Kg, dry wt.	07/31/20	BD	
Hexachlorobutadiene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
2-Hexanone	Not Detected	2,500	µg/Kg, dry wt.	07/31/20	BD	
Isopropyl benzene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
4-Methyl-2-pentanone (MIBK)	Not Detected	2,500	µg/Kg, dry wt.	07/31/20	BD	
Methyl-t-butyl ether (MTBE)	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
Methylene chloride	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
2-Methylnaphthalene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
Naphthalene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
n-Propylbenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Styrene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,1,1,2-Tetrachloroethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,1,2,2-Tetrachloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Tetrachloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Tetrahydrofuran	Not Detected	1,000	µg/Kg, dry wt.	07/31/20	BD	
Toluene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,2,3-Trichlorobenzene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
1,2,4-Trichlorobenzene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
1,1,1-Trichloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,1,2-Trichloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Trichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Trichlorofluoromethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,2,3-Trichloropropane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,2,4-Trimethylbenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,3,5-Trimethylbenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Vinyl Acetate	Not Detected	5,000	µg/Kg, dry wt.	07/31/20	BD	
Vinyl Chloride	Not Detected	40	µg/Kg, dry wt.	07/31/20	BD	
Xylene (Total)	Not Detected	150	µg/Kg, dry wt.	07/31/20	BD	
Surrogate Standards						
1,2-Dichloroethane-d4	119%	-	% Recovery	07/31/20	BD	
Toluene-d8	104%	-	% Recovery	07/31/20	BD	
4-Bromofluorobenzene	107%	-	% Recovery	07/31/20	BD	
continued						

Sample Description:		HA-2, 2', 2:23 PM, 7/28/20				
Laboratory ID:	11200-41	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1254	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Polychlorinated biphenyls (Total)	Not Detected	700	µg/Kg, dry wt.	07/30/20	DS	
Surrogate Standards						
Tetrachloro-m-xylene	95.5%	-	% Recovery	07/30/20	DS	
Decachlorobiphenyl	120%	-	% Recovery	07/30/20	DS	
Analysis Information						
Dry Weight Solids	88.7%	-	% by weight	07/30/20	LP	
PCB Extraction	Completed	-	-	07/30/20	LB	

Sample Description:		HA-3, 0', 2:40 PM, 7/28/20				
Laboratory ID:	11200-43	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
<i>Volatile Organic Compounds</i>						
Acetone	Not Detected	1,000	µg/Kg, dry wt.	07/31/20	BD	
Benzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Bromobenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Bromochloromethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Bromodichloromethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Bromoform	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Bromomethane	Not Detected	200	µg/Kg, dry wt.	07/31/20	BD	
2-Butanone (MEK)	Not Detected	750	µg/Kg, dry wt.	07/31/20	BD	
n-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
sec-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
tert-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Carbon disulfide	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
Carbon tetrachloride	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Chlorobenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Chloroethane	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
Chloroform	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Chloromethane	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
2-Chlorotoluene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
4-Chlorotoluene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Dibromochloromethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,2-Dibromo-3-chloropropane	Not Detected	10	µg/Kg, dry wt.	07/31/20	BD	
Dibromomethane	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
1,2-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,3-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,4-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Dichlorodifluoromethane	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
1,1-Dichloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,2-Dichloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,1-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
cis-1,2-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
trans-1,2-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,2-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,3-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
2,2-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,1-Dichloropropene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
cis-1,3-Dichloropropene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
continued						

Data Qualifiers: I Internal Standard results outside of acceptance limits E Reporting limit is elevated M Matrix interference observed
 S QC spike recovery outside of acceptance limits D Result is from a dilution F Matrix Spike four times rule applied
 R RPD outside of acceptance limits J Result should be considered estimated C See Case Narrative

Sample Description:		HA-3, 0', 2:40 PM, 7/28/20				
Laboratory ID:	11200-43	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
VOC's, Cont'd						
Ethylbenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Ethylene Dibromide (1,2-Dibromoethane)	Not Detected	20	µg/Kg, dry wt.	07/31/20	BD	
Hexachlorobutadiene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
2-Hexanone	Not Detected	2,500	µg/Kg, dry wt.	07/31/20	BD	
Isopropyl benzene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
4-Methyl-2-pentanone (MIBK)	Not Detected	2,500	µg/Kg, dry wt.	07/31/20	BD	
Methyl-t-butyl ether (MTBE)	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
Methylene chloride	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
2-Methylnaphthalene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
Naphthalene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
n-Propylbenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Styrene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,1,1,2-Tetrachloroethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,1,2,2-Tetrachloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Tetrachloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Tetrahydrofuran	Not Detected	1,000	µg/Kg, dry wt.	07/31/20	BD	
Toluene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,2,3-Trichlorobenzene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
1,2,4-Trichlorobenzene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
1,1,1-Trichloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,1,2-Trichloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Trichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Trichlorofluoromethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,2,3-Trichloropropane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,2,4-Trimethylbenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,3,5-Trimethylbenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Vinyl Acetate	Not Detected	5,000	µg/Kg, dry wt.	07/31/20	BD	
Vinyl Chloride	Not Detected	40	µg/Kg, dry wt.	07/31/20	BD	
Xylene (Total)	Not Detected	150	µg/Kg, dry wt.	07/31/20	BD	
Surrogate Standards						
1,2-Dichloroethane-d4	104%	-	% Recovery	07/31/20	BD	
Toluene-d8	101%	-	% Recovery	07/31/20	BD	
4-Bromofluorobenzene	109%	-	% Recovery	07/31/20	BD	
continued						

Sample Description:		HA-3, 0', 2:40 PM, 7/28/20				
Laboratory ID:	11200-43	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1254	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Polychlorinated biphenyls (Total)	Not Detected	700	µg/Kg, dry wt.	07/30/20	DS	
Surrogate Standards						
Tetrachloro-m-xylene	88.8%	-	% Recovery	07/30/20	DS	
Decachlorobiphenyl	100%	-	% Recovery	07/30/20	DS	
Analysis Information						
Dry Weight Solids	83.1%	-	% by weight	07/30/20	LP	
PCB Extraction	Completed	-	-	07/30/20	LB	

Sample Description:		HA-3, 2', 2:42 PM, 7/28/20				
Laboratory ID:	11200-44	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
<i>Volatile Organic Compounds</i>						
Acetone	Not Detected	1,000	µg/Kg, dry wt.	07/31/20	BD	
Benzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Bromobenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Bromochloromethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Bromodichloromethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Bromoform	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Bromomethane	Not Detected	200	µg/Kg, dry wt.	07/31/20	BD	
2-Butanone (MEK)	Not Detected	750	µg/Kg, dry wt.	07/31/20	BD	
n-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
sec-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
tert-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Carbon disulfide	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
Carbon tetrachloride	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Chlorobenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Chloroethane	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
Chloroform	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Chloromethane	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
2-Chlorotoluene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
4-Chlorotoluene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Dibromochloromethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,2-Dibromo-3-chloropropane	Not Detected	10	µg/Kg, dry wt.	07/31/20	BD	
Dibromomethane	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
1,2-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,3-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,4-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Dichlorodifluoromethane	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
1,1-Dichloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,2-Dichloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,1-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
cis-1,2-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
trans-1,2-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,2-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,3-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
2,2-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,1-Dichloropropene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
cis-1,3-Dichloropropene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
continued						

Data Qualifiers: I Internal Standard results outside of acceptance limits E Reporting limit is elevated M Matrix interference observed
 S QC spike recovery outside of acceptance limits D Result is from a dilution F Matrix Spike four times rule applied
 R RPD outside of acceptance limits J Result should be considered estimated C See Case Narrative

Sample Description:		HA-3, 2', 2:42 PM, 7/28/20				
Laboratory ID:	11200-44	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
VOC's, Cont'd						
Ethylbenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Ethylene Dibromide (1,2-Dibromoethane)	Not Detected	20	µg/Kg, dry wt.	07/31/20	BD	
Hexachlorobutadiene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
2-Hexanone	Not Detected	2,500	µg/Kg, dry wt.	07/31/20	BD	
Isopropyl benzene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
4-Methyl-2-pentanone (MIBK)	Not Detected	2,500	µg/Kg, dry wt.	07/31/20	BD	
Methyl-t-butyl ether (MTBE)	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
Methylene chloride	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
2-Methylnaphthalene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
Naphthalene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
n-Propylbenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Styrene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,1,1,2-Tetrachloroethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,1,2,2-Tetrachloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Tetrachloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Tetrahydrofuran	Not Detected	1,000	µg/Kg, dry wt.	07/31/20	BD	
Toluene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,2,3-Trichlorobenzene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
1,2,4-Trichlorobenzene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
1,1,1-Trichloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,1,2-Trichloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Trichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Trichlorofluoromethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,2,3-Trichloropropane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,2,4-Trimethylbenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,3,5-Trimethylbenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Vinyl Acetate	Not Detected	5,000	µg/Kg, dry wt.	07/31/20	BD	
Vinyl Chloride	Not Detected	40	µg/Kg, dry wt.	07/31/20	BD	
Xylene (Total)	Not Detected	150	µg/Kg, dry wt.	07/31/20	BD	
Surrogate Standards						
1,2-Dichloroethane-d4	117%	-	% Recovery	07/31/20	BD	
Toluene-d8	103%	-	% Recovery	07/31/20	BD	
4-Bromofluorobenzene	76.0%	-	% Recovery	07/31/20	BD	
continued						

Sample Description:		HA-3, 2', 2:42 PM, 7/28/20				
Laboratory ID:	11200-44	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1254	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Polychlorinated biphenyls (Total)	Not Detected	700	µg/Kg, dry wt.	07/30/20	DS	
Surrogate Standards						
Tetrachloro-m-xylene	77.4%	-	% Recovery	07/30/20	DS	
Decachlorobiphenyl	94.8%	-	% Recovery	07/30/20	DS	
Analysis Information						
Dry Weight Solids	89.0%	-	% by weight	07/30/20	LP	
PCB Extraction	Completed	-	-	07/30/20	LB	

Sample Description:		HA-4, 0', 2:52 PM, 7/28/20				
Laboratory ID:	11200-46	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
<i>Volatile Organic Compounds</i>						
Acetone	Not Detected	1,000	µg/Kg, dry wt.	07/31/20	BD	
Benzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Bromobenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Bromochloromethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Bromodichloromethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Bromoform	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Bromomethane	Not Detected	200	µg/Kg, dry wt.	07/31/20	BD	
2-Butanone (MEK)	Not Detected	750	µg/Kg, dry wt.	07/31/20	BD	
n-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
sec-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
tert-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Carbon disulfide	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
Carbon tetrachloride	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Chlorobenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Chloroethane	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
Chloroform	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Chloromethane	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
2-Chlorotoluene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
4-Chlorotoluene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Dibromochloromethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,2-Dibromo-3-chloropropane	Not Detected	10	µg/Kg, dry wt.	07/31/20	BD	
Dibromomethane	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
1,2-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,3-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,4-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Dichlorodifluoromethane	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
1,1-Dichloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,2-Dichloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,1-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
cis-1,2-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
trans-1,2-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,2-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,3-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
2,2-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,1-Dichloropropene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
cis-1,3-Dichloropropene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
continued						

Data Qualifiers: I Internal Standard results outside of acceptance limits E Reporting limit is elevated M Matrix interference observed
 S QC spike recovery outside of acceptance limits D Result is from a dilution F Matrix Spike four times rule applied
 R RPD outside of acceptance limits J Result should be considered estimated C See Case Narrative

Sample Description:		HA-4, 0', 2:52 PM, 7/28/20				
Laboratory ID:	11200-46	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
VOC's, Cont'd						
Ethylbenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Ethylene Dibromide (1,2-Dibromoethane)	Not Detected	20	µg/Kg, dry wt.	07/31/20	BD	
Hexachlorobutadiene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
2-Hexanone	Not Detected	2,500	µg/Kg, dry wt.	07/31/20	BD	
Isopropyl benzene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
4-Methyl-2-pentanone (MIBK)	Not Detected	2,500	µg/Kg, dry wt.	07/31/20	BD	
Methyl-t-butyl ether (MTBE)	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
Methylene chloride	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
2-Methylnaphthalene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
Naphthalene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
n-Propylbenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Styrene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,1,1,2-Tetrachloroethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,1,2,2-Tetrachloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Tetrachloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Tetrahydrofuran	Not Detected	1,000	µg/Kg, dry wt.	07/31/20	BD	
Toluene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,2,3-Trichlorobenzene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
1,2,4-Trichlorobenzene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
1,1,1-Trichloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,1,2-Trichloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Trichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Trichlorofluoromethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,2,3-Trichloropropane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,2,4-Trimethylbenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,3,5-Trimethylbenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Vinyl Acetate	Not Detected	5,000	µg/Kg, dry wt.	07/31/20	BD	
Vinyl Chloride	Not Detected	40	µg/Kg, dry wt.	07/31/20	BD	
Xylene (Total)	Not Detected	150	µg/Kg, dry wt.	07/31/20	BD	
Surrogate Standards						
1,2-Dichloroethane-d4	120%	-	% Recovery	07/31/20	BD	
Toluene-d8	106%	-	% Recovery	07/31/20	BD	
4-Bromofluorobenzene	103%	-	% Recovery	07/31/20	BD	
continued						

Sample Description:		HA-4, 0', 2:52 PM, 7/28/20				
Laboratory ID:	11200-46	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1254	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Polychlorinated biphenyls (Total)	Not Detected	700	µg/Kg, dry wt.	07/30/20	DS	
Surrogate Standards						
Tetrachloro-m-xylene	91.6%	-	% Recovery	07/30/20	DS	
Decachlorobiphenyl	102%	-	% Recovery	07/30/20	DS	
Analysis Information						
Dry Weight Solids	86.6%	-	% by weight	07/30/20	LP	
PCB Extraction	Completed	-	-	07/30/20	LB	

Sample Description:	HA-4, 2', 2:55 PM, 7/28/20					
Laboratory ID:	11200-47	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
<i>Volatile Organic Compounds</i>						
Acetone	Not Detected	1,000	µg/Kg, dry wt.	07/31/20	BD	
Benzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Bromobenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Bromochloromethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Bromodichloromethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Bromoform	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Bromomethane	Not Detected	200	µg/Kg, dry wt.	07/31/20	BD	
2-Butanone (MEK)	Not Detected	750	µg/Kg, dry wt.	07/31/20	BD	
n-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
sec-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
tert-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Carbon disulfide	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
Carbon tetrachloride	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Chlorobenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Chloroethane	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
Chloroform	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Chloromethane	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
2-Chlorotoluene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
4-Chlorotoluene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Dibromochloromethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,2-Dibromo-3-chloropropane	Not Detected	10	µg/Kg, dry wt.	07/31/20	BD	
Dibromomethane	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
1,2-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,3-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,4-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Dichlorodifluoromethane	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
1,1-Dichloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,2-Dichloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,1-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
cis-1,2-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
trans-1,2-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,2-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,3-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
2,2-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,1-Dichloropropene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
cis-1,3-Dichloropropene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
continued						

Data Qualifiers: I Internal Standard results outside of acceptance limits E Reporting limit is elevated M Matrix interference observed
 S QC spike recovery outside of acceptance limits D Result is from a dilution F Matrix Spike four times rule applied
 R RPD outside of acceptance limits J Result should be considered estimated C See Case Narrative

Sample Description:		HA-4, 2', 2:55 PM, 7/28/20				
Laboratory ID:	11200-47	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
VOC's, Cont'd						
Ethylbenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Ethylene Dibromide (1,2-Dibromoethane)	Not Detected	20	µg/Kg, dry wt.	07/31/20	BD	
Hexachlorobutadiene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
2-Hexanone	Not Detected	2,500	µg/Kg, dry wt.	07/31/20	BD	
Isopropyl benzene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
4-Methyl-2-pentanone (MIBK)	Not Detected	2,500	µg/Kg, dry wt.	07/31/20	BD	
Methyl-t-butyl ether (MTBE)	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
Methylene chloride	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
2-Methylnaphthalene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
Naphthalene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
n-Propylbenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Styrene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,1,1,2-Tetrachloroethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,1,2,2-Tetrachloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Tetrachloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Tetrahydrofuran	Not Detected	1,000	µg/Kg, dry wt.	07/31/20	BD	
Toluene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,2,3-Trichlorobenzene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
1,2,4-Trichlorobenzene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
1,1,1-Trichloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,1,2-Trichloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Trichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Trichlorofluoromethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,2,3-Trichloropropane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,2,4-Trimethylbenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,3,5-Trimethylbenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Vinyl Acetate	Not Detected	5,000	µg/Kg, dry wt.	07/31/20	BD	
Vinyl Chloride	Not Detected	40	µg/Kg, dry wt.	07/31/20	BD	
Xylene (Total)	Not Detected	150	µg/Kg, dry wt.	07/31/20	BD	
Surrogate Standards						
1,2-Dichloroethane-d4	124%	-	% Recovery	07/31/20	BD	
Toluene-d8	105%	-	% Recovery	07/31/20	BD	
4-Bromofluorobenzene	105%	-	% Recovery	07/31/20	BD	
continued						

Sample Description:		HA-4, 2', 2:55 PM, 7/28/20				
Laboratory ID:	11200-47	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1254	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	07/30/20	DS	
Polychlorinated biphenyls (Total)	Not Detected	700	µg/Kg, dry wt.	07/30/20	DS	
Surrogate Standards						
Tetrachloro-m-xylene	91.5%	-	% Recovery	07/30/20	DS	
Decachlorobiphenyl	113%	-	% Recovery	07/30/20	DS	
Analysis Information						
Dry Weight Solids	88.9%	-	% by weight	07/30/20	LP	
PCB Extraction	Completed	-	-	07/30/20	LB	

Sample Description:	HA-5, 0', 3:16 PM, 7/28/20					
Laboratory ID:	11200-49	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
<i>Volatile Organic Compounds</i>						
Acetone	Not Detected	1,000	µg/Kg, dry wt.	07/31/20	BD	
Benzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Bromobenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Bromochloromethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Bromodichloromethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Bromoform	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Bromomethane	Not Detected	200	µg/Kg, dry wt.	07/31/20	BD	
2-Butanone (MEK)	Not Detected	750	µg/Kg, dry wt.	07/31/20	BD	
n-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
sec-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
tert-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Carbon disulfide	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
Carbon tetrachloride	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Chlorobenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Chloroethane	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
Chloroform	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Chloromethane	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
2-Chlorotoluene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
4-Chlorotoluene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Dibromochloromethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,2-Dibromo-3-chloropropane	Not Detected	10	µg/Kg, dry wt.	07/31/20	BD	
Dibromomethane	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
1,2-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,3-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,4-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Dichlorodifluoromethane	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
1,1-Dichloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,2-Dichloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,1-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
cis-1,2-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
trans-1,2-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,2-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,3-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
2,2-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,1-Dichloropropene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
cis-1,3-Dichloropropene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
continued						

Data Qualifiers: I Internal Standard results outside of acceptance limits E Reporting limit is elevated M Matrix interference observed
 S QC spike recovery outside of acceptance limits D Result is from a dilution F Matrix Spike four times rule applied
 R RPD outside of acceptance limits J Result should be considered estimated C See Case Narrative

Sample Description:		HA-5, 0', 3:16 PM, 7/28/20				
Laboratory ID:	11200-49	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
VOC's, Cont'd						
Ethylbenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Ethylene Dibromide (1,2-Dibromoethane)	Not Detected	20	µg/Kg, dry wt.	07/31/20	BD	
Hexachlorobutadiene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
2-Hexanone	Not Detected	2,500	µg/Kg, dry wt.	07/31/20	BD	
Isopropyl benzene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
4-Methyl-2-pentanone (MIBK)	Not Detected	2,500	µg/Kg, dry wt.	07/31/20	BD	
Methyl-t-butyl ether (MTBE)	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
Methylene chloride	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
2-Methylnaphthalene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
Naphthalene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
n-Propylbenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Styrene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,1,1,2-Tetrachloroethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,1,2,2-Tetrachloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Tetrachloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Tetrahydrofuran	Not Detected	1,000	µg/Kg, dry wt.	07/31/20	BD	
Toluene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,2,3-Trichlorobenzene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
1,2,4-Trichlorobenzene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
1,1,1-Trichloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,1,2-Trichloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Trichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Trichlorofluoromethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,2,3-Trichloropropane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,2,4-Trimethylbenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,3,5-Trimethylbenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Vinyl Acetate	Not Detected	5,000	µg/Kg, dry wt.	07/31/20	BD	
Vinyl Chloride	Not Detected	40	µg/Kg, dry wt.	07/31/20	BD	
Xylene (Total)	Not Detected	150	µg/Kg, dry wt.	07/31/20	BD	
Surrogate Standards						
1,2-Dichloroethane-d4	114%	-	% Recovery	07/31/20	BD	
Toluene-d8	105%	-	% Recovery	07/31/20	BD	
4-Bromofluorobenzene	103%	-	% Recovery	07/31/20	BD	
continued						

Sample Description:		HA-5, 0', 3:16 PM, 7/28/20				
Laboratory ID:	11200-49	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1254	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Polychlorinated biphenyls (Total)	Not Detected	700	µg/Kg, dry wt.	07/31/20	DS	
Surrogate Standards						
Tetrachloro-m-xylene	91.2%	-	% Recovery	07/31/20	DS	
Decachlorobiphenyl	104%	-	% Recovery	07/31/20	DS	
Analysis Information						
Dry Weight Solids	84.2%	-	% by weight	07/30/20	LP	
PCB Extraction	Completed	-	-	07/31/20	LB	

Sample Description:	HA-5, 2', 3:19 PM, 7/28/20					
Laboratory ID:	11200-50	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
<i>Volatile Organic Compounds</i>						
Acetone	Not Detected	1,000	µg/Kg, dry wt.	07/31/20	BD	
Benzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Bromobenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Bromochloromethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Bromodichloromethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Bromoform	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Bromomethane	Not Detected	200	µg/Kg, dry wt.	07/31/20	BD	
2-Butanone (MEK)	Not Detected	750	µg/Kg, dry wt.	07/31/20	BD	
n-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
sec-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
tert-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Carbon disulfide	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
Carbon tetrachloride	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Chlorobenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Chloroethane	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
Chloroform	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Chloromethane	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
2-Chlorotoluene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
4-Chlorotoluene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Dibromochloromethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,2-Dibromo-3-chloropropane	Not Detected	10	µg/Kg, dry wt.	07/31/20	BD	
Dibromomethane	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
1,2-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,3-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,4-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Dichlorodifluoromethane	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
1,1-Dichloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,2-Dichloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,1-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
cis-1,2-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
trans-1,2-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,2-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,3-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
2,2-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,1-Dichloropropene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
cis-1,3-Dichloropropene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
continued						

Sample Description:		HA-5, 2', 3:19 PM, 7/28/20				
Laboratory ID:	11200-50	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
VOC's, Cont'd						
Ethylbenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Ethylene Dibromide (1,2-Dibromoethane)	Not Detected	20	µg/Kg, dry wt.	07/31/20	BD	
Hexachlorobutadiene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
2-Hexanone	Not Detected	2,500	µg/Kg, dry wt.	07/31/20	BD	
Isopropyl benzene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
4-Methyl-2-pentanone (MIBK)	Not Detected	2,500	µg/Kg, dry wt.	07/31/20	BD	
Methyl-t-butyl ether (MTBE)	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
Methylene chloride	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
2-Methylnaphthalene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
Naphthalene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
n-Propylbenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Styrene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,1,1,2-Tetrachloroethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,1,2,2-Tetrachloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Tetrachloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Tetrahydrofuran	Not Detected	1,000	µg/Kg, dry wt.	07/31/20	BD	
Toluene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,2,3-Trichlorobenzene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
1,2,4-Trichlorobenzene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
1,1,1-Trichloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,1,2-Trichloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Trichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Trichlorofluoromethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,2,3-Trichloropropane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,2,4-Trimethylbenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,3,5-Trimethylbenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Vinyl Acetate	Not Detected	5,000	µg/Kg, dry wt.	07/31/20	BD	
Vinyl Chloride	Not Detected	40	µg/Kg, dry wt.	07/31/20	BD	
Xylene (Total)	Not Detected	150	µg/Kg, dry wt.	07/31/20	BD	
Surrogate Standards						
1,2-Dichloroethane-d4	117%	-	% Recovery	07/31/20	BD	
Toluene-d8	103%	-	% Recovery	07/31/20	BD	
4-Bromofluorobenzene	105%	-	% Recovery	07/31/20	BD	
continued						

Sample Description:		HA-5, 2', 3:19 PM, 7/28/20				
Laboratory ID:	11200-50	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1254	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Polychlorinated biphenyls (Total)	Not Detected	700	µg/Kg, dry wt.	07/31/20	DS	
Surrogate Standards						
Tetrachloro-m-xylene	85.9%	-	% Recovery	07/31/20	DS	
Decachlorobiphenyl	93.8%	-	% Recovery	07/31/20	DS	
Analysis Information						
Dry Weight Solids	88.6%	-	% by weight	07/30/20	LP	
PCB Extraction	Completed	-	-	07/31/20	LB	

Sample Description:	HA-6, 0', 4:10 PM, 7/28/20					
Laboratory ID:	11200-52	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
<i>Volatile Organic Compounds</i>						
Acetone	Not Detected	1,000	µg/Kg, dry wt.	07/31/20	BD	
Benzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Bromobenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Bromochloromethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Bromodichloromethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Bromoform	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Bromomethane	Not Detected	200	µg/Kg, dry wt.	07/31/20	BD	
2-Butanone (MEK)	Not Detected	750	µg/Kg, dry wt.	07/31/20	BD	
n-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
sec-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
tert-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Carbon disulfide	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
Carbon tetrachloride	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Chlorobenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Chloroethane	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
Chloroform	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Chloromethane	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
2-Chlorotoluene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
4-Chlorotoluene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Dibromochloromethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,2-Dibromo-3-chloropropane	Not Detected	10	µg/Kg, dry wt.	07/31/20	BD	
Dibromomethane	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
1,2-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,3-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,4-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Dichlorodifluoromethane	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
1,1-Dichloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,2-Dichloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,1-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
cis-1,2-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
trans-1,2-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,2-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,3-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
2,2-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,1-Dichloropropene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
cis-1,3-Dichloropropene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
continued						

Data Qualifiers: I Internal Standard results outside of acceptance limits
 S QC spike recovery outside of acceptance limits
 R RPD outside of acceptance limits
 E Reporting limit is elevated
 D Result is from a dilution
 J Result should be considered estimated
 M Matrix interference observed
 F Matrix Spike four times rule applied
 C See Case Narrative

Sample Description:		HA-6, 0', 4:10 PM, 7/28/20				
Laboratory ID:	11200-52	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
VOC's, Cont'd						
Ethylbenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Ethylene Dibromide (1,2-Dibromoethane)	Not Detected	20	µg/Kg, dry wt.	07/31/20	BD	
Hexachlorobutadiene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
2-Hexanone	Not Detected	2,500	µg/Kg, dry wt.	07/31/20	BD	
Isopropyl benzene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
4-Methyl-2-pentanone (MIBK)	Not Detected	2,500	µg/Kg, dry wt.	07/31/20	BD	
Methyl-t-butyl ether (MTBE)	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
Methylene chloride	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
2-Methylnaphthalene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
Naphthalene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
n-Propylbenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Styrene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,1,1,2-Tetrachloroethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,1,2,2-Tetrachloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Tetrachloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Tetrahydrofuran	Not Detected	1,000	µg/Kg, dry wt.	07/31/20	BD	
Toluene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,2,3-Trichlorobenzene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
1,2,4-Trichlorobenzene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
1,1,1-Trichloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,1,2-Trichloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Trichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Trichlorofluoromethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,2,3-Trichloropropane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,2,4-Trimethylbenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,3,5-Trimethylbenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Vinyl Acetate	Not Detected	5,000	µg/Kg, dry wt.	07/31/20	BD	
Vinyl Chloride	Not Detected	40	µg/Kg, dry wt.	07/31/20	BD	
Xylene (Total)	Not Detected	150	µg/Kg, dry wt.	07/31/20	BD	
Surrogate Standards						
1,2-Dichloroethane-d4	120%	-	% Recovery	07/31/20	BD	
Toluene-d8	103%	-	% Recovery	07/31/20	BD	
4-Bromofluorobenzene	105%	-	% Recovery	07/31/20	BD	
continued						

Sample Description:		HA-6, 0', 4:10 PM, 7/28/20				
Laboratory ID:	11200-52	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1254	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Polychlorinated biphenyls (Total)	Not Detected	700	µg/Kg, dry wt.	07/31/20	DS	
Surrogate Standards						
Tetrachloro-m-xylene	91.2%	-	% Recovery	07/31/20	DS	
Decachlorobiphenyl	95.3%	-	% Recovery	07/31/20	DS	
Analysis Information						
Dry Weight Solids	82.6%	-	% by weight	07/30/20	LP	
PCB Extraction	Completed	-	-	07/31/20	LB	

Sample Description:		HA-6, 2', 4:15 PM, 7/28/20				
Laboratory ID:	11200-53	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
<i>Volatile Organic Compounds</i>						
Acetone	Not Detected	1,000	µg/Kg, dry wt.	07/31/20	BD	
Benzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Bromobenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Bromochloromethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Bromodichloromethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Bromoform	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Bromomethane	Not Detected	200	µg/Kg, dry wt.	07/31/20	BD	
2-Butanone (MEK)	Not Detected	750	µg/Kg, dry wt.	07/31/20	BD	
n-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
sec-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
tert-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Carbon disulfide	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
Carbon tetrachloride	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Chlorobenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Chloroethane	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
Chloroform	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Chloromethane	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
2-Chlorotoluene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
4-Chlorotoluene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Dibromochloromethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,2-Dibromo-3-chloropropane	Not Detected	10	µg/Kg, dry wt.	07/31/20	BD	
Dibromomethane	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
1,2-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,3-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,4-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Dichlorodifluoromethane	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
1,1-Dichloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,2-Dichloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,1-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
cis-1,2-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
trans-1,2-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,2-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,3-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
2,2-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,1-Dichloropropene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
cis-1,3-Dichloropropene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
continued						

Sample Description:		HA-6, 2', 4:15 PM, 7/28/20				
Laboratory ID:	11200-53	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
VOC's, Cont'd						
Ethylbenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Ethylene Dibromide (1,2-Dibromoethane)	Not Detected	20	µg/Kg, dry wt.	07/31/20	BD	
Hexachlorobutadiene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
2-Hexanone	Not Detected	2,500	µg/Kg, dry wt.	07/31/20	BD	
Isopropyl benzene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
4-Methyl-2-pentanone (MIBK)	Not Detected	2,500	µg/Kg, dry wt.	07/31/20	BD	
Methyl-t-butyl ether (MTBE)	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
Methylene chloride	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
2-Methylnaphthalene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
Naphthalene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
n-Propylbenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Styrene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,1,1,2-Tetrachloroethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,1,2,2-Tetrachloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Tetrachloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Tetrahydrofuran	Not Detected	1,000	µg/Kg, dry wt.	07/31/20	BD	
Toluene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,2,3-Trichlorobenzene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
1,2,4-Trichlorobenzene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
1,1,1-Trichloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,1,2-Trichloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Trichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Trichlorofluoromethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,2,3-Trichloropropane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,2,4-Trimethylbenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,3,5-Trimethylbenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Vinyl Acetate	Not Detected	5,000	µg/Kg, dry wt.	07/31/20	BD	
Vinyl Chloride	Not Detected	40	µg/Kg, dry wt.	07/31/20	BD	
Xylene (Total)	Not Detected	150	µg/Kg, dry wt.	07/31/20	BD	
Surrogate Standards						
1,2-Dichloroethane-d4	121%	-	% Recovery	07/31/20	BD	
Toluene-d8	105%	-	% Recovery	07/31/20	BD	
4-Bromofluorobenzene	105%	-	% Recovery	07/31/20	BD	
continued						

Sample Description:		HA-6, 2', 4:15 PM, 7/28/20				
Laboratory ID:	11200-53	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1254	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Polychlorinated biphenyls (Total)	Not Detected	700	µg/Kg, dry wt.	07/31/20	DS	
Surrogate Standards						
Tetrachloro-m-xylene	101%	-	% Recovery	07/31/20	DS	
Decachlorobiphenyl	108%	-	% Recovery	07/31/20	DS	
Analysis Information						
Dry Weight Solids	91.2%	-	% by weight	07/30/20	LP	
PCB Extraction	Completed	-	-	07/31/20	LB	

Sample Description:	HA-7, 0', 9:05 AM, 7/29/20					
Laboratory ID:	11200-55	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
<i>Volatile Organic Compounds</i>						
Acetone	Not Detected	1,000	µg/Kg, dry wt.	07/31/20	BD	
Benzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Bromobenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Bromochloromethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Bromodichloromethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Bromoform	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Bromomethane	Not Detected	200	µg/Kg, dry wt.	07/31/20	BD	
2-Butanone (MEK)	Not Detected	750	µg/Kg, dry wt.	07/31/20	BD	
n-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
sec-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
tert-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Carbon disulfide	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
Carbon tetrachloride	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Chlorobenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Chloroethane	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
Chloroform	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Chloromethane	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
2-Chlorotoluene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
4-Chlorotoluene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Dibromochloromethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,2-Dibromo-3-chloropropane	Not Detected	10	µg/Kg, dry wt.	07/31/20	BD	
Dibromomethane	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
1,2-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,3-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,4-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Dichlorodifluoromethane	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
1,1-Dichloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,2-Dichloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,1-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
cis-1,2-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
trans-1,2-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,2-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,3-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
2,2-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,1-Dichloropropene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
cis-1,3-Dichloropropene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
continued						

Data Qualifiers: I Internal Standard results outside of acceptance limits E Reporting limit is elevated M Matrix interference observed
 S QC spike recovery outside of acceptance limits D Result is from a dilution F Matrix Spike four times rule applied
 R RPD outside of acceptance limits J Result should be considered estimated C See Case Narrative

Sample Description:		HA-7, 0', 9:05 AM, 7/29/20				
Laboratory ID:	11200-55	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
VOC's, Cont'd						
Ethylbenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Ethylene Dibromide (1,2-Dibromoethane)	Not Detected	20	µg/Kg, dry wt.	07/31/20	BD	
Hexachlorobutadiene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
2-Hexanone	Not Detected	2,500	µg/Kg, dry wt.	07/31/20	BD	
Isopropyl benzene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
4-Methyl-2-pentanone (MIBK)	Not Detected	2,500	µg/Kg, dry wt.	07/31/20	BD	
Methyl-t-butyl ether (MTBE)	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
Methylene chloride	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
2-Methylnaphthalene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
Naphthalene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
n-Propylbenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Styrene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,1,1,2-Tetrachloroethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,1,2,2-Tetrachloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Tetrachloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Tetrahydrofuran	Not Detected	1,000	µg/Kg, dry wt.	07/31/20	BD	
Toluene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,2,3-Trichlorobenzene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
1,2,4-Trichlorobenzene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
1,1,1-Trichloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,1,2-Trichloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Trichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Trichlorofluoromethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,2,3-Trichloropropane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,2,4-Trimethylbenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,3,5-Trimethylbenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Vinyl Acetate	Not Detected	5,000	µg/Kg, dry wt.	07/31/20	BD	
Vinyl Chloride	Not Detected	40	µg/Kg, dry wt.	07/31/20	BD	
Xylene (Total)	Not Detected	150	µg/Kg, dry wt.	07/31/20	BD	
Surrogate Standards						
1,2-Dichloroethane-d4	126%	-	% Recovery	07/31/20	BD	
Toluene-d8	103%	-	% Recovery	07/31/20	BD	
4-Bromofluorobenzene	107%	-	% Recovery	07/31/20	BD	
continued						

Sample Description:		HA-7, 0', 9:05 AM, 7/29/20				
Laboratory ID:	11200-55	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1254	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Polychlorinated biphenyls (Total)	Not Detected	700	µg/Kg, dry wt.	07/31/20	DS	
Surrogate Standards						
Tetrachloro-m-xylene	104%	-	% Recovery	07/31/20	DS	
Decachlorobiphenyl	114%	-	% Recovery	07/31/20	DS	
Analysis Information						
Dry Weight Solids	84.9%	-	% by weight	07/30/20	LP	
PCB Extraction	Completed	-	-	07/31/20	LB	

Sample Description:		HA-7, 2', 9:07 AM, 7/29/20				
Laboratory ID:	11200-56	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
<i>Volatile Organic Compounds</i>						
Acetone	Not Detected	1,000	µg/Kg, dry wt.	07/31/20	BD	
Benzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Bromobenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Bromochloromethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Bromodichloromethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Bromoform	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Bromomethane	Not Detected	200	µg/Kg, dry wt.	07/31/20	BD	
2-Butanone (MEK)	Not Detected	750	µg/Kg, dry wt.	07/31/20	BD	
n-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
sec-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
tert-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Carbon disulfide	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
Carbon tetrachloride	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Chlorobenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Chloroethane	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
Chloroform	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Chloromethane	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
2-Chlorotoluene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
4-Chlorotoluene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Dibromochloromethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,2-Dibromo-3-chloropropane	Not Detected	10	µg/Kg, dry wt.	07/31/20	BD	
Dibromomethane	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
1,2-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,3-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,4-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Dichlorodifluoromethane	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
1,1-Dichloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,2-Dichloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,1-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
cis-1,2-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
trans-1,2-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,2-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,3-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
2,2-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,1-Dichloropropene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
cis-1,3-Dichloropropene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
continued						

Sample Description:		HA-7, 2', 9:07 AM, 7/29/20				
Laboratory ID:	11200-56	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
VOC's, Cont'd						
Ethylbenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Ethylene Dibromide (1,2-Dibromoethane)	Not Detected	20	µg/Kg, dry wt.	07/31/20	BD	
Hexachlorobutadiene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
2-Hexanone	Not Detected	2,500	µg/Kg, dry wt.	07/31/20	BD	
Isopropyl benzene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
4-Methyl-2-pentanone (MIBK)	Not Detected	2,500	µg/Kg, dry wt.	07/31/20	BD	
Methyl-t-butyl ether (MTBE)	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
Methylene chloride	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
2-Methylnaphthalene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
Naphthalene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
n-Propylbenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Styrene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,1,1,2-Tetrachloroethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,1,2,2-Tetrachloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Tetrachloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Tetrahydrofuran	Not Detected	1,000	µg/Kg, dry wt.	07/31/20	BD	
Toluene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,2,3-Trichlorobenzene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
1,2,4-Trichlorobenzene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
1,1,1-Trichloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,1,2-Trichloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Trichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Trichlorofluoromethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,2,3-Trichloropropane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,2,4-Trimethylbenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,3,5-Trimethylbenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Vinyl Acetate	Not Detected	5,000	µg/Kg, dry wt.	07/31/20	BD	
Vinyl Chloride	Not Detected	40	µg/Kg, dry wt.	07/31/20	BD	
Xylene (Total)	Not Detected	150	µg/Kg, dry wt.	07/31/20	BD	
Surrogate Standards						
1,2-Dichloroethane-d4	120%	-	% Recovery	07/31/20	BD	
Toluene-d8	103%	-	% Recovery	07/31/20	BD	
4-Bromofluorobenzene	102%	-	% Recovery	07/31/20	BD	
continued						

Sample Description:		HA-7, 2', 9:07 AM, 7/29/20				
Laboratory ID:	11200-56	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1254	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Polychlorinated biphenyls (Total)	Not Detected	700	µg/Kg, dry wt.	07/31/20	DS	
Surrogate Standards						
Tetrachloro-m-xylene	92.7%	-	% Recovery	07/31/20	DS	
Decachlorobiphenyl	114%	-	% Recovery	07/31/20	DS	
Analysis Information						
Dry Weight Solids	82.6%	-	% by weight	07/30/20	LP	
PCB Extraction	Completed	-	-	07/31/20	LB	

Sample Description:	HA-8, 0', 9:20 AM, 7/29/20					
Laboratory ID:	11200-58	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
<i>Volatile Organic Compounds</i>						
Acetone	Not Detected	1,000	µg/Kg, dry wt.	07/31/20	BD	
Benzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Bromobenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Bromochloromethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Bromodichloromethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Bromoform	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Bromomethane	Not Detected	200	µg/Kg, dry wt.	07/31/20	BD	
2-Butanone (MEK)	Not Detected	750	µg/Kg, dry wt.	07/31/20	BD	
n-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
sec-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
tert-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Carbon disulfide	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
Carbon tetrachloride	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Chlorobenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Chloroethane	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
Chloroform	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Chloromethane	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
2-Chlorotoluene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
4-Chlorotoluene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Dibromochloromethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,2-Dibromo-3-chloropropane	Not Detected	10	µg/Kg, dry wt.	07/31/20	BD	
Dibromomethane	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
1,2-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,3-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,4-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Dichlorodifluoromethane	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
1,1-Dichloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,2-Dichloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,1-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
cis-1,2-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
trans-1,2-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,2-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,3-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
2,2-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,1-Dichloropropene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
cis-1,3-Dichloropropene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
continued						

Data Qualifiers: I Internal Standard results outside of acceptance limits E Reporting limit is elevated M Matrix interference observed
 S QC spike recovery outside of acceptance limits D Result is from a dilution F Matrix Spike four times rule applied
 R RPD outside of acceptance limits J Result should be considered estimated C See Case Narrative

Sample Description:	HA-8, 0', 9:20 AM, 7/29/20					
Laboratory ID:	11200-58	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
VOC's, Cont'd						
Ethylbenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Ethylene Dibromide (1,2-Dibromoethane)	Not Detected	20	µg/Kg, dry wt.	07/31/20	BD	
Hexachlorobutadiene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
2-Hexanone	Not Detected	2,500	µg/Kg, dry wt.	07/31/20	BD	
Isopropyl benzene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
4-Methyl-2-pentanone (MIBK)	Not Detected	2,500	µg/Kg, dry wt.	07/31/20	BD	
Methyl-t-butyl ether (MTBE)	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
Methylene chloride	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
2-Methylnaphthalene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
Naphthalene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
n-Propylbenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Styrene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,1,1,2-Tetrachloroethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,1,2,2-Tetrachloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Tetrachloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Tetrahydrofuran	Not Detected	1,000	µg/Kg, dry wt.	07/31/20	BD	
Toluene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,2,3-Trichlorobenzene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
1,2,4-Trichlorobenzene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
1,1,1-Trichloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,1,2-Trichloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Trichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Trichlorofluoromethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,2,3-Trichloropropane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,2,4-Trimethylbenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,3,5-Trimethylbenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Vinyl Acetate	Not Detected	5,000	µg/Kg, dry wt.	07/31/20	BD	
Vinyl Chloride	Not Detected	40	µg/Kg, dry wt.	07/31/20	BD	
Xylene (Total)	Not Detected	150	µg/Kg, dry wt.	07/31/20	BD	
Surrogate Standards						
1,2-Dichloroethane-d4	120%	-	% Recovery	07/31/20	BD	
Toluene-d8	104%	-	% Recovery	07/31/20	BD	
4-Bromofluorobenzene	104%	-	% Recovery	07/31/20	BD	
continued						

Sample Description:		HA-8, 0', 9:20 AM, 7/29/20				
Laboratory ID:	11200-58	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1254	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Polychlorinated biphenyls (Total)	Not Detected	700	µg/Kg, dry wt.	07/31/20	DS	
Surrogate Standards						
Tetrachloro-m-xylene	92.0%	-	% Recovery	07/31/20	DS	
Decachlorobiphenyl	107%	-	% Recovery	07/31/20	DS	
Analysis Information						
Dry Weight Solids	84.1%	-	% by weight	07/30/20	LP	
PCB Extraction	Completed	-	-	07/31/20	LB	

Sample Description:		HA-8, 2', 9:23 AM, 7/29/20				
Laboratory ID:	11200-59	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
<i>Volatile Organic Compounds</i>						
Acetone	Not Detected	1,000	µg/Kg, dry wt.	07/31/20	BD	
Benzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Bromobenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Bromochloromethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Bromodichloromethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Bromoform	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Bromomethane	Not Detected	200	µg/Kg, dry wt.	07/31/20	BD	
2-Butanone (MEK)	Not Detected	750	µg/Kg, dry wt.	07/31/20	BD	
n-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
sec-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
tert-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Carbon disulfide	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
Carbon tetrachloride	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Chlorobenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Chloroethane	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
Chloroform	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Chloromethane	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
2-Chlorotoluene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
4-Chlorotoluene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Dibromochloromethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,2-Dibromo-3-chloropropane	Not Detected	10	µg/Kg, dry wt.	07/31/20	BD	
Dibromomethane	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
1,2-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,3-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,4-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Dichlorodifluoromethane	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
1,1-Dichloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,2-Dichloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,1-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
cis-1,2-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
trans-1,2-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,2-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,3-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
2,2-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,1-Dichloropropene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
cis-1,3-Dichloropropene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
continued						

Data Qualifiers: I Internal Standard results outside of acceptance limits E Reporting limit is elevated M Matrix interference observed
 S QC spike recovery outside of acceptance limits D Result is from a dilution F Matrix Spike four times rule applied
 R RPD outside of acceptance limits J Result should be considered estimated C See Case Narrative

Sample Description:		HA-8, 2', 9:23 AM, 7/29/20				
Laboratory ID:	11200-59	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
VOC's, Cont'd						
Ethylbenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Ethylene Dibromide (1,2-Dibromoethane)	Not Detected	20	µg/Kg, dry wt.	07/31/20	BD	
Hexachlorobutadiene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
2-Hexanone	Not Detected	2,500	µg/Kg, dry wt.	07/31/20	BD	
Isopropyl benzene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
4-Methyl-2-pentanone (MIBK)	Not Detected	2,500	µg/Kg, dry wt.	07/31/20	BD	
Methyl-t-butyl ether (MTBE)	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
Methylene chloride	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
2-Methylnaphthalene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
Naphthalene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
n-Propylbenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Styrene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,1,1,2-Tetrachloroethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,1,2,2-Tetrachloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Tetrachloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Tetrahydrofuran	Not Detected	1,000	µg/Kg, dry wt.	07/31/20	BD	
Toluene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,2,3-Trichlorobenzene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
1,2,4-Trichlorobenzene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
1,1,1-Trichloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,1,2-Trichloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Trichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Trichlorofluoromethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,2,3-Trichloropropane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,2,4-Trimethylbenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,3,5-Trimethylbenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Vinyl Acetate	Not Detected	5,000	µg/Kg, dry wt.	07/31/20	BD	
Vinyl Chloride	Not Detected	40	µg/Kg, dry wt.	07/31/20	BD	
Xylene (Total)	Not Detected	150	µg/Kg, dry wt.	07/31/20	BD	
Surrogate Standards						
1,2-Dichloroethane-d4	119%	-	% Recovery	07/31/20	BD	
Toluene-d8	102%	-	% Recovery	07/31/20	BD	
4-Bromofluorobenzene	107%	-	% Recovery	07/31/20	BD	
continued						

Sample Description:		HA-8, 2', 9:23 AM, 7/29/20				
Laboratory ID:	11200-59	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1254	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Polychlorinated biphenyls (Total)	Not Detected	700	µg/Kg, dry wt.	07/31/20	DS	
Surrogate Standards						
Tetrachloro-m-xylene	101%	-	% Recovery	07/31/20	DS	
Decachlorobiphenyl	116%	-	% Recovery	07/31/20	DS	
Analysis Information						
Dry Weight Solids	88.4%	-	% by weight	07/30/20	LP	
PCB Extraction	Completed	-	-	07/31/20	LB	

Sample Description:	HA-9, 0', 9:43 AM, 7/29/20					
Laboratory ID:	11200-61	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
<i>Volatile Organic Compounds</i>						
Acetone	Not Detected	1,000	µg/Kg, dry wt.	07/31/20	BD	
Benzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Bromobenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Bromochloromethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Bromodichloromethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Bromoform	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Bromomethane	Not Detected	200	µg/Kg, dry wt.	07/31/20	BD	
2-Butanone (MEK)	Not Detected	750	µg/Kg, dry wt.	07/31/20	BD	
n-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
sec-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
tert-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Carbon disulfide	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
Carbon tetrachloride	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Chlorobenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Chloroethane	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
Chloroform	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Chloromethane	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
2-Chlorotoluene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
4-Chlorotoluene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Dibromochloromethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,2-Dibromo-3-chloropropane	Not Detected	10	µg/Kg, dry wt.	07/31/20	BD	
Dibromomethane	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
1,2-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,3-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,4-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Dichlorodifluoromethane	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
1,1-Dichloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,2-Dichloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,1-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
cis-1,2-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
trans-1,2-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,2-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,3-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
2,2-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,1-Dichloropropene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
cis-1,3-Dichloropropene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
continued						

Data Qualifiers: I Internal Standard results outside of acceptance limits
 S QC spike recovery outside of acceptance limits
 R RPD outside of acceptance limits
 E Reporting limit is elevated
 D Result is from a dilution
 J Result should be considered estimated
 M Matrix interference observed
 F Matrix Spike four times rule applied
 C See Case Narrative

Sample Description:		HA-9, 0', 9:43 AM, 7/29/20				
Laboratory ID:	11200-61	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
VOC's, Cont'd						
Ethylbenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Ethylene Dibromide (1,2-Dibromoethane)	Not Detected	20	µg/Kg, dry wt.	07/31/20	BD	
Hexachlorobutadiene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
2-Hexanone	Not Detected	2,500	µg/Kg, dry wt.	07/31/20	BD	
Isopropyl benzene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
4-Methyl-2-pentanone (MIBK)	Not Detected	2,500	µg/Kg, dry wt.	07/31/20	BD	
Methyl-t-butyl ether (MTBE)	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
Methylene chloride	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
2-Methylnaphthalene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
Naphthalene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
n-Propylbenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Styrene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,1,1,2-Tetrachloroethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,1,2,2-Tetrachloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Tetrachloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Tetrahydrofuran	Not Detected	1,000	µg/Kg, dry wt.	07/31/20	BD	
Toluene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,2,3-Trichlorobenzene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
1,2,4-Trichlorobenzene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
1,1,1-Trichloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,1,2-Trichloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Trichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Trichlorofluoromethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,2,3-Trichloropropane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,2,4-Trimethylbenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,3,5-Trimethylbenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Vinyl Acetate	Not Detected	5,000	µg/Kg, dry wt.	07/31/20	BD	
Vinyl Chloride	Not Detected	40	µg/Kg, dry wt.	07/31/20	BD	
Xylene (Total)	Not Detected	150	µg/Kg, dry wt.	07/31/20	BD	
Surrogate Standards						
1,2-Dichloroethane-d4	117%	-	% Recovery	07/31/20	BD	
Toluene-d8	104%	-	% Recovery	07/31/20	BD	
4-Bromofluorobenzene	105%	-	% Recovery	07/31/20	BD	
continued						

Sample Description:		HA-9, 0', 9:43 AM, 7/29/20				
Laboratory ID:	11200-61	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1254	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Polychlorinated biphenyls (Total)	Not Detected	700	µg/Kg, dry wt.	07/31/20	DS	
Surrogate Standards						
Tetrachloro-m-xylene	94.5%	-	% Recovery	07/31/20	DS	
Decachlorobiphenyl	118%	-	% Recovery	07/31/20	DS	
Analysis Information						
Dry Weight Solids	84.9%	-	% by weight	07/30/20	LP	
PCB Extraction	Completed	-	-	07/31/20	LB	

Sample Description:		HA-9, 2', 9:46 AM, 7/29/20				
Laboratory ID:	11200-62	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
<i>Volatile Organic Compounds</i>						
Acetone	Not Detected	1,000	µg/Kg, dry wt.	07/31/20	BD	
Benzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Bromobenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Bromochloromethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Bromodichloromethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Bromoform	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Bromomethane	Not Detected	200	µg/Kg, dry wt.	07/31/20	BD	
2-Butanone (MEK)	Not Detected	750	µg/Kg, dry wt.	07/31/20	BD	
n-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
sec-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
tert-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Carbon disulfide	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
Carbon tetrachloride	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Chlorobenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Chloroethane	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
Chloroform	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Chloromethane	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
2-Chlorotoluene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
4-Chlorotoluene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Dibromochloromethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,2-Dibromo-3-chloropropane	Not Detected	10	µg/Kg, dry wt.	07/31/20	BD	
Dibromomethane	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
1,2-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,3-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,4-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Dichlorodifluoromethane	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
1,1-Dichloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,2-Dichloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,1-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
cis-1,2-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
trans-1,2-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,2-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,3-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
2,2-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,1-Dichloropropene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
cis-1,3-Dichloropropene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
continued						

Data Qualifiers: I Internal Standard results outside of acceptance limits E Reporting limit is elevated M Matrix interference observed
 S QC spike recovery outside of acceptance limits D Result is from a dilution F Matrix Spike four times rule applied
 R RPD outside of acceptance limits J Result should be considered estimated C See Case Narrative

Sample Description:	HA-9, 2', 9:46 AM, 7/29/20					
Laboratory ID:	11200-62	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
VOC's, Cont'd						
Ethylbenzene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Ethylene Dibromide (1,2-Dibromoethane)	Not Detected	20	µg/Kg, dry wt.	07/31/20	BD	
Hexachlorobutadiene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
2-Hexanone	Not Detected	2,500	µg/Kg, dry wt.	07/31/20	BD	
Isopropyl benzene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
4-Methyl-2-pentanone (MIBK)	Not Detected	2,500	µg/Kg, dry wt.	07/31/20	BD	
Methyl-t-butyl ether (MTBE)	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
Methylene chloride	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
2-Methylnaphthalene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
Naphthalene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
n-Propylbenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Styrene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,1,1,2-Tetrachloroethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,1,2,2-Tetrachloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Tetrachloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Tetrahydrofuran	Not Detected	1,000	µg/Kg, dry wt.	07/31/20	BD	
Toluene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,2,3-Trichlorobenzene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
1,2,4-Trichlorobenzene	Not Detected	250	µg/Kg, dry wt.	07/31/20	BD	
1,1,1-Trichloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
1,1,2-Trichloroethane	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Trichloroethylene	Not Detected	50	µg/Kg, dry wt.	07/31/20	BD	
Trichlorofluoromethane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,2,3-Trichloropropane	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,2,4-Trimethylbenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
1,3,5-Trimethylbenzene	Not Detected	100	µg/Kg, dry wt.	07/31/20	BD	
Vinyl Acetate	Not Detected	5,000	µg/Kg, dry wt.	07/31/20	BD	
Vinyl Chloride	Not Detected	40	µg/Kg, dry wt.	07/31/20	BD	
Xylene (Total)	Not Detected	150	µg/Kg, dry wt.	07/31/20	BD	
Surrogate Standards						
1,2-Dichloroethane-d4	114%	-	% Recovery	07/31/20	BD	
Toluene-d8	105%	-	% Recovery	07/31/20	BD	
4-Bromofluorobenzene	104%	-	% Recovery	07/31/20	BD	
continued						

Sample Description:		HA-9, 2', 9:46 AM, 7/29/20				
Laboratory ID:	11200-62	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1254	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	07/31/20	DS	
Polychlorinated biphenyls (Total)	Not Detected	700	µg/Kg, dry wt.	07/31/20	DS	
Surrogate Standards						
Tetrachloro-m-xylene	98.7%	-	% Recovery	07/31/20	DS	
Decachlorobiphenyl	107%	-	% Recovery	07/31/20	DS	
Analysis Information						
Dry Weight Solids	83.0%	-	% by weight	07/30/20	LP	
PCB Extraction	Completed	-	-	07/31/20	LB	

LABORATORY RESULTS – MAY AND JUNE 2022

ANALYTICAL REPORT

For: Applied Environmental, Inc.
1210 N. Maple Rd
Ann Arbor MI 48103-2842

Report Number: 12338
Report Date: June 8, 2022
Project Name: 8 MK
Project Number: 22-2554
Page: 1 of 44
734-975-1970 Fax: 734-975-1973

Attn: Mr. Mike Schroeder

Sample Description

Seventy-three (73) samples reported to be Soil (49), Wipe (10), Unknown (13) and Water (1) and identified as "8 MK", 12700 8 Mile Rd, Oak Park, MI and:

See attached for sample description

1. HA-27, 0-1', 1:25, 5/26/22 (Soil)
2. HA-27, 1-1.5', 1:28, 5/26/22 (Soil)
3. HA-27, 1.5-2', 1:30, 5/26/22 (Soil) (HOLD)
4. HA-28, 0-1', 12:52, 5/26/22 (Soil)
5. HA-28, 1-1.5', 12:55, 5/26/22 (Soil)
6. HA-28, 1.5-2', 12:57, 5/26/22 (Soil) (HOLD)
7. HA-29, 0-1', 1:12, 5/26/22 (Soil)
8. HA-29, 1-1.5', 1:15, 5/26/22 (Soil)
9. HA-29, 1.5-2', 1:18, 5/26/22 (Soil) (HOLD)
10. HA-30, 0-1', 2:03, 5/26/22 (Soil)
11. HA-30, 1-1.5', 2:06, 5/26/22 (Soil)
12. HA-30, 1.5-2', 2:09, 5/26/22 (Soil) (HOLD)
13. HA-31, 0-1', 2:15, 5/26/22 (Soil)
14. HA-31, 1-1.5', 2:18, 5/26/22 (Soil)
15. HA-31, 1.5-2', 2:21, 5/26/22 (Soil) (HOLD)
16. HA-32, 0-1', 9:50, 5/26/22 (Soil)
17. HA-32, 1-1.5', 9:52, 5/26/22 (Soil)
18. HA-32, 1.5-2', 10:00, 5/26/22 (Soil) (HOLD)
19. HA-33, 0-1', 10:05, 5/26/22 (Soil)
20. HA-33, 1-1.5', 10:10, 5/26/22 (Soil)
21. HA-33, 1.5-2', 10:14, 5/26/22 (Soil) (HOLD)
22. Duplicate 1, 10:11, 5/26/22 (Soil)
23. HA-34, 0-1', 10:20, 5/26/22 (Soil)
24. HA-34, 1-1.5', 10:23, 5/26/22 (Soil)
25. HA-34, 1.5-2', 10:26, 5/26/22 (Soil) (HOLD)
26. HA-35, 0-1', 10:30, 5/26/22 (Soil)
27. HA-35, 1-1.5', 10:33, 5/26/22 (Soil)
28. HA-35, 1.5-2', 10:35, 5/26/22 (Soil) (HOLD)
29. HA-36, 0-1', 10:45, 5/26/22 (Soil)
30. HA-36, 1-1.5', 10:48, 5/26/22 (Soil)
31. HA-36, 1.5-2', 10:50, 5/26/22 (Soil) (HOLD)
32. Field Rinsate 1, 11:00, 5/26/22 (Water)
33. HA-37, 0-1', 11:05, 5/26/22 (Soil)
34. HA-37, 1-1.5', 11:10, 5/26/22 (Soil)
35. HA-37, 1.5-2', 11:13, 5/26/22 (Soil) (HOLD)
36. HA-38, 0-1', 11:32, 5/26/22 (Soil)
37. HA-38, 1-1.5', 11:41, 5/26/22 (Soil)
38. HA-38, 1.5-2', 11:44, 5/26/22 (Soil) (HOLD)
39. HA-39, 0-1', 11:57, 5/26/22 (Soil)
40. HA-39, 1-1.5', 12:00, 5/26/22 (Soil)
41. HA-39, 1.5-2', 12:03, 5/26/22 (Soil) (HOLD)
42. Surface 1, 11:15, 5/26/22 (Soil)
43. Surface 2, 11:20, 5/26/22 (Soil)
44. Duplicate 2, 11:21, 5/26/22 (Soil)
45. Surface 3, 11:26, 5/26/22 (Soil)
46. Surface 4, 11:34, 5/26/22 (Soil)
47. Surface 5, 11:41, 5/26/22 (Soil)
48. Surface 6, 11:45, 5/26/22 (Soil)
49. Surface 7, 11:52, 5/26/22 (Soil)
50. Surface 8, 11:57, 5/26/22 (Soil)
51. CS-1, 100cm², 9:25, 5/27/22 (Wipe)
52. CS-2, 100cm², 9:32, 5/27/22 (Wipe)
53. CS-3, 100cm², 9:45, 5/27/22 (Wipe)
54. CS-4, 100cm², 9:50, 5/27/22 (Wipe)
55. CS-5, 100cm², 9:55, 5/27/22 (Wipe)
56. CS-6, 100cm², 10:03, 5/27/22 (Wipe)
57. CS-7, 100cm², 10:08, 5/27/22 (Wipe)
58. CS-8, 100cm², 10:17, 5/27/22 (Wipe)
59. CS-9, 100cm², 10:28, 5/27/22 (Wipe)
60. Duplicate 3, 100cm², 9:57, 5/27/22 (Wipe)
61. CS-10, 100cm², 10:30, 5/27/22 (Wipe)
62. Field Rinsate 2, 3:30, 5/27/22 (Unknown)
63. Wall Sample 11, 11:19, 5/27/22 (Unknown)
64. Wall Sample 12, 11:48, 5/27/22 (Unknown)
65. Wall Sample 13, 12:14, 5/27/22 (Unknown)
66. Wall Sample 14, 12:45, 5/27/22 (Unknown)
67. Wall Sample 15, 1:11, 5/27/22 (Unknown)
68. Duplicate 4, 12:34, 5/27/22 (Unknown)
69. Wall Sample 16, 1:33, 5/27/22 (Unknown)
70. Wall Sample 17, 1:53, 5/27/22 (Unknown)
71. Wall Sample 18, 2:33, 5/27/22 (Unknown)
72. Wall Sample 19, 2:57, 5/27/22 (Unknown)
73. Wall Sample 20, 3:29, 5/27/22 (Unknown)

Analysis Requested

Chemical Analysis per SW-846 (SW) for Polychlorinated Biphenyls (PCB), Method 8082A

Analytical Results

Sample Description:		HA-27, 0-1', 1:25, 5/26/22				
Laboratory ID:	12338-1	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1254	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Polychlorinated biphenyls (Total)	Not Detected	700	µg/Kg, dry wt.	06/02/22	DS	
Surrogate Standards						
Tetrachloro-m-xylene	74.6%	-	% Recovery	06/02/22	DS	
Decachlorobiphenyl	86.6%	-	% Recovery	06/02/22	DS	
Analysis Information						
Dry Weight Solids	83.9%	-	% by weight	06/01/22	LB	
PCB Extraction	Completed	-	-	06/01/22	LB	

Sample Description:		HA-27, 1-1.5', 1:28, 5/26/22				
Laboratory ID:	12338-2	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1254	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Polychlorinated biphenyls (Total)	Not Detected	700	µg/Kg, dry wt.	06/02/22	DS	
Surrogate Standards						
Tetrachloro-m-xylene	78.1%	-	% Recovery	06/02/22	DS	
Decachlorobiphenyl	100%	-	% Recovery	06/02/22	DS	
Analysis Information						
Dry Weight Solids	86.5%	-	% by weight	06/01/22	LB	
PCB Extraction	Completed	-	-	06/01/22	LB	

Sample Description:		HA-28, 0-1', 12:52, 5/26/22				
Laboratory ID:	12338-4	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1254	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Polychlorinated biphenyls (Total)	Not Detected	700	µg/Kg, dry wt.	06/02/22	DS	
Surrogate Standards						
Tetrachloro-m-xylene	117%	-	% Recovery	06/02/22	DS	
Decachlorobiphenyl	147%	-	% Recovery	06/02/22	DS	
Analysis Information						
Dry Weight Solids	78.7%	-	% by weight	06/01/22	LB	
PCB Extraction	Completed	-	-	06/01/22	LB	

Sample Description:		HA-28, 1-1.5', 12:55, 5/26/22				
Laboratory ID:	12338-5	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1254	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Polychlorinated biphenyls (Total)	Not Detected	700	µg/Kg, dry wt.	06/02/22	DS	
Surrogate Standards						
Tetrachloro-m-xylene	81.3%	-	% Recovery	06/02/22	DS	
Decachlorobiphenyl	110%	-	% Recovery	06/02/22	DS	
Analysis Information						
Dry Weight Solids	77.7%	-	% by weight	06/01/22	LB	
PCB Extraction	Completed	-	-	06/01/22	LB	

Sample Description:		HA-29, 0-1', 1:12, 5/26/22				
Laboratory ID:	12338-7	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1254	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Polychlorinated biphenyls (Total)	Not Detected	700	µg/Kg, dry wt.	06/02/22	DS	
Surrogate Standards						
Tetrachloro-m-xylene	87.0%	-	% Recovery	06/02/22	DS	
Decachlorobiphenyl	102%	-	% Recovery	06/02/22	DS	
Analysis Information						
Dry Weight Solids	73.8%	-	% by weight	06/01/22	LB	
PCB Extraction	Completed	-	-	06/01/22	LB	

Sample Description:		HA-29, 1-1.5', 1:15, 5/26/22				
Laboratory ID:	12338-8	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1254	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Polychlorinated biphenyls (Total)	Not Detected	700	µg/Kg, dry wt.	06/02/22	DS	
Surrogate Standards						
Tetrachloro-m-xylene	94.1%	-	% Recovery	06/02/22	DS	
Decachlorobiphenyl	108%	-	% Recovery	06/02/22	DS	
Analysis Information						
Dry Weight Solids	77.4%	-	% by weight	06/01/22	LB	
PCB Extraction	Completed	-	-	06/01/22	LB	

Sample Description:		HA-30, 0-1', 2:03, 5/26/22				
Laboratory ID:	12338-10	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	200	µg/Kg, dry wt.	06/02/22	DS	E, M
Aroclor 1221	Not Detected	200	µg/Kg, dry wt.	06/02/22	DS	E, M
Aroclor 1232	Not Detected	200	µg/Kg, dry wt.	06/02/22	DS	E, M
Aroclor 1242	Not Detected	200	µg/Kg, dry wt.	06/02/22	DS	E, M
Aroclor 1248	Not Detected	200	µg/Kg, dry wt.	06/02/22	DS	E, M
Aroclor 1254	Not Detected	200	µg/Kg, dry wt.	06/02/22	DS	E, M
Aroclor 1260	Not Detected	200	µg/Kg, dry wt.	06/02/22	DS	E, M
Polychlorinated biphenyls (Total)	Not Detected	1,400	µg/Kg, dry wt.	06/02/22	DS	E, M
Surrogate Standards						
Tetrachloro-m-xylene	80.3%	-	% Recovery	06/02/22	DS	
Decachlorobiphenyl	124%	-	% Recovery	06/02/22	DS	
Analysis Information						
Dry Weight Solids	71.9%	-	% by weight	06/01/22	LB	
PCB Extraction	Completed	-	-	06/01/22	LB	

Sample Description:		HA-30, 1-1.5', 2:06, 5/26/22				
Laboratory ID:	12338-11	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1254	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Polychlorinated biphenyls (Total)	Not Detected	700	µg/Kg, dry wt.	06/02/22	DS	
Surrogate Standards						
Tetrachloro-m-xylene	92.3%	-	% Recovery	06/02/22	DS	
Decachlorobiphenyl	118%	-	% Recovery	06/02/22	DS	
Analysis Information						
Dry Weight Solids	69.0%	-	% by weight	06/01/22	LB	
PCB Extraction	Completed	-	-	06/01/22	LB	

Sample Description:		HA-31, 0-1', 2:15, 5/26/22				
Laboratory ID:	12338-13	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1254	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Polychlorinated biphenyls (Total)	Not Detected	700	µg/Kg, dry wt.	06/02/22	DS	
Surrogate Standards						
Tetrachloro-m-xylene	84.0%	-	% Recovery	06/02/22	DS	
Decachlorobiphenyl	107%	-	% Recovery	06/02/22	DS	
Analysis Information						
Dry Weight Solids	63.5%	-	% by weight	06/01/22	LB	
PCB Extraction	Completed	-	-	06/01/22	LB	

Sample Description:		HA-31, 1-1.5', 2:18, 5/26/22				
Laboratory ID:	12338-14	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1254	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Polychlorinated biphenyls (Total)	Not Detected	700	µg/Kg, dry wt.	06/02/22	DS	
Surrogate Standards						
Tetrachloro-m-xylene	94.0%	-	% Recovery	06/02/22	DS	
Decachlorobiphenyl	110%	-	% Recovery	06/02/22	DS	
Analysis Information						
Dry Weight Solids	65.9%	-	% by weight	06/01/22	LB	
PCB Extraction	Completed	-	-	06/01/22	LB	

Sample Description:		HA-32, 0-1', 9:50, 5/26/22				
Laboratory ID:	12338-16	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1254	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Polychlorinated biphenyls (Total)	Not Detected	700	µg/Kg, dry wt.	06/02/22	DS	
Surrogate Standards						
Tetrachloro-m-xylene	83.8%	-	% Recovery	06/02/22	DS	
Decachlorobiphenyl	95.8%	-	% Recovery	06/02/22	DS	
Analysis Information						
Dry Weight Solids	72.7%	-	% by weight	06/01/22	LB	
PCB Extraction	Completed	-	-	06/01/22	LB	

Sample Description:		HA-32, 1-1.5', 9:52, 5/26/22				
Laboratory ID:	12338-17	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1254	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Polychlorinated biphenyls (Total)	Not Detected	700	µg/Kg, dry wt.	06/02/22	DS	
Surrogate Standards						
Tetrachloro-m-xylene	84.6%	-	% Recovery	06/02/22	DS	
Decachlorobiphenyl	94.4%	-	% Recovery	06/02/22	DS	
Analysis Information						
Dry Weight Solids	77.5%	-	% by weight	06/01/22	LB	
PCB Extraction	Completed	-	-	06/01/22	LB	

Sample Description:		HA-33, 0-1', 10:05, 5/26/22				
Laboratory ID:	12338-19	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1254	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Polychlorinated biphenyls (Total)	Not Detected	700	µg/Kg, dry wt.	06/02/22	DS	
Surrogate Standards						
Tetrachloro-m-xylene	84.9%	-	% Recovery	06/02/22	DS	
Decachlorobiphenyl	110%	-	% Recovery	06/02/22	DS	
Analysis Information						
Dry Weight Solids	72.9%	-	% by weight	06/01/22	LB	
PCB Extraction	Completed	-	-	06/01/22	LB	

Sample Description:		HA-33, 1-1.5', 10:10, 5/26/22				
Laboratory ID:	12338-20	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1254	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Polychlorinated biphenyls (Total)	Not Detected	700	µg/Kg, dry wt.	06/02/22	DS	
Surrogate Standards						
Tetrachloro-m-xylene	88.5%	-	% Recovery	06/02/22	DS	
Decachlorobiphenyl	115%	-	% Recovery	06/02/22	DS	
Analysis Information						
Dry Weight Solids	77.5%	-	% by weight	06/01/22	LB	
PCB Extraction	Completed	-	-	06/01/22	LB	

Sample Description:		Duplicate 1, 10:11, 5/26/22				
Laboratory ID:	12338-22	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1254	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Polychlorinated biphenyls (Total)	Not Detected	700	µg/Kg, dry wt.	06/02/22	DS	
Surrogate Standards						
Tetrachloro-m-xylene	74.5%	-	% Recovery	06/02/22	DS	
Decachlorobiphenyl	90.5%	-	% Recovery	06/02/22	DS	
Analysis Information						
Dry Weight Solids	80.1%	-	% by weight	06/01/22	LB	
PCB Extraction	Completed	-	-	06/01/22	LB	

Sample Description:		HA-34, 0-1', 10:20, 5/26/22				
Laboratory ID:	12338-23	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1254	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Polychlorinated biphenyls (Total)	Not Detected	700	µg/Kg, dry wt.	06/02/22	DS	
Surrogate Standards						
Tetrachloro-m-xylene	107%	-	% Recovery	06/02/22	DS	
Decachlorobiphenyl	145%	-	% Recovery	06/02/22	DS	
Analysis Information						
Dry Weight Solids	69.6%	-	% by weight	06/01/22	LB	
PCB Extraction	Completed	-	-	06/01/22	LB	

Sample Description:		HA-34, 1-1.5', 10:23, 5/26/22				
Laboratory ID:	12338-24	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1254	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Polychlorinated biphenyls (Total)	Not Detected	700	µg/Kg, dry wt.	06/02/22	DS	
Surrogate Standards						
Tetrachloro-m-xylene	107%	-	% Recovery	06/02/22	DS	
Decachlorobiphenyl	149%	-	% Recovery	06/02/22	DS	
Analysis Information						
Dry Weight Solids	79.0%	-	% by weight	06/01/22	LB	
PCB Extraction	Completed	-	-	06/01/22	LB	

Sample Description:		HA-35, 0-1', 10:30, 5/26/22				
Laboratory ID:	12338-26	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	06/06/22	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	06/06/22	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	06/06/22	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	06/06/22	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	06/06/22	DS	
Aroclor 1254	878	100	µg/Kg, dry wt.	06/06/22	DS	
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	06/06/22	DS	
Polychlorinated biphenyls (Total)	878	700	µg/Kg, dry wt.	06/06/22	DS	
Surrogate Standards						
Tetrachloro-m-xylene	101%	-	% Recovery	06/02/22	DS	
Decachlorobiphenyl	115%	-	% Recovery	06/02/22	DS	
Analysis Information						
Dry Weight Solids	70.3%	-	% by weight	06/01/22	LB	
PCB Extraction	Completed	-	-	06/01/22	LB	

Sample Description:		HA-35, 1-1.5', 10:33, 5/26/22				
Laboratory ID:	12338-27	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1254	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Polychlorinated biphenyls (Total)	Not Detected	700	µg/Kg, dry wt.	06/02/22	DS	
Surrogate Standards						
Tetrachloro-m-xylene	115%	-	% Recovery	06/02/22	DS	
Decachlorobiphenyl	143%	-	% Recovery	06/02/22	DS	
Analysis Information						
Dry Weight Solids	79.2%	-	% by weight	06/01/22	LB	
PCB Extraction	Completed	-	-	06/01/22	LB	

Sample Description:		HA-36, 0-1', 10:45, 5/26/22				
Laboratory ID:	12338-29	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1254	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Polychlorinated biphenyls (Total)	Not Detected	700	µg/Kg, dry wt.	06/02/22	DS	
Surrogate Standards						
Tetrachloro-m-xylene	106%	-	% Recovery	06/02/22	DS	
Decachlorobiphenyl	112%	-	% Recovery	06/02/22	DS	
Analysis Information						
Dry Weight Solids	72.6%	-	% by weight	06/02/22	LB	
PCB Extraction	Completed	-	-	06/02/22	LB	

Sample Description:		HA-36, 1-1.5', 10:48, 5/26/22				
Laboratory ID:	12338-30	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1254	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Polychlorinated biphenyls (Total)	Not Detected	700	µg/Kg, dry wt.	06/02/22	DS	
Surrogate Standards						
Tetrachloro-m-xylene	92.1%	-	% Recovery	06/02/22	DS	
Decachlorobiphenyl	96.7%	-	% Recovery	06/02/22	DS	
Analysis Information						
Dry Weight Solids	80.1%	-	% by weight	06/02/22	LB	
PCB Extraction	Completed	-	-	06/02/22	LB	

Sample Description:		Field Rinsate 1, 11:00, 5/26/22				
Laboratory ID:	12338-32	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	0.2	µg/L	06/02/22	DS	
Aroclor 1221	Not Detected	0.2	µg/L	06/02/22	DS	
Aroclor 1232	Not Detected	0.2	µg/L	06/02/22	DS	
Aroclor 1242	Not Detected	0.2	µg/L	06/02/22	DS	
Aroclor 1248	Not Detected	0.2	µg/L	06/02/22	DS	
Aroclor 1254	Not Detected	0.2	µg/L	06/02/22	DS	
Aroclor 1260	Not Detected	0.2	µg/L	06/02/22	DS	
Polychlorinated biphenyls (Total)	Not Detected	2	µg/L	06/02/22	DS	
Surrogate Standards						
Tetrachloro-m-xylene	85.8%	-	% Recovery	06/02/22	DS	
Decachlorobiphenyl	79.0%	-	% Recovery	06/02/22	DS	
Analysis Information						
PCB Extraction	Completed	-	-	06/01/22	LB	

Data Qualifiers: I Internal Standard results outside of acceptance limits
 S QC spike recovery outside of acceptance limits
 R RPD outside of acceptance limits
 E Reporting limit is elevated
 D Result is from a dilution
 J Result should be considered estimated
 M Matrix interference observed
 F Matrix Spike four times rule applied
 C See Case Narrative

Sample Description:		HA-37, 0-1', 11:05, 5/26/22				
Laboratory ID:	12338-33	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1254	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Polychlorinated biphenyls (Total)	Not Detected	700	µg/Kg, dry wt.	06/02/22	DS	
Surrogate Standards						
Tetrachloro-m-xylene	108%	-	% Recovery	06/02/22	DS	
Decachlorobiphenyl	124%	-	% Recovery	06/02/22	DS	
Analysis Information						
Dry Weight Solids	73.2%	-	% by weight	06/02/22	LB	
PCB Extraction	Completed	-	-	06/02/22	LB	

Sample Description:		HA-37, 1-1.5', 11:10, 5/26/22				
Laboratory ID:	12338-34	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1254	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Polychlorinated biphenyls (Total)	Not Detected	700	µg/Kg, dry wt.	06/02/22	DS	
Surrogate Standards						
Tetrachloro-m-xylene	92.2%	-	% Recovery	06/02/22	DS	
Decachlorobiphenyl	104%	-	% Recovery	06/02/22	DS	
Analysis Information						
Dry Weight Solids	80.6%	-	% by weight	06/02/22	LB	
PCB Extraction	Completed	-	-	06/02/22	LB	

Sample Description:		HA-38, 0-1', 11:32, 5/26/22				
Laboratory ID:	12338-36	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1254	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Polychlorinated biphenyls (Total)	Not Detected	700	µg/Kg, dry wt.	06/02/22	DS	
Surrogate Standards						
Tetrachloro-m-xylene	109%	-	% Recovery	06/02/22	DS	
Decachlorobiphenyl	113%	-	% Recovery	06/02/22	DS	
Analysis Information						
Dry Weight Solids	76.5%	-	% by weight	06/02/22	LB	
PCB Extraction	Completed	-	-	06/02/22	LB	

Sample Description:		HA-38, 1-1.5', 11:41, 5/26/22				
Laboratory ID:	12338-37	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1254	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Polychlorinated biphenyls (Total)	Not Detected	700	µg/Kg, dry wt.	06/02/22	DS	
Surrogate Standards						
Tetrachloro-m-xylene	93.4%	-	% Recovery	06/02/22	DS	
Decachlorobiphenyl	99.4%	-	% Recovery	06/02/22	DS	
Analysis Information						
Dry Weight Solids	74.9%	-	% by weight	06/02/22	LB	
PCB Extraction	Completed	-	-	06/02/22	LB	

Sample Description:		HA-39, 0-1', 11:57, 5/26/22				
Laboratory ID:	12338-39	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1254	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Polychlorinated biphenyls (Total)	Not Detected	700	µg/Kg, dry wt.	06/02/22	DS	
Surrogate Standards						
Tetrachloro-m-xylene	113%	-	% Recovery	06/02/22	DS	
Decachlorobiphenyl	107%	-	% Recovery	06/02/22	DS	
Analysis Information						
Dry Weight Solids	76.4%	-	% by weight	06/02/22	LB	
PCB Extraction	Completed	-	-	06/02/22	LB	

Sample Description:		HA-39, 1-1.5', 12:00, 5/26/22				
Laboratory ID:	12338-40	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1254	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Polychlorinated biphenyls (Total)	Not Detected	700	µg/Kg, dry wt.	06/02/22	DS	
Surrogate Standards						
Tetrachloro-m-xylene	115%	-	% Recovery	06/02/22	DS	
Decachlorobiphenyl	109%	-	% Recovery	06/02/22	DS	
Analysis Information						
Dry Weight Solids	80.2%	-	% by weight	06/02/22	LB	
PCB Extraction	Completed	-	-	06/02/22	LB	

Sample Description:		Surface 1, 11:15, 5/26/22				
Laboratory ID:	12338-42	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1254	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Polychlorinated biphenyls (Total)	Not Detected	700	µg/Kg, dry wt.	06/02/22	DS	
Surrogate Standards						
Tetrachloro-m-xylene	106%	-	% Recovery	06/02/22	DS	
Decachlorobiphenyl	102%	-	% Recovery	06/02/22	DS	
Analysis Information						
Dry Weight Solids	67.0%	-	% by weight	06/02/22	LB	
PCB Extraction	Completed	-	-	06/02/22	LB	

Sample Description:		Surface 2, 11:20, 5/26/22				
Laboratory ID:	12338-43	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1254	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Polychlorinated biphenyls (Total)	Not Detected	700	µg/Kg, dry wt.	06/02/22	DS	
Surrogate Standards						
Tetrachloro-m-xylene	111%	-	% Recovery	06/02/22	DS	
Decachlorobiphenyl	104%	-	% Recovery	06/02/22	DS	
Analysis Information						
Dry Weight Solids	69.0%	-	% by weight	06/02/22	LB	
PCB Extraction	Completed	-	-	06/02/22	LB	

Sample Description:		Duplicate 2, 11:21, 5/26/22				
Laboratory ID:	12338-44	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1254	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Polychlorinated biphenyls (Total)	Not Detected	700	µg/Kg, dry wt.	06/02/22	DS	
Surrogate Standards						
Tetrachloro-m-xylene	108%	-	% Recovery	06/02/22	DS	
Decachlorobiphenyl	102%	-	% Recovery	06/02/22	DS	
Analysis Information						
Dry Weight Solids	69.2%	-	% by weight	06/02/22	LB	
PCB Extraction	Completed	-	-	06/02/22	LB	

Sample Description:		Surface 3, 11:26, 5/26/22				
Laboratory ID:	12338-45	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1254	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Polychlorinated biphenyls (Total)	Not Detected	700	µg/Kg, dry wt.	06/02/22	DS	
Surrogate Standards						
Tetrachloro-m-xylene	98.9%	-	% Recovery	06/02/22	DS	
Decachlorobiphenyl	92.0%	-	% Recovery	06/02/22	DS	
Analysis Information						
Dry Weight Solids	68.8%	-	% by weight	06/02/22	LB	
PCB Extraction	Completed	-	-	06/02/22	LB	

Sample Description:		Surface 4, 11:34, 5/26/22				
Laboratory ID:	12338-46	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1254	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Polychlorinated biphenyls (Total)	Not Detected	700	µg/Kg, dry wt.	06/02/22	DS	
Surrogate Standards						
Tetrachloro-m-xylene	110%	-	% Recovery	06/02/22	DS	
Decachlorobiphenyl	134%	-	% Recovery	06/02/22	DS	
Analysis Information						
Dry Weight Solids	67.0%	-	% by weight	06/02/22	LB	
PCB Extraction	Completed	-	-	06/02/22	LB	

Sample Description:		Surface 5, 11:41, 5/26/22				
Laboratory ID:	12338-47	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1254	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Polychlorinated biphenyls (Total)	Not Detected	700	µg/Kg, dry wt.	06/02/22	DS	
Surrogate Standards						
Tetrachloro-m-xylene	101%	-	% Recovery	06/02/22	DS	
Decachlorobiphenyl	170%	-	% Recovery	06/02/22	DS	S, M
Analysis Information						
Dry Weight Solids	77.0%	-	% by weight	06/02/22	LB	
PCB Extraction	Completed	-	-	06/02/22	LB	

Sample Description:		Surface 6, 11:45, 5/26/22				
Laboratory ID:	12338-48	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1254	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Polychlorinated biphenyls (Total)	Not Detected	700	µg/Kg, dry wt.	06/02/22	DS	
Surrogate Standards						
Tetrachloro-m-xylene	124%	-	% Recovery	06/02/22	DS	
Decachlorobiphenyl	211%	-	% Recovery	06/02/22	DS	S, M
Analysis Information						
Dry Weight Solids	75.1%	-	% by weight	06/02/22	LB	
PCB Extraction	Completed	-	-	06/02/22	LB	

Sample Description:		Surface 7, 11:52, 5/26/22				
Laboratory ID:	12338-49	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1254	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Polychlorinated biphenyls (Total)	Not Detected	700	µg/Kg, dry wt.	06/02/22	DS	
Surrogate Standards						
Tetrachloro-m-xylene	105%	-	% Recovery	06/02/22	DS	
Decachlorobiphenyl	152%	-	% Recovery	06/02/22	DS	
Analysis Information						
Dry Weight Solids	69.8%	-	% by weight	06/02/22	LB	
PCB Extraction	Completed	-	-	06/02/22	LB	

Sample Description:		Surface 8, 11:57, 5/26/22				
Laboratory ID:	12338-50	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1254	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Polychlorinated biphenyls (Total)	Not Detected	700	µg/Kg, dry wt.	06/02/22	DS	
Surrogate Standards						
Tetrachloro-m-xylene	75.1%	-	% Recovery	06/02/22	DS	
Decachlorobiphenyl	95.7%	-	% Recovery	06/02/22	DS	
Analysis Information						
Dry Weight Solids	70.3%	-	% by weight	06/02/22	LB	
PCB Extraction	Completed	-	-	06/02/22	LB	

Sample Description:		CS-1, 100cm ² , 9:25, 5/27/22				
Laboratory ID:	12338-51	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	0.20	µg/100cm ²	06/06/22	DS	
Aroclor 1221	Not Detected	0.20	µg/100cm ²	06/06/22	DS	
Aroclor 1232	Not Detected	0.20	µg/100cm ²	06/06/22	DS	
Aroclor 1242	Not Detected	0.20	µg/100cm ²	06/06/22	DS	
Aroclor 1248	Not Detected	0.20	µg/100cm ²	06/06/22	DS	
Aroclor 1254	0.67	0.20	µg/100cm ²	06/06/22	DS	
Aroclor 1260	Not Detected	0.20	µg/100cm ²	06/06/22	DS	
Polychlorinated biphenyls (Total)	Not Detected	1.40	µg/100cm ²	06/06/22	DS	
Surrogate Standards						
Tetrachloro-m-xylene	106%	-	% Recovery	06/06/22	DS	
Decachlorobiphenyl	154%	-	% Recovery	06/06/22	DS	
Analysis Information						
PCB Extraction	Completed	-	-	06/06/22	LB	

Sample Description:		CS-2, 100cm ² , 9:32, 5/27/22				
Laboratory ID:	12338-52	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	0.20	µg/100cm ²	06/06/22	DS	
Aroclor 1221	Not Detected	0.20	µg/100cm ²	06/06/22	DS	
Aroclor 1232	Not Detected	0.20	µg/100cm ²	06/06/22	DS	
Aroclor 1242	Not Detected	0.20	µg/100cm ²	06/06/22	DS	
Aroclor 1248	Not Detected	0.20	µg/100cm ²	06/06/22	DS	
Aroclor 1254	10.2	0.20	µg/100cm ²	06/07/22	DS	D
Aroclor 1260	Not Detected	0.20	µg/100cm ²	06/06/22	DS	
Polychlorinated biphenyls (Total)	10.2	1.40	µg/100cm ²	06/07/22	DS	D
Surrogate Standards						
Tetrachloro-m-xylene	96.0%	-	% Recovery	06/06/22	DS	
Decachlorobiphenyl	123%	-	% Recovery	06/06/22	DS	
Analysis Information						
PCB Extraction	Completed	-	-	06/06/22	LB	

Sample Description:		CS-3, 100cm ² , 9:45, 5/27/22				
Laboratory ID:	12338-53	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	0.20	µg/100cm ²	06/06/22	DS	
Aroclor 1221	Not Detected	0.20	µg/100cm ²	06/06/22	DS	
Aroclor 1232	Not Detected	0.20	µg/100cm ²	06/06/22	DS	
Aroclor 1242	Not Detected	0.20	µg/100cm ²	06/06/22	DS	
Aroclor 1248	Not Detected	0.20	µg/100cm ²	06/06/22	DS	
Aroclor 1254	0.33	0.20	µg/100cm ²	06/06/22	DS	
Aroclor 1260	Not Detected	0.20	µg/100cm ²	06/06/22	DS	
Polychlorinated biphenyls (Total)	Not Detected	1.40	µg/100cm ²	06/06/22	DS	
Surrogate Standards						
Tetrachloro-m-xylene	79.0%	-	% Recovery	06/06/22	DS	
Decachlorobiphenyl	88.7%	-	% Recovery	06/06/22	DS	
Analysis Information						
PCB Extraction	Completed	-	-	06/06/22	LB	

Sample Description:		CS-4, 100cm ² , 9:50, 5/27/22				
Laboratory ID:	12338-54	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	0.20	µg/100cm ²	06/06/22	DS	
Aroclor 1221	Not Detected	0.20	µg/100cm ²	06/06/22	DS	
Aroclor 1232	Not Detected	0.20	µg/100cm ²	06/06/22	DS	
Aroclor 1242	Not Detected	0.20	µg/100cm ²	06/06/22	DS	
Aroclor 1248	Not Detected	0.20	µg/100cm ²	06/06/22	DS	
Aroclor 1254	6.45	0.20	µg/100cm ²	06/07/22	DS	D
Aroclor 1260	Not Detected	0.20	µg/100cm ²	06/06/22	DS	
Polychlorinated biphenyls (Total)	6.45	1.40	µg/100cm ²	06/07/22	DS	D
Surrogate Standards						
Tetrachloro-m-xylene	100%	-	% Recovery	06/06/22	DS	
Decachlorobiphenyl	114%	-	% Recovery	06/06/22	DS	
Analysis Information						
PCB Extraction	Completed	-	-	06/06/22	LB	

Sample Description:		CS-5, 100cm ² , 9:55, 5/27/22				
Laboratory ID:	12338-55	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	0.20	µg/100cm ²	06/06/22	DS	
Aroclor 1221	Not Detected	0.20	µg/100cm ²	06/06/22	DS	
Aroclor 1232	Not Detected	0.20	µg/100cm ²	06/06/22	DS	
Aroclor 1242	Not Detected	0.20	µg/100cm ²	06/06/22	DS	
Aroclor 1248	Not Detected	0.20	µg/100cm ²	06/06/22	DS	
Aroclor 1254	0.55	0.20	µg/100cm ²	06/06/22	DS	
Aroclor 1260	Not Detected	0.20	µg/100cm ²	06/06/22	DS	
Polychlorinated biphenyls (Total)	Not Detected	1.40	µg/100cm ²	06/06/22	DS	
Surrogate Standards						
Tetrachloro-m-xylene	101%	-	% Recovery	06/06/22	DS	
Decachlorobiphenyl	103%	-	% Recovery	06/06/22	DS	
Analysis Information						
PCB Extraction	Completed	-	-	06/06/22	LB	

Sample Description:		CS-6, 100cm ² , 10:03, 5/27/22				
Laboratory ID:	12338-56	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	0.20	µg/100cm ²	06/06/22	DS	
Aroclor 1221	Not Detected	0.20	µg/100cm ²	06/06/22	DS	
Aroclor 1232	Not Detected	0.20	µg/100cm ²	06/06/22	DS	
Aroclor 1242	Not Detected	0.20	µg/100cm ²	06/06/22	DS	
Aroclor 1248	Not Detected	0.20	µg/100cm ²	06/06/22	DS	
Aroclor 1254	0.42	0.20	µg/100cm ²	06/06/22	DS	
Aroclor 1260	Not Detected	0.20	µg/100cm ²	06/06/22	DS	
Polychlorinated biphenyls (Total)	Not Detected	1.40	µg/100cm ²	06/06/22	DS	
Surrogate Standards						
Tetrachloro-m-xylene	103%	-	% Recovery	06/06/22	DS	
Decachlorobiphenyl	104%	-	% Recovery	06/06/22	DS	
Analysis Information						
PCB Extraction	Completed	-	-	06/06/22	LB	

Sample Description:		CS-7, 100cm ² , 10:08, 5/27/22				
Laboratory ID:	12338-57	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	0.20	µg/100cm ²	06/06/22	DS	
Aroclor 1221	Not Detected	0.20	µg/100cm ²	06/06/22	DS	
Aroclor 1232	Not Detected	0.20	µg/100cm ²	06/06/22	DS	
Aroclor 1242	Not Detected	0.20	µg/100cm ²	06/06/22	DS	
Aroclor 1248	Not Detected	0.20	µg/100cm ²	06/06/22	DS	
Aroclor 1254	0.28	0.20	µg/100cm ²	06/06/22	DS	
Aroclor 1260	Not Detected	0.20	µg/100cm ²	06/06/22	DS	
Polychlorinated biphenyls (Total)	Not Detected	1.40	µg/100cm ²	06/06/22	DS	
Surrogate Standards						
Tetrachloro-m-xylene	94.6%	-	% Recovery	06/06/22	DS	
Decachlorobiphenyl	99.4%	-	% Recovery	06/06/22	DS	
Analysis Information						
PCB Extraction	Completed	-	-	06/06/22	LB	

Sample Description:		CS-8, 100cm ² , 10:17, 5/27/22				
Laboratory ID:	12338-58	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	0.20	µg/100cm ²	06/06/22	DS	
Aroclor 1221	Not Detected	0.20	µg/100cm ²	06/06/22	DS	
Aroclor 1232	Not Detected	0.20	µg/100cm ²	06/06/22	DS	
Aroclor 1242	Not Detected	0.20	µg/100cm ²	06/06/22	DS	
Aroclor 1248	Not Detected	0.20	µg/100cm ²	06/06/22	DS	
Aroclor 1254	0.86	0.20	µg/100cm ²	06/06/22	DS	
Aroclor 1260	Not Detected	0.20	µg/100cm ²	06/06/22	DS	
Polychlorinated biphenyls (Total)	Not Detected	1.40	µg/100cm ²	06/06/22	DS	
Surrogate Standards						
Tetrachloro-m-xylene	101%	-	% Recovery	06/06/22	DS	
Decachlorobiphenyl	113%	-	% Recovery	06/06/22	DS	
Analysis Information						
PCB Extraction	Completed	-	-	06/06/22	LB	

Sample Description:		CS-9, 100cm ² , 10:28, 5/27/22				
Laboratory ID:	12338-59	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	0.20	µg/100cm ²	06/06/22	DS	
Aroclor 1221	Not Detected	0.20	µg/100cm ²	06/06/22	DS	
Aroclor 1232	Not Detected	0.20	µg/100cm ²	06/06/22	DS	
Aroclor 1242	Not Detected	0.20	µg/100cm ²	06/06/22	DS	
Aroclor 1248	Not Detected	0.20	µg/100cm ²	06/06/22	DS	
Aroclor 1254	0.34	0.20	µg/100cm ²	06/06/22	DS	
Aroclor 1260	Not Detected	0.20	µg/100cm ²	06/06/22	DS	
Polychlorinated biphenyls (Total)	Not Detected	1.40	µg/100cm ²	06/06/22	DS	
Surrogate Standards						
Tetrachloro-m-xylene	79.8%	-	% Recovery	06/06/22	DS	
Decachlorobiphenyl	101%	-	% Recovery	06/06/22	DS	
Analysis Information						
PCB Extraction	Completed	-	-	06/06/22	LB	

Sample Description:		Duplicate 3, 100cm ² , 9:57, 5/27/22				
Laboratory ID:	12338-60	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	0.20	µg/100cm ²	06/06/22	DS	
Aroclor 1221	Not Detected	0.20	µg/100cm ²	06/06/22	DS	
Aroclor 1232	Not Detected	0.20	µg/100cm ²	06/06/22	DS	
Aroclor 1242	Not Detected	0.20	µg/100cm ²	06/06/22	DS	
Aroclor 1248	Not Detected	0.20	µg/100cm ²	06/06/22	DS	
Aroclor 1254	0.36	0.20	µg/100cm ²	06/06/22	DS	
Aroclor 1260	Not Detected	0.20	µg/100cm ²	06/06/22	DS	
Polychlorinated biphenyls (Total)	Not Detected	1.40	µg/100cm ²	06/06/22	DS	
Surrogate Standards						
Tetrachloro-m-xylene	82.5%	-	% Recovery	06/06/22	DS	
Decachlorobiphenyl	96.9%	-	% Recovery	06/06/22	DS	
Analysis Information						
PCB Extraction	Completed	-	-	06/06/22	LB	

Sample Description:		CS-10, 100cm ² , 10:30, 5/27/22				
Laboratory ID:	12338-61	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	0.20	µg/100cm ²	06/06/22	DS	
Aroclor 1221	Not Detected	0.20	µg/100cm ²	06/06/22	DS	
Aroclor 1232	Not Detected	0.20	µg/100cm ²	06/06/22	DS	
Aroclor 1242	Not Detected	0.20	µg/100cm ²	06/06/22	DS	
Aroclor 1248	Not Detected	0.20	µg/100cm ²	06/06/22	DS	
Aroclor 1254	0.43	0.20	µg/100cm ²	06/06/22	DS	
Aroclor 1260	Not Detected	0.20	µg/100cm ²	06/06/22	DS	
Polychlorinated biphenyls (Total)	Not Detected	1.40	µg/100cm ²	06/06/22	DS	
Surrogate Standards						
Tetrachloro-m-xylene	100%	-	% Recovery	06/06/22	DS	
Decachlorobiphenyl	99.6%	-	% Recovery	06/06/22	DS	
Analysis Information						
PCB Extraction	Completed	-	-	06/06/22	LB	

Sample Description:		Field Rinsate 2, 3:30, 5/27/22				
Laboratory ID:	12338-62	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	0.2	µg/L	06/02/22	DS	
Aroclor 1221	Not Detected	0.2	µg/L	06/02/22	DS	
Aroclor 1232	Not Detected	0.2	µg/L	06/02/22	DS	
Aroclor 1242	Not Detected	0.2	µg/L	06/02/22	DS	
Aroclor 1248	Not Detected	0.2	µg/L	06/02/22	DS	
Aroclor 1254	Not Detected	0.2	µg/L	06/02/22	DS	
Aroclor 1260	Not Detected	0.2	µg/L	06/02/22	DS	
Polychlorinated biphenyls (Total)	Not Detected	2	µg/L	06/02/22	DS	
Surrogate Standards						
Tetrachloro-m-xylene	80.8%	-	% Recovery	06/02/22	DS	
Decachlorobiphenyl	103%	-	% Recovery	06/02/22	DS	
Analysis Information						
PCB Extraction	Completed	-	-	06/01/22	LB	

Sample Description:		Wall Sample 11, 11:19, 5/27/22				
Laboratory ID:	12338-63	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	06/06/22	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	06/06/22	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	06/06/22	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	06/06/22	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	06/06/22	DS	
Aroclor 1254	2,500	100	µg/Kg, dry wt.	06/06/22	DS	
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	06/06/22	DS	
Polychlorinated biphenyls (Total)	2,500	700	µg/Kg, dry wt.	06/06/22	DS	
Surrogate Standards						
Tetrachloro-m-xylene	77.7%	-	% Recovery	06/02/22	DS	
Decachlorobiphenyl	95.9%	-	% Recovery	06/02/22	DS	
Analysis Information						
Dry Weight Solids	99.1%	-	% by weight	06/02/22	LB	
PCB Extraction	Completed	-	-	06/02/22	LB	

Sample Description:		Wall Sample 12, 11:48, 5/27/22				
Laboratory ID:	12338-64	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	06/06/22	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	06/06/22	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	06/06/22	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	06/06/22	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	06/06/22	DS	
Aroclor 1254	39,500	100	µg/Kg, dry wt.	06/06/22	DS	D
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	06/06/22	DS	
Polychlorinated biphenyls (Total)	39,500	700	µg/Kg, dry wt.	06/06/22	DS	D
Surrogate Standards						
Tetrachloro-m-xylene	83.3%	-	% Recovery	06/02/22	DS	
Decachlorobiphenyl	91.9%	-	% Recovery	06/02/22	DS	
Analysis Information						
Dry Weight Solids	98.7%	-	% by weight	06/02/22	LB	
PCB Extraction	Completed	-	-	06/02/22	LB	

Sample Description:		Wall Sample 13, 12:14, 5/27/22				
Laboratory ID:	12338-65	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	06/06/22	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	06/06/22	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	06/06/22	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	06/06/22	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	06/06/22	DS	
Aroclor 1254	397,000	100	µg/Kg, dry wt.	06/06/22	DS	D
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	06/06/22	DS	
Polychlorinated biphenyls (Total)	397,000	700	µg/Kg, dry wt.	06/06/22	DS	D
Surrogate Standards						
Tetrachloro-m-xylene	79.0%	-	% Recovery	06/02/22	DS	
Decachlorobiphenyl	87.9%	-	% Recovery	06/02/22	DS	
Analysis Information						
Dry Weight Solids	97.3%	-	% by weight	06/02/22	LB	
PCB Extraction	Completed	-	-	06/02/22	LB	

Sample Description:		Wall Sample 14, 12:45, 5/27/22				
Laboratory ID:	12338-66	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	06/06/22	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	06/06/22	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	06/06/22	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	06/06/22	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	06/06/22	DS	
Aroclor 1254	32,800	100	µg/Kg, dry wt.	06/06/22	DS	D
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	06/06/22	DS	
Polychlorinated biphenyls (Total)	32,800	700	µg/Kg, dry wt.	06/06/22	DS	D
Surrogate Standards						
Tetrachloro-m-xylene	82.1%	-	% Recovery	06/02/22	DS	
Decachlorobiphenyl	102%	-	% Recovery	06/02/22	DS	
Analysis Information						
Dry Weight Solids	91.7%	-	% by weight	06/02/22	LB	
PCB Extraction	Completed	-	-	06/02/22	LB	

Sample Description:		Wall Sample 15, 1:11, 5/27/22				
Laboratory ID:	12338-67	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	06/06/22	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	06/06/22	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	06/06/22	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	06/06/22	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	06/06/22	DS	
Aroclor 1254	4,580	100	µg/Kg, dry wt.	06/06/22	DS	
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	06/06/22	DS	
Polychlorinated biphenyls (Total)	4,580	700	µg/Kg, dry wt.	06/06/22	DS	
Surrogate Standards						
Tetrachloro-m-xylene	80.5%	-	% Recovery	06/02/22	DS	
Decachlorobiphenyl	81.4%	-	% Recovery	06/02/22	DS	
Analysis Information						
Dry Weight Solids	98.4%	-	% by weight	06/02/22	LB	
PCB Extraction	Completed	-	-	06/02/22	LB	

Sample Description:		Duplicate 4, 12:34, 5/27/22				
Laboratory ID:	12338-68	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	06/06/22	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	06/06/22	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	06/06/22	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	06/06/22	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	06/06/22	DS	
Aroclor 1254	349,000	100	µg/Kg, dry wt.	06/06/22	DS	D
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	06/06/22	DS	
Polychlorinated biphenyls (Total)	349,000	700	µg/Kg, dry wt.	06/06/22	DS	D
Surrogate Standards						
Tetrachloro-m-xylene	72.6%	-	% Recovery	06/02/22	DS	
Decachlorobiphenyl	90.2%	-	% Recovery	06/02/22	DS	
Analysis Information						
Dry Weight Solids	96.2%	-	% by weight	06/02/22	LB	
PCB Extraction	Completed	-	-	06/02/22	LB	

Sample Description:		Wall Sample 16, 1:33, 5/27/22				
Laboratory ID:	12338-69	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	06/06/22	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	06/06/22	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	06/06/22	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	06/06/22	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	06/06/22	DS	
Aroclor 1254	222,000	100	µg/Kg, dry wt.	06/06/22	DS	D
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	06/06/22	DS	
Polychlorinated biphenyls (Total)	222,000	700	µg/Kg, dry wt.	06/06/22	DS	D
Surrogate Standards						
Tetrachloro-m-xylene	80.9%	-	% Recovery	06/02/22	DS	
Decachlorobiphenyl	100%	-	% Recovery	06/02/22	DS	
Analysis Information						
Dry Weight Solids	99.1%	-	% by weight	06/02/22	LB	
PCB Extraction	Completed	-	-	06/02/22	LB	

Sample Description:		Wall Sample 17, 1:53, 5/27/22				
Laboratory ID:	12338-70	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	06/06/22	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	06/06/22	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	06/06/22	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	06/06/22	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	06/06/22	DS	
Aroclor 1254	1,180	100	µg/Kg, dry wt.	06/06/22	DS	
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	06/06/22	DS	
Polychlorinated biphenyls (Total)	1,180	700	µg/Kg, dry wt.	06/06/22	DS	
Surrogate Standards						
Tetrachloro-m-xylene	81.5%	-	% Recovery	06/02/22	DS	
Decachlorobiphenyl	84.0%	-	% Recovery	06/06/22	DS	
Analysis Information						
Dry Weight Solids	99.9%	-	% by weight	06/02/22	LB	
PCB Extraction	Completed	-	-	06/02/22	LB	

Sample Description:		Wall Sample 18, 2:33, 5/27/22				
Laboratory ID:	12338-71	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	06/06/22	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	06/06/22	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	06/06/22	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	06/06/22	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	06/06/22	DS	
Aroclor 1254	1,510	100	µg/Kg, dry wt.	06/06/22	DS	
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	06/06/22	DS	
Polychlorinated biphenyls (Total)	1,510	700	µg/Kg, dry wt.	06/06/22	DS	
Surrogate Standards						
Tetrachloro-m-xylene	75.1%	-	% Recovery	06/02/22	DS	
Decachlorobiphenyl	88.8%	-	% Recovery	06/02/22	DS	
Analysis Information						
Dry Weight Solids	98.0%	-	% by weight	06/02/22	LB	
PCB Extraction	Completed	-	-	06/02/22	LB	

Sample Description:		Wall Sample 19, 2:57, 5/27/22				
Laboratory ID:	12338-72	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	06/06/02	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	06/06/02	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	06/06/02	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	06/06/02	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	06/06/02	DS	
Aroclor 1254	1,590	100	µg/Kg, dry wt.	06/06/02	DS	
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	06/06/02	DS	
Polychlorinated biphenyls (Total)	1,590	700	µg/Kg, dry wt.	06/06/02	DS	
Surrogate Standards						
Tetrachloro-m-xylene	84.3%	-	% Recovery	06/02/22	DS	
Decachlorobiphenyl	84.6%	-	% Recovery	06/02/22	DS	
Analysis Information						
Dry Weight Solids	99.6%	-	% by weight	06/02/22	LB	
PCB Extraction	Completed	-	-	06/02/22	LB	

Sample Description:		Wall Sample 20, 3:29, 5/27/22				
Laboratory ID:	12338-73	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	06/06/22	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	06/06/22	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	06/06/22	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	06/06/22	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	06/06/22	DS	
Aroclor 1254	1,720	100	µg/Kg, dry wt.	06/06/22	DS	
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	06/06/22	DS	
Polychlorinated biphenyls (Total)	1,720	700	µg/Kg, dry wt.	06/06/22	DS	
Surrogate Standards						
Tetrachloro-m-xylene	72.1%	-	% Recovery	06/02/22	DS	
Decachlorobiphenyl	84.6%	-	% Recovery	06/02/22	DS	
Analysis Information						
Dry Weight Solids	97.9%	-	% by weight	06/02/22	LB	
PCB Extraction	Completed	-	-	06/02/22	LB	

Quality Control

PCB Matrix Spike Data

Spiked Sample: 12338-1		Matrix: Soil		Units: ppm in extract				
Parameter	Sample Result	Spike Added	MS Result	MSD Result	MS % Rec.	MSD % Rec.	RPD	Data Qualifiers
Aroclor 1260	0.000	0.200	0.281	0.230	140	115	19.8	

Spiked Sample: 12338-17		Matrix: Soil		Units: ppm in extract				
Parameter	Sample Result	Spike Added	MS Result	MSD Result	MS % Rec.	MSD % Rec.	RPD	Data Qualifiers
Aroclor 1260	0.000	0.200	0.232	0.250	116	125	7.4	

Spiked Sample: 12338-45		Matrix: Soil		Units: ppm in extract				
Parameter	Sample Result	Spike Added	MS Result	MSD Result	MS % Rec.	MSD % Rec.	RPD	Data Qualifiers
Aroclor 1260	0.000	0.200	0.318	0.261	159	130	19.6	

Spiked Sample: 12338-72		Matrix: Soil		Units: ppm in extract				
Parameter	Sample Result	Spike Added	MS Result	MSD Result	MS % Rec.	MSD % Rec.	RPD	Data Qualifiers
Aroclor 1260	0.093	0.200	0.328	0.326	118	117	0.6	

Spiked Sample: 12338 LCS		Matrix: Water		Units: ppm in extract				
Parameter	Sample Result	Spike Added	MS Result	MSD Result	MS % Rec.	MSD % Rec.	RPD	Data Qualifiers
Aroclor 1260	0.000	0.200	0.213	0.225	107	112	5.3	

Spiked Sample: 12338 LCS		Matrix: Wipe		Units: ppm in extract				
Parameter	Sample Result	Spike Added	MS Result	MSD Result	MS % Rec.	MSD % Rec.	RPD	Data Qualifiers
Aroclor 1260	0.000	0.200	0.220	0.231	110	115	4.9	

Case Narrative

All method protocols and quality control requirements were satisfied for all samples.

Notes

- (1) Quality Control Limits available upon request.
- (2) Results are applicable only to the sample tested.
- (3) All samples will be discarded after 30 days unless the laboratory receives other instructions.
- (4) Chain of Custody document attached.

QUANTUM LABORATORIES, INC.



David W. Starr
Analytical Chemistry Manager

QUANTUM LABORATORIES, INC.
 28221 Beck Road | Suite A-11
 Wixom, MI 48393
 248-348-TEST or 248-348-8378

Women's Business Enterprise
 National Council
WBENC
 Cert. No. 2005111505



CHAIN OF CUSTODY RECORD

CLIENT INFO	
COMPANY	Applied Environmental
ADDRESS	1210 N. MAPLE ROAD
CITY, STATE, ZIP	ANN ARBOR, MI 48103
TELEPHONE	616-502-6722
FAX	
CONTACT	Michael Schroeder
ADDITIONAL PHONE	
EMAIL ADDRESS	michaels@appliedenv.com, mikeg@appliedenv.com

* SAMPLE TYPE: S=Soil, W=Water, D=Drinking Water, O=Oil/Organic, M=Mixed, V=Vapor, A=Air
 U=Unknown or Other

** GRAB/COMP: G=Grab Sample, C=Composite Sample

PROJECT INFO	
REPORT NO. (LAB USE)	12338 Page 1 of 8
P.O. NUMBER	
PROJECT NUMBER	22-2554
PROJECT NAME	8 MK
SAMPLING LOCATION	1200 8 mile Road oak Park, MI
SAMPLES COLLECTED BY	Michael Schroeder
TURN AROUND TIME	Standard <input type="checkbox"/> Rush <input type="checkbox"/> By Date:
SPECIAL INSTRUCTIONS	

LINE NO.	LAB USE	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	TIME SAMPLED	DATE SAMPLED	SAMPLE TYPE *	GRAB / COMP **	REMARKS / PRESERVATIVES
1		HA-27 (0-1)	1	1:25	5/26	S		
2		HA-27 (1-1.5')	1	1:28	5/26	S		
3		HA-27 (1.5-2')	1	1:30	5/26	S		
4		HA-28 (0-1)	1	12:52	5/26	S		
5		HA-28 (1-1.5')	1	12:55	5/26	S		
6		HA-28 (1.5-2')	1	12:57	5/26	S		
7		HA-29 (0-1)	1	1:12	5/26	S		
8		HA-29 (1-1.5')	1	1:15	5/26	S		
9		HA-29 (1.5-2')	1	1:18	5/26	S		
10		HA-30 (0-1)	1	2:03	5/26	S		

XFEE	RELINQUISHED BY	TIME / DATE	ACCEPTED BY
1	Michael Schroeder	5:10 5/27	Steve Bergquist
2			
3			

SAMPLE RECEIVED
<input type="checkbox"/> Wet Ice
<input type="checkbox"/> Blue Ice

Distribution: White - Lab Copy Yellow - Client Report Pink - Sampler

Data Qualifiers: I Internal Standard results outside of acceptance limits
 S QC spike recovery outside of acceptance limits
 R RPD outside of acceptance limits
 E Reporting limit is elevated
 D Result is from a dilution
 J Result should be considered estimated
 M Matrix interference observed
 T Matrix Spike four times rule applied
 C See Case Narrative

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 28221 Beck Road | Suite A-11
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Women's Business Enterprise
 National Council
WBENC
 Cert. No. 2005111505



CHAIN OF CUSTODY RECORD

COMPANY	Applied Environmental
ADDRESS	1210 W Maple Road
CITY, STATE, ZIP	Ann Arbor, MI 48103
TELEPHONE	616-502-6722
FAX	
CONTACT	Michael Schroeder
ADDITIONAL PHONE	616-502-6722
EMAIL ADDRESS	michael.schroeder@appliedenv.com, Mike@graffire.com

* SAMPLE TYPE: S=Soil, W=Water, D=Drinking Water, O=Oil/Organic, M=Mixed, V=Vapor, A=Air
 U=Unknown or Other

** GRAB/COMP: G=Grab Sample, C=Composite Sample

REPORT NO. (LAB USE)	12338	Page 2 of 8
P.O. NUMBER		
PROJECT NUMBER	22-2554	
PROJECT NAME	8 MK	
SAMPLING LOCATION	12700 8 Mile Road, Oak Park, MI	
SAMPLES COLLECTED BY	Michael Schroeder	
TURN AROUND TIME	<input checked="" type="checkbox"/> Standard <input type="checkbox"/> Rush <input type="checkbox"/> By Date:	
SPECIAL INSTRUCTIONS		

ANALYSIS REQUESTED	REMARKS / PRESERVATIVES
PCBS	
	Hold
	Hold
	Hold

LINE NO.	LAB USE	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	TIME SAMPLED	DATE SAMPLED	SAMPLE TYPE *	GRAB / COMP **
1	HA-30 (1-15)		1	2:06	5/26	S	
2	HA-30 (15-2)		1	2:09	5/26	S	
3	HA-31 (0-1)		1	2:15	5/26	S	
4	HA-31 (1-15)		1	2:18	5/26	S	
5	HA-31 (15-2)		1	2:21	5/26	S	
6	HA-32 (0-1)		1	9:50	5/26	S	
7	HA-32 (1-15)		1	9:52	5/26	S	
8	HA-32 (15-2)		1	10:00	5/26	S	
9	HA-33 (0-1)		1	10:05	5/26	S	
10	HA-33 (1-15)		1	10:10	5/26	S	

ACCEPTED BY	
SAMPLE RECEIVED	<input type="checkbox"/> Wet Ice <input type="checkbox"/> Blue Ice

RELINQUISHED BY	Michael Schroeder	ACCEPTED BY	Amanda Bergquist
TIME / DATE	5:10 5/27		
XFER	1		
	2		
	3		

Distribution: White - Lab Copy Yellow - Client Report Pink - Sampler

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 28221 Beck Road | Suite A-11
 Wixom, MI 48393
 248-348-TEST or 248-348-8378



CHAIN OF CUSTODY RECORD

CLIENT INFO	
COMPANY	Applied Environmental
ADDRESS	1210 N. Maple Rd.
CITY, STATE, ZIP	Ann Arbor, MI 48103
TELEPHONE	616-506-6722
FAX	
CONTACT	Michael Schroeder
ADDITIONAL PHONE	
EMAIL ADDRESS	michaels@appliedenv.com, mich@ea.pfiedenv.com

REPORT NO. (LAB USE)	12338	Page 3 of 8
P.O. NUMBER		
PROJECT NUMBER	22-2554	
PROJECT NAME	8 MK	
SAMPLING LOCATION	12700 8 mile Road, oak flats, MI	
SAMPLES COLLECTED BY	Michael Schroeder	
TURN AROUND TIME	<input checked="" type="checkbox"/> Standard <input type="checkbox"/> Rush	By Date:
SPECIAL INSTRUCTIONS		

* SAMPLE TYPE: S=Soil, W=Water, D=Drinking Water, O=Oil/Organic, M=Mixed, V=Vapor, A=Air
 U=Unknown or Other

** GRAB/COMP: G=Grab Sample, C=Composite Sample

LINE NO.	LAB USE	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	TIME SAMPLED	DATE SAMPLED	SAMPLE TYPE *	GRAB / COMP **	ANALYSIS REQUESTED	REMARKS / PRESERVATIVES
1	21	HA-33 (1-5-2)	1	10:14	5/26	S			
2	22	Duplicate 1	1	10:11	5/26	S			Hold
3	23	HA-34 (0-1)	1	10:20	5/26	S			
4	24	HA-34 (1-15)	1	10:23	5/26	S			
5	25	HA-34 (1-5-2)	1	10:26	5/26	S			Hold
6	26	HA-35 (0-1)	1	10:30	5/26	S			
7	27	HA-35 (1-15)	1	10:33	5/26	S			
8	28	HA-35 (1-5-2)	1	10:35	5/26	S			Hold
9	29	HA-36 (0-1)	1	10:45	5/26	S			
10	30	HA-36 (1-15)	1	10:48	5/26	S			Hold

RELINQUISHED BY	5/27	ACCEPTED BY	
1	Michael Schroeder	5:10	Louise Bergquist
2			
3			

Distribution: White - Lab Copy Yellow - Client Report Pink - Sampler

Data Qualifiers: I Internal Standard results outside of acceptance limits
 S QC spike recovery outside of acceptance limits
 R RPD outside of acceptance limits
 E Reporting limit is elevated
 D Result is from a dilution
 J Result should be considered estimated
 M Matrix interference observed
 T Matrix Spike four times rule applied
 C See Case Narrative

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 Wixom, MI 48393
 248-348-TEST or 248-348-8378

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CHAIN OF CUSTODY RECORD

CLIENT INFO	
COMPANY	Applied Environmental
ADDRESS	1210 N. MAPLE ROAD
CITY, STATE, ZIP	AM ARKET, MI 48103
TELEPHONE	616-500-6722
FAX	
CONTACT	Michael Schroeder
ADDITIONAL PHONE	
EMAIL ADDRESS	michael.s@pprodenu.com

REPORT NO. (LAB USE)	12338	Page 4 of 8
P.O. NUMBER		
PROJECT NUMBER	22-2554	
PROJECT NAME	8 MK	
SAMPLING LOCATION	12700 8 mile Road oak Park, MI	
SAMPLES COLLECTED BY	Michael Schroeder	
TURN AROUND TIME	<input checked="" type="checkbox"/> Standard <input type="checkbox"/> Rush <input type="checkbox"/> By Date:	
SPECIAL INSTRUCTIONS		

* SAMPLE TYPE: S=Soil, W=Water, D=Drinking Water, O=Oil/Organic, M=Mixed, V=Vapor, A=Air
 U=Unknown or Other

** GRAB/COMP: G=Grab Sample, C=Composite Sample

LINE NO.	LAB USE	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	TIME SAMPLED	DATE SAMPLED	SAMPLE TYPE *	GRAB / COMP **	ANALYSIS REQUESTED	REMARKS / PRESERVATIVES
1	HA-36 (1-5-2)		1	10:50	5/26	S			
2	32 Field Rinsate 1		1	11:00	5/26	W			Hold
3	HA-37 (0-1)		1	11:05	5/26	S			
4	HA-37 (1-15)		1	11:10	5/26	S			
5	HA-37 (1-5-2)		1	11:13	5/26	S			Hold
6	HA-38 (0-1)		1	11:32	5/26	S			
7	HA-38 (1-15)		1	11:41	5/26	S			
8	HA-38 (1-5-2)		1	11:44	5/26	S			Hold
9	HA-39 (0-1)		1	11:57	5/26	S			
10	HA-39 (1-15)		1	12:00	5/26	S			Hold

RELINQUISHED BY	TIME / DATE	ACCEPTED BY
Michael Schroeder	5:10 5/27	Louise Bergquist

Distribution: White - Lab Copy Yellow - Client Report Pink - Sampler

Data Qualifiers: I Internal Standard results outside of acceptance limits
 S QC spike recovery outside of acceptance limits
 R RPD outside of acceptance limits
 E Reporting limit is elevated
 D Result is from a dilution
 J Result should be considered estimated
 M Matrix interference observed
 F Matrix Spike four times rule applied
 C See Case Narrative

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CHAIN OF CUSTODY RECORD

CLIENT INFO	
COMPANY	Applied Environmental
ADDRESS	1210 N. MARIE ROAD
CITY, STATE, ZIP	ANN ARBOR, MI 48103
TELEPHONE	616-602-6722
FAX	
CONTACT	Michael Schneider
ADDITIONAL PHONE	
EMAIL ADDRESS	Michael.Schneider@appliedenv.com

REPORT NO. (LAB USE)	12338	Page	9	of	9
P.O. NUMBER		PROJECT NUMBER	22-2554		
PROJECT NAME		PROJECT NAME	8 MK		
SAMPLING LOCATION		SAMPLING LOCATION	1200 8 Mile Road Oak Park, MI		
SAMPLES COLLECTED BY		SAMPLES COLLECTED BY	Michael Schneider		
TURN AROUND TIME		TURN AROUND TIME		Standard	Rush
SPECIAL INSTRUCTIONS		SPECIAL INSTRUCTIONS			By Date:

* SAMPLE TYPE: S=Soil, W=Water, D=Drinking Water, O=Oil/Organic, M=Mixed, V=Vapor, A=Air
 U=Unknown or Other

** GRAB/COMP: G=Grab Sample, C=Composite Sample

LINE NO.	LAB USE	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	TIME SAMPLED	DATE SAMPLED	SAMPLE TYPE *	GRAB / COMP **	REMARKS / PRESERVATIVES
1	41	HA-39 (11-5-2)	1	12:03	5/26	S		
2	42	Surface 1	1	11:15	5/26	S		
3	43	Surface 2	1	11:20	5/26	S		
4	44	Duplicate 2	1	11:21	5/26	S		
5	45	Surface 3	1	11:26	5/26	S		
6	46	Surface 4	1	11:34	5/26	S		
7	47	Surface 5	1	11:41	5/26	S		
8	48	Surface 6	1	11:45	5/26	S		
9	49	Surface 7	1	11:52	5/26	S		
10	50	Surface 8	1	11:57	5/26	S		

XFER	RELINQUISHED BY	TIME / DATE	ACCEPTED BY	SAMPLE RECEIVED
1	Michael Schneider	5:10 5/27	Deuce Berglund	<input type="checkbox"/> Wet Ice <input type="checkbox"/> Blue Ice
2				
3				

Distribution: White - Lab Copy Yellow - Client Report Pink - Sampler

Data Qualifiers: I Internal Standard results outside of acceptance limits
 S QC spike recovery outside of acceptance limits
 R RPD outside of acceptance limits
 E Reporting limit is elevated
 D Result is from a dilution
 J Result should be considered estimated
 M Matrix interference observed
 F Matrix Spike four times rule applied
 C See Case Narrative

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Quantum Laboratories, Inc.

CHAIN OF CUSTODY RECORD

CLIENT INFO	
COMPANY	Applied Environments, Inc.
ADDRESS	1210 N Maple Rd
CITY, STATE, ZIP	Ann Arbor
TELEPHONE	616-502-6722
FAX	
CONTACT	
ADDITIONAL PHONE	
EMAIL ADDRESS	michael@appliedenv.com

REPORT NO. (LAB USE)	12338	Page <u>6</u> of <u>8</u>
P.O. NUMBER		
PROJECT NUMBER	22-2554	
PROJECT NAME	8MK	
SAMPLING LOCATION		
SAMPLES COLLECTED BY	Michael Schaefer	
TURN AROUND TIME	<input checked="" type="checkbox"/> Standard <input type="checkbox"/> Rush <input type="checkbox"/> By Date:	
SPECIAL INSTRUCTIONS		

* SAMPLE TYPE: S=Soil, W=Water, D=Drinking Water, O=Oil/Organic, M=Mixed, V=Vapor, A=Air
 U=Unknown or Other

** GRAB/COMP: G=Grab Sample, C=Composite Sample

LINE NO.	LAB USE	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	TIME SAMPLED	DATE SAMPLED	SAMPLE TYPE *	GRAB / COMP **	REMARKS / PRESERVATIVES
1	CS-1	100cm ²	1	9:25	5/27	← wipe sample →	X	
2	CS-2	100cm ²	1	9:32				
3	CS-3	100cm ²	1	9:45				
4	CS-4	100cm ²	1	9:59				
5	CS-5	100cm ²	1	9:55				
6	CS-6	100cm ²	1	10:03				
7	CS-7	100cm ²	1	10:08				
8	CS-8	100cm ²	1	10:17				
9	CS-9	100cm ²	1	10:28				
10	60 Duplicate	3 100cm ²		9:57	5/27		X	

XFER	RELINQUISHED BY	TIME / DATE	ACCEPTED BY	SAMPLE RECEIVED
1	Michael Schaefer	5:10 5/27	Michael Schaefer	<input type="checkbox"/> Wet Ice <input type="checkbox"/> Blue Ice
2				
3				

Distribution: White - Lab Copy Yellow - Client Report Pink - Sampler

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CHAIN OF CUSTODY RECORD

REPORT NO. (LAB USE) **12338** Page **7** of **8**

P.O. NUMBER

PROJECT NUMBER

PROJECT NAME **see previous**

SAMPLING LOCATION

SAMPLES COLLECTED BY

TURN AROUND TIME Standard Rush By Date:

SPECIAL INSTRUCTIONS

COMPANY

ADDRESS

CITY, STATE, ZIP

TELEPHONE

FAX

CONTACT

ADDITIONAL PHONE

EMAIL ADDRESS

see previous

* SAMPLE TYPE: S=Soil, W=Water, D=Drinking Water, O=Oil/Organic, M=Mixed, V=Vapor, A=Air
 U=Unknown or Other

** GRAB/COMP: G=Grab Sample, C=Composite Sample

LINE NO.	LAB USE	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	TIME SAMPLED	DATE SAMPLED	SAMPLE TYPE *	GRAB / COMP **	REMARKS / PRESERVATIVES
1		CS-10 10ccm ²	1	10:30	5/27	U	X	
2		Field inside 2	1	3:30	5/27	U		
3		wall sample 11	1	11:19		U		
4		wall sample 12	1	11:48		U		
5		wall sample 13	1	12:14		U		
6		wall sample 14	1	12:45		U		
7		wall sample 15	1	1:11		U		
8		Duplicate 4	1	12:34		U		
9		wall sample 16	1	1:33		U		
10		wall sample 17	1	1:53	5/27	U	X	

SAMPLE RECEIVED

Wet Ice
 Blue Ice

RELINQUISHED BY **Michael Beheider**

ACCEPTED BY **Louise Bergquist**

TIME / DATE **5:10 5/27**

Distribution: White - Lab Copy Yellow - Client Report Pink - Sampler

Data Qualifiers: I Internal Standard results outside of acceptance limits
 S QC spike recovery outside of acceptance limits
 R RPD outside of acceptance limits
 E Reporting limit is elevated
 D Result is from a dilution
 J Result should be considered estimated
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 F Matrix Spike four times rule applied
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Quantum Laboratories, Inc.

CHAIN OF CUSTODY RECORD

REPORT NO. (LAB USE) 12338 Page 8 of 8

P.O. NUMBER _____

PROJECT NUMBER _____

PROJECT NAME _____

SAMPLING LOCATION _____

SAMPLES COLLECTED BY _____

TURN AROUND TIME Standard Rush By Date: _____

SPECIAL INSTRUCTIONS _____

COMPANY _____

ADDRESS _____

CITY, STATE, ZIP _____

TELEPHONE _____

FAX _____

CONTACT _____

ADDITIONAL PHONE _____

EMAIL ADDRESS _____

* SAMPLE TYPE: S=Soil, W=Water, D=Drinking Water, O=Oil/Organic, M=Mixed, V=Vapor, A=Air
 U=Unknown or Other

** GRAB/COMP: G=Grab Sample, C=Composite Sample

LINE NO.	LAB USE	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	TIME SAMPLED	DATE SAMPLED	SAMPLE TYPE *	GRAB / COMP **	REMARKS / PRESERVATIVES
1	71	wall sample 18	1	2:33	5/27	U		
2	72	wall sample 19	1	2:57	5/27	U		
3	73	wall sample 20	1	3:29	5/27	U		
4								
5								
6								
7								
8								
9								
10								

XFER	RELINQUISHED BY	TIME / DATE	ACCEPTED BY	SAMPLE RECEIVED
1	<i>Michael Schroeder</i>	5:10 5/27	<i>Louise Bergquist</i>	<input type="checkbox"/> Wet Ice <input type="checkbox"/> Blue Ice
2				
3				

Distribution: White - Lab Copy Yellow - Client Report Pink - Sampler

June 13, 2022

Michael Schroeder
Applied Environmental
1210 North Maple Road
Ann Arbor, MI 48103

Project Location: 12700 8 Mile Rd, Oak Park, MI
Client Job Number:
Project Number: 22-2554
Laboratory Work Order Number: 22F0223

Enclosed are results of analyses for samples as received by the laboratory on June 3, 2022. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Jessica L. Hoffman
Project Manager

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

Applied Environmental
 1210 North Maple Road
 Ann Arbor, MI 48103
 ATTN: Michael Schroeder

REPORT DATE: 6/13/2022

PURCHASE ORDER NUMBER:

PROJECT NUMBER: 22-2554

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 22F0223

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

PROJECT LOCATION: 12700 8 Mile Rd, Oak Park, MI

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
AS-1	22F0223-01	Indoor air		-	
				EPA TO-10A	
AS-2	22F0223-02	Indoor air		EPA TO-10A	
AS-3	22F0223-03	Indoor air		EPA TO-10A	
Duplicate 1- Air	22F0223-04	Indoor air		EPA TO-10A	
AS-4	22F0223-05	Indoor air		EPA TO-10A	
Field Blank	22F0223-06	Indoor air		EPA TO-10A	

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CASE NARRATIVE SUMMARY

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

EPA TO-10A

Qualifications:

P-06

Due to surrogate recovery non-conformance on the confirmatory detector, the lower of two results was reported.

Analyte & Samples(s) Qualified:

Aroclor-1254 [2C]
22F0223-01[AS-1]

S-12

Surrogate recovery is outside of control limits on confirmatory column, but within control limits on primary column. Data validation is not affected.

Analyte & Samples(s) Qualified:

Decachlorobiphenyl
22F0223-01[AS-1]

S-23

Surrogate recovery outside of control limits in BS/MS spiked sample, all reported analytes are within control criteria.

Analyte & Samples(s) Qualified:

Decachlorobiphenyl
B310194-BSD1

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

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



Lisa A. Worthington
Technical Representative

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

ANALYTICAL RESULTS

Project Location: 12700 8 Mile Rd, Oak Park, MI

Sample Description/Location:

Work Order: 22F0223

Date Received: 6/3/2022

Sub Description/Location:

Field Sample #: AS-1
Sample ID: 22F0223-01

Sample Matrix: Indoor air

Flow Controller ID:

Sampled: 6/1/2022 19:10

Sample Type:

Air Volume L: 720

EPA TO-10A

Analyte	Total µg		Flag/Qual	ug/m3		Dilution	Date/Time		Analyst
	Results	RL		Results	RL		Analyzed		
Aroclor-1016 [2]	ND	0.040		ND	0.056	1	6/10/22	13:45	JEA
Aroclor-1221 [2]	ND	0.040		ND	0.056	1	6/10/22	13:45	JEA
Aroclor-1232 [2]	ND	0.040		ND	0.056	1	6/10/22	13:45	JEA
Aroclor-1242 [2]	ND	0.040		ND	0.056	1	6/10/22	13:45	JEA
Aroclor-1248 [2]	0.060	0.040		0.083	0.056	1	6/10/22	13:45	JEA
Aroclor-1254 [2]	0.056	0.040	P-06	0.078	0.056	1	6/10/22	13:45	JEA
Aroclor-1260 [2]	ND	0.040		ND	0.056	1	6/10/22	13:45	JEA
Aroclor-1262 [2]	ND	0.040		ND	0.056	1	6/10/22	13:45	JEA
Aroclor-1268 [2]	ND	0.040		ND	0.056	1	6/10/22	13:45	JEA

Surrogates	% Recovery		% REC Limits	
Decachlorobiphenyl [1]	122*	S-12	60-120	6/10/22 13:45
Decachlorobiphenyl [2]	107		60-120	6/10/22 13:45
Tetrachloro-m-xylene [1]	108		60-120	6/10/22 13:45
Tetrachloro-m-xylene [2]	91.1		60-120	6/10/22 13:45

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ANALYTICAL RESULTS

Project Location: 12700 8 Mile Rd, Oak Park, MI

Sample Description/Location:

Work Order: 22F0223

Date Received: 6/3/2022

Sub Description/Location:

Field Sample #: AS-2
Sample ID: 22F0223-02

Sample Matrix: Indoor air

Flow Controller ID:

Sampled: 6/1/2022 19:28

Sample Type:

Air Volume L: 720

EPA TO-10A

Analyte	Total µg		Flag/Qual	ug/m3		Dilution	Date/Time		Analyst
	Results	RL		Results	RL		Analyzed		
Aroclor-1016 [1]	ND	0.040		ND	0.056	1	6/10/22	14:02	JEA
Aroclor-1221 [1]	ND	0.040		ND	0.056	1	6/10/22	14:02	JEA
Aroclor-1232 [1]	ND	0.040		ND	0.056	1	6/10/22	14:02	JEA
Aroclor-1242 [1]	ND	0.040		ND	0.056	1	6/10/22	14:02	JEA
Aroclor-1248 [2]	ND	0.040		ND	0.056	1	6/10/22	14:02	JEA
Aroclor-1254 [1]	0.064	0.040		0.088	0.056	1	6/10/22	14:02	JEA
Aroclor-1260 [1]	ND	0.040		ND	0.056	1	6/10/22	14:02	JEA
Aroclor-1262 [1]	ND	0.040		ND	0.056	1	6/10/22	14:02	JEA
Aroclor-1268 [1]	ND	0.040		ND	0.056	1	6/10/22	14:02	JEA

Surrogates	% Recovery	% REC Limits	
Decachlorobiphenyl [1]	97.9	60-120	6/10/22 14:02
Decachlorobiphenyl [2]	85.7	60-120	6/10/22 14:02
Tetrachloro-m-xylene [1]	85.6	60-120	6/10/22 14:02
Tetrachloro-m-xylene [2]	71.3	60-120	6/10/22 14:02

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ANALYTICAL RESULTS

Project Location: 12700 8 Mile Rd, Oak Park, MI

Sample Description/Location:

Work Order: 22F0223

Date Received: 6/3/2022

Sub Description/Location:

Field Sample #: AS-3
Sample ID: 22F0223-03

Sample Matrix: Indoor air

Flow Controller ID:

Sampled: 6/1/2022 19:40

Sample Type:

Air Volume L: 720

EPA TO-10A

Analyte	Total µg		Flag/Qual	ug/m3		Dilution	Date/Time		Analyst
	Results	RL		Results	RL		Analyzed		
Aroclor-1016 [1]	ND	0.040		ND	0.056	1	6/10/22	14:20	JEA
Aroclor-1221 [1]	ND	0.040		ND	0.056	1	6/10/22	14:20	JEA
Aroclor-1232 [1]	ND	0.040		ND	0.056	1	6/10/22	14:20	JEA
Aroclor-1242 [1]	ND	0.040		ND	0.056	1	6/10/22	14:20	JEA
Aroclor-1248 [2]	ND	0.040		ND	0.056	1	6/10/22	14:20	JEA
Aroclor-1254 [1]	ND	0.040		ND	0.056	1	6/10/22	14:20	JEA
Aroclor-1260 [1]	ND	0.040		ND	0.056	1	6/10/22	14:20	JEA
Aroclor-1262 [1]	ND	0.040		ND	0.056	1	6/10/22	14:20	JEA
Aroclor-1268 [1]	ND	0.040		ND	0.056	1	6/10/22	14:20	JEA

Surrogates	% Recovery	% REC Limits	
Decachlorobiphenyl [1]	116	60-120	6/10/22 14:20
Decachlorobiphenyl [2]	100	60-120	6/10/22 14:20
Tetrachloro-m-xylene [1]	102	60-120	6/10/22 14:20
Tetrachloro-m-xylene [2]	84.7	60-120	6/10/22 14:20

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ANALYTICAL RESULTS

Project Location: 12700 8 Mile Rd, Oak Park, MI

Sample Description/Location:

Work Order: 22F0223

Date Received: 6/3/2022

Sub Description/Location:

Field Sample #: Duplicate 1- Air
Sample ID: 22F0223-04

Sample Matrix: Indoor air

Flow Controller ID:

Sampled: 6/1/2022 19:40

Sample Type:

Air Volume L: 720

EPA TO-10A

Analyte	Total µg		Flag/Qual	ug/m3		Dilution	Date/Time		Analyst
	Results	RL		Results	RL		AnalYZed		
Aroclor-1016 [1]	ND	0.040		ND	0.056	1	6/10/22	14:37	JEA
Aroclor-1221 [1]	ND	0.040		ND	0.056	1	6/10/22	14:37	JEA
Aroclor-1232 [1]	ND	0.040		ND	0.056	1	6/10/22	14:37	JEA
Aroclor-1242 [1]	ND	0.040		ND	0.056	1	6/10/22	14:37	JEA
Aroclor-1248 [2]	ND	0.040		ND	0.056	1	6/10/22	14:37	JEA
Aroclor-1254 [1]	0.051	0.040		0.070	0.056	1	6/10/22	14:37	JEA
Aroclor-1260 [1]	ND	0.040		ND	0.056	1	6/10/22	14:37	JEA
Aroclor-1262 [1]	ND	0.040		ND	0.056	1	6/10/22	14:37	JEA
Aroclor-1268 [1]	ND	0.040		ND	0.056	1	6/10/22	14:37	JEA

Surrogates	% Recovery	% REC Limits	
Decachlorobiphenyl [1]	118	60-120	6/10/22 14:37
Decachlorobiphenyl [2]	102	60-120	6/10/22 14:37
Tetrachloro-m-xylene [1]	103	60-120	6/10/22 14:37
Tetrachloro-m-xylene [2]	85.5	60-120	6/10/22 14:37

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ANALYTICAL RESULTS

Project Location: 12700 8 Mile Rd, Oak Park, MI

Sample Description/Location:

Work Order: 22F0223

Date Received: 6/3/2022

Sub Description/Location:

Field Sample #: AS-4
Sample ID: 22F0223-05

Sample Matrix: Indoor air

Flow Controller ID:

Sampled: 6/1/2022 19:55

Sample Type:

Air Volume L: 720

EPA TO-10A

Analyte	Total µg		Flag/Qual	ug/m3		Dilution	Date/Time		Analyst
	Results	RL		Results	RL		Analyzed		
Aroclor-1016 [1]	ND	0.040		ND	0.056	1	6/10/22	14:55	JEA
Aroclor-1221 [1]	ND	0.040		ND	0.056	1	6/10/22	14:55	JEA
Aroclor-1232 [1]	ND	0.040		ND	0.056	1	6/10/22	14:55	JEA
Aroclor-1242 [1]	ND	0.040		ND	0.056	1	6/10/22	14:55	JEA
Aroclor-1248 [1]	ND	0.040		ND	0.056	1	6/10/22	14:55	JEA
Aroclor-1254 [1]	ND	0.040		ND	0.056	1	6/10/22	14:55	JEA
Aroclor-1260 [1]	ND	0.040		ND	0.056	1	6/10/22	14:55	JEA
Aroclor-1262 [1]	ND	0.040		ND	0.056	1	6/10/22	14:55	JEA
Aroclor-1268 [1]	ND	0.040		ND	0.056	1	6/10/22	14:55	JEA

Surrogates	% Recovery	% REC Limits	Date/Time
Decachlorobiphenyl [1]	114	60-120	6/10/22 14:55
Decachlorobiphenyl [2]	98.7	60-120	6/10/22 14:55
Tetrachloro-m-xylene [1]	101	60-120	6/10/22 14:55
Tetrachloro-m-xylene [2]	83.5	60-120	6/10/22 14:55

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

ANALYTICAL RESULTS

Project Location: 12700 8 Mile Rd, Oak Park, MI

Sample Description/Location:

Work Order: 22F0223

Date Received: 6/3/2022

Sub Description/Location:

Field Sample #: Field Blank
Sample ID: 22F0223-06

Sample Matrix: Indoor air

Flow Controller ID:

Sampled: 6/1/2022 00:00

Sample Type:

EPA TO-10A

Analyte	Total µg		Flag/Qual	Dilution	Date/Time		Analyst
	Results	RL			Analized		
Aroclor-1016 [1]	ND	0.040		1	6/10/22	15:12	JEA
Aroclor-1221 [1]	ND	0.040		1	6/10/22	15:12	JEA
Aroclor-1232 [1]	ND	0.040		1	6/10/22	15:12	JEA
Aroclor-1242 [1]	ND	0.040		1	6/10/22	15:12	JEA
Aroclor-1248 [1]	ND	0.040		1	6/10/22	15:12	JEA
Aroclor-1254 [1]	ND	0.040		1	6/10/22	15:12	JEA
Aroclor-1260 [1]	ND	0.040		1	6/10/22	15:12	JEA
Aroclor-1262 [1]	ND	0.040		1	6/10/22	15:12	JEA
Aroclor-1268 [1]	ND	0.040		1	6/10/22	15:12	JEA

Surrogates	% Recovery	% REC Limits	
Decachlorobiphenyl [1]	114	60-120	6/10/22 15:12
Decachlorobiphenyl [2]	97.4	60-120	6/10/22 15:12
Tetrachloro-m-xylene [1]	101	60-120	6/10/22 15:12
Tetrachloro-m-xylene [2]	83.0	60-120	6/10/22 15:12

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

Sample Extraction Data

Prep Method: SW-846 3540C Analytical Method: EPA TO-10A

Lab Number [Field ID]	Batch	Initial [Cartridge]	Final [mL]	Date
22F0223-01 [AS-1]	B310194	1.00	2.00	06/08/22
22F0223-02 [AS-2]	B310194	1.00	2.00	06/08/22
22F0223-03 [AS-3]	B310194	1.00	2.00	06/08/22
22F0223-04 [Duplicate 1- Air]	B310194	1.00	2.00	06/08/22
22F0223-05 [AS-4]	B310194	1.00	2.00	06/08/22
22F0223-06 [Field Blank]	B310194	1.00	2.00	06/08/22

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

QUALITY CONTROL
Air Toxics by EPA Compendium Methods - Quality Control

Analyte	Total µg		ug/m3		Spike Level	Source	%REC	RPD	RPD	Flag/Qual
	Results	RL	Results	RL	Total µg	Result	%REC	Limits	RPD	

Batch B310194 - SW-846 3540C
Blank (B310194-BLK1)

Prepared: 06/08/22 Analyzed: 06/10/22

Aroclor-1016	ND	0.040								
Aroclor-1016 [2C]	ND	0.040								
Aroclor-1221	ND	0.040								
Aroclor-1221 [2C]	ND	0.040								
Aroclor-1232	ND	0.040								
Aroclor-1232 [2C]	ND	0.040								
Aroclor-1242	ND	0.040								
Aroclor-1242 [2C]	ND	0.040								
Aroclor-1248	ND	0.040								
Aroclor-1248 [2C]	ND	0.040								
Aroclor-1254	ND	0.040								
Aroclor-1254 [2C]	ND	0.040								
Aroclor-1260	ND	0.040								
Aroclor-1260 [2C]	ND	0.040								
Aroclor-1262	ND	0.040								
Aroclor-1262 [2C]	ND	0.040								
Aroclor-1268	ND	0.040								
Aroclor-1268 [2C]	ND	0.040								
<hr/>										
Surrogate: Decachlorobiphenyl	0.445				0.400		111	60-120		
Surrogate: Decachlorobiphenyl [2C]	0.396				0.400		99.0	60-120		
Surrogate: Tetrachloro-m-xylene	0.396				0.400		99.1	60-120		
Surrogate: Tetrachloro-m-xylene [2C]	0.339				0.400		84.7	60-120		

LCS (B310194-BS1)

Prepared: 06/08/22 Analyzed: 06/10/22

Aroclor-1016	0.0942	0.040			0.100		94.2	70.4-127		
Aroclor-1016 [2C]	0.0819	0.040			0.100		81.9	69-128		
Aroclor-1260	0.0982	0.040			0.100		98.2	68.4-119		
Aroclor-1260 [2C]	0.0839	0.040			0.100		83.9	63.4-124		
<hr/>										
Surrogate: Decachlorobiphenyl	0.466				0.400		117	60-120		
Surrogate: Decachlorobiphenyl [2C]	0.414				0.400		104	60-120		
Surrogate: Tetrachloro-m-xylene	0.407				0.400		102	60-120		
Surrogate: Tetrachloro-m-xylene [2C]	0.351				0.400		87.6	60-120		

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

QUALITY CONTROL
Air Toxics by EPA Compendium Methods - Quality Control

Analyte	Total µg		ug/m3		Spike Level	Source	%REC	RPD	Flag/Qual
	Results	RL	Results	RL	Total µg	Result	Limits	RPD	

Batch B310194 - SW-846 3540C
LCS Dup (B310194-BSD1)

Prepared: 06/08/22 Analyzed: 06/10/22

Aroclor-1016	0.108	0.040			0.100	108	70.4-127	13.8	25.6	
Aroclor-1016 [2C]	0.0954	0.040			0.100	95.4	69-128	15.1	27.6	
Aroclor-1260	0.111	0.040			0.100	111	68.4-119	11.9	19.4	
Aroclor-1260 [2C]	0.0934	0.040			0.100	93.4	63.4-124	10.7	18.7	
Surrogate: Decachlorobiphenyl	0.510				0.400	128 *	60-120			S-23
Surrogate: Decachlorobiphenyl [2C]	0.452				0.400	113	60-120			
Surrogate: Tetrachloro-m-xylene	0.447				0.400	112	60-120			
Surrogate: Tetrachloro-m-xylene [2C]	0.384				0.400	95.9	60-120			

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

IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

AS-1

EPA TO-10A

 Lab Sample ID: 22F0223-01 Date(s) Analyzed: 06/10/2022 06/10/2022

 Instrument ID (1): ECD5 Instrument ID (2): ECD5

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%RPD
			FROM	TO		
Aroclor-1248	1	0.000	0.000	0.000	0.059	
	2	0.000	0.000	0.000	0.060	1.7
Aroclor-1254	1	0.000	0.000	0.000	0.072	
	2	0.000	0.000	0.000	0.056	25.0

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IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

AS-2
EPA TO-10A

 Lab Sample ID: 22F0223-02 Date(s) Analyzed: 06/10/2022 06/10/2022

 Instrument ID (1): ECD5 Instrument ID (2): ECD5

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%RPD
			FROM	TO		
Aroclor-1254	1	0.000	0.000	0.000	0.064	
	2	0.000	0.000	0.000	0.054	16.9

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

IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

Duplicate 1- Air

EPA TO-10A

 Lab Sample ID: 22F0223-04 Date(s) Analyzed: 06/10/2022 06/10/2022

 Instrument ID (1): ECD5 Instrument ID (2): ECD5

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%RPD
			FROM	TO		
Aroclor-1254	1	0.000	0.000	0.000	0.051	
	2	0.000	0.000	0.000	0.042	19.4

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

IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

LCS

EPA TO-10A

 Lab Sample ID: B310194-BS1 Date(s) Analyzed: 06/10/2022 06/10/2022

 Instrument ID (1): ECD5 Instrument ID (2): ECD5

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%RPD
			FROM	TO		
Aroclor-1016	1	0.000	0.000	0.000	0.0942	
	2	0.000	0.000	0.000	0.0819	13.8
Aroclor-1260	1	0.000	0.000	0.000	0.0982	
	2	0.000	0.000	0.000	0.0839	15.5

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

**IDENTIFICATION SUMMARY
FOR SINGLE COMPONENT ANALYTES**
EPA TO-10A

LCS Dup

Lab Sample ID: B310194-BSD1 Date(s) Analyzed: 06/10/2022 06/10/2022
 Instrument ID (1): ECD5 Instrument ID (2): ECD5
 GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%RPD
			FROM	TO		
Aroclor-1016	1	0.000	0.000	0.000	0.108	
	2	0.000	0.000	0.000	0.0954	14.2
Aroclor-1260	1	0.000	0.000	0.000	0.111	
	2	0.000	0.000	0.000	0.0934	16.3

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

FLAG/QUALIFIER SUMMARY

*	QC result is outside of established limits.
†	Wide recovery limits established for difficult compound.
‡	Wide RPD limits established for difficult compound.
#	Data exceeded client recommended or regulatory level
ND	Not Detected
RL	Reporting Limit is at the level of quantitation (LOQ)
DL	Detection Limit is the lower limit of detection determined by the MDL study
MCL	Maximum Contaminant Level
	Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.
	No results have been blank subtracted unless specified in the case narrative section.
P-06	Due to surrogate recovery non-conformance on the confirmatory detector, the lower of two results was reported.
S-12	Surrogate recovery is outside of control limits on confirmatory column, but within control limits on primary column. Data validation is not affected.
S-23	Surrogate recovery outside of control limits in BS/MS spiked sample, all reported analytes are within control criteria.

CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
<i>EPA TO-10A in Air</i>	
Aroclor-1016	AIHA,NJ,NY
Aroclor-1016 [2C]	AIHA,NJ,NY
Aroclor-1221	AIHA,NJ,NY
Aroclor-1221 [2C]	AIHA,NJ,NY
Aroclor-1232	AIHA,NJ,NY
Aroclor-1232 [2C]	AIHA,NJ,NY
Aroclor-1242	AIHA,NJ,NY
Aroclor-1242 [2C]	AIHA,NJ,NY
Aroclor-1248	AIHA,NJ,NY
Aroclor-1248 [2C]	AIHA,NJ,NY
Aroclor-1254	AIHA,NJ,NY
Aroclor-1254 [2C]	AIHA,NJ,NY
Aroclor-1260	AIHA,NJ,NY
Aroclor-1260 [2C]	AIHA,NJ,NY
Aroclor-1262	AIHA,NJ,NY
Aroclor-1262 [2C]	AIHA,NJ,NY
Aroclor-1268	AIHA,NJ,NY
Aroclor-1268 [2C]	AIHA,NJ,NY

Con-Test, a Pace Environmental Laboratory, operates under the following certifications and accreditations:

Code	Description	Number	Expires
AIHA	AIHA-LAP, LLC - ISO17025:2017	100033	03/1/2024
MA	Massachusetts DEP	M-MA100	06/30/2022
CT	Connecticut Department of Public Health	PH-0165	12/31/2022
NY	New York State Department of Health	10899 NELAP	04/1/2023
NH-S	New Hampshire Environmental Lab	2516 NELAP	02/5/2023
RI	Rhode Island Department of Health	LAO00373	12/30/2022
NC	North Carolina Div. of Water Quality	652	12/31/2022
NJ	New Jersey DEP	MA007 NELAP	06/30/2022
FL	Florida Department of Health	E871027 NELAP	06/30/2022
VT	Vermont Department of Health Lead Laboratory	LL720741	07/30/2022
ME	State of Maine	MA00100	06/9/2023
VA	Commonwealth of Virginia	460217	12/14/2022
NH-P	New Hampshire Environmental Lab	2557 NELAP	09/6/2022
VT-DW	Vermont Department of Health Drinking Water	VT-255716	06/12/2022
NC-DW	North Carolina Department of Health	25703	07/31/2022
PA	Commonwealth of Pennsylvania DEP	68-05812	06/30/2022
MI	Dept. of Env, Great Lakes, and Energy	9100	09/6/2022



Phone: 413-525-2332
 Fax: 413-525-6405
 www.pacelabs.com

22F0223

APPLIED ENVIRONMENTAL

Address: 1210 W. MAPLE RD. ANN ARBOR MI, 48103
 Phone: 616-887-6722

Project Location: 2700 8 mile Rd - OAK PARK MI

Project Number: 22-2554

Project Manager: Michael Schroeder

Pace Quote Name/Number:

Invoice Recipient:

Sampled By: Michael Schroeder

39 Spruce Street
 East Longmeadow, MA 01028

CHAIN OF CUSTODY RECORD (AIR)

Phone: 413-525-2332
 Fax: 413-525-6405
 www.pacelabs.com

22F0223

APPLIED ENVIRONMENTAL

Address: 1210 W. MAPLE RD. ANN ARBOR MI, 48103
 Phone: 616-887-6722

Project Location: 2700 8 mile Rd - OAK PARK MI

Project Number: 22-2554

Project Manager: Michael Schroeder

Pace Quote Name/Number:

Invoice Recipient:

Sampled By: Michael Schroeder

ANALYSIS REQUESTED

7-Day 10-Day
 Due Date:

1-Day 3-Day
 2-Day 4-Day

Format: PDF EXCEL

Other:

CLP Like Data Pkg Required:

Email To: Michael.Schroeder@pacelabs.com

Fax To #:

Lab Receipt Pressure

" Hg

Initial Pressure

Final Pressure

Summa canisters and flow controllers must be returned within 15 days of receipt or rental fees will apply

For summa canister and flow controller information, please refer to Con-Test's Air Media Agreement

Summa Can ID

Flow Controller ID

Lab Use	Pace Work Order #	Client Use	Client Sample ID / Description	Collection Data		Duration	Flow Rate	Matrix	Volume
				Beginning Date/Time	Ending Date/Time				
1	AS-1			7:10AM	7:10PM	720	1	IA	720
2	AS-2			7:28AM	7:28PM	720	1	IA	720
3	AS-3			7:40AM	7:40PM	720	1	IA	720
4	Duplicate 1-Air			7:40AM	7:40PM	720	1	IA	720
5	AS-4			7:55AM	7:55PM	720	1	IA	720
6	Field Blank							IA	

Comments: All sampled on 6/1/2022

Relinquished by: (signature) Michael Schroeder Date/Time: 6/1/22 8:00PM

Received by: (signature) _____ Date/Time: 6/1/22 8:02

Relinquished by: (signature) _____ Date/Time: _____

Received by: (signature) _____ Date/Time: _____

Relinquished by: (signature) _____ Date/Time: _____

Received by: (signature) _____ Date/Time: _____

Please use the following codes to indicate possible sample concentration within the Conc Code column above:
 H - High; M - Medium; L - Low; C - Clean; U - Unknown

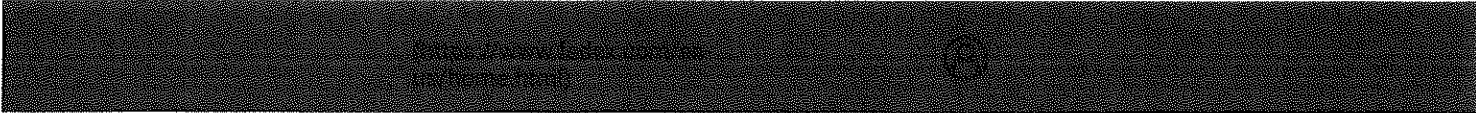
Matrix Codes:
 SG = SOIL GAS
 IA = INDOOR AIR
 AMB = AMBIENT
 SS = SUB SLAB
 D = DUP
 BL = BLANK
 O = Other

Special Requirements:
 MA MCP Required
 MCP Certification Form Required
 CT RCP Required
 RCP Certification Form Required

Project Entity:
 Government Municipality MWRA
 Federal 21 J School
 City Brownfield MBTA

Other:
 Chromatogram
 AIHA-LAP, LLC
 PCB ONLY
 Soxhlet
 Non Soxhlet

RELAC and AIHA-LAP, LLC Accredited



FedEx® Tracking



791263756863



ADD NICKNAME

Delivered
Friday, 06/03/2022 at 8:02 am



DELIVERED

Signed for by: L.RIOS

GET STATUS UPDATES

OBTAIN PROOF OF DELIVERY

FROM
ANN ARBOR, MI US

TO
East Longmeadow, MA US

MANAGE DELIVERY

Travel History

TIME ZONE

Local Scan Time



Friday, June 3,
2022

8:02 AM	East Longmeadow, MA	Delivered
7:17 AM	WINDSOR LOCKS, CT	Shipment arriving On-Time
6:46 AM	WINDSOR LOCKS, CT	On FedEx vehicle for delivery
6:46 AM	WINDSOR LOCKS, CT	At local FedEx facility

Thursday, June 2,
2022

9:07 PM	NOVI, MI	Left FedEx origin facility
---------	----------	----------------------------

I Have Not Confirmed Sample Container Numbers With Lab Staff Before Relinquishing Over Samples _____



Doc# 278 Rev 6 2017

Air Media Sample Receipt Checklist - (Rejection Criteria Listing - Using Acceptance Policy) Any False Statement will be brought to the attention of the Client - State True or False

Client Applied Env.

Received By UR Date 6/3 Time 802

How were the samples received? In Cooler T On Ice T No Ice _____
 In Box _____ Ambient _____ Melted Ice _____

Were samples within Temperature Compliance? 2-6°C T By Gun # 5 Actual Temp - 2.3
 By Blank # _____ Actual Temp - _____

Was Custody Seal Intact? NA Were Samples Tampered with? NA
 Was COC Relinquished? T Does Chain Agree With Samples? T

Are there any loose caps/valves on any samples? F

Is COC in ink/ Legible? T

Did COC Include all Client T Analysis T Sampler Name T
 Pertinent Information? Project T ID's T Collection Dates/Times T

Are Sample Labels filled out and legible? T

Are there Rushes? F Who was notified? _____

Samples are received within holding time? T

Proper Media Used? T Individually Certified Cans? F
 Are there Trip Blanks? F Is there enough Volume? T

Containers:	#	Size	Regulator	Duration	Accessories:		
Summa Cans					Nut/Ferrule		IC Train
Tedlar Bags					Tubing		
TO-17 Tubes					T-Connector		Shipping Charges
Radiello					Syringe		
Pufs/TO-11s	<u>6</u>	<u>1V</u>			Tedlar		

Can #'s				Reg #'s			
Unused Media				Pufs/TO-17's			
				<u>052322-01</u>	<u>-00</u>		
				<u>-02</u>			
				<u>-03</u>			
				<u>-04</u>			
				<u>-05</u>			

Comments:

***APPENDIX 4: JANUARY 2021
SUMMARY OF DUE CARE INVESTIGATION REPORT***



**APPLIED
ENVIRONMENTAL**
Partners in Down to Earth Solutions

**Mr. Dan Gough
Brownfield Coordinator
Michigan Department of Environment, Great Lakes, and Energy
Southeast Michigan District Office
27700 Donald Court
Warren, Michigan 48326**

January 25, 2021

**RE: Summary of Due Care Investigation
8MK Project
12700 8 Mile Road
Oak Park, Michigan 48237
ELGE Tracking Code: 2019-2402
ELGE Location Code: 6F36
Applied Environmental Project #: 20-2554**

Dear Mr. Gough:

ATE Mile, LLC, the Developer, intends to redevelop the existing 4.59-acre parcel into a restaurant and event space utilizing funds from a Brownfield Redevelopment Grant awarded to the City of Oak Park on August 28, 2019. The property is currently developed with a 5,325-square foot one-story building with a basement. This historical building was once used for the studios of radio station WWJ.

As part of the redevelopment, Applied Environmental has conducted investigations at the subject property as outlined in the Revised Grant Work plan dated April 22, 2020.

Background

At some point while the building was vacant (approximately 2014), a power outage occurred causing the basement sump pump to stop working, which allowed the basement to flood. Two 4,800-volt electrical transformers within the basement shorted out due to the water, and as a result, exploded causing a release of transformer oil containing Polychlorinated Biphenyls (PCBs). Water was pumped from the basement by a maintenance contractor using a gas-powered pump onto the grass at the rear of the subject property after discovery of the release. It is not documented exactly when the power outage occurred, how long the release remained

in the basement prior to discovery and when the maintenance contractor pumped water from the basement.

Terracon Consultants, Inc. (Terracon) was contracted in November of 2014 to assess the release and develop a response plan. According to their Remedial Action Completion Report dated March 23, 2015, Terracon completed the following remedial activities: (1) the collection of water and soil samples for analysis of PCBs, (2) the removal and disposal of additional flood water within the basement, (3) the pressure washing of wall and floor surfaces within the basement, (4) the removal of remaining oil within the transformers, and (5) the excavation of exterior soil visually impacted by the basement water previously discharged by maintenance contractor. Laboratory analytical results of the initial sampling performed by Terracon indicated that PCB concentrations in both water and soil were above the laboratory method detection limits (MDLs), but below the Toxic Substance Control Act (TSCA) 40 CFR761.61 PCB Remediation Waste Standard.

In December 2015, as part of a real estate transaction, Applied Environmental was retained to complete a Phase II ESA to evaluate the following Recognized Environmental Conditions (RECs) identified in a Phase I ESA dated October 21, 2015 completed by ABF Environmental.

- The west adjoining property located at 12950 West 8 Mile Road is listed as having a Baseline Environmental Assessment (BEA); and
- Exterior soil sampling related to the pumping of water accumulated in the basement were collected prior to soil removal. According to the Terracon report, it does not appear that verification soil samples were collected following the soil removal activities and residual PCB contamination may be present.

Applied Environmental collected 14 soil samples exterior to the subject property building from soil borings advanced in the following areas:

- Soil borings GP-1 to GP-2: area where basement flood water was initially discharged by maintenance personnel;
- GP-3 to GP-14: within and around the former PCB impacted soil excavation area; and
- GP-15 to GP-17: along the west property boundary to evaluate an adjoining BEA site.

Soil borings GP-1 through GP-14 were advanced to determine the presence any residual PCBs remained in the previously excavated area, while borings GP-15 through GP-17 were advanced to assess potential for impact from the west-adjointing property. During the December 2015 subsurface investigation, Applied Environmental also collected 5 concrete core samples from the basement floor and basement access pit (north side of subject building) to evaluate the potential presence of residual PCBs.

All samples were analyzed for PCBs by the United States Environmental Protection Agency (EPA) Method 8082A and the laboratory analytical results indicated that concentrations of PCBs, detected in one exterior soil sample (GP-11) and three concrete core samples (CF-2-SE, CF-3-NW, and CF-4-NE), exceeded the EPA's TSCA High Occupancy Threshold of 1,000 microgram per kilograms ($\mu\text{g}/\text{Kg}$).

A High Occupancy Area is defined in 40 CFR Part 761 as any area where PCB remediation waste has been disposed on-site (including but not limited to any building, any floor/wall of the building, any enclosed space within the building), and where annual occupancy for any individual not wearing dermal and respiratory protection for a calendar year is: 840 hours or more (an average of 16.8 hours or more per week) for non-porous surfaces and 335 hours or more (an average of 6.7 hours or more per week) for bulk PCB remediation waste. The High Occupancy Threshold is used for comparison because this property will be redeveloped as a restaurant with both seating and food preparation areas in the basement.

Revised Work Plan Scope of Work

Based on the proposed use of the subject property as a restaurant and the exceedances of the EPA TSCA High Occupancy Threshold value, response activities may be necessary to meet

the Developer's due care obligations. These activities may involve the removal and/or encapsulation of the PCB-impacted soil, concrete, and/or brick.

Per the scope of work outlined in the April 2020 Revised Work Plan, a due care investigation has been completed at the subject property in an attempt to 1) define the extent of the PCB contamination in both the basement and at the exterior of the subject building, 2) determine if PCB impacted soils are present underneath the concrete slab of the basement, and 3) develop a better understanding of the site geology/hydrogeology. This information will be utilized to prepare a scope of work to address potential response activities.

To further characterize the geology and hydrogeology in the areas of concern, as well as delineate the extent of PCB contamination at the subject property, Applied Environmental proposed conducting additional soil borings adjacent and exterior to the basement structure of the subject building. This was intended to provide a better understanding of the subsurface geology, the absence/presence of groundwater, the mechanism for flooding in basement and to identify areas where response activities may be required.

In addition to the exterior delineation soil borings, Applied Environmental proposed to advance four to five "deeper" soil borings (i.e. up to 20 feet below ground surface [bgs]) immediately adjacent to the subject building to the east (which is the inferred direction of groundwater flow across the site according to the ABF Phase I ESA report for the site dated October 21, 2015), as well as west, north, and south to characterize the soils and determine the absence/presence of groundwater immediately adjacent to the basement of the building. Soil samples from these boring were to be submitted for laboratory analysis of PCBs and Volatile Organic Compounds (VOCs).

Based on the soils encountered on the western portion of the subject property during the December 2015 Phase II ESA, a competent clay layer was expected to be encountered in the area of the exterior borings. As such, Applied Environmental proposed to collect soil samples above this competent clay layer and from a depth corresponding to the bottom of the basement slab (i.e. 8.5 feet bgs) for laboratory analysis. Soil samples from these borings were to be submitted for laboratory analysis for PCBs and VOCs.

The perimeter borings were also to be completed as groundwater monitoring wells utilizing two-inch diameter five-foot length 0.010 slot PVC screens set to bisect the water table so that groundwater samples could be collected and the localized groundwater flow direction in the vicinity of the release determined. If sufficient water was not encountered to suggest the presence of a water table during the advancement of these borings, monitoring well screens would then be installed to the top of the competent clay layer so that perched water could be sampled. Groundwater sampling was to be performed using low flow sampling protocols. If groundwater was encountered and sampled, the water samples were to be submitted for laboratory analysis of PCBs and VOCs.

The 2015 laboratory analytical results from the basement concrete slab samples revealed that the basement concrete slab had been impacted by PCBs, although it was not known if soils below the concrete slab were impacted by the release. To evaluate the soils below the basement concrete floor, Applied Environmental proposed to advance hand-auger soil borings adjacent to each of the concrete samples collected in December 2015 exhibiting elevated PCB concentrations. Five additional hand auger boring locations were proposed and were positioned such that they, along with the four aforementioned borings would be advanced adjacent to the 2015 concrete samples to create a 3 x 3 boring grid pattern. This grid pattern was intended to generally define the vertical and horizontal extent of potential impact from the release beneath the concrete floor of the basement. Applied Environmental proposed to collect soil samples at 0, 2, and 4 feet below the concrete floor from these borings.

The two shallowest soil samples (i.e. 0 and 2 feet below the bottom of the concrete slab floor) collected from the hand auger borings were to be submitted for laboratory analysis of PCBs and VOCs. All deeper samples would be placed on hold following extraction at the laboratory. Should laboratory analytical results indicate that further vertical delineation is necessary, the deeper soil samples would then be authorized for analysis for PCBs and VOCs (as needed).

Destructive sampling was to be completed to evaluate the impact of the PCB release on the interior basement walls. Sampling would be completed in accordance with the EPA Standard Operating Procedure (SOP) for Sampling Porous Surfaces for PCBs (May 2011). A rotary-impact hammer, variable-speed drill with carbide-tip drill bit or steel chisel and hammer were to

be used to obtain the samples. The samples were to be collected from the stained areas of each main interior basement wall. Three (3) samples were to be collected from each of the northern and southern walls and two (2) samples were to be collected from each of the eastern and western walls. A total of ten (10) wall samples were to be submitted for laboratory analysis for PCBs and VOCs. Analytical results from the wall samples were to be used to develop an appropriate encapsulation and/or mitigation strategy.

Lastly, the sump present in the northeast corner of the basement was to be inspected to ascertain design details such as depth, volume, and discharge destination. A scaled map of the basement would be prepared showing sump and former transformer locations, along with all basement sample locations. If present, fluid from within the sump cavity would be sampled and submitted for laboratory analysis of PCBs and VOCs.

Due Care Investigations

During the later half of 2020, Applied Environmental conducted four sampling investigations/events at the subject property to complete the scope of work described above. These events consisted of the following investigations at the subject property:

1. Subsurface investigation conducted at the exterior of the subject building and construction of four monitoring wells in late July 2020;
2. Sampling of newly installed groundwater monitoring wells in late August 2020;
3. Sampling of subject building basement brick walls and sampling of soils below the concrete basement floor in late August 2020; and,
4. Additional subsurface sampling at the exterior of the subject building to complete delineation of PCB-impacts to shallow soils in late September 2020.

These tasks are described in detail in the following sections.

Exterior Subsurface Investigation

On July 28, 2020, Applied Environmental mobilized to the subject property to install additional soil borings at the exterior of the subject building to attempt to delineate the horizontal and vertical extent of PCB impacted soil outward from GP-11 in the area previously excavated by Terracon in 2014, and to further characterize the subsurface geology and hydrogeology.

The July 28, 2020 mobilization consisted of completing a ground penetrating radar (GPR) investigation to clear boring locations prior to commencing the subsurface investigation followed by advancing eleven (11) soil Geoprobe® borings on the subject property designated as GP-11A, and GP-15 through GP-24 as depicted on **Figure 1 – Exterior Soil Boring Locations**. GP-11A to GP-20 were advanced to a depth of 6 feet bgs to delineate the vertical and horizontal extent of PCB impacts detected in soil boring GP-11 in 2015. GP-21 to GP-24 were advanced, one boring on each side the subject building, to depths of 20 feet bgs to evaluate the deeper lithology and the absence/presence of groundwater in the vicinity of the building structure. These deeper soil borings were converted into permanent groundwater monitoring wells.

The soil borings were advanced utilizing a Geoprobe®, which is a hydraulically powered, percussion-probing machine that drives a sampling tool to obtain continuous soil cores or discrete samples. The soil sampler is 60 inches long by 1.5-inch inner diameter with a plastic liner inside to retain the soil. The sampler and liner are pushed to the desired depth, the sampler and drive rods are removed from the hole, and then the soil and liner are extracted. The liner is taken out of the sampler and cut to observe and sample the soil contained within. During the completion of the borings, soil samples were collected in continuous two-foot intervals for field screening evaluation and were characterized based on visual and olfactory observations.

Subsurface soils at the exterior of the subject property building consisted of fine-grained sand layer to depths ranging from 4 feet bgs to 6 feet bgs underlain by brown to gray clay formation to the maximum explored depth of 20 feet bgs. Groundwater was encountered perched at depths ranging from 3 to 4.5 feet bgs in the sand layer above the clay formation. Groundwater was not encountered at the GP-15, GP-16, GP-22, or GP-23 soil boring locations. Soil boring logs are included in **Appendix A**.

The following table outlines the soil boring locations, total depths, sample intervals and analytical parameters.

Boring ID	Boring Location	Total Depth (ft.) of Boring	Sample Depth (ft.)	Analytical Parameters
GP-11A	Adjacent to previous boring GP-11.	6	surface (soil) 2' (soil) 4' (soil) *Hold 6' (soil) *Hold	PCBs/VOCs
GP-15	20' directly east of GP-11.	6	surface (soil) 2' (soil) *Hold 4' (soil) *Hold 6' (soil) *Hold	PCBs/VOCs
GP-16	10' directly east of GP-11.	6	surface (soil) 2' (soil) *Hold 4' (soil) *Hold 6' (soil) *Hold	PCBs/VOCs
GP-17	10' directly west of GP-11.	6	surface (soil) 2' (soil) *Hold 4' (soil) *Hold 6' (soil) *Hold	PCBs/VOCs
GP-18	20' directly west of GP-11.	6	surface (soil) 2' (soil) *Hold 4' (soil) *Hold 6' (soil) *Hold	PCBs/VOCs
GP-19	10' directly north of GP-11.	6	surface (soil) 2' (soil) *Hold 4' (soil) *Hold 6' (soil) *Hold	PCBs/VOCs
GP-20	20' directly north of GP-11.	6	surface (soil) 2' (soil) *Hold 4' (soil) *Hold 6' (soil) *Hold	PCBs/VOCs
GP-21	10' north and 10' west of the southwest corner of the subject building.	20	4-4.5' (soil) 8.5' (soil)	PCBs/VOCs
GP-22	23' west and 16' south of the southeast corner of the subject building.	20	4-4.5' (soil) 8.5' (soil)	PCBs/VOCs
GP-23	7 feet south and 8 feet east of the northeast corner of the subject building.	20	4-4.5' (soil) 8.5' (soil)	PCBs/VOCs
GP-24	5 feet north and 52 feet east of the northwest corner of the subject building.	20	2.5-3' (soil) 8.5' (soil)	PCBs/VOCs

*Hold = Instructed laboratory to extract sample and place on-hold until authorization if needed.

Per the April 2020 Revised Workplan, surficial soil samples along with deeper soil samples at depths of 2, 4 and 6 feet were collected from GP-11A, and GP-15 through GP-20. Only surficial soil samples were analyzed at the laboratory and based on the results of the analysis, deeper samples were authorized as needed to provide vertical delineation. To prevent holding time expiration, the laboratory was instructed to complete the PCB extraction on the samples. Per the April 2020 Revised Work Plan, soil samples from GP-21/MW-1 through GP-24/MW-4 were to be collected for laboratory analysis from directly above the competent clay formation and from a depth corresponding to the bottom of the basement slab at approximately 8.5 feet. Due to the presence of perched water residing atop the clay formation, soil samples were collected from directly above the saturated zone (4-4.5 feet at GP-21 through GP-23, and 2.5-3 feet at GP-24) and at 8.5 feet. All soil samples were submitted to Quantum Laboratories of Wixom, Michigan for analysis of VOCs per EPA Method 5035/8260 and PCBs per EPA Method 8082A.

Exterior Subsurface Investigation – Soil Analytical Results

The laboratory analytical results of the soil samples revealed that all soil samples did not exceed the laboratory Method Detection Limits (MDLs) for VOCs or PCBs, with the exception of the surficial samples from GP-16, GP-17, and GP-18, which had detections of total PCBs. Of these three samples, only the surficial sample from GP-18 (1,110 µg/kg) yielded a detection of total PCBs exceeding the EPA TSCA High Occupancy Threshold criteria of 1,000 ug/kg.

Based on the reported presence of PCBs in the surficial soil samples from GP-16, GP-17 and GP-18, per the April 2020 Revised Work Plan, Applied Environmental instructed the laboratory to analyze deeper samples that were on hold from the 2-foot interval from these locations to provide vertical delineation. The laboratory analytical results of the 2-foot interval from the GP-16, GP-17 and GP-18 locations revealed that PCBs were not reported above their laboratory MDLs in any of the samples.

Applied Environmental returned to the site on September 25, 2020, to complete two (2) additional hand auger borings (GP-25 and GP-26) to the north of GP-18 to define the horizontal extent of PCBs. Surficial soil samples and samples from 2 feet were collected. The

surficial soil samples were analyzed for PCBs by EPA Method 8082A and the samples from 2 feet per placed on hold pending results from the surface samples. The laboratory analytical results revealed that PCBs were reported in the surface sample collected from GP-25 at a concentration of 764 µg/kg which is below the EPA TSCA High Occupancy Threshold criteria of 1,000 ug/kg. PCBs were not reported above their laboratory MDLs in the surface sample collected from GP-26. Based on the reported presence of PCBs in the surficial soil samples from GP-25, per the April 2020 Revised Work Plan, Applied Environmental instructed the laboratory to analyze the deeper samples that was on hold from the 2-foot interval to provide vertical delineation. The laboratory analytical results of the 2-foot interval from the GP-25 location revealed that PCBs were not reported above their laboratory MDLs in the sample. Soil analytical results are reported in **Table 1** and on **Figure 2a and 2b**. The laboratory reports are included in **Appendix B**.

Exterior Subsurface Investigation – Groundwater Sampling

Following the completion of the soil borings, GP-21 through GP-24 were converted into permanent monitoring wells (sequentially MW-1 through MW-4). The monitoring wells were constructed of two-inch diameter PVC with 5-foot, 0.010 slotted screens, which were installed into the top of the clay formation. Refer to **Appendix A** for a copy of the borings logs and monitoring well construction diagrams.

On August 20, 2020, Applied Environmental was on-site to survey the north top-of-casing elevation from the newly installed monitoring wells (MW-1 through MW-4) using a bench mark relative to 100 feet. Depth to water measurements from each of the monitoring wells were collected using an electronic interface probe with the exception of MW-3 which was dry. Utilizing the north top-of-casing elevations along with the depth to water measurements from the three remaining monitoring wells, Applied Environmental determined that groundwater flow was to the northeast as depicted on **Figure 5**. Refer to **Appendix C** for the elevation calculation and static water elevation forms.

On August 20, 2020, Applied Environmental collected groundwater samples from these newly installed monitoring wells using the U.S. EPA Low Flow Groundwater Sampling Procedures

which consisted of utilizing a peristaltic pump and controller connected to a YSI multi-parameter meter through an in-line flow cell. The following water quality parameters were documented during the low flow process: temperature, pH, conductivity, oxidation reduction potential, dissolved oxygen and turbidity. Water quality readings were collected approximately every three minutes until parameters stabilized within the following criteria prior to sampling: +/- 0.1 for pH, +/-3% for conductivity, +/-10mV for redox potential, +/-10% for dissolved oxygen and +/-10% for turbidity. In addition, during pumping the static water level was monitored so drawdown would not exceed 0.3 feet. **Refer to Appendix D** for a copy of the low flow sampling water quality measurements collected prior to groundwater sampling.

As stated above, MW-3 was dry so a groundwater sample could not be collected. In addition, MW-4 went dry during the low flow sampling process and did not recover to yield sufficient groundwater for sampling, therefore groundwater a sample could be not be collected for laboratory analysis.

A total of two (2) groundwater samples (MW-1 and MW-2) along with one (1) trip blank, one (1) field blank and one (1) duplicate sample from MW-1 for quality assurance/quality control purposes were submitted to Quantum Laboratories of Wixom, Michigan for analysis of VOCs by EPA Method 8260 and PCBs by EPA Method 8082.

The groundwater laboratory analytical results revealed that no VOCs and PCBs were reported above their respective laboratory MDLs in the groundwater or QA/QC samples analyzed. Groundwater analytical results are reported in **Table 3** and on **Figure 6**. The laboratory reports are included in **Appendix B**.

Interior Subsurface Investigation

On July 28, 2020, Applied Environmental completed nine (9) hand auger borings (HA-1 through HA-9) in the basement of the subject building to determine if PCBs were present in the soil below the PCB-impacted concrete floor. Four (4) of the hand auger borings were advanced in locations adjacent to each of the concrete samples collected in December 2015 exhibiting elevated PCB concentrations. The five (5) other hand auger borings were situated in the

basement such that they, along with the four initial borings, were advanced adjacent to the 2015 concrete samples to create a 3 x 3 boring grid pattern. This grid pattern was intended to generally define the lateral extent of impact, if any, from the release beneath the concrete floor in the basement area. From the basement hand auger soil borings, Applied Environmental collected soil samples at 0, 2, and 4 feet below the base of the concrete floor. See **Figure 3** for the basement hand auger boring locations.

Subsurface soils under the concrete slab of the subject property building consisted of a gray clay formation with trace amounts of silt to the maximum depth of the hand auger borings at 4 ft below the base of the concrete floor. Groundwater was not encountered at any of the hand auger boring locations to the maximum depth. Soil boring logs are included in **Appendix A**.

Per the April 2020 Revised Workplan, only the two (2) shallower soil samples (i.e. 0 and 2 feet below the base of the concrete slab floor) from each of the hand auger boring locations were submitted for laboratory analysis and based on the results of the analysis, deeper samples would be authorized as needed to provide vertical delineation. To prevent holding time expiration, the laboratory was instructed to complete the PCB extraction on the samples. All soil samples were submitted to Quantum Laboratories of Wixom, Michigan for analysis of VOCs per EPA Method 5035/8260 and PCBs per EPA Method 8082A.

Interior Subsurface Investigation – Soil Analytical Results

The laboratory analytical results of the interior hand auger soil samples revealed that no VOCs or PCBs were reported above their respective laboratory MDLs in any of the soil samples analyzed. Soil analytical results from the interior investigation are reported in **Table 1** and depicted on **Figure 3**. The laboratory reports are included in **Appendix B**.

Interior Wall Sampling

Along with the hand auger investigation below the basement floor, sampling of the basement concrete and/or brick walls was completed on July 29, 2020 to evaluate the impact of the PCB release on the interior basement walls. Sampling was completed in accordance with the U.S. EPA Standard Operating Procedure (SOP) for Sampling Porous Surfaces for PCBs (May

2011). A steel chisel and hammer were used to obtain the samples from the concrete and/or brick basement walls and were collected from the stained areas of each main exterior or interior wall. Three (3) samples were collected from each of the northern and southern walls, and two (2) samples each were collected from the eastern and western walls for a total of ten (10) wall samples. The wall samples were submitted to Quantum Laboratories for laboratory analysis of VOCs by EPA Method 5035/8260 and PCBs per EPA Method 8082A. The locations of the wall samples are depicted on **Figure 4**.

Interior Wall Sampling - Analytical Results

The laboratory analytical results revealed that no VOCs were reported their respective laboratory MDLs in any of the wall samples. PCBs were reported at concentrations that exceeded the TSCA High Occupancy Threshold at each of the sampling locations except for Wall Samples 8 and 10, where PCBs were reported above laboratory MDLs but below the TSCA High Occupancy Threshold. The laboratory analytical results are reported in **Table 2** and depicted on **Figure 4**.

Basement Sump Evaluation and Sampling

On July 29, 2020, Applied Environmental evaluated the sump located in the northeast corner of the basement. The basement sump is a concrete vault extending approximately 6 to 7 feet below the basement. Applied Environmental observed a total of three (3) inlet pipes into the sump. One (1) was on the north wall of the sump at a depth of approximately 2 feet and two (2) were on the west wall of the sump both at a depth of approximately 3 feet. The water observed within the sump cloudy and turbid with no visual evidence of oil or sheen. One (1) sample was collected of the sump water and was submitted to Quantum Laboratories for analysis of VOCs by EPA Method 8260 and PCBs of EPA Method 8082A.

Basement Sump Water Sampling - Analytical Results

The laboratory analytical results of the sump water revealed that no VOCs or PCBs were reported above their respective laboratory MDLs. The laboratory analytical results are reported in **Table 2** and depicted on **Figure 4**.

Conclusions

Based upon the completion of the scope of work outlined in the April 2020 Revised Work Plan, Applied Environmental concludes the following:

1. Subsurface soils at the subject property consists primarily of a fine-grained sand layer to depths ranging from 4 to feet bgs underlain by a brown to gray clay formation extending to a maximum explored depth of 20 feet bgs;.
2. Soils beneath the subject building and in previously investigated exterior locations have not been impacted by VOCs;
3. No PCB-impacted soils were identified below the subject building;
4. The extent of PCB impacts to soils to the west of the subject building have been delineated to below the TSCA High Occupancy Threshold;
5. Groundwater at the subject property (when encountered) is perched in nature, exhibits a northeasterly gradient, and has not been impacted by VOCs or PCBs; and,
6. The basement walls of the subject building have been impacted by PCBs in excess of the U.S. EPA TSCA High Occupancy Threshold.

Applied Environmental will use the information in this report to prepare a scope of work to address potential response activities that may be required to comply with the owners' due care obligation to redevelop the property into a restaurant.

If you have any questions or required any additional information, please contact us at 734-975-1970.

Respectfully,

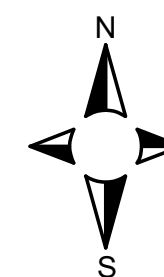


Michael Gatien
Principal, Senior Project Manager
Applied Environmental



Jason Vertrees
President
Applied Environmental

FIGURES






Scale: 1" = 30'

HEAVILY VEGETATED AND TREED AREA

HEAVILY VEGETATED AND TREED AREA

Legend

-  GP-11A SOIL BORING COMPLETED BY APPLIED ENV. 7/28/20
-  GP-21/
MW-1 SOIL BORING/MONITORING WELL COMPLETED BY APPLIED ENV. 12/9/15
-  GP-1 SOIL BORING COMPLETED BY APPLIED ENV. 12/9/15

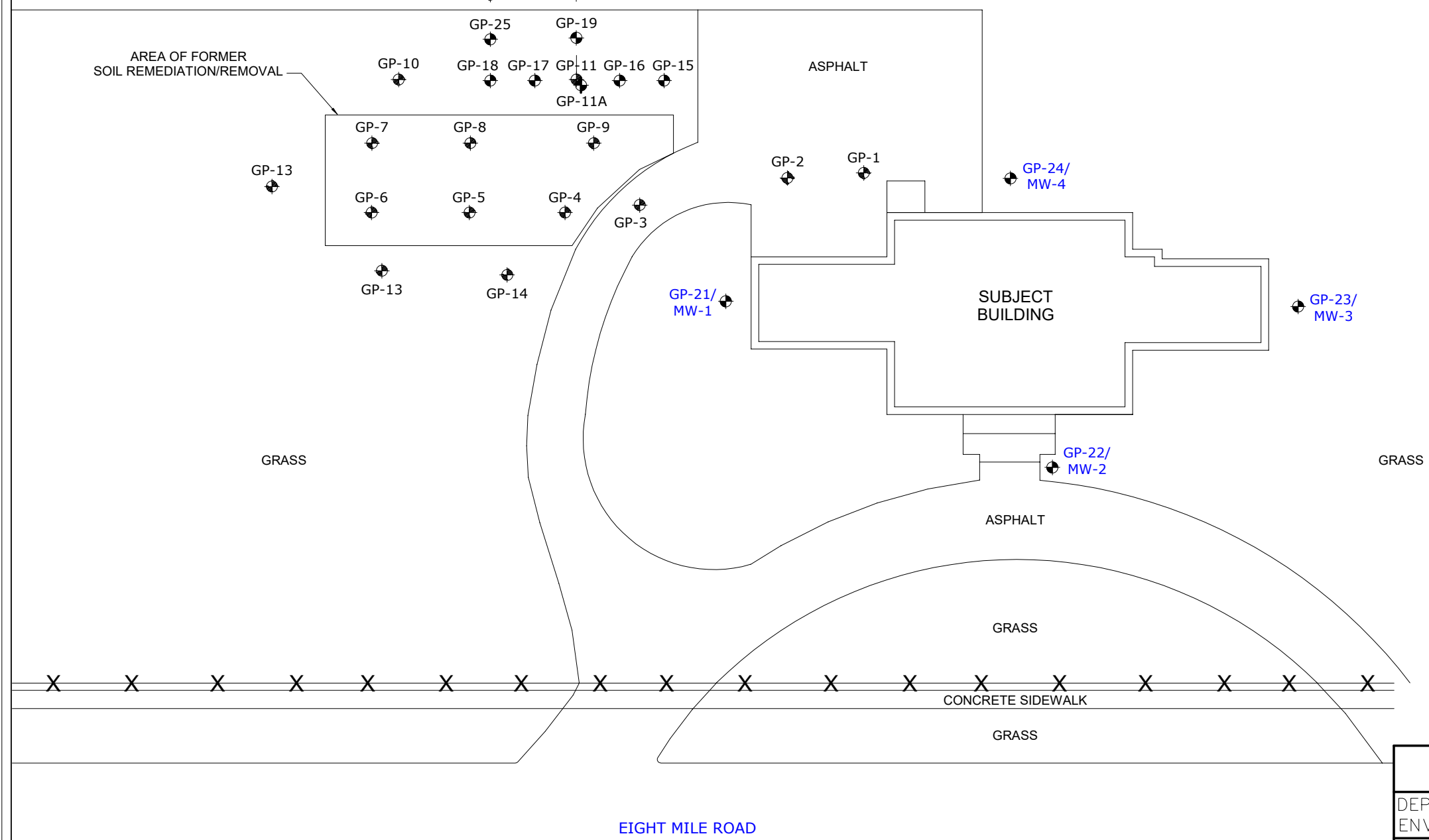
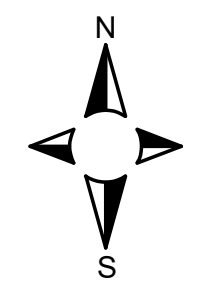


FIGURE 1
EXTERIO SOIL BORING LOCATIONS

<i>APPLIED ENVIRONMENTAL</i>		
DEPT: ENVIRONMENTAL	TITLE: SOIL BORING LOCATIONS	DATE: 7/29/20
PROJECT MGR: M. GATIEN	CLIENT: ATE MILE LLC	PROJ. NUMBER: 20-2554



Scale: 1" = 30'

Legend

- GP-11A SOIL BORING COMPLETED BY APPLIED ENV. 7/28/20
- GP-21/
MW-1 SOIL BORING/MONITORING WELL COMPLETED BY APPLIED ENV. 12/9/15
- GP-1 SOIL BORING COMPLETED BY APPLIED ENV. 12/9/15

All Soil Results in ug/kg.
 MDL - Laboratory Method Detection Limit
 VOCs - Volatile Organic Compounds
 PCBs - Polychlorinated Biphenyls
 Red Colored PCB Concentrations Indicated Levels Exceeding the EPA High Occupancy Threshold of 1,000 ug/kg.

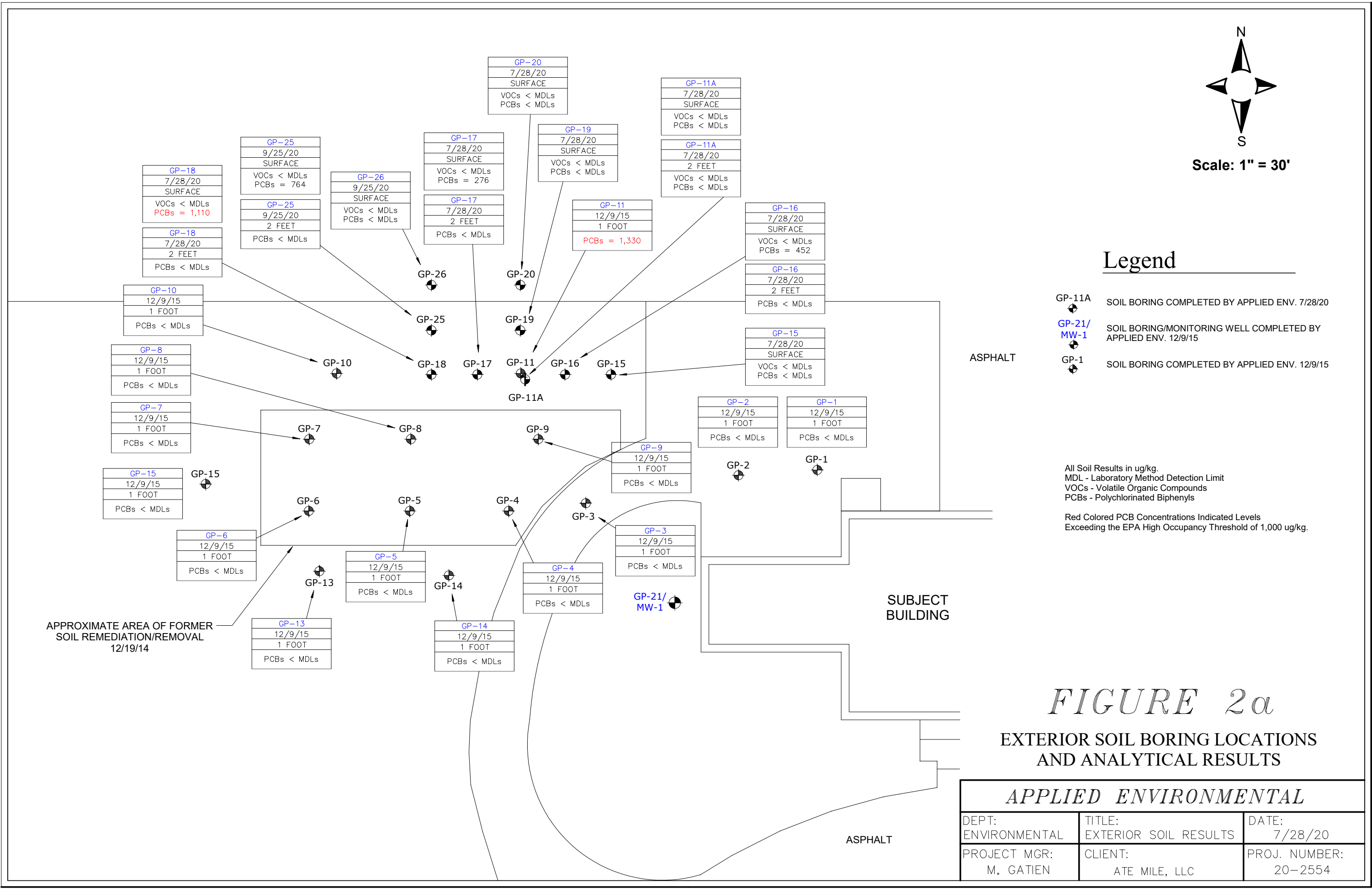
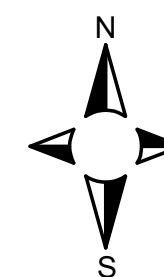
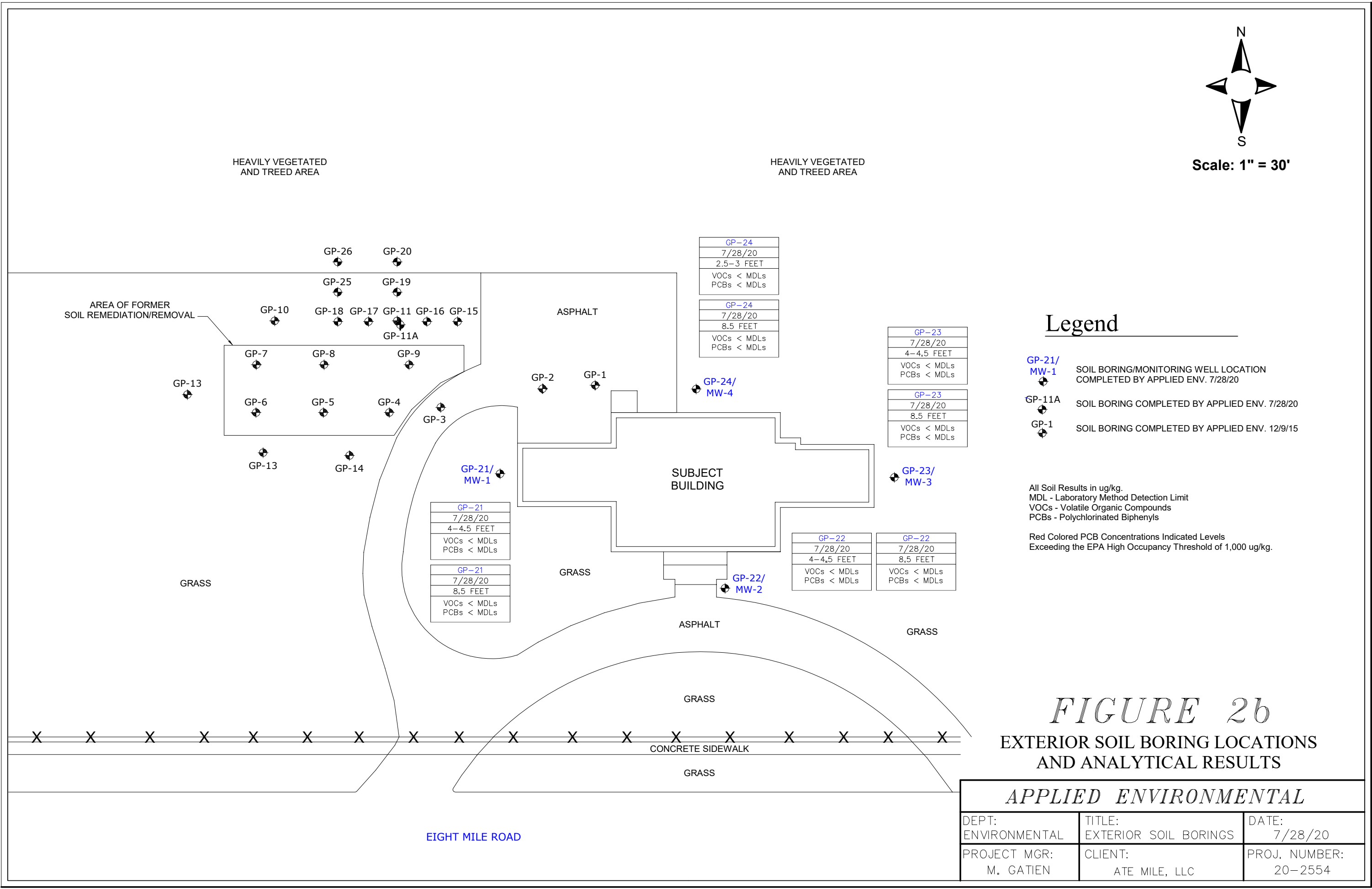


FIGURE 2a
 EXTERIOR SOIL BORING LOCATIONS
 AND ANALYTICAL RESULTS

APPLIED ENVIRONMENTAL		
DEPT: ENVIRONMENTAL	TITLE: EXTERIOR SOIL RESULTS	DATE: 7/28/20
PROJECT MGR: M. GATIEN	CLIENT: ATE MILE, LLC	PROJ. NUMBER: 20-2554



Scale: 1" = 30'



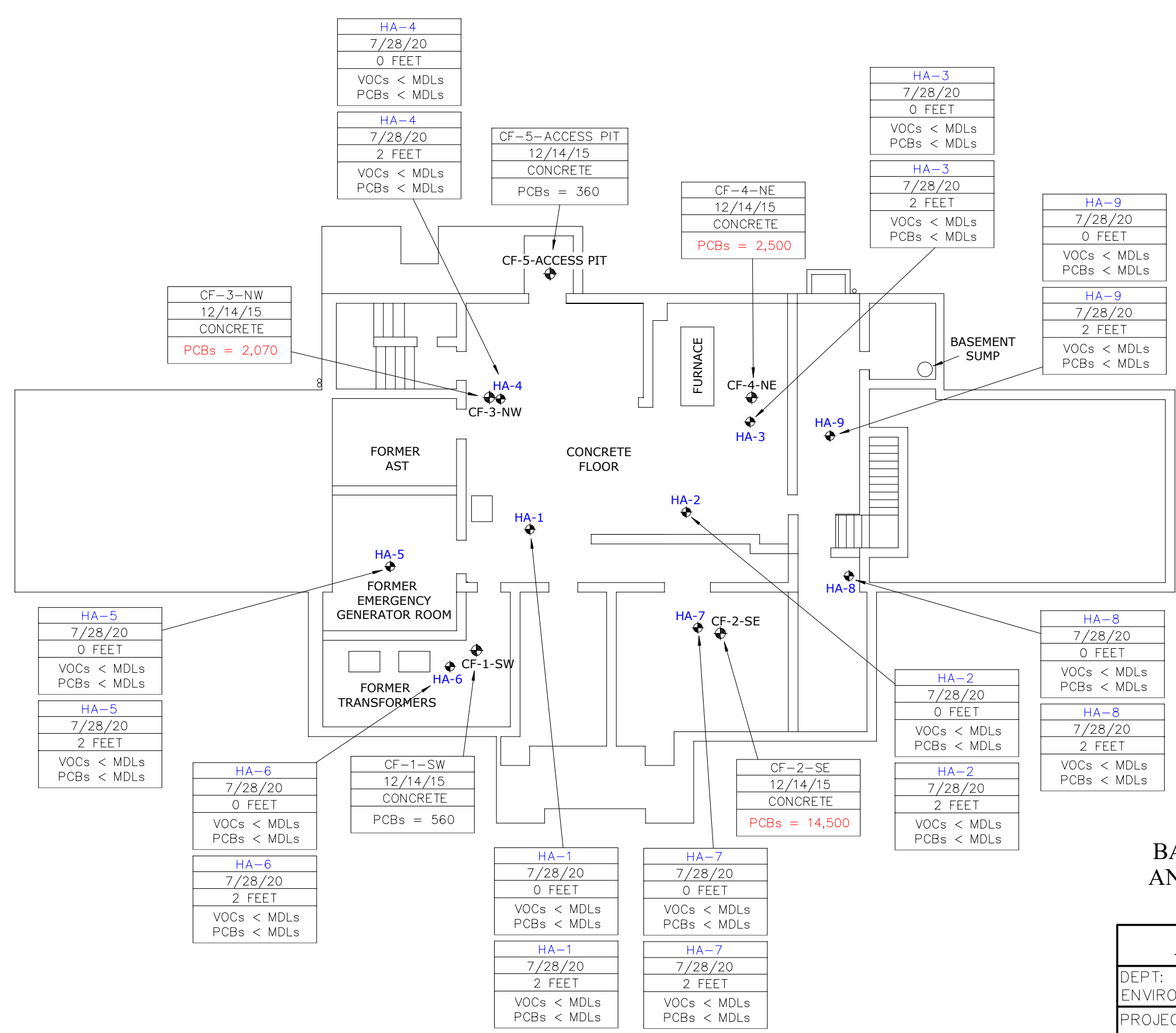
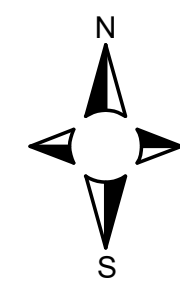
Legend

- GP-21/
MW-1 SOIL BORING/MONITORING WELL LOCATION COMPLETED BY APPLIED ENV. 7/28/20
- GP-11A SOIL BORING COMPLETED BY APPLIED ENV. 7/28/20
- GP-1 SOIL BORING COMPLETED BY APPLIED ENV. 12/9/15

All Soil Results in ug/kg.
 MDL - Laboratory Method Detection Limit
 VOCs - Volatile Organic Compounds
 PCBs - Polychlorinated Biphenyls
 Red Colored PCB Concentrations Indicated Levels Exceeding the EPA High Occupancy Threshold of 1,000 ug/kg.

FIGURE 2b
 EXTERIOR SOIL BORING LOCATIONS
 AND ANALYTICAL RESULTS

<i>APPLIED ENVIRONMENTAL</i>		
DEPT: ENVIRONMENTAL	TITLE: EXTERIOR SOIL BORINGS	DATE: 7/28/20
PROJECT MGR: M. GATIEN	CLIENT: ATE MILE, LLC	PROJ. NUMBER: 20-2554



Legend

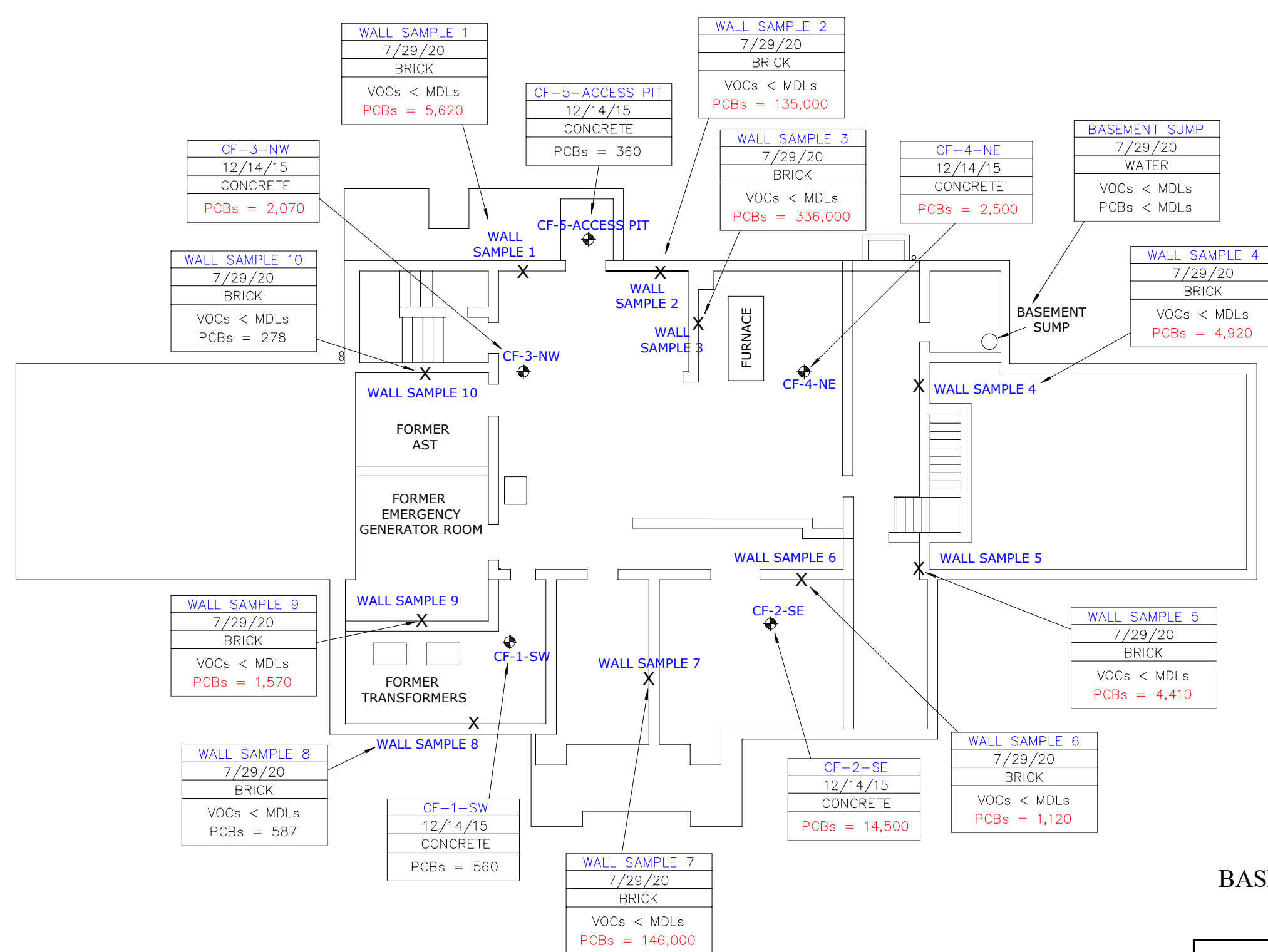
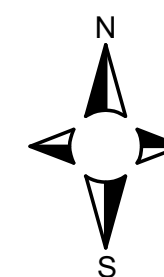
- HA-1 HAND AUGER BORING LOCATION COMPLETED BY APPLIED ENV. 7/28 & 29/2020
- CF-1 CONCRETE FLOOR CORE SAMPLE LOCATION COMPLETED BY APPLIED ENV. 12/14/15

All Soil Results in ug/kg.
 MDL - Laboratory Method Detection Limit
 VOCs - Volatile Organic Compounds
 PCBs - Polychlorinated Biphenyls

Red Colored PCB Concentrations Indicated Levels Exceeding the EPA High Occupancy Threshold of 1,000 ug/kg.

FIGURE 3
BASEMENT CONCRETE FLOOR SAMPLE AND HAND AUGER BORING LOCATIONS WITH LABORATORY RESULTS

<i>APPLIED ENVIRONMENTAL</i>		
DEPT: ENVIRONMENTAL	TITLE: BASEMENT HAND AUGER BORINGS	DATE: 7/28/20
PROJECT MGR: M. GATIEN	CLIENT: ATE MILE, LLC	PROJ. NUMBER: 20-2554



Legend

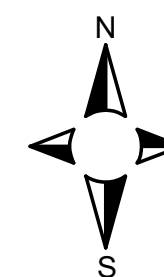
X BASEMENT WALL SAMPLE LOCATION

CF-1 CONCRETE FLOOR SAMPLE LOCATION

All Results in ug/kg.
 Basement Sump Results in ug/L
 MDL - Laboratory Method Detection Limit
 VOCs - Volatile Organic Compounds
 PCBs - Polychlorinated Biphenyls
 Red Colored PCB Concentrations Indicated Levels
 Exceeding the EPA High Occupancy Threshold of 1,000 ug/kg.

FIGURE 4
BASEMENT WALL SAMPLING LOCATIONS
AND ANALYTICAL RESULTS

APPLIED ENVIRONMENTAL		
DEPT: ENVIRONMENTAL	TITLE: BASEMENT WALL SAMPLING	DATE: 7/29/20
PROJECT MGR: M. GATIEN	CLIENT: UNION JOINTS	PROJ. NUMBER: 20-2554



Scale: 1" = 30'

HEAVILY VEGETATED AND TREED AREA

HEAVILY VEGETATED AND TREED AREA

Legend

- 93.28'
MW-1 MONITORING WELL WITH STATIC WATER ELEVATION IN FEET
- 93.25' GROUNDWATER GRADIENT CONTOUR
- LOCALIZED GROUNDWATER FLOW DIRECTION
- GP-11A SOIL BORING COMPLETED BY APPLIED ENV. 7/28/20
- GP-1 SOIL BORING COMPLETED BY APPLIED ENV. 12/9/15

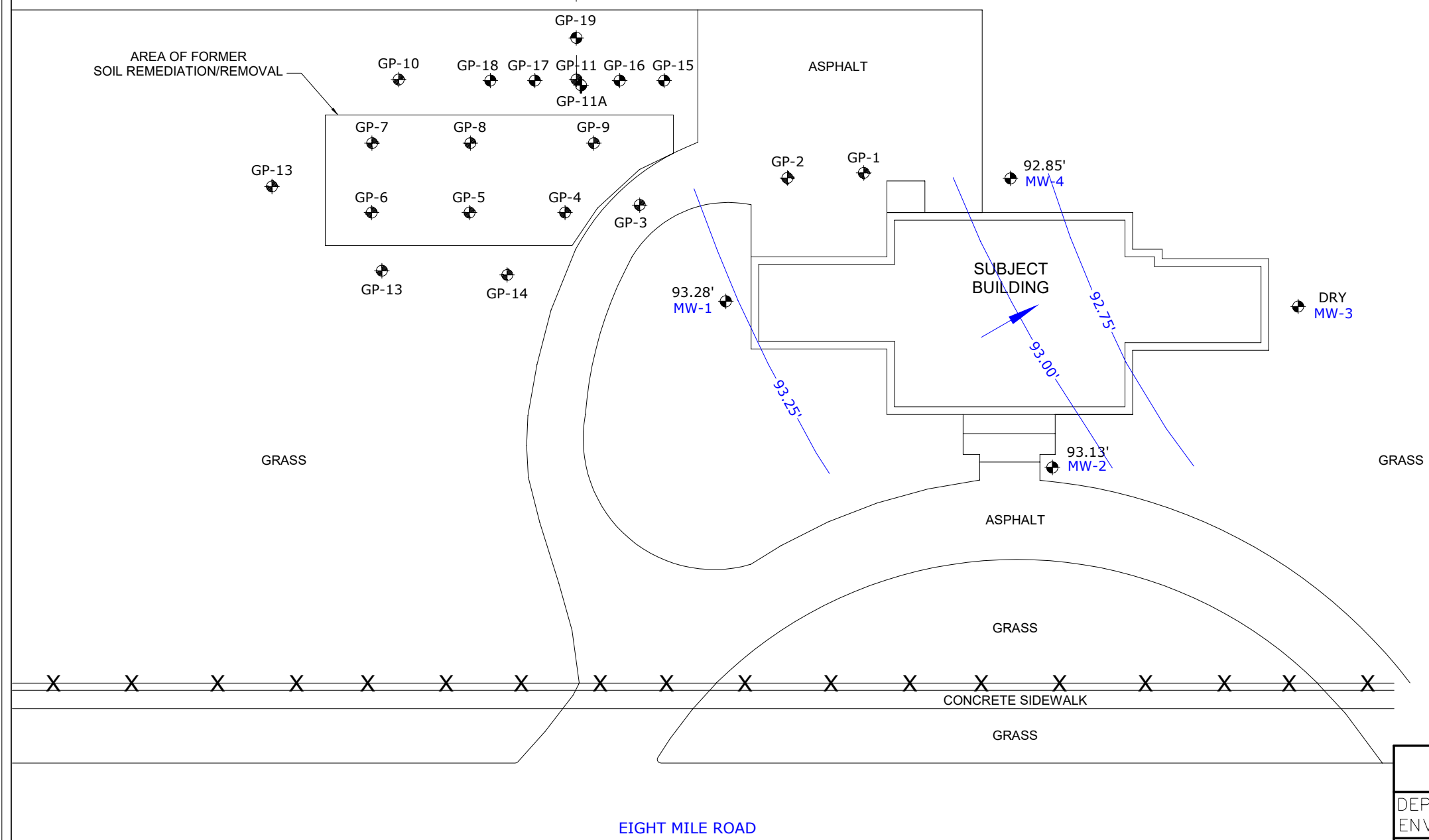
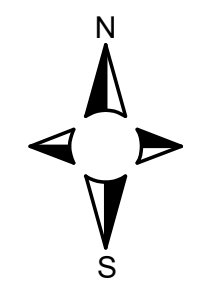


FIGURE 5
GROUNDWATER FLOW DIRECTION

APPLIED ENVIRONMENTAL		
DEPT: ENVIRONMENTAL	TITLE: GROUNDWATER FLOW	DATE: 8/20/20
PROJECT MGR: M. GATIEN	CLIENT: UNION JOINTS	PROJ. NUMBER: 20-2554



Scale: 1" = 30'

HEAVILY VEGETATED AND TREED AREA

HEAVILY VEGETATED AND TREED AREA

Legend

- 93.28'
MW-1 MONITORING WELL WITH STATIC WATER ELEVATION IN FEET
- 93.25' GROUNDWATER GRADIENT CONTOUR
- LOCALIZED GROUNDWATER FLOW DIRECTION
- GP-11A SOIL BORING COMPLETED BY APPLIED ENV. 7/28/20
- GP-1 SOIL BORING COMPLETED BY APPLIED ENV. 12/9/15

All Groundwater Results in ug/L
 MDL - Laboratory Method Detection Limit
 VOCs - Volatile Organic Compounds
 PCBs - Polychlorinated Biphenyls

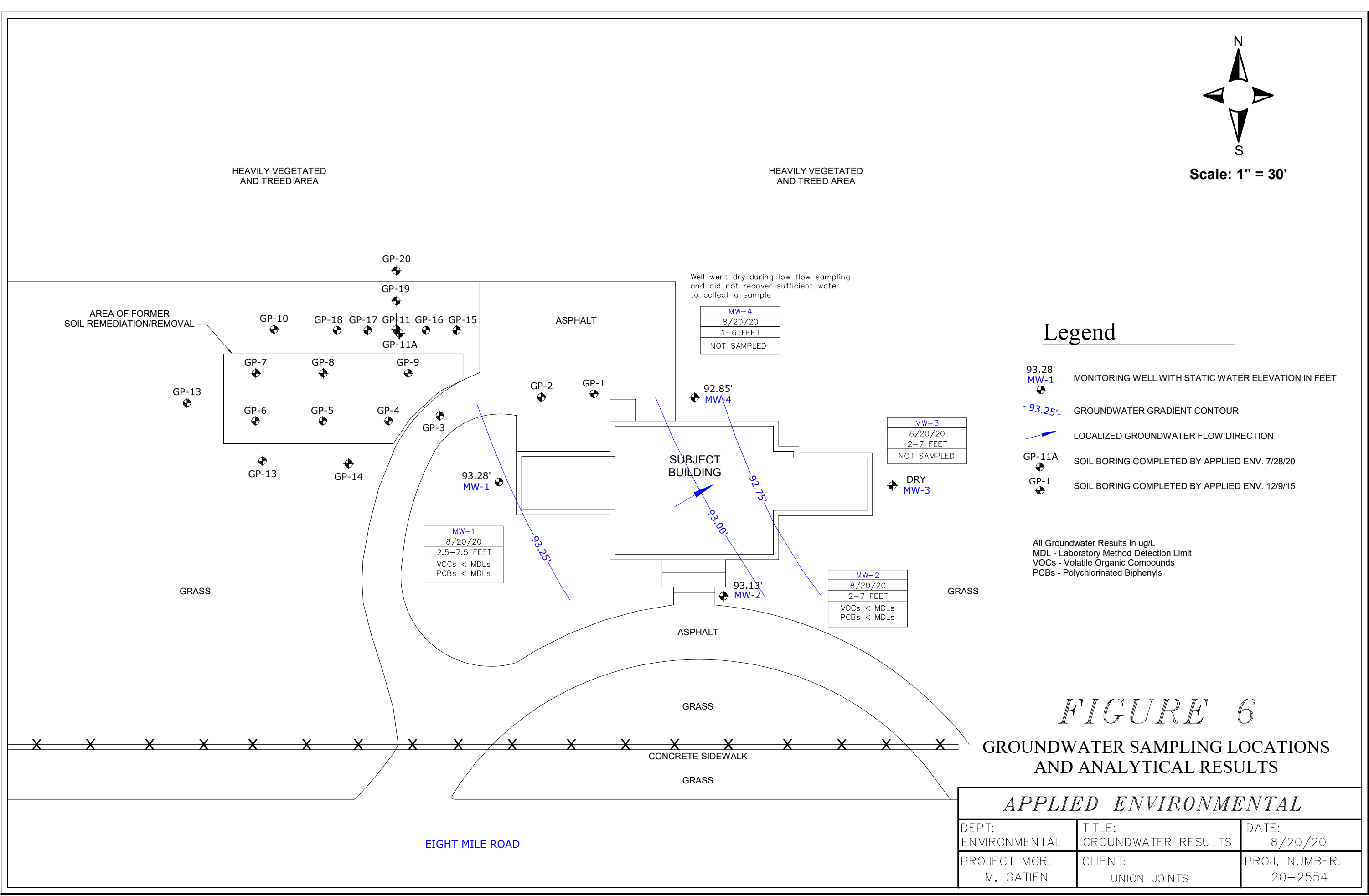


FIGURE 6
 GROUNDWATER SAMPLING LOCATIONS AND ANALYTICAL RESULTS

APPLIED ENVIRONMENTAL		
DEPT: ENVIRONMENTAL	TITLE: GROUNDWATER RESULTS	DATE: 8/20/20
PROJECT MGR: M. GATIEN	CLIENT: UNION JOINTS	PROJ. NUMBER: 20-2554

TABLES

**Table 1
Soil Analytical Results
12700 8 Mile Road
Oak Park, Michigan
July 28 29, 2020**

12700 W. EIGHT MILE ROAD	EGLE Criteria for Soils - Residential - Part 201 Generic Cleanup Criteria and Screening Levels** (December 30, 2013)											US EPA											
	Groundwater Protection			Indoor Air		Ambient Air (Y) (C)					Direct Contact			TSCA High Occupancy Threshold	Sample ID	GP-11A	GP-11A	GP-15	GP-16	GP-17	GP-17	GP-18	GP-18
	Chemical	Statewide	Drinking	Groundwater	Soil	Infinite Source	Finite	Finite	Particulate	Direct	Soil												
	Abstract	Default	Water	Surface Water	Volatilization	Volatiles	5 Meter	2 Meter	Soil	Contact	Saturation												
	Service	Background	Protection	Interface	to Indoor Air	Inhalation	Inhalation	Inhalation	Inhalation	Criteria	Concentration												
Number	Levels	Criteria	Protection	Inhalation	Criteria (VSI)	Source	Source	Criteria		Screening													
			Criteria	Criteria		Thickness	Thickness			Levels	ug/kg	MDL (ug/kg)	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg		
VOCs - EPA Method SW8260B		ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	
Acetone (l)	67641	NA	15,000	34,000	2.9E+8 (C)	1.3E+08	1.3E+08	1.9E+08	3.9E+11	2.3E+07	1.1E+08	NA	1000	<	<	<	<	<	NA	<	NA	<	NA
Benzene (l)	71432	NA	100	4,000 (X)	1,600	13,000	34,000	79,000	3.8E+8	1.8E+5	4.0E+5	NA	50	<	<	<	<	<	NA	<	NA	<	NA
Bromobenzene (l)	108861	NA	550	NA	3.1E+5	4.5E+5	4.5E+5	4.5E+5	5.3E+8	5.40E+05	7.6E+5	NA	100	<	<	<	<	<	NA	<	NA	<	NA
Bromochloromethane	74975	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	100	<	<	<	<	<	NA	<	NA	<	NA
Bromodichloromethane	75274	NA	1,600 (W)	ID	1,200	9,100	9,700	19,000	8.4E+7	1.10E+05	1.5E+6	NA	100	<	<	<	<	<	NA	<	NA	<	NA
Bromoform	75252	NA	1,600 (W)	ID	1.5E+5	9.0E+5	9.0E+5	9.0E+5	2.8E+9	8.20E+05	8.7E+5	NA	100	<	<	<	<	<	NA	<	NA	<	NA
Bromomethane	74839	NA	200	700	860	11,000	11,000	1.4E+5	3.3E+8	3.2E+5	2.2E+6	NA	200	<	<	<	<	<	NA	<	NA	<	NA
n-Butylbenzene	104518	NA	1,600	ID	ID	ID	ID	ID	2.0E+09	2.50E+06	1.0E+7	NA	50	<	<	<	<	<	NA	<	NA	<	NA
sec-Butylbenzene	135988	NA	1,600	ID	ID	ID	ID	ID	4.00E+08	2.50E+06	1.0E+7	NA	50	<	<	<	<	<	NA	<	NA	<	NA
tert-Butylbenzene (l)	98066	NA	1,600	NA	ID	ID	ID	ID	6.70E+08	2.50E+06	1.0E+7	NA	50	<	<	<	<	<	NA	<	NA	<	NA
Carbon disulfide (l,R)	75150	NA	1.60E+04	ID	76,000	1.30E+06	7.90E+06	1.90E+07	4.70E+10	7.2E+6 (C,DD)	2.80E+05	NA	250	<	<	<	<	<	NA	<	NA	<	NA
Carbon Tetrachloride	56235	NA	100	900 (X)	190	3,500	12,000	28,000	1.3E+8	96,000	3.9E+5	NA	50	<	<	<	<	<	NA	<	NA	<	NA
Chlorobenzene	108907	NA	2,000	500	1.2E+5	7.7E+5	9.9E+5	2.1E+6	4.7E+9	4.3E+6 (C)	2.6E+5	NA	50	<	<	<	<	<	NA	<	NA	<	NA
Chlorodibromomethane	124481	NA	1,600 (W)	ID	3,900	24,000	24,000	33,000	1.3E+8	1.10E+05	6.1E+5	NA	100	<	<	<	<	<	NA	<	NA	<	NA
Chloroethane	75003	NA	8,600	22,000(X)	2.9E+6 (C)	3.0E+7	1.2E+8	2.8E+8	6.7E+11	2.6E+6 (C)	9.50E+05	NA	250	<	<	<	<	<	NA	<	NA	<	NA
Chloroform	67663	NA	1,600 (W)	7,000	7,200	45,000	1.2E+5	2.7E+5	1.3E+9	1.20E+06	1.50E+06	NA	50	<	<	<	<	<	NA	<	NA	<	NA
Chloromethane	74873	NA	5,200	ID	2,300	40,000	4.1E+5	1.0E+6	4.9E+9	1.6E+6 (C)	1.1E+6	NA	250	<	<	<	<	<	NA	<	NA	<	NA
2-Chlorotoluene	95498	NA	3,300	ID	2.7E+5	1.2E+6	2.9E+6	6.3E+6	4.70E+09	4.5E+6 (C)	5.00E+05	NA	50	<	<	<	<	<	NA	<	NA	<	NA
4-Chlorotoluene	106434	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	50	<	<	<	<	<	NA	<	NA	<	NA
1,2-Dibromo-3-chloropropane	96128	NA	10 (M); 4.0	ID	220	260	260	260	5.6E+5	4.400 (C)	1,200	NA	10	<	<	<	<	<	NA	<	NA	<	NA
1,2-Dibromoethane	106934	NA	NA	NA	NA	NA	24,005	NA	NA	NA	NA	NA	250	<	<	<	<	<	NA	<	NA	<	NA
Dibromomethane	74953	NA	1,600	NA	ID	ID	ID	ID	ID	2.5E+6 (C)	2.0E+6	NA	250	<	<	<	<	<	NA	<	NA	<	NA
1,2-Dichlorobenzene	95501	NA	14,000	280	1.1E+7 (C)	3.9E+7	3.9E+7	5.2E+7	1.0E+11	1.9E+7 (C)	2.1E+5	NA	100	<	<	<	<	<	NA	<	NA	<	NA
1,3-Dichlorobenzene	541731	NA	170	680	26,000	79,000	79,000	1.1E+5	2.0E+8	2.0+5 (C)	1.7E+5	NA	100	<	<	<	<	<	NA	<	NA	<	NA
1,4-Dichlorobenzene	106467	NA	1,700	360	19,000	77,000	77,000	1.1E+5	4.5E+8	4.00E+05	NA	NA	100	<	<	<	<	<	NA	<	NA	<	NA
1,1-Dichloroethane	75343	NA	18,000	15,000	2.3E+5 (C)	2.1E+6	5.9E+6	1.40E+07	3.30E+10	2.7E+7 (C)	8.90E+05	NA	50	<	<	<	<	<	NA	<	NA	<	NA
1,2-Dichloroethane	107062	NA	100	7,200 (X)	2,100	6,200	11,000	26,000	1.2E+8	9.10E+04	1.2E+6	NA	50	<	<	<	<	<	NA	<	NA	<	NA
1,1-Dichloroethene (l)	75354	NA	140	2,600	62	1,100	5300	13,000	6.2E+7	6.6E+5	5.70E+05	NA	50	<	<	<	<	<	NA	<	NA	<	NA
cis-1,2-Dichloroethene	156592	NA	1,400	1,200	22,000	1.8E+5	4.2E+5	9.9E+5	2.3E+9	2.5E+6 (C)	6.4E+5	NA	50	<	<	<	<	<	NA	<	NA	<	NA
trans-1,2-Dichloroethene	156605	NA	2,000	30,000 (X)	23,000	2.80E+05	8.3E+5	2.00E+06	4.70E+09	3.8E+6 (C)	1.4E+6	NA	50	<	<	<	<	<	NA	<	NA	<	NA
1,2-Dichloropropane	78875	NA	100	4,600 (X)	4,000	25,000	50,000	1.1E+5	2.7E+8	1.40E+05	5.5E+5	NA	50	<	<	<	<	<	NA	<	NA	<	NA
1,3-Dichloropropane	142289	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	50	<	<	<	<	<	NA	<	NA	<	NA
2,2-Dichloropropane	594207	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	50	<	<	<	<	<	NA	<	NA	<	NA
1,1-Dichloropropene	563586	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	50	<	<	<	<	<	NA	<	NA	<	NA
Ethylbenzene (l)	100414	NA	1,500	360	87,000	7.2E+5	1.0E+6	2.2E+6	1.0E+10	2.2E+7 (C)	1.4E+5	NA	50	<	<	<	<	<	NA	<	NA	<	NA
Hexachlorobutadiene (C-46)	87683	NA	26,000	91	1.3E+5	1.3E+5	1.3E+5	1.3E+5	1.4E+8	1.00E+05	3.5E+5	NA	50	<	<	<	<	<	NA	<	NA	<	NA
Isopropyl benzene	98828	NA	91,000	3,200	4.0E+5 (C)	1.7E+6	2.8E+6	1.7E+6	5.8E+9	2.5E+7 (C)	3.90E+05	NA	250	<	<	<	<	<	NA	<	NA	<	NA
p-Isopropyltoluene	99876	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	100	<	<	<	<	<	NA	<	NA	<	NA
Methylene Chloride	75092	NA	100	30,000 (X)	45,000	2.1E+5	5.9E+5	1.4E+6	6.6E+9	1.30E+06	2.3E+6	NA	100	<	<	<	<	<	NA	<	NA	<	NA
Methyl-tert-butyl ether (MTBE)	1634044	NA	800	1.45E+5 (X)	9.9E+6 (C)	2.5E+7	3.9E+7	8.7E+7	2.0E+11	1.5E+6	5.9E+6	NA	250	<	<	<	<	<	NA	<	NA	<	NA
Naphthalene	91203	NA	35,000	730	2.5E+5	3.0E+5	3.0E+5	3.0E+5	2.0E+8	1.60E+07	NA	NA	250	<	<	<	<	<	NA	<	NA	<	NA
n-Propylbenzene	103651	NA	1,600	ID	ID	ID	ID	ID	1.3E+9	2.50E+06	1.0E+7	NA	100	<	<	<	<	<	NA	<	NA	<	NA
Styrene	100425	NA	2,700	2,100(X)	2.5E+5	9.7E+5	9.7E+5	1.4E+6	5.50E+09	4.0E+5	5.2E+5	NA	50	<	<	<	<	<	NA	<	NA	<	NA
1,1,1,2-Tetrachloroethane	630206	NA	1500	ID	6,200	36,000	54,000	1.0E+5	4.2E+8	4.8+5 (C)	4.40E+05	NA	100	<	<	<	<	<	NA	<	NA	<	NA
1,1,2,2-Tetrachloroethane	79345	NA	170	1,600 (X)	4,300	10,000	14,000	14,000	5.4E+7	5.30E+04	8.7E+5	NA	50	<	<	<	<	<	NA	<	NA	<	NA
Tetrachloroethene	127184	NA	100	1,200 (X)	11,000	1.7E+5	4.8E+5	1.1E+6	2.7E+9	2.0E+5 (C)	88,000	NA	50	<	<	<	<	<	NA	<	NA	<	NA
Toluene (l)	108883	NA	16,000	5,400	3.3E+5 (C)	2.8E+6	5.1E+6	1.20E+07	2.7E+10	5.0E+7 (C)	2.5E+5	NA	100	<	<	<	<	<	NA	<	NA	<	NA
1,2,3-Trichlorobenzene	87616	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	250	<	<	<	<	<	NA	<	NA	<	NA
1,2,4-Trichlorobenzene	120821	NA	4,200	5,900 (X)	9.6E+6 (C)	2.8E+7	2.8E+7	2.8E+7	2.5E+10	9.9E+5 (DD)	1.1E+6	NA	250	<	<	<	<	<	NA	<	NA	<	NA
1,1,1-Trichloroethane	71556	NA	4,000	1,800	2.5E+5	3.8E+6	1.2E+7	2.8E+7	6.7E+10	5.0E+8 (C)	4.6E+5	NA	50	<	<	<	<	<	NA	<	NA	<	NA
1,1,2-Trichloroethane	79005	NA	100	6,600 (X)	4,600	17,000	21,000	44,000	1.9E+8														

**Table 3
Sump and Groundwater Analytical Results
12700 8 Mile Road
Oak Park, Michigan
July 29 and August 20, 2020**

12700 W. EIGHT MILE ROAD OAK PARK, MICHIGAN AE PROJECT NO. 20-2554	EGLE Criteria for Groundwater - Part 201 Generic Cleanup Criteria and Screening Levels December 30, 2013)**								Sample ID	Sump	MW-1	MW-2	MW-3	MW-4
	Chemical Abstract Number	Residential Drinking Water Criteria	Nonresidential Drinking Water Criteria	Groundwater Surface Water Interface Criteria	Residential Groundwater Volatilization to Indoor Air Inhalation Criteria	Nonresidential Groundwater Volatilization to Indoor Air Inhalation Criteria	Water Solubility	Flammability and Explosivity Screening Level						
		µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l						
VOCs - EPA Method 8260		µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	MDL (µg/l)	µg/l	µg/l	µg/l	µg/l	µg/l
Acetone (l)	67641	730	2,100	1,700	1.0E+9 (D,S)	1.0E+9 (D,S)	1.00E+09	1.50E+07	25	<	<	<	NA	NA
Benzene (l)	71432	5 (A)	5 (A)	200 (X)	5,600	35,000	1.75E+06	68,000	1.0	<	<	<	NA	NA
Bromochloromethane	74975	NA	NA	NA	NA	NA	NA	NA	1.0	<	<	<	NA	NA
Bromodichloromethane	75274	80 (A,W)	80 (A,W)	ID	4,800	37,000	6.74E+6	ID	1.0	<	<	<	NA	NA
Bromoform	75252	80 (A,W)	80 (A,W)	ID	4.7E+5	3.1E+6 (S)	3.10E+6	ID	1.0	<	<	<	NA	NA
Bromomethane	74839	10	29	35	4,000	9,000	1.45E+7	ID	1.0	<	<	<	NA	NA
2-Butanone (MEK) (l)	78933	13,000	38,000	2,200	2.4E+8 (S)	2.4E+8 (S)	2.4E+8	ID	25	<	<	<	NA	NA
sec-Butylbenzene	135988	80	230	ID	ID	ID	NA	ID	1.0	<	<	<	NA	NA
Carbon disulfide (l,R)	75150	800	2,300	ID	2.5E+5	5.5E+5	1.19E+6	13,000	5.0	<	<	<	NA	NA
Carbon tetrachloride	56235	5.0 (A)	5.0 (A)	45 (X)	370	2,400	7.93E+5	ID	1.0	<	<	<	NA	NA
Chlorobenzene (l)	108907	100 (A)	100 (A)	25	2.1E+5	4.7E+5 (S)	4.72E+5	1.6E+5	1.0	<	<	<	NA	NA
Chloroethane	75003	430	1,700	1,100 (X)	5.7E+6 (S)	5.7E+6 (S)	5.74E+6	1.1E+5	1.0	<	<	<	NA	NA
Chloroform	67663	80 (A,W)	80 (A,W)	350	28,000	1.8E+5	7.92E+6	ID	1.0	<	<	<	NA	NA
Chloromethane (l)	74873	280	1,100	ID	8,600	45,000	6.34E+6	36,000	1.0	<	<	<	NA	NA
Dibromochloromethane	124481	80 (A,W)	80 (A,W)	ID	14,000	1.1E+5	2.60E+6	ID	1.0	<	<	<	NA	NA
1,2-Dibromo-3-chloropropane	96128	0.2 (A)	0.2 (A)	ID	220	1,200 (S)	1.230	NA	0.2	<	<	<	NA	NA
Dibromomethane	74953	80	230	NA	ID	ID	1.10E+7	ID	5.0	<	<	<	NA	NA
1,2-Dibromomethane	106934	0.05 (A)	0.05 (A)	5.7 (X)	2400	15,000	4.2E+6	ID	0.2	<	<	<	NA	NA
1,2-Dichlorobenzene	95501	600 (A)	600 (A)	13	1.6E+5 (S)	1.6E+5 (S)	1.56E+5	NA	1.0	<	<	<	NA	NA
1,3-Dichlorobenzene	541731	6.6	19	28	18,000	41,000	1.11E+5	ID	1.0	<	<	<	NA	NA
1,4-Dichlorobenzene	106467	75 (A)	75 (A)	17	16,000	74,000 (S)	73,800	NA	1.0	<	<	<	NA	NA
Dichlorodifluoromethane	75718	1,700	4,800	ID	2.2E+5	3.0E+5 (S)	3.00E+5	ID	1.0	<	<	<	NA	NA
1,1-Dichloroethane	75343	880	2,500	740	1.0E+6	2.3E+6	5.06E+6	3.8E+5	1.0	<	<	<	NA	NA
1,2-Dichloroethane (l)	107082	5.0 (A)	5.0 (A)	360 (X)	9,600	59,000	8.52E+6	2.5E+6	1.0	<	<	<	NA	NA
1,1-Dichloroethylene (l)	75354	7.0 (A)	7.0 (A)	130	200	1,300	2.25E+6	97,000	1.0	<	<	<	NA	NA
cis-1,2-Dichloroethylene	156592	70 (A)	70 (A)	620	93,000	2.1E+5	3.50E+6	5.3E+5	1.0	<	<	<	NA	NA
trans-1,2-Dichloroethylene	156605	100 (A)	100 (A)	1,500 (X)	85,000	2.0E+5	6.30E+6	2.3E+5	1.0	<	<	<	NA	NA
1,2-Dichloropropane (l)	78875	5.0 (A)	5.0 (A)	230 (X)	16,000	36,000	2.80E+6	5.5E+5	1.0	<	<	<	NA	NA
1,3-Dichloropropane	542756	8.5	35	9.0 (X)	3,900	26,000	2.80E+6	1.3E+5	1.0	<	<	<	NA	NA
Diethyl ether	60297	10 (E)	10 (E)	ID	6.1E+7 (S)	6.1E+7 (S)	6.1E+7	6.5E+5	10	<	<	<	NA	NA
Ethylbenzene (l)	100414	74 (E)	74 (E)	18	1.10E+05	1.7E+5 (S)	1.69E+05	43,000	1.0	<	<	<	NA	NA
Ethylene dibromide	106934	0.05 (A)	0.05 (A)	5.7 (X)	2,400	15,000	4.20E+06	ID	0.05	<	<	<	NA	NA
Hexachloroethane	67721	7.3	21	6.7 (X)	27,000	50,000 (S)	5.00E+04	ID	1.0	<	<	<	NA	NA
2-Hexanone	591786	1000	2900	ID	4.20E+06	8.70E+06	1.80E+07	NA	50	<	<	<	NA	NA
Isopropyl benzene	98828	800	2,300	28	56,000 (S)	56,000 (S)	56,000	29,000	1.0	<	<	<	NA	NA
p-isopropyltoluene	99876	NA	NA	NA	NA	NA	NA	NA	5.0	<	<	<	NA	NA
Methylene iodide	75116	NA	NA	NA	NA	NA	NA	NA	1.0	<	<	<	NA	NA
Methyl-tert-butyl-ether (MTBE)	1634044	40 (E)	40 (E)	7,100 (X)	4.7E+7 (S)	4.7E+7 (S)	4.68E+7	ID	5.0	<	<	<	NA	NA
4-Methyl-2-pentanone (MIBK) (l)	108101	1800	5200	ID	2.0E+7 (S)	2.0E+7 (S)	2.0E+7	ID	50	<	<	<	NA	NA
Methylene chloride	75092	5.0 (A)	5.0 (A)	1,500 (X)	2.2E+5	1.4E+6	1.70E+7	ID	5.0	<	<	<	NA	NA
2-Methylnaphthalene	91576	280	750	19	25,000 (S)	25,000 (S)	24,600	ID	5.0	<	<	<	NA	NA
Naphthalene	91203	520	1,500	11	31,000 (S)	31,000 (S)	31,000	NA	5.0	<	<	<	NA	NA
n-Butylbenzene	104518	80	230	ID	ID	ID	NA	ID	1.0	<	<	<	NA	NA
n-Propylbenzene (l)	103651	80	230	ID	ID	ID	NA	ID	1.0	<	<	<	NA	NA
Styrene	100425	100 (A)	100 (A)	80 (X)	1.7E+5	3.1E+5 (S)	3.10E+5	1.4E+5	1.0	<	<	<	NA	NA
1,1,1,2-Tetrachloroethane	630206	77	320	ID	15,000	96,000	1.10E+6	ID	1.0	<	<	<	NA	NA
1,1,2,2-Tetrachloroethane	79345	8.5	35	78 (X)	12,000	77,000	2.97E+6	ID	1.0	<	<	<	NA	NA
Tetrachloroethylene	127184	5.0 (A)	5.0 (A)	60 (X)	25,000	1.7E+5	2.0E+5	ID	1.0	<	<	<	NA	NA
Tetrahydrofuran (THF)	109999	95	270	11,000 (X)	6.9E+6	1.6E+7	1.0E+9	60,000	5.0	<	<	<	NA	NA
Toluene (l)	108883	790 (E)	790 (E)	270	5.3E+5 (S)	5.3E+5 (S)	5.26E+5	61,000	1.0	<	<	<	NA	NA
1,2,3-Trichlorobenzene	87616	NA	NA	NA	NA	NA	NA	NA	5.0	<	<	<	NA	NA
1,2,4-Trichlorobenzene	120821	70 (A)	70 (A)	99 (X)	3.0E+5 (S)	3.0E+5 (S)	3.00E+5	NA	5.0	<	<	<	NA	NA
1,1,1-Trichloroethane	71556	200 (A)	200 (A)	89	6.6E+5	1.3E+6 (S)	1.33E+6	ID	1.0	<	<	<	NA	NA
1,1,2-Trichloroethane	79005	5.0 (A)	5.0 (A)	330 (X)	17,000	1.1E+5	4.42E+6	NA	1.0	<	<	<	NA	NA
Trichloroethylene	79016	5.0 (A)	5.0 (A)	200 (X)	2,200	4,900	1.10E+6	ID	1.0	<	<	<	NA	NA
Trichlorofluoromethane	75694	2,600	7,300	NA	1.1E+6 (S)	1.1E+6 (S)	1.10E+6	ID	1.0	<	<	<	NA	NA
1,2,3-Trichloropropane	96184	42	120	NA	8,300	18,000	1.90E+6	NA	1.0	<	<	<	NA	NA
1,2,3-Trimethylbenzene	526738	NA	NA	NA	NA	NA	NA	NA	1.0	<	<	<	NA	NA
1,2,4-Trimethylbenzene (l)	95636	63 (E)	63 (E)	17	56,000 (S)	56,000 (S)	55,890	56,000 (S)	1.0	<	<	<	NA	NA
1,3,5-Trimethylbenzene (l)	108678	72 (E)	72 (E)	45	61,000 (S)	61,000 (S)	61,150	ID	1.0	<	<	<	NA	NA
Vinyl chloride	75014	2.0 (A)	2.0 (A)	13 (X)	1,100	13,000	2.76E+6	33,000	1.0	<	<	<	NA	NA
Xylenes (Total)	1330207	280 (E)	280 (E)	41	1.9E+5 (S)	1.9E+5 (S)	1.86E+05	70,000	3.0	<	<	<	NA	NA
									PCB Extraction	7/30/2020	8/21/2020	8/21/2020	NA	NA
									Date Analyzed	7/30/2020	8/25/2020	8/25/2020	NA	NA
PCBs - EPA Method 8082		µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	MDL (µg/l)	µg/l	µg/l	µg/l	µg/l	µg/l
Polychlorinated Biphenyls (PCBs) (J,T)	1336363	0.5 (A)	0.5 (A)	0.2 (M); 2.6E-5	45 (S)	45 (S)	44.7	ID	0.2	<	<	<	NA	NA

* Chromium lab results refer to total chromium

shading indicates criteria have been exceeded

Note: For definitions of abbreviations and letters in (), please see footnote at end of tables.

**Criteria for detected compounds have been updated to most recent MDEQ revisions

< : chemical not detected above Method Detection Limit (MDL)

NT: sample not tested for this chemical

Table 3

APPENDIX A
Soil Boring Logs

Boring Log GP-11A		Project: 8MK Address: 12700 Eight Mile Road City: Oak Park State: MI Zip: 48237			Date Start: 7/28/2020 Date Comp.: 7/28/2020 Project Number: 20-2554		
Contractor/Driller: Alluvial Earth		Weather:		Ground Water Observations			
Scientist: Michael Gatien				Depth: ~ 4.5 Ft.			
Sampler type: 2" x 4' Sampler							
Boring Location: Next to previous GP-11 boring location for vertical delineation.				Time:			
Depth (ft)	Elev. (ft)	Sample Information				Sample Description	Stratum Description
		PID (ppm)	ID	Rec.	Interval (ft)		
1		0	GP11A-1	4'	0-4	0 to 1.5' - Black, moist TOPSOIL	Topsoil
2		0				1.5' to 4' - Brown, moist, fine SAND	Sand
3		0					
4		0					
5		0	GP11A-2	4'	4-8	4' to 5.5' - Brown, moist to wet, fine SAND with a trace of gravel	Clay
6		0				5.5' to 8' - Gray, moist CLAY with a trace of silt and gravel	
7		0					
8		0					
9						End of Boring at 8'	
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
GRANULAR SOILS		NOTES: Soil samples collected at 0', 2', 4', and 6'				Proportions used	
Bl/Ft	Density					Trace (0-10%), Little (10-20%), Some (20-30%), And (35-50%) With (amount of component not included)	
0-4	V. Loose	(734) 975-1970					
4-10	Loose	1210 N. Maple Road					
10-30	M. Dense	Ann Arbor MI 48103					
30-50	Dense	APPLIED ENVIRONMENTAL					
>50	V. Dense						
COHESIVE SOILS							
Bl/Ft	Density						
<2	V. Soft						
2-4	Soft						
>30	Hard						

Boring Log GP-15		Project: 8MK Address: 12700 Eight Mile Road City: Oak Park State: MI Zip: 48237			Date Start: 7/28/2020 Date Comp.: 7/28/2020 Project Number: 20-2554		
Contractor/Driller: Alluvial Earth		Weather:			Ground Water Observations		
Scientist: Michael Gatien					Depth: Not encountered		
Sampler type: 2" x 4' Sampler							
Boring Location: 20 feet east of GP-11 and GP-11A.					Time:		
Depth (ft)	Elev. (ft)	Sample Information				Sample Description	Stratum Description
		PID (ppm)	ID	Rec.	Interval (ft)		
1		0	GP15-1	4'	0-4	0 to 1' - Black, moist TOPSOIL	Topsoil
2		0				1' to 4' - Brown, moist, fine SAND	Sand
3		0					
4		0					
5		0	GP15-2	4'	4-8	4' to 6' - Gray, moist CLAY with a trace of silt and gravel	Clay
6		0					
7						End of Boring at 6'	
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
GRANULAR SOILS		NOTES:				Proportions used Trace (0-10%), Little (10-20%), Some (20-30%), And (35-50%) With (amount of component not included) (734) 975-1970 1210 N. Maple Road Ann Arbor MI 48103	
Bl/Ft	Density	Soil samples collected at 0', 2', 4', and 6'					
0-4	V. Loose					APPLIED ENVIRONMENTAL	
4-10	Loose						
10-30	M. Dense						
30-50	Dense						
>50	V. Dense						
COHESIVE SOILS							
Bl/Ft	Density						
<2	V. Soft						
2-4	Soft						
>30	Hard						

Boring Log GP-16		Project: 8MK Address: 12700 Eight Mile Road City: Oak Park State: MI Zip: 48237			Date Start: 7/28/2020 Date Comp.: 7/28/2020 Project Number: 20-2554		
Contractor/Driller: Alluvial Earth		Weather:			Ground Water Observations		
Scientist: Michael Gatien					Depth: Not encountered		
Sampler type: 2" x 4' Sampler							
Boring Location: 10 feet east of GP-11 and GP-11A.					Time:		
Depth (ft)	Elev. (ft)	Sample Information				Sample Description	Stratum Description
		PID (ppm)	ID	Rec.	Interval (ft)		
1		0	GP16-1	4'	0-4	0 to 1' - Black, moist TOPSOIL	Topsoil
2		0				1' to 4' - Brown, moist, fine SAND	Sand
3		0					
4		0					
5		0	GP16-2	4'	4-8	4' to 5' - Brown, moist, fine SAND with a trace of gravel	
6		0				5' to 6' - Gray, moist CLAY with a trace of silt and gravel	Clay
7						End of Boring at 6'	
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
GRANULAR SOILS		NOTES:				Proportions used Trace (0-10%), Little (10-20%), Some (20-30%), And (35-50%) With (amount of component not included) (734) 975-1970 1210 N. Maple Road Ann Arbor MI 48103	
Bl/Ft	Density	Soil samples collected at 0', 2', 4', and 6'					
0-4	V. Loose					APPLIED ENVIRONMENTAL	
4-10	Loose						
10-30	M. Dense						
30-50	Dense						
>50	V. Dense						
COHESIVE SOILS							
Bl/Ft	Density						
<2	V. Soft						
2-4	Soft						
>30	Hard						

Boring Log GP-17		Project: 8MK Address: 12700 Eight Mile Road City: Oak Park State: MI Zip: 48237			Date Start: 7/28/2020 Date Comp.: 7/28/2020 Project Number: 20-2554		
Contractor/Driller: Alluvial Earth		Weather:		Ground Water Observations			
Scientist: Michael Gatien				Depth: ~ 4 Ft.			
Sampler type: 2" x 4' Sampler							
Boring Location: 10 feet west of GP-11 and GP-11A.				Time:			
Depth (ft)	Elev. (ft)	Sample Information				Sample Description	Stratum Description
		PID (ppm)	ID	Rec.	Interval (ft)		
1		0	GP17-1	4'	0-4	0 to 2' - Black, moist TOPSOIL	Topsoil
2		0					
3		0				2' to 4' - Brown, moist to wet, fine SAND	Sand
4		0					
5		0	GP17-2	4'	4-8	4' to 5' - Brown, wet, fine SAND with a trace of gravel	Clay
6		0				5' to 6' - Gray, moist CLAY with a trace of silt and gravel	
7						End of Boring at 6'	
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
GRANULAR SOILS		NOTES: Soil samples collected at 0', 2', 4', and 6'				Proportions used	
Bl/Ft	Density					Trace (0-10%), Little (10-20%), Some (20-30%), And (35-50%) With (amount of component not included)	
0-4	V. Loose					(734) 975-1970 1210 N. Maple Road Ann Arbor MI 48103	
4-10	Loose						
10-30	M. Dense						
30-50	Dense	APPLIED ENVIRONMENTAL					
>50	V. Dense						
COHESIVE SOILS							
Bl/Ft	Density						
<2	V. Soft						
2-4	Soft						
>30	Hard						

Boring Log GP-18		Project: 8MK		Date Start: 7/28/2020				
		Address: 12700 Eight Mile Road		Date Comp.: 7/28/2020				
		City: Oak Park State: MI Zip: 48237		Project Number: 20-2554				
Contractor/Driller: Alluvial Earth		Weather:		Ground Water Observations				
Scientist: Michael Gatien				Depth: ~ 4 Ft.				
Sampler type: 2" x 4' Sampler								
Boring Location: 20 feet west of GP-11 and GP-11A.				Time:				
Depth (ft)	Elev. (ft)	Sample Information				Sample Description	Stratum Description	
		PID (ppm)	ID	Rec.	Interval (ft)			
1		0	GP18-1	4'	0-4	0 to 1' - Black, moist TOPSOIL	Topsoil	
2		0				1' to 4' - Brown, moist to wet, fine SAND	Sand	
3		0						
4		0						
5		0	GP18-2	4'	4-8	4' to 5' - Brown, wet, fine SAND with a trace of gravel		
6		0				5' to 6' - Gray, moist CLAY with a trace of silt and gravel	Clay	
7						End of Boring at 6'		
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
GRANULAR SOILS		NOTES: Soil samples collected at 0', 2', 4', and 6'				Proportions used		
Bl/Ft	Density					Trace (0-10%), Little (10-20%), Some (20-30%), And (35-50%) With (amount of component not included)		
0-4	V. Loose							
4-10	Loose							
10-30	M. Dense							
30-50	Dense	(734) 975-1970						
>50	V. Dense	1210 N. Maple Road Ann Arbor MI 48103						
COHESIVE SOILS						APPLIED ENVIRONMENTAL		
Bl/Ft	Density							
<2	V. Soft							
2-4	Soft							
>30	Hard							

Boring Log GP-19		Project: 8MK		Date Start: 7/28/2020				
		Address: 12700 Eight Mile Road		Date Comp.: 7/28/2020				
		City: Oak Park State: MI Zip: 48237		Project Number: 20-2554				
Contractor/Driller: Alluvial Earth		Weather:		Ground Water Observations				
Scientist: Michael Gatien				Depth: ~ 4.5 Ft.				
Sampler type: 2" x 4' Sampler								
Boring Location: 10 feet north of GP-11 and GP-11A.				Time:				
Depth (ft)	Elev. (ft)	Sample Information				Sample Description	Stratum Description	
		PID (ppm)	ID	Rec.	Interval (ft)			
1		0	GP19-1	4'	0-4	0 to 1.5' - Black, moist TOPSOIL	Topsoil	
2		0				1.5' to 4' - Brown, moist, fine SAND	Sand	
3		0						
4		0						
5		0	GP19-2	4'	4-8	4' to 5' - Brown, wet, fine SAND with a trace of gravel	Clay	
6		0				5' to 6' - Gray, moist CLAY with a trace of silt and gravel		
7						End of Boring at 6'		
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
GRANULAR SOILS		NOTES: Soil samples collected at 0', 2', 4', and 6'				Proportions used Trace (0-10%), Little (10-20%), Some (20-30%), And (35-50%) With (amount of component not included)		
Bl/Ft	Density							
0-4	V. Loose							
4-10	Loose							
10-30	M. Dense							
30-50	Dense	APPLIED ENVIRONMENTAL						
>50	V. Dense							
COHESIVE SOILS								
Bl/Ft	Density							
<2	V. Soft							
2-4	Soft							
>30	Hard							

Boring Log GP-20		Project: 8MK			Date Start: 7/28/2020		
		Address: 12700 Eight Mile Road			Date Comp.: 7/28/2020		
		City: Oak Park State: MI Zip: 48237			Project Number: 20-2554		
Contractor/Driller: Alluvial Earth		Weather:		Ground Water Observations			
Scientist: Michael Gatien				Depth: ~ 4.5 Ft.			
Sampler type: 2" x 4' Sampler							
Boring Location: 20 feet north of GP-11 and GP-11A.				Time:			
Depth (ft)	Elev. (ft)	Sample Information				Sample Description	Stratum Description
		PID (ppm)	ID	Rec.	Interval (ft)		
1		0	GP20-1	4'	0-4	0 to 1' - Black, moist TOPSOIL	Topsoil
2		0				1' to 4' - Brown, moist, fine SAND	Sand
3		0					
4		0					
5		0	GP20-2	4'	4-8	4' to 6' - Brown, moist to wet, fine SAND with a trace of gravel	
6		0				End of Boring at 6'	
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
GRANULAR SOILS		NOTES: Soil samples collected at 0', 2', 4', and 6'				Proportions used	
Bl/Ft	Density					Trace (0-10%), Little (10-20%), Some (20-30%), And (35-50%) With (amount of component not included)	
0-4	V. Loose					(734) 975-1970 1210 N. Maple Road Ann Arbor MI 48103	
4-10	Loose						
10-30	M. Dense						
30-50	Dense	APPLIED ENVIRONMENTAL					
>50	V. Dense						
COHESIVE SOILS							
Bl/Ft	Density						
<2	V. Soft						
2-4	Soft						
>30	Hard						

Boring Log GP-21/MW-1		Project: 8MK		Date Start: 7/28/2020			
		Address: 12700 Eight Mile Road		Date Comp.: 7/28/2020			
		City: Oak Park State: MI Zip: 48237		Project Number: 20-2554			
Contractor/Driller: Alluvial Earth		Weather:		Ground Water Observations			
Scientist: Michael Gatien				Depth: ~ 4.5 Ft.			
Sampler type: 2" x 4' Sampler							
Boring Location: 10 feet north and 10 feet west of the southwest corner of			Time:				
the subject building.							
Depth (ft)	Elev. (ft)	Sample Information				Sample Description	Stratum Description
		PID (ppm)	ID	Rec.	Interval (ft)		
1		0	GP21-1	4'	0-4	0 to 1' - Black, moist TOPSOIL	Topsoil
2		0				1' to 4' - Brown, moist, fine SAND	Sand
3		0					
4		0					
5		0	GP21-2	4'	4-8	4' to 6.5' - Brown, moist to wet, fine SAND with a trace of gravel	
6		0					Clay
7		0				6.5' to 8' - Gray, moist CLAY with a trace of silt and gravel	
8		0					
9		0	GP21-3	4'	8-12	8' to 12' - Gray, moist CLAY with a trace of silt and gravel	
10		0					12' to 16' - Gray, moist CLAY with a trace of silt and gravel
11		0					
12		0					
13		0	GP21-4	4'	12-16		
14		0					16' to 20' - Gray, moist CLAY with a trace of silt and gravel
15		0					
16		0					
17		0	GP21-5	4'	16-20		
18		0					
19		0					
20		0					
GRANULAR SOILS		NOTES:				Proportions used	
Bl/Ft	Density	Soil samples collected at 4-4.5' and 8.5'				Trace (0-10%), Little (10-20%),	
0-4	V. Loose					Some (20-30%), And (35-50%)	
4-10	Loose	Set two-inch PVC monitoring well from 2.5'-7.5'				With (amount of component not included)	
10-30	M. Dense					(734) 975-1970	
30-50	Dense					1210 N. Maple Road	
>50	V. Dense					Ann Arbor MI 48103	
COHESIVE SOILS						APPLIED ENVIRONMENTAL	
Bl/Ft	Density						
<2	V. Soft						
2-4	Soft						
>30	Hard						

Boring Log GP-22/MW-2		Project: 8MK		Date Start: 7/28/2020			
		Address: 12700 Eight Mile Road		Date Comp.: 7/28/2020			
		City: Oak Park State: MI Zip: 48237		Project Number: 20-2554			
Contractor/Driller: Alluvial Earth		Weather:		Ground Water Observations			
Scientist: Michael Gatien				Depth: ~ 4 Ft.			
Sampler type: 2" x 4' Sampler							
Boring Location: 23 feet west and 16 feet south of the southeast corner of				Time:			
the subject building.							
Depth (ft)	Elev. (ft)	Sample Information				Sample Description	Stratum Description
		PID (ppm)	ID	Rec.	Interval (ft)		
1		0	GP22-1	4'	0-4	0 to 1.5' - Black, moist TOPSOIL	Topsoil
2		0				1' to 4' - Brown, moist, fine SAND	Sand
3		0					
4		0					
5		3.3	GP22-2	4'	4-8		
6		0				4.5' to 8' - Gray, moist CLAY with a trace of silt and gravel	
7		0					
8		0					
9		0	GP22-3	4'	8-12	8' to 12' - Gray, moist CLAY with a trace of silt and gravel	
10		0					
11		0					
12		0					
13		0	GP22-4	4'	12-16	12' to 16' - Gray, moist CLAY with a trace of silt and gravel	
14		0					
15		0					
16		0					
17		0	GP22-5	4'	16-20	16' to 20' - Gray, moist CLAY with a trace of silt and gravel	
18		0					
19		0					
20		0					
GRANULAR SOILS		NOTES:				Proportions used	
Bl/Ft	Density	Soil samples collected at 4.5-5" and 8.5'				Trace (0-10%), Little (10-20%),	
0-4	V. Loose					Some (20-30%), And (35-50%)	
4-10	Loose	Set two-inch PVC monitoring well from 2'-7'				With (amount of component not included)	
10-30	M. Dense					(734) 975-1970	
30-50	Dense					1210 N. Maple Road	
>50	V. Dense					Ann Arbor MI 48103	
COHESIVE SOILS						APPLIED ENVIRONMENTAL	
Bl/Ft	Density						
<2	V. Soft						
2-4	Soft						
>30	Hard						

Boring Log GP-23/MW-3		Project: 8MK Address: 12700 Eight Mile Road City: Oak Park State: MI Zip: 48237			Date Start: 7/28/2020 Date Comp.: 7/28/2020 Project Number: 20-2554		
Contractor/Driller: Alluvial Earth		Weather:			Ground Water Observations		
Scientist: Michael Gatien					Depth: Not encountered		
Sampler type: 2" x 4' Sampler							
Boring Location: 7 feet south and 8 feet east of the northeast corner of the					Time:		
subject building.							
Depth (ft)	Elev. (ft)	Sample Information				Sample Description	Stratum Description
		PID (ppm)	ID	Rec.	Interval (ft)		
1		0	GP23-1	4'	0-4	0 to 4' - Brown, moist, fine SAND	Sand
2		0					
3		0					
4		0					
5		0.1	GP23-2	4'	4-8	4' to 5' - Brown, damp, fine SAND	Clay
6		0				5' to 8' - Gray, moist CLAY with a trace of silt and gravel	
7		0					
8		0					
9		0	GP23-3	4'	8-12	8' to 12' - Gray, moist CLAY with a trace of silt and gravel	
10		0					
11		0					
12		0					
13		0	GP23-4	4'	12-16	12' to 16' - Gray, moist CLAY with a trace of silt and gravel	
14		0					
15		0					
16		0					
17		0	GP23-5	4'	16-20	16' to 20' - Gray, moist CLAY with a trace of silt and gravel	
18		0					
19		0					
20		0					
GRANULAR SOILS		NOTES:				Proportions used Trace (0-10%), Little (10-20%), Some (20-30%), And (35-50%) With (amount of component not included) (734) 975-1970 1210 N. Maple Road Ann Arbor MI 48103	
Bl/Ft	Density	Soil samples collected at 4.5-5" and 8.5' Set two-inch PVC monitoring well from 2'-7'					
0-4	V. Loose					APPLIED ENVIRONMENTAL	
4-10	Loose						
10-30	M. Dense						
30-50	Dense						
>50	V. Dense						
COHESIVE SOILS							
Bl/Ft	Density						
<2	V. Soft						
2-4	Soft						
>30	Hard						

Boring Log GP-24/MW-4		Project: 8MK		Date Start: 7/28/2020			
		Address: 12700 Eight Mile Road		Date Comp.: 7/28/2020			
		City: Oak Park State: MI Zip: 48237		Project Number: 20-2554			
Contractor/Driller: Alluvial Earth		Weather:		Ground Water Observations			
Scientist: Michael Gatien				Depth: ~ 3 Ft.			
Sampler type: 2" x 4' Sampler							
Boring Location: 5 feet north and 52 feet east of the northwest corner of the				Time:			
subject building.							
Depth (ft)	Elev. (ft)	Sample Information				Sample Description	Stratum Description
		PID (ppm)	ID	Rec.	Interval (ft)		
1		0	GP23-1	4'	0-4	0 to 6" - ASPHALT	Asphalt
2		0				6" to 4' - Brown, moist to wet, fine SAND	Sand
3		0					
4		0					
5		0	GP23-2	4'	4-8	4' to 8' - Gray, moist CLAY with a trace of silt and gravel	Clay
6		0					
7		0					
8		0					
9		0	GP23-3	4'	8-12	8' to 12' - Gray, moist CLAY with a trace of silt and gravel	
10		0					
11		0					
12		0					
13		0	GP23-4	4'	12-16	12' to 16' - Gray, moist CLAY with a trace of silt and gravel	
14		0					
15		0					
16		0					
17		0	GP23-5	4'	16-20	16' to 20' - Gray, moist CLAY with a trace of silt and gravel	
18		0					
19		0					
20		0					
GRANULAR SOILS		NOTES:				Proportions used	
Bl/Ft	Density	Soil samples collected at 2.5-3' and 8.5'				Trace (0-10%), Little (10-20%),	
0-4	V. Loose					Some (20-30%), And (35-50%)	
4-10	Loose	Set two-inch PVC monitoring well from 1'-6'				With (amount of component not included)	
10-30	M. Dense					(734) 975-1970	
30-50	Dense					1210 N. Maple Road	
>50	V. Dense					Ann Arbor MI 48103	
COHESIVE SOILS						APPLIED ENVIRONMENTAL	
Bl/Ft	Density						
<2	V. Soft						
2-4	Soft						
>30	Hard						

Boring Log GP-25		Project: 8MK			Date Start: 9/25/2020		
		Address: 12700 Eight Mile Road			Date Comp.: 9/25/2020		
		City: Oak Park State: MI Zip: 48237			Project Number: 20-2554		
Contractor/Driller:		Not Applicable		Weather:	Ground Water Observations		
Scientist:		Michael Gatien		Depth:	Not encountered		
Sampler type:		Hand Auger					
Boring Location: 10 feet north of GP-18.				Time:			
Depth (ft)	Elev. (ft)	Sample Information				Sample Description	Stratum Description
		PID (ppm)	ID	Rec.	Interval (ft)		
1		0	GP25-1	4'	0-4	0 to 1' - Black, moist TOPSOIL	Topsoil
2		0				1' to 4' - Brown, moist, fine SAND	Sand
3		0					
4		0					
5		0					
6						End of Boring at 4'	
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
GRANULAR SOILS		NOTES: Soil samples collected at 0' and 2'				Proportions used Trace (0-10%), Little (10-20%), Some (20-30%), And (35-50%) With (amount of component not included)	
Bl/Ft	Density						
0-4	V. Loose						
4-10	Loose						
10-30	M. Dense						
30-50	Dense	APPLIED ENVIRONMENTAL					
>50	V. Dense						
COHESIVE SOILS							
Bl/Ft	Density						
<2	V. Soft						
2-4	Soft						
>30	Hard						

Boring Log GP-26		Project: 8MK			Date Start: 9/25/2020		
		Address: 12700 Eight Mile Road			Date Comp.: 9/25/2020		
		City: Oak Park State: MI Zip: 48237			Project Number: 20-2554		
Contractor/Driller:		Not Applicable		Weather:	Ground Water Observations		
Scientist:		Michael Gatien		Depth:	Not encountered		
Sampler type:		Hand Auger					
Boring Location: 10 feet north of GP-26.				Time:			
Depth (ft)	Elev. (ft)	Sample Information				Sample Description	Stratum Description
		PID (ppm)	ID	Rec.	Interval (ft)		
1		0	GP26-1	4'	0-4	0 to 1' - Black, moist TOPSOIL	Topsoil
2		0				1' to 4' - Brown, moist, fine SAND	Sand
3		0					
4		0					
5		0					
6						End of Boring at 4'	
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
GRANULAR SOILS		NOTES: Soil samples collected at 0' and 2'				Proportions used Trace (0-10%), Little (10-20%), Some (20-30%), And (35-50%) With (amount of component not included)	
Bl/Ft	Density						
0-4	V. Loose						
4-10	Loose						
10-30	M. Dense					APPLIED ENVIRONMENTAL	
30-50	Dense						
>50	V. Dense						
COHESIVE SOILS							
Bl/Ft	Density						
<2	V. Soft						
2-4	Soft						
>30	Hard						

Boring Log HA-1		Project: 8MK Address: 12700 Eight Mile Road City: Oak Park State: MI Zip: 48237			Date Start: 7/28/2020 Date Comp.: 7/28/2020 Project Number: 20-2554		
Contractor/Driller: Alluvial Earth		Weather:			Ground Water Observations		
Scientist: Erin Hull					Depth: Not encountered		
Sampler type: 2" x 4' Sampler							
Boring Location:					Time:		
Depth (ft)	Elev. (ft)	Sample Information				Sample Description	Stratum Description
		PID (ppm)	ID	Rec.	Interval (ft)		
1		0	HA1-1	4'	0-4	0 to 8" - CONCRETE	Concrete
2		0				8" to 4' - Gray, moist CLAY with a trace of silt	Clay
3		0					
4		0					
5						End of Boring at 4'	
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
GRANULAR SOILS		NOTES: Soil samples collected at 0', 2' and 4'				Proportions used	
Bl/Ft	Density					Trace (0-10%), Little (10-20%), Some (20-30%), And (35-50%) With (amount of component not included)	
0-4	V. Loose					(734) 975-1970 1210 N. Maple Road Ann Arbor MI 48103	
4-10	Loose						
10-30	M. Dense						
30-50	Dense	APPLIED ENVIRONMENTAL					
>50	V. Dense						
COHESIVE SOILS							
Bl/Ft	Density						
<2	V. Soft						
2-4	Soft						
>30	Hard						

Boring Log HA-2		Project: 8MK Address: 12700 Eight Mile Road City: Oak Park State: MI Zip: 48237			Date Start: 7/28/2020 Date Comp.: 7/28/2020 Project Number: 20-2554		
Contractor/Driller: Alluvial Earth		Weather:		Ground Water Observations			
Scientist: Erin Hull				Depth: Not encountered			
Sampler type: 2" x 4' Sampler							
Boring Location:				Time:			
Depth (ft)	Elev. (ft)	Sample Information				Sample Description	Stratum Description
		PID (ppm)	ID	Rec.	Interval (ft)		
1		0	HA2-1	4'	0-4	0 to 8" - CONCRETE	Concrete
2		0				8" to 4' - Gray, moist CLAY with a trace of silt	Clay
3		0					
4		0					
5						End of Boring at 4'	
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
GRANULAR SOILS		NOTES: Soil samples collected at 0', 2' and 4'				Proportions used	
Bl/Ft	Density					Trace (0-10%), Little (10-20%), Some (20-30%), And (35-50%) With (amount of component not included)	
0-4	V. Loose						
4-10	Loose						
10-30	M. Dense						
30-50	Dense	(734) 975-1970					
>50	V. Dense	1210 N. Maple Road Ann Arbor MI 48103					
COHESIVE SOILS						APPLIED ENVIRONMENTAL	
Bl/Ft	Density						
<2	V. Soft						
2-4	Soft						
>30	Hard						

Boring Log HA-3		Project: 8MK		Date Start: 7/28/2020				
		Address: 12700 Eight Mile Road		Date Comp.: 7/28/2020				
		City: Oak Park State: MI Zip: 48237		Project Number: 20-2554				
Contractor/Driller: Alluvial Earth		Weather:		Ground Water Observations				
Scientist: Erin Hull				Depth: Not encountered				
Sampler type: 2" x 4' Sampler								
Boring Location:				Time:				
Depth (ft)	Elev. (ft)	Sample Information				Sample Description	Stratum Description	
		PID (ppm)	ID	Rec.	Interval (ft)			
1		0	HA3-1	4'	0-4	0 to 8" - CONCRETE	Concrete	
2		0				8" to 4' - Gray, moist CLAY with a trace of silt	Clay	
3		0						
4		0						
5						End of Boring at 4'		
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
GRANULAR SOILS		NOTES: Soil samples collected at 0', 2' and 4'				Proportions used		
Bl/Ft	Density					Trace (0-10%), Little (10-20%), Some (20-30%), And (35-50%) With (amount of component not included) (734) 975-1970 1210 N. Maple Road Ann Arbor MI 48103		
0-4	V. Loose							
4-10	Loose							
10-30	M. Dense							
30-50	Dense							
>50	V. Dense							
COHESIVE SOILS								
Bl/Ft	Density							
<2	V. Soft							
2-4	Soft							
>30	Hard							

Boring Log HA-4		Project: 8MK Address: 12700 Eight Mile Road City: Oak Park State: MI Zip: 48237			Date Start: 7/28/2020 Date Comp.: 7/28/2020 Project Number: 20-2554		
Contractor/Driller: Alluvial Earth		Weather:		Ground Water Observations			
Scientist: Erin Hull				Depth: Not encountered			
Sampler type: 2" x 4' Sampler							
Boring Location:				Time:			
Depth (ft)	Elev. (ft)	Sample Information				Sample Description	Stratum Description
		PID (ppm)	ID	Rec.	Interval (ft)		
1		0	HA4-1	4'	0-4	0 to 8" - CONCRETE	Concrete
2		0				8" to 4' - Gray, moist CLAY with a trace of silt	Clay
3		0					
4		0					
5						End of Boring at 4'	
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
GRANULAR SOILS		NOTES: Soil samples collected at 0', 2' and 4'				Proportions used	
Bl/Ft	Density					Trace (0-10%), Little (10-20%), Some (20-30%), And (35-50%) With (amount of component not included)	
0-4	V. Loose						
4-10	Loose						
10-30	M. Dense						
30-50	Dense	(734) 975-1970					
>50	V. Dense	1210 N. Maple Road Ann Arbor MI 48103					
COHESIVE SOILS						APPLIED ENVIRONMENTAL	
Bl/Ft	Density						
<2	V. Soft						
2-4	Soft						
>30	Hard						

Boring Log HA-5		Project: 8MK Address: 12700 Eight Mile Road City: Oak Park State: MI Zip: 48237			Date Start: 7/28/2020 Date Comp.: 7/28/2020 Project Number: 20-2554		
Contractor/Driller: Alluvial Earth		Weather:			Ground Water Observations		
Scientist: Erin Hull					Depth: Not encountered		
Sampler type: 2" x 4' Sampler							
Boring Location:					Time:		
Depth (ft)	Elev. (ft)	Sample Information				Sample Description	Stratum Description
		PID (ppm)	ID	Rec.	Interval (ft)		
1		0	HA5-1	4'	0-4	0 to 8" - CONCRETE	Concrete
2		0				8" to 4' - Gray, moist CLAY with a trace of silt	Clay
3		0					
4		0					
5						End of Boring at 4'	
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
GRANULAR SOILS		NOTES: Soil samples collected at 0', 2' and 4'				Proportions used	
Bl/Ft	Density					Trace (0-10%), Little (10-20%), Some (20-30%), And (35-50%) With (amount of component not included)	
0-4	V. Loose					(734) 975-1970	
4-10	Loose					1210 N. Maple Road Ann Arbor MI 48103	
10-30	M. Dense					APPLIED ENVIRONMENTAL	
30-50	Dense						
>50	V. Dense						
COHESIVE SOILS							
Bl/Ft	Density						
<2	V. Soft						
2-4	Soft						
>30	Hard						

Boring Log HA-6		Project: 8MK Address: 12700 Eight Mile Road City: Oak Park State: MI Zip: 48237			Date Start: 7/28/2020 Date Comp.: 7/28/2020 Project Number: 20-2554		
Contractor/Driller: Alluvial Earth		Weather:			Ground Water Observations		
Scientist: Erin Hull					Depth: Not encountered		
Sampler type: 2" x 4' Sampler							
Boring Location:					Time:		
Depth (ft)	Elev. (ft)	Sample Information				Sample Description	Stratum Description
		PID (ppm)	ID	Rec.	Interval (ft)		
1		0	HA6-1	4'	0-4	0 to 8" - CONCRETE	Concrete
2		0				8" to 4' - Gray, moist CLAY with a trace of silt	Clay
3		0					
4		0					
5						End of Boring at 4'	
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
GRANULAR SOILS		NOTES: Soil samples collected at 0', 2' and 4'				Proportions used	
Bl/Ft	Density					Trace (0-10%), Little (10-20%), Some (20-30%), And (35-50%) With (amount of component not included)	
0-4	V. Loose					(734) 975-1970 1210 N. Maple Road Ann Arbor MI 48103	
4-10	Loose						
10-30	M. Dense						
30-50	Dense	APPLIED ENVIRONMENTAL					
>50	V. Dense						
COHESIVE SOILS							
Bl/Ft	Density						
<2	V. Soft						
2-4	Soft						
>30	Hard						

Boring Log HA-7		Project: 8MK		Date Start: 7/29/2020				
		Address: 12700 Eight Mile Road		Date Comp.: 7/29/2020				
		City: Oak Park State: MI Zip: 48237		Project Number: 20-2554				
Contractor/Driller: Alluvial Earth		Weather:		Ground Water Observations				
Scientist: Erin Hull				Depth: Not encountered				
Sampler type: 2" x 4' Sampler								
Boring Location:				Time:				
Depth (ft)	Elev. (ft)	Sample Information				Sample Description	Stratum Description	
		PID (ppm)	ID	Rec.	Interval (ft)			
1		0	HA7-1	4'	0-4	0 to 8" - CONCRETE	Concrete	
2		0				8" to 4' - Gray, moist CLAY with a trace of silt	Clay	
3		0						
4		0						
5						End of Boring at 4'		
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
GRANULAR SOILS		NOTES: Soil samples collected at 0', 2' and 4'				Proportions used		
Bl/Ft	Density					Trace (0-10%), Little (10-20%), Some (20-30%), And (35-50%) With (amount of component not included)		
0-4	V. Loose							
4-10	Loose							
10-30	M. Dense							
30-50	Dense	(734) 975-1970						
>50	V. Dense	1210 N. Maple Road Ann Arbor MI 48103						
COHESIVE SOILS						APPLIED ENVIRONMENTAL		
Bl/Ft	Density							
<2	V. Soft							
2-4	Soft							
>30	Hard							

Boring Log HA-8		Project: 8MK Address: 12700 Eight Mile Road City: Oak Park State: MI Zip: 48237			Date Start: 7/29/2020 Date Comp.: 7/29/2020 Project Number: 20-2554		
Contractor/Driller: Alluvial Earth		Weather:			Ground Water Observations		
Scientist: Erin Hull					Depth: Not encountered		
Sampler type: 2" x 4' Sampler							
Boring Location:					Time:		
Depth (ft)	Elev. (ft)	Sample Information				Sample Description	Stratum Description
		PID (ppm)	ID	Rec.	Interval (ft)		
1		0	HA8-1	4'	0-4	0 to 8" - CONCRETE	Concrete
2		0				8" to 4' - Gray, moist CLAY with a trace of silt	Clay
3		0					
4		0					
5						End of Boring at 4'	
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
GRANULAR SOILS		NOTES: Soil samples collected at 0', 2' and 4'				Proportions used	
Bl/Ft	Density					Trace (0-10%), Little (10-20%), Some (20-30%), And (35-50%) With (amount of component not included)	
0-4	V. Loose					(734) 975-1970 1210 N. Maple Road Ann Arbor MI 48103	
4-10	Loose						
10-30	M. Dense						
30-50	Dense						
>50	V. Dense						
COHESIVE SOILS							
Bl/Ft	Density						
<2	V. Soft						
2-4	Soft						
>30	Hard						

Boring Log HA-9		Project: 8MK Address: 12700 Eight Mile Road City: Oak Park State: MI Zip: 48237			Date Start: 7/29/2020 Date Comp.: 7/29/2020 Project Number: 20-2554		
Contractor/Driller: Alluvial Earth		Weather:		Ground Water Observations			
Scientist: Erin Hull				Depth: Not encountered			
Sampler type: 2" x 4' Sampler							
Boring Location:				Time:			
Depth (ft)	Elev. (ft)	Sample Information				Sample Description	Stratum Description
		PID (ppm)	ID	Rec.	Interval (ft)		
1		0	HA9-1	4'	0-4	0 to 8" - CONCRETE	Concrete
2		0				8" to 4' - Gray, moist CLAY with a trace of silt	Clay
3		0					
4		0					
5						End of Boring at 4'	
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
GRANULAR SOILS		NOTES: Soil samples collected at 0', 2' and 4'				Proportions used	
Bl/Ft	Density					Trace (0-10%), Little (10-20%), Some (20-30%), And (35-50%) With (amount of component not included)	
0-4	V. Loose					(734) 975-1970 1210 N. Maple Road Ann Arbor MI 48103	
4-10	Loose						
10-30	M. Dense						
30-50	Dense	APPLIED ENVIRONMENTAL					
>50	V. Dense						
COHESIVE SOILS							
Bl/Ft	Density						
<2	V. Soft						
2-4	Soft						
>30	Hard						

***APPENDIX 5: AUGUST 2022
SUMMARY OF ADDITIONAL DELINEATION ACTIVITIES REPORT***



**APPLIED
ENVIRONMENTAL**
Partners in Down to Earth Solutions

**Mr. Peter Ramanauskas and
Mr. Jacob Bova
United States Environmental Protection Agency, Region V
77 West Jackson Boulevard
Chicago, Illinois 60604-3590**

August 12, 2022

**RE: Summary of Additional Delineation Activities
8MK Project – PCB Remediation and Redevelopment
12700 8 Mile Road
Oak Park, Michigan 48237
Applied Environmental Project #: 22-2554**

Dear Mr. Ramanauskas and Mr. Bova:

Applied Environmental on behalf of ATE Mile, LLC, the Developer and Owner, is submitting this summary report to the United States Environmental Protection Agency (EPA) for review, summarizing the additional delineation activities conducted per the submitted Additional Delineation Activities Work Plan, dated May 4, 2022. Refer to Figure 1 in Attachment 1 for a Site Location Map.

BACKGROUND

ATE Mile, LLC, the Developer/Owner, intends to redevelop the existing 4.59-acre parcel (i.e., Subject Property) into a restaurant and event space utilizing funds from a Brownfield Redevelopment Grant awarded to the City of Oak Park on August 28, 2019. The property is currently developed with a 5,325-square foot one-story building with a basement built in 1938. This historical building was once used for the studios of radio station WWJ. Refer to Figure 2 in Attachment 1 for a Site Map.

At some point while the building was vacant (approximately 2014), a power outage occurred causing the basement sump pump to stop working, which allowed the basement to flood. Two 4,800-volt electrical transformers located in the southwest corner of the basement shorted out due to the water, and as a result, exploded causing a release of transformer oil containing Polychlorinated Biphenyls (PCBs). Water was pumped from the basement by a maintenance contractor using a gas-powered pump onto the grass covered area to the northwest of the subject building after discovery of the release. It is not documented exactly when the power outage occurred, how long the release remained in the basement prior to discovery and when the maintenance contractor pumped water from the basement. The transformers are no longer present on the property and have been removed by DTE

Energy in 2018. Terracon completed a Remedial Action Completion Report dated March 23, 2015. Remedial actions included pumping accumulated water from the basement of the facility, vacuuming the remaining water in the basement into a vac truck, pressure washing the oily residue from the walls, floors, and transformers in the basement; and excavation and disposal of visibly impacted soils northwest of the building where water was previously pumped by maintenance contractor. Generated waste, including 10,884-gallons of water and 20 cubic yards of soil was disposed of at EQ Detroit, Inc. in Detroit, MI.

Initial Investigation

In December 2015, as part of a real estate transaction, Applied Environmental was retained to complete a Phase II ESA to evaluate the following Recognized Environmental Conditions (RECs) identified in a Phase I ESA dated October 21, 2015:

- The west adjoining property located at 12950 West 8 Mile Road is listed as having a Baseline Environmental Assessment (BEA); and
- Exterior soil sampling related to the pumping of water accumulated in the basement were collected prior to soil removal. According to the Terracon report, it does not appear that verification soil samples were collected following the soil removal activities and residual PCB contamination may be present.

In December 2015, Applied Environmental collected 14 soil samples exterior to the subject property building from GP-1 to GP-17 to evaluate the RECs. During the December 2015 subsurface investigation, Applied Environmental also collected five concrete core samples from the basement floor and basement access pit (north side of subject building) to evaluate the potential presence of residual PCBs. All samples were analyzed for PCBs by the United States Environmental Protection Agency (EPA) Method 8082A.

Subsequent Investigations

During the later half of 2020, at the request of the Michigan Department of Environment, Great Lakes, and Energy (EGLE), Applied Environmental conducted additional investigations at the subject property to delineate the extent of impacts to exterior soils from the previously excavated area, collection of building material samples within the basement of the subject building, along with determining if groundwater had been impacted. These events consisted of the following investigations at the subject property:

Exterior Subsurface Investigation

On July 28, 2020, Applied Environmental mobilized to the subject property to install additional soil borings at the exterior of the subject building to attempt to delineate the horizontal and vertical extent of PCB impacted soil outward from GP-11 in the area previously excavated by Terracon in 2014, and to further characterize the subsurface geology and hydrology.

The July 28, 2020 mobilization consisted of completing a ground penetrating radar (GPR) investigation to clear boring locations prior to commencing the subsurface investigation followed by advancing eleven (11) soil borings on the subject property designated as GP-11A, and GP-15 through GP-24. GP-11A to GP-20 were advanced to a depth of 6 feet bgs to delineate both the vertical and horizontal extent of the area of PCB impacts detected in soil boring GP-11 in 2015. GP-21 to GP-24 were advanced, one boring on each side the subject building, to depths of 20 feet bgs to evaluate the deeper lithology and the absence/presence of groundwater in the vicinity of the building structure. These deeper borings were converted into permanent groundwater monitoring wells.

Per the April 2020 Revised Workplan submitted to EGLE, surficial samples along with deeper soil samples at depths of 2, 4, and 6 feet were collected from GP-11A, and GP-15 through GP-20. Only surficial soil samples were analyzed at the laboratory and based on the results of the analysis, deeper samples were authorized as needed to provide vertical delineation. To prevent holding time expiration, the laboratory was instructed to complete PCB extraction on the samples. Per the April 2020 Revised Work Plan, soil samples from GP-21/MW-1 through GP-24/MW-4 locations were to be collected for laboratory analysis from directly above the competent clay formation and from a depth corresponding to the bottom of the basement slab at approximately 8.5 feet. Due to the presence of perched water residing atop the clay formation, soil samples were collected directly above the saturated zone (4-4.5 feet at GP-21 through GP-23, and 2.5-3 feet at GP-24) and at 8.5 feet. All soil samples were submitted to Quantum Laboratories of Wixom, Michigan for analysis of VOCs per EPA Method 5035/8260 and PCBs per EPA Method 8082A.

Based on the reported presence of PCBs in the surficial soil samples from GP-16, GP-17, and GP-18, per the April 2020 Revised Work Plan, Applied Environmental instructed the laboratory to analyze deeper samples that were on hold from the 2-foot interval from these locations to provide vertical delineation. The laboratory analytical results of the 2-foot interval from the GP-16, GP-17, and GP-18 locations revealed that PCBs were not reported above their laboratory MDLs in any of the samples.

Applied Environmental returned to the site on September 25, 2020, to complete two (2) additional hand auger borings (GP-25 and GP-26) to the north of GP-18 to define the horizontal extent of PCBs. Surficial soil samples and samples from 2 feet were collected. The surficial soil samples were analyzed for PCBs by EPA Method 8082A and the samples from 2 feet were placed on hold pending results from the surface samples.

Exterior Subsurface Investigation – Groundwater Sampling

Following the completion of the soil borings, GP-21 through GP-24 were converted into permanent monitoring wells (sequentially MW-1 through MW-4). The monitoring wells were constructed of two-inch diameter PVC with 5-foot, 0.010 slotted screens, which were installed into the top of the clay formation.

On August 20, 2020, Applied Environmental was on-site to survey the north top-of-casing elevation from the newly installed monitoring wells (MW-1 through MW-4) using a bench mark relative to 100 feet. Depth to water measurement from each of the monitoring wells were collected using an electronic interface probe with the exception of MW-3 which was dry. Utilizing the north top-of-casing elevations along with the depth of water measurements from the three remaining monitoring wells, Applied Environmental determined that the localized groundwater flow was to the northeast.

On August 20, 2020, Applied Environmental collected groundwater samples from these newly installed monitoring wells using the U.S. EPA Low Flow Groundwater Sampling Procedures which consisted of utilizing a peristaltic pump and controller connected to a YSI multi-parameter meter through an in-line flow cell. The following water quality parameters were documented during the low flow process: temperature, pH, conductivity, oxidation reduction potential, dissolved oxygen and turbidity. Water quality readings were collected approximately every three minutes until parameters stabilized within the following criteria prior to sampling: +/- 0.1 for pH, +/-3% for conductivity, +/-10mV for redox potential, +/-10% for dissolved oxygen and +/-10% for turbidity. In addition, during pumping the static water levels was monitoring so drawdown would not exceed 0.3 feet.

As stated above, MW-3 was dry so a groundwater sample could not be collected. In addition, MW-4 went dry during the low flow sampling process and did not recover to yield sufficient groundwater for sampling, therefore a groundwater sample could not be collected for laboratory analysis.

A total of two (2) groundwater samples (MW-1 and MW-2) along with one (1) trip blank, one (1) field blank, and one (1) duplicate sample from MW-1 for quality assurance/quality control purposes were submitted to Quantum Laboratories of Wixom, Michigan for analysis of VOCs by EPA Method 8260 and PCBs by EPA Method 8082.

Interior Subsurface Investigation

On July 28, 2020, Applied Environmental completed nine (9) hand auger borings (HA-1 through HA-9) in the basement of the subject building to determine if PCBs were present in the soil below the PCB-impacted concrete floor. Four (4) of the hand auger borings were advanced in locations adjacent to each of the concrete samples collected in December 2015 exhibiting elevated PCB concentrations. The five (5) other hand auger borings were situated in the basement such that they, along with the four initial borings, were advanced adjacent to the 2015 concrete samples to create a 3 x 3 boring grid pattern. This grid pattern was intended to generally define the lateral extent of impact, if any, from the release beneath the concrete floor in the basement area. From the basement soil borings, Applied Environmental collected soil samples at 0, 2, and 4 feet below the base of the concrete floor.

Subsurface soils under the concrete slab of the subject property building consisted of a gray clay formation with trace amounts of silt to the maximum depth of the hand auger borings at 4 feet below the base of the concrete floor. Groundwater was not encountered at any of the hand auger boring locations to the maximum depth.

Per the April 2020 Revises Work Plan, only two (2) shallower soil samples (i.e. 0 and 2 feet below the base of the concrete slab floor) from each of the hand auger boring locations were submitted for laboratory analysis and based on the results of the analysis, deeper samples would be authorized as needed to provide vertical delineation. To prevent holding time expiration, the laboratory was instructed to complete PCB extraction on the samples. All soil samples were submitted to Quantum Laboratories of Wixom, Michigan for analysis of VOCs per EPA Method 5035/8260 and PCBs per EPA Method 8082A.

Interior Wall Sampling

Along with the hand auger investigation below the basement floor, sampling of the basement concrete and/or brick walls was completed on July 29, 2020 to evaluate the impact of the PCB release on the interior basement walls. Sampling was completed in accordance with the U.S. EPA Standard Operating

Procedure (SOP) of Sampling Porous Surface for PCBs (May 2011). A steel chisel and hammer were used to obtain the samples from the concrete and/or brick basement walls and samples were collected from the visually stained areas of each main exterior or interior wall. Three (3) samples were collected from each of the northern and southern walls, and two (2) samples each were collected from the eastern and western walls for a total of ten (10) wall samples. The wall samples were submitted to Quantum Laboratories for laboratory analysis of VOCs by EPA Method 5035/8260 and PCBs per EPA Method 8082A.

Basement Sump Evaluation and Sampling

On July 29, 2020, Applied Environmental evaluated the sump located in the northeast corner of the basement. The basement sump is a concrete vault extending approximately 6 to 7 feet below the basement. Applied Environmental observed a total of three (3) inlet pipes into the sump. One (1) was on the north wall of the sump at a depth of approximately 2 feet and two (2) were on the west wall of the sump both at a depth of approximately 3 feet. The water observed within the sump was cloudy and turbid with no visual evidence of oil or sheen. One (1) sample was collected of the sump water and was submitted to Quantum Laboratories for analysis of VOCs by EPA Method 8260 and PCBs by EPA Method 8082A.

ADDITIONAL DELINEATION ACTIVITIES

The following additional delineation activities, as requested by EPA, were conducted on the subject property per the submitted Additional Delineation Activities Work Plan, dated May 4, 2022:

1. Collection of additional exterior shallow and surficial soil samples in order to delineate impacts by PCBs.
2. Collection of additional basement building wall samples above the historic floodwater line and the collection of ceiling building material samples.
3. Collection of indoor air samples over a 12-hour period, which equates to a typical work shift and therefore an exposure in a restaurant scenario.

These tasks are described in detail in the following sections.

Exterior Soil Sampling

As requested by EPA, Applied Environmental collected additional shallow soil samples for the analysis of PCBs at the exterior of the subject property building to further assess the horizontal and vertical

extent of PCBs in the area of the previously sampled GP-1, GP-2, GP-11, and GP-18 soil boring locations. In addition, surface soil samples were collected outside of the former excavation area to the northwest, west, and south to verify that no impacts of PCBs were present. Please refer to Attachment 1: Figures – Figures 3 and 4a – 2015 and 2020 Previous Exterior Soil Boring Locations and 2015 and 2020 Previous Exterior Soil Boring Locations with Analytical Results, respectively, for the sampling locations and analytical results of the previously conducted 2015 and 2020 exterior soil investigations on the subject property as well as the location of the former excavation area.

On May 26, 2022, Applied Environmental advanced 13 hand auger borings (HA-27 through HA-39) off the edge of the asphalt paved surface in the areas directly north and northeast of the previously sampled GP-1, GP-2, GP-11, and GP-18 soil boring locations to a maximum depth of 2 feet below ground surface (bgs). Shallow soil samples were collected directly from the hand auger bucket from the upper portions (i.e., top 6”) of the 0’-1’ bgs and the 1’-2’ bgs intervals. An additional sample was collected from the lower portion of the 1’-2’ bgs interval and placed on hold at the laboratory in case further analysis was required to assess the vertical extent of contamination. In addition, Applied Environmental collected eight surface samples (Surface 1 through Surface 8) using a steel shovel to the northwest, west, and south of the former excavation area. Subsurface soils encountered during sample collection generally consisted of a brown, moist, fine to medium-grained sand from just below the surface to the maximum explored depth of 2 feet bgs.

A total of 34 soil samples, two duplicate soil samples (Duplicate 1 and 2), and one equipment rinsate blank (Field Rinsate 1) were collected into laboratory provided 4oz glass jars and 1 Liter glass amber jar and submitted to Quantum Laboratories of Wixom, Michigan for laboratory analysis of PCBs in accordance with EPA Method 8082 as outlined in the laboratory-supplied SOPs for US EPA Method 8082. All soil samples were collected in accordance with EPA’s Laboratory Services and Applied Division Operating Procedure Soil Sampling, LSASDPROC-300-R4, Effective Date June 11, 2020.

The laboratory analytical results for the shallow and surficial exterior soil samples indicated that concentrations of PCBs were below laboratory MDLs in each of the soils samples submitted for laboratory analysis, with the exception of the HA-35 (0-1’) sampling location with a PCB concentration of 878 µg/kg which is below the EPA Toxic Substances Control Act (TSCA) High Occupancy Threshold of 1,000 µg/kg. The sampling locations and laboratory analytical results are reported in Attachment 1: Figures – Figure 4b – Shallow and Surficial Soil Sampling Locations with Analytical Results. Also refer to Attachment 2: Tables and Attachment 3: Laboratory Reports.

2015 Basement Concrete Floor Sampling

In December 2015, as part of Applied Environmental's initial investigation activities, Applied Environmental collected five concrete core samples from the basement floor and basement access pit (north side of subject building) to evaluate the potential presence of residual PCBs. All samples were analyzed for PCBs by the United States Environmental Protection Agency (EPA) Method 8082A. Please refer to Attachment 1: Figures – Figure 5 – Basement Concrete Floor Sample Locations with Analytical Results for the sampling locations and analytical results of the previously collected concrete floor samples.

Interior Basement Wall and Ceiling Building Materials Sampling

As requested by EPA, Applied Environmental collected additional basement building wall samples above the historic floodwater line to complete delineation of PCB-impacts to the basement walls. In addition, Applied Environmental collected ceiling building material samples to evaluate if these materials were impacted by the 2014 PCB release. It should be noted that, due to the composition and accessibility restraints of the ceiling building materials, Applied Environmental utilized the standard wipe test for all ceiling sample locations, as specified in 40 CFR 761.123. Interior basement wall and ceiling building material sampling was conducted in accordance with the EPA SOP for Sampling Porous Surfaces for PCBs (May 2011). Please refer to Attachment 1: Figures – Figure 6a – Previous Basement Wall Sample Locations Below the Historic Floodwater Line with Analytical Results for the sampling locations and analytical results of the previously collected basement building wall materials.

On May 27, 2022, destructive sampling of the basement building walls above the historic floodwater line was completed by Applied Environmental using a steel chisel and hammer. All basement building wall samples were collected approximately 7 feet from the floor and concrete/brick chips were placed into laboratory provided 4oz jars. A total of 10 basement building wall samples (Wall Sample 11 through Wall Sample 20) and one duplicate sample (Duplicate 4) were collected. In addition, 10 ceiling wipe samples (CS-1 through CS-10) and one duplicate sample (Duplicate 3) were collected utilizing the standard wipe test, as specified in 40 CFR 761.123. The basement building wall, ceiling wipe samples, and one equipment rinsate blank (Field Rinsate 2) were submitted to Quantum Laboratories of Wixom, Michigan for laboratory analysis of PCBs in accordance with US EPA Method 8082 and 40 CFR 761.272 as outlined in the laboratory-supplied SOPs for US EPA Method 8082.

The Laboratory analytical results for the basement building wall samples indicated that PCBs were reported at concentrations that exceeded the TSCA High Occupancy Threshold of 1,000 µg/kg in all of the wall samples submitted for laboratory analysis. In addition, PCBs were reported above laboratory MDLs at each ceiling wipe sample location; however only the CS-2 (10.2 µg/100cm²) location exceeded the 10 µg/100cm² threshold. The laboratory analytical results and sampling locations are reported in Attachment 1: Figures – Figure 6b – Basement Wall Sample Locations Above the Historic Floodwater Line with Analytical Results and Figure 6c – Basement Ceiling Wipe Sample Locations with Analytical Results. Also refer to Attachment 2: Tables and Attachment 3: Laboratory Reports.

Indoor Air Sampling

As requested by EPA, Applied Environmental collected baseline indoor air samples for the presence of PCBs prior to any renovation/remediation activities within the subject building. Per Ms. Bhooma Sundar, Toxicologist with EPA Region V, indoor air samples were collected over a 12-hour period which equates to a typical work shift and therefore an exposure in a restaurant scenario.

On June 1, 2022, Applied Environmental collected three indoor air samples on the ground floor (AS-1) and basement (AS-2 and AS-3) of the subject building. In addition, one duplicate air sample (Duplicate 1-Air) was collected within the basement as well as an additional air sample (AS-4) along the exterior of the subject building to establish a control.

The air samples were collected in accordance with Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air Second Edition Compendium Method TO-10A, EPA/625/R-96/010b, dated January 1999. A sampling rate of 1 liter/minute was utilized as the most conservative of the sampling rate ranges (i.e., 1 to 5 liters/minute) described in the Method TO-10A document. All air samples, as well as the duplicate air sample and one field blank, were placed back in their original cartridge containers and shipped under chain-of-custody to Pace New England Laboratories of East Longmeadow, Massachusetts for laboratory analysis of PCBs in accordance with US EPA Method TO-10A. The following table outlines the indoor air sampling locations, sampling rate, and analytical parameters:

Sample ID	Sample Location	Sampling Rate (liters/minute)	Analytical Parameter
AS-1	Central portion of the ground floor north of the front entryway.	1	PCBs

Sample ID	Sample Location	Sampling Rate (liters/minute)	Analytical Parameter
AS-2	Northeastern portion of the basement near a water heater to the east of the furnace.	1	PCBs
AS-3	Southern portion of the basement on a work bench.	1	PCBs
Duplicate 1-Air	Southern portion of the basement on a work bench.	1	PCBs
AS-4	Northwestern exterior of the subject building near the access pit entryway.	1	PCBs

The laboratory analytical results for the indoor air samples indicated that PCB Aroclor-1248 (0.083 µg/m³) and PCB Aroclor-1254 (0.078 µg/m³) in the AS-1 indoor air sample collected on the ground floor as well as Aroclor-1254 (0.088 µg/m³) in the AS-2 indoor air sample collected within the basement exceed the Site-Specific Indoor Worker Regional Screening Levels (RSLs) for air of 0.0289 µg/m³ at a one in a million excess cancer risk as provided in the EPA comment letter dated November 9, 2021. The indoor air concentrations detected at AS-1 and AS-2 do not exceed the excess cancer risk of 1 in 100,000 (0.289 µg/m³) which would warrant corrective actions. The laboratory analytical results for the indoor air samples are reported in Attachment 2: Tables and Attachment 3: Laboratory Reports.

Conclusions

Based upon the completion of the scope of work outlined in the May 2022 Additional Delineation Activities Work Plan, Applied Environmental concludes the following:

1. No PCB-impacted soils were identified within the shallow soil samples collected off the edge of the asphalt paved surface in the areas directly north and northeast of the previously sampled GP-1, GP-2, GP-11, and GP-18 soil boring locations with the exception of the HA-35 (0-1') hand auger boring location with a concentration of 878 µg/kg.
2. No PCB-impacted soils were identified within the surficial soil samples collected outside of the former excavation area to the northwest, west, and south.
3. The basement building wall samples above the historic floodwater line have been impacted by PCBs in excess of the US EPA TSCA High Occupancy Threshold of 1,000 µg/kg at each of the sampling locations.
4. PCBs were reported above laboratory MDLs at each ceiling wipe sample location; however only the CS-2 (10.2 µg/100cm²) location exceeded the 10 µg/100cm² threshold.
5. Indoor air samples collected on the ground floor (AS-1) and within the basement (AS-2) exceeded the Site-Specific Indoor Worker RSLs for air of 0.0289 µg/m³ for one in a million

excess cancer risk, but do not exceed the excess cancer risk of one in 100,000 excess cancer risk of 0.289 $\mu\text{g}/\text{m}^3$.

Applied Environmental will prepare a cleanup application (risk-based cleanup under 761.61(c)) for submittal to EPA for review and approval.

If you have any questions or required any additional information, please contact us at 734-975-1970.

Respectfully,



Michael Schroeder
Project Manager
Applied Environmental





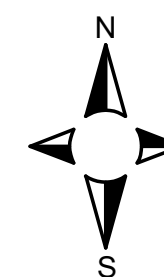
Michael Gatien
Principal, Senior Project Manager
Applied Environmental

ATTACHMENT 1: FIGURES



**Figure 1
Site Location Map**

 <p>APPLIED ENVIRONMENTAL</p> <p>1210 North Maple Rd. Ann Arbor, MI 48103 (734) 975-1970</p>	<p>8MK Project – PCB Remediation and Redevelopment 12700 8 Mile Road, Oak Park, MI 48237</p> <p>AE Project No. 22-2554</p>	 <p>North</p> <p>Source: Oakland County Property Gateway</p>
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Scale: 1" = 30'

HEAVILY VEGETATED AND TREED AREA

HEAVILY VEGETATED AND TREED AREA

Legend

 STORMWATER CATCH BASIN

AREA OF FORMER SOIL REMEDIATION/REMOVAL

CONCRETE PAD

FORMER WELL PIT (5 FEET DEEP)

ASPHALT

HEAVILY VEGETATED AND TREED AREA

CB

STORAGE AREA

SUBJECT BUILDING

GRASS

GRASS

GRASS

ASPHALT

GRASS

CONCRETE SIDEWALK

GRASS

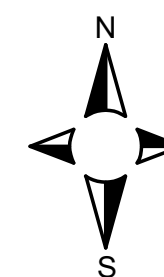
FIGURE 2

SITE MAP

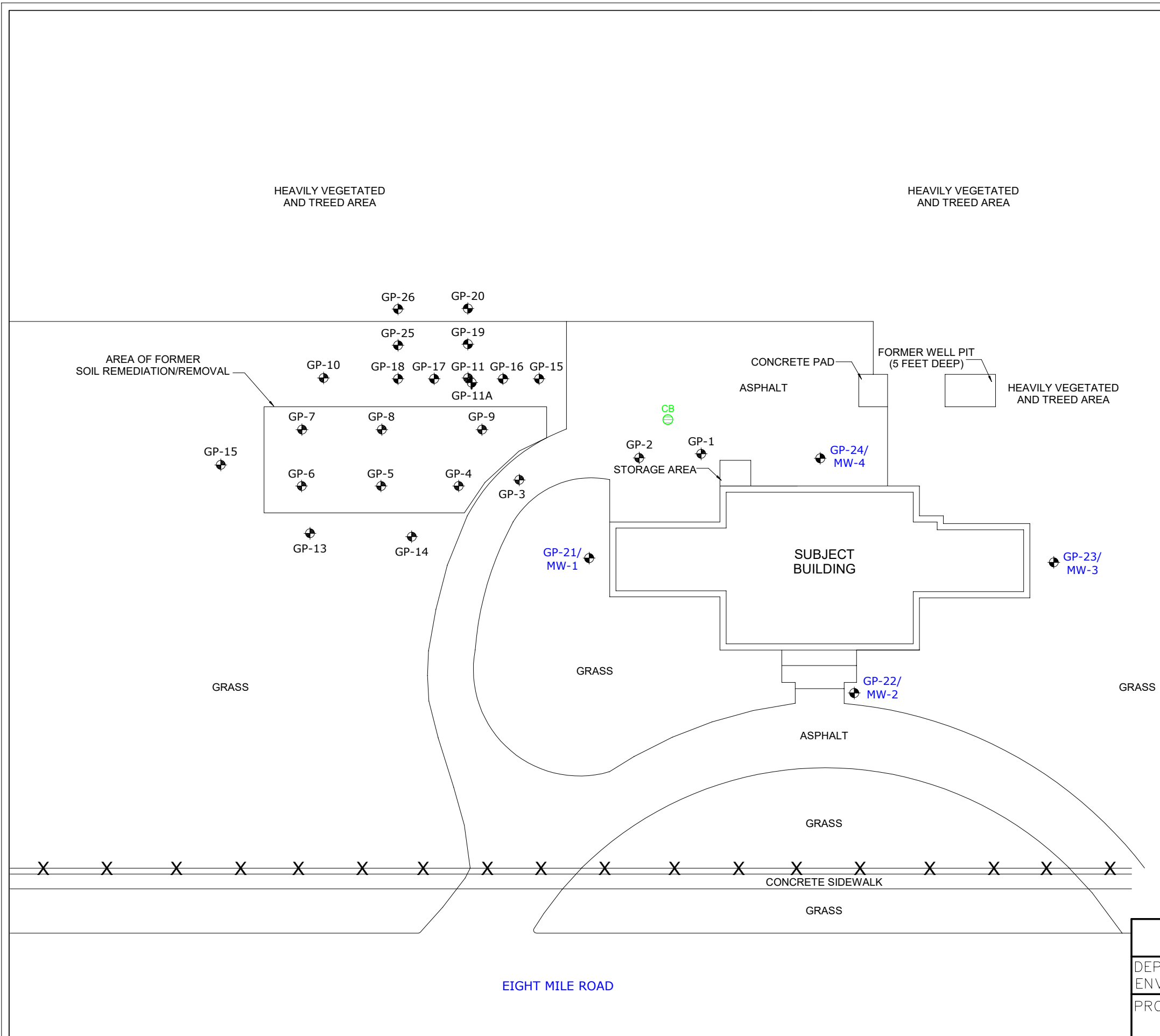
EIGHT MILE ROAD

APPLIED ENVIRONMENTAL

DEPT: ENVIRONMENTAL	TITLE: SITE MAP	DATE: 8/5/22
PROJECT MGR: M. SCHROEDER	CLIENT: ATE MILE, LLC	PROJ. NUMBER: 22-2554



Scale: 1" = 30'



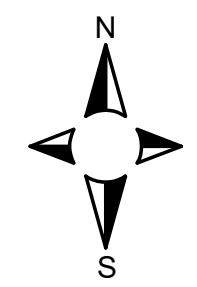
Legend

- GP-1 SOIL BORING COMPLETED BY APPLIED ENV. 12/9/15
- GP-11A SOIL BORING COMPLETED BY APPLIED ENV. 7/28/20
- GP-15 SOIL BORING COMPLETED BY APPLIED ENV. 7/28/20
- GP-21/
MW-1 SOIL BORING/MONITORING WELL COMPLETED BY APPLIED ENV. 7/28/20

FIGURE 3

2015 AND 2020 PREVIOUS EXTERIOR SOIL BORING LOCATIONS

<i>APPLIED ENVIRONMENTAL</i>		
DEPT: ENVIRONMENTAL	TITLE: SOIL BORING LOCATIONS	DATE: 7/29/20
PROJECT MGR: M. GATIEN	CLIENT: ATE MILE, LLC	PROJ. NUMBER: 20-2554



Scale: 1" = 30'

Legend

- GP-1 SOIL BORING COMPLETED BY APPLIED ENV. 12/9/15
- GP-21/
MW-1 SOIL BORING/MONITORING WELL COMPLETED BY APPLIED ENV. 12/9/15
- GP-11A SOIL BORING COMPLETED BY APPLIED ENV. 7/28/20

All Soil Results in ug/kg.
 MDL - Laboratory Method Detection Limit
 VOCs - Volatile Organic Compounds
 PCBs - Polychlorinated Biphenyls
 Red Colored PCB Concentrations Indicated Levels
 Exceeding the EPA High Occupancy Threshold of 1,000 ug/kg.

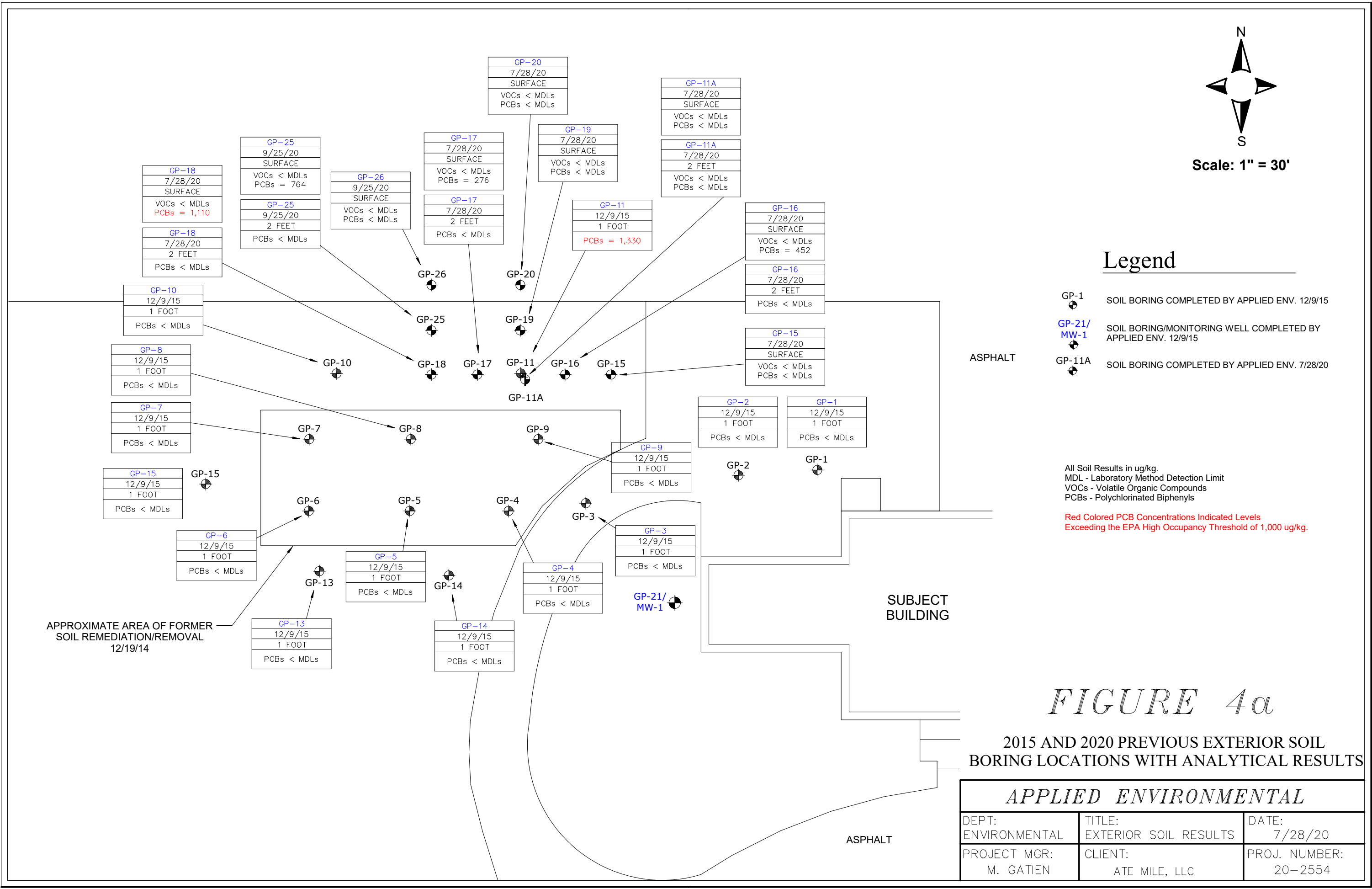
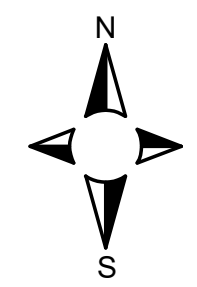


FIGURE 4a

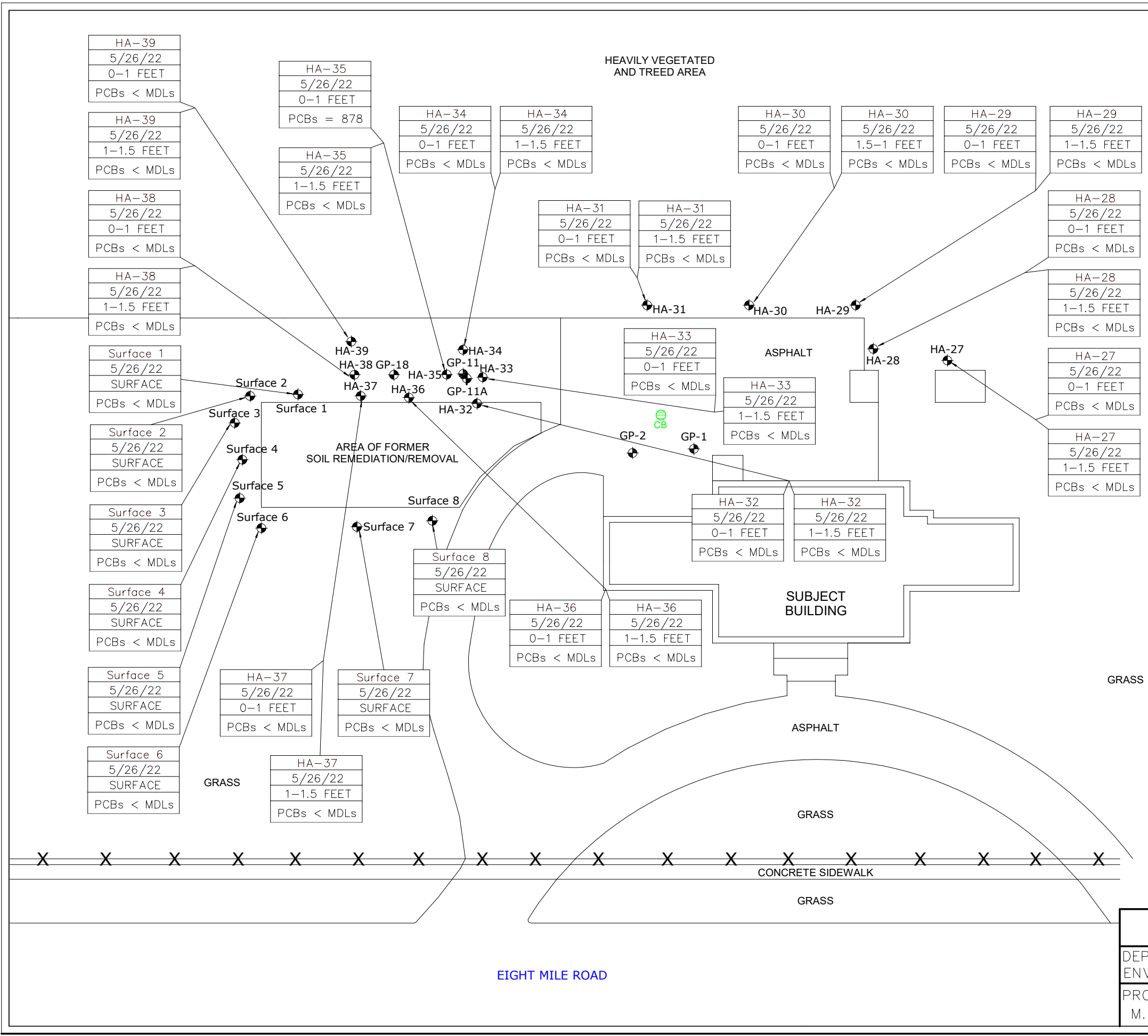
2015 AND 2020 PREVIOUS EXTERIOR SOIL BORING LOCATIONS WITH ANALYTICAL RESULTS

APPLIED ENVIRONMENTAL		
DEPT: ENVIRONMENTAL	TITLE: EXTERIOR SOIL RESULTS	DATE: 7/28/20
PROJECT MGR: M. GATIEN	CLIENT: ATE MILE, LLC	PROJ. NUMBER: 20-2554



Scale: 1" = 30'

HEAVILY VEGETATED AND TREED AREA



Legend

- GP-1 SOIL BORING COMPLETED BY APPLIED ENV. 12/9/15
- GP-11A SOIL BORING COMPLETED BY APPLIED ENV. 7/28/20
- GP-18 SOIL BORING COMPLETED BY APPLIED ENV. 7/28/20
- HA-27 SHALLOW SOIL SAMPLE COLLECTED BY APPLIED ENV. 5/26/2022
- Surface 1 SURFACE SOIL SAMPLE COLLECTED BY APPLIED ENV. 5/26/2022

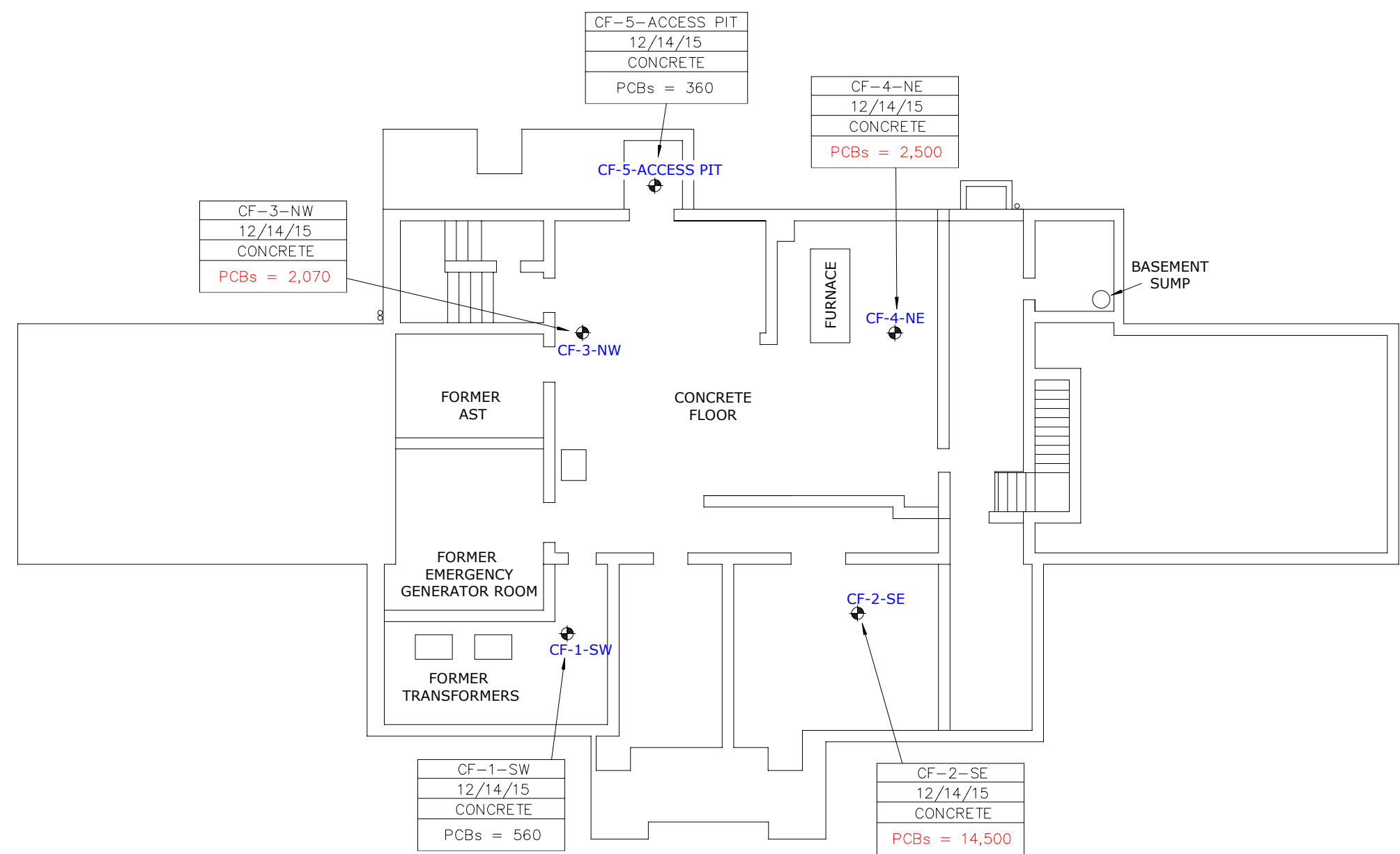
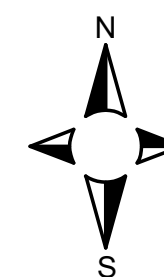
All Results in ug/kg.
MDL - Laboratory Method Detection Limit
PCBs - Polychlorinated Biphenyls

Red Colored PCB Concentrations Indicated Levels Exceeding the EPA High Occupancy Threshold of 1,000 ug/kg.

FIGURE 4b

SHALLOW AND SURFICIAL SOIL SAMPLING LOCATIONS WITH ANALYTICAL RESULTS

APPLIED ENVIRONMENTAL		
DEPT: ENVIRONMENTAL	TITLE: SOIL BORING LOCATIONS	DATE: 5/26/2022
PROJECT MGR: M. SCHROEDER	CLIENT: ATE MILE, LLC	PROJ. NUMBER: 22-2554



Legend

CF-1 CONCRETE FLOOR CORE SAMPLE LOCATION

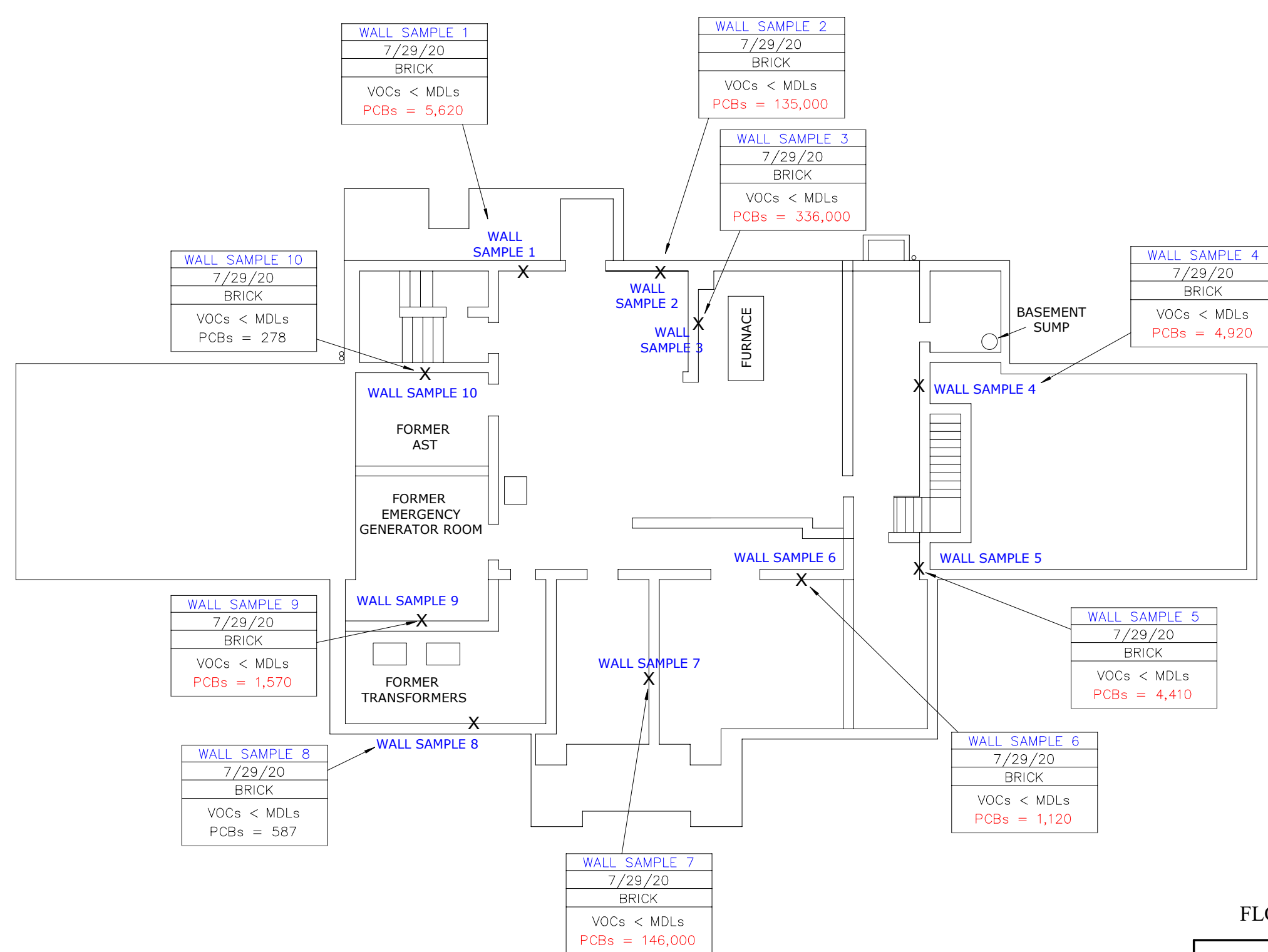
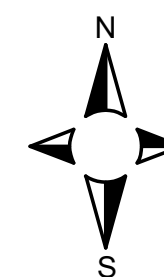
All Soil Results in ug/kg.
MDL - Laboratory Method Detection Limit
PCBs - Polychlorinated Biphenyls

Red Colored PCB Concentrations Indicated Levels
Exceeding the EPA High Occupancy Threshold of 1,000 ug/kg.

FIGURE 5

BASEMENT CONCRETE FLOOR SAMPLE LOCATIONS WITH ANALYTICAL RESULTS

APPLIED ENVIRONMENTAL		
DEPT: ENVIRONMENTAL	TITLE: CONCRETE FLOOR SAMPLES	DATE: 12/14/20
PROJECT MGR: M. GATIEN	CLIENT: ATE MILE, LLC	PROJ. NUMBER: 20-2554



Legend

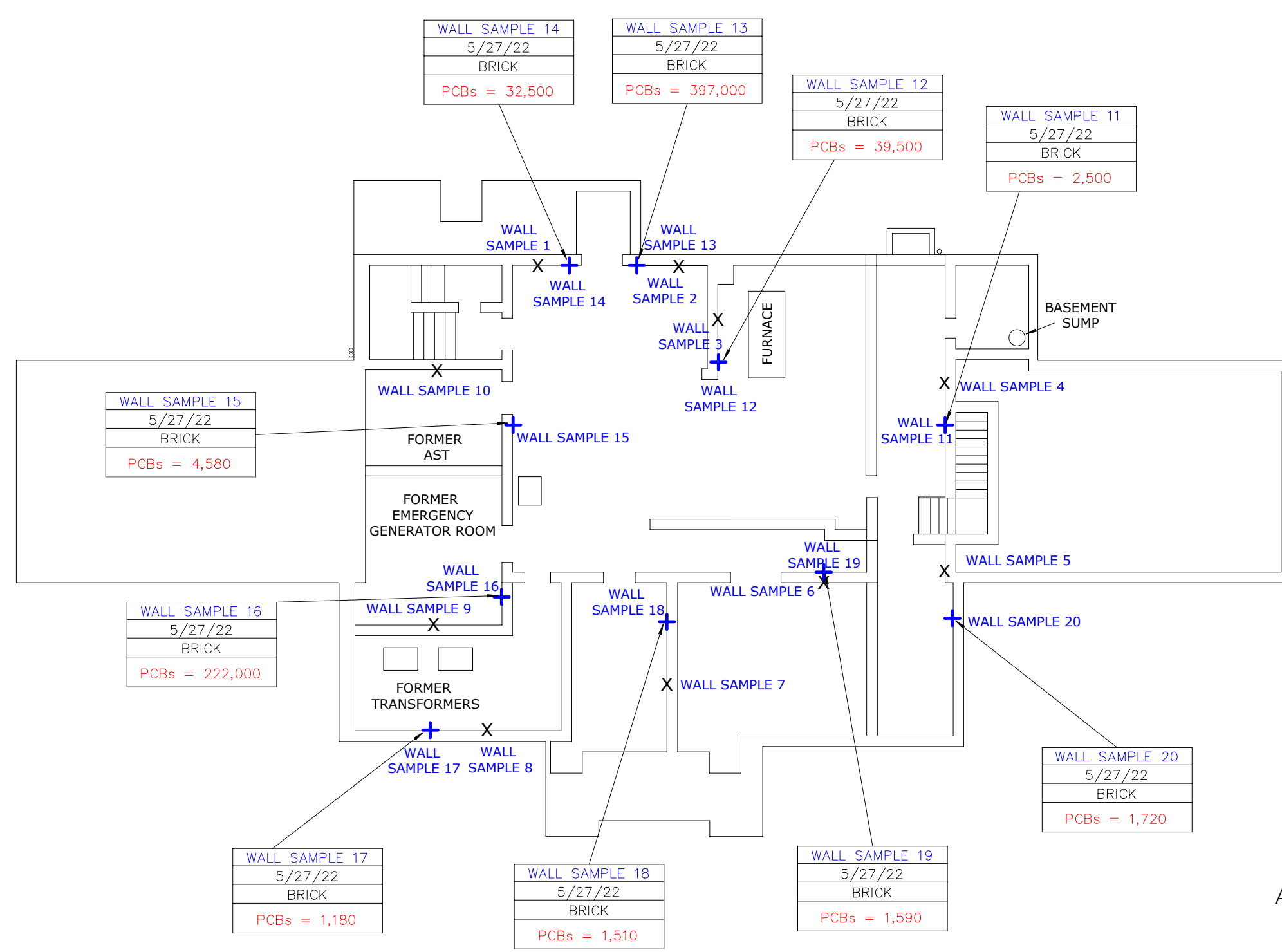
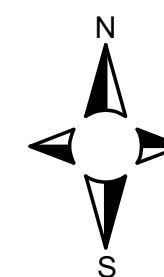
X BASEMENT WALL SAMPLE LOCATION

All Results in ug/kg.
 MDL - Laboratory Method Detection Limit
 VOCs - Volatile Organic Compounds
 PCBs - Polychlorinated Biphenyls
 Red Colored PCB Concentrations Indicated Levels Exceeding the EPA High Occupancy Threshold of 1,000 ug/kg.

FIGURE 6a

PREVIOUS BASEMENT WALL SAMPLE LOCATIONS BELOW THE HISTORIC FLOODWATER LINE WITH ANALYTICAL RESULTS

APPLIED ENVIRONMENTAL		
DEPT: ENVIRONMENTAL	TITLE: INITIAL WALL SAMPLES	DATE: 7/29/20
PROJECT MGR: M. GATIEN	CLIENT: ATE MILE, LLC	PROJ. NUMBER: 20-2554



Legend

- X BASEMENT WALL SAMPLE LOCATION
- + ADDITIONAL WALL SAMPLE LOCATION ABOVE THE HISTORIC FLOODWATER LINE

All Samples Collected Approximately 7 Feet from the Floor
 All Results in ug/kg.
 MDL - Laboratory Method Detection Limit
 PCBs - Polychlorinated Biphenyls

Red Colored PCB Concentrations Indicated Levels Exceeding the EPA High Occupancy Threshold of 1,000 ug/kg.

FIGURE 6b
BASEMENT WALL SAMPLE LOCATIONS ABOVE THE HISTORIC FLOODWATER LINE WITH ANALYTICAL RESULTS

APPLIED ENVIRONMENTAL		
DEPT: ENVIRONMENTAL	TITLE: BASEMENT WALL SAMPLING	DATE: 5/27/22
PROJECT MGR: M. SCHROEDER	CLIENT: ATE MILE, LLC	PROJ. NUMBER: 22-2554

WALL SAMPLE 14
5/27/22
BRICK
PCBs = 32,500

WALL SAMPLE 13
5/27/22
BRICK
PCBs = 397,000

WALL SAMPLE 12
5/27/22
BRICK
PCBs = 39,500

WALL SAMPLE 11
5/27/22
BRICK
PCBs = 2,500

WALL SAMPLE 15
5/27/22
BRICK
PCBs = 4,580

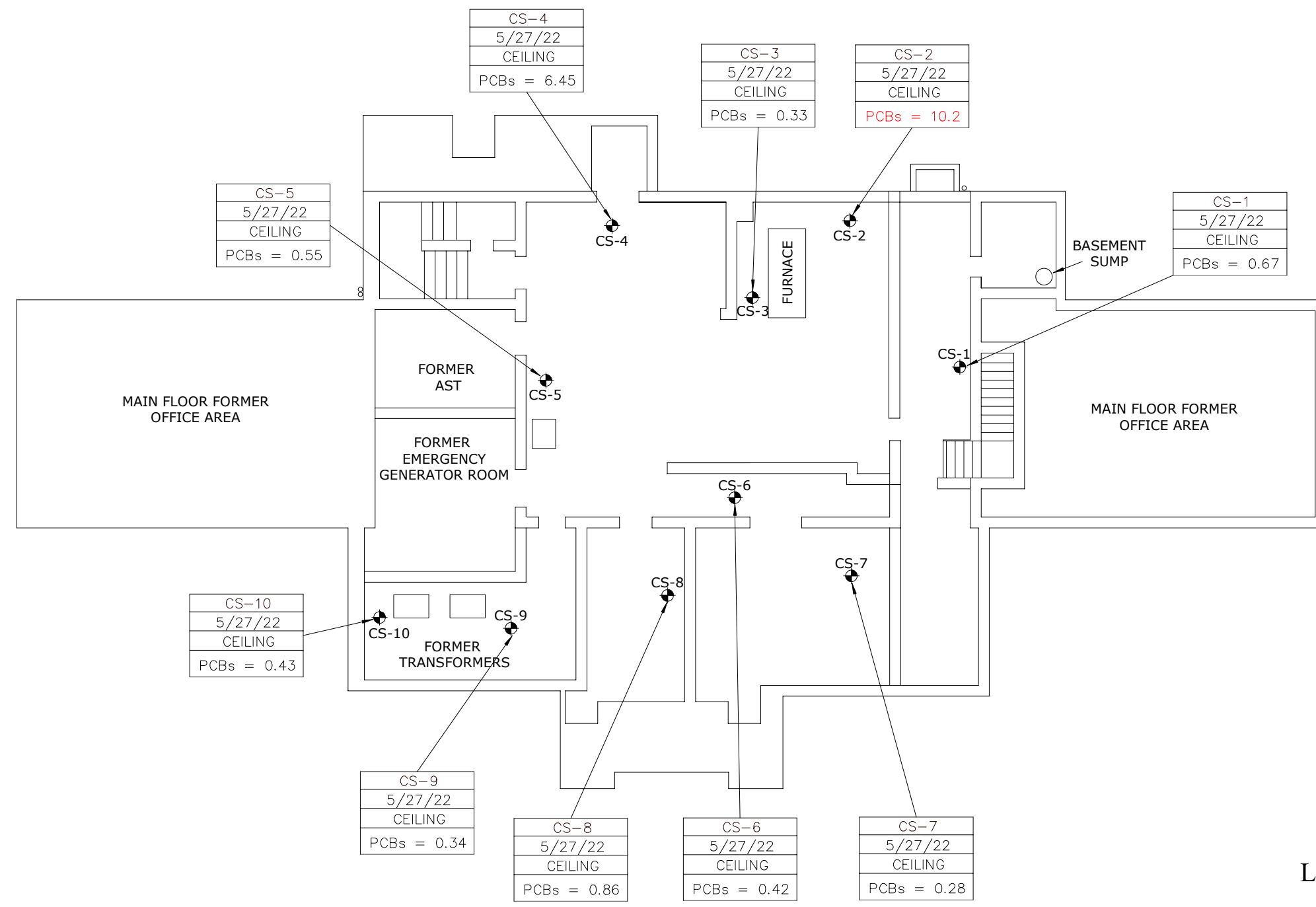
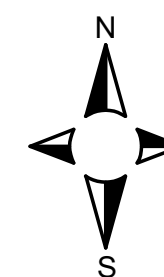
WALL SAMPLE 16
5/27/22
BRICK
PCBs = 222,000

WALL SAMPLE 17
5/27/22
BRICK
PCBs = 1,180

WALL SAMPLE 18
5/27/22
BRICK
PCBs = 1,510

WALL SAMPLE 19
5/27/22
BRICK
PCBs = 1,590

WALL SAMPLE 20
5/27/22
BRICK
PCBs = 1,720



Legend

CS-1
 CEILING SAMPLE LOCATION

All Results in ug/100cm²
 MDL - Laboratory Method Detection Limit
 PCBs - Polychlorinated Biphenyls
 Red Colored PCB Concentrations Indicated Levels Exceeding the threshold of 10 ug/100cm²

FIGURE 6c
 BASEMENT CEILING WIPE SAMPLE LOCATIONS WITH ANALYTICAL RESULTS

APPLIED ENVIRONMENTAL		
DEPT: ENVIRONMENTAL	TITLE: BASEMENT WALL SAMPLING	DATE: 5/27/22
PROJECT MGR: M. SCHROEDER	CLIENT: ATE MILE, LLC	PROJ. NUMBER: 22-2554

ATTACHMENT 2: TABLES



Table 1
 Shallow and Surficial Soil Analytical Results
 8MK Project - Summary of Additional Delineation Activities
 12700 8 Mile Road, Oak Park, MI 48237

			Lab ID	12338-1	12338-2	12338-4	12338-5	12338-7	12338-8	12338-10	12338-11	12338-13	12338-14	12338-16	12338-17	12338-19	12338-20
Parameters*	Chemical Abstract Service Number	TSCA High Occupancy Threshold	Sample ID	HA-27 0-1'	HA-27 1-1.5'	HA-28 0-1'	HA-28 1-1.5'	HA-29 0-1'	HA-29 1-1.5'	HA-30 0-1'	HA-30 1-1.5'	HA-31 0-1'	HA-31 1-1.5'	HA-32 0-1'	HA-32 1-1.5'	HA-33 0-1'	HA-33 1-1.5'
			Collection Date	5/26/22	5/26/22	5/26/22	5/26/22	5/26/22	5/26/22	5/26/22	5/26/22	5/26/22	5/26/22	5/26/22	5/26/22	5/26/22	5/26/22
*(Refer to detailed laboratory report for method reference data)																	
PCBs, ug/Kg																	
PCB, Aroclor 1016	12674-11-2	1,000		< 100	< 100	< 100	< 100	< 100	< 100	< 200	< 100	< 100	< 100	< 100	< 100	< 100	< 100
PCB, Aroclor 1221	11104-28-2	1,000		< 100	< 100	< 100	< 100	< 100	< 100	< 200	< 100	< 100	< 100	< 100	< 100	< 100	< 100
PCB, Aroclor 1232	11141-16-5	1,000		< 100	< 100	< 100	< 100	< 100	< 100	< 200	< 100	< 100	< 100	< 100	< 100	< 100	< 100
PCB, Aroclor 1242	53469-21-9	1,000		< 100	< 100	< 100	< 100	< 100	< 100	< 200	< 100	< 100	< 100	< 100	< 100	< 100	< 100
PCB, Aroclor 1248	12672-29-6	1,000		< 100	< 100	< 100	< 100	< 100	< 100	< 200	< 100	< 100	< 100	< 100	< 100	< 100	< 100
PCB, Aroclor 1254	11097-69-1	1,000		< 100	< 100	< 100	< 100	< 100	< 100	< 200	< 100	< 100	< 100	< 100	< 100	< 100	< 100
PCB, Aroclor 1260	11096-82-5	1,000		< 100	< 100	< 100	< 100	< 100	< 100	< 200	< 100	< 100	< 100	< 100	< 100	< 100	< 100
Total PCBs (J, T)	1336-36-3	1,000		< 700	< 700	< 700	< 700	< 700	< 700	< 1400	< 700	< 700	< 700	< 700	< 700	< 700	< 700

All concentrations in µg/kg

shading indicates criterion has been exceeded

< : chemical not detected above Method Detection Limit (MDL)

* duplicate of HA-33 (1-1.5')

** duplicate of Surface 2



Table 1
 Shallow and Surficial Soil Analytical Results
 8MK Project - Summary of Additional Delineation Activities
 12700 8 Mile Road, Oak Park, MI 48237

			Lab ID	12338-22	12338-23	12338-24	12338-26	12338-27	12338-29	12338-30	12338-33	12338-34	12338-36	12338-37	12338-39	12338-40	12338-42
Parameters*	Chemical Abstract Service Number	TSCA High Occupancy Threshold	Sample ID	Duplicate 1*	HA-34 0-1'	HA-34 1-1.5'	HA-35 0-1'	HA-35 1-1.5'	HA-36 0-1'	HA-36 1-1.5'	HA-37 0-1'	HA-37 1-1.5'	HA-38 0-1'	HA-38 1-1.5'	HA-39 0-1'	HA-39 1-1.5'	Surface 1
			Collection Date	5/26/22	5/26/22	5/26/22	5/26/22	5/26/22	5/26/22	5/26/22	5/26/22	5/26/22	5/26/22	5/26/22	5/26/22	5/26/22	5/26/22
*(Refer to detailed laboratory report for method reference data)																	
PCBs, ug/Kg																	
PCB, Aroclor 1016	12674-11-2	1,000		< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100
PCB, Aroclor 1221	11104-28-2	1,000		< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100
PCB, Aroclor 1232	11141-16-5	1,000		< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100
PCB, Aroclor 1242	53469-21-9	1,000		< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100
PCB, Aroclor 1248	12672-29-6	1,000		< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100
PCB, Aroclor 1254	11097-69-1	1,000		< 100	< 100	< 100	878	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100
PCB, Aroclor 1260	11096-82-5	1,000		< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100
Total PCBs (J, T)	1336-36-3	1,000		< 700	< 700	< 700	878	< 700	< 700	< 700	< 700	< 700	< 700	< 700	< 700	< 700	< 700

All concentrations in µg/kg

shading indicates criterion has been exceeded

< : chemical not detected above Method Detection Limit (MDL)

* duplicate of HA-33 (1-1.5')

** duplicate of Surface 2



Table 1
 Shallow and Surficial Soil Analytical Results
 8MK Project - Summary of Additional Delineation Activities
 12700 8 Mile Road, Oak Park, MI 48237

			Lab ID	12338-43	12338-44	12338-45	12338-46	12338-47	12338-48	12338-49	12338-50
Parameters*	Chemical Abstract Service Number	TSCA High Occupancy Threshold	Sample ID	Surface 2	Duplicate 2**	Surface 3	Surface 4	Surface 5	Surface 6	Surface 7	Surface 8
			Collection Date	5/26/22	5/26/22	5/26/22	5/26/22	5/26/22	5/26/22	5/26/22	5/26/22
*(Refer to detailed laboratory report for method reference data)											
PCBs, ug/Kg											
PCB, Aroclor 1016	12674-11-2	1,000		< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100
PCB, Aroclor 1221	11104-28-2	1,000		< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100
PCB, Aroclor 1232	11141-16-5	1,000		< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100
PCB, Aroclor 1242	53469-21-9	1,000		< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100
PCB, Aroclor 1248	12672-29-6	1,000		< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100
PCB, Aroclor 1254	11097-69-1	1,000		< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100
PCB, Aroclor 1260	11096-82-5	1,000		< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100
Total PCBs (J, T)	1336-36-3	1,000		< 700	< 700	< 700	< 700	< 700	< 700	< 700	< 700

All concentrations in µg/kg

shading indicates criterion has been exceeded

< : chemical not detected above Method Detection Limit (MDL)

* duplicate of HA-33 (1-1.5')

** duplicate of Surface 2



Table 2
 Basement Building Wall Analytical Results
 Above the Historic Floodwater Line
 8MK Project - Summary of Additional Delineation Activities
 12700 8 Mile Road, Oak Park, MI 48237

			Lab ID	12338-63	12338-64	12338-65	12338-66	12338-67	12338-68	12338-69	12338-70	12338-71	12338-72	12338-73
Parameters*	Chemical Abstract Service Number	TSCA High Occupancy Threshold	Sample ID	Wall Sample 11	Wall Sample 12	Wall Sample 13	Wall Sample 14	Wall Sample 15	Duplicate 4*	Wall Sample 16	Wall Sample 17	Wall Sample 18	Wall Sample 19	Wall Sample 20
			Collection Date	5/27/22	5/27/22	5/27/22	5/27/22	5/27/22	5/27/22	5/27/22	5/27/22	5/27/22	5/27/22	5/27/22
*(Refer to detailed laboratory report for method reference data)														
PCBs, ug/Kg														
PCB, Aroclor 1016	12674-11-2	1,000		< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100
PCB, Aroclor 1221	11104-28-2	1,000		< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100
PCB, Aroclor 1232	11141-16-5	1,000		< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100
PCB, Aroclor 1242	53469-21-9	1,000		< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100
PCB, Aroclor 1248	12672-29-6	1,000		< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100
PCB, Aroclor 1254	11097-69-1	1,000		2,500	39,500	397,000	32,800	4,580	349,000	222,000	1,180	1,510	1,590	1,720
PCB, Aroclor 1260	11096-82-5	1,000		< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100
Total PCBs (J, T)	1336-36-3	1,000		2,500	39,500	397,000	32,800	4,580	349,000	222,000	1,180	1,510	1,590	1,720

All concentrations in µg/kg

shading indicates criterion has been exceeded

< : chemical not detected above Method Detection Limit (MDL)

* duplicate of Wall Sample 13

All samples collected approximately 7 feet from the floor



Table 3
 Basement Ceiling Wipe Sample Analytical Results
 8MK Project - Summary of Additional Delineation Activities
 12700 8 Mile Road, Oak Park, MI 48237

			Lab ID	12338-51	12338-52	12338-53	12338-54	12338-55	12338-56	12338-57	12338-58	12338-59	12338-60	12338-61
Parameters*	Chemical Abstract Service Number	Threshold of 10µg/100cm²	Sample ID	CS-1	CS-2	CS-3	CS-4	CS-5	CS-6	CS-7	CS-8	CS-9	Duplicate 3*	CS-10
			Collection Date	5/27/22	5/27/22	5/27/22	5/27/22	5/27/22	5/27/22	5/27/22	5/27/22	5/27/22	5/27/22	5/27/22
*(Refer to detailed laboratory report for method reference data)														
PCBs, µg/100cm²														
PCB, Aroclor 1016	12674-11-2	10 µg/100cm²		< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
PCB, Aroclor 1221	11104-28-2	10 µg/100cm²		< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
PCB, Aroclor 1232	11141-16-5	10 µg/100cm²		< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
PCB, Aroclor 1242	53469-21-9	10 µg/100cm²		< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
PCB, Aroclor 1248	12672-29-6	10 µg/100cm²		< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
PCB, Aroclor 1254	11097-69-1	10 µg/100cm²		0.67	10.2	0.33	6.45	0.55	0.42	0.28	0.86	0.34	0.36	0.43
PCB, Aroclor 1260	11096-82-5	10 µg/100cm²		< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Total PCBs (J, T)	1336-36-3	10 µg/100cm²		< 1.40	10.2	< 1.40	6.45	< 1.40	< 1.40	< 1.40	< 1.40	< 1.40	< 1.40	< 1.40

All concentrations in µg/100cm²

shading indicates criterion has been exceeded

< : chemical not detected above Method Detection Limit (MDL)

* duplicate of CS-5



Table 4
 Indoor Air Sample Analytical Results
 8MK Project - Summary of Additional Delineation Activities
 12700 8 Mile Road, Oak Park, MI 48237

			Lab ID	22F0223-01	22F0223-02	22F0223-03	22F0223-04	22F0223-05	22F0223-06
Parameters*	Chemical Abstract Service Number	Site-Specific Indoor Worker Regional Screening Levels (RSLs)	Sample ID	AS-1 Air	AS-2 Air	AS-3 Air	Duplicate 1-Air*	AS-4 Air	Field Blank Air
			Collection Date	6/1/22	6/1/22	6/1/22	6/1/22	6/1/22	6/1/22
<i>*(Refer to detailed laboratory report for method reference data)</i>									
PCBs, µg/m³									
PCB, Aroclor 1016	12674-11-2	2.89E-02		< 0.056	< 0.056	< 0.056	< 0.056	< 0.056	< 0.056
PCB, Aroclor 1221	11104-28-2	2.89E-02		< 0.056	< 0.056	< 0.056	< 0.056	< 0.056	< 0.056
PCB, Aroclor 1232	11141-16-5	2.89E-02		< 0.056	< 0.056	< 0.056	< 0.056	< 0.056	< 0.056
PCB, Aroclor 1242	53469-21-9	2.89E-02		< 0.056	< 0.056	< 0.056	< 0.056	< 0.056	< 0.056
PCB, Aroclor 1248	12672-29-6	2.89E-02		0.083	< 0.056	< 0.056	< 0.056	< 0.056	< 0.056
PCB, Aroclor 1254	11097-69-1	2.89E-02		0.078	0.088	< 0.056	0.070	< 0.056	< 0.056
PCB, Aroclor 1260	11096-82-5	2.89E-02		< 0.056	< 0.056	< 0.056	< 0.056	< 0.056	< 0.056
PCB, Aroclor 1262	37324-23-5	2.89E-02		< 0.056	< 0.056	< 0.056	< 0.056	< 0.056	< 0.056
PCB, Aroclor 1268	11100-14-4	2.89E-02		< 0.056	< 0.056	< 0.056	< 0.056	< 0.056	< 0.056

All concentrations in µg/10m³

shading indicates criterion has been exceeded

< : chemical not detected above Method Detection Limit (MDL)

* duplicate of AS-3

ATTACHMENT 3: LABORATORY REPORTS

ANALYTICAL REPORT

For: Applied Environmental, Inc.
1210 N. Maple Rd
Ann Arbor MI 48103-2842

Report Number: 12338
Report Date: June 8, 2022
Project Name: 8 MK
Project Number: 22-2554
Page: 1 of 44
734-975-1970 Fax: 734-975-1973

Attn: Mr. Mike Schroeder

Sample Description

Seventy-three (73) samples reported to be Soil (49), Wipe (10), Unknown (13) and Water (1) and identified as "8 MK", 12700 8 Mile Rd, Oak Park, MI and:

See attached for sample description

1. HA-27, 0-1', 1:25, 5/26/22 (Soil)
2. HA-27, 1-1.5', 1:28, 5/26/22 (Soil)
3. HA-27, 1.5-2', 1:30, 5/26/22 (Soil) (HOLD)
4. HA-28, 0-1', 12:52, 5/26/22 (Soil)
5. HA-28, 1-1.5', 12:55, 5/26/22 (Soil)
6. HA-28, 1.5-2', 12:57, 5/26/22 (Soil) (HOLD)
7. HA-29, 0-1', 1:12, 5/26/22 (Soil)
8. HA-29, 1-1.5', 1:15, 5/26/22 (Soil)
9. HA-29, 1.5-2', 1:18, 5/26/22 (Soil) (HOLD)
10. HA-30, 0-1', 2:03, 5/26/22 (Soil)
11. HA-30, 1-1.5', 2:06, 5/26/22 (Soil)
12. HA-30, 1.5-2', 2:09, 5/26/22 (Soil) (HOLD)
13. HA-31, 0-1', 2:15, 5/26/22 (Soil)
14. HA-31, 1-1.5', 2:18, 5/26/22 (Soil)
15. HA-31, 1.5-2', 2:21, 5/26/22 (Soil) (HOLD)
16. HA-32, 0-1', 9:50, 5/26/22 (Soil)
17. HA-32, 1-1.5', 9:52, 5/26/22 (Soil)
18. HA-32, 1.5-2', 10:00, 5/26/22 (Soil) (HOLD)
19. HA-33, 0-1', 10:05, 5/26/22 (Soil)
20. HA-33, 1-1.5', 10:10, 5/26/22 (Soil)
21. HA-33, 1.5-2', 10:14, 5/26/22 (Soil) (HOLD)
22. Duplicate 1, 10:11, 5/26/22 (Soil)
23. HA-34, 0-1', 10:20, 5/26/22 (Soil)
24. HA-34, 1-1.5', 10:23, 5/26/22 (Soil)
25. HA-34, 1.5-2', 10:26, 5/26/22 (Soil) (HOLD)
26. HA-35, 0-1', 10:30, 5/26/22 (Soil)
27. HA-35, 1-1.5', 10:33, 5/26/22 (Soil)
28. HA-35, 1.5-2', 10:35, 5/26/22 (Soil) (HOLD)
29. HA-36, 0-1', 10:45, 5/26/22 (Soil)
30. HA-36, 1-1.5', 10:48, 5/26/22 (Soil)
31. HA-36, 1.5-2', 10:50, 5/26/22 (Soil) (HOLD)
32. Field Rinsate 1, 11:00, 5/26/22 (Water)
33. HA-37, 0-1', 11:05, 5/26/22 (Soil)
34. HA-37, 1-1.5', 11:10, 5/26/22 (Soil)
35. HA-37, 1.5-2', 11:13, 5/26/22 (Soil) (HOLD)
36. HA-38, 0-1', 11:32, 5/26/22 (Soil)
37. HA-38, 1-1.5', 11:41, 5/26/22 (Soil)
38. HA-38, 1.5-2', 11:44, 5/26/22 (Soil) (HOLD)
39. HA-39, 0-1', 11:57, 5/26/22 (Soil)
40. HA-39, 1-1.5', 12:00, 5/26/22 (Soil)
41. HA-39, 1.5-2', 12:03, 5/26/22 (Soil) (HOLD)
42. Surface 1, 11:15, 5/26/22 (Soil)
43. Surface 2, 11:20, 5/26/22 (Soil)
44. Duplicate 2, 11:21, 5/26/22 (Soil)
45. Surface 3, 11:26, 5/26/22 (Soil)
46. Surface 4, 11:34, 5/26/22 (Soil)
47. Surface 5, 11:41, 5/26/22 (Soil)
48. Surface 6, 11:45, 5/26/22 (Soil)
49. Surface 7, 11:52, 5/26/22 (Soil)
50. Surface 8, 11:57, 5/26/22 (Soil)
51. CS-1, 100cm², 9:25, 5/27/22 (Wipe)
52. CS-2, 100cm², 9:32, 5/27/22 (Wipe)
53. CS-3, 100cm², 9:45, 5/27/22 (Wipe)
54. CS-4, 100cm², 9:50, 5/27/22 (Wipe)
55. CS-5, 100cm², 9:55, 5/27/22 (Wipe)
56. CS-6, 100cm², 10:03, 5/27/22 (Wipe)
57. CS-7, 100cm², 10:08, 5/27/22 (Wipe)
58. CS-8, 100cm², 10:17, 5/27/22 (Wipe)
59. CS-9, 100cm², 10:28, 5/27/22 (Wipe)
60. Duplicate 3, 100cm², 9:57, 5/27/22 (Wipe)
61. CS-10, 100cm², 10:30, 5/27/22 (Wipe)
62. Field Rinsate 2, 3:30, 5/27/22 (Unknown)
63. Wall Sample 11, 11:19, 5/27/22 (Unknown)
64. Wall Sample 12, 11:48, 5/27/22 (Unknown)
65. Wall Sample 13, 12:14, 5/27/22 (Unknown)
66. Wall Sample 14, 12:45, 5/27/22 (Unknown)
67. Wall Sample 15, 1:11, 5/27/22 (Unknown)
68. Duplicate 4, 12:34, 5/27/22 (Unknown)
69. Wall Sample 16, 1:33, 5/27/22 (Unknown)
70. Wall Sample 17, 1:53, 5/27/22 (Unknown)
71. Wall Sample 18, 2:33, 5/27/22 (Unknown)
72. Wall Sample 19, 2:57, 5/27/22 (Unknown)
73. Wall Sample 20, 3:29, 5/27/22 (Unknown)

Analysis Requested

Chemical Analysis per SW-846 (SW) for Polychlorinated Biphenyls (PCB), Method 8082A

Analytical Results

Sample Description:		HA-27, 0-1', 1:25, 5/26/22				
Laboratory ID:	12338-1	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1254	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Polychlorinated biphenyls (Total)	Not Detected	700	µg/Kg, dry wt.	06/02/22	DS	
Surrogate Standards						
Tetrachloro-m-xylene	74.6%	-	% Recovery	06/02/22	DS	
Decachlorobiphenyl	86.6%	-	% Recovery	06/02/22	DS	
Analysis Information						
Dry Weight Solids	83.9%	-	% by weight	06/01/22	LB	
PCB Extraction	Completed	-	-	06/01/22	LB	

Sample Description:		HA-27, 1-1.5', 1:28, 5/26/22				
Laboratory ID:	12338-2	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1254	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Polychlorinated biphenyls (Total)	Not Detected	700	µg/Kg, dry wt.	06/02/22	DS	
Surrogate Standards						
Tetrachloro-m-xylene	78.1%	-	% Recovery	06/02/22	DS	
Decachlorobiphenyl	100%	-	% Recovery	06/02/22	DS	
Analysis Information						
Dry Weight Solids	86.5%	-	% by weight	06/01/22	LB	
PCB Extraction	Completed	-	-	06/01/22	LB	

Sample Description:		HA-28, 0-1', 12:52, 5/26/22				
Laboratory ID:	12338-4	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1254	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Polychlorinated biphenyls (Total)	Not Detected	700	µg/Kg, dry wt.	06/02/22	DS	
Surrogate Standards						
Tetrachloro-m-xylene	117%	-	% Recovery	06/02/22	DS	
Decachlorobiphenyl	147%	-	% Recovery	06/02/22	DS	
Analysis Information						
Dry Weight Solids	78.7%	-	% by weight	06/01/22	LB	
PCB Extraction	Completed	-	-	06/01/22	LB	

Sample Description:		HA-28, 1-1.5', 12:55, 5/26/22				
Laboratory ID:	12338-5	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1254	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Polychlorinated biphenyls (Total)	Not Detected	700	µg/Kg, dry wt.	06/02/22	DS	
Surrogate Standards						
Tetrachloro-m-xylene	81.3%	-	% Recovery	06/02/22	DS	
Decachlorobiphenyl	110%	-	% Recovery	06/02/22	DS	
Analysis Information						
Dry Weight Solids	77.7%	-	% by weight	06/01/22	LB	
PCB Extraction	Completed	-	-	06/01/22	LB	

Sample Description:		HA-29, 0-1', 1:12, 5/26/22				
Laboratory ID:	12338-7	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1254	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Polychlorinated biphenyls (Total)	Not Detected	700	µg/Kg, dry wt.	06/02/22	DS	
Surrogate Standards						
Tetrachloro-m-xylene	87.0%	-	% Recovery	06/02/22	DS	
Decachlorobiphenyl	102%	-	% Recovery	06/02/22	DS	
Analysis Information						
Dry Weight Solids	73.8%	-	% by weight	06/01/22	LB	
PCB Extraction	Completed	-	-	06/01/22	LB	

Sample Description:		HA-29, 1-1.5', 1:15, 5/26/22				
Laboratory ID:	12338-8	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1254	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Polychlorinated biphenyls (Total)	Not Detected	700	µg/Kg, dry wt.	06/02/22	DS	
Surrogate Standards						
Tetrachloro-m-xylene	94.1%	-	% Recovery	06/02/22	DS	
Decachlorobiphenyl	108%	-	% Recovery	06/02/22	DS	
Analysis Information						
Dry Weight Solids	77.4%	-	% by weight	06/01/22	LB	
PCB Extraction	Completed	-	-	06/01/22	LB	

Sample Description:		HA-30, 0-1', 2:03, 5/26/22				
Laboratory ID:	12338-10	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	200	µg/Kg, dry wt.	06/02/22	DS	E, M
Aroclor 1221	Not Detected	200	µg/Kg, dry wt.	06/02/22	DS	E, M
Aroclor 1232	Not Detected	200	µg/Kg, dry wt.	06/02/22	DS	E, M
Aroclor 1242	Not Detected	200	µg/Kg, dry wt.	06/02/22	DS	E, M
Aroclor 1248	Not Detected	200	µg/Kg, dry wt.	06/02/22	DS	E, M
Aroclor 1254	Not Detected	200	µg/Kg, dry wt.	06/02/22	DS	E, M
Aroclor 1260	Not Detected	200	µg/Kg, dry wt.	06/02/22	DS	E, M
Polychlorinated biphenyls (Total)	Not Detected	1,400	µg/Kg, dry wt.	06/02/22	DS	E, M
Surrogate Standards						
Tetrachloro-m-xylene	80.3%	-	% Recovery	06/02/22	DS	
Decachlorobiphenyl	124%	-	% Recovery	06/02/22	DS	
Analysis Information						
Dry Weight Solids	71.9%	-	% by weight	06/01/22	LB	
PCB Extraction	Completed	-	-	06/01/22	LB	

Sample Description:		HA-30, 1-1.5', 2:06, 5/26/22				
Laboratory ID:	12338-11	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1254	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Polychlorinated biphenyls (Total)	Not Detected	700	µg/Kg, dry wt.	06/02/22	DS	
Surrogate Standards						
Tetrachloro-m-xylene	92.3%	-	% Recovery	06/02/22	DS	
Decachlorobiphenyl	118%	-	% Recovery	06/02/22	DS	
Analysis Information						
Dry Weight Solids	69.0%	-	% by weight	06/01/22	LB	
PCB Extraction	Completed	-	-	06/01/22	LB	

Sample Description:		HA-31, 0-1', 2:15, 5/26/22				
Laboratory ID:	12338-13	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1254	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Polychlorinated biphenyls (Total)	Not Detected	700	µg/Kg, dry wt.	06/02/22	DS	
Surrogate Standards						
Tetrachloro-m-xylene	84.0%	-	% Recovery	06/02/22	DS	
Decachlorobiphenyl	107%	-	% Recovery	06/02/22	DS	
Analysis Information						
Dry Weight Solids	63.5%	-	% by weight	06/01/22	LB	
PCB Extraction	Completed	-	-	06/01/22	LB	

Sample Description:		HA-31, 1-1.5', 2:18, 5/26/22				
Laboratory ID:	12338-14	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1254	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Polychlorinated biphenyls (Total)	Not Detected	700	µg/Kg, dry wt.	06/02/22	DS	
Surrogate Standards						
Tetrachloro-m-xylene	94.0%	-	% Recovery	06/02/22	DS	
Decachlorobiphenyl	110%	-	% Recovery	06/02/22	DS	
Analysis Information						
Dry Weight Solids	65.9%	-	% by weight	06/01/22	LB	
PCB Extraction	Completed	-	-	06/01/22	LB	

Sample Description:		HA-32, 0-1', 9:50, 5/26/22				
Laboratory ID:	12338-16	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1254	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Polychlorinated biphenyls (Total)	Not Detected	700	µg/Kg, dry wt.	06/02/22	DS	
Surrogate Standards						
Tetrachloro-m-xylene	83.8%	-	% Recovery	06/02/22	DS	
Decachlorobiphenyl	95.8%	-	% Recovery	06/02/22	DS	
Analysis Information						
Dry Weight Solids	72.7%	-	% by weight	06/01/22	LB	
PCB Extraction	Completed	-	-	06/01/22	LB	

Sample Description:		HA-32, 1-1.5', 9:52, 5/26/22				
Laboratory ID:	12338-17	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1254	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Polychlorinated biphenyls (Total)	Not Detected	700	µg/Kg, dry wt.	06/02/22	DS	
Surrogate Standards						
Tetrachloro-m-xylene	84.6%	-	% Recovery	06/02/22	DS	
Decachlorobiphenyl	94.4%	-	% Recovery	06/02/22	DS	
Analysis Information						
Dry Weight Solids	77.5%	-	% by weight	06/01/22	LB	
PCB Extraction	Completed	-	-	06/01/22	LB	

Sample Description:		HA-33, 0-1', 10:05, 5/26/22				
Laboratory ID:	12338-19	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1254	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Polychlorinated biphenyls (Total)	Not Detected	700	µg/Kg, dry wt.	06/02/22	DS	
Surrogate Standards						
Tetrachloro-m-xylene	84.9%	-	% Recovery	06/02/22	DS	
Decachlorobiphenyl	110%	-	% Recovery	06/02/22	DS	
Analysis Information						
Dry Weight Solids	72.9%	-	% by weight	06/01/22	LB	
PCB Extraction	Completed	-	-	06/01/22	LB	

Sample Description:		HA-33, 1-1.5', 10:10, 5/26/22				
Laboratory ID:	12338-20	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1254	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Polychlorinated biphenyls (Total)	Not Detected	700	µg/Kg, dry wt.	06/02/22	DS	
Surrogate Standards						
Tetrachloro-m-xylene	88.5%	-	% Recovery	06/02/22	DS	
Decachlorobiphenyl	115%	-	% Recovery	06/02/22	DS	
Analysis Information						
Dry Weight Solids	77.5%	-	% by weight	06/01/22	LB	
PCB Extraction	Completed	-	-	06/01/22	LB	

Sample Description:		Duplicate 1, 10:11, 5/26/22				
Laboratory ID:	12338-22	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1254	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Polychlorinated biphenyls (Total)	Not Detected	700	µg/Kg, dry wt.	06/02/22	DS	
Surrogate Standards						
Tetrachloro-m-xylene	74.5%	-	% Recovery	06/02/22	DS	
Decachlorobiphenyl	90.5%	-	% Recovery	06/02/22	DS	
Analysis Information						
Dry Weight Solids	80.1%	-	% by weight	06/01/22	LB	
PCB Extraction	Completed	-	-	06/01/22	LB	

Sample Description:		HA-34, 0-1', 10:20, 5/26/22				
Laboratory ID:	12338-23	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1254	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Polychlorinated biphenyls (Total)	Not Detected	700	µg/Kg, dry wt.	06/02/22	DS	
Surrogate Standards						
Tetrachloro-m-xylene	107%	-	% Recovery	06/02/22	DS	
Decachlorobiphenyl	145%	-	% Recovery	06/02/22	DS	
Analysis Information						
Dry Weight Solids	69.6%	-	% by weight	06/01/22	LB	
PCB Extraction	Completed	-	-	06/01/22	LB	

Sample Description:		HA-34, 1-1.5', 10:23, 5/26/22				
Laboratory ID:	12338-24	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1254	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Polychlorinated biphenyls (Total)	Not Detected	700	µg/Kg, dry wt.	06/02/22	DS	
Surrogate Standards						
Tetrachloro-m-xylene	107%	-	% Recovery	06/02/22	DS	
Decachlorobiphenyl	149%	-	% Recovery	06/02/22	DS	
Analysis Information						
Dry Weight Solids	79.0%	-	% by weight	06/01/22	LB	
PCB Extraction	Completed	-	-	06/01/22	LB	

Sample Description:		HA-35, 0-1', 10:30, 5/26/22				
Laboratory ID:	12338-26	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	06/06/22	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	06/06/22	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	06/06/22	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	06/06/22	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	06/06/22	DS	
Aroclor 1254	878	100	µg/Kg, dry wt.	06/06/22	DS	
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	06/06/22	DS	
Polychlorinated biphenyls (Total)	878	700	µg/Kg, dry wt.	06/06/22	DS	
Surrogate Standards						
Tetrachloro-m-xylene	101%	-	% Recovery	06/02/22	DS	
Decachlorobiphenyl	115%	-	% Recovery	06/02/22	DS	
Analysis Information						
Dry Weight Solids	70.3%	-	% by weight	06/01/22	LB	
PCB Extraction	Completed	-	-	06/01/22	LB	

Sample Description:		HA-35, 1-1.5', 10:33, 5/26/22				
Laboratory ID:	12338-27	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1254	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Polychlorinated biphenyls (Total)	Not Detected	700	µg/Kg, dry wt.	06/02/22	DS	
Surrogate Standards						
Tetrachloro-m-xylene	115%	-	% Recovery	06/02/22	DS	
Decachlorobiphenyl	143%	-	% Recovery	06/02/22	DS	
Analysis Information						
Dry Weight Solids	79.2%	-	% by weight	06/01/22	LB	
PCB Extraction	Completed	-	-	06/01/22	LB	

Sample Description:		HA-36, 0-1', 10:45, 5/26/22				
Laboratory ID:	12338-29	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1254	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Polychlorinated biphenyls (Total)	Not Detected	700	µg/Kg, dry wt.	06/02/22	DS	
Surrogate Standards						
Tetrachloro-m-xylene	106%	-	% Recovery	06/02/22	DS	
Decachlorobiphenyl	112%	-	% Recovery	06/02/22	DS	
Analysis Information						
Dry Weight Solids	72.6%	-	% by weight	06/02/22	LB	
PCB Extraction	Completed	-	-	06/02/22	LB	

Sample Description:		HA-36, 1-1.5', 10:48, 5/26/22				
Laboratory ID:	12338-30	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1254	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Polychlorinated biphenyls (Total)	Not Detected	700	µg/Kg, dry wt.	06/02/22	DS	
Surrogate Standards						
Tetrachloro-m-xylene	92.1%	-	% Recovery	06/02/22	DS	
Decachlorobiphenyl	96.7%	-	% Recovery	06/02/22	DS	
Analysis Information						
Dry Weight Solids	80.1%	-	% by weight	06/02/22	LB	
PCB Extraction	Completed	-	-	06/02/22	LB	

Sample Description:		Field Rinsate 1, 11:00, 5/26/22				
Laboratory ID:	12338-32	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	0.2	µg/L	06/02/22	DS	
Aroclor 1221	Not Detected	0.2	µg/L	06/02/22	DS	
Aroclor 1232	Not Detected	0.2	µg/L	06/02/22	DS	
Aroclor 1242	Not Detected	0.2	µg/L	06/02/22	DS	
Aroclor 1248	Not Detected	0.2	µg/L	06/02/22	DS	
Aroclor 1254	Not Detected	0.2	µg/L	06/02/22	DS	
Aroclor 1260	Not Detected	0.2	µg/L	06/02/22	DS	
Polychlorinated biphenyls (Total)	Not Detected	2	µg/L	06/02/22	DS	
Surrogate Standards						
Tetrachloro-m-xylene	85.8%	-	% Recovery	06/02/22	DS	
Decachlorobiphenyl	79.0%	-	% Recovery	06/02/22	DS	
Analysis Information						
PCB Extraction	Completed	-	-	06/01/22	LB	

Sample Description:		HA-37, 0-1', 11:05, 5/26/22				
Laboratory ID:	12338-33	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1254	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Polychlorinated biphenyls (Total)	Not Detected	700	µg/Kg, dry wt.	06/02/22	DS	
Surrogate Standards						
Tetrachloro-m-xylene	108%	-	% Recovery	06/02/22	DS	
Decachlorobiphenyl	124%	-	% Recovery	06/02/22	DS	
Analysis Information						
Dry Weight Solids	73.2%	-	% by weight	06/02/22	LB	
PCB Extraction	Completed	-	-	06/02/22	LB	

Sample Description:		HA-37, 1-1.5', 11:10, 5/26/22				
Laboratory ID:	12338-34	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1254	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Polychlorinated biphenyls (Total)	Not Detected	700	µg/Kg, dry wt.	06/02/22	DS	
Surrogate Standards						
Tetrachloro-m-xylene	92.2%	-	% Recovery	06/02/22	DS	
Decachlorobiphenyl	104%	-	% Recovery	06/02/22	DS	
Analysis Information						
Dry Weight Solids	80.6%	-	% by weight	06/02/22	LB	
PCB Extraction	Completed	-	-	06/02/22	LB	

Sample Description:		HA-38, 0-1', 11:32, 5/26/22				
Laboratory ID:	12338-36	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1254	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Polychlorinated biphenyls (Total)	Not Detected	700	µg/Kg, dry wt.	06/02/22	DS	
Surrogate Standards						
Tetrachloro-m-xylene	109%	-	% Recovery	06/02/22	DS	
Decachlorobiphenyl	113%	-	% Recovery	06/02/22	DS	
Analysis Information						
Dry Weight Solids	76.5%	-	% by weight	06/02/22	LB	
PCB Extraction	Completed	-	-	06/02/22	LB	

Sample Description:		HA-38, 1-1.5', 11:41, 5/26/22				
Laboratory ID:	12338-37	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1254	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Polychlorinated biphenyls (Total)	Not Detected	700	µg/Kg, dry wt.	06/02/22	DS	
Surrogate Standards						
Tetrachloro-m-xylene	93.4%	-	% Recovery	06/02/22	DS	
Decachlorobiphenyl	99.4%	-	% Recovery	06/02/22	DS	
Analysis Information						
Dry Weight Solids	74.9%	-	% by weight	06/02/22	LB	
PCB Extraction	Completed	-	-	06/02/22	LB	

Sample Description:		HA-39, 0-1', 11:57, 5/26/22				
Laboratory ID:	12338-39	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1254	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Polychlorinated biphenyls (Total)	Not Detected	700	µg/Kg, dry wt.	06/02/22	DS	
Surrogate Standards						
Tetrachloro-m-xylene	113%	-	% Recovery	06/02/22	DS	
Decachlorobiphenyl	107%	-	% Recovery	06/02/22	DS	
Analysis Information						
Dry Weight Solids	76.4%	-	% by weight	06/02/22	LB	
PCB Extraction	Completed	-	-	06/02/22	LB	

Sample Description:		HA-39, 1-1.5', 12:00, 5/26/22				
Laboratory ID:	12338-40	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1254	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Polychlorinated biphenyls (Total)	Not Detected	700	µg/Kg, dry wt.	06/02/22	DS	
Surrogate Standards						
Tetrachloro-m-xylene	115%	-	% Recovery	06/02/22	DS	
Decachlorobiphenyl	109%	-	% Recovery	06/02/22	DS	
Analysis Information						
Dry Weight Solids	80.2%	-	% by weight	06/02/22	LB	
PCB Extraction	Completed	-	-	06/02/22	LB	

Sample Description:		Surface 1, 11:15, 5/26/22				
Laboratory ID:	12338-42	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1254	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Polychlorinated biphenyls (Total)	Not Detected	700	µg/Kg, dry wt.	06/02/22	DS	
Surrogate Standards						
Tetrachloro-m-xylene	106%	-	% Recovery	06/02/22	DS	
Decachlorobiphenyl	102%	-	% Recovery	06/02/22	DS	
Analysis Information						
Dry Weight Solids	67.0%	-	% by weight	06/02/22	LB	
PCB Extraction	Completed	-	-	06/02/22	LB	

Sample Description:		Surface 2, 11:20, 5/26/22				
Laboratory ID:	12338-43	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1254	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Polychlorinated biphenyls (Total)	Not Detected	700	µg/Kg, dry wt.	06/02/22	DS	
Surrogate Standards						
Tetrachloro-m-xylene	111%	-	% Recovery	06/02/22	DS	
Decachlorobiphenyl	104%	-	% Recovery	06/02/22	DS	
Analysis Information						
Dry Weight Solids	69.0%	-	% by weight	06/02/22	LB	
PCB Extraction	Completed	-	-	06/02/22	LB	

Sample Description:		Duplicate 2, 11:21, 5/26/22				
Laboratory ID:	12338-44	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1254	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Polychlorinated biphenyls (Total)	Not Detected	700	µg/Kg, dry wt.	06/02/22	DS	
Surrogate Standards						
Tetrachloro-m-xylene	108%	-	% Recovery	06/02/22	DS	
Decachlorobiphenyl	102%	-	% Recovery	06/02/22	DS	
Analysis Information						
Dry Weight Solids	69.2%	-	% by weight	06/02/22	LB	
PCB Extraction	Completed	-	-	06/02/22	LB	

Sample Description:		Surface 3, 11:26, 5/26/22				
Laboratory ID:	12338-45	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1254	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Polychlorinated biphenyls (Total)	Not Detected	700	µg/Kg, dry wt.	06/02/22	DS	
Surrogate Standards						
Tetrachloro-m-xylene	98.9%	-	% Recovery	06/02/22	DS	
Decachlorobiphenyl	92.0%	-	% Recovery	06/02/22	DS	
Analysis Information						
Dry Weight Solids	68.8%	-	% by weight	06/02/22	LB	
PCB Extraction	Completed	-	-	06/02/22	LB	

Sample Description:		Surface 4, 11:34, 5/26/22				
Laboratory ID:	12338-46	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1254	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Polychlorinated biphenyls (Total)	Not Detected	700	µg/Kg, dry wt.	06/02/22	DS	
Surrogate Standards						
Tetrachloro-m-xylene	110%	-	% Recovery	06/02/22	DS	
Decachlorobiphenyl	134%	-	% Recovery	06/02/22	DS	
Analysis Information						
Dry Weight Solids	67.0%	-	% by weight	06/02/22	LB	
PCB Extraction	Completed	-	-	06/02/22	LB	

Sample Description:		Surface 5, 11:41, 5/26/22				
Laboratory ID:	12338-47	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1254	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Polychlorinated biphenyls (Total)	Not Detected	700	µg/Kg, dry wt.	06/02/22	DS	
Surrogate Standards						
Tetrachloro-m-xylene	101%	-	% Recovery	06/02/22	DS	
Decachlorobiphenyl	170%	-	% Recovery	06/02/22	DS	S, M
Analysis Information						
Dry Weight Solids	77.0%	-	% by weight	06/02/22	LB	
PCB Extraction	Completed	-	-	06/02/22	LB	

Sample Description:		Surface 6, 11:45, 5/26/22				
Laboratory ID:	12338-48	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1254	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Polychlorinated biphenyls (Total)	Not Detected	700	µg/Kg, dry wt.	06/02/22	DS	
Surrogate Standards						
Tetrachloro-m-xylene	124%	-	% Recovery	06/02/22	DS	
Decachlorobiphenyl	211%	-	% Recovery	06/02/22	DS	S, M
Analysis Information						
Dry Weight Solids	75.1%	-	% by weight	06/02/22	LB	
PCB Extraction	Completed	-	-	06/02/22	LB	

Sample Description:		Surface 7, 11:52, 5/26/22				
Laboratory ID:	12338-49	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1254	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Polychlorinated biphenyls (Total)	Not Detected	700	µg/Kg, dry wt.	06/02/22	DS	
Surrogate Standards						
Tetrachloro-m-xylene	105%	-	% Recovery	06/02/22	DS	
Decachlorobiphenyl	152%	-	% Recovery	06/02/22	DS	
Analysis Information						
Dry Weight Solids	69.8%	-	% by weight	06/02/22	LB	
PCB Extraction	Completed	-	-	06/02/22	LB	

Sample Description:		Surface 8, 11:57, 5/26/22				
Laboratory ID:	12338-50	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1254	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	06/02/22	DS	
Polychlorinated biphenyls (Total)	Not Detected	700	µg/Kg, dry wt.	06/02/22	DS	
Surrogate Standards						
Tetrachloro-m-xylene	75.1%	-	% Recovery	06/02/22	DS	
Decachlorobiphenyl	95.7%	-	% Recovery	06/02/22	DS	
Analysis Information						
Dry Weight Solids	70.3%	-	% by weight	06/02/22	LB	
PCB Extraction	Completed	-	-	06/02/22	LB	

Sample Description:		CS-1, 100cm ² , 9:25, 5/27/22				
Laboratory ID:	12338-51	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	0.20	µg/100cm ²	06/06/22	DS	
Aroclor 1221	Not Detected	0.20	µg/100cm ²	06/06/22	DS	
Aroclor 1232	Not Detected	0.20	µg/100cm ²	06/06/22	DS	
Aroclor 1242	Not Detected	0.20	µg/100cm ²	06/06/22	DS	
Aroclor 1248	Not Detected	0.20	µg/100cm ²	06/06/22	DS	
Aroclor 1254	0.67	0.20	µg/100cm ²	06/06/22	DS	
Aroclor 1260	Not Detected	0.20	µg/100cm ²	06/06/22	DS	
Polychlorinated biphenyls (Total)	Not Detected	1.40	µg/100cm ²	06/06/22	DS	
Surrogate Standards						
Tetrachloro-m-xylene	106%	-	% Recovery	06/06/22	DS	
Decachlorobiphenyl	154%	-	% Recovery	06/06/22	DS	
Analysis Information						
PCB Extraction	Completed	-	-	06/06/22	LB	

Sample Description:		CS-2, 100cm ² , 9:32, 5/27/22				
Laboratory ID:	12338-52	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	0.20	µg/100cm ²	06/06/22	DS	
Aroclor 1221	Not Detected	0.20	µg/100cm ²	06/06/22	DS	
Aroclor 1232	Not Detected	0.20	µg/100cm ²	06/06/22	DS	
Aroclor 1242	Not Detected	0.20	µg/100cm ²	06/06/22	DS	
Aroclor 1248	Not Detected	0.20	µg/100cm ²	06/06/22	DS	
Aroclor 1254	10.2	0.20	µg/100cm ²	06/07/22	DS	D
Aroclor 1260	Not Detected	0.20	µg/100cm ²	06/06/22	DS	
Polychlorinated biphenyls (Total)	10.2	1.40	µg/100cm ²	06/07/22	DS	D
Surrogate Standards						
Tetrachloro-m-xylene	96.0%	-	% Recovery	06/06/22	DS	
Decachlorobiphenyl	123%	-	% Recovery	06/06/22	DS	
Analysis Information						
PCB Extraction	Completed	-	-	06/06/22	LB	

Sample Description:		CS-3, 100cm ² , 9:45, 5/27/22				
Laboratory ID:	12338-53	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	0.20	µg/100cm ²	06/06/22	DS	
Aroclor 1221	Not Detected	0.20	µg/100cm ²	06/06/22	DS	
Aroclor 1232	Not Detected	0.20	µg/100cm ²	06/06/22	DS	
Aroclor 1242	Not Detected	0.20	µg/100cm ²	06/06/22	DS	
Aroclor 1248	Not Detected	0.20	µg/100cm ²	06/06/22	DS	
Aroclor 1254	0.33	0.20	µg/100cm ²	06/06/22	DS	
Aroclor 1260	Not Detected	0.20	µg/100cm ²	06/06/22	DS	
Polychlorinated biphenyls (Total)	Not Detected	1.40	µg/100cm ²	06/06/22	DS	
Surrogate Standards						
Tetrachloro-m-xylene	79.0%	-	% Recovery	06/06/22	DS	
Decachlorobiphenyl	88.7%	-	% Recovery	06/06/22	DS	
Analysis Information						
PCB Extraction	Completed	-	-	06/06/22	LB	

Sample Description:		CS-4, 100cm ² , 9:50, 5/27/22				
Laboratory ID:	12338-54	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	0.20	µg/100cm ²	06/06/22	DS	
Aroclor 1221	Not Detected	0.20	µg/100cm ²	06/06/22	DS	
Aroclor 1232	Not Detected	0.20	µg/100cm ²	06/06/22	DS	
Aroclor 1242	Not Detected	0.20	µg/100cm ²	06/06/22	DS	
Aroclor 1248	Not Detected	0.20	µg/100cm ²	06/06/22	DS	
Aroclor 1254	6.45	0.20	µg/100cm ²	06/07/22	DS	D
Aroclor 1260	Not Detected	0.20	µg/100cm ²	06/06/22	DS	
Polychlorinated biphenyls (Total)	6.45	1.40	µg/100cm ²	06/07/22	DS	D
Surrogate Standards						
Tetrachloro-m-xylene	100%	-	% Recovery	06/06/22	DS	
Decachlorobiphenyl	114%	-	% Recovery	06/06/22	DS	
Analysis Information						
PCB Extraction	Completed	-	-	06/06/22	LB	

Sample Description:		CS-5, 100cm ² , 9:55, 5/27/22				
Laboratory ID:	12338-55	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	0.20	µg/100cm ²	06/06/22	DS	
Aroclor 1221	Not Detected	0.20	µg/100cm ²	06/06/22	DS	
Aroclor 1232	Not Detected	0.20	µg/100cm ²	06/06/22	DS	
Aroclor 1242	Not Detected	0.20	µg/100cm ²	06/06/22	DS	
Aroclor 1248	Not Detected	0.20	µg/100cm ²	06/06/22	DS	
Aroclor 1254	0.55	0.20	µg/100cm ²	06/06/22	DS	
Aroclor 1260	Not Detected	0.20	µg/100cm ²	06/06/22	DS	
Polychlorinated biphenyls (Total)	Not Detected	1.40	µg/100cm ²	06/06/22	DS	
Surrogate Standards						
Tetrachloro-m-xylene	101%	-	% Recovery	06/06/22	DS	
Decachlorobiphenyl	103%	-	% Recovery	06/06/22	DS	
Analysis Information						
PCB Extraction	Completed	-	-	06/06/22	LB	

Sample Description:		CS-6, 100cm ² , 10:03, 5/27/22				
Laboratory ID:	12338-56	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	0.20	µg/100cm ²	06/06/22	DS	
Aroclor 1221	Not Detected	0.20	µg/100cm ²	06/06/22	DS	
Aroclor 1232	Not Detected	0.20	µg/100cm ²	06/06/22	DS	
Aroclor 1242	Not Detected	0.20	µg/100cm ²	06/06/22	DS	
Aroclor 1248	Not Detected	0.20	µg/100cm ²	06/06/22	DS	
Aroclor 1254	0.42	0.20	µg/100cm ²	06/06/22	DS	
Aroclor 1260	Not Detected	0.20	µg/100cm ²	06/06/22	DS	
Polychlorinated biphenyls (Total)	Not Detected	1.40	µg/100cm ²	06/06/22	DS	
Surrogate Standards						
Tetrachloro-m-xylene	103%	-	% Recovery	06/06/22	DS	
Decachlorobiphenyl	104%	-	% Recovery	06/06/22	DS	
Analysis Information						
PCB Extraction	Completed	-	-	06/06/22	LB	

Sample Description:		CS-7, 100cm ² , 10:08, 5/27/22				
Laboratory ID:	12338-57	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	0.20	µg/100cm ²	06/06/22	DS	
Aroclor 1221	Not Detected	0.20	µg/100cm ²	06/06/22	DS	
Aroclor 1232	Not Detected	0.20	µg/100cm ²	06/06/22	DS	
Aroclor 1242	Not Detected	0.20	µg/100cm ²	06/06/22	DS	
Aroclor 1248	Not Detected	0.20	µg/100cm ²	06/06/22	DS	
Aroclor 1254	0.28	0.20	µg/100cm ²	06/06/22	DS	
Aroclor 1260	Not Detected	0.20	µg/100cm ²	06/06/22	DS	
Polychlorinated biphenyls (Total)	Not Detected	1.40	µg/100cm ²	06/06/22	DS	
Surrogate Standards						
Tetrachloro-m-xylene	94.6%	-	% Recovery	06/06/22	DS	
Decachlorobiphenyl	99.4%	-	% Recovery	06/06/22	DS	
Analysis Information						
PCB Extraction	Completed	-	-	06/06/22	LB	

Sample Description:		CS-8, 100cm ² , 10:17, 5/27/22				
Laboratory ID:	12338-58	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	0.20	µg/100cm ²	06/06/22	DS	
Aroclor 1221	Not Detected	0.20	µg/100cm ²	06/06/22	DS	
Aroclor 1232	Not Detected	0.20	µg/100cm ²	06/06/22	DS	
Aroclor 1242	Not Detected	0.20	µg/100cm ²	06/06/22	DS	
Aroclor 1248	Not Detected	0.20	µg/100cm ²	06/06/22	DS	
Aroclor 1254	0.86	0.20	µg/100cm ²	06/06/22	DS	
Aroclor 1260	Not Detected	0.20	µg/100cm ²	06/06/22	DS	
Polychlorinated biphenyls (Total)	Not Detected	1.40	µg/100cm ²	06/06/22	DS	
Surrogate Standards						
Tetrachloro-m-xylene	101%	-	% Recovery	06/06/22	DS	
Decachlorobiphenyl	113%	-	% Recovery	06/06/22	DS	
Analysis Information						
PCB Extraction	Completed	-	-	06/06/22	LB	

Sample Description:		CS-9, 100cm ² , 10:28, 5/27/22				
Laboratory ID:	12338-59	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	0.20	µg/100cm ²	06/06/22	DS	
Aroclor 1221	Not Detected	0.20	µg/100cm ²	06/06/22	DS	
Aroclor 1232	Not Detected	0.20	µg/100cm ²	06/06/22	DS	
Aroclor 1242	Not Detected	0.20	µg/100cm ²	06/06/22	DS	
Aroclor 1248	Not Detected	0.20	µg/100cm ²	06/06/22	DS	
Aroclor 1254	0.34	0.20	µg/100cm ²	06/06/22	DS	
Aroclor 1260	Not Detected	0.20	µg/100cm ²	06/06/22	DS	
Polychlorinated biphenyls (Total)	Not Detected	1.40	µg/100cm ²	06/06/22	DS	
Surrogate Standards						
Tetrachloro-m-xylene	79.8%	-	% Recovery	06/06/22	DS	
Decachlorobiphenyl	101%	-	% Recovery	06/06/22	DS	
Analysis Information						
PCB Extraction	Completed	-	-	06/06/22	LB	

Sample Description:		Duplicate 3, 100cm ² , 9:57, 5/27/22				
Laboratory ID:	12338-60	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	0.20	µg/100cm ²	06/06/22	DS	
Aroclor 1221	Not Detected	0.20	µg/100cm ²	06/06/22	DS	
Aroclor 1232	Not Detected	0.20	µg/100cm ²	06/06/22	DS	
Aroclor 1242	Not Detected	0.20	µg/100cm ²	06/06/22	DS	
Aroclor 1248	Not Detected	0.20	µg/100cm ²	06/06/22	DS	
Aroclor 1254	0.36	0.20	µg/100cm ²	06/06/22	DS	
Aroclor 1260	Not Detected	0.20	µg/100cm ²	06/06/22	DS	
Polychlorinated biphenyls (Total)	Not Detected	1.40	µg/100cm ²	06/06/22	DS	
Surrogate Standards						
Tetrachloro-m-xylene	82.5%	-	% Recovery	06/06/22	DS	
Decachlorobiphenyl	96.9%	-	% Recovery	06/06/22	DS	
Analysis Information						
PCB Extraction	Completed	-	-	06/06/22	LB	

Sample Description:		CS-10, 100cm ² , 10:30, 5/27/22				
Laboratory ID:	12338-61	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	0.20	µg/100cm ²	06/06/22	DS	
Aroclor 1221	Not Detected	0.20	µg/100cm ²	06/06/22	DS	
Aroclor 1232	Not Detected	0.20	µg/100cm ²	06/06/22	DS	
Aroclor 1242	Not Detected	0.20	µg/100cm ²	06/06/22	DS	
Aroclor 1248	Not Detected	0.20	µg/100cm ²	06/06/22	DS	
Aroclor 1254	0.43	0.20	µg/100cm ²	06/06/22	DS	
Aroclor 1260	Not Detected	0.20	µg/100cm ²	06/06/22	DS	
Polychlorinated biphenyls (Total)	Not Detected	1.40	µg/100cm ²	06/06/22	DS	
Surrogate Standards						
Tetrachloro-m-xylene	100%	-	% Recovery	06/06/22	DS	
Decachlorobiphenyl	99.6%	-	% Recovery	06/06/22	DS	
Analysis Information						
PCB Extraction	Completed	-	-	06/06/22	LB	

Sample Description:		Field Rinsate 2, 3:30, 5/27/22				
Laboratory ID:	12338-62	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	0.2	µg/L	06/02/22	DS	
Aroclor 1221	Not Detected	0.2	µg/L	06/02/22	DS	
Aroclor 1232	Not Detected	0.2	µg/L	06/02/22	DS	
Aroclor 1242	Not Detected	0.2	µg/L	06/02/22	DS	
Aroclor 1248	Not Detected	0.2	µg/L	06/02/22	DS	
Aroclor 1254	Not Detected	0.2	µg/L	06/02/22	DS	
Aroclor 1260	Not Detected	0.2	µg/L	06/02/22	DS	
Polychlorinated biphenyls (Total)	Not Detected	2	µg/L	06/02/22	DS	
Surrogate Standards						
Tetrachloro-m-xylene	80.8%	-	% Recovery	06/02/22	DS	
Decachlorobiphenyl	103%	-	% Recovery	06/02/22	DS	
Analysis Information						
PCB Extraction	Completed	-	-	06/01/22	LB	

Sample Description:		Wall Sample 11, 11:19, 5/27/22				
Laboratory ID:	12338-63	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	06/06/22	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	06/06/22	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	06/06/22	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	06/06/22	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	06/06/22	DS	
Aroclor 1254	2,500	100	µg/Kg, dry wt.	06/06/22	DS	
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	06/06/22	DS	
Polychlorinated biphenyls (Total)	2,500	700	µg/Kg, dry wt.	06/06/22	DS	
Surrogate Standards						
Tetrachloro-m-xylene	77.7%	-	% Recovery	06/02/22	DS	
Decachlorobiphenyl	95.9%	-	% Recovery	06/02/22	DS	
Analysis Information						
Dry Weight Solids	99.1%	-	% by weight	06/02/22	LB	
PCB Extraction	Completed	-	-	06/02/22	LB	

Sample Description:		Wall Sample 12, 11:48, 5/27/22				
Laboratory ID:	12338-64	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	06/06/22	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	06/06/22	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	06/06/22	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	06/06/22	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	06/06/22	DS	
Aroclor 1254	39,500	100	µg/Kg, dry wt.	06/06/22	DS	D
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	06/06/22	DS	
Polychlorinated biphenyls (Total)	39,500	700	µg/Kg, dry wt.	06/06/22	DS	D
Surrogate Standards						
Tetrachloro-m-xylene	83.3%	-	% Recovery	06/02/22	DS	
Decachlorobiphenyl	91.9%	-	% Recovery	06/02/22	DS	
Analysis Information						
Dry Weight Solids	98.7%	-	% by weight	06/02/22	LB	
PCB Extraction	Completed	-	-	06/02/22	LB	

Sample Description:		Wall Sample 13, 12:14, 5/27/22				
Laboratory ID:	12338-65	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	06/06/22	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	06/06/22	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	06/06/22	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	06/06/22	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	06/06/22	DS	
Aroclor 1254	397,000	100	µg/Kg, dry wt.	06/06/22	DS	D
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	06/06/22	DS	
Polychlorinated biphenyls (Total)	397,000	700	µg/Kg, dry wt.	06/06/22	DS	D
Surrogate Standards						
Tetrachloro-m-xylene	79.0%	-	% Recovery	06/02/22	DS	
Decachlorobiphenyl	87.9%	-	% Recovery	06/02/22	DS	
Analysis Information						
Dry Weight Solids	97.3%	-	% by weight	06/02/22	LB	
PCB Extraction	Completed	-	-	06/02/22	LB	

Sample Description:		Wall Sample 14, 12:45, 5/27/22				
Laboratory ID:	12338-66	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	06/06/22	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	06/06/22	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	06/06/22	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	06/06/22	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	06/06/22	DS	
Aroclor 1254	32,800	100	µg/Kg, dry wt.	06/06/22	DS	D
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	06/06/22	DS	
Polychlorinated biphenyls (Total)	32,800	700	µg/Kg, dry wt.	06/06/22	DS	D
Surrogate Standards						
Tetrachloro-m-xylene	82.1%	-	% Recovery	06/02/22	DS	
Decachlorobiphenyl	102%	-	% Recovery	06/02/22	DS	
Analysis Information						
Dry Weight Solids	91.7%	-	% by weight	06/02/22	LB	
PCB Extraction	Completed	-	-	06/02/22	LB	

Sample Description:		Wall Sample 15, 1:11, 5/27/22				
Laboratory ID:	12338-67	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	06/06/22	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	06/06/22	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	06/06/22	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	06/06/22	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	06/06/22	DS	
Aroclor 1254	4,580	100	µg/Kg, dry wt.	06/06/22	DS	
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	06/06/22	DS	
Polychlorinated biphenyls (Total)	4,580	700	µg/Kg, dry wt.	06/06/22	DS	
Surrogate Standards						
Tetrachloro-m-xylene	80.5%	-	% Recovery	06/02/22	DS	
Decachlorobiphenyl	81.4%	-	% Recovery	06/02/22	DS	
Analysis Information						
Dry Weight Solids	98.4%	-	% by weight	06/02/22	LB	
PCB Extraction	Completed	-	-	06/02/22	LB	

Sample Description:		Duplicate 4, 12:34, 5/27/22				
Laboratory ID:	12338-68	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	06/06/22	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	06/06/22	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	06/06/22	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	06/06/22	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	06/06/22	DS	
Aroclor 1254	349,000	100	µg/Kg, dry wt.	06/06/22	DS	D
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	06/06/22	DS	
Polychlorinated biphenyls (Total)	349,000	700	µg/Kg, dry wt.	06/06/22	DS	D
Surrogate Standards						
Tetrachloro-m-xylene	72.6%	-	% Recovery	06/02/22	DS	
Decachlorobiphenyl	90.2%	-	% Recovery	06/02/22	DS	
Analysis Information						
Dry Weight Solids	96.2%	-	% by weight	06/02/22	LB	
PCB Extraction	Completed	-	-	06/02/22	LB	

Sample Description:		Wall Sample 16, 1:33, 5/27/22				
Laboratory ID:	12338-69	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	06/06/22	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	06/06/22	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	06/06/22	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	06/06/22	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	06/06/22	DS	
Aroclor 1254	222,000	100	µg/Kg, dry wt.	06/06/22	DS	D
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	06/06/22	DS	
Polychlorinated biphenyls (Total)	222,000	700	µg/Kg, dry wt.	06/06/22	DS	D
Surrogate Standards						
Tetrachloro-m-xylene	80.9%	-	% Recovery	06/02/22	DS	
Decachlorobiphenyl	100%	-	% Recovery	06/02/22	DS	
Analysis Information						
Dry Weight Solids	99.1%	-	% by weight	06/02/22	LB	
PCB Extraction	Completed	-	-	06/02/22	LB	

Sample Description:		Wall Sample 17, 1:53, 5/27/22				
Laboratory ID:	12338-70	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	06/06/22	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	06/06/22	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	06/06/22	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	06/06/22	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	06/06/22	DS	
Aroclor 1254	1,180	100	µg/Kg, dry wt.	06/06/22	DS	
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	06/06/22	DS	
Polychlorinated biphenyls (Total)	1,180	700	µg/Kg, dry wt.	06/06/22	DS	
Surrogate Standards						
Tetrachloro-m-xylene	81.5%	-	% Recovery	06/02/22	DS	
Decachlorobiphenyl	84.0%	-	% Recovery	06/06/22	DS	
Analysis Information						
Dry Weight Solids	99.9%	-	% by weight	06/02/22	LB	
PCB Extraction	Completed	-	-	06/02/22	LB	

Sample Description:		Wall Sample 18, 2:33, 5/27/22				
Laboratory ID:	12338-71	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	06/06/22	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	06/06/22	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	06/06/22	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	06/06/22	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	06/06/22	DS	
Aroclor 1254	1,510	100	µg/Kg, dry wt.	06/06/22	DS	
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	06/06/22	DS	
Polychlorinated biphenyls (Total)	1,510	700	µg/Kg, dry wt.	06/06/22	DS	
Surrogate Standards						
Tetrachloro-m-xylene	75.1%	-	% Recovery	06/02/22	DS	
Decachlorobiphenyl	88.8%	-	% Recovery	06/02/22	DS	
Analysis Information						
Dry Weight Solids	98.0%	-	% by weight	06/02/22	LB	
PCB Extraction	Completed	-	-	06/02/22	LB	

Sample Description:		Wall Sample 19, 2:57, 5/27/22				
Laboratory ID:	12338-72	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	06/06/02	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	06/06/02	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	06/06/02	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	06/06/02	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	06/06/02	DS	
Aroclor 1254	1,590	100	µg/Kg, dry wt.	06/06/02	DS	
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	06/06/02	DS	
Polychlorinated biphenyls (Total)	1,590	700	µg/Kg, dry wt.	06/06/02	DS	
Surrogate Standards						
Tetrachloro-m-xylene	84.3%	-	% Recovery	06/02/22	DS	
Decachlorobiphenyl	84.6%	-	% Recovery	06/02/22	DS	
Analysis Information						
Dry Weight Solids	99.6%	-	% by weight	06/02/22	LB	
PCB Extraction	Completed	-	-	06/02/22	LB	

Sample Description:		Wall Sample 20, 3:29, 5/27/22				
Laboratory ID:	12338-73	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	100	µg/Kg, dry wt.	06/06/22	DS	
Aroclor 1221	Not Detected	100	µg/Kg, dry wt.	06/06/22	DS	
Aroclor 1232	Not Detected	100	µg/Kg, dry wt.	06/06/22	DS	
Aroclor 1242	Not Detected	100	µg/Kg, dry wt.	06/06/22	DS	
Aroclor 1248	Not Detected	100	µg/Kg, dry wt.	06/06/22	DS	
Aroclor 1254	1,720	100	µg/Kg, dry wt.	06/06/22	DS	
Aroclor 1260	Not Detected	100	µg/Kg, dry wt.	06/06/22	DS	
Polychlorinated biphenyls (Total)	1,720	700	µg/Kg, dry wt.	06/06/22	DS	
Surrogate Standards						
Tetrachloro-m-xylene	72.1%	-	% Recovery	06/02/22	DS	
Decachlorobiphenyl	84.6%	-	% Recovery	06/02/22	DS	
Analysis Information						
Dry Weight Solids	97.9%	-	% by weight	06/02/22	LB	
PCB Extraction	Completed	-	-	06/02/22	LB	

Quality Control

PCB Matrix Spike Data

Spiked Sample: 12338-1		Matrix: Soil		Units: ppm in extract				
Parameter	Sample Result	Spike Added	MS Result	MSD Result	MS % Rec.	MSD % Rec.	RPD	Data Qualifiers
Aroclor 1260	0.000	0.200	0.281	0.230	140	115	19.8	

Spiked Sample: 12338-17		Matrix: Soil		Units: ppm in extract				
Parameter	Sample Result	Spike Added	MS Result	MSD Result	MS % Rec.	MSD % Rec.	RPD	Data Qualifiers
Aroclor 1260	0.000	0.200	0.232	0.250	116	125	7.4	

Spiked Sample: 12338-45		Matrix: Soil		Units: ppm in extract				
Parameter	Sample Result	Spike Added	MS Result	MSD Result	MS % Rec.	MSD % Rec.	RPD	Data Qualifiers
Aroclor 1260	0.000	0.200	0.318	0.261	159	130	19.6	

Spiked Sample: 12338-72		Matrix: Soil		Units: ppm in extract				
Parameter	Sample Result	Spike Added	MS Result	MSD Result	MS % Rec.	MSD % Rec.	RPD	Data Qualifiers
Aroclor 1260	0.093	0.200	0.328	0.326	118	117	0.6	

Spiked Sample: 12338 LCS		Matrix: Water		Units: ppm in extract				
Parameter	Sample Result	Spike Added	MS Result	MSD Result	MS % Rec.	MSD % Rec.	RPD	Data Qualifiers
Aroclor 1260	0.000	0.200	0.213	0.225	107	112	5.3	

Spiked Sample: 12338 LCS		Matrix: Wipe		Units: ppm in extract				
Parameter	Sample Result	Spike Added	MS Result	MSD Result	MS % Rec.	MSD % Rec.	RPD	Data Qualifiers
Aroclor 1260	0.000	0.200	0.220	0.231	110	115	4.9	

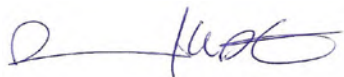
Case Narrative

All method protocols and quality control requirements were satisfied for all samples.

Notes

- (1) Quality Control Limits available upon request.
- (2) Results are applicable only to the sample tested.
- (3) All samples will be discarded after 30 days unless the laboratory receives other instructions.
- (4) Chain of Custody document attached.

QUANTUM LABORATORIES, INC.



David W. Starr
Analytical Chemistry Manager

QUANTUM LABORATORIES, INC.
 28221 Beck Road | Suite A-11
 Wixom, MI 48393
 248-348-TEST or 248-348-8378

Women's Business Enterprise
 National Council
WBENC
 Cert. No. 2005111505



CHAIN OF CUSTODY RECORD

CLIENT INFO	
COMPANY	Applied Environmental
ADDRESS	1210 N. MAPLE ROAD
CITY, STATE, ZIP	ANN ARBOR, MI 48103
TELEPHONE	616-502-6722
FAX	
CONTACT	Michael Schroeder
ADDITIONAL PHONE	
EMAIL ADDRESS	michaels@appliedenv.com, mikeg@appliedenv.com

* SAMPLE TYPE: S=Soil, W=Water, D=Drinking Water, O=Oil/Organic, M=Mixed, V=Vapor, A=Air
 U=Unknown or Other

** GRAB/COMP: G=Grab Sample, C=Composite Sample

PROJECT INFO	
REPORT NO. (LAB USE)	12338 Page 1 of 8
P.O. NUMBER	
PROJECT NUMBER	22-2554
PROJECT NAME	8 MK
SAMPLING LOCATION	1200 8 mile Road oak park, MI
SAMPLES COLLECTED BY	Michael Schroeder
TURN AROUND TIME	Standard <input type="checkbox"/> Rush <input type="checkbox"/> By Date:
SPECIAL INSTRUCTIONS	

LINE NO.	LAB USE	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	TIME SAMPLED	DATE SAMPLED	SAMPLE TYPE *	GRAB / COMP **	REMARKS / PRESERVATIVES
1		HA-27 (0-1)	1	1:25	5/26	S		
2		HA-27 (1-1.5')	1	1:28	5/26	S		
3		HA-27 (1.5-2')	1	1:30	5/26	S		Hold
4		HA-28 (0-1)	1	12:52	5/26	S		
5		HA-28 (1-1.5')	1	12:55	5/26	S		Hold
6		HA-28 (1.5-2')	1	12:57	5/26	S		
7		HA-29 (0-1)	1	1:12	5/26	S		
8		HA-29 (1-1.5')	1	1:15	5/26	S		
9		HA-29 (1.5-2')	1	1:18	5/26	S		Hold
10		HA-30 (0-1)	1	2:03	5/26	S		

XFEE	RELINQUISHED BY	TIME / DATE	ACCEPTED BY
1	Michael Schroeder	5:10 5/27	Steve Bergquist
2			
3			

SAMPLE RECEIVED
<input type="checkbox"/> Wet Ice
<input type="checkbox"/> Blue Ice

Distribution: White - Lab Copy Yellow - Client Report Pink - Sampler

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CHAIN OF CUSTODY RECORD

CLIENT INFO	
COMPANY	Applied Environmental
ADDRESS	120 N Maple Road
CITY, STATE, ZIP	Ann Arbor, MI 48103
TELEPHONE	616-502-6722
FAX	
CONTACT	Michael Schroeder
ADDITIONAL PHONE	616-502-6722
EMAIL ADDRESS	michael.schroeder@appliedenv.com, Mike@appliedenv.com

* SAMPLE TYPE: S=Soil, W=Water, D=Drinking Water, O=Oil/Organic, M=Mixed, V=Vapor, A=Air
 U=Unknown or Other

** GRAB/COMP: G=Grab Sample, C=Composite Sample

REPORT NO. (LAB USE)	12338	Page 2 of 8
P.O. NUMBER		
PROJECT NUMBER	22-2554	
PROJECT NAME	8 MK	
SAMPLING LOCATION	1200 8 Mile Road, Oak Park, MI	
SAMPLES COLLECTED BY	Michael Schroeder	
TURN AROUND TIME	<input checked="" type="checkbox"/> Standard <input type="checkbox"/> Rush <input type="checkbox"/> By Date:	
SPECIAL INSTRUCTIONS		

ANALYSIS REQUESTED	REMARKS / PRESERVATIVES
PCBS	Hold
	Hold
	Hold

LINE NO.	LAB USE	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	TIME SAMPLED	DATE SAMPLED	SAMPLE TYPE *	GRAB / COMP **
1	HA-30 (1-15)		1	2:06	5/26	S	
2	HA-30 (15-2)		1	2:09	5/26	S	
3	HA-31 (0-1)		1	2:15	5/26	S	
4	HA-31 (1-15)		1	2:18	5/26	S	
5	HA-31 (15-2)		1	2:21	5/26	S	
6	HA-32 (0-1)		1	9:50	5/26	S	
7	HA-32 (1-15)		1	9:52	5/26	S	
8	HA-32 (15-2)		1	10:00	5/26	S	
9	HA-33 (0-1)		1	10:05	5/26	S	
10	HA-33 (1-15)		1	10:10	5/26	S	

XFER	RELINQUISHED BY	ACCEPTED BY	SAMPLE RECEIVED	
	1 Michael Schroeder	5:10 5/27		James Bergquist
	2			
3				

Distribution: White - Lab Copy Yellow - Client Report Pink - Sampler

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 248-348-TEST or 248-348-8378



Quantum Laboratories, Inc.

CHAIN OF CUSTODY RECORD

CLIENT INFO	
COMPANY	Applied Environmental
ADDRESS	1210 N. Maple Rd.
CITY, STATE, ZIP	Ann Arbor, MI 48103
TELEPHONE	616-506-6722
FAX	
CONTACT	Michael Schroeder
ADDITIONAL PHONE	
EMAIL ADDRESS	michaels@appliedenv.com, mich@ba.piredenv.com

REPORT NO. (LAB USE)	12338	Page 3 of 8
P.O. NUMBER		
PROJECT NUMBER	22-2554	
PROJECT NAME	8 MK	
SAMPLING LOCATION	12700 8 mile Road, oak flats, MI	
SAMPLES COLLECTED BY	Michael Schroeder	
TURN AROUND TIME	<input checked="" type="checkbox"/> Standard <input type="checkbox"/> Rush	By Date:
SPECIAL INSTRUCTIONS		

* SAMPLE TYPE: S=Soil, W=Water, D=Drinking Water, O=Oil/Organic, M=Mixed, V=Vapor, A=Air
 U=Unknown or Other

** GRAB/COMP: G=Grab Sample, C=Composite Sample

LINE NO.	LAB USE	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	TIME SAMPLED	DATE SAMPLED	SAMPLE TYPE *	GRAB / COMP **	ANALYSIS REQUESTED	REMARKS / PRESERVATIVES
1	21	HA-33 (1-5-2)	1	10:14	5/26	S			
2	22	DUPLICATE 1	1	10:11	5/26	S			
3	23	HA-34 (0-1)	1	10:20	5/26	S			
4	24	HA-34 (1-15)	1	10:23	5/26	S			
5	25	HA-34 (1-5-2)	1	10:26	5/26	S			
6	26	HA-35 (0-1)	1	10:30	5/26	S			
7	27	HA-35 (1-15)	1	10:33	5/26	S			
8	28	HA-35 (1-5-2)	1	10:35	5/26	S			
9	29	HA-36 (0-1)	1	10:45	5/26	S			
10	30	HA-36 (1-15)	1	10:48	5/26	S			

RELINQUISHED BY	5/27	ACCEPTED BY	
1	Michael Schroeder	5:10	Louise Bergquist
2			
3			

Distribution: White - Lab Copy Yellow - Client Report Pink - Sampler

Data Qualifiers: I Internal Standard results outside of acceptance limits
 S QC spike recovery outside of acceptance limits
 R RPD outside of acceptance limits
 E Reporting limit is elevated
 D Result is from a dilution
 J Result should be considered estimated
 M Matrix interference observed
 T Matrix Spike four times rule applied
 C See Case Narrative

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CHAIN OF CUSTODY RECORD

CLIENT INFO	
COMPANY	Applied Environmental
ADDRESS	1210 N. MAPLE ROAD
CITY, STATE, ZIP	AM ARKET, MI 48103
TELEPHONE	616-500-6722
FAX	
CONTACT	Michael Schroeder
ADDITIONAL PHONE	
EMAIL ADDRESS	michael.s@pprodenu.com

REPORT NO. (LAB USE)	12338	Page 4 of 8
P.O. NUMBER		
PROJECT NUMBER	22-2554	
PROJECT NAME	8 MK	
SAMPLING LOCATION	12700 8 mile Road oak Park, MI	
SAMPLES COLLECTED BY	Michael Schroeder	
TURN AROUND TIME	<input checked="" type="checkbox"/> Standard <input type="checkbox"/> Rush <input type="checkbox"/> By Date:	
SPECIAL INSTRUCTIONS		

* SAMPLE TYPE: S=Soil, W=Water, D=Drinking Water, O=Oil/Organic, M=Mixed, V=Vapor, A=Air
 U=Unknown or Other

** GRAB/COMP: G=Grab Sample, C=Composite Sample

LINE NO.	LAB USE	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	TIME SAMPLED	DATE SAMPLED	SAMPLE TYPE *	GRAB / COMP **	ANALYSIS REQUESTED	REMARKS / PRESERVATIVES
1	HA-36 (1-5-2)		1	10:50	5/26	S			
2	32 Field Rinsate 1		1	11:00	5/26	W			Hold
3	HA-37 (0-1)		1	11:05	5/26	S			
4	HA-37 (1-15)		1	11:10	5/26	S			
5	HA-37 (1-5-2)		1	11:13	5/26	S			Hold
6	HA-38 (0-1)		1	11:32	5/26	S			
7	HA-38 (1-15)		1	11:41	5/26	S			
8	HA-38 (1-5-2)		1	11:44	5/26	S			Hold
9	HA-39 (0-1)		1	11:57	5/26	S			
10	HA-39 (1-15)		1	12:00	5/26	S			Hold

RELINQUISHED BY	TIME / DATE	ACCEPTED BY
Michael Schroeder	5:10 5/27	Louise Bergquist

SAMPLE RECEIVED
<input type="checkbox"/> Wet Ice
<input type="checkbox"/> Blue Ice

Distribution: White - Lab Copy Yellow - Client Report Pink - Sampler

Data Qualifiers: I Internal Standard results outside of acceptance limits
 S QC spike recovery outside of acceptance limits
 R RPD outside of acceptance limits
 E Reporting limit is elevated
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 C See Case Narrative

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CHAIN OF CUSTODY RECORD

CLIENT INFO	
COMPANY	Applied Environmental
ADDRESS	1210 N. MARIE ROAD
CITY, STATE, ZIP	ANN ARBOR, MI 48103
TELEPHONE	616-602-6722
FAX	
CONTACT	Michael Schneider
ADDITIONAL PHONE	
EMAIL ADDRESS	Michael.Schneider@appliedenv.com

REPORT NO. (LAB USE)	12338	Page	9	of	9
P.O. NUMBER		PROJECT NUMBER	22-2554		
PROJECT NAME		PROJECT NAME	8 MK		
SAMPLING LOCATION		SAMPLING LOCATION	1200 8 Mile Road Oak Park, MI		
SAMPLES COLLECTED BY		SAMPLES COLLECTED BY	Michael Schneider		
TURN AROUND TIME		TURN AROUND TIME		Standard	Rush
SPECIAL INSTRUCTIONS		SPECIAL INSTRUCTIONS			By Date:

* SAMPLE TYPE: S=Soil, W=Water, D=Drinking Water, O=Oil/Organic, M=Mixed, V=Vapor, A=Air
 U=Unknown or Other

** GRAB/COMP: G=Grab Sample, C=Composite Sample

LINE NO.	LAB USE	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	TIME SAMPLED	DATE SAMPLED	SAMPLE TYPE *	GRAB / COMP **	REMARKS / PRESERVATIVES
1	41	HA-39 (11-5-2)	1	12:03	5/26	S		
2	42	Surface 1	1	11:15	5/26	S		
3	43	Surface 2	1	11:20	5/26	S		
4	44	Duplicate 2	1	11:21	5/26	S		
5	45	Surface 3	1	11:26	5/26	S		
6	46	Surface 4	1	11:34	5/26	S		
7	47	Surface 5	1	11:41	5/26	S		
8	48	Surface 6	1	11:45	5/26	S		
9	49	Surface 7	1	11:52	5/26	S		
10	50	Surface 8	1	11:57	5/26	S		

XFER	RELINQUISHED BY	TIME / DATE	ACCEPTED BY	SAMPLE RECEIVED
1	Michael Schneider	5:10 5/27	Deuce Berglund	<input type="checkbox"/> Wet Ice <input type="checkbox"/> Blue Ice
2				
3				

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CHAIN OF CUSTODY RECORD

CLIENT INFO	
COMPANY	Applied Environmental
ADDRESS	1210 N Maple Rd
CITY, STATE, ZIP	Ann Arbor
TELEPHONE	616-502-6722
FAX	
CONTACT	
ADDITIONAL PHONE	
EMAIL ADDRESS	michael@appliedenv.com

REPORT NO. (LAB USE)	12338	Page <u>6</u> of <u>8</u>
P.O. NUMBER		
PROJECT NUMBER	22-2554	
PROJECT NAME	8MK	
SAMPLING LOCATION		
SAMPLES COLLECTED BY	Michael Schaefer	
TURN AROUND TIME	<input checked="" type="checkbox"/> Standard <input type="checkbox"/> Rush <input type="checkbox"/> By Date:	
SPECIAL INSTRUCTIONS		

* SAMPLE TYPE: S=Soil, W=Water, D=Drinking Water, O=Oil/Organic, M=Mixed, V=Vapor, A=Air
 U=Unknown or Other

** GRAB/COMP: G=Grab Sample, C=Composite Sample

LINE NO.	LAB USE	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	TIME SAMPLED	DATE SAMPLED	SAMPLE TYPE *	GRAB / COMP **	REMARKS / PRESERVATIVES
1	CS-1	100cm ²	1	9:25	5/27	← wipe sample →	X	
2	CS-2	100cm ²	1	9:32				
3	CS-3	100cm ²	1	9:45				
4	CS-4	100cm ²	1	9:59				
5	CS-5	100cm ²	1	9:55				
6	CS-6	100cm ²	1	10:03				
7	CS-7	100cm ²	1	10:08				
8	CS-8	100cm ²	1	10:17				
9	CS-9	100cm ²	1	10:28				
10	60 Duplicate	3 100cm ²		9:57	5/27		X	

XFER	RELINQUISHED BY	TIME / DATE	ACCEPTED BY	SAMPLE RECEIVED
1	Michael Schaefer	5:10 5/27	Michael Schaefer	<input type="checkbox"/> Wet Ice <input type="checkbox"/> Blue Ice
2				
3				

Distribution: White - Lab Copy Yellow - Client Report Pink - Sampler

Data Qualifiers: I Internal Standard results outside of acceptance limits
 S QC spike recovery outside of acceptance limits
 R RPD outside of acceptance limits
 E Reporting limit is elevated
 D Result is from a dilution
 J Result should be considered estimated
 M Matrix interference observed
 F Matrix Spike four times rule applied
 C See Case Narrative

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CHAIN OF CUSTODY RECORD

REPORT NO. (LAB USE) **12338** Page **7** of **8**

P.O. NUMBER

PROJECT NUMBER

PROJECT NAME **see prefiles**

SAMPLING LOCATION

SAMPLES COLLECTED BY

TURN AROUND TIME Standard Rush By Date:

SPECIAL INSTRUCTIONS

COMPANY

ADDRESS

CITY, STATE, ZIP

TELEPHONE

FAX

CONTACT

ADDITIONAL PHONE

EMAIL ADDRESS

see prefiles

* SAMPLE TYPE: S=Soil, W=Water, D=Drinking Water, O=Oil/Organic, M=Mixed, V=Vapor, A=Air
 U=Unknown or Other

** GRAB/COMP: G=Grab Sample, C=Composite Sample

LINE NO.	LAB USE	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	TIME SAMPLED	DATE SAMPLED	SAMPLE TYPE *	GRAB / COMP **	REMARKS / PRESERVATIVES
1		CS-10 10ccm ²	1	10:30	5/27	U	X	PCBS CS-10 = wipe sample
2		Field inside 2	1	3:30	5/27	U		
3		wall sample 11	1	11:19		U		
4		wall sample 12	1	11:48		U		
5		wall sample 13	1	12:14		U		
6		wall sample 14	1	12:45		U		
7		wall sample 15	1	1:11		U		
8		Duplicate 4	1	12:34		U		
9		wall sample 16	1	1:33		U		
10		wall sample 17	1	1:53	5/27	U	X	

XFEE	RELINQUISHED BY	TIME / DATE	ACCEPTED BY	SAMPLE RECEIVED
1	Michael Zscheider	5:10 5/27	Louise Bergquist	<input type="checkbox"/> Wet Ice <input type="checkbox"/> Blue Ice
2				
3				

Distribution: White - Lab Copy Yellow - Client Report Pink - Sampler

Data Qualifiers: I Internal Standard results outside of acceptance limits
 S QC spike recovery outside of acceptance limits
 R RPD outside of acceptance limits
 E Reporting limit is elevated
 D Result is from a dilution
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 M Matrix interference observed
 F Matrix Spike four times rule applied
 C See Case Narrative

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Quantum Laboratories, Inc.

CHAIN OF CUSTODY RECORD

REPORT NO. (LAB USE) 12338 Page 8 of 8

P.O. NUMBER _____

PROJECT NUMBER _____

PROJECT NAME _____

SAMPLING LOCATION _____

SAMPLES COLLECTED BY _____

TURN AROUND TIME Standard Rush By Date: _____

SPECIAL INSTRUCTIONS _____

COMPANY _____

ADDRESS _____

CITY, STATE, ZIP _____

TELEPHONE _____

FAX _____

CONTACT _____

ADDITIONAL PHONE _____

EMAIL ADDRESS _____

* SAMPLE TYPE: S=Soil, W=Water, D=Drinking Water, O=Oil/Organic, M=Mixed, V=Vapor, A=Air
 U=Unknown or Other

** GRAB/COMP: G=Grab Sample, C=Composite Sample

LINE NO.	LAB USE	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	TIME SAMPLED	DATE SAMPLED	SAMPLE TYPE *	GRAB / COMP **	REMARKS / PRESERVATIVES
1	71	wall sample 18	1	2:33	5/27	U		
2	72	wall sample 19	1	2:57	5/27	U		
3	73	wall sample 20	1	3:29	5/27	U		
4								
5								
6								
7								
8								
9								
10								

SAMPLE RECEIVED

Wet Ice
 Blue Ice

RELINQUISHED BY Michael Schroeder TIME / DATE 5:10 5/27 ACCEPTED BY Louise Bergquist

Distribution: White - Lab Copy Yellow - Client Report Pink - Sampler

Data Qualifiers: I Internal Standard results outside of acceptance limits
 S QC spike recovery outside of acceptance limits
 R RPD outside of acceptance limits
 E Reporting limit is elevated
 D Result is from a dilution
 J Result should be considered estimated
 M Matrix interference observed
 F Matrix Spike four times rule applied
 C See Case Narrative

June 13, 2022

Michael Schroeder
Applied Environmental
1210 North Maple Road
Ann Arbor, MI 48103

Project Location: 12700 8 Mile Rd, Oak Park, MI
Client Job Number:
Project Number: 22-2554
Laboratory Work Order Number: 22F0223

Enclosed are results of analyses for samples as received by the laboratory on June 3, 2022. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Jessica L. Hoffman
Project Manager

Table of Contents

Sample Summary	3
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B310194	12
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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Applied Environmental
 1210 North Maple Road
 Ann Arbor, MI 48103
 ATTN: Michael Schroeder

REPORT DATE: 6/13/2022

PURCHASE ORDER NUMBER:

PROJECT NUMBER: 22-2554

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 22F0223

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

PROJECT LOCATION: 12700 8 Mile Rd, Oak Park, MI

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
AS-1	22F0223-01	Indoor air		-	
				EPA TO-10A	
AS-2	22F0223-02	Indoor air		EPA TO-10A	
AS-3	22F0223-03	Indoor air		EPA TO-10A	
Duplicate 1- Air	22F0223-04	Indoor air		EPA TO-10A	
AS-4	22F0223-05	Indoor air		EPA TO-10A	
Field Blank	22F0223-06	Indoor air		EPA TO-10A	

CASE NARRATIVE SUMMARY

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

EPA TO-10A**Qualifications:****P-06**

Due to surrogate recovery non-conformance on the confirmatory detector, the lower of two results was reported.

Analyte & Samples(s) Qualified:

Aroclor-1254 [2C]
22F0223-01[AS-1]

S-12

Surrogate recovery is outside of control limits on confirmatory column, but within control limits on primary column. Data validation is not affected.

Analyte & Samples(s) Qualified:

Decachlorobiphenyl
22F0223-01[AS-1]

S-23

Surrogate recovery outside of control limits in BS/MS spiked sample, all reported analytes are within control criteria.

Analyte & Samples(s) Qualified:

Decachlorobiphenyl
B310194-BSD1

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

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



Lisa A. Worthington
Technical Representative

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

ANALYTICAL RESULTS

Project Location: 12700 8 Mile Rd, Oak Park, MI

Sample Description/Location:

Work Order: 22F0223

Date Received: 6/3/2022

Sub Description/Location:

Field Sample #: AS-1
Sample ID: 22F0223-01

Sample Matrix: Indoor air

Flow Controller ID:

Sampled: 6/1/2022 19:10

Sample Type:

Air Volume L: 720

EPA TO-10A

Analyte	Total µg		Flag/Qual	ug/m3		Dilution	Date/Time		Analyst
	Results	RL		Results	RL		Analyzed		
Aroclor-1016 [2]	ND	0.040		ND	0.056	1	6/10/22	13:45	JEA
Aroclor-1221 [2]	ND	0.040		ND	0.056	1	6/10/22	13:45	JEA
Aroclor-1232 [2]	ND	0.040		ND	0.056	1	6/10/22	13:45	JEA
Aroclor-1242 [2]	ND	0.040		ND	0.056	1	6/10/22	13:45	JEA
Aroclor-1248 [2]	0.060	0.040		0.083	0.056	1	6/10/22	13:45	JEA
Aroclor-1254 [2]	0.056	0.040	P-06	0.078	0.056	1	6/10/22	13:45	JEA
Aroclor-1260 [2]	ND	0.040		ND	0.056	1	6/10/22	13:45	JEA
Aroclor-1262 [2]	ND	0.040		ND	0.056	1	6/10/22	13:45	JEA
Aroclor-1268 [2]	ND	0.040		ND	0.056	1	6/10/22	13:45	JEA

Surrogates	% Recovery		% REC Limits	
Decachlorobiphenyl [1]	122*	S-12	60-120	6/10/22 13:45
Decachlorobiphenyl [2]	107		60-120	6/10/22 13:45
Tetrachloro-m-xylene [1]	108		60-120	6/10/22 13:45
Tetrachloro-m-xylene [2]	91.1		60-120	6/10/22 13:45

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

ANALYTICAL RESULTS

Project Location: 12700 8 Mile Rd, Oak Park, MI

Sample Description/Location:

Work Order: 22F0223

Date Received: 6/3/2022

Sub Description/Location:

Field Sample #: AS-2
Sample ID: 22F0223-02

Sample Matrix: Indoor air

Flow Controller ID:

Sampled: 6/1/2022 19:28

Sample Type:

Air Volume L: 720

EPA TO-10A

Analyte	Total µg		Flag/Qual	ug/m3		Dilution	Date/Time		Analyst
	Results	RL		Results	RL		Analyzed		
Aroclor-1016 [1]	ND	0.040		ND	0.056	1	6/10/22	14:02	JEA
Aroclor-1221 [1]	ND	0.040		ND	0.056	1	6/10/22	14:02	JEA
Aroclor-1232 [1]	ND	0.040		ND	0.056	1	6/10/22	14:02	JEA
Aroclor-1242 [1]	ND	0.040		ND	0.056	1	6/10/22	14:02	JEA
Aroclor-1248 [2]	ND	0.040		ND	0.056	1	6/10/22	14:02	JEA
Aroclor-1254 [1]	0.064	0.040		0.088	0.056	1	6/10/22	14:02	JEA
Aroclor-1260 [1]	ND	0.040		ND	0.056	1	6/10/22	14:02	JEA
Aroclor-1262 [1]	ND	0.040		ND	0.056	1	6/10/22	14:02	JEA
Aroclor-1268 [1]	ND	0.040		ND	0.056	1	6/10/22	14:02	JEA

Surrogates	% Recovery	% REC Limits	
Decachlorobiphenyl [1]	97.9	60-120	6/10/22 14:02
Decachlorobiphenyl [2]	85.7	60-120	6/10/22 14:02
Tetrachloro-m-xylene [1]	85.6	60-120	6/10/22 14:02
Tetrachloro-m-xylene [2]	71.3	60-120	6/10/22 14:02

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

ANALYTICAL RESULTS

Project Location: 12700 8 Mile Rd, Oak Park, MI

Sample Description/Location:

Work Order: 22F0223

Date Received: 6/3/2022

Sub Description/Location:

Field Sample #: AS-3
Sample ID: 22F0223-03

Sample Matrix: Indoor air

Flow Controller ID:

Sampled: 6/1/2022 19:40

Sample Type:

Air Volume L: 720

EPA TO-10A

Analyte	Total µg		Flag/Qual	ug/m3		Dilution	Date/Time		Analyst
	Results	RL		Results	RL		Analyzed		
Aroclor-1016 [1]	ND	0.040		ND	0.056	1	6/10/22	14:20	JEA
Aroclor-1221 [1]	ND	0.040		ND	0.056	1	6/10/22	14:20	JEA
Aroclor-1232 [1]	ND	0.040		ND	0.056	1	6/10/22	14:20	JEA
Aroclor-1242 [1]	ND	0.040		ND	0.056	1	6/10/22	14:20	JEA
Aroclor-1248 [2]	ND	0.040		ND	0.056	1	6/10/22	14:20	JEA
Aroclor-1254 [1]	ND	0.040		ND	0.056	1	6/10/22	14:20	JEA
Aroclor-1260 [1]	ND	0.040		ND	0.056	1	6/10/22	14:20	JEA
Aroclor-1262 [1]	ND	0.040		ND	0.056	1	6/10/22	14:20	JEA
Aroclor-1268 [1]	ND	0.040		ND	0.056	1	6/10/22	14:20	JEA

Surrogates	% Recovery	% REC Limits	
Decachlorobiphenyl [1]	116	60-120	6/10/22 14:20
Decachlorobiphenyl [2]	100	60-120	6/10/22 14:20
Tetrachloro-m-xylene [1]	102	60-120	6/10/22 14:20
Tetrachloro-m-xylene [2]	84.7	60-120	6/10/22 14:20

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

ANALYTICAL RESULTS

Project Location: 12700 8 Mile Rd, Oak Park, MI

Sample Description/Location:

Work Order: 22F0223

Date Received: 6/3/2022

Sub Description/Location:

Field Sample #: Duplicate 1- Air
Sample ID: 22F0223-04

Sample Matrix: Indoor air

Flow Controller ID:

Sampled: 6/1/2022 19:40

Sample Type:

Air Volume L: 720

EPA TO-10A

Analyte	Total µg		Flag/Qual	ug/m3		Dilution	Date/Time		Analyst
	Results	RL		Results	RL		Analyzed		
Aroclor-1016 [1]	ND	0.040		ND	0.056	1	6/10/22	14:37	JEA
Aroclor-1221 [1]	ND	0.040		ND	0.056	1	6/10/22	14:37	JEA
Aroclor-1232 [1]	ND	0.040		ND	0.056	1	6/10/22	14:37	JEA
Aroclor-1242 [1]	ND	0.040		ND	0.056	1	6/10/22	14:37	JEA
Aroclor-1248 [2]	ND	0.040		ND	0.056	1	6/10/22	14:37	JEA
Aroclor-1254 [1]	0.051	0.040		0.070	0.056	1	6/10/22	14:37	JEA
Aroclor-1260 [1]	ND	0.040		ND	0.056	1	6/10/22	14:37	JEA
Aroclor-1262 [1]	ND	0.040		ND	0.056	1	6/10/22	14:37	JEA
Aroclor-1268 [1]	ND	0.040		ND	0.056	1	6/10/22	14:37	JEA

Surrogates	% Recovery	% REC Limits	
Decachlorobiphenyl [1]	118	60-120	6/10/22 14:37
Decachlorobiphenyl [2]	102	60-120	6/10/22 14:37
Tetrachloro-m-xylene [1]	103	60-120	6/10/22 14:37
Tetrachloro-m-xylene [2]	85.5	60-120	6/10/22 14:37

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

ANALYTICAL RESULTS

Project Location: 12700 8 Mile Rd, Oak Park, MI

Sample Description/Location:

Work Order: 22F0223

Date Received: 6/3/2022

Sub Description/Location:

Field Sample #: AS-4
Sample ID: 22F0223-05

Sample Matrix: Indoor air

Flow Controller ID:

Sampled: 6/1/2022 19:55

Sample Type:

Air Volume L: 720

EPA TO-10A

Analyte	Total µg		Flag/Qual	ug/m3		Dilution	Date/Time		Analyst
	Results	RL		Results	RL		Analyzed		
Aroclor-1016 [1]	ND	0.040		ND	0.056	1	6/10/22	14:55	JEA
Aroclor-1221 [1]	ND	0.040		ND	0.056	1	6/10/22	14:55	JEA
Aroclor-1232 [1]	ND	0.040		ND	0.056	1	6/10/22	14:55	JEA
Aroclor-1242 [1]	ND	0.040		ND	0.056	1	6/10/22	14:55	JEA
Aroclor-1248 [1]	ND	0.040		ND	0.056	1	6/10/22	14:55	JEA
Aroclor-1254 [1]	ND	0.040		ND	0.056	1	6/10/22	14:55	JEA
Aroclor-1260 [1]	ND	0.040		ND	0.056	1	6/10/22	14:55	JEA
Aroclor-1262 [1]	ND	0.040		ND	0.056	1	6/10/22	14:55	JEA
Aroclor-1268 [1]	ND	0.040		ND	0.056	1	6/10/22	14:55	JEA

Surrogates	% Recovery	% REC Limits	Date/Time
Decachlorobiphenyl [1]	114	60-120	6/10/22 14:55
Decachlorobiphenyl [2]	98.7	60-120	6/10/22 14:55
Tetrachloro-m-xylene [1]	101	60-120	6/10/22 14:55
Tetrachloro-m-xylene [2]	83.5	60-120	6/10/22 14:55

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

ANALYTICAL RESULTS

Project Location: 12700 8 Mile Rd, Oak Park, MI

Sample Description/Location:

Work Order: 22F0223

Date Received: 6/3/2022

Sub Description/Location:

Field Sample #: Field Blank
Sample ID: 22F0223-06

Sample Matrix: Indoor air

Flow Controller ID:

Sampled: 6/1/2022 00:00

Sample Type:

EPA TO-10A

Analyte	Total µg		Flag/Qual	Dilution	Date/Time		Analyst
	Results	RL			AnalYZed		
Aroclor-1016 [1]	ND	0.040		1	6/10/22 15:12		JEA
Aroclor-1221 [1]	ND	0.040		1	6/10/22 15:12		JEA
Aroclor-1232 [1]	ND	0.040		1	6/10/22 15:12		JEA
Aroclor-1242 [1]	ND	0.040		1	6/10/22 15:12		JEA
Aroclor-1248 [1]	ND	0.040		1	6/10/22 15:12		JEA
Aroclor-1254 [1]	ND	0.040		1	6/10/22 15:12		JEA
Aroclor-1260 [1]	ND	0.040		1	6/10/22 15:12		JEA
Aroclor-1262 [1]	ND	0.040		1	6/10/22 15:12		JEA
Aroclor-1268 [1]	ND	0.040		1	6/10/22 15:12		JEA

Surrogates	% Recovery	% REC Limits	
Decachlorobiphenyl [1]	114	60-120	6/10/22 15:12
Decachlorobiphenyl [2]	97.4	60-120	6/10/22 15:12
Tetrachloro-m-xylene [1]	101	60-120	6/10/22 15:12
Tetrachloro-m-xylene [2]	83.0	60-120	6/10/22 15:12

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

Sample Extraction Data

Prep Method: SW-846 3540C Analytical Method: EPA TO-10A

Lab Number [Field ID]	Batch	Initial [Cartridge]	Final [mL]	Date
22F0223-01 [AS-1]	B310194	1.00	2.00	06/08/22
22F0223-02 [AS-2]	B310194	1.00	2.00	06/08/22
22F0223-03 [AS-3]	B310194	1.00	2.00	06/08/22
22F0223-04 [Duplicate 1- Air]	B310194	1.00	2.00	06/08/22
22F0223-05 [AS-4]	B310194	1.00	2.00	06/08/22
22F0223-06 [Field Blank]	B310194	1.00	2.00	06/08/22

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

QUALITY CONTROL
Air Toxics by EPA Compendium Methods - Quality Control

Analyte	Total µg		ug/m3		Spike Level	Source	%REC	RPD	RPD	Flag/Qual
	Results	RL	Results	RL	Total µg	Result	%REC	Limits	RPD	

Batch B310194 - SW-846 3540C
Blank (B310194-BLK1)

Prepared: 06/08/22 Analyzed: 06/10/22

Aroclor-1016	ND	0.040								
Aroclor-1016 [2C]	ND	0.040								
Aroclor-1221	ND	0.040								
Aroclor-1221 [2C]	ND	0.040								
Aroclor-1232	ND	0.040								
Aroclor-1232 [2C]	ND	0.040								
Aroclor-1242	ND	0.040								
Aroclor-1242 [2C]	ND	0.040								
Aroclor-1248	ND	0.040								
Aroclor-1248 [2C]	ND	0.040								
Aroclor-1254	ND	0.040								
Aroclor-1254 [2C]	ND	0.040								
Aroclor-1260	ND	0.040								
Aroclor-1260 [2C]	ND	0.040								
Aroclor-1262	ND	0.040								
Aroclor-1262 [2C]	ND	0.040								
Aroclor-1268	ND	0.040								
Aroclor-1268 [2C]	ND	0.040								
<hr/>										
Surrogate: Decachlorobiphenyl	0.445				0.400		111	60-120		
Surrogate: Decachlorobiphenyl [2C]	0.396				0.400		99.0	60-120		
Surrogate: Tetrachloro-m-xylene	0.396				0.400		99.1	60-120		
Surrogate: Tetrachloro-m-xylene [2C]	0.339				0.400		84.7	60-120		

LCS (B310194-BS1)

Prepared: 06/08/22 Analyzed: 06/10/22

Aroclor-1016	0.0942	0.040			0.100		94.2	70.4-127		
Aroclor-1016 [2C]	0.0819	0.040			0.100		81.9	69-128		
Aroclor-1260	0.0982	0.040			0.100		98.2	68.4-119		
Aroclor-1260 [2C]	0.0839	0.040			0.100		83.9	63.4-124		
<hr/>										
Surrogate: Decachlorobiphenyl	0.466				0.400		117	60-120		
Surrogate: Decachlorobiphenyl [2C]	0.414				0.400		104	60-120		
Surrogate: Tetrachloro-m-xylene	0.407				0.400		102	60-120		
Surrogate: Tetrachloro-m-xylene [2C]	0.351				0.400		87.6	60-120		

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

QUALITY CONTROL
Air Toxics by EPA Compendium Methods - Quality Control

Analyte	Total µg		ug/m3		Spike Level	Source	%REC	RPD	Flag/Qual
	Results	RL	Results	RL	Total µg	Result	Limits	RPD	

Batch B310194 - SW-846 3540C
LCS Dup (B310194-BSD1)

Prepared: 06/08/22 Analyzed: 06/10/22

Aroclor-1016	0.108	0.040			0.100	108	70.4-127	13.8	25.6	
Aroclor-1016 [2C]	0.0954	0.040			0.100	95.4	69-128	15.1	27.6	
Aroclor-1260	0.111	0.040			0.100	111	68.4-119	11.9	19.4	
Aroclor-1260 [2C]	0.0934	0.040			0.100	93.4	63.4-124	10.7	18.7	
Surrogate: Decachlorobiphenyl	0.510				0.400	128 *	60-120			S-23
Surrogate: Decachlorobiphenyl [2C]	0.452				0.400	113	60-120			
Surrogate: Tetrachloro-m-xylene	0.447				0.400	112	60-120			
Surrogate: Tetrachloro-m-xylene [2C]	0.384				0.400	95.9	60-120			

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

IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

AS-1

EPA TO-10A

 Lab Sample ID: 22F0223-01 Date(s) Analyzed: 06/10/2022 06/10/2022

 Instrument ID (1): ECD5 Instrument ID (2): ECD5

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%RPD
			FROM	TO		
Aroclor-1248	1	0.000	0.000	0.000	0.059	
	2	0.000	0.000	0.000	0.060	1.7
Aroclor-1254	1	0.000	0.000	0.000	0.072	
	2	0.000	0.000	0.000	0.056	25.0

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

IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

AS-2
EPA TO-10A

 Lab Sample ID: 22F0223-02 Date(s) Analyzed: 06/10/2022 06/10/2022

 Instrument ID (1): ECD5 Instrument ID (2): ECD5

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%RPD
			FROM	TO		
Aroclor-1254	1	0.000	0.000	0.000	0.064	
	2	0.000	0.000	0.000	0.054	16.9

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

IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

Duplicate 1- Air
EPA TO-10A

 Lab Sample ID: 22F0223-04 Date(s) Analyzed: 06/10/2022 06/10/2022

 Instrument ID (1): ECD5 Instrument ID (2): ECD5

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%RPD
			FROM	TO		
Aroclor-1254	1	0.000	0.000	0.000	0.051	
	2	0.000	0.000	0.000	0.042	19.4

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

IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

LCS
EPA TO-10A

Lab Sample ID: B310194-BS1 Date(s) Analyzed: 06/10/2022 06/10/2022
 Instrument ID (1): ECD5 Instrument ID (2): ECD5
 GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%RPD
			FROM	TO		
Aroclor-1016	1	0.000	0.000	0.000	0.0942	
	2	0.000	0.000	0.000	0.0819	13.8
Aroclor-1260	1	0.000	0.000	0.000	0.0982	
	2	0.000	0.000	0.000	0.0839	15.5

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

IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

LCS Dup

EPA TO-10A

 Lab Sample ID: B310194-BSD1 Date(s) Analyzed: 06/10/2022 06/10/2022

 Instrument ID (1): ECD5 Instrument ID (2): ECD5

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%RPD
			FROM	TO		
Aroclor-1016	1	0.000	0.000	0.000	0.108	
	2	0.000	0.000	0.000	0.0954	14.2
Aroclor-1260	1	0.000	0.000	0.000	0.111	
	2	0.000	0.000	0.000	0.0934	16.3

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

FLAG/QUALIFIER SUMMARY

*	QC result is outside of established limits.
†	Wide recovery limits established for difficult compound.
‡	Wide RPD limits established for difficult compound.
#	Data exceeded client recommended or regulatory level
ND	Not Detected
RL	Reporting Limit is at the level of quantitation (LOQ)
DL	Detection Limit is the lower limit of detection determined by the MDL study
MCL	Maximum Contaminant Level
	Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.
	No results have been blank subtracted unless specified in the case narrative section.
P-06	Due to surrogate recovery non-conformance on the confirmatory detector, the lower of two results was reported.
S-12	Surrogate recovery is outside of control limits on confirmatory column, but within control limits on primary column. Data validation is not affected.
S-23	Surrogate recovery outside of control limits in BS/MS spiked sample, all reported analytes are within control criteria.

CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
<i>EPA TO-10A in Air</i>	
Aroclor-1016	AIHA,NJ,NY
Aroclor-1016 [2C]	AIHA,NJ,NY
Aroclor-1221	AIHA,NJ,NY
Aroclor-1221 [2C]	AIHA,NJ,NY
Aroclor-1232	AIHA,NJ,NY
Aroclor-1232 [2C]	AIHA,NJ,NY
Aroclor-1242	AIHA,NJ,NY
Aroclor-1242 [2C]	AIHA,NJ,NY
Aroclor-1248	AIHA,NJ,NY
Aroclor-1248 [2C]	AIHA,NJ,NY
Aroclor-1254	AIHA,NJ,NY
Aroclor-1254 [2C]	AIHA,NJ,NY
Aroclor-1260	AIHA,NJ,NY
Aroclor-1260 [2C]	AIHA,NJ,NY
Aroclor-1262	AIHA,NJ,NY
Aroclor-1262 [2C]	AIHA,NJ,NY
Aroclor-1268	AIHA,NJ,NY
Aroclor-1268 [2C]	AIHA,NJ,NY

Con-Test, a Pace Environmental Laboratory, operates under the following certifications and accreditations:

Code	Description	Number	Expires
AIHA	AIHA-LAP, LLC - ISO17025:2017	100033	03/1/2024
MA	Massachusetts DEP	M-MA100	06/30/2022
CT	Connecticut Department of Public Health	PH-0165	12/31/2022
NY	New York State Department of Health	10899 NELAP	04/1/2023
NH-S	New Hampshire Environmental Lab	2516 NELAP	02/5/2023
RI	Rhode Island Department of Health	LAO00373	12/30/2022
NC	North Carolina Div. of Water Quality	652	12/31/2022
NJ	New Jersey DEP	MA007 NELAP	06/30/2022
FL	Florida Department of Health	E871027 NELAP	06/30/2022
VT	Vermont Department of Health Lead Laboratory	LL720741	07/30/2022
ME	State of Maine	MA00100	06/9/2023
VA	Commonwealth of Virginia	460217	12/14/2022
NH-P	New Hampshire Environmental Lab	2557 NELAP	09/6/2022
VT-DW	Vermont Department of Health Drinking Water	VT-255716	06/12/2022
NC-DW	North Carolina Department of Health	25703	07/31/2022
PA	Commonwealth of Pennsylvania DEP	68-05812	06/30/2022
MI	Dept. of Env, Great Lakes, and Energy	9100	09/6/2022



Phone: 413-525-2332
 Fax: 413-525-6405
 www.pacelabs.com

22F0223

APPLIED ENVIRONMENTAL

Address: 1210 W. MAPLE RD. ANN ARBOR MI, 48103
 Phone: 616-887-6722

Project Location: 2700 8 Mile Rd - OAK PARK MI

Project Number: 22-2554

Project Manager: Michael Schroeder

Pace Quote Name/Number:

Invoice Recipient:

Sampled By: Michael Schroeder

39 Spruce Street
 East Longmeadow, MA 01028

CHAIN OF CUSTODY RECORD (AIR)

Page 1 of 1

Lab Use	Pace Work Order #	Client Use	Collection Data		Duration	Flow Rate	Matrix	Volume	ANALYSIS REQUESTED			
			Beginning Date/Time	Ending Date/Time					Total Minutes Sampled	m ³ /min L/min	Code	Initial Pressure
1	AS-1		7:10AM	7:10PM	720	1	IA	720	X			
2	AS-2		7:28AM	7:28PM	720	1	IA	720	X			
3	AS-3		7:40AM	7:40PM	720	1	IA	720	X			
4	Duplicate 1-Air		7:40AM	7:40PM	720	1	IA	720	X			
5	AS-4		7:55AM	7:55PM	720	1	IA	720	X			
6	Field Blank						IA		X			

RBS TO-104

Please fill out completely, sign, date and retain the yellow copy for your records

Summa canisters and flow controllers must be returned within 15 days of receipt or rental fees will apply

For summa canister and flow controller information, please refer to Con-Test's Air Media Agreement

Summa Can ID

Flow Controller ID

Summa Can ID

Flow Controller ID

Summa Can ID

Flow Controller ID

Summa Can ID

Flow Controller ID

Summa Can ID

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Flow Controller ID

Summa Can ID

Flow Controller ID

Summa Can ID

Flow Controller ID

Please use the following codes to indicate possible sample concentration within the Conc Code column above:
 H - High; M - Medium; L - Low; C - Clean; U - Unknown

Matrix Codes:
 SG = SOIL GAS
 IA = INDOOR AIR
 AMB = AMBIENT
 SS = SUB SLAB
 D = DUP
 BL = BLANK
 O = Other



Comments: All sampled on 6/1/2022
 Email results to: Michael.S@appliedenv.com

Relinquished by: (signature) Michael Schroeder

Date/Time: 6/1/22 8:00PM

Relinquished by: (signature)

Date/Time: 6/1/22 8:02

Relinquished by: (signature)

Date/Time:

Relinquished by: (signature)

Date/Time:

Special Requirements	
MA MCP Required	<input type="checkbox"/>
MCP Certification Form Required	<input type="checkbox"/>
CT RCP Required	<input type="checkbox"/>
RCP Certification Form Required	<input type="checkbox"/>
Other	<input type="checkbox"/>

Project Entity

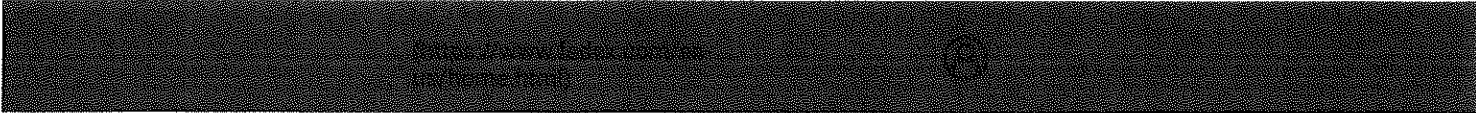
Government Municipality MWRA Other

Federal 21 J School Chromatogram

City Brownfield MBTA AIHA-LAP, LLC

PCB ONLY Soxhlet Non Soxhlet

RELAC and AIHA-LAP, LLC Accredited



FedEx® Tracking



791263756863



ADD NICKNAME

Delivered
Friday, 06/03/2022 at 8:02 am



DELIVERED

Signed for by: L.RIOS

GET STATUS UPDATES

OBTAIN PROOF OF DELIVERY

FROM
ANN ARBOR, MI US

TO
East Longmeadow, MA US

MANAGE DELIVERY

Travel History

TIME ZONE

Local Scan Time



Friday, June 3,
2022

8:02 AM	East Longmeadow, MA	Delivered
7:17 AM	WINDSOR LOCKS, CT	Shipment arriving On-Time
6:46 AM	WINDSOR LOCKS, CT	On FedEx vehicle for delivery
6:46 AM	WINDSOR LOCKS, CT	At local FedEx facility

Thursday, June 2,
2022

9:07 PM	NOVI, MI	Left FedEx origin facility
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***APPENDIX 6: OCTOBER 2022
ADDITIONAL PCB DELINEATION ACTIVITIES ADDENDUM***



**APPLIED
ENVIRONMENTAL**
Partners in Down to Earth Solutions

**Mr. Peter Ramanauskas and
Mr. Jacob Bova
United States Environmental Protection Agency, Region V
77 West Jackson Boulevard
Chicago, Illinois 60604-3590**

October 21, 2022

**RE: Summary of Additional Delineation Activities Addendum
8MK Project – PCB Remediation and Redevelopment
12700 8 Mile Road
Oak Park, Michigan 48237
Applied Environmental Project #: 22-2554**

Dear Mr. Ramanauskas and Mr. Bova

Applied Environmental is providing this addendum for the Summary of Additional Delineation Activities Report issued on August 22, 2022. This addendum has been issued to provide the requested additional information regarding the groundwater and sump analytical results from the Due Care investigations conducted in 2020. An additional discussion regarding data quality for the additional delineation activities conducted in May and June 2022 has also been included.

Exterior Subsurface Investigation – Groundwater Sampling

On August 20, 2020, Applied Environmental was on-site to survey the north top-of-casing elevation from the newly installed monitoring wells (MW-1 through MW-4) using a bench mark relative to 100 feet. Depth to water measurements from each of the monitoring wells were collected using an electronic interface probe with the exception of MW-3 which was dry. Utilizing the north top-of-casing elevations along with the depth to water measurements from the three remaining monitoring wells, Applied Environmental determined that groundwater flow was to the northeast as depicted on Figure 1 – Groundwater Flow Direction in Attachment 1: Figures. Refer to Attachment 2: Elevation Calculation and Static Water Levels for the elevation calculation and static water elevation forms.

On August 20, 2020, Applied Environmental collected groundwater samples from these newly installed monitoring wells using the U.S. EPA Low Flow Groundwater Sampling Procedures which consisted of utilizing a peristaltic pump and controller connected to a YSI multi-parameter meter through an in-line flow cell. The following water quality parameters were documented during the low flow process: temperature, pH, conductivity, oxidation reduction potential, dissolved oxygen and turbidity. Water quality readings were collected approximately every three minutes until parameters stabilized within the following criteria prior to sampling: +/- 0.1 for pH, +/-3% for conductivity, +/-10mV for redox potential, +/-10% for dissolved oxygen and +/-10% for turbidity. In addition, during pumping the static water level was monitored so drawdown would not exceed 0.3 feet. Refer to Attachment 3: Low Flow Sampling Water Quality Measurements for a copy of the low flow sampling water quality measurements collected prior to groundwater sampling.

As stated above, MW-3 was dry so a groundwater sample could not be collected. In addition, MW-4 went dry during the low flow sampling process and did not recover to yield sufficient groundwater for sampling, therefore groundwater a sample could be not be collected for laboratory analysis.

A total of two (2) groundwater samples (MW-1 and MW-2) along with one (1) trip blank, one (1) field blank and one (1) duplicate sample from MW-1 for quality assurance/quality control purposes were submitted to Quantum Laboratories of Wixom, Michigan for analysis of VOCs by EPA Method 8260 and PCBs by EPA Method 8082.

The groundwater laboratory analytical results revealed that no VOCs and PCBs were reported above their respective laboratory MDLs in the groundwater or QA/QC samples analyzed. Groundwater analytical results are reported in Table 1 in Attachment 4: Tables and on Figure 2 – Groundwater Sampling Locations and Analytical Results. The laboratory reports are included in Attachment 5: Laboratory Reports.

Basement Sump Evaluation and Sampling

On July 29, 2020, Applied Environmental evaluated the sump located in the northeast corner of the basement. The basement sump is a concrete vault extending approximately 6 to 7 feet below the basement. Applied Environmental observed a total of three (3) inlet pipes into the sump. One (1) was on the north wall of the sump at a depth of approximately 2 feet and two (2) were on the west wall of the sump both at a depth of approximately 3 feet. The water observed within the sump was cloudy and turbid with no visual evidence of oil or sheen. The sump discharges to the City of Oak Park combined system that is an extension of the City of Detroit, and therefore discharges to the Detroit Wastewater Treatment Plant. One (1) sample was collected of the sump water and was submitted to Quantum Laboratories for analysis of VOCs by EPA Method 8260 and PCBs of EPA Method 8082A.

The laboratory analytical results of the sump water revealed that no VOCs or PCBs were reported above their respective laboratory MDLs. The laboratory analytical results are reported in Table 1 and Figure 3 – Basement Sump Analytical Results.

Data Quality – Additional Delineation Activities

The following data quality issues were encountered over the course of the additional delineation activities sampling conducted in May and June 2022:

Indoor Air Samples

The initial baseline indoor air samples were collected on June 1, 2022 and shipped under chain-of-custody to Pace New England Laboratories of East Longmeadow, Massachusetts. The indoor air samples were analyzed for PCBs in accordance with US EPA Method TO-10A. Pace Laboratories utilized a reporting limit (RL) of 0.056 $\mu\text{g}/\text{cm}^3$ when conducting the PCB analysis. According to the EPA comment letter dated November 9, 2021, a screening level of 0.0289 $\mu\text{g}/\text{cm}^3$ should be utilized for the indoor air sample PCB analysis. Since the RL (0.056 $\mu\text{g}/\text{cm}^3$) utilized by Pace Laboratories is above the EPA recommended screening level (0.0289 $\mu\text{g}/\text{cm}^3$) the potential exists for one or more compounds to present within the baseline indoor air samples above the screening level, but not reported within the analytical results.

If you have any questions or required any additional information, please contact us at 734-975-1970.

Respectfully,

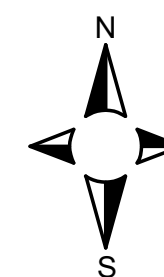


Michael Schroeder
Project Manager
Applied Environmental



Michael Gatien,
Principal, Senior Project Manager
Applied Environmental

ATTACHMENT 1: FIGURES



Scale: 1" = 30'

HEAVILY VEGETATED AND TREED AREA

HEAVILY VEGETATED AND TREED AREA

Legend

- 93.28'
MW-1 MONITORING WELL WITH STATIC WATER ELEVATION IN FEET
- 93.25' GROUNDWATER GRADIENT CONTOUR
- LOCALIZED GROUNDWATER FLOW DIRECTION
- GP-11A SOIL BORING COMPLETED BY APPLIED ENV. 7/28/20
- GP-1 SOIL BORING COMPLETED BY APPLIED ENV. 12/9/15

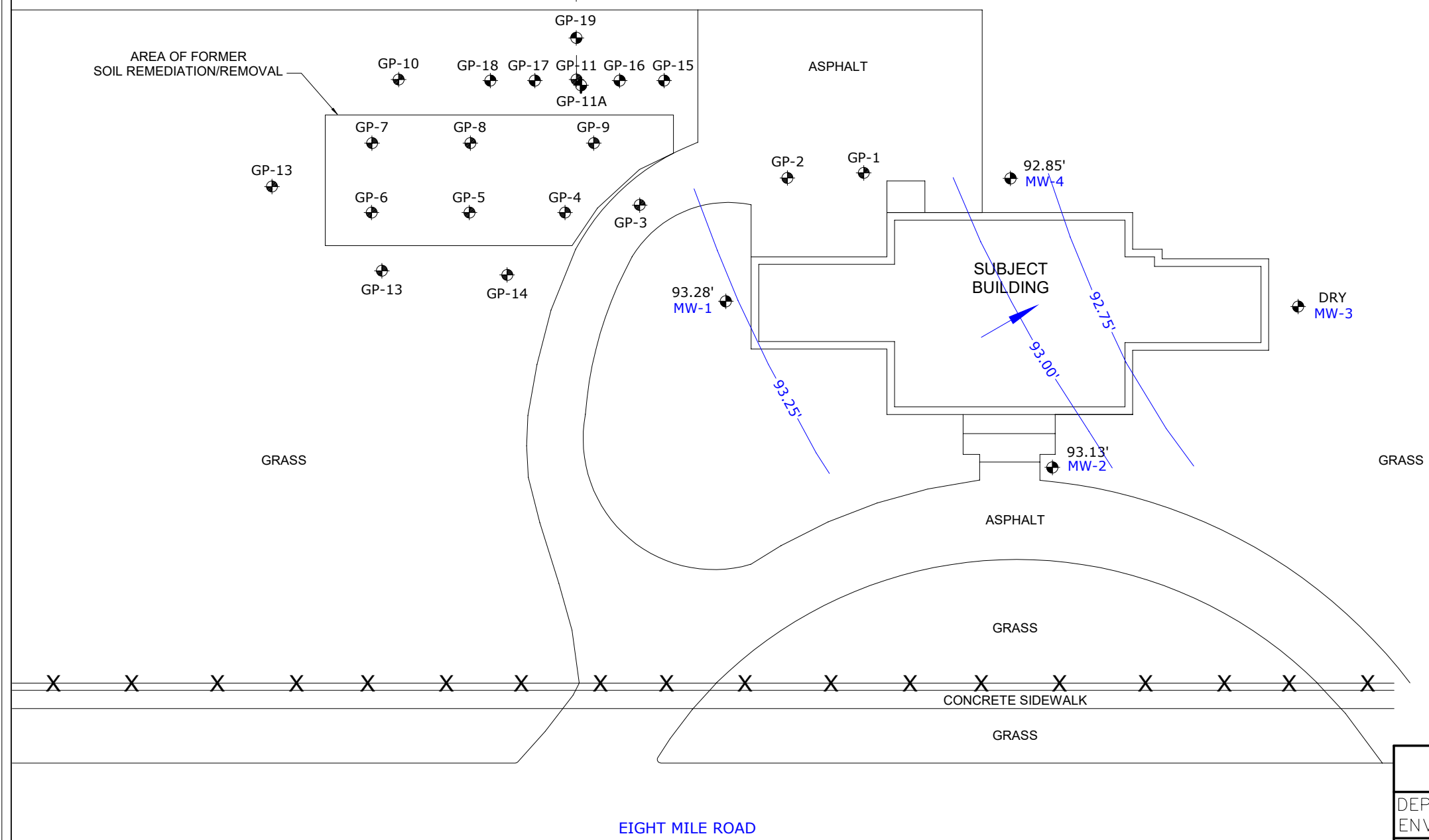
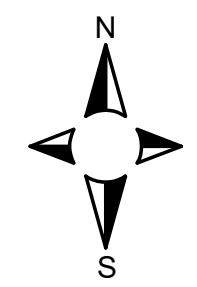


FIGURE 1
GROUNDWATER FLOW DIRECTION

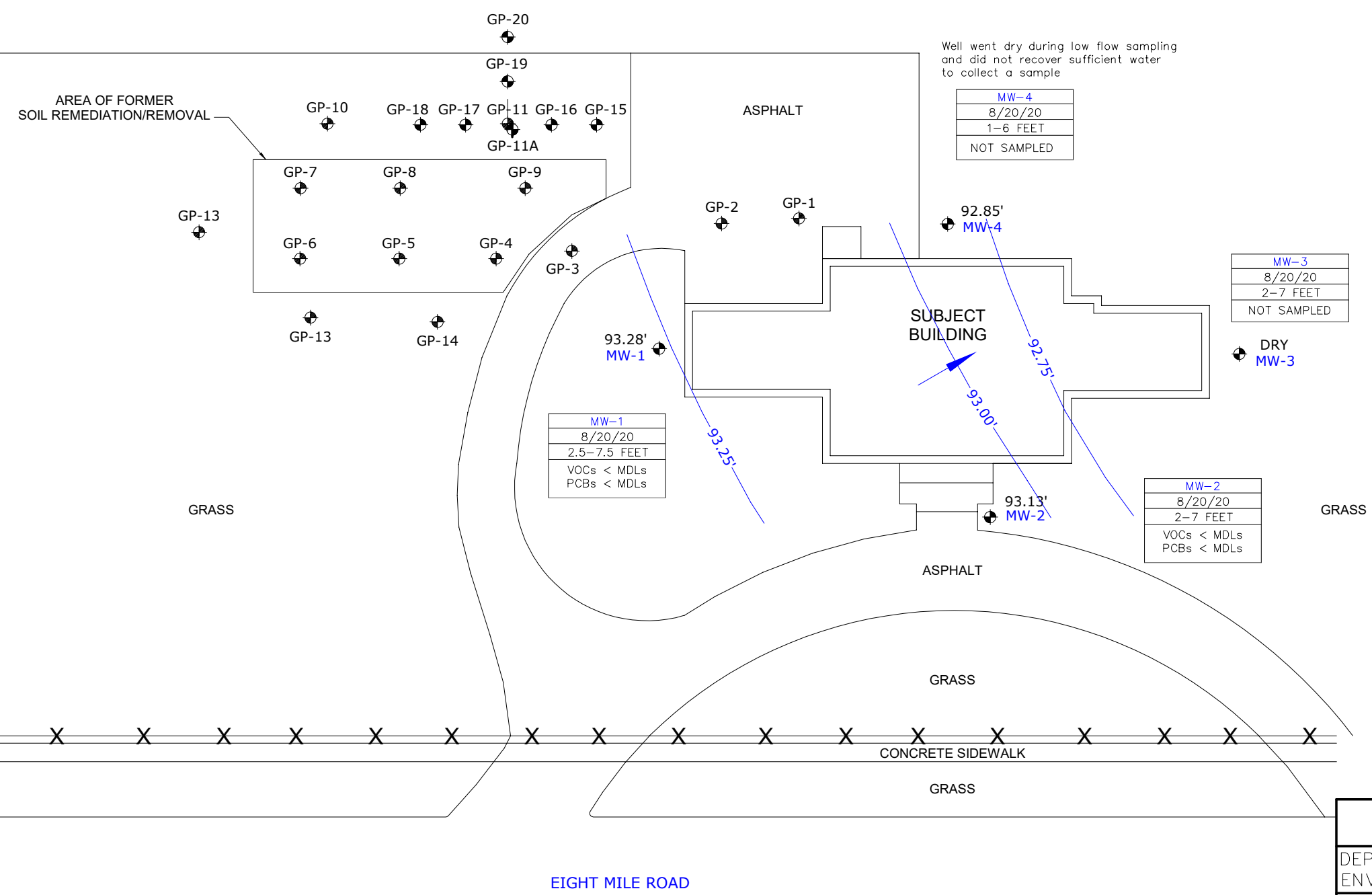
APPLIED ENVIRONMENTAL		
DEPT: ENVIRONMENTAL	TITLE: GROUNDWATER FLOW	DATE: 8/20/20
PROJECT MGR: M. GATIEN	CLIENT: UNION JOINTS	PROJ. NUMBER: 20-2554



Scale: 1" = 30'

HEAVILY VEGETATED AND TREED AREA

HEAVILY VEGETATED AND TREED AREA



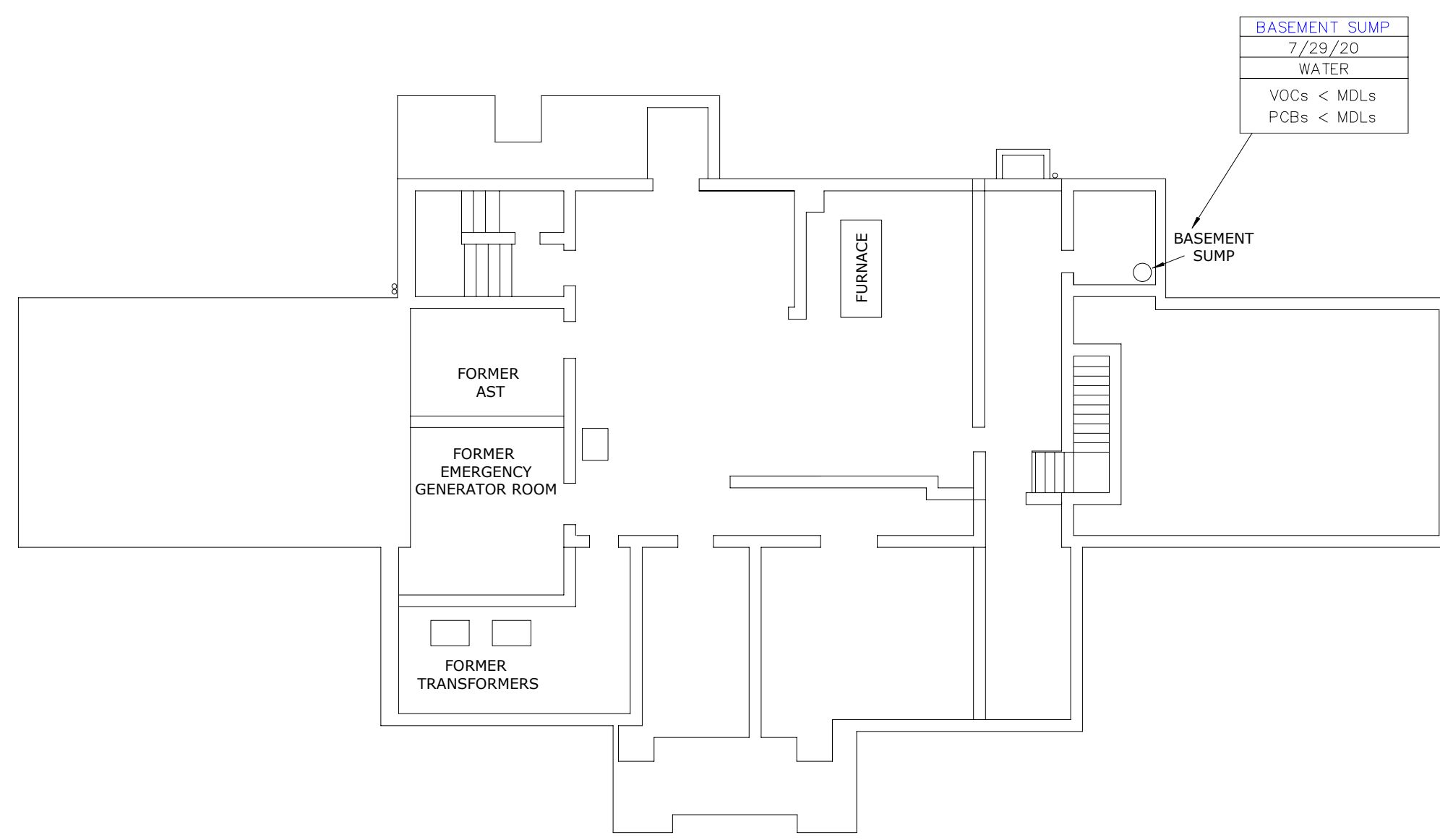
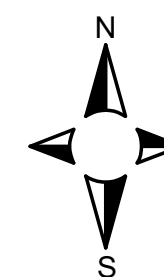
Legend

- 93.28' MW-1 MONITORING WELL WITH STATIC WATER ELEVATION IN FEET
- 93.25' GROUNDWATER GRADIENT CONTOUR
- LOCALIZED GROUNDWATER FLOW DIRECTION
- GP-11A SOIL BORING COMPLETED BY APPLIED ENV. 7/28/20
- GP-1 SOIL BORING COMPLETED BY APPLIED ENV. 12/9/15

All Groundwater Results in ug/L
 MDL - Laboratory Method Detection Limit
 VOCs - Volatile Organic Compounds
 PCBs - Polychlorinated Biphenyls

FIGURE 2
 GROUNDWATER SAMPLING LOCATIONS AND ANALYTICAL RESULTS

APPLIED ENVIRONMENTAL		
DEPT: ENVIRONMENTAL	TITLE: GROUNDWATER RESULTS	DATE: 8/20/20
PROJECT MGR: M. GATIEN	CLIENT: UNION JOINTS	PROJ. NUMBER: 20-2554



BASEMENT SUMP
 7/29/20
 WATER
 VOCs < MDLs
 PCBs < MDLs

Legend

○ BASEMENT SUMP SAMPLE LOCATION

Basement Sump Results in ug/L
 MDL - Laboratory Method Detection Limit
 VOCs - Volatile Organic Compounds
 PCBs - Polychlorinated Biphenyls
 Red Colored PCB Concentrations Indicated Levels Exceeding the EPA High Occupancy Threshold of 1,000 ug/kg.

FIGURE 3

BASEMENT SUMP ANALYTICAL RESULTS

<i>APPLIED ENVIRONMENTAL</i>		
DEPT: ENVIRONMENTAL	TITLE: BASEMENT WALL SAMPLING	DATE: 7/29/20
PROJECT MGR: M. GATIEN	CLIENT: UNION JOINTS	PROJ. NUMBER: 20-2554

ATTACHMENT 2: ELEVATION CALCULATION AND STATIC WATER LEVELS

***ATTACHMENT 3: LOW FLOW SAMPLING WATER QUALITY
MEASUREMENTS***

ATTACHMENT 4: TABLES

Table 1
Sump and Groundwater Analytical Results
12700 8 Mile Road
Oak Park, Michigan
July 29 and August 20, 2020

12700 W. EIGHT MILE ROAD OAK PARK, MICHIGAN AE PROJECT NO. 20-2554	EGLE Criteria for Groundwater - Part 201 Generic Residential Cleanup Criteria and Screening Levels December 30, 2013**									Sample ID	Sump	MW-1	MW-2	MW-3	MW-4					
	Chemical Abstract Service Number	Residential Drinking Water Criteria	Nonresidential Drinking Water Criteria	Groundwater Surface Water Interface Criteria	Residential Groundwater Volatilization to Indoor Air Inhalation Criteria	Nonresidential Groundwater Volatilization to Indoor Air Inhalation Criteria	Water Solubility	Flammability and Explosivity Screening Level	Screened Interval							Date Collected	Date Analyzed			
		µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	NA							7/29/2020	8/20/2020	8/20/2020	NA	NA
									MDL (µg/l)							7/31/2020	8/25/2020	8/25/2020	NA	NA
VOCs - EPA Method 8260		µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l												
Acetone (l)	67641	730	2,100	1,700	1.0E+9 (D,S)	1.0E+9 (D,S)	1.00E+09	1.50E+07	25	<	<	<	NA	NA						
Benzene (l)	71432	5 (A)	5 (A)	200 (X)	5,600	35,000	1.75E+06	68,000	1.0	<	<	<	NA	NA						
Bromochloromethane	74975	NA	NA	NA	NA	NA	NA	NA	1.0	<	<	<	NA	NA						
Bromodichloromethane	75274	80 (A,W)	80 (A,W)	ID	4,800	37,000	6.74E+6	ID	1.0	<	<	<	NA	NA						
Bromofrom	75252	80 (A,W)	80 (A,W)	ID	4.7E+5	3.1E+6 (S)	3.10E+6	ID	1.0	<	<	<	NA	NA						
Bromomethane	74839	10	29	35	4,000	9,000	1.45E+7	ID	1.0	<	<	<	NA	NA						
2-Butanone (MEK) (l)	78933	13,000	38,000	2,200	2.4E+8 (S)	2.4E+8 (S)	2.4E+8	ID	25	<	<	<	NA	NA						
sec-Butylbenzene	135988	80	230	ID	ID	ID	NA	ID	1.0	<	<	<	NA	NA						
Carbon disulfide (l,R)	75150	800	2,300	ID	2.5E+5	5.5E+5	1.19E+6	13,000	5.0	<	<	<	NA	NA						
Carbon tetrachloride	56235	5.0 (A)	5.0 (A)	45 (X)	370	2,400	7.93E+5	ID	1.0	<	<	<	NA	NA						
Chlorobenzene (l)	108907	100 (A)	100 (A)	25	2.1E+5	4.7E+5 (S)	4.72E+5	1.6E+5	1.0	<	<	<	NA	NA						
Chloroethane	75003	430	1,700	1,100 (X)	5.7E+6 (S)	5.7E+6 (S)	5.74E+6	1.1E+5	1.0	<	<	<	NA	NA						
Chloroform	67663	80 (A,W)	80 (A,W)	350	28,000	1.8E+5	7.92E+6	ID	1.0	<	<	<	NA	NA						
Chloromethane (l)	74873	260	1,100	ID	8,600	45,000	6.34E+6	36,000	1.0	<	<	<	NA	NA						
Dibromochloromethane	124481	80 (A,W)	80 (A,W)	ID	14,000	1.1E+5	2.60E+6	ID	1.0	<	<	<	NA	NA						
1,2-Dibromo-3-chloropropane	96128	0.2 (A)	0.2 (A)	ID	220	1,200 (S)	1,230	NA	0.2	<	<	<	NA	NA						
Dibromomethane	74953	80	230	NA	ID	ID	1.10E+7	ID	5.0	<	<	<	NA	NA						
1,2-Dibromomethane	106934	0.05 (A)	0.05 (A)	5.7 (X)	2400	15,000	4.2E+6	ID	0.2	<	<	<	NA	NA						
1,2-Dichlorobenzene	95501	600 (A)	600 (A)	13	1.6E+5 (S)	1.6E+5 (S)	1.56E+5	NA	1.0	<	<	<	NA	NA						
1,3-Dichlorobenzene	541731	6.6	19	28	18,000	41,000	1.11E+5	ID	1.0	<	<	<	NA	NA						
1,4-Dichlorobenzene	106467	75 (A)	75 (A)	17	16,000	74,000 (S)	73,800	NA	1.0	<	<	<	NA	NA						
Dichlorodifluoromethane	75718	1,700	4,800	ID	2.2E+5	3.0E+5 (S)	3.00E+5	ID	1.0	<	<	<	NA	NA						
1,1-Dichloroethane	75343	880	2,500	740	1.0E+6	2.3E+6	5.06E+6	3.8E+5	1.0	<	<	<	NA	NA						
1,2-Dichloroethane (l)	107062	5.0 (A)	5.0 (A)	360 (X)	9,600	59,000	8.52E+6	2.5E+6	1.0	<	<	<	NA	NA						
1,1-Dichloroethylene (l)	75354	7.0 (A)	7.0 (A)	130	200	1,300	2.25E+6	97,000	1.0	<	<	<	NA	NA						
cis-1,2-Dichloroethylene	156592	70 (A)	70 (A)	620	93,000	2.1E+5	3.50E+6	5.3E+5	1.0	<	<	<	NA	NA						
trans-1,2-Dichloroethylene	156605	100 (A)	100 (A)	1,500 (X)	85,000	2.0E+5	6.30E+6	2.3E+5	1.0	<	<	<	NA	NA						
1,2-Dichloropropane (l)	78875	5.0 (A)	5.0 (A)	230 (X)	16,000	36,000	2.80E+6	5.5E+5	1.0	<	<	<	NA	NA						
1,3-Dichloropropane	542756	8.5	35	9.0 (X)	3,900	26,000	2.80E+6	1.3E+5	1.0	<	<	<	NA	NA						
Diethyl ether	60297	10 (E)	10 (E)	ID	6.1E+7 (S)	6.1E+7 (S)	6.1E+7	6.5E+5	10	<	<	<	NA	NA						
Ethylbenzene (l)	100414	74 (E)	74 (E)	18	1.10E+05	1.7E+5 (S)	1.69E+05	43,000	1.0	<	<	<	NA	NA						
Ethylene dibromide	106934	0.05 (A)	0.05 (A)	5.7 (X)	2,400	15,000	4.20E+6	ID	0.05	<	<	<	NA	NA						
Hexachloroethane	67721	7.3	21	6.7 (X)	27,000	50,000 (S)	5.00E+04	ID	1.0	<	<	<	NA	NA						
2-Hexanone	591786	1000	2900	ID	4.20E+06	8.70E+06	1.60E+07	NA	50	<	<	<	NA	NA						
Isopropyl benzene	98828	800	2,300	28	56,000 (S)	56,000 (S)	56,000	29,000	1.0	<	<	<	NA	NA						
p-isopropyltoluene	99876	NA	NA	NA	NA	NA	NA	NA	5.0	<	<	<	NA	NA						
Methylene iodide	75116	NA	NA	NA	NA	NA	NA	NA	1.0	<	<	<	NA	NA						
Methyl-tert-butyl-ether (MTBE)	1634044	40 (E)	40 (E)	7,100 (X)	4.7E+7 (S)	4.7E+7 (S)	4.68E+7	ID	5.0	<	<	<	NA	NA						
4-Methyl-2-pentanone (MIBK) (l)	108101	1800	5200	ID	2.0E+7 (S)	2.0E+7 (S)	2.0E+7	ID	50	<	<	<	NA	NA						
Methylene chloride	75092	5.0 (A)	5.0 (A)	1,500 (X)	2.2E+5	1.4E+6	1.70E+7	ID	5.0	<	<	<	NA	NA						
2-Methylnaphthalene	91576	260	750	19	25,000 (S)	25,000 (S)	24,800	ID	5.0	<	<	<	NA	NA						
Naphthalene	91203	520	1,500	11	31,000 (S)	31,000 (S)	31,000	NA	5.0	<	<	<	NA	NA						
n-Butylbenzene	104518	80	230	ID	ID	ID	NA	ID	1.0	<	<	<	NA	NA						
n-Propylbenzene (l)	103651	80	230	ID	ID	ID	NA	ID	1.0	<	<	<	NA	NA						
Styrene	100425	100 (A)	100 (A)	80 (X)	1.7E+5	3.1E+5 (S)	3.10E+5	1.4E+5	1.0	<	<	<	NA	NA						
1,1,1,2-Tetrachloroethane	630206	77	320	ID	15,000	96,000	1.10E+6	ID	1.0	<	<	<	NA	NA						
1,1,2,2-Tetrachloroethane	79345	8.5	35	78 (X)	12,000	77,000	2.97E+6	ID	1.0	<	<	<	NA	NA						
Tetrachloroethylene	127184	5.0 (A)	5.0 (A)	60 (X)	25,000	1.7E+5	2.0E+5	ID	1.0	<	<	<	NA	NA						
Tetrahydrofuran (THF)	109999	95	270	11,000 (X)	6.9E+6	1.6E+7	1.0E+9	60,000	5.0	<	<	<	NA	NA						
Toluene (l)	108883	790 (E)	790 (E)	270	5.3E+5 (S)	5.3E+5 (S)	5.26E+5	61,000	1.0	<	<	<	NA	NA						
1,2,3-Trichlorobenzene	87616	NA	NA	NA	NA	NA	NA	NA	5.0	<	<	<	NA	NA						
1,2,4-Trichlorobenzene	120821	70 (A)	70 (A)	99 (X)	3.0E+5 (S)	3.0E+5 (S)	3.00E+5	NA	5.0	<	<	<	NA	NA						
1,1,1-Trichloroethane	71556	200 (A)	200 (A)	89	6.6E+5	1.3E+6 (S)	1.33E+6	ID	1.0	<	<	<	NA	NA						
1,1,2-Trichloroethane	79005	5.0 (A)	5.0 (A)	330 (X)	17,000	1.1E+5	4.42E+6	NA	1.0	<	<	<	NA	NA						
Trichloroethylene	79016	5.0 (A)	5.0 (A)	200 (X)	2,200	4,900	1.10E+6	ID	1.0	<	<	<	NA	NA						
Trichlorofluoromethane	75694	2,600	7,300	NA	1.1E+6 (S)	1.1E+6 (S)	1.10E+6	ID	1.0	<	<	<	NA	NA						
1,2,3-Trichloropropane	96184	42	120	NA	8,300	18,000	1.90E+6	NA	1.0	<	<	<	NA	NA						
1,2,3-Trimethylbenzene	526738	NA	NA	NA	NA	NA	NA	NA	1.0	<	<	<	NA	NA						
1,2,4-Trimethylbenzene (l)	95636	63 (E)	63 (E)	17	56,000 (S)	56,000 (S)	55,890	56,000 (S)	1.0	<	<	<	NA	NA						
1,3,5-Trimethylbenzene (l)	108678	72 (E)	72 (E)	45	61,000 (S)	61,000 (S)	61,150	ID	1.0	<	<	<	NA	NA						
Vinyl chloride	75014	2.0 (A)	2.0 (A)	13 (X)	1,100	13,000	2.76E+6	33,000	1.0	<	<	<	NA	NA						
Xylenes (Total)	1330207	280 (E)	280 (E)	41	1.9E+5 (S)	1.9E+5 (S)	1.86E+05	70,000	3.0	<	<	<	NA	NA						
										PCB Extraction	7/30/2020	8/21/2020	8/21/2020	NA	NA					
										Date Analyzed	7/30/2020	8/25/2020	8/25/2020	NA	NA					
PCBs - EPA Method 8082		µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	MDL (µg/l)	µg/l	µg/l	µg/l	µg/l	µg/l					
Polychlorinated Biphenyls (PCBs) (J,T)	1336363	0.5 (A)	0.5 (A)	0.2 (M); 2.6E-5	45 (S)	45 (S)	44.7	ID	0.2	<	<	<	NA	NA						

* Chromium lab results refer to total chromium

shading indicates criteria have been exceeded

Note: For definitions of abbreviations and letters in (), please see footnote at end of tables.

**Criteria for detected compounds have been updated to most recent MDEQ revisions

< : chemical not detected above Method Detection Limit (MDL)

NT: sample not tested for this chemical

ATTACHMENT 5: LABORATORY REPORTS

ANALYTICAL REPORT

For: Applied Environmental, Inc.
1210 N. Maple Rd
Ann Arbor MI 48103-2842

Report Number: 11232
Report Date: August 26, 2020
Project Name: 12700 8 Mile Rd.
Project Number: 20-2554
Page: 1 of 17
734-975-1970 Fax: 734-975-1973

Attn: Mr. Mike Gatien

Sample Description

Five (5) samples reported to be Water and identified as "12700 8 Mile Rd.", Oak Park, MI, 8/20/20, Grab and:

1. MW-1, 11:25A
2. MW-2, 12:00P
3. Trip Blank, 10:20A
4. Field Blank, 10:45A
5. Duplicate, 11:25A

Analysis Requested

Chemical Analysis per SW-846 (SW) for:

1. Volatile Organic Compounds (VOC), Methods 8260B
2. Polychlorinated Biphenyls (PCB), Method 8082A

Analytical Results

Sample Description:		MW-1, 11:25A, 8/20/20				
Laboratory ID:	11232-1	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
<i>Volatile Organic Compounds</i>						
Acetone	Not Detected	50	µg/L	08/25/20	BD	
Benzene	Not Detected	1	µg/L	08/25/20	BD	
Bromobenzene	Not Detected	1	µg/L	08/25/20	BD	
Bromochloromethane	Not Detected	1	µg/L	08/25/20	BD	
Bromodichloromethane	Not Detected	1	µg/L	08/25/20	BD	
Bromoform	Not Detected	1	µg/L	08/25/20	BD	
Bromomethane	Not Detected	5	µg/L	08/25/20	BD	
2-Butanone (MEK)	Not Detected	25	µg/L	08/25/20	BD	
n-Butylbenzene	Not Detected	1	µg/L	08/25/20	BD	
sec-Butylbenzene	Not Detected	1	µg/L	08/25/20	BD	
tert-Butylbenzene	Not Detected	1	µg/L	08/25/20	BD	
Carbon disulfide	Not Detected	5	µg/L	08/25/20	BD	
Carbon tetrachloride	Not Detected	1	µg/L	08/25/20	BD	
Chlorobenzene	Not Detected	1	µg/L	08/25/20	BD	
Chloroethane	Not Detected	5	µg/L	08/25/20	BD	
Chloroform	Not Detected	1	µg/L	08/25/20	BD	
Chloromethane	Not Detected	5	µg/L	08/25/20	BD	
2-Chlorotoluene	Not Detected	5	µg/L	08/25/20	BD	
4-Chlorotoluene	Not Detected	5	µg/L	08/25/20	BD	
Dibromochloromethane	Not Detected	5	µg/L	08/25/20	BD	
1,2-Dibromo-3-chloropropane	Not Detected	0.2	µg/L	08/25/20	BD	
Dibromomethane	Not Detected	5	µg/L	08/25/20	BD	
1,2-Dichlorobenzene	Not Detected	1	µg/L	08/25/20	BD	
1,3-Dichlorobenzene	Not Detected	1	µg/L	08/25/20	BD	
1,4-Dichlorobenzene	Not Detected	1	µg/L	08/25/20	BD	
Dichlorodifluoromethane	Not Detected	5	µg/L	08/25/20	BD	
1,1-Dichloroethane	Not Detected	1	µg/L	08/25/20	BD	
1,2-Dichloroethane	Not Detected	1	µg/L	08/25/20	BD	
1,1-Dichloroethylene	Not Detected	1	µg/L	08/25/20	BD	
cis-1,2-Dichloroethylene	Not Detected	1	µg/L	08/25/20	BD	
trans-1,2-Dichloroethylene	Not Detected	1	µg/L	08/25/20	BD	
1,2-Dichloropropane	Not Detected	1	µg/L	08/25/20	BD	
1,3-Dichloropropane	Not Detected	1	µg/L	08/25/20	BD	
2,2-Dichloropropane	Not Detected	1	µg/L	08/25/20	BD	
1,1-Dichloropropene	Not Detected	1	µg/L	08/25/20	BD	
cis-1,3-Dichloropropene	Not Detected	1	µg/L	08/25/20	BD	
<i>continued</i>						

Sample Description:		MW-1, 11:25A, 8/20/20				
Laboratory ID:	11232-1	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
VOCs continued						
Ethylbenzene	Not Detected	1	µg/L	08/25/20	BD	
Ethylene Dibromide (1,2-Dibromoethane)	Not Detected	0.2	µg/L	08/25/20	BD	
Hexachlorobutadiene	Not Detected	0.2	µg/L	08/25/20	BD	
2-Hexanone	Not Detected	50	µg/L	08/25/20	BD	
Isopropyl benzene	Not Detected	5	µg/L	08/25/20	BD	
4-Methyl-2-pentanone (MIBK)	Not Detected	50	µg/L	08/25/20	BD	
Methyl-t-butyl ether (MTBE)	Not Detected	5	µg/L	08/25/20	BD	
Methylene chloride	Not Detected	5	µg/L	08/25/20	BD	
2-Methylnaphthalene	Not Detected	5	µg/L	08/25/20	BD	
Naphthalene	Not Detected	5	µg/L	08/25/20	BD	
n-Propyl benzene	Not Detected	1	µg/L	08/25/20	BD	
Styrene	Not Detected	1	µg/L	08/25/20	BD	
1,1,1,2-Tetrachloroethane	Not Detected	1	µg/L	08/25/20	BD	
1,1,2,2-Tetrachloroethane	Not Detected	1	µg/L	08/25/20	BD	
Tetrachloroethylene	Not Detected	1	µg/L	08/25/20	BD	
Tetrahydrofuran	Not Detected	90	µg/L	08/25/20	BD	
Toluene	Not Detected	1	µg/L	08/25/20	BD	
1,2,3-Trichlorobenzene	Not Detected	5	µg/L	08/25/20	BD	
1,2,4-Trichlorobenzene	Not Detected	5	µg/L	08/25/20	BD	
1,1,1-Trichloroethane	Not Detected	1	µg/L	08/25/20	BD	
1,1,2-Trichloroethane	Not Detected	1	µg/L	08/25/20	BD	
Trichloroethylene	Not Detected	1	µg/L	08/25/20	BD	
Trichlorofluoromethane	Not Detected	1	µg/L	08/25/20	BD	
1,2,3-Trichloropropane	Not Detected	1	µg/L	08/25/20	BD	
1,2,4-Trimethylbenzene	Not Detected	1	µg/L	08/25/20	BD	
1,3,5-Trimethylbenzene	Not Detected	1	µg/L	08/25/20	BD	
Vinyl Acetate	Not Detected	100	µg/L	08/25/20	BD	
Vinyl chloride	Not Detected	1	µg/L	08/25/20	BD	
Xylene (Total)	Not Detected	3	µg/L	08/25/20	BD	
Surrogate Standards						
1,2-Dichloroethane-d4	103%	-	% Recovery	08/25/20	BD	
Toluene-d8	99.4%	-	% Recovery	08/25/20	BD	
4-Bromofluorobenzene	108%	-	% Recovery	08/25/20	BD	
continued						

Data Qualifiers: I Internal Standard results outside of acceptance limits
 S QC spike recovery outside of acceptance limits
 R RPD outside of acceptance limits
 E Reporting limit is elevated
 D Result is from a dilution
 J Result should be considered estimated
 M Matrix interference observed
 F Matrix Spike four times rule applied
 C See Case Narrative

Sample Description:		MW-1, 11:25A, 8/20/20				
Laboratory ID:	11232-1	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	0.2	µg/L	08/25/20	DS	
Aroclor 1221	Not Detected	0.2	µg/L	08/25/20	DS	
Aroclor 1232	Not Detected	0.2	µg/L	08/25/20	DS	
Aroclor 1242	Not Detected	0.2	µg/L	08/25/20	DS	
Aroclor 1248	Not Detected	0.2	µg/L	08/25/20	DS	
Aroclor 1254	Not Detected	0.2	µg/L	08/25/20	DS	
Aroclor 1260	Not Detected	0.2	µg/L	08/25/20	DS	
Polychlorinated biphenyls (Total)	Not Detected	2	µg/L	08/25/20	DS	
Surrogate Standards						
Tetrachloro-m-xylene	81.4%	-	% Recovery	08/25/20	DS	
Decachlorobiphenyl	87.8%	-	% Recovery	08/25/20	DS	
Analysis Information						
PCB Extraction	Completed	-	-	08/21/20	LB	

Sample Description:		MW-2, 13:00p, 8/20/20				
Laboratory ID:	11232-2	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
<i>Volatile Organic Compounds</i>						
Acetone	Not Detected	50	µg/L	08/25/20	BD	
Benzene	Not Detected	1	µg/L	08/25/20	BD	
Bromobenzene	Not Detected	1	µg/L	08/25/20	BD	
Bromochloromethane	Not Detected	1	µg/L	08/25/20	BD	
Bromodichloromethane	Not Detected	1	µg/L	08/25/20	BD	
Bromoform	Not Detected	1	µg/L	08/25/20	BD	
Bromomethane	Not Detected	5	µg/L	08/25/20	BD	
2-Butanone (MEK)	Not Detected	25	µg/L	08/25/20	BD	
n-Butylbenzene	Not Detected	1	µg/L	08/25/20	BD	
sec-Butylbenzene	Not Detected	1	µg/L	08/25/20	BD	
tert-Butylbenzene	Not Detected	1	µg/L	08/25/20	BD	
Carbon disulfide	Not Detected	5	µg/L	08/25/20	BD	
Carbon tetrachloride	Not Detected	1	µg/L	08/25/20	BD	
Chlorobenzene	Not Detected	1	µg/L	08/25/20	BD	
Chloroethane	Not Detected	5	µg/L	08/25/20	BD	
Chloroform	Not Detected	1	µg/L	08/25/20	BD	
Chloromethane	Not Detected	5	µg/L	08/25/20	BD	
2-Chlorotoluene	Not Detected	5	µg/L	08/25/20	BD	
4-Chlorotoluene	Not Detected	5	µg/L	08/25/20	BD	
Dibromochloromethane	Not Detected	5	µg/L	08/25/20	BD	
1,2-Dibromo-3-chloropropane	Not Detected	0.2	µg/L	08/25/20	BD	
Dibromomethane	Not Detected	5	µg/L	08/25/20	BD	
1,2-Dichlorobenzene	Not Detected	1	µg/L	08/25/20	BD	
1,3-Dichlorobenzene	Not Detected	1	µg/L	08/25/20	BD	
1,4-Dichlorobenzene	Not Detected	1	µg/L	08/25/20	BD	
Dichlorodifluoromethane	Not Detected	5	µg/L	08/25/20	BD	
1,1-Dichloroethane	Not Detected	1	µg/L	08/25/20	BD	
1,2-Dichloroethane	Not Detected	1	µg/L	08/25/20	BD	
1,1-Dichloroethylene	Not Detected	1	µg/L	08/25/20	BD	
cis-1,2-Dichloroethylene	Not Detected	1	µg/L	08/25/20	BD	
trans-1,2-Dichloroethylene	Not Detected	1	µg/L	08/25/20	BD	
1,2-Dichloropropane	Not Detected	1	µg/L	08/25/20	BD	
1,3-Dichloropropane	Not Detected	1	µg/L	08/25/20	BD	
2,2-Dichloropropane	Not Detected	1	µg/L	08/25/20	BD	
1,1-Dichloropropene	Not Detected	1	µg/L	08/25/20	BD	
cis-1,3-Dichloropropene	Not Detected	1	µg/L	08/25/20	BD	
<i>continued</i>						

Data Qualifiers: I Internal Standard results outside of acceptance limits
 S QC spike recovery outside of acceptance limits
 R RPD outside of acceptance limits
 E Reporting limit is elevated
 D Result is from a dilution
 J Result should be considered estimated
 M Matrix interference observed
 F Matrix Spike four times rule applied
 C See Case Narrative

Sample Description:		MW-2, 13:00p, 8/20/20				
Laboratory ID:	11232-2	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
VOCs continued						
Ethylbenzene	Not Detected	1	µg/L	08/25/20	BD	
Ethylene Dibromide (1,2-Dibromoethane)	Not Detected	0.2	µg/L	08/25/20	BD	
Hexachlorobutadiene	Not Detected	0.2	µg/L	08/25/20	BD	
2-Hexanone	Not Detected	50	µg/L	08/25/20	BD	
Isopropyl benzene	Not Detected	5	µg/L	08/25/20	BD	
4-Methyl-2-pentanone (MIBK)	Not Detected	50	µg/L	08/25/20	BD	
Methyl-t-butyl ether (MTBE)	Not Detected	5	µg/L	08/25/20	BD	
Methylene chloride	Not Detected	5	µg/L	08/25/20	BD	
2-Methylnaphthalene	Not Detected	5	µg/L	08/25/20	BD	
Naphthalene	Not Detected	5	µg/L	08/25/20	BD	
n-Propyl benzene	Not Detected	1	µg/L	08/25/20	BD	
Styrene	Not Detected	1	µg/L	08/25/20	BD	
1,1,1,2-Tetrachloroethane	Not Detected	1	µg/L	08/25/20	BD	
1,1,2,2-Tetrachloroethane	Not Detected	1	µg/L	08/25/20	BD	
Tetrachloroethylene	Not Detected	1	µg/L	08/25/20	BD	
Tetrahydrofuran	Not Detected	90	µg/L	08/25/20	BD	
Toluene	Not Detected	1	µg/L	08/25/20	BD	
1,2,3-Trichlorobenzene	Not Detected	5	µg/L	08/25/20	BD	
1,2,4-Trichlorobenzene	Not Detected	5	µg/L	08/25/20	BD	
1,1,1-Trichloroethane	Not Detected	1	µg/L	08/25/20	BD	
1,1,2-Trichloroethane	Not Detected	1	µg/L	08/25/20	BD	
Trichloroethylene	Not Detected	1	µg/L	08/25/20	BD	
Trichlorofluoromethane	Not Detected	1	µg/L	08/25/20	BD	
1,2,3-Trichloropropane	Not Detected	1	µg/L	08/25/20	BD	
1,2,4-Trimethylbenzene	Not Detected	1	µg/L	08/25/20	BD	
1,3,5-Trimethylbenzene	Not Detected	1	µg/L	08/25/20	BD	
Vinyl Acetate	Not Detected	100	µg/L	08/25/20	BD	
Vinyl chloride	Not Detected	1	µg/L	08/25/20	BD	
Xylene (Total)	Not Detected	3	µg/L	08/25/20	BD	
Surrogate Standards						
1,2-Dichloroethane-d4	121%	-	% Recovery	08/25/20	BD	
Toluene-d8	97.1%	-	% Recovery	08/25/20	BD	
4-Bromofluorobenzene	102%	-	% Recovery	08/25/20	BD	
continued						

Sample Description:		MW-2, 13:00p, 8/20/20				
Laboratory ID:	11232-2	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	0.2	µg/L	08/25/20	DS	
Aroclor 1221	Not Detected	0.2	µg/L	08/25/20	DS	
Aroclor 1232	Not Detected	0.2	µg/L	08/25/20	DS	
Aroclor 1242	Not Detected	0.2	µg/L	08/25/20	DS	
Aroclor 1248	Not Detected	0.2	µg/L	08/25/20	DS	
Aroclor 1254	Not Detected	0.2	µg/L	08/25/20	DS	
Aroclor 1260	Not Detected	0.2	µg/L	08/25/20	DS	
Polychlorinated biphenyls (Total)	Not Detected	2	µg/L	08/25/20	DS	
Surrogate Standards						
Tetrachloro-m-xylene	88.9%	-	% Recovery	08/25/20	DS	
Decachlorobiphenyl	90.1%	-	% Recovery	08/25/20	DS	
Analysis Information						
PCB Extraction	Completed	-	-	08/21/20	LB	

Sample Description:	Trip Blank, 10:20A, 8/20/20					
Laboratory ID:	11232-3	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
<i>Volatile Organic Compounds</i>						
Acetone	Not Detected	50	µg/L	08/25/20	BD	
Benzene	Not Detected	1	µg/L	08/25/20	BD	
Bromobenzene	Not Detected	1	µg/L	08/25/20	BD	
Bromochloromethane	Not Detected	1	µg/L	08/25/20	BD	
Bromodichloromethane	Not Detected	1	µg/L	08/25/20	BD	
Bromoform	Not Detected	1	µg/L	08/25/20	BD	
Bromomethane	Not Detected	5	µg/L	08/25/20	BD	
2-Butanone (MEK)	Not Detected	25	µg/L	08/25/20	BD	
n-Butylbenzene	Not Detected	1	µg/L	08/25/20	BD	
sec-Butylbenzene	Not Detected	1	µg/L	08/25/20	BD	
tert-Butylbenzene	Not Detected	1	µg/L	08/25/20	BD	
Carbon disulfide	Not Detected	5	µg/L	08/25/20	BD	
Carbon tetrachloride	Not Detected	1	µg/L	08/25/20	BD	
Chlorobenzene	Not Detected	1	µg/L	08/25/20	BD	
Chloroethane	Not Detected	5	µg/L	08/25/20	BD	
Chloroform	Not Detected	1	µg/L	08/25/20	BD	
Chloromethane	Not Detected	5	µg/L	08/25/20	BD	
2-Chlorotoluene	Not Detected	5	µg/L	08/25/20	BD	
4-Chlorotoluene	Not Detected	5	µg/L	08/25/20	BD	
Dibromochloromethane	Not Detected	5	µg/L	08/25/20	BD	
1,2-Dibromo-3-chloropropane	Not Detected	0.2	µg/L	08/25/20	BD	
Dibromomethane	Not Detected	5	µg/L	08/25/20	BD	
1,2-Dichlorobenzene	Not Detected	1	µg/L	08/25/20	BD	
1,3-Dichlorobenzene	Not Detected	1	µg/L	08/25/20	BD	
1,4-Dichlorobenzene	Not Detected	1	µg/L	08/25/20	BD	
Dichlorodifluoromethane	Not Detected	5	µg/L	08/25/20	BD	
1,1-Dichloroethane	Not Detected	1	µg/L	08/25/20	BD	
1,2-Dichloroethane	Not Detected	1	µg/L	08/25/20	BD	
1,1-Dichloroethylene	Not Detected	1	µg/L	08/25/20	BD	
cis-1,2-Dichloroethylene	Not Detected	1	µg/L	08/25/20	BD	
trans-1,2-Dichloroethylene	Not Detected	1	µg/L	08/25/20	BD	
1,2-Dichloropropane	Not Detected	1	µg/L	08/25/20	BD	
1,3-Dichloropropane	Not Detected	1	µg/L	08/25/20	BD	
2,2-Dichloropropane	Not Detected	1	µg/L	08/25/20	BD	
1,1-Dichloropropene	Not Detected	1	µg/L	08/25/20	BD	
cis-1,3-Dichloropropene	Not Detected	1	µg/L	08/25/20	BD	
<i>continued</i>						

Data Qualifiers: I Internal Standard results outside of acceptance limits E Reporting limit is elevated M Matrix interference observed
 S QC spike recovery outside of acceptance limits D Result is from a dilution F Matrix Spike four times rule applied
 R RPD outside of acceptance limits J Result should be considered estimated C See Case Narrative

Sample Description:	Trip Blank, 10:20A, 8/20/20					
Laboratory ID:	11232-3	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
VOCs continued						
Ethylbenzene	Not Detected	1	µg/L	08/25/20	BD	
Ethylene Dibromide (1,2-Dibromoethane)	Not Detected	0.2	µg/L	08/25/20	BD	
Hexachlorobutadiene	Not Detected	0.2	µg/L	08/25/20	BD	
2-Hexanone	Not Detected	50	µg/L	08/25/20	BD	
Isopropyl benzene	Not Detected	5	µg/L	08/25/20	BD	
4-Methyl-2-pentanone (MIBK)	Not Detected	50	µg/L	08/25/20	BD	
Methyl-t-butyl ether (MTBE)	Not Detected	5	µg/L	08/25/20	BD	
Methylene chloride	Not Detected	5	µg/L	08/25/20	BD	
2-Methylnaphthalene	Not Detected	5	µg/L	08/25/20	BD	
Naphthalene	Not Detected	5	µg/L	08/25/20	BD	
n-Propyl benzene	Not Detected	1	µg/L	08/25/20	BD	
Styrene	Not Detected	1	µg/L	08/25/20	BD	
1,1,1,2-Tetrachloroethane	Not Detected	1	µg/L	08/25/20	BD	
1,1,2,2-Tetrachloroethane	Not Detected	1	µg/L	08/25/20	BD	
Tetrachloroethylene	Not Detected	1	µg/L	08/25/20	BD	
Tetrahydrofuran	Not Detected	90	µg/L	08/25/20	BD	
Toluene	Not Detected	1	µg/L	08/25/20	BD	
1,2,3-Trichlorobenzene	Not Detected	5	µg/L	08/25/20	BD	
1,2,4-Trichlorobenzene	Not Detected	5	µg/L	08/25/20	BD	
1,1,1-Trichloroethane	Not Detected	1	µg/L	08/25/20	BD	
1,1,2-Trichloroethane	Not Detected	1	µg/L	08/25/20	BD	
Trichloroethylene	Not Detected	1	µg/L	08/25/20	BD	
Trichlorofluoromethane	Not Detected	1	µg/L	08/25/20	BD	
1,2,3-Trichloropropane	Not Detected	1	µg/L	08/25/20	BD	
1,2,4-Trimethylbenzene	Not Detected	1	µg/L	08/25/20	BD	
1,3,5-Trimethylbenzene	Not Detected	1	µg/L	08/25/20	BD	
Vinyl Acetate	Not Detected	100	µg/L	08/25/20	BD	
Vinyl chloride	Not Detected	1	µg/L	08/25/20	BD	
Xylene (Total)	Not Detected	3	µg/L	08/25/20	BD	
Surrogate Standards						
1,2-Dichloroethane-d4	104%	-	% Recovery	08/25/20	BD	
Toluene-d8	97.7%	-	% Recovery	08/25/20	BD	
4-Bromofluorobenzene	105%	-	% Recovery	08/25/20	BD	

Data Qualifiers: I Internal Standard results outside of acceptance limits E Reporting limit is elevated M Matrix interference observed
 S QC spike recovery outside of acceptance limits D Result is from a dilution F Matrix Spike four times rule applied
 R RPD outside of acceptance limits J Result should be considered estimated C See Case Narrative

Sample Description:	Field Blank, 10:45A, 8/20/20					
Laboratory ID:	11232-4	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
<i>Volatile Organic Compounds</i>						
Acetone	Not Detected	50	µg/L	08/25/20	BD	
Benzene	Not Detected	1	µg/L	08/25/20	BD	
Bromobenzene	Not Detected	1	µg/L	08/25/20	BD	
Bromochloromethane	Not Detected	1	µg/L	08/25/20	BD	
Bromodichloromethane	Not Detected	1	µg/L	08/25/20	BD	
Bromoform	Not Detected	1	µg/L	08/25/20	BD	
Bromomethane	Not Detected	5	µg/L	08/25/20	BD	
2-Butanone (MEK)	Not Detected	25	µg/L	08/25/20	BD	
n-Butylbenzene	Not Detected	1	µg/L	08/25/20	BD	
sec-Butylbenzene	Not Detected	1	µg/L	08/25/20	BD	
tert-Butylbenzene	Not Detected	1	µg/L	08/25/20	BD	
Carbon disulfide	Not Detected	5	µg/L	08/25/20	BD	
Carbon tetrachloride	Not Detected	1	µg/L	08/25/20	BD	
Chlorobenzene	Not Detected	1	µg/L	08/25/20	BD	
Chloroethane	Not Detected	5	µg/L	08/25/20	BD	
Chloroform	Not Detected	1	µg/L	08/25/20	BD	
Chloromethane	Not Detected	5	µg/L	08/25/20	BD	
2-Chlorotoluene	Not Detected	5	µg/L	08/25/20	BD	
4-Chlorotoluene	Not Detected	5	µg/L	08/25/20	BD	
Dibromochloromethane	Not Detected	5	µg/L	08/25/20	BD	
1,2-Dibromo-3-chloropropane	Not Detected	0.2	µg/L	08/25/20	BD	
Dibromomethane	Not Detected	5	µg/L	08/25/20	BD	
1,2-Dichlorobenzene	Not Detected	1	µg/L	08/25/20	BD	
1,3-Dichlorobenzene	Not Detected	1	µg/L	08/25/20	BD	
1,4-Dichlorobenzene	Not Detected	1	µg/L	08/25/20	BD	
Dichlorodifluoromethane	Not Detected	5	µg/L	08/25/20	BD	
1,1-Dichloroethane	Not Detected	1	µg/L	08/25/20	BD	
1,2-Dichloroethane	Not Detected	1	µg/L	08/25/20	BD	
1,1-Dichloroethylene	Not Detected	1	µg/L	08/25/20	BD	
cis-1,2-Dichloroethylene	Not Detected	1	µg/L	08/25/20	BD	
trans-1,2-Dichloroethylene	Not Detected	1	µg/L	08/25/20	BD	
1,2-Dichloropropane	Not Detected	1	µg/L	08/25/20	BD	
1,3-Dichloropropane	Not Detected	1	µg/L	08/25/20	BD	
2,2-Dichloropropane	Not Detected	1	µg/L	08/25/20	BD	
1,1-Dichloropropene	Not Detected	1	µg/L	08/25/20	BD	
cis-1,3-Dichloropropene	Not Detected	1	µg/L	08/25/20	BD	
<i>continued</i>						

Sample Description:		Field Blank, 10:45A, 8/20/20				
Laboratory ID:	11232-4	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
VOCs continued						
Ethylbenzene	Not Detected	1	µg/L	08/25/20	BD	
Ethylene Dibromide (1,2-Dibromoethane)	Not Detected	0.2	µg/L	08/25/20	BD	
Hexachlorobutadiene	Not Detected	0.2	µg/L	08/25/20	BD	
2-Hexanone	Not Detected	50	µg/L	08/25/20	BD	
Isopropyl benzene	Not Detected	5	µg/L	08/25/20	BD	
4-Methyl-2-pentanone (MIBK)	Not Detected	50	µg/L	08/25/20	BD	
Methyl-t-butyl ether (MTBE)	Not Detected	5	µg/L	08/25/20	BD	
Methylene chloride	Not Detected	5	µg/L	08/25/20	BD	
2-Methylnaphthalene	Not Detected	5	µg/L	08/25/20	BD	
Naphthalene	Not Detected	5	µg/L	08/25/20	BD	
n-Propyl benzene	Not Detected	1	µg/L	08/25/20	BD	
Styrene	Not Detected	1	µg/L	08/25/20	BD	
1,1,1,2-Tetrachloroethane	Not Detected	1	µg/L	08/25/20	BD	
1,1,2,2-Tetrachloroethane	Not Detected	1	µg/L	08/25/20	BD	
Tetrachloroethylene	Not Detected	1	µg/L	08/25/20	BD	
Tetrahydrofuran	Not Detected	90	µg/L	08/25/20	BD	
Toluene	Not Detected	1	µg/L	08/25/20	BD	
1,2,3-Trichlorobenzene	Not Detected	5	µg/L	08/25/20	BD	
1,2,4-Trichlorobenzene	Not Detected	5	µg/L	08/25/20	BD	
1,1,1-Trichloroethane	Not Detected	1	µg/L	08/25/20	BD	
1,1,2-Trichloroethane	Not Detected	1	µg/L	08/25/20	BD	
Trichloroethylene	Not Detected	1	µg/L	08/25/20	BD	
Trichlorofluoromethane	Not Detected	1	µg/L	08/25/20	BD	
1,2,3-Trichloropropane	Not Detected	1	µg/L	08/25/20	BD	
1,2,4-Trimethylbenzene	Not Detected	1	µg/L	08/25/20	BD	
1,3,5-Trimethylbenzene	Not Detected	1	µg/L	08/25/20	BD	
Vinyl Acetate	Not Detected	100	µg/L	08/25/20	BD	
Vinyl chloride	Not Detected	1	µg/L	08/25/20	BD	
Xylene (Total)	Not Detected	3	µg/L	08/25/20	BD	
Surrogate Standards						
1,2-Dichloroethane-d4	106%	-	% Recovery	08/25/20	BD	
Toluene-d8	96.6%	-	% Recovery	08/25/20	BD	
4-Bromofluorobenzene	104%	-	% Recovery	08/25/20	BD	
continued						

Data Qualifiers: I Internal Standard results outside of acceptance limits E Reporting limit is elevated M Matrix interference observed
 S QC spike recovery outside of acceptance limits D Result is from a dilution F Matrix Spike four times rule applied
 R RPD outside of acceptance limits J Result should be considered estimated C See Case Narrative

Sample Description:		Field Blank, 10:45A, 8/20/20				
Laboratory ID:	11232-4	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	0.2	µg/L	08/25/20	DS	
Aroclor 1221	Not Detected	0.2	µg/L	08/25/20	DS	
Aroclor 1232	Not Detected	0.2	µg/L	08/25/20	DS	
Aroclor 1242	Not Detected	0.2	µg/L	08/25/20	DS	
Aroclor 1248	Not Detected	0.2	µg/L	08/25/20	DS	
Aroclor 1254	Not Detected	0.2	µg/L	08/25/20	DS	
Aroclor 1260	Not Detected	0.2	µg/L	08/25/20	DS	
Polychlorinated biphenyls (Total)	Not Detected	2	µg/L	08/25/20	DS	
Surrogate Standards						
Tetrachloro-m-xylene	84.6%	-	% Recovery	08/25/20	DS	
Decachlorobiphenyl	72.7%	-	% Recovery	08/25/20	DS	
Analysis Information						
PCB Extraction	Completed	-	-	08/21/20	LB	

Sample Description:	Duplicate, 11:25A, 8/20/20					
Laboratory ID:	11232-5	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
<i>Volatile Organic Compounds</i>						
Acetone	Not Detected	50	µg/L	08/25/20	BD	
Benzene	Not Detected	1	µg/L	08/25/20	BD	
Bromobenzene	Not Detected	1	µg/L	08/25/20	BD	
Bromochloromethane	Not Detected	1	µg/L	08/25/20	BD	
Bromodichloromethane	Not Detected	1	µg/L	08/25/20	BD	
Bromoform	Not Detected	1	µg/L	08/25/20	BD	
Bromomethane	Not Detected	5	µg/L	08/25/20	BD	
2-Butanone (MEK)	Not Detected	25	µg/L	08/25/20	BD	
n-Butylbenzene	Not Detected	1	µg/L	08/25/20	BD	
sec-Butylbenzene	Not Detected	1	µg/L	08/25/20	BD	
tert-Butylbenzene	Not Detected	1	µg/L	08/25/20	BD	
Carbon disulfide	Not Detected	5	µg/L	08/25/20	BD	
Carbon tetrachloride	Not Detected	1	µg/L	08/25/20	BD	
Chlorobenzene	Not Detected	1	µg/L	08/25/20	BD	
Chloroethane	Not Detected	5	µg/L	08/25/20	BD	
Chloroform	Not Detected	1	µg/L	08/25/20	BD	
Chloromethane	Not Detected	5	µg/L	08/25/20	BD	
2-Chlorotoluene	Not Detected	5	µg/L	08/25/20	BD	
4-Chlorotoluene	Not Detected	5	µg/L	08/25/20	BD	
Dibromochloromethane	Not Detected	5	µg/L	08/25/20	BD	
1,2-Dibromo-3-chloropropane	Not Detected	0.2	µg/L	08/25/20	BD	
Dibromomethane	Not Detected	5	µg/L	08/25/20	BD	
1,2-Dichlorobenzene	Not Detected	1	µg/L	08/25/20	BD	
1,3-Dichlorobenzene	Not Detected	1	µg/L	08/25/20	BD	
1,4-Dichlorobenzene	Not Detected	1	µg/L	08/25/20	BD	
Dichlorodifluoromethane	Not Detected	5	µg/L	08/25/20	BD	
1,1-Dichloroethane	Not Detected	1	µg/L	08/25/20	BD	
1,2-Dichloroethane	Not Detected	1	µg/L	08/25/20	BD	
1,1-Dichloroethylene	Not Detected	1	µg/L	08/25/20	BD	
cis-1,2-Dichloroethylene	Not Detected	1	µg/L	08/25/20	BD	
trans-1,2-Dichloroethylene	Not Detected	1	µg/L	08/25/20	BD	
1,2-Dichloropropane	Not Detected	1	µg/L	08/25/20	BD	
1,3-Dichloropropane	Not Detected	1	µg/L	08/25/20	BD	
2,2-Dichloropropane	Not Detected	1	µg/L	08/25/20	BD	
1,1-Dichloropropene	Not Detected	1	µg/L	08/25/20	BD	
cis-1,3-Dichloropropene	Not Detected	1	µg/L	08/25/20	BD	
<i>continued</i>						

Data Qualifiers: I Internal Standard results outside of acceptance limits E Reporting limit is elevated M Matrix interference observed
 S QC spike recovery outside of acceptance limits D Result is from a dilution F Matrix Spike four times rule applied
 R RPD outside of acceptance limits J Result should be considered estimated C See Case Narrative

Sample Description:	Duplicate, 11:25A, 8/20/20					
Laboratory ID:	11232-5	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
VOCs continued						
Ethylbenzene	Not Detected	1	µg/L	08/25/20	BD	
Ethylene Dibromide (1,2-Dibromoethane)	Not Detected	0.2	µg/L	08/25/20	BD	
Hexachlorobutadiene	Not Detected	0.2	µg/L	08/25/20	BD	
2-Hexanone	Not Detected	50	µg/L	08/25/20	BD	
Isopropyl benzene	Not Detected	5	µg/L	08/25/20	BD	
4-Methyl-2-pentanone (MIBK)	Not Detected	50	µg/L	08/25/20	BD	
Methyl-t-butyl ether (MTBE)	Not Detected	5	µg/L	08/25/20	BD	
Methylene chloride	Not Detected	5	µg/L	08/25/20	BD	
2-Methylnaphthalene	Not Detected	5	µg/L	08/25/20	BD	
Naphthalene	Not Detected	5	µg/L	08/25/20	BD	
n-Propyl benzene	Not Detected	1	µg/L	08/25/20	BD	
Styrene	Not Detected	1	µg/L	08/25/20	BD	
1,1,1,2-Tetrachloroethane	Not Detected	1	µg/L	08/25/20	BD	
1,1,2,2-Tetrachloroethane	Not Detected	1	µg/L	08/25/20	BD	
Tetrachloroethylene	Not Detected	1	µg/L	08/25/20	BD	
Tetrahydrofuran	Not Detected	90	µg/L	08/25/20	BD	
Toluene	Not Detected	1	µg/L	08/25/20	BD	
1,2,3-Trichlorobenzene	Not Detected	5	µg/L	08/25/20	BD	
1,2,4-Trichlorobenzene	Not Detected	5	µg/L	08/25/20	BD	
1,1,1-Trichloroethane	Not Detected	1	µg/L	08/25/20	BD	
1,1,2-Trichloroethane	Not Detected	1	µg/L	08/25/20	BD	
Trichloroethylene	Not Detected	1	µg/L	08/25/20	BD	
Trichlorofluoromethane	Not Detected	1	µg/L	08/25/20	BD	
1,2,3-Trichloropropane	Not Detected	1	µg/L	08/25/20	BD	
1,2,4-Trimethylbenzene	Not Detected	1	µg/L	08/25/20	BD	
1,3,5-Trimethylbenzene	Not Detected	1	µg/L	08/25/20	BD	
Vinyl Acetate	Not Detected	100	µg/L	08/25/20	BD	
Vinyl chloride	Not Detected	1	µg/L	08/25/20	BD	
Xylene (Total)	Not Detected	3	µg/L	08/25/20	BD	
Surrogate Standards						
1,2-Dichloroethane-d4	122%	-	% Recovery	08/25/20	BD	
Toluene-d8	95.8%	-	% Recovery	08/25/20	BD	
4-Bromofluorobenzene	104%	-	% Recovery	08/25/20	BD	
continued						

Sample Description:		Duplicate, 11:25A, 8/20/20				
Laboratory ID:	11232-5	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	0.2	µg/L	08/25/20	DS	
Aroclor 1221	Not Detected	0.2	µg/L	08/25/20	DS	
Aroclor 1232	Not Detected	0.2	µg/L	08/25/20	DS	
Aroclor 1242	Not Detected	0.2	µg/L	08/25/20	DS	
Aroclor 1248	Not Detected	0.2	µg/L	08/25/20	DS	
Aroclor 1254	Not Detected	0.2	µg/L	08/25/20	DS	
Aroclor 1260	Not Detected	0.2	µg/L	08/25/20	DS	
Polychlorinated biphenyls (Total)	Not Detected	2	µg/L	08/25/20	DS	
Surrogate Standards						
Tetrachloro-m-xylene	83.8%	-	% Recovery	08/25/20	DS	
Decachlorobiphenyl	86.6%	-	% Recovery	08/25/20	DS	
Analysis Information						
PCB Extraction	Completed	-	-	08/21/20	LB	

Quality Control

VOC Matrix Spike Data

Spiked Sample: 11232 LCS		Matrix: Water		Units: ppb in solution				Data
Parameter	Sample Result	Spike Added	MS Result	MSD Result	MS % Rec.	MSD % Rec.	RPD	Qualifiers
1,1-Dichloroethene	0.0	25	27	29	108	116	7.1	
Benzene	0.0	25	20	20	80	80	0.0	
Trichloroethene	0.0	25	28	27	112	108	3.6	
Toluene	0.0	25	23	21	92	84	9.1	
Chlorobenzene	0.0	25	22	22	88	88	0.0	

PCB Matrix Spike Data

Spiked Sample: 11232 LCS		Matrix: Water		Units: ppm in extract				Data
Parameter	Sample Result	Spike Added	MS Result	MSD Result	MS % Rec.	MSD % Rec.	RPD	Qualifiers
Aroclor 1260	0.000	0.200	0.193	0.209	96	105	8.2	

Case Narrative

All method protocols and quality control requirements were satisfied for all samples.

Notes

- (1) Quality Control Limits available upon request.
- (2) Results are applicable only to the sample tested.
- (3) All samples will be discarded after 30 days unless the laboratory receives other instructions.
- (4) Chain of Custody document attached.

QUANTUM LABORATORIES, INC.



David W. Starr
Analytical Chemistry Manager

QUANTUM LABORATORIES, INC.
 28221 Beck Road | Suite A-11
 Wixom, MI 48393
 248-348-TEST or 248-348-8378



CHAIN OF CUSTODY RECORD

REPORT NO. (LAB USE) 11232 Page 1 of 1

P.O. NUMBER

PROJECT NUMBER 20-2554

PROJECT NAME 12700 8 MILE RD.

SAMPLING LOCATION DAK PARK, MI

SAMPLES COLLECTED BY E. HULL

TURN AROUND TIME Standard Rush By Date:

SPECIAL INSTRUCTIONS

APPLIED ENV. WATER

ADDRESS 1210 N. MARLE RD.

CITY, STATE, ZIP ANN ARBOR, MI

TELEPHONE 734-475-1970

FAX

CONTACT MIKE GATLEN

ADDITIONAL PHONE

EMAIL ADDRESS MIKEG@appliedenv.com

* SAMPLE TYPE: S=Soil, W=Water, D=Drinking Water, O=Oil/Organic, M=Mixed, V=Vapor, A=Air
 U=Unknown or Other

** GRAB/COMP: G=Grab Sample, C=Composite Sample

LINE NO.	LAB USE	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	TIME SAMPLED	DATE SAMPLED	SAMPLE TYPE *	GRAB / COMP **	REMARKS / PRESERVATIVES
1		MW-1	3	11:25 A	8-20-20	W G	X	
2		MW-2	3	12:00 P	8-20-20	W G	X	
3		MW-4	2	-	-			
4		TRIP BLANK	1	10:20 A	8-20-20	W G	X	
5		FIELD BLANK	3	10:45 A	8-20-20	W G	X	
6		DUPLICATE	3	11:25 A	8-20-20	W G	X	
7								
8								
9								
10								

RELINQUISHED BY: M. G. GATLEN

RECEIVED BY: E. HULL

TIME / DATE: 10:40 8-21-20

TIME / DATE: 11:37 8-21-20

SAMPLE RECEIVED: Wet Ice Blue Ice

Distribution: White - Lab Copy Yellow - Client Report Pink - Sampler

Data Qualifiers: I Internal Standard results outside of acceptance limits
 S QC spike recovery outside of acceptance limits
 R RPD outside of acceptance limits
 E Reporting limit is elevated
 D Result is from a dilution
 J Result should be considered estimated
 M Matrix interference observed
 F Matrix Spike four times rule applied
 C See Case Narrative

Sample Description:	Sump, 11:30 AM, 7/29/20					
Laboratory ID:	11200-74	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
<i>Volatile Organic Compounds</i>						
Acetone	Not Detected	50	µg/L	07/31/20	BD	
Benzene	Not Detected	1	µg/L	07/31/20	BD	
Bromobenzene	Not Detected	1	µg/L	07/31/20	BD	
Bromochloromethane	Not Detected	1	µg/L	07/31/20	BD	
Bromodichloromethane	Not Detected	1	µg/L	07/31/20	BD	
Bromoform	Not Detected	1	µg/L	07/31/20	BD	
Bromomethane	Not Detected	5	µg/L	07/31/20	BD	
2-Butanone (MEK)	Not Detected	25	µg/L	07/31/20	BD	
n-Butylbenzene	Not Detected	1	µg/L	07/31/20	BD	
sec-Butylbenzene	Not Detected	1	µg/L	07/31/20	BD	
tert-Butylbenzene	Not Detected	1	µg/L	07/31/20	BD	
Carbon disulfide	Not Detected	5	µg/L	07/31/20	BD	
Carbon tetrachloride	Not Detected	1	µg/L	07/31/20	BD	
Chlorobenzene	Not Detected	1	µg/L	07/31/20	BD	
Chloroethane	Not Detected	5	µg/L	07/31/20	BD	
Chloroform	Not Detected	1	µg/L	07/31/20	BD	
Chloromethane	Not Detected	5	µg/L	07/31/20	BD	
2-Chlorotoluene	Not Detected	5	µg/L	07/31/20	BD	
4-Chlorotoluene	Not Detected	5	µg/L	07/31/20	BD	
Dibromochloromethane	Not Detected	5	µg/L	07/31/20	BD	
1,2-Dibromo-3-chloropropane	Not Detected	0.2	µg/L	07/31/20	BD	
Dibromomethane	Not Detected	5	µg/L	07/31/20	BD	
1,2-Dichlorobenzene	Not Detected	1	µg/L	07/31/20	BD	
1,3-Dichlorobenzene	Not Detected	1	µg/L	07/31/20	BD	
1,4-Dichlorobenzene	Not Detected	1	µg/L	07/31/20	BD	
Dichlorodifluoromethane	Not Detected	5	µg/L	07/31/20	BD	
1,1-Dichloroethane	Not Detected	1	µg/L	07/31/20	BD	
1,2-Dichloroethane	Not Detected	1	µg/L	07/31/20	BD	
1,1-Dichloroethylene	Not Detected	1	µg/L	07/31/20	BD	
cis-1,2-Dichloroethylene	Not Detected	1	µg/L	07/31/20	BD	
trans-1,2-Dichloroethylene	Not Detected	1	µg/L	07/31/20	BD	
1,2-Dichloropropane	Not Detected	1	µg/L	07/31/20	BD	
1,3-Dichloropropane	Not Detected	1	µg/L	07/31/20	BD	
2,2-Dichloropropane	Not Detected	1	µg/L	07/31/20	BD	
1,1-Dichloropropene	Not Detected	1	µg/L	07/31/20	BD	
cis-1,3-Dichloropropene	Not Detected	1	µg/L	07/31/20	BD	
continued						

Sample Description:		Sump, 11:30 AM, 7/29/20				
Laboratory ID:	11200-74	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
VOC's, Cont'd						
Ethylbenzene	Not Detected	1	µg/L	07/31/20	BD	
Ethylene Dibromide (1,2-Dibromoethane)	Not Detected	0.2	µg/L	07/31/20	BD	
Hexachlorobutadiene	Not Detected	0.2	µg/L	07/31/20	BD	
2-Hexanone	Not Detected	50	µg/L	07/31/20	BD	
Isopropyl benzene	Not Detected	5	µg/L	07/31/20	BD	
4-Methyl-2-pentanone (MIBK)	Not Detected	50	µg/L	07/31/20	BD	
Methyl-t-butyl ether (MTBE)	Not Detected	5	µg/L	07/31/20	BD	
Methylene chloride	Not Detected	5	µg/L	07/31/20	BD	
2-Methylnaphthalene	Not Detected	5	µg/L	07/31/20	BD	
Naphthalene	Not Detected	5	µg/L	07/31/20	BD	
n-Propyl benzene	Not Detected	1	µg/L	07/31/20	BD	
Styrene	Not Detected	1	µg/L	07/31/20	BD	
1,1,1,2-Tetrachloroethane	Not Detected	1	µg/L	07/31/20	BD	
1,1,2,2-Tetrachloroethane	Not Detected	1	µg/L	07/31/20	BD	
Tetrachloroethylene	Not Detected	1	µg/L	07/31/20	BD	
Tetrahydrofuran	Not Detected	90	µg/L	07/31/20	BD	
Toluene	Not Detected	1	µg/L	07/31/20	BD	
1,2,3-Trichlorobenzene	Not Detected	5	µg/L	07/31/20	BD	
1,2,4-Trichlorobenzene	Not Detected	5	µg/L	07/31/20	BD	
1,1,1-Trichloroethane	Not Detected	1	µg/L	07/31/20	BD	
1,1,2-Trichloroethane	Not Detected	1	µg/L	07/31/20	BD	
Trichloroethylene	Not Detected	1	µg/L	07/31/20	BD	
Trichlorofluoromethane	Not Detected	1	µg/L	07/31/20	BD	
1,2,3-Trichloropropane	Not Detected	1	µg/L	07/31/20	BD	
1,2,4-Trimethylbenzene	Not Detected	1	µg/L	07/31/20	BD	
1,3,5-Trimethylbenzene	Not Detected	1	µg/L	07/31/20	BD	
Vinyl Acetate	Not Detected	100	µg/L	07/31/20	BD	
Vinyl chloride	Not Detected	1	µg/L	07/31/20	BD	
Xylene (Total)	Not Detected	3	µg/L	07/31/20	BD	
Surrogate Standards						
1,2-Dichloroethane-d4	112%	-	% Recovery	07/31/20	BD	
Toluene-d8	106%	-	% Recovery	07/31/20	BD	
4-Bromofluorobenzene	103%	-	% Recovery	07/31/20	BD	
continued						

Sample Description:		Sump, 11:30 AM, 7/29/20				
Laboratory ID:	11200-74	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PCBs						
Aroclor 1016	Not Detected	0.2	µg/L	07/30/20	DS	
Aroclor 1221	Not Detected	0.2	µg/L	07/30/20	DS	
Aroclor 1232	Not Detected	0.2	µg/L	07/30/20	DS	
Aroclor 1242	Not Detected	0.2	µg/L	07/30/20	DS	
Aroclor 1248	Not Detected	0.2	µg/L	07/30/20	DS	
Aroclor 1254	Not Detected	0.2	µg/L	07/30/20	DS	
Aroclor 1260	Not Detected	0.2	µg/L	07/30/20	DS	
Polychlorinated biphenyls (Total)	Not Detected	2	µg/L	07/30/20	DS	
Surrogate Standards						
Tetrachloro-m-xylene	78.9%	-	% Recovery	07/30/20	DS	
Decachlorobiphenyl	85.0%	-	% Recovery	07/30/20	DS	
Analysis Information						
PCB Extraction	Completed	-	-	07/30/20	DS	

APPENDIX 7: BASEMENT DEMOLITION PLAN

KEY NOTES

- ① EXISTING MILLWORK TO BE REMOVED
- ② EXISTING WALL AT STAIR TO BE REMOVED, PREP FLOOR OPENING FOR NEW FLOORING AND GUARDRAIL
- ③ PORTION OF EXISTING WALL TO BE REMOVED

GRAPHIC LEGEND

- ==== EXISTING CONSTRUCTION TO BE REMOVED
- ===== EXISTING CONSTRUCTION TO REMAIN

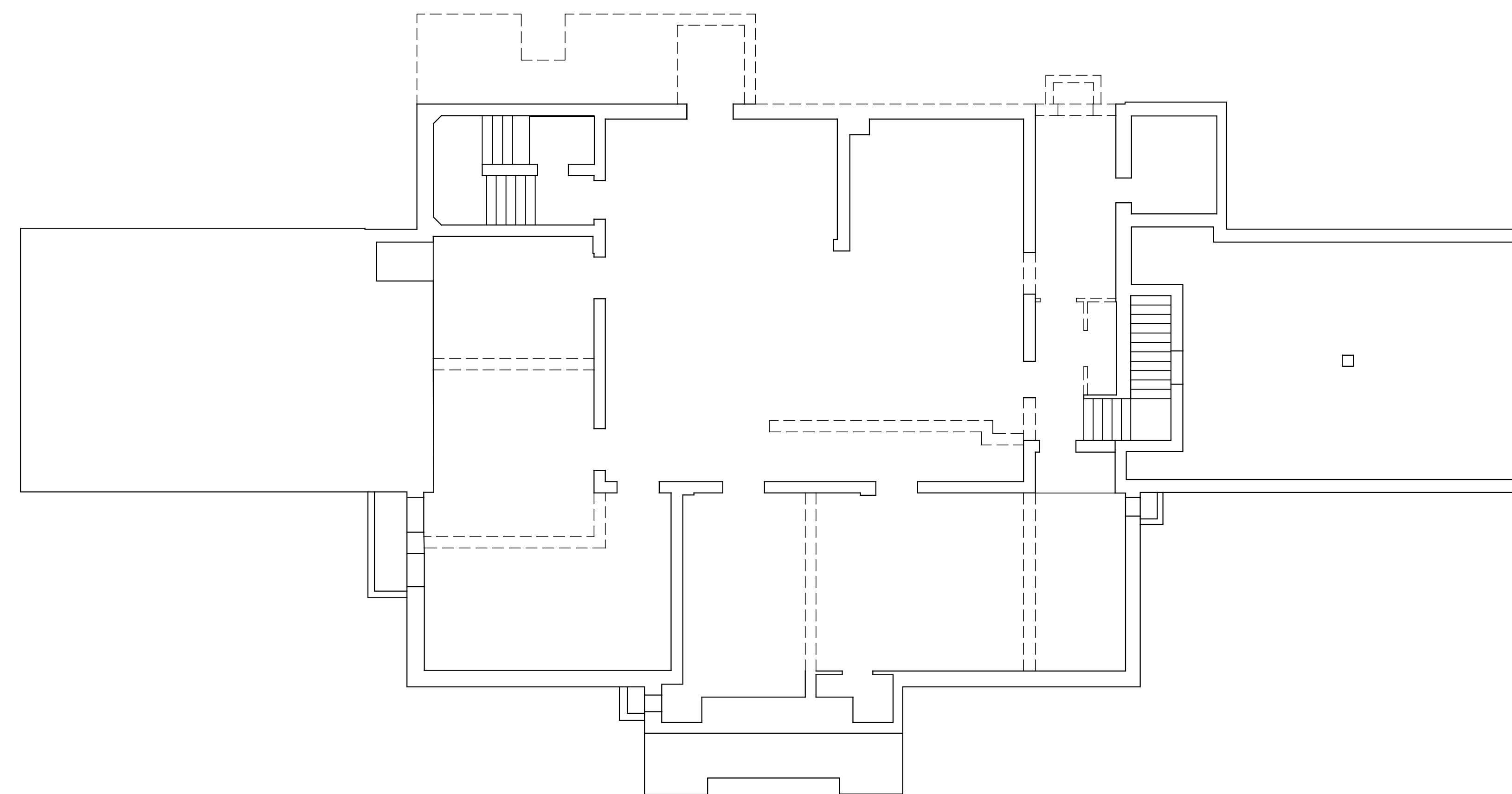
SHEET NOTES

GENERAL NOTES

1. PERFORM ABATEMENT AS REQUIRED
2. PERFORM ALL NON-STRUCTURAL SELECTIVE DEMOLITION AS DIRECTED PER PLANS
3. STRUCTURAL ENGINEER TO PROVIDE SHORING DOCUMENTATION AFTER INSPECTION OF EXISTING SITE CONDITIONS

ARCHITECTURAL NOTES

1. SHADING INDICATES AREA NOT IN SCOPE.
2. COMPLY WITH APPLICABLE LOCAL, STATE AND FEDERAL CODES AND REGULATIONS PERTAINING TO SAFETY OF PERSONS, PROPERTY AND ENVIRONMENTAL PROTECTION
3. PROVIDE AND MAINTAIN BARRICADES, LIGHTING AND GUARDRAILS AS REQUIRED BY APPLICABLE CODES AND REGULATIONS TO PROTECT OCCUPANTS OF BUILDING AND WORKERS
4. IF DEMOLITION IS PERFORMED IN EXCESS OF THAT REQUIRED, RESTORE EFFECTED AREAS AT NO COST TO THE OWNER
5. REMOVE FROM SITE DAILY AND LEGALLY DISPOSE OF REFUSE, DEBRIS, RUBBISH AND OTHER MATERIALS RESULTING FROM DEMOLITION OPERATIONS
6. IN AREAS SHOWN TO BE DEMOLISHED, REMOVE ALL EXISTING CONSTRUCTION INCLUDING GYPSUM BOARD WALLS, GLASS, WINDOW FRAMES, DOORS, DOOR FRAMES AND ALL MILLWORK. REMOVE BUILDING EQUIPMENT AND FIXTURES AS REQUIRED FOR NEW WORK
7. REMOVE ABANDONED HVAC EQUIPMENT, ELECTRICAL, TELEPHONE AND DATA CABLING AND DEVICES, INCLUDING DUCTWORK, PER MEP DEMOLITION DRAWINGS. COORDINATE WITH BUILDING OWNER FOR SALVAGE
8. REMOVE EXISTING FLOOR FINISHES AND PREPARE SUBFLOOR AS REQUIRED FOR NEW FLOOR FINISHES
9. G.C. TO DEVELOP CONSTRUCTION WASTE MANAGEMENT PLAN
10. G.C. TO COORDINATE DEMOLITION WITH BUILDING OWNER AND SEPARATE MATERIALS AND EQUIPMENT FOR REUSE AND STORAGE AS DIRECTED BY BUILDING OWNER
11. ANY REVENUES OR REBATES RECEIVED FOR THE RECYCLING WASTE MATERIAL SHALL BECOME THE PROPERTY OF THE CONTRACTOR
12. ALL METAL REMOVED FROM THE PROJECT TO BE RECYCLED. SEPARATE METALS BY TYPES AS REQUIRED BY RECYCLERS
13. ALL DEMOLISHED CARPET NOT BEING RETAINED BY BUILDING OWNER TO BE SEPARATED FOR COLLECTION BY CARPET VENDOR FOR RECYCLING, AS FEASIBLE
14. ANY GLASS REMOVED FROM PROJECT SHALL BE RECYCLED, U.N.O.
15. MAINTAIN LIFE SAFETY SYSTEMS AT ALL TIMES. COORDINATE ANY REQUIRED INTERRUPTIONS WITH BUILDING MANAGEMENT. REFER TO MEP DRAWINGS FOR ADDITIONAL INFORMATION
16. ALL EXTERIOR WINDOW SYSTEMS INCLUDING SUN CONTROL TO REMAIN



1 FOUNDATION / BASEMENT DEMOLITION PLAN
SCALE: 1/8" = 1'-0"

PROJECT TITLE:

8MK
UNION JOINTS
12700 W. 8 MILE ROAD
OAK PARK, MI 48237

ARCHITECT:



VON STADEN ARCHITECTS
504-A SOUTH WASHINGTON AVENUE
ROYAL OAK, MICHIGAN 48067
248-646-9933
WWW.VONSTADENARCHITECTS.COM

ISSUED FOR:

FOR DEMOLITION 09.19.18

STAMP:

SHEET TITLE:

FOUNDATION / BASEMENT
DEMOLITION PLAN

D.100

***APPENDIX 8: ENCAPSULATION MATERIAL INFORMATION AND
SAFETY DATA SHEETS***

Retro-Coat™ GEL

Product Description

Retro-Coat™ GEL is a three part, 100% solids epoxy patching material primarily designed for vertical and overhead applications. Its smooth, creamy consistency enables the user to skim coat surfaces that are irregular or pockmarked.

Retro-Coat GEL has virtually no odor and adheres well to damp as well as dry concrete and masonry surfaces. Unlike cementitious or acrylic-based patch material it can be recoated in as little as six hours after application at room temperature.

Product Application

Retro-Coat GEL is most commonly used to fill bug holes, crevices and cracks, as well as repairs to vertical surfaces such as, concrete columns and vertical walls. **Retro-Coat GEL** also serves as a troweled-on skim coat for vertical wall applications.

Chemical Resistance

Retro-Coat GEL will always be coated with Land Science Technologies chemically resistant **Retro-Coat**. For questions additional questions regarding chemical resistance please contact Land Science Technologies.

Physical Properties

Tensile Strength (ASTM C-307)	: 1810 psi	Hardness, Shore D (D-2240)	: 80
Tensile Elongation, unfilled (D-638)	: 10%	Bond Strength to Quarry Tile	: >1000 psi
Compression Strength (D-695)	: 6170 psi	Water Absorption	: 0.3% in 24hrs.

Physical Characteristics

Density, lbs/gal.

Pt. A	: 9.7
Pt. B	: 8.0
A&B Mixed	: 9.3

Mixing Ratios

Pt. A : Pt. B	
Aggregate:Liquid	
Curing Times @	

Retro-Coat GEL

By Vol By Wgt

3.5:1	4.3:1
0.6:1	1.5:1

Viscosity @ 77°F, cps

Pt. A	: 38000
Pt. B	: 550
A&B Mixed	: 4400

Retro-Coat GEL

Pot Life				
Working Time				
Hard, (for sanding)				

	32° F	40° F	50° F	77° F	90° F
Pot Life	----	----	45 min.	40 min.	15 min.
Working Time	----	----	65 min.	50 min.	40 min.
Hard, (for sanding)	----	----	72 hrs.	18 hrs.	10 hrs.

Shelf Life

1 year at 77°F in unopened containers

Maximum Hardness achieve after 7 days at 77°F

Color Availability

Standard color: Neutral. But can be ordered in white, concrete gray and beige.

Packaging and Coverage Rates

1 Gal. Kit	: 40 SF at 1/8" thick
Bulk Pack	: 400 SF at 1/8" thick

Installation

Please refer to our Application Specs for detailed instructions. Particular care must be taken to follow those instructions precisely to assure proper installation.

1. All surfaces must be cleaned by acid etching, grinding, rough sanding or needle blasting. All loose or flaking coatings and other materials must be removed. All oils, fats, greases or chemically contaminated concrete must be removed.
2. No priming is necessary, as **Retro-Coat GEL** is a self-priming material.
3. Mix the contents of the Part A and Part B containers in a clean, plastic bucket with a slow speed paddle mixer or electric drill for about one minute. Then add in Part C slowly for another minute or so, until the mixture is uniform in color and consistency. Only mix amount of material that can be applied within stated pot life.
4. Use a clean margin trowel or spatula to apply the **Retro-Coat GEL**. The blade should be large enough to span the depression; use a 1-1/2" blade for filling cracks.
5. Press the **Retro-Coat GEL** firmly into place in a wiping motion. Use enough material to overfill the opening.
6. Under normal conditions, **Retro-Coat GEL** can be applied up to 1" depths without sagging. For greater thickness, contact Land Science Technologies.

Note: Failure to follow the above instruction, unless expressly authorized by Land Science Technologies, will void our material warranty.

Precautions

1. **Do not apply greater than 1" thick at 70°F**
2. **Recoat windows without sanding at 70°F: Gel – 18 hours**

Product Specification

The specified area shall receive an application of **Retro-Coat GEL** as manufactured by **Land Science Technologies, San Clemente, California**. The material shall be installed by precisely following the manufacturer's published recommendations pertaining to surface preparation, mixing and application. The material shall be a low odor, 100% solids, three part epoxy system with bond strength exceeding 1000 psi on quarry tiles. It should be able to be applied on vertical surfaces up to 1" thick at 70°F in a single step application without sagging. The system must adhere to damp, as well as dry concrete. It shall be a resin-rich mixture, with an aggregate:liquid ratio not to exceed 1.5:1 by weight. The compressive strength when tested in accordance with ASTM C-579 shall not exceed 6200 psi and the tensile strength shall be 1810 psi when tested under ASTM C-307.

The data, statements and recommendations set forth in this product information sheet are based on testing, research and other development work which has been carefully conducted by us, and we believe such data, statements and recommendations will serve as reliable guidelines. However, this product is subject to numerable uses under varying conditions over which we have no control, and accordingly, we do NOT warrant that this product is suitable for any particular use. Users are advised to test the product in advance to make certain it is suitable for their particular production conditions and particular use or uses.

WARRANTY – All products manufactured by us are warranted to be first class material and free from defects in material and workmanship.

Liability under this warranty is limited to the net purchase price of any such products proven defective or, at our option, to the repair or replacement of said products upon their return to us transportation prepaid. All claims hereunder on defective products must be made in writing within 30 days after the receipt of such products in your plant and prior to further processing or combining with other materials and products. **WE MAKE NO WARRANTY, EXPRESS OR IMPLIED, AS TO THE SUITABILITY OF ANY OF OUR PRODUCTS FOR ANY PARTICULAR USE, AND WE SHALL NOT BE SUBJECT TO LIABILITY FROM ANY DAMAGES RESULTING FROM THEIR USE IN OPERATIONS NOT UNDER OUR DIRECT CONTROL.**

THIS WARRANTY IS EXCLUSIVE OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, AND NO REPRESENTATIVE OF OURS OR ANY OTHER PERSON IS AUTHORIZED TO ASSUME FOR US ANY OTHER LIABILITY IN CONNECTION WITH THE SALE OF OUR PRODUCTS.

Retro-Coat™ PRIMER

Product Description

Retro-Coat™ PRIMER is a low viscosity, two part, 100% solids epoxy primer. It is virtually odorless and non-toxic. **Retro-Coat PRIMER** has excellent damp, as well as dry adhesion to concrete, masonry surfaces, wood and gyp board. With a very low viscosity of 250 centipoise, it readily penetrates porous substrates to provide an excellent mechanical bond. Where faster curing times are required, specify **Retro-Coat PRIMER-FC**.

Typical Application

Applied to a 6 mil thickness, **Retro-Coat PRIMER** provides an ideal substrate for **Retro-Coat**, but may not be required when top coating thickness is greater than 20 mil or a specific aesthetic look is desired. Prior to the application of **Retro-Coat**, **Retro-Coat PRIMER** should be allowed to dry tack free to maximize its effectiveness.

In areas where concrete is spalled or needs to be leveled **Geo-Seal PRIMER-S** is more appropriate.

Installation

Please refer to our Application Specs for detailed instructions. Particular care must be taken to follow those instructions precisely to assure proper installation.

1. New concrete should be allowed to cure a minimum of 28 days and/or be checked with a rubber mat or plastic sheet to insure adequate curing time has occurred. If this is not possible, contact Land Science Technologies for further information.
2. All surfaces to be covered should be power washed, shot blasted, acid etched, scarified or sanded to present a clean, sound substrate to which to bond to. The prepared surface should have a ph of 7.
3. Part A and B should be mixed in the prescribed ratio, using a low speed jiffy-style mixer (maximum 750 rpm), for at least 60 seconds.
4. **Retro-Coat PRIMER** is a 100% solids epoxy and no solvents are necessary.
5. Apply the mixed material with a fine nap adhesive roller, squeegee or brush. Apply at approximately 200-250 SF per gallon, depending on surface porosity.
6. Allow to dry prior to the application of **Retro-Coat**.

Note: Failure to follow the above instruction, unless expressly authorized by a Land Science Technologies Representative, will void our material warranty.

Precautions

1. **Retro-Coat Primer-FC is very fast reacting; pour out of bucket immediately after mixing and spread with squeegee.**
2. **Only Retro-Coat Primer-FC can be applied below 50°F.**
3. **Recoat windows at 70°: Retro-Coat Primer - 18 hours; Retro-Coat Primer-FC - 10 hours for expanding recoat window, broadcast in aggregate into primer.**
4. **Never apply Retro-Coat Primer or Retro-Coat Primer-FC more than 15 mils (100SF/gallon) per pass as it will not cure hard in greater thicknesses.**

Product Specification

The specified area shall receive an application of **Retro-Coat PRIMER** as manufactured by **Land Science Technologies, San Clemente, California**. The system shall be installed by precisely following the manufacturers published recommendations pertaining to surface preparation, mixing, and application. The material shall be a low odor, solvent free, 100% solids epoxy primer with excellent adhesion to damp as well as dry concrete, metal and wood. It should be able to adhere to brick and tile, exceeding 1000 psi on an Elcometer pull test.

Physical Characteristics

Density, lbs/gal.	Pt. A	Pt. B	A&B Mixed	Mixing Ratios (Part A:Part B)		
Retro-Coat Primer	9.5	8.0	9.2	By Volume		By Weight
Retro-Coat Primer-FC	9.5	8.2	9.3	Retro-Coat PRIMER	3.5:1	4.1:1
Viscosity@77°F, cps	Pt. A	Pt. B	A&B Mixed	Retro-Coat PRIMER-FC	4.6:1	5.4:1
Retro-Coat Primer	476	60	250			
Retro-Coat Primer-FC	476	60	250			
Curing Times@		40°F	50°F	77°F	90°F	
Retro-Coat Primer	Pot Life	----	35 min.	25 min.	15 min.	
	Tack Free	----	40 hrs.	10 hrs.	5 hrs.	
	Set Hard	----	72 hrs.	18 hrs.	9 hrs.	
Retro-Coat Primer-FC	Pot Life	----	10 min.	9 min.	9 min.	
	Tack Free	----	18 hrs.	5 hrs.	2 hrs.	
	Set Hard	----	30 hrs.	9 hrs.	4 hrs.	

Packaging and Coverage Rates

	Retro-Coat Primer & Retro-Coat Primer-FC
4 Gallon Kit:	1000 SF
20 Gallon Kit :	5000 SF
100 Gallon Drum Kit :	25,000 SF

The data, statements and recommendations set forth in this product information sheet are based on testing, research and other development work which has been carefully conducted by Land Science Technologies, and we believe such data, statements and recommendations will serve as reliable guidelines. However, this product is subject to numerable uses under varying conditions over which we have no control, and accordingly, we do NOT warrant that this product is suitable for any particular use. Users are advised to test the product in advance to make certain it is suitable for their particular production conditions and particular use or uses.

WARRANTY – All products manufactured by us are warranted to be first class material and free from defects in material and workmanship.

Liability under this warranty is limited to the net purchase price of any such products proven defective or, at our option, to the repair or replacement of said products upon their return to us transportation prepaid. All claims hereunder on defective products must be made in writing within 30 days after the receipt of such products in your plant and prior to further processing or combining with other materials and products. WE MAKE NO WARRANTY, EXPRESS OR IMPLIED, AS TO THE SUITABILITY OF ANY OF OUR PRODUCTS FOR ANY PARTICULAR USE, AND WE SHALL NOT BE SUBJECT TO LIABILITY FROM ANY DAMAGES RESULTING FROM THEIR USE IN OPERATIONS NOT UNDER OUR DIRECT CONTROL.

THIS WARRANTY IS EXCLUSIVE OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, AND NO REPRESENTATIVE OF OURS OR ANY OTHER PERSON IS AUTHORIZED TO ASSUME FOR US ANY OTHER LIABILITY IN CONNECTION WITH THE SALE OF OUR PRODUCTS.



PRODUCT PROFILE

GENERIC DESCRIPTION Epoxy Modified Cementitious Mortar

COMMON USAGE A high-performance, aggregate reinforced material for surfacing, patching and filling voids and bugholes in concrete substrates. Generally topcoated with a variety of high-performance epoxies and polyurethanes for use in mild to aggressive exposures.

COLORS Greenish Gray

COATING SYSTEM

PRIMERS **Concrete:** Self-priming
CMU: Self-priming

TOPCOATS Series 1, 20, 22, FC22, 30, 46H-413, 61, 66, L69, N69, 84, 104, 120, L140, N140, 151-1051, 161, 201, 205, 222, 223, 224, 237, 238, 239, 262, 264, 270, 273, 280, 281, 282, 406, 434, 435, 436, 446.
Note: Refer to the applicable topcoat data sheet for color availability and additional information.

SURFACE PREPARATION

Prepare surfaces by method suitable for exposure and service. Refer to the appropriate topcoat product data sheet for specific surface preparation recommendations.

CONCRETE Allow new cast-in-place concrete to cure a minimum of 28 days at 75°F (24°C). Verify concrete dryness and prepare concrete surfaces in accordance with NACE No. 6/SSPC-SP13 Joint Surface Preparation Standards and ICRI Technical Guidelines. Moisture vapor transmission should not exceed three lbs per 1,000 sq ft in a 24 hour period. (Reference ASTM F 1869 "Standard Test Method for Measuring Moisture Vapor Emission Rate of Concrete Subfloor Using Anhydrous Calcium Chloride.") Relative humidity should not exceed 80%. (Reference ASTM F 2170 "Standard Test Method for Determining Relative Humidity in Concrete using in situ Probes.") Abrasive blast, shot-blast or mechanically abrade concrete surfaces to remove laitance, curing compounds, hardeners, sealers and other contaminants and to provide an ICRI-CSP 5 surface profile. Large cracks, voids and other surface imperfections should be filled with a recommended filler or surfacer.

CMU Allow mortar to cure for 28 days. Level protrusions and mortar spatter.

PAINTED SURFACES Not recommended.

ALL SURFACES Must be clean, dry and free of oil, grease and other contaminants.

TECHNICAL DATA

VOLUME SOLIDS 100% (mixed)

RECOMMENDED DFT **Parge Coat:** 1/16"-1/4" per lift; maximum 1/2" thickness
Feather-edge Capable: 1/32"

CURING TIME

Temperature	To Touch	To Recoat with Itself	To Topcoat
75°F (24°C) & 50% R.H.	3-4 hours	unlimited †	15 hours minimum

† **Note:** When the first application is equal to or greater than 1/4", or the second application is equal to or greater than 1/4", then the maximum recoat window with itself is 2 hours.

VOLATILE ORGANIC COMPOUNDS

NUMBER OF COMPONENTS

PACKAGING

Unthinned: 0.15 lbs/gallon (19 grams/litre)

Three—Liquid: Part A and Part B Powder: Part C

KITS CONSIST OF:

	PART A (Liquid)	PART B (Liquid)	PART C (Cement-Sand)	When Mixed
Large Kit	1 gal plastic jug	1 qt plastic jar	42.75 lb bag	2.8 gallons (10.6 L)
Small Kit	1 qt plastic jug	1 pt plastic jar	10.7 lb bag	0.7 gallon (2.6 L)

NET WEIGHT

STORAGE TEMPERATURE

Large Kit: 51.53 lbs (23.37 kg) Small Kit: 12.88 lbs (5.84 kg)

Minimum 40°F (4°C) Maximum 110°F (43°C)

For optimum handling and application characteristics, all material components should be stored or conditioned between 70°F to 90°F (21°C to 32°C) 48 hours prior to use. Protect Parts A & B from freezing; discard if frozen. Protect Part C from moisture; store in dry environment off ground.

TEMPERATURE RESISTANCE

SHELF LIFE

FLASH POINT - SETA

HEALTH & SAFETY

(Dry) Continuous 170°F (77°C) Intermittent 200°F (93°C)

12 months at recommended storage temperature.

N/A

This product contains chemical ingredients which are considered hazardous. Read container label warning and Material Safety Data Sheet for important health and safety information prior to the use of this product.
Keep out of the reach of children.

MORTARCLAD™ | SERIES 218

APPLICATION

COVERAGE RATES

Thickness	Large Kit	Small Kit
1/16" (1.6 mm)	72 sq ft (6.7 m ²) theoretical	18 sq ft (1.7 m ²) theoretical
1/8" (3.1 mm)	36 sq ft (3.3 m ²) theoretical	9 sq ft (.84 m ²) theoretical
1/4" (6.4 mm)	18 sq ft (1.7 m ²) theoretical	4.5 sq ft (.42 m ²) theoretical

Allow for application losses due to surface irregularities and substrate porosity.

MIXING

Pour liquid Part A into a container large enough to hold all components. Under agitation slowly add liquid Part B. When blended, slowly sift powder, Part C, while continuing agitation. Do not dump all of the Part C into the liquids at one time. Mix for two minutes or until the cement-sand is thoroughly wetted and a smooth consistency is obtained. **Important: Do not add additional Part C.**

Note: For repair of large bugholes, honeycomb and other cavities deeper than the recommended maximum thickness, 20-25 lbs of multi-purpose clean sand (conforming to ASTM C 33) or 15-18 lbs of locally purchased pea gravel (coarse aggregate) can be post added to create "dry-pack" mortar. One half inch to No. 8 size (12.5 mm to 2.36 mm) pea gravel conforming to ASTM C 33 is recommended. Contact your Tnemec representative or Tnemec Technical Services for additional information.

THINNING

Normally not required. For low-pressure spray application to transfer the Series 218, may thin up to 6 oz. for large kit or up to 2 oz. for small kit. Use only potable water.

POT LIFE

1 hour at 75°F (24°C).

Caution: Thinning with high temperature water will significantly reduce the pot life. For best results, water temperature should not exceed 80°F (27°C).

SUBSTRATE CONDITIONING

The concrete substrate surface should be "pre-wet" or dampened with potable water to a Saturated Surface Dry (SSD) condition; the concrete is darkened by water but there is no pooling of water on the concrete. This can be done by using a Hudson pump-up sprayer or heavy nap roller cover dampened with potable water. **Note:** Do not over saturate the surface.

APPLICATION EQUIPMENT

Mortar Hawk, steel, stiff concrete finishing trowels, broad knives and rubber floats are recommended. For troweling inside and outside corners, the use of a radius or margin trowel is recommended.

Material can be transferred to the surface by utilizing hydraulic spray equipment (i.e. WIWA 410 9:1 or 600 12:1 pump) followed by troweling to seal the material. No special ACI 308 curing requirements - ambient cure only.

For a smoother finished appearance, trowel licks may be reduced by using a 1/4" nap roller cover lightly dampened with water over the sealed Series 218 material. **Note:** If white liquid is brought to the surface during this process, the Series 218 material is being overworked and/or oversaturated. Overworking or oversaturating the surface may have an adverse effect on the adhesion of subsequent coatings applied. Let Series 218 cure and remove surface deposit using concrete rub brick.

SURFACE TEMPERATURE

Minimum of 45°F (7°C), optimum 65°F to 80°F (18°C to 27°C), maximum of 90°F (32°C). The substrate temperature should be at least 5°F (3°C) above the dew point.

MATERIAL TEMPERATURE

For optimum application, handling and performance, the material temperature during application should be between 70°F and 90°F (21°C and 32°C). Temperature will affect the workability. Cool temperatures increase viscosity and decrease workability. Warm temperatures will decrease viscosity and shorten pot life.

CLEANUP

Flush and clean all equipment immediately after use with warm water.

WARRANTY & LIMITATION OF SELLER'S LIABILITY: Tnemec Company, Inc. warrants only that its coatings represented herein meet the formulation standards of Tnemec Company, Inc. THE WARRANTY DESCRIBED IN THE ABOVE PARAGRAPH SHALL BE IN LIEU OF ANY OTHER WARRANTY, EXPRESSED OR IMPLIED, INCLUDING BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. THERE ARE NO WARRANTIES THAT EXTEND BEYOND THE DESCRIPTION ON THE FACE HEREOF. The buyer's sole and exclusive remedy against Tnemec Company, Inc. shall be for replacement of the product in the event a defective condition of the product should be found to exist and the exclusive remedy shall not have failed its essential purpose as long as Tnemec is willing to provide comparable replacement product to the buyer. NO OTHER REMEDY (INCLUDING, BUT NOT LIMITED TO, INCIDENTAL OR CONSEQUENTIAL DAMAGES FOR LOST PROFITS, LOST SALES, INJURY TO PERSON OR PROPERTY, ENVIRONMENTAL INJURIES OR ANY OTHER INCIDENTAL OR CONSEQUENTIAL LOSS) SHALL BE AVAILABLE TO THE BUYER. Technical and application information herein is provided for the purpose of establishing a general profile of the coating and proper coating application procedures. Test performance results were obtained in a controlled environment and Tnemec Company makes no claim that these tests or any other tests, accurately represent all environments. As application, environmental and design factors can vary significantly, due care should be exercised in the selection and use of the coating.

Retro-Coat[®]

Vapor Intrusion Coating

TECHNICAL DATA SHEET AND SPECIFICATIONS

SCOPE

Product and Application

This specification describes the application of the Retro-Coat[®] System. The minimum thickness of the system is between 26-30 mils, including a 20 mil minimum application of Retro-Coat.

Key Benefits

- Designed specifically to mitigate vapor intrusion in existing structures
- Retro-Coat is a wearing surface, meaning no additional concrete protection is necessary
- No odor and fast cure time reduce building downtime
- Carpet, tile, linoleum or other floor coverings can be applied directly over Retro-Coat, if desired
- Retro-Coat can increase the performance of an existing active sub-slab depressurization system
- Retro-Coat can aid in the retiring of existing active systems
- Available and installed by Land Science Technologies certified contractors

Acceptable Manufacturers

Retro-Coat as manufactured by Land Science San Clemente, CA.

Applicator

Applicator must be a certified contractor of Land Science.

Performance Criteria

Retro-Coat as manufactured by Land Science San Clemente, CA.

Diffusion Coefficient	(Columbia Labs)
PCE:	7.6×10^{-14} m ² /s
TCE:	8.2×10^{-14} m ² /s
Tensile Strength	ASTM D-638
Minimum:	9,800 PSI
Tensile Elongation	ASTM D-638
Minimum:	6%
Flexural Strength	ASTM D-790
Minimum:	7,035 PSI
Hardness, Shore D	ASTM D-2240
Maximum:	83
Gardner Impact	ASTM D-2794
Minimum:	80 inch-pounds
Bond Strength	(to quarry tile)
Minimum:	1,000 PSI
Vapor Transmission Rate	ASTM E-96
Maximum:	0.07 perms
Water Absorption	ASTM D-570
Maximum:	0.02% in 24 hours
60° Gloss	
Minimum:	100

Materials

Retro-Coat "A" shall be a modified epoxy containing special flexibilizers and specially formulated resins for superior chemical resistance and enhanced resilience. No solvents are allowed.

Retro-Coat "B" shall be customized blend of hardeners specifically formulated to maximize chemical resistance.

Retro-Coat®

Vapor Intrusion Coating

APPLICATION

Surface Preparation

All existing surfaces that will be covered with the systems specified herein should be mechanically ground, shot blasted or sand blasted to yield a minimum 60 grit surface texture. All loosely adhered coatings will be removed. Any grease and other contaminants found on the concrete must also be removed.

All open cracks 1/2" and greater should be v-notched to a 3/4" width by 1/2" depth and cleaned of any debris. Such cracks should be filled with Retro-Coat Gel and struck off flush with the surrounding surface.

Cut back and/or remove any expansion joint backing or filler strips to a minimum of 1 1/2" deep. Insert disposable filler in the joints to prevent filling with the overlayment materials and to allow for accurate location of final saw cuts in the overlayment.

Material Application

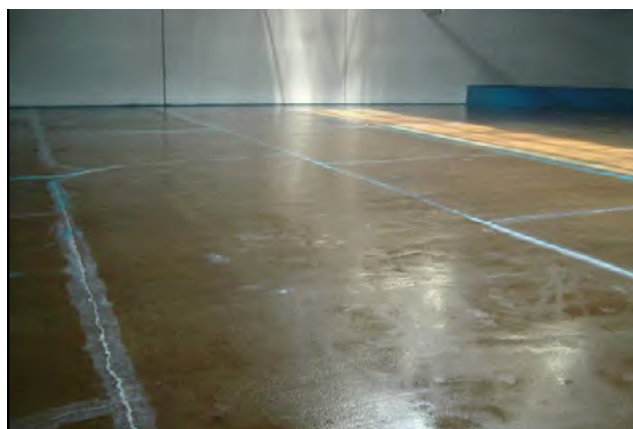
Retro-Coat 2-Part Caulk

Apply Retro-Coat 2-Part Caulk around the base of all pipe penetrations making sure to fill any gap between the penetration and concrete slab

Apply Retro-Coat 2-Part Caulk to the joint created between horizontal and vertical transitions. The caulking material should be applied and pressed into the joint filling any gaps that might be present.

Retro-Coat PRIMER

Apply Retro-Coat PRIMER to all areas at a thickness of 6 mil and allow to dry tack free. In areas where the concrete surface is in need of slight repair or needs to be leveled, a slurry form of Retro-Coat PRIMER called Retro-Coat PRIMER-S can be applied with a flat squeegee. Retro-Coat PRIMER-S is self priming and does not need to be primed again.



Completed surface preparation consisting of shot blasting, Retro-Coat PREP, to fill joints and cracks and a 6 mil application of Retro-Coat PRIMER

Retro-Coat[®]

Vapor Intrusion Coating

APPLICATION

Retro-Coat

Mix Retro-Coat, Part A with a low-speed (<750 rpm) jiffy-style mixer for about 30 seconds, or until uniform in color, then mix in Retro-Coat Coating, Part B for another 30-60 seconds.

Dump contents onto floor in a ribbon pattern, squeegee, and then back roll at a coverage rate of 160 SF/gallon to achieve a film thickness of 10 mils.

Apply second coat 10 mil coat to achieve a total thickness of 20 mils. Repeat as necessary to achieve specified thickness.

If a flooring material will be placed over Retro-Coat after it is applied, or appearance is not a priority, (1) 20 mil coat can be applied.

Retro-Coat TOP WB

Retro-Coat TOP WB can be installed for aesthetic purposes to protect the Retro-Coat system from ambering or color fading due to fluorescent and UV light exposure.

Apply Retro-Coat TOP WB in two (2) 7-8 wet mil coats to achieve 7-8 dry mils.

Protection of Finished Work

Prohibit foot traffic on floor for 24 hours after laying (at 70°F). At 50°F, this time should be extended to 48 hours.

Rinse off any chemicals that may come in contact within 7 days of installation with the freshly laid floor immediately.



Application of Retro-Coat SEALANT to a 20 mil total thickness

Cleanup

Properly dispose of all unused and waste materials.

Tools can be washed in warm, soapy water when wet, but after drying, can only be cleaned by grinding or with a paint stripper.

Unused resin can be set off with proper amount of hardener and disposed of in regular trash bins.

Retro-Coat®

Vapor Intrusion Coating

QUALITY CONTROL

Warranty

Land Science warrants Retro-Coat to be free from defects for a period of one (1) year from the date when applied in accordance to Land Science's directions for application.

Bond failure, peeling or delamination due to water or moisture intrusion through the slab substrate will not be covered, nor will any defects to the Retro-Coat layer caused by osmotic vapor blistering.

Due to uncontrolled color tinting from each color batch, colors, textures, patterns, and shading may vary from job to job and throughout larger areas. Color and texture samples used by Land Science are approximate only and may vary from the completed project.

Any damage to the coating that is caused by movement of the underlying substrate (i.e., concrete, joint material or other such underlayment), such as concrete cracking, movement of concrete, and joints expanding, will not be covered by the warranty. Additionally, some tires may leave an amber colored tire tread mark impregnated into the top layer, this is not covered under the warranty.

Any repairs and/or corrections will be for the defective area only, unless deemed otherwise by Land Science. Due to the custom nature of Land Science coatings, any repairs and or corrections may not match the original work. Land Science will not re-install a brand new flooring system to the entire floor due to colors, gloss or sheen difference, texture difference and/or chips not matching.

Resinous coatings are odorous; we recommend turning off air handlers prior to installation. We hold no liability for these chemical odors.

THIS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, AND THE REMEDY PERMITTED HEREIN SHALL BE THE EXCLUSIVE REMEDY OF THE BUYER. SELLER'S LIABILITY SHALL BE LIMITED TO REPLACEMENT OF DEFECTIVE MATERIAL. IN NO EVENT SHALL SELLER BE LIABLE FOR SPECIAL, PUNITIVE, CONSEQUENTIAL OR INCIDENTAL DAMAGES. THIS PARAGRAPH IS NOT APPLICABLE IN CONSUMER TRANSACTION OR WHERE PROHIBITED BY LAW.


Quality Control

Installer shall use a notched squeegee to apply Retro-Coat to the specified mil thickness and calculations shall be done to determine if the correct amount of material has been applied. Retro-Coat contains 100% solids at the time of application; therefore no material shrinkage will occur during the curing process. One gallon will cover 80 square feet.

A wet mil film gauge can be used to spot check the Retro-Coat thickness to make certain the minimum 20 mil thickness has been applied, though some discretion should be used because high points or low points on the underlying surface can adversely affect the thickness measurements.

Floor Care

The standard smooth surface of Retro-Coat should be cleaned on a regular basis by damp mopping the floor with conventional commercial cleaners. It is important to first remove any grease or oils by a suitable cleaner, preferably a citrus based cleaner. Rinse with clear water to help eliminate film buildup and then allow to dry.

 **Never use abrasive powder cleaners like Ajax or Comet as they tend to scratch the floor.**

- Additional steps can also be taken to prolong the look and life of a seamless floor:
- Protect the floor during transference of heavy equipment
- Educate the drivers inside the building of the importance of avoiding “jack-rabbit” starts and stops, as well as keeping the metal forks lifted
- Regular cleaning should take place as to not allow the buildup of abrasive material, such as sand or dirt, on the coating
- Eliminate all metal wheels
- Change over to light-colored polyurethane wheels
- Do not slide heavy metal totes, drums or bins across the floor
- Immediately hose down chemical spills, especially on newly laid floors.

LESS THAN 10

Less Than 10 is a formulate which assists environmental contractors and private industry in the environmentally sensitive and labor intensive process of cleaning up organic problems (i.e. PCB's) **and meets EPA guidelines in 40CFR 761.79 regarding PCB cleaning products**. Until now, the removal of organics has been a time-consuming operation plagued by expensive disposal and repeated applications of less effective solvents.

This non-hazardous, fast-acting surfactant, effectively reduces **PCB** contamination from **concrete, brick** and **other masonry surfaces** by an average of 90% per application with a dwell time of only 15 (fifteen) minutes. Its effectiveness internally averages 60% per application to depths of 1 ½ inches on porous surfaces after a 1 (one) hour dwell time. Aside from being an extremely effective cleaner, **Less Than 10** is **non-toxic, non-flammable** and **biodegradable** in its pure state (facts should satisfy even the most prudent environmental or safety manager).

With personnel safety and public concern regarding the use of environmentally harmful solvents, **Chemical Solutions International Corporation** developed **Less Than 10** as an alternative.

Less Than 10 and resulting rinsate work very effectively when run through carbon filtration systems. Most of the PCB's in solution will attach themselves to the carbon filters.



Application Instructions

- A.** Thoroughly clean all dirt and other debris from the area to be decontaminated.
- B.** Apply **Less Than 10** at **full strength** to the surface to be cleaned. One gallon covers approximately 100 sq. ft. for the 1 (one) hour application and 250 sq. ft. for a 15 (fifteen) minute application. See D.
- C.** To assist the cleansing action, rub surface with a hard, durable bristle brush. For large areas, a commercial buffer with a bristle pad should be used.
- D.** For surface decontamination allow **Less Than 10** to sit 15 (fifteen) minutes. For subsurface application, allow 1 (one) hour. Never let the product dry on the surface being cleaned.
- E.** Vacuum up all the product from the surface. Rinse the surface with water and vacuum all pores dry.
- F.** Samples of cleansed area should be taken to determine level of reduction. For further cleaning repeat steps A through G.
- G.** All vacuumed product and rinsate should be disposed of in accordance with Federal and State Regulations.





M² Polymer Technologies, Inc.

PO Box 365
West Dundee, IL 60118 USA
Tel. 847-836-1393
Fax. 847-836-6483

SAFETY DATA SHEET: May be used to comply with OSHA's Hazard Communication Standard, 29 CFR 1910.1200. Standard must be consulted for specific requirements.

EFFECTIVE DATE: March 20, 2015

SECTION I CHEMICAL PRODUCT & SUPPLIER'S IDENTIFICATION

Product Name: LESS THAN TEN™
Chemical Type: Cleaning compound for removal of polychlorinated biphenyls (PCBs)

M² Polymer Technologies, Inc.
P.O. Box 365
West Dundee, IL 60118

Telephone Number for Information: 847/836-1393
Last Update : March 20, 2015

SECTION II HAZARD IDENTIFICATION

Emergency Overview

Caution. May cause irritation to the eyes, skin and respiratory system.

Potential Health Effects - Eyes

Eye irritation develops immediately with contact and may cause mild to severe irritation experienced as discomfort or pain, excessive blinking and tear production and redness.

Potential Health Effects - Skin

Skin irritation develops slowly after contact. Brief contact may cause slight irritation on sensitive skin. Prolonged contact, especially with concentrate may cause irritation, dryness, chapping and redness.

Potential Health Effects - Ingestion

Ingestion may produce gastrointestinal disturbances including irritation, nausea and diarrhea. Ingestion of large amounts may result in serious damage to GI tract.

Potential Health Effects - Inhalation

Inhalation of high concentration of vapors may upset stomach and cause slight irritation of the respiratory tract.

HMIS Ratings: Health 1 Fire 0 Reactivity 0

Hazard Scale: 0=Minimal 1=Slight 2=Moderate 3=Serious 4=Severe *=Chronic Hazard

SECTION III COMPOSITION / INGREDIENT INFORMATION

CAS #	Component	OSHA PEL	ACGIH TLV
77-92-9	Citric Acid		
26027-38-3	Nonylphenol Ethoxylate, 9 Mol		
68439-46-3	Linear Alcohol Ethoxylate, 6 Mol		
034590-94-8	Dipropylene Glycol Methyl Ether	100 ppm	
5989-27-5	d-Limonene		

Component Information/Information on Non-Hazardous Components

The components of this product are not regulated as hazardous under 29 CFR and 49 CFR. However, the manufacturer recognizes the potential for respiratory tract irritation as a result of inhalation of this material as a respirable dust. See Sections 8, 11, 14 and 15 for further information.

SECTION IV FIRST AID MEASURES

First Aid - Eyes

Immediately flush eyes with water for at least 15 minutes. If irritation persists get medical attention.

First Aid - Skin

Flush with large amounts of water while removing contaminated clothing and shoes. If irritation persists get medical attention.

First Aid - Ingestion

If swallowed, do not induce vomiting. Get immediate medical attention.

First Aid - Inhalation

If inhaled and symptoms are felt, move to source of fresh air. Seek medical attention if symptoms persist.

SECTION V FIRE FIGHTING MEASURES

General Fire Hazards

No recognized fire hazards associated with the product.

Upper Flammable Limit (UFL):	Not applicable
Lower Flammable Limit (LFL):	Not applicable
Flash Point:	None
Flammability Classification:	None

Hazardous Combustion Products

Carbon Dioxide and Carbon Monoxide.

Extinguishing Media

Not applicable.

Fire Fighting Equipment/Instructions

Firefighters should wear full protective clothing including self contained breathing apparatus,

NFPA Ratings: Health=1 Fire=0 Reactivity=0

Hazard Scale: 0=Minimal 1=Slight 2=Moderate 3=Serious 4=Severe

SECTION VI ACCIDENTAL RELEASE MEASURES

Clean Up Procedures

Contain large spills with dikes and transfer material to appropriate containers for reclamation or disposal. Absorb remaining material or small spills with an inert material and dispose of in accordance with applicable regulations.

Evacuation Procedures

None required.

SECTION VII HANDLING AND STORAGE

Handling Procedures

Handle in accordance with good industrial hygiene and safety practices. These practices include avoiding unnecessary exposure and prompt removal of material from eyes, skin and clothing.

Storage Procedures

Store away from strong acids, strong alkalis and strong oxidizers.

Precautionary Measures

Use with adequate ventilation. Avoid breathing high concentrations of vapors. Do not get in eyes, on skin or clothing. Wash thoroughly after using.

SECTION VIII EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Guidelines**General Product Information**

Consider the potential hazards of this material, applicable exposure limits, job activities and work place conditions when designing engineering controls and selecting personal protective equipment.

Engineering Controls

Provide local exhaust ventilation if strong vapors occur.

Personal Protective Equipment – Eyes & Face

Safety glasses with side shields or goggles.

Personal Protective Equipment – Skin

Use impervious gloves made of rubber, PVC or neoprene to avoid contact with skin.

Personal Protective Equipment – Respiratory

None required under normal use conditions. If high concentrations or mists develop then use a NIOSH approved vapor respirator. Consult the manufacturer to determine the appropriate type. Consult NFPA Standard 91 for design of exhaust system.

Personal Protective Equipment – General

Eye wash fountain and emergency showers are recommended.

SECTION IX**PHYSICAL & CHEMICAL PROPERTIES**

Appearance:	Yellow liquid with medium viscosity	Odor:	Citrus notes
Physical State:	Liquid	pH:	> 2.2
Vapor Pressure:	Same as water	Vapor Density:	N.E.
Boiling Point:	212° F		
Solubility (H₂O):	Completely soluble	Specific Gravity:	1.06
Evaporation Rate:	= 1.0 (Water = 1)		

SECTION X**CHEMICAL STABILITY & REACTIVITY INFORMATION****Chemical Stability**

Product is stable.

Chemical Stability / Conditions to Avoid

None

Incompatibility

Strong acids, strong alkalis and strong oxidizing agents.

Hazardous Decomposition

None

Hazardous Polymerization

None

SECTION XI**TOXICOLOGICAL INFORMATION****General Product Information**

Strong exposure may cause skin, eye or respiratory irritation.

Carcinogenicity

None of the components have been identified as carcinogenic by NTP, IARC or OSHA.

SECTION XII**ECOLOGICAL INFORMATION****Ecotoxicity****General Product Information****Component Analysis – Ecotoxicity & Aquatic Toxicity**

No information available

SECTION XIII**DISPOSAL CONSIDERATIONS****US EPA Waste Number & Descriptions****General Product Information**

Product is non-hazardous waste material suitable for approved solid waste landfills.

Disposal Instructions

Dispose of in accordance with Local, State and Federal regulations.

SECTION XIV**TRANSPORTATION INFORMATION****International Transportation Regulations**

Consult 49CFR or appropriate regulations to properly classify your shipment for transportation.

Proper Shipping Name:	Non-hazardous cleaning compound, liquid, non-regulated by 49CFR.
Reportable Quantity:	None
Hazard Class & Label:	None
UN Number:	None
NA Number:	None
ERG:	None

SECTION XV**REGULATORY INFORMATION**

U.S. Federal Regulations**General Product Information**

The product is not Federally regulated as a hazardous material.

Comprehensive Environmental Response, Compensation & Liability Act of 1980 (CERCLA):

The following components of this product are specifically listed as hazardous substances in 40CFR 302.4 and are present at levels which could require reporting:

<u>Component</u>	<u>CAS#</u>
NONE	

Superfund Amendments and Reauthorization Act of 1986 (SARA):

Title II Sections 302 & 304 – Extremely Hazardous Substances:

<u>Component</u>	<u>CAS#</u>
NONE	

Title III Section 313 Reportable Chemical

<u>Component</u>	<u>CAS#</u>
NONE	

Title III Section 311 and 312

<u>Component</u>	<u>CAS#</u>
NONE	

TSCA Status: d-Limonene is the only component in this product on the TSCA inventory.

SECTION XVI**OTHER INFORMATION**

Hazard Ratings:**HMIS**

Health 1
Flammability 0
Reactivity 0
PPE B

NFPA

Health 1
Flammability 0
Reactivity 0
Other B

Other Information

The information presented in this document is presented in good faith and is believed to be accurate as to the effective date given. However, no warranty, expressed or implied is given. It is the buy's responsibility to ensure that its activities comply with Federal, State or provincial and local laws.

Retro-Coat™ GEL, Part A
Material Safety Data Sheet (MSDS)

Last Revised: July 08, 2016

Section 1 – Supplier Information and Material Identification

Supplier:



1011 Calle Sombra
San Clemente, CA 92673
Telephone: 949.366.8000
Fax: 949.366.8090
E-mail: info@regenesisc.com

Trade Name: Retro-Coat™ GEL, Part A

Product Use: Epoxy Resin

Section 2 – Hazardous Chemical Information

<u>CAS No.</u>	<u>Chemical</u>	<u>Percentage</u>
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Section 3 – Physical Data

Form:	Liquid
Color:	Amber
Odor:	
Flammability/Flash Point:	>420°F (Pensky Martens Closed Cup)
Bulk Density (lbs/gal):	9.9
Viscosity (cps):	Moderate viscosity
Percent Volatiles	0 @ 70°F

Specific Gravity	1.18 at 77°F
Section 4 – Reactivity Data	
Stability:	Stable under normal storage conditions
Conditions to Avoid/Incompatibility:	Avoid bringing into contact with strong oxidizing agents, and strong Lewis or mineral acids.
Hazardous Decomposition Products:	CO (Carbon Monoxide), CO ₂ (Carbon Dioxide), Acids, Aldehydes
Polymerization	
Section 5 – Regulations	
WHMSIS Classification:	Skin Sensitizer
Section 6 – Protective Measures, Storage and Handling	
Storage:	
Handling:	
Other Precautions:	<ol style="list-style-type: none"> 1. Prevent all skin and eye contact. 2. Re-seal part used containers. 3. Ensure that all containers are properly labeled to prevent accidental ingestion. 4. Wash with soap and water before eating, drinking, smoking or using toilet facilities. 5. Observe conditions of good industrial hygiene and safe working practice.
Ventilation Requirements:	Local
Respiratory Protection:	NIOSH approved respiratory protection required in the absence of local ventilation.
Eye Protection:	Splash proof goggles or safety spectacles with side shields.
Skin Protection:	Impervious gloves, neoprene or rubber. Clean, body-covering clothing. Further safety equipment (apron, footwear, etc.) should be used as necessary to prevent contact with material.
Protection Against Fire & Explosion:	

Section 7 – Hazards Identification

Effects of Overexposure:	Potential Health Effects
	ACUTE: High concentration of vapor cause irritation of eyes and respiratory tract. CHRONIC: Prolonged or repeated exposure may cause asthma and skin sensitization or other allergic response.

Section 8 – Measures in Case of Accidents and Fire

After Spillage/Leakage:	Avoid contact with material. Persons not wearing appropriate protective equipment (see below) should be excluded from the area of spill until clean-up is complete. Stop spill at source, dike area to prevent spreading, pump liquid to salvage tank. Remaining liquid may be taken up on clay, diatomaceous earth or other absorbent and shoveled into disposal containers.
Extinguishing Media:	Foam, Dry Chemical, Carbon Dioxide (CO2) NOTE: Toxic fumes will be evolved when this material is involved in a fire. self-contained breathing apparatus should be available for fire fighters. Cool fire-exposed containers with water.
	First Aid
Eye Contact:	Flush with water for at least 15 minutes, holding eyelid open. GET MEDICAL ATTENTION..
Inhalation:	Remove to fresh air if effects occur and administer oxygen if necessary. GET MEDICAL ATTENTION if effects persist.
Ingestion:	GET MEDICAL ATTENTION IMMEDIATELY: Induce vomiting immediately by depressing back of tongue with a finger or drinking one or more glasses of salt water.
Skin Contact:	Wash thoroughly with water while removing contaminated clothing and shoes. Wash clothing before re-use and discard contaminated leather articles. GET MEDICAL ATTENTION. if effects such as swelling or reddening occur.

Section 9 – Accidental Release Measures

Cleanup Methods:

Section 10 – Information on Toxicology

Toxicity Data

Dermal LD₅₀ (rat):

Section 11 – Information on Ecology

Not Applicable

Section 12 – Disposal Considerations

Waste Disposal Method:

This product, if disposed as shipped, is not a hazardous waste as specified on 40CFR 261. Controlled incineration or buried landfill disposal should be in accordance with all Federal, State, and Local regulations.

Section 13 – Shipping/Transport Information

D.O.T. Shipping Name: Chemical, NOIBN**UN Number:****D.O.T. Hazard
Classification:****Labels:****Packaging Group:**

Section 14 – Other Information

WHMIS Classification: Class D2B**NFPA** Health –1 Reactivity – 0Flammability – 1 Special -

Section 15 – Further Information

The information contained in this document is the best available to the supplier at the time of writing, but is provided without warranty of any kind. Some possible hazards have been determined by analogy to similar classes of material. The items in this document are subject to change and clarification as more information become available. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person. Individuals receiving this information must exercise their independent judgment in determining its appropriateness for a particular purpose.

Retro-Coat™ GEL, Part B
Material Safety Data Sheet (MSDS)

Last Revised: July 08, 2016

Section 1 – Supplier Information and Material Identification

Supplier:



1011 Calle Sombra
San Clemente, CA 92673
Telephone: 949.366.8000
Fax: 949.366.8090
E-mail: info@regenesi.com

Trade Name: **Retro-Coat™ GEL, Part B**
Product Use: Epoxy Resin Hardener, Part B

Section 2 – Hazardous Chemical Information

<u>CAS No.</u>	<u>Chemical</u>	<u>Percentage</u>
9046-10-0	Polyether Amine	80%
98-54-4	4-tert Butylphenol	10%
1477-55-0	M-Xylenediamine	10%

Section 3 – Physical Data

Form: Liquid
Color: Amber
Odor: Amine
Flammability/Flash Point: >200°F (Setaflash Closed Cup).
Bulk Density (lbs/gal): 8.5 at 77°F
Viscosity (cps): Low Viscosity
Percent Volatiles 0 @ 70°F

Specific Gravity	1.0 at 77°F
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Vapor Pressure	Less than 1 mm Hg @ 68°F
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Section 4 – Reactivity Data

Stability:	Stable under normal storage conditions
Conditions to Avoid/Incompatibility:	Avoid bringing into contact with strong oxidizing agents, and strong Lewis or Mineral acids, bases.
Hazardous Decomposition Products:	CO (Carbon Monoxide), CO ₂ (Carbon Dioxide), Acids, Aldehydes
Polymerization	

Section 5 – Regulations

WHMSIS Classification:	Class E – Corrosive
-------------------------------	---------------------

Section 6 – Protective Measures, Storage and Handling

Storage:	Store in a dry location.
Handling:	
Other Precautions:	Keep container tightly closed when not in use.
Ventilation Requirements:	Local, except in confined spaces, e.g., tanks, in which case proper respiratory equipment (see below) is required.
Respiratory Protection:	Respirator with organic vapor cartridge N/A with local exhaust.
Eye Protection:	Chemical goggles
Skin Protection:	Rubber or plastic gloves
Protection Against Fire & Explosion:	

Section 7 – Hazards Identification

	Potential Health Effects
Inhalation:	May cause nasal irritation, central nervous system depression or lung injury.
Eye Contact:	This product can cause chemical burns to eyes. Eye

Skin Contact: damage may be irreversible
May be corrosive or highly irritating to the skin. Repeated contact may cause sensitization and/or dermatitis.

Ingestion:

Section 8 – Measures in Case of Accidents and Fire

After Spillage/Leakage: Using recommended protective equipment, add dry material to absorb spill (if large spill, first dike to contain). Pick up and containerize. Flush area with dilute (5%) acetic acid. Collect rinsate for sewer or disposal.

Extinguishing Media: Water fog, Alcohol foam, CO₂, Dry Chemical.
SPECIAL FIRE FIGHTING PROCEDURES: Use a positive pressure, self-contained breathing apparatus. Wear full protection coating.
Note: Will burn under right conditions of heat and oxygen supply.

First Aid

Eye Contact: Flush with water for at least 15 minutes. **GET MEDICAL ATTENTION.**

Inhalation: Remove to fresh air if effects occur and administer oxygen if necessary. **GET MEDICAL ATTENTION.**

Ingestion: **GET MEDICAL ATTENTION IMMEDIATELY. Do not induce vomiting** unless directed by physician.

Skin Contact: Wash thoroughly with water. Remove contaminated clothing and shoes. Wash clothing before re-use. Get medical attention if effects such as swelling or reddening occur.

Section 9 – Accidental Release Measures

Cleanup Methods:

Section 10 – Information on Toxicology

Toxicity Data

Dermal LD₅₀ (rat):

Section 11 – Information on Ecology

Not Applicable

Section 12 – Disposal Considerations

Waste Disposal Method: Product classified as “corrosive” and as such must be disposed of as a hazardous waste according to Federal, State and Local regulations.

Section 13 – Shipping/Transport Information

D.O.T. Shipping Name:	Amines, Liquids Corrosive NOS (Polyetheramine))	
UN Number:	UN 2735	
D.O.T. Hazard Classification:	8	
Labels:	Corrosive	
Packaging Group:	III	

Section 14 – Other Information

WHMIS Classification:	Class E – Corrosive	
NFPA	Health – 2	Reactivity – 1
	Flammability – 1	Special -

Section 15 – Further Information

The information contained in this document is the best available to the supplier at the time of writing, but is provided without warranty of any kind. Some possible hazards have been determined by analogy to similar classes of material. The items in this document are subject to change and clarification as more information become available. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person. Individuals receiving this information must exercise their independent judgment in determining its appropriateness for a particular purpose.

SAFETY DATA SHEET

Trade Name: RETRO-COAT, PART A

Land Science Technologies
1011 Calle Sombra
San Clemente, CA 92673

PHONE: 949-366-8000
EMAIL: CustomerService@landsciencetech.com

1. PRODUCT IDENTIFICATION

- 1.1. **GHS product identifier:** Retro-Coat, Part A
1.2. **Other means of identification:** Epoxy Resin
1.3. **Recommended use of the chemical and restrictions on use:** N/A

2. HAZARD(S) IDENTIFICATION

- 2.1. **Classification of the substance or mixture:**
Skin Corrosion/Irritation 2, Acute Aquatic Toxicity 1

2.2. **GHS label elements:**



Signal Word: Warning
Hazard Statement: Causes skin irritation
Prevention: Wash hands thoroughly after handling. Wear protective gloves.
Response: If on skin: wash with plenty of soap and water. If skin irritation occurs: get medical advice/attention. Take off contaminated clothing and wash before reuse.



Signal Word: Warning
Hazard Statement: Very toxic to aquatic life.
Prevention: Avoid release into the environment.
Response: Prevent further leakage or spillage if safe to do so. Do not let product enter drains.
Disposal: Dispose of in accordance with federal, state, and local regulations.

- 2.3. **Other hazards which do not result in classification:** N/A
2.4. **Hazards Material Information System (United States):**

Health	2
Flammability	1
Physical Hazard	0

Hazard Codes: Minimal Hazard, 1=Slight Hazard, 2=Moderate Hazard, 3=Serious Hazard, 4=Severe Hazard

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1. **Mixtures**

Chemical Identity	CAS No.	Concentration
Proprietary Resin	NA	30-60%
Proprietary Ether	NA	30-60%

4. FIRST-AID MEASURES

4.1. Description of necessary first-aid measures:

Eye Contact: Remove contact lenses at once. Immediately flush eyes with large amounts of water or normal saline for at least 30 minutes. Hold eyelids apart while flushing to rinse entire surface of eye and lids with water. Prompt medical attention is essential.

Skin Contact: Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Call a physician if irritation persists. Wash clothing before reuse. Contaminated leather articles, including shoes, cannot be decontaminated and should be destroyed to prevent reuse.

Inhalation: Remove to fresh air if effects occur. If not breathing, give artificial respiration. Get immediate medical attention.

Ingestion: Do not induce vomiting. If patient is conscious and can swallow, give two glasses of water (16 oz.). Get immediate medical attention. Never give anything by mouth to an unconscious or convulsing person.

4.2. Most important symptoms/effects, acute and delayed:

Signs and Symptoms: Irritation as noted above. Skin sensitization (allergy) may be evidenced by rashes, especially hives.

Aggravated Medical Conditions: Preexisting skin and eye disorders may be aggravated by exposure to this product. Preexisting skin and lung allergies may increase the chance of developing increased allergy symptoms from exposure to this product.

Other Health Effects: Based on animal studies, repeated exposure to components of this product may cause damage to liver, kidney, and respiratory systems. Reports have associated repeated and prolonged occupational exposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling vapors may be harmful or fatal.

4.3. Indication of immediate medical attention and special treatment needed, if necessary: Note to Physician: No specific antidote. Supportive care. Treatment based on judgment of the physician in response to reactions of the patient. Contact a poison control center for additional treatment information.

5. FIRE-FIGHTING MEASURES

5.1. Suitable extinguishing media: Use alcohol type foam, dry chemical, or CO₂.

5.2. Specific hazards arising from the chemical: None known.

5.3. Special protective actions for fire-fighters: Use water spray to cool fire exposed surfaces and to protect personnel. If a leak or spill has not ignited, use water spray to disperse the vapors. Contain the runoff stream. Try to cover liquid spills with foam. Do not enter confined fire space without full bunker gear (helmet with face shield, bunker coats, gloves, and rubber boots), including a positive pressure NIOSH approved self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures: Ventilate the area. Avoid breathing vapor. Use self-contained breathing apparatus or supplied air for large spills or confined areas.

6.2. Methods and materials for containment and clean up: Contain spill if possible. Wipe up or absorb on suitable material and pick up with shovels. Do not use sawdust, wood chips, or other cellulosic materials to absorb the spill. Prevent entry into sewers and waterways. Dispose of in accordance with federal, state, and local regulations.

7. HANDLING AND STORAGE

7.1. Precautions for safe handling: Ground all transfer equipment. Take precautionary measures against static discharge. Handle as an industrial chemical.

7.2. Conditions for safe storage, including any incompatibilities: Keep container tightly closed when not in use. Practice good caution and personal cleanliness to avoid skin and eye contact. Hold bulk

storage under nitrogen blanket. Store in a cool, dry place with adequate ventilation. Keep away from open flames and high temperatures.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. **Control parameters:** N/A

8.2. **Appropriate engineering controls:** N/A

8.3. **Individual protection measures, such as personal protective equipment:**

Respiratory Protection: Provide adequate ventilation. Avoid breathing of vapors or mists. Airborne concentrations should be kept to lowest levels possible. When exposures are not adequately controlled, use an approved respirator. Selection of air-purifying or positive-pressure supplied air will depend on the specific operation and the potential airborne concentration of the material. For emergency conditions, use an approved positive-pressure self-contained breathing apparatus.

Protective Clothing: Protective clothing such as uniforms, coveralls, or lab coats must be worn. Launder or dry-clean when soiled. Gloves and goggles resistant to chemicals and petroleum distillates required. When handling large quantities, impervious suits, gloves, and rubber boots must be worn.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1. **Appearance (physical state, color, etc.):** tinted liquid

9.2. **Odor:** Mild epoxy odor

9.3. **Odor threshold:** N/A

9.4. **pH:** Not determined.

9.5. **Melting point/freezing point:** N/A

9.6. **Initial boiling point and boiling range:** 342 °F

9.7. **Flash Point:** >230° F (closed cup)

9.8. **Evaporation rate:** Not established

9.9. **Flammability (solid, gas):** N/A

9.10. **Upper/lower flammability or explosive limits:** LEL = N/A UEL = N/A

9.11. **Vapor pressure:** Not established

9.12. **Vapor Density:** N/A

9.13. **Relative density (specific gravity):** 1.31

9.14. **Solubility(ies):** Not soluble (in water)

9.15. **Partition coefficient; n-octanol/water:** N/A

9.16. **Auto-ignition temperature:** N/A

9.17. **Decomposition temperature:** N/A

9.18. **Viscosity:** N/A

9.19. **Solids:**

9.20. **VOC:**

10. STABILITY AND REACTIVITY

10.1. **Reactivity:** N/A

10.2. **Chemical stability:** Excess heating over long periods of time degrades the resin.

10.3. **Possibility of hazardous reactions:** Will not occur by itself, but masses of more than 1 pound of product plus an aliphatic amine will cause irreversible polymerization with considerable heat buildup.

10.4. **Conditions to avoid:** Avoid exposure to heat, light, flame, or other sources of ignition.

10.5. **Incompatible materials:** Can react vigorously with strong oxidizing agents, strong lewis or mineral acids, and strong mineral and organic bases/especially primary and secondary amines. Reaction with some curing agents may produce considerable heat.

10.6. **Hazardous decomposition products:** Hazardous combustion products may include intense heat, dense black smoke, carbon monoxide, carbon dioxide, aldehydes, acids, phenolics, water, and hydrocarbon fragments.

11. TOXICOLOGICAL INFORMATION

11.1. **Likely routes of exposure:** N/A

11.2. **Symptoms related to the physical, chemical and toxicological characteristics:**

Eye Contact: Irritating and will injure eye tissue if not removed promptly.

Skin Contact: May cause severe irritation. Has been known to cause allergic skin reaction in humans.

Inhalation: High vapor concentrations are irritating to the eyes and respiratory tract, may cause headaches and dizziness, are anesthetic, and may have other central nervous system effects.

Ingestion: Single dose oral toxicity is considered to be extremely low. No hazards anticipated from swallowing small amounts incidental to normal handling operations.

11.3. **Delayed and immediate effects and also chronic effects from short and long term exposure:**
N/A

11.4. **Numerical measures of toxicity:**

Ingredient Name	CAS No.	%	Acute Oral LD50	Acute Dermal LD50	Acute Inhalation LC50
Proprietary Epoxy Resin	NA	30-60	> 2000 mg/kg (rat)	> 2000 mg/kg (rabbit)	Not available
Proprietary Ether	NA	30-60	2570 mg/kg (rat)	Not available	Not available

12. ECOLOGICAL INFORMATION

12.1. **Ecotoxicity:** N/A

12.2. **Persistence and degradability:** N/A

12.3. **Bioaccumulative potential:** N/A

12.4. **Mobility in soil:** N/A

12.5. **Other adverse effects:** N/A

13. DISPOSAL CONSIDERATIONS

13.1. **Disposal methods:** Dispose of in accordance with federal, state, and local regulations.

14. TRANSPORT INFORMATION

14.1. **UN number:** UN3082

14.2. **UN proper shipping name: DOT:** Not Regulated

IMDG/IATA: Environmentally Hazardous Substance, Liquid, NOS (Epoxy Resin), 9, PGIII, UN3082

14.3. **Transport hazard class(es):** 9

14.4. **Packing group, if applicable:** III

14.5. **Environmental hazards:** Marine Pollutant

14.6. **Transport in bulk:** N/A

14.7. **Special precautions for user:** N/A

15. REGULATORY INFORMATION

15.1. **Safety, health and environmental regulations:**

Not meant to be all-inclusive. Selected regulations presented.

A. SARA Title III Section 311/312 hazards: Immediate health

B. WHMIS Classification: D2B

C. TSCA Status: listed on TSCA Inventory

D. OSHA Hazard Comm. Std.: See Section 2

CA = California Haz. Subst. List; CA65 = California Safe Drinking Water and Toxics Enforcement Act List; CT = Connecticut Tox. Subst. List; FL = Florida Subst. List; IL = Illinois Tox. Subst. List; LA = Louisiana Haz. Subst. List; MA = Massachusetts Subst. List; ME = Maine Haz. Subst. List; MN = Minnesota Haz. Subst. List; NJ = New Jersey Haz. Subst. List; PA = Pennsylvania Haz. Subst. List; RI = Rhode Island Haz.

Subst. List.

16. OTHER INFORMATION

Additional Information Contact:

PHONE: 949-366-8000

EMAIL: CustomerService@landsciencetech.com

Land Science Technologies

1011 Calle Sombra

San Clemente, CA 92673

Land Science Technologies cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. The information in the sheet was written based on the best knowledge and experience currently available.

SAFETY DATA SHEET

Trade Name: RETRO-COAT, PART B

Land Science Technologies
1011 Calle Sombra
San Clemente, CA 92673

PHONE: 949-366-8000
EMAIL: CustomerService@landsciencetech.com

1. PRODUCT IDENTIFICATION

- 1.1. **GHS product identifier:** Retro-Coat, Part B
- 1.2. **Other means of identification:** Epoxy Curing Agent
- 1.3. **Recommended use of the chemical and restrictions on use:** N/A

2. HAZARD(S) IDENTIFICATION

1.1. Classification of the substance or mixture:

Acute Toxicity – Dermal 4, Skin Corrosion/Irritant 1B, Eye Damage/Irritation 1, Acute Toxicity – Oral 4, Carcinogenicity 2

1.2. GHS label elements:



Signal Word: Warning

Hazard Statement: Harmful in contact with skin

Prevention: Wear protective gloves/protective clothing.

Response: If on skin: wash with plenty of soap and water. Call a poison center or doctor/physician if you feel unwell. Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Call a physician if irritation persists. Wash contaminated clothing before reuse.

Disposal: Dispose of in accordance with federal, state, and local regulations.



Signal Word: Danger

Hazard Statement: Causes severe skin burns and eye damage

Prevention: Do not breathe dusts or mists. Wash hands thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection.

Response: If swallowed: Rinse mouth. Do NOT induce vomiting. If on skin (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower. Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Call a physician if irritation persists. Wash contaminated clothing before reuse. If inhaled: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a poison center or doctor/physician. If in eye: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Storage: Store locked up.

Disposal: Dispose of in accordance with federal, state, and local regulations.



Signal Word: Danger

Hazard Statement: Causes serious eye damage

Prevention: Wear eye protection/face protection.

Response: If in eyes: rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center or doctor/physician.



Signal Word: Warning

Hazard Statement: Harmful if swallowed

Prevention: Wash hands thoroughly after handling. Do not eat, drink or smoke when using this product.

Response: If swallowed: Call a poison center or doctor/physician if you feel unwell. Rinse mouth.

Disposal: Dispose of in accordance with federal, state, and local regulations.



Signal Word: Danger

Hazard Statement: May cause cancer

Prevention: Avoid breathing dust. In case of inadequate ventilation wear respiratory protection.

Response: If inhaled, remove to fresh air. Get medical attention if symptoms occur.

Disposal: Dispose of in accordance with federal, state, and local regulations.

1.3. Other hazards which do not result in classification: N/A

1.4. Hazards Material Information System (United States):

Health	3
Flammability	1
Physical Hazard	0

Hazard Codes: 0=Minimal Hazard, 1=Slight Hazard, 2=Moderate Hazard, 3=Serious Hazard, 4=Severe Hazard

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Mixtures

Chemical Identity	CAS No.	Concentration
Furfuryl alcohol	98-00-0	35-40%
Mixed cycloaliphatic amines	NA	30-60%
Cycloaliphatic amine	NA	7-13%
Organic acid	NA	3-7%

4. FIRST-AID MEASURES

4.1. Description of necessary first-aid measures:

Eye Contact: Remove contact lenses at once. Immediately flush eyes with large amounts of water or normal saline for at least 30 minutes. Hold eyelids apart while flushing to rinse entire surface of eye and lids with water. Prompt medical attention is essential.

Skin Contact: Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Call a physician if irritation persists. Wash clothing before reuse. Destroy contaminated shoes.

Inhalation: Remove to fresh air if effects occur. If not breathing, give artificial respiration. Get immediate medical attention.

Ingestion: Do not induce vomiting. If patient is conscious and can swallow, give two glasses of water (16 oz). Get immediate medical attention. Never give anything by mouth to an unconscious or convulsing person.

4.2. Most important symptoms/effects, acute and delayed:

Aggravated Medical Conditions: Skin contact may aggravate an existing dermatitis (skin condition). Over exposure to vapor, dust, or mist may aggravate existing respiratory conditions, such as asthma, bronchitis, and inflammatory or fibrotic respiratory disease.

Other health effects: This product contains one or more amines which may produce temporary and reversible hazy or blurred vision. Symptoms disappear when exposure is terminated. May cause liver injury based on animal studies.

4.3 Indication of immediate medical attention and special treatment needed, if necessary:

Note to physician: May cause tissue destruction leading to stricture. If lavage is performed, suggest endotracheal and/or esophagosopic control. If burn is present, treat as any thermal burn, after

decontamination. No specific antidote. Supportive care. Treatment based on judgment of the physician in response to reactions of the patient. Contact a poison control center for additional treatment information.

5. FIRE-FIGHTING MEASURES

- 5.1. **Suitable extinguishing media:** Use water spray, dry chemical, foam, or carbon dioxide. Water or foam may cause frothing. Use water to cool fire-exposed containers. If a leak or spill has not ignited, use water spray to disperse the vapors and to provide protection for persons attempting to stop the leak.
- 5.2. **Specific hazards arising from the chemical:** Toxic vapors (hydrogen cyanide) may be formed. Hazardous combustion products may include intense heat, dense black smoke, carbon monoxide, carbon dioxide, and hydrocarbon fragments.
- 5.3. **Special protective actions for fire-fighters:** Use a positive pressure self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

- 6.1. **Personal precautions, protective equipment and emergency procedures:** Ventilate the area. Avoid breathing vapor. Use self-contained breathing apparatus or supplied air for large spills or confined areas.
- 6.2. **Methods and materials for containment and clean up:** Contain spill if possible. Wipe up or absorb on suitable material and pick up with shovels. Do not use sawdust, wood chips, or other cellulosic materials to absorb the spill. Prevent entry into sewers and waterways. Dispose of in accordance with federal, state, and local regulations.

7. HANDLING AND STORAGE

- 7.1. **Precautions for safe handling:** Ground all transfer equipment. Take precautionary measures against static discharge. Handle as an industrial chemical.
- 7.2. **Conditions for safe storage, including any incompatibilities:** Keep container tightly closed when not in use. Practice good caution and personal cleanliness to avoid skin and eye contact. Hold bulk storage under nitrogen blanket. Store in a cool, dry place with adequate ventilation. Keep away from open flames and high temperatures. Copper and alloys of copper should not be used as they are quickly corroded by the product.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

- 8.1. **Control parameters:** N/A
- 8.2. **Appropriate engineering controls:** N/A
- 8.3. **Individual protection measures, such as personal protective equipment:**
 - Respiratory Protection:** Airborne concentrations should be kept to lowest levels possible. Use an approved respirator. Selection of air-purifying or positive-pressure supplied air will depend on the specific operation and the potential airborne concentration of the material. For emergency conditions, use an approved positive-pressure self-contained breathing apparatus.
 - Protective Clothing:** Protective clothing such as uniforms, coveralls, or lab coats must be worn. Launder or dry-clean when soiled. Gloves and goggles resistant to chemicals and petroleum distillates required. When handling large quantities, impervious suits, gloves, and rubber boots must be worn.

9. PHYSICAL AND CHEMICAL PROPERTIES

- 9.1. **Appearance (physical state, color, etc.):** amber liquid
- 9.2. **Odor:** Amine
- 9.3. **Odor threshold:** N/A
- 9.4. **pH:** N/A

- 9.5. **Melting point/freezing point:** N/A
- 9.6. **Initial boiling point and boiling range:** N/A
- 9.7. **Flash Point:** > 200 °F (Setaflash Closed Cup)
- 9.8. **Evaporation rate:** N/A
- 9.9. **Flammability (solid, gas):** N/A
- 9.10. **Upper/lower flammability or explosive limits:** N/A
- 9.11. **Vapor pressure:** 1.50 mmHg @ 70 °F
- 9.12. **Vapor Density:** > 1
- 9.13. **Relative density (specific gravity):** 1.09
- 9.14. **Solubility(ies):** Negligible (water)
- 9.15. **Partition coefficient; n-octanol/water:** N/A
- 9.16. **Auto-ignition temperature:** N/A
- 9.17. **Decomposition temperature:** N/A
- 9.18. **Viscosity:** N/A
- 9.19. **Solids:**
- 9.20. **VOC:**

10. STABILITY AND REACTIVITY

- 10.1. **Reactivity:** N/A
- 10.2. **Chemical stability:** Stable under normal conditions of handling.
- 10.3. **Possibility of hazardous reactions:** Will not occur.
- 10.4. **Conditions to avoid:** Reacts violently with acids. Avoid acid, oxidizing material, halogenated organic compounds, aldehydes, ketones, and acrylates. Results in temperature and/or pressure increase. Avoid exposure to heat, light flame or other sources of ignition.
- 10.5. **Incompatible materials:** N/A
- 10.6. **Hazardous decomposition products:** Toxic levels of ammonia, combustion products of nitrogen, carbon monoxide, carbon dioxide, irritating aldehydes, and ketones may be formed on burning in a limited air supply.

11. TOXICOLOGICAL INFORMATION

- 11.1. **Likely routes of exposure:** N/A
- 11.2. **Symptoms related to the physical, chemical and toxicological characteristics:**
 - Eye contact:** May cause severe irritation with corneal injury which may result in permanent impairment of vision, even blindness.
 - Skin contact:** May cause severe irritation with pain, chemical burns, blister formation, and possible tissue destruction.
 - Inhalation:** May cause respiratory sensitization in susceptible individuals. Severe overexposure may result in difficulty breathing, headache, nausea, vomiting, and drowsiness.
 - Ingestion:** Acutely toxic. Causes burning of mouth, throat, and stomach with abdominal and chest pain, nausea, vomiting, diarrhea, thirst, weakness, and collapse. Aspiration may occur during swallowing or vomiting, resulting in lung damage.
- 11.3. **Delayed and immediate effects and also chronic effects from short and long term exposure:** N/A
- 11.4. **Numerical measures of toxicity:**

Ingredient Name	CAS No.	%	Acute Oral LD50	Acute Dermal LD50	Acute Inhalation LC50
Furfuryl alcohol	98-00-0	35-40	>2000 mg/kg (rat)	400 mg/kg (rabbit)	233 ppm for 4 hrs. (rat)

12. ECOLOGICAL INFORMATION

- 12.1. **Ecotoxicity:** N/A
- 12.2. **Persistence and degradability:** N/A

12.3. Bioaccumulative potential: N/A

12.4. Mobility in soil: N/A

12.5. Other adverse effects: N/A

13. DISPOSAL CONSIDERATIONS

13.1. Disposal methods: Dispose of in accordance with federal, state, and local regulations.

14. TRANSPORT INFORMATION

14.1. UN number: UN2922

14.2. UN proper shipping name: UN2922, Corrosive Liquid, Toxic, NOS (mixed cycloaliphatic amines, furfuryl alcohol), 8, PGIII

14.3. Transport hazard class(es): 8(6.1)

14.4. Packing group, if applicable: III

14.5. Environmental hazards: none

14.6. Transport in bulk: N/A

14.7. Special precautions for user: N/A

15. REGULATORY INFORMATION

15.1. Safety, health and environmental regulations:

Not meant to be all-inclusive. Selected regulations presented.

A. Sara Title III Section 311/312: Acute health hazard

B. WHMIS Classification:

C. TSCA status: listed on TSCA Inventory

D. OSHA Hazard Comm. Std.: See Section 2

CA = California Haz. Subst. List; CA65 = California Safe Drinking Water and Toxics Enforcement Act List; CT = Connecticut Tox. Subst. List; FL = Florida Subst. List; IL = Illinois Tox. Subst. List; LA = Louisiana Haz. Subst. List; MA = Massachusetts Subst. List; ME = Maine Haz. Subst. List; MN = Minnesota Haz. Subst. List; NJ = New Jersey Haz. Subst. List; PA = Pennsylvania Haz. Subst. List; RI = Rhode Island Haz. Subst. List.

16. OTHER INFORMATION

Additional Information Contact:

PHONE: 949-366-8000

EMAIL: CustomerService@landsciencetech.com

Land Science Technologies

1011 Calle Sombra

San Clemente, CA 92673

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SAFETY DATA SHEET

Trade Name: RETRO-COAT PRIMER, PART A

Land Science Technologies
1011 Calle Sombra
San Clemente, CA 92673

PHONE: 949-366-8000
EMAIL: CustomerService@landsciencetech.com

1. PRODUCT IDENTIFICATION

- 1.1. **GHS product identifier:** Retro-Coat Primer, Part A
1.2. **Other means of identification:** Epoxy Resin
1.3. **Recommended use of the chemical and restrictions on use:** N/A

2. HAZARD(S) IDENTIFICATION

2.1. **Classification of the substance or mixture:**

Skin Corrosion/Irritation 2, Eye Damage/Irritation 2B, Acute Toxicity – Oral 4

2.2. **GHS label elements:**



Signal Word: Warning

Hazard Statement: Causes skin irritation

Prevention: Wash hands thoroughly after handling. Wear protective gloves.

Response: If on skin: wash with plenty of soap and water. If skin irritation occurs: get medical advice/attention. Take off contaminated clothing and wash before reuse.



Signal Word: Warning

Hazard Statement: Causes eye irritation

Prevention: Flush eyes thoroughly after eye contact.

Response: If in eyes: rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: get medical advice/attention.

2.3. **Other hazards which do not result in classification:** N/A

2.4. **Hazards Material Information System (United States):**

Health	2
Flammability	1
Physical Hazard	0

Hazard Codes: Minimal Hazard, 1=Slight Hazard, 2=Moderate Hazard, 3=Serious Hazard, 4=Severe Hazard

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1. **Mixtures**

Chemical Identity	CAS No.	Concentration
Bisphenol A / Epichlorohydrin resin	25068-38-6	80-90%
Benzyl alcohol	100-51-6	10-20%

4. FIRST-AID MEASURES

4.1. Description of necessary first-aid measures:

Eye Contact: Remove contact lenses at once. Immediately flush eyes with large amounts of water or normal saline for at least 30 minutes. Hold eyelids apart while flushing to rinse entire surface of eye and lids with water. Prompt medical attention is essential.

Skin Contact: Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Call a physician if irritation persists. Wash clothing before reuse. Contaminated leather articles, including shoes, cannot be decontaminated and should be destroyed to prevent reuse.

Inhalation: Remove to fresh air if effects occur. If not breathing, give artificial respiration. Get immediate medical attention.

Ingestion: Do not induce vomiting. If patient is conscious and can swallow, give two glasses of water (16 oz.). Get immediate medical attention. Never give anything by mouth to an unconscious or convulsing person.

4.2. Most important symptoms/effects, acute and delayed:

Signs and Symptoms: Irritation as noted above. Skin sensitization (allergy) may be evidenced by rashes, especially hives.

Aggravated Medical Conditions: Preexisting skin and eye disorders may be aggravated by exposure to this product. Preexisting skin and lung allergies may increase the chance of developing increased allergy symptoms from exposure to this product.

Other Health Effects: Based on animal studies, repeated exposure to components of this product may cause damage to liver, kidney, and respiratory systems. Reports have associated repeated and prolonged occupational exposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling vapors may be harmful or fatal.

4.3. Indication of immediate medical attention and special treatment needed, if necessary:

Note to Physician: No specific antidote. Supportive care. Treatment based on judgment of the physician in response to reactions of the patient. Contact a poison control center for additional treatment information.

5. FIRE-FIGHTING MEASURES

5.1. Suitable extinguishing media: Use alcohol type foam, dry chemical, or CO₂.

5.2. Specific hazards arising from the chemical: None known.

Special protective actions for fire-fighters: Use water spray to cool fire exposed surfaces and to protect personnel. If a leak or spill has not ignited, use water spray to disperse the vapors. Contain the runoff stream. Try to cover liquid spills with foam. Do not enter confined fire space without full bunker gear (helmet with face shield, bunker coats, gloves, and rubber boots), including a positive pressure NIOSH approved self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures: Ventilate the area. Avoid breathing vapor. Use self-contained breathing apparatus or supplied air for large spills or confined areas.

6.2. Methods and materials for containment and clean up: Contain spill if possible. Wipe up or absorb on suitable material and pick up with shovels. Do not use sawdust, wood chips, or other cellulosic materials to absorb the spill. Prevent entry into sewers and waterways. Dispose of in accordance with federal, state, and local regulations.

7. HANDLING AND STORAGE

7.1. Precautions for safe handling: Ground all transfer equipment. Take precautionary measures against static discharge. Handle as an industrial chemical.

7.2. Conditions for safe storage, including any incompatibilities: Keep container tightly closed when not in use. Practice good caution and personal cleanliness to avoid skin and eye contact. Hold bulk

storage under nitrogen blanket. Store in a cool, dry place with adequate ventilation. Keep away from open flames and high temperatures.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters: N/A

Component	CAS No.	Percent	Exposure Limits	Source
Bisphenol A / Epichlorohydrin resin	25068-38-6	80-90	None Established	N/A
Benzyl alcohol	100-51-6	10-20	None Established	N/A

8.2. Appropriate engineering controls: N/A

8.3. Respiratory Protection: Provide adequate ventilation. Avoid breathing of vapors or mists. Airborne concentrations should be kept to lowest levels possible. When exposures are not adequately controlled, use an approved respirator. Selection of air-purifying or positive-pressure supplied air will depend on the specific operation and the potential airborne concentration of the material. For emergency conditions, use an approved positive-pressure self-contained breathing apparatus.

Protective Clothing: Protective clothing such as uniforms, coveralls, or lab coats must be worn. Launder or dry-clean when soiled. Gloves and goggles resistant to chemicals and petroleum distillates required. When handling large quantities, impervious suits, gloves, and rubber boots must be worn.

9. PHYSICAL AND CHEMICAL PROPERTIES

- 9.1. Appearance (physical state, color, etc.): pale yellow liquid
- 9.2. Odor: Mild epoxy odor
- 9.3. Odor threshold: N/A
- 9.4. pH: Not determined.
- 9.5. Melting point/freezing point: N/A
- 9.6. Initial boiling point and boiling range: >500 °F
- 9.7. Flash Point: 485° F (closed cup)
- 9.8. Evaporation rate: Not established
- 9.9. Flammability (solid, gas): N/A
- 9.10. Upper/lower flammability or explosive limits: LEL = N/A UEL = N/A
- 9.11. Vapor pressure: Not established
- 9.12. Vapor Density: N/A
- 9.13. Relative density (specific gravity): 1.15
- 9.14. Solubility(ies): Not soluble (in water)
- 9.15. Partition coefficient; n-octanol/water: N/A
- 9.16. Auto-ignition temperature: N/A
- 9.17. Decomposition temperature: N/A
- 9.18. Viscosity: N/A
- 9.19. Solids: 100%
- 9.20. VOC: 0

10. STABILITY AND REACTIVITY

- 10.1. Reactivity: N/A
- 10.2. Chemical stability: Excess heating over long periods of time degrades the resin.
- 10.3. Possibility of hazardous reactions: Will not occur by itself, but masses of more than 1 pound of product plus an aliphatic amine will cause irreversible polymerization with considerable heat buildup.
- 10.4. Conditions to avoid: Avoid exposure to heat, light, flame, or other sources of ignition.
- 10.5. Incompatible materials: Can react vigorously with strong oxidizing agents, strong lewis or mineral acids, and strong mineral and organic bases/especially primary and secondary amines. Reaction with some curing agents may produce considerable heat.
- 10.6. Hazardous decomposition products: Hazardous combustion products may include intense heat, dense black smoke, carbon monoxide, carbon dioxide, aldehydes, acids, phenolics, water, and hydrocarbon fragments.

11. TOXICOLOGICAL INFORMATION

11.1. Likely routes of exposure: N/A

11.2. Symptoms related to the physical, chemical and toxicological characteristics:

Eye Contact: Irritating and will injure eye tissue if not removed promptly.

Skin Contact: May cause severe irritation. Has been known to cause allergic skin reaction in humans.

Inhalation: High vapor concentrations are irritating to the eyes and respiratory tract, may cause headaches and dizziness, are anesthetic, and may have other central nervous system effects.

Ingestion: Single dose oral toxicity is considered to be extremely low. No hazards anticipated from swallowing small amounts incidental to normal handling operations.

11.3. Delayed and immediate effects and also chronic effects from short and long term exposure: N/A

11.4. Numerical measures of toxicity:

Ingredient Name	CAS No.	%	Acute Oral LD50	Acute Dermal LD50	Acute Inhalation LC50
Bisphenol A / Epichlorohydrin resin	25068-38-6	80-90	> 5.0 g/kg	20.0 g/kg (rabbit)	Not available
Benzyl alcohol	100-51-6	10-20	3.2 g/kg (rat)	Not available	200-300 mg/l for 8 hrs. (rat)

12. ECOLOGICAL INFORMATION

12.1. Ecotoxicity: N/A

12.2. Persistence and degradability: N/A

12.3. Bioaccumulative potential: N/A

12.4. Mobility in soil: N/A

12.5. Other adverse effects: N/A

13. DISPOSAL CONSIDERATIONS

13.1. Disposal methods: Dispose of in accordance with federal, state, and local regulations.

14. TRANSPORT INFORMATION

14.1. UN number: Not regulated

14.2. UN proper shipping name: N/A

14.3. Transport hazard class(es): N/A

14.4. Packing group, if applicable: N/A

14.5. Environmental hazards: N/A

14.6. Transport in bulk: N/A

14.7. Special precautions for user: N/A

15. REGULATORY INFORMATION

15.1. Safety, health and environmental regulations:

Not meant to be all-inclusive. Selected regulations presented.

A. SARA Title III Section 311/312 hazards: Immediate health

B. WHMIS Classification: D2B

C. TSCA Status: listed on TSCA Inventory

D. OSHA Hazard Comm. Std.: See Section 2

CA = California Haz. Subst. List; CA65 = California Safe Drinking Water and Toxics Enforcement Act List; CT = Connecticut Tox. Subst. List; FL = Florida Subst. List; IL = Illinois Tox. Subst. List; LA = Louisiana Haz. Subst. List; MA = Massachusetts Subst. List; ME = Maine Haz. Subst. List; MN = Minnesota Haz. Subst. List; NJ = New Jersey Haz. Subst. List; PA = Pennsylvania Haz. Subst. List; RI = Rhode Island Haz. Subst. List.

16. OTHER INFORMATION

Additional Information Contact:

PHONE: 949-366-8000

EMAIL: CustomerService@landsciencetech.com

Land Science Technologies

1011 Calle Sombra

San Clemente, CA 92673

Land Science Technologies cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. The information in the sheet was written based on the best knowledge and experience currently available.

SAFETY DATA SHEET

Trade Name: RETRO-COAT PRIMER, PART B

Land Science Technologies
1011 Calle Sombra
San Clemente, CA 92673

PHONE: 949-366-8000
EMAIL: CustomerService@landsciencetech.com

1. PRODUCT IDENTIFICATION

- 1.1. **GHS product identifier:** Retro-Coat Primer, Part B
- 1.2. **Other means of identification:** Epoxy Curing Agent
- 1.3. **Recommended use of the chemical and restrictions on use:** N/A

2. HAZARD(S) IDENTIFICATION

2.1. Classification of the substance or mixture:

Acute Toxicity – Dermal 4, Skin Corrosion/Irritant 1B, Eye Damage/Irritation 1, Acute Toxicity – Oral 4

2.2. GHS label elements:



Signal Word: Warning

Hazard Statement: Harmful in contact with skin

Prevention: Wear protective gloves/protective clothing.

Response: If on skin: wash with plenty of soap and water. Call a poison center or doctor/physician if you feel unwell. Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Call a physician if irritation persists. Wash contaminated clothing before reuse.

Disposal: Dispose of in accordance with federal, state, and local regulations.



Signal Word: Danger

Hazard Statement: Causes severe skin burns and eye damage

Prevention: Do not breathe dusts or mists. Wash hands thoroughly after handling.

Wear protective gloves/protective clothing/eye protection/face protection.

Response: If swallowed: Rinse mouth. Do NOT induce vomiting. If on skin (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower. Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Call a physician if irritation persists. Wash contaminated clothing before reuse. If inhaled: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a poison center or doctor/physician. If in eye: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Storage: Store locked up.

Disposal: Dispose of in accordance with federal, state, and local regulations.



Signal Word: Danger

Hazard Statement: Causes serious eye damage

Prevention: Wear eye protection/face protection.

Response: If in eyes: rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center or doctor/physician.



Signal Word: Warning

Hazard Statement: Harmful if swallowed

Prevention: Wash hands thoroughly after handling. Do not eat, drink or smoke when using this product.

Response: If swallowed: Call a poison center or doctor/physician if you feel unwell. Rinse mouth.

Disposal: Dispose of in accordance with federal, state, and local regulations.

2.3. Other hazards which do not result in classification: N/A

2.4. Hazards Material Information System (United States):

Health	3
Flammability	1
Physical Hazard	0

Hazard Codes: Minimal Hazard, 1=Slight Hazard, 2=Moderate Hazard, 3=Serious Hazard, 4=Severe Hazard

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Mixtures

Chemical Identity	CAS No.	Concentration
Polyetheramine	9046-10-0	60-70%
Aminoethylpiperazine	140-31-8	30-40%

4. FIRST-AID MEASURES

4.1. Description of necessary first-aid measures:

Eye Contact: Remove contact lenses at once. Immediately flush eyes with large amounts of water or normal saline for at least 30 minutes. Hold eyelids apart while flushing to rinse entire surface of eye and lids with water. Prompt medical attention is essential.

Skin Contact: Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Call a physician if irritation persists. Wash clothing before reuse. Destroy contaminated shoes.

Inhalation: Remove to fresh air if effects occur. If not breathing, give artificial respiration. Get immediate medical attention.

Ingestion: Do not induce vomiting. If patient is conscious and can swallow, give two glasses of water (16 oz). Get immediate medical attention. Never give anything by mouth to an unconscious or convulsing person.

4.2. Most important symptoms/effects, acute and delayed:

Aggravated Medical Conditions: Skin contact may aggravate an existing dermatitis (skin condition). Over exposure to vapor, dust, or mist may aggravate existing respiratory conditions, such as asthma, bronchitis, and inflammatory or fibrotic respiratory disease.

Other health effects: This product contains one or more amines which may produce temporary and reversible hazy or blurred vision. Symptoms disappear when exposure is terminated. May cause liver injury based on animal studies.

4.3 Indication of immediate medical attention and special treatment needed, if necessary:

Note to physician: May cause tissue destruction leading to stricture. If lavage is performed, suggest endotracheal and/or esophagoscopy control. If burn is present, treat as any thermal burn, after decontamination. No specific antidote. Supportive care. Treatment based on judgment of the physician in response to reactions of the patient. Contact a poison control center for additional treatment information.

5. FIRE-FIGHTING MEASURES

5.1. Suitable extinguishing media: Use water spray, dry chemical, foam, or carbon dioxide. Water or foam may cause frothing. Use water to cool fire-exposed containers. If a leak or spill has not ignited,

use water spray to disperse the vapors and to provide protection for persons attempting to stop the leak.

5.2. Specific hazards arising from the chemical: Toxic vapors (hydrogen cyanide) may be formed. Hazardous combustion products may include intense heat, dense black smoke, carbon monoxide, carbon dioxide, and hydrocarbon fragments.

5.3. Special protective actions for fire-fighters: Use a positive pressure self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures: Ventilate the area. Avoid breathing vapor. Use self-contained breathing apparatus or supplied air for large spills or confined areas.

6.2. Methods and materials for containment and clean up: Contain spill if possible. Wipe up or absorb on suitable material and pick up with shovels. Do not use sawdust, wood chips, or other cellulosic materials to absorb the spill. Prevent entry into sewers and waterways. Dispose of in accordance with federal, state, and local regulations.

7. HANDLING AND STORAGE

7.1. Precautions for safe handling: Ground all transfer equipment. Take precautionary measures against static discharge. Handle as an industrial chemical.

7.2. Conditions for safe storage, including any incompatibilities: Keep container tightly closed when not in use. Practice good caution and personal cleanliness to avoid skin and eye contact. Hold bulk storage under nitrogen blanket. Store in a cool, dry place with adequate ventilation. Keep away from open flames and high temperatures. Copper and alloys of copper should not be used as they are quickly corroded by the product.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters: N/A

8.2. Appropriate engineering controls: N/A

8.3. Individual protection measures, such as personal protective equipment:

Respiratory Protection: Airborne concentrations should be kept to lowest levels possible. Use an approved respirator. Selection of air-purifying or positive-pressure supplied air will depend on the specific operation and the potential airborne concentration of the material. For emergency conditions, use an approved positive-pressure self-contained breathing apparatus.

Protective Clothing: Protective clothing such as uniforms, coveralls, or lab coats must be worn. Launder or dry-clean when soiled. Gloves and goggles resistant to chemicals and petroleum distillates required. When handling large quantities, impervious suits, gloves, and rubber boots must be worn.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1. Appearance (physical state, color, etc.): amber liquid

9.2. Odor: Amine

9.3. Odor threshold: N/A

9.4. pH: N/A

9.5. Melting point/freezing point: N/A

9.6. Initial boiling point and boiling range: N/A

9.7. Flash Point: > 200 °F (Setaflash Closed Cup)

9.8. Evaporation rate: N/A

9.9. Flammability (solid, gas): N/A

9.10. Upper/lower flammability or explosive limits: N/A

9.11. Vapor pressure: N/A

- 9.12. Vapor Density: > 1
- 9.13. Relative density (specific gravity): 1.03
- 9.14. Solubility(ies): Negligible (water)
- 9.15. Partition coefficient; n-octanol/water: N/A
- 9.16. Auto-ignition temperature: N/A
- 9.17. Decomposition temperature: N/A
- 9.18. Viscosity: N/A
- 9.19. Solids:
- 9.20. VOC:

10. STABILITY AND REACTIVITY

- 10.1. Reactivity: N/A
- 10.2. Chemical stability: Stable under normal conditions of handling.
- 10.3. Possibility of hazardous reactions: Will not occur.
- 10.4. Conditions to avoid: Reacts violently with acids. Avoid acid, oxidizing material, halogenated organic compounds, aldehydes, ketones, and acrylates. Results in temperature and/or pressure increase. Avoid exposure to heat, light flame or other sources of ignition.
- 10.5. Incompatible materials: N/A
- 10.6. Hazardous decomposition products: Toxic levels of ammonia, combustion products of nitrogen, carbon monoxide, carbon dioxide, irritating aldehydes, and ketones may be formed on burning in a limited air supply.

11. TOXICOLOGICAL INFORMATION

- 11.1. Likely routes of exposure: N/A
- 11.2. Symptoms related to the physical, chemical and toxicological characteristics:
 - Eye contact:** May cause severe irritation with corneal injury which may result in permanent impairment of vision, even blindness.
 - Skin contact:** May cause severe irritation with pain, chemical burns, blister formation, and possible tissue destruction.
 - Inhalation:** May cause respiratory sensitization in susceptible individuals. Severe overexposure may result in difficulty breathing, headache, nausea, vomiting, and drowsiness.
 - Ingestion:** Acutely toxic. Causes burning of mouth, throat, and stomach with abdominal and chest pain, nausea, vomiting, diarrhea, thirst, weakness, and collapse. Aspiration may occur during swallowing or vomiting, resulting in lung damage.
- 11.3. Delayed and immediate effects and also chronic effects from short and long term exposure: N/A
- 11.4. Numerical measures of toxicity:

Ingredient Name	CAS No.	%	Acute Oral LD50	Acute Dermal LD50	Acute Inhalation LC50
Polyetheramine	9046-10-0	60-70	2855 mg/kg (rat)	2980 mg/kg (rabbit)	No data
Aminoethylpiperazine	140-31-8	30-40	2108 mg/kg (rat)	>880 mg/kg (rabbit)	No data

12. ECOLOGICAL INFORMATION

- 12.1. Ecotoxicity: N/A
- 12.2. Persistence and degradability: N/A
- 12.3. Bioaccumulative potential: N/A
- 12.4. Mobility in soil: N/A
- 12.5. Other adverse effects: N/A

13. DISPOSAL CONSIDERATIONS

13.1. Disposal methods: Dispose of in accordance with federal, state, and local regulations.

14. TRANSPORT INFORMATION

14.1. UN number: UN2735

14.2. UN proper shipping name: UN2735 Amines, Liquid, Corrosive, NOS (Polyetheramine, Aminoethylpiperazine), 8, PGIII

14.3. Transport hazard class(es): 8

14.4. Packing group, if applicable: III

14.5. Environmental hazards:

14.6. Transport in bulk: N/A

14.7. Special precautions for user: N/A

15. REGULATORY INFORMATION

15.1. Safety, health and environmental regulations:

Not meant to be all-inclusive. Selected regulations presented.

A. Sara Title III Section 311/312: not hazardous

B. WHMIS Classification:

C. TSCA status: listed on TSCA Inventory

D. OSHA Hazard Comm. Std.: See Section 2

CA = California Haz. Subst. List; CA65 = California Safe Drinking Water and Toxics Enforcement Act List; CT = Connecticut Tox. Subst. List; FL = Florida Subst. List; IL = Illinois Tox. Subst. List; LA = Louisiana Haz. Subst. List; MA = Massachusetts Subst. List; ME = Maine Haz. Subst. List; MN = Minnesota Haz. Subst. List; NJ = New Jersey Haz. Subst. List; PA = Pennsylvania Haz. Subst. List; RI = Rhode Island Haz. Subst. List.

16. OTHER INFORMATION

Additional Information Contact:

PHONE: 949-366-8000

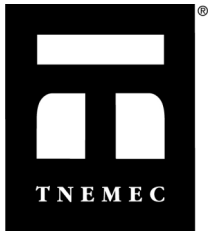
EMAIL: CustomerService@landsciencetech.com

Land Science Technologies

1011 Calle Sombra

San Clemente, CA 92673

Land Science Technologies cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. The information in the sheet was written based on the best knowledge and experience currently available.



Safety Data Sheet

Issue Date 22-Jul-2015

Revision Date 22-Jul-2015

Revision Number 9

1. IDENTIFICATION

Product identifier

Product Code F218-1000A
Product Name MORTARCLAD AMINE

Other means of identification

Common Name SERIES 218-1000, PART A

Recommended use of the chemical and restrictions on use

Recommended Use industrial paint.
Uses advised against Consumer use, For professional use only. Not for residential use.

Details of the supplier of the safety data sheet

Manufacturer Address

Tnemec Company, Inc. 6800 Corporate Drive, Kansas City, MO
64120-1372

Distributor

Tnemec Company, Inc. 86 Boul, des Entreprises, Ste. 203
Boisbriand, Quebec Canada J7G 2T3

Emergency telephone number

Company Phone Number Tnemec Regulatory Dept: 816-474-3400
24 Hour Emergency Phone Number 800-535-5053 (Infotrac)

2. HAZARDS IDENTIFICATION

Classification

OSHA Regulatory Status

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 1
Skin sensitization	Category 1
Specific target organ toxicity (single exposure)	Category 1
Specific target organ toxicity (repeated exposure)	Category 1

Label elements

EMERGENCY OVERVIEW

Danger

Hazard statements

Causes skin irritation
Causes serious eye damage
May cause an allergic skin reaction
Causes damage to organs
Causes damage to organs through prolonged or repeated exposure

**Appearance** opaque**Physical state** liquid**Odor** amine**Precautionary Statements****Prevention**

Wash face, hands and any exposed skin thoroughly after handling
 Wear protective gloves/protective clothing/eye protection/face protection
 Contaminated work clothing should not be allowed out of the workplace
 Do not breathe dust/fume/gas/mist/vapors/spray
 Do not eat, drink or smoke when using this product

Response

Specific treatment (see .? on this label)

IF exposed: Call a POISON CENTER or doctor/physician

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

Immediately call a POISON CENTER or doctor/physician

IF ON SKIN: Wash with plenty of soap and water

Take off contaminated clothing and wash before reuse

If skin irritation or rash occurs: Get medical advice/attention

Storage

Store locked up
 Keep away from children

Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)**Other information**

Harmful to aquatic life with long lasting effects

Harmful to aquatic life

SEE SAFETY DATA SHEET

Acute Toxicity

24.333954 % of the mixture consists of ingredient(s) of unknown toxicity.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS-No	Weight-%
AMINE FUNCTIONAL CO-POLYMER	1263064-50-1	10 - 30%
AMINE-TERMINATED CYCLOALIPHATIC PROPOXYLATE	1220986-58-2	1 - 10%
ZINC OXIDE (TOTAL DUST)	1314-13-2	1 - 10%
TRIETHYLENE TETRAMINE	112-24-3	1 - 10%

*The exact percentage (concentration) of composition has been withheld as a trade secret.

4. FIRST AID MEASURES

Description of first aid measures**General advice**

If symptoms persist, call a physician.

Eye contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Immediate medical attention is required.
Skin contact	IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Call a physician immediately.
Inhalation	If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.
Ingestion	If swallowed, do not induce vomiting. Get medical attention immediately. Never give anything by mouth to an unconscious person.
Self-protection of the first aider	Use personal protective equipment. Avoid contact with eyes, skin and clothing.

Most important symptoms and effects, both acute and delayed

Notes to physician Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media

Carbon dioxide. Foam. Dry chemical.

Unsuitable extinguishing media Water.

Specific hazards arising from the chemical

Thermal decomposition can lead to release of irritating gases and vapours In the event of fire and/or explosion do not breathe fumes

Hazardous combustion products Hazardous combustion products may include: A complex mixture of airborne solid and liquid particulates and gases (smoke). Carbon monoxide. Unidentified organic and inorganic compounds. Ammonia. Nitrogen oxides (NOx). Carbon oxides. Nitric acid, nitrosamine.

Protective equipment and precautions for firefighters

Use water spray to cool unopened containers. In the event of fire, wear self-contained breathing apparatus. Keep away from heat/sparks/open flames/hot surfaces. MAY CAUSE HEAT AND PRESSURE BUILD-UP IN CLOSED CONTAINERS.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions Avoid contact with eyes, skin and clothing. Use personal protective equipment. Remove all sources of ignition.

Environmental Precautions

Environmental precautions Prevent further leakage or spillage if safe to do so. Do not flush into surface water or sanitary sewer system.

Methods and material for containment and cleaning up

Methods for containment Remove all sources of ignition. Spills may be collected with inert, absorbent material for proper disposal. Use non-sparking tools, protective gloves, goggles and clothing, adequate ventilation, avoid the breathing of vapors and use respiratory protective devices. Transfer absorbent material to suitable containers for proper disposal.

Methods for cleaning up If spilled, contain spilled material and remove with inert absorbent. Dispose of contaminated absorbent, container and unused contents in accordance with local, state and federal regulations.

7. HANDLING AND STORAGE

Precautions for safe handling

Handling Ensure adequate ventilation. Close container after each use. Avoid contact with eyes, skin and clothing. Do not eat, drink or smoke when using this product. If splashes are likely to occur, wear goggles. Wear protective gloves/clothing. Do not burn, or use a cutting torch on, the empty drum. When used in a mixture, read the labels and safety data sheets of all components. Wash thoroughly after handling.

Conditions for safe storage, including any incompatibilities

Storage Keep container tightly closed in a dry and well-ventilated place. Keep out of the reach of children.

Incompatible products Incompatible with oxidizing agents. Nitrous acid and other nitrosating agents. Acids. Nitrates. Peroxides.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters**Exposure guidelines**

Component	ACGIH TLV	OSHA PEL	NIOSH IDLH
ZINC OXIDE (TOTAL DUST) 1314-13-2	TWA: 2 mg/m ³ STEL: 10 mg/m ³	TWA: 5 mg/m ³ TWA: 10 mg/m ³ STEL: 10 mg/m ³ TWA: 15 mg/m ³	500 mg/m ³

Appropriate engineering controls

Engineering measures Sufficient ventilation, in volume and pattern, should be provided through both local and general exhaust to keep the air contaminant concentration below current applicable OSHA Permissible Exposure Limits (PEL) and ACGIH's Threshold Limit Values (TLV). Appropriate ventilation should be employed to remove hazardous decomposition products formed during welding or flame cutting operations of surfaces coated with this product.

Individual protection measures, such as personal protective equipment

Eye/face protection Use chemical resistant splash type goggles. If splashes are likely to occur, wear face-shield.

Skin and body protection Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact.

Respiratory protection Use only with adequate ventilation. Do not breathe vapors, spray mist, or dust. Ensure fresh air entry during application and drying. If you experience eye watering, headache or dizziness or if air monitoring demonstrates vapor/mist or dust levels are above applicable limits, wear an appropriate, properly fitted respirator (NIOSH/MSHA approved) during and after application. Follow respirator manufacturer's directions for respirator use.

General hygiene considerations Handle in accordance with good industrial hygiene and safety practice. Avoid breathing dust created by cutting, sanding, or grinding.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state	liquid	Odor	amine
Appearance	opaque	Odor threshold	No information available
Color	No information available		
Property	Values	Remarks	

pH		No data available
Melting point / freezing point		No data available
Boiling point / boiling range	100 °C / 212.0 °F	
Flash point	No information available	
Evaporation rate		No data available
Flammability (solid, gas)		No information available
Flammability Limit in Air		No data available
Upper flammability limit	N/A	
Lower flammability limit	N/A	
Vapor pressure		No data available
Vapor density		No data available
Specific gravity	1.03995	g/cm3
Water solubility	Insoluble in cold water	
Solubility in other solvents		No data available
Partition coefficient: n-octanol/water		No data available
Autoignition temperature		No data available
Decomposition temperature		No data available
Kinematic viscosity		No data available
Dynamic viscosity	225 centipoises	approx

Other Information

Density	8.67318 lbs/gal
Volatile organic compounds (VOC) content	0.13722 lbs/gal
Total volatiles weight percent	66.79 %
Total volatiles volume percent	69.51 %

10. STABILITY AND REACTIVITY

Reactivity

No data available

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

None under normal processing.

Conditions to avoid

Heat, flames and sparks.

Incompatible materials

Incompatible with oxidizing agents, Nitrous acid and other nitrosating agents, Acids, Nitrates, Peroxides

Hazardous decomposition products

Hazardous combustion products may include: A complex mixture of airborne solid and liquid particulates and gases (smoke). Carbon monoxide. Unidentified organic and inorganic compounds. Ammonia. Nitrogen oxides (NOx). Carbon oxides. Nitric acid, nitrosamine.

11. TOXICOLOGICAL INFORMATION

Information on Likely Routes of Exposure

Inhalation	IRRITATING TO RESPIRATORY SYSTEM. May cause central nervous system depression with nausea, headache, dizziness, vomiting, and incoordination.
Eye contact	Corrosive to the eyes and may cause severe damage including blindness.
Skin contact	Contact causes severe skin irritation and possible burns. May cause sensitization of susceptible persons.

Ingestion

Harmful if swallowed.

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
ZINC OXIDE (TOTAL DUST) 1314-13-2	> 5000 mg/kg (Rat)		
TRIETHYLENE TETRAMINE 112-24-3	= 2500 mg/kg (Rat)	= 550 mg/kg (Rabbit)	

Information on toxicological effects

Symptoms Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting. Skin disorders.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Corrosivity May be corrosive to metals.
Sensitization May cause sensitization of susceptible persons.
Mutagenicity No information available.
Carcinogenicity There are no known carcinogenic chemicals in this product.
Reproductive effects No information available.
STOT - single exposure Eyes, Skin, Central Nervous System (CNS)
STOT - repeated exposure Causes damage to organs through prolonged or repeated exposure
Target organ effects Skin, Eyes, Gastrointestinal tract, respiratory system, kidney, liver.
Aspiration hazard No information available.

Acute Toxicity 24.333954 % of the mixture consists of ingredient(s) of unknown toxicity.
The following values are calculated based on chapter 3.1 of the GHS document .

12. ECOLOGICAL INFORMATION

Ecotoxicity

97.01912 % of the mixture consists of component(s) of unknown hazards to the aquatic environment

Component	Toxicity to algae	Toxicity to fish	Toxicity to daphnia
TRIETHYLENE TETRAMINE 112-24-3	2.5: 72 h Desmodesmus subspicatus mg/L EC50 20: 72 h Pseudokirchneriella subcapitata mg/L EC50 3.7: 96 h Pseudokirchneriella subcapitata mg/L EC50	570: 96 h Poecilia reticulata mg/L LC50 semi-static 495: 96 h Pimephales promelas mg/L LC50	31.1: 48 h Daphnia magna mg/L EC50

Persistence and degradability

No information available.

Bioaccumulation

No information available.

Mobility in Environmental Media

Component	log Pow
TRIETHYLENE TETRAMINE 112-24-3	-1.4

Other Adverse Effects

No information available

13. DISPOSAL CONSIDERATIONS

Waste treatment methods**Disposal Methods**

Keep container tightly closed. If spilled, contain spilled material and remove with inert absorbent. Dispose of contaminated absorbent, container and unused contents in accordance with local, state and federal regulations.

Contaminated packaging Empty containers should be taken to an approved waste handling site for recycling or disposal.

Component	CAWAST
ZINC OXIDE (TOTAL DUST) 1314-13-2	Toxic

14. TRANSPORT INFORMATION

DOT
Proper Shipping Name paint,water base freezable

IATA
Proper Shipping Name Not regulated

Additional information Call TNE MEC Traffic Department - 816-474-3400 for additional information or other modes of Transportation.

15. REGULATORY INFORMATION

International Inventories

TSCA Complies
 DSL/NDSL Does not comply
 EINECS/ELINCS Does not comply
 ENCS Does not comply
 IECSC Does not comply
 KECL Does not comply
 PICCS Does not comply
 AICS Does not comply

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
 DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
 EINECS/ELINCS - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances
 ENCS - Japan Existing and New Chemical Substances
 IECSC - China Inventory of Existing Chemical Substances
 KECL - Korean Existing and Evaluated Chemical Substances
 PICCS - Philippines Inventory of Chemicals and Chemical Substances
 AICS - Australian Inventory of Chemical Substances

United States of America

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40n of the Code of Federal Regulations, Part 372:

Component	SARA 313 - Threshold Values
ZINC OXIDE (TOTAL DUST) - 1314-13-2	1.0

SARA 311/312 Hazardous

Categorization

Acute Health Hazard Yes
 Chronic Health Hazard Yes
 Fire Hazard No
 Sudden Release of Pressure Hazard No
 Reactive Hazard No

Component	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances

ZINC OXIDE (TOTAL DUST) 1314-13-2		X		
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CERCLA

United States of America

California Prop. 65

This product does not contain any Proposition 65 chemicals

California SCAQMD Rule 443

Does Not Contain Photochemically Reactive Solvent

State Right-to-Know

Component	New Jersey	Massachusetts	Pennsylvania
ZINC OXIDE (TOTAL DUST) 1314-13-2	X	X	X
TRIETHYLENE TETRAMINE 112-24-3	X	X	X

16. OTHER INFORMATION

NFPA Health 3 Flammability 1 Instability 1 Physical hazard *
HMIS (Hazardous Material Information System) Health 3* Flammability 1 Reactivity 1

Prepared By Tnemec Regulatory Dept: 816-474-3400
Revision Date 22-Jul-2015
Revision Summary
 9 14 5 7 10 8 11 15

Disclaimer

For specific information regarding occupational safety and health standards, please refer to the Code of Federal Regulations, Title 29, Part 1910.

To the best of our knowledge, the information contained herein is accurate. However, neither the Tnemec Company or any of its subsidiaries assume any liability whatsoever for the accuracy of completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown health hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards which exist.

End of MSDS



Safety Data Sheet

Issue Date No data available

Revision Date 10-Apr-2015

Revision Number 10

1. IDENTIFICATION

Product identifier

Product Code F218-1000B
Product Name MORTARCLAD EPOXY

Other means of identification

Common Name SERIES 218-1000, PART B

Recommended use of the chemical and restrictions on use

Recommended Use industrial paint.
Uses advised against Consumer use, For professional use only. Not for residential use.

Details of the supplier of the safety data sheet

Manufacturer Address
Tnemec Company, Inc. 6800 Corporate Drive, Kansas City, MO 64120-1372

Emergency telephone number

Company Phone Number Tnemec Regulatory Dept: 816-474-3400
24 Hour Emergency Phone Number 800-535-5053 (Infotrac)

2. HAZARDS IDENTIFICATION

Classification

OSHA Regulatory Status

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Acute toxicity - Dermal	Category 4
Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 2A
Skin sensitization	Category 1

Label elements

EMERGENCY OVERVIEW

WARNING

Hazard statements

Harmful in contact with skin
Causes skin irritation
Causes serious eye irritation
May cause an allergic skin reaction

**Appearance** opaque**Physical state** liquid**Odor** Slight**Precautionary Statements****Prevention**

Wear protective gloves/protective clothing/eye protection/face protection
 Wash face, hands and any exposed skin thoroughly after handling
 Avoid breathing dust/fume/gas/mist/vapors/spray
 Contaminated work clothing should not be allowed out of the workplace

Response

Get medical advice/attention if you feel unwell
 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
 If eye irritation persists: Get medical advice/attention
 IF ON SKIN: Wash with plenty of soap and water
 Call a POISON CENTER or doctor/physician if you feel unwell
 Take off contaminated clothing and wash before reuse
 If skin irritation or rash occurs: Get medical advice/attention

Storage

Keep away from children

Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)**Other information**

Toxic to aquatic life with long lasting effects
 SEE SAFETY DATA SHEET

Acute Toxicity

12.3407 % of the mixture consists of ingredient(s) of unknown toxicity.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS-No	Weight-%
EPOXY RESIN (LER)	25085-99-8	60 - 100%

*The exact percentage (concentration) of composition has been withheld as a trade secret.

4. FIRST AID MEASURES

Description of first aid measures**General advice**

If symptoms persist, call a physician.

Eye contact

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If symptoms persist, call a physician.

Skin contact

Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. If symptoms persist, call a physician.

Inhalation

Remove to fresh air. Oxygen or artificial respiration if needed.

Ingestion If swallowed, do not induce vomiting. Get medical attention immediately.

Self-protection of the first aider Use personal protective equipment. Avoid contact with eyes, skin and clothing.

Most important symptoms and effects, both acute and delayed

Notes to physician Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media

Carbon dioxide (CO₂). Foam. Dry chemical.

Unsuitable extinguishing media Water.

Specific hazards arising from the chemical

Thermal decomposition can lead to release of irritating gases and vapours In the event of fire and/or explosion do not breathe fumes

Hazardous combustion products Hazardous combustion products may include: A complex mixture of airborne solid and liquid particulates and gases (smoke). Carbon monoxide. Unidentified organic and inorganic compounds. Carbon oxides. Aldehydes. Hydrocarbons. Nitrogen oxides (NO_x).

Protective equipment and precautions for firefighters

Use water spray to cool unopened containers. In the event of fire, wear self-contained breathing apparatus. Keep away from heat/sparks/open flames/hot surfaces. MAY CAUSE HEAT AND PRESSURE BUILD-UP IN CLOSED CONTAINERS.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions Avoid contact with eyes, skin and clothing. Use personal protective equipment. Remove all sources of ignition.

Environmental Precautions

Environmental precautions Prevent further leakage or spillage if safe to do so. Do not flush into surface water or sanitary sewer system.

Methods and material for containment and cleaning up

Methods for containment Remove all sources of ignition. Spills may be collected with inert, absorbent material for proper disposal. Use non-sparking tools, protective gloves, goggles and clothing, adequate ventilation, avoid the breathing of vapors and use respiratory protective devices. Transfer absorbent material to suitable containers for proper disposal.

Methods for cleaning up If spilled, contain spilled material and remove with inert absorbent. Dispose of contaminated absorbent, container and unused contents in accordance with local, state and federal regulations.

7. HANDLING AND STORAGE

Precautions for safe handling

Handling Close container after each use. Avoid contact with eyes, skin and clothing. Do not eat, drink or smoke when using this product. If splashes are likely to occur, wear goggles. Wear protective gloves/clothing. Do not burn, or use a cutting torch on, the empty drum. When used in a mixture, read the labels and safety data sheets of all components. Wash thoroughly after handling.

Conditions for safe storage, including any incompatibilities

Storage	Keep container tightly closed in a dry and well-ventilated place. Keep out of the reach of children.
Incompatible products	Strong oxidizing agents. Acids. Amines. Bases.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION**Control parameters****Exposure guidelines****Appropriate engineering controls****Engineering measures**

Sufficient ventilation, in volume and pattern, should be provided through both local and general exhaust to keep the air contaminant concentration below current applicable OSHA Permissible Exposure Limits (PEL) and ACGIH's Threshold Limit Values (TLV). Appropriate ventilation should be employed to remove hazardous decomposition products formed during welding or flame cutting operations of surfaces coated with this product.

Individual protection measures, such as personal protective equipment**Eye/face protection**

Use chemical resistant splash type goggles. If splashes are likely to occur, wear face-shield.

Skin and body protection

Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact.

Respiratory protection

Use only with adequate ventilation. Do not breathe vapors, spray mist, or dust. Ensure fresh air entry during application and drying. If you experience eye watering, headache or dizziness or if air monitoring demonstrates vapor/mist or dust levels are above applicable limits, wear an appropriate, properly fitted respirator (NIOSH/MSHA approved) during and after application. Follow respirator manufacturer's directions for respirator use.

General hygiene considerations

Handle in accordance with good industrial hygiene and safety practice. Avoid breathing dust created by cutting, sanding, or grinding.

9. PHYSICAL AND CHEMICAL PROPERTIES**Information on basic physical and chemical properties**

Physical state	liquid	Odor	Slight
Appearance	opaque	Odor threshold	No information available
Color	No information available		
Property	Values	Remarks	
pH		No data available	
Melting point / freezing point		No data available	
Boiling point / boiling range	100 °C / 212.0 °F		
Flash point	No information available		
Evaporation rate		No data available	
Flammability (solid, gas)		No information available	
Flammability Limit in Air		No data available	
Upper flammability limit	N/A		
Lower flammability limit	N/A		
Vapor pressure		No data available	
Vapor density		No data available	
Specific gravity	1.14353	g/cm ³	
Water solubility	Insoluble in cold water		
Solubility in other solvents		No data available	
Partition coefficient: n-octanol/water		No data available	

Autoignition temperature	No data available
Decomposition temperature	No data available
Kinematic viscosity	No data available
Dynamic viscosity	5900 centipoises approx

Other Information

Density	9.53704 lbs/gal
Volatile organic compounds (VOC) content	0 lbs/gal
Total volatiles weight percent	0 %
Total volatiles volume percent	0 %

10. STABILITY AND REACTIVITY

Reactivity

No data available

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

None under normal processing.

Conditions to avoid

Heat, flames and sparks. Amines.

Incompatible materials

Strong oxidizing agents, Acids, Amines, Bases

Hazardous decomposition products

Hazardous combustion products may include: A complex mixture of airborne solid and liquid particulates and gases (smoke). Carbon monoxide. Unidentified organic and inorganic compounds. Carbon oxides. Nitrogen oxides (NOx). Hydrocarbons. Aldehydes.

11. TOXICOLOGICAL INFORMATION

Information on Likely Routes of Exposure

Inhalation	May cause central nervous system depression with nausea, headache, dizziness, vomiting, and incoordination.
Eye contact	Causes serious eye irritation.
Skin contact	Irritating to skin. May cause sensitization of susceptible persons.
Ingestion	Harmful if swallowed.

Information on toxicological effects

Symptoms	Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting. Skin disorders.
-----------------	--

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Sensitization	May cause sensitization of susceptible persons.
Mutagenicity	No information available.
Carcinogenicity	There are no known carcinogenic chemicals in this product.
Reproductive effects	No information available.
STOT - single exposure	No information available
STOT - repeated exposure	No information available

Aspiration hazard No information available.

Acute Toxicity 12.3407 % of the mixture consists of ingredient(s) of unknown toxicity.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Toxic to aquatic life with long lasting effects

12.09389 % of the mixture consists of component(s) of unknown hazards to the aquatic environment

Component	Toxicity to algae	Toxicity to fish	Toxicity to daphnia
EPOXY RESIN (LER) 25085-99-8	11 mg/L 72 hr	2 mg/L 96 hr Oncorhynchus mykiss	1.8 mg/L 48h

Persistence and degradability

No information available.

Bioaccumulation

No information available.

Mobility in Environmental Media

Other Adverse Effects No information available

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Disposal Methods Keep container tightly closed. If spilled, contain spilled material and remove with inert absorbent. Dispose of contaminated absorbent, container and unused contents in accordance with local, state and federal regulations.

Contaminated packaging Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. TRANSPORT INFORMATION

DOT

Proper Shipping Name paint in oil Not regulated

IATA

Proper Shipping Name Not regulated

Additional information

Call TNEMEC Traffic Department - 816-474-3400 for additional information or other modes of Transportation.

15. REGULATORY INFORMATION

International Inventories

TSCA	Complies
DSL/NDSL	Does not comply
EINECS/ELINCS	Does not comply
ENCS	Does not comply
IECSC	Complies
KECL	Complies
PICCS	Complies

AICS Complies

- TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
- DSL/NDL - Canadian Domestic Substances List/Non-Domestic Substances List
- EINECS/ELINCS - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances
- ENCS - Japan Existing and New Chemical Substances
- IECSC - China Inventory of Existing Chemical Substances
- KECL - Korean Existing and Evaluated Chemical Substances
- PICCS - Philippines Inventory of Chemicals and Chemical Substances
- AICS - Australian Inventory of Chemical Substances

The following chemical(s) are listed as HAP under the U.S. Clean Air Act, Section 12 (40 CFR 61):

United States of America

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40n of the Code of Federal Regulations, Part 372.

SARA 311/312 Hazardous

Categorization

Acute Health Hazard	Yes
Chronic Health Hazard	No
Fire Hazard	No
Sudden Release of Pressure Hazard	No
Reactive Hazard	No

CERCLA

United States of America

California Prop. 65

This product does not contain any Proposition 65 chemicals

California SCAQMD Rule 443

Does Not Contain Photochemically Reactive Solvent

State Right-to-Know

16. OTHER INFORMATION

<u>NFPA</u>	Health 2	Flammability 0	Instability 0	Physical hazard -
<u>HMIS (Hazardous Material Information System)</u>	Health 2	Flammability 0	Reactivity 0	

Prepared By Tnemec Regulatory Dept: 816-474-3400
 Revision Date 10-Apr-2015

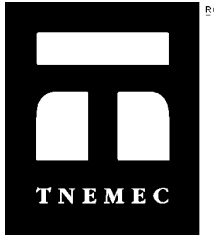
Revision Summary
 9 4 5 7 10 8 11 14 15

Disclaimer

For specific information regarding occupational safety and health standards, please refer to the Code of Federal Regulations, Title 29, Part 1910.

To the best of our knowledge, the information contained herein is accurate. However, neither the Tnemec Company or any of its subsidiaries assume any liability whatsoever for the accuracy of completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown health hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards which exist.

End of MSDS



Safety Data Sheet

Issue Date No data available

Revision Date 08-Apr-2015

Revision Number 8

1. IDENTIFICATION

Product identifier

Product Code F218-1000C
Product Name MORTARCLAD AGGREGATE

Other means of identification

Common Name SERIES 218, PART C

Recommended use of the chemical and restrictions on use

Recommended Use industrial paint.
Uses advised against Consumer use, For professional use only. Not for residential use.

Details of the supplier of the safety data sheet

Manufacturer Address
Tnemec Company, Inc. 6800 Corporate Drive, Kansas City, MO 64120-1372

Emergency telephone number

Company Phone Number Tnemec Regulatory Dept: 816-474-3400
24 Hour Emergency Phone Number 800-535-5053 (Infotrac)

2. HAZARDS IDENTIFICATION

Classification

OSHA Regulatory Status

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Acute toxicity - Oral	Category 4
Acute toxicity - Inhalation (Dusts/Mists)	Category 4
Serious eye damage/eye irritation	Category 1
Carcinogenicity	Category 1A
Specific target organ toxicity (single exposure)	Category 3
Specific target organ toxicity (repeated exposure)	Category 1

Label elements

EMERGENCY OVERVIEW

Danger

Hazard statements

Harmful if swallowed
Harmful if inhaled
Causes serious eye damage
May cause cancer
May cause respiratory irritation. May cause drowsiness or dizziness
Causes damage to organs through prolonged or repeated exposure

Appearance opaque

Physical state powder

Odor odorless

Precautionary Statements

Prevention

- Obtain special instructions before use
- Do not handle until all safety precautions have been read and understood
- Use personal protective equipment as required
- Wash face, hands and any exposed skin thoroughly after handling
- Do not eat, drink or smoke when using this product
- Use only outdoors or in a well-ventilated area
- Do not breathe dust/fume/gas/mist/vapors/spray

Response

- IF exposed or concerned: Get medical advice/attention
- IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
- Immediately call a POISON CENTER or doctor/physician
- IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
- IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell
- Rinse mouth

Storage

- Store locked up
- Store in a well-ventilated place. Keep container tightly closed
- Keep away from children

Disposal

- Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

Other information

Harmful to aquatic life with long lasting effects
 Cancer hazard. Contains crystalline silica which can cause cancer. (Risk of cancer depends on duration and level of exposure).
 Respirable crystalline silica (quartz) can cause silicosis, a fibrosis (scarring) of the lungs
 Exposure of sufficient duration to wet cement, or to dry cement on moist areas of the body, can cause serious, potentially irreversible tissue (skin, eye, respiratory tract) damage due to chemical (caustic) burns, including third degree burns
 SEE SAFETY DATA SHEET
 Acute Toxicity 32.41588 % of the mixture consists of ingredient(s) of unknown toxicity.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS-No	Weight-%
CRYSTALLINE SILICA (QUARTZ)	14808-60-7	30 - 60%
CALCIUM SILICATES AND ALUMINATES	65997-15-1	10 - 30%
IRON OXIDE FUME	1309-37-1	1 - 10%
GYPSUM	13397-24-5	1 - 10%
MAGNESIUM OXIDE	1309-48-4	1 - 10%
LIMESTONE	1317-65-3	1 - 10%
CRYSTALLINE SILICA (QUARTZ)	14808-60-7	1 - 10%

*The exact percentage (concentration) of composition has been withheld as a trade secret.

4. FIRST AID MEASURES

Description of first aid measures

General advice	Show this safety data sheet to the doctor in attendance.
Eye contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If symptoms persist, call a physician.
Skin contact	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. If symptoms persist, call a physician.
Inhalation	Remove to fresh air. Oxygen or artificial respiration if needed.
Ingestion	If swallowed, do not induce vomiting. Get medical attention immediately.
Self-protection of the first aider	Use personal protective equipment. Avoid contact with eyes, skin and clothing.

Most important symptoms and effects, both acute and delayed

Notes to physician Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Carbon dioxide (CO₂). Foam. Dry chemical.

Unsuitable extinguishing media No information available.

Specific hazards arising from the chemical

Thermal decomposition can lead to release of irritating gases and vapours In the event of fire and/or explosion do not breathe fumes

Hazardous combustion products Hazardous combustion products may include: A complex mixture of airborne solid and liquid particulates and gases (smoke). Carbon monoxide. Unidentified organic and inorganic compounds.

Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions Avoid contact with eyes, skin and clothing. Use personal protective equipment. Remove all sources of ignition.

Environmental Precautions

Environmental precautions Prevent further leakage or spillage if safe to do so. Do not flush into surface water or sanitary sewer system.

Methods and material for containment and cleaning up

Methods for containment Remove all sources of ignition. Spills may be collected with inert, absorbent material for proper disposal. Use non-sparking tools, protective gloves, goggles and clothing, adequate ventilation, avoid the breathing of vapors and use respiratory protective devices. Transfer absorbent material to suitable containers for proper disposal.

Methods for cleaning up Shovel or sweep up.

7. HANDLING AND STORAGE

Precautions for safe handling

Handling Close container after each use. Avoid contact with eyes, skin and clothing. Do not eat, drink or smoke when using this product. Tightly fitting safety goggles. Wear protective gloves/clothing. When used in a mixture, read the labels and safety data sheets of all components. Wash thoroughly after handling.

Conditions for safe storage, including any incompatibilities

Storage Keep away from heat, sparks and flame. Keep container tightly closed.

Incompatible products Acids. Strong oxidizing agents.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure guidelines

Component	ACGIH TLV	OSHA PEL	NIOSH IDLH
CRYSTALLINE SILICA (QUARTZ) 14808-60-7	TWA: 0.025 mg/m ³	TWA: 0.1 mg/m ³	50 mg/m ³
CALCIUM SILICATES AND ALUMINATES 65997-15-1	TWA: 1 mg/m ³	TWA: 10 mg/m ³ TWA: 5 mg/m ³ TWA: 15 mg/m ³	5000 mg/m ³
IRON OXIDE FUME 1309-37-1	TWA: 5 mg/m ³	TWA: 10 mg/m ³ TWA: 5 mg/m ³ TWA: 15 mg/m ³	2500 mg/m ³
GYPSUM 13397-24-5	TWA: 10 mg/m ³	TWA: 15 mg/m ³ TWA: 5 mg/m ³	
MAGNESIUM OXIDE 1309-48-4	TWA: 10 mg/m ³	TWA: 10 mg/m ³ TWA: 15 mg/m ³	750 mg/m ³
LIMESTONE 1317-65-3	-	TWA: 15 mg/m ³ TWA: 5 mg/m ³	
CRYSTALLINE SILICA (QUARTZ) 14808-60-7	TWA: 0.025 mg/m ³	TWA: 0.1 mg/m ³	50 mg/m ³

NIOSH IDLH: *Immediately Dangerous to Life or Health*

Appropriate engineering controls

Engineering measures Sufficient ventilation, in volume and pattern, should be provided through both local and general exhaust to keep the air contaminant concentration below current applicable OSHA Permissible Exposure Limits (PEL) and ACGIH's Threshold Limit Values (TLV). Appropriate ventilation should be employed to remove hazardous decomposition products formed during welding or flame cutting operations of surfaces coated with this product.

Individual protection measures, such as personal protective equipment

Eye/face protection Tightly fitting safety goggles

Skin and body protection Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact.

Respiratory protection

Use only with adequate ventilation. Do not breathe vapors, spray mist, or dust. Ensure fresh air entry during application and drying. If you experience eye watering, headache or dizziness or if air monitoring demonstrates vapor/mist or dust levels are above applicable limits, wear an appropriate, properly fitted respirator (NIOSH/MSHA approved) during and after application. Follow respirator manufacturer's directions for respirator use.

General hygiene considerations

Handle in accordance with good industrial hygiene and safety practice. Avoid breathing dust created by cutting, sanding, or grinding.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state	powder		
Appearance	opaque	Odor	odorless
Color	No information available	Odor threshold	No information available
Property	Values	Remarks	
pH		No data available	
Melting point / freezing point		No data available	
Boiling point / boiling range	No data available		
Flash point	No information available		
Evaporation rate		No data available	
Flammability (solid, gas)		No information available	
Flammability Limit in Air		No data available	
Upper flammability limit	N/A		
Lower flammability limit	N/A		
Vapor pressure		No data available	
Vapor density		No data available	
Specific gravity	2.8292	g/cm ³	
Water solubility	Insoluble in cold water		
Solubility in other solvents		No data available	
Partition coefficient: n-octanol/water		No data available	
Autoignition temperature		No data available	
Decomposition temperature		No data available	
Kinematic viscosity		No data available	
Dynamic viscosity		No data available	

Other Information

Density	23.59549 lbs/gal
Volatile organic compounds (VOC) content	0 lbs/gal
Total volatiles weight percent	0 %
Total volatiles volume percent	0 %

10. STABILITY AND REACTIVITY

Reactivity

No data available

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

None under normal processing.

Conditions to avoid

Heat, flames and sparks.

Incompatible materials

Acids, Strong oxidizing agents

Hazardous decomposition products

Hazardous combustion products may include: A complex mixture of airborne solid and liquid particulates and gases (smoke). Carbon monoxide. Unidentified organic and inorganic compounds.

11. TOXICOLOGICAL INFORMATION

Information on Likely Routes of Exposure

Inhalation	HARMFUL BY INHALATION. MAY CAUSE DROWSINESS AND DIZZINESS.
Eye contact	Severely irritating to eyes.
Skin contact	Irritating to skin.
Ingestion	Harmful if swallowed.

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
CRYSTALLINE SILICA (QUARTZ) 14808-60-7	= 500 mg/kg (Rat)		
IRON OXIDE FUME 1309-37-1	> 10000 mg/kg (Rat)		
CRYSTALLINE SILICA (QUARTZ) 14808-60-7	= 500 mg/kg (Rat)		

Information on toxicological effects

Symptoms Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting. Skin disorders.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Chronic Toxicity Cancer hazard. Contains crystalline silica which can cause cancer. (Risk of cancer depends on duration and level of exposure).
Sensitization No information available.
Mutagenicity No information available.
Carcinogenicity The table below indicates whether each agency has listed any ingredient as a carcinogen.

Component	ACGIH	IARC	NTP	OSHA
CRYSTALLINE SILICA (QUARTZ) 14808-60-7	A2	Group 1	Known	X
IRON OXIDE FUME 1309-37-1		Group 3		
CRYSTALLINE SILICA (QUARTZ) 14808-60-7	A2	Group 1	Known	X

Reproductive effects No information available.
STOT - single exposure Eyes, Central Nervous System (CNS), Respiratory system
STOT - repeated exposure Causes damage to organs through prolonged or repeated exposure
Target organ effects Eyes, Lungs, respiratory system, Skin.
Aspiration hazard No information available.

Acute Toxicity 32.41588 % of the mixture consists of ingredient(s) of unknown toxicity.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Harmful to aquatic life with long lasting effects

91.19569 % of the mixture consists of components(s) of unknown hazards to the aquatic environment

Persistence and degradability

No information available.

Bioaccumulation

No information available.

Mobility in Environmental Media**Other Adverse Effects**

No information available

13. DISPOSAL CONSIDERATIONS**Waste treatment methods****Disposal Methods**

Keep container tightly closed. If spilled, contain spilled material and remove with inert absorbent. Dispose of contaminated absorbent, container and unused contents in accordance with local, state and federal regulations.

Contaminated packaging

Empty containers should be taken to an approved waste handling site for recycling or disposal.

California Hazardous Waste Status

This product contains one or more substances that are listed with the State of California as a hazardous waste

Component	CAWAST
CALCIUM SILICATES AND ALUMINATES 65997-15-1	Special

14. TRANSPORT INFORMATION**DOT****Proper Shipping Name**

SILICA, N.O.I.-20-P.C.F., GREATER (ITEM 176370, SUB 3)

IATA**Proper Shipping Name**

Not regulated

Additional information

Call TNE MEC Traffic Department - 816-474-3400 for additional information or other modes of Transportation.

15. REGULATORY INFORMATION**International Inventories**

TSCA	Complies
DSL/NDSL	Complies
EINECS/ELINCS	Does not comply
ENCS	Does not comply
IECSC	Complies
KECL	Does not comply
PICCS	Does not comply
AICS	Does not comply

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances
 AICS - Australian Inventory of Chemical Substances

United States of America

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and and Title 40n of the Code of Federal Regulations, Part 372.

SARA 311/312 Hazardous

Categorization

Acute Health Hazard	Yes
Chronic Health Hazard	Yes
Fire Hazard	No
Sudden Release of Pressure Hazard	No
Reactive Hazard	No

CERCLA

United States of America

California Prop. 65

WARNING! This product contains a chemical known in the State of California to cause cancer

Component	California Prop. 65
CRYSTALLINE SILICA (QUARTZ) - 14808-60-7	Carcinogen
CRYSTALLINE SILICA (QUARTZ) - 14808-60-7	Carcinogen

California SCAQMD Rule 443

Does Not Contain Photochemically Reactive Solvent

State Right-to-Know

Component	New Jersey	Massachusetts	Pennsylvania
CRYSTALLINE SILICA (QUARTZ) 14808-60-7	X	X	X
CALCIUM SILICATES AND ALUMINATES 65997-15-1	X	X	X
IRON OXIDE FUME 1309-37-1	X	X	X
GYPSUM 13397-24-5	X		X
MAGNESIUM OXIDE 1309-48-4	X	X	X
LIMESTONE 1317-65-3	X	X	X
CRYSTALLINE SILICA (QUARTZ) 14808-60-7	X	X	X

16. OTHER INFORMATION

NFPA	Health 2	Flammability 0	Instability 0	Physical hazard *
HMIS (Hazardous Material Information System)	Health 2*	Flammability 0	Reactivity 0	

Prepared By
 Revision Date
 Revision Summary
 9 4 5 7 10 11 14 15

Tnemec Regulatory Dept: 816-474-3400
 08-Apr-2015

Disclaimer

For specific information regarding occupational safety and health standards, please refer to the Code of Federal Regulations, Title 29, Part 1910.

To the best of our knowledge, the information contained herein is accurate. However, neither the Tnemec Company or any of its subsidiaries assume any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown health hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards which exist.

End of MSDS

APPENDIX 9: PCB LONG-TERM MONITORING AND MAINTENANCE PLAN



Polychlorinated Biphenyl Long-Term Monitoring and Maintenance Plan

**8MK Property
12700 West 8 Mile Road
Oak Park, Oakland County, Michigan**

Project Number 22-2554

March 13, 2023

Prepared for:

**ATE Mile, LLC
Anil Thakady, Treasurer
90 North Main Street
Clarkston, Michigan**

Prepared by:

**Applied Environmental
1210 North Maple Road
Ann Arbor, MI 48103
734-975-1970**

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1.0 PURPOSE AND OVERVIEW

1.1 Introduction

This Long-Term Monitoring and Maintenance Plan (LMMP) for polychlorinated biphenyls (PCBs) was completed by Applied Environmental on behalf of ATE Mile, LLC, ("Owner"). This LMMP describes communication, monitoring, and maintenance that will be initiated following the completion of PCB remediation activities and encapsulation of PCB-impacted building materials in the basement of the subject building, including the concrete/brick walls and ceiling, as detailed in the Risk-Based PCB Cleanup Application.

The LMMP will remain in effect and monitoring will continue until such time that EPA approves, in writing, that LMMP activities are no longer necessary.

This LMMP has been developed to ensure that:

- Encapsulant products used to seal PCB-impacted building materials are maintained consistent with manufacturer of such products and to document the continued effectiveness of the sealant utilized;
- A schedule and methods for continued monitoring and maintenance associated with remaining PCB-impacted building materials at the site are implemented.
- Potential exposure to PCBs within indoor air shall be evaluated periodically and to comply with the indoor air concentrations of 289 nanograms per cubic meter (ng/m³) at a one in 100,000 cancer risk, as a guideline establish specific for the site by the EPA, in accordance with the Site-Specific Indoor Worker Regional Screening Levels (RSLs) as provided in the EPA comment letter dated November 9, 2021. This value shall be evaluated periodically to comply with the current EPA value at the time of each round of testing.
- Potential exposure to PCBs on encapsulated surfaces shall be controlled to comply with the criteria set forth in the approved Risk-Based PCB Cleanup and Disposal Plan, of less than or equal to 10 microgram per cubic centimeter (µg/cm³), the current EPA value for high occupancy use.
- ATE Mile, LLC shall ensure that the program elements required herein are appropriately observed and ensure communication as required herein with affected outside vendors, staff, and any communications required of the EPA are maintained.
- ATE Mile, LLC shall designate a PCB Coordinator to ensure compliance with the LMMP.
- PCB awareness training to assist in the proper implementation of this plan shall be provided to maintenance/custodial staff.
- Precautionary measures to prevent contact with or disturbance of PCB-impacted building materials shall be implemented which will include procedures for informing all staff, contractors, and outside vendors of the location of PCBs remaining at the facility.
- An evaluation shall be made by Applied Environmental and the ATE Mile, LLC PCB Coordinator to review proposed work or activities which could result in the disturbance of PCBs.

- Any observed condition or activity which has the potential to disturb PCBs shall be prevented and communicated to ATE Mile, LLC.
- If there is an accidental disturbance or release of PCBs it shall be reported immediately to the ATE Mile, LLC PCB Coordinator by the entity or staff person observing such incident so that proper evaluation of the condition can be conducted.

1.2 Site Background Information

The subject property is located at 12700 8 Mile Road in Oak Park, Oakland County, Michigan, and was the former broadcast studios for WWJ Radio AM 950. The subject property consists of a 4.59-acre parcel that is developed with one, one-story 5,325 square foot building constructed in 1938 with a basement. Refer to Appendix 1 for a Site Floor Plan.

The structure is currently vacant and is zoned PTRED – Planned Technical. The subject property is currently owned by ATE Mile LLC who purchased the subject property on January 16, 2020 with the intent to redevelop the existing 4.59-acre parcel and building into a restaurant and event space. Refer to Figure 1 for a Site Location Map.

PCBs were identified in building materials located in the basement due to a failure of the basement sump resulting in flooding and a subsequent release of oil containing PCBs from two transformers located in the southwest corner of the basement. PCB-impacted building materials include the basement concrete floor, concrete/brick walls and ceiling. PCB remediation is to be performed upon approval of the Risk-Based PCB Cleanup and submitted to EPA.

1.3 Remedial Activities

PCB remediation work will be performed to ensure compliance with EPA Toxic Substance Control Act (TSCA) requirements and to protect both public health and the environment. Materials classified as PCB Bulk Product Waste and Bulk PCB Remediation Waste will be properly remediated in accordance with 40 CFR Part 761.619(c)(1) and described in the PCB Cleanup and Disposal Application as outlined below:

- Removal and proper disposal of the concrete floor in the basement;
- Scarification, decontamination, and encapsulation of basement concrete/brick walls and ceiling

Upon completion of the remedial activities, the impacted concrete/brick walls and ceiling will not be accessible to direct exposure having been encapsulated and will not pose a risk to building occupants unless the encapsulating coating applied as part of the remediation is damaged or removed. This LMMP details procedures to be followed to assess and ensure the effectiveness of the encapsulant coatings to prevent this exposure pathway to PCBs which remain in porous concrete for the life of the building.

2.0 ELEMENTS OF THE LMMP

2.1 LMMP Management

Clearly defining the various program elements is critical to the success of the LMMP. The main components of the LMMP are as follows:

- Roles and Responsibilities, Communication, and Training – Roles and responsibilities, communication, and training protocols will be established to ensure occupants and contractors are familiar with the remedial measures and precautions required to avoid exposure to PCBs present in the building but covered with encapsulating coatings. To prevent potential exposure to maintenance and facility personnel, guidelines and procedures will be developed and implemented for any work being conducted within the basement of the building.
- Visual Inspections – At a frequency described in this plan, visual inspections of interior encapsulated surfaces will be conducted on a regular basis for the remaining life of the building. The inspections will focus on the encapsulated building components that occupants might contact on a daily basis. Observations will be made to identify cracks and wear points in the encapsulant coatings.
- Surface Wipe Sampling – At a frequency described in the plan, surface wipe samples will be collected from the encapsulated surfaces. Wipe samples will be collected following the standard wipe test procedure described in 40 CFR 761.123 and the PCB Cleanup and Disposal Application.
- Indoor Air Sampling – At a frequency described in the plan, indoor air samples will be collected within the building. Air samples will be collected in accordance with EPA Compendium Method TO-10A “*Determination of Pesticides and Polychlorinated Biphenyls In Ambient Air Using Low Volume Polyurethane Foam (PUF) Sampling Followed by Gas Chromatographic/Multi-Detector Detection (GCIMD)*” and submitted for laboratory analysis of PCBs.
- Quarterly/Seasonal Reporting – A report documenting the findings of the visual inspections, surface wipe sampling, and indoor air sampling will be prepared and submitted to EPA on a quarterly basis to capture each seasonal period for the first year of monitoring, then semi-annual for the second year, and annually thereafter. The monitoring results from sampling events will be evaluated as they become available and any exceedances of the compliance criteria established in the LMMP will be reported to ATE Mile, LLC and the EPA within 48 hours of receiving the laboratory analytical results.
- Corrective Actions – If results of the sampling indicate PCB concentrations in excess of the project-specific action levels, corrective measures shall be taken. These measures may include the additional application of the protective coatings/barriers, increasing air flow through the buildings or other measures that would reduce the risk of exposure for building occupants and the surrounding community.

3.0 ROLES AND RESPONSIBILITIES

3.1 LMMP Management

ATE Mile, LLC and facility manager shall define the departmental roles and responsibilities for implementation of the LMMP. ATE Mile, LLC has the responsibility of notifying employees, contractors, and vendors who may work in areas with PCBs that these materials are present and managed as part of this LMMP.

3.1.1 PCB Program Coordinator

ATE Mile, LLC shall designate a PCB Program Coordinator as a responsible party for the following:

- Review on a quarterly basis the requirements of the program and document adherence to elements of the program and schedule.
- Maintain and update as required all documentation identifying locations of known PCBs remaining in the building.
- Participate in review, all potential work tasks which could impact encapsulated PCBs and PCB related tasks being performed at the facility. This will include events involving potential disturbance or release of PCBs.
- Arrange and document PCB awareness training for existing staff upon implementation of the LMMP and upon hire for any new staff that will work in the building. This will include all maintenance/custodial staff and ATE Mile, LLC staff.
- On an on-going basis review for compliance purposes policies and regulations of State and Federal agencies as they pertain to PCBs and the management of PCBs at the facility.
- Schedule periodic surveillance for encapsulated PCB surfaces remaining in accordance with frequency detailed in the LMMP.
- Schedule indoor air and wipe sampling in order to document continued effectiveness of the encapsulation as required per this LMMP.

Review and maintain PCB related documentation from the inspection and sampling activities and communicate the findings.

Facilities Maintenance Managers have the following responsibilities:

- Confirm that all tasks that may impact PCBs are conducted by maintenance and housekeeping in compliance with this LMMP.
- Ensure maintenance and housekeeping employees receive proper training in PCB hazards and all activities are conducted consistent with this LMMP.

- Report any PCB materials that may be damaged or have the potential to be damaged to the PCB Program Coordinator.
- Manage all PCB-related tasks/responsibilities during routine and emergency operations and maintenance (O&M) activities.
- Ensure that outside contractors or vendors are aware of PCB policies and locations of PCBs prior to initiation of work. If workers have the potential to come in contact with or disturb PCBs, coordinate a review of such with the PCB Program Coordinator.
- Notify the PCB Program Coordinator prior to the initiation of all PCB related work activities at the facility.
- Ensure all construction, renovation or repair projects potentially involving PCBs are coordinated with the PCB Program Coordinator.

Refer to Appendix 2 for key contact information.

3.2 Operations and Maintenance Employees

The intent is that PCB related work shall be conducted only by a contractor with demonstrated prior experience in the field. Remedial work will be accomplished according to and will meet the requirements set forth by State and Federal regulations. Operations and Maintenance employees of ATE Mile, LLC are not expected to conduct work which would impact PCBs.

Any work-related questions, requests, hazards recognition or other correspondence related to PCBs expressed by Operations and Maintenance employees will be directed to the PCB Program Coordinator.

Maintenance and custodial staff have the following responsibilities:

- Understanding the locations of PCB materials to prevent the disturbance or removal of PCB containing materials.
- Informing the PCB Program Coordinator of any potentially damaged PCB materials.

3.3 Environmental Consultants

ATE Mile, LLC shall engage an Environmental Consultant for the purpose of sampling and analytical reporting as required by this LMMP. The Environmental Consultants' responsibilities shall include the following:

- Conduct periodic visual inspections and perform indoor air and standard wipe sampling as required and as detailed in this LMMP. Air and wipe samples shall be analyzed at accredited laboratories to comply with industry guidelines, regulatory standards, and this LMMP.
- Conduct PCB inspections prior to construction, renovation or repair work that could potentially disturb PCBs within proposed project area based on industry guidelines, regulatory standards, and this LMMP.

- Prepare written reports of all PCB inspection or sampling activities for submission to the PCB Program Coordinator for ATE Mile, LLC and EPA.

3.4 Contractors

ATE Mile, LLC is responsible for informing outside contractors about the locations of PCB containing materials. The PCB Program Coordinator shall be responsible for having the LMMP available for review at a centralized location at the ATE Mile, LLC office and facility prior to any proposed renovation activity.

It is the contractor's responsibility to maintain a safe work environment during scheduled renovation projects. Contractors shall be aware of PCB containing materials in the building and address proposed remediation work by using personnel demonstrated to have experience with PCB remediation.

The Contractor's responsibilities related to PCBs include:

- Notifying the PCB Program Coordinator for ATE Mile, LLC of any proposed work activities that may potentially disturb PCBs (e.g. renovation/demolition).
- Review proposed remedial actions with designated Environmental Consultant.

4.0 COMMUNICATION

Remediation activities to be completed at the site include removal of the PCB-impacted concrete basement floor and decontamination and encapsulation of PCB-impacted contaminated concrete/brick walls and ceiling within the basement of the building. Building occupants are not anticipated to be exposed to PCBs during routine building use, as long as the encapsulated surfaces are intact, undamaged, and effectively acting as a barrier to PCB migration. However, if renovations or repairs to the building are planned following the remediation and encapsulation activities, such activities must take into account the underlying building materials that may contain residual concentrations of PCBs. Annual training will be provided for maintenance/custodial staff and ATE Mile, LLC staff so they can identify renovation and maintenance activities that might result in disturbing underlying building materials that contain PCBs. In order to minimize the risk of exposure to PCBs that are present below encapsulated surfaces, site environmental conditions will be communicated to building occupants (staff, patrons) maintenance/custodial staff, and outside contractors that may contact encapsulated surfaces. A copy of the LMMP shall be available for review in a central office of the building.

Prior to renovations, or other construction activities within the basement that may disrupt PCB encapsulated areas directly or indirectly, EPA will initially be notified in writing via email when the Building Permit is completed, again after the Building Permit has been approved by the City of Oak Park, and finally 30 days prior to proposed activities commencing on-site. The notification will include the scope of activities that may impact residually

encapsulated PCB areas and a discussion of how any activities that breach encapsulated barrier will be conducted to mitigate the release of PCBs.

4.1 Communication with ATE Mile, LLC Patrons, Staff & Maintenance/Custodial Staff

As part of the communication plan with the ATE Mile, LLC patrons and staff, ATE Mile, LLC shall make the LMMP available for review in the centralized office of the building. The PCB Program Coordinator shall distribute a letter notifying staff of the availability of the LMMP as noted. Reporting of monitoring results for the building is addressed in Section 8.0.

4.2 Communication with Contractors

A copy of the LMMP shall be made available to outside contractors for review in the centralized office of the building prior to maintenance or repair work.

5.0 TRAINING

Maintenance/custodial staff, ATE Mile, LLC staff, and contractors who perform O&M activities in areas where PCBs are present shall receive general PCB awareness training. All outside contractors involved in work that may contact PCB encapsulated surfaces must have awareness training.

5.1 Training of Maintenance/Custodial Staff, ATE Mile, LLC Staff, and Contractors

Maintenance/custodial staff, ATE Mile, LLC staff, and contractors will undergo a PCB Awareness Training. This training will identify locations where encapsulated surfaces containing PCBs are known. The designated environmental consultant and PCB Program Coordinator for ATE Mile, LLC shall provide PCB awareness training annually (2 hours) to maintenance/custodial staff and ATE Mile, LLC staff who may perform housekeeping or maintenance activities in areas where encapsulated surfaces containing PCBs are present. The PCB awareness training shall cover the following topics:

- Health and safety hazards of PCBs;
- Location of PCBs at the facility;
- Recognition of damaged or deteriorated PCB containing materials;
- Notification and response procedures; and
- Review of the LMMP.

5.2 PCB Remediation Training Requirements

All project personnel engaged in PCB remediation work shall be trained in accordance with the Occupational Safety and Health Administration (OSHA) Regulations 29 CFR 1910.1000 and 29 CFR 1910.1200. The remediation contractor shall provide an on-site Project Supervisor having a minimum of eight (8) hours of

supervisor training in hazardous waste site operations in accordance with the requirements of 29 CFR 1910. The supervisor must be on-site at all times during remediation work. Documentation of OSHA 40-Hour HAZWOPER training for all employees and subcontractors and 8-Hour HAZWOPER Supervisor Training for the designated on-site Health and Safety Officer for the remediation work shall be provided to the Environmental Consultant and ATE Mile, LLC PCB Program Coordinator prior to commencement of related remediation work activities.

6.0 INSPECTION PROTOCOL

Visual inspections will initially be completed on a quarterly basis during each seasonal period. Indoor air and wipe sampling will initially be conducted on a quarterly basis, during each seasonal period for the first 12 months following completion of encapsulation of PCB containing materials in the basement of the subject building, followed by every six months for the following 12-month period, and once per year for every 12-month period thereafter.

Inspections will be completed by the Environmental Consultant to observe the areas of interior encapsulation in the basement of the subject building. An inspection checklist will be used for routine inspections. Refer to Appendix 3 for a copy of the periodic visual inspection form. The checklist will document the following:

- The name of the inspector;
- The date of the inspection;
- The areas inspected;
- Areas where encapsulation appears worn (exposing underlying encapsulating coatings);
- Areas where encapsulation coatings have been damaged; and
- Other observations that might indicate a potential for exposure of underlying building materials containing PCBs.

Representative indoor air sampling will be conducted on a quarterly basis for this first 12-month period following encapsulation, every six months for the following 12-month period, and once per year for every 12-month period thereafter. A total of 3 indoor air samples, one duplicate and one blank will be collected per sampling event.

Representative wipe sampling will be conducted on a quarterly basis, during each seasonal period for the first 12 months following completion of encapsulation of PCB containing materials in the basement of the subject building, every six months for the following 12-month period, and once per year for every 12-month period thereafter. Approximately thirty-eight (38) samples of building materials from the basement surfaces will be collected to assess PCB-concentrations basement building surface prior to proceeding with encapsulation as described in Section 6.2.3 of the PCB Cleanup Application. Specifically, "biased" samples will be collected from the basement surfaces in locations biased towards areas where residual PCB contamination may remain after remedial activities

are concluded. Based on the results of the post remedial/pre-encapsulation confirmation sampling, sampling bias will be adjusted as needed.

Sampling times will be scheduled during periods of occupancy and will be coordinated with ATE Mile, LLC staff in an effort to minimize disruption to building occupants. Building mechanical systems shall be operational as in normal conditions. Ambient temperature and interior temperature will be measured during sampling activities.

6.1 Periodic Visual Inspections by Environmental Consultant

Periodic visual inspections will be performed on a quarterly basis by the Environmental Consultant using the designated checklist. These inspections will be conducted by a field scientist familiar with PCB remediation and trained in PCB sampling protocols. Refer to Appendix 3 for a copy of the Periodic Visual Inspection Checklist.

Each inspection will include all areas where encapsulation was applied. The inspection will focus on the exposed surfaces (encapsulation coating) and the inspector will observe surfaces for cracks, wear points, and other evidence of exposure of the underlying coating. If previous inspections noted concern for a specific area, those areas will be closely observed for evidence that might indicate a potential for exposure of the residual PCBs. Photographic documentation will be performed during each inspection.

Reporting of inspections by the Environmental Consultant is outlined in Section 9.0 Record Keeping.

7.0 SAMPLING PERSONNEL, METHODS, AND ACTION LEVELS

The remedial alternatives selected for the impacted basement building material included scarification, triple wash scrubbing with PCB reducing agent, and encapsulation of remaining PCBs beneath two coats of chemically resistant two-part epoxy product that prevents human exposure to residual PCBs in building materials.

The encapsulated surface will be periodically inspected for damage and building indoor air will be periodically monitored to confirm that the remedial actions remain protective of human health. Visual inspections will be conducted to identify wear and damage to encapsulated surfaces and surface wipe sampling will be performed to identify whether PCBs are penetrating the encapsulating coatings.

Indoor air sampling in the building will be performed to identify whether encapsulated PCBs are volatilizing within the building interior. The sampling requirements and methods below will be followed to ensure the quality of monitoring data.

7.1 Qualified Sampling Personnel

Only qualified personnel (designated Environmental Consultant) will conduct indoor air and wipe sampling identified in this LMMP. The Environmental Consultant will ensure each field scientist conducting the sampling is familiar with the sampling methods and techniques.

7.2 Wipe Sampling Methods

Wipe samples from interior encapsulated surfaces will be collected in accordance with the requirements of 40 CFR 761.123, as outline below:

- Prior to sampling, wipes consisting of clean cotton gauze will be soaked with hexane and placed in a clean wide mouthed laboratory provided 4-oz. glass jar.
- A 10 centimeter (cm) by 10 cm template will be used to define the sampling area on the selected surface. Flat surfaces will be selected for sampling.
- Samples will be collected on the interior encapsulated surface where PCB containing building materials were encapsulated (concrete/brick walls and ceiling). The wipe will be dragged across the template area horizontally, then vertically and then diagonally;
- Samples will be collected on the interior PCB containing encapsulated surfaces in the basement of the facility as indicated previously (concrete/brick walls and ceiling);
- The wipe samples will then be placed in sperate laboratory provided 4-oz, glass jars labeled with the sample time, date, location and surface description;
- Samples will be placed in a cooler with ice for transport to the laboratory. A chain-of-custody will indicate the surface area for each sample, along with the date, time and analysis requested;
- Samples will be delivered to an environmental testing laboratory that is certified to perform PCB analysis;
- Samples will be extracted from the wipe by the analytical laboratory using EPA Method 3550 as outlined in SW-846 guidance for laboratory analysis;
- Samples extracts will be analyzed by EPA Method 8082A for PCBs.

Results will be reported in micrograms (μg) per 100 cm^2 by dividing the result in $\mu\text{g}/\text{wipe}$ by the surface area of 100 square centimeters.

7.3 Indoor Air Sampling Methods

As required by EPA, indoor air samples will be collected in accordance with EPA Compendium Method TO-10A *"Determination of Pesticides and Polychlorinated Biphenyls in Ambient Air Using Low Volume Polyurethane Foam (PUF) Sampling Followed by Gas Chromatographic Multi-Detector Detection (GCIMP)"* and submitted for laboratory analysis of PCBs, as outlined below:

- Appropriate sampling media will be prepared prior to the sampling event. Sampling media will consist of glass tubes (30-mm x 70-mm tubes) filled with pre-cleaned open-cell polyurethane foam;
- Sample collection tubes will be situated with the inlet in a downward facing position at a height of approximately one meter from the ground on a sampling stand or similar apparatus that will be used to secure the sampler;
- An active low volume air-flow pump capable of unattended 24 hours of operation (battery or direct power) will be used to provide a flow rate of 1.0 to 5.0 liters per minute (LPM) through the PUF sample media. Sample duration will be 12-hours as specified in the EPA's comment letter dated November 9, 2021;
- Pump flow rates at the beginning of sampling and again at the completion of the sampling period will be recorded along with pump start and stop times;
- For each sample, the cumulative sample duration time and average flow rate will be used to calculate the air volume sampled. A minimum sample volume of 1,000 to 1,200 L of air will be sampled over the monitoring period to achieve the EPA's recommended laboratory reporting limit of 10 ng/cm³ for total PCBs for indoor air samples using EPA Method TO-10A;
- Devices to record the interior and exterior building temperature during the sample collection will be deployed along with the air monitors;
- Ambient atmospheric pressure readings will be collected from the nearest official recording station for the area.

Indoor air samples will be collected at representative locations to characterize potential exposure risks to occupants and focus on locations where encapsulated PCBs are present. Air samples will be analyzed using EPA Method TO-10A for PCB Homolog analysis. QA/QC sampling will include blanks and duplicate samples.

7.4 Quality Assurance/Quality Control (QA/QC)

QA/QC samples will be collected during the monitoring activities. QA/QC samples for both wipe samples and indoor air samples will be collected.

Wipe QA/QC samples will include field duplicate and field blank samples. A field duplicate sample is used to evaluate both the field sampling procedure and laboratory analytical precision. The field duplicate sample will be collected using the same sampling technique described above and will be collected immediately adjacent to the original sample. Field duplicate samples will be collected and analyzed for 10% of the samples (1 per every 10 samples). The field blank will be an analysis of the sample media used. The sample media (hexane-soaked gauze pad) will be analyzed to verify the media is free of PCBs prior to sample collection. Field blank samples will be collected once per sampling event.

Indoor air QA/QC samples will include field duplicate and field blank. A field duplicate will be collected using the sample sampling technique as described above. Field duplicate samples will be collected and analyzed for 10% of the samples (1 per every 10 samples). The field blank will be an analysis of the sample media without drawing air through the sampling tube. Field blank samples will be collected once per sampling event.

7.5 Site-Specific Action Levels

Per the EPA, site-specific approval PCB wipe sample analytical results for encapsulated surfaces must contain PCBs at less than 10 $\mu\text{g}/100\text{ cm}^2$ to be in compliance. If concentrations are found at levels above 1 $\mu\text{g}/\text{cm}^2$; then the EPA will be contacted within 48 hours to discuss an appropriate response which could include site-specific risk assessment, cleaning or repair.

Per the EPA, site-specific approval PCB indoor air sample analytical results must contain PCBs at less than 289 ng/m^3 to be in compliance (1 in 100,000 cancer risk). If concentrations are found at levels above 289 ng/m^3 ; then the EPA will be contacted within 48 hours to discuss an appropriate response which could include site-specific risk assessment, increasing building ventilation, or other mitigation measures.

7.6 Data Review

As data is received it will be reviewed by the environmental consultant and compared to project specific compliance criteria and the LMMP. Laboratory results that exceed the compliance criteria will be transmitted to ATE Mile, LLC, the EPA, and the Michigan Department of Environment, Great Lakes, and Energy (EGLE) within 48 hours of data receipt from the laboratory. Annual reports for the monitoring will be submitted to the EPA and EGLE (Section 8.0).

8.0 SCHEDULE

8.1 Periodic Visual Inspections by Environmental Consultant

Periodic visual inspections will be performed on a quarterly basis by the environmental consultant using the designated checklist. These inspections will be conducted by a field scientist familiar with PCB remediation and trained in PCB sampling protocol.

8.2 Indoor Air and Wipe Sampling by Environmental Consultant

Indoor air and wipe sample monitoring will continue at the frequency described in this LMMP.

Representative indoor air sampling will be conducted on a quarterly basis for this first 12-month period following encapsulation, every six months for the following 12-month period, and once per year for every 12-month period thereafter. A total of 3 indoor air samples, one duplicate and one blank will be collected per sampling event.

Representative wipe sampling will be conducted on a quarterly basis, during each seasonal period for the first 12 months following completion of encapsulation of PCB containing materials in the basement of the subject building, every six months for the following 12-month period, and once per year for every 12-month period thereafter.

Approximately thirty-eight (38) samples of building materials from the basement surfaces will be collected to assess PCB-concentrations basement building surface prior to proceeding with encapsulation as described in Section 6.2.3 of the PCB Cleanup Application. Specifically, “biased” samples will be collected from the basement surfaces in locations biased towards areas where residual PCB contamination may remain after remedial activities are concluded. Based on the results of the post remedial/pre-encapsulation confirmation sampling, sampling bias will be adjusted as needed.

Indoor air samples will be analyzed using EPA Method TO-10A for PCB Homolog analysis. QA/QC sampling will be performed every sampling event and will consist of blank samples and duplicate samples. Prior to collecting samples, visual inspections of representative areas will be completed to ensure that the mechanical system is operational and representative of occupied conditions.

Wipe samples will be analyzed using EPA Method 8082A with extraction performed by EPA Method 3550. Prior to collecting samples, visual inspection of the mechanical system and an interview with the designated PCB Coordinator to ensure that the building mechanical system is operational and is representative of occupied conditions. The visual inspection will include observation of surfaces for evidence of wear, delamination or other indicators of product coating failure.

9.0 REPORTING AND RECORD KEEPING

9.1 Reporting of Analytical Results

The environmental consultant will review monitoring data and prepare a sampling event spreadsheet report documenting sample locations, analytical results, and compliance with the LMMP. If data indicates results that exceed the compliance criteria, then analytical results will be forwarded to ATE Mile, LLC, EPA and EGLE within 48 hours. If results do not exceed the LMMP criteria, then the sampling event report will be submitted to ATE Mile, LLC, EPA and EGLE within 45 days of the receipt of the final laboratory report by the environmental consultant. Quarterly periodic visual inspection forms and analytical results will be added to the LMMP and will be available in an office of ATE Mile, LLC for review by the local public community.

9.2 Record Keeping

Documentation of sampling and analytical results for activities in the LMMP shall be maintained by ATE Mile, LLC. These records will be available for inspection by EPA, EGLE and the local health department as well as the public. Results of the on-going monitoring outlined in the LMMP will be available for review by employees and the

public. PCB testing records will be available during normal business hours at ATE Mile, LLC on-site office located at 12700 W. 8 Mile Road, Oak Park, Michigan. On-going PCB testing records and periodic visual inspection forms shall be added to the LMMP file located in the ATE Mile, LLC on-site office to update records.

9.3 Review of Applicability of LMMP

The LMMP will remain in effect and monitoring will continue until such time that EPA approves in writing that activities are no longer necessary. On a quarterly basis, the environmental consultant will review the applicability of the LMMP and if warranted, the environmental consultant will provide in writing to the EPA on behalf of ATE Mile, LLC a request to reduce the scope of the LMMP.

10.0 CORRECTIVE MEASURES

If results of the inspections or sampling indicate PCB concentrations in excess of the project-specific action levels as described in Section 7.0, corrective measures shall be discussed with EPA, EGLE, ATE Mile, LLC, and the environmental consultant.

If maintenance of the encapsulating coatings or other remedial measures is warranted, a plan for supplemental remedial actions will be developed and submitted to EPA for approval and the supplemental remedial actions will be implemented based on a schedule approved by EPA and EGLE.

LMMP prepared by Principal, Senior Project Manager, Michael Gatien.



Michael Gatien
Principal, Senior Project Manager
Applied Environmental



Jason Vertrees
President
Applied Environmental

APPENDIX 1: SITE FLOOR PLANS

KEY NOTES

- ① EXISTING MILLWORK TO BE REMOVED
- ② EXISTING WALL AT STAIR TO BE REMOVED, PREP FLOOR OPENING FOR NEW FLOORING AND GUARDRAIL
- ③ PORTION OF EXISTING WALL TO BE REMOVED

GRAPHIC LEGEND

- ==== EXISTING CONSTRUCTION TO BE REMOVED
- ===== EXISTING CONSTRUCTION TO REMAIN

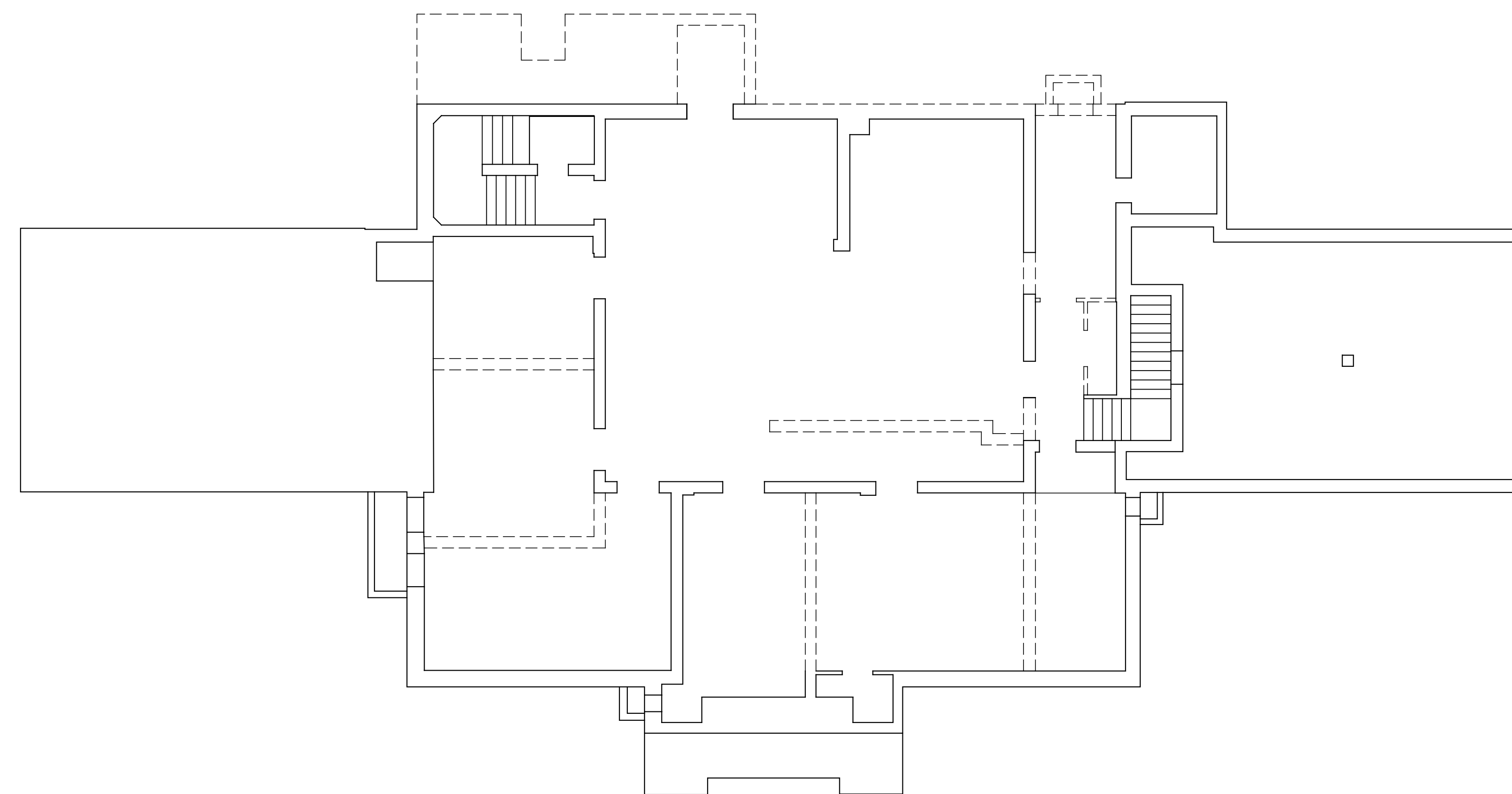
SHEET NOTES

GENERAL NOTES

1. PERFORM ABATEMENT AS REQUIRED
2. PERFORM ALL NON-STRUCTURAL SELECTIVE DEMOLITION AS DIRECTED PER PLANS
3. STRUCTURAL ENGINEER TO PROVIDE SHORING DOCUMENTATION AFTER INSPECTION OF EXISTING SITE CONDITIONS

ARCHITECTURAL NOTES

1. SHADING INDICATES AREA NOT IN SCOPE.
2. COMPLY WITH APPLICABLE LOCAL, STATE AND FEDERAL CODES AND REGULATIONS PERTAINING TO SAFETY OF PERSONS, PROPERTY AND ENVIRONMENTAL PROTECTION
3. PROVIDE AND MAINTAIN BARRICADES, LIGHTING AND GUARDRAILS AS REQUIRED BY APPLICABLE CODES AND REGULATIONS TO PROTECT OCCUPANTS OF BUILDING AND WORKERS
4. IF DEMOLITION IS PERFORMED IN EXCESS OF THAT REQUIRED, RESTORE EFFECTED AREAS AT NO COST TO THE OWNER
5. REMOVE FROM SITE DAILY AND LEGALLY DISPOSE OF REFUSE, DEBRIS, RUBBISH AND OTHER MATERIALS RESULTING FROM DEMOLITION OPERATIONS
6. IN AREAS SHOWN TO BE DEMOLISHED, REMOVE ALL EXISTING CONSTRUCTION INCLUDING GYPSUM BOARD WALLS, GLASS, WINDOW FRAMES, DOORS, DOOR FRAMES AND ALL MILLWORK. REMOVE BUILDING EQUIPMENT AND FIXTURES AS REQUIRED FOR NEW WORK
7. REMOVE ABANDONED HVAC EQUIPMENT, ELECTRICAL, TELEPHONE AND DATA CABLING AND DEVICES, INCLUDING DUCTWORK, PER MEP DEMOLITION DRAWINGS. COORDINATE WITH BUILDING OWNER FOR SALVAGE
8. REMOVE EXISTING FLOOR FINISHES AND PREPARE SUBFLOOR AS REQUIRED FOR NEW FLOOR FINISHES
9. G.C. TO DEVELOP CONSTRUCTION WASTE MANAGEMENT PLAN
10. G.C. TO COORDINATE DEMOLITION WITH BUILDING OWNER AND SEPARATE MATERIALS AND EQUIPMENT FOR REUSE AND STORAGE AS DIRECTED BY BUILDING OWNER
11. ANY REVENUES OR REBATES RECEIVED FOR THE RECYCLING WASTE MATERIAL SHALL BECOME THE PROPERTY OF THE CONTRACTOR
12. ALL METAL REMOVED FROM THE PROJECT TO BE RECYCLED. SEPARATE METALS BY TYPES AS REQUIRED BY RECYCLERS
13. ALL DEMOLISHED CARPET NOT BEING RETAINED BY BUILDING OWNER TO BE SEPARATED FOR COLLECTION BY CARPET VENDOR FOR RECYCLING, AS FEASIBLE
14. ANY GLASS REMOVED FROM PROJECT SHALL BE RECYCLED, U.N.O.
15. MAINTAIN LIFE SAFETY SYSTEMS AT ALL TIMES. COORDINATE ANY REQUIRED INTERRUPTIONS WITH BUILDING MANAGEMENT. REFER TO MEP DRAWINGS FOR ADDITIONAL INFORMATION
16. ALL EXTERIOR WINDOW SYSTEMS INCLUDING SUN CONTROL TO REMAIN



1 FOUNDATION / BASEMENT DEMOLITION PLAN
SCALE: 1/8" = 1'-0"

PROJECT TITLE:

8MK
UNION JOINTS
12700 W. 8 MILE ROAD
OAK PARK, MI 48237

ARCHITECT:



VON STADEN ARCHITECTS
504-A SOUTH WASHINGTON AVENUE
ROYAL OAK, MICHIGAN 48067
248-646-9933
WWW.VONSTADENARCHITECTS.COM

ISSUED FOR:

FOR DEMOLITION 09.19.18

STAMP:

SHEET TITLE:

FOUNDATION / BASEMENT
DEMOLITION PLAN

D.100

APPENDIX 2: KEY CONTACT INFORMATION

Key Contact Information

Environmental Consultant

Mr. Michael Gatien
Applied Environmental
1210 N. Maple Road
Ann Arbor, MI 48103
Phone: 734-975-1970
Email: mikeg@appliedenv.com

ATE Mile, LLC - Owner

Mr. Anil Thakady
ATE Mile, LLC
90 N. Main Street
Clarkston, MI 48346
Phone: 313-969-7390
Email: thakady@unionadworks.com

USEPA

Mr. Peter Ramanauskas
RCRA Corrective Action Project Manager
Regional PCB Coordinator
USEPA Region 5
77 W. Jackson Blvd. (LR-16J)
Chicago, IL 60604
Phone: 312-886-7890
Email: ramanauskas.peter@epa.gov

Michigan Department of Environment, Great Lakes, and Energy

Ms. Michele Bakun
Brownfield Redevelopment Coordinator
Brownfield Assessment and Redevelopment Section
Southeast Michigan District Office
27700 Donald Court
Warren, MI 48092
Phone: 586-233-3408
Email: bakunm@michigan.gov

Oakland County Health Department

Environmental Health Division
1200 N. Telegraph Road
Pontiac, MI 48341
Phone: 248-858-1280
Email: health.oakgov.com

APPENDIX 3: PERIODIC VISUAL INSPECTION FORM

Periodic Visual Inspection Form

Date of Inspection: _____

PCB Encapsulated Surface	Location	Previous Condition	Present Condition	Encapsulant Worn	Encapsulant Damage	Comment
Concrete/brick basement walls	Basement					
Concrete ceiling	Basement					

Conditions: G = Good; F = Fair; D = Damaged; SD = Significant Damage; IA = Inaccessible

Inspection completed by: _____
(print name)

(signature)

I, the PCB Program Coordinator, have read and understood the findings noted above: _____
(signature)

(date)