Phase II Environmental Site Assessment Report
Blackhawk Junction
Prairie du Chien, Wisconsin

USEPA BROWNFIELDS ASSESSMENT COALITION GRANTS
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Prepared for:

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Acronyms and Abbreviations

µg/m^3 ..... micrograms per cubic meter
µg/kg ..... micrograms per kilogram
µg/L ..... micrograms per liter
Bay West ..... Bay West LLC
bgs ..... below ground surface
CVOC ..... chlorinated volatile organic compound
DRO ..... diesel-range organics
ES ..... enforcement standards
ESA ..... environmental site assessment
GPR ..... ground penetrating radar
GPRS ..... Ground Penetrating Radar Systems LLC
LCS ..... laboratory control sample
mg/kg ..... milligrams per kilogram
MS/MSD ..... matrix spike/matrix spike duplicate
PAL ..... preventive action limit
PCE ..... tetrachloroethene
PID ..... photoionization detector
PVC ..... polyvinyl chloride
QA ..... quality assurance
QAPP ..... Quality Assurance Project Plan
QC ..... quality control
REC ..... recognized environmental condition
RCL ..... residual contaminant level
RCRA ..... Resource Conservation and Recovery Act
SAP ..... Sampling and Analysis Plan
TMB ..... trimethylbenzene
USEPA ..... United States Environmental Protection Agency
USCS ..... United Soil Classification System
UST ..... underground storage tank
VEC ..... vapor encroachment concern
VOCs ..... volatile organic compounds
WDNR ..... Wisconsin Department of Natural Resources

EXECUTIVE SUMMARY

Bay West LLC (Bay West) completed a Phase II Environmental Site Assessment (ESA) on the Blackhawk Junction Property site in Prairie du Chien, Wisconsin (the Site). The scope of the Phase II ESA was based on recognized environmental conditions (RECs) and vapor encroachment conditions (VECs) identified in a Phase I ESA completed for the Site by Bay West in October 2019. The RECs and VECs associated with the Site included:

- The documented presence of tetrachloroethene (PCE) and other chlorinated volatile organic compounds in soil, groundwater, and soil vapor at locations onsite and in the surrounding area represents a REC and a VEC for the Property.
- The potential for a release from underground storage tanks (USTs) associated with a former gasoline service station/car wash and associated pump island located in the northeastern portion of the Property represent a REC and VEC for the Property.

Bay West's Phase II ESA scope included advancing eight soil borings (SB-01 through SB-08) to depths of 30 feet below ground surface (bgs) near the former dry cleaners (SB-01 through SB-04), and to depths of 15 feet bgs near the former car wash/gasoline service station (SB-05 through SB-08). Soil samples were collected near the boring terminus for analysis of contaminants of concern related to the historical uses of the property as a dry cleaner and service station.

Bay West subcontracted a geophysical firm to conduct a ground penetrating radar (GPR) survey in the area of former USTs and pump island identified on historical drawings provided by the City of Prairie du Chien. The results of the GPR survey identified one potential subsurface anomaly, an apparent excavation area and potential UST, near the former USTs noted on the map provided by the City.

All soil samples collected during this Phase II were analyzed for volatile organic compounds (VOCs); soil samples collected from SB-05 through SB-08 were also analyzed for Resource Conservation and Recovery Act metals and diesel-range organics (DRO). Soil sample laboratory results were compared to Wisconsin Administrative Code § NR 720 non-industrial direct contact residual contaminant levels (RCLs) and protection of groundwater RCLs. None of the analytes were detected at concentrations exceeding Wisconsin Department of Natural Resources (WDNR) non-industrial direct contact RCLs or protection of groundwater RCLs, with the exception of PCE and arsenic as described. PCE was detected at an estimated concentration above the protection of groundwater RCL in SB-03 (23-25). Arsenic was detected at estimated concentrations above the groundwater RCL, but below the background threshold value in SB-05 (4-8), SB-06 (4-8), and SB-07 (4-8).

Bay West collected groundwater samples from four of the soil boring locations (SB-01 through SB-04). Groundwater samples were analyzed for VOCs. Laboratory results of groundwater samples were compared to Wisconsin Administrative Code § NR 140 Enforcement Standards (ES) and Preventive Action Limits (PALs). Laboratory analysis of the groundwater samples did not indicate the presence of VOCs at concentrations greater than their respective NR 140 PALs and/or ESs with the exception of PCE. PCE concentrations were above the NR 140 PALs in all groundwater samples collected. Furthermore, PCE concentrations were above the NR 140 ES of 5 micrograms per liter in groundwater samples collected from SB-03 and SB-04.

Soil vapor samples were collected for analysis of VOCs in order to assess potential vapor intrusion concerns. PCE was detected at concentrations exceeding WDNR Sub-Slab Air Vapor Limits for residential use in samples collected from SV-02, SV-03, and SV-04. None of the other

analytes were detected at concentrations exceeding WDNR Sub-Slab Air Vapor Limits for residential use.

Recommendations

- Geophysical Survey: Several anomalies were detected in the vicinity of the former car wash and gasoline filling station on the northeast corner of the Site during the geophysical survey. Prior to any soil disturbance, Bay West recommends performance of test pits or focused excavation in the vicinity of the anomalies to determine if buried petroleum infrastructure is present.
- Soil: VOCs, DRO, and metals were not detected at concentrations exceeding their respective non-industrial RCLs. Chlorinated solvents were, however, detected in several soil samples collected at the Site exceeding the soil to groundwater RCLs. If future development activity in the area of the former dry cleaner considers construction of stormwater infiltration features, soil sampling in the footprint of infiltration features may be required to ensure that residual soil contaminants are not present exceeding the soil to groundwater RCLs.
- Groundwater: Bay West understands that the Site is located within the bounds of municipal water service provided by the City of Prairie du Chien. Based on the lack of immediate receptors, Bay West does not believe the detected groundwater contamination poses an imminent threat to public health; however, additional off-site groundwater sampling may be warranted to the south-southwest to fully define the extent and magnitude of chlorinated VOCs in groundwater.
- Soil Vapor: PCE was detected at elevated concentrations in the vicinity of the former dry cleaner on-site. Bay West recommends that any future building(s) constructed in the vicinity of SV-02, SV-03, and SV-04 be equipped with sub-slab depressurization systems to mitigate potential vapor intrusion from the former dry-cleaning solvent release.

1.0 INTRODUCTION

Bay West LLC (Bay West) has prepared this report to present the results of Phase II Environmental Site Assessment (ESA) activities completed on the Blackhawk Junction Property (the Site) located in Prairie du Chien, Wisconsin. The activities presented in this report were completed in accordance with the Phase II ESA Sampling and Analysis Plan (SAP) submitted to the Wisconsin Department of Natural Resources (WDNR) dated January 22, 2020, and the approved programmatic Quality Assurance Project Plan (QAPP) developed to provide a quality assurance/quality control (QA/QC) framework for sites assessed through the WDNR Brownfields Assessment Coalition Grant. The WDNR, the grantee and lead coalition member, received United States Environmental Protection Agency (USEPA) Grants BF-00E02021 and BF00E02369.

This report presents the results of the Phase II ESA activities and is organized as follows:

- Executive Summary
- Section 1.0 – Introduction
- Section 2.0 – Site Background and Objectives
- Section 3.0 – Scope and Rationale of Phase II Assessment
- Section 4.0 – Field Investigation Results
- Section 5.0 – Data Quality Assessment
- Section 6.0 – Summary and Conclusions
- Section 7.0 – Recommendations
- Section 8.0 – References

Interested Parties:

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2.0 SITE BACKGROUND AND OBJECTIVES

2.1 Site Background

The Site property is located at 700 East Blackhawk Avenue, Prairie du Chien, Crawford County, Wisconsin 54738 (**Figure 1**), and is approximately 9.13 acres in size. The Property is a largely vacated site that was built over a 20-year period beginning in 1962. It has historically operated with multiple commercial, service, and retail operations, with multiple dry cleaners functioning on-site. The Property is currently improved with two buildings: one approximately 60,000-square-foot vacant building and one approximately 20,000-square-foot commercial building occupied by H & R Block, Mississippi Meats, and Associated Bank (**Figure 2**).

Per the Crawford County Interactive Parcel Application Map, the parcel identification numbers for the Property are 27107490000 & 27107500000. The center of the Property is located at latitude 43.0512140° and longitude -91.1368730° (decimal degrees). The Property is not platted through the Public Land Survey System based on its location in the un-platted City of Prairie du Chien.

The Property is predominantly flat, with slight gradient to the west. The topography of the surrounding area is predominantly flat with a general gradient westward towards the Mississippi River. The surrounding area consists of residential and municipal properties. Specific adjacent property uses are described below:

North	East Blackhawk Avenue followed by single and multi-family residences.
South	East Wisconsin Street followed by single-family residences.
East	NE adjoining single-family residence, remaining east Property boundary bound by alley way, followed by Fire Department building, single & multi-family residences, and Blackhawk Junction Park.
West	S Dousman St followed by single-family residential and vacant land.

The property is improved with a shopping center and parking lots, with one of the two remaining on-site buildings currently occupied, addressed as 700 E Blackhawk Ave. Current Property tenants in the 700 E Blackhawk Ave building include Associated Bank, H & R Block, Mississippi Meats, and Suppz Gym. The other building was vacant at the time of the Bay West Phase I ESA in October 2019.

Available historical information indicates the Property has been improved by commercial retail buildings since the 1960s. It has historically operated with multiple commercial, service, and retail operations, including a car wash/gasoline service station and several dry-cleaning tenants.

In 1991, tetrachloroethene (PCE) was detected in the soil and groundwater on the site after chlorinated volatile organic compound (CVOC) contamination was detected in two nearby municipal wells. Limited assessments were conducted in 2009-2010, but the nature, degree, and extent of contamination is unknown; providing a barrier to redevelopment. A fire destroyed a significant part of the larger building in 2014 including the area where the dry cleaners had been located. Crawford County acquired the Site through tax forfeiture in June 2019.

In October 2019 Bay West conducted a Phase I ESA on the Site on behalf of the WDNR. Bay West's Phase I report identified the following recognized environmental conditions (RECs) and vapor encroachment concerns (VECs) associated with the Site:

- The documented presence of PCE and other CVOCs in soil, groundwater, and soil vapor at locations on-site and in the surrounding area represents a REC and a VEC for the Property; and
- The potential for a release from underground storage tanks (USTs) associated with a former gasoline service station/car wash and associated pump island located in the northeastern portion of the Property represent a REC and VEC for the Property.

Bay West identified the following environmental concerns associated with the property that do not constitute RECs; however, may require assessment prior to demolition of the structure and Property redevelopment:

- The presence of asbestos was previously reported at the Property building by the WDNR Asbestos Notification Listing database; and
- Poly-chlorinated biphenyls may be present in the fluorescent light ballasts observed in the Property buildings.

2.2 Phase II ESA Objectives

The primary objective of this Phase II ESA was to assess for the presence or absence of contaminants potentially associated with the former gasoline USTs and with the former dry-cleaning operations. Previous investigations have detected PCE in soil, groundwater, and soil vapor, although their vertical and horizontal extents have not yet been determined. Based on the time of operations of the former car wash and filling station, leaded gasoline impacts to soil and groundwater may exist.

Bay West developed a sampling design and protocol to provide aerial coverage of the assumed location of the reported USTs and former dry-cleaning operations to assess for contaminants of concern associated with the RECs and VECs identified in the Phase I ESA (Bay West, 2019).

Specifics of the sampling design are provided in **Section 3.0** and the field investigation methods are provided in **Section 4.0**.

3.0 SCOPE AND RATIONALE OF PHASE II ASSESSMENT

The Phase I ESA (Bay West, 2019) identified known chlorinated solvent contamination and identified a potential source of petroleum contamination at the Property. To assess these areas of the property, Bay West completed the following scope of work:

- Performed a geophysical survey in the location of the historical gasoline service station to evaluate the presence or absence of the two gasoline USTs and pump island noted on a map provided by the City of Prairie du Chien Building Department. Bay West was unaware of any documentation indicating that these tanks were removed or that post-removal confirmation soil sampling was conducted. The geophysical survey was non-intrusive and utilized electromagnetic technologies to identify potential subsurface targets representative of the USTs. The results of the geophysical survey were used to further narrow the scope and location of soil borings advanced at the Property. Bay West hired subcontractor Ground Penetrating Radar Systems LLC (GPRS) to complete the geophysical survey over the approximately 7,500-square-foot area depicted on **Figure 3**.
- Bay West advanced eight soil borings on the Property in the vicinity of the former car wash/filling station and dry cleaners. Soil samples were collected continuously from the ground surface to the termination depth of the boring at each boring location for sample logging, field screening, soil classification, and laboratory analysis. The soil samples were screened in the field for the presence of organic vapors using a photoionization detector (PID) by the Ziplock bag headspace screening technique. Soil analytical samples collected from each boring were submitted for laboratory analysis of volatile organic compounds (VOCs); samples collected from the former car wash/filling station (SB-05 through SB-08) were additionally analyzed for diesel-range organics (DRO) and the Resource Conservation and Recovery Act (RCRA) metals. The eight boring locations are depicted on **Figure 3** and summarized below:
    - Four soil borings (SB-01 through SB-04) were advanced to a depth of 30 feet below ground surface (bgs) in the vicinity of the former dry cleaning in order to assess for the presence or absence of previously identified PCE impacts to soil and provide additional delineation of contamination. Soil boring locations were to the east, west, and south of GP-1 through GP-7 and down-gradient of the former dry cleaner (Ayers, 2009 and 2010).
    - Four soil borings (SB-05 through SB-08) were advanced to a depth of 15 feet bgs in the vicinity of the former car wash/filling station. The boring locations were determined following completion of a geophysical survey in the area of the former tank basin and pump island. Potential subsurface sample targets of interest included USTs, former pump island(s), and fill/return product lines.
- Groundwater samples were collected from borings SB-01 through SB-04 (see **Figure 3**). Groundwater samples were collected by advancing the direct push boring to the local water table depth (approximately 17-18 feet bgs) and placing a temporary disposable polyvinyl chloride (PVC) well screen in the open borehole. The groundwater samples were submitted for laboratory analysis of VOCs by USEPA Method 8260.

Six soil vapor borings were advanced to 8 feet below grade and soil vapor samples were collected in close proximity (within 5 lateral feet) from SB-01 through SB-04 (SV-01 through SV-04; see **Figure 3**) to assess general soil vapor conditions in the southern portion of the Property where historically elevated PCE detections in soil vapor were reported. The soil vapor samples were submitted for laboratory analysis of VOCs by USEPA Method TO-15.

4.0 FIELD INVESTIGATION RESULTS

This section provides the results of the field investigation activities and includes a discussion of observed soil boring lithology, field screening observations and results, soil, groundwater, and soil vapor sample analytical results. Sample collection procedures followed the methods described in the approved SAP (Bay West, 2020), the approved WDNR programmatic QAPP (Bay West, 2017), and applicable Bay West Standard Operating Procedures (attached as Appendix 1 to the programmatic QAPP).

Table 4-1 provides a summary of boring locations, sample matrices, sample depths, and analytes.

4.1 Soil Boring Lithology

Soil samples were collected at the Site using direct push technology and 5-foot-long stainless-steel core samplers fitted with disposable acetate liners. The soil cores were advanced in 4-foot increments from the ground surface to the termination depth of the boring providing a continuous profile of the lithology of the Site.

The Bay West field technician logged each soil boring using the Unified Soil Classification System (USCS). Field observations were logged on boring log forms and included a depth profile, observed soil types, relative soil moisture content, depth to groundwater if observed, and information regarding the presence of fill material, debris, waste, or other relevant subsurface features or observations.

In general, Site lithology consisted of fine-grained sediments (sand to clay) from the surface to approximately 30 feet. Observations of clayey-sand and trace amounts of cobble were noted in soil borings SB-02 and SB-03. In soil borings SB-01 through SB-04, groundwater was encountered in at depths of approximately 17 – 18 feet bgs. A log for each boring completed at the Site is contained in **Appendix A**.

4.2 Field Screening Observations and Results

The Bay West field technician screened soil samples in the field for the presence of organic vapors using a PID equipped with a 10.6 electron volt lamp. Field screening was completed using the Ziplock bag headspace technique. Headspace readings are presented on the boring logs contained in **Appendix A**.

Soil screening results indicated PID readings less than 2 parts per million in each of the soil borings. Visual and/or olfactory evidence of contamination was not noted in the field.

4.3 Soil Sample Analytical Results

Bay West collected soil samples at each boring location for laboratory analysis of VOCs. Additionally, samples collected from soil borings SB-05 through SB-08 were analyzed for RCRA metals and DRO.

Soil samples were collected at each boring at pre-determined terminal depth intervals. Soil samples collected from soil borings SB-01 through SB-04 were collected from 23-25 feet bgs. Soil samples collected from soil borings SB-05 through SB-08 were collected from 4-8 feet bgs.

Bay West compared soil sample analytical results to the most recent WDNR Remediation and Redevelopment Program non-industrial direct contact residual contaminant levels (RCLs) and protection of groundwater RCLs. Complete copies of the laboratory analytical reports are presented in **Appendix B**.

4.3.1 VOC Results

Soil samples were collected at each boring location for analysis of VOCs. VOC results are presented in **Table 4-2**.

VOCs were not detected in the eight soil samples analyzed at concentrations exceeding the laboratory reporting limits with the following exception:

- PCE was detected in SB-03-SS (23-25) at an estimated concentration of 29.8 micrograms per kilogram (µg/kg); the estimated concentration is above the groundwater RCL of 5 µg/kg, but below the non-industrial RCL of 33,000 µg/kg.

4.3.2 Metals Results

Soil samples were collected from soil borings SB-05 through SB-08 for analysis of metals. Metals results are presented in **Table 4-2**.

Various metals were detected in each of the four soil samples analyzed; however, the concentrations were within typical background ranges for each metal and none were detected exceeding WDNR non-industrial RCLs or protection of groundwater RCLs, with the following exception:

- Arsenic was detected in SB-05-SS (4-8), SB-06-SS (4-8), and SB-07-SS (4-8) at estimated concentrations of 3.3, 3.6 and 3.0 milligrams per kilogram (mg/kg), respectively, exceeding the groundwater RCL of 0.584 mg/kg, but below the Background Threshold Value of 8 mg/kg. However, these results are still considered to be within typical background concentrations for arsenic based on studies in the Conterminous United States (Smith et al., 2013).

4.3.3 DRO Results

Soil samples were collected from soil borings SB-05 through SB-08 for DRO analysis. DRO results are presented in **Table 4-2**.

DRO was detected in sample SB-07-SS (4-8) at an estimated concentration of 7.1 mg/kg. There is no RCL for DRO; however, 100 mg/kg is a typical cleanup standard in residential/unrestricted settings. None of the soil samples contained DRO exceeding 100 mg/kg.

4.4 Groundwater Sample Analytical Results

Bay West collected groundwater samples at four of the boring locations (SB-01 through SB-04) for analysis of VOCs.

Groundwater was observed at depths ranging from 17.8 feet bgs at SB-02 to 18.8 feet bgs at SB-03. The groundwater samples were collected in the open boreholes by setting temporary 5-foot sections of 1-inch diameter PVC slotted screens intersecting the water table (approximately 17-18 feet bgs). The groundwater samples were collected using a peristaltic pump equipped with dedicated disposal polyethylene tubing. The groundwater samples were submitted for laboratory analysis of VOCs. Bay West compared groundwater sample analytical results to the most recent WDNR drinking water and groundwater quality standards, NR 140 Enforcement Standards (ES) and preventive action limits (PALs) dated May 2017. A complete copy of the laboratory report is presented in **Appendix B**.

Results of the groundwater sample analysis are summarized in **Table 4-3**.

4.4.1 VOC Results

Results of the groundwater sample analysis did not indicate the presence of VOCs at concentrations exceeding their respective NR 140 action levels, with exception to the following:

- PCE was detected in the groundwater samples collected from SB-01 through SB-04 at concentrations of 2.8, 2.6, 27.2, and 5.1 micrograms per liter (µg/L), respectively, above the NR 140 PAL of 0.5 µg/L. Samples collected from SB-03 and SB-04 also exceeded the NR 140 ES of 5 µg/L.

The remaining VOCs analyzed for were not detected at concentrations above their respective laboratory reporting limits.

4.5 Soil Vapor Analytical Results

Bay West collected soil vapor samples at six locations (SV-01-SV through SV-06-SV) for analysis of VOCs. Samples were collected from temporary soil vapor sampling points set at approximately 8 feet.

Soil vapor results were compared to their respective WDNR Sub-Slab Air Vapor Limits for Residential property use. A complete copy of the laboratory report is presented in **Appendix B**. Results of the soil vapor VOC sample analysis are summarized in **Table 4-4**.

Twenty-nine unique VOCs were detected in one or more samples at concentrations above their respective laboratory reporting. PCE was detected in samples collected from SV-02, SV-03, and SV-04 at concentrations of 16,700, 5,030 and 4,490 micrograms per cubic meter (µg/m^3), respectively, above the WDNR Sub-Slab Air Vapor Limits for residential use. The remaining VOCs analyzed for were not detected above their respective reporting limits.

4.6 Investigation Derived Waste

Soil cuttings generated during drilling activities were minimal due to the direct push soil coring methodology. Soil remaining following analytical sampling was returned to the borehole or thin-spread on the ground surface at the boring location.

Groundwater sampling did not generate excess purge water.

Spent personal protective equipment including sampling gloves, excess glassware, paper towels, etc. was placed in trash bags and disposed of as municipal solid waste in a trash receptacle at Bay West's office in St. Paul, Minnesota.

4.7 Geophysical Survey Results

GPRS was contracted by Bay West to perform a Geophysical Survey at the Site. GPRS utilized an Underground Scanning ground penetrating radar (GPR) Antenna to search for any suspected USTs or suspected UST-related piping or other anomalies remaining in the vicinity of the former car wash/filling station. The survey was completed over an area of approximately 7,500 square feet that encompassed the former UST basins and pump island based historical information reviewed as part of the Bay West Phase I ESA. The survey methodology is summarized in the GPRS report included in **Appendix C**. In summary, GPRS scanned the 7,500-square-foot area on a 1-foot grid spacing. The resulting data were reviewed by the GPRS technician in real-time. Site conditions allowed for a GPR penetration depth of approximately 5 feet below grade. If the scan identified a suspect buried anomaly, the location was marked with orange marking paint.

GPRS identified an area that was a potential excavation zone and a potential UST in the vicinity of the USTs identified on the historical map provided by the City of Prairie du Chien Building Department. Bay West advanced soil borings in this area to evaluate soil quality. Borings were off set from the marked area to avoid penetrating a tank if there was one still buried at the site. The Geophysical Survey Area is depicted on **Figure 3**. The GPRS Report is included in **Appendix C**.

5.0 DATA QUALITY ASSESSMENT

The Level 2 data package was reviewed to ensure it contained the data required in the deliverable. This included checking the data package for results of each analyte requested for each field sample submitted in the analytical batch, along with requested QC documentation for the method. The data package was complete.

In accordance with the programmatic QAPP (Bay West, 2017), Bay West collected field duplicate samples for analysis using identical recovery techniques and treated in an identical manner during storage, transportation, and analysis. Field duplicate samples were collected at a frequency of 1 per 20 samples per matrix and analyte.

Matrix spike/matrix spike duplicate (MS/MSDs) samples were performed by the laboratory on a batch-specific basis per method requirements per matrix per analyte and were evaluated if determined to be site-specific. Trip blanks were included in the coolers containing VOC analysis. Field equipment rinsate blanks were not collected because all disposable sampling equipment was used.

Any reported positive detection value >detection limit (DL) and <reporting limit (RL) is in the estimated range of quantitation and was therefore reported as an estimation “J” for analysis. Non-detects soil results for VOC analysis were reported on a wet weight basis. Detects were reported on a dry weight basis.

Preservation and Holding Times: All samples were preserved according to program requirements. The samples were received by the lab within holding time for sample preparation for all requested analyses.

Calibration: The continuing calibration for QC batch 666825 was high for bromoform. Bromoform was not detected in project samples; therefore, no action required for continuing calibration high bias.

Method and Trip Blank:

Naphthalene was detected in the method blank below reporting limit (1.8J). Naphthalene was also detected in associated sample SV-04-SV (0-8) (4.4J) and should be flagged with a "U" per the 5X 10X rule.

Instrument blanks contained analytes above the reporting limits as follows:

- Styrene was detected in cannister cert #2443.202003101612 associated with sample SV-04-SV (0-8) at a concentration of 0.37J µg/m^3. The styrene result of 1.6J µg/m^3 for sample SV-04-SV (0-8) should be qualifed "U" and considered non-detect;
- 2-Hexanone was detected in cannister cert #1787.202003101447 associated with sample SV-03-SV (0-8) at a concentration of 0.78J µg/m^3. The 2-hexanone result of 1.8J µg/m^3 for sample SV-03-SV (0-8) should be qualifed "U" and considered non-detect; and
- 1,3,5-Trimethylbenzene (TMB) was detected in clean cannister cert #2595.202003110841; however, 1,3,5-TMB was not detected in the associated sample. No qualifers are applied for this outlier.

MS/MSD: All MS/MSD recoveries were acceptable for all appropriate analyses performed and all batch runs.

Laboratory Control Sample (LCS): Analyte recovery in the LCS exceeded QC limits for bromoform. Analyte presence was below the reporting limits in associated samples; therefore, no qualifiers applied due to high bromoform recovery.

Surrogates: Surrogate recoveries were acceptable for all VOC and pesticide analyses performed and all batch runs. No further qualification was required.

Field Duplicates: One field duplicate was collected from SB-04.

Initial and continuing calibrations, surrogates, internal standards, QC blanks, LCS/LCS Duplicate, serial dilutions, endrin/DDT breakdown check samples, ICS, sample/sample duplicate, MS/MSD, and field duplicates performed as applicable with resulting percent recoveries, percent differences, or relative percent differences demonstrated an overall acceptable level of accuracy and precision was achieved. In addition, completeness, defined to be the percentage of analytical results to be usable, including estimated values, was 100 percent for noted sample delivery group. All validation elements were acceptable and the data, as qualified, are acceptable and usable for their intended use.

6.0 SUMMARY AND CONCLUSIONS

The Phase II ESA completed on the Blackhawk Junction Property consisted of advancing eight soil borings to address the RECs/VECs identified in the Phase I ESA previously completed at the Site. Soil samples were collected directly above each boring terminus (23-25 feet bgs in soil borings SB-01 through SB-04, and 4-8 feet bgs in soil borings SB-05 through SB-08) for analysis of contaminants of concern related to the historical use of the property, a car wash/gasoline service station and several dry cleaning tenants.

6.1 Ground Penetrating Radar Survey

The GPR survey consisted of a 1-foot survey grid over a 7,500-square-foot area encompassing the former UST and pump island area depicted on a map provided by the City. The survey identified one subsurface anomaly that may potentially be a small UST consistent with the map provided by the City.

6.2 Lithology

In general, Site lithology consisted of fine-grained sediments (sand to clay) from the surface to approximately 30 feet. Observations of clayey-sand and trace amounts of cobble were noted in soil borings SB-02 and SB-03. In soil borings SB-01 through SB-04, groundwater was encountered at depths of approximately 17 – 18 feet bgs.

Field screening was completed using the Ziplock bag headspace technique. None of the soil samples screened in the field exhibited organic vapor readings exceeding background. Visual and/or olfactory evidence of contamination were not observed in any of the soil boring samples.

6.3 Soil Analytical Results

All soil samples were analyzed for VOCs; soil samples collected from SB-05 through SB-08 were also analyzed for RCRA metals and DRO. PCE was detected in SB-03-SS (23-25) at an estimated concentration of 29.8 µg/kg; above the groundwater RCL of 5 µg/kg, but below the non-industrial RCL of 33,000 µg/kg. Arsenic was detected in SB-05-SS (4-8), SB-06-SS (4-8), and SB-07-SS (4-8) at estimated concentrations of 3.3, 3.6, and 3.0 mg/kg, respectively, above the groundwater RCL of 0.584 mg/kg, but below the background threshold value of 8 mg/kg. The detections of arsenic are within typical background concentrations and are not considered to represent evidence of release at the Site. None of the other analytes were detected at concentrations exceeding WDNR non-industrial direct contact or protection of groundwater RCLs.

Soil analytical results and field screening data did not suggest the presence of a significant source of residual chlorinated solvent-impacted soil remaining below the footprint of the former dry cleaner.

6.4 Groundwater Analytical Results

Bay West collected groundwater samples at four of the boring locations on site (SB-01 through SB-04). Groundwater samples were analyzed for VOCs.

Laboratory analysis of the groundwater samples did not indicate the presence of VOCs at concentrations greater than their respective NR 140 PALs and/or ESs with the exception of PCE. PCE concentrations were above the NR 140 PALs in all groundwater samples collected. Furthermore, PCE concentrations were above the NR 140 ES of 5 µg/L in groundwater samples collected from SB-03 and SB-04.

Bay West's groundwater results are consistent with previous sampling completed in the area by Ayers. Based on groundwater flow direction, it is likely that groundwater contamination has migrated south, off-site, at concentrations exceeding NR 140 ESs.

6.5 Soil Vapor Analytical Results

Soil vapor samples were collected for analysis of VOCs in order to assess potential vapor intrusion concerns. PCE was detected at concentrations exceeding WDNR Sub-Slab Air Vapor Limits for residential use in samples collected from SV-02, SV-03, and SV-04. None of the other analytes were detected at concentrations exceeding WDNR sub-slab Air Vapor Limits for residential use. Due to a lack of receptors these elevated vapors do not likely pose a vapor intrusion concern on the Site; however, vapors may have migrated off-site to the south consistent with the groundwater flow direction.

7.0 RECOMMENDATIONS

Bay West understands that the City of Prairie du Chien anticipates redeveloping the Site for future commercial land use. Based on the analytical results and assumed site reuse, Bay West recommends the following:

- **Geophysical Survey**: Several anomalies were detected in the vicinity of the former car wash and gasoline filling station on the northeast corner of the Site during the geophysical survey. Prior to any soil disturbance, Bay West recommends performance of test pits or focused excavation in the vicinity of the anomalies to determine if buried petroleum infrastructure is present.
- **Soil**: VOCs, DRO, and metals were not detected at concentrations exceeding their respective non-industrial RCLs. Chlorinated solvents were, however, detected in several soil samples collected at the Site exceeding the soil to groundwater RCLs. If future development activity in the area of the former dry cleaner considers construction of stormwater infiltration features, soil sampling in the footprint of infiltration features may be required to ensure that residual soil contaminants are not present exceeding the soil to groundwater RCLs.
- **Groundwater**: Bay West understands that the Site is located within the bounds of municipal water service provided by the City of Prairie du Chien. Based on the lack of immediate receptors, Bay West does not believe the detected groundwater contamination poses an imminent threat to public health; however, additional off-site groundwater sampling may be warranted to the south-southwest to fully define the extent and magnitude of chlorinated VOCs in groundwater.
- **Soil Vapor**: PCE was detected at elevated concentrations in the vicinity of the former dry cleaner on-site. Bay West recommends that any future building(s) constructed in the vicinity of SV-02, SV-03, and SV-04 be equipped with sub-slab depressurization systems to mitigate potential vapor intrusion from the former dry-cleaning solvent release.

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Senior Project Manager

Mandy Coon
Staff Professional

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Tables

Table 4-1
Sample Summary

Boring ID	Rationale	Matrix	Depth (ft)	Analysis
SB-1	Assess soil quality east of previously-advanced GP-1 through GP-7	Soil	~23-25	VOCs
	Assess groundwater quality east of previously-advanced GP-1 through GP-7	Water	~25-30	VOCs
SV-1	Assess soil vapor quality near SB-1	Soil Vapor	8	VOCs
SB-2	Assess soil quality south of previously-advanced GP-1 through GP-7	Soil	~23-25	VOCs
	Assess groundwater quality south of previously-advanced GP-1 through GP-7	Water	~25-30	VOCs
SV-2	Assess soil vapor quality near SB-2	Soil Vapor	8	VOCs
SB-3	Assess soil quality west of previously-advanced GP-1 through GP-7	Soil	~23-25	VOCs
	Assess groundwater quality west of previously-advanced GP-1 through GP-7	Water	~25-30	VOCs
SV-3	Assess soil vapor quality near SB-3	Soil Vapor	8	VOCs
SB-4	Assess shallow soil quality near assumed former dry cleaning washer	Soil	~23-25	VOCs
	Assess groundwater quality near assumed former dry cleaning washer	Water	~25-30	VOCs
SV-4	Assess soil vapor quality near SB-4	Soil Vapor	8	VOCs
SB-5	Assess soil quality at the assumed location of former 1,000-gallon UST	Soil	~4-8	RCRA metals, VOCs, DRO
SV-5	Assess soil vapor quality near SB-5	Soil Vapor	8	VOCs
SB-6	Assess soil quality at the assumed location of former 2,000-gallon UST	Soil	~4-8	RCRA metals, VOCs, DRO
SB-7	Assess soil quality at the assumed location of former pump island north terminus	Soil	~4-8	RCRA metals, VOCs, DRO
SV-6	Assess soil vapor quality near SB-7	Soil Vapor	8	VOCs
SB-8	Assess soil quality at the assumed location of former pump island south terminus	Soil	~4-8	RCRA metals, VOCs, DRO

Table 4-2
Soil Sample Analytical Results – VOCs, Metals and DRO

Parameter	SB-01-SS (23-25) 3/10/2020	SB-02-SS (23-25) 3/10/2020	SB-03-SS (23-25) 3/10/2020	SB-04-SS (23-25) 3/10/2020	SB-05-SS (4-8) 3/11/2020	SB-06-SS (4-8) 3/11/2020	SB-07-SS (4-8) 3/11/2020	SB-08-SS (4-8) 3/11/2020	WI DNR GROUNDWATER RCL	WI DNR NONINDUSTRIAL RCL SOIL
VOCs - 8260B										
1,1,1,2-Tetrachloroethane	< 16.4	< 16.7	< 16.4	< 15.7	< 16.8	< 15.7	< 15.4	< 14.2	53	2780
1,1,1-Trichloroethane	< 26.7	< 27.2	< 26.6	< 25.6	< 27.3	< 25.6	< 25.0	< 23.1	140	640000
1,1,2,2-Tetrachloroethane	< 20.0	< 20.4	< 19.9	< 19.2	< 20.5	< 19.2	< 18.8	< 17.3	0.2	810
1,1,2-Trichloro-1,2,2-trifluoroethane	< 110	< 112	< 109	< 105	< 112	< 105	< 103	< 94.6	NE	910000
1,1,2-Trichloroethane	< 30.8	< 31.4	< 30.7	< 29.6	< 31.5	< 29.5	< 28.9	< 26.6	3	1590
1,1-Dichloroethane	< 28.0	< 28.5	< 27.9	< 26.8	< 28.6	< 26.8	< 26.2	< 24.1	483	5060
1,1-Dichloroethene	< 22.3	< 22.7	< 22.2	< 21.3	< 22.8	< 21.3	< 20.8	< 19.2	5	320000
1,1-Dichloropropene	< 25.6	< 26.1	< 25.5	< 24.6	< 26.2	< 24.5	< 24.0	< 22.1	NE	NE
1,2,3-Trichlorobenzene	< 19.2	< 19.5	< 19.1	< 18.4	< 19.6	< 18.3	< 17.9	< 16.5	NE	62600
1,2,3-Trichloropropane	< 72.5	< 73.8	< 72.2	< 69.5	< 74.1	< 69.4	< 67.9	< 62.5	52	5
1,2,4-Trichlorobenzene	< 15.3	< 15.6	< 15.2	< 14.7	< 15.6	< 14.7	< 14.3	< 13.2	408	24000
1,2,4-Trimethylbenzene	< 27.4	< 27.8	< 27.3	< 26.2	< 28.0	< 26.2	< 25.6	< 23.6	NE	219000
1,2-Dibromo-3-Chloropropane	< 159	< 162	< 159	< 153	< 163	< 152	< 149	< 137	0.2	8
1,2-Dibromoethane	< 21.8	< 22.1	< 21.7	< 20.9	< 22.2	< 20.8	< 20.4	< 18.8	0.0282	50
1,2-Dichlorobenzene	< 11.7	< 11.9	< 11.7	< 11.3	< 12.0	< 11.2	< 11.0	< 10.1	1168	376000
1,2-Dichloroethane	< 23.8	< 24.2	< 23.7	< 22.8	< 24.3	< 22.8	< 22.2	< 20.5	3	652
1,2-Dichloropropane	< 28.4	< 28.9	< 28.2	< 27.2	< 29.0	< 27.2	< 26.6	< 24.5	3	3400
1,3,5-Trimethylbenzene	< 19.9	< 20.2	< 19.8	< 19.1	< 20.3	< 19.1	< 18.6	< 17.2	NE	182000
1,3-Dichlorobenzene	< 7.7	< 7.8	< 7.7	< 7.4	< 7.9	< 7.4	< 7.2	< 6.6	1153	297000
1,3-Dichloropropane	< 22.9	< 23.3	< 22.8	< 21.9	< 23.4	< 21.9	< 21.4	< 19.7	NE	1490000
1,4-Dichlorobenzene	< 9.9	< 10.0	< 9.8	< 9.4	< 10.1	< 9.4	< 9.2	< 8.5	144	3740
2,2-Dichloropropane	< 23.6	< 24.0	< 23.5	< 22.7	< 24.1	< 22.6	< 22.1	< 20.4	NE	191000
2-Butanone (MEK)	< 38.8	< 39.5	< 38.7	< 37.2	< 39.7	< 37.2	< 36.3	< 33.5	1666	28400000
2-Chlorotoluene	< 15.3	< 15.6	< 15.2	< 14.7	< 15.6	< 14.7	< 14.3	< 13.2	NE	907000
3-Chloropropene	< 50.4	< 51.3	< 50.2	< 48.3	< 51.5	< 48.2	< 47.2	< 43.4	NE	1040
4-Chlorotoluene	< 7.9	< 8.1	< 7.9	< 7.6	< 8.1	< 7.6	< 7.4	< 6.8	NE	253000
4-Isopropyltoluene	< 19.7	< 20.0	< 19.6	< 18.8	< 20.1	< 18.8	< 18.4	< 17.0	NE	162000
4-Methyl-2-pentanone (MIBK)	< 29.7	< 30.2	< 29.6	< 28.5	< 30.4	< 28.5	< 27.8	< 25.6	225	3360000
Acetone	< 479	< 487	< 477	< 459	< 489	< 459	< 448	< 413	3677	63400000
Benzene	< 11.4	< 11.6	< 11.4	< 10.9	< 11.7	< 10.9	< 10.7	< 9.8	5	1600
Bromobenzene	< 8.1	< 8.3	< 8.1	< 7.8	< 8.3	< 7.8	< 7.6	< 7.0	NE	342000
Bromochloromethane	< 30.7	< 31.3	< 30.6	< 29.4	< 31.4	< 29.4	< 28.8	< 26.5	NE	216000
Bromodichloromethane	< 19.8	< 20.1	< 19.7	< 19.0	< 20.2	< 18.9	< 18.5	< 17.1	0.3	418
Bromoform	< 82.3	< 83.8	< 82.0	< 78.9	< 84.1	< 78.9	< 77.1	< 71.0	2	25400
Bromomethane	< 164	< 167	< 164	< 157	< 168	< 157	< 154	< 142	5	9600
Carbon tetrachloride	< 30.2	< 30.8	< 30.1	< 29.0	< 30.9	< 28.9	< 28.3	< 26.1	4	916
Chlorobenzene	< 10.2	< 10.4	< 10.2	< 9.8	< 10.5	< 9.8	< 9.6	< 8.8	136	370000
Chloroethane	< 86.8	< 88.3	< 86.5	< 83.2	< 88.7	< 83.1	< 81.3	< 74.9	227	2120000
Chloroform	< 26.6	< 27.1	< 26.5	< 25.5	< 27.2	< 25.5	< 24.9	< 23.0	3	454
Chloromethane	< 33.8	< 34.4	< 33.7	< 32.4	< 34.6	< 32.4	< 31.7	< 29.2	16	159000
cis-1,2-Dichloroethene	< 17.3	< 17.6	< 17.2	< 16.6	< 17.7	< 16.6	< 16.2	< 14.9	41	156000
cis-1,3-Dichloropropene	< 4.6	< 4.7	< 4.6	< 4.4	< 4.7	< 4.4	< 4.3	< 3.9	NE	1210000
Dibromochloromethane	< 21.0	< 21.4	< 20.9	< 20.1	< 21.5	< 20.1	< 19.7	< 18.1	32	8280
Dibromomethane	< 27.1	< 27.6	< 27.0	< 26.0	< 27.7	< 26.0	< 25.4	< 23.4	NE	34000
Dichlorodifluoromethane	< 33.1	< 33.7	< 33.0	< 31.7	< 33.8	< 31.7	< 31.0	< 28.5	3086	126000
Dichlorofluoromethane	< 173	< 176	< 172	< 166	< 177	< 166	< 162	< 149	NE	NE
Diethylether	< 53.0	< 53.9	< 52.8	< 50.8	< 54.1	< 50.7	< 49.6	< 45.7	448	10100000
Ethylbenzene	< 11.0	< 11.2	< 11.0	< 10.6	< 11.3	< 10.6	< 10.3	< 9.5	1570	8020
Hexachlorobutadiene	< 28.1	< 28.6	< 28.0	< 26.9	< 28.7	< 26.9	< 26.3	< 24.2	NE	1630
Isopropylbenzene	< 23.5	< 23.9	< 23.4	< 22.5	< 24.0	< 22.5	< 22.0	< 20.3	NE	268000
Methyl tert-butyl ether	< 12.4	< 12.6	< 12.3	< 11.9	< 12.7	< 11.9	< 11.6	< 10.7	27	63800
Methylene Chloride	< 117	< 119	< 117	< 112	< 120	< 112	< 110	< 101	3	61800
Naphthalene	< 69.9	< 71.1	< 69.6	< 67.0	< 71.4	< 66.9	< 65.5	< 60.3	658	5520
n-Butylbenzene	< 13.7	< 13.9	< 13.6	< 13.1	< 14.0	< 13.1	< 12.8	< 11.8	NE	108000
n-Propylbenzene	< 13.1	< 13.3	< 13.0	< 12.5	< 13.3	< 12.5	< 12.2	< 11.3	NE	264000
sec-Butylbenzene	< 27.2	< 27.7	< 27.1	< 26.1	< 27.8	< 26.1	< 25.5	< 23.5	NE	145000
Styrene	< 7.5	< 7.6	< 7.5	< 7.2	< 7.7	< 7.2	< 7.0	< 6.5	220	867000
tert-Butylbenzene	< 19.3	< 19.6	< 19.2	< 18.5	< 19.7	< 18.5	< 18.1	< 16.6	NE	183000
Tetrachloroethene	< 29.5	< 30.0	**29.8J**	< 28.3	< 30.1	< 28.2	< 27.6	< 25.4	5	33000
Tetrahydrofuran	< 512	< 521	< 510	< 491	< 524	< 491	< 480	< 442	22	23300000
Toluene	< 26.6	< 27.1	< 26.5	< 25.5	< 27.2	< 25.5	< 24.9	< 23.0	1107	818000
trans-1,2-Dichloroethene	< 28.5	< 29.0	< 28.4	< 27.3	< 29.1	< 27.3	< 26.7	< 24.6	63	1560000
trans-1,3-Dichloropropene	< 7.8	< 8.0	< 7.8	< 7.5	< 8.0	< 7.5	< 7.3	< 6.8	NE	1510000
Trichloroethene	< 26.2	< 26.7	< 26.1	< 25.2	< 26.8	< 25.1	< 24.6	< 22.6	4	1300
Trichlorofluoromethane	< 118	< 120	< 117	< 113	< 120	< 113	< 110	< 102	4477	1230000
Vinyl chloride	< 12.4	< 12.6	< 12.3	< 11.8	< 12.6	< 11.8	< 11.6	< 10.7	0.1	67
Xylenes, Total	< 30.0	< 30.5	< 29.9	< 28.7	< 30.6	< 28.7	< 28.1	< 25.9	3960	260000

Table 4-2
Soil Sample Analytical Results – VOCs, Metals and DRO

Parameter	SB-01-SS (23-25) 3/10/2020	SB-02-SS (23-25) 3/10/2020	SB-03-SS (23-25) 3/10/2020	SB-04-SS (23-25) 3/10/2020	SB-05-SS (4-8) 3/11/2020	SB-06-SS (4-8) 3/11/2020	SB-07-SS (4-8) 3/11/2020	SB-08-SS (4-8) 3/11/2020	WI DNR GROUNDWATER RCL	WI DNR NONINDUSTRIAL RCL SOIL
Metals - 6010B & 7471B										
Arsenic					**3.3J**	**3.6J**	**3.0J**	< 3.0	0.584	8*
Barium					**79.0**	**101**	**52.0**	**32.0**	164.8	15300
Cadmium					**0.16J**	< 0.16	**0.17J**	**0.17J**	0.752	71.1
Chromium					**14.8**	**18.5**	**14.7**	**8.8**	360000	NE
Lead					**12.5**	**9.4**	**10.1**	**12.1**	27.0	400
Selenium					< 1.5	< 1.5	< 1.4	< 1.3	0.520	391
Silver					< 0.36	< 0.36	< 0.33	< 0.31	0.849	391
Mercury					< 0.011	< 0.013	< 0.012	< 0.011	0.208	3.13
DRO - WI MOD DRO										
WDRO C10-C28					< 3.5	< 3.5	**7.1J**	< 2.8	NE	NE

VOC concentrations reported in ug/Kg; Metals & DRO concentrations reported in mg/kg
Depths in feet below ground surface
WDNR Non-Ind RCL: Wisconsin Department of Natural Resources Non-Industrial Residual Contaminant Level
Bolded result indicates a detectable amount of an analyte.
shading indicates exceedance of WDNR RCL
shading indicates exceedance of WDNR protection of groundwater RCL
NE indicates that there is not an established limit for that analyte.
J flag indicates an estimated value.
Shaded background indicates a result exceeding an action level.
*Background Threshold Value
< Less than laboratory reporting limit as noted.

Table 4-3
Groundwater Sample Analytical Results – VOCs

Parameter	SB-01-GW (18.7-30) 3/10/2020	SB-02-GW (17.8-30) 3/10/2020	SB-03-GW (18.8-30) 3/10/2020	SB-04-GW (18.5-30) 3/10/2020	SB-04-GW - DUP (18.5-30) 3/10/2020	NR140 ENFORCEMENT STANDARD	NR140 PREVENTATIVE ACTION LIMITS
VOCs - 8260B							
1,1,1,2-Tetrachloroethane	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	70	7
1,1,1-Trichloroethane	< 0.57	< 0.57	< 0.57	< 0.57	< 0.57	200	40
1,1,2,2-Tetrachloroethane	< 0.53	< 0.53	< 0.53	< 0.53	< 0.53	0.2	0.02
1,1,2-Trichloro-1,2,2-trifluoroethane	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NE	NE
1,1,2-Trichloroethane	< 0.64	< 0.64	< 0.64	< 0.64	< 0.64	5	0.5
1,1-Dichloroethane	< 0.55	< 0.55	< 0.55	< 0.55	< 0.55	850	85
1,1-Dichloroethene	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	7	0.7
1,1-Dichloropropene	< 0.74	< 0.74	< 0.74	< 0.74	< 0.74	NE	NE
1,2,3-Trichlorobenzene	< 0.57	< 0.57	< 0.57	< 0.57	< 0.57	NE	NE
1,2,3-Trichloropropane	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	60	12
1,2,4-Trichlorobenzene	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	70	14
1,2,4-Trimethylbenzene	< 0.57	< 0.57	< 0.57	< 0.57	< 0.57	NE	NE
1,2-Dibromo-3-Chloropropane	< 4.2	< 4.2	< 4.2	< 4.2	< 4.2	0.2	0.02
1,2-Dibromoethane	< 0.60	< 0.60	< 0.60	< 0.60	< 0.60	0.05	0.005
1,2-Dichlorobenzene	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	600	60
1,2-Dichloroethane	< 0.85	< 0.85	< 0.85	< 0.85	< 0.85	5	0.5
1,2-Dichloropropane	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	5	0.5
1,3,5-Trimethylbenzene	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	NE	NE
1,3-Dichlorobenzene	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	600	120
1,3-Dichloropropane	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	NE	NE
1,4-Dichlorobenzene	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	75	15
2,2-Dichloropropane	< 0.66	< 0.66	< 0.66	< 0.66	< 0.66	NE	NE
2-Butanone (MEK)	< 2.9	< 2.9	< 2.9	< 2.9	< 2.9	4000	800
2-Chlorotoluene	< 0.55	< 0.55	< 0.55	< 0.55	< 0.55	NE	NE
3-Chloropropene	< 0.90	< 0.90	< 0.90	< 0.90	< 0.90	NE	NE
4-Chlorotoluene	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	NE	NE
4-Isopropyltoluene	< 0.59	< 0.59	< 0.59	< 0.59	< 0.59	NE	NE
4-Methyl-2-pentanone (MIBK)	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	500	50
Acetone	< 8.4	< 8.4	< 8.4	< 8.4	< 8.4	9000	1800
Benzene	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40	5	0.5
Bromobenzene	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	NE	NE
Bromochloromethane	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	NE	NE
Bromodichloromethane	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	0.6	0.06
Bromoform	< 0.90	< 0.90	< 0.90	< 0.90	< 0.90	4.4	0.44
Bromomethane	< 2.1	< 2.1	< 2.1	< 2.1	< 2.1	10	1
Carbon tetrachloride	< 0.56	< 0.56	< 0.56	< 0.56	< 0.56	5	0.5
Chlorobenzene	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	100	20
Chloroethane	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	400	80
Chloroform	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	6	0.6
Chloromethane	< 0.49	< 0.49	< 0.49	< 0.49	< 0.49	30	3
cis-1,2-Dichloroethene	< 0.66	< 0.66	< 0.66	< 0.66	< 0.66	70	7
cis-1,3-Dichloropropene	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	NE	NE
Dibromochloromethane	< 0.66	< 0.66	< 0.66	< 0.66	< 0.66	60	6
Dibromomethane	< 0.51	< 0.51	< 0.51	< 0.51	< 0.51	NE	NE
Dichlorodifluoromethane	< 0.65	< 0.65	< 0.65	< 0.65	< 0.65	1000	200
Dichlorofluoromethane	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	NE	NE
Diethylether	< 0.58	< 0.58	< 0.58	< 0.58	< 0.58	1000	100
Ethylbenzene	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	700	140
Hexachlorobutadiene	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	NE	NE
Isopropylbenzene	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	NE	NE
Methyl tert-butyl ether	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	60	12
Methylene Chloride	< 3.7	< 3.7	< 3.7	< 3.7	< 3.7	5	0.5
Naphthalene	< 2.3	< 2.3	< 2.3	< 2.3	< 2.3	100	10
n-Butylbenzene	< 0.52	< 0.52	< 0.52	< 0.52	< 0.52	NE	NE
n-Propylbenzene	< 0.61	< 0.61	< 0.61	< 0.61	< 0.61	NE	NE
sec-Butylbenzene	< 0.49	< 0.49	< 0.49	< 0.49	< 0.49	NE	NE
Styrene	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	100	10
tert-Butylbenzene	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	NE	NE
Tetrachloroethene	**2.8**	**2.6**	**27.2**	**5.1**	**4.7**	5	0.5
Tetrahydrofuran	< 11.3	< 11.3	< 11.3	< 11.3	< 11.3	50	10
Toluene	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	800	160
trans-1,2-Dichloroethene	< 0.64	< 0.64	< 0.64	< 0.64	< 0.64	100	20
trans-1,3-Dichloropropene	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NE	NE
Trichloroethene	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	5	0.5
Trichlorofluoromethane	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	3490	698
Vinyl chloride	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	0.2	0.02
Xylenes, Total	< 0.96	< 0.96	< 0.96	< 0.96	< 0.96	2000	400

Concentrations reported in ug/l
NR 140 ES: Wisconsin Administrative Code NR 140 Enforcement Standard
NR 140 PAL: Wisconsin Administrative Code NR 140 Preventative Action Limit
Bolded result indicates a detectable amount of an analyte
shading indicates exceedance of WDNR ES
shading indicates exceedance of WDNR PAL
<: Less than laboratory reporting limit as noted.
NE indicates action level not established for an analyte

Table 4-4

Soil Vapor Analytical Results – VOCs

Parameter	SV-01-SV (0-8).202003101128 3/10/2020	SV-02-SV (0-8).202003101316 3/10/2020	SV-03-SV (0-8).202003101447 3/10/2020	SV-04-SV (0-8).202003101612 3/10/2020	SV-05-SV (0-8).202003110748 3/11/2020	SV-06-SV (0-8).202003110841 3/11/2020	WI RESIDENTIAL SUBSLAB
VOCs - TO-13							
1,1,1-Trichloroethane	< 2.2	< 2.1	< 2.1	< 2.1	< 1.9	< 2.3	170000
1,1,2,2-Tetrachloroethane	< 1.4	< 1.3	< 1.3	< 1.3	< 1.2	< 1.5	0.48
1,1,2-Trichloro-1,2,2-trifluoroethane	< 3.1	< 2.9	< 2.9	< 2.9	< 2.7	< 3.3	31000
1,1,2-Trichloroethane	< 1.1	< 1.0	< 1.0	< 1.0	< 0.97	< 1.2	1.0
1,1-Dichloroethane	< 1.6	< 1.5	< 1.5	< 1.5	< 1.4	< 1.7	600
1,1-Dichloroethene	< 1.6	< 1.5	< 1.5	< 1.5	< 1.4	< 1.7	7000
1,2,4-Trichlorobenzene	< 14.9	< 14.1	< 14.1	< 14.1	< 13.1	< 15.8	18
1,2,4-Trimethylbenzene	**1.6J**	**2.8**	**4.3**	**17.3**	< 1.7	**2.0J**	2100
1,2-Dibromoethane	< 1.5	< 1.5	< 1.5	< 1.5	< 1.4	< 1.6	0.050
1,2-Dichlorobenzene	< 2.4	< 2.3	< 2.3	< 2.3	< 2.1	< 2.6	210
1,2-Dichloroethane	< 0.81	< 0.77	< 0.77	< 0.77	< 0.72	< 0.86	37
1,2-Dichloropropane	< 1.9	< 1.8	< 1.8	< 1.8	< 1.6	< 2.0	2.8
1,3,5-Trimethylbenzene	< 2.0	**1.6J**	**2.0**	**5.7**	< 1.7	< 2.1	NE
1,3-Butadiene	< 0.89	< 0.84	< 0.84	< 0.84	< 0.78	< 0.94	0.94
1,3-Dichlorobenzene	< 2.4	< 2.3	< 2.3	< 2.3	< 2.1	< 2.6	NE
1,4-Dichlorobenzene	< 6.1	< 5.7	< 5.7	< 5.7	< 5.3	< 6.4	2.6
2-Butanone (MEK)	**6.4**	**83.7**	**28.9**	**20.9**	< 5.2	**55.1**	5200
2-Hexanone	< 8.2	**2.5J**	**1.8J**	**2.0J**	< 7.2	< 8.7	31
2-Propanol	**1.5J**	**6.7**	**3.3J**	**3.6J**	< 4.4	**2.3J**	210
4-Ethyltoluene	< 5.0	**2.1J**	**3.1J**	**6.0**	< 4.4	< 5.2	NE
4-Methyl-2-pentanone (MIBK)	< 8.2	**3.6J**	< 7.8	< 7.8	< 7.2	< 8.7	3100
Acetone	**16.3**	**170**	**84.1**	**89.1**	< 10.5	**15.7**	32000
Benzene	**0.92**	**9**	**6.1**	**6.3**	**5.2**	**3.5**	120
Bromodichloromethane	< 2.7	< 2.5	< 2.5	< 2.5	< 2.4	< 2.9	0.76
Bromoform	< 10.4	< 9.8	< 9.8	< 9.8	< 9.1	< 11.0	26
Bromomethane	< 1.6	< 1.5	< 1.5	< 1.5	< 1.4	< 1.7	5.2
Carbon disulfide	< 1.3	**0.87J**	**1.2J**	**0.95J**	**1.0J**	**3.8**	730
Carbon tetrachloride	< 2.5	< 2.4	< 2.4	< 2.4	< 2.2	< 2.7	160
Chlorobenzene	< 1.9	< 1.8	< 1.8	< 1.8	< 1.6	< 2.0	52
Chloroethane	< 1.1	< 1.0	< 1.0	< 1.0	< 0.93	< 1.1	10000
Chloroform	< 0.98	< 0.93	< 0.93	< 0.93	< 0.86	< 1.0	40
Chloromethane	**1.1**	**4.5**	**1.1**	**1.9**	< 0.73	< 0.88	3100
Chloromethylbenzene	< 5.2	< 4.9	< 4.9	< 4.9	< 4.6	< 5.5	0.57
cis-1,2-Dichloroethene	< 1.6	< 1.5	< 1.5	< 1.5	< 1.4	< 1.7	NE
cis-1,3-Dichloropropene	< 1.8	< 1.7	< 1.7	< 1.7	< 1.6	< 1.9	730
Cyclohexane	**3.1J**	**5.4**	**7.5**	**33.1**	**12.9**	**3.7**	6300
Dibromochloromethane	< 8.6	< 8.1	< 8.1	< 8.1	< 7.5	< 9.1	NE
Dichlorodifluoromethane	**2.8**	**103**	**26.5**	**20.1**	**6.3**	**9.3**	3300
Dichlorotetrafluoroethane	< 2.8	< 2.7	< 2.7	< 2.7	< 2.5	< 3.0	NE
Ethanol	**5.8**	**41**	**23.3**	**18**	**5.5**	**16.2**	NE
Ethyl Acetate	< 1.5	< 1.4	**1.7**	< 1.4	< 1.3	< 1.5	73
Ethylbenzene	**1.2J**	**5.8**	**7.4**	**6.2**	< 1.5	**3.3**	370
Hexachlorobutadiene	< 10.7	< 10.1	< 10.1	< 10.1	< 9.4	< 11.4	1.3
Methyl tert-butyl ether	< 7.2	< 6.8	< 6.8	< 6.8	< 6.4	< 7.7	3700
Methylene Chloride	**13.1**	**10.5**	**16.7**	**13.7**	**38**	**11.6**	NE
m-Xylene & p-Xylene	**2.8J**	**13.6**	**21.5**	**23.2**	< 3.1	**7**	NE
Naphthalene	< 5.3	< 5.0	< 5.0	**4.4J**	< 4.6	< 5.6	28
n-Heptane	**1.7**	**11.1**	**9.9**	**8.3**	**9.9**	**5.3**	NE
n-Hexane	**1.3J**	**12.6**	**12.1**	**8.1**	**28.4**	**5.6**	730
o-Xylene	**1.2J**	**3.4**	**5.2**	**8.9**	< 1.5	**1.8J**	3300
Propene	< 0.69	**60.6**	**64.3**	**31.3J**	**111**	**27.8**	3100
Styrene	< 1.7	**1.4J**	**1.7**	**1.6**	< 1.5	< 1.8	1000
Tetrachloroethene	**0.93J**	**16700**	**5030**	**4490**	**2.1**	**7.1**	1400
Tetrahydrofuran	**3.9**	**8.8**	**17**	**3.3**	< 1.0	**13.8**	2100
Toluene	**1.5J**	**22.4**	**18.2**	**20.4**	**5.2**	**11.7**	170000
trans-1,2-Dichloroethene	< 1.6	< 1.5	< 1.5	< 1.5	< 1.4	< 1.7	NE
trans-1,3-Dichloropropene	< 1.8	< 1.7	< 1.7	< 1.7	< 1.6	< 1.9	NE
Trichloroethene	< 1.1	**16**	**0.93J**	**3.3**	< 0.95	< 1.1	70
Trichlorofluoromethane	**1.5J**	**5.4**	**5.4**	**4.5**	**3.6**	**1.4J**	NE
Vinyl Acetate	< 1.4	< 1.3	< 1.3	< 1.3	< 1.2	< 1.5	210
Vinyl chloride	< 0.51	< 0.49	< 0.49	< 0.49	< 0.45	< 0.55	57

Concentrations reported in ug/m3

WDNR S-S AVLs: Wisconsin Department of Natural Resources Sub-Slab Air Vapor Limits

Bolded result indicates a detectable amount of an analyte

shading indicates exceedance of WDNR S-S AVL for residential property use

<: Less than laboratory reporting limit as noted.

NE indicates action level not established for an analyte

J-flagged data indicates an estimated result

Figures

Y:\Clients\WISCONSIN_DEPT_OF_NATURAL_RESOURCES\Blackhawk_Junction\MapDocs\J190732\001_Phase_I_ESA\J190732 FIG 1 Site Location Map.mxd

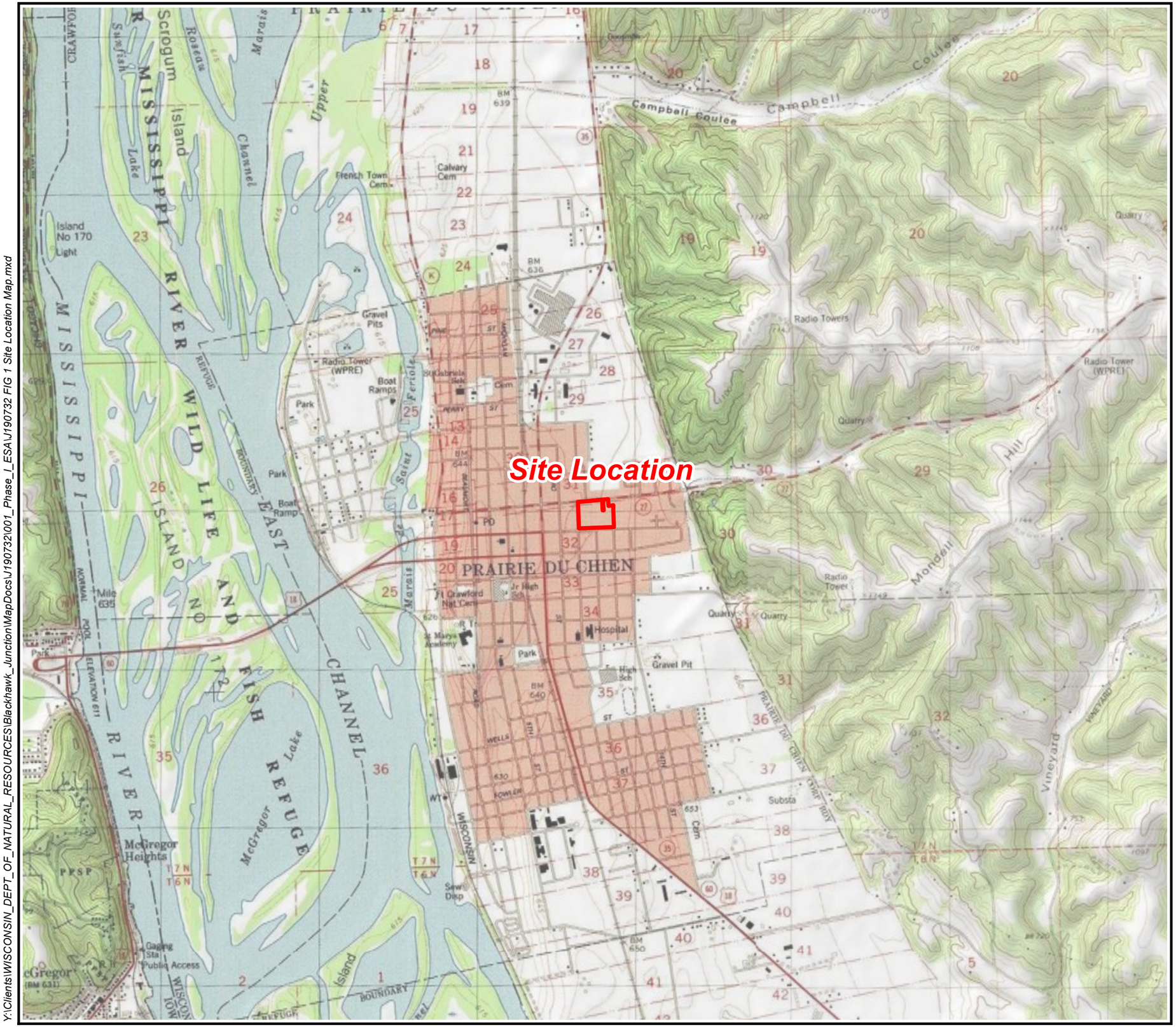

Figure 1

Site Location Map

Blackhawk Junction
Phase I ESA

700 East Blackhawk Avenue
Prairie du Chien, WI 53821

Map Projection: NAD 1983 UTM Zone 15N, Meters
Basemap: National Geographic Society, i-cubed

0 2,000 4,000 Feet
0 600 1,200 Meters

Site Location

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Drawn By: NJ Date Drawn/Revised:10/29/2019 Project No.J190732

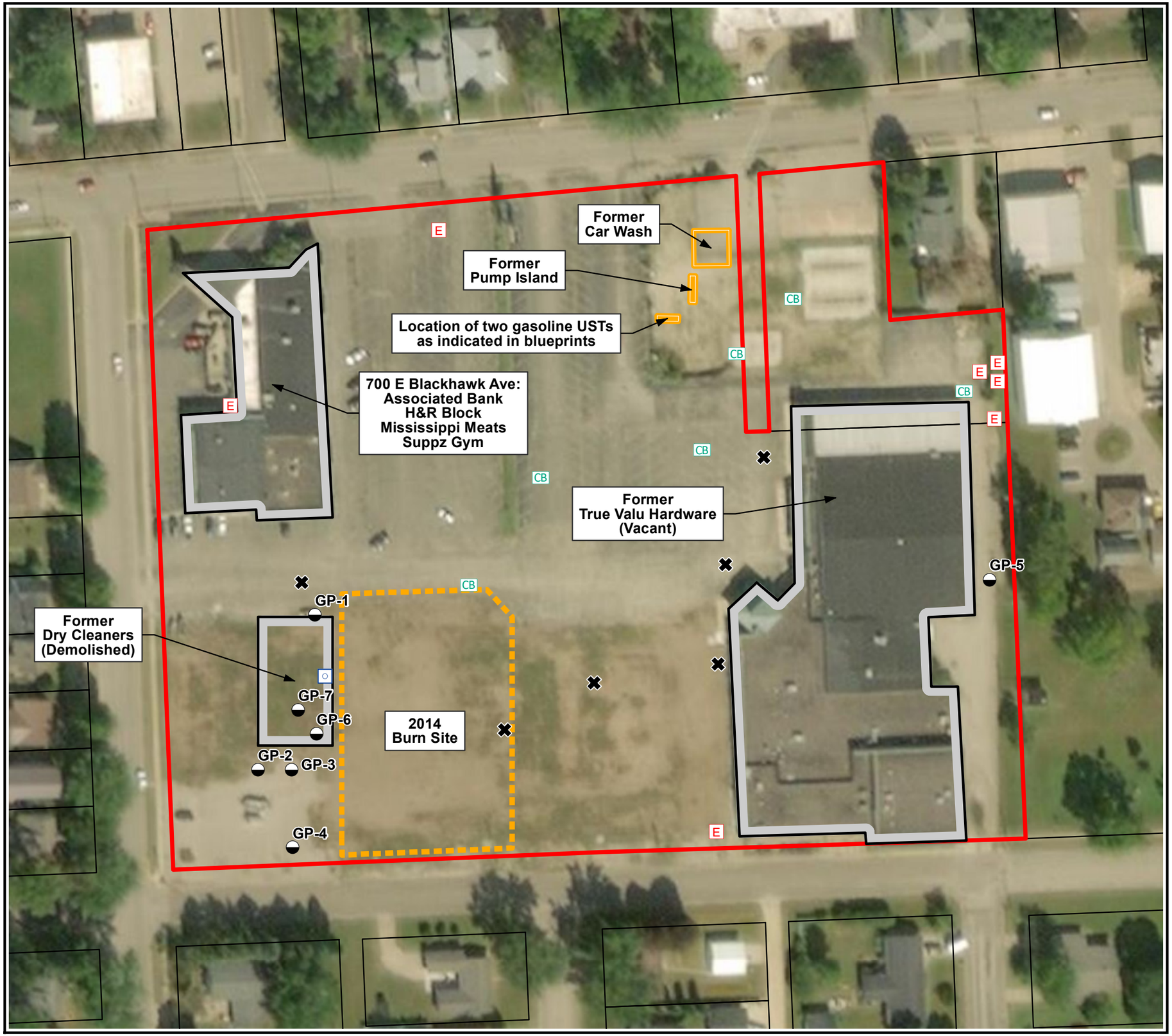

Figure 2

Site Map

Blackhawk Junction
Phase I ESA

700 East Blackhawk Avenue
Prairie du Chien, WI 53821

Map Projection: NAD 1983 UTM Zone 15N, Meters
Basemap: ESRI World Imagery WMS, 9/17/2018

0 50 100 150 200 250 Feet
0 25 50 75 Meters

- Previous Soil Borings (Ayres 2009/2010)
- CB — Catch Basin
- E — Electrical Transformer
- PVC Clean Out
- Debris Pile
- Site Features
- 2014 Burn Site (Approximate)
- Site Boundary
- Parcel Boundaries

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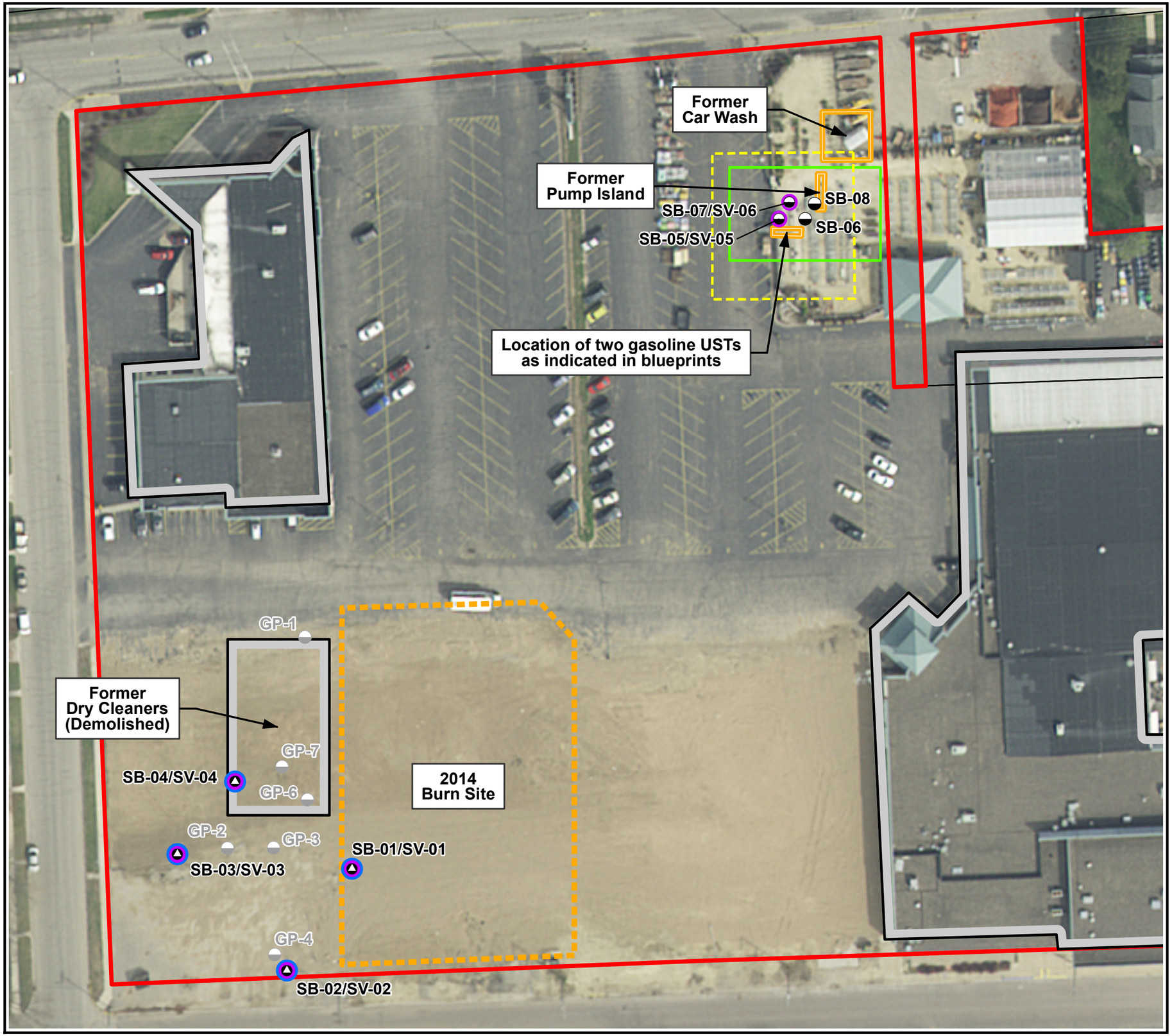
Drawn By: NJ Date Drawn/Revised:11/20/2019 Project No.J190732

Y:\Clients\WISCONSIN_DEPT_OF_NATURAL_RESOURCES\Blackhawk_Junction\MapDocs\J190732\001_Phase_I_ESA\J190732 FIG 2 Site Map.mxd



Y:\Clients\WISCONSIN_DEPT_OF_NATURAL_RESOURCES\Blackhawk_Junction\MapDocs\J191231\001_Phase_II_ESA\J191231 FIG 3 Phase II Sampling Locations.mxd

Figure 3

Phase II Sampling Locations

Blackhawk Junction
Phase II ESA

700 East Blackhawk Avenue
Prairie du Chien, WI 53821

Map Projection: NAD 1983 UTM Zone 15N, Meters
Basemap: Wisconsin DNR Aerial Imagery, 2015

0 50 100 150 200 Feet
0 20 40 60 Meters

- Previous Soil Borings (Ayres 2009/2010)
- Completed Soil Boring (Bay West 2020)
- Completed Soil Boring/Soil Vapor Sample (Bay West 2020)
- Completed Soil Boring/Soil Vapor/Groundwater Sample (Bay West 2020)
- Geophysical Investigation Area of Concern
- Geophysical Survey Area
- Site Features
- 2014 Burn Site (Approximate)
- Site Boundary
- Parcel Boundaries

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Drawn By: NJ Date Drawn/Revised:4/13/2020 Project No.J191231

Appendix A

Soil Boring Logs

Bay West
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Telephone: 800-279-0456
Fax: 651-291-0099

SOIL BORING LOG

BOREHOLE NO. **SB-01**		
PROJECT NO. / NAME **J191231 / Phase II Blackhawk Junction**	LOCATION **700 East Blackhawk Ave**	
APPROVED BY **Patrick Sweeney**	**Prairie du Chien, Wisconsin**	
DRILLING CONTRACTOR **Geiss Soil**	DRILLER'S NAME **Keith Weisman**	
DRILLING EQUIPMENT / METHOD **GeoProbe / Direct Push**	SIZE / TYPE OF BIT **2"**	START - FINISH DATE **3/10/20 - 3/10/20**
LOGGED BY **S. Mayer/E. Schaefbauer**	SAMPLING METHOD **Macrocore**	
ELEVATION OF: GROUND SURFACE (FT.)	GW SURFACE **18.7'**	GW ELEVATION DATE **3/10/2020**

Depth, ft bgs	Graphic Log	Visual Description	Analytical Sample Number	Sample Interval	Headspace Values (ppm) PID
1–4		~12 inches fine-med sand, moist; poorly graded, weak cementation.			<2
5		No recovery.			<2
6–8		Loose/seds, soft.			<2
9–12		24 inches fine-med sand w/ gravel and trace cobble, SA/SR, well graded, QTZ, FLDSP, BL, moist, weak cementation.			<2
13–16		8-12 ft continues to 16 ft.			<2
17–20 ▽		24 inches fine sand w/ med sand and coarse sand and trace gravel, moist-wet, SA/SR, QTZ, FLD, BLK, poorly graded.			<2
21–24		~2+ inches fine sand w/ trace coarse sand, wet, poorly graded.	SB-01-GW		<2
25–28		~24 inches fine sand w/ trace coarse sand and gravel, wet, poorly graded, weak cementation.	SB-01-SS(23-25)		<2
29–30		24 inches fine-med sand w/ trace coarse sand, wet, poorly graded, QTZ, FLD, BLK.			<2
		End of boring at 30' bgs.			

SOIL BORING LOG BLACKHAWK JUNCTION PHASE II.GPJ BAY WEST BORING LOG TEMPLATE.GDT 4/8/20

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SOIL BORING LOG

BOREHOLE NO. **SB-02**		
PROJECT NO. / NAME **J191231 / Phase II Blackhawk Junction**	LOCATION **700 East Blackhawk Ave**	
APPROVED BY **Patrick Sweeney**	**Prairie du Chien, Wisconsin**	
DRILLING CONTRACTOR **Geiss Soil**	DRILLER'S NAME **Keith Weisman**	
DRILLING EQUIPMENT / METHOD **GeoProbe / Direct Push**	SIZE / TYPE OF BIT **2"**	START - FINISH DATE **3/10/20 - 3/10/20**
LOGGED BY **S. Mayer/E. Schaefbauer**	SAMPLING METHOD **Macrocore**	
ELEVATION OF: GROUND SURFACE (FT.)	GW SURFACE **17.8'**	GW ELEVATION DATE **3/10/2020**

Depth, ft bgs	Graphic Log	Visual Description	Analytical Sample Number	Sample Interval	Headspace Values (ppm) PID
1–4		24 inches fine sand w/ fines, moist, sandy clay, clayey sand.			<2, <2
5–8		36 inches clay-dk brwn, soft; no dilatancy, med plasticity. Bottom section ~10-12 inches is clay w/ sand mixed.			<2, <2
9–10		Fine-med sand sugary, moist, w/ trace gravel, SA/SR, QTZ, FLD, Blk, poor grading.			<2
11–12		Fine-med sand w/ trace gravel, SA/SR, QTZ, FLD, BLK, poorly graded.			<2
13–14		Fine-coarse sand w/ gravel and trace cobble, SA/SR, well graded, moist-wet.			<2
15–20		Fine sand w/ trace gravel, 14-22 ft.			<2, <2, <2, <2, <2
21–24		Fine sand w/ fines, moist-wet, poorly graded.	SB-02-GW		<2, <2
25–28		Weak cementation	SB-02-SS(23-25)		<2, <2
29–30		Fine-med sand, poorly graded, wet.			<2
		End of boring at 30' bgs.			

▽ 18

SOIL BORING LOG BLACKHAWK JUNCTION PHASE II.GPJ BAY WEST BORING LOG TEMPLATE.GDT 4/8/20

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SOIL BORING LOG

BOREHOLE NO. **SB-03**		
PROJECT NO. / NAME **J191231 / Phase II Blackhawk Junction**	LOCATION **700 East Blackhawk Ave** **Prairie du Chien, Wisconsin**	
APPROVED BY **Patrick Sweeney**		
DRILLING CONTRACTOR **Geiss Soil**	DRILLER'S NAME **Keith Weisman**	
DRILLING EQUIPMENT / METHOD **GeoProbe / Direct Push**	SIZE / TYPE OF BIT **2"**	START - FINISH DATE **3/10/20 - 3/10/20**
LOGGED BY **S. Mayer/E. Schaefbauer**	SAMPLING METHOD **Macrocore**	
ELEVATION OF: GROUND SURFACE (FT.)	GW SURFACE **18.8'**	GW ELEVATION DATE **3/10/2020**

Depth, ft bgs	Graphic Log	Visual Description	Analytical Sample Number	Sample Interval	Headspace Values (ppm) PID
1		~10 inches sugary sand w/ gravel and cobble (trace), QTZ, FLD, BLK.			<2
2		~2 inches clayey sand w/ in, moist; well graded, weak cementation.			
3					<2
4					
5		Fine-med sand w/ trace gravel, SA/SR, moist, w/ fines, cobble (trace), well graded, QTZ, FLD, BLK, weak cementation.			<2
6					
7					<2
8					
9		Fine-med sand sugary w fines and trace gravel, SA/SR, rounded.			<2
10					
11		Fine-med sand w/ trace coarse sand, SR-rounded, moist, weak cementation.			<2
12					
13		Fine-med sand w/ fines, trace cobble, QTZ, FLD, BLK, poorly graded, moist-wet.			<2
14					
15					<2
16					
17					<2
18					
19 ▽					<2
20					
21		Fine sand w/ trace med sand, wet/saturated, poorly graded, weak cement.	SB-03-GW		<2
22					
23					<2
24					
25			SB-03-SS(23-25)		<2
26					
27		Fine-med sand, wet; poorly graded, weak cementation.			<2
28					
29		Fine-med sugary sand w/ fines and trace gravel, poorly graded; wet, weak cementation.			<2
30					
		End of boring at 30' bgs.			

SOIL BORING LOG BLACKHAWK JUNCTION PHASE II.GPJ BAY WEST BORING LOG TEMPLATE.GDT 4/8/20

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SOIL BORING LOG

BOREHOLE NO. **SB-04**		
PROJECT NO. / NAME **J191231 / Phase II Blackhawk Junction**	LOCATION **700 East Blackhawk Ave**	
APPROVED BY **Patrick Sweeney**	**Prairie du Chien, Wisconsin**	
DRILLING CONTRACTOR **Geiss Soil**	DRILLER'S NAME **Keith Weisman**	
DRILLING EQUIPMENT / METHOD **GeoProbe / Direct Push**	SIZE / TYPE OF BIT **2"**	START - FINISH DATE **3/10/20 - 3/10/20**
LOGGED BY **S. Mayer/E. Schaefbauer**	SAMPLING METHOD **Macrocore**	
ELEVATION OF: GROUND SURFACE (FT.)	GW SURFACE **18.5'**	GW ELEVATION DATE **3/10/2020**

Depth, ft bgs	Graphic Log	Visual Description	Analytical Sample Number	Sample Interval	Headspace Values (ppm) PID
1–5		Clay w/ sand mix, mod cementation, no dilatancy, med plasticity.			<2
5–10		Clayey sand down to 6 ft w/ trace gravel.			<2
10–15		Sand (fine-med) w/ fines and gravel SA/SR, dry-moist, well graded.			<2
15–20		Fine-med sand w/ trace gravel, moist, poorly graded, weak cementation.			<2
20–25		Fine-med sand, moist, poorly graded.			<2
25–30		Fine brown sugary sand w/ fines, moist, wet, weak cementation.			<2
25–28		Fine sand w/ fines, wet, weak cementation, poorly graded.	SB-04-SS(23-25)		<2
28–30		Fine sand and med sand, moist-wet, poorly graded.			<2
30		End of boring at 30' bgs.			

SOIL BORING LOG BLACKHAWK JUNCTION PHASE II.GPJ BAY WEST BORING LOG TEMPLATE.GDT 4/8/20

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SOIL BORING LOG

BOREHOLE NO. **SB-05**		
PROJECT NO. / NAME **J191231 / Phase II Blackhawk Junction**	LOCATION **700 East Blackhawk Ave**	
APPROVED BY **Patrick Sweeney**	**Prairie du Chien, Wisconsin**	
DRILLING CONTRACTOR **Geiss Soil**	DRILLER'S NAME **Keith Weisman**	
DRILLING EQUIPMENT / METHOD **GeoProbe / Direct Push**	SIZE / TYPE OF BIT **2"**	START - FINISH DATE **3/11/20 - 3/11/20**
LOGGED BY **S. Mayer/E. Schaefbauer**	SAMPLING METHOD **Macrocore**	
ELEVATION OF: GROUND SURFACE (FT.)	GW SURFACE '	GW ELEVATION DATE

Depth, ft bgs	Graphic Log	Visual Description	Analytical Sample Number	Sample Interval	Headspace Values (ppm) PID
1		25% recover 0-4 ft.			<2
2		2 in 10YR 3/2 Clay w/ moss top and gravel <1/4 inch.			
3		~9 inches 10YR 6/4 sand w/ gravel and fines + cobble ~1 inch, SA/SR well graded, QTZ, FLD, BLK.			<2
4					
5		3 inch fine sand w/ fines.	SB-05-SS(4-8)		<2
6		4inch fine sand w/ fines and gravel, SA/angular QTZ, FLDSP, BLK.			
7		1ft dk brwn clay, no dilatancy, M-H plasticity.			<2
8		1ft M-F sands w/ fines and trace gravel, poorly graded.			
9		5 inches clay (soft, moist), no dilatancy, M-H plasticity.			<2
10		5.5 inches fine sand w/ fines and gravel SA/SR QTZ, FLD, BLK.			
11		2ft fine-med sand w/ fines and gravel, SA/SR, QTZ, FLDSP, BLK, poorly graded. The sand appears to fine upward but gravel throughout.			<2
12					
13		1ft fine-med sand w/ fines and gravel.			<2
14		18 inch med sand w/ fines and gravel and cobbles, SA/SR, QTZ, FLD, BLK, moist.			
15					<2
		End of boring at 15' bgs.			

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SOIL BORING LOG

BOREHOLE NO. **SB-06**			
PROJECT NO. / NAME **J191231 / Phase II Blackhawk Junction**		LOCATION **700 East Blackhawk Ave**	
APPROVED BY **Patrick Sweeney**		**Prairie du Chien, Wisconsin**	
DRILLING CONTRACTOR **Geiss Soil**		DRILLER'S NAME **Keith Weisman**	
DRILLING EQUIPMENT / METHOD **GeoProbe / Direct Push**		SIZE / TYPE OF BIT **2"**	START - FINISH DATE **3/11/20 - 3/11/20**
LOGGED BY **S. Mayer/E. Schaefbauer**		SAMPLING METHOD **Macrocore**	
ELEVATION OF: GROUND SURFACE (FT.)		GW SURFACE '	GW ELEVATION DATE

Depth, ft bgs	Graphic Log	Visual Description	Analytical Sample Number	Sample Interval	Headspace Values (ppm) PID
1		2 inches fine sand w/ fines and gravel roots SA/SR.			
2		16 inches fine sand w/ fines and gravel SA/SR QTZ, FLD, BLK.			
3		2 inches v. fine sand poorly graded.			
4					
5		7 inches v. fine sand, poorly graded.	SB-06-SS(4-8)		
6		18 inch clay-dryer, med plasticity, no dilatancy.			
7		18 inch clay-sticky med plasticity, no dilatancy.			
8					
9		7 inches clay-sticky med plasticity, no dilatancy.			
10		2 inches fine sand w/ fines and gravel SA/SR.			
11		1 ft fine-med sand w/ gravel SA/SR QTZ, FLD, BLK well sorted, moist.			
12		1ft same w/ cobble, wet.			
13		2 ft med sand w/ gravel and cobble, SA/SR QTZ, FLD, BLK.			
14					
15					

End of boring at 15' bgs.

Bay West
Customer-Focused Environmental & Industrial Solutions

Bay West
5 Empire Drive
St. Paul, MN 55103
Telephone: 800-279-0456
Fax: 651-291-0099

SOIL BORING LOG

BOREHOLE NO. **SB-07**		
PROJECT NO. / NAME **J191231 / Phase II Blackhawk Junction**	LOCATION **700 East Blackhawk Ave**	
APPROVED BY **Patrick Sweeney**	**Prairie du Chien, Wisconsin**	
DRILLING CONTRACTOR **Geiss Soil**	DRILLER'S NAME **Keith Weisman**	
DRILLING EQUIPMENT / METHOD **GeoProbe / Direct Push**	SIZE / TYPE OF BIT **2"**	START - FINISH DATE **3/11/20 - 3/11/20**
LOGGED BY **S. Mayer/E. Schaefbauer**	SAMPLING METHOD **Macrocore**	
ELEVATION OF: GROUND SURFACE (FT.)	GW SURFACE '	GW ELEVATION DATE

Depth, ft bgs	Graphic Log	Visual Description	Analytical Sample Number	Sample Interval	Headspace Values (ppm) PID
1		3 inch fine sand w/ fines			
2		1/2 inch blk clay layer and gravel.			
3		16 inches v. fine sand and blk clay intertwined could be insitu or due to drillers.			
4					
5		6 inch v. fine sand w/ fines and gravel SA/SR moist.	SB-07-SS(4-8)		
6		2 inch sand clay interface.			
7		10 inch soft clay No dilatancy M-H plasticity.			
8					
9		6 inch clay continued.			
10		2 inch lt brown shattered cobble.			
11		19 inch med sand w/ gravel and cobbles; fining upward SA/SR QTZ, FLD, BLK, well graded.			
12		Wet-moist.			
13		18 inch M-coarse sand w/ gravel and cobble SA/SR, well graded.			
14					
15		End of boring at 15' bgs.			

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5 Empire Drive
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Fax: 651-291-0099

SOIL BORING LOG

BOREHOLE NO. **SB-08**		
PROJECT NO. / NAME **J191231 / Phase II Blackhawk Junction**	LOCATION **700 East Blackhawk Ave**	
APPROVED BY **Patrick Sweeney**	**Prairie du Chien, Wisconsin**	
DRILLING CONTRACTOR **Geiss Soil**	DRILLER'S NAME **Keith Weisman**	
DRILLING EQUIPMENT / METHOD **GeoProbe / Direct Push**	SIZE / TYPE OF BIT **2"**	START - FINISH DATE **3/11/20 - 3/11/20**
LOGGED BY **S. Mayer/E. Schaefbauer**	SAMPLING METHOD **Macrocore**	
ELEVATION OF: GROUND SURFACE (FT.)	GW SURFACE '	GW ELEVATION DATE

Depth, ft bgs	Graphic Log	Visual Description	Analytical Sample Number	Sample Interval	Headspace Values (ppm) PID
1		3 inch fines w/ roots, gravel sand SA/SR			
2		2 inch v. fine sand w/ gravel and fines, SA/SR QTZ, fld, blk.			
3		5 inch fine sand w/ gravel and fines SA/SR			
4		3 inch fine/med sand w/ clay and gravel.			
5		3 inch v. fine sand, moist.	SB-08-SS(4-8)		
6		4 inch v. fine sand w/ gravel.			
7		4 inch v. fine sand w/ gravel.			
8		5.5 inch of shattered cobble and fine sand and fines			
9		SA/SR			
10		7 inch clayey silt w/ sand.			
11		21 inch fining upward med sand w/ gravel and trace cobble at bottom 8 inches. SA/SR QTZ, FLD, BLK well graded, weak cementation.			
12					
13		2 inch clay w/ sand			
14		7 inch med sand w/ fines, well graded			
15		Gravel and cobble.			
		Moist-wet.			
		End of boring at 15' bgs.			

Bay West

SOIL GAS SAMPLING DATA SHEET

Site Information

PROJECT NAME	Phase II Blackhawk Junction
PROJECT NUMBER	J191231
SITE ADDRESS:	700 East Blackhawk Avenue, Prairie du Chien, WI

Sample Preparation

	#		#	
Type of Installation(circle)	(Temporary) / Direct Push	Permanent / Self Installed	(Temporary) / Direct Push	Permanent / Self Installed
Installed By:	GEISS		GEISS	
Type of Soil in Screened/Open Interval:	SAND (FINE - COARSE)		SAND	
Sample Interval (ft):	0-8FT		0-8FT	
Total Tubing Length (ft):	11FT		11FT	
Bentonite Seal (circle):	(Yes)	No	(Yes)	No

Sample Desciption

Sample ID:	SV-01-SV(0-8)	**Sample ID:**	SV-02-SV(0-8)
Flow Gauge/Ristrictor:		Flow Gauge/Ristrictor:	
Canister Volume:		Canister Volume:	
Preparation for Sampling:		**Preparation for Sampling:**	
20 Minute Equilization:	to	20 Minute Equilization:	to
Pressure Test Time:	1113 to 1118	Pressure Test Time:	1305 to 1310
Purge Method:	SYRINGE	Purge Method:	SYRING
Total Purge Volume (mL):	150	Total Purge Volume (mL):	150

Volume Conversion: (2.41 ml/ft for 1/8" OD tubing, 9.65 ml/ft for 1/4" OD tubing, 38.61 ml/ft for 3/8" OD tubing, 106 ml/ft for 3/4" OD tubing)

Start Sample		**Start Sample**	
Date:	~~#23~~ 031020	Date:	031020
Time:	1123	Time:	1310
Vacuum Reading (in of Hg):	-28	Vacuum Reading (in of Hg):	-27
End Sample		**End Sample**	
Date :	031020	Date :	031020
Time:	1128	Time:	1316
Vacuum Reading (in of Hg):	-4	Vacuum Reading (in of Hg):	-3 e
Total Sample Time (min):	5MIN	Total Sample Time (min):	6 MIN
Sampler (s):	SAM ERS	Sampler (s):	SAM ERS
Canister #:	3010	Canister #:	2503
Regulator #:	1816	Regulator #:	1720
Duration of Test:	15MIN	Duration of Test:	11MIN
Analysis:	TO-15	Analysis:	TO-15
Laboratory:	PACE	Laboratory:	PACE
PID Readings	0.0 PPM	PID Readings	0.8 PPM
After Sample Collection:	0.0PPM PPM	After Sample Collection:	0.1 PPM PPM
Ambient Air:	0.0 PPM PPM	Ambient Air:	0.0PPM PPM

Additional Readings:	CH4 =	Balance =	Additional Readings:	CH4 =	Balance =
	CO2 =	Static Press =		CO2 =	Static Press =
Note: Static/Diff Press are in	O2 =	Diff Press =	Note: Static/Diff Press are in	O2 =	Diff Press =
inches of water	H2S =	LEL =	inches of water	H2S =	LEL =
	CO =	PID =		CO =	PID =

Comments:

Bay West

SOIL GAS SAMPLING DATA SHEET

Site Information

PROJECT NAME	Phase II Blackhawk Junction
PROJECT NUMBER	J191231
SITE ADDRESS:	700 East Blackhawk Avenue, Prairie du Chien, WI

Sample Preparation

	#		#	
Type of Installation(circle)	(Temporary)	Permanent	Temporary	Permanent
Type of Soil-Gas Installation:	(Direct Push)	Self Installed	Direct Push	Self Installed
Installed By:	SAM ERS		SAM ERS	
Type of Soil in Screened/Open Interval:	SAND		SAND	
Sample Interval (ft):	0-8FT		0-8FT	
Total Tubing Length (ft):	11		11	
Bentonite Seal (circle):	(Yes)	No	(Yes)	No

Sample Desciption

Sample ID:	SV-03-SV(0-8)	**Sample ID:**	SV-04-SV(0-8)
Flow Gauge/Ristrictor:	4980	Flow Gauge/Ristrictor:	
Canister Volume:		Canister Volume:	
Preparation for Sampling:		**Preparation for Sampling:**	
20 Minute Equilization:	to	20 Minute Equilization:	to
Pressure Test Time:	1433 to 1438	Pressure Test Time:	1602 to 1607
Purge Method:	SYRINGE	Purge Method:	SYRINGE
Total Purge Volume (mL):	150mL	Total Purge Volume (mL):	150mL

Volume Conversion: (2.41 ml/ft for 1/8" OD tubing, 9.65 ml/ft for 1/4" OD tubing, 38.61 ml/ft for 3/8" OD tubing, 106 ml/ft for 3/4" OD tubing)

Start Sample		**Start Sample**	
Date:	031020	Date:	031020
Time:	1440	Time:	1605
Vacuum Reading (in of Hg):	-30	Vacuum Reading (in of Hg):	-30
End Sample		**End Sample**	
Date :	031020	Date :	031020
Time:	1447	Time:	1612
Vacuum Reading (in of Hg):	-4	Vacuum Reading (in of Hg):	-4
Total Sample Time (min):	7 MIN	Total Sample Time (min):	7 MIN
Sampler (s):	SAM ERS	Sampler (s):	SAM ERS
Canister #:	1787	Canister #:	2443
Regulator #:	1438	Regulator #:	1118
Duration of Test:	14 MIN	Duration of Test:	10 MIN
Analysis:	TO-15	Analysis:	TO-15
Laboratory:	PACE	Laboratory:	PACE
PID Readings	0.7 PPM	PID Readings	0.9 PPM
After Sample Collection:	0.0 PPM PPM	After Sample Collection:	0.1 PPM PPM
Ambient Air:	0.0 PPM PPM	Ambient Air:	0.0 PPM PPM

Additional Readings:	CH4 =	Balance =	Additional Readings:	CH4 =	Balance =
	CO2 =	Static Press =		CO2 =	Static Press =
Note: Static/Diff Press are in	O2 =	Diff Press =	Note: Static/Diff Press are in	O2 =	Diff Press =
inches of water	H2S =	LEL =	inches of water	H2S =	LEL =
	CO =	PID =		CO =	PID =

Comments:

Bay West

SOIL GAS SAMPLING DATA SHEET

Site Information

PROJECT NAME	Phase II Blackhawk Junction
PROJECT NUMBER	J191231
SITE ADDRESS	700 East Blackhawk Avenue, Prairie du Chien, WI

Sample Preparation

Type of Installation(circle)	#1 (Temporary) Permanent	Type of Installation(circle)	#2 (Temporary) Permanent
Type of Soil-Gas Installation:	(Direct Push) Self Installed	Type of Soil-Gas Installation:	(Direct Push) Self Installed
Installed By:	GEISS	Installed By:	GEISS
Type of Soil in Screened/Open Interval:		Type of Soil in Screened/Open Interval:	
Sample Interval (ft):	0-8ft	Sample Interval (ft):	0-8ft
Total Tubing Length (ft):	11ft	Total Tubing Length (ft):	11ft
Bentonite Seal (circle):	(Yes) No	Bentonite Seal (circle):	(Yes) No

Sample Desciption

Sample ID:	SV-05-SV(0-8)	**Sample ID:**	SV-06-SV(0-8)
Flow Gauge/Ristrictor:		Flow Gauge/Ristrictor:	
Canister Volume:	1L	Canister Volume:	1L
Preparation for Sampling:		**Preparation for Sampling:**	
20 Minute Equilization:	to	20 Minute Equilization:	to
Pressure Test Time:	0738 to 0743	Pressure Test Time:	0829 to 0834
Purge Method:	Syringe	Purge Method:	Syringe
Total Purge Volume (mL):	150mL	Total Purge Volume (mL):	150mL

Volume Conversion: (2.41 ml/ft for 1/8" OD tubing, 9.65 ml/ft for 1/4" OD tubing, 38.61 ml/ft for 3/8" OD tubing, 106 ml/ft for 3/4" OD tubing)

Start Sample		**Start Sample**	
Date:	3/11/20	Date:	3/11/20
Time:	0743	Time:	0835
Vacuum Reading (in of Hg):	-17	Vacuum Reading (in of Hg):	-27
End Sample		**End Sample**	
Date :	3/11/20	Date :	3/11/20
Time:	0748	Time:	0841
Vacuum Reading (in of Hg):	-4	Vacuum Reading (in of Hg):	-4
Total Sample Time (min):	5MIN	Total Sample Time (min):	6MIN
Sampler (s):	SAM ERS	Sampler (s):	SAM ERS
Canister #:	1327	Canister #:	2595
Regulator #:	0722	Regulator #:	1227
Duration of Test:	13MIN	Duration of Test:	15MIN
Analysis:	TO-15	Analysis:	TO-15
Laboratory:	PACE	Laboratory:	PACE
PID Readings	0.2 PPM	PID Readings	0.6 PPM
After Sample Collection:	0.0 PPM	After Sample Collection:	0.0 PPM
Ambient Air:	0.0 PPM	Ambient Air:	0.0 PPM

Additional Readings:	CH4 =	Balance =		Additional Readings:	CH4 =	Balance =	
	CO2 =	Static Press =			CO2 =	Static Press =	
Note: Static/Diff Press are in	O2 =	Diff Press =		Note: Static/Diff Press are in	O2 =	Diff Press =	
inches of water	H2S =	LEL =		inches of water	H2S =	LEL =	
	CO =	PID =			CO =	PID =	

Comments:

Appendix B

Laboratory Analytical Reports

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

April 15, 2020

Erik Nimlos
Bay West LLC
5 Empire Drive
Saint Paul, MN 55103

RE: Project: 191231 Blackhawk Junction-Revised Report
Pace Project No.: 10511741

Dear Erik Nimlos:

Enclosed are the analytical results for sample(s) received by the laboratory on March 13, 2020. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Green Bay
- Pace Analytical Services - Minneapolis

This report was revised on April 14, 2020, to present data evaluated to the LOD as well as to include a case narrative regarding the DRO analysis.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Colin Lynch
colin.lynch@pacelabs.com
(612)607-1700
Project Manager

Enclosures

cc: Joe Erjavec, Bay West LLC
Trey Harsch, Bay West LLC
Jeff Smith, Pace Analytical Services, Inc

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

CERTIFICATIONS

Project: 191231 Blackhawk Junction-Revised Report
Pace Project No.: 10511741

Pace Analytical Services Minneapolis

A2LA Certification #: 2926.01
Alabama Certification #: 40770
Alaska Contaminated Sites Certification #: 17-009
Alaska DW Certification #: MN00064
Arizona Certification #: AZ0014
Arkansas DW Certification #: MN00064
Arkansas WW Certification #: 88-0680
California Certification #: 2929
CNMI Saipan Certification #: MP0003
Colorado Certification #: MN00064
Connecticut Certification #: PH-0256
EPA Region 8+Wyoming DW Certification #: via MN 027-053-137
Florida Certification #: E87605
Georgia Certification #: 959
Guam EPA Certification #: MN00064
Hawaii Certification #: MN00064
Idaho Certification #: MN00064
Illinois Certification #: 200011
Indiana Certification #: C-MN-01
Iowa Certification #: 368
Kansas Certification #: E-10167
Kentucky DW Certification #: 90062
Kentucky WW Certification #: 90062
Louisiana DEQ Certification #: 03086
Louisiana DW Certification #: MN00064
Maine Certification #: MN00064
Maryland Certification #: 322
Massachusetts Certification #: M-MN064
Massachusetts DWP Certification #: via MN 027-053-137
Michigan Certification #: 9909
Minnesota Certification #: 027-053-137
Minnesota Dept of Ag Certifcation #: via MN 027-053-137
Minnesota Petrofund Certification #: 1240
Mississippi Certification #: MN00064
Missouri Certification #: 10100
Montana Certification #: CERT0092
Nebraska Certification #: NE-OS-18-06
Nevada Certification #: MN00064
New Hampshire Certification #: 2081
New Jersey Certification #: MN002
New York Certification #: 11647
North Carolina DW Certification #: 27700
North Carolina WW Certification #: 530
North Dakota Certification #: R-036
Ohio DW Certification #: 41244
Ohio VAP Certification #: CL101
Oklahoma Certification #: 9507
Oregon Primary Certification #: MN300001
Oregon Secondary Certification #: MN200001
Pennsylvania Certification #: 68-00563
Puerto Rico Certification #: MN00064
South Carolina Certification #:74003001
Tennessee Certification #: TN02818
Texas Certification #: T104704192
Utah Certification #: MN00064
Vermont Certification #: VT-027053137
Virginia Certification #: 460163
Washington Certification #: C486
West Virginia DEP Certification #: 382
West Virginia DW Certification #: 9952 C
Wisconsin Certification #: 999407970
Wyoming UST Certification #: via A2LA 2926.01

Pace Analytical Services Green Bay

1241 Bellevue Street, Green Bay, WI 54302
Florida/NELAP Certification #: E87948
Illinois Certification #: 200050
Kentucky UST Certification #: 82
Louisiana Certification #: 04168
Minnesota Certification #: 055-999-334
New York Certification #: 12064
North Dakota Certification #: R-150
Virginia VELAP ID: 460263
South Carolina Certification #: 83006001
Texas Certification #: T104704529-14-1
Wisconsin Certification #: 405132750
Wisconsin DATCP Certification #: 105-444
USDA Soil Permit #: P330-16-00157
Federal Fish & Wildlife Permit #: LE51774A-0

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

SAMPLE SUMMARY

Project: 191231 Blackhawk Junction-Revised Report
Pace Project No.: 10511741

Lab ID	Sample ID	Matrix	Date Collected	Date Received
10511741001	**SB-01-SS (23-25)**	Solid	03/10/20 13:40	03/13/20 15:00
10511741002	**SB-02-SS (23-25)**	Solid	03/10/20 15:00	03/13/20 15:00
10511741003	**SB-03-SS (23-25)**	Solid	03/10/20 16:50	03/13/20 15:00
10511741004	**SB-04-SS (23-25)**	Solid	03/10/20 17:40	03/13/20 15:00
10511741005	**SB-01-GW (18.7-30)**	Water	03/10/20 12:47	03/13/20 15:00
10511741006	**SB-02-GW (17.8-30)**	Water	03/10/20 14:20	03/13/20 15:00
10511741007	**SB-03-GW (18.8-30)**	Water	03/10/20 15:40	03/13/20 15:00
10511741009	**SB-04-GW (18.5-30)**	Water	03/10/20 17:05	03/13/20 15:00
10511741010	**SB-04-GW (18.5-30)**	Water	03/10/20 17:10	03/13/20 15:00
10511741011	**SB-05-SS (4-8)**	Solid	03/11/20 09:30	03/13/20 15:00
10511741012	**SB-06-SS (4-8)**	Solid	03/11/20 10:00	03/13/20 15:00
10511741013	**SB-07-SS (4-8)**	Solid	03/11/20 11:00	03/13/20 15:00
10511741014	**SB-08-SS (4-8)**	Solid	03/11/20 11:20	03/13/20 15:00
10511741015	**Trip Blank Soil**	Solid	03/11/20 00:00	03/13/20 15:00
10511741016	**Trip Blank Water**	Water	03/11/20 00:00	03/13/20 15:00
10511741017	**NONE**	Solid		03/13/20 15:00

Pace Analytical Services, LLC
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Minneapolis, MN 55414
(612)607-1700

SAMPLE ANALYTE COUNT

Project: 191231 Blackhawk Junction-Revised Report
Pace Project No.: 10511741

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
10511741001	**SB-01-SS (23-25)**	ASTM D2974	JDL	1	PASI-M
		EPA 8260B	CD2	70	PASI-M
10511741002	**SB-02-SS (23-25)**	ASTM D2974	JDL	1	PASI-M
		EPA 8260B	CD2	70	PASI-M
10511741003	**SB-03-SS (23-25)**	ASTM D2974	JDL	1	PASI-M
		EPA 8260B	CD2	70	PASI-M
10511741004	**SB-04-SS (23-25)**	ASTM D2974	JDL	1	PASI-M
		EPA 8260B	CD2	70	PASI-M
10511741005	**SB-01-GW (18.7-30)**	EPA 8260B	ML4	70	PASI-M
10511741006	**SB-02-GW (17.8-30)**	EPA 8260B	ML4	70	PASI-M
10511741007	**SB-03-GW (18.8-30)**	EPA 8260B	ML4	70	PASI-M
10511741009	**SB-04-GW (18.5-30)**	EPA 8260B	ML4	70	PASI-M
10511741010	**SB-04-GW (18.5-30)**	EPA 8260B	ML4	70	PASI-M
10511741011	**SB-05-SS (4-8)**	WI MOD DRO	JVM	2	PASI-M
		EPA 6010	TXW	7	PASI-G
		EPA 7471	AJT	1	PASI-G
		ASTM D2974	JDL	1	PASI-M
		EPA 8260B	CD2	70	PASI-M
10511741012	**SB-06-SS (4-8)**	WI MOD DRO	JVM	2	PASI-M
		EPA 6010	TXW	7	PASI-G
		EPA 7471	AJT	1	PASI-G
		ASTM D2974	JDL	1	PASI-M
		EPA 8260B	CD2	70	PASI-M
10511741013	**SB-07-SS (4-8)**	WI MOD DRO	JVM	2	PASI-M
		EPA 6010	TXW	7	PASI-G
		EPA 7471	AJT	1	PASI-G
		ASTM D2974	JDL	1	PASI-M
		EPA 8260B	CD2	70	PASI-M
10511741014	**SB-08-SS (4-8)**	WI MOD DRO	JVM	2	PASI-M
		EPA 6010	TXW	7	PASI-G
		EPA 7471	AJT	1	PASI-G
		ASTM D2974	JDL	1	PASI-M
		EPA 8260B	CD2	70	PASI-M
10511741015	**Trip Blank Soil**	EPA 8260B	CD2	70	PASI-M
10511741016	**Trip Blank Water**	EPA 8260B	ML4	70	PASI-M

PASI-G = Pace Analytical Services - Green Bay
PASI-M = Pace Analytical Services - Minneapolis

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

PROJECT NARRATIVE

Project: 191231 Blackhawk Junction-Revised Report
Pace Project No.: 10511741

Date: April 15, 2020

Case Narrative

Semi-volatile Organics Analysis

DRO by WIDRO

Samples were not identified as originating from Wisconsin prior to extraction and analysis and therefore were not analyzed in accordance with the Wisconsin DNR quality standard requiring a matrix spike and matrix spike duplicate be performed along side the samples.

Pace Analytical Services, LLC
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(612)607-1700

PROJECT NARRATIVE

Project: 191231 Blackhawk Junction-Revised Report
Pace Project No.: 10511741

Method: **WI MOD DRO**
Description: WIDRO GCS
Client: Bay West LLC
Date: April 15, 2020

General Information:
4 samples were analyzed for WI MOD DRO by Pace Analytical Services Minneapolis. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with WI MOD DRO with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

PROJECT NARRATIVE

Project: 191231 Blackhawk Junction-Revised Report
Pace Project No.: 10511741

Method: **EPA 6010**
Description: 6010 MET ICP
Client: Bay West LLC
Date: April 15, 2020

General Information:
4 samples were analyzed for EPA 6010 by Pace Analytical Services Green Bay. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3050 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 350273

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 10511808025

P6: Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.

- MS (Lab ID: 2029076)
  - Barium
- MSD (Lab ID: 2029077)
  - Barium

Additional Comments:

Analyte Comments:

QC Batch: 350273

D3: Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.

- SB-08-SS (4-8) (Lab ID: 10511741014)
  - Arsenic

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PROJECT NARRATIVE

Project: 191231 Blackhawk Junction-Revised Report
Pace Project No.: 10511741

Method: **EPA 7471**
Description: 7471 Mercury
Client: Bay West LLC
Date: April 15, 2020

General Information:
4 samples were analyzed for EPA 7471 by Pace Analytical Services Green Bay. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 7471 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: 191231 Blackhawk Junction-Revised Report
Pace Project No.: 10511741

Method: **EPA 8260B**
Description: 8260B MSV 5030 Med Level
Client: Bay West LLC
Date: April 15, 2020

General Information:
9 samples were analyzed for EPA 8260B by Pace Analytical Services Minneapolis. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 5035/5030B with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

Analyte Comments:

QC Batch: 665256

- BLANK (Lab ID: 3567993)
  - Dichlorofluoromethane
- LCS (Lab ID: 3567994)
  - Dichlorofluoromethane
- MS (Lab ID: 3567995)
  - Dichlorofluoromethane

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PROJECT NARRATIVE

Project: 191231 Blackhawk Junction-Revised Report
Pace Project No.: 10511741

Method: **EPA 8260B**
Description: 8260B MSV 5030 Med Level
Client: Bay West LLC
Date: April 15, 2020

Analyte Comments:

QC Batch: 665256

- MSD (Lab ID: 3567996)
  - Dichlorofluoromethane
- SB-01-SS (23-25) (Lab ID: 10511741001)
  - Dichlorofluoromethane
- SB-02-SS (23-25) (Lab ID: 10511741002)
  - Dichlorofluoromethane
- SB-03-SS (23-25) (Lab ID: 10511741003)
  - Dichlorofluoromethane
- SB-04-SS (23-25) (Lab ID: 10511741004)
  - Dichlorofluoromethane
- SB-05-SS (4-8) (Lab ID: 10511741011)
  - Dichlorofluoromethane
- SB-06-SS (4-8) (Lab ID: 10511741012)
  - Dichlorofluoromethane
- SB-07-SS (4-8) (Lab ID: 10511741013)
  - Dichlorofluoromethane
- SB-08-SS (4-8) (Lab ID: 10511741014)
  - Dichlorofluoromethane
- Trip Blank Soil (Lab ID: 10511741015)
  - Dichlorofluoromethane

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PROJECT NARRATIVE

Project: 191231 Blackhawk Junction-Revised Report
Pace Project No.: 10511741

Method: **EPA 8260B**
Description: 8260B VOC
Client: Bay West LLC
Date: April 15, 2020

General Information:
6 samples were analyzed for EPA 8260B by Pace Analytical Services Minneapolis. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

Analyte Comments:

QC Batch: 665910

1M: Anti-foaming agent was added to this sample.
- MS (Lab ID: 3572931)
  - 1,2-Dichloroethane-d4 (S)
- MSD (Lab ID: 3572932)
  - 1,2-Dichloroethane-d4 (S)

C0: Result confirmed by second analysis.
- Trip Blank Water (Lab ID: 10511741016)
  - Methylene Chloride

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PROJECT NARRATIVE

Project: 191231 Blackhawk Junction-Revised Report
Pace Project No.: 10511741

Method: **EPA 8260B**
Description: 8260B VOC
Client: Bay West LLC
Date: April 15, 2020

Analyte Comments:

QC Batch: 665910

- BLANK (Lab ID: 3571340)
  - Dichlorofluoromethane
- LCS (Lab ID: 3571341)
  - Dichlorofluoromethane
- MS (Lab ID: 3572931)
  - Dichlorofluoromethane
- MSD (Lab ID: 3572932)
  - Dichlorofluoromethane
- SB-01-GW (18.7-30) (Lab ID: 10511741005)
  - Dichlorofluoromethane
- SB-02-GW (17.8-30) (Lab ID: 10511741006)
  - Dichlorofluoromethane
- SB-03-GW (18.8-30) (Lab ID: 10511741007)
  - Dichlorofluoromethane
- SB-04-GW (18.5-30) (Lab ID: 10511741009)
  - Dichlorofluoromethane
- SB-04-GW (18.5-30) (Lab ID: 10511741010)
  - Dichlorofluoromethane
- Trip Blank Water (Lab ID: 10511741016)
  - Dichlorofluoromethane

This data package has been reviewed for quality and completeness and is approved for release.

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ANALYTICAL RESULTS

Project: 191231 Blackhawk Junction-Revised Report
Pace Project No.: 10511741

Sample: SB-01-SS (23-25) **Lab ID: 10511741001** Collected: 03/10/20 13:40 Received: 03/13/20 15:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
Dry Weight / %M by ASTM D2974	Analytical Method: ASTM D2974 Pace Analytical Services - Minneapolis								
Percent Moisture	**17.2**	%	0.10	0.10	1		03/16/20 12:19		N2
8260B MSV 5030 Med Level	Analytical Method: EPA 8260B Preparation Method: EPA 5035/5030B Pace Analytical Services - Minneapolis								
Acetone	**<479**	ug/kg	1590	479	1	03/17/20 12:09	03/17/20 15:16	67-64-1	
Allyl chloride	**<50.4**	ug/kg	168	50.4	1	03/17/20 12:09	03/17/20 15:16	107-05-1	
Benzene	**<11.4**	ug/kg	38.0	11.4	1	03/17/20 12:09	03/17/20 15:16	71-43-2	
Bromobenzene	**<8.1**	ug/kg	27.1	8.1	1	03/17/20 12:09	03/17/20 15:16	108-86-1	
Bromochloromethane	**<30.7**	ug/kg	102	30.7	1	03/17/20 12:09	03/17/20 15:16	74-97-5	
Bromodichloromethane	**<19.8**	ug/kg	65.9	19.8	1	03/17/20 12:09	03/17/20 15:16	75-27-4	
Bromoform	**<82.3**	ug/kg	274	82.3	1	03/17/20 12:09	03/17/20 15:16	75-25-2	
Bromomethane	**<164**	ug/kg	547	164	1	03/17/20 12:09	03/17/20 15:16	74-83-9	
2-Butanone (MEK)	**<38.8**	ug/kg	129	38.8	1	03/17/20 12:09	03/17/20 15:16	78-93-3	
n-Butylbenzene	**<13.7**	ug/kg	45.6	13.7	1	03/17/20 12:09	03/17/20 15:16	104-51-8	
sec-Butylbenzene	**<27.2**	ug/kg	90.7	27.2	1	03/17/20 12:09	03/17/20 15:16	135-98-8	
tert-Butylbenzene	**<19.3**	ug/kg	64.2	19.3	1	03/17/20 12:09	03/17/20 15:16	98-06-6	
Carbon tetrachloride	**<30.2**	ug/kg	101	30.2	1	03/17/20 12:09	03/17/20 15:16	56-23-5	
Chlorobenzene	**<10.2**	ug/kg	34.1	10.2	1	03/17/20 12:09	03/17/20 15:16	108-90-7	
Chloroethane	**<86.8**	ug/kg	289	86.8	1	03/17/20 12:09	03/17/20 15:16	75-00-3	
Chloroform	**<26.6**	ug/kg	88.6	26.6	1	03/17/20 12:09	03/17/20 15:16	67-66-3	
Chloromethane	**<33.8**	ug/kg	113	33.8	1	03/17/20 12:09	03/17/20 15:16	74-87-3	
2-Chlorotoluene	**<15.3**	ug/kg	50.9	15.3	1	03/17/20 12:09	03/17/20 15:16	95-49-8	
4-Chlorotoluene	**<7.9**	ug/kg	26.4	7.9	1	03/17/20 12:09	03/17/20 15:16	106-43-4	
1,2-Dibromo-3-chloropropane	**<159**	ug/kg	530	159	1	03/17/20 12:09	03/17/20 15:16	96-12-8	
Dibromochloromethane	**<21.0**	ug/kg	70.0	21.0	1	03/17/20 12:09	03/17/20 15:16	124-48-1	
1,2-Dibromoethane (EDB)	**<21.8**	ug/kg	72.5	21.8	1	03/17/20 12:09	03/17/20 15:16	106-93-4	
Dibromomethane	**<27.1**	ug/kg	90.3	27.1	1	03/17/20 12:09	03/17/20 15:16	74-95-3	
1,2-Dichlorobenzene	**<11.7**	ug/kg	39.1	11.7	1	03/17/20 12:09	03/17/20 15:16	95-50-1	
1,3-Dichlorobenzene	**<7.7**	ug/kg	25.6	7.7	1	03/17/20 12:09	03/17/20 15:16	541-73-1	
1,4-Dichlorobenzene	**<9.9**	ug/kg	32.8	9.9	1	03/17/20 12:09	03/17/20 15:16	106-46-7	
Dichlorodifluoromethane	**<33.1**	ug/kg	110	33.1	1	03/17/20 12:09	03/17/20 15:16	75-71-8	
1,1-Dichloroethane	**<28.0**	ug/kg	93.2	28.0	1	03/17/20 12:09	03/17/20 15:16	75-34-3	
1,2-Dichloroethane	**<23.8**	ug/kg	79.1	23.8	1	03/17/20 12:09	03/17/20 15:16	107-06-2	
1,1-Dichloroethene	**<22.3**	ug/kg	74.1	22.3	1	03/17/20 12:09	03/17/20 15:16	75-35-4	
cis-1,2-Dichloroethene	**<17.3**	ug/kg	57.6	17.3	1	03/17/20 12:09	03/17/20 15:16	156-59-2	
trans-1,2-Dichloroethene	**<28.5**	ug/kg	94.8	28.5	1	03/17/20 12:09	03/17/20 15:16	156-60-5	
Dichlorofluoromethane	**<173**	ug/kg	576	173	1	03/17/20 12:09	03/17/20 15:16	75-43-4	
1,2-Dichloropropane	**<28.4**	ug/kg	94.4	28.4	1	03/17/20 12:09	03/17/20 15:16	78-87-5	
1,3-Dichloropropane	**<22.9**	ug/kg	76.2	22.9	1	03/17/20 12:09	03/17/20 15:16	142-28-9	
2,2-Dichloropropane	**<23.6**	ug/kg	78.7	23.6	1	03/17/20 12:09	03/17/20 15:16	594-20-7	
1,1-Dichloropropene	**<25.6**	ug/kg	85.3	25.6	1	03/17/20 12:09	03/17/20 15:16	563-58-6	
cis-1,3-Dichloropropene	**<4.6**	ug/kg	15.2	4.6	1	03/17/20 12:09	03/17/20 15:16	10061-01-5	
trans-1,3-Dichloropropene	**<7.8**	ug/kg	26.1	7.8	1	03/17/20 12:09	03/17/20 15:16	10061-02-6	
Diethyl ether (Ethyl ether)	**<53.0**	ug/kg	176	53.0	1	03/17/20 12:09	03/17/20 15:16	60-29-7	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 191231 Blackhawk Junction-Revised Report
Pace Project No.: 10511741

Sample: SB-01-SS (23-25) **Lab ID: 10511741001** Collected: 03/10/20 13:40 Received: 03/13/20 15:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV 5030 Med Level	Analytical Method: EPA 8260B Preparation Method: EPA 5035/5030B Pace Analytical Services - Minneapolis								
Ethylbenzene	**<11.0**	ug/kg	36.7	11.0	1	03/17/20 12:09	03/17/20 15:16	100-41-4	
Hexachloro-1,3-butadiene	**<28.1**	ug/kg	93.6	28.1	1	03/17/20 12:09	03/17/20 15:16	87-68-3	
Isopropylbenzene (Cumene)	**<23.5**	ug/kg	78.3	23.5	1	03/17/20 12:09	03/17/20 15:16	98-82-8	
p-Isopropyltoluene	**<19.7**	ug/kg	65.4	19.7	1	03/17/20 12:09	03/17/20 15:16	99-87-6	
Methylene Chloride	**<117**	ug/kg	391	117	1	03/17/20 12:09	03/17/20 15:16	75-09-2	
4-Methyl-2-pentanone (MIBK)	**<29.7**	ug/kg	99.0	29.7	1	03/17/20 12:09	03/17/20 15:16	108-10-1	
Methyl-tert-butyl ether	**<12.4**	ug/kg	41.3	12.4	1	03/17/20 12:09	03/17/20 15:16	1634-04-4	
Naphthalene	**<69.9**	ug/kg	233	69.9	1	03/17/20 12:09	03/17/20 15:16	91-20-3	
n-Propylbenzene	**<13.1**	ug/kg	43.5	13.1	1	03/17/20 12:09	03/17/20 15:16	103-65-1	
Styrene	**<7.5**	ug/kg	24.9	7.5	1	03/17/20 12:09	03/17/20 15:16	100-42-5	
1,1,1,2-Tetrachloroethane	**<16.4**	ug/kg	54.7	16.4	1	03/17/20 12:09	03/17/20 15:16	630-20-6	
1,1,2,2-Tetrachloroethane	**<20.0**	ug/kg	66.7	20.0	1	03/17/20 12:09	03/17/20 15:16	79-34-5	
Tetrachloroethene	**<29.5**	ug/kg	98.2	29.5	1	03/17/20 12:09	03/17/20 15:16	127-18-4	
Tetrahydrofuran	**<512**	ug/kg	1710	512	1	03/17/20 12:09	03/17/20 15:16	109-99-9	
Toluene	**<26.6**	ug/kg	88.6	26.6	1	03/17/20 12:09	03/17/20 15:16	108-88-3	
1,2,3-Trichlorobenzene	**<19.2**	ug/kg	63.8	19.2	1	03/17/20 12:09	03/17/20 15:16	87-61-6	
1,2,4-Trichlorobenzene	**<15.3**	ug/kg	50.9	15.3	1	03/17/20 12:09	03/17/20 15:16	120-82-1	
1,1,1-Trichloroethane	**<26.7**	ug/kg	89.0	26.7	1	03/17/20 12:09	03/17/20 15:16	71-55-6	
1,1,2-Trichloroethane	**<30.8**	ug/kg	103	30.8	1	03/17/20 12:09	03/17/20 15:16	79-00-5	
Trichloroethene	**<26.2**	ug/kg	87.4	26.2	1	03/17/20 12:09	03/17/20 15:16	79-01-6	
Trichlorofluoromethane	**<118**	ug/kg	392	118	1	03/17/20 12:09	03/17/20 15:16	75-69-4	
1,2,3-Trichloropropane	**<72.5**	ug/kg	241	72.5	1	03/17/20 12:09	03/17/20 15:16	96-18-4	
1,1,2-Trichlorotrifluoroethane	**<110**	ug/kg	365	110	1	03/17/20 12:09	03/17/20 15:16	76-13-1	
1,2,4-Trimethylbenzene	**<27.4**	ug/kg	91.1	27.4	1	03/17/20 12:09	03/17/20 15:16	95-63-6	
1,3,5-Trimethylbenzene	**<19.9**	ug/kg	66.3	19.9	1	03/17/20 12:09	03/17/20 15:16	108-67-8	
Vinyl chloride	**<12.4**	ug/kg	41.1	12.4	1	03/17/20 12:09	03/17/20 15:16	75-01-4	
Xylene (Total)	**<30.0**	ug/kg	99.8	30.0	1	03/17/20 12:09	03/17/20 15:16	1330-20-7	
Surrogates									
1,2-Dichloroethane-d4 (S)	101	%.	75-125		1	03/17/20 12:09	03/17/20 15:16	17060-07-0	
Toluene-d8 (S)	100	%.	75-125		1	03/17/20 12:09	03/17/20 15:16	2037-26-5	
4-Bromofluorobenzene (S)	103	%.	75-125		1	03/17/20 12:09	03/17/20 15:16	460-00-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: 191231 Blackhawk Junction-Revised Report
Pace Project No.: 10511741

Sample: SB-02-SS (23-25) **Lab ID: 10511741002** Collected: 03/10/20 15:00 Received: 03/13/20 15:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
Dry Weight / %M by ASTM D2974	Analytical Method: ASTM D2974 Pace Analytical Services - Minneapolis								
Percent Moisture	**18.9**	%	0.10	0.10	1		03/16/20 12:19		N2
8260B MSV 5030 Med Level	Analytical Method: EPA 8260B Preparation Method: EPA 5035/5030B Pace Analytical Services - Minneapolis								
Acetone	**<487**	ug/kg	1620	487	1	03/17/20 12:09	03/17/20 15:37	67-64-1	
Allyl chloride	**<51.3**	ug/kg	171	51.3	1	03/17/20 12:09	03/17/20 15:37	107-05-1	
Benzene	**<11.6**	ug/kg	38.7	11.6	1	03/17/20 12:09	03/17/20 15:37	71-43-2	
Bromobenzene	**<8.3**	ug/kg	27.6	8.3	1	03/17/20 12:09	03/17/20 15:37	108-86-1	
Bromochloromethane	**<31.3**	ug/kg	104	31.3	1	03/17/20 12:09	03/17/20 15:37	74-97-5	
Bromodichloromethane	**<20.1**	ug/kg	67.0	20.1	1	03/17/20 12:09	03/17/20 15:37	75-27-4	
Bromoform	**<83.8**	ug/kg	279	83.8	1	03/17/20 12:09	03/17/20 15:37	75-25-2	
Bromomethane	**<167**	ug/kg	556	167	1	03/17/20 12:09	03/17/20 15:37	74-83-9	
2-Butanone (MEK)	**<39.5**	ug/kg	131	39.5	1	03/17/20 12:09	03/17/20 15:37	78-93-3	
n-Butylbenzene	**<13.9**	ug/kg	46.4	13.9	1	03/17/20 12:09	03/17/20 15:37	104-51-8	
sec-Butylbenzene	**<27.7**	ug/kg	92.3	27.7	1	03/17/20 12:09	03/17/20 15:37	135-98-8	
tert-Butylbenzene	**<19.6**	ug/kg	65.3	19.6	1	03/17/20 12:09	03/17/20 15:37	98-06-6	
Carbon tetrachloride	**<30.8**	ug/kg	102	30.8	1	03/17/20 12:09	03/17/20 15:37	56-23-5	
Chlorobenzene	**<10.4**	ug/kg	34.7	10.4	1	03/17/20 12:09	03/17/20 15:37	108-90-7	
Chloroethane	**<88.3**	ug/kg	294	88.3	1	03/17/20 12:09	03/17/20 15:37	75-00-3	
Chloroform	**<27.1**	ug/kg	90.2	27.1	1	03/17/20 12:09	03/17/20 15:37	67-66-3	
Chloromethane	**<34.4**	ug/kg	115	34.4	1	03/17/20 12:09	03/17/20 15:37	74-87-3	
2-Chlorotoluene	**<15.6**	ug/kg	51.8	15.6	1	03/17/20 12:09	03/17/20 15:37	95-49-8	
4-Chlorotoluene	**<8.1**	ug/kg	26.9	8.1	1	03/17/20 12:09	03/17/20 15:37	106-43-4	
1,2-Dibromo-3-chloropropane	**<162**	ug/kg	539	162	1	03/17/20 12:09	03/17/20 15:37	96-12-8	
Dibromochloromethane	**<21.4**	ug/kg	71.2	21.4	1	03/17/20 12:09	03/17/20 15:37	124-48-1	
1,2-Dibromoethane (EDB)	**<22.1**	ug/kg	73.7	22.1	1	03/17/20 12:09	03/17/20 15:37	106-93-4	
Dibromomethane	**<27.6**	ug/kg	91.9	27.6	1	03/17/20 12:09	03/17/20 15:37	74-95-3	
1,2-Dichlorobenzene	**<11.9**	ug/kg	39.8	11.9	1	03/17/20 12:09	03/17/20 15:37	95-50-1	
1,3-Dichlorobenzene	**<7.8**	ug/kg	26.1	7.8	1	03/17/20 12:09	03/17/20 15:37	541-73-1	
1,4-Dichlorobenzene	**<10.0**	ug/kg	33.4	10.0	1	03/17/20 12:09	03/17/20 15:37	106-46-7	
Dichlorodifluoromethane	**<33.7**	ug/kg	112	33.7	1	03/17/20 12:09	03/17/20 15:37	75-71-8	
1,1-Dichloroethane	**<28.5**	ug/kg	94.8	28.5	1	03/17/20 12:09	03/17/20 15:37	75-34-3	
1,2-Dichloroethane	**<24.2**	ug/kg	80.5	24.2	1	03/17/20 12:09	03/17/20 15:37	107-06-2	
1,1-Dichloroethene	**<22.7**	ug/kg	75.4	22.7	1	03/17/20 12:09	03/17/20 15:37	75-35-4	
cis-1,2-Dichloroethene	**<17.6**	ug/kg	58.6	17.6	1	03/17/20 12:09	03/17/20 15:37	156-59-2	
trans-1,2-Dichloroethene	**<29.0**	ug/kg	96.5	29.0	1	03/17/20 12:09	03/17/20 15:37	156-60-5	
Dichlorofluoromethane	**<176**	ug/kg	586	176	1	03/17/20 12:09	03/17/20 15:37	75-43-4	
1,2-Dichloropropane	**<28.9**	ug/kg	96.1	28.9	1	03/17/20 12:09	03/17/20 15:37	78-87-5	
1,3-Dichloropropane	**<23.3**	ug/kg	77.5	23.3	1	03/17/20 12:09	03/17/20 15:37	142-28-9	
2,2-Dichloropropane	**<24.0**	ug/kg	80.1	24.0	1	03/17/20 12:09	03/17/20 15:37	594-20-7	
1,1-Dichloropropene	**<26.1**	ug/kg	86.8	26.1	1	03/17/20 12:09	03/17/20 15:37	563-58-6	
cis-1,3-Dichloropropene	**<4.7**	ug/kg	15.5	4.7	1	03/17/20 12:09	03/17/20 15:37	10061-01-5	
trans-1,3-Dichloropropene	**<8.0**	ug/kg	26.6	8.0	1	03/17/20 12:09	03/17/20 15:37	10061-02-6	
Diethyl ether (Ethyl ether)	**<53.9**	ug/kg	180	53.9	1	03/17/20 12:09	03/17/20 15:37	60-29-7	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

ANALYTICAL RESULTS

Project: 191231 Blackhawk Junction-Revised Report
Pace Project No.: 10511741

Sample: SB-02-SS (23-25) **Lab ID: 10511741002** Collected: 03/10/20 15:00 Received: 03/13/20 15:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV 5030 Med Level	Analytical Method: EPA 8260B Preparation Method: EPA 5035/5030B Pace Analytical Services - Minneapolis								
Ethylbenzene	**<11.2**	ug/kg	37.3	11.2	1	03/17/20 12:09	03/17/20 15:37	100-41-4	
Hexachloro-1,3-butadiene	**<28.6**	ug/kg	95.2	28.6	1	03/17/20 12:09	03/17/20 15:37	87-68-3	
Isopropylbenzene (Cumene)	**<23.9**	ug/kg	79.6	23.9	1	03/17/20 12:09	03/17/20 15:37	98-82-8	
p-Isopropyltoluene	**<20.0**	ug/kg	66.6	20.0	1	03/17/20 12:09	03/17/20 15:37	99-87-6	
Methylene Chloride	**<119**	ug/kg	397	119	1	03/17/20 12:09	03/17/20 15:37	75-09-2	
4-Methyl-2-pentanone (MIBK)	**<30.2**	ug/kg	101	30.2	1	03/17/20 12:09	03/17/20 15:37	108-10-1	
Methyl-tert-butyl ether	**<12.6**	ug/kg	42.0	12.6	1	03/17/20 12:09	03/17/20 15:37	1634-04-4	
Naphthalene	**<71.1**	ug/kg	237	71.1	1	03/17/20 12:09	03/17/20 15:37	91-20-3	
n-Propylbenzene	**<13.3**	ug/kg	44.2	13.3	1	03/17/20 12:09	03/17/20 15:37	103-65-1	
Styrene	**<7.6**	ug/kg	25.4	7.6	1	03/17/20 12:09	03/17/20 15:37	100-42-5	
1,1,1,2-Tetrachloroethane	**<16.7**	ug/kg	55.6	16.7	1	03/17/20 12:09	03/17/20 15:37	630-20-6	
1,1,2,2-Tetrachloroethane	**<20.4**	ug/kg	67.8	20.4	1	03/17/20 12:09	03/17/20 15:37	79-34-5	
Tetrachloroethene	**<30.0**	ug/kg	99.9	30.0	1	03/17/20 12:09	03/17/20 15:37	127-18-4	
Tetrahydrofuran	**<521**	ug/kg	1740	521	1	03/17/20 12:09	03/17/20 15:37	109-99-9	
Toluene	**<27.1**	ug/kg	90.2	27.1	1	03/17/20 12:09	03/17/20 15:37	108-88-3	
1,2,3-Trichlorobenzene	**<19.5**	ug/kg	64.9	19.5	1	03/17/20 12:09	03/17/20 15:37	87-61-6	
1,2,4-Trichlorobenzene	**<15.6**	ug/kg	51.8	15.6	1	03/17/20 12:09	03/17/20 15:37	120-82-1	
1,1,1-Trichloroethane	**<27.2**	ug/kg	90.6	27.2	1	03/17/20 12:09	03/17/20 15:37	71-55-6	
1,1,2-Trichloroethane	**<31.4**	ug/kg	105	31.4	1	03/17/20 12:09	03/17/20 15:37	79-00-5	
Trichloroethene	**<26.7**	ug/kg	88.9	26.7	1	03/17/20 12:09	03/17/20 15:37	79-01-6	
Trichlorofluoromethane	**<120**	ug/kg	399	120	1	03/17/20 12:09	03/17/20 15:37	75-69-4	
1,2,3-Trichloropropane	**<73.8**	ug/kg	246	73.8	1	03/17/20 12:09	03/17/20 15:37	96-18-4	
1,1,2-Trichlorotrifluoroethane	**<112**	ug/kg	372	112	1	03/17/20 12:09	03/17/20 15:37	76-13-1	
1,2,4-Trimethylbenzene	**<27.8**	ug/kg	92.7	27.8	1	03/17/20 12:09	03/17/20 15:37	95-63-6	
1,3,5-Trimethylbenzene	**<20.2**	ug/kg	67.4	20.2	1	03/17/20 12:09	03/17/20 15:37	108-67-8	
Vinyl chloride	**<12.6**	ug/kg	41.8	12.6	1	03/17/20 12:09	03/17/20 15:37	75-01-4	
Xylene (Total)	**<30.5**	ug/kg	102	30.5	1	03/17/20 12:09	03/17/20 15:37	1330-20-7	
Surrogates									
1,2-Dichloroethane-d4 (S)	102	%.	75-125		1	03/17/20 12:09	03/17/20 15:37	17060-07-0	
Toluene-d8 (S)	100	%.	75-125		1	03/17/20 12:09	03/17/20 15:37	2037-26-5	
4-Bromofluorobenzene (S)	102	%.	75-125		1	03/17/20 12:09	03/17/20 15:37	460-00-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
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ANALYTICAL RESULTS

Project: 191231 Blackhawk Junction-Revised Report
Pace Project No.: 10511741

Sample: SB-03-SS (23-25) **Lab ID: 10511741003** Collected: 03/10/20 16:50 Received: 03/13/20 15:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
Dry Weight / %M by ASTM D2974	Analytical Method: ASTM D2974 Pace Analytical Services - Minneapolis								
Percent Moisture	**17.5**	%	0.10	0.10	1		03/16/20 12:19		N2
8260B MSV 5030 Med Level	Analytical Method: EPA 8260B Preparation Method: EPA 5035/5030B Pace Analytical Services - Minneapolis								
Acetone	**<477**	ug/kg	1590	477	1	03/17/20 12:09	03/17/20 15:59	67-64-1	
Allyl chloride	**<50.2**	ug/kg	167	50.2	1	03/17/20 12:09	03/17/20 15:59	107-05-1	
Benzene	**<11.4**	ug/kg	37.9	11.4	1	03/17/20 12:09	03/17/20 15:59	71-43-2	
Bromobenzene	**<8.1**	ug/kg	27.0	8.1	1	03/17/20 12:09	03/17/20 15:59	108-86-1	
Bromochloromethane	**<30.6**	ug/kg	102	30.6	1	03/17/20 12:09	03/17/20 15:59	74-97-5	
Bromodichloromethane	**<19.7**	ug/kg	65.6	19.7	1	03/17/20 12:09	03/17/20 15:59	75-27-4	
Bromoform	**<82.0**	ug/kg	273	82.0	1	03/17/20 12:09	03/17/20 15:59	75-25-2	
Bromomethane	**<164**	ug/kg	545	164	1	03/17/20 12:09	03/17/20 15:59	74-83-9	
2-Butanone (MEK)	**<38.7**	ug/kg	129	38.7	1	03/17/20 12:09	03/17/20 15:59	78-93-3	
n-Butylbenzene	**<13.6**	ug/kg	45.4	13.6	1	03/17/20 12:09	03/17/20 15:59	104-51-8	
sec-Butylbenzene	**<27.1**	ug/kg	90.3	27.1	1	03/17/20 12:09	03/17/20 15:59	135-98-8	
tert-Butylbenzene	**<19.2**	ug/kg	63.9	19.2	1	03/17/20 12:09	03/17/20 15:59	98-06-6	
Carbon tetrachloride	**<30.1**	ug/kg	100	30.1	1	03/17/20 12:09	03/17/20 15:59	56-23-5	
Chlorobenzene	**<10.2**	ug/kg	34.0	10.2	1	03/17/20 12:09	03/17/20 15:59	108-90-7	
Chloroethane	**<86.5**	ug/kg	288	86.5	1	03/17/20 12:09	03/17/20 15:59	75-00-3	
Chloroform	**<26.5**	ug/kg	88.3	26.5	1	03/17/20 12:09	03/17/20 15:59	67-66-3	
Chloromethane	**<33.7**	ug/kg	112	33.7	1	03/17/20 12:09	03/17/20 15:59	74-87-3	
2-Chlorotoluene	**<15.2**	ug/kg	50.7	15.2	1	03/17/20 12:09	03/17/20 15:59	95-49-8	
4-Chlorotoluene	**<7.9**	ug/kg	26.3	7.9	1	03/17/20 12:09	03/17/20 15:59	106-43-4	
1,2-Dibromo-3-chloropropane	**<159**	ug/kg	528	159	1	03/17/20 12:09	03/17/20 15:59	96-12-8	
Dibromochloromethane	**<20.9**	ug/kg	69.7	20.9	1	03/17/20 12:09	03/17/20 15:59	124-48-1	
1,2-Dibromoethane (EDB)	**<21.7**	ug/kg	72.2	21.7	1	03/17/20 12:09	03/17/20 15:59	106-93-4	
Dibromomethane	**<27.0**	ug/kg	89.9	27.0	1	03/17/20 12:09	03/17/20 15:59	74-95-3	
1,2-Dichlorobenzene	**<11.7**	ug/kg	38.9	11.7	1	03/17/20 12:09	03/17/20 15:59	95-50-1	
1,3-Dichlorobenzene	**<7.7**	ug/kg	25.5	7.7	1	03/17/20 12:09	03/17/20 15:59	541-73-1	
1,4-Dichlorobenzene	**<9.8**	ug/kg	32.7	9.8	1	03/17/20 12:09	03/17/20 15:59	106-46-7	
Dichlorodifluoromethane	**<33.0**	ug/kg	110	33.0	1	03/17/20 12:09	03/17/20 15:59	75-71-8	
1,1-Dichloroethane	**<27.9**	ug/kg	92.8	27.9	1	03/17/20 12:09	03/17/20 15:59	75-34-3	
1,2-Dichloroethane	**<23.7**	ug/kg	78.8	23.7	1	03/17/20 12:09	03/17/20 15:59	107-06-2	
1,1-Dichloroethene	**<22.2**	ug/kg	73.8	22.2	1	03/17/20 12:09	03/17/20 15:59	75-35-4	
cis-1,2-Dichloroethene	**<17.2**	ug/kg	57.3	17.2	1	03/17/20 12:09	03/17/20 15:59	156-59-2	
trans-1,2-Dichloroethene	**<28.4**	ug/kg	94.5	28.4	1	03/17/20 12:09	03/17/20 15:59	156-60-5	
Dichlorofluoromethane	**<172**	ug/kg	573	172	1	03/17/20 12:09	03/17/20 15:59	75-43-4	
1,2-Dichloropropane	**<28.2**	ug/kg	94.1	28.2	1	03/17/20 12:09	03/17/20 15:59	78-87-5	
1,3-Dichloropropane	**<22.8**	ug/kg	75.9	22.8	1	03/17/20 12:09	03/17/20 15:59	142-28-9	
2,2-Dichloropropane	**<23.5**	ug/kg	78.4	23.5	1	03/17/20 12:09	03/17/20 15:59	594-20-7	
1,1-Dichloropropene	**<25.5**	ug/kg	85.0	25.5	1	03/17/20 12:09	03/17/20 15:59	563-58-6	
cis-1,3-Dichloropropene	**<4.6**	ug/kg	15.2	4.6	1	03/17/20 12:09	03/17/20 15:59	10061-01-5	
trans-1,3-Dichloropropene	**<7.8**	ug/kg	26.0	7.8	1	03/17/20 12:09	03/17/20 15:59	10061-02-6	
Diethyl ether (Ethyl ether)	**<52.8**	ug/kg	176	52.8	1	03/17/20 12:09	03/17/20 15:59	60-29-7	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

ANALYTICAL RESULTS

Project: 191231 Blackhawk Junction-Revised Report
Pace Project No.: 10511741

Sample: SB-03-SS (23-25) **Lab ID: 10511741003** Collected: 03/10/20 16:50 Received: 03/13/20 15:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV 5030 Med Level	Analytical Method: EPA 8260B Preparation Method: EPA 5035/5030B Pace Analytical Services - Minneapolis								
Ethylbenzene	**<11.0**	ug/kg	36.6	11.0	1	03/17/20 12:09	03/17/20 15:59	100-41-4	
Hexachloro-1,3-butadiene	**<28.0**	ug/kg	93.2	28.0	1	03/17/20 12:09	03/17/20 15:59	87-68-3	
Isopropylbenzene (Cumene)	**<23.4**	ug/kg	78.0	23.4	1	03/17/20 12:09	03/17/20 15:59	98-82-8	
p-Isopropyltoluene	**<19.6**	ug/kg	65.2	19.6	1	03/17/20 12:09	03/17/20 15:59	99-87-6	
Methylene Chloride	**<117**	ug/kg	389	117	1	03/17/20 12:09	03/17/20 15:59	75-09-2	
4-Methyl-2-pentanone (MIBK)	**<29.6**	ug/kg	98.6	29.6	1	03/17/20 12:09	03/17/20 15:59	108-10-1	
Methyl-tert-butyl ether	**<12.3**	ug/kg	41.1	12.3	1	03/17/20 12:09	03/17/20 15:59	1634-04-4	
Naphthalene	**<69.6**	ug/kg	232	69.6	1	03/17/20 12:09	03/17/20 15:59	91-20-3	
n-Propylbenzene	**<13.0**	ug/kg	43.3	13.0	1	03/17/20 12:09	03/17/20 15:59	103-65-1	
Styrene	**<7.5**	ug/kg	24.8	7.5	1	03/17/20 12:09	03/17/20 15:59	100-42-5	
1,1,1,2-Tetrachloroethane	**<16.4**	ug/kg	54.5	16.4	1	03/17/20 12:09	03/17/20 15:59	630-20-6	
1,1,2,2-Tetrachloroethane	**<19.9**	ug/kg	66.4	19.9	1	03/17/20 12:09	03/17/20 15:59	79-34-5	
Tetrachloroethene	**29.8J**	ug/kg	97.8	29.4	1	03/17/20 12:09	03/17/20 15:59	127-18-4	
Tetrahydrofuran	**<510**	ug/kg	1700	510	1	03/17/20 12:09	03/17/20 15:59	109-99-9	
Toluene	**<26.5**	ug/kg	88.3	26.5	1	03/17/20 12:09	03/17/20 15:59	108-88-3	
1,2,3-Trichlorobenzene	**<19.1**	ug/kg	63.5	19.1	1	03/17/20 12:09	03/17/20 15:59	87-61-6	
1,2,4-Trichlorobenzene	**<15.2**	ug/kg	50.7	15.2	1	03/17/20 12:09	03/17/20 15:59	120-82-1	
1,1,1-Trichloroethane	**<26.6**	ug/kg	88.7	26.6	1	03/17/20 12:09	03/17/20 15:59	71-55-6	
1,1,2-Trichloroethane	**<30.7**	ug/kg	102	30.7	1	03/17/20 12:09	03/17/20 15:59	79-00-5	
Trichloroethene	**<26.1**	ug/kg	87.0	26.1	1	03/17/20 12:09	03/17/20 15:59	79-01-6	
Trichlorofluoromethane	**<117**	ug/kg	391	117	1	03/17/20 12:09	03/17/20 15:59	75-69-4	
1,2,3-Trichloropropane	**<72.2**	ug/kg	241	72.2	1	03/17/20 12:09	03/17/20 15:59	96-18-4	
1,1,2-Trichlorotrifluoroethane	**<109**	ug/kg	364	109	1	03/17/20 12:09	03/17/20 15:59	76-13-1	
1,2,4-Trimethylbenzene	**<27.3**	ug/kg	90.8	27.3	1	03/17/20 12:09	03/17/20 15:59	95-63-6	
1,3,5-Trimethylbenzene	**<19.8**	ug/kg	66.0	19.8	1	03/17/20 12:09	03/17/20 15:59	108-67-8	
Vinyl chloride	**<12.3**	ug/kg	41.0	12.3	1	03/17/20 12:09	03/17/20 15:59	75-01-4	
Xylene (Total)	**<29.9**	ug/kg	99.4	29.9	1	03/17/20 12:09	03/17/20 15:59	1330-20-7	
Surrogates									
1,2-Dichloroethane-d4 (S)	103	%.	75-125		1	03/17/20 12:09	03/17/20 15:59	17060-07-0	
Toluene-d8 (S)	100	%.	75-125		1	03/17/20 12:09	03/17/20 15:59	2037-26-5	
4-Bromofluorobenzene (S)	100	%.	75-125		1	03/17/20 12:09	03/17/20 15:59	460-00-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
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ANALYTICAL RESULTS

Project: 191231 Blackhawk Junction-Revised Report
Pace Project No.: 10511741

Sample: SB-04-SS (23-25) **Lab ID: 10511741004** Collected: 03/10/20 17:40 Received: 03/13/20 15:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
Dry Weight / %M by ASTM D2974	Analytical Method: ASTM D2974 Pace Analytical Services - Minneapolis								
Percent Moisture	**15.7**	%	0.10	0.10	1		03/16/20 12:19		N2
8260B MSV 5030 Med Level	Analytical Method: EPA 8260B Preparation Method: EPA 5035/5030B Pace Analytical Services - Minneapolis								
Acetone	**<459**	ug/kg	1530	459	1	03/17/20 12:09	03/17/20 17:04	67-64-1	
Allyl chloride	**<48.3**	ug/kg	161	48.3	1	03/17/20 12:09	03/17/20 17:04	107-05-1	
Benzene	**<10.9**	ug/kg	36.4	10.9	1	03/17/20 12:09	03/17/20 17:04	71-43-2	
Bromobenzene	**<7.8**	ug/kg	26.0	7.8	1	03/17/20 12:09	03/17/20 17:04	108-86-1	
Bromochloromethane	**<29.4**	ug/kg	98.1	29.4	1	03/17/20 12:09	03/17/20 17:04	74-97-5	
Bromodichloromethane	**<19.0**	ug/kg	63.1	19.0	1	03/17/20 12:09	03/17/20 17:04	75-27-4	
Bromoform	**<78.9**	ug/kg	263	78.9	1	03/17/20 12:09	03/17/20 17:04	75-25-2	
Bromomethane	**<157**	ug/kg	524	157	1	03/17/20 12:09	03/17/20 17:04	74-83-9	
2-Butanone (MEK)	**<37.2**	ug/kg	124	37.2	1	03/17/20 12:09	03/17/20 17:04	78-93-3	
n-Butylbenzene	**<13.1**	ug/kg	43.7	13.1	1	03/17/20 12:09	03/17/20 17:04	104-51-8	
sec-Butylbenzene	**<26.1**	ug/kg	87.0	26.1	1	03/17/20 12:09	03/17/20 17:04	135-98-8	
tert-Butylbenzene	**<18.5**	ug/kg	61.5	18.5	1	03/17/20 12:09	03/17/20 17:04	98-06-6	
Carbon tetrachloride	**<29.0**	ug/kg	96.5	29.0	1	03/17/20 12:09	03/17/20 17:04	56-23-5	
Chlorobenzene	**<9.8**	ug/kg	32.7	9.8	1	03/17/20 12:09	03/17/20 17:04	108-90-7	
Chloroethane	**<83.2**	ug/kg	277	83.2	1	03/17/20 12:09	03/17/20 17:04	75-00-3	
Chloroform	**<25.5**	ug/kg	85.0	25.5	1	03/17/20 12:09	03/17/20 17:04	67-66-3	
Chloromethane	**<32.4**	ug/kg	108	32.4	1	03/17/20 12:09	03/17/20 17:04	74-87-3	
2-Chlorotoluene	**<14.7**	ug/kg	48.8	14.7	1	03/17/20 12:09	03/17/20 17:04	95-49-8	
4-Chlorotoluene	**<7.6**	ug/kg	25.3	7.6	1	03/17/20 12:09	03/17/20 17:04	106-43-4	
1,2-Dibromo-3-chloropropane	**<153**	ug/kg	508	153	1	03/17/20 12:09	03/17/20 17:04	96-12-8	
Dibromochloromethane	**<20.1**	ug/kg	67.1	20.1	1	03/17/20 12:09	03/17/20 17:04	124-48-1	
1,2-Dibromoethane (EDB)	**<20.9**	ug/kg	69.5	20.9	1	03/17/20 12:09	03/17/20 17:04	106-93-4	
Dibromomethane	**<26.0**	ug/kg	86.6	26.0	1	03/17/20 12:09	03/17/20 17:04	74-95-3	
1,2-Dichlorobenzene	**<11.3**	ug/kg	37.5	11.3	1	03/17/20 12:09	03/17/20 17:04	95-50-1	
1,3-Dichlorobenzene	**<7.4**	ug/kg	24.6	7.4	1	03/17/20 12:09	03/17/20 17:04	541-73-1	
1,4-Dichlorobenzene	**<9.4**	ug/kg	31.4	9.4	1	03/17/20 12:09	03/17/20 17:04	106-46-7	
Dichlorodifluoromethane	**<31.7**	ug/kg	106	31.7	1	03/17/20 12:09	03/17/20 17:04	75-71-8	
1,1-Dichloroethane	**<26.8**	ug/kg	89.3	26.8	1	03/17/20 12:09	03/17/20 17:04	75-34-3	
1,2-Dichloroethane	**<22.8**	ug/kg	75.8	22.8	1	03/17/20 12:09	03/17/20 17:04	107-06-2	
1,1-Dichloroethene	**<21.3**	ug/kg	71.1	21.3	1	03/17/20 12:09	03/17/20 17:04	75-35-4	
cis-1,2-Dichloroethene	**<16.6**	ug/kg	55.2	16.6	1	03/17/20 12:09	03/17/20 17:04	156-59-2	
trans-1,2-Dichloroethene	**<27.3**	ug/kg	90.9	27.3	1	03/17/20 12:09	03/17/20 17:04	156-60-5	
Dichlorofluoromethane	**<166**	ug/kg	552	166	1	03/17/20 12:09	03/17/20 17:04	75-43-4	
1,2-Dichloropropane	**<27.2**	ug/kg	90.5	27.2	1	03/17/20 12:09	03/17/20 17:04	78-87-5	
1,3-Dichloropropane	**<21.9**	ug/kg	73.1	21.9	1	03/17/20 12:09	03/17/20 17:04	142-28-9	
2,2-Dichloropropane	**<22.7**	ug/kg	75.4	22.7	1	03/17/20 12:09	03/17/20 17:04	594-20-7	
1,1-Dichloropropene	**<24.6**	ug/kg	81.8	24.6	1	03/17/20 12:09	03/17/20 17:04	563-58-6	
cis-1,3-Dichloropropene	**<4.4**	ug/kg	14.6	4.4	1	03/17/20 12:09	03/17/20 17:04	10061-01-5	
trans-1,3-Dichloropropene	**<7.5**	ug/kg	25.1	7.5	1	03/17/20 12:09	03/17/20 17:04	10061-02-6	
Diethyl ether (Ethyl ether)	**<50.8**	ug/kg	169	50.8	1	03/17/20 12:09	03/17/20 17:04	60-29-7	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

ANALYTICAL RESULTS

Project: 191231 Blackhawk Junction-Revised Report
Pace Project No.: 10511741

Sample: SB-04-SS (23-25) **Lab ID: 10511741004** Collected: 03/10/20 17:40 Received: 03/13/20 15:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV 5030 Med Level	Analytical Method: EPA 8260B Preparation Method: EPA 5035/5030B Pace Analytical Services - Minneapolis								
Ethylbenzene	**<10.6**	ug/kg	35.2	10.6	1	03/17/20 12:09	03/17/20 17:04	100-41-4	
Hexachloro-1,3-butadiene	**<26.9**	ug/kg	89.7	26.9	1	03/17/20 12:09	03/17/20 17:04	87-68-3	
Isopropylbenzene (Cumene)	**<22.5**	ug/kg	75.0	22.5	1	03/17/20 12:09	03/17/20 17:04	98-82-8	
p-Isopropyltoluene	**<18.8**	ug/kg	62.7	18.8	1	03/17/20 12:09	03/17/20 17:04	99-87-6	
Methylene Chloride	**<112**	ug/kg	374	112	1	03/17/20 12:09	03/17/20 17:04	75-09-2	
4-Methyl-2-pentanone (MIBK)	**<28.5**	ug/kg	94.9	28.5	1	03/17/20 12:09	03/17/20 17:04	108-10-1	
Methyl-tert-butyl ether	**<11.9**	ug/kg	39.5	11.9	1	03/17/20 12:09	03/17/20 17:04	1634-04-4	
Naphthalene	**<67.0**	ug/kg	223	67.0	1	03/17/20 12:09	03/17/20 17:04	91-20-3	
n-Propylbenzene	**<12.5**	ug/kg	41.7	12.5	1	03/17/20 12:09	03/17/20 17:04	103-65-1	
Styrene	**<7.2**	ug/kg	23.9	7.2	1	03/17/20 12:09	03/17/20 17:04	100-42-5	
1,1,1,2-Tetrachloroethane	**<15.7**	ug/kg	52.4	15.7	1	03/17/20 12:09	03/17/20 17:04	630-20-6	
1,1,2,2-Tetrachloroethane	**<19.2**	ug/kg	63.9	19.2	1	03/17/20 12:09	03/17/20 17:04	79-34-5	
Tetrachloroethene	**<28.3**	ug/kg	94.1	28.3	1	03/17/20 12:09	03/17/20 17:04	127-18-4	
Tetrahydrofuran	**<491**	ug/kg	1640	491	1	03/17/20 12:09	03/17/20 17:04	109-99-9	
Toluene	**<25.5**	ug/kg	85.0	25.5	1	03/17/20 12:09	03/17/20 17:04	108-88-3	
1,2,3-Trichlorobenzene	**<18.4**	ug/kg	61.1	18.4	1	03/17/20 12:09	03/17/20 17:04	87-61-6	
1,2,4-Trichlorobenzene	**<14.7**	ug/kg	48.8	14.7	1	03/17/20 12:09	03/17/20 17:04	120-82-1	
1,1,1-Trichloroethane	**<25.6**	ug/kg	85.4	25.6	1	03/17/20 12:09	03/17/20 17:04	71-55-6	
1,1,2-Trichloroethane	**<29.6**	ug/kg	98.5	29.6	1	03/17/20 12:09	03/17/20 17:04	79-00-5	
Trichloroethene	**<25.2**	ug/kg	83.8	25.2	1	03/17/20 12:09	03/17/20 17:04	79-01-6	
Trichlorofluoromethane	**<113**	ug/kg	376	113	1	03/17/20 12:09	03/17/20 17:04	75-69-4	
1,2,3-Trichloropropane	**<69.5**	ug/kg	231	69.5	1	03/17/20 12:09	03/17/20 17:04	96-18-4	
1,1,2-Trichlorotrifluoroethane	**<105**	ug/kg	350	105	1	03/17/20 12:09	03/17/20 17:04	76-13-1	
1,2,4-Trimethylbenzene	**<26.2**	ug/kg	87.3	26.2	1	03/17/20 12:09	03/17/20 17:04	95-63-6	
1,3,5-Trimethylbenzene	**<19.1**	ug/kg	63.5	19.1	1	03/17/20 12:09	03/17/20 17:04	108-67-8	
Vinyl chloride	**<11.8**	ug/kg	39.4	11.8	1	03/17/20 12:09	03/17/20 17:04	75-01-4	
Xylene (Total)	**<28.7**	ug/kg	95.7	28.7	1	03/17/20 12:09	03/17/20 17:04	1330-20-7	
Surrogates									
1,2-Dichloroethane-d4 (S)	98	%.	75-125		1	03/17/20 12:09	03/17/20 17:04	17060-07-0	
Toluene-d8 (S)	100	%.	75-125		1	03/17/20 12:09	03/17/20 17:04	2037-26-5	
4-Bromofluorobenzene (S)	101	%.	75-125		1	03/17/20 12:09	03/17/20 17:04	460-00-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
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ANALYTICAL RESULTS

Project: 191231 Blackhawk Junction-Revised Report
Pace Project No.: 10511741

Sample: SB-01-GW (18.7-30) **Lab ID: 10511741005** Collected: 03/10/20 12:47 Received: 03/13/20 15:00 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260B VOC	Analytical Method: EPA 8260B Pace Analytical Services - Minneapolis								
Acetone	**<2.5**	ug/L	8.4	2.5	1		03/20/20 17:25	67-64-1	
Allyl chloride	**<0.27**	ug/L	0.90	0.27	1		03/20/20 17:25	107-05-1	
Benzene	**<0.12**	ug/L	0.40	0.12	1		03/20/20 17:25	71-43-2	
Bromobenzene	**<0.13**	ug/L	0.44	0.13	1		03/20/20 17:25	108-86-1	
Bromochloromethane	**<0.36**	ug/L	1.2	0.36	1		03/20/20 17:25	74-97-5	
Bromodichloromethane	**<0.11**	ug/L	0.38	0.11	1		03/20/20 17:25	75-27-4	
Bromoform	**<0.27**	ug/L	0.90	0.27	1		03/20/20 17:25	75-25-2	
Bromomethane	**<0.63**	ug/L	2.1	0.63	1		03/20/20 17:25	74-83-9	
2-Butanone (MEK)	**<0.88**	ug/L	2.9	0.88	1		03/20/20 17:25	78-93-3	
n-Butylbenzene	**<0.16**	ug/L	0.52	0.16	1		03/20/20 17:25	104-51-8	
sec-Butylbenzene	**<0.15**	ug/L	0.49	0.15	1		03/20/20 17:25	135-98-8	
tert-Butylbenzene	**<0.13**	ug/L	0.43	0.13	1		03/20/20 17:25	98-06-6	
Carbon tetrachloride	**<0.17**	ug/L	0.56	0.17	1		03/20/20 17:25	56-23-5	
Chlorobenzene	**<0.076**	ug/L	0.25	0.076	1		03/20/20 17:25	108-90-7	
Chloroethane	**<0.42**	ug/L	1.4	0.42	1		03/20/20 17:25	75-00-3	
Chloroform	**<0.48**	ug/L	1.6	0.48	1		03/20/20 17:25	67-66-3	
Chloromethane	**<0.15**	ug/L	0.49	0.15	1		03/20/20 17:25	74-87-3	
2-Chlorotoluene	**<0.16**	ug/L	0.55	0.16	1		03/20/20 17:25	95-49-8	
4-Chlorotoluene	**<0.050**	ug/L	0.17	0.050	1		03/20/20 17:25	106-43-4	
1,2-Dibromo-3-chloropropane	**<1.2**	ug/L	4.2	1.2	1		03/20/20 17:25	96-12-8	
Dibromochloromethane	**<0.20**	ug/L	0.66	0.20	1		03/20/20 17:25	124-48-1	
1,2-Dibromoethane (EDB)	**<0.18**	ug/L	0.60	0.18	1		03/20/20 17:25	106-93-4	
Dibromomethane	**<0.15**	ug/L	0.51	0.15	1		03/20/20 17:25	74-95-3	
1,2-Dichlorobenzene	**<0.14**	ug/L	0.45	0.14	1		03/20/20 17:25	95-50-1	
1,3-Dichlorobenzene	**<0.12**	ug/L	0.39	0.12	1		03/20/20 17:25	541-73-1	
1,4-Dichlorobenzene	**<0.082**	ug/L	0.27	0.082	1		03/20/20 17:25	106-46-7	
Dichlorodifluoromethane	**<0.20**	ug/L	0.65	0.20	1		03/20/20 17:25	75-71-8	
1,1-Dichloroethane	**<0.17**	ug/L	0.55	0.17	1		03/20/20 17:25	75-34-3	
1,2-Dichloroethane	**<0.25**	ug/L	0.85	0.25	1		03/20/20 17:25	107-06-2	
1,1-Dichloroethene	**<0.13**	ug/L	0.42	0.13	1		03/20/20 17:25	75-35-4	
cis-1,2-Dichloroethene	**<0.20**	ug/L	0.66	0.20	1		03/20/20 17:25	156-59-2	
trans-1,2-Dichloroethene	**<0.19**	ug/L	0.64	0.19	1		03/20/20 17:25	156-60-5	
Dichlorofluoromethane	**<0.19**	ug/L	0.63	0.19	1		03/20/20 17:25	75-43-4	
1,2-Dichloropropane	**<0.14**	ug/L	0.46	0.14	1		03/20/20 17:25	78-87-5	
1,3-Dichloropropane	**<0.13**	ug/L	0.43	0.13	1		03/20/20 17:25	142-28-9	
2,2-Dichloropropane	**<0.20**	ug/L	0.66	0.20	1		03/20/20 17:25	594-20-7	
1,1-Dichloropropene	**<0.22**	ug/L	0.74	0.22	1		03/20/20 17:25	563-58-6	
cis-1,3-Dichloropropene	**<0.077**	ug/L	0.26	0.077	1		03/20/20 17:25	10061-01-5	
trans-1,3-Dichloropropene	**<0.32**	ug/L	1.0	0.32	1		03/20/20 17:25	10061-02-6	
Diethyl ether (Ethyl ether)	**<0.18**	ug/L	0.58	0.18	1		03/20/20 17:25	60-29-7	
Ethylbenzene	**<0.075**	ug/L	0.25	0.075	1		03/20/20 17:25	100-41-4	
Hexachloro-1,3-butadiene	**<0.40**	ug/L	1.3	0.40	1		03/20/20 17:25	87-68-3	
Isopropylbenzene (Cumene)	**<0.13**	ug/L	0.44	0.13	1		03/20/20 17:25	98-82-8	
p-Isopropyltoluene	**<0.18**	ug/L	0.59	0.18	1		03/20/20 17:25	99-87-6	
Methylene Chloride	**<1.1**	ug/L	3.7	1.1	1		03/20/20 17:25	75-09-2	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

ANALYTICAL RESULTS

Project: 191231 Blackhawk Junction-Revised Report
Pace Project No.: 10511741

Sample: SB-01-GW (18.7-30) **Lab ID: 10511741005** Collected: 03/10/20 12:47 Received: 03/13/20 15:00 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260B VOC	Analytical Method: EPA 8260B Pace Analytical Services - Minneapolis								
4-Methyl-2-pentanone (MIBK)	**<0.54**	ug/L	1.8	0.54	1		03/20/20 17:25	108-10-1	
Methyl-tert-butyl ether	**<0.12**	ug/L	0.39	0.12	1		03/20/20 17:25	1634-04-4	
Naphthalene	**<0.68**	ug/L	2.3	0.68	1		03/20/20 17:25	91-20-3	
n-Propylbenzene	**<0.18**	ug/L	0.61	0.18	1		03/20/20 17:25	103-65-1	
Styrene	**<0.11**	ug/L	0.37	0.11	1		03/20/20 17:25	100-42-5	
1,1,1,2-Tetrachloroethane	**<0.13**	ug/L	0.44	0.13	1		03/20/20 17:25	630-20-6	
1,1,2,2-Tetrachloroethane	**<0.16**	ug/L	0.53	0.16	1		03/20/20 17:25	79-34-5	
Tetrachloroethene	**2.8**	ug/L	0.58	0.17	1		03/20/20 17:25	127-18-4	
Tetrahydrofuran	**<3.4**	ug/L	11.3	3.4	1		03/20/20 17:25	109-99-9	
Toluene	**<0.12**	ug/L	0.41	0.12	1		03/20/20 17:25	108-88-3	
1,2,3-Trichlorobenzene	**<0.17**	ug/L	0.57	0.17	1		03/20/20 17:25	87-61-6	
1,2,4-Trichlorobenzene	**<0.19**	ug/L	0.63	0.19	1		03/20/20 17:25	120-82-1	
1,1,1-Trichloroethane	**<0.17**	ug/L	0.57	0.17	1		03/20/20 17:25	71-55-6	
1,1,2-Trichloroethane	**<0.19**	ug/L	0.64	0.19	1		03/20/20 17:25	79-00-5	
Trichloroethene	**<0.15**	ug/L	0.50	0.15	1		03/20/20 17:25	79-01-6	
Trichlorofluoromethane	**<0.12**	ug/L	0.41	0.12	1		03/20/20 17:25	75-69-4	
1,2,3-Trichloropropane	**<0.59**	ug/L	2.0	0.59	1		03/20/20 17:25	96-18-4	
1,1,2-Trichlorotrifluoroethane	**<0.30**	ug/L	1.0	0.30	1		03/20/20 17:25	76-13-1	
1,2,4-Trimethylbenzene	**<0.17**	ug/L	0.57	0.17	1		03/20/20 17:25	95-63-6	
1,3,5-Trimethylbenzene	**<0.12**	ug/L	0.41	0.12	1		03/20/20 17:25	108-67-8	
Vinyl chloride	**<0.099**	ug/L	0.33	0.099	1		03/20/20 17:25	75-01-4	
Xylene (Total)	**<0.29**	ug/L	0.96	0.29	1		03/20/20 17:25	1330-20-7	
Surrogates									
1,2-Dichloroethane-d4 (S)	99	%.	75-125		1		03/20/20 17:25	17060-07-0	
Toluene-d8 (S)	100	%.	75-125		1		03/20/20 17:25	2037-26-5	
4-Bromofluorobenzene (S)	103	%.	75-125		1		03/20/20 17:25	460-00-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
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ANALYTICAL RESULTS

Project: 191231 Blackhawk Junction-Revised Report
Pace Project No.: 10511741

Sample: SB-02-GW (17.8-30) **Lab ID: 10511741006** Collected: 03/10/20 14:20 Received: 03/13/20 15:00 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260B VOC	Analytical Method: EPA 8260B Pace Analytical Services - Minneapolis								
Acetone	**<2.5**	ug/L	8.4	2.5	1		03/20/20 17:42	67-64-1	
Allyl chloride	**<0.27**	ug/L	0.90	0.27	1		03/20/20 17:42	107-05-1	
Benzene	**<0.12**	ug/L	0.40	0.12	1		03/20/20 17:42	71-43-2	
Bromobenzene	**<0.13**	ug/L	0.44	0.13	1		03/20/20 17:42	108-86-1	
Bromochloromethane	**<0.36**	ug/L	1.2	0.36	1		03/20/20 17:42	74-97-5	
Bromodichloromethane	**<0.11**	ug/L	0.38	0.11	1		03/20/20 17:42	75-27-4	
Bromoform	**<0.27**	ug/L	0.90	0.27	1		03/20/20 17:42	75-25-2	
Bromomethane	**<0.63**	ug/L	2.1	0.63	1		03/20/20 17:42	74-83-9	
2-Butanone (MEK)	**<0.88**	ug/L	2.9	0.88	1		03/20/20 17:42	78-93-3	
n-Butylbenzene	**<0.16**	ug/L	0.52	0.16	1		03/20/20 17:42	104-51-8	
sec-Butylbenzene	**<0.15**	ug/L	0.49	0.15	1		03/20/20 17:42	135-98-8	
tert-Butylbenzene	**<0.13**	ug/L	0.43	0.13	1		03/20/20 17:42	98-06-6	
Carbon tetrachloride	**<0.17**	ug/L	0.56	0.17	1		03/20/20 17:42	56-23-5	
Chlorobenzene	**<0.076**	ug/L	0.25	0.076	1		03/20/20 17:42	108-90-7	
Chloroethane	**<0.42**	ug/L	1.4	0.42	1		03/20/20 17:42	75-00-3	
Chloroform	**<0.48**	ug/L	1.6	0.48	1		03/20/20 17:42	67-66-3	
Chloromethane	**<0.15**	ug/L	0.49	0.15	1		03/20/20 17:42	74-87-3	
2-Chlorotoluene	**<0.16**	ug/L	0.55	0.16	1		03/20/20 17:42	95-49-8	
4-Chlorotoluene	**<0.050**	ug/L	0.17	0.050	1		03/20/20 17:42	106-43-4	
1,2-Dibromo-3-chloropropane	**<1.2**	ug/L	4.2	1.2	1		03/20/20 17:42	96-12-8	
Dibromochloromethane	**<0.20**	ug/L	0.66	0.20	1		03/20/20 17:42	124-48-1	
1,2-Dibromoethane (EDB)	**<0.18**	ug/L	0.60	0.18	1		03/20/20 17:42	106-93-4	
Dibromomethane	**<0.15**	ug/L	0.51	0.15	1		03/20/20 17:42	74-95-3	
1,2-Dichlorobenzene	**<0.14**	ug/L	0.45	0.14	1		03/20/20 17:42	95-50-1	
1,3-Dichlorobenzene	**<0.12**	ug/L	0.39	0.12	1		03/20/20 17:42	541-73-1	
1,4-Dichlorobenzene	**<0.082**	ug/L	0.27	0.082	1		03/20/20 17:42	106-46-7	
Dichlorodifluoromethane	**<0.20**	ug/L	0.65	0.20	1		03/20/20 17:42	75-71-8	
1,1-Dichloroethane	**<0.17**	ug/L	0.55	0.17	1		03/20/20 17:42	75-34-3	
1,2-Dichloroethane	**<0.25**	ug/L	0.85	0.25	1		03/20/20 17:42	107-06-2	
1,1-Dichloroethene	**<0.13**	ug/L	0.42	0.13	1		03/20/20 17:42	75-35-4	
cis-1,2-Dichloroethene	**<0.20**	ug/L	0.66	0.20	1		03/20/20 17:42	156-59-2	
trans-1,2-Dichloroethene	**<0.19**	ug/L	0.64	0.19	1		03/20/20 17:42	156-60-5	
Dichlorofluoromethane	**<0.19**	ug/L	0.63	0.19	1		03/20/20 17:42	75-43-4	
1,2-Dichloropropane	**<0.14**	ug/L	0.46	0.14	1		03/20/20 17:42	78-87-5	
1,3-Dichloropropane	**<0.13**	ug/L	0.43	0.13	1		03/20/20 17:42	142-28-9	
2,2-Dichloropropane	**<0.20**	ug/L	0.66	0.20	1		03/20/20 17:42	594-20-7	
1,1-Dichloropropene	**<0.22**	ug/L	0.74	0.22	1		03/20/20 17:42	563-58-6	
cis-1,3-Dichloropropene	**<0.077**	ug/L	0.26	0.077	1		03/20/20 17:42	10061-01-5	
trans-1,3-Dichloropropene	**<0.32**	ug/L	1.0	0.32	1		03/20/20 17:42	10061-02-6	
Diethyl ether (Ethyl ether)	**<0.18**	ug/L	0.58	0.18	1		03/20/20 17:42	60-29-7	
Ethylbenzene	**<0.075**	ug/L	0.25	0.075	1		03/20/20 17:42	100-41-4	
Hexachloro-1,3-butadiene	**<0.40**	ug/L	1.3	0.40	1		03/20/20 17:42	87-68-3	
Isopropylbenzene (Cumene)	**<0.13**	ug/L	0.44	0.13	1		03/20/20 17:42	98-82-8	
p-Isopropyltoluene	**<0.18**	ug/L	0.59	0.18	1		03/20/20 17:42	99-87-6	
Methylene Chloride	**<1.1**	ug/L	3.7	1.1	1		03/20/20 17:42	75-09-2	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

ANALYTICAL RESULTS

Project: 191231 Blackhawk Junction-Revised Report
Pace Project No.: 10511741

Sample: SB-02-GW (17.8-30) **Lab ID: 10511741006** Collected: 03/10/20 14:20 Received: 03/13/20 15:00 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260B VOC	Analytical Method: EPA 8260B Pace Analytical Services - Minneapolis								
4-Methyl-2-pentanone (MIBK)	**<0.54**	ug/L	1.8	0.54	1		03/20/20 17:42	108-10-1	
Methyl-tert-butyl ether	**<0.12**	ug/L	0.39	0.12	1		03/20/20 17:42	1634-04-4	
Naphthalene	**<0.68**	ug/L	2.3	0.68	1		03/20/20 17:42	91-20-3	
n-Propylbenzene	**<0.18**	ug/L	0.61	0.18	1		03/20/20 17:42	103-65-1	
Styrene	**<0.11**	ug/L	0.37	0.11	1		03/20/20 17:42	100-42-5	
1,1,1,2-Tetrachloroethane	**<0.13**	ug/L	0.44	0.13	1		03/20/20 17:42	630-20-6	
1,1,2,2-Tetrachloroethane	**<0.16**	ug/L	0.53	0.16	1		03/20/20 17:42	79-34-5	
Tetrachloroethene	**2.6**	ug/L	0.58	0.17	1		03/20/20 17:42	127-18-4	
Tetrahydrofuran	**<3.4**	ug/L	11.3	3.4	1		03/20/20 17:42	109-99-9	
Toluene	**<0.12**	ug/L	0.41	0.12	1		03/20/20 17:42	108-88-3	
1,2,3-Trichlorobenzene	**<0.17**	ug/L	0.57	0.17	1		03/20/20 17:42	87-61-6	
1,2,4-Trichlorobenzene	**<0.19**	ug/L	0.63	0.19	1		03/20/20 17:42	120-82-1	
1,1,1-Trichloroethane	**<0.17**	ug/L	0.57	0.17	1		03/20/20 17:42	71-55-6	
1,1,2-Trichloroethane	**<0.19**	ug/L	0.64	0.19	1		03/20/20 17:42	79-00-5	
Trichloroethene	**<0.15**	ug/L	0.50	0.15	1		03/20/20 17:42	79-01-6	
Trichlorofluoromethane	**<0.12**	ug/L	0.41	0.12	1		03/20/20 17:42	75-69-4	
1,2,3-Trichloropropane	**<0.59**	ug/L	2.0	0.59	1		03/20/20 17:42	96-18-4	
1,1,2-Trichlorotrifluoroethane	**<0.30**	ug/L	1.0	0.30	1		03/20/20 17:42	76-13-1	
1,2,4-Trimethylbenzene	**<0.17**	ug/L	0.57	0.17	1		03/20/20 17:42	95-63-6	
1,3,5-Trimethylbenzene	**<0.12**	ug/L	0.41	0.12	1		03/20/20 17:42	108-67-8	
Vinyl chloride	**<0.099**	ug/L	0.33	0.099	1		03/20/20 17:42	75-01-4	
Xylene (Total)	**<0.29**	ug/L	0.96	0.29	1		03/20/20 17:42	1330-20-7	
Surrogates									
1,2-Dichloroethane-d4 (S)	100	%.	75-125		1		03/20/20 17:42	17060-07-0	
Toluene-d8 (S)	99	%.	75-125		1		03/20/20 17:42	2037-26-5	
4-Bromofluorobenzene (S)	103	%.	75-125		1		03/20/20 17:42	460-00-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

ANALYTICAL RESULTS

Project: 191231 Blackhawk Junction-Revised Report
Pace Project No.: 10511741

Sample: SB-03-GW (18.8-30) **Lab ID: 10511741007** Collected: 03/10/20 15:40 Received: 03/13/20 15:00 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260B VOC	Analytical Method: EPA 8260B Pace Analytical Services - Minneapolis								
Acetone	**<2.5**	ug/L	8.4	2.5	1		03/20/20 17:59	67-64-1	
Allyl chloride	**<0.27**	ug/L	0.90	0.27	1		03/20/20 17:59	107-05-1	
Benzene	**<0.12**	ug/L	0.40	0.12	1		03/20/20 17:59	71-43-2	
Bromobenzene	**<0.13**	ug/L	0.44	0.13	1		03/20/20 17:59	108-86-1	
Bromochloromethane	**<0.36**	ug/L	1.2	0.36	1		03/20/20 17:59	74-97-5	
Bromodichloromethane	**<0.11**	ug/L	0.38	0.11	1		03/20/20 17:59	75-27-4	
Bromoform	**<0.27**	ug/L	0.90	0.27	1		03/20/20 17:59	75-25-2	
Bromomethane	**<0.63**	ug/L	2.1	0.63	1		03/20/20 17:59	74-83-9	
2-Butanone (MEK)	**<0.88**	ug/L	2.9	0.88	1		03/20/20 17:59	78-93-3	
n-Butylbenzene	**<0.16**	ug/L	0.52	0.16	1		03/20/20 17:59	104-51-8	
sec-Butylbenzene	**<0.15**	ug/L	0.49	0.15	1		03/20/20 17:59	135-98-8	
tert-Butylbenzene	**<0.13**	ug/L	0.43	0.13	1		03/20/20 17:59	98-06-6	
Carbon tetrachloride	**<0.17**	ug/L	0.56	0.17	1		03/20/20 17:59	56-23-5	
Chlorobenzene	**<0.076**	ug/L	0.25	0.076	1		03/20/20 17:59	108-90-7	
Chloroethane	**<0.42**	ug/L	1.4	0.42	1		03/20/20 17:59	75-00-3	
Chloroform	**<0.48**	ug/L	1.6	0.48	1		03/20/20 17:59	67-66-3	
Chloromethane	**<0.15**	ug/L	0.49	0.15	1		03/20/20 17:59	74-87-3	
2-Chlorotoluene	**<0.16**	ug/L	0.55	0.16	1		03/20/20 17:59	95-49-8	
4-Chlorotoluene	**<0.050**	ug/L	0.17	0.050	1		03/20/20 17:59	106-43-4	
1,2-Dibromo-3-chloropropane	**<1.2**	ug/L	4.2	1.2	1		03/20/20 17:59	96-12-8	
Dibromochloromethane	**<0.20**	ug/L	0.66	0.20	1		03/20/20 17:59	124-48-1	
1,2-Dibromoethane (EDB)	**<0.18**	ug/L	0.60	0.18	1		03/20/20 17:59	106-93-4	
Dibromomethane	**<0.15**	ug/L	0.51	0.15	1		03/20/20 17:59	74-95-3	
1,2-Dichlorobenzene	**<0.14**	ug/L	0.45	0.14	1		03/20/20 17:59	95-50-1	
1,3-Dichlorobenzene	**<0.12**	ug/L	0.39	0.12	1		03/20/20 17:59	541-73-1	
1,4-Dichlorobenzene	**<0.082**	ug/L	0.27	0.082	1		03/20/20 17:59	106-46-7	
Dichlorodifluoromethane	**<0.20**	ug/L	0.65	0.20	1		03/20/20 17:59	75-71-8	
1,1-Dichloroethane	**<0.17**	ug/L	0.55	0.17	1		03/20/20 17:59	75-34-3	
1,2-Dichloroethane	**<0.25**	ug/L	0.85	0.25	1		03/20/20 17:59	107-06-2	
1,1-Dichloroethene	**<0.13**	ug/L	0.42	0.13	1		03/20/20 17:59	75-35-4	
cis-1,2-Dichloroethene	**<0.20**	ug/L	0.66	0.20	1		03/20/20 17:59	156-59-2	
trans-1,2-Dichloroethene	**<0.19**	ug/L	0.64	0.19	1		03/20/20 17:59	156-60-5	
Dichlorofluoromethane	**<0.19**	ug/L	0.63	0.19	1		03/20/20 17:59	75-43-4	
1,2-Dichloropropane	**<0.14**	ug/L	0.46	0.14	1		03/20/20 17:59	78-87-5	
1,3-Dichloropropane	**<0.13**	ug/L	0.43	0.13	1		03/20/20 17:59	142-28-9	
2,2-Dichloropropane	**<0.20**	ug/L	0.66	0.20	1		03/20/20 17:59	594-20-7	
1,1-Dichloropropene	**<0.22**	ug/L	0.74	0.22	1		03/20/20 17:59	563-58-6	
cis-1,3-Dichloropropene	**<0.077**	ug/L	0.26	0.077	1		03/20/20 17:59	10061-01-5	
trans-1,3-Dichloropropene	**<0.32**	ug/L	1.0	0.32	1		03/20/20 17:59	10061-02-6	
Diethyl ether (Ethyl ether)	**<0.18**	ug/L	0.58	0.18	1		03/20/20 17:59	60-29-7	
Ethylbenzene	**<0.075**	ug/L	0.25	0.075	1		03/20/20 17:59	100-41-4	
Hexachloro-1,3-butadiene	**<0.40**	ug/L	1.3	0.40	1		03/20/20 17:59	87-68-3	
Isopropylbenzene (Cumene)	**<0.13**	ug/L	0.44	0.13	1		03/20/20 17:59	98-82-8	
p-Isopropyltoluene	**<0.18**	ug/L	0.59	0.18	1		03/20/20 17:59	99-87-6	
Methylene Chloride	**<1.1**	ug/L	3.7	1.1	1		03/20/20 17:59	75-09-2	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
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ANALYTICAL RESULTS

Project: 191231 Blackhawk Junction-Revised Report
Pace Project No.: 10511741

Sample: SB-03-GW (18.8-30) **Lab ID: 10511741007** Collected: 03/10/20 15:40 Received: 03/13/20 15:00 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260B VOC	Analytical Method: EPA 8260B Pace Analytical Services - Minneapolis								
4-Methyl-2-pentanone (MIBK)	**<0.54**	ug/L	1.8	0.54	1		03/20/20 17:59	108-10-1	
Methyl-tert-butyl ether	**<0.12**	ug/L	0.39	0.12	1		03/20/20 17:59	1634-04-4	
Naphthalene	**<0.68**	ug/L	2.3	0.68	1		03/20/20 17:59	91-20-3	
n-Propylbenzene	**<0.18**	ug/L	0.61	0.18	1		03/20/20 17:59	103-65-1	
Styrene	**<0.11**	ug/L	0.37	0.11	1		03/20/20 17:59	100-42-5	
1,1,1,2-Tetrachloroethane	**<0.13**	ug/L	0.44	0.13	1		03/20/20 17:59	630-20-6	
1,1,2,2-Tetrachloroethane	**<0.16**	ug/L	0.53	0.16	1		03/20/20 17:59	79-34-5	
Tetrachloroethene	**27.2**	ug/L	0.58	0.17	1		03/20/20 17:59	127-18-4	
Tetrahydrofuran	**<3.4**	ug/L	11.3	3.4	1		03/20/20 17:59	109-99-9	
Toluene	**<0.12**	ug/L	0.41	0.12	1		03/20/20 17:59	108-88-3	
1,2,3-Trichlorobenzene	**<0.17**	ug/L	0.57	0.17	1		03/20/20 17:59	87-61-6	
1,2,4-Trichlorobenzene	**<0.19**	ug/L	0.63	0.19	1		03/20/20 17:59	120-82-1	
1,1,1-Trichloroethane	**<0.17**	ug/L	0.57	0.17	1		03/20/20 17:59	71-55-6	
1,1,2-Trichloroethane	**<0.19**	ug/L	0.64	0.19	1		03/20/20 17:59	79-00-5	
Trichloroethene	**<0.15**	ug/L	0.50	0.15	1		03/20/20 17:59	79-01-6	
Trichlorofluoromethane	**<0.12**	ug/L	0.41	0.12	1		03/20/20 17:59	75-69-4	
1,2,3-Trichloropropane	**<0.59**	ug/L	2.0	0.59	1		03/20/20 17:59	96-18-4	
1,1,2-Trichlorotrifluoroethane	**<0.30**	ug/L	1.0	0.30	1		03/20/20 17:59	76-13-1	
1,2,4-Trimethylbenzene	**<0.17**	ug/L	0.57	0.17	1		03/20/20 17:59	95-63-6	
1,3,5-Trimethylbenzene	**<0.12**	ug/L	0.41	0.12	1		03/20/20 17:59	108-67-8	
Vinyl chloride	**<0.099**	ug/L	0.33	0.099	1		03/20/20 17:59	75-01-4	
Xylene (Total)	**<0.29**	ug/L	0.96	0.29	1		03/20/20 17:59	1330-20-7	
Surrogates									
1,2-Dichloroethane-d4 (S)	100	%.	75-125		1		03/20/20 17:59	17060-07-0	
Toluene-d8 (S)	99	%.	75-125		1		03/20/20 17:59	2037-26-5	
4-Bromofluorobenzene (S)	103	%.	75-125		1		03/20/20 17:59	460-00-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: 191231 Blackhawk Junction-Revised Report
Pace Project No.: 10511741

Sample: SB-04-GW (18.5-30) **Lab ID: 10511741009** Collected: 03/10/20 17:05 Received: 03/13/20 15:00 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260B VOC	Analytical Method: EPA 8260B Pace Analytical Services - Minneapolis								
Acetone	**<2.5**	ug/L	8.4	2.5	1		03/20/20 18:16	67-64-1	
Allyl chloride	**<0.27**	ug/L	0.90	0.27	1		03/20/20 18:16	107-05-1	
Benzene	**<0.12**	ug/L	0.40	0.12	1		03/20/20 18:16	71-43-2	
Bromobenzene	**<0.13**	ug/L	0.44	0.13	1		03/20/20 18:16	108-86-1	
Bromochloromethane	**<0.36**	ug/L	1.2	0.36	1		03/20/20 18:16	74-97-5	
Bromodichloromethane	**<0.11**	ug/L	0.38	0.11	1		03/20/20 18:16	75-27-4	
Bromoform	**<0.27**	ug/L	0.90	0.27	1		03/20/20 18:16	75-25-2	
Bromomethane	**<0.63**	ug/L	2.1	0.63	1		03/20/20 18:16	74-83-9	
2-Butanone (MEK)	**<0.88**	ug/L	2.9	0.88	1		03/20/20 18:16	78-93-3	
n-Butylbenzene	**<0.16**	ug/L	0.52	0.16	1		03/20/20 18:16	104-51-8	
sec-Butylbenzene	**<0.15**	ug/L	0.49	0.15	1		03/20/20 18:16	135-98-8	
tert-Butylbenzene	**<0.13**	ug/L	0.43	0.13	1		03/20/20 18:16	98-06-6	
Carbon tetrachloride	**<0.17**	ug/L	0.56	0.17	1		03/20/20 18:16	56-23-5	
Chlorobenzene	**<0.076**	ug/L	0.25	0.076	1		03/20/20 18:16	108-90-7	
Chloroethane	**<0.42**	ug/L	1.4	0.42	1		03/20/20 18:16	75-00-3	
Chloroform	**<0.48**	ug/L	1.6	0.48	1		03/20/20 18:16	67-66-3	
Chloromethane	**<0.15**	ug/L	0.49	0.15	1		03/20/20 18:16	74-87-3	
2-Chlorotoluene	**<0.16**	ug/L	0.55	0.16	1		03/20/20 18:16	95-49-8	
4-Chlorotoluene	**<0.050**	ug/L	0.17	0.050	1		03/20/20 18:16	106-43-4	
1,2-Dibromo-3-chloropropane	**<1.2**	ug/L	4.2	1.2	1		03/20/20 18:16	96-12-8	
Dibromochloromethane	**<0.20**	ug/L	0.66	0.20	1		03/20/20 18:16	124-48-1	
1,2-Dibromoethane (EDB)	**<0.18**	ug/L	0.60	0.18	1		03/20/20 18:16	106-93-4	
Dibromomethane	**<0.15**	ug/L	0.51	0.15	1		03/20/20 18:16	74-95-3	
1,2-Dichlorobenzene	**<0.14**	ug/L	0.45	0.14	1		03/20/20 18:16	95-50-1	
1,3-Dichlorobenzene	**<0.12**	ug/L	0.39	0.12	1		03/20/20 18:16	541-73-1	
1,4-Dichlorobenzene	**<0.082**	ug/L	0.27	0.082	1		03/20/20 18:16	106-46-7	
Dichlorodifluoromethane	**<0.20**	ug/L	0.65	0.20	1		03/20/20 18:16	75-71-8	
1,1-Dichloroethane	**<0.17**	ug/L	0.55	0.17	1		03/20/20 18:16	75-34-3	
1,2-Dichloroethane	**<0.25**	ug/L	0.85	0.25	1		03/20/20 18:16	107-06-2	
1,1-Dichloroethene	**<0.13**	ug/L	0.42	0.13	1		03/20/20 18:16	75-35-4	
cis-1,2-Dichloroethene	**<0.20**	ug/L	0.66	0.20	1		03/20/20 18:16	156-59-2	
trans-1,2-Dichloroethene	**<0.19**	ug/L	0.64	0.19	1		03/20/20 18:16	156-60-5	
Dichlorofluoromethane	**<0.19**	ug/L	0.63	0.19	1		03/20/20 18:16	75-43-4	
1,2-Dichloropropane	**<0.14**	ug/L	0.46	0.14	1		03/20/20 18:16	78-87-5	
1,3-Dichloropropane	**<0.13**	ug/L	0.43	0.13	1		03/20/20 18:16	142-28-9	
2,2-Dichloropropane	**<0.20**	ug/L	0.66	0.20	1		03/20/20 18:16	594-20-7	
1,1-Dichloropropene	**<0.22**	ug/L	0.74	0.22	1		03/20/20 18:16	563-58-6	
cis-1,3-Dichloropropene	**<0.077**	ug/L	0.26	0.077	1		03/20/20 18:16	10061-01-5	
trans-1,3-Dichloropropene	**<0.32**	ug/L	1.0	0.32	1		03/20/20 18:16	10061-02-6	
Diethyl ether (Ethyl ether)	**<0.18**	ug/L	0.58	0.18	1		03/20/20 18:16	60-29-7	
Ethylbenzene	**<0.075**	ug/L	0.25	0.075	1		03/20/20 18:16	100-41-4	
Hexachloro-1,3-butadiene	**<0.40**	ug/L	1.3	0.40	1		03/20/20 18:16	87-68-3	
Isopropylbenzene (Cumene)	**<0.13**	ug/L	0.44	0.13	1		03/20/20 18:16	98-82-8	
p-Isopropyltoluene	**<0.18**	ug/L	0.59	0.18	1		03/20/20 18:16	99-87-6	
Methylene Chloride	**<1.1**	ug/L	3.7	1.1	1		03/20/20 18:16	75-09-2	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

ANALYTICAL RESULTS

Project: 191231 Blackhawk Junction-Revised Report
Pace Project No.: 10511741

Sample: SB-04-GW (18.5-30) **Lab ID: 10511741009** Collected: 03/10/20 17:05 Received: 03/13/20 15:00 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260B VOC	Analytical Method: EPA 8260B Pace Analytical Services - Minneapolis								
4-Methyl-2-pentanone (MIBK)	**<0.54**	ug/L	1.8	0.54	1		03/20/20 18:16	108-10-1	
Methyl-tert-butyl ether	**<0.12**	ug/L	0.39	0.12	1		03/20/20 18:16	1634-04-4	
Naphthalene	**<0.68**	ug/L	2.3	0.68	1		03/20/20 18:16	91-20-3	
n-Propylbenzene	**<0.18**	ug/L	0.61	0.18	1		03/20/20 18:16	103-65-1	
Styrene	**<0.11**	ug/L	0.37	0.11	1		03/20/20 18:16	100-42-5	
1,1,1,2-Tetrachloroethane	**<0.13**	ug/L	0.44	0.13	1		03/20/20 18:16	630-20-6	
1,1,2,2-Tetrachloroethane	**<0.16**	ug/L	0.53	0.16	1		03/20/20 18:16	79-34-5	
Tetrachloroethene	**5.1**	ug/L	0.58	0.17	1		03/20/20 18:16	127-18-4	
Tetrahydrofuran	**<3.4**	ug/L	11.3	3.4	1		03/20/20 18:16	109-99-9	
Toluene	**<0.12**	ug/L	0.41	0.12	1		03/20/20 18:16	108-88-3	
1,2,3-Trichlorobenzene	**<0.17**	ug/L	0.57	0.17	1		03/20/20 18:16	87-61-6	
1,2,4-Trichlorobenzene	**<0.19**	ug/L	0.63	0.19	1		03/20/20 18:16	120-82-1	
1,1,1-Trichloroethane	**<0.17**	ug/L	0.57	0.17	1		03/20/20 18:16	71-55-6	
1,1,2-Trichloroethane	**<0.19**	ug/L	0.64	0.19	1		03/20/20 18:16	79-00-5	
Trichloroethene	**<0.15**	ug/L	0.50	0.15	1		03/20/20 18:16	79-01-6	
Trichlorofluoromethane	**<0.12**	ug/L	0.41	0.12	1		03/20/20 18:16	75-69-4	
1,2,3-Trichloropropane	**<0.59**	ug/L	2.0	0.59	1		03/20/20 18:16	96-18-4	
1,1,2-Trichlorotrifluoroethane	**<0.30**	ug/L	1.0	0.30	1		03/20/20 18:16	76-13-1	
1,2,4-Trimethylbenzene	**<0.17**	ug/L	0.57	0.17	1		03/20/20 18:16	95-63-6	
1,3,5-Trimethylbenzene	**<0.12**	ug/L	0.41	0.12	1		03/20/20 18:16	108-67-8	
Vinyl chloride	**<0.099**	ug/L	0.33	0.099	1		03/20/20 18:16	75-01-4	
Xylene (Total)	**<0.29**	ug/L	0.96	0.29	1		03/20/20 18:16	1330-20-7	
Surrogates									
1,2-Dichloroethane-d4 (S)	99	%.	75-125		1		03/20/20 18:16	17060-07-0	
Toluene-d8 (S)	98	%.	75-125		1		03/20/20 18:16	2037-26-5	
4-Bromofluorobenzene (S)	105	%.	75-125		1		03/20/20 18:16	460-00-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

ANALYTICAL RESULTS

Project: 191231 Blackhawk Junction-Revised Report
Pace Project No.: 10511741

Sample: SB-04-GW (18.5-30) **Lab ID: 10511741010** Collected: 03/10/20 17:10 Received: 03/13/20 15:00 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260B VOC	Analytical Method: EPA 8260B Pace Analytical Services - Minneapolis								
Acetone	**<2.5**	ug/L	8.4	2.5	1		03/20/20 18:33	67-64-1	
Allyl chloride	**<0.27**	ug/L	0.90	0.27	1		03/20/20 18:33	107-05-1	
Benzene	**<0.12**	ug/L	0.40	0.12	1		03/20/20 18:33	71-43-2	
Bromobenzene	**<0.13**	ug/L	0.44	0.13	1		03/20/20 18:33	108-86-1	
Bromochloromethane	**<0.36**	ug/L	1.2	0.36	1		03/20/20 18:33	74-97-5	
Bromodichloromethane	**<0.11**	ug/L	0.38	0.11	1		03/20/20 18:33	75-27-4	
Bromoform	**<0.27**	ug/L	0.90	0.27	1		03/20/20 18:33	75-25-2	
Bromomethane	**<0.63**	ug/L	2.1	0.63	1		03/20/20 18:33	74-83-9	
2-Butanone (MEK)	**<0.88**	ug/L	2.9	0.88	1		03/20/20 18:33	78-93-3	
n-Butylbenzene	**<0.16**	ug/L	0.52	0.16	1		03/20/20 18:33	104-51-8	
sec-Butylbenzene	**<0.15**	ug/L	0.49	0.15	1		03/20/20 18:33	135-98-8	
tert-Butylbenzene	**<0.13**	ug/L	0.43	0.13	1		03/20/20 18:33	98-06-6	
Carbon tetrachloride	**<0.17**	ug/L	0.56	0.17	1		03/20/20 18:33	56-23-5	
Chlorobenzene	**<0.076**	ug/L	0.25	0.076	1		03/20/20 18:33	108-90-7	
Chloroethane	**<0.42**	ug/L	1.4	0.42	1		03/20/20 18:33	75-00-3	
Chloroform	**<0.48**	ug/L	1.6	0.48	1		03/20/20 18:33	67-66-3	
Chloromethane	**<0.15**	ug/L	0.49	0.15	1		03/20/20 18:33	74-87-3	
2-Chlorotoluene	**<0.16**	ug/L	0.55	0.16	1		03/20/20 18:33	95-49-8	
4-Chlorotoluene	**<0.050**	ug/L	0.17	0.050	1		03/20/20 18:33	106-43-4	
1,2-Dibromo-3-chloropropane	**<1.2**	ug/L	4.2	1.2	1		03/20/20 18:33	96-12-8	
Dibromochloromethane	**<0.20**	ug/L	0.66	0.20	1		03/20/20 18:33	124-48-1	
1,2-Dibromoethane (EDB)	**<0.18**	ug/L	0.60	0.18	1		03/20/20 18:33	106-93-4	
Dibromomethane	**<0.15**	ug/L	0.51	0.15	1		03/20/20 18:33	74-95-3	
1,2-Dichlorobenzene	**<0.14**	ug/L	0.45	0.14	1		03/20/20 18:33	95-50-1	
1,3-Dichlorobenzene	**<0.12**	ug/L	0.39	0.12	1		03/20/20 18:33	541-73-1	
1,4-Dichlorobenzene	**<0.082**	ug/L	0.27	0.082	1		03/20/20 18:33	106-46-7	
Dichlorodifluoromethane	**<0.20**	ug/L	0.65	0.20	1		03/20/20 18:33	75-71-8	
1,1-Dichloroethane	**<0.17**	ug/L	0.55	0.17	1		03/20/20 18:33	75-34-3	
1,2-Dichloroethane	**<0.25**	ug/L	0.85	0.25	1		03/20/20 18:33	107-06-2	
1,1-Dichloroethene	**<0.13**	ug/L	0.42	0.13	1		03/20/20 18:33	75-35-4	
cis-1,2-Dichloroethene	**<0.20**	ug/L	0.66	0.20	1		03/20/20 18:33	156-59-2	
trans-1,2-Dichloroethene	**<0.19**	ug/L	0.64	0.19	1		03/20/20 18:33	156-60-5	
Dichlorofluoromethane	**<0.19**	ug/L	0.63	0.19	1		03/20/20 18:33	75-43-4	
1,2-Dichloropropane	**<0.14**	ug/L	0.46	0.14	1		03/20/20 18:33	78-87-5	
1,3-Dichloropropane	**<0.13**	ug/L	0.43	0.13	1		03/20/20 18:33	142-28-9	
2,2-Dichloropropane	**<0.20**	ug/L	0.66	0.20	1		03/20/20 18:33	594-20-7	
1,1-Dichloropropene	**<0.22**	ug/L	0.74	0.22	1		03/20/20 18:33	563-58-6	
cis-1,3-Dichloropropene	**<0.077**	ug/L	0.26	0.077	1		03/20/20 18:33	10061-01-5	
trans-1,3-Dichloropropene	**<0.32**	ug/L	1.0	0.32	1		03/20/20 18:33	10061-02-6	
Diethyl ether (Ethyl ether)	**<0.18**	ug/L	0.58	0.18	1		03/20/20 18:33	60-29-7	
Ethylbenzene	**<0.075**	ug/L	0.25	0.075	1		03/20/20 18:33	100-41-4	
Hexachloro-1,3-butadiene	**<0.40**	ug/L	1.3	0.40	1		03/20/20 18:33	87-68-3	
Isopropylbenzene (Cumene)	**<0.13**	ug/L	0.44	0.13	1		03/20/20 18:33	98-82-8	
p-Isopropyltoluene	**<0.18**	ug/L	0.59	0.18	1		03/20/20 18:33	99-87-6	
Methylene Chloride	**<1.1**	ug/L	3.7	1.1	1		03/20/20 18:33	75-09-2	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414
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ANALYTICAL RESULTS

Project: 191231 Blackhawk Junction-Revised Report
Pace Project No.: 10511741

Sample: SB-04-GW (18.5-30) **Lab ID: 10511741010** Collected: 03/10/20 17:10 Received: 03/13/20 15:00 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260B VOC	Analytical Method: EPA 8260B Pace Analytical Services - Minneapolis								
4-Methyl-2-pentanone (MIBK)	**<0.54**	ug/L	1.8	0.54	1		03/20/20 18:33	108-10-1	
Methyl-tert-butyl ether	**<0.12**	ug/L	0.39	0.12	1		03/20/20 18:33	1634-04-4	
Naphthalene	**<0.68**	ug/L	2.3	0.68	1		03/20/20 18:33	91-20-3	
n-Propylbenzene	**<0.18**	ug/L	0.61	0.18	1		03/20/20 18:33	103-65-1	
Styrene	**<0.11**	ug/L	0.37	0.11	1		03/20/20 18:33	100-42-5	
1,1,1,2-Tetrachloroethane	**<0.13**	ug/L	0.44	0.13	1		03/20/20 18:33	630-20-6	
1,1,2,2-Tetrachloroethane	**<0.16**	ug/L	0.53	0.16	1		03/20/20 18:33	79-34-5	
Tetrachloroethene	**4.7**	ug/L	0.58	0.17	1		03/20/20 18:33	127-18-4	
Tetrahydrofuran	**<3.4**	ug/L	11.3	3.4	1		03/20/20 18:33	109-99-9	
Toluene	**<0.12**	ug/L	0.41	0.12	1		03/20/20 18:33	108-88-3	
1,2,3-Trichlorobenzene	**<0.17**	ug/L	0.57	0.17	1		03/20/20 18:33	87-61-6	
1,2,4-Trichlorobenzene	**<0.19**	ug/L	0.63	0.19	1		03/20/20 18:33	120-82-1	
1,1,1-Trichloroethane	**<0.17**	ug/L	0.57	0.17	1		03/20/20 18:33	71-55-6	
1,1,2-Trichloroethane	**<0.19**	ug/L	0.64	0.19	1		03/20/20 18:33	79-00-5	
Trichloroethene	**<0.15**	ug/L	0.50	0.15	1		03/20/20 18:33	79-01-6	
Trichlorofluoromethane	**<0.12**	ug/L	0.41	0.12	1		03/20/20 18:33	75-69-4	
1,2,3-Trichloropropane	**<0.59**	ug/L	2.0	0.59	1		03/20/20 18:33	96-18-4	
1,1,2-Trichlorotrifluoroethane	**<0.30**	ug/L	1.0	0.30	1		03/20/20 18:33	76-13-1	
1,2,4-Trimethylbenzene	**<0.17**	ug/L	0.57	0.17	1		03/20/20 18:33	95-63-6	
1,3,5-Trimethylbenzene	**<0.12**	ug/L	0.41	0.12	1		03/20/20 18:33	108-67-8	
Vinyl chloride	**<0.099**	ug/L	0.33	0.099	1		03/20/20 18:33	75-01-4	
Xylene (Total)	**<0.29**	ug/L	0.96	0.29	1		03/20/20 18:33	1330-20-7	
Surrogates									
1,2-Dichloroethane-d4 (S)	101	%.	75-125		1		03/20/20 18:33	17060-07-0	
Toluene-d8 (S)	99	%.	75-125		1		03/20/20 18:33	2037-26-5	
4-Bromofluorobenzene (S)	106	%.	75-125		1		03/20/20 18:33	460-00-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
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(612)607-1700

ANALYTICAL RESULTS

Project: 191231 Blackhawk Junction-Revised Report
Pace Project No.: 10511741

Sample: SB-05-SS (4-8) **Lab ID: 10511741011** Collected: 03/11/20 09:30 Received: 03/13/20 15:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIDRO GCS	Analytical Method: WI MOD DRO Preparation Method: WI MOD DRO Pace Analytical Services - Minneapolis								
WDRO C10-C28	**<3.5**	mg/kg	11.7	3.5	1	03/16/20 12:13	03/18/20 19:24		
Surrogates									
n-Triacontane (S)	92	%.	50-150		1	03/16/20 12:13	03/18/20 19:24	638-68-6	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050 Pace Analytical Services - Green Bay								
Arsenic	**3.3J**	mg/kg	5.7	1.7	1	03/18/20 08:03	03/18/20 15:44	7440-38-2	
Barium	**79.0**	mg/kg	0.58	0.18	1	03/18/20 08:03	03/18/20 15:44	7440-39-3	
Cadmium	**0.16J**	mg/kg	0.58	0.16	1	03/18/20 08:03	03/18/20 15:44	7440-43-9	
Chromium	**14.8**	mg/kg	1.2	0.32	1	03/18/20 08:03	03/18/20 15:44	7440-47-3	
Lead	**12.5**	mg/kg	2.3	0.70	1	03/18/20 08:03	03/18/20 15:44	7439-92-1	
Selenium	**<5.1**	mg/kg	5.1	1.5	1	03/18/20 08:03	03/18/20 15:44	7782-49-2	
Silver	**<1.2**	mg/kg	1.2	0.36	1	03/18/20 08:03	03/18/20 15:44	7440-22-4	
7471 Mercury	Analytical Method: EPA 7471 Preparation Method: EPA 7471 Pace Analytical Services - Green Bay								
Mercury	**<0.038**	mg/kg	0.038	0.011	1	03/19/20 10:38	03/20/20 07:53	7439-97-6	
Dry Weight / %M by ASTM D2974	Analytical Method: ASTM D2974 Pace Analytical Services - Minneapolis								
Percent Moisture	**18.4**	%	0.10	0.10	1		03/16/20 12:19		N2
8260B MSV 5030 Med Level	Analytical Method: EPA 8260B Preparation Method: EPA 5035/5030B Pace Analytical Services - Minneapolis								
Acetone	**<489**	ug/kg	1630	489	1	03/17/20 12:09	03/17/20 17:25	67-64-1	
Allyl chloride	**<51.5**	ug/kg	171	51.5	1	03/17/20 12:09	03/17/20 17:25	107-05-1	
Benzene	**<11.7**	ug/kg	38.9	11.7	1	03/17/20 12:09	03/17/20 17:25	71-43-2	
Bromobenzene	**<8.3**	ug/kg	27.7	8.3	1	03/17/20 12:09	03/17/20 17:25	108-86-1	
Bromochloromethane	**<31.4**	ug/kg	105	31.4	1	03/17/20 12:09	03/17/20 17:25	74-97-5	
Bromodichloromethane	**<20.2**	ug/kg	67.3	20.2	1	03/17/20 12:09	03/17/20 17:25	75-27-4	
Bromoform	**<84.1**	ug/kg	280	84.1	1	03/17/20 12:09	03/17/20 17:25	75-25-2	
Bromomethane	**<168**	ug/kg	559	168	1	03/17/20 12:09	03/17/20 17:25	74-83-9	
2-Butanone (MEK)	**<39.7**	ug/kg	132	39.7	1	03/17/20 12:09	03/17/20 17:25	78-93-3	
n-Butylbenzene	**<14.0**	ug/kg	46.6	14.0	1	03/17/20 12:09	03/17/20 17:25	104-51-8	
sec-Butylbenzene	**<27.8**	ug/kg	92.7	27.8	1	03/17/20 12:09	03/17/20 17:25	135-98-8	
tert-Butylbenzene	**<19.7**	ug/kg	65.6	19.7	1	03/17/20 12:09	03/17/20 17:25	98-06-6	
Carbon tetrachloride	**<30.9**	ug/kg	103	30.9	1	03/17/20 12:09	03/17/20 17:25	56-23-5	
Chlorobenzene	**<10.5**	ug/kg	34.8	10.5	1	03/17/20 12:09	03/17/20 17:25	108-90-7	
Chloroethane	**<88.7**	ug/kg	295	88.7	1	03/17/20 12:09	03/17/20 17:25	75-00-3	
Chloroform	**<27.2**	ug/kg	90.6	27.2	1	03/17/20 12:09	03/17/20 17:25	67-66-3	
Chloromethane	**<34.6**	ug/kg	115	34.6	1	03/17/20 12:09	03/17/20 17:25	74-87-3	
2-Chlorotoluene	**<15.6**	ug/kg	52.1	15.6	1	03/17/20 12:09	03/17/20 17:25	95-49-8	
4-Chlorotoluene	**<8.1**	ug/kg	27.0	8.1	1	03/17/20 12:09	03/17/20 17:25	106-43-4	
1,2-Dibromo-3-chloropropane	**<163**	ug/kg	542	163	1	03/17/20 12:09	03/17/20 17:25	96-12-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: 191231 Blackhawk Junction-Revised Report
Pace Project No.: 10511741

Sample: SB-05-SS (4-8) **Lab ID: 10511741011** Collected: 03/11/20 09:30 Received: 03/13/20 15:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV 5030 Med Level	Analytical Method: EPA 8260B Preparation Method: EPA 5035/5030B Pace Analytical Services - Minneapolis								
Dibromochloromethane	**<21.5**	ug/kg	71.5	21.5	1	03/17/20 12:09	03/17/20 17:25	124-48-1	
1,2-Dibromoethane (EDB)	**<22.2**	ug/kg	74.1	22.2	1	03/17/20 12:09	03/17/20 17:25	106-93-4	
Dibromomethane	**<27.7**	ug/kg	92.3	27.7	1	03/17/20 12:09	03/17/20 17:25	74-95-3	
1,2-Dichlorobenzene	**<12.0**	ug/kg	40.0	12.0	1	03/17/20 12:09	03/17/20 17:25	95-50-1	
1,3-Dichlorobenzene	**<7.9**	ug/kg	26.2	7.9	1	03/17/20 12:09	03/17/20 17:25	541-73-1	
1,4-Dichlorobenzene	**<10.1**	ug/kg	33.5	10.1	1	03/17/20 12:09	03/17/20 17:25	106-46-7	
Dichlorodifluoromethane	**<33.8**	ug/kg	113	33.8	1	03/17/20 12:09	03/17/20 17:25	75-71-8	
1,1-Dichloroethane	**<28.6**	ug/kg	95.2	28.6	1	03/17/20 12:09	03/17/20 17:25	75-34-3	
1,2-Dichloroethane	**<24.3**	ug/kg	80.8	24.3	1	03/17/20 12:09	03/17/20 17:25	107-06-2	
1,1-Dichloroethene	**<22.8**	ug/kg	75.8	22.8	1	03/17/20 12:09	03/17/20 17:25	75-35-4	
cis-1,2-Dichloroethene	**<17.7**	ug/kg	58.8	17.7	1	03/17/20 12:09	03/17/20 17:25	156-59-2	
trans-1,2-Dichloroethene	**<29.1**	ug/kg	96.9	29.1	1	03/17/20 12:09	03/17/20 17:25	156-60-5	
Dichlorofluoromethane	**<177**	ug/kg	588	177	1	03/17/20 12:09	03/17/20 17:25	75-43-4	
1,2-Dichloropropane	**<29.0**	ug/kg	96.5	29.0	1	03/17/20 12:09	03/17/20 17:25	78-87-5	
1,3-Dichloropropane	**<23.4**	ug/kg	77.9	23.4	1	03/17/20 12:09	03/17/20 17:25	142-28-9	
2,2-Dichloropropane	**<24.1**	ug/kg	80.4	24.1	1	03/17/20 12:09	03/17/20 17:25	594-20-7	
1,1-Dichloropropene	**<26.2**	ug/kg	87.2	26.2	1	03/17/20 12:09	03/17/20 17:25	563-58-6	
cis-1,3-Dichloropropene	**<4.7**	ug/kg	15.6	4.7	1	03/17/20 12:09	03/17/20 17:25	10061-01-5	
trans-1,3-Dichloropropene	**<8.0**	ug/kg	26.7	8.0	1	03/17/20 12:09	03/17/20 17:25	10061-02-6	
Diethyl ether (Ethyl ether)	**<54.1**	ug/kg	180	54.1	1	03/17/20 12:09	03/17/20 17:25	60-29-7	
Ethylbenzene	**<11.3**	ug/kg	37.5	11.3	1	03/17/20 12:09	03/17/20 17:25	100-41-4	
Hexachloro-1,3-butadiene	**<28.7**	ug/kg	95.6	28.7	1	03/17/20 12:09	03/17/20 17:25	87-68-3	
Isopropylbenzene (Cumene)	**<24.0**	ug/kg	80.0	24.0	1	03/17/20 12:09	03/17/20 17:25	98-82-8	
p-Isopropyltoluene	**<20.1**	ug/kg	66.9	20.1	1	03/17/20 12:09	03/17/20 17:25	99-87-6	
Methylene Chloride	**<120**	ug/kg	399	120	1	03/17/20 12:09	03/17/20 17:25	75-09-2	
4-Methyl-2-pentanone (MIBK)	**<30.4**	ug/kg	101	30.4	1	03/17/20 12:09	03/17/20 17:25	108-10-1	
Methyl-tert-butyl ether	**<12.7**	ug/kg	42.2	12.7	1	03/17/20 12:09	03/17/20 17:25	1634-04-4	
Naphthalene	**<71.4**	ug/kg	238	71.4	1	03/17/20 12:09	03/17/20 17:25	91-20-3	
n-Propylbenzene	**<13.3**	ug/kg	44.4	13.3	1	03/17/20 12:09	03/17/20 17:25	103-65-1	
Styrene	**<7.7**	ug/kg	25.5	7.7	1	03/17/20 12:09	03/17/20 17:25	100-42-5	
1,1,1,2-Tetrachloroethane	**<16.8**	ug/kg	55.9	16.8	1	03/17/20 12:09	03/17/20 17:25	630-20-6	
1,1,2,2-Tetrachloroethane	**<20.5**	ug/kg	68.1	20.5	1	03/17/20 12:09	03/17/20 17:25	79-34-5	
Tetrachloroethene	**<30.1**	ug/kg	100	30.1	1	03/17/20 12:09	03/17/20 17:25	127-18-4	
Tetrahydrofuran	**<524**	ug/kg	1740	524	1	03/17/20 12:09	03/17/20 17:25	109-99-9	
Toluene	**<27.2**	ug/kg	90.6	27.2	1	03/17/20 12:09	03/17/20 17:25	108-88-3	
1,2,3-Trichlorobenzene	**<19.6**	ug/kg	65.2	19.6	1	03/17/20 12:09	03/17/20 17:25	87-61-6	
1,2,4-Trichlorobenzene	**<15.6**	ug/kg	52.1	15.6	1	03/17/20 12:09	03/17/20 17:25	120-82-1	
1,1,1-Trichloroethane	**<27.3**	ug/kg	91.0	27.3	1	03/17/20 12:09	03/17/20 17:25	71-55-6	
1,1,2-Trichloroethane	**<31.5**	ug/kg	105	31.5	1	03/17/20 12:09	03/17/20 17:25	79-00-5	
Trichloroethene	**<26.8**	ug/kg	89.3	26.8	1	03/17/20 12:09	03/17/20 17:25	79-01-6	
Trichlorofluoromethane	**<120**	ug/kg	401	120	1	03/17/20 12:09	03/17/20 17:25	75-69-4	
1,2,3-Trichloropropane	**<74.1**	ug/kg	247	74.1	1	03/17/20 12:09	03/17/20 17:25	96-18-4	
1,1,2-Trichlorotrifluoroethane	**<112**	ug/kg	373	112	1	03/17/20 12:09	03/17/20 17:25	76-13-1	
1,2,4-Trimethylbenzene	**<28.0**	ug/kg	93.1	28.0	1	03/17/20 12:09	03/17/20 17:25	95-63-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

ANALYTICAL RESULTS

Project: 191231 Blackhawk Junction-Revised Report
Pace Project No.: 10511741

Sample: SB-05-SS (4-8) **Lab ID: 10511741011** Collected: 03/11/20 09:30 Received: 03/13/20 15:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV 5030 Med Level	Analytical Method: EPA 8260B Preparation Method: EPA 5035/5030B Pace Analytical Services - Minneapolis								
1,3,5-Trimethylbenzene	**<20.3**	ug/kg	67.7	20.3	1	03/17/20 12:09	03/17/20 17:25	108-67-8	
Vinyl chloride	**<12.6**	ug/kg	42.0	12.6	1	03/17/20 12:09	03/17/20 17:25	75-01-4	
Xylene (Total)	**<30.6**	ug/kg	102	30.6	1	03/17/20 12:09	03/17/20 17:25	1330-20-7	
Surrogates									
1,2-Dichloroethane-d4 (S)	111	%.	75-125		1	03/17/20 12:09	03/17/20 17:25	17060-07-0	
Toluene-d8 (S)	100	%.	75-125		1	03/17/20 12:09	03/17/20 17:25	2037-26-5	
4-Bromofluorobenzene (S)	104	%.	75-125		1	03/17/20 12:09	03/17/20 17:25	460-00-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 191231 Blackhawk Junction-Revised Report
Pace Project No.: 10511741

Sample: SB-06-SS (4-8) **Lab ID: 10511741012** Collected: 03/11/20 10:00 Received: 03/13/20 15:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIDRO GCS	Analytical Method: WI MOD DRO Preparation Method: WI MOD DRO Pace Analytical Services - Minneapolis								
WDRO C10-C28	**<3.5**	mg/kg	11.5	3.5	1	03/16/20 12:13	03/18/20 19:31		
Surrogates									
n-Triacontane (S)	94	%.	50-150		1	03/16/20 12:13	03/18/20 19:31	638-68-6	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050 Pace Analytical Services - Green Bay								
Arsenic	**3.6J**	mg/kg	5.8	1.7	1	03/18/20 08:03	03/18/20 15:47	7440-38-2	
Barium	**101**	mg/kg	0.59	0.18	1	03/18/20 08:03	03/18/20 15:47	7440-39-3	
Cadmium	**<0.59**	mg/kg	0.59	0.16	1	03/18/20 08:03	03/18/20 15:47	7440-43-9	
Chromium	**18.5**	mg/kg	1.2	0.33	1	03/18/20 08:03	03/18/20 15:47	7440-47-3	
Lead	**9.4**	mg/kg	2.4	0.71	1	03/18/20 08:03	03/18/20 15:47	7439-92-1	
Selenium	**<5.2**	mg/kg	5.2	1.5	1	03/18/20 08:03	03/18/20 15:47	7782-49-2	
Silver	**<1.2**	mg/kg	1.2	0.36	1	03/18/20 08:03	03/18/20 15:47	7440-22-4	
7471 Mercury	Analytical Method: EPA 7471 Preparation Method: EPA 7471 Pace Analytical Services - Green Bay								
Mercury	**<0.042**	mg/kg	0.042	0.013	1	03/19/20 10:38	03/20/20 07:55	7439-97-6	
Dry Weight / %M by ASTM D2974	Analytical Method: ASTM D2974 Pace Analytical Services - Minneapolis								
Percent Moisture	**18.9**	%	0.10	0.10	1		03/16/20 12:20		N2
8260B MSV 5030 Med Level	Analytical Method: EPA 8260B Preparation Method: EPA 5035/5030B Pace Analytical Services - Minneapolis								
Acetone	**<459**	ug/kg	1530	459	1	03/17/20 12:09	03/17/20 17:47	67-64-1	
Allyl chloride	**<48.2**	ug/kg	161	48.2	1	03/17/20 12:09	03/17/20 17:47	107-05-1	
Benzene	**<10.9**	ug/kg	36.4	10.9	1	03/17/20 12:09	03/17/20 17:47	71-43-2	
Bromobenzene	**<7.8**	ug/kg	26.0	7.8	1	03/17/20 12:09	03/17/20 17:47	108-86-1	
Bromochloromethane	**<29.4**	ug/kg	98.0	29.4	1	03/17/20 12:09	03/17/20 17:47	74-97-5	
Bromodichloromethane	**<18.9**	ug/kg	63.1	18.9	1	03/17/20 12:09	03/17/20 17:47	75-27-4	
Bromoform	**<78.9**	ug/kg	263	78.9	1	03/17/20 12:09	03/17/20 17:47	75-25-2	
Bromomethane	**<157**	ug/kg	524	157	1	03/17/20 12:09	03/17/20 17:47	74-83-9	
2-Butanone (MEK)	**<37.2**	ug/kg	124	37.2	1	03/17/20 12:09	03/17/20 17:47	78-93-3	
n-Butylbenzene	**<13.1**	ug/kg	43.6	13.1	1	03/17/20 12:09	03/17/20 17:47	104-51-8	
sec-Butylbenzene	**<26.1**	ug/kg	86.9	26.1	1	03/17/20 12:09	03/17/20 17:47	135-98-8	
tert-Butylbenzene	**<18.5**	ug/kg	61.5	18.5	1	03/17/20 12:09	03/17/20 17:47	98-06-6	
Carbon tetrachloride	**<28.9**	ug/kg	96.4	28.9	1	03/17/20 12:09	03/17/20 17:47	56-23-5	
Chlorobenzene	**<9.8**	ug/kg	32.6	9.8	1	03/17/20 12:09	03/17/20 17:47	108-90-7	
Chloroethane	**<83.1**	ug/kg	277	83.1	1	03/17/20 12:09	03/17/20 17:47	75-00-3	
Chloroform	**<25.5**	ug/kg	84.9	25.5	1	03/17/20 12:09	03/17/20 17:47	67-66-3	
Chloromethane	**<32.4**	ug/kg	108	32.4	1	03/17/20 12:09	03/17/20 17:47	74-87-3	
2-Chlorotoluene	**<14.7**	ug/kg	48.8	14.7	1	03/17/20 12:09	03/17/20 17:47	95-49-8	
4-Chlorotoluene	**<7.6**	ug/kg	25.3	7.6	1	03/17/20 12:09	03/17/20 17:47	106-43-4	
1,2-Dibromo-3-chloropropane	**<152**	ug/kg	508	152	1	03/17/20 12:09	03/17/20 17:47	96-12-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

ANALYTICAL RESULTS

Project: 191231 Blackhawk Junction-Revised Report
Pace Project No.: 10511741

Sample: SB-06-SS (4-8) **Lab ID: 10511741012** Collected: 03/11/20 10:00 Received: 03/13/20 15:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV 5030 Med Level	Analytical Method: EPA 8260B Preparation Method: EPA 5035/5030B Pace Analytical Services - Minneapolis								
Dibromochloromethane	**<20.1**	ug/kg	67.0	20.1	1	03/17/20 12:09	03/17/20 17:47	124-48-1	
1,2-Dibromoethane (EDB)	**<20.8**	ug/kg	69.4	20.8	1	03/17/20 12:09	03/17/20 17:47	106-93-4	
Dibromomethane	**<26.0**	ug/kg	86.5	26.0	1	03/17/20 12:09	03/17/20 17:47	74-95-3	
1,2-Dichlorobenzene	**<11.2**	ug/kg	37.4	11.2	1	03/17/20 12:09	03/17/20 17:47	95-50-1	
1,3-Dichlorobenzene	**<7.4**	ug/kg	24.6	7.4	1	03/17/20 12:09	03/17/20 17:47	541-73-1	
1,4-Dichlorobenzene	**<9.4**	ug/kg	31.4	9.4	1	03/17/20 12:09	03/17/20 17:47	106-46-7	
Dichlorodifluoromethane	**<31.7**	ug/kg	106	31.7	1	03/17/20 12:09	03/17/20 17:47	75-71-8	
1,1-Dichloroethane	**<26.8**	ug/kg	89.2	26.8	1	03/17/20 12:09	03/17/20 17:47	75-34-3	
1,2-Dichloroethane	**<22.8**	ug/kg	75.8	22.8	1	03/17/20 12:09	03/17/20 17:47	107-06-2	
1,1-Dichloroethene	**<21.3**	ug/kg	71.0	21.3	1	03/17/20 12:09	03/17/20 17:47	75-35-4	
cis-1,2-Dichloroethene	**<16.6**	ug/kg	55.1	16.6	1	03/17/20 12:09	03/17/20 17:47	156-59-2	
trans-1,2-Dichloroethene	**<27.3**	ug/kg	90.8	27.3	1	03/17/20 12:09	03/17/20 17:47	156-60-5	
Dichlorofluoromethane	**<166**	ug/kg	551	166	1	03/17/20 12:09	03/17/20 17:47	75-43-4	
1,2-Dichloropropane	**<27.2**	ug/kg	90.4	27.2	1	03/17/20 12:09	03/17/20 17:47	78-87-5	
1,3-Dichloropropane	**<21.9**	ug/kg	73.0	21.9	1	03/17/20 12:09	03/17/20 17:47	142-28-9	
2,2-Dichloropropane	**<22.6**	ug/kg	75.4	22.6	1	03/17/20 12:09	03/17/20 17:47	594-20-7	
1,1-Dichloropropene	**<24.5**	ug/kg	81.7	24.5	1	03/17/20 12:09	03/17/20 17:47	563-58-6	
cis-1,3-Dichloropropene	**<4.4**	ug/kg	14.6	4.4	1	03/17/20 12:09	03/17/20 17:47	10061-01-5	
trans-1,3-Dichloropropene	**<7.5**	ug/kg	25.0	7.5	1	03/17/20 12:09	03/17/20 17:47	10061-02-6	
Diethyl ether (Ethyl ether)	**<50.7**	ug/kg	169	50.7	1	03/17/20 12:09	03/17/20 17:47	60-29-7	
Ethylbenzene	**<10.6**	ug/kg	35.1	10.6	1	03/17/20 12:09	03/17/20 17:47	100-41-4	
Hexachloro-1,3-butadiene	**<26.9**	ug/kg	89.6	26.9	1	03/17/20 12:09	03/17/20 17:47	87-68-3	
Isopropylbenzene (Cumene)	**<22.5**	ug/kg	75.0	22.5	1	03/17/20 12:09	03/17/20 17:47	98-82-8	
p-Isopropyltoluene	**<18.8**	ug/kg	62.7	18.8	1	03/17/20 12:09	03/17/20 17:47	99-87-6	
Methylene Chloride	**<112**	ug/kg	374	112	1	03/17/20 12:09	03/17/20 17:47	75-09-2	
4-Methyl-2-pentanone (MIBK)	**<28.5**	ug/kg	94.8	28.5	1	03/17/20 12:09	03/17/20 17:47	108-10-1	
Methyl-tert-butyl ether	**<11.9**	ug/kg	39.5	11.9	1	03/17/20 12:09	03/17/20 17:47	1634-04-4	
Naphthalene	**<66.9**	ug/kg	223	66.9	1	03/17/20 12:09	03/17/20 17:47	91-20-3	
n-Propylbenzene	**<12.5**	ug/kg	41.6	12.5	1	03/17/20 12:09	03/17/20 17:47	103-65-1	
Styrene	**<7.2**	ug/kg	23.9	7.2	1	03/17/20 12:09	03/17/20 17:47	100-42-5	
1,1,1,2-Tetrachloroethane	**<15.7**	ug/kg	52.4	15.7	1	03/17/20 12:09	03/17/20 17:47	630-20-6	
1,1,2,2-Tetrachloroethane	**<19.2**	ug/kg	63.9	19.2	1	03/17/20 12:09	03/17/20 17:47	79-34-5	
Tetrachloroethene	**<28.2**	ug/kg	94.0	28.2	1	03/17/20 12:09	03/17/20 17:47	127-18-4	
Tetrahydrofuran	**<491**	ug/kg	1630	491	1	03/17/20 12:09	03/17/20 17:47	109-99-9	
Toluene	**<25.5**	ug/kg	84.9	25.5	1	03/17/20 12:09	03/17/20 17:47	108-88-3	
1,2,3-Trichlorobenzene	**<18.3**	ug/kg	61.1	18.3	1	03/17/20 12:09	03/17/20 17:47	87-61-6	
1,2,4-Trichlorobenzene	**<14.7**	ug/kg	48.8	14.7	1	03/17/20 12:09	03/17/20 17:47	120-82-1	
1,1,1-Trichloroethane	**<25.6**	ug/kg	85.3	25.6	1	03/17/20 12:09	03/17/20 17:47	71-55-6	
1,1,2-Trichloroethane	**<29.5**	ug/kg	98.4	29.5	1	03/17/20 12:09	03/17/20 17:47	79-00-5	
Trichloroethene	**<25.1**	ug/kg	83.7	25.1	1	03/17/20 12:09	03/17/20 17:47	79-01-6	
Trichlorofluoromethane	**<113**	ug/kg	376	113	1	03/17/20 12:09	03/17/20 17:47	75-69-4	
1,2,3-Trichloropropane	**<69.4**	ug/kg	231	69.4	1	03/17/20 12:09	03/17/20 17:47	96-18-4	
1,1,2-Trichlorotrifluoroethane	**<105**	ug/kg	350	105	1	03/17/20 12:09	03/17/20 17:47	76-13-1	
1,2,4-Trimethylbenzene	**<26.2**	ug/kg	87.3	26.2	1	03/17/20 12:09	03/17/20 17:47	95-63-6	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 191231 Blackhawk Junction-Revised Report
Pace Project No.: 10511741

Sample: SB-06-SS (4-8) **Lab ID: 10511741012** Collected: 03/11/20 10:00 Received: 03/13/20 15:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV 5030 Med Level	Analytical Method: EPA 8260B Preparation Method: EPA 5035/5030B Pace Analytical Services - Minneapolis								
1,3,5-Trimethylbenzene	**<19.1**	ug/kg	63.5	19.1	1	03/17/20 12:09	03/17/20 17:47	108-67-8	
Vinyl chloride	**<11.8**	ug/kg	39.4	11.8	1	03/17/20 12:09	03/17/20 17:47	75-01-4	
Xylene (Total)	**<28.7**	ug/kg	95.6	28.7	1	03/17/20 12:09	03/17/20 17:47	1330-20-7	
Surrogates									
1,2-Dichloroethane-d4 (S)	102	%.	75-125		1	03/17/20 12:09	03/17/20 17:47	17060-07-0	
Toluene-d8 (S)	98	%.	75-125		1	03/17/20 12:09	03/17/20 17:47	2037-26-5	
4-Bromofluorobenzene (S)	102	%.	75-125		1	03/17/20 12:09	03/17/20 17:47	460-00-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

ANALYTICAL RESULTS

Project: 191231 Blackhawk Junction-Revised Report
Pace Project No.: 10511741

Sample: SB-07-SS (4-8) **Lab ID: 10511741013** Collected: 03/11/20 11:00 Received: 03/13/20 15:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIDRO GCS	Analytical Method: WI MOD DRO Preparation Method: WI MOD DRO Pace Analytical Services - Minneapolis								
WDRO C10-C28	**7.1J**	mg/kg	9.9	3.0	1	03/16/20 12:13	03/20/20 10:27		
Surrogates									
n-Triacontane (S)	73	%.	50-150		1	03/16/20 12:13	03/20/20 10:27	638-68-6	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050 Pace Analytical Services - Green Bay								
Arsenic	**3.0J**	mg/kg	5.2	1.6	1	03/18/20 08:03	03/18/20 15:49	7440-38-2	
Barium	**52.0**	mg/kg	0.53	0.16	1	03/18/20 08:03	03/18/20 15:49	7440-39-3	
Cadmium	**0.17J**	mg/kg	0.53	0.14	1	03/18/20 08:03	03/18/20 15:49	7440-43-9	
Chromium	**14.7**	mg/kg	1.1	0.29	1	03/18/20 08:03	03/18/20 15:49	7440-47-3	
Lead	**10.1**	mg/kg	2.1	0.63	1	03/18/20 08:03	03/18/20 15:49	7439-92-1	
Selenium	**<4.6**	mg/kg	4.6	1.4	1	03/18/20 08:03	03/18/20 15:49	7782-49-2	
Silver	**<1.1**	mg/kg	1.1	0.33	1	03/18/20 08:03	03/18/20 15:49	7440-22-4	
7471 Mercury	Analytical Method: EPA 7471 Preparation Method: EPA 7471 Pace Analytical Services - Green Bay								
Mercury	**<0.039**	mg/kg	0.039	0.012	1	03/19/20 10:38	03/20/20 07:57	7439-97-6	
Dry Weight / %M by ASTM D2974	Analytical Method: ASTM D2974 Pace Analytical Services - Minneapolis								
Percent Moisture	**10.5**	%	0.10	0.10	1		03/16/20 12:20		N2
8260B MSV 5030 Med Level	Analytical Method: EPA 8260B Preparation Method: EPA 5035/5030B Pace Analytical Services - Minneapolis								
Acetone	**<448**	ug/kg	1490	448	1	03/17/20 12:09	03/17/20 18:08	67-64-1	
Allyl chloride	**<47.2**	ug/kg	157	47.2	1	03/17/20 12:09	03/17/20 18:08	107-05-1	
Benzene	**<10.7**	ug/kg	35.6	10.7	1	03/17/20 12:09	03/17/20 18:08	71-43-2	
Bromobenzene	**<7.6**	ug/kg	25.4	7.6	1	03/17/20 12:09	03/17/20 18:08	108-86-1	
Bromochloromethane	**<28.8**	ug/kg	95.8	28.8	1	03/17/20 12:09	03/17/20 18:08	74-97-5	
Bromodichloromethane	**<18.5**	ug/kg	61.7	18.5	1	03/17/20 12:09	03/17/20 18:08	75-27-4	
Bromoform	**<77.1**	ug/kg	257	77.1	1	03/17/20 12:09	03/17/20 18:08	75-25-2	
Bromomethane	**<154**	ug/kg	512	154	1	03/17/20 12:09	03/17/20 18:08	74-83-9	
2-Butanone (MEK)	**<36.3**	ug/kg	121	36.3	1	03/17/20 12:09	03/17/20 18:08	78-93-3	
n-Butylbenzene	**<12.8**	ug/kg	42.7	12.8	1	03/17/20 12:09	03/17/20 18:08	104-51-8	
sec-Butylbenzene	**<25.5**	ug/kg	84.9	25.5	1	03/17/20 12:09	03/17/20 18:08	135-98-8	
tert-Butylbenzene	**<18.1**	ug/kg	60.1	18.1	1	03/17/20 12:09	03/17/20 18:08	98-06-6	
Carbon tetrachloride	**<28.3**	ug/kg	94.3	28.3	1	03/17/20 12:09	03/17/20 18:08	56-23-5	
Chlorobenzene	**<9.6**	ug/kg	31.9	9.6	1	03/17/20 12:09	03/17/20 18:08	108-90-7	
Chloroethane	**<81.3**	ug/kg	271	81.3	1	03/17/20 12:09	03/17/20 18:08	75-00-3	
Chloroform	**<24.9**	ug/kg	83.0	24.9	1	03/17/20 12:09	03/17/20 18:08	67-66-3	
Chloromethane	**<31.7**	ug/kg	106	31.7	1	03/17/20 12:09	03/17/20 18:08	74-87-3	
2-Chlorotoluene	**<14.3**	ug/kg	47.7	14.3	1	03/17/20 12:09	03/17/20 18:08	95-49-8	
4-Chlorotoluene	**<7.4**	ug/kg	24.7	7.4	1	03/17/20 12:09	03/17/20 18:08	106-43-4	
1,2-Dibromo-3-chloropropane	**<149**	ug/kg	496	149	1	03/17/20 12:09	03/17/20 18:08	96-12-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

ANALYTICAL RESULTS

Project: 191231 Blackhawk Junction-Revised Report
Pace Project No.: 10511741

Sample: SB-07-SS (4-8) **Lab ID: 10511741013** Collected: 03/11/20 11:00 Received: 03/13/20 15:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV 5030 Med Level	Analytical Method: EPA 8260B Preparation Method: EPA 5035/5030B Pace Analytical Services - Minneapolis								
Dibromochloromethane	**<19.7**	ug/kg	65.6	19.7	1	03/17/20 12:09	03/17/20 18:08	124-48-1	
1,2-Dibromoethane (EDB)	**<20.4**	ug/kg	67.9	20.4	1	03/17/20 12:09	03/17/20 18:08	106-93-4	
Dibromomethane	**<25.4**	ug/kg	84.6	25.4	1	03/17/20 12:09	03/17/20 18:08	74-95-3	
1,2-Dichlorobenzene	**<11.0**	ug/kg	36.6	11.0	1	03/17/20 12:09	03/17/20 18:08	95-50-1	
1,3-Dichlorobenzene	**<7.2**	ug/kg	24.0	7.2	1	03/17/20 12:09	03/17/20 18:08	541-73-1	
1,4-Dichlorobenzene	**<9.2**	ug/kg	30.7	9.2	1	03/17/20 12:09	03/17/20 18:08	106-46-7	
Dichlorodifluoromethane	**<31.0**	ug/kg	103	31.0	1	03/17/20 12:09	03/17/20 18:08	75-71-8	
1,1-Dichloroethane	**<26.2**	ug/kg	87.3	26.2	1	03/17/20 12:09	03/17/20 18:08	75-34-3	
1,2-Dichloroethane	**<22.2**	ug/kg	74.1	22.2	1	03/17/20 12:09	03/17/20 18:08	107-06-2	
1,1-Dichloroethene	**<20.8**	ug/kg	69.4	20.8	1	03/17/20 12:09	03/17/20 18:08	75-35-4	
cis-1,2-Dichloroethene	**<16.2**	ug/kg	53.9	16.2	1	03/17/20 12:09	03/17/20 18:08	156-59-2	
trans-1,2-Dichloroethene	**<26.7**	ug/kg	88.8	26.7	1	03/17/20 12:09	03/17/20 18:08	156-60-5	
Dichlorofluoromethane	**<162**	ug/kg	539	162	1	03/17/20 12:09	03/17/20 18:08	75-43-4	
1,2-Dichloropropane	**<26.6**	ug/kg	88.4	26.6	1	03/17/20 12:09	03/17/20 18:08	78-87-5	
1,3-Dichloropropane	**<21.4**	ug/kg	71.4	21.4	1	03/17/20 12:09	03/17/20 18:08	142-28-9	
2,2-Dichloropropane	**<22.1**	ug/kg	73.7	22.1	1	03/17/20 12:09	03/17/20 18:08	594-20-7	
1,1-Dichloropropene	**<24.0**	ug/kg	79.9	24.0	1	03/17/20 12:09	03/17/20 18:08	563-58-6	
cis-1,3-Dichloropropene	**<4.3**	ug/kg	14.3	4.3	1	03/17/20 12:09	03/17/20 18:08	10061-01-5	
trans-1,3-Dichloropropene	**<7.3**	ug/kg	24.5	7.3	1	03/17/20 12:09	03/17/20 18:08	10061-02-6	
Diethyl ether (Ethyl ether)	**<49.6**	ug/kg	165	49.6	1	03/17/20 12:09	03/17/20 18:08	60-29-7	
Ethylbenzene	**<10.3**	ug/kg	34.4	10.3	1	03/17/20 12:09	03/17/20 18:08	100-41-4	
Hexachloro-1,3-butadiene	**<26.3**	ug/kg	87.7	26.3	1	03/17/20 12:09	03/17/20 18:08	87-68-3	
Isopropylbenzene (Cumene)	**<22.0**	ug/kg	73.3	22.0	1	03/17/20 12:09	03/17/20 18:08	98-82-8	
p-Isopropyltoluene	**<18.4**	ug/kg	61.3	18.4	1	03/17/20 12:09	03/17/20 18:08	99-87-6	
Methylene Chloride	**<110**	ug/kg	366	110	1	03/17/20 12:09	03/17/20 18:08	75-09-2	
4-Methyl-2-pentanone (MIBK)	**<27.8**	ug/kg	92.7	27.8	1	03/17/20 12:09	03/17/20 18:08	108-10-1	
Methyl-tert-butyl ether	**<11.6**	ug/kg	38.6	11.6	1	03/17/20 12:09	03/17/20 18:08	1634-04-4	
Naphthalene	**<65.5**	ug/kg	218	65.5	1	03/17/20 12:09	03/17/20 18:08	91-20-3	
n-Propylbenzene	**<12.2**	ug/kg	40.7	12.2	1	03/17/20 12:09	03/17/20 18:08	103-65-1	
Styrene	**<7.0**	ug/kg	23.3	7.0	1	03/17/20 12:09	03/17/20 18:08	100-42-5	
1,1,1,2-Tetrachloroethane	**<15.4**	ug/kg	51.2	15.4	1	03/17/20 12:09	03/17/20 18:08	630-20-6	
1,1,2,2-Tetrachloroethane	**<18.8**	ug/kg	62.4	18.8	1	03/17/20 12:09	03/17/20 18:08	79-34-5	
Tetrachloroethene	**<27.6**	ug/kg	91.9	27.6	1	03/17/20 12:09	03/17/20 18:08	127-18-4	
Tetrahydrofuran	**<480**	ug/kg	1600	480	1	03/17/20 12:09	03/17/20 18:08	109-99-9	
Toluene	**<24.9**	ug/kg	83.0	24.9	1	03/17/20 12:09	03/17/20 18:08	108-88-3	
1,2,3-Trichlorobenzene	**<17.9**	ug/kg	59.7	17.9	1	03/17/20 12:09	03/17/20 18:08	87-61-6	
1,2,4-Trichlorobenzene	**<14.3**	ug/kg	47.7	14.3	1	03/17/20 12:09	03/17/20 18:08	120-82-1	
1,1,1-Trichloroethane	**<25.0**	ug/kg	83.4	25.0	1	03/17/20 12:09	03/17/20 18:08	71-55-6	
1,1,2-Trichloroethane	**<28.9**	ug/kg	96.2	28.9	1	03/17/20 12:09	03/17/20 18:08	79-00-5	
Trichloroethene	**<24.6**	ug/kg	81.8	24.6	1	03/17/20 12:09	03/17/20 18:08	79-01-6	
Trichlorofluoromethane	**<110**	ug/kg	367	110	1	03/17/20 12:09	03/17/20 18:08	75-69-4	
1,2,3-Trichloropropane	**<67.9**	ug/kg	226	67.9	1	03/17/20 12:09	03/17/20 18:08	96-18-4	
1,1,2-Trichlorotrifluoroethane	**<103**	ug/kg	342	103	1	03/17/20 12:09	03/17/20 18:08	76-13-1	
1,2,4-Trimethylbenzene	**<25.6**	ug/kg	85.3	25.6	1	03/17/20 12:09	03/17/20 18:08	95-63-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
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ANALYTICAL RESULTS

Project: 191231 Blackhawk Junction-Revised Report
Pace Project No.: 10511741

Sample: SB-07-SS (4-8) **Lab ID: 10511741013** Collected: 03/11/20 11:00 Received: 03/13/20 15:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV 5030 Med Level	Analytical Method: EPA 8260B Preparation Method: EPA 5035/5030B Pace Analytical Services - Minneapolis								
1,3,5-Trimethylbenzene	**<18.6**	ug/kg	62.1	18.6	1	03/17/20 12:09	03/17/20 18:08	108-67-8	
Vinyl chloride	**<11.6**	ug/kg	38.5	11.6	1	03/17/20 12:09	03/17/20 18:08	75-01-4	
Xylene (Total)	**<28.1**	ug/kg	93.5	28.1	1	03/17/20 12:09	03/17/20 18:08	1330-20-7	
Surrogates									
1,2-Dichloroethane-d4 (S)	102	%.	75-125		1	03/17/20 12:09	03/17/20 18:08	17060-07-0	
Toluene-d8 (S)	99	%.	75-125		1	03/17/20 12:09	03/17/20 18:08	2037-26-5	
4-Bromofluorobenzene (S)	100	%.	75-125		1	03/17/20 12:09	03/17/20 18:08	460-00-4	

REPORT OF LABORATORY ANALYSIS

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1700 Elm Street - Suite 200
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ANALYTICAL RESULTS

Project: 191231 Blackhawk Junction-Revised Report
Pace Project No.: 10511741

Sample: SB-08-SS (4-8) **Lab ID: 10511741014** Collected: 03/11/20 11:20 Received: 03/13/20 15:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIDRO GCS	Analytical Method: WI MOD DRO Preparation Method: WI MOD DRO Pace Analytical Services - Minneapolis								
WDRO C10-C28	**<2.8**	mg/kg	9.4	2.8	1	03/16/20 12:13	03/18/20 18:43		
Surrogates									
n-Triacontane (S)	91	%.	50-150		1	03/16/20 12:13	03/18/20 18:43	638-68-6	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050 Pace Analytical Services - Green Bay								
Arsenic	**<9.9**	mg/kg	9.9	3.0	2	03/18/20 08:03	03/19/20 11:59	7440-38-2	D3
Barium	**32.0**	mg/kg	0.51	0.15	1	03/18/20 08:03	03/18/20 15:52	7440-39-3	
Cadmium	**0.17J**	mg/kg	0.51	0.13	1	03/18/20 08:03	03/18/20 15:52	7440-43-9	
Chromium	**8.8**	mg/kg	1.0	0.28	1	03/18/20 08:03	03/18/20 15:52	7440-47-3	
Lead	**12.1**	mg/kg	2.0	0.61	1	03/18/20 08:03	03/18/20 15:52	7439-92-1	
Selenium	**<4.4**	mg/kg	4.4	1.3	1	03/18/20 08:03	03/18/20 15:52	7782-49-2	
Silver	**<1.0**	mg/kg	1.0	0.31	1	03/18/20 08:03	03/18/20 15:52	7440-22-4	
7471 Mercury	Analytical Method: EPA 7471 Preparation Method: EPA 7471 Pace Analytical Services - Green Bay								
Mercury	**<0.036**	mg/kg	0.036	0.011	1	03/19/20 10:38	03/20/20 08:00	7439-97-6	
Dry Weight / %M by ASTM D2974	Analytical Method: ASTM D2974 Pace Analytical Services - Minneapolis								
Percent Moisture	**8.4**	%	0.10	0.10	1		03/16/20 12:20		N2
8260B MSV 5030 Med Level	Analytical Method: EPA 8260B Preparation Method: EPA 5035/5030B Pace Analytical Services - Minneapolis								
Acetone	**<413**	ug/kg	1380	413	1	03/17/20 12:09	03/17/20 18:30	67-64-1	
Allyl chloride	**<43.4**	ug/kg	145	43.4	1	03/17/20 12:09	03/17/20 18:30	107-05-1	
Benzene	**<9.8**	ug/kg	32.8	9.8	1	03/17/20 12:09	03/17/20 18:30	71-43-2	
Bromobenzene	**<7.0**	ug/kg	23.4	7.0	1	03/17/20 12:09	03/17/20 18:30	108-86-1	
Bromochloromethane	**<26.5**	ug/kg	88.2	26.5	1	03/17/20 12:09	03/17/20 18:30	74-97-5	
Bromodichloromethane	**<17.1**	ug/kg	56.8	17.1	1	03/17/20 12:09	03/17/20 18:30	75-27-4	
Bromoform	**<71.0**	ug/kg	236	71.0	1	03/17/20 12:09	03/17/20 18:30	75-25-2	
Bromomethane	**<142**	ug/kg	472	142	1	03/17/20 12:09	03/17/20 18:30	74-83-9	
2-Butanone (MEK)	**<33.5**	ug/kg	111	33.5	1	03/17/20 12:09	03/17/20 18:30	78-93-3	
n-Butylbenzene	**<11.8**	ug/kg	39.3	11.8	1	03/17/20 12:09	03/17/20 18:30	104-51-8	
sec-Butylbenzene	**<23.5**	ug/kg	78.2	23.5	1	03/17/20 12:09	03/17/20 18:30	135-98-8	
tert-Butylbenzene	**<16.6**	ug/kg	55.4	16.6	1	03/17/20 12:09	03/17/20 18:30	98-06-6	
Carbon tetrachloride	**<26.1**	ug/kg	86.8	26.1	1	03/17/20 12:09	03/17/20 18:30	56-23-5	
Chlorobenzene	**<8.8**	ug/kg	29.4	8.8	1	03/17/20 12:09	03/17/20 18:30	108-90-7	
Chloroethane	**<74.9**	ug/kg	249	74.9	1	03/17/20 12:09	03/17/20 18:30	75-00-3	
Chloroform	**<23.0**	ug/kg	76.5	23.0	1	03/17/20 12:09	03/17/20 18:30	67-66-3	
Chloromethane	**<29.2**	ug/kg	97.2	29.2	1	03/17/20 12:09	03/17/20 18:30	74-87-3	
2-Chlorotoluene	**<13.2**	ug/kg	43.9	13.2	1	03/17/20 12:09	03/17/20 18:30	95-49-8	
4-Chlorotoluene	**<6.8**	ug/kg	22.8	6.8	1	03/17/20 12:09	03/17/20 18:30	106-43-4	
1,2-Dibromo-3-chloropropane	**<137**	ug/kg	457	137	1	03/17/20 12:09	03/17/20 18:30	96-12-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
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ANALYTICAL RESULTS

Project: 191231 Blackhawk Junction-Revised Report
Pace Project No.: 10511741

Sample: SB-08-SS (4-8) **Lab ID: 10511741014** Collected: 03/11/20 11:20 Received: 03/13/20 15:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV 5030 Med Level	Analytical Method: EPA 8260B Preparation Method: EPA 5035/5030B Pace Analytical Services - Minneapolis								
Dibromochloromethane	**<18.1**	ug/kg	60.4	18.1	1	03/17/20 12:09	03/17/20 18:30	124-48-1	
1,2-Dibromoethane (EDB)	**<18.8**	ug/kg	62.5	18.8	1	03/17/20 12:09	03/17/20 18:30	106-93-4	
Dibromomethane	**<23.4**	ug/kg	77.9	23.4	1	03/17/20 12:09	03/17/20 18:30	74-95-3	
1,2-Dichlorobenzene	**<10.1**	ug/kg	33.7	10.1	1	03/17/20 12:09	03/17/20 18:30	95-50-1	
1,3-Dichlorobenzene	**<6.6**	ug/kg	22.1	6.6	1	03/17/20 12:09	03/17/20 18:30	541-73-1	
1,4-Dichlorobenzene	**<8.5**	ug/kg	28.3	8.5	1	03/17/20 12:09	03/17/20 18:30	106-46-7	
Dichlorodifluoromethane	**<28.5**	ug/kg	95.0	28.5	1	03/17/20 12:09	03/17/20 18:30	75-71-8	
1,1-Dichloroethane	**<24.1**	ug/kg	80.4	24.1	1	03/17/20 12:09	03/17/20 18:30	75-34-3	
1,2-Dichloroethane	**<20.5**	ug/kg	68.2	20.5	1	03/17/20 12:09	03/17/20 18:30	107-06-2	
1,1-Dichloroethene	**<19.2**	ug/kg	63.9	19.2	1	03/17/20 12:09	03/17/20 18:30	75-35-4	
cis-1,2-Dichloroethene	**<14.9**	ug/kg	49.7	14.9	1	03/17/20 12:09	03/17/20 18:30	156-59-2	
trans-1,2-Dichloroethene	**<24.6**	ug/kg	81.8	24.6	1	03/17/20 12:09	03/17/20 18:30	156-60-5	
Dichlorofluoromethane	**<149**	ug/kg	497	149	1	03/17/20 12:09	03/17/20 18:30	75-43-4	
1,2-Dichloropropane	**<24.5**	ug/kg	81.5	24.5	1	03/17/20 12:09	03/17/20 18:30	78-87-5	
1,3-Dichloropropane	**<19.7**	ug/kg	65.7	19.7	1	03/17/20 12:09	03/17/20 18:30	142-28-9	
2,2-Dichloropropane	**<20.4**	ug/kg	67.9	20.4	1	03/17/20 12:09	03/17/20 18:30	594-20-7	
1,1-Dichloropropene	**<22.1**	ug/kg	73.6	22.1	1	03/17/20 12:09	03/17/20 18:30	563-58-6	
cis-1,3-Dichloropropene	**<3.9**	ug/kg	13.1	3.9	1	03/17/20 12:09	03/17/20 18:30	10061-01-5	
trans-1,3-Dichloropropene	**<6.8**	ug/kg	22.5	6.8	1	03/17/20 12:09	03/17/20 18:30	10061-02-6	
Diethyl ether (Ethyl ether)	**<45.7**	ug/kg	152	45.7	1	03/17/20 12:09	03/17/20 18:30	60-29-7	
Ethylbenzene	**<9.5**	ug/kg	31.7	9.5	1	03/17/20 12:09	03/17/20 18:30	100-41-4	
Hexachloro-1,3-butadiene	**<24.2**	ug/kg	80.7	24.2	1	03/17/20 12:09	03/17/20 18:30	87-68-3	
Isopropylbenzene (Cumene)	**<20.3**	ug/kg	67.5	20.3	1	03/17/20 12:09	03/17/20 18:30	98-82-8	
p-Isopropyltoluene	**<17.0**	ug/kg	56.4	17.0	1	03/17/20 12:09	03/17/20 18:30	99-87-6	
Methylene Chloride	**<101**	ug/kg	337	101	1	03/17/20 12:09	03/17/20 18:30	75-09-2	
4-Methyl-2-pentanone (MIBK)	**<25.6**	ug/kg	85.4	25.6	1	03/17/20 12:09	03/17/20 18:30	108-10-1	
Methyl-tert-butyl ether	**<10.7**	ug/kg	35.6	10.7	1	03/17/20 12:09	03/17/20 18:30	1634-04-4	
Naphthalene	**<60.3**	ug/kg	201	60.3	1	03/17/20 12:09	03/17/20 18:30	91-20-3	
n-Propylbenzene	**<11.3**	ug/kg	37.5	11.3	1	03/17/20 12:09	03/17/20 18:30	103-65-1	
Styrene	**<6.5**	ug/kg	21.5	6.5	1	03/17/20 12:09	03/17/20 18:30	100-42-5	
1,1,1,2-Tetrachloroethane	**<14.2**	ug/kg	47.2	14.2	1	03/17/20 12:09	03/17/20 18:30	630-20-6	
1,1,2,2-Tetrachloroethane	**<17.3**	ug/kg	57.5	17.3	1	03/17/20 12:09	03/17/20 18:30	79-34-5	
Tetrachloroethene	**<25.4**	ug/kg	84.7	25.4	1	03/17/20 12:09	03/17/20 18:30	127-18-4	
Tetrahydrofuran	**<442**	ug/kg	1470	442	1	03/17/20 12:09	03/17/20 18:30	109-99-9	
Toluene	**<23.0**	ug/kg	76.5	23.0	1	03/17/20 12:09	03/17/20 18:30	108-88-3	
1,2,3-Trichlorobenzene	**<16.5**	ug/kg	55.0	16.5	1	03/17/20 12:09	03/17/20 18:30	87-61-6	
1,2,4-Trichlorobenzene	**<13.2**	ug/kg	43.9	13.2	1	03/17/20 12:09	03/17/20 18:30	120-82-1	
1,1,1-Trichloroethane	**<23.1**	ug/kg	76.8	23.1	1	03/17/20 12:09	03/17/20 18:30	71-55-6	
1,1,2-Trichloroethane	**<26.6**	ug/kg	88.6	26.6	1	03/17/20 12:09	03/17/20 18:30	79-00-5	
Trichloroethene	**<22.6**	ug/kg	75.4	22.6	1	03/17/20 12:09	03/17/20 18:30	79-01-6	
Trichlorofluoromethane	**<102**	ug/kg	338	102	1	03/17/20 12:09	03/17/20 18:30	75-69-4	
1,2,3-Trichloropropane	**<62.5**	ug/kg	208	62.5	1	03/17/20 12:09	03/17/20 18:30	96-18-4	
1,1,2-Trichlorotrifluoroethane	**<94.6**	ug/kg	315	94.6	1	03/17/20 12:09	03/17/20 18:30	76-13-1	
1,2,4-Trimethylbenzene	**<23.6**	ug/kg	78.6	23.6	1	03/17/20 12:09	03/17/20 18:30	95-63-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

ANALYTICAL RESULTS

Project: 191231 Blackhawk Junction-Revised Report
Pace Project No.: 10511741

Sample: SB-08-SS (4-8) **Lab ID: 10511741014** Collected: 03/11/20 11:20 Received: 03/13/20 15:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV 5030 Med Level	Analytical Method: EPA 8260B Preparation Method: EPA 5035/5030B Pace Analytical Services - Minneapolis								
1,3,5-Trimethylbenzene	**<17.2**	ug/kg	57.2	17.2	1	03/17/20 12:09	03/17/20 18:30	108-67-8	
Vinyl chloride	**<10.7**	ug/kg	35.5	10.7	1	03/17/20 12:09	03/17/20 18:30	75-01-4	
Xylene (Total)	**<25.9**	ug/kg	86.1	25.9	1	03/17/20 12:09	03/17/20 18:30	1330-20-7	
Surrogates									
1,2-Dichloroethane-d4 (S)	101	%.	75-125		1	03/17/20 12:09	03/17/20 18:30	17060-07-0	
Toluene-d8 (S)	100	%.	75-125		1	03/17/20 12:09	03/17/20 18:30	2037-26-5	
4-Bromofluorobenzene (S)	101	%.	75-125		1	03/17/20 12:09	03/17/20 18:30	460-00-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

ANALYTICAL RESULTS

Project: 191231 Blackhawk Junction-Revised Report
Pace Project No.: 10511741

Sample: Trip Blank Soil **Lab ID: 10511741015** Collected: 03/11/20 00:00 Received: 03/13/20 15:00 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV 5030 Med Level	Analytical Method: EPA 8260B Preparation Method: EPA 5035/5030B Pace Analytical Services - Minneapolis								
Acetone	**<385**	ug/kg	1280	385	1	03/17/20 12:09	03/17/20 14:54	67-64-1	
Allyl chloride	**<40.5**	ug/kg	135	40.5	1	03/17/20 12:09	03/17/20 14:54	107-05-1	
Benzene	**<9.2**	ug/kg	30.6	9.2	1	03/17/20 12:09	03/17/20 14:54	71-43-2	
Bromobenzene	**<6.6**	ug/kg	21.8	6.6	1	03/17/20 12:09	03/17/20 14:54	108-86-1	
Bromochloromethane	**<24.7**	ug/kg	82.3	24.7	1	03/17/20 12:09	03/17/20 14:54	74-97-5	
Bromodichloromethane	**<15.9**	ug/kg	52.9	15.9	1	03/17/20 12:09	03/17/20 14:54	75-27-4	
Bromoform	**<66.2**	ug/kg	220	66.2	1	03/17/20 12:09	03/17/20 14:54	75-25-2	
Bromomethane	**<132**	ug/kg	440	132	1	03/17/20 12:09	03/17/20 14:54	74-83-9	
2-Butanone (MEK)	**<31.2**	ug/kg	104	31.2	1	03/17/20 12:09	03/17/20 14:54	78-93-3	
n-Butylbenzene	**<11.0**	ug/kg	36.6	11.0	1	03/17/20 12:09	03/17/20 14:54	104-51-8	
sec-Butylbenzene	**<21.9**	ug/kg	72.9	21.9	1	03/17/20 12:09	03/17/20 14:54	135-98-8	
tert-Butylbenzene	**<15.5**	ug/kg	51.6	15.5	1	03/17/20 12:09	03/17/20 14:54	98-06-6	
Carbon tetrachloride	**<24.3**	ug/kg	80.9	24.3	1	03/17/20 12:09	03/17/20 14:54	56-23-5	
Chlorobenzene	**<8.2**	ug/kg	27.4	8.2	1	03/17/20 12:09	03/17/20 14:54	108-90-7	
Chloroethane	**<69.8**	ug/kg	232	69.8	1	03/17/20 12:09	03/17/20 14:54	75-00-3	
Chloroform	**<21.4**	ug/kg	71.3	21.4	1	03/17/20 12:09	03/17/20 14:54	67-66-3	
Chloromethane	**<27.2**	ug/kg	90.6	27.2	1	03/17/20 12:09	03/17/20 14:54	74-87-3	
2-Chlorotoluene	**<12.3**	ug/kg	41.0	12.3	1	03/17/20 12:09	03/17/20 14:54	95-49-8	
4-Chlorotoluene	**<6.4**	ug/kg	21.2	6.4	1	03/17/20 12:09	03/17/20 14:54	106-43-4	
1,2-Dibromo-3-chloropropane	**<128**	ug/kg	426	128	1	03/17/20 12:09	03/17/20 14:54	96-12-8	
Dibromochloromethane	**<16.9**	ug/kg	56.3	16.9	1	03/17/20 12:09	03/17/20 14:54	124-48-1	
1,2-Dibromoethane (EDB)	**<17.5**	ug/kg	58.3	17.5	1	03/17/20 12:09	03/17/20 14:54	106-93-4	
Dibromomethane	**<21.8**	ug/kg	72.6	21.8	1	03/17/20 12:09	03/17/20 14:54	74-95-3	
1,2-Dichlorobenzene	**<9.4**	ug/kg	31.4	9.4	1	03/17/20 12:09	03/17/20 14:54	95-50-1	
1,3-Dichlorobenzene	**<6.2**	ug/kg	20.6	6.2	1	03/17/20 12:09	03/17/20 14:54	541-73-1	
1,4-Dichlorobenzene	**<7.9**	ug/kg	26.4	7.9	1	03/17/20 12:09	03/17/20 14:54	106-46-7	
Dichlorodifluoromethane	**<26.6**	ug/kg	88.6	26.6	1	03/17/20 12:09	03/17/20 14:54	75-71-8	
1,1-Dichloroethane	**<22.5**	ug/kg	74.9	22.5	1	03/17/20 12:09	03/17/20 14:54	75-34-3	
1,2-Dichloroethane	**<19.1**	ug/kg	63.6	19.1	1	03/17/20 12:09	03/17/20 14:54	107-06-2	
1,1-Dichloroethene	**<17.9**	ug/kg	59.6	17.9	1	03/17/20 12:09	03/17/20 14:54	75-35-4	
cis-1,2-Dichloroethene	**<13.9**	ug/kg	46.3	13.9	1	03/17/20 12:09	03/17/20 14:54	156-59-2	
trans-1,2-Dichloroethene	**<22.9**	ug/kg	76.3	22.9	1	03/17/20 12:09	03/17/20 14:54	156-60-5	
Dichlorofluoromethane	**<139**	ug/kg	463	139	1	03/17/20 12:09	03/17/20 14:54	75-43-4	
1,2-Dichloropropane	**<22.8**	ug/kg	75.9	22.8	1	03/17/20 12:09	03/17/20 14:54	78-87-5	
1,3-Dichloropropane	**<18.4**	ug/kg	61.3	18.4	1	03/17/20 12:09	03/17/20 14:54	142-28-9	
2,2-Dichloropropane	**<19.0**	ug/kg	63.3	19.0	1	03/17/20 12:09	03/17/20 14:54	594-20-7	
1,1-Dichloropropene	**<20.6**	ug/kg	68.6	20.6	1	03/17/20 12:09	03/17/20 14:54	563-58-6	
cis-1,3-Dichloropropene	**<3.7**	ug/kg	12.3	3.7	1	03/17/20 12:09	03/17/20 14:54	10061-01-5	
trans-1,3-Dichloropropene	**<6.3**	ug/kg	21.0	6.3	1	03/17/20 12:09	03/17/20 14:54	10061-02-6	
Diethyl ether (Ethyl ether)	**<42.6**	ug/kg	142	42.6	1	03/17/20 12:09	03/17/20 14:54	60-29-7	
Ethylbenzene	**<8.9**	ug/kg	29.5	8.9	1	03/17/20 12:09	03/17/20 14:54	100-41-4	
Hexachloro-1,3-butadiene	**<22.6**	ug/kg	75.3	22.6	1	03/17/20 12:09	03/17/20 14:54	87-68-3	
Isopropylbenzene (Cumene)	**<18.9**	ug/kg	62.9	18.9	1	03/17/20 12:09	03/17/20 14:54	98-82-8	
p-Isopropyltoluene	**<15.8**	ug/kg	52.6	15.8	1	03/17/20 12:09	03/17/20 14:54	99-87-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

ANALYTICAL RESULTS

Project: 191231 Blackhawk Junction-Revised Report
Pace Project No.: 10511741

Sample: Trip Blank Soil **Lab ID: 10511741015** Collected: 03/11/20 00:00 Received: 03/13/20 15:00 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV 5030 Med Level	Analytical Method: EPA 8260B Preparation Method: EPA 5035/5030B Pace Analytical Services - Minneapolis								
Methylene Chloride	**<94.3**	ug/kg	314	94.3	1	03/17/20 12:09	03/17/20 14:54	75-09-2	
4-Methyl-2-pentanone (MIBK)	**<23.9**	ug/kg	79.6	23.9	1	03/17/20 12:09	03/17/20 14:54	108-10-1	
Methyl-tert-butyl ether	**<10**	ug/kg	33.2	10	1	03/17/20 12:09	03/17/20 14:54	1634-04-4	
Naphthalene	**<56.2**	ug/kg	187	56.2	1	03/17/20 12:09	03/17/20 14:54	91-20-3	
n-Propylbenzene	**<10.5**	ug/kg	35.0	10.5	1	03/17/20 12:09	03/17/20 14:54	103-65-1	
Styrene	**<6.0**	ug/kg	20.0	6.0	1	03/17/20 12:09	03/17/20 14:54	100-42-5	
1,1,1,2-Tetrachloroethane	**<13.2**	ug/kg	44.0	13.2	1	03/17/20 12:09	03/17/20 14:54	630-20-6	
1,1,2,2-Tetrachloroethane	**<16.1**	ug/kg	53.6	16.1	1	03/17/20 12:09	03/17/20 14:54	79-34-5	
Tetrachloroethene	**<23.7**	ug/kg	78.9	23.7	1	03/17/20 12:09	03/17/20 14:54	127-18-4	
Tetrahydrofuran	**<412**	ug/kg	1370	412	1	03/17/20 12:09	03/17/20 14:54	109-99-9	
Toluene	**<21.4**	ug/kg	71.3	21.4	1	03/17/20 12:09	03/17/20 14:54	108-88-3	
1,2,3-Trichlorobenzene	**<15.4**	ug/kg	51.3	15.4	1	03/17/20 12:09	03/17/20 14:54	87-61-6	
1,2,4-Trichlorobenzene	**<12.3**	ug/kg	41.0	12.3	1	03/17/20 12:09	03/17/20 14:54	120-82-1	
1,1,1-Trichloroethane	**<21.5**	ug/kg	71.6	21.5	1	03/17/20 12:09	03/17/20 14:54	71-55-6	
1,1,2-Trichloroethane	**<24.8**	ug/kg	82.6	24.8	1	03/17/20 12:09	03/17/20 14:54	79-00-5	
Trichloroethene	**<21.1**	ug/kg	70.3	21.1	1	03/17/20 12:09	03/17/20 14:54	79-01-6	
Trichlorofluoromethane	**<94.7**	ug/kg	315	94.7	1	03/17/20 12:09	03/17/20 14:54	75-69-4	
1,2,3-Trichloropropane	**<58.3**	ug/kg	194	58.3	1	03/17/20 12:09	03/17/20 14:54	96-18-4	
1,1,2-Trichlorotrifluoroethane	**<88.2**	ug/kg	294	88.2	1	03/17/20 12:09	03/17/20 14:54	76-13-1	
1,2,4-Trimethylbenzene	**<22.0**	ug/kg	73.3	22.0	1	03/17/20 12:09	03/17/20 14:54	95-63-6	
1,3,5-Trimethylbenzene	**<16.0**	ug/kg	53.3	16.0	1	03/17/20 12:09	03/17/20 14:54	108-67-8	
Vinyl chloride	**<9.9**	ug/kg	33.1	9.9	1	03/17/20 12:09	03/17/20 14:54	75-01-4	
Xylene (Total)	**<24.1**	ug/kg	80.3	24.1	1	03/17/20 12:09	03/17/20 14:54	1330-20-7	
Surrogates									
1,2-Dichloroethane-d4 (S)	99	%.	75-125		1	03/17/20 12:09	03/17/20 14:54	17060-07-0	
Toluene-d8 (S)	100	%.	75-125		1	03/17/20 12:09	03/17/20 14:54	2037-26-5	
4-Bromofluorobenzene (S)	101	%.	75-125		1	03/17/20 12:09	03/17/20 14:54	460-00-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
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ANALYTICAL RESULTS

Project: 191231 Blackhawk Junction-Revised Report
Pace Project No.: 10511741

Sample: Trip Blank Water **Lab ID: 10511741016** Collected: 03/11/20 00:00 Received: 03/13/20 15:00 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260B VOC	Analytical Method: EPA 8260B Pace Analytical Services - Minneapolis								
Acetone	**<2.5**	ug/L	8.4	2.5	1		03/20/20 14:19	67-64-1	
Allyl chloride	**<0.27**	ug/L	0.90	0.27	1		03/20/20 14:19	107-05-1	
Benzene	**<0.12**	ug/L	0.40	0.12	1		03/20/20 14:19	71-43-2	
Bromobenzene	**<0.13**	ug/L	0.44	0.13	1		03/20/20 14:19	108-86-1	
Bromochloromethane	**<0.36**	ug/L	1.2	0.36	1		03/20/20 14:19	74-97-5	
Bromodichloromethane	**<0.11**	ug/L	0.38	0.11	1		03/20/20 14:19	75-27-4	
Bromoform	**<0.27**	ug/L	0.90	0.27	1		03/20/20 14:19	75-25-2	
Bromomethane	**<0.63**	ug/L	2.1	0.63	1		03/20/20 14:19	74-83-9	
2-Butanone (MEK)	**<0.88**	ug/L	2.9	0.88	1		03/20/20 14:19	78-93-3	
n-Butylbenzene	**<0.16**	ug/L	0.52	0.16	1		03/20/20 14:19	104-51-8	
sec-Butylbenzene	**<0.15**	ug/L	0.49	0.15	1		03/20/20 14:19	135-98-8	
tert-Butylbenzene	**<0.13**	ug/L	0.43	0.13	1		03/20/20 14:19	98-06-6	
Carbon tetrachloride	**<0.17**	ug/L	0.56	0.17	1		03/20/20 14:19	56-23-5	
Chlorobenzene	**<0.076**	ug/L	0.25	0.076	1		03/20/20 14:19	108-90-7	
Chloroethane	**<0.42**	ug/L	1.4	0.42	1		03/20/20 14:19	75-00-3	
Chloroform	**<0.48**	ug/L	1.6	0.48	1		03/20/20 14:19	67-66-3	
Chloromethane	**<0.15**	ug/L	0.49	0.15	1		03/20/20 14:19	74-87-3	
2-Chlorotoluene	**<0.16**	ug/L	0.55	0.16	1		03/20/20 14:19	95-49-8	
4-Chlorotoluene	**<0.050**	ug/L	0.17	0.050	1		03/20/20 14:19	106-43-4	
1,2-Dibromo-3-chloropropane	**<1.2**	ug/L	4.2	1.2	1		03/20/20 14:19	96-12-8	
Dibromochloromethane	**<0.20**	ug/L	0.66	0.20	1		03/20/20 14:19	124-48-1	
1,2-Dibromoethane (EDB)	**<0.18**	ug/L	0.60	0.18	1		03/20/20 14:19	106-93-4	
Dibromomethane	**<0.15**	ug/L	0.51	0.15	1		03/20/20 14:19	74-95-3	
1,2-Dichlorobenzene	**<0.14**	ug/L	0.45	0.14	1		03/20/20 14:19	95-50-1	
1,3-Dichlorobenzene	**<0.12**	ug/L	0.39	0.12	1		03/20/20 14:19	541-73-1	
1,4-Dichlorobenzene	**<0.082**	ug/L	0.27	0.082	1		03/20/20 14:19	106-46-7	
Dichlorodifluoromethane	**<0.20**	ug/L	0.65	0.20	1		03/20/20 14:19	75-71-8	
1,1-Dichloroethane	**<0.17**	ug/L	0.55	0.17	1		03/20/20 14:19	75-34-3	
1,2-Dichloroethane	**<0.25**	ug/L	0.85	0.25	1		03/20/20 14:19	107-06-2	
1,1-Dichloroethene	**<0.13**	ug/L	0.42	0.13	1		03/20/20 14:19	75-35-4	
cis-1,2-Dichloroethene	**<0.20**	ug/L	0.66	0.20	1		03/20/20 14:19	156-59-2	
trans-1,2-Dichloroethene	**<0.19**	ug/L	0.64	0.19	1		03/20/20 14:19	156-60-5	
Dichlorofluoromethane	**<0.19**	ug/L	0.63	0.19	1		03/20/20 14:19	75-43-4	
1,2-Dichloropropane	**<0.14**	ug/L	0.46	0.14	1		03/20/20 14:19	78-87-5	
1,3-Dichloropropane	**<0.13**	ug/L	0.43	0.13	1		03/20/20 14:19	142-28-9	
2,2-Dichloropropane	**<0.20**	ug/L	0.66	0.20	1		03/20/20 14:19	594-20-7	
1,1-Dichloropropene	**<0.22**	ug/L	0.74	0.22	1		03/20/20 14:19	563-58-6	
cis-1,3-Dichloropropene	**<0.077**	ug/L	0.26	0.077	1		03/20/20 14:19	10061-01-5	
trans-1,3-Dichloropropene	**<0.32**	ug/L	1.0	0.32	1		03/20/20 14:19	10061-02-6	
Diethyl ether (Ethyl ether)	**<0.18**	ug/L	0.58	0.18	1		03/20/20 14:19	60-29-7	
Ethylbenzene	**<0.075**	ug/L	0.25	0.075	1		03/20/20 14:19	100-41-4	
Hexachloro-1,3-butadiene	**<0.40**	ug/L	1.3	0.40	1		03/20/20 14:19	87-68-3	
Isopropylbenzene (Cumene)	**<0.13**	ug/L	0.44	0.13	1		03/20/20 14:19	98-82-8	
p-Isopropyltoluene	**<0.18**	ug/L	0.59	0.18	1		03/20/20 14:19	99-87-6	
Methylene Chloride	**1.4J**	ug/L	3.7	1.1	1		03/20/20 14:19	75-09-2	C0

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

ANALYTICAL RESULTS

Project: 191231 Blackhawk Junction-Revised Report
Pace Project No.: 10511741

Sample: Trip Blank Water **Lab ID: 10511741016** Collected: 03/11/20 00:00 Received: 03/13/20 15:00 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260B VOC	Analytical Method: EPA 8260B Pace Analytical Services - Minneapolis								
4-Methyl-2-pentanone (MIBK)	**<0.54**	ug/L	1.8	0.54	1		03/20/20 14:19	108-10-1	
Methyl-tert-butyl ether	**<0.12**	ug/L	0.39	0.12	1		03/20/20 14:19	1634-04-4	
Naphthalene	**<0.68**	ug/L	2.3	0.68	1		03/20/20 14:19	91-20-3	
n-Propylbenzene	**<0.18**	ug/L	0.61	0.18	1		03/20/20 14:19	103-65-1	
Styrene	**<0.11**	ug/L	0.37	0.11	1		03/20/20 14:19	100-42-5	
1,1,1,2-Tetrachloroethane	**<0.13**	ug/L	0.44	0.13	1		03/20/20 14:19	630-20-6	
1,1,2,2-Tetrachloroethane	**<0.16**	ug/L	0.53	0.16	1		03/20/20 14:19	79-34-5	
Tetrachloroethene	**<0.17**	ug/L	0.58	0.17	1		03/20/20 14:19	127-18-4	
Tetrahydrofuran	**<3.4**	ug/L	11.3	3.4	1		03/20/20 14:19	109-99-9	
Toluene	**<0.12**	ug/L	0.41	0.12	1		03/20/20 14:19	108-88-3	
1,2,3-Trichlorobenzene	**<0.17**	ug/L	0.57	0.17	1		03/20/20 14:19	87-61-6	
1,2,4-Trichlorobenzene	**<0.19**	ug/L	0.63	0.19	1		03/20/20 14:19	120-82-1	
1,1,1-Trichloroethane	**<0.17**	ug/L	0.57	0.17	1		03/20/20 14:19	71-55-6	
1,1,2-Trichloroethane	**<0.19**	ug/L	0.64	0.19	1		03/20/20 14:19	79-00-5	
Trichloroethene	**<0.15**	ug/L	0.50	0.15	1		03/20/20 14:19	79-01-6	
Trichlorofluoromethane	**<0.12**	ug/L	0.41	0.12	1		03/20/20 14:19	75-69-4	
1,2,3-Trichloropropane	**<0.59**	ug/L	2.0	0.59	1		03/20/20 14:19	96-18-4	
1,1,2-Trichlorotrifluoroethane	**<0.30**	ug/L	1.0	0.30	1		03/20/20 14:19	76-13-1	
1,2,4-Trimethylbenzene	**<0.17**	ug/L	0.57	0.17	1		03/20/20 14:19	95-63-6	
1,3,5-Trimethylbenzene	**<0.12**	ug/L	0.41	0.12	1		03/20/20 14:19	108-67-8	
Vinyl chloride	**<0.099**	ug/L	0.33	0.099	1		03/20/20 14:19	75-01-4	
Xylene (Total)	**<0.29**	ug/L	0.96	0.29	1		03/20/20 14:19	1330-20-7	
Surrogates									
1,2-Dichloroethane-d4 (S)	100	%.	75-125		1		03/20/20 14:19	17060-07-0	
Toluene-d8 (S)	100	%.	75-125		1		03/20/20 14:19	2037-26-5	
4-Bromofluorobenzene (S)	105	%.	75-125		1		03/20/20 14:19	460-00-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA

Project: 191231 Blackhawk Junction-Revised Report
Pace Project No.: 10511741

QC Batch: 350407 | Analysis Method: EPA 7471
QC Batch Method: EPA 7471 | Analysis Description: 7471 Mercury
Laboratory: Pace Analytical Services - Green Bay
Associated Lab Samples: 10511741011, 10511741012, 10511741013, 10511741014

METHOD BLANK: 2029799 Matrix: Solid
Associated Lab Samples: 10511741011, 10511741012, 10511741013, 10511741014

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Mercury	mg/kg	<0.035	0.035	03/19/20 14:21	

LABORATORY CONTROL SAMPLE: 2029800

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/kg	0.83	0.82	98	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2029801 2029802

Parameter	Units	40204767001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	mg/kg	0.018J	0.893	0.893	0.92	0.92	101	101	85-115	0	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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QUALITY CONTROL DATA

Project: 191231 Blackhawk Junction-Revised Report
Pace Project No.: 10511741

QC Batch: 350273
QC Batch Method: EPA 3050
Analysis Method: EPA 6010
Analysis Description: 6010 MET
Laboratory: Pace Analytical Services - Green Bay
Associated Lab Samples: 10511741011, 10511741012, 10511741013, 10511741014

METHOD BLANK: 2029074 Matrix: Solid
Associated Lab Samples: 10511741011, 10511741012, 10511741013, 10511741014

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Arsenic	mg/kg	<4.9	4.9	03/18/20 15:33	
Barium	mg/kg	<0.50	0.50	03/18/20 15:33	
Cadmium	mg/kg	<0.50	0.50	03/18/20 15:33	
Chromium	mg/kg	<1.0	1.0	03/18/20 15:33	
Lead	mg/kg	<2.0	2.0	03/18/20 15:33	
Selenium	mg/kg	<4.4	4.4	03/18/20 15:33	
Silver	mg/kg	<1.0	1.0	03/18/20 15:33	

LABORATORY CONTROL SAMPLE: 2029075

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	mg/kg	50	49.5	99	80-120	
Barium	mg/kg	50	49.3	99	80-120	
Cadmium	mg/kg	50	49.4	99	80-120	
Chromium	mg/kg	50	50.1	100	80-120	
Lead	mg/kg	50	49.6	99	80-120	
Selenium	mg/kg	50	50.4	101	80-120	
Silver	mg/kg	25	25.2	101	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2029076 2029077

Parameter	Units	10511808025 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Arsenic	mg/kg	ND	53.8	53.8	52.5	52.7	95	95	75-125	0	20	
Barium	mg/kg	630	53.8	53.8	617	742	-23	209	75-125	18	20	P6
Cadmium	mg/kg	ND	53.8	53.8	51.4	51.0	95	94	75-125	1	20	
Chromium	mg/kg	13.6	53.8	53.8	64.3	64.2	94	94	75-125	0	20	
Lead	mg/kg	21.0	53.8	53.8	64.2	63.6	80	79	75-125	1	20	
Selenium	mg/kg	ND	53.8	53.8	51.4	50.2	95	93	75-125	2	20	
Silver	mg/kg	ND	26.9	26.9	26.2	25.9	97	96	75-125	1	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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(612)607-1700

QUALITY CONTROL DATA

Project: 191231 Blackhawk Junction-Revised Report
Pace Project No.: 10511741

QC Batch: 665040
QC Batch Method: ASTM D2974
Analysis Method: ASTM D2974
Analysis Description: Dry Weight / %M by ASTM D2974
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 10511741001, 10511741002, 10511741003, 10511741004, 10511741011, 10511741012, 10511741013, 10511741014

SAMPLE DUPLICATE: 3567307

Parameter	Units	10511700002 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	7.8	8.4	7	30	N2

SAMPLE DUPLICATE: 3567311

Parameter	Units	10511744001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	5.6	5.6	0	30	N2

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REPORT OF LABORATORY ANALYSIS

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(612)607-1700

QUALITY CONTROL DATA

Project: 191231 Blackhawk Junction-Revised Report
Pace Project No.: 10511741

QC Batch: 665256
QC Batch Method: EPA 5035/5030B
Analysis Method: EPA 8260B
Analysis Description: 8260B MSV 5030 Med Level
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 10511741001, 10511741002, 10511741003, 10511741004, 10511741011, 10511741012, 10511741013, 10511741014, 10511741015

METHOD BLANK: 3567993
Matrix: Solid
Associated Lab Samples: 10511741001, 10511741002, 10511741003, 10511741004, 10511741011, 10511741012, 10511741013, 10511741014, 10511741015

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	<13.2	44.0	03/17/20 14:32	
1,1,1-Trichloroethane	ug/kg	<21.5	71.6	03/17/20 14:32	
1,1,2,2-Tetrachloroethane	ug/kg	<16.1	53.6	03/17/20 14:32	
1,1,2-Trichloroethane	ug/kg	<24.8	82.6	03/17/20 14:32	
1,1,2-Trichlorotrifluoroethane	ug/kg	<88.2	294	03/17/20 14:32	
1,1-Dichloroethane	ug/kg	<22.5	74.9	03/17/20 14:32	
1,1-Dichloroethene	ug/kg	<17.9	59.6	03/17/20 14:32	
1,1-Dichloropropene	ug/kg	<20.6	68.6	03/17/20 14:32	
1,2,3-Trichlorobenzene	ug/kg	<15.4	51.3	03/17/20 14:32	
1,2,3-Trichloropropane	ug/kg	<58.3	194	03/17/20 14:32	
1,2,4-Trichlorobenzene	ug/kg	<12.3	41.0	03/17/20 14:32	
1,2,4-Trimethylbenzene	ug/kg	<22.0	73.3	03/17/20 14:32	
1,2-Dibromo-3-chloropropane	ug/kg	<128	426	03/17/20 14:32	
1,2-Dibromoethane (EDB)	ug/kg	<17.5	58.3	03/17/20 14:32	
1,2-Dichlorobenzene	ug/kg	<9.4	31.4	03/17/20 14:32	
1,2-Dichloroethane	ug/kg	<19.1	63.6	03/17/20 14:32	
1,2-Dichloropropane	ug/kg	<22.8	75.9	03/17/20 14:32	
1,3,5-Trimethylbenzene	ug/kg	<16.0	53.3	03/17/20 14:32	
1,3-Dichlorobenzene	ug/kg	<6.2	20.6	03/17/20 14:32	
1,3-Dichloropropane	ug/kg	<18.4	61.3	03/17/20 14:32	
1,4-Dichlorobenzene	ug/kg	<7.9	26.4	03/17/20 14:32	
2,2-Dichloropropane	ug/kg	<19.0	63.3	03/17/20 14:32	
2-Butanone (MEK)	ug/kg	<31.2	104	03/17/20 14:32	
2-Chlorotoluene	ug/kg	<12.3	41.0	03/17/20 14:32	
4-Chlorotoluene	ug/kg	<6.4	21.2	03/17/20 14:32	
4-Methyl-2-pentanone (MIBK)	ug/kg	<23.9	79.6	03/17/20 14:32	
Acetone	ug/kg	<385	1280	03/17/20 14:32	
Allyl chloride	ug/kg	<40.5	135	03/17/20 14:32	
Benzene	ug/kg	<9.2	30.6	03/17/20 14:32	
Bromobenzene	ug/kg	<6.6	21.8	03/17/20 14:32	
Bromochloromethane	ug/kg	<24.7	82.3	03/17/20 14:32	
Bromodichloromethane	ug/kg	<15.9	52.9	03/17/20 14:32	
Bromoform	ug/kg	<66.2	220	03/17/20 14:32	
Bromomethane	ug/kg	<132	440	03/17/20 14:32	
Carbon tetrachloride	ug/kg	<24.3	80.9	03/17/20 14:32	
Chlorobenzene	ug/kg	<8.2	27.4	03/17/20 14:32	
Chloroethane	ug/kg	<69.8	232	03/17/20 14:32	
Chloroform	ug/kg	<21.4	71.3	03/17/20 14:32	
Chloromethane	ug/kg	<27.2	90.6	03/17/20 14:32	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA

Project: 191231 Blackhawk Junction-Revised Report
Pace Project No.: 10511741

METHOD BLANK: 3567993 Matrix: Solid
Associated Lab Samples: 10511741001, 10511741002, 10511741003, 10511741004, 10511741011, 10511741012, 10511741013, 10511741014, 10511741015

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
cis-1,2-Dichloroethene	ug/kg	<13.9	46.3	03/17/20 14:32	
cis-1,3-Dichloropropene	ug/kg	<3.7	12.3	03/17/20 14:32	
Dibromochloromethane	ug/kg	<16.9	56.3	03/17/20 14:32	
Dibromomethane	ug/kg	<21.8	72.6	03/17/20 14:32	
Dichlorodifluoromethane	ug/kg	<26.6	88.6	03/17/20 14:32	
Dichlorofluoromethane	ug/kg	<139	463	03/17/20 14:32	
Diethyl ether (Ethyl ether)	ug/kg	<42.6	142	03/17/20 14:32	
Ethylbenzene	ug/kg	<8.9	29.5	03/17/20 14:32	
Hexachloro-1,3-butadiene	ug/kg	<22.6	75.3	03/17/20 14:32	
Isopropylbenzene (Cumene)	ug/kg	<18.9	62.9	03/17/20 14:32	
Methyl-tert-butyl ether	ug/kg	<10	33.2	03/17/20 14:32	
Methylene Chloride	ug/kg	<94.3	314	03/17/20 14:32	
n-Butylbenzene	ug/kg	<11.0	36.6	03/17/20 14:32	
n-Propylbenzene	ug/kg	<10.5	35.0	03/17/20 14:32	
Naphthalene	ug/kg	<56.2	187	03/17/20 14:32	
p-Isopropyltoluene	ug/kg	<15.8	52.6	03/17/20 14:32	
sec-Butylbenzene	ug/kg	<21.9	72.9	03/17/20 14:32	
Styrene	ug/kg	<6.0	20.0	03/17/20 14:32	
tert-Butylbenzene	ug/kg	<15.5	51.6	03/17/20 14:32	
Tetrachloroethene	ug/kg	<23.7	78.9	03/17/20 14:32	
Tetrahydrofuran	ug/kg	<412	1370	03/17/20 14:32	
Toluene	ug/kg	<21.4	71.3	03/17/20 14:32	
trans-1,2-Dichloroethene	ug/kg	<22.9	76.3	03/17/20 14:32	
trans-1,3-Dichloropropene	ug/kg	<6.3	21.0	03/17/20 14:32	
Trichloroethene	ug/kg	<21.1	70.3	03/17/20 14:32	
Trichlorofluoromethane	ug/kg	<94.7	315	03/17/20 14:32	
Vinyl chloride	ug/kg	<9.9	33.1	03/17/20 14:32	
Xylene (Total)	ug/kg	<24.1	80.3	03/17/20 14:32	
1,2-Dichloroethane-d4 (S)	%.	98	75-125	03/17/20 14:32	
4-Bromofluorobenzene (S)	%.	101	75-125	03/17/20 14:32	
Toluene-d8 (S)	%.	99	75-125	03/17/20 14:32	

LABORATORY CONTROL SAMPLE: 3567994

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	1000	849	85	64-125	
1,1,1-Trichloroethane	ug/kg	1000	725	72	60-135	
1,1,2,2-Tetrachloroethane	ug/kg	1000	853	85	61-125	
1,1,2-Trichloroethane	ug/kg	1000	850	85	66-125	
1,1,2-Trichlorotrifluoroethane	ug/kg	1000	704	70	51-136	
1,1-Dichloroethane	ug/kg	1000	728	73	61-125	
1,1-Dichloroethene	ug/kg	1000	550	55	45-136	
1,1-Dichloropropene	ug/kg	1000	646	65	51-136	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
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(612)607-1700

QUALITY CONTROL DATA

Project: 191231 Blackhawk Junction-Revised Report
Pace Project No.: 10511741

LABORATORY CONTROL SAMPLE: 3567994

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2,3-Trichlorobenzene	ug/kg	1000	860	86	63-125	
1,2,3-Trichloropropane	ug/kg	1000	877	88	61-125	
1,2,4-Trichlorobenzene	ug/kg	1000	819	82	61-125	
1,2,4-Trimethylbenzene	ug/kg	1000	807	81	63-126	
1,2-Dibromo-3-chloropropane	ug/kg	2500	2140	86	58-125	
1,2-Dibromoethane (EDB)	ug/kg	1000	795	80	64-125	
1,2-Dichlorobenzene	ug/kg	1000	802	80	62-125	
1,2-Dichloroethane	ug/kg	1000	753	75	56-125	
1,2-Dichloropropane	ug/kg	1000	764	76	64-125	
1,3,5-Trimethylbenzene	ug/kg	1000	812	81	64-125	
1,3-Dichlorobenzene	ug/kg	1000	808	81	62-125	
1,3-Dichloropropane	ug/kg	1000	814	81	63-125	
1,4-Dichlorobenzene	ug/kg	1000	817	82	60-125	
2,2-Dichloropropane	ug/kg	1000	781	78	61-130	
2-Butanone (MEK)	ug/kg	5000	4560	91	47-129	
2-Chlorotoluene	ug/kg	1000	775	78	63-125	
4-Chlorotoluene	ug/kg	1000	800	80	63-125	
4-Methyl-2-pentanone (MIBK)	ug/kg	5000	4550	91	56-125	
Acetone	ug/kg	5000	4910	98	49-132	
Allyl chloride	ug/kg	1000	637	64	48-130	
Benzene	ug/kg	1000	653	65	59-125	
Bromobenzene	ug/kg	1000	800	80	61-125	
Bromochloromethane	ug/kg	1000	699	70	57-125	
Bromodichloromethane	ug/kg	1000	806	81	67-125	
Bromoform	ug/kg	1000	826	83	61-125	
Bromomethane	ug/kg	1000	786	79	44-136	
Carbon tetrachloride	ug/kg	1000	712	71	58-134	
Chlorobenzene	ug/kg	1000	796	80	60-125	
Chloroethane	ug/kg	1000	810	81	30-150	
Chloroform	ug/kg	1000	741	74	63-125	
Chloromethane	ug/kg	1000	721	72	43-125	
cis-1,2-Dichloroethene	ug/kg	1000	708	71	60-125	
cis-1,3-Dichloropropene	ug/kg	1000	761	76	63-125	
Dibromochloromethane	ug/kg	1000	838	84	61-125	
Dibromomethane	ug/kg	1000	757	76	62-125	
Dichlorodifluoromethane	ug/kg	1000	598	60	35-125	
Dichlorofluoromethane	ug/kg	1000	895	89	49-128	
Diethyl ether (Ethyl ether)	ug/kg	1000	636	64	42-127	
Ethylbenzene	ug/kg	1000	755	76	62-125	
Hexachloro-1,3-butadiene	ug/kg	1000	803	80	59-132	
Isopropylbenzene (Cumene)	ug/kg	1000	826	83	63-126	
Methyl-tert-butyl ether	ug/kg	1000	733	73	58-125	
Methylene Chloride	ug/kg	1000	690	69	50-125	
n-Butylbenzene	ug/kg	1000	807	81	60-129	
n-Propylbenzene	ug/kg	1000	801	80	63-126	
Naphthalene	ug/kg	1000	816	82	57-125	
p-Isopropyltoluene	ug/kg	1000	847	85	62-127	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA

Project: 191231 Blackhawk Junction-Revised Report
Pace Project No.: 10511741

LABORATORY CONTROL SAMPLE: 3567994

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
sec-Butylbenzene	ug/kg	1000	841	84	64-128	
Styrene	ug/kg	1000	867	87	62-125	
tert-Butylbenzene	ug/kg	1000	833	83	62-129	
Tetrachloroethene	ug/kg	1000	668	67	56-133	
Tetrahydrofuran	ug/kg	10000	7600	76	58-126	
Toluene	ug/kg	1000	733	73	59-125	
trans-1,2-Dichloroethene	ug/kg	1000	577	58	46-134	
trans-1,3-Dichloropropene	ug/kg	1000	823	82	66-125	
Trichloroethene	ug/kg	1000	713	71	62-125	
Trichlorofluoromethane	ug/kg	1000	875	88	30-150	
Vinyl chloride	ug/kg	1000	807	81	44-127	
Xylene (Total)	ug/kg	3000	2320	77	65-125	
1,2-Dichloroethane-d4 (S)	%.			99	75-125	
4-Bromofluorobenzene (S)	%.			99	75-125	
Toluene-d8 (S)	%.			100	75-125	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3567995 3567996

Parameter	Units	10511741001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,1,1,2-Tetrachloroethane	ug/kg	<16.4	1260	1260	1070	1100	85	88	55-150	3	30	
1,1,1-Trichloroethane	ug/kg	<26.7	1260	1260	940	954	75	76	48-150	2	30	
1,1,2,2-Tetrachloroethane	ug/kg	<20.0	1260	1260	1060	1100	85	88	47-150	3	30	
1,1,2-Trichloroethane	ug/kg	<30.8	1260	1260	1040	1060	83	85	50-150	2	30	
1,1,2-Trichlorotrifluoroethane	ug/kg	<110	1260	1260	877	886	70	71	43-150	1	30	
1,1-Dichloroethane	ug/kg	<28.0	1260	1260	901	925	72	74	36-150	3	30	
1,1-Dichloroethene	ug/kg	<22.3	1260	1260	693	690	55	55	43-150	0	30	
1,1-Dichloropropene	ug/kg	<25.6	1260	1260	805	819	64	65	38-150	2	30	
1,2,3-Trichlorobenzene	ug/kg	<19.2	1260	1260	1090	1140	87	91	48-150	5	30	
1,2,3-Trichloropropane	ug/kg	<72.5	1260	1260	1110	1110	88	89	48-150	0	30	
1,2,4-Trichlorobenzene	ug/kg	<15.3	1260	1260	1050	1110	84	89	46-150	6	30	
1,2,4-Trimethylbenzene	ug/kg	<27.4	1260	1260	1010	1090	81	87	53-150	7	30	
1,2-Dibromo-3-chloropropane	ug/kg	<159	3130	3130	2720	2780	87	89	57-150	3	30	
1,2-Dibromoethane (EDB)	ug/kg	<21.8	1260	1260	970	1010	78	80	54-150	4	30	
1,2-Dichlorobenzene	ug/kg	<11.7	1260	1260	1010	1050	80	84	53-150	5	30	
1,2-Dichloroethane	ug/kg	<23.8	1260	1260	917	944	73	75	50-150	3	30	
1,2-Dichloropropane	ug/kg	<28.4	1260	1260	938	999	75	80	45-150	6	30	
1,3,5-Trimethylbenzene	ug/kg	<19.9	1260	1260	1030	1070	82	86	60-150	4	30	
1,3-Dichlorobenzene	ug/kg	<7.7	1260	1260	1010	1060	81	84	52-150	4	30	
1,3-Dichloropropane	ug/kg	<22.9	1260	1260	1010	1040	81	83	49-150	3	30	
1,4-Dichlorobenzene	ug/kg	<9.9	1260	1260	1000	1080	80	86	53-150	7	30	
2,2-Dichloropropane	ug/kg	<23.6	1260	1260	974	992	78	79	37-150	2	30	
2-Butanone (MEK)	ug/kg	<38.8	6260	6260	5590	5250	89	84	35-150	6	30	
2-Chlorotoluene	ug/kg	<15.3	1260	1260	982	1030	78	82	50-150	4	30	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA

Project: 191231 Blackhawk Junction-Revised Report
Pace Project No.: 10511741

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3567995 3567996

Parameter	Units	10511741001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
4-Chlorotoluene	ug/kg	<7.9	1260	1260	1000	1050	80	84	52-150	5	30	
4-Methyl-2-pentanone (MIBK)	ug/kg	<29.7	6260	6260	5490	5570	88	89	43-150	1	30	
Acetone	ug/kg	<479	6260	6260	5790	5700	93	91	30-150	2	30	
Allyl chloride	ug/kg	<50.4	1260	1260	797	800	64	64	30-150	0	30	
Benzene	ug/kg	<11.4	1260	1260	803	807	64	65	46-150	0	30	
Bromobenzene	ug/kg	<8.1	1260	1260	1020	1060	81	84	54-150	4	30	
Bromochloromethane	ug/kg	<30.7	1260	1260	860	868	69	69	45-150	1	30	
Bromodichloromethane	ug/kg	<19.8	1260	1260	1000	1040	80	83	52-150	4	30	
Bromoform	ug/kg	<82.3	1260	1260	1050	1050	84	84	51-150	0	30	
Bromomethane	ug/kg	<164	1260	1260	953	969	76	77	30-150	2	30	
Carbon tetrachloride	ug/kg	<30.2	1260	1260	913	915	73	73	42-150	0	30	
Chlorobenzene	ug/kg	<10.2	1260	1260	999	1020	80	82	51-150	2	30	
Chloroethane	ug/kg	<86.8	1260	1260	1090	1020	87	82	30-150	7	30	
Chloroform	ug/kg	<26.6	1260	1260	945	962	76	77	50-150	2	30	
Chloromethane	ug/kg	<33.8	1260	1260	896	885	72	71	30-150	1	30	
cis-1,2-Dichloroethene	ug/kg	<17.3	1260	1260	886	909	71	73	45-150	3	30	
cis-1,3-Dichloropropene	ug/kg	<4.6	1260	1260	941	986	75	79	48-150	5	30	
Dibromochloromethane	ug/kg	<21.0	1260	1260	1060	1090	85	87	51-150	3	30	
Dibromomethane	ug/kg	<27.1	1260	1260	927	969	74	77	53-150	4	30	
Dichlorodifluoromethane	ug/kg	<33.1	1260	1260	734	704	59	56	30-125	4	30	
Dichlorofluoromethane	ug/kg	<173	1260	1260	958	922	77	74	41-150	4	30	
Diethyl ether (Ethyl ether)	ug/kg	<53.0	1260	1260	764	803	61	64	35-138	5	30	
Ethylbenzene	ug/kg	<11.0	1260	1260	953	965	76	77	59-150	1	30	
Hexachloro-1,3-butadiene	ug/kg	<28.1	1260	1260	1030	1060	83	85	58-150	3	30	
Isopropylbenzene (Cumene)	ug/kg	<23.5	1260	1260	1060	1090	85	87	50-150	3	30	
Methyl-tert-butyl ether	ug/kg	<12.4	1260	1260	924	921	74	74	50-150	0	30	
Methylene Chloride	ug/kg	<117	1260	1260	837	866	65	67	37-150	3	30	
n-Butylbenzene	ug/kg	<13.7	1260	1260	1040	1100	83	88	48-150	6	30	
n-Propylbenzene	ug/kg	<13.1	1260	1260	1010	1070	80	85	54-150	6	30	
Naphthalene	ug/kg	<69.9	1260	1260	1080	1110	86	88	50-150	3	30	
p-Isopropyltoluene	ug/kg	<19.7	1260	1260	1080	1140	86	91	51-150	6	30	
sec-Butylbenzene	ug/kg	<27.2	1260	1260	1060	1120	85	89	52-150	5	30	
Styrene	ug/kg	<7.5	1260	1260	1090	1130	88	90	52-150	3	30	
tert-Butylbenzene	ug/kg	<19.3	1260	1260	1060	1130	84	91	54-150	7	30	
Tetrachloroethene	ug/kg	<29.5	1260	1260	842	886	67	71	50-150	5	30	
Tetrahydrofuran	ug/kg	<512	12600	12600	9260	10000	74	80	49-150	8	30	
Toluene	ug/kg	<26.6	1260	1260	919	936	73	75	55-150	2	30	
trans-1,2-Dichloroethene	ug/kg	<28.5	1260	1260	717	733	57	59	43-150	2	30	
trans-1,3-Dichloropropene	ug/kg	<7.8	1260	1260	1000	1050	80	84	49-150	4	30	
Trichloroethene	ug/kg	<26.2	1260	1260	871	905	70	72	43-150	4	30	
Trichlorofluoromethane	ug/kg	<118	1260	1260	1080	1050	86	84	30-150	2	30	
Vinyl chloride	ug/kg	<12.4	1260	1260	979	981	78	78	30-150	0	30	
Xylene (Total)	ug/kg	<30.0	3760	3760	2920	2990	78	80	60-150	2	30	
1,2-Dichloroethane-d4 (S)	%.						94	95	75-125			

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA

Project: 191231 Blackhawk Junction-Revised Report
Pace Project No.: 10511741

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3567995 3567996

Parameter	Units	10511741001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
4-Bromofluorobenzene (S)	%.						98	100	75-125			
Toluene-d8 (S)	%.						100	101	75-125			

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
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(612)607-1700

QUALITY CONTROL DATA

Project: 191231 Blackhawk Junction-Revised Report
Pace Project No.: 10511741

QC Batch: 665910
QC Batch Method: EPA 8260B
Analysis Method: EPA 8260B
Analysis Description: 8260B MSV 465 W
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 10511741005, 10511741006, 10511741007, 10511741009, 10511741010, 10511741016

METHOD BLANK: 3571340 Matrix: Water
Associated Lab Samples: 10511741005, 10511741006, 10511741007, 10511741009, 10511741010, 10511741016

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	<0.13	0.44	03/20/20 13:11	
1,1,1-Trichloroethane	ug/L	<0.17	0.57	03/20/20 13:11	
1,1,2,2-Tetrachloroethane	ug/L	<0.16	0.53	03/20/20 13:11	
1,1,2-Trichloroethane	ug/L	<0.19	0.64	03/20/20 13:11	
1,1,2-Trichlorotrifluoroethane	ug/L	<0.30	1.0	03/20/20 13:11	MN
1,1-Dichloroethane	ug/L	<0.17	0.55	03/20/20 13:11	
1,1-Dichloroethene	ug/L	<0.13	0.42	03/20/20 13:11	
1,1-Dichloropropene	ug/L	<0.22	0.74	03/20/20 13:11	
1,2,3-Trichlorobenzene	ug/L	<0.17	0.57	03/20/20 13:11	
1,2,3-Trichloropropane	ug/L	<0.59	2.0	03/20/20 13:11	
1,2,4-Trichlorobenzene	ug/L	<0.19	0.63	03/20/20 13:11	
1,2,4-Trimethylbenzene	ug/L	<0.17	0.57	03/20/20 13:11	
1,2-Dibromo-3-chloropropane	ug/L	<1.2	4.2	03/20/20 13:11	
1,2-Dibromoethane (EDB)	ug/L	<0.18	0.60	03/20/20 13:11	
1,2-Dichlorobenzene	ug/L	<0.14	0.45	03/20/20 13:11	
1,2-Dichloroethane	ug/L	<0.25	0.85	03/20/20 13:11	
1,2-Dichloropropane	ug/L	<0.14	0.46	03/20/20 13:11	
1,3,5-Trimethylbenzene	ug/L	<0.12	0.41	03/20/20 13:11	
1,3-Dichlorobenzene	ug/L	<0.12	0.39	03/20/20 13:11	
1,3-Dichloropropane	ug/L	<0.13	0.43	03/20/20 13:11	
1,4-Dichlorobenzene	ug/L	<0.082	0.27	03/20/20 13:11	
2,2-Dichloropropane	ug/L	<0.20	0.66	03/20/20 13:11	
2-Butanone (MEK)	ug/L	<0.88	2.9	03/20/20 13:11	
2-Chlorotoluene	ug/L	<0.16	0.55	03/20/20 13:11	
4-Chlorotoluene	ug/L	<0.050	0.17	03/20/20 13:11	
4-Methyl-2-pentanone (MIBK)	ug/L	<0.54	1.8	03/20/20 13:11	
Acetone	ug/L	<2.5	8.4	03/20/20 13:11	
Allyl chloride	ug/L	<0.27	0.90	03/20/20 13:11	
Benzene	ug/L	<0.12	0.40	03/20/20 13:11	
Bromobenzene	ug/L	<0.13	0.44	03/20/20 13:11	
Bromochloromethane	ug/L	<0.36	1.2	03/20/20 13:11	
Bromodichloromethane	ug/L	<0.11	0.38	03/20/20 13:11	
Bromoform	ug/L	<0.27	0.90	03/20/20 13:11	
Bromomethane	ug/L	<0.63	2.1	03/20/20 13:11	
Carbon tetrachloride	ug/L	<0.17	0.56	03/20/20 13:11	
Chlorobenzene	ug/L	<0.076	0.25	03/20/20 13:11	
Chloroethane	ug/L	<0.42	1.4	03/20/20 13:11	
Chloroform	ug/L	<0.48	1.6	03/20/20 13:11	
Chloromethane	ug/L	<0.15	0.49	03/20/20 13:11	
cis-1,2-Dichloroethene	ug/L	<0.20	0.66	03/20/20 13:11	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA

Project: 191231 Blackhawk Junction-Revised Report
Pace Project No.: 10511741

METHOD BLANK: 3571340 Matrix: Water
Associated Lab Samples: 10511741005, 10511741006, 10511741007, 10511741009, 10511741010, 10511741016

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
cis-1,3-Dichloropropene	ug/L	<0.077	0.26	03/20/20 13:11	
Dibromochloromethane	ug/L	<0.20	0.66	03/20/20 13:11	
Dibromomethane	ug/L	<0.15	0.51	03/20/20 13:11	
Dichlorodifluoromethane	ug/L	<0.20	0.65	03/20/20 13:11	
Dichlorofluoromethane	ug/L	<0.19	0.63	03/20/20 13:11	
Diethyl ether (Ethyl ether)	ug/L	<0.18	0.58	03/20/20 13:11	
Ethylbenzene	ug/L	<0.075	0.25	03/20/20 13:11	
Hexachloro-1,3-butadiene	ug/L	<0.40	1.3	03/20/20 13:11	
Isopropylbenzene (Cumene)	ug/L	<0.13	0.44	03/20/20 13:11	
Methyl-tert-butyl ether	ug/L	<0.12	0.39	03/20/20 13:11	
Methylene Chloride	ug/L	<1.1	3.7	03/20/20 13:11	
n-Butylbenzene	ug/L	<0.16	0.52	03/20/20 13:11	
n-Propylbenzene	ug/L	<0.18	0.61	03/20/20 13:11	
Naphthalene	ug/L	<0.68	2.3	03/20/20 13:11	
p-Isopropyltoluene	ug/L	<0.18	0.59	03/20/20 13:11	
sec-Butylbenzene	ug/L	<0.15	0.49	03/20/20 13:11	
Styrene	ug/L	<0.11	0.37	03/20/20 13:11	
tert-Butylbenzene	ug/L	<0.13	0.43	03/20/20 13:11	
Tetrachloroethene	ug/L	<0.17	0.58	03/20/20 13:11	
Tetrahydrofuran	ug/L	<3.4	11.3	03/20/20 13:11	
Toluene	ug/L	<0.12	0.41	03/20/20 13:11	
trans-1,2-Dichloroethene	ug/L	<0.19	0.64	03/20/20 13:11	
trans-1,3-Dichloropropene	ug/L	<0.32	1.0	03/20/20 13:11	
Trichloroethene	ug/L	<0.15	0.50	03/20/20 13:11	
Trichlorofluoromethane	ug/L	<0.12	0.41	03/20/20 13:11	
Vinyl chloride	ug/L	<0.099	0.33	03/20/20 13:11	
Xylene (Total)	ug/L	<0.29	0.96	03/20/20 13:11	
1,2-Dichloroethane-d4 (S)	%.	98	75-125	03/20/20 13:11	
4-Bromofluorobenzene (S)	%.	104	75-125	03/20/20 13:11	
Toluene-d8 (S)	%.	100	75-125	03/20/20 13:11	

LABORATORY CONTROL SAMPLE: 3571341

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	20	17.5	87	75-128	
1,1,1-Trichloroethane	ug/L	20	17.2	86	75-128	
1,1,2,2-Tetrachloroethane	ug/L	20	17.9	89	69-129	
1,1,2-Trichloroethane	ug/L	20	18.0	90	75-125	
1,1,2-Trichlorotrifluoroethane	ug/L	20	17.5	87	74-125	
1,1-Dichloroethane	ug/L	20	17.1	85	75-125	
1,1-Dichloroethene	ug/L	20	18.0	90	65-125	
1,1-Dichloropropene	ug/L	20	16.9	85	69-131	
1,2,3-Trichlorobenzene	ug/L	20	17.3	86	75-125	
1,2,3-Trichloropropane	ug/L	20	18.2	91	75-125	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
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(612)607-1700

QUALITY CONTROL DATA

Project: 191231 Blackhawk Junction-Revised Report
Pace Project No.: 10511741

LABORATORY CONTROL SAMPLE: 3571341

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2,4-Trichlorobenzene	ug/L	20	17.2	86	67-131	
1,2,4-Trimethylbenzene	ug/L	20	17.6	88	75-125	
1,2-Dibromo-3-chloropropane	ug/L	50	42.6	85	65-128	
1,2-Dibromoethane (EDB)	ug/L	20	17.1	86	75-125	
1,2-Dichlorobenzene	ug/L	20	18.3	91	75-125	
1,2-Dichloroethane	ug/L	20	16.0	80	74-125	
1,2-Dichloropropane	ug/L	20	18.0	90	68-125	
1,3,5-Trimethylbenzene	ug/L	20	17.6	88	75-125	
1,3-Dichlorobenzene	ug/L	20	18.4	92	75-125	
1,3-Dichloropropane	ug/L	20	17.5	87	75-125	
1,4-Dichlorobenzene	ug/L	20	18.1	90	75-125	
2,2-Dichloropropane	ug/L	20	18.0	90	70-133	
2-Butanone (MEK)	ug/L	100	103	103	62-142	
2-Chlorotoluene	ug/L	20	18.5	92	75-125	
4-Chlorotoluene	ug/L	20	18.9	95	75-125	
4-Methyl-2-pentanone (MIBK)	ug/L	100	94.0	94	75-125	
Acetone	ug/L	100	119	119	47-150	
Allyl chloride	ug/L	20	16.9	84	65-125	
Benzene	ug/L	20	17.0	85	75-125	
Bromobenzene	ug/L	20	17.3	87	75-125	
Bromochloromethane	ug/L	20	17.8	89	75-125	
Bromodichloromethane	ug/L	20	16.6	83	75-128	
Bromoform	ug/L	20	15.9	79	75-125	
Bromomethane	ug/L	20	14.4	72	43-150	
Carbon tetrachloride	ug/L	20	16.5	83	75-127	
Chlorobenzene	ug/L	20	18.8	94	75-125	
Chloroethane	ug/L	20	17.7	88	72-130	
Chloroform	ug/L	20	17.6	88	75-125	
Chloromethane	ug/L	20	15.3	77	55-128	
cis-1,2-Dichloroethene	ug/L	20	18.1	91	75-125	
cis-1,3-Dichloropropene	ug/L	20	17.1	85	74-132	
Dibromochloromethane	ug/L	20	16.3	81	75-125	
Dibromomethane	ug/L	20	17.2	86	71-137	
Dichlorodifluoromethane	ug/L	20	17.2	86	69-126	
Dichlorofluoromethane	ug/L	20	18.0	90	75-125	
Diethyl ether (Ethyl ether)	ug/L	20	17.9	89	72-125	
Ethylbenzene	ug/L	20	18.3	92	75-125	
Hexachloro-1,3-butadiene	ug/L	20	18.3	92	74-129	
Isopropylbenzene (Cumene)	ug/L	20	18.0	90	75-125	
Methyl-tert-butyl ether	ug/L	20	17.3	87	69-125	
Methylene Chloride	ug/L	20	17.0	85	72-125	
n-Butylbenzene	ug/L	20	17.8	89	75-128	
n-Propylbenzene	ug/L	20	19.1	95	75-125	
Naphthalene	ug/L	20	17.5	88	70-125	
p-Isopropyltoluene	ug/L	20	17.9	89	75-125	
sec-Butylbenzene	ug/L	20	18.2	91	75-127	
Styrene	ug/L	20	17.4	87	75-125	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA

Project: 191231 Blackhawk Junction-Revised Report
Pace Project No.: 10511741

LABORATORY CONTROL SAMPLE: 3571341

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
tert-Butylbenzene	ug/L	20	18.3	91	75-125	
Tetrachloroethene	ug/L	20	17.6	88	74-125	
Tetrahydrofuran	ug/L	200	173	87	73-132	
Toluene	ug/L	20	18.6	93	75-125	
trans-1,2-Dichloroethene	ug/L	20	17.8	89	69-125	
trans-1,3-Dichloropropene	ug/L	20	16.8	84	69-130	
Trichloroethene	ug/L	20	17.2	86	75-127	
Trichlorofluoromethane	ug/L	20	18.3	91	71-132	
Vinyl chloride	ug/L	20	16.0	80	65-128	
Xylene (Total)	ug/L	60	55.0	92	75-125	
1,2-Dichloroethane-d4 (S)	%.			98	75-125	
4-Bromofluorobenzene (S)	%.			100	75-125	
Toluene-d8 (S)	%.			101	75-125	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3572931 3572932

Parameter	Units	10512603001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,1,1,2-Tetrachloroethane	ug/L	<1.0	20	20	19.4	19.5	97	97	71-128	0	30	
1,1,1-Trichloroethane	ug/L	<1.0	20	20	20.4	21.0	102	105	75-144	3	30	
1,1,2,2-Tetrachloroethane	ug/L	<1.0	20	20	19.7	19.7	98	99	63-125	0	30	
1,1,2-Trichloroethane	ug/L	<1.0	20	20	19.9	20.6	100	103	75-125	3	30	
1,1,2-Trichlorotrifluoroethane	ug/L	<4.0	20	20	22.2	22.2	111	111	69-141	0	30	
1,1-Dichloroethane	ug/L	<1.0	20	20	20.3	20.6	101	103	68-125	1	30	
1,1-Dichloroethene	ug/L	<1.0	20	20	21.8	22.0	109	110	62-135	1	30	
1,1-Dichloropropene	ug/L	<1.0	20	20	20.6	20.6	103	103	61-147	0	30	
1,2,3-Trichlorobenzene	ug/L	<1.0	20	20	16.9	16.8	85	84	59-145	1	30	
1,2,3-Trichloropropane	ug/L	<4.0	20	20	19.9	20.3	99	101	69-125	2	30	
1,2,4-Trichlorobenzene	ug/L	<1.0	20	20	18.0	18.5	90	93	59-144	3	30	
1,2,4-Trimethylbenzene	ug/L	<1.0	20	20	20.7	21.2	104	106	56-139	2	30	
1,2-Dibromo-3-chloropropane	ug/L	<4.0	50	50	47.9	48.8	96	98	64-125	2	30	
1,2-Dibromoethane (EDB)	ug/L	<1.0	20	20	18.8	19.3	94	97	71-125	3	30	
1,2-Dichlorobenzene	ug/L	<1.0	20	20	20.6	20.8	103	104	74-125	1	30	
1,2-Dichloroethane	ug/L	<1.0	20	20	18.0	17.9	90	89	64-125	0	30	
1,2-Dichloropropane	ug/L	<4.0	20	20	20.6	20.8	103	104	63-125	1	30	
1,3,5-Trimethylbenzene	ug/L	<1.0	20	20	20.7	21.0	104	105	63-132	1	30	
1,3-Dichlorobenzene	ug/L	<1.0	20	20	21.3	21.7	106	109	74-125	2	30	
1,3-Dichloropropane	ug/L	<1.0	20	20	19.3	19.7	96	99	75-125	2	30	
1,4-Dichlorobenzene	ug/L	<1.0	20	20	20.6	20.7	103	104	73-125	1	30	
2,2-Dichloropropane	ug/L	<4.0	20	20	21.3	21.7	107	108	64-145	2	30	
2-Butanone (MEK)	ug/L	<5.0	100	100	91.9	91.3	92	91	39-125	1	30	
2-Chlorotoluene	ug/L	<1.0	20	20	21.6	22.3	108	111	68-128	3	30	
4-Chlorotoluene	ug/L	<1.0	20	20	21.9	22.3	110	112	71-128	2	30	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA

Project: 191231 Blackhawk Junction-Revised Report
Pace Project No.: 10511741

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3572931 3572932

Parameter	Units	10512603001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
4-Methyl-2-pentanone (MIBK)	ug/L	<5.0	100	100	107	107	107	107	65-125	0	30	
Acetone	ug/L	22.5	100	100	104	107	81	85	32-133	3	30	
Allyl chloride	ug/L	<4.0	20	20	19.7	19.8	99	99	61-125	0	30	
Benzene	ug/L	<1.0	20	20	20.1	20.1	100	101	63-125	0	30	
Bromobenzene	ug/L	<1.0	20	20	19.7	20.4	99	102	75-125	4	30	
Bromochloromethane	ug/L	<1.0	20	20	19.6	20.1	98	100	67-125	2	30	
Bromodichloromethane	ug/L	<1.0	20	20	18.5	18.3	92	91	67-139	1	30	
Bromoform	ug/L	<4.0	20	20	17.4	17.2	87	86	75-125	2	30	
Bromomethane	ug/L	<4.0	20	20	17.5	18.5	87	91	50-150	5	30	
Carbon tetrachloride	ug/L	<1.0	20	20	20.1	20.3	100	102	70-148	1	30	
Chlorobenzene	ug/L	<1.0	20	20	21.9	21.9	110	109	75-125	0	30	
Chloroethane	ug/L	<1.0	20	20	19.7	20.3	99	101	62-142	3	30	
Chloroform	ug/L	<1.0	20	20	20.3	20.5	102	102	67-125	1	30	
Chloromethane	ug/L	<4.0	20	20	17.2	17.2	86	86	43-140	0	30	
cis-1,2-Dichloroethene	ug/L	<1.0	20	20	21.1	21.6	106	108	64-134	2	30	
cis-1,3-Dichloropropene	ug/L	<4.0	20	20	19.0	18.9	95	95	68-129	0	30	
Dibromochloromethane	ug/L	<1.0	20	20	18.2	18.2	91	91	71-137	0	30	
Dibromomethane	ug/L	<4.0	20	20	18.0	18.1	90	91	66-130	1	30	
Dichlorodifluoromethane	ug/L	<1.0	20	20	19.5	19.9	98	100	61-144	2	30	
Dichlorofluoromethane	ug/L	<1.0	20	20	20.1	20.3	100	102	68-125	1	30	
Diethyl ether (Ethyl ether)	ug/L	<4.0	20	20	19.5	19.6	97	98	57-127	1	30	
Ethylbenzene	ug/L	<1.0	20	20	22.1	22.2	110	111	66-128	1	30	
Hexachloro-1,3-butadiene	ug/L	<1.0	20	20	21.4	21.2	107	106	52-150	1	30	
Isopropylbenzene (Cumene)	ug/L	<1.0	20	20	21.4	21.6	107	108	73-138	1	30	
Methyl-tert-butyl ether	ug/L	<1.0	20	20	18.9	19.0	95	95	60-125	0	30	
Methylene Chloride	ug/L	<4.0	20	20	19.2	20.0	93	97	59-125	4	30	
n-Butylbenzene	ug/L	<1.0	20	20	21.6	22.1	108	111	68-146	2	30	
n-Propylbenzene	ug/L	<1.0	20	20	23.1	23.8	115	119	72-132	3	30	
Naphthalene	ug/L	<4.0	20	20	17.7	17.4	89	87	55-135	2	30	
p-Isopropyltoluene	ug/L	<1.0	20	20	21.3	22.0	106	110	69-139	3	30	
sec-Butylbenzene	ug/L	<1.0	20	20	21.9	22.5	109	113	69-149	3	30	
Styrene	ug/L	0.28J	20	20	20.1	20.4	99	101	75-126	2	30	
tert-Butylbenzene	ug/L	<1.0	20	20	21.7	22.4	109	112	67-147	3	30	
Tetrachloroethene	ug/L	6.6	20	20	27.8	28.0	106	107	70-141	1	30	
Tetrahydrofuran	ug/L	<10.0	200	200	196	198	98	99	64-128	1	30	
Toluene	ug/L	0.21J	20	20	22.4	22.7	111	112	64-125	1	30	
trans-1,2-Dichloroethene	ug/L	<1.0	20	20	20.8	21.3	104	107	62-135	2	30	
trans-1,3-Dichloropropene	ug/L	<4.0	20	20	19.0	19.2	95	96	69-125	1	30	
Trichloroethene	ug/L	<0.40	20	20	20.4	20.3	102	101	69-141	0	30	
Trichlorofluoromethane	ug/L	<1.0	20	20	21.1	21.6	105	108	61-148	2	30	
Vinyl chloride	ug/L	<0.20	20	20	18.6	19.1	93	96	56-144	3	30	
Xylene (Total)	ug/L	<3.0	60	60	66.4	67.2	111	112	64-131	1	30	
1,2-Dichloroethane-d4 (S)	%.						97	95	75-125			1M
4-Bromofluorobenzene (S)	%.						99	101	75-125			

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA

Project: 191231 Blackhawk Junction-Revised Report
Pace Project No.: 10511741

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3572931 3572932

Parameter	Units	10512603001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Toluene-d8 (S)	%.						104	104	75-125			

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA

Project: 191231 Blackhawk Junction-Revised Report
Pace Project No.: 10511741

QC Batch: 665002 Analysis Method: WI MOD DRO
QC Batch Method: WI MOD DRO Analysis Description: WIDRO GCS
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 10511741011, 10511741012, 10511741013, 10511741014

METHOD BLANK: 3567084 Matrix: Solid
Associated Lab Samples: 10511741011, 10511741012, 10511741013, 10511741014

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
WDRO C10-C28	mg/kg	<3.9	12.9	03/18/20 17:34	
n-Triacontane (S)	%.	97	50-150	03/18/20 17:34	

LABORATORY CONTROL SAMPLE & LCSD: 3567085 3567086

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
WDRO C10-C28	mg/kg	80	69.4	70.9	87	89	70-120	2	20	
n-Triacontane (S)	%.				97	93	50-150			

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

QUALIFIERS

Project: 191231 Blackhawk Junction-Revised Report
Pace Project No.: 10511741

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above LOD.

J - Estimated concentration at or above the LOD and below the LOQ.

LOD - Limit of Detection adjusted for dilution factor, percent moisture, initial weight and final volume.

LOQ - Limit of Quantitation adjusted for dilution factor, percent moisture, initial weight and final volume.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected at or above the adjusted LOD.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

1M	Anti-foaming agent was added to this sample.
C0	Result confirmed by second analysis.
D3	Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.
MN	The reporting limit has been raised in accordance with Minnesota Statutes 4740.2100 Subpart 8. C, D. Reporting Limit Evaluation Rule.
N2	The lab does not hold NELAC/TNI accreditation for this parameter but other accreditations/certifications may apply. A complete list of accreditations/certifications is available upon request.
P6	Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.

Pace Analytical Services, LLC
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Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 191231 Blackhawk Junction-Revised Report
Pace Project No.: 10511741

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
10511741011	**SB-05-SS (4-8)**	WI MOD DRO	665002	WI MOD DRO	665440
10511741012	**SB-06-SS (4-8)**	WI MOD DRO	665002	WI MOD DRO	665440
10511741013	**SB-07-SS (4-8)**	WI MOD DRO	665002	WI MOD DRO	665440
10511741014	**SB-08-SS (4-8)**	WI MOD DRO	665002	WI MOD DRO	665440
10511741011	**SB-05-SS (4-8)**	EPA 3050	350273	EPA 6010	350365
10511741012	**SB-06-SS (4-8)**	EPA 3050	350273	EPA 6010	350365
10511741013	**SB-07-SS (4-8)**	EPA 3050	350273	EPA 6010	350365
10511741014	**SB-08-SS (4-8)**	EPA 3050	350273	EPA 6010	350365
10511741011	**SB-05-SS (4-8)**	EPA 7471	350407	EPA 7471	350461
10511741012	**SB-06-SS (4-8)**	EPA 7471	350407	EPA 7471	350461
10511741013	**SB-07-SS (4-8)**	EPA 7471	350407	EPA 7471	350461
10511741014	**SB-08-SS (4-8)**	EPA 7471	350407	EPA 7471	350461
10511741001	**SB-01-SS (23-25)**	ASTM D2974	665040		
10511741002	**SB-02-SS (23-25)**	ASTM D2974	665040		
10511741003	**SB-03-SS (23-25)**	ASTM D2974	665040		
10511741004	**SB-04-SS (23-25)**	ASTM D2974	665040		
10511741011	**SB-05-SS (4-8)**	ASTM D2974	665040		
10511741012	**SB-06-SS (4-8)**	ASTM D2974	665040		
10511741013	**SB-07-SS (4-8)**	ASTM D2974	665040		
10511741014	**SB-08-SS (4-8)**	ASTM D2974	665040		
10511741001	**SB-01-SS (23-25)**	EPA 5035/5030B	665256	EPA 8260B	665293
10511741002	**SB-02-SS (23-25)**	EPA 5035/5030B	665256	EPA 8260B	665293
10511741003	**SB-03-SS (23-25)**	EPA 5035/5030B	665256	EPA 8260B	665293
10511741004	**SB-04-SS (23-25)**	EPA 5035/5030B	665256	EPA 8260B	665293
10511741011	**SB-05-SS (4-8)**	EPA 5035/5030B	665256	EPA 8260B	665293
10511741012	**SB-06-SS (4-8)**	EPA 5035/5030B	665256	EPA 8260B	665293
10511741013	**SB-07-SS (4-8)**	EPA 5035/5030B	665256	EPA 8260B	665293
10511741014	**SB-08-SS (4-8)**	EPA 5035/5030B	665256	EPA 8260B	665293
10511741015	**Trip Blank Soil**	EPA 5035/5030B	665256	EPA 8260B	665293
10511741005	**SB-01-GW (18.7-30)**	EPA 8260B	665910		
10511741006	**SB-02-GW (17.8-30)**	EPA 8260B	665910		
10511741007	**SB-03-GW (18.8-30)**	EPA 8260B	665910		
10511741009	**SB-04-GW (18.5-30)**	EPA 8260B	665910		
10511741010	**SB-04-GW (18.5-30)**	EPA 8260B	665910		
10511741016	**Trip Blank Water**	EPA 8260B	665910		

CHAIN-OF-CUSTODY / Analytical Request Document

Bay West — Customer-Focused Environmental & Industrial Solutions

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

WO# : 10511741

10511741

001

Section A — Required Client Information:		Section B — Required Project Information:		Section C — Invoice Information:		Section D — Laboratory Information:	
Company:	Bay West	Project Name:	Blackhawk Junction Phase II	Attention:	Accounts Payable	Lab Name:	
Address:	5 Empire Dr. St.Paul MN, 55103	Project Number:	191231	Company Name:	Bay West LLC	Adress:	1700 Elm St. Minneapolis MN, 55414
Project Manager :	Erik Nimlos	Turnaround Time:	Standard	Address:	5 Empire Dr. St. Paul, MN 55103	Lab Project Manager	Oyeyemi Odujole
Email To:	enimlos@baywest.com	Site Location (State):	MN	Purchase Order No.	205914	Lab Phone:	612-607-1700
Phone:	651-291-3493						
Copy To:	jerjavec@baywest.com						

Work Order No.	0
Facility Code:	0
Project Task Code:	
Program Code	

Matrix Code: SE=Sediment; SO=Soil; QC=Soil QC; W=Aqueous; WG=Groundwater; S=Surface

Lab Matrix Codes: DW=Drinking Water; NW=Non-potable Water; SD=Soil/Solid; WP=Wipe; AR=Air; BL=Biological Material; OT=Other

Field Matrix Codes: Wtr-Ground=Ground Water; WTR-Surf=Surface Water; QC-Blank=Artificial Blank Water; Leachate=Leachate Sample; Soil-Surf= Soil Surface; Soil-Sub= Soil Subsurface

Sample Type Codes: Sample=Routine Sample; S-CWOP=Composite Sample; S-IVP=Integrated Vertical Profile Sample; QC-FB=Field Blank Sample; QC-FR=Field Replicate Sample; QC-TB=Trip Blank Sample

ITEM #	Location Unique ID	Sample Common ID	Start Depth ft	End Depth ft	Sample Type Code (MPCA ONLY)	SAMPLE TYPE (G=GRAB C=COMP)	Matrix Code	Lab Matrix Code (MPCA ONLY)	Field Matrix Code (MPCA ONLY)	Date	Time	# of Cont.	Preservatives	Requested Analysis: VOCs 8260B	DRO WI DRO	RCRA Metals	Dry Weight	Comments
1		SB-01-SS(23-25)	23	25		G	SO			3/10/20	13:40	2		X				OU1
2		SB-02-SS(23-25)	23	25		G	SO			3/10/20	15:00	2		X				OU2
3		SB-03-SS(23-25)	23	25		G	SO			3/10/20	16:50	2		X				OU3
4		SB-04-SS(23-25)	23	25		G	SO			3/10/20	17:40	2		X				OU4
5		SB-01-GW(18.7-30)	18.7	30		G	WG			3/10/20	12:47	3		X				OU5
6		SB-02-GW(17.8-30)	17.8	30		G	WG			3/10/20	14:20	3		X				OU6
7		SB-03-GW(18.8-30)	18.8	30		G	WG			3/10/20	15:40	3		X				OU7
8		~~SB-03-GW(18.8-30)~~	~~18.8~~	~~30~~		G	WG			~~3/10/20~~	~~15:45~~	ES						OU8
9		SB-04-GW(18.5-30)	18.5	30		G	WG			3/10/20	17:05	3		X				OU9
10		SB-04-GW(18.5-30)	18.5	30		G	WG			3/10/20	17:10	3		X				OU10
11		SB-05-SS(4-8)	4	8		G	SO			3/11/20	09:30	6		X	X	X	X	OU11
12		SB-06-SS(4-8)	4	8		G	SO			3/11/20	10:00	6		X	X	X	X	OU12

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
Please ignore jars labeled DISPOSE	Erik Nimlos Bay West LLC	3/13/20	14:35	Wyatt Wace	3/13/2020	1438
	Wyatt Wace	3/13/2020	1500	Wyatt Wace	3/13/2020	1500

SAMPLE CONDITIONS			
Temp (°C)	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
1:5.3 2:2.4°C	Y	N	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER:

SIGNATURE of SAMPLER: DATE Signed (MM/DD/YY):

CHAIN-OF-CUSTODY / Analytical Request Document

Bay West — Customer-Focused Environmental & Industrial Solutions

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A — Required Client Information:		Section B — Required Project Information:		Section C — Invoice Information:		Section D — Laboratory Information		Section E — MPCA Information	
Company:	Bay West	Project Name:	Blackhawk Junction Phase II	Attention:	Accounts Payable	Lab Name:	Pace	COC ID:	
Address:	5 Empire Dr. St.Paul MN, 55103	Project Number:	191231	Company Name:	Bay West LLC	Adress:	1700 Elm St. Minneapolis MN, 55414	Work Order No.	0
Project Manager :	Erik Nimlos	Turnaround Time:	Standard	Address:	5 Empire Dr. St. Paul, MN 55103	Lab Project Manager	Oyeyemi Odujole	Facility Code:	0
Email To:	enimlos@baywest.com	Site Location (State):	MN	Purchase Order No.	205914	Lab Phone:	612-607-1700	Project Task Code:	
Phone:	651-291-3493							Program Code	
Copy To:	jerjavec@baywest.com								

Matrix Code	Lab Matrix Codes	Field Matrix Codes	Sample Type Codes
SE=Sediment	DW=Drinking Water	Wtr-Ground=Ground Water	Sample=Routine Sample
SO=Soil	NW=Non-potable Water	WTR-Surf=Surface Water	S-CWOP=Composite Sample
QC=Soil QC	SD=Soil/Solid	QC-Blank=Artificial Blank Water	S-IVP=Integrated Vertical Profile Sample
W=Aqueous	WP=Wipe	Leachate=Leachate Sample	QC-FB=Field Blank Sample
WG=Groundwater	AR=Air	Soil-Surf= Soil Surface	QC-FR=Field Replicate Sample
S=Surface	BL=Biological Material	Soil-Sub= Soil Subsurface	QC-TB=Trip Blank Sample
	OT=Other		

ITEM #	Location Unique ID	Sample Common ID	Start Depth ft	End Depth ft	Sample Type Code (MPCA ONLY)	SAMPLE TYPE (G=GRAB C=COMP)	Matrix Code	Lab Matrix Code (MPCA ONLY)	Field Matrix Code (MPCA ONLY)	Date	Time	# of Cont.	Preservatives	Requested Analysis: VOCs 8260B	DRO WI DRO	RCRA Metals	Dry Weight	Comments
1		SB-07-SS(4-8)	4	8		G	SO			3/11/20	11:00	6		X	X	X	X	013
2		SB-08-SS(4-8)	4	8		G	SO			3/11/20	11:20	6		X	X	X	X	014
3		Trip Blank Soil																015
4		Trip Blank Water																016
5		GW2 3/13/2020																017
6																		
7																		
8																		
9																		
10																		
11																		
12																		

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
	Eric Simlos, Bay West LLC	3/13/20	14:35	Pace	3/13/2020	1438	13:5.3 / 3:12 2.4
	Pace	3/13/2020	1500	Pace	3/13/2020	1500	

Temp (°C)	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
	Y	N	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER:

SIGNATURE of SAMPLER: DATE Signed (MM/DD/YY):

Pace Analytical®	Document Name: **Sample Condition Upon Receipt Form**	Document Revised: 19Feb2020 Page 1 of 1
	Document No.: **F-MN-L-213-rev.31**	Pace Analytical Services - **Minneapolis**

Sample Condition Upon Receipt

Client Name: Bay West

Project #: **WO#: 10511741**

PM: CL1 **Due Date: 03/27/20**

CLIENT: BW-BAY WEST

Courier: ☐Fed Ex ☐UPS ☐USPS ☐Client ☒Pace ☐SpeeDee ☐Commercial **See Exceptions** ☐

Tracking Number:

Custody Seal on Cooler/Box Present? ☐Yes ☒No **Seals Intact?** ☐Yes ☒No **Biological Tissue Frozen?** ☐Yes ☐No ☒N/A

Packing Material: ☐Bubble Wrap ☒Bubble Bags ☐None ☒Other: PB **Temp Blank?** ☒Yes ☐No

Thermometer: ☐T1(0461) ☐T2(1336) ☐T3(0459) ☐T4(0254) ☒T5(0489) **Type of Ice:** ☒Wet ☐Blue ☐None ☐Dry ☐Melted

Did Samples Originate in West Virginia? ☐Yes ☒No **Were All Container Temps Taken?** ☐Yes ☐No ☒N/A

Temp should be above freezing to 6°C **Cooler Temp Read w/temp blank:** 5.3, 2.4 °C **Average Corrected Temp (no temp blank only):** ☐See Exceptions °C ☐1 Container

Correction Factor: NA **Cooler Temp Corrected w/temp blank:** 5.3, 2.4 °C

USDA Regulated Soil: (☒ N/A, water sample/Other:) **Date/Initials of Person Examining Contents:** GNZ 3/13/2020

Did samples originate in a quarantine zone within the United States: AL, AR, CA, FL, GA, ID, LA. MS, NC, NM, NY, OK, OR, SC, TN, TX or VA (check maps)? ☐Yes ☒No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? ☐Yes ☒No

If Yes to either question, fill out a Regulated Soil Checklist (F-MN-Q-338) and include with SCUR/COC paperwork.

				COMMENTS:
Chain of Custody Present and Filled Out?	☒Yes	☐No		1.
Chain of Custody Relinquished?	☒Yes	☐No		2.
Sampler Name and/or Signature on COC?	☐Yes	☒No	☐N/A	3.
Samples Arrived within Hold Time?	☒Yes	☐No		4.
Short Hold Time Analysis (<72 hr)?	☐Yes	☒No		5. ☐Fecal Coliform ☐HPC ☐Total Coliform/E coli ☐BOD/cBOD ☐Hex Chrome ☐Turbidity ☐Nitrate ☐Nitrite ☐Orthophos ☐Other
Rush Turn Around Time Requested?	☐Yes	☒No		6.
Sufficient Volume?	☒Yes	☐No		7.
Correct Containers Used?	☒Yes	☐No		8.
-Pace Containers Used?	☒Yes	☐No		
Containers Intact?	☒Yes	☐No		9.
Field Filtered Volume Received for Dissolved Tests?	☐Yes	☐No	☒N/A	10. Is sediment visible in the dissolved container? ☐Yes ☐No
Is sufficient information available to reconcile the samples to the COC? Matrix: ☒Water ☒Soil ☐Oil ☐Other	☒Yes	☐No		11. **If no, write ID/ Date/Time on Container Below:** Received extra sample: ID ~~SB4~~ SB-4 (20-24) Sample that was crossed out was still received **See Exception** ☐
All containers needing acid/base preservation have been checked?	☐Yes	☐No	☒N/A	12. Sample # GNZ 3/13/2020 ☐ NaOH ☐ HNO_3 ☐ H_2SO_4 ☐ Zinc Acetate
All containers needing preservation are found to be in compliance with EPA recommendation? (HNO_3, H_2SO_4, <2pH, NaOH >9 Sulfide, NaOH>12 Cyanide) Exceptions: VOA, Coliform, TOC/DOC Oil and Grease, DRO/8015 (water) and Dioxin/PFAS	☐Yes	☐No	☒N/A	
	☒Yes	☐No	☐N/A	Positive for Res. Chlorine? ☐Yes ☐No **pH Paper Lot#** **See Exception** ☐
				Res. Chlorine | 0-6 Roll | 0-6 Strip | 0-14 Strip
Extra labels present on soil VOA or WIDRO containers?	☒Yes	☐No	☐N/A	13. No headspace **See Exception** ☐
Headspace in VOA Vials (greater than 6mm)? CL1 3/16/20	☐Yes	☒No	☐N/A	
Trip Blank Present?	☒Yes	☐No	☐N/A	14.
Trip Blank Custody Seals Present?	☒Yes	☐No	☐N/A	Pace Trip Blank Lot # (if purchased): 123019-3, 247391

CLIENT NOTIFICATION/RESOLUTION **Field Data Required?** ☐Yes ☐No

Person Contacted: Date/Time:

Comments/Resolution:

Project Manager Review: Date: 3/16/20

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers).

Labeled by: GNZ (2)

Chain of Custody

46004818

Pace Analytical®
www.pacelabs.com

☐ Samples were sent directly to the Subcontracting Laboratory.

State Of Origin: WI
Cert. Needed: ☒ Yes ☐ No

Workorder: 10511741 **Workorder Name:** 191231 Blackhawk Junction **Owner Received Date:** 3/13/2020 **Results Requested By:** 3/27/2020

Report To	Subcontract To
Colin Lynch Pace Analytical Minnesota 1700 Elm Street Suite 200 Minneapolis, MN 55414 Phone (612)607-1700	Pace Analytical Green Bay 1241 Bellevue Street Suite 9 Green Bay, WI 54302 Phone (920)469-2436

Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	Preserved Containers: Unpreserved	BJFU					Mercury by 7471A (Pace GB)	RCRA 8 Metals by 6010C (Pace GB)										LAB USE ONLY
1	SB-05-SS (4-8)	PS	3/11/2020 09:30	10511741011	Solid	1						X	X										001
2	SB-06-SS (4-8)	PS	3/11/2020 10:00	10511741012	Solid	1						X	X										002
3	SB-07-SS (4-8)	PS	3/11/2020 11:00	10511741013	Solid	1						X	X										003
4	SB-08-SS (4-8)	PS	3/11/2020 11:20	10511741014	Solid	1						X	X										004
5																							

Transfers	Released By	Date/Time	Received By	Date/Time
1	[signature] Pace	3/16/20 1615		
2	Walter	3/17/20 0920	[signature] Pace	3/17/20 0920
3				

Comments

Dry weight done in MN

Cooler Temperature on Receipt 1 °C **Custody Seal** (Y) or N **Received on Ice** (Y) or N **Samples Intact** (Y) or N

****In order to maintain client confidentiality, location/name of the sampling site, sampler's name and signature may not be provided on this COC document.*
This chain of custody is considered complete as is since this information is available in the owner laboratory.

Pace Analytical Services, LLC
1241 Bellevue Street, Suite 9
Green Bay, WI 54302

Sample Preservation Receipt Form

Client Name: Pace MN Project # 40304818

All containers needing preservation have been checked and noted below: ☐Yes ☐No ☒N/A Initial when completed: Date/ Time:

Lab Lot# of pH paper: Lab Std #ID of preservation (if pH adjusted):

	Glass							Plastic					Vials						Jars				General							
Pace Lab #	AG1U	BG1U	AG1H	AG4S	AG4U	AG5U	AG2S	BG3U	BP1U	BP3U	BP3B	BP3N	BP3S	VG9A	DG9T	VG9U	VG9H	VG9M	VG9D	JGFU	JG9U	WGFU	WPFU	SP5T	ZPLC	GN	VOA Vials (>6mm) *	H2SO4 pH ≤2	NaOH+Zn Act pH ≥9	NaOH pH ≥12	HNO3 pH ≤2	pH after adjusted	Volume (mL)
001																				1													2.5 / 5 / 10
002																				1													2.5 / 5 / 10
003																				1													2.5 / 5 / 10
004																				1													2.5 / 5 / 10
005																																	2.5 / 5 / 10
006																																	2.5 / 5 / 10
007																																	2.5 / 5 / 10
008																																	2.5 / 5 / 10
009																																	2.5 / 5 / 10
010																																	2.5 / 5 / 10
011																																	2.5 / 5 / 10
012																																	2.5 / 5 / 10
013																																	2.5 / 5 / 10
014																																	2.5 / 5 / 10
015																																	2.5 / 5 / 10
016																																	2.5 / 5 / 10
017																																	2.5 / 5 / 10
018																																	2.5 / 5 / 10
019																																	2.5 / 5 / 10
020																																	2.5 / 5 / 10

3/4/20 DP

Exceptions to preservation check: VOA, Coliform, TOC, TOX, TOH, O&G, WI DRO, Phenolics, Other:_____ Headspace in VOA Vials (>6mm) : ☐Yes ☐No ☒N/A *If yes look in headspace column

AG1U	1 liter amber glass
BG1U	1 liter clear glass
AG1H	1 liter amber glass HCL
AG4S	125 mL amber glass H2SO4
AG4U	120 mL amber glass unpres
AG5U	100 mL amber glass unpres
AG2S	500 mL amber glass H2SO4
BG3U	250 mL clear glass unpres

BP1U	1 liter plastic unpres
BP3U	250 mL plastic unpres
BP3B	250 mL plastic NaOH
BP3N	250 mL plastic HNO3
BP3S	250 mL plastic H2SO4

VG9A	40 mL clear ascorbic
DG9T	40 mL amber Na Thio
VG9U	40 mL clear vial unpres
VG9H	40 mL clear vial HCL
VG9M	40 mL clear vial MeOH
VG9D	40 mL clear vial DI

JGFU	4 oz amber jar unpres
JG9U	9 oz amber jar unpres
WGFU	4 oz clear jar unpres
WPFU	4 oz plastic jar unpres
SP5T	120 mL plastic Na Thiosulfate
ZPLC	ziploc bag
GN	

Pace Analytical™ 1241 Bellevue Street, Green Bay, WI 54302	Document Name: Sample Condition Upon Receipt (SCUR)	Document Revised: 25Apr2018
	Document No.: F-GB-C-031-Rev.07	Issuing Authority: Pace Green Bay Quality Office

Sample Condition Upon Receipt Form (SCUR)

Project #: WO#: 40204818

Client Name: Pace MN

Courier: ☐ CS Logistics ☐ Fed Ex ☐ Speedee ☐ UPS ☒ Waltco ☐ Client ☐ Pace Other: _____

Tracking #: 2375 405 - 4

Custody Seal on Cooler/Box Present: ☒ yes ☐ no Seals intact: ☑ yes ☐ no

Custody Seal on Samples Present: ☐ yes ☒ no Seals intact: ☐ yes ☐ no

Packing Material: ☒ Bubble Wrap ☐ Bubble Bags ☐ None ☐ Other _____

Thermometer Used SR - 86 **Type of Ice:** (Wet) Blue Dry None ☑ Samples on ice, cooling process has begun

Cooler Temperature Uncorr: 0 /Corr: 1

Temp Blank Present: ☑ yes ☐ no **Biological Tissue is Frozen:** ☐ yes ☐ no

Person examining contents: Date: 3/17/20 Initials: MP

Temp should be above freezing to 6°C.
Biota Samples may be received at ≤ 0°C.

Chain of Custody Present:	☒Yes ☐No ☐N/A	1.
Chain of Custody Filled Out:	☒Yes ☐No ☐N/A	2.
Chain of Custody Relinquished:	☒Yes ☐No ☐N/A	3.
Sampler Name & Signature on COC:	☐Yes ☐No ☒N/A	4. JMW 3/17/20 MP
Samples Arrived within Hold Time:	☒Yes ☐No	5.
- VOA Samples frozen upon receipt	☐Yes ☐No	Date/Time:
Short Hold Time Analysis (<72hr):	☐Yes ☒No	6.
Rush Turn Around Time Requested:	☐Yes ☒No	7.
Sufficient Volume: For Analysis: ☒Yes ☐No MS/MSD:	☐Yes ☒No ☐N/A	8.
Correct Containers Used:	☒Yes ☐No	9.
-Pace Containers Used:	☐Yes ☐No ☒N/A	
-Pace IR Containers Used:	☒Yes ☐No ☐N/A	
Containers Intact:	☒Yes ☐No	10.
Filtered volume received for Dissolved tests	☐Yes ☐No ☒N/A	11.
Sample Labels match COC: -Includes date/time/ID/Analysis Matrix: S	☒Yes ☐No ☐N/A	12.
Trip Blank Present:	☐Yes ☐No ☒N/A	13.
Trip Blank Custody Seals Present	☐Yes ☐No ☒N/A	
Pace Trip Blank Lot # (if purchased):		

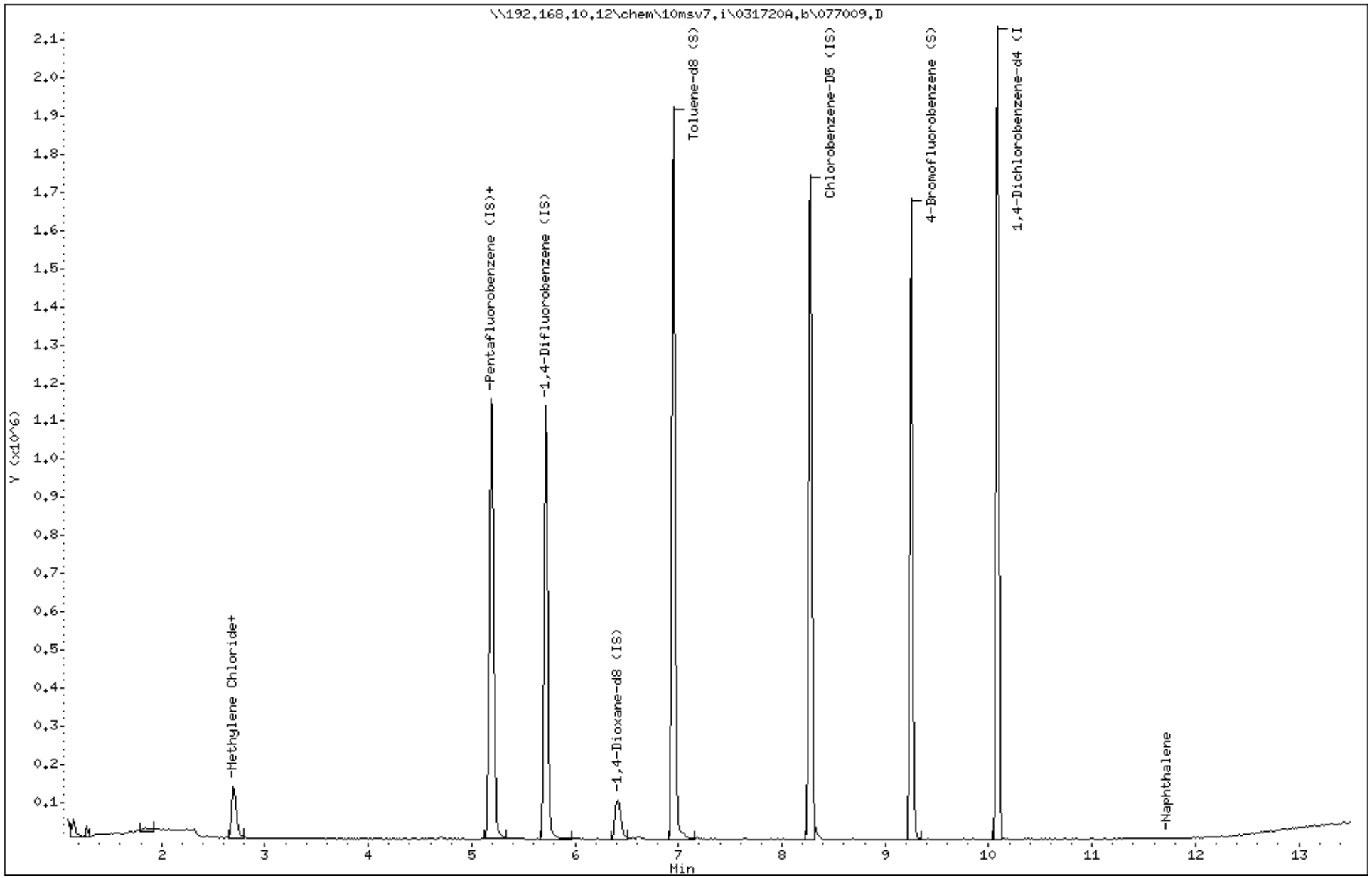
Client Notification/ Resolution: If checked, see attached form for additional comments ☐

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: _____ **Date:** 3/17/20

Data File: \\192.168.10.12\chem\10msv7.i\031720A.b\077009.D
Date : 17-MAR-2020 15:16
Client ID: SB-01-SS (23-25)
Instrument: 10msv7.i
Sample Info: 10511741001,
Operator: CD2
Column phase: Rtx-VMS SN1573141
Column diameter: 0.25



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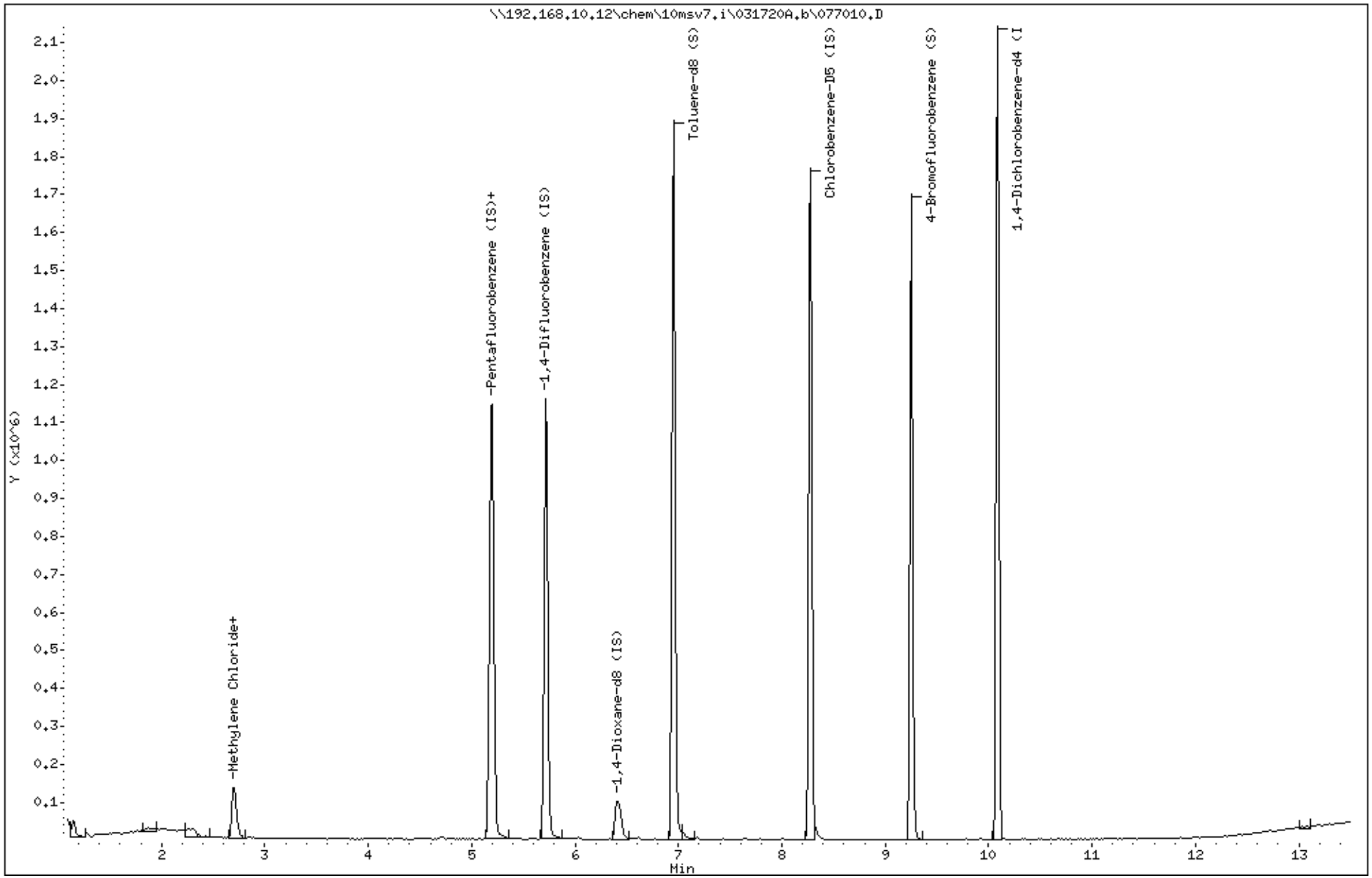
Client ID: SB-02-SS (23-25)
Sample Info: 10511741002,

Instrument: 10msv7.i

Operator: CD2
Column phase: Rtx-VMS SN1573141
Column diameter: 0.25



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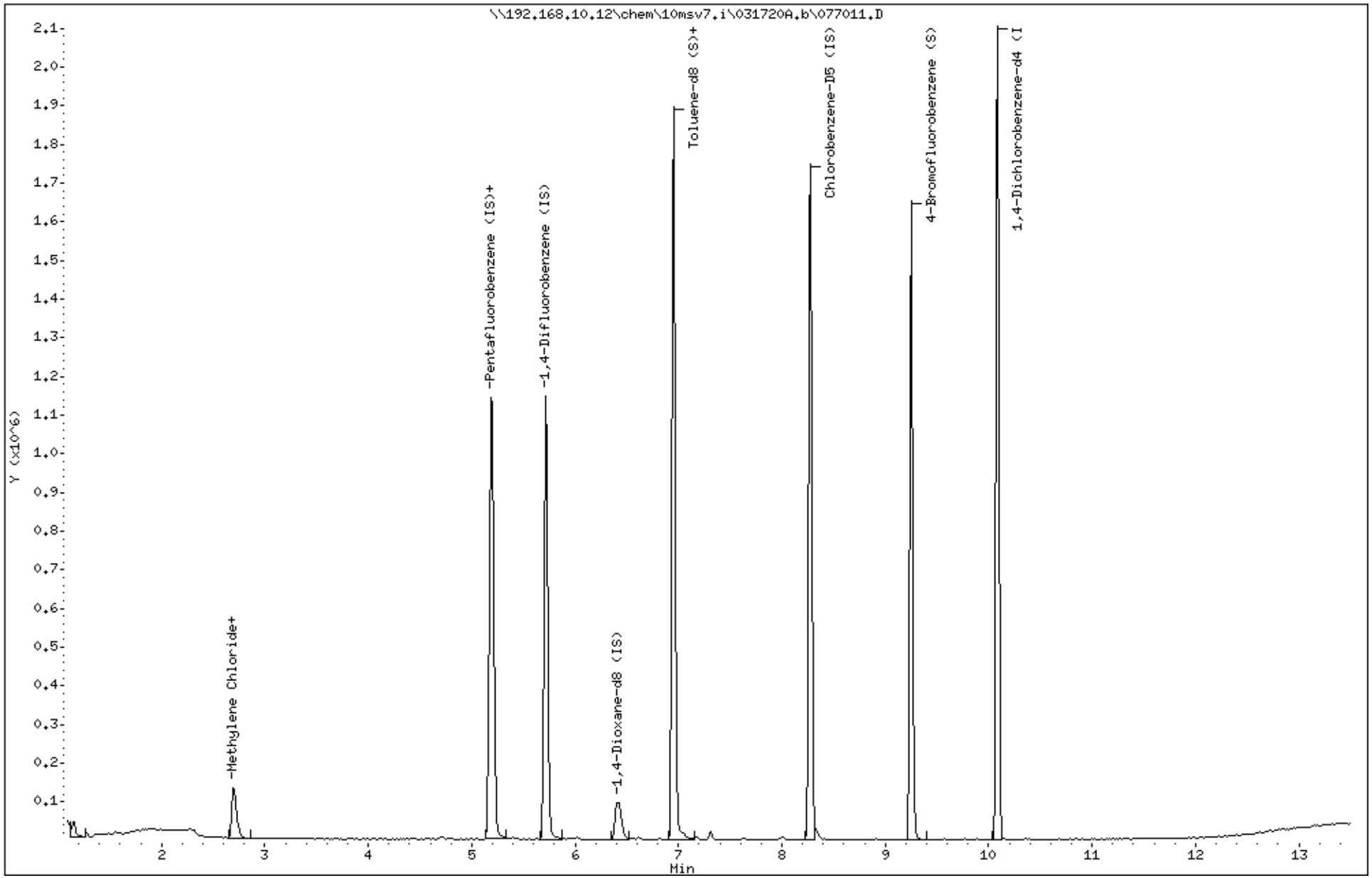
Client ID: SB-03-SS (23-25)
Sample Info: 10511741003,

Instrument: 10msv7.i
Operator: CD2
Column phase: Rtx-VMS SN1573141
Column diameter: 0.25



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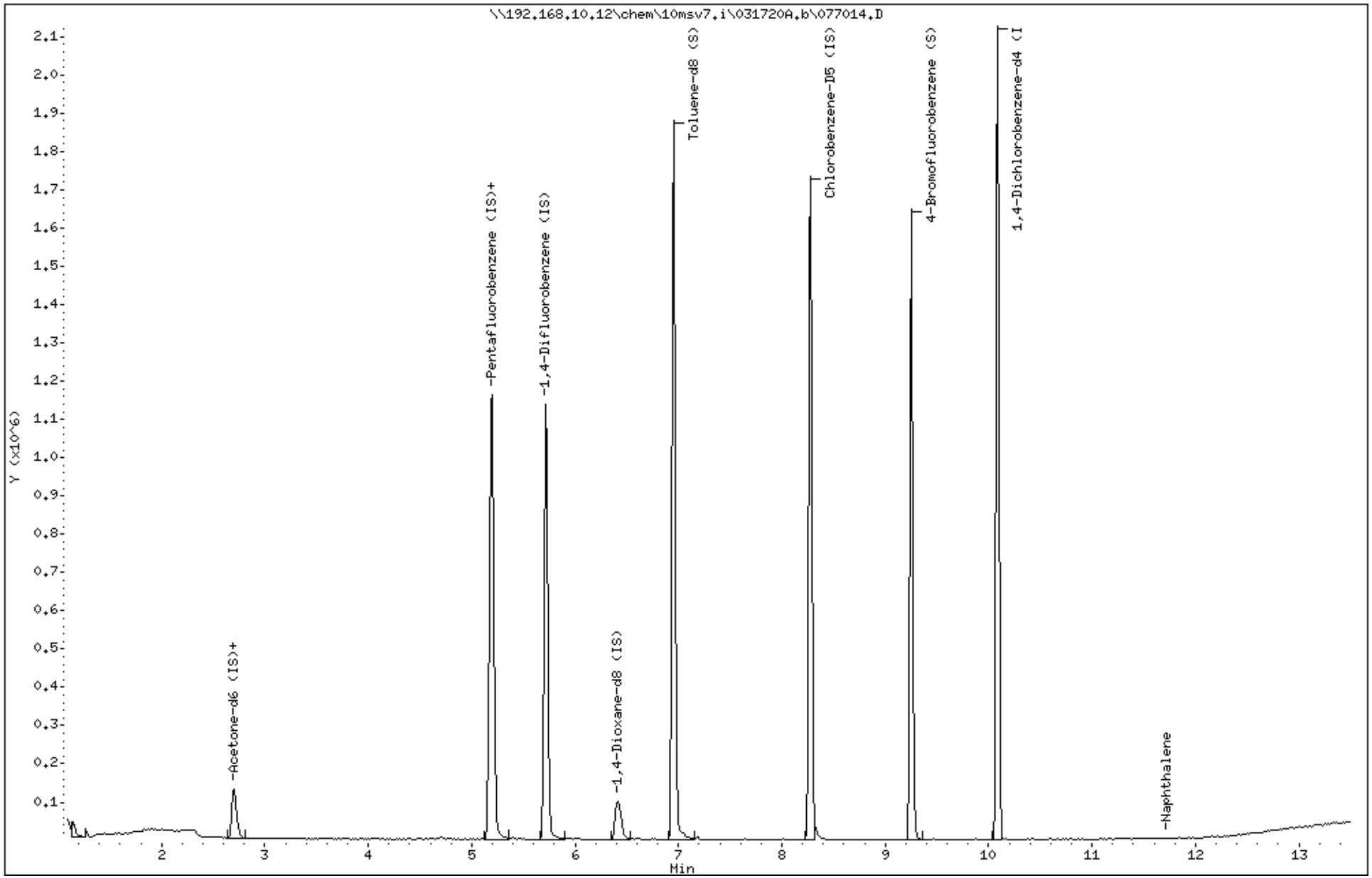
Date : 17-MAR-2020 17:04
Client ID: SB-04-SS (23-25)
Sample Info: 10511741004,

Instrument: 10msv7.i
Operator: CD2
Column diameter: 0.25

Column phase: Rtx-VMS SN1573141



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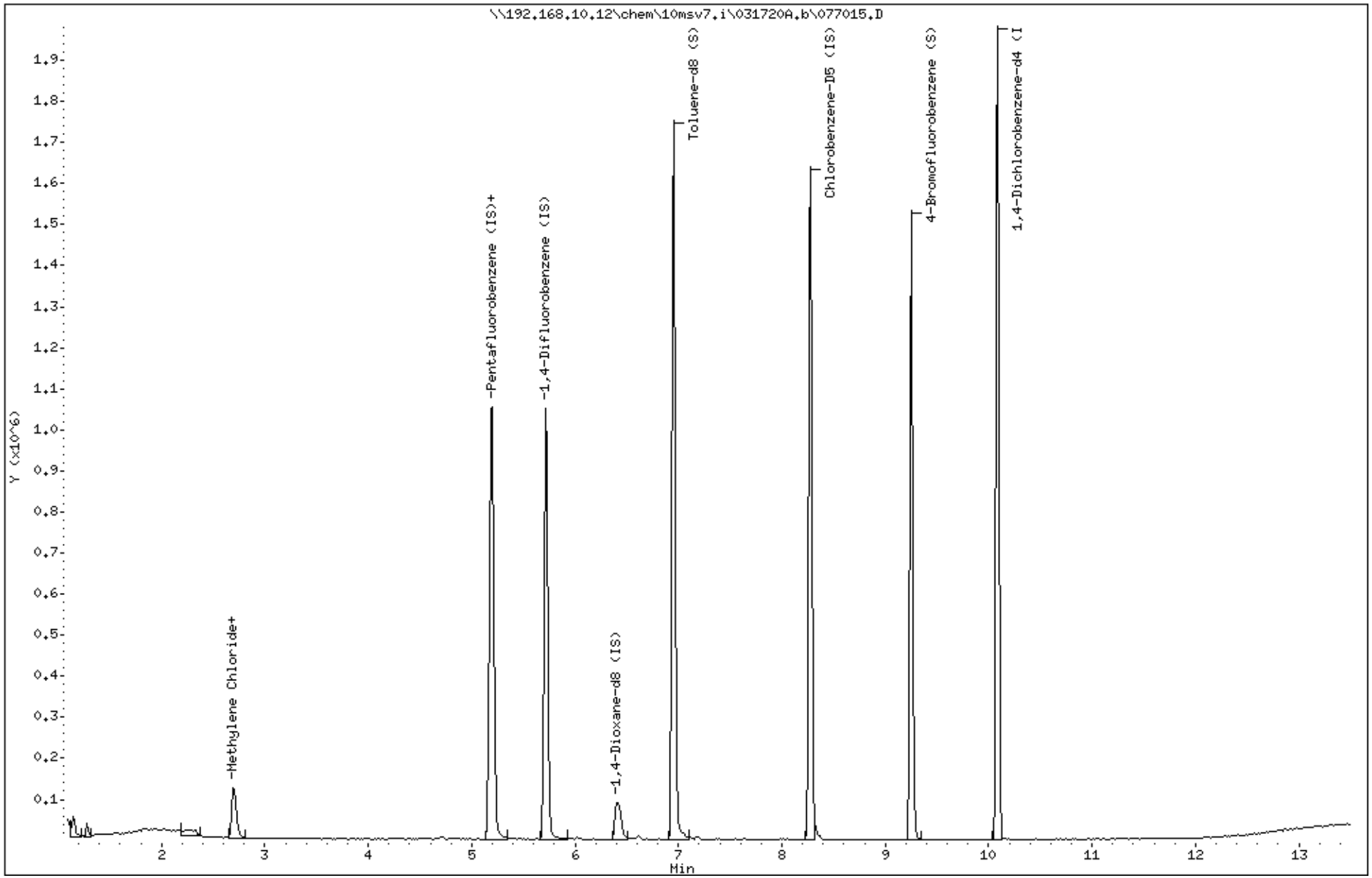
Date : 17-MAR-2020 17:25
Client ID: SB-05-SS (4-8)
Sample Info: 10511741011,

Instrument: 10msv7.i

Operator: CD2
Column phase: Rtx-VMS SN1573141
Column diameter: 0.25



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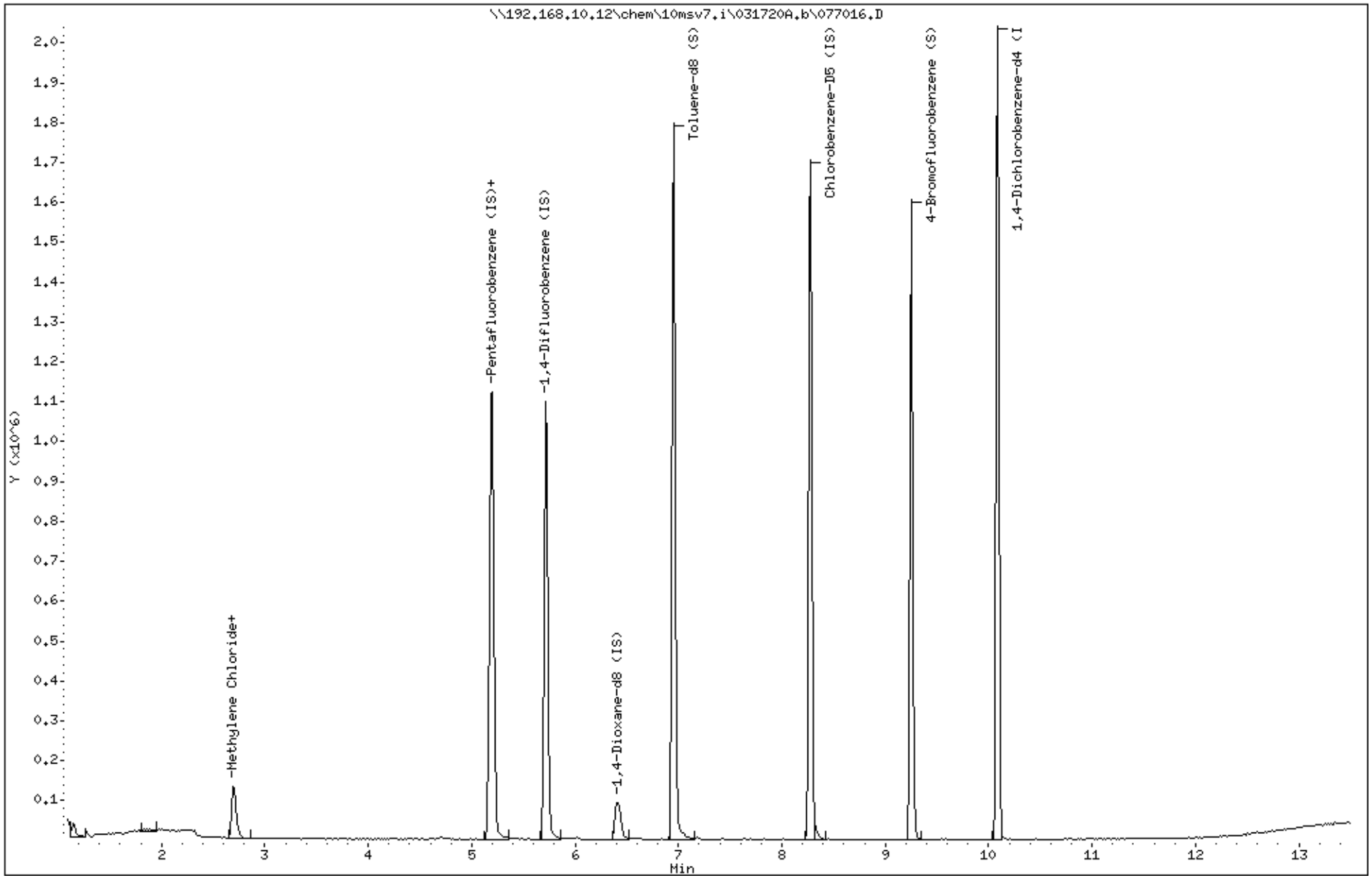
Date : 17-MAR-2020 17:47
Client ID: SB-06-SS (4-8)
Sample Info: 10511741012,

Instrument: 10msv7.i

Operator: CD2
Column phase: Rtx-VMS SN1573141
Column diameter: 0.25



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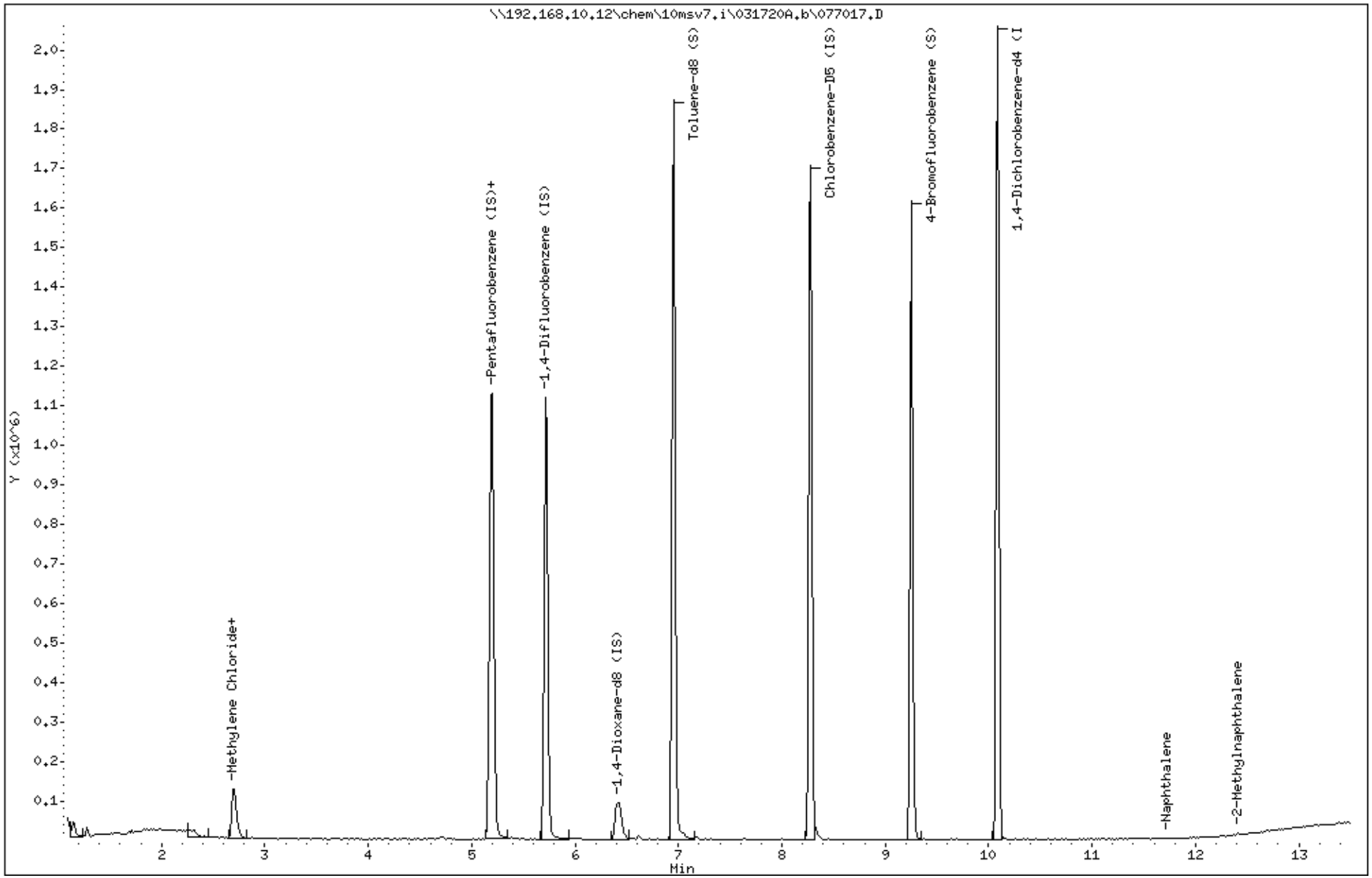
Client ID: SB-07-SS (4-8)
Sample Info: 10511741013,

Instrument: 10msv7.i

Operator: CD2
Column phase: Rtx-VMS SN1573141
Column diameter: 0.25



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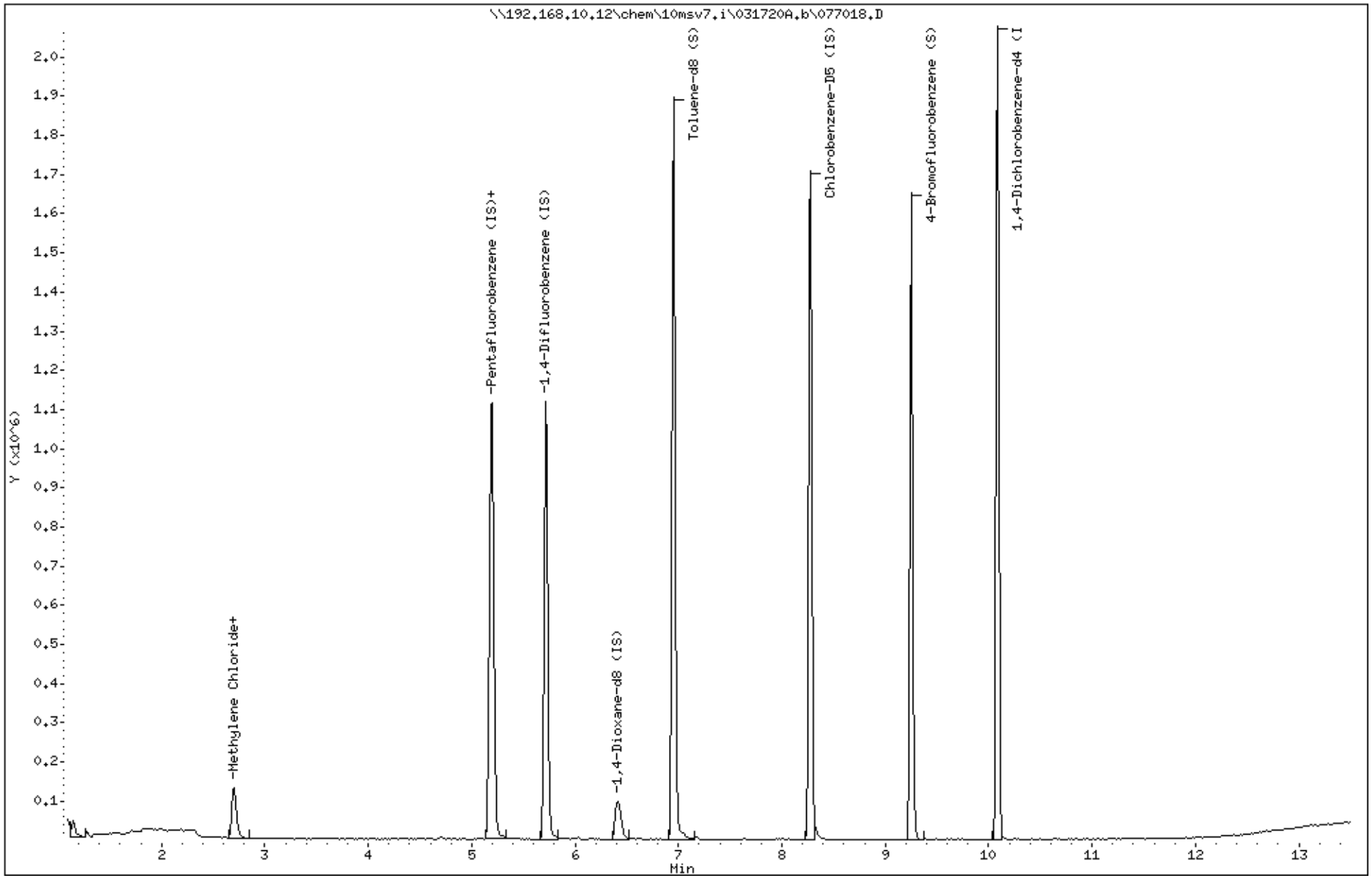
Date : 17-MAR-2020 18:30
Client ID: SB-08-SS (4-8)
Sample Info: 10511741014,

Instrument: 10msv7.i

Operator: CD2
Column phase: Rtx-VMS SN1573141
Column diameter: 0.25



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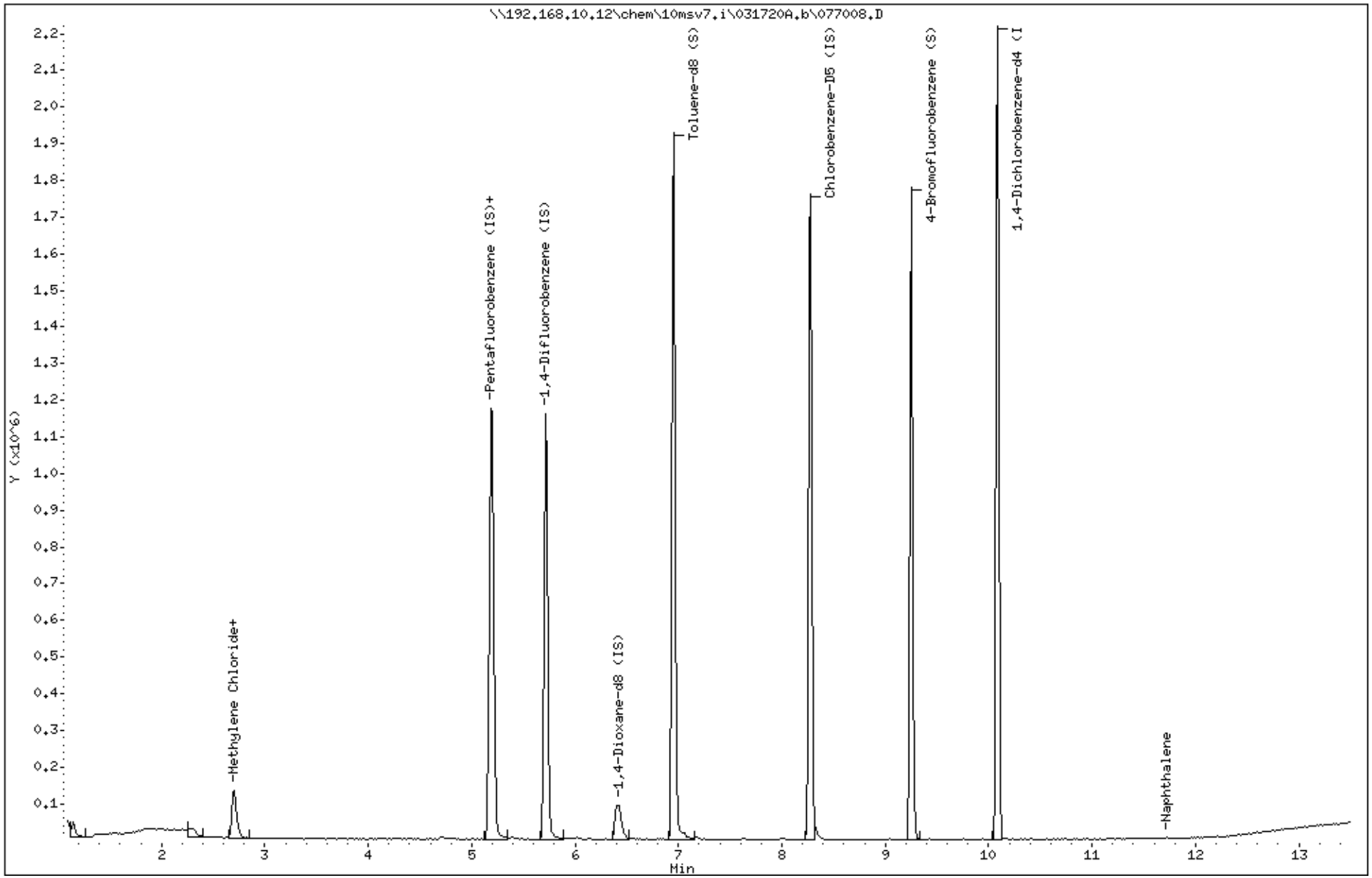
Date : 17-MAR-2020 14:54
Client ID: Trip Blank Soil
Sample Info: 10511741015,

Column phase: Rtx-VMS SN1573141

Instrument: 10msv7.i

Operator: CD2
Column diameter: 0.25



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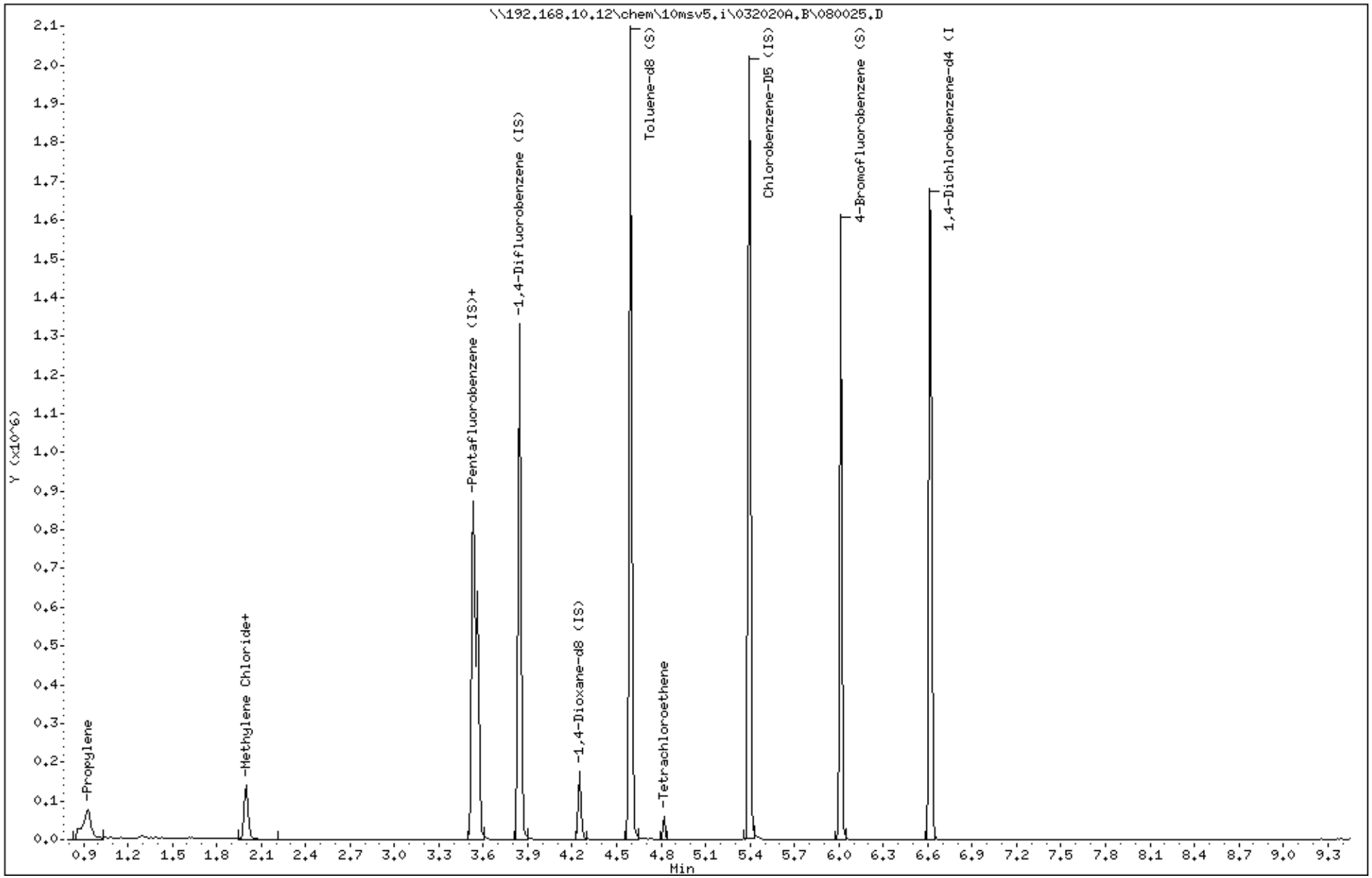
Date : 20-MAR-2020 17:25
Client ID: SB-01-GW (18.7-30)
Instrument: 10msv5.i
Sample Info: 10511741005
Purge Volume: 5.0
Operator: ML4
Column phase: Rtx-VMS SN1567189
Column diameter: 0.18



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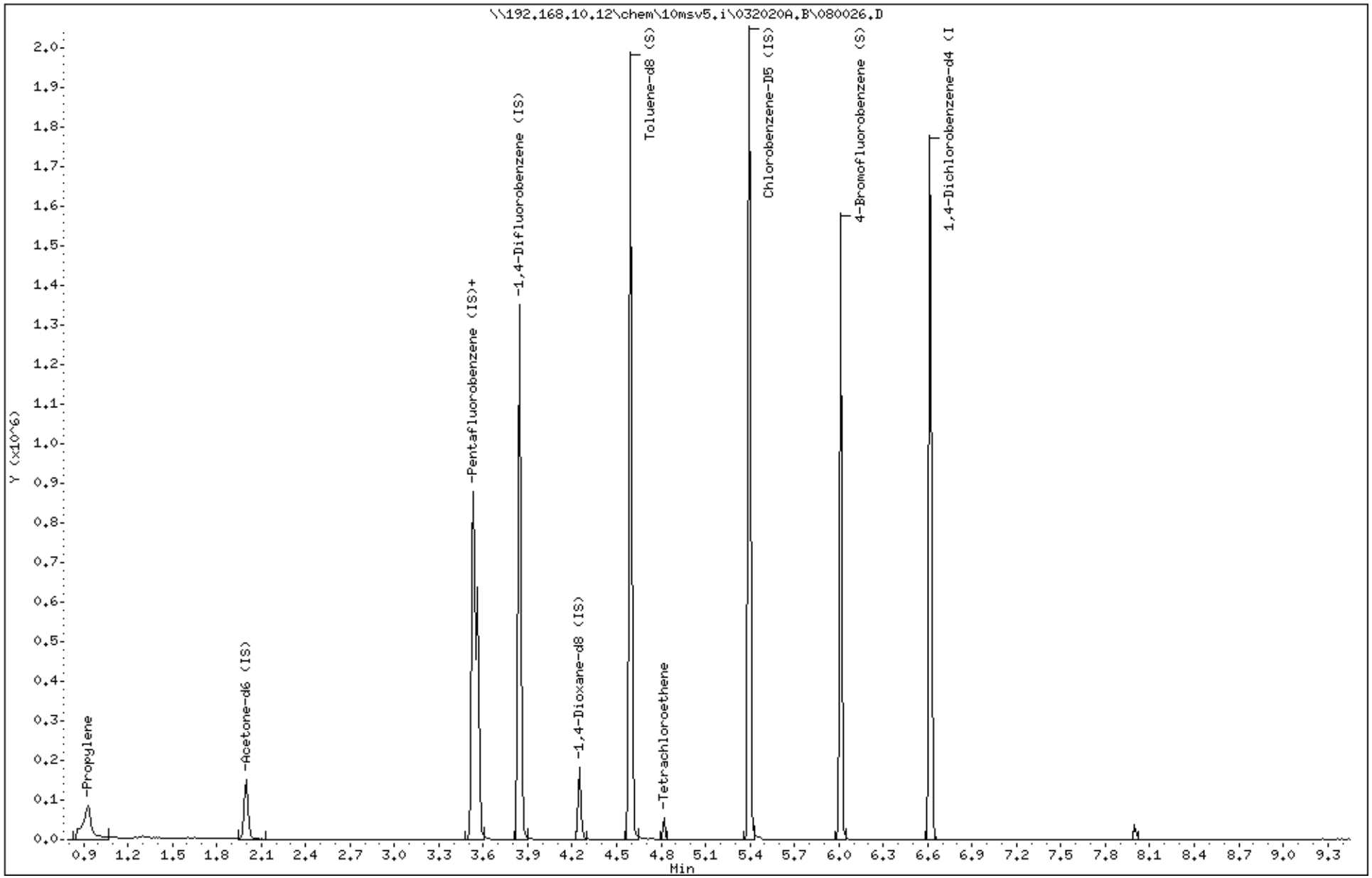
Date : 20-MAR-2020 17:42
Client ID: SB-02-GW (17.8-30)
Instrument: 10msv5.i
Sample Info: 10511741006
Purge Volume: 5.0
Operator: ML4
Column phase: Rtx-VMS SN1567189
Column diameter: 0.18



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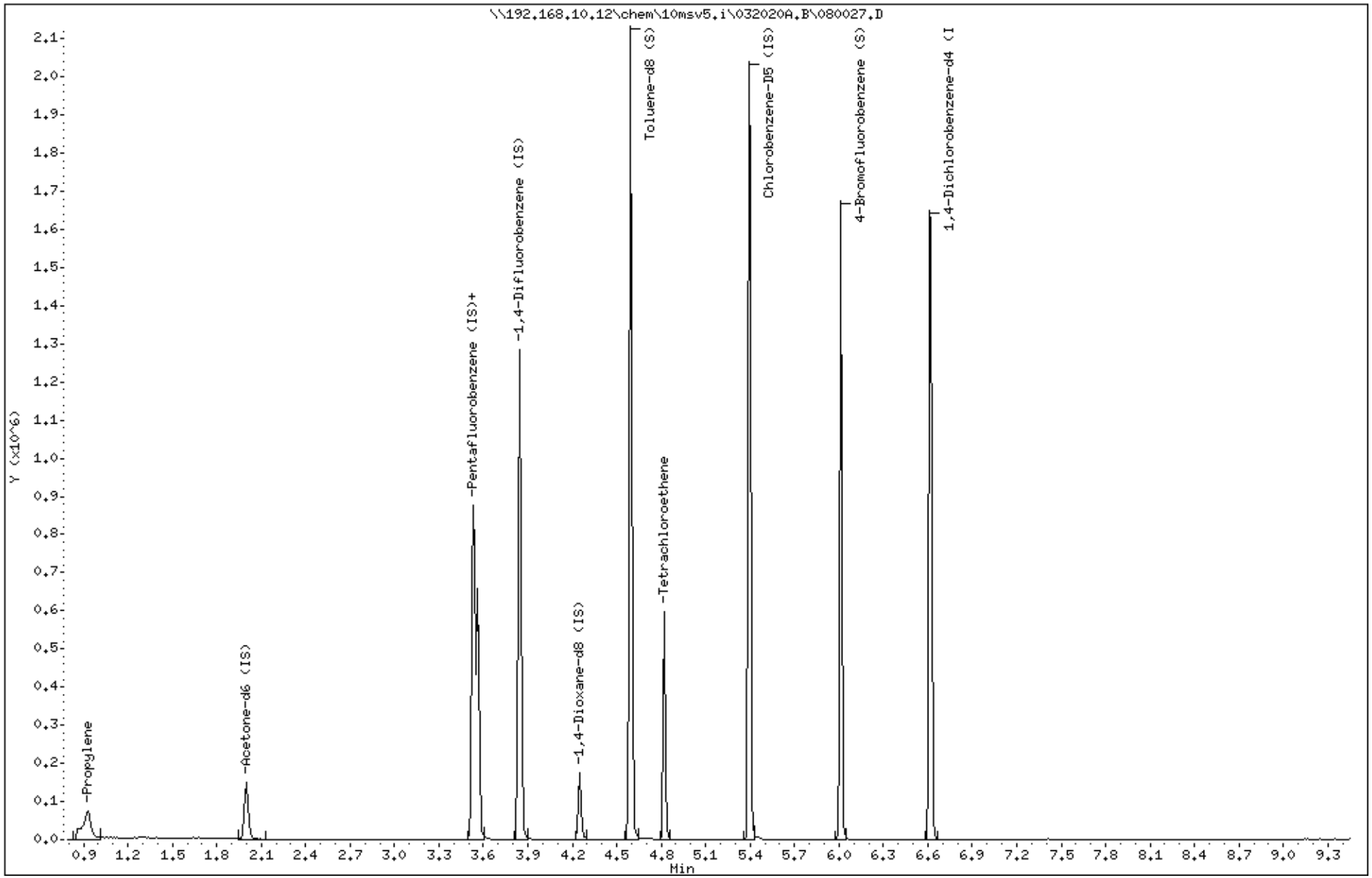
Date : 20-MAR-2020 17:59
Client ID: SB-03-GW (18.8-30)
Instrument: 10msv5.i
Sample Info: 10511741007
Purge Volume: 5.0
Operator: ML4
Column phase: Rtx-VMS SN1567189
Column diameter: 0.18



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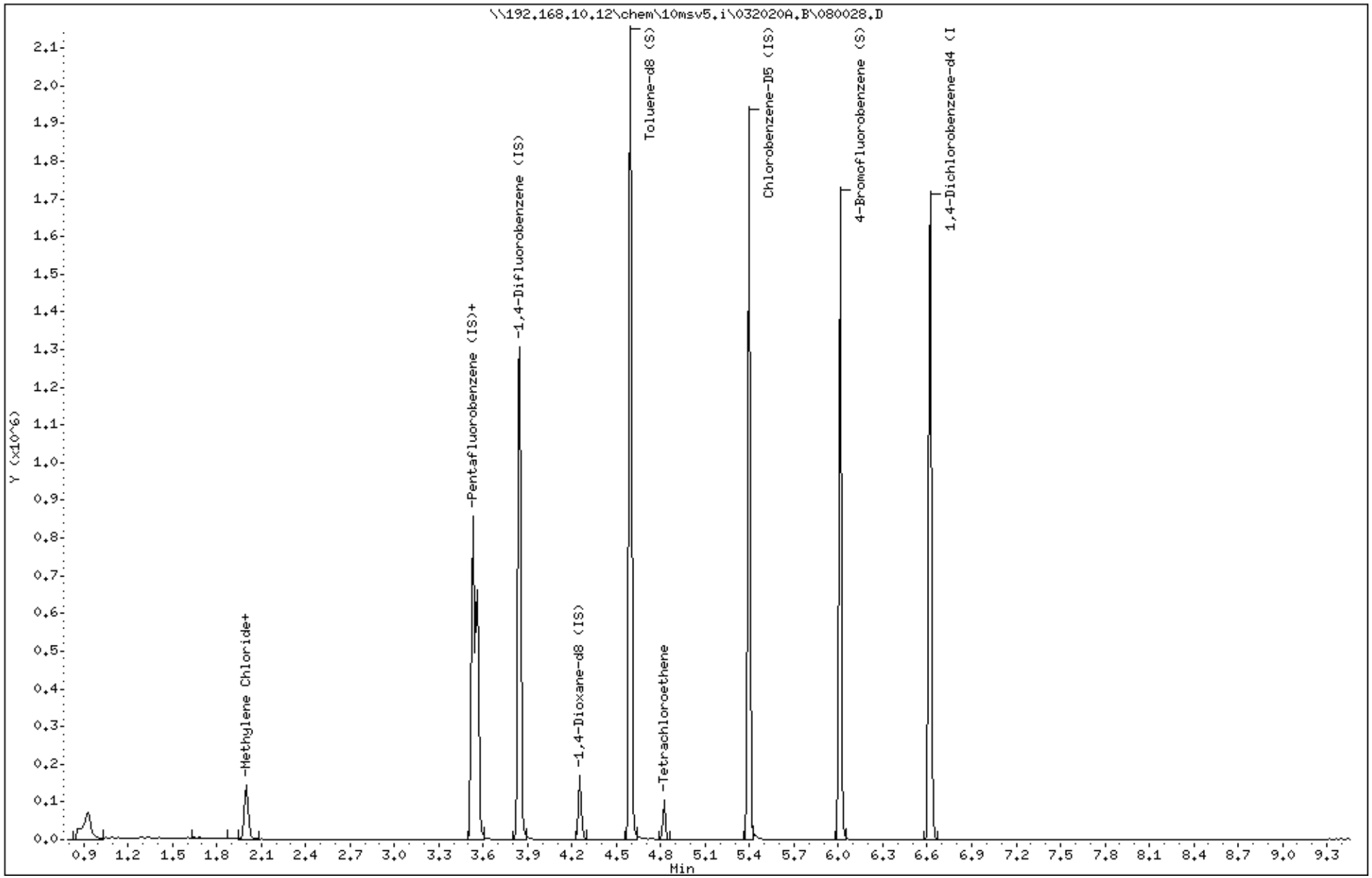
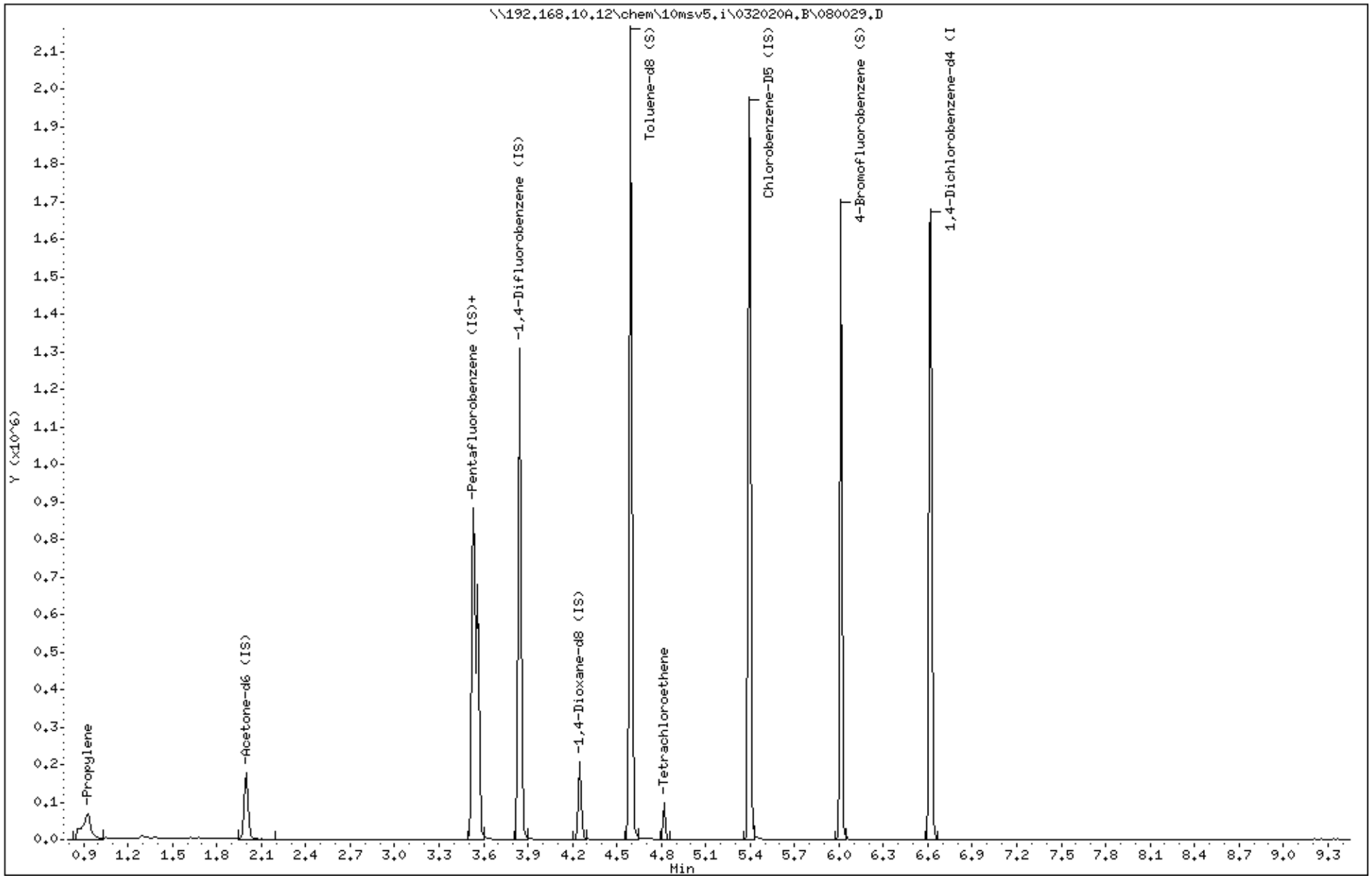
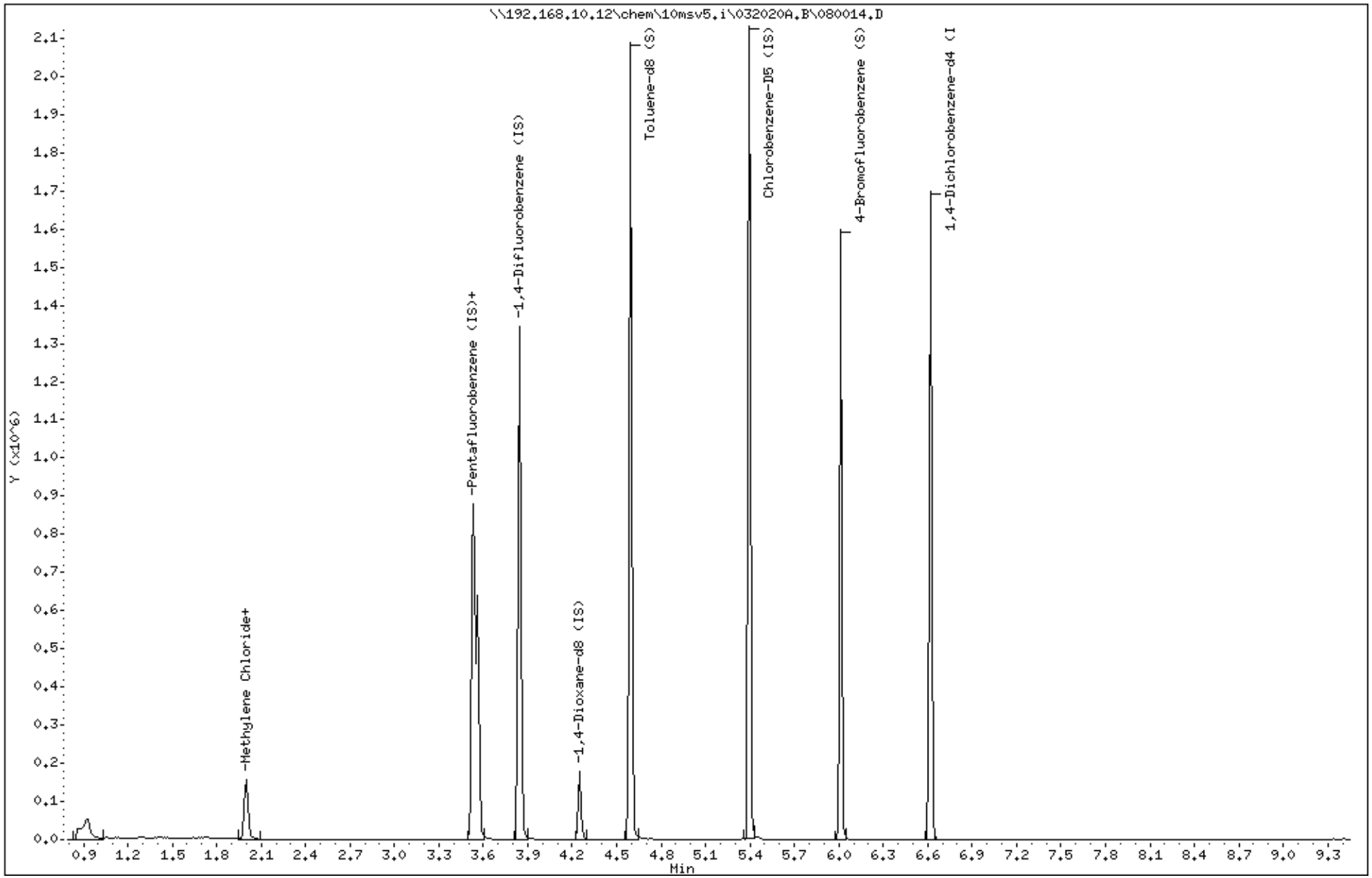
Date : 20-MAR-2020 18:16
Client ID: SB-04-GW (18.5-30)
Instrument: 10msv5.i
Sample Info: 10511741009
Purge Volume: 5.0
Operator: ML4
Column phase: Rtx-VMS SN1567189
Column diameter: 0.18



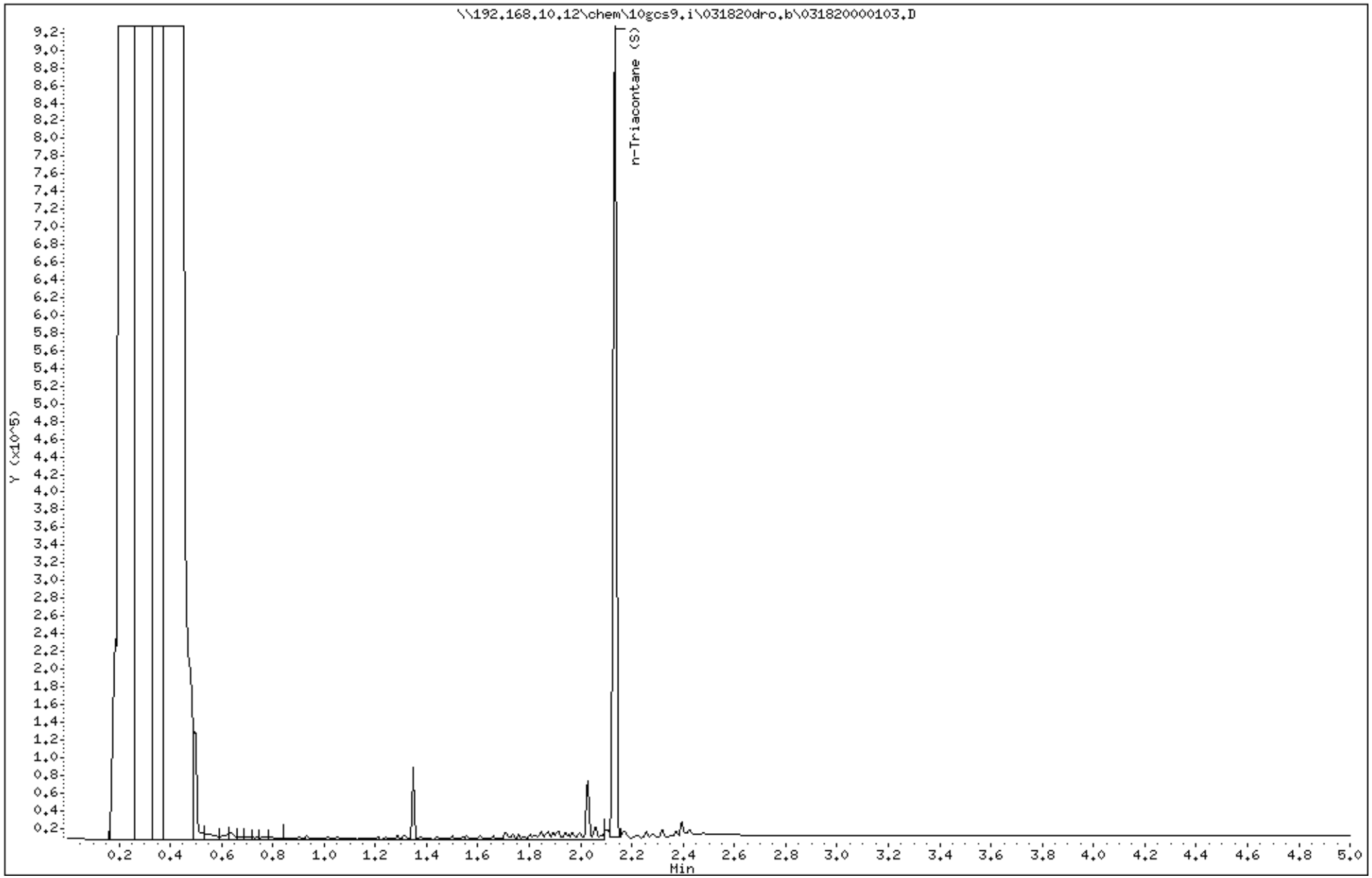
Data File: \\192.168.10.12\chem\10msv5.i\032020A.B\080029.D
Date : 20-MAR-2020 18:33
Client ID: SB-04-GW (18.5-30)
Instrument: 10msv5.i
Sample Info: 10511741010
Purge Volume: 5.0
Operator: ML4
Column phase: Rtx-VMS SN1567189
Column diameter: 0.18



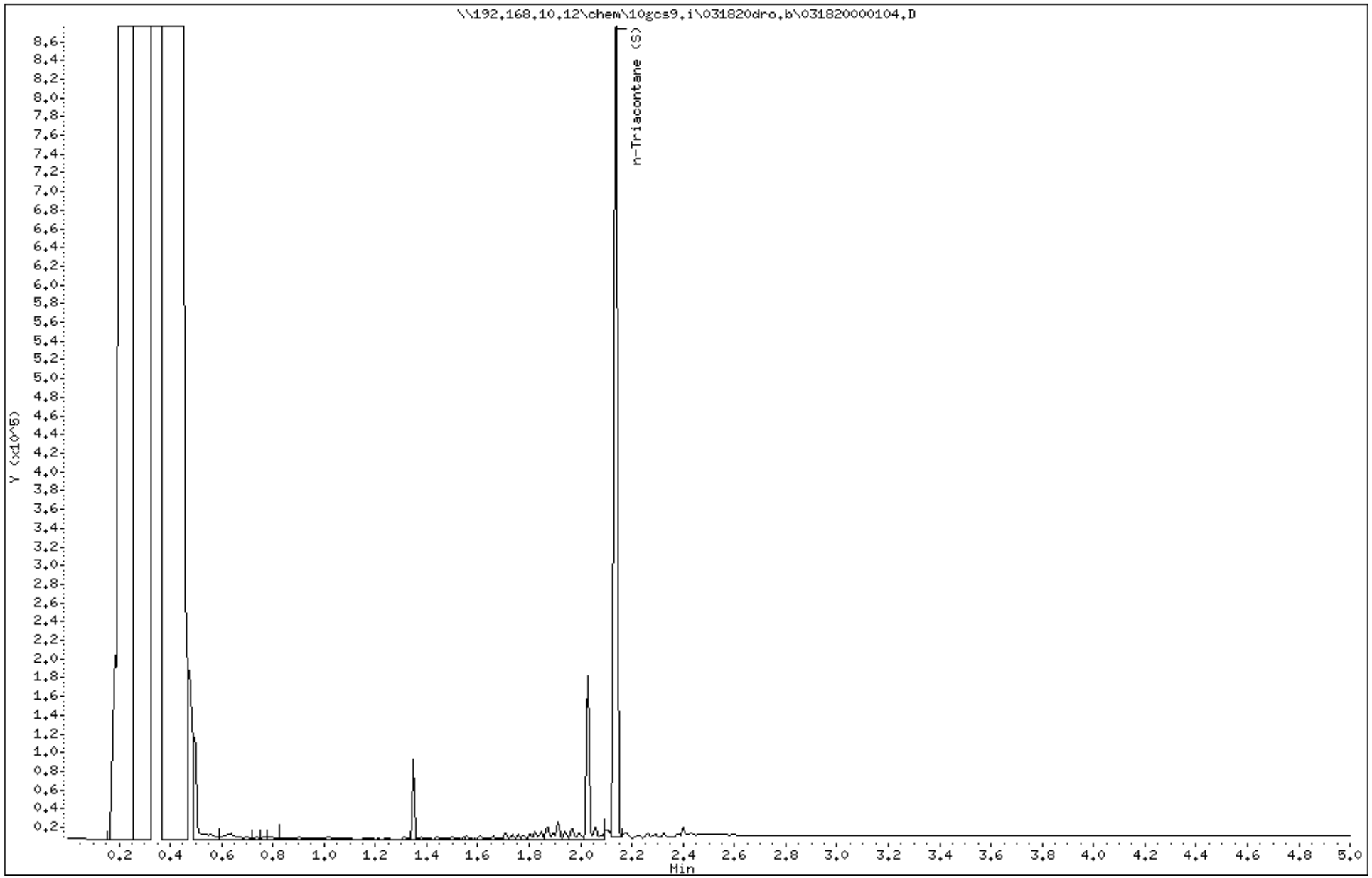
Data File: \\192.168.10.12\chem\10msv5.i\032020A.B\080014.D
Date : 20-MAR-2020 14:19
Client ID: Trip Blank Water
Instrument: 10msv5.i
Sample Info: 10511741016,,TB
Purge Volume: 5.0
Operator: ML4
Column phase: Rtx-VMS SN1567189
Column diameter: 0.18



Data File: \\192.168.10.12\chem\10gcs9.i\031820dro.b\031820000103.D
Date : 18-MAR-2020 19:24
Client ID: SB-05-SS (4-8)
Instrument: 10gcs9.i
Sample Info: 10511741011
Volume Injected (uL): 1.0
Operator: JVM
Column phase: DB-5-US1933048
Column diameter: 0.32

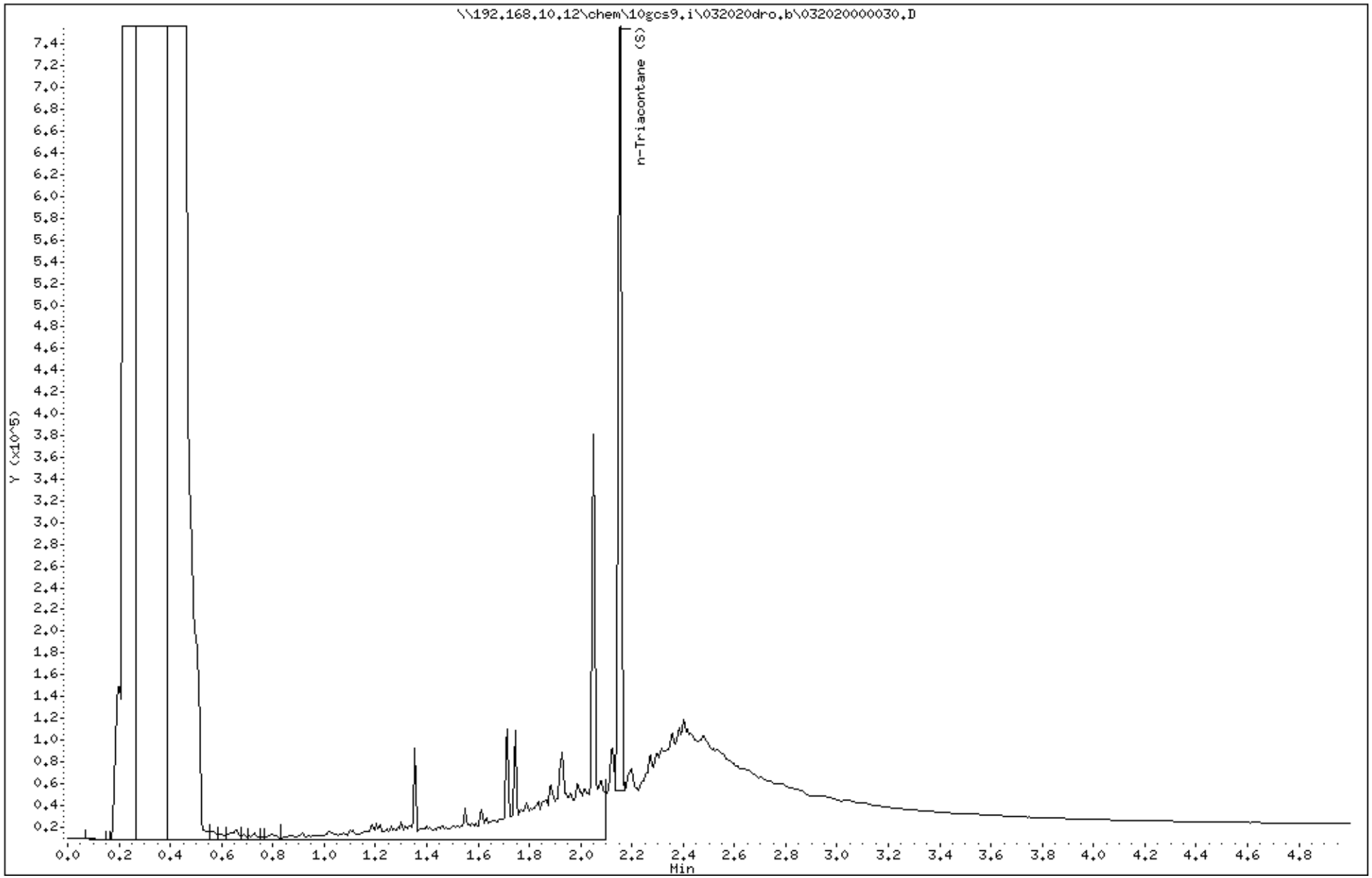


Data File: \\192.168.10.12\chem\10gcs9.i\031820dro.b\031820000104.D
Date : 18-MAR-2020 19:31
Client ID: SB-06-SS (4-8)
Instrument: 10gcs9.i
Sample Info: 10511741012
Volume Injected (uL): 1.0
Operator: JVM
Column phase: DB-5-US1933048
Column diameter: 0.32

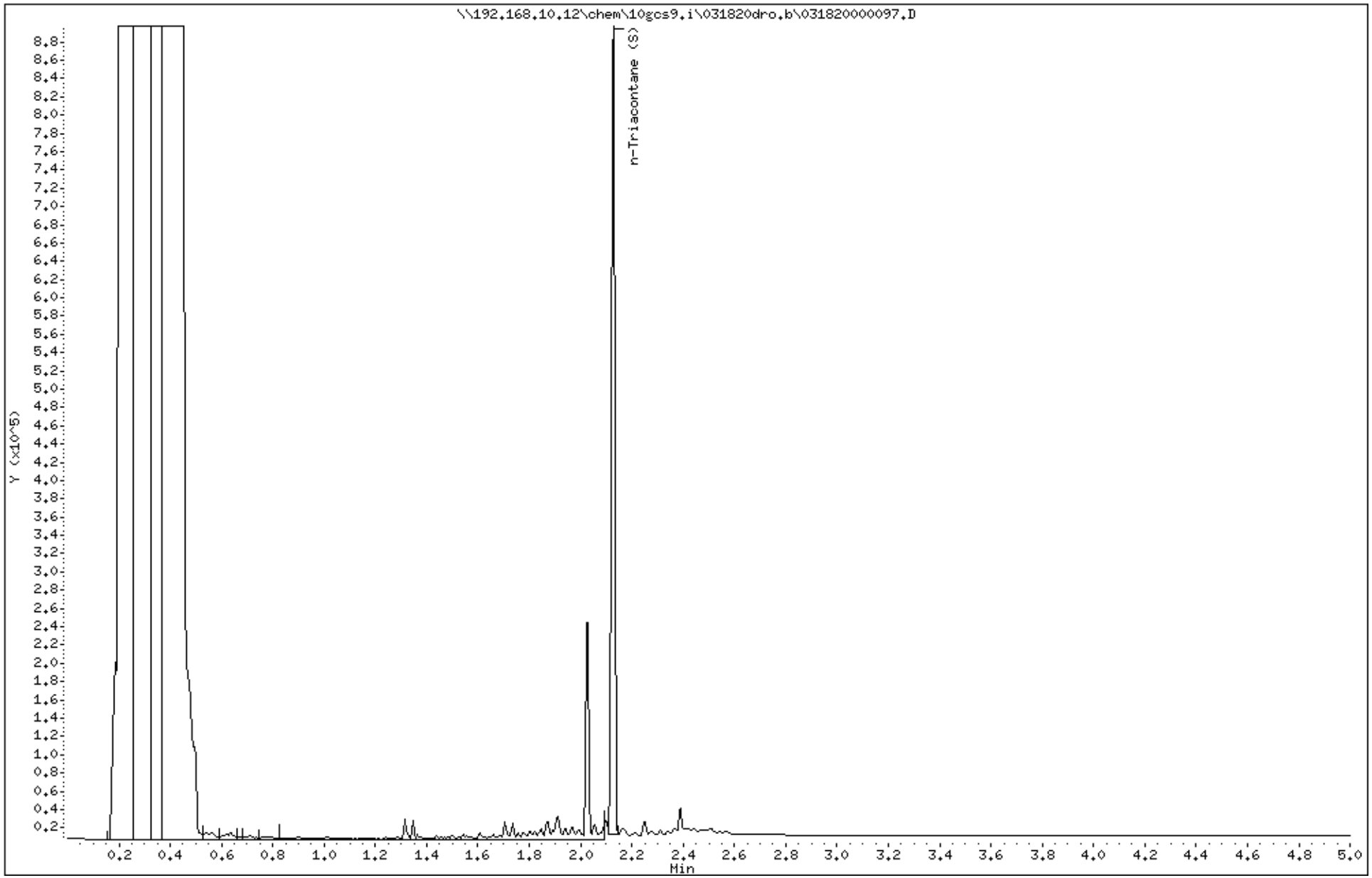


Data File: \\192.168.10.12\chem\10gcs9.i\032020dro.b\032020000030.D
Date : 20-MAR-2020 10:27
Client ID: SB-07-SS (4-8)
Sample Info: 10511741013
Volume Injected (uL): 1.0
Column phase: DB-5-US1933048

Instrument: 10gcs9.i
Operator: JVM
Column diameter: 0.32



Data File: \\192.168.10.12\chem\10gcs9.i\031820dro.b\031820000097.D
Date : 18-MAR-2020 18:43
Client ID: SB-08-SS (4-8)
Instrument: 10gcs9.i
Sample Info: 10511741014
Volume Injected (uL): 1.0
Operator: JVM
Column phase: DB-5-US1933048
Column diameter: 0.32



Appendix C

GPRS Report

Summary of Scanning for Underground Storage Tanks (UST's)

Prepared For: Bay West LLC

Prepared By:
Chase Loppnow
chase.loppnow@gprsinc.com
Project Manager-US-Midwest
414-305-0613

March 10, 2020

March 10, 2020

Bay West LLC
Attn: Erik Nimlos
Site: 700 E. Blackhawk Ave. Prairie Du Chien, WI

We appreciate the opportunity to provide this report for our work completed on March 10, 2020.

PURPOSE

The purpose of this project was to search for any suspected underground storage tanks (USTs) or suspected UST-related piping or other anomalies remaining on the property. The scope of work consisted of an area measuring approximately 7500 sq.ft. The interiors of buildings were excluded from the scope of this project. The client marked the desired locations prior to our scanning and our markings were then placed onto the surface using spray paint.

EQUIPMENT

- **Underground Scanning GPR Antenna**. The antenna with frequencies ranging from 250 MHz-450 MHz is mounted in a stroller frame which rolls over the surface. The surface needs to be reasonably smooth and unobstructed in order to obtain readable scans. Obstructions such as curbs, landscaping, and vegetation will limit the feasibility of GPR. The data is displayed on a screen and marked in the field in real time. The total depth achieved can be as much as 8' or more with this antenna but can vary widely depending on the types of materials being scanned through. Some soil types such as clay may limit maximum depths to 3' or less. As depth increases, targets must be larger in order to be detected and non-metallic targets can be especially difficult to locate. Depths provided should always be treated as estimates as their accuracy can be affected by multiple factors. For more information, please visit: Link

PROCESS

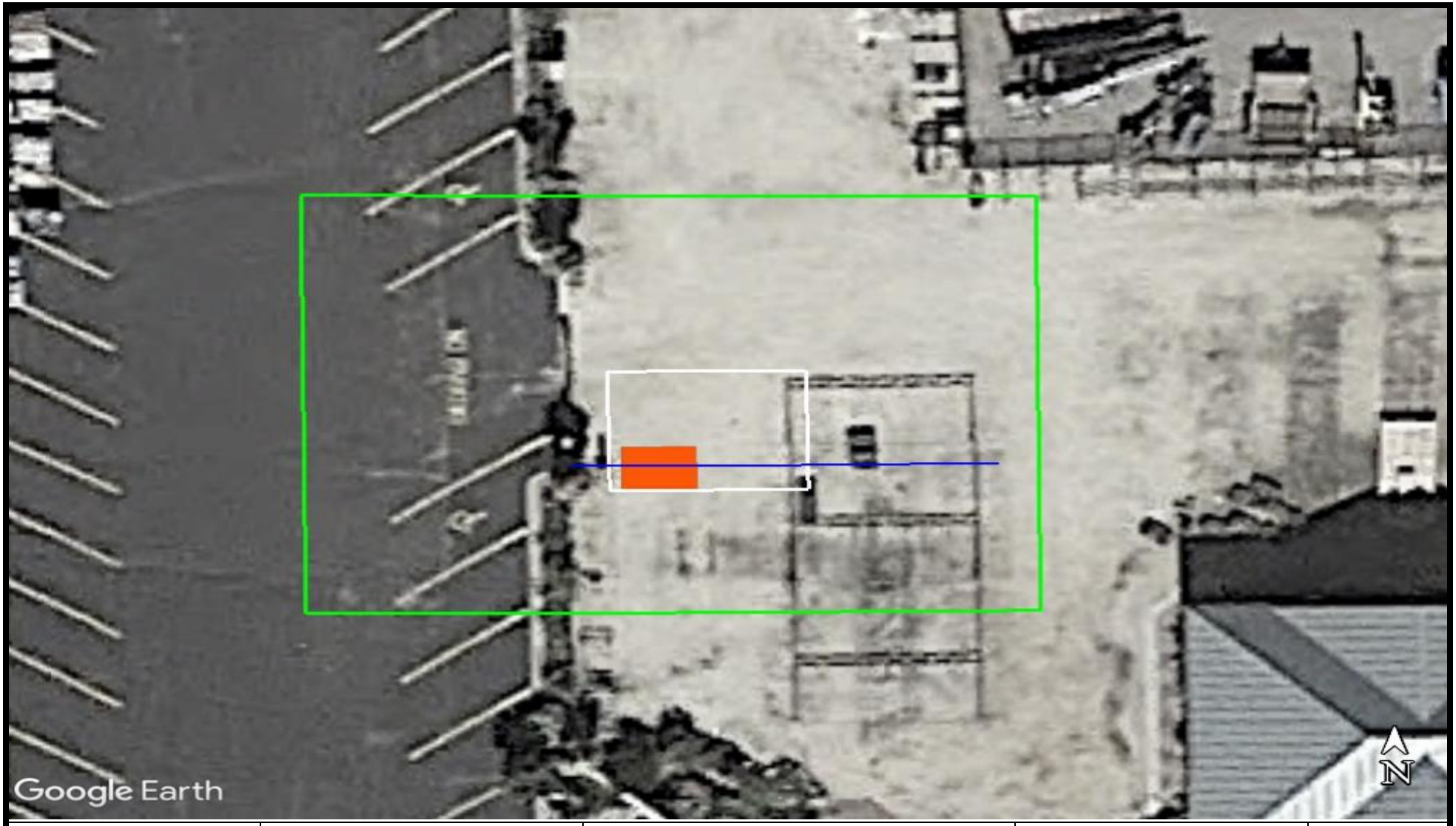
Initial GPR scans were collected in order to evaluate the data and calibrate the equipment. Based on these findings, a scanning strategy is formed, consisting of scanning the entire area in a grid with 1' scan spacing in order to locate any potential UST's that may remain at the site. The GPR data is viewed in real time and anomalies in the data were located and marked on the surface along with their depths using spray paint. Relevant scan examples were saved and will be provided in this report.

LIMITATIONS

Please keep in mind that there are limitations to any subsurface investigation. The equipment may not achieve maximum effectiveness due to soil conditions, above ground obstructions, reinforced concrete, and a variety of other factors. No subsurface investigation or equipment can provide a complete image of what lies below. Our results should always be used in conjunction with as many methods as possible including consulting existing plans and drawings, exploratory excavation or potholing, visual inspection of above-ground features, and utilization of services such as One Call/811. Depths are dependent on many factors so depth accuracy can vary throughout a site and should be treated as estimates only. Relevant scan examples were saved and will be provided in this report.

FINDINGS

The subsurface conditions at the time of the scanning allowed for maximum GPR depth penetration of 5' in most areas. Multiple utilities were observed during the scanning; however, utility locating was not part of the scope of this project. When scanning we found an area that looked like a possible excavation zone, this area was marked in white paint. There was also a reaction in the proposed area that lead to a water hose. When looking at the data it seemed there may have been another reaction below the water hose. But when interpreting the data it is hard to justify if the reaction is a possible UST or not, this area was marked in orange paint. The following pages will provide further explanation of the findings.



Prepared for: Bay West LLC
Prepared By: Chase Loppnow
Date of Scanning: 3/10/20

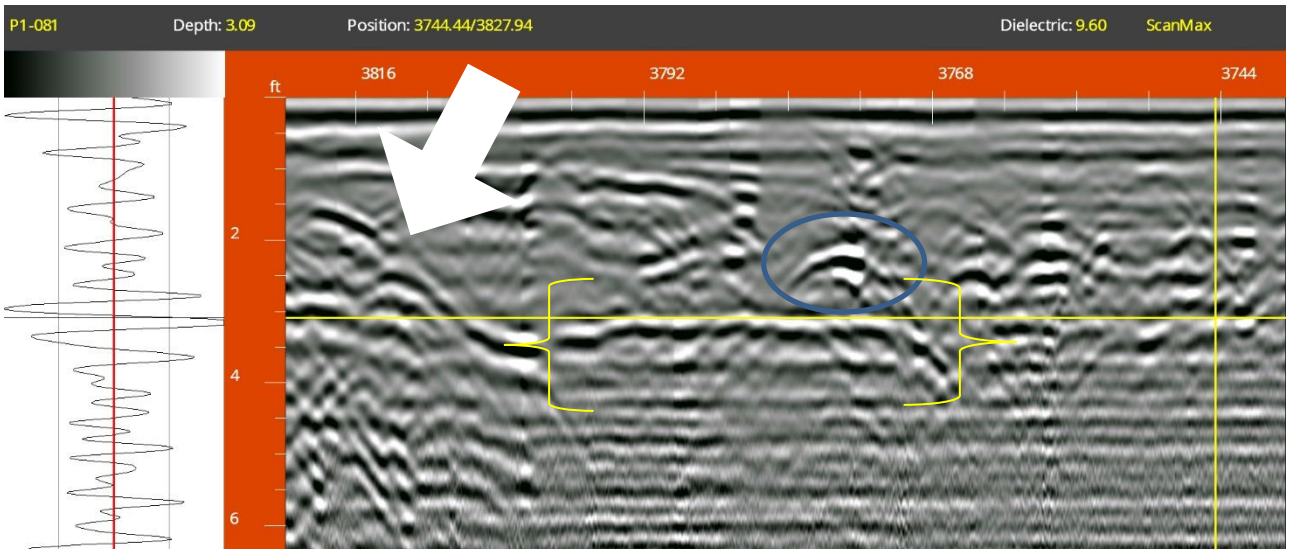
Terms and Conditions
GPRS does not provide land survey or civil engineering data collection or documentation. This is provided as a reference map of the field markings and is not survey-grade.

LEGEND

	POSS. EXCAV. AREA		SCAN AREA
	WATER		POSSIBLE UST

700 E. Blackhawk Ave. Prairie Du Chien, WI

Prepared by:
GPRS



Sample GPR data screenshot showing a possible former tank pit or excavation. The change in the data from the excavation is apparent but GPR cannot determine whether this is due to a tank removal or whether tanks may still exist beyond the maximum depth penetration of the GPR signal. The blue oval shows the reaction from the water hose and below that in the yellow bracket shows a reaction of a possible UST. The white arrow is pointing at the beginning of the possible excavation zone.

Site photo of the outline in orange of the possible UST and the blue markings of the water hose.

LOSING

GPRS, Inc. has been in business since 2001, specializing in underground storage tank location, concrete scanning, utility locating, and shallow void detection for projects throughout the United States. I encourage you to visit our website (www.gprsinc.com) and contact any of the numerous references listed.

GPRS appreciates the opportunity to offer our services, and we look forward to continuing to work with you on future projects. Please feel free to contact us for additional information or with any questions you may have regarding this report.

Signed,

Chase Loppnow
Project Manager—US-Midwest

Direct: 414-305-0613

chase.loppnow@gprsinc.com

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Reviewed,

Shaun Ashley
Area Manager—US-Midwest

Direct: 773-717-6935

Shaun.ash

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