SITE INVESTIGATION REPORT

ROCKTENN SITE
431 HELEN AVENUE
OTSEGO, MICHIGAN

MARCH 2022

PREPARED FOR:
ALLEGAN COUNTY
3283 122ND AVENUE
ALLEGAN, MICHIGAN 49010

Mannik Smith GROUP

TABLE OF CONTENTS

1.0 INTRODUCTION

The Mannik & Smith Group, Inc. (MSG) has been retained by Allegan County to perform site investigation activities at the RockTenn site (Site), located at 431 Helen Avenue, Otsego, Allegan County, Michigan. *Figure 1 - Site Location Map,* depicts the location of the Site relative to nearby roads and major topographic features.

The primary objective of the site investigation is to identify if hazardous substances are present in soil and/or groundwater in areas of the Site previously inaccessible due to the presence of derelict buildings; and if present, at what concentrations. Additionally, MSG advanced soil borings on the north portion of the Site across West River Street to assess the potential for contaminant migration onto the Site from the north adjoining property formerly utilized for landfill activities.

This Site Investigation Report summarizes the activities conducted by MSG in December 2021, the geology encountered, and the sample analytical results.

1.1 Site Location

The Site is located in a mixed commercial and residential area near residential homes in the City of Otsego, Allegan County, Michigan west of Helen Avenue and south of West River Street. The Site is bordered by commercial property to the southeast (south of West River Street), and residential property to the northeast and northwest. A portion of the north-adjoining parcel was reportedly formerly utilized for landfill activities associated with the previous paper mill activities. The west-adjoining parcel contains closed wastewater lagoon basins formerly associated with the previous paper mill activities. The Kalamazoo River makes up the southern property boundary of the Site. *Figure 2 – Site Map Limits of Work Area* depicts the area encompassing the site in addition to site features and adjoining properties.

1.2 Project Background

The Site is located north of the City's downtown on the north bank of the Kalamazoo River and is comprised two parcels (Parcel ID No. 54-015-006-00 and 54-800-001-00) totaling approximately 48 acres with 33 individually identified structures/buildings formerly utilized as a paper mill from 1906 until 2005. The structures/buildings on the Site are currently being razed in preparation of the Site for future redevelopment. The Site was classified as a "facility" in accordance with Part 201, based upon soil and groundwater analytical results collected during a Phase II Environmental Site Assessment (ESA) in 2013. Due to the presence and condition of the onsite buildings, no samples were collected beneath the buildings during the 2013 Phase II ESA. Due to the long-term use of the Site and buildings for paper manufacturing, there are likely sources of contamination that were not assessed in previous Site investigations.

1.3 Intended Use of the Site

Allegan County currently owns the property and desires to sell the property to potential developers. The Site is currently vacant with ongoing demolition of Site structures. Demolition activities are anticipated to be complete by the summer of 2022. According to Allegan County, a mixed-use commercial/residential development is the desired redevelopment objective at the property.

1.4 Previous Site Investigations

MSG reviewed a previous Phase I and Phase II ESA completed for the Site by Environmental Consulting & Technology, Inc. (ECT) dated July 2012 and October 2013, respectively. ECT identified the following recognized environmental conditions (RECs) associated with the Site.

- The presence of over 250 drums and totes within the main subject building and the outbuilding to the west of the main subject building of the Site (subsequently removed);
- The former presence of waste water lagoon basins on the western portion of the Site (not part of the subject property of this investigation);
- The potential presence of polychlorinated biphenyl's (PCBs) due to former operations as a paper mill and from transformer dismantling activities completed by a previous owner of the Site;
- The presence of staining and oily sludges in pits throughout accessible portions of the main subject building;
- The presence of a diesel fuel aboveground storage tank (AST) in the fire suppression building located along the river bank (subsequently removed);
- The presence of two closed Type III landfills north of the Site; and
- The presence of the Kalamazoo River Superfund site located along the southern boundary of the property.

In February 2013, ECT conducted a Phase II ESA to investigate the RECs identified in ECT's Phase I ESA. To evaluate the RECs, ECT: (1) advanced thirty-two soil borings to depths ranging between 5.0-feet and 20.0-feet below ground surface (bgs), (2) installed nine temporary groundwater monitoring wells, and (3) collected 26 soil samples and nine groundwater samples for laboratory analysis of volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), metals (i.e., arsenic, barium, boron, cadmium, chromium, copper, iron, lead, magnesium, mercury, selenium, silver, thallium, and zinc), and PCBs, or a combination thereof.

Concentrations of barium, boron, iron, and zinc were identified in groundwater samples GB-8W and GB-9W above the Part 201 Residential and Nonresidential Drinking Water (DW) Generic Cleanup Criteria (GCC) and/or Groundwater Surface Water Interface (GSI) Screening Levels. These sample locations were located downgradient of the former wastewater lagoons located on the adjoining west parcel to the Site.

No concentrations of remaining metals, SVOCs, or VOCs were identified in groundwater samples collected by ECT greater than the most restrictive Part 201 Residential GCC.

Concentrations of various SVOCs were identified in soil samples GB-18, GB-19, and GB-21 above the Part 201 GSI Screening Levels. Concentrations of remaining SVOCs detected above laboratory method detection limits (MDLs) in soil samples collected by ECT did not exceed the most restrictive Part 201 Residential GCC. It should be noted, concentrations of naphthalene, 2-methylnaphthalene, and phenanthrene previously identified in GB-19 and/or GB-21 also exceed the current Part 201 Residential and/or Nonresidential Soil Volatilization to Indoor Air Pathway (SVIAP) Screening Levels set forth in the September 2020 revision to the May 2013 Michigan Department of Environment, Great Lakes, and Energy (EGLE) Remediation and Redevelopment Division (RRD) *Guidance Document for the Vapor Intrusion Pathway*.

Concentrations of various metals were identified in soil samples GB-8, GB-9, GB-15, and GB-19, above the Part 201 Residential and Nonresidential Drinking Water Protection (DWP) GCC and/or Groundwater Surface Water Interface Protection (GSIP) Screening Levels. It should be noted, the concentrations of mercury previously identified in GB-9, GB-15, and GB-19 also exceed the current Part 201 Residential and/or Nonresidential SVIAP screening levels set forth in the September 2020 revision to the May 2013 EGLE RRD *Guidance Document for the Vapor Intrusion Pathway*.

Concentrations of arsenic were identified above the Part 201 Residential Direct Contact (DC) GCC in soil samples GB-9, GB-15, and GB-19. Concentrations of lead were identified above the Part 201 Residential and Nonresidential DC GCC in soil samples GB-9 and GB-15.

No concentrations of remaining metals, SVOCs, or VOCs were identified in soil samples collected by ECT greater than the most restrictive Part 201 Residential GCC. Concentrations of PCBs were not detected above laboratory MDLs in soil samples collected and selected for analysis by ECT.

Based on the 2013 soil and groundwater laboratory analytical results, the Site was classified as a "facility" in accordance with Part 201. Figure 3 depicts ECT's 2013 soil boring/temporary groundwater monitoring well locations on a scaled site diagram

2.0 OBJECTIVES AND SCOPE OF WORK

In general, the objective of MSG's Site investigation is to identify the risk of environmental impact at the Site associated with historical operations and current site conditions. To facilitate this objective, MSG established the following project objectives and completed the following SOW:

1. Reviewed previous site investigations and discussed the Site history with Allegan County.
2. Advanced soil borings and collected soil samples from areas of the site previously covered by buildings.
3. Installed temporary monitoring wells and collected groundwater samples.
4. Prepared this Site Investigation Report summarizing investigation actions completed.

3.0 SUBSURFACE INVESTIGATION METHODOLOGY

The following subsections provide a detailed description of the field methodologies employed during the completion of the Site investigation activities.

3.1 Subsurface Utilities

MSG's drilling contractor contacted Michigan's one call utility notification center, MISS DIG, a minimum of 72 hours prior to intrusive onsite activities to locate and flag public subsurface utilities on or adjacent to the Site. Utilities were marked by the respective utility companies. Given the Site's demolition status, no active utilities are located on the Site. A natural gas main is located near the eastern property boundary of the parcel north of West River Street

3.2 Soil Boring Installation and Soil Sampling

Between December 20 and 21, 2021 MSG advanced eight soil borings (SB-1 through SB-8) and converted six of the soil borings to temporary monitoring wells (SB-3W through SB-8W). Soil borings SB-1 and SB-2

were installed on the adjacent property to the north across West River Street. Figure 4 illustrates the location of soil borings and temporary well samples.

Eight soil samples designated SB-1 (23.0-24.0'), SB-2 (19.0-20.0'), SB-3 (3.0-4.0'), SB-4 (5.0-6.0'), SB-5 (0.0-1.0'), SB-6 (2.0-3.0'), SB-7 (1.5-2.5'), and SB-8 (0.5-1.5') were submitted to Merit Laboratories, Inc. in East Lansing, Michigan (Merit), for analysis of volatile organic compounds (VOCs) using USEPA Method 8260, semi-volatile organic compounds (SVOCs) using USEPA Method 8270D, Michigan Ten Metals (i.e., arsenic, barium, cadmium, chromium, copper, lead, mercury, selenium, silver, and zinc) using USEPA Method 6020/7470A, and polychlorinated biphenyl's (PCBs) using USEPA Method 8082A. Six groundwater samples designated SB-3W, SB-4W, SB-5W, SB-6W, SB-7W, and SB-8W were submitted to Merit for analysis of VOCs using USEPA Method 8260, SVOCs using USEPA Method 8270, Michigan Ten Metals using USEPA Method 6020/7470A, and per- and polyfluoroalkyl substances (PFAS) using ASTM Method D7979.

Dark soil encountered during site demolition activities was stockpiled in a paved area north of the former building locations. MSG collected two composite soil samples (Stockpile West_Comp and Stockpile East_Comp) to determine if stockpiled soil is contaminated and develop a plan to reuse and/or properly dispose of the stockpiled soil. The stockpile soil samples were submitted for laboratory analysis of VOCs, SVOCs, metals, and PCBs.

The table below summarizes MSG's December 2021 site investigation activities:

Boring Location and Terminal Depth (feet bgs)	Laboratory Analytical Parameters	Boring Objective	Sample Selection Justification
SB-1 (25.0)	**Soil:** VOCs, SVOCs, PCBs, and metals **Groundwater:** NA	Assess potential for contaminant migration onto the Site from the north adjoining property (closed landfill)	**Soil:** Based upon the lack of field evidence of impact or elevated PID readings, sample collected at end of boring. **Groundwater:** Not encountered
SB-2 (20.0)	**Soil:** VOCs, SVOCs, PCBs, and metals **Groundwater:** NA	Assess potential for contaminant migration onto the Site from the north adjoining property (closed landfill)	**Soil:** Based upon the lack of field evidence of impact or elevated PID readings, sample collected at end of boring. **Groundwater:** Not encountered
SB-3 (20.0)	**Soil:** VOCs, SVOCs, PCBs, and metals **Groundwater:** VOCs, SVOCs, metals, and PFAS	Assess potential for contamination beneath building concrete slab on western portion of Site	**Soil:** Sample collected at the depth of non-native fill/debris material. **Groundwater:** Collected

Boring Location and Terminal Depth (feet bgs)	Laboratory Analytical Parameters	Boring Objective	Sample Selection Justification
SB-4 (20.0)	Soil: VOCs, SVOCs, PCBs, and metals Groundwater: VOCs, SVOCs, metals, and PFAS	Assess potential for contamination beneath building concrete slab on central portion of Site	Soil: Based upon the lack of field evidence of impact or elevated PID readings, sample collected in vadose soils above groundwater table. Groundwater: Collected
SB-5 (10.0)	Soil: VOCs, SVOCs, PCBs, and metals Groundwater: VOCs, SVOCs, metals, and PFAS	Assess potential for contamination beneath building basement concrete slab on central portion of Site	Soil: Based upon the lack of field evidence of impact or elevated PID readings, sample collected in vadose soils above groundwater table. Groundwater: Collected
SB-6 (15.0)	Soil: VOCs, SVOCs, PCBs, and metals Groundwater: VOCs, SVOCs, metals, and PFAS	Assess potential for contamination beneath former powerhouse building basement concrete slab	Soil: Sample collected at highest PID reading (77 ppm) and olfactory evidence of impact in the field (fuel oil odors) Groundwater: collected
SB-7 (10.0)	Soil: VOCs, SVOCs, PCBs, and metals Groundwater: VOCs, SVOCs, metals, and PFAS	Assess potential for contamination beneath building basement concrete slab on eastern portion of Site	Soil: Based upon the lack of field evidence of impact or elevated PID readings, sample collected in vadose soils above groundwater table. Groundwater: Collected
SB-8 (3.5)	Soil: VOCs, SVOCs, PCBs, and metals Groundwater: VOCs, SVOCs, metals, and PFAS	Assess potential for contamination at clarifier tanks and piping on southern portion of Site	Soil: Based upon the lack of field evidence of impact or elevated PID readings, sample collected in vadose soils above groundwater table. Groundwater: Collected
Stockpile West_Comp	Soil: VOCs, SVOCs, PCBs, metals Groundwater: NA	Assess potential for contamination in western portion of stockpiled soil north of the former building locations	Soil: Based upon the lack elevated PID readings, composite sample collected from visually black/gray stained soils within the stockpile. Groundwater: NA

Boring Location and Terminal Depth (feet bgs)	Laboratory Analytical Parameters	Boring Objective	Sample Selection Justification
Stockpile East_Comp	Soil: VOCs, SVOCs, PCBs, metals	Assess potential for contamination in eastern portion of stockpiled soil north of the former building locations	Soil: Based upon the lack elevated PID readings, composite sample collected from visually black/gray stained soils within the stockpile.
	Groundwater: NA		Groundwater: NA

bgs: below ground surface
ppm: parts per million
PID: photoionization detector

The soil borings were advanced to the desired depth using a Geoprobe® direct-push drill rig or hand auger equipped with a stainless steel bucket (SB-8). Soil sampling was performed for soil classification, verification of subsurface geologic conditions, and for investigating the potential of soil and/or groundwater contamination at the Site. Soil samples were generally collected on a continuous basis using a or a 5-foot long macro-core sampler, in the case of the Geoprobe® drill rig or using a hand auger equipped with a stainless steel bucket.

During drilling operations, the drilling equipment was cleaned to minimize the possibility of cross contamination. These procedures included cleaning equipment with a phosphate free solution (i.e., Alconox®) and rinsing with water after each sample collection. Drilling and sampling equipment was also cleaned in this manner prior to initiating field activities. Soil collected from 1- foot sample intervals was screened using a PID to determine if VOCs were present. Soil from specific depths was placed in plastic bags and allowed to volatilize. The headspace within each bag was then monitored with the PID. The PID is able to detect trace levels of organic compounds in the air space within the plastic bag.

Approximately 10 soil aliquots were collected from the western and eastern portions of the dark stockpiled soil and composited into one soil sample for each area of the stockpile (Stockpile West_Comp and Stockpile East_Comp) for laboratory analysis. Additionally, a portion of each composite sample was placed in a plastic bag and allowed to volatilize. The headspace within each bag was then monitored with the PID.

Soil samples for VOC analysis were preserved with methanol in accordance with USEPA Method 5035 modified.

Temporary wells were constructed of a 1-inch diameter polyvinyl chloride (PVC) riser casing with a minimum 5-foot long, 0.010-inch slot PVC screen placed within the soil boring to intersect the groundwater table. Groundwater sampling was conducted in general accordance with USEPA Low-flow (Minimal Drawdown) Ground-Water Sampling Procedures. Groundwater samples were collected using a peristaltic pump equipped with new polyethylene and silicone tubing at each well location.

The soil and groundwater samples were placed in appropriately labeled containers with Teflon® lined lids and/or sanitized glass jars, then placed in an ice-packed cooler and transported under chain of custody procedures for laboratory analysis within applicable holding times to Merit Laboratories, Inc. in East Lansing, Michigan.

4.0 SITE GEOLOGY AND HYDROLOGY

Soils were screened by a MSG field geologist and described utilizing the Unified Soil Classification System (USCS). Site borings indicate the near surface geology consists of fine to medium grained sand. This sand unit is consistent across the entire the Site. Non-native fill material consisting of brick and concrete debris was encountered from ground surface to approximately 10.0 feet bgs at soil boring location SB-3.

Groundwater was not encountered in soil borings SB-1 to 25.0 feet bgs or SB-2 to 20.0 feet bgs, the maximum depth explored. Groundwater was encountered in the shallow sand unit at depths ranging between approximately 1.0 and 10.0 feet bgs at boring locations SB-3 through SB-8.

The nearest surface water body is the Kalamazoo River adjoining the Site to the south. Based on ground and surface water elevations observed throughout the area, regional groundwater flow in the Site vicinity is inferred to the south, towards the Kalamazoo River.

Soil boring logs depicting the soil stratigraphy, sample depths, PID readings, and temporary monitoring well construction details are included in Appendix A.

5.0 ANALYTICAL RESULTS

The following subsections include a discussion of the results from the investigation activities.

The analytical results for the samples collected from the Site during MSG's December 2021 Site investigation were compared with the EGLE GCC developed under the authority of Part 201 of the Natural Resources and Environmental Protection Act (NREPA), P.A. 451 of 1994, as amended (Part 201).

Soil and groundwater sample results were also compared to the Residential and Nonresidential Volatilization to Indoor Air Pathway (VIAP) Screening Levels set forth in the September 2020 revision to the May 2013 EGLE RRD *Guidance Document for the Vapor Intrusion Pathway*.

5.1 Summary of Soil Boring Analytical Results

Soil sample analytical results from soil borings are summarized and compared to Part 201 Residential and Nonresidential GCC in Table 1 and Table 2. Refer to Figure 4 for a summary of analytical exceedances. Laboratory analytical reports are contained in Appendix B.

Concentrations of 2-methylnaphthalene, toluene, and xylenes were detected in SB-3 (3.0-4.0') above laboratory MDLs, but below the most restrictive Part 201 Residential GCC. No other concentrations VOCs, SVOCs, or PCBs were detected in soil samples collected from the Site in December 2021 above laboratory MDLs.

A concentration of lead (674,000 ug/Kg) in SB-3 (3.0-4.0') exceeds the Part 201 Residential Direct Contact (DC) GCC. A concentration of mercury (4,219 ug/Kg) in SB-3 (3.0-4.0') also exceeds the Part 201 Residential and Nonresidential Drinking Water Protection (DWP), Groundwater Surface Water Interface Protection (GSIP) GCC, and the Residential and Nonresidential Soil Volatilization to Indoor Air Pathway (SVIAP) Screening Levels. A concentration of selenium (420 ug/Kg) in SB-8 (0.5-1.5') exceeds the Part 201 Residential GSIP

GCC. Concentrations of remaining metals detected in soil above laboratory MDLs do not exceed the most restrictive Part 201 Residential GCC.

5.2 Summary of Stockpile Soil Analytical Results

Stockpile soil composite sample analytical results are compared to Part 201 Residential and Nonresidential GCC in Table 3 and Table 4.

No concentrations of SVOCs or PCBs were detected in stockpile composite soil samples collected from the Site in December 2021 above laboratory MDLs.

A concentration of tetrachloroethylene (PCE) (140 ug/Kg) was identified in Stockpile West_Comp above the most restrictive Part 201 Residential and Nonresidential Drinking Water Protection (DWP) GCC. No concentrations of PCE were detected in any of the other soil samples collected by MSG in December 2021, and no elevated PID readings were identified in soil screened within the stockpile. Therefore, MSG requested the laboratory reanalyze Stockpile West_Comp for PCE. Concentrations of PCE and remaining VOCs were not identified above laboratory MDLs in the two replicate analyses completed on the sample

A concentration of mercury (246 ug/Kg) in Stockpile West_Comp exceeds the most restrictive Part 201 GSIP GCC, and the Residential SVIAP Screening Levels. Concentrations of mercury were confirmed in two replicate analyses of Stockpile West_Comp (Stockpile West_Comp_Replicate and Stockpile West_Comp_Replicate 01). Concentrations of remaining metals detected in stockpile soil composite samples above laboratory MDLs do not exceed the most restrictive Part 201 Residential GCC.

5.3 Summary of Groundwater Analytical Results

Groundwater sample analytical results are summarized and compared to Part 201 Residential and Nonresidential GCC in Table 5, Table 6, and Table 7. Refer to Figure 4 for a summary of analytical exceedances. Laboratory analytical reports are contained in Appendix B.

No concentrations of VOCs or SVOCs were detected in groundwater samples collected from the Site in December 2021 greater than laboratory MDLs.

A concentration of arsenic (28 ug/L) was identified in SB-4W greater than the Part 201 Residential and Nonresidential Drinking Water (DW) and Groundwater Surface Water Interface (GSI) GCC. Concentrations of chromium were identified in SB-3W (39 ug/L) and SB-4W (62 ug/L) above the most restrictive Part 201 GSI GCC. Concentrations of lead were identified in SB-3W (33 ug/L), SB-4W (72 ug/L) and SB-5W (6 ug/L) greater than the Part 201 Residential and Nonresidential DW GCC. A concentration of mercury (0.4 ug/L) was identified in SB-3W greater than Part 201 Residential and Nonresidential Shallow Groundwater Volatilization to Indoor Air Pathway (SGW-VIAP) Screening Levels. Concentrations of remaining metals detected in groundwater above laboratory MDLs do not exceed the most restrictive Part 201 Residential GCC.

A concentration of perfluorononanoic acid (PFNA) (0.0075 ug/L) was identified in SB-8W greater than the Part 201 Residential and Nonresidential DW GCC. Concentrations of perfluorooctane sulfonic acid (PFOS) (0.047-

0.21 ug/L) were identified in SB-3W, SB-7W, and SB-8W greater than the Part 201 Residential and Nonresidential DW and GSI GCC. Concentrations of perfluorooctanoic acid (PFOA) (0.013-0.13 ug/L) were identified in SB-3W, SB-7W, and SB-8W greater than the Part 201 Residential and Nonresidential DW GCC. Concentrations of remaining PFAS detected in groundwater above laboratory MDLs do not exceed the most restrictive Part 201 Residential GCC.

6.0 CONCLUSIONS & RECOMMENDATIONS

Allegan County currently owns the subject property and plans to sell the property to potential developers. The Site is currently vacant with ongoing demolition of Site structures. Demolition activities are anticipated to be complete by the summer of 2022.

Between December 20 and 21, 2021 MSG completed Site investigation activities that consisted of the advancement of eight soil borings (SB-1 through SB-8), installation of six temporary monitoring wells (SB-3W through SB-8W), and the collection of eight soil and six groundwater samples for laboratory analysis of VOCs, SVOCs, metals, PCBs, and PFAS, or a combination thereof. Additionally, MSG collected two composite soil samples (Stockpile West_Comp and Stockpile East_Comp) to determine if stockpiled soil is contaminated and develop a plan to reuse and/or properly dispose of the stockpiled soil.

Concentrations of metals were identified in the soil and groundwater samples collected from the Site during the current and previous site investigations that exceed the Part 201 Residential and Nonresidential DWP/DW, GSIP/GSI, and DC cleanup criteria and/or the Residential and Nonresidential VIAP screening levels. No concentrations of VOCs, PNAs, PCBs, or metals were identified in the soil samples collected from the northern portion of the Site, across West River Drive.

Mercury was detected in the western portion of the stockpiled soil (Stockpile West_Comp) which exceeds the most restrictive Part 201 GSIP GCC, and the Residential SVIAP Screening Levels.

Concentrations of PFAS were identified in groundwater samples collected on the southern portion of the Site that exceed the Part 201 Residential and Nonresidential DW and/or GSI GCC.

Concentrations of VOCs, SVOCs, and PCBs were not identified in soil and/or groundwater samples collected from the Site in December 2021 greater that the most restrictive Part 201 Residential GCC.

It should be noted, concentrations of mercury, naphthalene, 2-methylnaphthalene, and/or phenanthrene identified during ECT's 2013 Phase II ESA activities in GB-9, GB-15, GB-19 and/or GB-21 also exceed the current Part 201 Residential and/or Nonresidential SVIAP screening levels set forth in the September 2020 revision to the May 2013 EGLE RRD *Guidance Document for the Vapor Intrusion Pathway*.

RECOMMENDATIONS:

MSG recommends a limited site investigation in the area of ECT's previous soil borings GB-15 and GB-19, and MSG's current soil boring SB-3, where concentrations of arsenic and lead were identified greater than the Part 201 Residential DC GCC. The objective of the limited site investigation is to define the vertical and horizontal extent of metals impact and develop a plan address soil containing concentrations of arsenic and lead above the applicable Part 201 Residential DC GCC.

Due to the field olfactory evidence of impact (fuel oil odors) identified at MSG's soil boring SB-6, MSG recommends an environmental professional be present onsite during future slab and foundation demolition activities in the area of the former powerhouse to document site conditions, and screen and sample soil if appropriate.

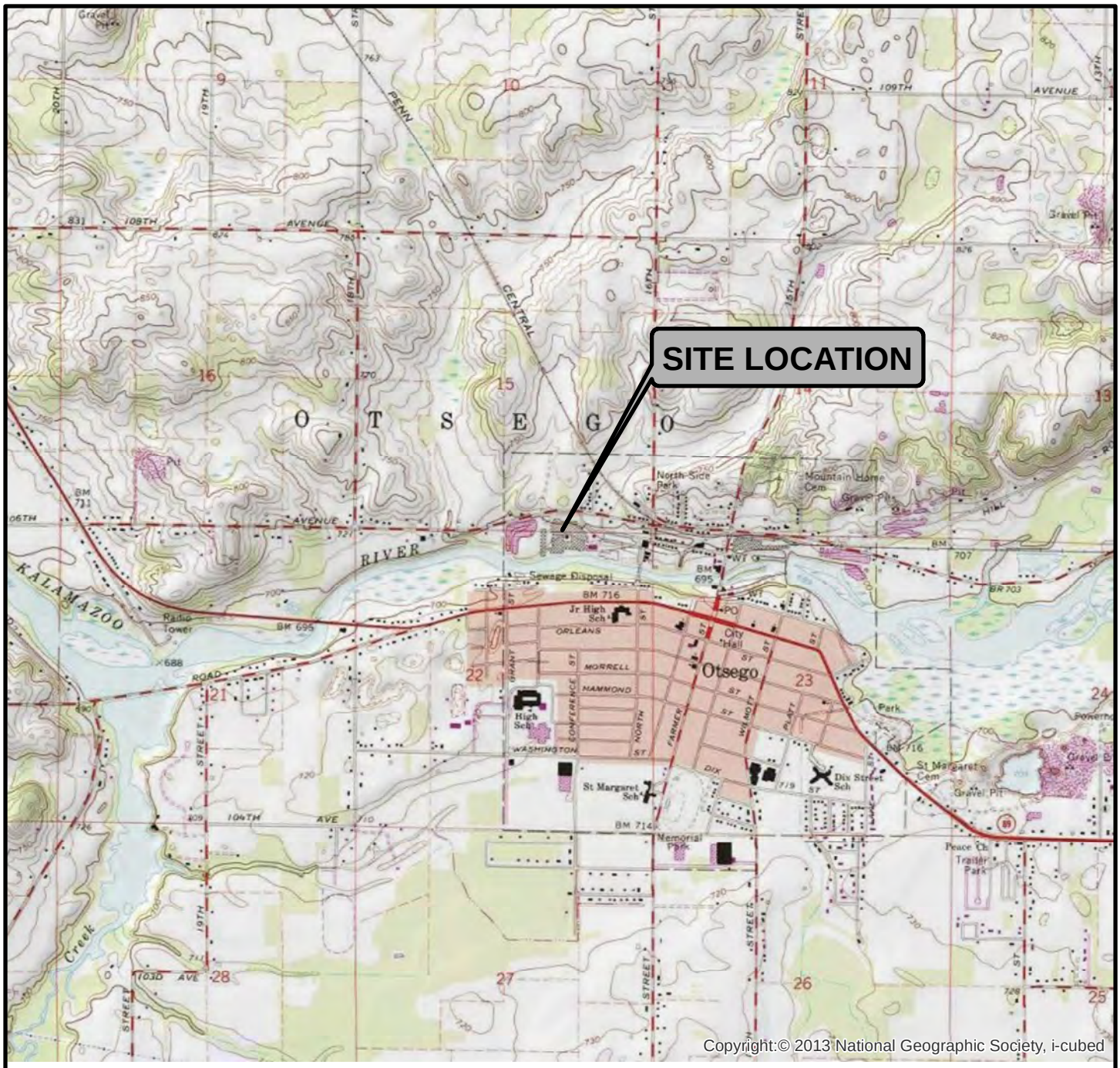
Concentrations of mercury and SVOCs were identified in soil and/or groundwater samples collected during ECT's 2013 and MSG's 2021 Site investigation greater than the Part 201 Residential and/or Nonresidential VIAP Screening Levels indicating a potential vapor intrusion concern. Therefore, additional assessment and/or mitigation (i.e., source soil removal, installation of a vapor barrier/sub-slab depressurization system, etc.) may be required to ensure that unacceptable human exposures will not occur. However, demolition activities are ongoing and redevelopment plans have not been developed for the Site; therefore, additional assessment and/or mitigation scenarios should be evaluated following the development of a Site Plan to redevelop the property.

Composite samples were collected from the stockpiled soil at the Site and mercury contamination was identified in western portion of the stockpile (Stockpile West_Comp). MSG recommends completion of a focused stockpile soil investigation to determine if mercury contamination is isolated to certain portions of the stockpile, or if the impact is uniform. Soil samples should be collected from a calculated grid pattern across the stockpile and submitted for laboratory analysis of total mercury. Stockpiled soil determined to absent of mercury contamination (i.e., less than the most restrictive Residential GCC and/or VIAP Screening Levels) will be reused as beneficial backfill at the Site; soil with documented concentrations of mercury greater than the most restrictive Residential GCC and/or VIAP Screening Levels will only be placed onsite in areas of like contamination and/or properly disposed offsite at a Type II landfill. Preparation of a Soil Management Plan is recommended to summarize soil analytical results, determine soil management strategies throughout the remainder of demolition activities, and provide guidance/best management practices to follow if additional suspect contaminated soil is encountered.

Due to the presence of residual contamination and the Site's status as a "facility", in the event the Site is leased, sold, redeveloped, or otherwise occupied, a new prospective owner or occupant should be advised and consider the need to conduct a Baseline Environmental Assessment (BEA) to provide an exemption to liability pursuant to Part 201 of the NREPA, PA 451 of 1994, as amended and the Part 201 Rules.

In addition, a Due Care Plan should be developed and implemented to define procedures to prevent unacceptable exposure to contamination and allow for the safe use of the property in compliance with Section 20107a of Part 201 of the NREPA, PA 451 of 1994, as amended and the Part 201 Rules.

FIGURES



SCALE 1:31,680

1 ½ 0 1 Miles

1,000 0 1,000 2,000 3,000 4,000 5,000 6,000 7,000 Feet

1 0.5 0 1 Kilometers

NOTE: Map adapted from National Geographic TOPO! seamless, scanned images of USGS Topographic Maps

Mannik Smith GROUP
TECHNICAL SKILL. CREATIVE SPIRIT.
www.MannikSmithGroup.com

FIGURE 1

SITE LOCATION

Rock TENN Site
431 Helen Street
Otsego, Michigan

DATE	DRAWN BY	DESIGNED BY	PROJECT NO.
05/08/21	CAS	--	A2920001

Date Saved: 05/08/21 7:01:20 AM
Path: W:\Projects\Projects A-E\A2920001\ENGAPPS\GIS\MXDs\BidSpecs\A2920001_Fig1_Site_Location_v2021-05-08.mxd

Limits of Work

0 175 350

Feet

Notes:
- Date of aerial photograph: April 14, 2021

Mannik Smith GROUP
TECHNICAL SKILL. CREATIVE SPIRIT.
www.MannikSmithGroup.com

FIGURE 2

Site Map - Limits of Work

Rock TENN Site
431 Helen Street
Otsego, Michigan

DATE	DRAWN BY	DESIGNED BY	PROJECT NO.
05/25/21	KRB	--	A2920001

Date Saved: 05/25/21 12:14:17 PM
Path: W:\Projects\Projects A-E\A2920001\ENGAPPS\GIS\MXDs\BidSpecs\A2920001_FIG2_SiteMap_LimitsOfWork_v20210525.mxd

ECT Phase II Sample Locations

- Soil Boring
- Soil Boring / Temporary Monitoring Well

0 150 300

Feet

Notes:
- Date of aerial photograph: April 14, 2021

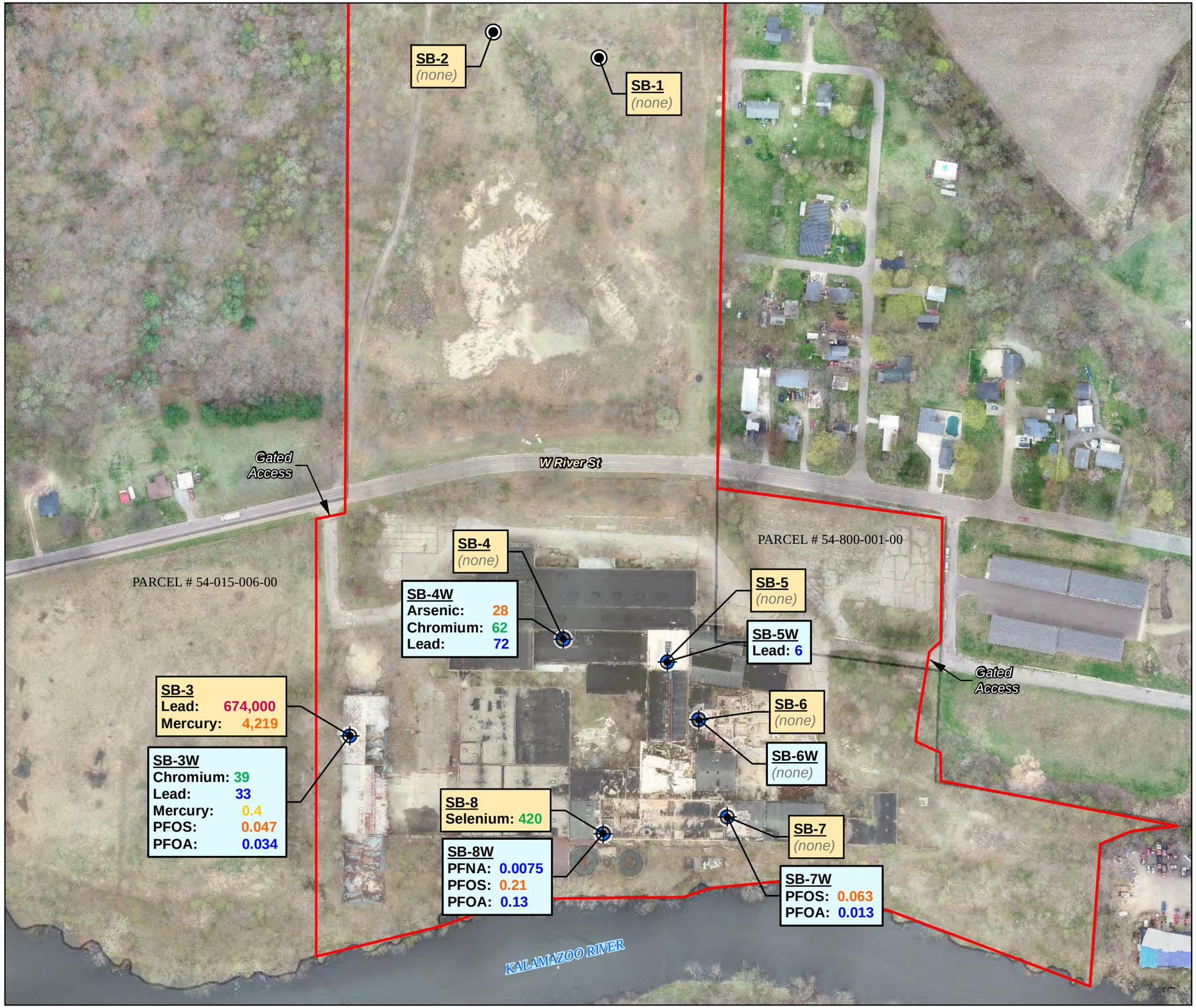
Mannik Smith GROUP
TECHNICAL SKILL. CREATIVE SPIRIT.
www.MannikSmithGroup.com

FIGURE 3
Previous Site Investigation Sample Location Diagram

Rock TENN Site
431 Helen Street
Otsego, Michigan

DATE	DRAWN BY	DESIGNED BY	PROJECT NO.
05/24/21	KRB	--	A2920001

Date Saved: 05/24/21 6:34:25 PM
Path: W:\Projects\Projects A-E\A2920001\ENGAPPS\GIS\MXDs\ACT_381_WP\A2920001_FIG5_Prev_Site_Investigation_Sample_Locations_v20210524.mxd



Soil Boring

Soil Boring & Groundwater Well

Limits of Work

Parcels

Groundwater Well
Criteria Exceedances (see notes below)
Parameters and Concentrations (µg/L)

Soil Boring
Criteria Exceedances (see notes below)
Parameters and Concentrations (µg/kg)

Notes:
Criteria Exceedances:
- Exceeds Groundwater-Surface Water Interface (Protection) Criteria (GSIC/GSIPC)
- Exceeds Drinking Water (Protection) Criteria (DWC/DWPC)
- Exceeds Volatilization to Indoor Air Pathway Screening Levels (VIAP SL)
- Exceeds Two or More DWC/DWPC, GSIC/GSIPC, and/or VIAP SLs
- Exceeds Direct Contact Criteria (DCC)

*Date of aerial photograph: April 14, 2021

0 175 350
Feet

Mannik Smith GROUP
TECHNICAL SKILL. CREATIVE SPIRIT.
www.MannikSmithGroup.com

FIGURE 4
Soil Boring / Temporary Monitoring Well Locations with Analytical Exceedances

Rock TENN Site
431 Helen Street
Otsego, Michigan

DATE	DRAWN BY	DESIGNED BY	PROJECT NO.
2/8/2022	ASB	ASB	A2920001

Date Saved: 2/8/2022 4:14:41 PM
Path: W:\Projects\Projects A-EVA2920001\ENGAPPSGIS\MXDs\Limited Subsurface Investigation Results\A2920001_Fig3_Analytical_Results_v20220207.mxd

TABLES

Table 1
Soil Sample Analytical Summary
VOCs, SVOCs, and PCBs
ROCK-TENN SITE, 431 HELEN AVENUE, OTSEGO, MICHIGAN

SOIL: Part 201/213 Generic Cleanup Criteria Revised June 25, 2018 Units: µg/kg			2-Methylnaphthalene	Toluene	Total Xylenes	Remaining VOCs	SVOCs	PCBs
			VOCs				SVOCs	PCBs
CAS Number			91-57-6	108-88-3	1330-20-7	Various	Various	Various
Residential Generic Cleanup Criteria (ug/Kg)								
Drinking Water Protection Criteria (DWPC)			57,000	16,000	5,600	Various	Various	Various
Groundwater Surface Water Interface Protection Criteria (GSIPC)			4,200	5,400	980	Various	Various	Various
Soil Volatilization to Indoor Air Inhalation (SVIIC)			2.7E+06	3.3E+5 (C)	6.3E+6 (C)	Various	Various	Various
Direct Contact Criteria (DCC)			8.1E+06	5.0E+07 (C)	4.1E+08 (C)	Various	Various	Various
Nonresidential Generic Cleanup Criteria (ug/Kg)								
Drinking Water Protection Criteria (DWPC)			1.7E+05	16,000	5,600	Various	Various	Various
Soil Volatilization to Indoor Air Inhalation (SVIIC)			4.9E+06	6.1E+5 (C)	1.2E+07 (C)	Various	Various	Various
Direct Contact Criteria (DCC)			2.6E+07	1.6E+08 (C)	1.0E+09 (C)	Various	Various	Various
Screening Levels (ug/Kg)								
Soil Saturation Concentration Screening Levels (C_{sat})			NA	2.5E+05	1.5E+05	Various	Various	Various
Residential Volatilization to Indoor Air Pathway Screening Level (VIAP)			1,700	3,700	280 (J)	Various	Various	Various
Nonresidential Volatilization to Indoor Air Pathway Screening Level (VIAP)			30,000	64000 (EE)	5000 (J)	Various	Various	Various
SAMPLE ID	DEPTH	SAMPLE DATE						
SB-1	23.0-24.0	12/20/2021	<100	<70	<170	<MDL	<MDL	<330
SB-2	19.0-2.0	12/20/2021	<200	<100	<300	<MDL	<MDL	<330
SB-3	3.0-4.0	12/20/2021	200	70	70	<MDL	<MDL	<330
SB-4	5.0-6.0	12/20/2021	<100	<60	<160	<MDL	<MDL	<330
SB-5	0.0-1.0	12/20/2021	<100	<70	<170	<MDL	<MDL	<330
SB-6	2.0-3.0	12/20/2021	<100	<60	<160	<MDL	<MDL	<330
SB-7	1.5-2.5	12/20/2021	<100	<60	<160	<MDL	<MDL	<330
SB-8	0.5-1.5	12/20/2021	<200	<90	<290	<MDL	<MDL	<330

Notes:
Bold indicates concentration above laboratory reporting limits.
Gray indicates indicates sample location subsequently removed
Exceeds DWPC
Exceeds GSIPC
Exceeds Applicable Soil Vapor Inhalation Criteria/Screening Levels
Exceeds Two or More DWPC, GSIPC, and/or Applicable Soil Vapor Inhalation Criteria/Screening Levels
Exceeds PSIC, DCC, and/or Csat, likely exceeds others
ND = Not Detected above laboratory reporting limits
NS = Not Sampled or Not Analyzed
NR = Not Reported (Data missing from provided report)
Notes in parentheses and standard abbreviations from Part 201 Rules 299.1 through 299.50, dated June 25, 2018
VIAP Screening Levels and notes from EGLE Guidance Document For The Vapor Intrusion Pathway, Appendix D.1 Vapor Intrusion Screening Values, May 2013, upd

Table 2
Soil Sample Analytical Summary
Michigan Ten Metals
ROCK-TENN SITE, 431 HELEN AVENUE, OTSEGO, MICHIGAN

SOIL: Part 201/213 Generic Cleanup Criteria Revised June 25, 2018 Units: µg/kg			Arsenic	Barium (B)	Cadmium (B)	Chromium (Total)	Copper (B)	Lead (B)	Mercury (B,Z)	Selenium (B)	Silver (B)	Zinc (B)
			Michigan Ten Metals									
CAS Number			7440-38-2	7440-39-3	7440-43-9	7440-47-3	7440-50-8	7439-92-1	7439-97-6	7782-49-2	7440-22-4	7440-66-6
Statewide Default Background Levels			5,800	75,000	1,200	18,000	32,000	21,000	130	410	1,000	47,000
Residential Generic Cleanup Criteria (ug/Kg)												
Drinking Water Protection Criteria (DWPC)			4,600	1.3E+06	6,000	30,000	5.8E+06	7.0E+05	1,700	4,000	4,500	2.4E+06
Groundwater Surface Water Interface Protection Criteria (GSIPC)			4,600	(G)	(G,X)	3,300	(G)	(G,X)	50 (M); 1.2	400	100 (M); 27	(G)
Soil Volatilization to Indoor Air Inhalation (SVIIC)			NLV	NLV	NLV	NLV	NLV	NLV	48,000	NLV	NLV	NLV
Direct Contact Criteria (DCC)			7,600	3.7E+07	5.5E+05	2.5E+06	2.0E+07	4.0E+05	1.6E+05	2.6E+06	2.5E+06	1.7E+08
NonResidential Generic Cleanup Criteria (ug/Kg)												
Drinking Water Protection Criteria (DWPC)			4,600	1.3E+06	6,000	30,000	5.8E+06	7.0E+05	1,700	4,000	13,000	5.0E+06
Soil Volatilization to Indoor Air Inhalation (SVIIC)			NLV	NLV	NLV	NLV	NLV	NLV	89,000	NLV	NLV	NLV
Direct Contact Criteria (DCC)			37,000	1.3E+08	2.1E+06	9.2E+06	7.3E+07	9.0E+05 (DD)	5.8E+05	9.6E+06	9.0E+06	6.3E+08
Screening Levels (ug/Kg)												
Soil Saturation Concentration Screening Levels (C_{sat})			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Residential Soil Volatilization to Indoor Air Pathway (SVIAP)			NA	NA	NA	NA	NA	NA	22 (M)	NA	NA	NA
NonResidential Soil Volatilization to Indoor Air Pathway (SVIAP)			NA	NA	NA	NA	NA	NA	390	NA	NA	NA
SAMPLE ID	DEPTH	SAMPLE DATE										
SB-1	23.0-24.0	12/20/2021	1,580	3,110	<200	1,130	3,660	4,540	<50	<400	<200	8,310
SB-2	19.0-2.0	12/20/2021	630	1,680	<200	820	1,240	930	<50	<400	<200	4,150
SB-3	3.0-4.0	12/20/2021	3,960	165,000	2,280	15,600	159,000	674,000	4,219	<400	2,160	440,000
SB-4	5.0-6.0	12/20/2021	360	13,100	<200	1,620	660	1,970	<50	<400	<200	3,930
SB-5	0.0-1.0	12/20/2021	1,430	9,230	<200	3,400	3,870	4,860	<50	<400	<200	11,600
SB-6	2.0-3.0	12/20/2021	1,870	15,400	<200	4,470	6,320	6,870	<50	<400	<200	16,100
SB-7	1.5-2.5	12/20/2021	525	7,790	<200	2,230	1,140	1,310	<50	<400	<200	4,910
SB-8	0.5-1.5	12/20/2021	2,620	69,200	1,970	6,860	6,090	11,400	<50	420	<200	211,000

Notes:
Bold indicates concentration above laboratory reporting limits.
Gray indicates indicates sample location subsequently removed
Exceeds DWPC
Exceeds GSIPC
Exceeds Applicable Soil Vapor Inhalation Criteria/Screening Levels
Exceeds Two or More DWPC, GSIPC, and/or Applicable Soil Vapor Inhalation Criteria/Screening Levels
Exceeds PSIC, DCC, and/or Csat, likely exceeds others
ND = Not Detected above laboratory reporting limits
NS = Not Sampled or Not Analyzed
NR = Not Reported (Data missing from provided report)
Notes in parentheses and standard abbreviations from Part 201 Rules 299.1 through 299.50, dated June 25, 2018
VIAP Screening Levels and notes from EGLE Guidance Document For The Vapor Intrusion Pathway, Appendix D.1 Vapor Intrusion Screening Values, May 2013, updated September 4, 2020

Table 3
Stockpile Soil Sample Analytical Summary
VOCs, SVOCs, and PCBs
ROCK-TENN SITE, 431 HELEN AVENUE, OTSEGO, MICHIGAN

SOIL: Part 201/213 Generic Cleanup Criteria Revised June 25, 2018 Units: µg/kg			Tetrachloroethylene	Remaining VOCs	SVOCs	PCBs
			VOCs		SVOCs	PCBs
CAS Number			127-18-4	Various	Various	Various
Residential Generic Cleanup Criteria (ug/Kg)						
Drinking Water Protection Criteria (DWPC)			100	Various	Various	Various
Groundwater Surface Water Interface Protection Criteria (GSIPC)			1,200 (X)	Various	Various	Various
Soil Volatilization to Indoor Air Inhalation (SVIIC)			11,000	Various	Various	Various
Direct Contact Criteria (DCC)			2.0E+05 (C)	Various	Various	Various
Nonresidential Generic Cleanup Criteria (ug/Kg)						
Drinking Water Protection Criteria (DWPC)			100	Various	Various	Various
Soil Volatilization to Indoor Air Inhalation (SVIIC)			21,000	Various	Various	Various
Direct Contact Criteria (DCC)			9.3E+05 (C)	Various	Various	Various
Screening Levels (ug/Kg)						
Soil Saturation Concentration Screening Levels (C_{sat})			88,000	Various	Various	Various
Residential Volatilization to Indoor Air Pathway Screening Level (VIAP)			6.2 (M)(EE)	Various	Various	Various
Nonresidential Volatilization to Indoor Air Pathway Screening Level (VIAP)			74 (EE)	Various	Various	Various
SAMPLE ID	DEPTH	SAMPLE DATE				
Stockpile West_Comp	Composite	12/21/2022	140	<MDL	<MDL	<MDL
Stockpile West_Comp_Replicate	Composite	12/21/2022	<60	NA	NA	NA
Stockpile West_Comp_Replicate 01	Composite	12/21/2022	<60	NA	NA	NA
Stockpile East_Comp	Composite	12/21/2022	<60	<MDL	<MDL	<MDL

Notes:
Bold indicates concentration above laboratory reporting limits.
Gray indicates indicates sample location subsequently removed or reanalyzed
Exceeds DWPC
Exceeds GSIPC
Exceeds Applicable Soil Vapor Inhalation screening level
Exceeds Two or More DWPC, GSIPC, and/or Applicable Soil Vapor Inhalation screening levels
Exceeds PSIC, DCC, and/or Csat, likely exceeds others
ND = Not Detected above laboratory reporting limits
NA= Not Sampled or Not Analyzed
NR = Not Reported (Data missing from provided report)
Notes in parentheses and standard abbreviations from Part 201 Rules 299.1 through 299.50, dated June 25, 2018
VIAP Screening Levels and notes from EGLE Guidance Document For The Vapor Intrusion Pathway, Appendix D.1 Vapor Intrusion Screenin

Table 4
Stockpile Soil Sample Analytical Summary
Michigan 10 Metals
ROCK-TENN SITE, 431 HELEN AVENUE, OTSEGO, MICHIGAN

SOIL: Part 201/213 Generic Cleanup Criteria Revised June 25, 2018 Units: µg/kg			Arsenic	Barium (B)	Cadmium (B)	Chromium (Total)	Copper (B)	Lead (B)	Mercury (B,Z)	Selenium (B)	Silver (B)	Zinc (B)
CAS Number			7440-38-2	7440-39-3	7440-43-9	7440-47-3	7440-50-8	7439-92-1	7439-97-6	7782-49-2	7440-22-4	7440-66-6
Statewide Default Background Levels			5,800	75,000	1,200	18,000	32,000	21,000	130	410	1,000	47,000
Residential Generic Cleanup Criteria (ug/Kg)												
Drinking Water Protection Criteria (DWPC)			4,600	1.3E+06	6,000	30,000	5.8E+06	7.0E+05	1,700	4,000	4,500	2.4E+06
Groundwater Surface Water Interface Protection Criteria (GSIPC)			4,600	(G)	(G,X)	3,300	(G)	(G,X)	50 (M); 1.2	400	100 (M); 27	(G)
Soil Volatilization to Indoor Air Inhalation (SVIIC)			NLV	NLV	NLV	NLV	NLV	NLV	48,000	NLV	NLV	NLV
Direct Contact Criteria (DCC)			7,600	3.7E+07	5.5E+05	2.5E+06	2.0E+07	4.0E+05	1.6E+05	2.6E+06	2.5E+06	1.7E+08
NonResidential Generic Cleanup Criteria (ug/Kg)												
Drinking Water Protection Criteria (DWPC)			4,600	1.3E+06	6,000	30,000	5.8E+06	7.0E+05	1,700	4,000	13,000	5.0E+06
Soil Volatilization to Indoor Air Inhalation (SVIIC)			NLV	NLV	NLV	NLV	NLV	NLV	89,000	NLV	NLV	NLV
Direct Contact Criteria (DCC)			37,000	1.3E+08	2.1E+06	9.2E+06	7.3E+07	9.0E+05 (DD)	5.8E+05	9.6E+06	9.0E+06	6.3E+08
Screening Levels (ug/Kg)												
Soil Saturation Concentration Screening Levels (C_{sat})			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Residential Soil Volatilization to Indoor Air Pathway (SVIAP)			NA	NA	NA	NA	NA	NA	22 (M)	NA	NA	NA
NonResidential Soil Volatilization to Indoor Air Pathway (SVIAP)			NA	NA	NA	NA	NA	NA	390	NA	NA	NA
SAMPLE ID	DEPTH	SAMPLE DATE										
Stockpile West_Comp	Composite	12/21/2022	2,500	194,000	<200	2,450	19,700	62,100	246	<400	<200	84,500
Stockpile West_Comp_Replicate	Composite	12/21/2022	NA	NA	NA	NA	NA	NA	275	NA	NA	NA
Stockpile West_Comp_Replicate 01	Composite	12/21/2022	NA	NA	NA	NA	NA	NA	261	NA	NA	NA
Stockpile East_Comp	Composite	12/21/2022	1,640	23,100	<200	2,100	4,330	12,200	<50	<400	<200	20,200

Notes:
Bold indicates concentration above laboratory reporting limits.
Gray indicates indicates sample location subsequently removed
Exceeds DWPC
Exceeds GSIPC
Exceeds Applicable Soil Vapor Inhalation screening level
Exceeds Two or More DWPC, GSIPC, and/or Applicable Soil Vapor Inhalation screening levels
Exceeds PSIC, DCC, and/or Csat, likely exceeds others
ND = Not Detected above laboratory reporting limits
NA= Not Sampled or Not Analyzed
NR = Not Reported (Data missing from provided report)
Notes in parentheses and standard abbreviations from Part 201 Rules 299.1 through 299.50, dated June 25, 2018
VIAP Screening Levels and notes from EGLE Guidance Document For The Vapor Intrusion Pathway, Appendix D.1 Vapor Intrusion Screening Values, May 2013, updated September 4, 2020

Table 5
Groundwater Sample Analytical Summary
VOCs and SVOCs
ROCK-TENN SITE, 431 HELEN AVENUE, OTSEGO, MICHIGAN

GROUNDWATER: Part 201/213 Generic Cleanup Criteria Revised December 21, 2020 Units: µg/L		VOCs	SVOCs
		VOCs	SVOCs
CAS Number		Various	Various
Residential Generic Cleanup Criteria (ug/L)			
Drinking Water Criteria (DWC)		Various	Various
Groundwater Surface Water Interface Criteria (GSIC)		Various	Various
Groundwater Volatilization to Indoor Air Inhalation Criteria (GVIIC)		Various	Various
Nonresidential Generic Cleanup Criteria (ug/L)			
Drinking Water Criteria (DWC)		Various	Various
Groundwater Volatilization to Indoor Air Inhalation Criteria (GVIIC)		Various	Various
Screening Levels (ug/L)			
Residential Shallow Groundwater Volatilization to Indoor Air Pathway Screening Level (SGW-VIAP)		Various	Various
Residential Groundwater Not in Contact Volatilization to Indoor Air Pathway Screening Level (GWNC-VIAP)		Various	Various
Nonresidential Shallow Groundwater Volatilization to Indoor Air Pathway Screening Level (SGW-VIAP)		Various	Various
Nonresidential Groundwater Not in Contact Volatilization to Indoor Air Pathway Screening Level (GWNC-VIAP)		Various	Various
Water Solubility		Various	Various
Flammability & Explosivity Screening Level (FESL)		Various	Various
SAMPLE ID	SAMPLE DATE		
SB-3W	12/20/2021	<MDL	<MDL
SB-4W	12/20/2021	<MDL	<MDL
SB-5W	12/20/2021	<MDL	<MDL
SB-6W	12/20/2021	<MDL	<MDL
SB-7W	12/20/2021	<MDL	<MDL
SB-8W	12/20/2021	<MDL	<MDL

Notes:
Bold indicates concentration above laboratory reporting limits.
Gray indicates indicates sample location subsequently removed
Exceeds DWPC
Exceeds GSIPC
Exceeds Applicable Soil Vapor Inhalation Criteria/Screening Levels
Exceeds Two or More DWPC, GSIPC, and/or Applicable Soil Vapor Inhalation Criteria/Screening Levels
Exceeds PSIC, DCC, and/or Csat, likely exceeds others
ND = Not Detected above laboratory reporting limits
NS = Not Sampled or Not Analyzed
NR = Not Reported (Data missing from provided report)
Notes in parentheses and standard abbreviations from Part 201 Rules 299.1 through 299.50, dated June 25, 2018
VIAP Screening Levels and notes from EGLE Guidance Document For The Vapor Intrusion Pathway, Appendix D.1 Vapor Intrusion Screening V

Table 6
Groundwater Sample Analytical Summary
Michigan Ten Metals
ROCK-TENN SITE, 431 HELEN AVENUE, OTSEGO, MICHIGAN

GROUNDWATER: Part 201/213 Generic Cleanup Criteria Revised December 21, 2020 Units: µg/L		Arsenic	Barium	Cadmium	Chromium (Total)	Copper (B)	Lead (B)	Mercury (Total)	Selenium (B)	Silver	Zinc
CAS Number		7440-38-2	7440-39-3	7440-43-9	7440-47-3	7440-50-8	7439-92-1	7439-97-6	7782-49-2	7440-22-4	7440-66-6
Residential Generic Cleanup Criteria (ug/L)											
Drinking Water Criteria (DWC)		10 (A)	2,000 (A)	5.0 (A)	100 (A)	1,000 (E)	4.0 (L)	2.0 (A)	50 (A)	34	2,400
Groundwater Surface Water Interface Criteria (GSIC)		10	(G)	(G,X)	11	(G)	(G,X)	0.0013	5.0	0.2 (M); 0.06	(G)
Groundwater Volatilization to Indoor Air Inhalation Criteria (GVIIC)		NLV	NLV	NLV	NLV	NLV	NLV	56 (S)	NLV	NLV	NLV
Nonresidential Generic Cleanup Criteria (ug/L)											
Drinking Water Criteria (DWC)		10 (A)	2,000 (A)	5.0(A)	100 (A)	1,000 (E)	4.0 (L)	2.0 (A)	50 (A)	98	5,000 (E)
Groundwater Volatilization to Indoor Air Inhalation Criteria (GVIIC)		NLV	NLV	NLV	NLV	NLV	NLV	56 (S)	NLV	NLV	NLV
Screening Levels (ug/L)											
Residential Shallow Groundwater Volatilization to Indoor Air Pathway Screening Level (SGW-VIAP)		NA	NA	NA	NA	NA	NA	0.088	NA	NA	NA
Residential Groundwater Not in Contact Volatilization to Indoor Air Pathway Screening Level (GWNC-VIAP)		NA	NA	NA	NA	NA	NA	2.5	NA	NA	NA
Nonresidential Shallow Groundwater Volatilization to Indoor Air Pathway Screening Level (SGW-VIAP)		NA	NA	NA	NA	NA	NA	0.30	NA	NA	NA
Nonresidential Groundwater Not in Contact Volatilization to Indoor Air Pathway Screening Level (GWNC-VIAP)		NA	NA	NA	NA	NA	NA	3.7	NA	NA	NA
Water Solubility		NA	NA	NA	NA	NA	NA	56	NA	NA	NA
Flammability & Explosivity Screening Level (FESL)		ID	ID	ID	ID	ID	ID	ID	ID	ID	ID
SAMPLE ID	SAMPLE DATE										
SB-3W	12/20/2021	4	138	<0.5	39	29	33	0.4	<5	<0.5	140
SB-4W	12/20/2021	28	210	1	62	75	72	<0.2	<5	<0.5	228
SB-5W	12/20/2021	6	41	<0.5	8	11	6	<0.2	<5	<0.5	21
SB-6W	12/20/2021	3	30	<0.5	<5	<5	<3	<0.2	<5	<0.5	<5
SB-7W	12/20/2021	<2	50	<0.5	<5	<5	<3	<0.2	<5	<0.5	<5
SB-8W	12/20/2021	<2	160	<0.5	<5	<5	<3	<0.2	<5	<0.5	<5

Notes:
Bold indicates concentration above laboratory reporting limits.
Gray indicates indicates sample location subsequently removed
Exceeds DWPC
Exceeds GSIPC
Exceeds Applicable Soil Vapor Inhalation Criteria/Screening Levels
Exceeds Two or More DWPC, GSIPC, and/or Applicable Soil Vapor Inhalation Criteria/Screening Levels
Exceeds PSIC, DCC, and/or Csat, likely exceeds others
ND = Not Detected above laboratory reporting limits
NS = Not Sampled or Not Analyzed
NR = Not Reported (Data missing from provided report)
Notes in parentheses and standard abbreviations from Part 201 Rules 299.1 through 299.50, dated June 25, 2018
VIAP Screening Levels and notes from EGLE Guidance Document For The Vapor Intrusion Pathway, Appendix D.1 Vapor Intrusion Screening Values, May 2013, updated September 4, 2020

Table 7
Groundwater Sample Analytical Summary
Per- and Polyfluoroalkyl Substances
ROCK-TENN SITE, 431 HELEN AVENUE, OTSEGO, MICHIGAN

GROUNDWATER: Part 201/213 Generic Residential Cleanup Criteria Revised December 21, 2020 Units: µg/L		Perfluoroalkyl / Polyfluoroalkyl Substances (PFAS)												
		Hexafluoropropylene oxide dimer acid (HFPO-DA, GenX)	Perfluorobutane sulfonic acid (PFBS)	Perfluorobutanoic acid (PFBA)	Perfluorodecanoic acid (PFDA)	Perfluoroheptanoic acid (PFHpA)	Perfluorohexane sulfonic acid (PFHxS)	Perfluorohexanoic acid (PFHxA)	Perfluorononanoic acid (PFNA)	Perfluorooctane sulfonamide (FOSA)	Perfluorooctane sulfonic Acid (PFOS)	Perfluorooctanoic acid (PFOA)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoropentanoic acid (PFPeA)
CAS Number		13252-13-6	375-73-5	375-22-4	335-76-2	375-85-9	355-46-4	307-24-4	375-95-1	754-91-6	1763-23-1	335-67-1	2706-91-4	2706-90-3
Drinking Water Criteria (DWC)		0.37 (A)	0.42 (A)	NA	NA	NA	0.051 (A)	400 (A)	0.006 (A)	NA	0.016 (A)	0.008 (A)	NA	NA
Residential Health-Based Drinking Water Value (HBDWV)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Groundwater Surface Water Interface Criteria (GSIC)		NA	NA	NA	NA	NA	NA	NA	NA	NA	0.012 (X)	12 (X)	NA	NA
GSI Final Acute Value (FAV)		NA	NA	NA	NA	NA	NA	NA	NA	NA	1,600	15,000	NA	NA
Groundwater Volatilization to Indoor Air Inhalation Criteria (GVIIC)		ID	ID	NA	NA	NA	ID	ID	ID	NA	NLV	ID	NA	NA
Water Solubility		NA	NA	NA	NA	NA	NA	NA	NA	NA	3.1	9.50E+06	NA	NA
SAMPLE ID	SAMPLE DATE													
SB-03W	12/20/2021	-0.01	**0.0032**	**0.02**	-0.002	**0.0068**	**0.0076**	**0.012**	-0.002	-0.002	**0.047**	**0.034**	**0.003**	**0.015**
SB-04W	12/20/2021	-0.0095	-0.0019	-0.0095	-0.0019	-0.0019	-0.0019	-0.0019	-0.0019	-0.0019	-0.0019	-0.0019	-0.0019	-0.0038
SB-05W	12/20/2021	-0.0098	-0.002	-0.0098	-0.002	-0.002	-0.002	-0.002	-0.002	-0.002	**0.0035**	-0.002	-0.002	-0.0039
SB-06W	12/21/2021	-0.0098	-0.002	-0.0098	-0.002	-0.002	-0.002	-0.002	-0.002	-0.002	**0.0047**	-0.002	-0.002	-0.0039
SB-07W	12/21/2021	-0.0098	**0.0022**	-0.0098	**0.0026**	**0.0039**	**0.0027**	**0.0039**	-0.002	-0.002	**0.063**	**0.013**	-0.002	-0.0039
SB-08W	12/21/2021	-0.01	**0.0042**	**0.047**	**0.0047**	**0.067**	**0.0072**	**0.069**	**0.0075**	**0.0082**	**0.21**	**0.13**	**0.0024**	**0.083**

Bold indicates concentration above laboratory reporting limits.
Gray indicates indicates sample location subsequently removed
Exceeds DWPC
Exceeds GSIPC
Exceeds Applicable Soil Vapor Inhalation Criteria/Screening Levels
Exceeds Two or More DWPC, GSIPC, and/or Applicable Soil Vapor Inhalation Criteria/Screening Levels
Exceeds PSIC, DCC, and/or Csat, likely exceeds others
ND = Not Detected above laboratory reporting limits
NS = Not Sampled or Not Analyzed
NR = Not Reported (Data missing from provided report)
Notes in parentheses and standard abbreviations from Part 201 Rules 299.1 through 299.50, dated June 25, 2018
VIAP Screening Levels and notes from EGLE Guidance Document For The Vapor Intrusion Pathway, Appendix D.1 Vapor Intrusion Screening Values, May 2013, updated September 4, 2020

APPENDIX A

Soil Boring and Monitoring Well Construction Logs

BORING / WELL ID: SB-01

The Mannik & Smith Group, Inc.
2193 Association Drive, Suite 200, Okemos, MI 48864
ph: (517) 316-9232 fax: (517) 316-9233
www.manniksmithgroup.com

CLIENT Allegan County
PROJECT NAME RockTenn Site
PROJECT NUMBER A2920001
PROJECT LOCATION 431 Helen Street, Otsego
DATE STARTED 12/20/21 **COMPLETED** 12/20/21
BORING DIAMETER: 3.25 inches
DRILLING CONTRACTOR Job Site Services
SURVEY COORDINATES: N/A
DRILLING METHOD Direct Push
TOP OF CASING ELEV.: N/A
LOGGED BY CA **CHECKED BY**
GROUND WATER ENCOUNTERED DURING DRILLING: Not Encountered
NOTES
WATER LEVEL AFTER DRILLING: N/A

DEPTH (FEET)	SAMPLE TYPE NUMBER	RECOVERY (FEET)	GRAPHIC LOG	DEPTH (FEET)	MATERIAL DESCRIPTION	PID (ppm)	LABORATORY SAMPLE	REMARKS	WELL DIAGRAM
0				0.5	Topsoil	0.0			
					Brown sand, fine to medium grained, moist	0.0			
	1					0.0			
						0.0			
5						0.0			
	2					0.0			
						0.0			
10						0.0			
	3					0.0			
						0.0			
15						0.0			
	4					0.0			
						0.0			
20						0.0			
	5					0.0			
				23.0		0.0			
					Brown sand, fine to medium grained, with gravel, moist	0.0	X	Soil Sample SB-01 (23-24)	
25				25.0					
					Bottom of borehole at 25.0 feet.				

BORING / WELL ID: SB-02

The Mannik & Smith Group, Inc.
2193 Association Drive, Suite 200, Okemos, MI 48864
ph: (517) 316-9232 fax: (517) 316-9233
www.manniksmithgroup.com

CLIENT Allegan County
PROJECT NAME RockTenn Site
PROJECT NUMBER A2920001
PROJECT LOCATION 431 Helen Street, Otsego
DATE STARTED 12/20/21 **COMPLETED** 12/20/21
BORING DIAMETER: 3.25 inches
DRILLING CONTRACTOR Job Site Services
SURVEY COORDINATES: N/A
DRILLING METHOD Direct Push
TOP OF CASING ELEV.: N/A
LOGGED BY CA **CHECKED BY**
GROUND WATER ENCOUNTERED DURING DRILLING: Not Encountered
NOTES
WATER LEVEL AFTER DRILLING: N/A

DEPTH (FEET)	SAMPLE TYPE NUMBER	RECOVERY (FEET)	GRAPHIC LOG	DEPTH (FEET)	MATERIAL DESCRIPTION	PID (ppm)	LABORATORY SAMPLE	REMARKS	WELL DIAGRAM
0				0.5	Topsoil	0.0			
	1			3.0	Brown and gray clay, medium, moist	0.0			
5				5.0	Brown sand, fine to medium grained, moist	0.0			
	2			10.0	Gray and brown clay, stiff, moist	0.0			
10						0.0			
	3			14.0	Brown sand, fine to medium grained, moist	0.0			
15						0.0			
	4			20.0	Brown sand, fine, stiff, moist	0.0			
20						0.0	X	Soil Sample SB-02 (19-20)	
					Bottom of borehole at 20.0 feet.				

BORING / WELL ID: SB-03

The Mannik & Smith Group, Inc.
2193 Association Drive, Suite 200, Okemos, MI 48864
ph: (517) 316-9232 fax: (517) 316-9233
www.manniksmithgroup.com

CLIENT Allegan County
PROJECT NAME RockTenn Site
PROJECT NUMBER A2920001
PROJECT LOCATION 431 Helen Street, Otsego
DATE STARTED 12/20/21 **COMPLETED** 12/20/21
BORING DIAMETER: 3.25 inches
DRILLING CONTRACTOR Job Site Services
SURVEY COORDINATES: N/A
DRILLING METHOD Direct Push
TOP OF CASING ELEV.: N/A
LOGGED BY CA **CHECKED BY**
GROUND WATER ENCOUNTERED DURING DRILLING: 10 FEET BGS
NOTES
WATER LEVEL AFTER DRILLING: N/A

DEPTH (FEET)	SAMPLE TYPE NUMBER	RECOVERY (FEET)	GRAPHIC LOG	DEPTH (FEET)	MATERIAL DESCRIPTION	PID (ppm)	LABORATORY SAMPLE	REMARKS	WELL DIAGRAM
0				0.8	Concrete	0.0			
	1	4.0			Brown sand, fine to medium, with brick debris Black staining at 3-4 ft bgs	0.0 0.0 0.0 0.0	X	Soil Sample SB-03 (3-4)0	
5				5.0					
	2				Poor recovery, suspect brick debris	0.0 0.0 0.0 0.0 0.0			
10				10.0 ▽					
	3				Brown sand, fine to medium grained, trace gravel, saturated	0.0 0.0 0.0 0.0 0.0	X	Groundwater Sample SB-03 W	
15									
	4					0.0 0.0 0.0 0.0 0.0			
20				20.0					
					Bottom of borehole at 20.0 feet.				

BORING / WELL ID: SB-04

The Mannik & Smith Group, Inc.
2193 Association Drive, Suite 200, Okemos, MI 48864
ph: (517) 316-9232 fax: (517) 316-9233
www.manniksmithgroup.com

CLIENT Allegan County
PROJECT NAME RockTenn Site
PROJECT NUMBER A2920001
PROJECT LOCATION 431 Helen Street, Otsego
DATE STARTED 12/20/21 **COMPLETED** 12/20/21
BORING DIAMETER: 3.25 inches
DRILLING CONTRACTOR Job Site Services
SURVEY COORDINATES: N/A
DRILLING METHOD Direct Push
TOP OF CASING ELEV.: N/A
LOGGED BY CA **CHECKED BY**
GROUND WATER ENCOUNTERED DURING DRILLING: 7 FEET BGS
NOTES
WATER LEVEL AFTER DRILLING: N/A

DEPTH (FEET)	SAMPLE TYPE NUMBER	RECOVERY (FEET)	GRAPHIC LOG	DEPTH (FEET)	MATERIAL DESCRIPTION	PID (ppm)	LABORATORY SAMPLE	REMARKS	WELL DIAGRAM
0				0.8	Concrete, former basement slab	0.0			
	1				No Recovery	0.0			
5				5.0		0.0			
	2				Brown sand, fine to medium grained, moist Gray staining from 5-7 ft bgs Becomes saturated at 7 ft bgs	0.0		Soil Sample SB-04 (5-6)	
10						0.0		Groundwater Sample SB-04 W	
	3			14.0		0.0			
15					Silt with fine sand	0.0			
	4					0.0			
20				20.0		0.0			
					Bottom of borehole at 20.0 feet.				

BORING / WELL ID: SB-05

The Mannik & Smith Group, Inc.
2193 Association Drive, Suite 200, Okemos, MI 48864
ph: (517) 316-9232 fax: (517) 316-9233
www.manniksmithgroup.com

CLIENT Allegan County
PROJECT NAME RockTenn Site
PROJECT NUMBER A2920001
PROJECT LOCATION 431 Helen Street, Otsego
DATE STARTED 12/20/21 **COMPLETED** 12/20/21
BORING DIAMETER: 3.25 inches
DRILLING CONTRACTOR Job Site Services
SURVEY COORDINATES: N/A
DRILLING METHOD Direct Push
TOP OF CASING ELEV.: N/A
LOGGED BY CA **CHECKED BY**
GROUND WATER ENCOUNTERED DURING DRILLING: 1 FEET BGS
NOTES
WATER LEVEL AFTER DRILLING: N/A

DEPTH (FEET)	SAMPLE TYPE NUMBER	RECOVERY (FEET)	GRAPHIC LOG	DEPTH (FEET)	MATERIAL DESCRIPTION	PID (ppm)	LABORATORY SAMPLE	REMARKS	WELL DIAGRAM
0.0					Brown sand, fine to medium grained, moist Becomes saturated at 1 ft bgs	0.0		Soil Sample SB-05 (0-1)	
						0.0			
2.5	1					0.0		Groundwater Sample SB-05 W	
						0.0			
5.0						0.0			
						0.0			
7.5	2					0.0			
						0.0			
10.0				10.0	Bottom of borehole at 10.0 feet.	0.0			

BORING / WELL ID: SB-06

The Mannik & Smith Group, Inc.
2193 Association Drive, Suite 200, Okemos, MI 48864
ph: (517) 316-9232 fax: (517) 316-9233
www.manniksmithgroup.com

CLIENT Allegan County
PROJECT NAME RockTenn Site
PROJECT NUMBER A2920001
PROJECT LOCATION 431 Helen Street, Otsego
DATE STARTED 12/21/21 **COMPLETED** 12/21/21
BORING DIAMETER: 3.25 inches
DRILLING CONTRACTOR Job Site Services
SURVEY COORDINATES: N/A
DRILLING METHOD Direct Push
TOP OF CASING ELEV.: N/A
LOGGED BY CA **CHECKED BY**
GROUND WATER ENCOUNTERED DURING DRILLING: 4 FEET BGS
NOTES
WATER LEVEL AFTER DRILLING: N/A

DEPTH (FEET)	SAMPLE TYPE NUMBER	RECOVERY (FEET)	GRAPHIC LOG	DEPTH (FEET)	MATERIAL DESCRIPTION	PID (ppm)	LABORATORY SAMPLE	REMARKS	WELL DIAGRAM
0.0					Gray and black stained sand, fine to medium grained, moist Strong petroleum-like odor	0.0 17.1 101			
2.5	1					68		Soil Sample SB-06 (2-3)	
				4.0 ▽		31			
5.0					Brown sand fine to medium grained, saturated	7.1			
7.5	2					6.5 5.1		Groundwater Sample SB-06 W	
10.0						6.5 0.0 0.0			
12.5	3					0.0 0.0 0.0			
15.0				15.0	Bottom of borehole at 15.0 feet.	0.0			

BORING / WELL ID: SB-07

The Mannik & Smith Group, Inc.
2193 Association Drive, Suite 200, Okemos, MI 48864
ph: (517) 316-9232 fax: (517) 316-9233
www.manniksmithgroup.com

CLIENT Allegan County
PROJECT NAME RockTenn Site
PROJECT NUMBER A2920001
PROJECT LOCATION 431 Helen Street, Otsego
DATE STARTED 12/21/21 **COMPLETED** 12/21/21
BORING DIAMETER: 3.25 inches
DRILLING CONTRACTOR Job Site Services
SURVEY COORDINATES: N/A
DRILLING METHOD Direct Push
TOP OF CASING ELEV.: N/A
LOGGED BY CA **CHECKED BY**
GROUND WATER ENCOUNTERED DURING DRILLING: 3 FEET BGS
NOTES
WATER LEVEL AFTER DRILLING: N/A

DEPTH (FEET)	SAMPLE TYPE NUMBER	RECOVERY (FEET)	GRAPHIC LOG	DEPTH (FEET)	MATERIAL DESCRIPTION	PID (ppm)	LABORATORY SAMPLE	REMARKS	WELL DIAGRAM
0.0					Brown gravelly sand, coarse grained, moist	0.0			
						0.0			
				1.5	Brown sand, fine to medium grained, moist Becomes saturated at 3 ft bgs				
2.5	1				▽	0.0		Soil Sample SB-07 (1.5-2.5)	
						0.0			
						0.0		Groundwater Sample SB-07 W	
5.0						0.0			
						0.0			
7.5	2					0.0			
						0.0			
10.0				10.0	Bottom of borehole at 10.0 feet.				

BORING / WELL ID: SB-08

The Mannik & Smith Group, Inc.
2193 Association Drive, Suite 200, Okemos, MI 48864
ph: (517) 316-9232 fax: (517) 316-9233
www.manniksmithgroup.com

CLIENT Allegan County
PROJECT NAME RockTenn Site
PROJECT NUMBER A2920001
PROJECT LOCATION 431 Helen Street, Otsego
DATE STARTED 12/21/21 **COMPLETED** 12/21/21
BORING DIAMETER: 3.25 inches
DRILLING CONTRACTOR Job Site Services
SURVEY COORDINATES: N/A
DRILLING METHOD Direct Push
TOP OF CASING ELEV.: N/A
LOGGED BY CA **CHECKED BY**
GROUND WATER ENCOUNTERED DURING DRILLING: 1.5 FEET BGS
NOTES
WATER LEVEL AFTER DRILLING: N/A

DEPTH (FEET)	SAMPLE TYPE NUMBER	RECOVERY (FEET)	GRAPHIC LOG	DEPTH (FEET)	MATERIAL DESCRIPTION	PID (ppm)	LABORATORY SAMPLE	REMARKS	WELL DIAGRAM
0					Concrete	0.0			
				0.8	Brown sand, medium grained, trace clay, moist				
1						0.0		Soil Sample SB-08 (0.5-1.5)	
				1.5 ▽	Brown sand, medium grained, saturated			Groundwater Sample SB-08 W	
2						0.0			
	1								
3						0.0			
				3.5					
					Bottom of borehole at 3.5 feet.	0.0			

APPENDIX B

LABORATORY ANALYTICAL REPORTS

Analytical Laboratory Report

Report ID: S31593.01(01)
Generated on 01/05/2022

Report to

Attention: Casey Armstrong
The Mannik & Smith Group
2193 Association Drive, Suite 200
Okemos, MI 48864

Phone: O:517-3169232x1603C:5175072335 FAX:
Email: CArmstrong@manniksmithgroup.com

Report produced by

Merit Laboratories, Inc.
2680 East Lansing Drive
East Lansing, MI 48823

Phone: (517) 332-0167 FAX: (517) 332-6333

Contacts for report questions:
John Laverty (johnlaverty@meritlabs.com)
Barbara Ball (bball@meritlabs.com)

Report Summary

Lab Sample ID(s): S31593.01-S31593.14
Project: Rock-Tenn A2920001
Collected Date(s): 12/20/2021 - 12/21/2021
Submitted Date/Time: 12/22/2021 16:15
Sampled by: CA / KM
P.O. #:

Table of Contents

Maya Murshak
Technical Director

Analytical Laboratory Report

General Report Notes

Analytical results relate only to the samples tested, in the condition received by the laboratory.
Methods may be modified for improved performance.
Results reported on a dry weight basis where applicable.
'Not detected' indicates that parameter was not found at a level equal to or greater than the reporting limit (RL).
When MDL results are provided, then 'Not detected' indicates that parameter was not found at a level equal to or greater than the MDL.
40 CFR Part 136 Table II Required Containers, Preservation Techniques and Holding Times for the Clean Water Act specify that samples for acrolein and acrylonitrile need to be preserved at a pH in the range of 4 to 5 or if not preserved, analyzed within 3 days of sampling.
QA/QC corresponding to this analytical report is a separate document with the same Merit ID reference and is available upon request.
Full accreditation certificates are available upon request. Starred (*) analytes are not NELAP accredited.
Samples are held by the lab for 30 days from the final report date unless a written request to hold longer is provided by the client.

Limits for drinking water samples, are listed as the MCL Limits (Maximum Contaminant Level Concentrations)
PFAS requirement: Section 9.3.8 of U.S. EPA Method 537.1 states "If the method analyte(s) found in the Field Sample is present in the FRB at a concentration greater than 1/3 the MRL, then all samples collected with that FRB are invalid and must be recollected and reanalyzed."
Samples submitted without an accompanying FRB may not be acceptable for compliance purposes.
Wisconsin PFAs analysis: MDL = LOD; RL = LOQ. LOD and LOQ are adjusted for dilution.

Report Narrative

There is no additional narrative for this analytical report

Laboratory Certifications

Authority	Certification ID
Michigan DEQ	#9956
DOD ELAP/ISO 17025	#69699
WBENC	#2005110032
Ohio VAP	#CL0002
Indiana DOH	#C-MI-07
New York NELAC	#11814
North Carolina DENR	#680
North Carolina DOH	#26702
Alaska CSLAP	#17-001
Pennsylvania DEP	#68-05884
Wisconsin DNR	FID# 399147320

Qualifier Descriptions

Qualifier	Description
!	Result is outside of stated limit criteria
B	Compound also found in associated method blank
E	Concentration exceeds calibration range
F	Analysis run outside of holding time
G	Estimated result due to extraction run outside of holding time
H	Sample submitted and run outside of holding time
I	Matrix interference with internal standard
J	Estimated value less than reporting limit, but greater than MDL
L	Elevated reporting limit due to low sample amount
M	Result reported to MDL not RDL
O	Analysis performed by outside laboratory. See attached report.
R	Preliminary result
S	Surrogate recovery outside of control limits
T	No correction for total solids
X	Elevated reporting limit due to matrix interference
Y	Elevated reporting limit due to high target concentration
b	Value detected less than reporting limit, but greater than MDL
e	Reported value estimated due to interference
j	Analyte also found in associated method blank
p	Benzo(b)Fluoranthene and Benzo(k)Fluoranthene integrated as one peak.
x	Preserved from bulk sample

Glossary of Abbreviations

Abbreviation	Description
RL/RDL	Reporting Limit
MDL	Method Detection Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
SW	EPA SW 846 (Soil and Wastewater) Methods
E	EPA Methods
SM	Standard Methods
LN	Linear
BR	Branched

Method Summary

Method	Version
E200.8	EPA Method 200.8 Revision 5.4
E245.1	EPA Method 245.1 Revision 3.0
N/A	Not Applicable
SM2540B	Standard Method 2540 B 2011
SW3015A	SW 846 Method 3015A Revision 1 February 2007
SW3050B	SW 846 Method 3050B Revision 2 December 1996
SW3510C	SW 846 Method 3510C Revision 3 December 1996
SW3546	SW 846 Method 3546 Revision 0 February 2007
SW5030C/8260C	SW 846 Method 8260C Revision 3 August 2006 / 5030C Revision 3 May 2003
SW5035A	SW 846 Method 5035A Revision 1 July 2002
SW5035A/8260C	SW 846 Method 8260C Revision 3 August 2006 / 5035A Revision 1 July 2002
SW6020A	SW 846 Method 6020A Revision 1 February 2007
SW7471B	SW 846 Method 7471B Revision 2 February 2007
SW8082A	SW 846 Method 8082A Revision 1 February 2007
SW8270D	SW 846 Method 8270D Revision 4 February 2007

Sample Summary (14 samples)

Sample ID	Sample Tag	Matrix	Collected Date/Time
S31593.01	SB-1 23-24	Soil	12/20/21 10:50
S31593.02	SB-2 19-20	Soil	12/20/21 11:40
S31593.03	SB-3 3-4	Soil	12/20/21 13:00
S31593.04	SB-4 5-6	Soil	12/20/21 14:15
S31593.05	SB-5 0-1	Soil	12/20/21 15:30
S31593.06	SB-6 2-3	Soil	12/21/21 10:05
S31593.07	SB-7 1.5-2.5	Soil	12/21/21 11:20
S31593.08	SB-8 0.5-1.5	Soil	12/21/21 14:20
S31593.09	SB-03W	Groundwater	12/20/21 14:10
S31593.10	SB-04W	Groundwater	12/20/21 14:50
S31593.11	SB-05W	Groundwater	12/20/21 15:30
S31593.12	SB-06W	Groundwater	12/21/21 11:05
S31593.13	SB-07W	Groundwater	12/21/21 11:45
S31593.14	SB-08W	Groundwater	12/21/21 14:25

Analytical Laboratory Report

Lab Sample ID: S31593.01
Sample Tag: SB-1 23-24
Collected Date/Time: 12/20/2021 10:50
Matrix: Soil
COC Reference: 144662

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	4oz Glass	None	Yes	6.0	IR
1	40ml Glass	MeOH	Yes	6.0	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Metal Digestion	Completed	SW3050B	01/03/22 13:30	JRH	
BNA Extraction*	Completed	SW3546	12/23/21 13:45	JW	
Extraction, PCB*	Completed	SW3546	12/27/21 11:00	JW	
Sample wt. (g) / Methanol (ml)*	9.551/10	SW5035A	12/23/21 11:18	REC	
Mercury Digestion	Completed	SW7471B	01/04/22 12:50	JRH	

Inorganics

Method: SM2540B, Run Date: 12/27/21 17:00, Analyst: MAM

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Total Solids*	89	1		%	1		

Metals

Method: SW6020A, Run Date: 01/03/22 15:13, Analyst: JRH

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Arsenic	1.58	0.20		mg/kg	235	7440-38-2	
Barium	3.11	1.0		mg/kg	235	7440-39-3	
Cadmium	Not detected	0.20		mg/kg	235	7440-43-9	
Chromium	1.13	0.50		mg/kg	235	7440-47-3	
Copper	3.66	0.50		mg/kg	235	7440-50-8	
Lead	4.54	0.30		mg/kg	235	7439-92-1	
Selenium	Not detected	0.40		mg/kg	235	7782-49-2	
Silver	Not detected	0.20		mg/kg	235	7440-22-4	
Zinc	8.31	0.50		mg/kg	235	7440-66-6	

Method: SW7471B, Run Date: 01/05/22 12:09, Analyst: JRH

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Mercury	Not detected	0.050		mg/kg	65	7439-97-6	

Organics - PCBs/Pesticides

PCB List, Method: SW8082A, Run Date: 12/27/21 15:11, Analyst: JANB

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PCB-1016	Not detected	330		ug/kg	1	12674-11-2	
PCB-1242	Not detected	330		ug/kg	1	53469-21-9	
PCB-1221	Not detected	330		ug/kg	1	11104-28-2	
PCB-1232	Not detected	330		ug/kg	1	11141-16-5	
PCB-1248	Not detected	330		ug/kg	1	12672-29-6	
PCB-1254	Not detected	330		ug/kg	1	11097-69-1	
PCB-1260	Not detected	330		ug/kg	1	11096-82-5	

Lab Sample ID: S31593.01 (continued)
Sample Tag: SB-1 23-24

Organics - Semi-Volatiles

Semi-Volatile Organics - MDEQ, Method: SW8270D, Run Date: 12/29/21 18:17, Analyst: JGH

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acenaphthene	Not detected	330		ug/kg	6	83-32-9	
Acenaphthylene	Not detected	330		ug/kg	6	208-96-8	
Anthracene	Not detected	330		ug/kg	6	120-12-7	
Benzo(a)anthracene	Not detected	330		ug/kg	6	56-55-3	
Benzo(b)fluoranthene	Not detected	330		ug/kg	6	205-99-2	
Benzo(k)fluoranthene	Not detected	330		ug/kg	6	207-08-9	
Benzo(ghi)perylene	Not detected	330		ug/kg	6	191-24-2	
Benzo(a)pyrene	Not detected	330		ug/kg	6	50-32-8	
bis(2-Chloroethoxy)methane	Not detected	330		ug/kg	6	111-91-1	
bis(2-Chloroethyl)ether	Not detected	330		ug/kg	6	111-44-4	
bis(2-Chloroisopropyl)ether*	Not detected	330		ug/kg	6	108-60-1	
bis(2-Ethylhexyl)phthalate	Not detected	330		ug/kg	6	117-81-7	
4-Bromophenyl phenyl ether	Not detected	330		ug/kg	6	101-55-3	
Butyl benzyl phthalate	Not detected	330		ug/kg	6	85-68-7	
4-Chloroaniline	Not detected	330		ug/kg	6	106-47-8	
2-Chloronaphthalene	Not detected	330		ug/kg	6	91-58-7	
4-Chloro-3-methylphenol	Not detected	280		ug/kg	6	59-50-7	
2-Chlorophenol	Not detected	330		ug/kg	6	95-57-8	
4-Chlorophenyl phenyl ether	Not detected	330		ug/kg	6	7005-72-3	
Chrysene	Not detected	330		ug/kg	6	218-01-9	
3-, 4-Methylphenol (p,m-Cresol)	Not detected	330		ug/kg	6	3/4-CRESOL	
2-Methylphenol (o-Cresol)	Not detected	330		ug/kg	6	95-48-7	
Dibenzo(ah)anthracene	Not detected	330		ug/kg	6	53-70-3	
Dibenzofuran	Not detected	330		ug/kg	6	132-64-9	
di-n-Butyl phthalate	Not detected	330		ug/kg	6	84-74-2	
1,2-Dichlorobenzene*	Not detected	330		ug/kg	6	95-50-1	
1,3-Dichlorobenzene	Not detected	330		ug/kg	6	541-73-1	
1,4-Dichlorobenzene	Not detected	330		ug/kg	6	106-46-7	
3,3'-Dichlorobenzidine	Not detected	2,000		ug/kg	6	91-94-1	
2,4-Dichlorophenol	Not detected	330		ug/kg	6	120-83-2	
Diethyl phthalate	Not detected	330		ug/kg	6	84-66-2	
2,4-Dimethylphenol	Not detected	330		ug/kg	6	105-67-9	
Dimethyl phthalate	Not detected	330		ug/kg	6	131-11-3	
4,6-Dinitro-2-methylphenol	Not detected	830		ug/kg	6	534-52-1	
2,4-Dinitrophenol	Not detected	830		ug/kg	6	51-28-5	
2,4-Dinitrotoluene	Not detected	330		ug/kg	6	121-14-2	
2,6-Dinitrotoluene	Not detected	330		ug/kg	6	606-20-2	
1,2-Diphenylhydrazine	Not detected	330		ug/kg	6	122-66-7	
di-n-Octyl phthalate	Not detected	330		ug/kg	6	117-84-0	
Fluoranthene	Not detected	330		ug/kg	6	206-44-0	
Fluorene	Not detected	330		ug/kg	6	86-73-7	
Hexachlorobenzene	Not detected	330		ug/kg	6	118-74-1	
Hexachlorobutadiene	Not detected	330		ug/kg	6	87-68-3	
Hexachlorocyclopentadiene	Not detected	330		ug/kg	6	77-47-4	
Hexachloroethane	Not detected	330		ug/kg	6	67-72-1	
Indeno(1,2,3-cd)pyrene	Not detected	330		ug/kg	6	193-39-5	
Isophorone	Not detected	330		ug/kg	6	78-59-1	
2-Methylnaphthalene	Not detected	330		ug/kg	6	91-57-6	
Naphthalene	Not detected	330		ug/kg	6	91-20-3	

Lab Sample ID: S31593.01 (continued)
Sample Tag: SB-1 23-24

Semi-Volatile Organics - MDEQ, Method: SW8270D, Run Date: 12/29/21 18:17, Analyst: JGH (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
2-Nitroaniline	Not detected	830		ug/kg	6	88-74-4	
3-Nitroaniline	Not detected	830		ug/kg	6	99-09-2	
4-Nitroaniline	Not detected	830		ug/kg	6	100-01-6	
Nitrobenzene	Not detected	330		ug/kg	6	98-95-3	
2-Nitrophenol	Not detected	330		ug/kg	6	88-75-5	
4-Nitrophenol	Not detected	830		ug/kg	6	100-02-7	
N-Nitrosodiphenylamine	Not detected	330		ug/kg	6	86-30-6	
N-Nitrosodi-n-propylamine	Not detected	330		ug/kg	6	621-64-7	
Pentachlorophenol	Not detected	330		ug/kg	6	87-86-5	
Phenanthrene	Not detected	330		ug/kg	6	85-01-8	
Phenol	Not detected	330		ug/kg	6	108-95-2	
Pyrene	Not detected	330		ug/kg	6	129-00-0	
1,2,4-Trichlorobenzene	Not detected	330		ug/kg	6	120-82-1	
2,4,5-Trichlorophenol	Not detected	330		ug/kg	6	95-95-4	
2,4,6-Trichlorophenol	Not detected	330		ug/kg	6	88-06-2	

Organics - Volatiles

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 12/29/21 04:10, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	300		ug/kg	65	60-29-7	
Acetone	Not detected	1,000		ug/kg	65	67-64-1	
Methyl iodide	Not detected	100		ug/kg	65	74-88-4	
Carbon disulfide	Not detected	300		ug/kg	65	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	300		ug/kg	65	1634-04-4	
Acrylonitrile	Not detected	100		ug/kg	65	107-13-1	
2-Butanone (MEK)	Not detected	980		ug/kg	65	78-93-3	
Dichlorodifluoromethane	Not detected	300		ug/kg	65	75-71-8	
Chloromethane	Not detected	300		ug/kg	65	74-87-3	
Vinyl chloride	Not detected	70		ug/kg	65	75-01-4	
Bromomethane	Not detected	300		ug/kg	65	74-83-9	
Chloroethane	Not detected	300		ug/kg	65	75-00-3	
Trichlorofluoromethane	Not detected	100		ug/kg	65	75-69-4	
1,1-Dichloroethene	Not detected	70		ug/kg	65	75-35-4	
Methylene chloride	Not detected	100		ug/kg	65	75-09-2	
trans-1,2-Dichloroethene	Not detected	70		ug/kg	65	156-60-5	
1,1-Dichloroethane	Not detected	70		ug/kg	65	75-34-3	
cis-1,2-Dichloroethene	Not detected	70		ug/kg	65	156-59-2	
Tetrahydrofuran*	Not detected	1,000		ug/kg	65	109-99-9	
Chloroform	Not detected	70		ug/kg	65	67-66-3	
Bromochloromethane	Not detected	100		ug/kg	65	74-97-5	
1,1,1-Trichloroethane	Not detected	70		ug/kg	65	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	3,000		ug/kg	65	108-10-1	
2-Hexanone	Not detected	3,000		ug/kg	65	591-78-6	
Carbon tetrachloride	Not detected	70		ug/kg	65	56-23-5	
Benzene	Not detected	70		ug/kg	65	71-43-2	
1,2-Dichloroethane	Not detected	70		ug/kg	65	107-06-2	
Trichloroethene	Not detected	70		ug/kg	65	79-01-6	
1,2-Dichloropropane	Not detected	70		ug/kg	65	78-87-5	
Bromodichloromethane	Not detected	100		ug/kg	65	75-27-4	
Dibromomethane	Not detected	300		ug/kg	65	74-95-3	

Lab Sample ID: S31593.01 (continued)
Sample Tag: SB-1 23-24

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 12/29/21 04:10, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
cis-1,3-Dichloropropene	Not detected	70		ug/kg	65	10061-01-5	
Toluene	Not detected	70		ug/kg	65	108-88-3	
trans-1,3-Dichloropropene	Not detected	70		ug/kg	65	10061-02-6	
1,1,2-Trichloroethane	Not detected	70		ug/kg	65	79-00-5	
Tetrachloroethene	Not detected	70		ug/kg	65	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	70		ug/kg	65	110-57-6	
Dibromochloromethane	Not detected	100		ug/kg	65	124-48-1	
1,2-Dibromoethane	Not detected	30		ug/kg	65	106-93-4	M
Chlorobenzene	Not detected	70		ug/kg	65	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	100		ug/kg	65	630-20-6	
Ethylbenzene	Not detected	70		ug/kg	65	100-41-4	
p,m-Xylene	Not detected	100		ug/kg	65		
o-Xylene	Not detected	70		ug/kg	65	95-47-6	
Styrene	Not detected	70		ug/kg	65	100-42-5	
Isopropylbenzene	Not detected	300		ug/kg	65	98-82-8	
Bromoform	Not detected	100		ug/kg	65	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	70		ug/kg	65	79-34-5	
1,2,3-Trichloropropane	Not detected	100		ug/kg	65	96-18-4	
n-Propylbenzene	Not detected	70		ug/kg	65	103-65-1	
Bromobenzene	Not detected	100		ug/kg	65	108-86-1	
1,3,5-Trimethylbenzene	Not detected	70		ug/kg	65	108-67-8	
tert-Butylbenzene	Not detected	70		ug/kg	65	98-06-6	
1,2,4-Trimethylbenzene	Not detected	70		ug/kg	65	95-63-6	
sec-Butylbenzene	Not detected	70		ug/kg	65	135-98-8	
p-Isopropyltoluene	Not detected	100		ug/kg	65	99-87-6	
1,3-Dichlorobenzene	Not detected	100		ug/kg	65	541-73-1	
1,4-Dichlorobenzene	Not detected	100		ug/kg	65	106-46-7	
1,2-Dichlorobenzene	Not detected	100		ug/kg	65	95-50-1	
1,2,3-Trimethylbenzene	Not detected	70		ug/kg	65	526-73-8	
n-Butylbenzene	Not detected	70		ug/kg	65	104-51-8	
Hexachloroethane	Not detected	400		ug/kg	65	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	300		ug/kg	65	96-12-8	
1,2,4-Trichlorobenzene	Not detected	430		ug/kg	65	120-82-1	
1,2,3-Trichlorobenzene	Not detected	430		ug/kg	65	87-61-6	
Naphthalene	Not detected	300		ug/kg	65	91-20-3	
2-Methylnaphthalene	Not detected	100		ug/kg	65	91-57-6	

M-Result reported to MDL not RDL

Analytical Laboratory Report

Lab Sample ID: S31593.02
Sample Tag: SB-2 19-20
Collected Date/Time: 12/20/2021 11:40
Matrix: Soil
COC Reference: 144662

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	4oz Glass	None	Yes	6.0	IR
1	40ml Glass	MeOH	Yes	6.0	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Metal Digestion	Completed	SW3050B	01/03/22 13:30	JRH	
BNA Extraction*	Completed	SW3546	12/23/21 13:45	JW	
Extraction, PCB*	Completed	SW3546	12/27/21 11:00	JW	
Sample wt. (g) / Methanol (ml)*	5.504/10	SW5035A	12/23/21 11:18	REC	
Mercury Digestion	Completed	SW7471B	01/04/22 12:50	JRH	

Inorganics

Method: SM2540B, Run Date: 12/27/21 17:00, Analyst: MAM

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Total Solids*	96	1		%	1		

Metals

Method: SW6020A, Run Date: 01/03/22 15:15, Analyst: JRH

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Arsenic	0.63	0.20		mg/kg	209	7440-38-2	
Barium	1.68	1.0		mg/kg	209	7440-39-3	
Cadmium	Not detected	0.20		mg/kg	209	7440-43-9	
Chromium	0.82	0.50		mg/kg	209	7440-47-3	
Copper	1.24	0.50		mg/kg	209	7440-50-8	
Lead	0.93	0.30		mg/kg	209	7439-92-1	
Selenium	Not detected	0.40		mg/kg	209	7782-49-2	
Silver	Not detected	0.20		mg/kg	209	7440-22-4	
Zinc	4.15	0.50		mg/kg	209	7440-66-6	

Method: SW7471B, Run Date: 01/05/22 12:12, Analyst: JRH

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Mercury	Not detected	0.050		mg/kg	63	7439-97-6	

Organics - PCBs/Pesticides

PCB List, Method: SW8082A, Run Date: 12/27/21 14:37, Analyst: JANB

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PCB-1016	Not detected	330		ug/kg	1	12674-11-2	
PCB-1242	Not detected	330		ug/kg	1	53469-21-9	
PCB-1221	Not detected	330		ug/kg	1	11104-28-2	
PCB-1232	Not detected	330		ug/kg	1	11141-16-5	
PCB-1248	Not detected	330		ug/kg	1	12672-29-6	
PCB-1254	Not detected	330		ug/kg	1	11097-69-1	
PCB-1260	Not detected	330		ug/kg	1	11096-82-5	

Lab Sample ID: S31593.02 (continued)
Sample Tag: SB-2 19-20

Organics - Semi-Volatiles

Semi-Volatile Organics - MDEQ, Method: SW8270D, Run Date: 12/29/21 16:47, Analyst: JGH

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acenaphthene	Not detected	330		ug/kg	6	83-32-9	
Acenaphthylene	Not detected	330		ug/kg	6	208-96-8	
Anthracene	Not detected	330		ug/kg	6	120-12-7	
Benzo(a)anthracene	Not detected	330		ug/kg	6	56-55-3	
Benzo(b)fluoranthene	Not detected	330		ug/kg	6	205-99-2	
Benzo(k)fluoranthene	Not detected	330		ug/kg	6	207-08-9	
Benzo(ghi)perylene	Not detected	330		ug/kg	6	191-24-2	
Benzo(a)pyrene	Not detected	330		ug/kg	6	50-32-8	
bis(2-Chloroethoxy)methane	Not detected	330		ug/kg	6	111-91-1	
bis(2-Chloroethyl)ether	Not detected	330		ug/kg	6	111-44-4	
bis(2-Chloroisopropyl)ether*	Not detected	330		ug/kg	6	108-60-1	
bis(2-Ethylhexyl)phthalate	Not detected	330		ug/kg	6	117-81-7	
4-Bromophenyl phenyl ether	Not detected	330		ug/kg	6	101-55-3	
Butyl benzyl phthalate	Not detected	330		ug/kg	6	85-68-7	
4-Chloroaniline	Not detected	330		ug/kg	6	106-47-8	
2-Chloronaphthalene	Not detected	330		ug/kg	6	91-58-7	
4-Chloro-3-methylphenol	Not detected	280		ug/kg	6	59-50-7	
2-Chlorophenol	Not detected	330		ug/kg	6	95-57-8	
4-Chlorophenyl phenyl ether	Not detected	330		ug/kg	6	7005-72-3	
Chrysene	Not detected	330		ug/kg	6	218-01-9	
3-, 4-Methylphenol (p,m-Cresol)	Not detected	330		ug/kg	6	3/4-CRESOL	
2-Methylphenol (o-Cresol)	Not detected	330		ug/kg	6	95-48-7	
Dibenzo(ah)anthracene	Not detected	330		ug/kg	6	53-70-3	
Dibenzofuran	Not detected	330		ug/kg	6	132-64-9	
di-n-Butyl phthalate	Not detected	330		ug/kg	6	84-74-2	
1,2-Dichlorobenzene*	Not detected	330		ug/kg	6	95-50-1	
1,3-Dichlorobenzene	Not detected	330		ug/kg	6	541-73-1	
1,4-Dichlorobenzene	Not detected	330		ug/kg	6	106-46-7	
3,3'-Dichlorobenzidine	Not detected	2,000		ug/kg	6	91-94-1	
2,4-Dichlorophenol	Not detected	330		ug/kg	6	120-83-2	
Diethyl phthalate	Not detected	330		ug/kg	6	84-66-2	
2,4-Dimethylphenol	Not detected	330		ug/kg	6	105-67-9	
Dimethyl phthalate	Not detected	330		ug/kg	6	131-11-3	
4,6-Dinitro-2-methylphenol	Not detected	830		ug/kg	6	534-52-1	
2,4-Dinitrophenol	Not detected	830		ug/kg	6	51-28-5	
2,4-Dinitrotoluene	Not detected	330		ug/kg	6	121-14-2	
2,6-Dinitrotoluene	Not detected	330		ug/kg	6	606-20-2	
1,2-Diphenylhydrazine	Not detected	330		ug/kg	6	122-66-7	
di-n-Octyl phthalate	Not detected	330		ug/kg	6	117-84-0	
Fluoranthene	Not detected	330		ug/kg	6	206-44-0	
Fluorene	Not detected	330		ug/kg	6	86-73-7	
Hexachlorobenzene	Not detected	330		ug/kg	6	118-74-1	
Hexachlorobutadiene	Not detected	330		ug/kg	6	87-68-3	
Hexachlorocyclopentadiene	Not detected	330		ug/kg	6	77-47-4	
Hexachloroethane	Not detected	330		ug/kg	6	67-72-1	
Indeno(1,2,3-cd)pyrene	Not detected	330		ug/kg	6	193-39-5	
Isophorone	Not detected	330		ug/kg	6	78-59-1	
2-Methylnaphthalene	Not detected	330		ug/kg	6	91-57-6	
Naphthalene	Not detected	330		ug/kg	6	91-20-3	

Lab Sample ID: S31593.02 (continued)
Sample Tag: SB-2 19-20

Semi-Volatile Organics - MDEQ, Method: SW8270D, Run Date: 12/29/21 16:47, Analyst: JGH (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
2-Nitroaniline	Not detected	830		ug/kg	6	88-74-4	
3-Nitroaniline	Not detected	830		ug/kg	6	99-09-2	
4-Nitroaniline	Not detected	830		ug/kg	6	100-01-6	
Nitrobenzene	Not detected	330		ug/kg	6	98-95-3	
2-Nitrophenol	Not detected	330		ug/kg	6	88-75-5	
4-Nitrophenol	Not detected	830		ug/kg	6	100-02-7	
N-Nitrosodiphenylamine	Not detected	330		ug/kg	6	86-30-6	
N-Nitrosodi-n-propylamine	Not detected	330		ug/kg	6	621-64-7	
Pentachlorophenol	Not detected	330		ug/kg	6	87-86-5	
Phenanthrene	Not detected	330		ug/kg	6	85-01-8	
Phenol	Not detected	330		ug/kg	6	108-95-2	
Pyrene	Not detected	330		ug/kg	6	129-00-0	
1,2,4-Trichlorobenzene	Not detected	330		ug/kg	6	120-82-1	
2,4,5-Trichlorophenol	Not detected	330		ug/kg	6	95-95-4	
2,4,6-Trichlorophenol	Not detected	330		ug/kg	6	88-06-2	

Organics - Volatiles

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 12/29/21 04:32, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	400		ug/kg	96.7	60-29-7	
Acetone	Not detected	2,000		ug/kg	96.7	67-64-1	
Methyl iodide	Not detected	200		ug/kg	96.7	74-88-4	
Carbon disulfide	Not detected	500		ug/kg	96.7	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	400		ug/kg	96.7	1634-04-4	
Acrylonitrile	Not detected	200		ug/kg	96.7	107-13-1	
2-Butanone (MEK)	Not detected	1,500		ug/kg	96.7	78-93-3	
Dichlorodifluoromethane	Not detected	500		ug/kg	96.7	75-71-8	
Chloromethane	Not detected	500		ug/kg	96.7	74-87-3	
Vinyl chloride	Not detected	100		ug/kg	96.7	75-01-4	
Bromomethane	Not detected	400		ug/kg	96.7	74-83-9	
Chloroethane	Not detected	500		ug/kg	96.7	75-00-3	
Trichlorofluoromethane	Not detected	200		ug/kg	96.7	75-69-4	
1,1-Dichloroethene	Not detected	100		ug/kg	96.7	75-35-4	
Methylene chloride	Not detected	200		ug/kg	96.7	75-09-2	
trans-1,2-Dichloroethene	Not detected	100		ug/kg	96.7	156-60-5	
1,1-Dichloroethane	Not detected	100		ug/kg	96.7	75-34-3	
cis-1,2-Dichloroethene	Not detected	100		ug/kg	96.7	156-59-2	
Tetrahydrofuran*	Not detected	2,000		ug/kg	96.7	109-99-9	
Chloroform	Not detected	100		ug/kg	96.7	67-66-3	
Bromochloromethane	Not detected	200		ug/kg	96.7	74-97-5	
1,1,1-Trichloroethane	Not detected	100		ug/kg	96.7	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	5,000		ug/kg	96.7	108-10-1	
2-Hexanone	Not detected	5,000		ug/kg	96.7	591-78-6	
Carbon tetrachloride	Not detected	100		ug/kg	96.7	56-23-5	
Benzene	Not detected	100		ug/kg	96.7	71-43-2	
1,2-Dichloroethane	Not detected	100		ug/kg	96.7	107-06-2	
Trichloroethene	Not detected	100		ug/kg	96.7	79-01-6	
1,2-Dichloropropane	Not detected	100		ug/kg	96.7	78-87-5	
Bromodichloromethane	Not detected	200		ug/kg	96.7	75-27-4	
Dibromomethane	Not detected	500		ug/kg	96.7	74-95-3	

Lab Sample ID: S31593.02 (continued)
Sample Tag: SB-2 19-20

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 12/29/21 04:32, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
cis-1,3-Dichloropropene	Not detected	100		ug/kg	96.7	10061-01-5	
Toluene	Not detected	100		ug/kg	96.7	108-88-3	
trans-1,3-Dichloropropene	Not detected	100		ug/kg	96.7	10061-02-6	
1,1,2-Trichloroethane	Not detected	100		ug/kg	96.7	79-00-5	
Tetrachloroethene	Not detected	100		ug/kg	96.7	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	100		ug/kg	96.7	110-57-6	
Dibromochloromethane	Not detected	200		ug/kg	96.7	124-48-1	
1,2-Dibromoethane	Not detected	40		ug/kg	96.7	106-93-4	M
Chlorobenzene	Not detected	100		ug/kg	96.7	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	200		ug/kg	96.7	630-20-6	
Ethylbenzene	Not detected	100		ug/kg	96.7	100-41-4	
p,m-Xylene	Not detected	200		ug/kg	96.7		
o-Xylene	Not detected	100		ug/kg	96.7	95-47-6	
Styrene	Not detected	100		ug/kg	96.7	100-42-5	
Isopropylbenzene	Not detected	500		ug/kg	96.7	98-82-8	
Bromoform	Not detected	200		ug/kg	96.7	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	100		ug/kg	96.7	79-34-5	
1,2,3-Trichloropropane	Not detected	200		ug/kg	96.7	96-18-4	
n-Propylbenzene	Not detected	100		ug/kg	96.7	103-65-1	
Bromobenzene	Not detected	200		ug/kg	96.7	108-86-1	
1,3,5-Trimethylbenzene	Not detected	100		ug/kg	96.7	108-67-8	
tert-Butylbenzene	Not detected	100		ug/kg	96.7	98-06-6	
1,2,4-Trimethylbenzene	Not detected	100		ug/kg	96.7	95-63-6	
sec-Butylbenzene	Not detected	100		ug/kg	96.7	135-98-8	
p-Isopropyltoluene	Not detected	200		ug/kg	96.7	99-87-6	
1,3-Dichlorobenzene	Not detected	200		ug/kg	96.7	541-73-1	
1,4-Dichlorobenzene	Not detected	200		ug/kg	96.7	106-46-7	
1,2-Dichlorobenzene	Not detected	200		ug/kg	96.7	95-50-1	
1,2,3-Trimethylbenzene	Not detected	100		ug/kg	96.7	526-73-8	
n-Butylbenzene	Not detected	100		ug/kg	96.7	104-51-8	
Hexachloroethane	Not detected	600		ug/kg	96.7	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	500		ug/kg	96.7	96-12-8	
1,2,4-Trichlorobenzene	Not detected	640		ug/kg	96.7	120-82-1	
1,2,3-Trichlorobenzene	Not detected	640		ug/kg	96.7	87-61-6	
Naphthalene	Not detected	500		ug/kg	96.7	91-20-3	
2-Methylnaphthalene	Not detected	200		ug/kg	96.7	91-57-6	

M-Result reported to MDL not RDL

Analytical Laboratory Report

Lab Sample ID: S31593.03
Sample Tag: SB-3 3-4
Collected Date/Time: 12/20/2021 13:00
Matrix: Soil
COC Reference: 144662

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	4oz Glass	None	Yes	6.0	IR
1	40ml Glass	MeOH	Yes	6.0	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Metal Digestion	Completed	SW3050B	01/03/22 13:30	JRH	
BNA Extraction*	Completed	SW3546	12/23/21 13:45	JW	
Extraction, PCB*	Completed	SW3546	12/27/21 11:00	JW	
Sample wt. (g) / Methanol (ml)*	14.071/14	SW5035A	12/23/21 11:18	REC	
Mercury Digestion	Completed	SW7471B	01/04/22 12:50	JRH	

Inorganics

Method: SM2540B, Run Date: 12/27/21 17:00, Analyst: MAM

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Total Solids*	86	1		%	1		

Metals

Method: SW6020A, Run Date: 01/03/22 15:17, Analyst: JRH

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Arsenic	3.96	0.20		mg/kg	272	7440-38-2	
Barium	165	1.0		mg/kg	272	7440-39-3	
Cadmium	2.28	0.20		mg/kg	272	7440-43-9	
Chromium	15.6	0.50		mg/kg	272	7440-47-3	
Copper	159	0.50		mg/kg	272	7440-50-8	
Lead	674	0.30		mg/kg	272	7439-92-1	
Selenium	Not detected	0.40		mg/kg	272	7782-49-2	
Silver	2.16	0.20		mg/kg	272	7440-22-4	
Zinc	440	0.50		mg/kg	272	7440-66-6	

Method: SW7471B, Run Date: 01/05/22 12:22, Analyst: JRH

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Mercury	4.219	0.050		mg/kg	68	7439-97-6	

Organics - PCBs/Pesticides

PCB List, Method: SW8082A, Run Date: 12/27/21 15:38, Analyst: JANB

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PCB-1016	Not detected	330		ug/kg	10	12674-11-2	
PCB-1242	Not detected	330		ug/kg	10	53469-21-9	
PCB-1221	Not detected	330		ug/kg	10	11104-28-2	
PCB-1232	Not detected	330		ug/kg	10	11141-16-5	
PCB-1248	Not detected	330		ug/kg	10	12672-29-6	
PCB-1254	Not detected	330		ug/kg	10	11097-69-1	
PCB-1260	Not detected	330		ug/kg	10	11096-82-5	

Lab Sample ID: S31593.03 (continued)
Sample Tag: SB-3 3-4

Organics - Semi-Volatiles

Semi-Volatile Organics - MDEQ, Method: SW8270D, Run Date: 12/29/21 18:47, Analyst: JGH

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acenaphthene	Not detected	330		ug/kg	6	83-32-9	
Acenaphthylene	Not detected	330		ug/kg	6	208-96-8	
Anthracene	Not detected	330		ug/kg	6	120-12-7	
Benzo(a)anthracene	Not detected	330		ug/kg	6	56-55-3	
Benzo(b)fluoranthene	Not detected	330		ug/kg	6	205-99-2	
Benzo(k)fluoranthene	Not detected	330		ug/kg	6	207-08-9	
Benzo(ghi)perylene	Not detected	330		ug/kg	6	191-24-2	
Benzo(a)pyrene	Not detected	330		ug/kg	6	50-32-8	
bis(2-Chloroethoxy)methane	Not detected	330		ug/kg	6	111-91-1	
bis(2-Chloroethyl)ether	Not detected	330		ug/kg	6	111-44-4	
bis(2-Chloroisopropyl)ether*	Not detected	330		ug/kg	6	108-60-1	
bis(2-Ethylhexyl)phthalate	Not detected	330		ug/kg	6	117-81-7	
4-Bromophenyl phenyl ether	Not detected	330		ug/kg	6	101-55-3	
Butyl benzyl phthalate	Not detected	330		ug/kg	6	85-68-7	
4-Chloroaniline	Not detected	330		ug/kg	6	106-47-8	
2-Chloronaphthalene	Not detected	330		ug/kg	6	91-58-7	
4-Chloro-3-methylphenol	Not detected	280		ug/kg	6	59-50-7	
2-Chlorophenol	Not detected	330		ug/kg	6	95-57-8	
4-Chlorophenyl phenyl ether	Not detected	330		ug/kg	6	7005-72-3	
Chrysene	Not detected	330		ug/kg	6	218-01-9	
3-, 4-Methylphenol (p,m-Cresol)	Not detected	330		ug/kg	6	3/4-CRESOL	
2-Methylphenol (o-Cresol)	Not detected	330		ug/kg	6	95-48-7	
Dibenzo(ah)anthracene	Not detected	330		ug/kg	6	53-70-3	
Dibenzofuran	Not detected	330		ug/kg	6	132-64-9	
di-n-Butyl phthalate	Not detected	330		ug/kg	6	84-74-2	
1,2-Dichlorobenzene*	Not detected	330		ug/kg	6	95-50-1	
1,3-Dichlorobenzene	Not detected	330		ug/kg	6	541-73-1	
1,4-Dichlorobenzene	Not detected	330		ug/kg	6	106-46-7	
3,3'-Dichlorobenzidine	Not detected	2,000		ug/kg	6	91-94-1	
2,4-Dichlorophenol	Not detected	330		ug/kg	6	120-83-2	
Diethyl phthalate	Not detected	330		ug/kg	6	84-66-2	
2,4-Dimethylphenol	Not detected	330		ug/kg	6	105-67-9	
Dimethyl phthalate	Not detected	330		ug/kg	6	131-11-3	
4,6-Dinitro-2-methylphenol	Not detected	830		ug/kg	6	534-52-1	
2,4-Dinitrophenol	Not detected	830		ug/kg	6	51-28-5	
2,4-Dinitrotoluene	Not detected	330		ug/kg	6	121-14-2	
2,6-Dinitrotoluene	Not detected	330		ug/kg	6	606-20-2	
1,2-Diphenylhydrazine	Not detected	330		ug/kg	6	122-66-7	
di-n-Octyl phthalate	Not detected	330		ug/kg	6	117-84-0	
Fluoranthene	Not detected	330		ug/kg	6	206-44-0	
Fluorene	Not detected	330		ug/kg	6	86-73-7	
Hexachlorobenzene	Not detected	330		ug/kg	6	118-74-1	
Hexachlorobutadiene	Not detected	330		ug/kg	6	87-68-3	
Hexachlorocyclopentadiene	Not detected	330		ug/kg	6	77-47-4	
Hexachloroethane	Not detected	330		ug/kg	6	67-72-1	
Indeno(1,2,3-cd)pyrene	Not detected	330		ug/kg	6	193-39-5	
Isophorone	Not detected	330		ug/kg	6	78-59-1	
2-Methylnaphthalene	Not detected	330		ug/kg	6	91-57-6	
Naphthalene	Not detected	330		ug/kg	6	91-20-3	

Lab Sample ID: S31593.03 (continued)
Sample Tag: SB-3 3-4

Semi-Volatile Organics - MDEQ, Method: SW8270D, Run Date: 12/29/21 18:47, Analyst: JGH (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
2-Nitroaniline	Not detected	830		ug/kg	6	88-74-4	
3-Nitroaniline	Not detected	830		ug/kg	6	99-09-2	
4-Nitroaniline	Not detected	830		ug/kg	6	100-01-6	
Nitrobenzene	Not detected	330		ug/kg	6	98-95-3	
2-Nitrophenol	Not detected	330		ug/kg	6	88-75-5	
4-Nitrophenol	Not detected	830		ug/kg	6	100-02-7	
N-Nitrosodiphenylamine	Not detected	330		ug/kg	6	86-30-6	
N-Nitrosodi-n-propylamine	Not detected	330		ug/kg	6	621-64-7	
Pentachlorophenol	Not detected	330		ug/kg	6	87-86-5	
Phenanthrene	Not detected	330		ug/kg	6	85-01-8	
Phenol	Not detected	330		ug/kg	6	108-95-2	
Pyrene	Not detected	330		ug/kg	6	129-00-0	
1,2,4-Trichlorobenzene	Not detected	330		ug/kg	6	120-82-1	
2,4,5-Trichlorophenol	Not detected	330		ug/kg	6	95-95-4	
2,4,6-Trichlorophenol	Not detected	330		ug/kg	6	88-06-2	

Organics - Volatiles

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 12/29/21 04:54, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	300		ug/kg	66	60-29-7	
Acetone	Not detected	1,000		ug/kg	66	67-64-1	
Methyl iodide	Not detected	100		ug/kg	66	74-88-4	
Carbon disulfide	Not detected	300		ug/kg	66	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	300		ug/kg	66	1634-04-4	
Acrylonitrile	Not detected	100		ug/kg	66	107-13-1	
2-Butanone (MEK)	Not detected	990		ug/kg	66	78-93-3	
Dichlorodifluoromethane	Not detected	300		ug/kg	66	75-71-8	
Chloromethane	Not detected	300		ug/kg	66	74-87-3	
Vinyl chloride	Not detected	70		ug/kg	66	75-01-4	
Bromomethane	Not detected	300		ug/kg	66	74-83-9	
Chloroethane	Not detected	300		ug/kg	66	75-00-3	
Trichlorofluoromethane	Not detected	100		ug/kg	66	75-69-4	
1,1-Dichloroethene	Not detected	70		ug/kg	66	75-35-4	
Methylene chloride	Not detected	100		ug/kg	66	75-09-2	
trans-1,2-Dichloroethene	Not detected	70		ug/kg	66	156-60-5	
1,1-Dichloroethane	Not detected	70		ug/kg	66	75-34-3	
cis-1,2-Dichloroethene	Not detected	70		ug/kg	66	156-59-2	
Tetrahydrofuran*	Not detected	1,000		ug/kg	66	109-99-9	
Chloroform	Not detected	70		ug/kg	66	67-66-3	
Bromochloromethane	Not detected	100		ug/kg	66	74-97-5	
1,1,1-Trichloroethane	Not detected	70		ug/kg	66	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	3,000		ug/kg	66	108-10-1	
2-Hexanone	Not detected	3,000		ug/kg	66	591-78-6	
Carbon tetrachloride	Not detected	70		ug/kg	66	56-23-5	
Benzene	Not detected	70		ug/kg	66	71-43-2	
1,2-Dichloroethane	Not detected	70		ug/kg	66	107-06-2	
Trichloroethene	Not detected	70		ug/kg	66	79-01-6	
1,2-Dichloropropane	Not detected	70		ug/kg	66	78-87-5	
Bromodichloromethane	Not detected	100		ug/kg	66	75-27-4	
Dibromomethane	Not detected	300		ug/kg	66	74-95-3	

Lab Sample ID: S31593.03 (continued)
Sample Tag: SB-3 3-4

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 12/29/21 04:54, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
cis-1,3-Dichloropropene	Not detected	70		ug/kg	66	10061-01-5	
Toluene	70	70		ug/kg	66	108-88-3	
trans-1,3-Dichloropropene	Not detected	70		ug/kg	66	10061-02-6	
1,1,2-Trichloroethane	Not detected	70		ug/kg	66	79-00-5	
Tetrachloroethene	Not detected	70		ug/kg	66	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	70		ug/kg	66	110-57-6	
Dibromochloromethane	Not detected	100		ug/kg	66	124-48-1	
1,2-Dibromoethane	Not detected	30		ug/kg	66	106-93-4	M
Chlorobenzene	Not detected	70		ug/kg	66	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	100		ug/kg	66	630-20-6	
Ethylbenzene	Not detected	70		ug/kg	66	100-41-4	
p,m-Xylene	Not detected	100		ug/kg	66		
o-Xylene	70	70		ug/kg	66	95-47-6	
Styrene	Not detected	70		ug/kg	66	100-42-5	
Isopropylbenzene	Not detected	300		ug/kg	66	98-82-8	
Bromoform	Not detected	100		ug/kg	66	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	70		ug/kg	66	79-34-5	
1,2,3-Trichloropropane	Not detected	100		ug/kg	66	96-18-4	
n-Propylbenzene	Not detected	70		ug/kg	66	103-65-1	
Bromobenzene	Not detected	100		ug/kg	66	108-86-1	
1,3,5-Trimethylbenzene	Not detected	70		ug/kg	66	108-67-8	
tert-Butylbenzene	Not detected	70		ug/kg	66	98-06-6	
1,2,4-Trimethylbenzene	Not detected	70		ug/kg	66	95-63-6	
sec-Butylbenzene	Not detected	70		ug/kg	66	135-98-8	
p-Isopropyltoluene	Not detected	100		ug/kg	66	99-87-6	
1,3-Dichlorobenzene	Not detected	100		ug/kg	66	541-73-1	
1,4-Dichlorobenzene	Not detected	100		ug/kg	66	106-46-7	
1,2-Dichlorobenzene	Not detected	100		ug/kg	66	95-50-1	
1,2,3-Trimethylbenzene	Not detected	70		ug/kg	66	526-73-8	
n-Butylbenzene	Not detected	70		ug/kg	66	104-51-8	
Hexachloroethane	Not detected	400		ug/kg	66	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	300		ug/kg	66	96-12-8	
1,2,4-Trichlorobenzene	Not detected	440		ug/kg	66	120-82-1	
1,2,3-Trichlorobenzene	Not detected	440		ug/kg	66	87-61-6	
Naphthalene	Not detected	300		ug/kg	66	91-20-3	
2-Methylnaphthalene	200	100		ug/kg	66	91-57-6	

M-Result reported to MDL not RDL

Analytical Laboratory Report

Lab Sample ID: S31593.04
Sample Tag: SB-4 5-6
Collected Date/Time: 12/20/2021 14:15
Matrix: Soil
COC Reference: 144662

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	4oz Glass	None	Yes	6.0	IR
1	40ml Glass	MeOH	Yes	6.0	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Metal Digestion	Completed	SW3050B	01/03/22 13:30	JRH	
BNA Extraction*	Completed	SW3546	12/23/21 13:45	JW	
Extraction, PCB*	Completed	SW3546	12/27/21 11:00	JW	
Sample wt. (g) / Methanol (ml)*	11.194/11	SW5035A	12/23/21 11:18	REC	
Mercury Digestion	Completed	SW7471B	01/04/22 12:50	JRH	

Inorganics

Method: SM2540B, Run Date: 12/27/21 17:00, Analyst: MAM

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Total Solids*	91	1		%	1		

Metals

Method: SW6020A, Run Date: 01/03/22 15:19, Analyst: JRH

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Arsenic	0.36	0.20		mg/kg	225	7440-38-2	
Barium	13.1	1.0		mg/kg	225	7440-39-3	
Cadmium	Not detected	0.20		mg/kg	225	7440-43-9	
Chromium	1.62	0.50		mg/kg	225	7440-47-3	
Copper	0.66	0.50		mg/kg	225	7440-50-8	
Lead	1.97	0.30		mg/kg	225	7439-92-1	
Selenium	Not detected	0.40		mg/kg	225	7782-49-2	
Silver	Not detected	0.20		mg/kg	225	7440-22-4	
Zinc	3.93	0.50		mg/kg	225	7440-66-6	

Method: SW7471B, Run Date: 01/05/22 12:26, Analyst: JRH

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Mercury	Not detected	0.050		mg/kg	65	7439-97-6	

Organics - PCBs/Pesticides

PCB List, Method: SW8082A, Run Date: 12/27/21 15:22, Analyst: JANB

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PCB-1016	Not detected	330		ug/kg	1	12674-11-2	
PCB-1242	Not detected	330		ug/kg	1	53469-21-9	
PCB-1221	Not detected	330		ug/kg	1	11104-28-2	
PCB-1232	Not detected	330		ug/kg	1	11141-16-5	
PCB-1248	Not detected	330		ug/kg	1	12672-29-6	
PCB-1254	Not detected	330		ug/kg	1	11097-69-1	
PCB-1260	Not detected	330		ug/kg	1	11096-82-5	

Lab Sample ID: S31593.04 (continued)
Sample Tag: SB-4 5-6

Organics - Semi-Volatiles

Semi-Volatile Organics - MDEQ, Method: SW8270D, Run Date: 12/29/21 19:17, Analyst: JGH

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acenaphthene	Not detected	330		ug/kg	6	83-32-9	
Acenaphthylene	Not detected	330		ug/kg	6	208-96-8	
Anthracene	Not detected	330		ug/kg	6	120-12-7	
Benzo(a)anthracene	Not detected	330		ug/kg	6	56-55-3	
Benzo(b)fluoranthene	Not detected	330		ug/kg	6	205-99-2	
Benzo(k)fluoranthene	Not detected	330		ug/kg	6	207-08-9	
Benzo(ghi)perylene	Not detected	330		ug/kg	6	191-24-2	
Benzo(a)pyrene	Not detected	330		ug/kg	6	50-32-8	
bis(2-Chloroethoxy)methane	Not detected	330		ug/kg	6	111-91-1	
bis(2-Chloroethyl)ether	Not detected	330		ug/kg	6	111-44-4	
bis(2-Chloroisopropyl)ether*	Not detected	330		ug/kg	6	108-60-1	
bis(2-Ethylhexyl)phthalate	Not detected	330		ug/kg	6	117-81-7	
4-Bromophenyl phenyl ether	Not detected	330		ug/kg	6	101-55-3	
Butyl benzyl phthalate	Not detected	330		ug/kg	6	85-68-7	
4-Chloroaniline	Not detected	330		ug/kg	6	106-47-8	
2-Chloronaphthalene	Not detected	330		ug/kg	6	91-58-7	
4-Chloro-3-methylphenol	Not detected	280		ug/kg	6	59-50-7	
2-Chlorophenol	Not detected	330		ug/kg	6	95-57-8	
4-Chlorophenyl phenyl ether	Not detected	330		ug/kg	6	7005-72-3	
Chrysene	Not detected	330		ug/kg	6	218-01-9	
3-, 4-Methylphenol (p,m-Cresol)	Not detected	330		ug/kg	6	3/4-CRESOL	
2-Methylphenol (o-Cresol)	Not detected	330		ug/kg	6	95-48-7	
Dibenzo(ah)anthracene	Not detected	330		ug/kg	6	53-70-3	
Dibenzofuran	Not detected	330		ug/kg	6	132-64-9	
di-n-Butyl phthalate	Not detected	330		ug/kg	6	84-74-2	
1,2-Dichlorobenzene*	Not detected	330		ug/kg	6	95-50-1	
1,3-Dichlorobenzene	Not detected	330		ug/kg	6	541-73-1	
1,4-Dichlorobenzene	Not detected	330		ug/kg	6	106-46-7	
3,3'-Dichlorobenzidine	Not detected	2,000		ug/kg	6	91-94-1	
2,4-Dichlorophenol	Not detected	330		ug/kg	6	120-83-2	
Diethyl phthalate	Not detected	330		ug/kg	6	84-66-2	
2,4-Dimethylphenol	Not detected	330		ug/kg	6	105-67-9	
Dimethyl phthalate	Not detected	330		ug/kg	6	131-11-3	
4,6-Dinitro-2-methylphenol	Not detected	830		ug/kg	6	534-52-1	
2,4-Dinitrophenol	Not detected	830		ug/kg	6	51-28-5	
2,4-Dinitrotoluene	Not detected	330		ug/kg	6	121-14-2	
2,6-Dinitrotoluene	Not detected	330		ug/kg	6	606-20-2	
1,2-Diphenylhydrazine	Not detected	330		ug/kg	6	122-66-7	
di-n-Octyl phthalate	Not detected	330		ug/kg	6	117-84-0	
Fluoranthene	Not detected	330		ug/kg	6	206-44-0	
Fluorene	Not detected	330		ug/kg	6	86-73-7	
Hexachlorobenzene	Not detected	330		ug/kg	6	118-74-1	
Hexachlorobutadiene	Not detected	330		ug/kg	6	87-68-3	
Hexachlorocyclopentadiene	Not detected	330		ug/kg	6	77-47-4	
Hexachloroethane	Not detected	330		ug/kg	6	67-72-1	
Indeno(1,2,3-cd)pyrene	Not detected	330		ug/kg	6	193-39-5	
Isophorone	Not detected	330		ug/kg	6	78-59-1	
2-Methylnaphthalene	Not detected	330		ug/kg	6	91-57-6	
Naphthalene	Not detected	330		ug/kg	6	91-20-3	

Lab Sample ID: S31593.04 (continued)
Sample Tag: SB-4 5-6

Semi-Volatile Organics - MDEQ, Method: SW8270D, Run Date: 12/29/21 19:17, Analyst: JGH (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
2-Nitroaniline	Not detected	830		ug/kg	6	88-74-4	
3-Nitroaniline	Not detected	830		ug/kg	6	99-09-2	
4-Nitroaniline	Not detected	830		ug/kg	6	100-01-6	
Nitrobenzene	Not detected	330		ug/kg	6	98-95-3	
2-Nitrophenol	Not detected	330		ug/kg	6	88-75-5	
4-Nitrophenol	Not detected	830		ug/kg	6	100-02-7	
N-Nitrosodiphenylamine	Not detected	330		ug/kg	6	86-30-6	
N-Nitrosodi-n-propylamine	Not detected	330		ug/kg	6	621-64-7	
Pentachlorophenol	Not detected	330		ug/kg	6	87-86-5	
Phenanthrene	Not detected	330		ug/kg	6	85-01-8	
Phenol	Not detected	330		ug/kg	6	108-95-2	
Pyrene	Not detected	330		ug/kg	6	129-00-0	
1,2,4-Trichlorobenzene	Not detected	330		ug/kg	6	120-82-1	
2,4,5-Trichlorophenol	Not detected	330		ug/kg	6	95-95-4	
2,4,6-Trichlorophenol	Not detected	330		ug/kg	6	88-06-2	

Organics - Volatiles

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 12/29/21 05:17, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	200		ug/kg	58.9	60-29-7	
Acetone	Not detected	1,000		ug/kg	58.9	67-64-1	
Methyl iodide	Not detected	100		ug/kg	58.9	74-88-4	
Carbon disulfide	Not detected	300		ug/kg	58.9	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	200		ug/kg	58.9	1634-04-4	
Acrylonitrile	Not detected	100		ug/kg	58.9	107-13-1	
2-Butanone (MEK)	Not detected	880		ug/kg	58.9	78-93-3	
Dichlorodifluoromethane	Not detected	300		ug/kg	58.9	75-71-8	
Chloromethane	Not detected	300		ug/kg	58.9	74-87-3	
Vinyl chloride	Not detected	60		ug/kg	58.9	75-01-4	
Bromomethane	Not detected	200		ug/kg	58.9	74-83-9	
Chloroethane	Not detected	300		ug/kg	58.9	75-00-3	
Trichlorofluoromethane	Not detected	100		ug/kg	58.9	75-69-4	
1,1-Dichloroethene	Not detected	60		ug/kg	58.9	75-35-4	
Methylene chloride	Not detected	100		ug/kg	58.9	75-09-2	
trans-1,2-Dichloroethene	Not detected	60		ug/kg	58.9	156-60-5	
1,1-Dichloroethane	Not detected	60		ug/kg	58.9	75-34-3	
cis-1,2-Dichloroethene	Not detected	60		ug/kg	58.9	156-59-2	
Tetrahydrofuran*	Not detected	1,000		ug/kg	58.9	109-99-9	
Chloroform	Not detected	60		ug/kg	58.9	67-66-3	
Bromochloromethane	Not detected	100		ug/kg	58.9	74-97-5	
1,1,1-Trichloroethane	Not detected	60		ug/kg	58.9	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	3,000		ug/kg	58.9	108-10-1	
2-Hexanone	Not detected	3,000		ug/kg	58.9	591-78-6	
Carbon tetrachloride	Not detected	60		ug/kg	58.9	56-23-5	
Benzene	Not detected	60		ug/kg	58.9	71-43-2	
1,2-Dichloroethane	Not detected	60		ug/kg	58.9	107-06-2	
Trichloroethene	Not detected	60		ug/kg	58.9	79-01-6	
1,2-Dichloropropane	Not detected	60		ug/kg	58.9	78-87-5	
Bromodichloromethane	Not detected	100		ug/kg	58.9	75-27-4	
Dibromomethane	Not detected	300		ug/kg	58.9	74-95-3	

Lab Sample ID: S31593.04 (continued)
Sample Tag: SB-4 5-6

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 12/29/21 05:17, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
cis-1,3-Dichloropropene	Not detected	60		ug/kg	58.9	10061-01-5	
Toluene	Not detected	60		ug/kg	58.9	108-88-3	
trans-1,3-Dichloropropene	Not detected	60		ug/kg	58.9	10061-02-6	
1,1,2-Trichloroethane	Not detected	60		ug/kg	58.9	79-00-5	
Tetrachloroethene	Not detected	60		ug/kg	58.9	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	60		ug/kg	58.9	110-57-6	
Dibromochloromethane	Not detected	100		ug/kg	58.9	124-48-1	
1,2-Dibromoethane	Not detected	20		ug/kg	58.9	106-93-4	M
Chlorobenzene	Not detected	60		ug/kg	58.9	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	100		ug/kg	58.9	630-20-6	
Ethylbenzene	Not detected	60		ug/kg	58.9	100-41-4	
p,m-Xylene	Not detected	100		ug/kg	58.9		
o-Xylene	Not detected	60		ug/kg	58.9	95-47-6	
Styrene	Not detected	60		ug/kg	58.9	100-42-5	
Isopropylbenzene	Not detected	300		ug/kg	58.9	98-82-8	
Bromoform	Not detected	100		ug/kg	58.9	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	60		ug/kg	58.9	79-34-5	
1,2,3-Trichloropropane	Not detected	100		ug/kg	58.9	96-18-4	
n-Propylbenzene	Not detected	60		ug/kg	58.9	103-65-1	
Bromobenzene	Not detected	100		ug/kg	58.9	108-86-1	
1,3,5-Trimethylbenzene	Not detected	60		ug/kg	58.9	108-67-8	
tert-Butylbenzene	Not detected	60		ug/kg	58.9	98-06-6	
1,2,4-Trimethylbenzene	Not detected	60		ug/kg	58.9	95-63-6	
sec-Butylbenzene	Not detected	60		ug/kg	58.9	135-98-8	
p-Isopropyltoluene	Not detected	100		ug/kg	58.9	99-87-6	
1,3-Dichlorobenzene	Not detected	100		ug/kg	58.9	541-73-1	
1,4-Dichlorobenzene	Not detected	100		ug/kg	58.9	106-46-7	
1,2-Dichlorobenzene	Not detected	100		ug/kg	58.9	95-50-1	
1,2,3-Trimethylbenzene	Not detected	60		ug/kg	58.9	526-73-8	
n-Butylbenzene	Not detected	60		ug/kg	58.9	104-51-8	
Hexachloroethane	Not detected	400		ug/kg	58.9	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	300		ug/kg	58.9	96-12-8	
1,2,4-Trichlorobenzene	Not detected	390		ug/kg	58.9	120-82-1	
1,2,3-Trichlorobenzene	Not detected	390		ug/kg	58.9	87-61-6	
Naphthalene	Not detected	300		ug/kg	58.9	91-20-3	
2-Methylnaphthalene	Not detected	100		ug/kg	58.9	91-57-6	

M-Result reported to MDL not RDL

Analytical Laboratory Report

Lab Sample ID: S31593.05
Sample Tag: SB-5 0-1
Collected Date/Time: 12/20/2021 15:30
Matrix: Soil
COC Reference: 144662

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	4oz Glass	None	Yes	6.0	IR
1	40ml Glass	MeOH	Yes	6.0	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Metal Digestion	Completed	SW3050B	01/04/22 10:30	JRH	
BNA Extraction*	Completed	SW3546	12/23/21 13:45	JW	
Extraction, PCB*	Completed	SW3546	12/27/21 11:00	JW	
Sample wt. (g) / Methanol (ml)*	13.284/13	SW5035A	12/23/21 11:18	REC	
Mercury Digestion	Completed	SW7471B	01/04/22 12:50	JRH	

Inorganics

Method: SM2540B, Run Date: 12/27/21 17:00, Analyst: MAM

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Total Solids*	85	1		%	1		

Metals

Method: SW6020A, Run Date: 01/04/22 15:10, Analyst: JRH

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Arsenic	1.43	0.20		mg/kg	274	7440-38-2	
Barium	9.23	1.0		mg/kg	274	7440-39-3	
Cadmium	Not detected	0.20		mg/kg	274	7440-43-9	
Chromium	3.40	0.50		mg/kg	274	7440-47-3	
Copper	3.87	0.50		mg/kg	274	7440-50-8	
Lead	4.86	0.30		mg/kg	274	7439-92-1	
Selenium	Not detected	0.40		mg/kg	274	7782-49-2	
Silver	Not detected	0.20		mg/kg	274	7440-22-4	
Zinc	11.6	0.50		mg/kg	274	7440-66-6	

Method: SW7471B, Run Date: 01/05/22 12:29, Analyst: JRH

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Mercury	Not detected	0.050		mg/kg	70	7439-97-6	

Organics - PCBs/Pesticides

PCB List, Method: SW8082A, Run Date: 12/27/21 15:51, Analyst: JANB

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PCB-1016	Not detected	330		ug/kg	10	12674-11-2	
PCB-1242	Not detected	330		ug/kg	10	53469-21-9	
PCB-1221	Not detected	330		ug/kg	10	11104-28-2	
PCB-1232	Not detected	330		ug/kg	10	11141-16-5	
PCB-1248	Not detected	330		ug/kg	10	12672-29-6	
PCB-1254	Not detected	330		ug/kg	10	11097-69-1	
PCB-1260	Not detected	330		ug/kg	10	11096-82-5	

Lab Sample ID: S31593.05 (continued)
Sample Tag: SB-5 0-1

Organics - Semi-Volatiles

Semi-Volatile Organics - MDEQ, Method: SW8270D, Run Date: 12/29/21 19:47, Analyst: JGH

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acenaphthene	Not detected	330		ug/kg	6	83-32-9	
Acenaphthylene	Not detected	330		ug/kg	6	208-96-8	
Anthracene	Not detected	330		ug/kg	6	120-12-7	
Benzo(a)anthracene	Not detected	330		ug/kg	6	56-55-3	
Benzo(b)fluoranthene	Not detected	330		ug/kg	6	205-99-2	
Benzo(k)fluoranthene	Not detected	330		ug/kg	6	207-08-9	
Benzo(ghi)perylene	Not detected	330		ug/kg	6	191-24-2	
Benzo(a)pyrene	Not detected	330		ug/kg	6	50-32-8	
bis(2-Chloroethoxy)methane	Not detected	330		ug/kg	6	111-91-1	
bis(2-Chloroethyl)ether	Not detected	330		ug/kg	6	111-44-4	
bis(2-Chloroisopropyl)ether*	Not detected	330		ug/kg	6	108-60-1	
bis(2-Ethylhexyl)phthalate	Not detected	330		ug/kg	6	117-81-7	
4-Bromophenyl phenyl ether	Not detected	330		ug/kg	6	101-55-3	
Butyl benzyl phthalate	Not detected	330		ug/kg	6	85-68-7	
4-Chloroaniline	Not detected	330		ug/kg	6	106-47-8	
2-Chloronaphthalene	Not detected	330		ug/kg	6	91-58-7	
4-Chloro-3-methylphenol	Not detected	280		ug/kg	6	59-50-7	
2-Chlorophenol	Not detected	330		ug/kg	6	95-57-8	
4-Chlorophenyl phenyl ether	Not detected	330		ug/kg	6	7005-72-3	
Chrysene	Not detected	330		ug/kg	6	218-01-9	
3-, 4-Methylphenol (p,m-Cresol)	Not detected	330		ug/kg	6	3/4-CRESOL	
2-Methylphenol (o-Cresol)	Not detected	330		ug/kg	6	95-48-7	
Dibenzo(ah)anthracene	Not detected	330		ug/kg	6	53-70-3	
Dibenzofuran	Not detected	330		ug/kg	6	132-64-9	
di-n-Butyl phthalate	Not detected	330		ug/kg	6	84-74-2	
1,2-Dichlorobenzene*	Not detected	330		ug/kg	6	95-50-1	
1,3-Dichlorobenzene	Not detected	330		ug/kg	6	541-73-1	
1,4-Dichlorobenzene	Not detected	330		ug/kg	6	106-46-7	
3,3'-Dichlorobenzidine	Not detected	2,000		ug/kg	6	91-94-1	
2,4-Dichlorophenol	Not detected	330		ug/kg	6	120-83-2	
Diethyl phthalate	Not detected	330		ug/kg	6	84-66-2	
2,4-Dimethylphenol	Not detected	330		ug/kg	6	105-67-9	
Dimethyl phthalate	Not detected	330		ug/kg	6	131-11-3	
4,6-Dinitro-2-methylphenol	Not detected	830		ug/kg	6	534-52-1	
2,4-Dinitrophenol	Not detected	830		ug/kg	6	51-28-5	
2,4-Dinitrotoluene	Not detected	330		ug/kg	6	121-14-2	
2,6-Dinitrotoluene	Not detected	330		ug/kg	6	606-20-2	
1,2-Diphenylhydrazine	Not detected	330		ug/kg	6	122-66-7	
di-n-Octyl phthalate	Not detected	330		ug/kg	6	117-84-0	
Fluoranthene	Not detected	330		ug/kg	6	206-44-0	
Fluorene	Not detected	330		ug/kg	6	86-73-7	
Hexachlorobenzene	Not detected	330		ug/kg	6	118-74-1	
Hexachlorobutadiene	Not detected	330		ug/kg	6	87-68-3	
Hexachlorocyclopentadiene	Not detected	330		ug/kg	6	77-47-4	
Hexachloroethane	Not detected	330		ug/kg	6	67-72-1	
Indeno(1,2,3-cd)pyrene	Not detected	330		ug/kg	6	193-39-5	
Isophorone	Not detected	330		ug/kg	6	78-59-1	
2-Methylnaphthalene	Not detected	330		ug/kg	6	91-57-6	
Naphthalene	Not detected	330		ug/kg	6	91-20-3	

Lab Sample ID: S31593.05 (continued)
Sample Tag: SB-5 0-1

Semi-Volatile Organics - MDEQ, Method: SW8270D, Run Date: 12/29/21 19:47, Analyst: JGH (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
2-Nitroaniline	Not detected	830		ug/kg	6	88-74-4	
3-Nitroaniline	Not detected	830		ug/kg	6	99-09-2	
4-Nitroaniline	Not detected	830		ug/kg	6	100-01-6	
Nitrobenzene	Not detected	330		ug/kg	6	98-95-3	
2-Nitrophenol	Not detected	330		ug/kg	6	88-75-5	
4-Nitrophenol	Not detected	830		ug/kg	6	100-02-7	
N-Nitrosodiphenylamine	Not detected	330		ug/kg	6	86-30-6	
N-Nitrosodi-n-propylamine	Not detected	330		ug/kg	6	621-64-7	
Pentachlorophenol	Not detected	330		ug/kg	6	87-86-5	
Phenanthrene	Not detected	330		ug/kg	6	85-01-8	
Phenol	Not detected	330		ug/kg	6	108-95-2	
Pyrene	Not detected	330		ug/kg	6	129-00-0	
1,2,4-Trichlorobenzene	Not detected	330		ug/kg	6	120-82-1	
2,4,5-Trichlorophenol	Not detected	330		ug/kg	6	95-95-4	
2,4,6-Trichlorophenol	Not detected	330		ug/kg	6	88-06-2	

Organics - Volatiles

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 12/29/21 05:40, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	300		ug/kg	66.4	60-29-7	
Acetone	Not detected	1,000		ug/kg	66.4	67-64-1	
Methyl iodide	Not detected	100		ug/kg	66.4	74-88-4	
Carbon disulfide	Not detected	300		ug/kg	66.4	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	300		ug/kg	66.4	1634-04-4	
Acrylonitrile	Not detected	100		ug/kg	66.4	107-13-1	
2-Butanone (MEK)	Not detected	1,000		ug/kg	66.4	78-93-3	
Dichlorodifluoromethane	Not detected	300		ug/kg	66.4	75-71-8	
Chloromethane	Not detected	300		ug/kg	66.4	74-87-3	
Vinyl chloride	Not detected	70		ug/kg	66.4	75-01-4	
Bromomethane	Not detected	300		ug/kg	66.4	74-83-9	
Chloroethane	Not detected	300		ug/kg	66.4	75-00-3	
Trichlorofluoromethane	Not detected	100		ug/kg	66.4	75-69-4	
1,1-Dichloroethene	Not detected	70		ug/kg	66.4	75-35-4	
Methylene chloride	Not detected	100		ug/kg	66.4	75-09-2	
trans-1,2-Dichloroethene	Not detected	70		ug/kg	66.4	156-60-5	
1,1-Dichloroethane	Not detected	70		ug/kg	66.4	75-34-3	
cis-1,2-Dichloroethene	Not detected	70		ug/kg	66.4	156-59-2	
Tetrahydrofuran*	Not detected	1,000		ug/kg	66.4	109-99-9	
Chloroform	Not detected	70		ug/kg	66.4	67-66-3	
Bromochloromethane	Not detected	100		ug/kg	66.4	74-97-5	
1,1,1-Trichloroethane	Not detected	70		ug/kg	66.4	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	3,000		ug/kg	66.4	108-10-1	
2-Hexanone	Not detected	3,000		ug/kg	66.4	591-78-6	
Carbon tetrachloride	Not detected	70		ug/kg	66.4	56-23-5	
Benzene	Not detected	70		ug/kg	66.4	71-43-2	
1,2-Dichloroethane	Not detected	70		ug/kg	66.4	107-06-2	
Trichloroethene	Not detected	70		ug/kg	66.4	79-01-6	
1,2-Dichloropropane	Not detected	70		ug/kg	66.4	78-87-5	
Bromodichloromethane	Not detected	100		ug/kg	66.4	75-27-4	
Dibromomethane	Not detected	300		ug/kg	66.4	74-95-3	

Lab Sample ID: S31593.05 (continued)
Sample Tag: SB-5 0-1

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 12/29/21 05:40, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
cis-1,3-Dichloropropene	Not detected	70		ug/kg	66.4	10061-01-5	
Toluene	Not detected	70		ug/kg	66.4	108-88-3	
trans-1,3-Dichloropropene	Not detected	70		ug/kg	66.4	10061-02-6	
1,1,2-Trichloroethane	Not detected	70		ug/kg	66.4	79-00-5	
Tetrachloroethene	Not detected	70		ug/kg	66.4	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	70		ug/kg	66.4	110-57-6	
Dibromochloromethane	Not detected	100		ug/kg	66.4	124-48-1	
1,2-Dibromoethane	Not detected	30		ug/kg	66.4	106-93-4	M
Chlorobenzene	Not detected	70		ug/kg	66.4	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	100		ug/kg	66.4	630-20-6	
Ethylbenzene	Not detected	70		ug/kg	66.4	100-41-4	
p,m-Xylene	Not detected	100		ug/kg	66.4		
o-Xylene	Not detected	70		ug/kg	66.4	95-47-6	
Styrene	Not detected	70		ug/kg	66.4	100-42-5	
Isopropylbenzene	Not detected	300		ug/kg	66.4	98-82-8	
Bromoform	Not detected	100		ug/kg	66.4	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	70		ug/kg	66.4	79-34-5	
1,2,3-Trichloropropane	Not detected	100		ug/kg	66.4	96-18-4	
n-Propylbenzene	Not detected	70		ug/kg	66.4	103-65-1	
Bromobenzene	Not detected	100		ug/kg	66.4	108-86-1	
1,3,5-Trimethylbenzene	Not detected	70		ug/kg	66.4	108-67-8	
tert-Butylbenzene	Not detected	70		ug/kg	66.4	98-06-6	
1,2,4-Trimethylbenzene	Not detected	70		ug/kg	66.4	95-63-6	
sec-Butylbenzene	Not detected	70		ug/kg	66.4	135-98-8	
p-Isopropyltoluene	Not detected	100		ug/kg	66.4	99-87-6	
1,3-Dichlorobenzene	Not detected	100		ug/kg	66.4	541-73-1	
1,4-Dichlorobenzene	Not detected	100		ug/kg	66.4	106-46-7	
1,2-Dichlorobenzene	Not detected	100		ug/kg	66.4	95-50-1	
1,2,3-Trimethylbenzene	Not detected	70		ug/kg	66.4	526-73-8	
n-Butylbenzene	Not detected	70		ug/kg	66.4	104-51-8	
Hexachloroethane	Not detected	400		ug/kg	66.4	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	300		ug/kg	66.4	96-12-8	
1,2,4-Trichlorobenzene	Not detected	440		ug/kg	66.4	120-82-1	
1,2,3-Trichlorobenzene	Not detected	440		ug/kg	66.4	87-61-6	
Naphthalene	Not detected	300		ug/kg	66.4	91-20-3	
2-Methylnaphthalene	Not detected	100		ug/kg	66.4	91-57-6	

M-Result reported to MDL not RDL

Analytical Laboratory Report

Lab Sample ID: S31593.06
Sample Tag: SB-6 2-3
Collected Date/Time: 12/21/2021 10:05
Matrix: Soil
COC Reference: 144662

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	4oz Glass	None	Yes	6.0	IR
1	40ml Glass	MeOH	Yes	6.0	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Metal Digestion	Completed	SW3050B	01/04/22 10:30	JRH	
BNA Extraction*	Completed	SW3546	12/28/21 13:40	JW	
Extraction, PCB*	Completed	SW3546	12/27/21 11:00	JW	
Sample wt. (g) / Methanol (ml)*	14.667/14	SW5035A	12/23/21 11:18	REC	
Mercury Digestion	Completed	SW7471B	01/04/22 12:50	JRH	

Inorganics

Method: SM2540B, Run Date: 12/27/21 17:00, Analyst: MAM

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Total Solids*	87	1		%	1		

Metals

Method: SW6020A, Run Date: 01/04/22 15:12, Analyst: JRH

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Arsenic	1.87	0.20		mg/kg	247	7440-38-2	
Barium	15.4	1.0		mg/kg	247	7440-39-3	
Cadmium	Not detected	0.20		mg/kg	247	7440-43-9	
Chromium	4.47	0.50		mg/kg	247	7440-47-3	
Copper	6.32	0.50		mg/kg	247	7440-50-8	
Lead	6.87	0.30		mg/kg	247	7439-92-1	
Selenium	Not detected	0.40		mg/kg	247	7782-49-2	
Silver	Not detected	0.20		mg/kg	247	7440-22-4	
Zinc	16.1	0.50		mg/kg	247	7440-66-6	

Method: SW7471B, Run Date: 01/05/22 12:32, Analyst: JRH

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Mercury	Not detected	0.050		mg/kg	58	7439-97-6	

Organics - PCBs/Pesticides

PCB List, Method: SW8082A, Run Date: 12/27/21 16:03, Analyst: JANB

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PCB-1016	Not detected	330		ug/kg	10	12674-11-2	
PCB-1242	Not detected	330		ug/kg	10	53469-21-9	
PCB-1221	Not detected	330		ug/kg	10	11104-28-2	
PCB-1232	Not detected	330		ug/kg	10	11141-16-5	
PCB-1248	Not detected	330		ug/kg	10	12672-29-6	
PCB-1254	Not detected	330		ug/kg	10	11097-69-1	
PCB-1260	Not detected	330		ug/kg	10	11096-82-5	

Lab Sample ID: S31593.06 (continued)
Sample Tag: SB-6 2-3

Organics - Semi-Volatiles

Semi-Volatile Organics - MDEQ, Method: SW8270D, Run Date: 01/04/22 03:45, Analyst: PL

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acenaphthene	Not detected	330		ug/kg	7.5	83-32-9	
Acenaphthylene	Not detected	330		ug/kg	7.5	208-96-8	
Anthracene	Not detected	330		ug/kg	7.5	120-12-7	
Benzo(a)anthracene	Not detected	330		ug/kg	7.5	56-55-3	
Benzo(b)fluoranthene	Not detected	330		ug/kg	7.5	205-99-2	
Benzo(k)fluoranthene	Not detected	330		ug/kg	7.5	207-08-9	
Benzo(ghi)perylene	Not detected	330		ug/kg	7.5	191-24-2	
Benzo(a)pyrene	Not detected	330		ug/kg	7.5	50-32-8	
bis(2-Chloroethoxy)methane	Not detected	330		ug/kg	7.5	111-91-1	
bis(2-Chloroethyl)ether	Not detected	330		ug/kg	7.5	111-44-4	
bis(2-Chloroisopropyl)ether*	Not detected	330		ug/kg	7.5	108-60-1	
bis(2-Ethylhexyl)phthalate	Not detected	330		ug/kg	7.5	117-81-7	
4-Bromophenyl phenyl ether	Not detected	330		ug/kg	7.5	101-55-3	
Butyl benzyl phthalate	Not detected	330		ug/kg	7.5	85-68-7	
4-Chloroaniline	Not detected	330		ug/kg	7.5	106-47-8	
2-Chloronaphthalene	Not detected	330		ug/kg	7.5	91-58-7	
4-Chloro-3-methylphenol	Not detected	280		ug/kg	7.5	59-50-7	
2-Chlorophenol	Not detected	330		ug/kg	7.5	95-57-8	
4-Chlorophenyl phenyl ether	Not detected	330		ug/kg	7.5	7005-72-3	
Chrysene	Not detected	330		ug/kg	7.5	218-01-9	
3-, 4-Methylphenol (p,m-Cresol)	Not detected	330		ug/kg	7.5	3/4-CRESOL	
2-Methylphenol (o-Cresol)	Not detected	330		ug/kg	7.5	95-48-7	
Dibenzo(ah)anthracene	Not detected	330		ug/kg	7.5	53-70-3	
Dibenzofuran	Not detected	330		ug/kg	7.5	132-64-9	
di-n-Butyl phthalate	Not detected	330		ug/kg	7.5	84-74-2	
1,2-Dichlorobenzene*	Not detected	330		ug/kg	7.5	95-50-1	
1,3-Dichlorobenzene	Not detected	330		ug/kg	7.5	541-73-1	
1,4-Dichlorobenzene	Not detected	330		ug/kg	7.5	106-46-7	
3,3'-Dichlorobenzidine	Not detected	2,000		ug/kg	7.5	91-94-1	
2,4-Dichlorophenol	Not detected	330		ug/kg	7.5	120-83-2	
Diethyl phthalate	Not detected	330		ug/kg	7.5	84-66-2	
2,4-Dimethylphenol	Not detected	330		ug/kg	7.5	105-67-9	
Dimethyl phthalate	Not detected	330		ug/kg	7.5	131-11-3	
4,6-Dinitro-2-methylphenol	Not detected	830		ug/kg	7.5	534-52-1	
2,4-Dinitrophenol	Not detected	830		ug/kg	7.5	51-28-5	
2,4-Dinitrotoluene	Not detected	330		ug/kg	7.5	121-14-2	
2,6-Dinitrotoluene	Not detected	330		ug/kg	7.5	606-20-2	
1,2-Diphenylhydrazine	Not detected	330		ug/kg	7.5	122-66-7	
di-n-Octyl phthalate	Not detected	330		ug/kg	7.5	117-84-0	
Fluoranthene	Not detected	330		ug/kg	7.5	206-44-0	
Fluorene	Not detected	330		ug/kg	7.5	86-73-7	
Hexachlorobenzene	Not detected	330		ug/kg	7.5	118-74-1	
Hexachlorobutadiene	Not detected	330		ug/kg	7.5	87-68-3	
Hexachlorocyclopentadiene	Not detected	330		ug/kg	7.5	77-47-4	
Hexachloroethane	Not detected	330		ug/kg	7.5	67-72-1	
Indeno(1,2,3-cd)pyrene	Not detected	330		ug/kg	7.5	193-39-5	
Isophorone	Not detected	330		ug/kg	7.5	78-59-1	
2-Methylnaphthalene	Not detected	330		ug/kg	7.5	91-57-6	
Naphthalene	Not detected	330		ug/kg	7.5	91-20-3	

Lab Sample ID: S31593.06 (continued)
Sample Tag: SB-6 2-3

Semi-Volatile Organics - MDEQ, Method: SW8270D, Run Date: 01/04/22 03:45, Analyst: PL (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
2-Nitroaniline	Not detected	830		ug/kg	7.5	88-74-4	
3-Nitroaniline	Not detected	830		ug/kg	7.5	99-09-2	
4-Nitroaniline	Not detected	830		ug/kg	7.5	100-01-6	
Nitrobenzene	Not detected	330		ug/kg	7.5	98-95-3	
2-Nitrophenol	Not detected	330		ug/kg	7.5	88-75-5	
4-Nitrophenol	Not detected	830		ug/kg	7.5	100-02-7	
N-Nitrosodiphenylamine	Not detected	330		ug/kg	7.5	86-30-6	
N-Nitrosodi-n-propylamine	Not detected	330		ug/kg	7.5	621-64-7	
Pentachlorophenol	Not detected	330		ug/kg	7.5	87-86-5	
Phenanthrene	Not detected	330		ug/kg	7.5	85-01-8	
Phenol	Not detected	330		ug/kg	7.5	108-95-2	
Pyrene	Not detected	330		ug/kg	7.5	129-00-0	
1,2,4-Trichlorobenzene	Not detected	330		ug/kg	7.5	120-82-1	
2,4,5-Trichlorophenol	Not detected	330		ug/kg	7.5	95-95-4	
2,4,6-Trichlorophenol	Not detected	330		ug/kg	7.5	88-06-2	

Organics - Volatiles

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 12/29/21 06:02, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	200		ug/kg	62.3	60-29-7	
Acetone	Not detected	1,000		ug/kg	62.3	67-64-1	
Methyl iodide	Not detected	100		ug/kg	62.3	74-88-4	
Carbon disulfide	Not detected	300		ug/kg	62.3	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	200		ug/kg	62.3	1634-04-4	
Acrylonitrile	Not detected	100		ug/kg	62.3	107-13-1	
2-Butanone (MEK)	Not detected	930		ug/kg	62.3	78-93-3	
Dichlorodifluoromethane	Not detected	300		ug/kg	62.3	75-71-8	
Chloromethane	Not detected	300		ug/kg	62.3	74-87-3	
Vinyl chloride	Not detected	60		ug/kg	62.3	75-01-4	
Bromomethane	Not detected	200		ug/kg	62.3	74-83-9	
Chloroethane	Not detected	300		ug/kg	62.3	75-00-3	
Trichlorofluoromethane	Not detected	100		ug/kg	62.3	75-69-4	
1,1-Dichloroethene	Not detected	60		ug/kg	62.3	75-35-4	
Methylene chloride	Not detected	100		ug/kg	62.3	75-09-2	
trans-1,2-Dichloroethene	Not detected	60		ug/kg	62.3	156-60-5	
1,1-Dichloroethane	Not detected	60		ug/kg	62.3	75-34-3	
cis-1,2-Dichloroethene	Not detected	60		ug/kg	62.3	156-59-2	
Tetrahydrofuran*	Not detected	1,000		ug/kg	62.3	109-99-9	
Chloroform	Not detected	60		ug/kg	62.3	67-66-3	
Bromochloromethane	Not detected	100		ug/kg	62.3	74-97-5	
1,1,1-Trichloroethane	Not detected	60		ug/kg	62.3	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	3,000		ug/kg	62.3	108-10-1	
2-Hexanone	Not detected	3,000		ug/kg	62.3	591-78-6	
Carbon tetrachloride	Not detected	60		ug/kg	62.3	56-23-5	
Benzene	Not detected	60		ug/kg	62.3	71-43-2	
1,2-Dichloroethane	Not detected	60		ug/kg	62.3	107-06-2	
Trichloroethene	Not detected	60		ug/kg	62.3	79-01-6	
1,2-Dichloropropane	Not detected	60		ug/kg	62.3	78-87-5	
Bromodichloromethane	Not detected	100		ug/kg	62.3	75-27-4	
Dibromomethane	Not detected	300		ug/kg	62.3	74-95-3	

Lab Sample ID: S31593.06 (continued)
Sample Tag: SB-6 2-3

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 12/29/21 06:02, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
cis-1,3-Dichloropropene	Not detected	60		ug/kg	62.3	10061-01-5	
Toluene	Not detected	60		ug/kg	62.3	108-88-3	
trans-1,3-Dichloropropene	Not detected	60		ug/kg	62.3	10061-02-6	
1,1,2-Trichloroethane	Not detected	60		ug/kg	62.3	79-00-5	
Tetrachloroethene	Not detected	60		ug/kg	62.3	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	60		ug/kg	62.3	110-57-6	
Dibromochloromethane	Not detected	100		ug/kg	62.3	124-48-1	
1,2-Dibromoethane	Not detected	20		ug/kg	62.3	106-93-4	M
Chlorobenzene	Not detected	60		ug/kg	62.3	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	100		ug/kg	62.3	630-20-6	
Ethylbenzene	Not detected	60		ug/kg	62.3	100-41-4	
p,m-Xylene	Not detected	100		ug/kg	62.3		
o-Xylene	Not detected	60		ug/kg	62.3	95-47-6	
Styrene	Not detected	60		ug/kg	62.3	100-42-5	
Isopropylbenzene	Not detected	300		ug/kg	62.3	98-82-8	
Bromoform	Not detected	100		ug/kg	62.3	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	60		ug/kg	62.3	79-34-5	
1,2,3-Trichloropropane	Not detected	100		ug/kg	62.3	96-18-4	
n-Propylbenzene	Not detected	60		ug/kg	62.3	103-65-1	
Bromobenzene	Not detected	100		ug/kg	62.3	108-86-1	
1,3,5-Trimethylbenzene	Not detected	60		ug/kg	62.3	108-67-8	
tert-Butylbenzene	Not detected	60		ug/kg	62.3	98-06-6	
1,2,4-Trimethylbenzene	Not detected	60		ug/kg	62.3	95-63-6	
sec-Butylbenzene	Not detected	60		ug/kg	62.3	135-98-8	
p-Isopropyltoluene	Not detected	100		ug/kg	62.3	99-87-6	
1,3-Dichlorobenzene	Not detected	100		ug/kg	62.3	541-73-1	
1,4-Dichlorobenzene	Not detected	100		ug/kg	62.3	106-46-7	
1,2-Dichlorobenzene	Not detected	100		ug/kg	62.3	95-50-1	
1,2,3-Trimethylbenzene	Not detected	60		ug/kg	62.3	526-73-8	
n-Butylbenzene	Not detected	60		ug/kg	62.3	104-51-8	
Hexachloroethane	Not detected	400		ug/kg	62.3	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	300		ug/kg	62.3	96-12-8	
1,2,4-Trichlorobenzene	Not detected	410		ug/kg	62.3	120-82-1	
1,2,3-Trichlorobenzene	Not detected	410		ug/kg	62.3	87-61-6	
Naphthalene	Not detected	300		ug/kg	62.3	91-20-3	
2-Methylnaphthalene	Not detected	100		ug/kg	62.3	91-57-6	

M-Result reported to MDL not RDL

Analytical Laboratory Report

Lab Sample ID: S31593.07
Sample Tag: SB-7 1.5-2.5
Collected Date/Time: 12/21/2021 11:20
Matrix: Soil
COC Reference: 144662

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	4oz Glass	None	Yes	6.0	IR
1	40ml Glass	MeOH	Yes	6.0	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Metal Digestion	Completed	SW3050B	01/04/22 10:30	JRH	
BNA Extraction*	Completed	SW3546	12/28/21 13:40	JW	
Extraction, PCB*	Completed	SW3546	12/27/21 11:00	JW	
Sample wt. (g) / Methanol (ml)*	12.445/12	SW5035A	12/23/21 11:18	REC	
Mercury Digestion	Completed	SW7471B	01/04/22 12:50	JRH	

Inorganics

Method: SM2540B, Run Date: 12/27/21 17:00, Analyst: MAM

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Total Solids*	88	1		%	1		

Metals

Method: SW6020A, Run Date: 01/04/22 15:14, Analyst: JRH

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Arsenic	0.52	0.20		mg/kg	249	7440-38-2	
Barium	7.79	1.0		mg/kg	249	7440-39-3	
Cadmium	Not detected	0.20		mg/kg	249	7440-43-9	
Chromium	2.23	0.50		mg/kg	249	7440-47-3	
Copper	1.14	0.50		mg/kg	249	7440-50-8	
Lead	1.31	0.30		mg/kg	249	7439-92-1	
Selenium	Not detected	0.40		mg/kg	249	7782-49-2	
Silver	Not detected	0.20		mg/kg	249	7440-22-4	
Zinc	4.91	0.50		mg/kg	249	7440-66-6	

Method: SW7471B, Run Date: 01/05/22 12:35, Analyst: JRH

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Mercury	Not detected	0.050		mg/kg	71	7439-97-6	

Organics - PCBs/Pesticides

PCB List, Method: SW8082A, Run Date: 12/27/21 15:34, Analyst: JANB

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PCB-1016	Not detected	330		ug/kg	1	12674-11-2	
PCB-1242	Not detected	330		ug/kg	1	53469-21-9	
PCB-1221	Not detected	330		ug/kg	1	11104-28-2	
PCB-1232	Not detected	330		ug/kg	1	11141-16-5	
PCB-1248	Not detected	330		ug/kg	1	12672-29-6	
PCB-1254	Not detected	330		ug/kg	1	11097-69-1	
PCB-1260	Not detected	330		ug/kg	1	11096-82-5	

Lab Sample ID: S31593.07 (continued)
Sample Tag: SB-7 1.5-2.5

Organics - Semi-Volatiles

Semi-Volatile Organics - MDEQ, Method: SW8270D, Run Date: 01/04/22 04:15, Analyst: PL

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acenaphthene	Not detected	330		ug/kg	7.5	83-32-9	
Acenaphthylene	Not detected	330		ug/kg	7.5	208-96-8	
Anthracene	Not detected	330		ug/kg	7.5	120-12-7	
Benzo(a)anthracene	Not detected	330		ug/kg	7.5	56-55-3	
Benzo(b)fluoranthene	Not detected	330		ug/kg	7.5	205-99-2	
Benzo(k)fluoranthene	Not detected	330		ug/kg	7.5	207-08-9	
Benzo(ghi)perylene	Not detected	330		ug/kg	7.5	191-24-2	
Benzo(a)pyrene	Not detected	330		ug/kg	7.5	50-32-8	
bis(2-Chloroethoxy)methane	Not detected	330		ug/kg	7.5	111-91-1	
bis(2-Chloroethyl)ether	Not detected	330		ug/kg	7.5	111-44-4	
bis(2-Chloroisopropyl)ether*	Not detected	330		ug/kg	7.5	108-60-1	
bis(2-Ethylhexyl)phthalate	Not detected	330		ug/kg	7.5	117-81-7	
4-Bromophenyl phenyl ether	Not detected	330		ug/kg	7.5	101-55-3	
Butyl benzyl phthalate	Not detected	330		ug/kg	7.5	85-68-7	
4-Chloroaniline	Not detected	330		ug/kg	7.5	106-47-8	
2-Chloronaphthalene	Not detected	330		ug/kg	7.5	91-58-7	
4-Chloro-3-methylphenol	Not detected	280		ug/kg	7.5	59-50-7	
2-Chlorophenol	Not detected	330		ug/kg	7.5	95-57-8	
4-Chlorophenyl phenyl ether	Not detected	330		ug/kg	7.5	7005-72-3	
Chrysene	Not detected	330		ug/kg	7.5	218-01-9	
3-, 4-Methylphenol (p,m-Cresol)	Not detected	330		ug/kg	7.5	3/4-CRESOL	
2-Methylphenol (o-Cresol)	Not detected	330		ug/kg	7.5	95-48-7	
Dibenzo(ah)anthracene	Not detected	330		ug/kg	7.5	53-70-3	
Dibenzofuran	Not detected	330		ug/kg	7.5	132-64-9	
di-n-Butyl phthalate	Not detected	330		ug/kg	7.5	84-74-2	
1,2-Dichlorobenzene*	Not detected	330		ug/kg	7.5	95-50-1	
1,3-Dichlorobenzene	Not detected	330		ug/kg	7.5	541-73-1	
1,4-Dichlorobenzene	Not detected	330		ug/kg	7.5	106-46-7	
3,3'-Dichlorobenzidine	Not detected	2,000		ug/kg	7.5	91-94-1	
2,4-Dichlorophenol	Not detected	330		ug/kg	7.5	120-83-2	
Diethyl phthalate	Not detected	330		ug/kg	7.5	84-66-2	
2,4-Dimethylphenol	Not detected	330		ug/kg	7.5	105-67-9	
Dimethyl phthalate	Not detected	330		ug/kg	7.5	131-11-3	
4,6-Dinitro-2-methylphenol	Not detected	830		ug/kg	7.5	534-52-1	
2,4-Dinitrophenol	Not detected	830		ug/kg	7.5	51-28-5	
2,4-Dinitrotoluene	Not detected	330		ug/kg	7.5	121-14-2	
2,6-Dinitrotoluene	Not detected	330		ug/kg	7.5	606-20-2	
1,2-Diphenylhydrazine	Not detected	330		ug/kg	7.5	122-66-7	
di-n-Octyl phthalate	Not detected	330		ug/kg	7.5	117-84-0	
Fluoranthene	Not detected	330		ug/kg	7.5	206-44-0	
Fluorene	Not detected	330		ug/kg	7.5	86-73-7	
Hexachlorobenzene	Not detected	330		ug/kg	7.5	118-74-1	
Hexachlorobutadiene	Not detected	330		ug/kg	7.5	87-68-3	
Hexachlorocyclopentadiene	Not detected	330		ug/kg	7.5	77-47-4	
Hexachloroethane	Not detected	330		ug/kg	7.5	67-72-1	
Indeno(1,2,3-cd)pyrene	Not detected	330		ug/kg	7.5	193-39-5	
Isophorone	Not detected	330		ug/kg	7.5	78-59-1	
2-Methylnaphthalene	Not detected	330		ug/kg	7.5	91-57-6	
Naphthalene	Not detected	330		ug/kg	7.5	91-20-3	

Lab Sample ID: S31593.07 (continued)
Sample Tag: SB-7 1.5-2.5

Semi-Volatile Organics - MDEQ, Method: SW8270D, Run Date: 01/04/22 04:15, Analyst: PL (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
2-Nitroaniline	Not detected	830		ug/kg	7.5	88-74-4	
3-Nitroaniline	Not detected	830		ug/kg	7.5	99-09-2	
4-Nitroaniline	Not detected	830		ug/kg	7.5	100-01-6	
Nitrobenzene	Not detected	330		ug/kg	7.5	98-95-3	
2-Nitrophenol	Not detected	330		ug/kg	7.5	88-75-5	
4-Nitrophenol	Not detected	830		ug/kg	7.5	100-02-7	
N-Nitrosodiphenylamine	Not detected	330		ug/kg	7.5	86-30-6	
N-Nitrosodi-n-propylamine	Not detected	330		ug/kg	7.5	621-64-7	
Pentachlorophenol	Not detected	330		ug/kg	7.5	87-86-5	
Phenanthrene	Not detected	330		ug/kg	7.5	85-01-8	
Phenol	Not detected	330		ug/kg	7.5	108-95-2	
Pyrene	Not detected	330		ug/kg	7.5	129-00-0	
1,2,4-Trichlorobenzene	Not detected	330		ug/kg	7.5	120-82-1	
2,4,5-Trichlorophenol	Not detected	330		ug/kg	7.5	95-95-4	
2,4,6-Trichlorophenol	Not detected	330		ug/kg	7.5	88-06-2	

Organics - Volatiles

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 12/29/21 06:25, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	200		ug/kg	61.6	60-29-7	
Acetone	Not detected	1,000		ug/kg	61.6	67-64-1	
Methyl iodide	Not detected	100		ug/kg	61.6	74-88-4	
Carbon disulfide	Not detected	300		ug/kg	61.6	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	200		ug/kg	61.6	1634-04-4	
Acrylonitrile	Not detected	100		ug/kg	61.6	107-13-1	
2-Butanone (MEK)	Not detected	920		ug/kg	61.6	78-93-3	
Dichlorodifluoromethane	Not detected	300		ug/kg	61.6	75-71-8	
Chloromethane	Not detected	300		ug/kg	61.6	74-87-3	
Vinyl chloride	Not detected	60		ug/kg	61.6	75-01-4	
Bromomethane	Not detected	200		ug/kg	61.6	74-83-9	
Chloroethane	Not detected	300		ug/kg	61.6	75-00-3	
Trichlorofluoromethane	Not detected	100		ug/kg	61.6	75-69-4	
1,1-Dichloroethene	Not detected	60		ug/kg	61.6	75-35-4	
Methylene chloride	Not detected	100		ug/kg	61.6	75-09-2	
trans-1,2-Dichloroethene	Not detected	60		ug/kg	61.6	156-60-5	
1,1-Dichloroethane	Not detected	60		ug/kg	61.6	75-34-3	
cis-1,2-Dichloroethene	Not detected	60		ug/kg	61.6	156-59-2	
Tetrahydrofuran*	Not detected	1,000		ug/kg	61.6	109-99-9	
Chloroform	Not detected	60		ug/kg	61.6	67-66-3	
Bromochloromethane	Not detected	100		ug/kg	61.6	74-97-5	
1,1,1-Trichloroethane	Not detected	60		ug/kg	61.6	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	3,000		ug/kg	61.6	108-10-1	
2-Hexanone	Not detected	3,000		ug/kg	61.6	591-78-6	
Carbon tetrachloride	Not detected	60		ug/kg	61.6	56-23-5	
Benzene	Not detected	60		ug/kg	61.6	71-43-2	
1,2-Dichloroethane	Not detected	60		ug/kg	61.6	107-06-2	
Trichloroethene	Not detected	60		ug/kg	61.6	79-01-6	
1,2-Dichloropropane	Not detected	60		ug/kg	61.6	78-87-5	
Bromodichloromethane	Not detected	100		ug/kg	61.6	75-27-4	
Dibromomethane	Not detected	300		ug/kg	61.6	74-95-3	

Lab Sample ID: S31593.07 (continued)
Sample Tag: SB-7 1.5-2.5

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 12/29/21 06:25, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
cis-1,3-Dichloropropene	Not detected	60		ug/kg	61.6	10061-01-5	
Toluene	Not detected	60		ug/kg	61.6	108-88-3	
trans-1,3-Dichloropropene	Not detected	60		ug/kg	61.6	10061-02-6	
1,1,2-Trichloroethane	Not detected	60		ug/kg	61.6	79-00-5	
Tetrachloroethene	Not detected	60		ug/kg	61.6	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	60		ug/kg	61.6	110-57-6	
Dibromochloromethane	Not detected	100		ug/kg	61.6	124-48-1	
1,2-Dibromoethane	Not detected	20		ug/kg	61.6	106-93-4	M
Chlorobenzene	Not detected	60		ug/kg	61.6	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	100		ug/kg	61.6	630-20-6	
Ethylbenzene	Not detected	60		ug/kg	61.6	100-41-4	
p,m-Xylene	Not detected	100		ug/kg	61.6		
o-Xylene	Not detected	60		ug/kg	61.6	95-47-6	
Styrene	Not detected	60		ug/kg	61.6	100-42-5	
Isopropylbenzene	Not detected	300		ug/kg	61.6	98-82-8	
Bromoform	Not detected	100		ug/kg	61.6	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	60		ug/kg	61.6	79-34-5	
1,2,3-Trichloropropane	Not detected	100		ug/kg	61.6	96-18-4	
n-Propylbenzene	Not detected	60		ug/kg	61.6	103-65-1	
Bromobenzene	Not detected	100		ug/kg	61.6	108-86-1	
1,3,5-Trimethylbenzene	Not detected	60		ug/kg	61.6	108-67-8	
tert-Butylbenzene	Not detected	60		ug/kg	61.6	98-06-6	
1,2,4-Trimethylbenzene	Not detected	60		ug/kg	61.6	95-63-6	
sec-Butylbenzene	Not detected	60		ug/kg	61.6	135-98-8	
p-Isopropyltoluene	Not detected	100		ug/kg	61.6	99-87-6	
1,3-Dichlorobenzene	Not detected	100		ug/kg	61.6	541-73-1	
1,4-Dichlorobenzene	Not detected	100		ug/kg	61.6	106-46-7	
1,2-Dichlorobenzene	Not detected	100		ug/kg	61.6	95-50-1	
1,2,3-Trimethylbenzene	Not detected	60		ug/kg	61.6	526-73-8	
n-Butylbenzene	Not detected	60		ug/kg	61.6	104-51-8	
Hexachloroethane	Not detected	400		ug/kg	61.6	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	300		ug/kg	61.6	96-12-8	
1,2,4-Trichlorobenzene	Not detected	410		ug/kg	61.6	120-82-1	
1,2,3-Trichlorobenzene	Not detected	410		ug/kg	61.6	87-61-6	
Naphthalene	Not detected	300		ug/kg	61.6	91-20-3	
2-Methylnaphthalene	Not detected	100		ug/kg	61.6	91-57-6	

M-Result reported to MDL not RDL

Analytical Laboratory Report

Lab Sample ID: S31593.08
Sample Tag: SB-8 0.5-1.5
Collected Date/Time: 12/21/2021 14:20
Matrix: Soil
COC Reference: 144662

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	4oz Glass	None	Yes	6.0	IR
1	40ml Glass	MeOH	Yes	6.0	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Metal Digestion	Completed	SW3050B	01/04/22 10:30	JRH	
BNA Extraction*	Completed	SW3546	12/28/21 13:40	JW	
Extraction, PCB*	Completed	SW3546	12/27/21 11:00	JW	
Sample wt. (g) / Methanol (ml)*	13.027/13	SW5035A	12/23/21 11:18	REC	
Mercury Digestion	Completed	SW7471B	01/04/22 12:50	JRH	

Inorganics

Method: SM2540B, Run Date: 12/27/21 17:00, Analyst: MAM

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Total Solids*	74	1		%	1		

Metals

Method: SW6020A, Run Date: 01/04/22 15:16, Analyst: JRH

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Arsenic	2.62	0.20		mg/kg	314	7440-38-2	
Barium	69.2	1.0		mg/kg	314	7440-39-3	
Cadmium	1.97	0.20		mg/kg	314	7440-43-9	
Chromium	6.86	0.50		mg/kg	314	7440-47-3	
Copper	6.09	0.50		mg/kg	314	7440-50-8	
Lead	11.4	0.30		mg/kg	314	7439-92-1	
Selenium	0.42	0.40		mg/kg	314	7782-49-2	
Silver	Not detected	0.20		mg/kg	314	7440-22-4	
Zinc	211	0.50		mg/kg	314	7440-66-6	

Method: SW7471B, Run Date: 01/05/22 12:39, Analyst: JRH

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Mercury	Not detected	0.050		mg/kg	75	7439-97-6	

Organics - PCBs/Pesticides

PCB List, Method: SW8082A, Run Date: 12/27/21 16:15, Analyst: JANB

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PCB-1016	Not detected	330		ug/kg	10	12674-11-2	
PCB-1242	Not detected	330		ug/kg	10	53469-21-9	
PCB-1221	Not detected	330		ug/kg	10	11104-28-2	
PCB-1232	Not detected	330		ug/kg	10	11141-16-5	
PCB-1248	Not detected	330		ug/kg	10	12672-29-6	
PCB-1254	Not detected	330		ug/kg	10	11097-69-1	
PCB-1260	Not detected	330		ug/kg	10	11096-82-5	

Lab Sample ID: S31593.08 (continued)
Sample Tag: SB-8 0.5-1.5

Organics - Semi-Volatiles

Semi-Volatile Organics - MDEQ, Method: SW8270D, Run Date: 01/04/22 05:44, Analyst: PL

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acenaphthene	Not detected	330		ug/kg	7.5	83-32-9	
Acenaphthylene	Not detected	330		ug/kg	7.5	208-96-8	
Anthracene	Not detected	330		ug/kg	7.5	120-12-7	
Benzo(a)anthracene	Not detected	330		ug/kg	7.5	56-55-3	
Benzo(b)fluoranthene	Not detected	330		ug/kg	7.5	205-99-2	
Benzo(k)fluoranthene	Not detected	330		ug/kg	7.5	207-08-9	
Benzo(ghi)perylene	Not detected	330		ug/kg	7.5	191-24-2	
Benzo(a)pyrene	Not detected	330		ug/kg	7.5	50-32-8	
bis(2-Chloroethoxy)methane	Not detected	330		ug/kg	7.5	111-91-1	
bis(2-Chloroethyl)ether	Not detected	330		ug/kg	7.5	111-44-4	
bis(2-Chloroisopropyl)ether*	Not detected	330		ug/kg	7.5	108-60-1	
bis(2-Ethylhexyl)phthalate	Not detected	330		ug/kg	7.5	117-81-7	
4-Bromophenyl phenyl ether	Not detected	330		ug/kg	7.5	101-55-3	
Butyl benzyl phthalate	Not detected	330		ug/kg	7.5	85-68-7	
4-Chloroaniline	Not detected	330		ug/kg	7.5	106-47-8	
2-Chloronaphthalene	Not detected	330		ug/kg	7.5	91-58-7	
4-Chloro-3-methylphenol	Not detected	280		ug/kg	7.5	59-50-7	
2-Chlorophenol	Not detected	330		ug/kg	7.5	95-57-8	
4-Chlorophenyl phenyl ether	Not detected	330		ug/kg	7.5	7005-72-3	
Chrysene	Not detected	330		ug/kg	7.5	218-01-9	
3-, 4-Methylphenol (p,m-Cresol)	Not detected	330		ug/kg	7.5	3/4-CRESOL	
2-Methylphenol (o-Cresol)	Not detected	330		ug/kg	7.5	95-48-7	
Dibenzo(ah)anthracene	Not detected	330		ug/kg	7.5	53-70-3	
Dibenzofuran	Not detected	330		ug/kg	7.5	132-64-9	
di-n-Butyl phthalate	Not detected	330		ug/kg	7.5	84-74-2	
1,2-Dichlorobenzene*	Not detected	330		ug/kg	7.5	95-50-1	
1,3-Dichlorobenzene	Not detected	330		ug/kg	7.5	541-73-1	
1,4-Dichlorobenzene	Not detected	330		ug/kg	7.5	106-46-7	
3,3'-Dichlorobenzidine	Not detected	2,000		ug/kg	7.5	91-94-1	
2,4-Dichlorophenol	Not detected	330		ug/kg	7.5	120-83-2	
Diethyl phthalate	Not detected	330		ug/kg	7.5	84-66-2	
2,4-Dimethylphenol	Not detected	330		ug/kg	7.5	105-67-9	
Dimethyl phthalate	Not detected	330		ug/kg	7.5	131-11-3	
4,6-Dinitro-2-methylphenol	Not detected	830		ug/kg	7.5	534-52-1	
2,4-Dinitrophenol	Not detected	830		ug/kg	7.5	51-28-5	
2,4-Dinitrotoluene	Not detected	330		ug/kg	7.5	121-14-2	
2,6-Dinitrotoluene	Not detected	330		ug/kg	7.5	606-20-2	
1,2-Diphenylhydrazine	Not detected	330		ug/kg	7.5	122-66-7	
di-n-Octyl phthalate	Not detected	330		ug/kg	7.5	117-84-0	
Fluoranthene	Not detected	330		ug/kg	7.5	206-44-0	
Fluorene	Not detected	330		ug/kg	7.5	86-73-7	
Hexachlorobenzene	Not detected	330		ug/kg	7.5	118-74-1	
Hexachlorobutadiene	Not detected	330		ug/kg	7.5	87-68-3	
Hexachlorocyclopentadiene	Not detected	330		ug/kg	7.5	77-47-4	
Hexachloroethane	Not detected	330		ug/kg	7.5	67-72-1	
Indeno(1,2,3-cd)pyrene	Not detected	330		ug/kg	7.5	193-39-5	
Isophorone	Not detected	330		ug/kg	7.5	78-59-1	
2-Methylnaphthalene	Not detected	330		ug/kg	7.5	91-57-6	
Naphthalene	Not detected	330		ug/kg	7.5	91-20-3	

Lab Sample ID: S31593.08 (continued)
Sample Tag: SB-8 0.5-1.5

Semi-Volatile Organics - MDEQ, Method: SW8270D, Run Date: 01/04/22 05:44, Analyst: PL (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
2-Nitroaniline	Not detected	830		ug/kg	7.5	88-74-4	
3-Nitroaniline	Not detected	830		ug/kg	7.5	99-09-2	
4-Nitroaniline	Not detected	830		ug/kg	7.5	100-01-6	
Nitrobenzene	Not detected	330		ug/kg	7.5	98-95-3	
2-Nitrophenol	Not detected	330		ug/kg	7.5	88-75-5	
4-Nitrophenol	Not detected	830		ug/kg	7.5	100-02-7	
N-Nitrosodiphenylamine	Not detected	330		ug/kg	7.5	86-30-6	
N-Nitrosodi-n-propylamine	Not detected	330		ug/kg	7.5	621-64-7	
Pentachlorophenol	Not detected	330		ug/kg	7.5	87-86-5	
Phenanthrene	Not detected	330		ug/kg	7.5	85-01-8	
Phenol	Not detected	330		ug/kg	7.5	108-95-2	
Pyrene	Not detected	330		ug/kg	7.5	129-00-0	
1,2,4-Trichlorobenzene	Not detected	330		ug/kg	7.5	120-82-1	
2,4,5-Trichlorophenol	Not detected	330		ug/kg	7.5	95-95-4	
2,4,6-Trichlorophenol	Not detected	330		ug/kg	7.5	88-06-2	

Organics - Volatiles

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 12/29/21 06:47, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	300		ug/kg	85	60-29-7	
Acetone	Not detected	2,000		ug/kg	85	67-64-1	
Methyl iodide	Not detected	200		ug/kg	85	74-88-4	
Carbon disulfide	Not detected	400		ug/kg	85	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	300		ug/kg	85	1634-04-4	
Acrylonitrile	Not detected	200		ug/kg	85	107-13-1	
2-Butanone (MEK)	Not detected	1,300		ug/kg	85	78-93-3	
Dichlorodifluoromethane	Not detected	400		ug/kg	85	75-71-8	
Chloromethane	Not detected	400		ug/kg	85	74-87-3	
Vinyl chloride	Not detected	90		ug/kg	85	75-01-4	
Bromomethane	Not detected	300		ug/kg	85	74-83-9	
Chloroethane	Not detected	400		ug/kg	85	75-00-3	
Trichlorofluoromethane	Not detected	200		ug/kg	85	75-69-4	
1,1-Dichloroethene	Not detected	90		ug/kg	85	75-35-4	
Methylene chloride	Not detected	200		ug/kg	85	75-09-2	
trans-1,2-Dichloroethene	Not detected	90		ug/kg	85	156-60-5	
1,1-Dichloroethane	Not detected	90		ug/kg	85	75-34-3	
cis-1,2-Dichloroethene	Not detected	90		ug/kg	85	156-59-2	
Tetrahydrofuran*	Not detected	2,000		ug/kg	85	109-99-9	
Chloroform	Not detected	90		ug/kg	85	67-66-3	
Bromochloromethane	Not detected	200		ug/kg	85	74-97-5	
1,1,1-Trichloroethane	Not detected	90		ug/kg	85	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	4,000		ug/kg	85	108-10-1	
2-Hexanone	Not detected	4,000		ug/kg	85	591-78-6	
Carbon tetrachloride	Not detected	90		ug/kg	85	56-23-5	
Benzene	Not detected	90		ug/kg	85	71-43-2	
1,2-Dichloroethane	Not detected	90		ug/kg	85	107-06-2	
Trichloroethene	Not detected	90		ug/kg	85	79-01-6	
1,2-Dichloropropane	Not detected	90		ug/kg	85	78-87-5	
Bromodichloromethane	Not detected	200		ug/kg	85	75-27-4	
Dibromomethane	Not detected	400		ug/kg	85	74-95-3	

Lab Sample ID: S31593.08 (continued)
Sample Tag: SB-8 0.5-1.5

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 12/29/21 06:47, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
cis-1,3-Dichloropropene	Not detected	90		ug/kg	85	10061-01-5	
Toluene	Not detected	90		ug/kg	85	108-88-3	
trans-1,3-Dichloropropene	Not detected	90		ug/kg	85	10061-02-6	
1,1,2-Trichloroethane	Not detected	90		ug/kg	85	79-00-5	
Tetrachloroethene	Not detected	90		ug/kg	85	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	90		ug/kg	85	110-57-6	
Dibromochloromethane	Not detected	200		ug/kg	85	124-48-1	
1,2-Dibromoethane	Not detected	30		ug/kg	85	106-93-4	M
Chlorobenzene	Not detected	90		ug/kg	85	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	200		ug/kg	85	630-20-6	
Ethylbenzene	Not detected	90		ug/kg	85	100-41-4	
p,m-Xylene	Not detected	200		ug/kg	85		
o-Xylene	Not detected	90		ug/kg	85	95-47-6	
Styrene	Not detected	90		ug/kg	85	100-42-5	
Isopropylbenzene	Not detected	400		ug/kg	85	98-82-8	
Bromoform	Not detected	200		ug/kg	85	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	90		ug/kg	85	79-34-5	
1,2,3-Trichloropropane	Not detected	200		ug/kg	85	96-18-4	
n-Propylbenzene	Not detected	90		ug/kg	85	103-65-1	
Bromobenzene	Not detected	200		ug/kg	85	108-86-1	
1,3,5-Trimethylbenzene	Not detected	90		ug/kg	85	108-67-8	
tert-Butylbenzene	Not detected	90		ug/kg	85	98-06-6	
1,2,4-Trimethylbenzene	Not detected	90		ug/kg	85	95-63-6	
sec-Butylbenzene	Not detected	90		ug/kg	85	135-98-8	
p-Isopropyltoluene	Not detected	200		ug/kg	85	99-87-6	
1,3-Dichlorobenzene	Not detected	200		ug/kg	85	541-73-1	
1,4-Dichlorobenzene	Not detected	200		ug/kg	85	106-46-7	
1,2-Dichlorobenzene	Not detected	200		ug/kg	85	95-50-1	
1,2,3-Trimethylbenzene	Not detected	90		ug/kg	85	526-73-8	
n-Butylbenzene	Not detected	90		ug/kg	85	104-51-8	
Hexachloroethane	Not detected	500		ug/kg	85	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	400		ug/kg	85	96-12-8	
1,2,4-Trichlorobenzene	Not detected	560		ug/kg	85	120-82-1	
1,2,3-Trichlorobenzene	Not detected	560		ug/kg	85	87-61-6	
Naphthalene	Not detected	400		ug/kg	85	91-20-3	
2-Methylnaphthalene	Not detected	200		ug/kg	85	91-57-6	

M-Result reported to MDL not RDL

Lab Sample ID: S31593.09
Sample Tag: SB-03W
Collected Date/Time: 12/20/2021 14:10
Matrix: Groundwater
COC Reference: 144662

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
2	1L Amber	None	Yes	6.0	IR
3	40ml Glass	HCL	Yes	6.0	IR
1	125ml Plastic	HNO3	Yes	6.0	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Mercury Digestion	Completed	E245.1	01/03/22 09:00	JRH	
pH check for VOCs*	<2	N/A	12/27/21 15:00	BML	
Metal Digestion	Completed	SW3015A	12/23/21 10:15	CCM	
BNA Extraction	Completed	SW3510C	12/23/21 12:30	DMP	

Metals

Method: E200.8, Run Date: 12/23/21 12:42, Analyst: CCM

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Arsenic	0.004	0.002		mg/L	5	7440-38-2	
Barium	0.138	0.005		mg/L	5	7440-39-3	
Cadmium	Not detected	0.0005		mg/L	5	7440-43-9	
Chromium	0.039	0.005		mg/L	5	7440-47-3	
Copper	0.029	0.005		mg/L	5	7440-50-8	
Lead	0.033	0.003		mg/L	5	7439-92-1	
Selenium	Not detected	0.005		mg/L	5	7782-49-2	
Silver	Not detected	0.0005		mg/L	5	7440-22-4	
Zinc	0.140	0.005		mg/L	5	7440-66-6	

Method: E245.1, Run Date: 01/03/22 14:05, Analyst: JRH

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Mercury	0.0004	0.0002		mg/L	1	7439-97-6	

Organics - Semi-Volatiles

Semi-Volatile Organics - MDEQ, Method: SW8270D, Run Date: 12/28/21 17:09, Analyst: PL

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acenaphthene	Not detected	5		ug/L	2	83-32-9	
Acenaphthylene	Not detected	5		ug/L	2	208-96-8	
Anthracene	Not detected	5		ug/L	2	120-12-7	
Benzo(a)anthracene	Not detected	1		ug/L	2	56-55-3	
Benzo(b)fluoranthene	Not detected	1		ug/L	2	205-99-2	
Benzo(k)fluoranthene	Not detected	1		ug/L	2	207-08-9	
Benzo(ghi)perylene	Not detected	1		ug/L	2	191-24-2	
Benzo(a)pyrene	Not detected	1		ug/L	2	50-32-8	
bis(2-Chloroethoxy)methane	Not detected	5		ug/L	2	111-91-1	
bis(2-Chloroethyl)ether	Not detected	5		ug/L	2	111-44-4	
bis(2-Chloroisopropyl)ether*	Not detected	5		ug/L	2	108-60-1	
bis(2-Ethylhexyl)phthalate	Not detected	5		ug/L	2	117-81-7	
4-Bromophenyl phenyl ether	Not detected	5		ug/L	2	101-55-3	
Butyl benzyl phthalate	Not detected	5		ug/L	2	85-68-7	
4-Chloroaniline	Not detected	10		ug/L	2	106-47-8	

Lab Sample ID: S31593.09 (continued)
Sample Tag: SB-03W

Semi-Volatile Organics - MDEQ, Method: SW8270D, Run Date: 12/28/21 17:09, Analyst: PL (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
2-Chloronaphthalene	Not detected	5		ug/L	2	91-58-7	
4-Chloro-3-methylphenol	Not detected	5		ug/L	2	59-50-7	
2-Chlorophenol	Not detected	10		ug/L	2	95-57-8	
4-Chlorophenyl phenyl ether	Not detected	5		ug/L	2	7005-72-3	
Chrysene	Not detected	1		ug/L	2	218-01-9	
3-, 4-Methylphenol (p,m-Cresol)	Not detected	20		ug/L	2	3/4-CRESOL	
2-Methylphenol (o-Cresol)	Not detected	10		ug/L	2	95-48-7	
Dibenzo(ah)anthracene	Not detected	2		ug/L	2	53-70-3	
Dibenzofuran	Not detected	4		ug/L	2	132-64-9	
di-n-Butyl phthalate	Not detected	5		ug/L	2	84-74-2	
1,2-Dichlorobenzene	Not detected	1		ug/L	2	95-50-1	
1,3-Dichlorobenzene	Not detected	1		ug/L	2	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	2	106-46-7	
3,3'-Dichlorobenzidine	Not detected	5		ug/L	2	91-94-1	
2,4-Dichlorophenol	Not detected	10		ug/L	2	120-83-2	
Diethyl phthalate	Not detected	5		ug/L	2	84-66-2	
2,4-Dimethylphenol	Not detected	5		ug/L	2	105-67-9	
Dimethyl phthalate	Not detected	5		ug/L	2	131-11-3	
4,6-Dinitro-2-methylphenol	Not detected	20		ug/L	2	534-52-1	
2,4-Dinitrophenol	Not detected	25		ug/L	2	51-28-5	
2,4-Dinitrotoluene	Not detected	5		ug/L	2	121-14-2	
2,6-Dinitrotoluene	Not detected	5		ug/L	2	606-20-2	
1,2-Diphenylhydrazine*	Not detected	5		ug/L	2	122-66-7	
di-n-Octyl phthalate	Not detected	5		ug/L	2	117-84-0	
Fluoranthene	Not detected	1		ug/L	2	206-44-0	
Fluorene	Not detected	5		ug/L	2	86-73-7	
Hexachlorobenzene	Not detected	5		ug/L	2	118-74-1	
Hexachlorobutadiene	Not detected	10		ug/L	2	87-68-3	
Hexachlorocyclopentadiene	Not detected	5		ug/L	2	77-47-4	
Hexachloroethane	Not detected	5		ug/L	2	67-72-1	
Indeno(1,2,3-cd)pyrene	Not detected	2		ug/L	2	193-39-5	
Isophorone	Not detected	5		ug/L	2	78-59-1	
2-Methylnaphthalene	Not detected	5		ug/L	2	91-57-6	
Naphthalene	Not detected	5		ug/L	2	91-20-3	
2-Nitroaniline	Not detected	25		ug/L	2	88-74-4	
3-Nitroaniline	Not detected	25		ug/L	2	99-09-2	
4-Nitroaniline	Not detected	25		ug/L	2	100-01-6	
Nitrobenzene	Not detected	5		ug/L	2	98-95-3	
2-Nitrophenol	Not detected	5		ug/L	2	88-75-5	
4-Nitrophenol	Not detected	25		ug/L	2	100-02-7	
N-Nitrosodiphenylamine	Not detected	5		ug/L	2	86-30-6	
N-Nitrosodi-n-propylamine	Not detected	5		ug/L	2	621-64-7	
Pentachlorophenol	Not detected	5		ug/L	2	87-86-5	
Phenanthrene	Not detected	2		ug/L	2	85-01-8	
Phenol	Not detected	5		ug/L	2	108-95-2	
Pyrene	Not detected	5		ug/L	2	129-00-0	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	2	120-82-1	
2,4,5-Trichlorophenol	Not detected	5		ug/L	2	95-95-4	
2,4,6-Trichlorophenol	Not detected	4		ug/L	2	88-06-2	

Lab Sample ID: S31593.09 (continued)
Sample Tag: SB-03W

Organics - Volatiles

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 12/28/21 16:39, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acetone	Not detected	50		ug/L	1	67-64-1	
Acrylonitrile	Not detected	2		ug/L	1	107-13-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Benzene	Not detected	1		ug/L	1	71-43-2	
n-Butylbenzene	Not detected	1		ug/L	1	104-51-8	
Bromobenzene	Not detected	1		ug/L	1	108-86-1	
Bromochloromethane	Not detected	1		ug/L	1	74-97-5	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Bromoform	Not detected	1		ug/L	1	75-25-2	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
sec-Butylbenzene	Not detected	1		ug/L	1	135-98-8	
tert-Butylbenzene	Not detected	1		ug/L	1	98-06-6	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Chloroform	Not detected	1		ug/L	1	67-66-3	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
1,1-Dichloroethane	Not detected	1		ug/L	1	75-34-3	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2-Dichloroethane	Not detected	1		ug/L	1	107-06-2	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
cis-1,2-Dichloroethene	Not detected	1		ug/L	1	156-59-2	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
Dibromomethane	Not detected	5		ug/L	1	74-95-3	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
Diethyl ether	Not detected	10		ug/L	1	60-29-7	
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	156-60-5	
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	
trans-1,4-Dichloro-2-butene	Not detected	1		ug/L	1	110-57-6	
Ethylbenzene	Not detected	1		ug/L	1	100-41-4	
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
Hexachloroethane	Not detected	5		ug/L	1	67-72-1	
p-Isopropyltoluene	Not detected	5		ug/L	1	99-87-6	
Isopropylbenzene	Not detected	5		ug/L	1	98-82-8	
2-Methylnaphthalene	Not detected	5		ug/L	1	91-57-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Methyl iodide	Not detected	1		ug/L	1	74-88-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
Naphthalene	Not detected	5		ug/L	1	91-20-3	
n-Propylbenzene	Not detected	1		ug/L	1	103-65-1	
Styrene	Not detected	1		ug/L	1	100-42-5	

Lab Sample ID: S31593.09 (continued)
Sample Tag: SB-03W

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 12/28/21 16:39, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,1,1,2-Tetrachloroethane	Not detected	1		ug/L	1	630-20-6	
1,1,1-Trichloroethane	Not detected	1		ug/L	1	71-55-6	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	
1,2,3-Trichlorobenzene	Not detected	5		ug/L	1	87-61-6	
1,2,3-Trichloropropane	Not detected	1		ug/L	1	96-18-4	
1,2,3-Trimethylbenzene	Not detected	1		ug/L	1	526-73-8	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
1,2,4-Trimethylbenzene	Not detected	1		ug/L	1	95-63-6	
1,3,5-Trimethylbenzene	Not detected	1		ug/L	1	108-67-8	
Tetrachloroethene	Not detected	1		ug/L	1	127-18-4	
Tetrahydrofuran*	Not detected	90		ug/L	1	109-99-9	
Toluene	Not detected	1		ug/L	1	108-88-3	
Trichloroethene	Not detected	1		ug/L	1	79-01-6	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
o-Xylene	Not detected	1		ug/L	1	95-47-6	
p,m-Xylene*	Not detected	2		ug/L	1		

Lab Sample ID: S31593.10
Sample Tag: SB-04W
Collected Date/Time: 12/20/2021 14:50
Matrix: Groundwater
COC Reference: 144662

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
2	1L Amber	None	Yes	6.0	IR
3	40ml Glass	HCL	Yes	6.0	IR
1	125ml Plastic	HNO3	Yes	6.0	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Mercury Digestion	Completed	E245.1	01/03/22 09:00	JRH	
pH check for VOCs*	<2	N/A	12/27/21 15:00	BML	
Metal Digestion	Completed	SW3015A	12/23/21 10:15	CCM	
BNA Extraction	Completed	SW3510C	12/23/21 12:30	DMP	

Metals

Method: E200.8, Run Date: 12/23/21 12:45, Analyst: CCM

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Arsenic	0.028	0.002		mg/L	5	7440-38-2	
Barium	0.210	0.005		mg/L	5	7440-39-3	
Cadmium	0.0010	0.0005		mg/L	5	7440-43-9	
Chromium	0.062	0.005		mg/L	5	7440-47-3	
Copper	0.075	0.005		mg/L	5	7440-50-8	
Lead	0.072	0.003		mg/L	5	7439-92-1	
Selenium	Not detected	0.005		mg/L	5	7782-49-2	
Silver	Not detected	0.0005		mg/L	5	7440-22-4	
Zinc	0.228	0.005		mg/L	5	7440-66-6	

Method: E245.1, Run Date: 01/03/22 14:08, Analyst: JRH

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Mercury	Not detected	0.0002		mg/L	1	7439-97-6	

Organics - Semi-Volatiles

Semi-Volatile Organics - MDEQ, Method: SW8270D, Run Date: 12/28/21 17:39, Analyst: PL

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acenaphthene	Not detected	5		ug/L	2	83-32-9	
Acenaphthylene	Not detected	5		ug/L	2	208-96-8	
Anthracene	Not detected	5		ug/L	2	120-12-7	
Benzo(a)anthracene	Not detected	1		ug/L	2	56-55-3	
Benzo(b)fluoranthene	Not detected	1		ug/L	2	205-99-2	
Benzo(k)fluoranthene	Not detected	1		ug/L	2	207-08-9	
Benzo(ghi)perylene	Not detected	1		ug/L	2	191-24-2	
Benzo(a)pyrene	Not detected	1		ug/L	2	50-32-8	
bis(2-Chloroethoxy)methane	Not detected	5		ug/L	2	111-91-1	
bis(2-Chloroethyl)ether	Not detected	5		ug/L	2	111-44-4	
bis(2-Chloroisopropyl)ether*	Not detected	5		ug/L	2	108-60-1	
bis(2-Ethylhexyl)phthalate	Not detected	5		ug/L	2	117-81-7	
4-Bromophenyl phenyl ether	Not detected	5		ug/L	2	101-55-3	
Butyl benzyl phthalate	Not detected	5		ug/L	2	85-68-7	
4-Chloroaniline	Not detected	10		ug/L	2	106-47-8	

Lab Sample ID: S31593.10 (continued)
Sample Tag: SB-04W

Semi-Volatile Organics - MDEQ, Method: SW8270D, Run Date: 12/28/21 17:39, Analyst: PL (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
2-Chloronaphthalene	Not detected	5		ug/L	2	91-58-7	
4-Chloro-3-methylphenol	Not detected	5		ug/L	2	59-50-7	
2-Chlorophenol	Not detected	10		ug/L	2	95-57-8	
4-Chlorophenyl phenyl ether	Not detected	5		ug/L	2	7005-72-3	
Chrysene	Not detected	1		ug/L	2	218-01-9	
3-, 4-Methylphenol (p,m-Cresol)	Not detected	20		ug/L	2	3/4-CRESOL	
2-Methylphenol (o-Cresol)	Not detected	10		ug/L	2	95-48-7	
Dibenzo(ah)anthracene	Not detected	2		ug/L	2	53-70-3	
Dibenzofuran	Not detected	4		ug/L	2	132-64-9	
di-n-Butyl phthalate	Not detected	5		ug/L	2	84-74-2	
1,2-Dichlorobenzene	Not detected	1		ug/L	2	95-50-1	
1,3-Dichlorobenzene	Not detected	1		ug/L	2	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	2	106-46-7	
3,3'-Dichlorobenzidine	Not detected	5		ug/L	2	91-94-1	
2,4-Dichlorophenol	Not detected	10		ug/L	2	120-83-2	
Diethyl phthalate	Not detected	5		ug/L	2	84-66-2	
2,4-Dimethylphenol	Not detected	5		ug/L	2	105-67-9	
Dimethyl phthalate	Not detected	5		ug/L	2	131-11-3	
4,6-Dinitro-2-methylphenol	Not detected	20		ug/L	2	534-52-1	
2,4-Dinitrophenol	Not detected	25		ug/L	2	51-28-5	
2,4-Dinitrotoluene	Not detected	5		ug/L	2	121-14-2	
2,6-Dinitrotoluene	Not detected	5		ug/L	2	606-20-2	
1,2-Diphenylhydrazine*	Not detected	5		ug/L	2	122-66-7	
di-n-Octyl phthalate	Not detected	5		ug/L	2	117-84-0	
Fluoranthene	Not detected	1		ug/L	2	206-44-0	
Fluorene	Not detected	5		ug/L	2	86-73-7	
Hexachlorobenzene	Not detected	5		ug/L	2	118-74-1	
Hexachlorobutadiene	Not detected	10		ug/L	2	87-68-3	
Hexachlorocyclopentadiene	Not detected	5		ug/L	2	77-47-4	
Hexachloroethane	Not detected	5		ug/L	2	67-72-1	
Indeno(1,2,3-cd)pyrene	Not detected	2		ug/L	2	193-39-5	
Isophorone	Not detected	5		ug/L	2	78-59-1	
2-Methylnaphthalene	Not detected	5		ug/L	2	91-57-6	
Naphthalene	Not detected	5		ug/L	2	91-20-3	
2-Nitroaniline	Not detected	25		ug/L	2	88-74-4	
3-Nitroaniline	Not detected	25		ug/L	2	99-09-2	
4-Nitroaniline	Not detected	25		ug/L	2	100-01-6	
Nitrobenzene	Not detected	5		ug/L	2	98-95-3	
2-Nitrophenol	Not detected	5		ug/L	2	88-75-5	
4-Nitrophenol	Not detected	25		ug/L	2	100-02-7	
N-Nitrosodiphenylamine	Not detected	5		ug/L	2	86-30-6	
N-Nitrosodi-n-propylamine	Not detected	5		ug/L	2	621-64-7	
Pentachlorophenol	Not detected	5		ug/L	2	87-86-5	
Phenanthrene	Not detected	2		ug/L	2	85-01-8	
Phenol	Not detected	5		ug/L	2	108-95-2	
Pyrene	Not detected	5		ug/L	2	129-00-0	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	2	120-82-1	
2,4,5-Trichlorophenol	Not detected	5		ug/L	2	95-95-4	
2,4,6-Trichlorophenol	Not detected	4		ug/L	2	88-06-2	

Lab Sample ID: S31593.10 (continued)
Sample Tag: SB-04W

Organics - Volatiles

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 12/28/21 17:02, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acetone	Not detected	50		ug/L	1	67-64-1	
Acrylonitrile	Not detected	2		ug/L	1	107-13-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Benzene	Not detected	1		ug/L	1	71-43-2	
n-Butylbenzene	Not detected	1		ug/L	1	104-51-8	
Bromobenzene	Not detected	1		ug/L	1	108-86-1	
Bromochloromethane	Not detected	1		ug/L	1	74-97-5	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Bromoform	Not detected	1		ug/L	1	75-25-2	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
sec-Butylbenzene	Not detected	1		ug/L	1	135-98-8	
tert-Butylbenzene	Not detected	1		ug/L	1	98-06-6	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Chloroform	Not detected	1		ug/L	1	67-66-3	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
1,1-Dichloroethane	Not detected	1		ug/L	1	75-34-3	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2-Dichloroethane	Not detected	1		ug/L	1	107-06-2	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
cis-1,2-Dichloroethene	Not detected	1		ug/L	1	156-59-2	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
Dibromomethane	Not detected	5		ug/L	1	74-95-3	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
Diethyl ether	Not detected	10		ug/L	1	60-29-7	
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	156-60-5	
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	
trans-1,4-Dichloro-2-butene	Not detected	1		ug/L	1	110-57-6	
Ethylbenzene	Not detected	1		ug/L	1	100-41-4	
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
Hexachloroethane	Not detected	5		ug/L	1	67-72-1	
p-Isopropyltoluene	Not detected	5		ug/L	1	99-87-6	
Isopropylbenzene	Not detected	5		ug/L	1	98-82-8	
2-Methylnaphthalene	Not detected	5		ug/L	1	91-57-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Methyl iodide	Not detected	1		ug/L	1	74-88-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
Naphthalene	Not detected	5		ug/L	1	91-20-3	
n-Propylbenzene	Not detected	1		ug/L	1	103-65-1	
Styrene	Not detected	1		ug/L	1	100-42-5	

Lab Sample ID: S31593.10 (continued)
Sample Tag: SB-04W

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 12/28/21 17:02, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,1,1,2-Tetrachloroethane	Not detected	1		ug/L	1	630-20-6	
1,1,1-Trichloroethane	Not detected	1		ug/L	1	71-55-6	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	
1,2,3-Trichlorobenzene	Not detected	5		ug/L	1	87-61-6	
1,2,3-Trichloropropane	Not detected	1		ug/L	1	96-18-4	
1,2,3-Trimethylbenzene	Not detected	1		ug/L	1	526-73-8	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
1,2,4-Trimethylbenzene	Not detected	1		ug/L	1	95-63-6	
1,3,5-Trimethylbenzene	Not detected	1		ug/L	1	108-67-8	
Tetrachloroethene	Not detected	1		ug/L	1	127-18-4	
Tetrahydrofuran*	Not detected	90		ug/L	1	109-99-9	
Toluene	Not detected	1		ug/L	1	108-88-3	
Trichloroethene	Not detected	1		ug/L	1	79-01-6	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
o-Xylene	Not detected	1		ug/L	1	95-47-6	
p,m-Xylene*	Not detected	2		ug/L	1		

Lab Sample ID: S31593.11
Sample Tag: SB-05W
Collected Date/Time: 12/20/2021 15:30
Matrix: Groundwater
COC Reference: 144662

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
2	1L Amber	None	Yes	6.0	IR
3	40ml Glass	HCL	Yes	6.0	IR
1	125ml Plastic	HNO3	Yes	6.0	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Mercury Digestion	Completed	E245.1	01/03/22 09:00	JRH	
pH check for VOCs*	<2	N/A	12/27/21 15:00	BML	
Metal Digestion	Completed	SW3015A	12/23/21 10:15	CCM	
BNA Extraction	Completed	SW3510C	12/23/21 12:30	DMP	

Metals

Method: E200.8, Run Date: 12/23/21 13:03, Analyst: CCM

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Arsenic	0.006	0.002		mg/L	5	7440-38-2	
Barium	0.041	0.005		mg/L	5	7440-39-3	
Cadmium	Not detected	0.0005		mg/L	5	7440-43-9	
Chromium	0.008	0.005		mg/L	5	7440-47-3	
Copper	0.011	0.005		mg/L	5	7440-50-8	
Lead	0.006	0.003		mg/L	5	7439-92-1	
Selenium	Not detected	0.005		mg/L	5	7782-49-2	
Silver	Not detected	0.0005		mg/L	5	7440-22-4	
Zinc	0.021	0.005		mg/L	5	7440-66-6	

Method: E245.1, Run Date: 01/03/22 14:12, Analyst: JRH

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Mercury	Not detected	0.0002		mg/L	1	7439-97-6	

Organics - Semi-Volatiles

Semi-Volatile Organics - MDEQ, Method: SW8270D, Run Date: 12/28/21 18:09, Analyst: PL

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acenaphthene	Not detected	5		ug/L	2	83-32-9	
Acenaphthylene	Not detected	5		ug/L	2	208-96-8	
Anthracene	Not detected	5		ug/L	2	120-12-7	
Benzo(a)anthracene	Not detected	1		ug/L	2	56-55-3	
Benzo(b)fluoranthene	Not detected	1		ug/L	2	205-99-2	
Benzo(k)fluoranthene	Not detected	1		ug/L	2	207-08-9	
Benzo(ghi)perylene	Not detected	1		ug/L	2	191-24-2	
Benzo(a)pyrene	Not detected	1		ug/L	2	50-32-8	
bis(2-Chloroethoxy)methane	Not detected	5		ug/L	2	111-91-1	
bis(2-Chloroethyl)ether	Not detected	5		ug/L	2	111-44-4	
bis(2-Chloroisopropyl)ether*	Not detected	5		ug/L	2	108-60-1	
bis(2-Ethylhexyl)phthalate	Not detected	5		ug/L	2	117-81-7	
4-Bromophenyl phenyl ether	Not detected	5		ug/L	2	101-55-3	
Butyl benzyl phthalate	Not detected	5		ug/L	2	85-68-7	
4-Chloroaniline	Not detected	10		ug/L	2	106-47-8	

Lab Sample ID: S31593.11 (continued)
Sample Tag: SB-05W

Semi-Volatile Organics - MDEQ, Method: SW8270D, Run Date: 12/28/21 18:09, Analyst: PL (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
2-Chloronaphthalene	Not detected	5		ug/L	2	91-58-7	
4-Chloro-3-methylphenol	Not detected	5		ug/L	2	59-50-7	
2-Chlorophenol	Not detected	10		ug/L	2	95-57-8	
4-Chlorophenyl phenyl ether	Not detected	5		ug/L	2	7005-72-3	
Chrysene	Not detected	1		ug/L	2	218-01-9	
3-, 4-Methylphenol (p,m-Cresol)	Not detected	20		ug/L	2	3/4-CRESOL	
2-Methylphenol (o-Cresol)	Not detected	10		ug/L	2	95-48-7	
Dibenzo(ah)anthracene	Not detected	2		ug/L	2	53-70-3	
Dibenzofuran	Not detected	4		ug/L	2	132-64-9	
di-n-Butyl phthalate	Not detected	5		ug/L	2	84-74-2	
1,2-Dichlorobenzene	Not detected	1		ug/L	2	95-50-1	
1,3-Dichlorobenzene	Not detected	1		ug/L	2	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	2	106-46-7	
3,3'-Dichlorobenzidine	Not detected	5		ug/L	2	91-94-1	
2,4-Dichlorophenol	Not detected	10		ug/L	2	120-83-2	
Diethyl phthalate	Not detected	5		ug/L	2	84-66-2	
2,4-Dimethylphenol	Not detected	5		ug/L	2	105-67-9	
Dimethyl phthalate	Not detected	5		ug/L	2	131-11-3	
4,6-Dinitro-2-methylphenol	Not detected	20		ug/L	2	534-52-1	
2,4-Dinitrophenol	Not detected	25		ug/L	2	51-28-5	
2,4-Dinitrotoluene	Not detected	5		ug/L	2	121-14-2	
2,6-Dinitrotoluene	Not detected	5		ug/L	2	606-20-2	
1,2-Diphenylhydrazine*	Not detected	5		ug/L	2	122-66-7	
di-n-Octyl phthalate	Not detected	5		ug/L	2	117-84-0	
Fluoranthene	Not detected	1		ug/L	2	206-44-0	
Fluorene	Not detected	5		ug/L	2	86-73-7	
Hexachlorobenzene	Not detected	5		ug/L	2	118-74-1	
Hexachlorobutadiene	Not detected	10		ug/L	2	87-68-3	
Hexachlorocyclopentadiene	Not detected	5		ug/L	2	77-47-4	
Hexachloroethane	Not detected	5		ug/L	2	67-72-1	
Indeno(1,2,3-cd)pyrene	Not detected	2		ug/L	2	193-39-5	
Isophorone	Not detected	5		ug/L	2	78-59-1	
2-Methylnaphthalene	Not detected	5		ug/L	2	91-57-6	
Naphthalene	Not detected	5		ug/L	2	91-20-3	
2-Nitroaniline	Not detected	25		ug/L	2	88-74-4	
3-Nitroaniline	Not detected	25		ug/L	2	99-09-2	
4-Nitroaniline	Not detected	25		ug/L	2	100-01-6	
Nitrobenzene	Not detected	5		ug/L	2	98-95-3	
2-Nitrophenol	Not detected	5		ug/L	2	88-75-5	
4-Nitrophenol	Not detected	25		ug/L	2	100-02-7	
N-Nitrosodiphenylamine	Not detected	5		ug/L	2	86-30-6	
N-Nitrosodi-n-propylamine	Not detected	5		ug/L	2	621-64-7	
Pentachlorophenol	Not detected	5		ug/L	2	87-86-5	
Phenanthrene	Not detected	2		ug/L	2	85-01-8	
Phenol	Not detected	5		ug/L	2	108-95-2	
Pyrene	Not detected	5		ug/L	2	129-00-0	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	2	120-82-1	
2,4,5-Trichlorophenol	Not detected	5		ug/L	2	95-95-4	
2,4,6-Trichlorophenol	Not detected	4		ug/L	2	88-06-2	

Lab Sample ID: S31593.11 (continued)
Sample Tag: SB-05W

Organics - Volatiles

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 12/28/21 17:25, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acetone	Not detected	50		ug/L	1	67-64-1	
Acrylonitrile	Not detected	2		ug/L	1	107-13-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Benzene	Not detected	1		ug/L	1	71-43-2	
n-Butylbenzene	Not detected	1		ug/L	1	104-51-8	
Bromobenzene	Not detected	1		ug/L	1	108-86-1	
Bromochloromethane	Not detected	1		ug/L	1	74-97-5	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Bromoform	Not detected	1		ug/L	1	75-25-2	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
sec-Butylbenzene	Not detected	1		ug/L	1	135-98-8	
tert-Butylbenzene	Not detected	1		ug/L	1	98-06-6	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Chloroform	Not detected	1		ug/L	1	67-66-3	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
1,1-Dichloroethane	Not detected	1		ug/L	1	75-34-3	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2-Dichloroethane	Not detected	1		ug/L	1	107-06-2	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
cis-1,2-Dichloroethene	Not detected	1		ug/L	1	156-59-2	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
Dibromomethane	Not detected	5		ug/L	1	74-95-3	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
Diethyl ether	Not detected	10		ug/L	1	60-29-7	
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	156-60-5	
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	
trans-1,4-Dichloro-2-butene	Not detected	1		ug/L	1	110-57-6	
Ethylbenzene	Not detected	1		ug/L	1	100-41-4	
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
Hexachloroethane	Not detected	5		ug/L	1	67-72-1	
p-Isopropyltoluene	Not detected	5		ug/L	1	99-87-6	
Isopropylbenzene	Not detected	5		ug/L	1	98-82-8	
2-Methylnaphthalene	Not detected	5		ug/L	1	91-57-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Methyl iodide	Not detected	1		ug/L	1	74-88-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
Naphthalene	Not detected	5		ug/L	1	91-20-3	
n-Propylbenzene	Not detected	1		ug/L	1	103-65-1	
Styrene	Not detected	1		ug/L	1	100-42-5	

Lab Sample ID: S31593.11 (continued)
Sample Tag: SB-05W

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 12/28/21 17:25, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,1,1,2-Tetrachloroethane	Not detected	1		ug/L	1	630-20-6	
1,1,1-Trichloroethane	Not detected	1		ug/L	1	71-55-6	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	
1,2,3-Trichlorobenzene	Not detected	5		ug/L	1	87-61-6	
1,2,3-Trichloropropane	Not detected	1		ug/L	1	96-18-4	
1,2,3-Trimethylbenzene	Not detected	1		ug/L	1	526-73-8	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
1,2,4-Trimethylbenzene	Not detected	1		ug/L	1	95-63-6	
1,3,5-Trimethylbenzene	Not detected	1		ug/L	1	108-67-8	
Tetrachloroethene	Not detected	1		ug/L	1	127-18-4	
Tetrahydrofuran*	Not detected	90		ug/L	1	109-99-9	
Toluene	Not detected	1		ug/L	1	108-88-3	
Trichloroethene	Not detected	1		ug/L	1	79-01-6	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
o-Xylene	Not detected	1		ug/L	1	95-47-6	
p,m-Xylene*	Not detected	2		ug/L	1		

Lab Sample ID: S31593.12
Sample Tag: SB-06W
Collected Date/Time: 12/21/2021 11:05
Matrix: Groundwater
COC Reference: 144662

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
2	1L Amber	None	Yes	6.0	IR
3	40ml Glass	HCL	Yes	6.0	IR
1	125ml Plastic	HNO3	Yes	6.0	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Mercury Digestion	Completed	E245.1	01/03/22 09:00	JRH	
pH check for VOCs*	<2	N/A	12/27/21 15:00	BML	
Metal Digestion	Completed	SW3015A	12/23/21 10:15	CCM	
BNA Extraction	Completed	SW3510C	12/27/21 17:00	JWR	

Metals

Method: E200.8, Run Date: 12/23/21 13:05, Analyst: CCM

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Arsenic	0.003	0.002		mg/L	5	7440-38-2	
Barium	0.030	0.005		mg/L	5	7440-39-3	
Cadmium	Not detected	0.0005		mg/L	5	7440-43-9	
Chromium	Not detected	0.005		mg/L	5	7440-47-3	
Copper	Not detected	0.005		mg/L	5	7440-50-8	
Lead	Not detected	0.003		mg/L	5	7439-92-1	
Selenium	Not detected	0.005		mg/L	5	7782-49-2	
Silver	Not detected	0.0005		mg/L	5	7440-22-4	
Zinc	Not detected	0.005		mg/L	5	7440-66-6	

Method: E245.1, Run Date: 01/03/22 14:15, Analyst: JRH

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Mercury	Not detected	0.0002		mg/L	1	7439-97-6	

Organics - Semi-Volatiles

Semi-Volatile Organics - MDEQ, Method: SW8270D, Run Date: 01/03/22 18:16, Analyst: PL

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acenaphthene	Not detected	5		ug/L	2	83-32-9	
Acenaphthylene	Not detected	5		ug/L	2	208-96-8	
Anthracene	Not detected	5		ug/L	2	120-12-7	
Benzo(a)anthracene	Not detected	1		ug/L	2	56-55-3	
Benzo(b)fluoranthene	Not detected	1		ug/L	2	205-99-2	
Benzo(k)fluoranthene	Not detected	1		ug/L	2	207-08-9	
Benzo(ghi)perylene	Not detected	1		ug/L	2	191-24-2	
Benzo(a)pyrene	Not detected	1		ug/L	2	50-32-8	
bis(2-Chloroethoxy)methane	Not detected	5		ug/L	2	111-91-1	
bis(2-Chloroethyl)ether	Not detected	5		ug/L	2	111-44-4	
bis(2-Chloroisopropyl)ether*	Not detected	5		ug/L	2	108-60-1	
bis(2-Ethylhexyl)phthalate	Not detected	5		ug/L	2	117-81-7	
4-Bromophenyl phenyl ether	Not detected	5		ug/L	2	101-55-3	
Butyl benzyl phthalate	Not detected	5		ug/L	2	85-68-7	
4-Chloroaniline	Not detected	10		ug/L	2	106-47-8	

Lab Sample ID: S31593.12 (continued)
Sample Tag: SB-06W

Semi-Volatile Organics - MDEQ, Method: SW8270D, Run Date: 01/03/22 18:16, Analyst: PL (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
2-Chloronaphthalene	Not detected	5		ug/L	2	91-58-7	
4-Chloro-3-methylphenol	Not detected	5		ug/L	2	59-50-7	
2-Chlorophenol	Not detected	10		ug/L	2	95-57-8	
4-Chlorophenyl phenyl ether	Not detected	5		ug/L	2	7005-72-3	
Chrysene	Not detected	1		ug/L	2	218-01-9	
3-, 4-Methylphenol (p,m-Cresol)	Not detected	20		ug/L	2	3/4-CRESOL	
2-Methylphenol (o-Cresol)	Not detected	10		ug/L	2	95-48-7	
Dibenzo(ah)anthracene	Not detected	2		ug/L	2	53-70-3	
Dibenzofuran	Not detected	4		ug/L	2	132-64-9	
di-n-Butyl phthalate	Not detected	5		ug/L	2	84-74-2	
1,2-Dichlorobenzene	Not detected	1		ug/L	2	95-50-1	
1,3-Dichlorobenzene	Not detected	1		ug/L	2	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	2	106-46-7	
3,3'-Dichlorobenzidine	Not detected	5		ug/L	2	91-94-1	
2,4-Dichlorophenol	Not detected	10		ug/L	2	120-83-2	
Diethyl phthalate	Not detected	5		ug/L	2	84-66-2	
2,4-Dimethylphenol	Not detected	5		ug/L	2	105-67-9	
Dimethyl phthalate	Not detected	5		ug/L	2	131-11-3	
4,6-Dinitro-2-methylphenol	Not detected	20		ug/L	2	534-52-1	
2,4-Dinitrophenol	Not detected	25		ug/L	2	51-28-5	
2,4-Dinitrotoluene	Not detected	5		ug/L	2	121-14-2	
2,6-Dinitrotoluene	Not detected	5		ug/L	2	606-20-2	
1,2-Diphenylhydrazine*	Not detected	5		ug/L	2	122-66-7	
di-n-Octyl phthalate	Not detected	5		ug/L	2	117-84-0	
Fluoranthene	Not detected	1		ug/L	2	206-44-0	
Fluorene	Not detected	5		ug/L	2	86-73-7	
Hexachlorobenzene	Not detected	5		ug/L	2	118-74-1	
Hexachlorobutadiene	Not detected	10		ug/L	2	87-68-3	
Hexachlorocyclopentadiene	Not detected	5		ug/L	2	77-47-4	
Hexachloroethane	Not detected	5		ug/L	2	67-72-1	
Indeno(1,2,3-cd)pyrene	Not detected	2		ug/L	2	193-39-5	
Isophorone	Not detected	5		ug/L	2	78-59-1	
2-Methylnaphthalene	Not detected	5		ug/L	2	91-57-6	
Naphthalene	Not detected	5		ug/L	2	91-20-3	
2-Nitroaniline	Not detected	25		ug/L	2	88-74-4	
3-Nitroaniline	Not detected	25		ug/L	2	99-09-2	
4-Nitroaniline	Not detected	25		ug/L	2	100-01-6	
Nitrobenzene	Not detected	5		ug/L	2	98-95-3	
2-Nitrophenol	Not detected	5		ug/L	2	88-75-5	
4-Nitrophenol	Not detected	25		ug/L	2	100-02-7	
N-Nitrosodiphenylamine	Not detected	5		ug/L	2	86-30-6	
N-Nitrosodi-n-propylamine	Not detected	5		ug/L	2	621-64-7	
Pentachlorophenol	Not detected	5		ug/L	2	87-86-5	
Phenanthrene	Not detected	2		ug/L	2	85-01-8	
Phenol	Not detected	5		ug/L	2	108-95-2	
Pyrene	Not detected	5		ug/L	2	129-00-0	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	2	120-82-1	
2,4,5-Trichlorophenol	Not detected	5		ug/L	2	95-95-4	
2,4,6-Trichlorophenol	Not detected	4		ug/L	2	88-06-2	

Lab Sample ID: S31593.12 (continued)
Sample Tag: SB-06W

Organics - Volatiles

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 12/24/21 02:47, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acetone	Not detected	50		ug/L	1	67-64-1	
Acrylonitrile	Not detected	2		ug/L	1	107-13-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Benzene	Not detected	1		ug/L	1	71-43-2	
n-Butylbenzene	Not detected	1		ug/L	1	104-51-8	
Bromobenzene	Not detected	1		ug/L	1	108-86-1	
Bromochloromethane	Not detected	1		ug/L	1	74-97-5	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Bromoform	Not detected	1		ug/L	1	75-25-2	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
sec-Butylbenzene	Not detected	1		ug/L	1	135-98-8	
tert-Butylbenzene	Not detected	1		ug/L	1	98-06-6	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Chloroform	Not detected	1		ug/L	1	67-66-3	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
1,1-Dichloroethane	Not detected	1		ug/L	1	75-34-3	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2-Dichloroethane	Not detected	1		ug/L	1	107-06-2	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
cis-1,2-Dichloroethene	Not detected	1		ug/L	1	156-59-2	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
Dibromomethane	Not detected	5		ug/L	1	74-95-3	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
Diethyl ether	Not detected	10		ug/L	1	60-29-7	
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	156-60-5	
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	
trans-1,4-Dichloro-2-butene	Not detected	1		ug/L	1	110-57-6	
Ethylbenzene	Not detected	1		ug/L	1	100-41-4	
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
Hexachloroethane	Not detected	5		ug/L	1	67-72-1	
p-Isopropyltoluene	Not detected	5		ug/L	1	99-87-6	
Isopropylbenzene	Not detected	5		ug/L	1	98-82-8	
2-Methylnaphthalene	Not detected	5		ug/L	1	91-57-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Methyl iodide	Not detected	1		ug/L	1	74-88-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
Naphthalene	Not detected	5		ug/L	1	91-20-3	
n-Propylbenzene	Not detected	1		ug/L	1	103-65-1	
Styrene	Not detected	1		ug/L	1	100-42-5	

Lab Sample ID: S31593.12 (continued)
Sample Tag: SB-06W

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 12/24/21 02:47, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,1,1,2-Tetrachloroethane	Not detected	1		ug/L	1	630-20-6	
1,1,1-Trichloroethane	Not detected	1		ug/L	1	71-55-6	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	
1,2,3-Trichlorobenzene	Not detected	5		ug/L	1	87-61-6	
1,2,3-Trichloropropane	Not detected	1		ug/L	1	96-18-4	
1,2,3-Trimethylbenzene	Not detected	1		ug/L	1	526-73-8	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
1,2,4-Trimethylbenzene	Not detected	1		ug/L	1	95-63-6	
1,3,5-Trimethylbenzene	Not detected	1		ug/L	1	108-67-8	
Tetrachloroethene	Not detected	1		ug/L	1	127-18-4	
Tetrahydrofuran*	Not detected	90		ug/L	1	109-99-9	
Toluene	Not detected	1		ug/L	1	108-88-3	
Trichloroethene	Not detected	1		ug/L	1	79-01-6	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
o-Xylene	Not detected	1		ug/L	1	95-47-6	
p,m-Xylene*	Not detected	2		ug/L	1		

Lab Sample ID: S31593.13
Sample Tag: SB-07W
Collected Date/Time: 12/21/2021 11:45
Matrix: Groundwater
COC Reference: 144663

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
2	1L Amber	None	Yes	6.0	IR
3	40ml Glass	HCL	Yes	6.0	IR
1	125ml Plastic	HNO3	Yes	6.0	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Mercury Digestion	Completed	E245.1	01/03/22 09:00	JRH	
pH check for VOCs*	<2	N/A	12/27/21 15:00	BML	
Metal Digestion	Completed	SW3015A	12/23/21 10:15	CCM	
BNA Extraction	Completed	SW3510C	12/27/21 17:00	JWR	

Metals

Method: E200.8, Run Date: 12/23/21 13:07, Analyst: CCM

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Arsenic	Not detected	0.002		mg/L	5	7440-38-2	
Barium	0.050	0.005		mg/L	5	7440-39-3	
Cadmium	Not detected	0.0005		mg/L	5	7440-43-9	
Chromium	Not detected	0.005		mg/L	5	7440-47-3	
Copper	Not detected	0.005		mg/L	5	7440-50-8	
Lead	Not detected	0.003		mg/L	5	7439-92-1	
Selenium	Not detected	0.005		mg/L	5	7782-49-2	
Silver	Not detected	0.0005		mg/L	5	7440-22-4	
Zinc	Not detected	0.005		mg/L	5	7440-66-6	

Method: E245.1, Run Date: 01/03/22 14:18, Analyst: JRH

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Mercury	Not detected	0.0002		mg/L	1	7439-97-6	

Organics - Semi-Volatiles

Semi-Volatile Organics - MDEQ, Method: SW8270D, Run Date: 01/03/22 18:46, Analyst: PL

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acenaphthene	Not detected	5		ug/L	2	83-32-9	
Acenaphthylene	Not detected	5		ug/L	2	208-96-8	
Anthracene	Not detected	5		ug/L	2	120-12-7	
Benzo(a)anthracene	Not detected	1		ug/L	2	56-55-3	
Benzo(b)fluoranthene	Not detected	1		ug/L	2	205-99-2	
Benzo(k)fluoranthene	Not detected	1		ug/L	2	207-08-9	
Benzo(ghi)perylene	Not detected	1		ug/L	2	191-24-2	
Benzo(a)pyrene	Not detected	1		ug/L	2	50-32-8	
bis(2-Chloroethoxy)methane	Not detected	5		ug/L	2	111-91-1	
bis(2-Chloroethyl)ether	Not detected	5		ug/L	2	111-44-4	
bis(2-Chloroisopropyl)ether*	Not detected	5		ug/L	2	108-60-1	
bis(2-Ethylhexyl)phthalate	Not detected	5		ug/L	2	117-81-7	
4-Bromophenyl phenyl ether	Not detected	5		ug/L	2	101-55-3	
Butyl benzyl phthalate	Not detected	5		ug/L	2	85-68-7	
4-Chloroaniline	Not detected	10		ug/L	2	106-47-8	

Lab Sample ID: S31593.13 (continued)
Sample Tag: SB-07W

Semi-Volatile Organics - MDEQ, Method: SW8270D, Run Date: 01/03/22 18:46, Analyst: PL (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
2-Chloronaphthalene	Not detected	5		ug/L	2	91-58-7	
4-Chloro-3-methylphenol	Not detected	5		ug/L	2	59-50-7	
2-Chlorophenol	Not detected	10		ug/L	2	95-57-8	
4-Chlorophenyl phenyl ether	Not detected	5		ug/L	2	7005-72-3	
Chrysene	Not detected	1		ug/L	2	218-01-9	
3-, 4-Methylphenol (p,m-Cresol)	Not detected	20		ug/L	2	3/4-CRESOL	
2-Methylphenol (o-Cresol)	Not detected	10		ug/L	2	95-48-7	
Dibenzo(ah)anthracene	Not detected	2		ug/L	2	53-70-3	
Dibenzofuran	Not detected	4		ug/L	2	132-64-9	
di-n-Butyl phthalate	Not detected	5		ug/L	2	84-74-2	
1,2-Dichlorobenzene	Not detected	1		ug/L	2	95-50-1	
1,3-Dichlorobenzene	Not detected	1		ug/L	2	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	2	106-46-7	
3,3'-Dichlorobenzidine	Not detected	5		ug/L	2	91-94-1	
2,4-Dichlorophenol	Not detected	10		ug/L	2	120-83-2	
Diethyl phthalate	Not detected	5		ug/L	2	84-66-2	
2,4-Dimethylphenol	Not detected	5		ug/L	2	105-67-9	
Dimethyl phthalate	Not detected	5		ug/L	2	131-11-3	
4,6-Dinitro-2-methylphenol	Not detected	20		ug/L	2	534-52-1	
2,4-Dinitrophenol	Not detected	25		ug/L	2	51-28-5	
2,4-Dinitrotoluene	Not detected	5		ug/L	2	121-14-2	
2,6-Dinitrotoluene	Not detected	5		ug/L	2	606-20-2	
1,2-Diphenylhydrazine*	Not detected	5		ug/L	2	122-66-7	
di-n-Octyl phthalate	Not detected	5		ug/L	2	117-84-0	
Fluoranthene	Not detected	1		ug/L	2	206-44-0	
Fluorene	Not detected	5		ug/L	2	86-73-7	
Hexachlorobenzene	Not detected	5		ug/L	2	118-74-1	
Hexachlorobutadiene	Not detected	10		ug/L	2	87-68-3	
Hexachlorocyclopentadiene	Not detected	5		ug/L	2	77-47-4	
Hexachloroethane	Not detected	5		ug/L	2	67-72-1	
Indeno(1,2,3-cd)pyrene	Not detected	2		ug/L	2	193-39-5	
Isophorone	Not detected	5		ug/L	2	78-59-1	
2-Methylnaphthalene	Not detected	5		ug/L	2	91-57-6	
Naphthalene	Not detected	5		ug/L	2	91-20-3	
2-Nitroaniline	Not detected	25		ug/L	2	88-74-4	
3-Nitroaniline	Not detected	25		ug/L	2	99-09-2	
4-Nitroaniline	Not detected	25		ug/L	2	100-01-6	
Nitrobenzene	Not detected	5		ug/L	2	98-95-3	
2-Nitrophenol	Not detected	5		ug/L	2	88-75-5	
4-Nitrophenol	Not detected	25		ug/L	2	100-02-7	
N-Nitrosodiphenylamine	Not detected	5		ug/L	2	86-30-6	
N-Nitrosodi-n-propylamine	Not detected	5		ug/L	2	621-64-7	
Pentachlorophenol	Not detected	5		ug/L	2	87-86-5	
Phenanthrene	Not detected	2		ug/L	2	85-01-8	
Phenol	Not detected	5		ug/L	2	108-95-2	
Pyrene	Not detected	5		ug/L	2	129-00-0	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	2	120-82-1	
2,4,5-Trichlorophenol	Not detected	5		ug/L	2	95-95-4	
2,4,6-Trichlorophenol	Not detected	4		ug/L	2	88-06-2	

Lab Sample ID: S31593.13 (continued)
Sample Tag: SB-07W

Organics - Volatiles

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 12/24/21 03:07, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acetone	Not detected	50		ug/L	1	67-64-1	
Acrylonitrile	Not detected	2		ug/L	1	107-13-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Benzene	Not detected	1		ug/L	1	71-43-2	
n-Butylbenzene	Not detected	1		ug/L	1	104-51-8	
Bromobenzene	Not detected	1		ug/L	1	108-86-1	
Bromochloromethane	Not detected	1		ug/L	1	74-97-5	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Bromoform	Not detected	1		ug/L	1	75-25-2	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
sec-Butylbenzene	Not detected	1		ug/L	1	135-98-8	
tert-Butylbenzene	Not detected	1		ug/L	1	98-06-6	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Chloroform	Not detected	1		ug/L	1	67-66-3	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
1,1-Dichloroethane	Not detected	1		ug/L	1	75-34-3	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2-Dichloroethane	Not detected	1		ug/L	1	107-06-2	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
cis-1,2-Dichloroethene	Not detected	1		ug/L	1	156-59-2	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
Dibromomethane	Not detected	5		ug/L	1	74-95-3	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
Diethyl ether	Not detected	10		ug/L	1	60-29-7	
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	156-60-5	
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	
trans-1,4-Dichloro-2-butene	Not detected	1		ug/L	1	110-57-6	
Ethylbenzene	Not detected	1		ug/L	1	100-41-4	
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
Hexachloroethane	Not detected	5		ug/L	1	67-72-1	
p-Isopropyltoluene	Not detected	5		ug/L	1	99-87-6	
Isopropylbenzene	Not detected	5		ug/L	1	98-82-8	
2-Methylnaphthalene	Not detected	5		ug/L	1	91-57-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Methyl iodide	Not detected	1		ug/L	1	74-88-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
Naphthalene	Not detected	5		ug/L	1	91-20-3	
n-Propylbenzene	Not detected	1		ug/L	1	103-65-1	
Styrene	Not detected	1		ug/L	1	100-42-5	

Lab Sample ID: S31593.13 (continued)
Sample Tag: SB-07W

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 12/24/21 03:07, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,1,1,2-Tetrachloroethane	Not detected	1		ug/L	1	630-20-6	
1,1,1-Trichloroethane	Not detected	1		ug/L	1	71-55-6	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	
1,2,3-Trichlorobenzene	Not detected	5		ug/L	1	87-61-6	
1,2,3-Trichloropropane	Not detected	1		ug/L	1	96-18-4	
1,2,3-Trimethylbenzene	Not detected	1		ug/L	1	526-73-8	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
1,2,4-Trimethylbenzene	Not detected	1		ug/L	1	95-63-6	
1,3,5-Trimethylbenzene	Not detected	1		ug/L	1	108-67-8	
Tetrachloroethene	Not detected	1		ug/L	1	127-18-4	
Tetrahydrofuran*	Not detected	90		ug/L	1	109-99-9	
Toluene	Not detected	1		ug/L	1	108-88-3	
Trichloroethene	Not detected	1		ug/L	1	79-01-6	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
o-Xylene	Not detected	1		ug/L	1	95-47-6	
p,m-Xylene*	Not detected	2		ug/L	1		

Lab Sample ID: S31593.14
Sample Tag: SB-08W
Collected Date/Time: 12/21/2021 14:25
Matrix: Groundwater
COC Reference: 144663

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
2	1L Amber	None	Yes	6.0	IR
3	40ml Glass	HCL	Yes	6.0	IR
1	125ml Plastic	HNO3	Yes	6.0	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Mercury Digestion	Completed	E245.1	01/03/22 09:00	JRH	
pH check for VOCs*	<2	N/A	12/27/21 15:00	BML	
Metal Digestion	Completed	SW3015A	12/23/21 10:15	CCM	
BNA Extraction	Completed	SW3510C	12/27/21 17:00	JWR	

Metals

Method: E200.8, Run Date: 12/23/21 12:43, Analyst: CCM

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Arsenic	Not detected	0.002		mg/L	5	7440-38-2	
Barium	0.160	0.005		mg/L	5	7440-39-3	
Cadmium	Not detected	0.0005		mg/L	5	7440-43-9	
Chromium	Not detected	0.005		mg/L	5	7440-47-3	
Copper	Not detected	0.005		mg/L	5	7440-50-8	
Lead	Not detected	0.003		mg/L	5	7439-92-1	
Selenium	Not detected	0.005		mg/L	5	7782-49-2	
Silver	Not detected	0.0005		mg/L	5	7440-22-4	
Zinc	Not detected	0.005		mg/L	5	7440-66-6	

Method: E245.1, Run Date: 01/03/22 14:28, Analyst: JRH

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Mercury	Not detected	0.0002		mg/L	1	7439-97-6	

Organics - Semi-Volatiles

Semi-Volatile Organics - MDEQ, Method: SW8270D, Run Date: 01/03/22 19:17, Analyst: PL

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acenaphthene	Not detected	5		ug/L	2	83-32-9	
Acenaphthylene	Not detected	5		ug/L	2	208-96-8	
Anthracene	Not detected	5		ug/L	2	120-12-7	
Benzo(a)anthracene	Not detected	1		ug/L	2	56-55-3	
Benzo(b)fluoranthene	Not detected	1		ug/L	2	205-99-2	
Benzo(k)fluoranthene	Not detected	1		ug/L	2	207-08-9	
Benzo(ghi)perylene	Not detected	1		ug/L	2	191-24-2	
Benzo(a)pyrene	Not detected	1		ug/L	2	50-32-8	
bis(2-Chloroethoxy)methane	Not detected	5		ug/L	2	111-91-1	
bis(2-Chloroethyl)ether	Not detected	5		ug/L	2	111-44-4	
bis(2-Chloroisopropyl)ether*	Not detected	5		ug/L	2	108-60-1	
bis(2-Ethylhexyl)phthalate	Not detected	5		ug/L	2	117-81-7	
4-Bromophenyl phenyl ether	Not detected	5		ug/L	2	101-55-3	
Butyl benzyl phthalate	Not detected	5		ug/L	2	85-68-7	
4-Chloroaniline	Not detected	10		ug/L	2	106-47-8	

Lab Sample ID: S31593.14 (continued)
Sample Tag: SB-08W

Semi-Volatile Organics - MDEQ, Method: SW8270D, Run Date: 01/03/22 19:17, Analyst: PL (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
2-Chloronaphthalene	Not detected	5		ug/L	2	91-58-7	
4-Chloro-3-methylphenol	Not detected	5		ug/L	2	59-50-7	
2-Chlorophenol	Not detected	10		ug/L	2	95-57-8	
4-Chlorophenyl phenyl ether	Not detected	5		ug/L	2	7005-72-3	
Chrysene	Not detected	1		ug/L	2	218-01-9	
3-, 4-Methylphenol (p,m-Cresol)	Not detected	20		ug/L	2	3/4-CRESOL	
2-Methylphenol (o-Cresol)	Not detected	10		ug/L	2	95-48-7	
Dibenzo(ah)anthracene	Not detected	2		ug/L	2	53-70-3	
Dibenzofuran	Not detected	4		ug/L	2	132-64-9	
di-n-Butyl phthalate	Not detected	5		ug/L	2	84-74-2	
1,2-Dichlorobenzene	Not detected	1		ug/L	2	95-50-1	
1,3-Dichlorobenzene	Not detected	1		ug/L	2	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	2	106-46-7	
3,3'-Dichlorobenzidine	Not detected	5		ug/L	2	91-94-1	
2,4-Dichlorophenol	Not detected	10		ug/L	2	120-83-2	
Diethyl phthalate	Not detected	5		ug/L	2	84-66-2	
2,4-Dimethylphenol	Not detected	5		ug/L	2	105-67-9	
Dimethyl phthalate	Not detected	5		ug/L	2	131-11-3	
4,6-Dinitro-2-methylphenol	Not detected	20		ug/L	2	534-52-1	
2,4-Dinitrophenol	Not detected	25		ug/L	2	51-28-5	
2,4-Dinitrotoluene	Not detected	5		ug/L	2	121-14-2	
2,6-Dinitrotoluene	Not detected	5		ug/L	2	606-20-2	
1,2-Diphenylhydrazine*	Not detected	5		ug/L	2	122-66-7	
di-n-Octyl phthalate	Not detected	5		ug/L	2	117-84-0	
Fluoranthene	Not detected	1		ug/L	2	206-44-0	
Fluorene	Not detected	5		ug/L	2	86-73-7	
Hexachlorobenzene	Not detected	5		ug/L	2	118-74-1	
Hexachlorobutadiene	Not detected	10		ug/L	2	87-68-3	
Hexachlorocyclopentadiene	Not detected	5		ug/L	2	77-47-4	
Hexachloroethane	Not detected	5		ug/L	2	67-72-1	
Indeno(1,2,3-cd)pyrene	Not detected	2		ug/L	2	193-39-5	
Isophorone	Not detected	5		ug/L	2	78-59-1	
2-Methylnaphthalene	Not detected	5		ug/L	2	91-57-6	
Naphthalene	Not detected	5		ug/L	2	91-20-3	
2-Nitroaniline	Not detected	25		ug/L	2	88-74-4	
3-Nitroaniline	Not detected	25		ug/L	2	99-09-2	
4-Nitroaniline	Not detected	25		ug/L	2	100-01-6	
Nitrobenzene	Not detected	5		ug/L	2	98-95-3	
2-Nitrophenol	Not detected	5		ug/L	2	88-75-5	
4-Nitrophenol	Not detected	25		ug/L	2	100-02-7	
N-Nitrosodiphenylamine	Not detected	5		ug/L	2	86-30-6	
N-Nitrosodi-n-propylamine	Not detected	5		ug/L	2	621-64-7	
Pentachlorophenol	Not detected	5		ug/L	2	87-86-5	
Phenanthrene	Not detected	2		ug/L	2	85-01-8	
Phenol	Not detected	5		ug/L	2	108-95-2	
Pyrene	Not detected	5		ug/L	2	129-00-0	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	2	120-82-1	
2,4,5-Trichlorophenol	Not detected	5		ug/L	2	95-95-4	
2,4,6-Trichlorophenol	Not detected	4		ug/L	2	88-06-2	

Lab Sample ID: S31593.14 (continued)
Sample Tag: SB-08W

Organics - Volatiles

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 12/24/21 03:26, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acetone	Not detected	50		ug/L	1	67-64-1	
Acrylonitrile	Not detected	2		ug/L	1	107-13-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Benzene	Not detected	1		ug/L	1	71-43-2	
n-Butylbenzene	Not detected	1		ug/L	1	104-51-8	
Bromobenzene	Not detected	1		ug/L	1	108-86-1	
Bromochloromethane	Not detected	1		ug/L	1	74-97-5	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Bromoform	Not detected	1		ug/L	1	75-25-2	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
sec-Butylbenzene	Not detected	1		ug/L	1	135-98-8	
tert-Butylbenzene	Not detected	1		ug/L	1	98-06-6	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Chloroform	Not detected	1		ug/L	1	67-66-3	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
1,1-Dichloroethane	Not detected	1		ug/L	1	75-34-3	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2-Dichloroethane	Not detected	1		ug/L	1	107-06-2	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
cis-1,2-Dichloroethene	Not detected	1		ug/L	1	156-59-2	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
Dibromomethane	Not detected	5		ug/L	1	74-95-3	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
Diethyl ether	Not detected	10		ug/L	1	60-29-7	
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	156-60-5	
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	
trans-1,4-Dichloro-2-butene	Not detected	1		ug/L	1	110-57-6	
Ethylbenzene	Not detected	1		ug/L	1	100-41-4	
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
Hexachloroethane	Not detected	5		ug/L	1	67-72-1	
p-Isopropyltoluene	Not detected	5		ug/L	1	99-87-6	
Isopropylbenzene	Not detected	5		ug/L	1	98-82-8	
2-Methylnaphthalene	Not detected	5		ug/L	1	91-57-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Methyl iodide	Not detected	1		ug/L	1	74-88-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
Naphthalene	Not detected	5		ug/L	1	91-20-3	
n-Propylbenzene	Not detected	1		ug/L	1	103-65-1	
Styrene	Not detected	1		ug/L	1	100-42-5	

Lab Sample ID: S31593.14 (continued)
Sample Tag: SB-08W

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 12/24/21 03:26, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,1,1,2-Tetrachloroethane	Not detected	1		ug/L	1	630-20-6	
1,1,1-Trichloroethane	Not detected	1		ug/L	1	71-55-6	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	
1,2,3-Trichlorobenzene	Not detected	5		ug/L	1	87-61-6	
1,2,3-Trichloropropane	Not detected	1		ug/L	1	96-18-4	
1,2,3-Trimethylbenzene	Not detected	1		ug/L	1	526-73-8	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
1,2,4-Trimethylbenzene	Not detected	1		ug/L	1	95-63-6	
1,3,5-Trimethylbenzene	Not detected	1		ug/L	1	108-67-8	
Tetrachloroethene	Not detected	1		ug/L	1	127-18-4	
Tetrahydrofuran*	Not detected	90		ug/L	1	109-99-9	
Toluene	Not detected	1		ug/L	1	108-88-3	
Trichloroethene	Not detected	1		ug/L	1	79-01-6	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
o-Xylene	Not detected	1		ug/L	1	95-47-6	
p,m-Xylene*	Not detected	2		ug/L	1		

Merit Laboratories Login Checklist

Lab Set ID: S31593
Client: MAN&SMITH (The Mannik & Smith Group)
Project: Rock-Tenn A2920001
Submitted: 12/22/2021 16:15 Login User: MMC

Attention: Casey Armstrong
Address: The Mannik & Smith Group
2193 Association Drive, Suite 200
Okemos, MI 48864

Phone: O:517-3169232x160 FAX:
Email: CArmstrong@manniksmithgroup.com

Selection				Description	Note
Sample Receiving					
01.	[X] Yes	[ ] No	[ ] N/A	Samples are received at 4C +/- 2C Thermometer #	IR 6.0
02.	[X] Yes	[ ] No	[ ] N/A	Received on ice/ cooling process begun	
03.	[ ] Yes	[X] No	[ ] N/A	Samples shipped	
04.	[ ] Yes	[X] No	[ ] N/A	Samples left in 24 hr. drop box	
05.	[ ] Yes	[ ] No	[X] N/A	Are there custody seals/tape or is the drop box locked	
Chain of Custody					
06.	[X] Yes	[ ] No	[ ] N/A	COC adequately filled out	
07.	[X] Yes	[ ] No	[ ] N/A	COC signed and relinquished to the lab	
08.	[X] Yes	[ ] No	[ ] N/A	Sample tag on bottles match COC	
09.	[ ] Yes	[X] No	[ ] N/A	Subcontracting needed? Subcontacted to:	
Preservation					
10.	[X] Yes	[ ] No	[ ] N/A	Do sample have correct chemical preservation	
11.	[X] Yes	[ ] No	[ ] N/A	Completed pH checks on preserved samples? (no VOAs)	
12.	[ ] Yes	[X] No	[ ] N/A	Did any samples need to be preserved in the lab?	
Bottle Conditions					
13.	[X] Yes	[ ] No	[ ] N/A	All bottles intact	
14.	[X] Yes	[ ] No	[ ] N/A	Appropriate analytical bottles are used	
15.	[X] Yes	[ ] No	[ ] N/A	Merit bottles used	
16.	[X] Yes	[ ] No	[ ] N/A	Sufficient sample volume received	
17.	[ ] Yes	[X] No	[ ] N/A	Samples require laboratory filtration	
18.	[X] Yes	[ ] No	[ ] N/A	Samples submitted within holding time	
19.	[ ] Yes	[ ] No	[X] N/A	Do water VOC or TOX bottles contain headspace	

Corrective action for all exceptions is to call the client and to notify the project manager.

Client Review By: _____ Date: _____

Merit Laboratories Bottle Preservation Check

Lab Set ID: S31593 Submitted: 12/22/2021 16:15

Client: MAN&SMITH (The Mannik & Smith Group)

Project: Rock-Tenn A2920001

Initial Preservation Check: 12/22/2021 16:36 MMC

Preservation Recheck (E200.8): 12/23/2021 08:57 MMC

Attention: Casey Armstrong
Address: The Mannik & Smith Group
2193 Association Drive, Suite 200
Okemos, MI 48864

Phone: O:517-3169232x160 FAX:
Email: CArmstrong@manniksmithgroup.com

Sample ID	Bottle / Preservation	pH (Orig)	Add ml	pH (New)	Notes
S31593.09	125ml Plastic HNO3	<2			
S31593.10	125ml Plastic HNO3	<2			
S31593.11	125ml Plastic HNO3	7	0.5	<2	Lot# 280251
S31593.12	125ml Plastic HNO3	<2			
S31593.13	125ml Plastic HNO3	<2			
S31593.14	125ml Plastic HNO3	<2			

Merit Laboratories, Inc.
2680 East Lansing Dr., East Lansing, MI 48823
Phone (517) 332-0167 Fax (517) 332-4034
www.meritlabs.com

C.O.C. PAGE # 1 OF 2

144662

CHAIN OF CUSTODY RECORD

REPORT TO

CONTACT NAME: Casey Armstrong
COMPANY: Manik Smith Group
ADDRESS: 2193 Association Dr Ste 200
CITY: Okemos STATE: MI ZIP CODE: 48864
PHONE NO: 517 316 9232 FAX NO. — P.O. NO. A2920001
E-MAIL ADDRESS: CArmstrong@manniksmithgroup.com QUOTE NO.

INVOICE TO

CONTACT NAME: X SAME
COMPANY:
ADDRESS:
CITY: STATE: ZIP CODE:
PHONE NO: E-MAIL ADDRESS:

PROJECT NO./NAME: Rockford A2920001
SAMPLER(S) - PLEASE PRINT/SIGN NAME: CA/KM

TURNAROUND TIME REQUIRED ☐ 1 DAY ☐ 2 DAYS ☐ 3 DAYS ☒ STANDARD ☐ OTHER

DELIVERABLES REQUIRED ☒ STD ☐ LEVEL II ☐ LEVEL III ☐ LEVEL IV ☐ EDD ☐ OTHER

MATRIX CODE: GW=GROUNDWATER WW=WASTEWATER S=SOIL L=LIQUID SD=SOLID SL=SLUDGE DW=DRINKING WATER O=OIL WP=WIPE A=AIR W=WASTE

ANALYSIS (ATTACH LIST IF MORE SPACE IS REQUIRED)

Certifications
☐ OHIO VAP ☐ Drinking Water
☐ DoD ☐ NPDES
Project Locations
☐ Detroit ☐ New York
☐ Other
Special Instructions

MERIT LAB NO. (FOR LAB USE ONLY)	DATE	TIME	SAMPLE TAG IDENTIFICATION-DESCRIPTION	MATRIX	# OF BOTTLES	# Containers & Preservatives: NONE	HCl	HNO_3	H_2SO_4	NaOH	MeOH	OTHER	VOC's	SVOC's	MI 10 Metals	PCB's		PFAS				Special Instructions
31593.01	12/20	1050	SB-1 23-24	S	2	1					1		X	X	X		X					
.02	12/20	1140	SB-2 19-20	S	2	1					1		X	X	X		X					
.03	12/20	1300	SB-3 3-4	S	2	1					1		X	X	X		X					
.04	12/20	1415	SB-4 5-6	S	2	1					1		X	X	X		X					
.05	12/20	1530	SB-5 0-1	S	2	1					1		X	X	X		X					
.06	12/21	1005	SB-6 2-3	S	2	1					1		X	X	X		X					
.07	12/21	1180	SB-7 1.5-2.5	S	2	1					1		X	X	X		X					
.08	12/21	1420	SB-8 0.5-1.5	S	2	1					1		X	X	X		X					
.09	12/20	1410	SB-03 W	GW	9	5	3	1					X	X	X			X				31594.01 (PFAS)
.10	12/20	1450	SB-04 W	GW	9	5	3	1					X	X	X			X				.02
.11	12/20	1530	SB-05 W	GW	9	5	3	1					X	X	X			X				.03
.12	12/21	1105	SB-06 W	GW	9	5	3	1					X	X	X			X				.04

RELINQUISHED BY: SIGNATURE/ORGANIZATION (X Sampler)	DATE 12/22	TIME	
RECEIVED BY: SIGNATURE/ORGANIZATION	DATE 12/22/21	TIME 1615	
RELINQUISHED BY: SIGNATURE/ORGANIZATION	DATE	TIME	
RECEIVED BY: SIGNATURE/ORGANIZATION	DATE	TIME	

RELINQUISHED BY: SIGNATURE/ORGANIZATION	DATE	TIME	
RECEIVED BY: SIGNATURE/ORGANIZATION	DATE	TIME	

SEAL NO. SEAL INTACT YES ☐ NO ☐ INITIALS
SEAL NO. SEAL INTACT YES ☐ NO ☐ INITIALS

NOTES: TEMP. ON ARRIVAL 6.0

PLEASE NOTE: SIGNING ACKNOWLEDGES ADHERENCE TO MERIT'S SAMPLE ACCEPTANCE POLICY ON REVERSE SIDE

Rev. 5.18.12

Merit Laboratories, Inc.
2680 East Lansing Dr., East Lansing, MI 48823
Phone (517) 332-0167 Fax (517) 332-4034
www.meritlabs.com

C.O.C. PAGE # 2 OF 2

144663

CHAIN OF CUSTODY RECORD

REPORT TO

CONTACT NAME: Casey Armstrong
COMPANY: Mannik Smith Group
ADDRESS: 2193 Association Drive
CITY: Okemos STATE: MI ZIP CODE: 48864
PHONE NO.: 517 316 9232 FAX NO.:
P.O. NO.: A2920001
E-MAIL ADDRESS: CArmstrong@mannicksmithgroup.com QUOTE NO.: A

INVOICE TO

CONTACT NAME: ☒ SAME
COMPANY:
ADDRESS:
CITY: STATE: ZIP CODE:
PHONE NO.: E-MAIL ADDRESS:

PROJECT NO./NAME: Rock-Tenn A2920001
SAMPLER(S) - PLEASE PRINT/SIGN NAME:

TURNAROUND TIME REQUIRED ☐ 1 DAY ☐ 2 DAYS ☐ 3 DAYS ☒ STANDARD ☐ OTHER

DELIVERABLES REQUIRED ☒ STD ☐ LEVEL II ☐ LEVEL III ☐ LEVEL IV ☐ EDD ☐ OTHER

MATRIX CODE: GW=GROUNDWATER WW=WASTEWATER S=SOIL L=LIQUID SD=SOLID SL=SLUDGE DW=DRINKING WATER O=OIL WP=WIPE A=AIR W=WASTE

ANALYSIS (ATTACH LIST IF MORE SPACE IS REQUIRED)

Certifications
☐ OHIO VAP ☐ Drinking Water
☐ DoD ☐ NPDES

Project Locations
☐ Detroit ☐ New York
☐ Other

MERIT LAB NO. (FOR LAB USE ONLY)	YEAR DATE	YEAR TIME	SAMPLE TAG IDENTIFICATION-DESCRIPTION	MATRIX	# OF BOTTLES	# Containers & Preservatives: NONE	HCl	HNO_3	H_2SO_4	NaOH	MeOH	OTHER	VOC's	SVOC's	MI 10 Metals	PCB's	PFAS	Special Instructions
31593.13	12/21	1145	SB-07 W	GW	9	5	3	1					X	X	X		X	31594.05
.14	12/21	1425	SB-08 W	GW	9	5	3	1					X	X	X		X	.06

RELINQUISHED BY: SIGNATURE/ORGANIZATION	☒ Sampler	DATE 12/22	TIME
RECEIVED BY: SIGNATURE/ORGANIZATION		DATE 12/22/21	TIME 1615
RELINQUISHED BY: SIGNATURE/ORGANIZATION		DATE	TIME
RECEIVED BY: SIGNATURE/ORGANIZATION		DATE	TIME

RELINQUISHED BY: SIGNATURE/ORGANIZATION		DATE	TIME
RECEIVED BY: SIGNATURE/ORGANIZATION		DATE	TIME

SEAL NO. SEAL INTACT YES ☐ NO ☐ INITIALS
SEAL NO. SEAL INTACT YES ☐ NO ☐ INITIALS

NOTES: TEMP. ON ARRIVAL 6.0

PLEASE NOTE: SIGNING ACKNOWLEDGES ADHERENCE TO MERIT'S SAMPLE ACCEPTANCE POLICY ON REVERSE SIDE

Rev. 5.18.12

Analytical Laboratory Report

Report ID: S31594.01(01)
Generated on 01/13/2022

Report to

Attention: Casey Armstrong
The Mannik & Smith Group
2193 Association Drive, Suite 200
Okemos, MI 48864

Phone: O:517-3169232x1603C:5175072335 FAX:
Email: CArmstrong@manniksmithgroup.com

Report produced by

Merit Laboratories, Inc.
2680 East Lansing Drive
East Lansing, MI 48823

Phone: (517) 332-0167 FAX: (517) 332-6333

Contacts for report questions:
John Laverty (johnlaverty@meritlabs.com)
Barbara Ball (bball@meritlabs.com)

Report Summary

Lab Sample ID(s): S31594.01-S31594.06
Project: Rock-Tenn A2920001
Collected Date(s): 12/20/2021 - 12/21/2021
Submitted Date/Time: 12/22/2021 16:15
Sampled by: CA / KM
P.O. #:

Table of Contents

Maya Murshak
Technical Director

Analytical Laboratory Report

General Report Notes

Analytical results relate only to the samples tested, in the condition received by the laboratory.
Methods may be modified for improved performance.
Results reported on a dry weight basis where applicable.
'Not detected' indicates that parameter was not found at a level equal to or greater than the reporting limit (RL).
When MDL results are provided, then 'Not detected' indicates that parameter was not found at a level equal to or greater than the MDL.
40 CFR Part 136 Table II Required Containers, Preservation Techniques and Holding Times for the Clean Water Act specify that samples for acrolein and acrylonitrile need to be preserved at a pH in the range of 4 to 5 or if not preserved, analyzed within 3 days of sampling.
QA/QC corresponding to this analytical report is a separate document with the same Merit ID reference and is available upon request.
Full accreditation certificates are available upon request. Starred (*) analytes are not NELAP accredited.
Samples are held by the lab for 30 days from the final report date unless a written request to hold longer is provided by the client.

Limits for drinking water samples, are listed as the MCL Limits (Maximum Contaminant Level Concentrations)
PFAS requirement: Section 9.3.8 of U.S. EPA Method 537.1 states "If the method analyte(s) found in the Field Sample is present in the FRB at a concentration greater than 1/3 the MRL, then all samples collected with that FRB are invalid and must be recollected and reanalyzed."
Samples submitted without an accompanying FRB may not be acceptable for compliance purposes.
Wisconsin PFAs analysis: MDL = LOD; RL = LOQ. LOD and LOQ are adjusted for dilution.

Report Narrative

There is no additional narrative for this analytical report

Laboratory Certifications

Authority	Certification ID
Michigan DEQ	#9956
DOD ELAP/ISO 17025	#69699
WBENC	#2005110032
Ohio VAP	#CL0002
Indiana DOH	#C-MI-07
New York NELAC	#11814
North Carolina DENR	#680
North Carolina DOH	#26702
Alaska CSLAP	#17-001
Pennsylvania DEP	#68-05884
Wisconsin DNR	FID# 399147320

Qualifier Descriptions

Qualifier	Description
!	Result is outside of stated limit criteria
B	Compound also found in associated method blank
E	Concentration exceeds calibration range
F	Analysis run outside of holding time
G	Estimated result due to extraction run outside of holding time
H	Sample submitted and run outside of holding time
I	Matrix interference with internal standard
J	Estimated value less than reporting limit, but greater than MDL
L	Elevated reporting limit due to low sample amount
M	Result reported to MDL not RDL
O	Analysis performed by outside laboratory. See attached report.
R	Preliminary result
S	Surrogate recovery outside of control limits
T	No correction for total solids
X	Elevated reporting limit due to matrix interference
Y	Elevated reporting limit due to high target concentration
b	Value detected less than reporting limit, but greater than MDL
e	Reported value estimated due to interference
j	Analyte also found in associated method blank
p	Benzo(b)Fluoranthene and Benzo(k)Fluoranthene integrated as one peak.
x	Preserved from bulk sample

Glossary of Abbreviations

Abbreviation	Description
RL/RDL	Reporting Limit
MDL	Method Detection Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
SW	EPA SW 846 (Soil and Wastewater) Methods
E	EPA Methods
SM	Standard Methods
LN	Linear
BR	Branched

Method Summary

Method	Version
ASTMD7979-19M	ASTM Method D7979 - 19 Modified (Isotopic Dilution)

Parameter Summary

Parameter	Synonym	Cas #
PFBA	Perfluorobutanoic Acid	375-22-4
PFPeA	Perfluoropentanoic Acid	2706-90-3
4:2 FTSA	4:2 Fluorotelomer Sulfonic Acid	757124-72-4
PFHxA	Perfluorohexanoic Acid	307-24-4
PFBS	Perfluorobutane sulfonic Acid	375-73-5
PFHpA	Perfluoroheptanoic Acid	375-85-9
PFPeS	Perfluoropentane Sulfonic Acid	2706-91-4
6:2 FTSA	6:2 Fluorotelomer Sulfonic Acid	27619-97-2
PFOA	Perfluorooctanoic Acid	335-67-1
PFHxS	Perfluorohexane Sulfonic Acid	355-46-4
PFHxS-LN	Perfluorohexane Sulfonic Acid - LN	355-46-4-LN
PFHxS-BR	Perfluorohexane Sulfonic Acid - BR	355-46-4-BR
PFNA	Perfluorononanoic Acid	375-95-1
8:2 FTSA	8:2 Fluorotelomer Sulfonic Acid	39108-34-4
PFHpS	Perfluoroheptane Sulfonic Acid	375-92-8
PFDA	Perfluorodecanoic Acid	335-76-2
N-MeFOSAA	N-methyl perfluorooctanesulfonamidoacetic acid	2355-31-9
EtFOSAA	N-Ethyl Perfluorooctane Sulfonamidoacetic Acid	2991-50-6
PFOS	Perfluorooctane Sulfonic Acid	1763-23-1
PFOS-LN	Perfluorooctane Sulfonic Acid - LN	1763-23-1-LN
PFOS-BR	Perfluorooctane Sulfonic Acid - BR	1763-23-1-BR
PFUnDA	Perfluoroundecanoic Acid	2058-94-8
PFNS	Perfluorononane Sulfonic Acid	68259-12-1
PFDoDA	Perfluorododecanoic Acid	307-55-1
PFDS	Perfluorodecane Sulfonic Acid	335-77-3
PFTrDA	Perfluorotridecanoic Acid	72629-94-8
FOSA	Perfluorooctane Sulfonamide	754-91-6
PFTeDA	Perfluorotetradecanoic Acid	376-06-7
11Cl-PF3OUdS	11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	763051-92-9
9Cl-PF3ONS	9-chlorohexadecafluoro-3-oxanone1-sulfonic acid	756426-58-1
ADONA	4,8-dioxa-3H-perfluorononanoic acid	919005-14-4
HFPO-DA	Hexafluoropropylene oxide dimer	13252-13-6

Analytical Laboratory Report

Sample Summary (6 samples)

Sample ID	Sample Tag	Matrix	Collected Date/Time
S31594.01	SB-03W	Groundwater	12/20/21 14:10
S31594.02	SB-04W	Groundwater	12/20/21 14:50
S31594.03	SB-05W	Groundwater	12/20/21 15:30
S31594.04	SB-06W	Groundwater	12/21/21 11:05
S31594.05	SB-07W	Groundwater	12/21/21 11:45
S31594.06	SB-08W	Groundwater	12/21/21 14:25

Analytical Laboratory Report

Lab Sample ID: S31594.01
Sample Tag: SB-03W
Collected Date/Time: 12/20/2021 14:10
Matrix: Groundwater
COC Reference: 144662

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	15ml Centrifuge Tube	None	Yes	6.0	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Initial wt. (g) / Final wt. (g) / Volume (ml)*	12.51/6.99/11	ASTMD7979-19M	01/04/22 12:30	KCV	

Organics

28 PFAs, Method: ASTMD7979-19M, Run Date: 01/04/22 20:31, Analyst: KCV

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFBA*	20	10.0		ng/L	1.99	375-22-4	
PFPeA*	15	4.0		ng/L	1.99	2706-90-3	
4:2 FTSA*	Not detected	2.0		ng/L	1.99	757124-72-4	
PFHxA*	12	2.0		ng/L	1.99	307-24-4	
PFBS*	3.2	2.0		ng/L	1.99	375-73-5	
PFHpA*	6.8	2.0		ng/L	1.99	375-85-9	
PFPeS*	3.0	2.0		ng/L	1.99	2706-91-4	
6:2 FTSA*	Not detected	4.0		ng/L	1.99	27619-97-2	
PFOA*	34	2.0		ng/L	1.99	335-67-1	
PFHxS*	7.6	2.0		ng/L	1.99	355-46-4	
PFHxS-LN*	6.0	2.0		ng/L	1.99	355-46-4-LN	
PFHxS-BR*	Not detected	2.0		ng/L	1.99	355-46-4-BR	
PFNA*	Not detected	2.0		ng/L	1.99	375-95-1	
8:2 FTSA*	Not detected	4.0		ng/L	1.99	39108-34-4	
PFHpS*	Not detected	2.0		ng/L	1.99	375-92-8	
PFDA*	Not detected	2.0		ng/L	1.99	335-76-2	
N-MeFOSAA*	Not detected	2.0		ng/L	1.99	2355-31-9	
EtFOSAA*	Not detected	4.0		ng/L	1.99	2991-50-6	
PFOS*	47	2.0		ng/L	1.99	1763-23-1	
PFOS-LN*	36	2.0		ng/L	1.99	1763-23-1-LN	
PFOS-BR*	11	2.0		ng/L	1.99	1763-23-1-BR	
PFUnDA*	Not detected	2.0		ng/L	1.99	2058-94-8	
PFNS*	Not detected	2.0		ng/L	1.99	68259-12-1	
PFDoDA*	Not detected	2.0		ng/L	1.99	307-55-1	
PFDS*	Not detected	2.0		ng/L	1.99	335-77-3	
PFTrDA*	Not detected	2.0		ng/L	1.99	72629-94-8	
FOSA*	Not detected	2.0		ng/L	1.99	754-91-6	
PFTeDA*	Not detected	4.0		ng/L	1.99	376-06-7	
11Cl-PF3OUdS*	Not detected	2.0		ng/L	1.99	763051-92-9	
9Cl-PF3ONS*	Not detected	2.0		ng/L	1.99	756426-58-1	
ADONA*	Not detected	2.0		ng/L	1.99	919005-14-4	
HFPO-DA*	Not detected	10.0		ng/L	1.99	13252-13-6	

Analytical Laboratory Report

Lab Sample ID: S31594.02
Sample Tag: SB-04W
Collected Date/Time: 12/20/2021 14:50
Matrix: Groundwater
COC Reference: 144662

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	15ml Centrifuge Tube	None	Yes	6.0	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Initial wt. (g) / Final wt. (g) / Volume (ml)*	12.81/7.03/11	ASTMD7979-19M	01/04/22 12:30	KCV	

Organics

28 PFAs, Method: ASTMD7979-19M, Run Date: 01/04/22 20:51, Analyst: KCV

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFBA*	Not detected	9.5		ng/L	1.9	375-22-4	
PFPeA*	Not detected	3.8		ng/L	1.9	2706-90-3	
4:2 FTSA*	Not detected	1.9		ng/L	1.9	757124-72-4	
PFHxA*	Not detected	1.9		ng/L	1.9	307-24-4	
PFBS*	Not detected	1.9		ng/L	1.9	375-73-5	
PFHpA*	Not detected	1.9		ng/L	1.9	375-85-9	
PFPeS*	Not detected	1.9		ng/L	1.9	2706-91-4	
6:2 FTSA*	Not detected	3.8		ng/L	1.9	27619-97-2	
PFOA*	Not detected	1.9		ng/L	1.9	335-67-1	
PFHxS*	Not detected	1.9		ng/L	1.9	355-46-4	
PFHxS-LN*	Not detected	1.9		ng/L	1.9	355-46-4-LN	
PFHxS-BR*	Not detected	1.9		ng/L	1.9	355-46-4-BR	
PFNA*	Not detected	1.9		ng/L	1.9	375-95-1	
8:2 FTSA*	Not detected	3.8		ng/L	1.9	39108-34-4	
PFHpS*	Not detected	1.9		ng/L	1.9	375-92-8	
PFDA*	Not detected	1.9		ng/L	1.9	335-76-2	
N-MeFOSAA*	Not detected	1.9		ng/L	1.9	2355-31-9	
EtFOSAA*	Not detected	3.8		ng/L	1.9	2991-50-6	
PFOS*	Not detected	1.9		ng/L	1.9	1763-23-1	
PFOS-LN*	Not detected	1.9		ng/L	1.9	1763-23-1-LN	
PFOS-BR*	Not detected	1.9		ng/L	1.9	1763-23-1-BR	
PFUnDA*	Not detected	1.9		ng/L	1.9	2058-94-8	
PFNS*	Not detected	1.9		ng/L	1.9	68259-12-1	
PFDoDA*	Not detected	1.9		ng/L	1.9	307-55-1	
PFDS*	Not detected	1.9		ng/L	1.9	335-77-3	
PFTrDA*	Not detected	1.9		ng/L	1.9	72629-94-8	
FOSA*	Not detected	1.9		ng/L	1.9	754-91-6	
PFTeDA*	Not detected	3.8		ng/L	1.9	376-06-7	
11Cl-PF3OUdS*	Not detected	1.9		ng/L	1.9	763051-92-9	
9Cl-PF3ONS*	Not detected	1.9		ng/L	1.9	756426-58-1	
ADONA*	Not detected	1.9		ng/L	1.9	919005-14-4	
HFPO-DA*	Not detected	9.5		ng/L	1.9	13252-13-6	

Analytical Laboratory Report

Lab Sample ID: S31594.03
Sample Tag: SB-05W
Collected Date/Time: 12/20/2021 15:30
Matrix: Groundwater
COC Reference: 144662

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	15ml Centrifuge Tube	None	Yes	6.0	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Initial wt. (g) / Final wt. (g) / Volume (ml)*	13.23/7.07/12	ASTMD7979-19M	01/04/22 12:30	KCV	

Organics

28 PFAs, Method: ASTMD7979-19M, Run Date: 01/04/22 21:10, Analyst: KCV

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFBA*	Not detected	9.8		ng/L	1.95	375-22-4	
PFPeA*	Not detected	3.9		ng/L	1.95	2706-90-3	
4:2 FTSA*	Not detected	2.0		ng/L	1.95	757124-72-4	
PFHxA*	Not detected	2.0		ng/L	1.95	307-24-4	
PFBS*	Not detected	2.0		ng/L	1.95	375-73-5	
PFHpA*	Not detected	2.0		ng/L	1.95	375-85-9	
PFPeS*	Not detected	2.0		ng/L	1.95	2706-91-4	
6:2 FTSA*	Not detected	3.9		ng/L	1.95	27619-97-2	
PFOA*	Not detected	2.0		ng/L	1.95	335-67-1	
PFHxS*	Not detected	2.0		ng/L	1.95	355-46-4	
PFHxS-LN*	Not detected	2.0		ng/L	1.95	355-46-4-LN	
PFHxS-BR*	Not detected	2.0		ng/L	1.95	355-46-4-BR	
PFNA*	Not detected	2.0		ng/L	1.95	375-95-1	
8:2 FTSA*	Not detected	3.9		ng/L	1.95	39108-34-4	
PFHpS*	Not detected	2.0		ng/L	1.95	375-92-8	
PFDA*	Not detected	2.0		ng/L	1.95	335-76-2	
N-MeFOSAA*	Not detected	2.0		ng/L	1.95	2355-31-9	
EtFOSAA*	Not detected	3.9		ng/L	1.95	2991-50-6	
PFOS*	3.5	2.0		ng/L	1.95	1763-23-1	
PFOS-LN*	Not detected	2.0		ng/L	1.95	1763-23-1-LN	
PFOS-BR*	3.1	2.0		ng/L	1.95	1763-23-1-BR	
PFUnDA*	Not detected	2.0		ng/L	1.95	2058-94-8	
PFNS*	Not detected	2.0		ng/L	1.95	68259-12-1	
PFDoDA*	Not detected	2.0		ng/L	1.95	307-55-1	
PFDS*	Not detected	2.0		ng/L	1.95	335-77-3	
PFTrDA*	Not detected	2.0		ng/L	1.95	72629-94-8	
FOSA*	Not detected	2.0		ng/L	1.95	754-91-6	
PFTeDA*	Not detected	3.9		ng/L	1.95	376-06-7	
11Cl-PF3OUdS*	Not detected	2.0		ng/L	1.95	763051-92-9	
9Cl-PF3ONS*	Not detected	2.0		ng/L	1.95	756426-58-1	
ADONA*	Not detected	2.0		ng/L	1.95	919005-14-4	
HFPO-DA*	Not detected	9.8		ng/L	1.95	13252-13-6	

Analytical Laboratory Report

Lab Sample ID: S31594.04
Sample Tag: SB-06W
Collected Date/Time: 12/21/2021 11:05
Matrix: Groundwater
COC Reference: 144662

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	15ml Centrifuge Tube	None	Yes	6.0	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Initial wt. (g) / Final wt. (g) / Volume (ml)*	12.60/6.98/11	ASTMD7979-19M	01/04/22 12:30	KCV	

Organics

28 PFAs, Method: ASTMD7979-19M, Run Date: 01/04/22 21:30, Analyst: KCV

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFBA*	Not detected	9.8		ng/L	1.96	375-22-4	
PFPeA*	Not detected	3.9		ng/L	1.96	2706-90-3	
4:2 FTSA*	Not detected	2.0		ng/L	1.96	757124-72-4	
PFHxA*	Not detected	2.0		ng/L	1.96	307-24-4	
PFBS*	Not detected	2.0		ng/L	1.96	375-73-5	
PFHpA*	Not detected	2.0		ng/L	1.96	375-85-9	
PFPeS*	Not detected	2.0		ng/L	1.96	2706-91-4	
6:2 FTSA*	Not detected	3.9		ng/L	1.96	27619-97-2	
PFOA*	Not detected	2.0		ng/L	1.96	335-67-1	
PFHxS*	Not detected	2.0		ng/L	1.96	355-46-4	
PFHxS-LN*	Not detected	2.0		ng/L	1.96	355-46-4-LN	
PFHxS-BR*	Not detected	2.0		ng/L	1.96	355-46-4-BR	
PFNA*	Not detected	2.0		ng/L	1.96	375-95-1	
8:2 FTSA*	Not detected	3.9		ng/L	1.96	39108-34-4	
PFHpS*	Not detected	2.0		ng/L	1.96	375-92-8	
PFDA*	Not detected	2.0		ng/L	1.96	335-76-2	
N-MeFOSAA*	Not detected	2.0		ng/L	1.96	2355-31-9	
EtFOSAA*	Not detected	3.9		ng/L	1.96	2991-50-6	
PFOS*	4.7	2.0		ng/L	1.96	1763-23-1	
PFOS-LN*	3.5	2.0		ng/L	1.96	1763-23-1-LN	
PFOS-BR*	Not detected	2.0		ng/L	1.96	1763-23-1-BR	
PFUnDA*	Not detected	2.0		ng/L	1.96	2058-94-8	
PFNS*	Not detected	2.0		ng/L	1.96	68259-12-1	
PFDoDA*	Not detected	2.0		ng/L	1.96	307-55-1	
PFDS*	Not detected	2.0		ng/L	1.96	335-77-3	
PFTrDA*	Not detected	2.0		ng/L	1.96	72629-94-8	
FOSA*	Not detected	2.0		ng/L	1.96	754-91-6	
PFTeDA*	Not detected	3.9		ng/L	1.96	376-06-7	
11Cl-PF3OUdS*	Not detected	2.0		ng/L	1.96	763051-92-9	
9Cl-PF3ONS*	Not detected	2.0		ng/L	1.96	756426-58-1	
ADONA*	Not detected	2.0		ng/L	1.96	919005-14-4	
HFPO-DA*	Not detected	9.8		ng/L	1.96	13252-13-6	

Analytical Laboratory Report

Lab Sample ID: S31594.05
Sample Tag: SB-07W
Collected Date/Time: 12/21/2021 11:45
Matrix: Groundwater
COC Reference: 144663

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	15ml Centrifuge Tube	None	Yes	6.0	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Initial wt. (g) / Final wt. (g) / Volume (ml)*	12.74/7.13/11	ASTMD7979-19M	01/04/22 12:30	KCV	

Organics

28 PFAs, Method: ASTMD7979-19M, Run Date: 01/04/22 21:49, Analyst: KCV

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFBA*	Not detected	9.8		ng/L	1.96	375-22-4	
PFPeA*	Not detected	3.9		ng/L	1.96	2706-90-3	
4:2 FTSA*	Not detected	2.0		ng/L	1.96	757124-72-4	
PFHxA*	3.9	2.0		ng/L	1.96	307-24-4	
PFBS*	2.2	2.0		ng/L	1.96	375-73-5	
PFHpA*	3.9	2.0		ng/L	1.96	375-85-9	
PFPeS*	Not detected	2.0		ng/L	1.96	2706-91-4	
6:2 FTSA*	Not detected	3.9		ng/L	1.96	27619-97-2	
PFOA*	13	2.0		ng/L	1.96	335-67-1	
PFHxS*	2.7	2.0		ng/L	1.96	355-46-4	
PFHxS-LN*	2.1	2.0		ng/L	1.96	355-46-4-LN	
PFHxS-BR*	Not detected	2.0		ng/L	1.96	355-46-4-BR	
PFNA*	Not detected	2.0		ng/L	1.96	375-95-1	
8:2 FTSA*	Not detected	3.9		ng/L	1.96	39108-34-4	
PFHpS*	Not detected	2.0		ng/L	1.96	375-92-8	
PFDA*	2.6	2.0		ng/L	1.96	335-76-2	
N-MeFOSAA*	Not detected	2.0		ng/L	1.96	2355-31-9	
EtFOSAA*	Not detected	3.9		ng/L	1.96	2991-50-6	
PFOS*	63	2.0		ng/L	1.96	1763-23-1	
PFOS-LN*	44	2.0		ng/L	1.96	1763-23-1-LN	
PFOS-BR*	19	2.0		ng/L	1.96	1763-23-1-BR	
PFUnDA*	Not detected	2.0		ng/L	1.96	2058-94-8	
PFNS*	Not detected	2.0		ng/L	1.96	68259-12-1	
PFDoDA*	Not detected	2.0		ng/L	1.96	307-55-1	
PFDS*	Not detected	2.0		ng/L	1.96	335-77-3	
PFTrDA*	Not detected	2.0		ng/L	1.96	72629-94-8	
FOSA*	Not detected	2.0		ng/L	1.96	754-91-6	
PFTeDA*	Not detected	3.9		ng/L	1.96	376-06-7	
11Cl-PF3OUdS*	Not detected	2.0		ng/L	1.96	763051-92-9	
9Cl-PF3ONS*	Not detected	2.0		ng/L	1.96	756426-58-1	
ADONA*	Not detected	2.0		ng/L	1.96	919005-14-4	
HFPO-DA*	Not detected	9.8		ng/L	1.96	13252-13-6	

Analytical Laboratory Report

Lab Sample ID: S31594.06
Sample Tag: SB-08W
Collected Date/Time: 12/21/2021 14:25
Matrix: Groundwater
COC Reference: 144663

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	15ml Centrifuge Tube	None	Yes	6.0	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Initial wt. (g) / Final wt. (g) / Volume (ml)*	12.47/7.07/11	ASTMD7979-19M	01/04/22 12:30	KCV	

Organics

28 PFAs, Method: ASTMD7979-19M, Run Date: 01/04/22 22:09, Analyst: KCV

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFBA*	47	10		ng/L	2.04	375-22-4	
PFPeA*	83	4.1		ng/L	2.04	2706-90-3	
4:2 FTSA*	Not detected	2.0		ng/L	2.04	757124-72-4	
PFHxA*	69	2.0		ng/L	2.04	307-24-4	
PFBS*	4.2	2.0		ng/L	2.04	375-73-5	
PFHpA*	67	2.0		ng/L	2.04	375-85-9	
PFPeS*	2.4	2.0		ng/L	2.04	2706-91-4	
6:2 FTSA*	Not detected	4.1		ng/L	2.04	27619-97-2	
PFOA*	130	2.0		ng/L	2.04	335-67-1	
PFHxS*	7.2	2.0		ng/L	2.04	355-46-4	
PFHxS-LN*	5.5	2.0		ng/L	2.04	355-46-4-LN	
PFHxS-BR*	Not detected	2.0		ng/L	2.04	355-46-4-BR	
PFNA*	7.5	2.0		ng/L	2.04	375-95-1	
8:2 FTSA*	Not detected	4.1		ng/L	2.04	39108-34-4	
PFHpS*	Not detected	2.0		ng/L	2.04	375-92-8	
PFDA*	4.7	2.0		ng/L	2.04	335-76-2	
N-MeFOSAA*	Not detected	2.0		ng/L	2.04	2355-31-9	
EtFOSAA*	Not detected	4.1		ng/L	2.04	2991-50-6	
PFOS*	210	2.0		ng/L	2.04	1763-23-1	
PFOS-LN*	150	2.0		ng/L	2.04	1763-23-1-LN	
PFOS-BR*	56	2.0		ng/L	2.04	1763-23-1-BR	
PFUnDA*	Not detected	2.0		ng/L	2.04	2058-94-8	
PFNS*	Not detected	2.0		ng/L	2.04	68259-12-1	
PFDoDA*	Not detected	2.0		ng/L	2.04	307-55-1	
PFDS*	Not detected	2.0		ng/L	2.04	335-77-3	
PFTrDA*	Not detected	2.0		ng/L	2.04	72629-94-8	
FOSA*	8.2	2.0		ng/L	2.04	754-91-6	
PFTeDA*	Not detected	4.1		ng/L	2.04	376-06-7	
11Cl-PF3OUdS*	Not detected	2.0		ng/L	2.04	763051-92-9	
9Cl-PF3ONS*	Not detected	2.0		ng/L	2.04	756426-58-1	
ADONA*	Not detected	2.0		ng/L	2.04	919005-14-4	
HFPO-DA*	Not detected	10		ng/L	2.04	13252-13-6	

Merit Laboratories Login Checklist

Lab Set ID: S31594
Client: MAN&SMITH (The Mannik & Smith Group)
Project: Rock-Tenn A2920001
Submitted: 12/22/2021 16:15 Login User: MMC

Attention: Casey Armstrong
Address: The Mannik & Smith Group
2193 Association Drive, Suite 200
Okemos, MI 48864

Phone: O:517-3169232x160 FAX:
Email: CArmstrong@manniksmithgroup.com

Selection				Description	Note
Sample Receiving					
01.	[X] Yes	[ ] No	[ ] N/A	Samples are received at 4C +/- 2C Thermometer #	IR 6.0
02.	[X] Yes	[ ] No	[ ] N/A	Received on ice/ cooling process begun	
03.	[ ] Yes	[X] No	[ ] N/A	Samples shipped	
04.	[ ] Yes	[X] No	[ ] N/A	Samples left in 24 hr. drop box	
05.	[ ] Yes	[ ] No	[X] N/A	Are there custody seals/tape or is the drop box locked	
Chain of Custody					
06.	[X] Yes	[ ] No	[ ] N/A	COC adequately filled out	
07.	[X] Yes	[ ] No	[ ] N/A	COC signed and relinquished to the lab	
08.	[X] Yes	[ ] No	[ ] N/A	Sample tag on bottles match COC	
09.	[ ] Yes	[X] No	[ ] N/A	Subcontracting needed? Subcontacted to:	
Preservation					
10.	[X] Yes	[ ] No	[ ] N/A	Do sample have correct chemical preservation	
11.	[ ] Yes	[ ] No	[X] N/A	Completed pH checks on preserved samples? (no VOAs)	
12.	[ ] Yes	[X] No	[ ] N/A	Did any samples need to be preserved in the lab?	
Bottle Conditions					
13.	[X] Yes	[ ] No	[ ] N/A	All bottles intact	
14.	[X] Yes	[ ] No	[ ] N/A	Appropriate analytical bottles are used	
15.	[X] Yes	[ ] No	[ ] N/A	Merit bottles used	
16.	[X] Yes	[ ] No	[ ] N/A	Sufficient sample volume received	
17.	[ ] Yes	[X] No	[ ] N/A	Samples require laboratory filtration	
18.	[X] Yes	[ ] No	[ ] N/A	Samples submitted within holding time	
19.	[ ] Yes	[ ] No	[X] N/A	Do water VOC or TOX bottles contain headspace	

Corrective action for all exceptions is to call the client and to notify the project manager.

Client Review By: _____ Date: _____

Merit Laboratories, Inc.
2680 East Lansing Dr., East Lansing, MI 48823
Phone (517) 332-0167 Fax (517) 332-4034
www.meritlabs.com

C.O.C. PAGE # 1 OF 2

144662

CHAIN OF CUSTODY RECORD

REPORT TO

CONTACT NAME: Casey Armstrong
COMPANY: Manik Smith Group
ADDRESS: 2193 Association Dr Ste 200
CITY: Okemos STATE: MI ZIP CODE: 48864
PHONE NO.: 517 316 9232 FAX NO.: — P.O. NO.: A2920001
E-MAIL ADDRESS: CArmstrong@manniksmithgroup.com QUOTE NO.:

INVOICE TO

CONTACT NAME: X SAME
COMPANY:
ADDRESS:
CITY: STATE: ZIP CODE:
PHONE NO.: E-MAIL ADDRESS:

PROJECT NO./NAME: Rock-Fenn A2920001
SAMPLER(S) - PLEASE PRINT/SIGN NAME: CA/KM

TURNAROUND TIME REQUIRED ☐ 1 DAY ☐ 2 DAYS ☐ 3 DAYS ☒ STANDARD ☐ OTHER

DELIVERABLES REQUIRED ☒ STD ☐ LEVEL II ☐ LEVEL III ☐ LEVEL IV ☐ EDD ☐ OTHER

MATRIX CODE: GW=GROUNDWATER WW=WASTEWATER S=SOIL L=LIQUID SD=SOLID SL=SLUDGE DW=DRINKING WATER O=OIL WP=WIPE A=AIR W=WASTE

ANALYSIS (ATTACH LIST IF MORE SPACE IS REQUIRED)

Certifications: ☐ OHIO VAP ☐ Drinking Water ☐ DoD ☐ NPDES

Project Locations: ☐ Detroit ☐ New York ☐ Other

MERIT LAB NO. (FOR LAB USE ONLY)	YEAR DATE	YEAR TIME	SAMPLE TAG IDENTIFICATION-DESCRIPTION	MATRIX	# OF BOTTLES	# Containers & Preservatives: NONE	HCl	HNO_3	H_2SO_4	NaOH	MeOH	OTHER	VOC's	SVOC's	MI 10 MetAls	PCB's	PFAS	Special Instructions
31593.01	12/20	1050	SB-1 23-24	S	2	1					1		X	X	X	X		
.02	12/20	1140	SB-2 19-20	S	2	1					1		X	X	X	X		
.03	12/20	1300	SB-3 3-4	S	2	1					1		X	X	X	X		
.04	12/20	1415	SB-4 5-6	S	2	1					1		X	X	X	X		
.05	12/20	1530	SB-5 0-1	S	2	1					1		X	X	X	X		
.06	12/21	1005	SB-6 2-3	S	2	1					1		X	X	X	X		
.07	12/21	1180	SB-7 1.5-2.5	S	2	1					1		X	X	X	X		
.08	12/21	1420	SB-8 0.5-1.5	S	2	1					1		X	X	X	X		
.09	12/20	1410	SB-03 W	GW	9	5	3	1					X	X	X		X	31594.01 (PFAS)
.10	12/20	1450	SB-04 W	GW	9	5	3	1					X	X	X		X	.02
.11	12/20	1530	SB-05 W	GW	9	5	3	1					X	X	X		X	.03
.12	12/21	1105	SB-06 W	GW	9	5	3	1					X	X	X		X	.04

RELINQUISHED BY: SIGNATURE/ORGANIZATION	X Sampler	DATE 12/22	TIME
RECEIVED BY: SIGNATURE/ORGANIZATION	[signature]	DATE 12/22/21	TIME 1105
RELINQUISHED BY: SIGNATURE/ORGANIZATION		DATE	TIME
RECEIVED BY: SIGNATURE/ORGANIZATION		DATE	TIME

RELINQUISHED BY: SIGNATURE/ORGANIZATION		DATE	TIME
RECEIVED BY: SIGNATURE/ORGANIZATION		DATE	TIME

SEAL NO. SEAL INTACT YES ☐ NO ☐ INITIALS
SEAL NO. SEAL INTACT YES ☐ NO ☐ INITIALS

NOTES: TEMP. ON ARRIVAL 6.0

PLEASE NOTE: SIGNING ACKNOWLEDGES ADHERENCE TO MERIT'S SAMPLE ACCEPTANCE POLICY ON REVERSE SIDE

Rev. 5.18.12

Merit Laboratories, Inc.
2680 East Lansing Dr., East Lansing, MI 48823
Phone (517) 332-0167 Fax (517) 332-4034
www.meritlabs.com

C.O.C. PAGE # 2 OF 2

144663

CHAIN OF CUSTODY RECORD

REPORT TO

CONTACT NAME: Casey Armstrong
COMPANY: Mannik Smith Group
ADDRESS: 2193 Association Drive
CITY: Okemos STATE: MI ZIP CODE: 48864
PHONE NO.: 517 316 9232 FAX NO.:
P.O. NO.: A2920001
E-MAIL ADDRESS: CArmstrong@mannik-smithgroup.com QUOTE NO.: A

INVOICE TO

CONTACT NAME: ☒ SAME
COMPANY:
ADDRESS:
CITY: STATE: ZIP CODE:
PHONE NO.: E-MAIL ADDRESS:

PROJECT NO./NAME: Rock-Tenn A2920001
SAMPLER(S) - PLEASE PRINT/SIGN NAME:

TURNAROUND TIME REQUIRED ☐ 1 DAY ☐ 2 DAYS ☐ 3 DAYS ☒ STANDARD ☐ OTHER

DELIVERABLES REQUIRED ☒ STD ☐ LEVEL II ☐ LEVEL III ☐ LEVEL IV ☐ EDD ☐ OTHER

MATRIX CODE: GW=GROUNDWATER WW=WASTEWATER S=SOIL L=LIQUID SD=SOLID SL=SLUDGE DW=DRINKING WATER O=OIL WP=WIPE A=AIR W=WASTE

ANALYSIS (ATTACH LIST IF MORE SPACE IS REQUIRED)

Certifications: ☐ OHIO VAP ☐ Drinking Water ☐ DoD ☐ NPDES

Project Locations: ☐ Detroit ☐ New York ☐ Other

MERIT LAB NO. (FOR LAB USE ONLY)	YEAR DATE	YEAR TIME	SAMPLE TAG IDENTIFICATION-DESCRIPTION	MATRIX	# OF BOTTLES	# Containers & Preservatives: NONE	HCl	HNO_3	H_2SO_4	NaOH	MeOH	OTHER	VOC's	SVOC's	MI 16 Metals	PCB's	PFAS	Special Instructions
31593.13	12/2	1145	SB-07W	GW	9	5	3	1					X	X	X		X	31594.05
.14	12/2	1425	SB-08W	GW	9	5	3	1					X	X	X		X	.06

RELINQUISHED BY: SIGNATURE/ORGANIZATION		DATE	TIME
	☒ Sampler	12/22	
RECEIVED BY: SIGNATURE/ORGANIZATION		DATE	TIME
		12/22/21	1615
RELINQUISHED BY: SIGNATURE/ORGANIZATION		DATE	TIME
RECEIVED BY: SIGNATURE/ORGANIZATION		DATE	TIME

RELINQUISHED BY: SIGNATURE/ORGANIZATION	DATE	TIME
RECEIVED BY: SIGNATURE/ORGANIZATION	DATE	TIME

SEAL NO.	SEAL INTACT YES ☐ NO ☐	INITIALS
SEAL NO.	SEAL INTACT YES ☐ NO ☐	INITIALS

NOTES: TEMP. ON ARRIVAL 6.0

PLEASE NOTE: SIGNING ACKNOWLEDGES ADHERENCE TO MERIT'S SAMPLE ACCEPTANCE POLICY ON REVERSE SIDE

Rev. 5.18.12

Analytical Laboratory Report

Supplemental Report

Report ID: S31592.01(03)
Generated on 01/19/2022
Replaces report S31592.01(02) generated on 01/13/2022

Report to

Attention: Casey Armstrong
The Mannik & Smith Group
2193 Association Drive, Suite 200
Okemos, MI 48864

Phone: O:517-3169232x1603C:5175072335 FAX:
Email: CArmstrong@manniksmithgroup.com

Report produced by

Merit Laboratories, Inc.
2680 East Lansing Drive
East Lansing, MI 48823

Phone: (517) 332-0167 FAX: (517) 332-6333

Contacts for report questions:
John Laverty (johnlaverty@meritlabs.com)
Barbara Ball (bball@meritlabs.com)

Report Summary

Lab Sample ID(s): S31592.01-S31592.02
Project: Rock-Tenn A2920001
Collected Date(s): 12/21/2021
Submitted Date/Time: 12/22/2021 16:15
Sampled by: KM
P.O. #:

Table of Contents

Maya Murshak
Technical Director

General Report Notes

Analytical results relate only to the samples tested, in the condition received by the laboratory.
Methods may be modified for improved performance.
Results reported on a dry weight basis where applicable.
'Not detected' indicates that parameter was not found at a level equal to or greater than the reporting limit (RL).
When MDL results are provided, then 'Not detected' indicates that parameter was not found at a level equal to or greater than the MDL.
40 CFR Part 136 Table II Required Containers, Preservation Techniques and Holding Times for the Clean Water Act specify that samples for acrolein and acrylonitrile need to be preserved at a pH in the range of 4 to 5 or if not preserved, analyzed within 3 days of sampling.
QA/QC corresponding to this analytical report is a separate document with the same Merit ID reference and is available upon request.
Full accreditation certificates are available upon request. Starred (*) analytes are not NELAP accredited.
Samples are held by the lab for 30 days from the final report date unless a written request to hold longer is provided by the client.

Limits for drinking water samples, are listed as the MCL Limits (Maximum Contaminant Level Concentrations)
PFAS requirement: Section 9.3.8 of U.S. EPA Method 537.1 states "If the method analyte(s) found in the Field Sample is present in the FRB at a concentration greater than 1/3 the MRL, then all samples collected with that FRB are invalid and must be recollected and reanalyzed."
Samples submitted without an accompanying FRB may not be acceptable for compliance purposes.
Wisconsin PFAs analysis: MDL = LOD; RL = LOQ. LOD and LOQ are adjusted for dilution.

Report Narrative

Mercury rerun on sample .01 per client request

Laboratory Certifications

Authority	Certification ID
Michigan DEQ	#9956
DOD ELAP/ISO 17025	#69699
WBENC	#2005110032
Ohio VAP	#CL0002
Indiana DOH	#C-MI-07
New York NELAC	#11814
North Carolina DENR	#680
North Carolina DOH	#26702
Alaska CSLAP	#17-001
Pennsylvania DEP	#68-05884
Wisconsin DNR	FID# 399147320

Qualifier Descriptions

Qualifier	Description
!	Result is outside of stated limit criteria
B	Compound also found in associated method blank
E	Concentration exceeds calibration range
F	Analysis run outside of holding time
G	Estimated result due to extraction run outside of holding time
H	Sample submitted and run outside of holding time
I	Matrix interference with internal standard
J	Estimated value less than reporting limit, but greater than MDL
L	Elevated reporting limit due to low sample amount
M	Result reported to MDL not RDL
O	Analysis performed by outside laboratory. See attached report.
R	Preliminary result
S	Surrogate recovery outside of control limits
T	No correction for total solids
X	Elevated reporting limit due to matrix interference
Y	Elevated reporting limit due to high target concentration
b	Value detected less than reporting limit, but greater than MDL
e	Reported value estimated due to interference
j	Analyte also found in associated method blank
p	Benzo(b)Fluoranthene and Benzo(k)Fluoranthene integrated as one peak.
x	Preserved from bulk sample

Glossary of Abbreviations

Abbreviation	Description
RL/RDL	Reporting Limit
MDL	Method Detection Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
SW	EPA SW 846 (Soil and Wastewater) Methods
E	EPA Methods
SM	Standard Methods
LN	Linear
BR	Branched

Method Summary

Method	Version
SM2540B	Standard Method 2540 B 2011
SW3050B	SW 846 Method 3050B Revision 2 December 1996
SW3546	SW 846 Method 3546 Revision 0 February 2007
SW5035A	SW 846 Method 5035A Revision 1 July 2002
SW5035A/8260C	SW 846 Method 8260C Revision 3 August 2006 / 5035A Revision 1 July 2002
SW6020A	SW 846 Method 6020A Revision 1 February 2007
SW7471B	SW 846 Method 7471B Revision 2 February 2007
SW8082A	SW 846 Method 8082A Revision 1 February 2007
SW8270D	SW 846 Method 8270D Revision 4 February 2007

Sample Summary (2 samples)

Sample ID	Sample Tag	Matrix	Collected Date/Time
S31592.01	Stockpile West_Comp	Soil	12/21/21 13:00
S31592.02	Stockpile East_Comp	Soil	12/21/21 13:15

Lab Sample ID: S31592.01
Sample Tag: Stockpile West_Comp
Collected Date/Time: 12/21/2021 13:00
Matrix: Soil
COC Reference: 144664

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	4oz Glass	None	Yes	6.0	IR
1	40ml Glass	MeOH	Yes	6.0	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Metal Digestion	Completed	SW3050B	01/03/22 13:30	JRH	
BNA Extraction*	Completed	SW3546	12/28/21 13:40	JW	
Extraction, PCB*	Completed	SW3546	12/23/21 12:00	JW	
Sample wt. (g) / Methanol (ml)*	10.369/10	SW5035A	12/23/21 11:18	REC	
Sample wt. (g) / Methanol (ml) (Replicate 01)*	10.010/10	SW5035A	01/11/22 10:00	BML	
Mercury Digestion	Completed	SW7471B	01/04/22 10:15	JRH	
Mercury Digestion (Replicate 01)	Completed	SW7471B	01/18/22 08:30	JRH	
Mercury Digestion (Replicate 02)	Completed	SW7471B	01/18/22 08:30	JRH	

Inorganics

Method: SM2540B, Run Date: 12/23/21 17:00, Analyst: MAM

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Total Solids*	92	1		%	1		

Metals

Method: SW6020A, Run Date: 01/03/22 15:59, Analyst: JRH

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Arsenic	2.50	0.20		mg/kg	246	7440-38-2	
Barium	194	1.0		mg/kg	246	7440-39-3	
Cadmium	Not detected	0.20		mg/kg	246	7440-43-9	
Chromium	2.45	0.50		mg/kg	246	7440-47-3	
Copper	19.7	0.50		mg/kg	246	7440-50-8	
Lead	62.1	0.30		mg/kg	246	7439-92-1	
Selenium	Not detected	0.40		mg/kg	246	7782-49-2	
Silver	Not detected	0.20		mg/kg	246	7440-22-4	
Zinc	84.5	0.50		mg/kg	246	7440-66-6	

Method: SW7471B, Run Date: 01/04/22 15:51, Analyst: JRH

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Mercury	0.246	0.050		mg/kg	66	7439-97-6	

Method: SW7471B, Run Date: 01/18/22 13:46, Analyst: JRH

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Mercury (Replicate 01)	0.275	0.050		mg/kg	63		

Method: SW7471B, Run Date: 01/18/22 13:49, Analyst: JRH

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Mercury (Replicate 02)	0.261	0.050		mg/kg	60		

Lab Sample ID: S31592.01 (continued)
Sample Tag: Stockpile West_Comp

Organics - PCBs/Pesticides

PCB List, Method: SW8082A, Run Date: 12/23/21 19:11, Analyst: JANB

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PCB-1016	Not detected	330		ug/kg	10	12674-11-2	
PCB-1242	Not detected	330		ug/kg	10	53469-21-9	
PCB-1221	Not detected	330		ug/kg	10	11104-28-2	
PCB-1232	Not detected	330		ug/kg	10	11141-16-5	
PCB-1248	Not detected	330		ug/kg	10	12672-29-6	
PCB-1254	Not detected	330		ug/kg	10	11097-69-1	
PCB-1260	Not detected	330		ug/kg	10	11096-82-5	

Organics - Semi-Volatiles

Semi-Volatile Organics - MDEQ, Method: SW8270D, Run Date: 01/03/22 20:17, Analyst: PL

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acenaphthene	Not detected	330		ug/kg	7.5	83-32-9	
Acenaphthylene	Not detected	330		ug/kg	7.5	208-96-8	
Anthracene	Not detected	330		ug/kg	7.5	120-12-7	
Benzo(a)anthracene	Not detected	330		ug/kg	7.5	56-55-3	
Benzo(b)fluoranthene	Not detected	330		ug/kg	7.5	205-99-2	
Benzo(k)fluoranthene	Not detected	330		ug/kg	7.5	207-08-9	
Benzo(ghi)perylene	Not detected	330		ug/kg	7.5	191-24-2	
Benzo(a)pyrene	Not detected	330		ug/kg	7.5	50-32-8	
bis(2-Chloroethoxy)methane	Not detected	330		ug/kg	7.5	111-91-1	
bis(2-Chloroethyl)ether	Not detected	330		ug/kg	7.5	111-44-4	
bis(2-Chloroisopropyl)ether*	Not detected	330		ug/kg	7.5	108-60-1	
bis(2-Ethylhexyl)phthalate	Not detected	330		ug/kg	7.5	117-81-7	
4-Bromophenyl phenyl ether	Not detected	330		ug/kg	7.5	101-55-3	
Butyl benzyl phthalate	Not detected	330		ug/kg	7.5	85-68-7	
4-Chloroaniline	Not detected	330		ug/kg	7.5	106-47-8	
2-Chloronaphthalene	Not detected	330		ug/kg	7.5	91-58-7	
4-Chloro-3-methylphenol	Not detected	280		ug/kg	7.5	59-50-7	
2-Chlorophenol	Not detected	330		ug/kg	7.5	95-57-8	
4-Chlorophenyl phenyl ether	Not detected	330		ug/kg	7.5	7005-72-3	
Chrysene	Not detected	330		ug/kg	7.5	218-01-9	
3-, 4-Methylphenol (p,m-Cresol)	Not detected	330		ug/kg	7.5	3/4-CRESOL	
2-Methylphenol (o-Cresol)	Not detected	330		ug/kg	7.5	95-48-7	
Dibenzo(ah)anthracene	Not detected	330		ug/kg	7.5	53-70-3	
Dibenzofuran	Not detected	330		ug/kg	7.5	132-64-9	
di-n-Butyl phthalate	Not detected	330		ug/kg	7.5	84-74-2	
1,2-Dichlorobenzene*	Not detected	330		ug/kg	7.5	95-50-1	
1,3-Dichlorobenzene	Not detected	330		ug/kg	7.5	541-73-1	
1,4-Dichlorobenzene	Not detected	330		ug/kg	7.5	106-46-7	
3,3'-Dichlorobenzidine	Not detected	2,000		ug/kg	7.5	91-94-1	
2,4-Dichlorophenol	Not detected	330		ug/kg	7.5	120-83-2	
Diethyl phthalate	Not detected	330		ug/kg	7.5	84-66-2	
2,4-Dimethylphenol	Not detected	330		ug/kg	7.5	105-67-9	
Dimethyl phthalate	Not detected	330		ug/kg	7.5	131-11-3	
4,6-Dinitro-2-methylphenol	Not detected	830		ug/kg	7.5	534-52-1	
2,4-Dinitrophenol	Not detected	830		ug/kg	7.5	51-28-5	
2,4-Dinitrotoluene	Not detected	330		ug/kg	7.5	121-14-2	
2,6-Dinitrotoluene	Not detected	330		ug/kg	7.5	606-20-2	
1,2-Diphenylhydrazine	Not detected	330		ug/kg	7.5	122-66-7	

Lab Sample ID: S31592.01 (continued)
Sample Tag: Stockpile West_Comp

Semi-Volatile Organics - MDEQ, Method: SW8270D, Run Date: 01/03/22 20:17, Analyst: PL (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
di-n-Octyl phthalate	Not detected	330		ug/kg	7.5	117-84-0	
Fluoranthene	Not detected	330		ug/kg	7.5	206-44-0	
Fluorene	Not detected	330		ug/kg	7.5	86-73-7	
Hexachlorobenzene	Not detected	330		ug/kg	7.5	118-74-1	
Hexachlorobutadiene	Not detected	330		ug/kg	7.5	87-68-3	
Hexachlorocyclopentadiene	Not detected	330		ug/kg	7.5	77-47-4	
Hexachloroethane	Not detected	330		ug/kg	7.5	67-72-1	
Indeno(1,2,3-cd)pyrene	Not detected	330		ug/kg	7.5	193-39-5	
Isophorone	Not detected	330		ug/kg	7.5	78-59-1	
2-Methylnaphthalene	Not detected	330		ug/kg	7.5	91-57-6	
Naphthalene	Not detected	330		ug/kg	7.5	91-20-3	
2-Nitroaniline	Not detected	830		ug/kg	7.5	88-74-4	
3-Nitroaniline	Not detected	830		ug/kg	7.5	99-09-2	
4-Nitroaniline	Not detected	830		ug/kg	7.5	100-01-6	
Nitrobenzene	Not detected	330		ug/kg	7.5	98-95-3	
2-Nitrophenol	Not detected	330		ug/kg	7.5	88-75-5	
4-Nitrophenol	Not detected	830		ug/kg	7.5	100-02-7	
N-Nitrosodiphenylamine	Not detected	330		ug/kg	7.5	86-30-6	
N-Nitrosodi-n-propylamine	Not detected	330		ug/kg	7.5	621-64-7	
Pentachlorophenol	Not detected	330		ug/kg	7.5	87-86-5	
Phenanthrene	Not detected	330		ug/kg	7.5	85-01-8	
Phenol	Not detected	330		ug/kg	7.5	108-95-2	
Pyrene	Not detected	330		ug/kg	7.5	129-00-0	
1,2,4-Trichlorobenzene	Not detected	330		ug/kg	7.5	120-82-1	
2,4,5-Trichlorophenol	Not detected	330		ug/kg	7.5	95-95-4	
2,4,6-Trichlorophenol	Not detected	330		ug/kg	7.5	88-06-2	

Organics - Volatiles

Method: SW5035A/8260C, Run Date: 01/11/22 13:28, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Tetrachloroethene	Not detected	60		ug/kg	56.8	127-18-4	xF

Method: SW5035A/8260C, Run Date: 01/11/22 13:52, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Tetrachloroethene (Replicate 01)	Not detected	60		ug/kg	56.8		xF

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 12/29/21 03:24, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	200		ug/kg	56.8	60-29-7	
Acetone	Not detected	1,000		ug/kg	56.8	67-64-1	
Methyl iodide	Not detected	100		ug/kg	56.8	74-88-4	
Carbon disulfide	Not detected	300		ug/kg	56.8	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	200		ug/kg	56.8	1634-04-4	
Acrylonitrile	Not detected	100		ug/kg	56.8	107-13-1	
2-Butanone (MEK)	Not detected	850		ug/kg	56.8	78-93-3	
Dichlorodifluoromethane	Not detected	300		ug/kg	56.8	75-71-8	
Chloromethane	Not detected	300		ug/kg	56.8	74-87-3	
Vinyl chloride	Not detected	60		ug/kg	56.8	75-01-4	
Bromomethane	Not detected	200		ug/kg	56.8	74-83-9	

x-Preserved from bulk sample F-Analysis run outside of holding time

Lab Sample ID: S31592.01 (continued)
Sample Tag: Stockpile West_Comp

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 12/29/21 03:24, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Chloroethane	Not detected	300		ug/kg	56.8	75-00-3	
Trichlorofluoromethane	Not detected	100		ug/kg	56.8	75-69-4	
1,1-Dichloroethene	Not detected	60		ug/kg	56.8	75-35-4	
Methylene chloride	Not detected	100		ug/kg	56.8	75-09-2	
trans-1,2-Dichloroethene	Not detected	60		ug/kg	56.8	156-60-5	
1,1-Dichloroethane	Not detected	60		ug/kg	56.8	75-34-3	
cis-1,2-Dichloroethene	Not detected	60		ug/kg	56.8	156-59-2	
Tetrahydrofuran*	Not detected	1,000		ug/kg	56.8	109-99-9	
Chloroform	Not detected	60		ug/kg	56.8	67-66-3	
Bromochloromethane	Not detected	100		ug/kg	56.8	74-97-5	
1,1,1-Trichloroethane	Not detected	60		ug/kg	56.8	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	3,000		ug/kg	56.8	108-10-1	
2-Hexanone	Not detected	3,000		ug/kg	56.8	591-78-6	
Carbon tetrachloride	Not detected	60		ug/kg	56.8	56-23-5	
Benzene	Not detected	60		ug/kg	56.8	71-43-2	
1,2-Dichloroethane	Not detected	60		ug/kg	56.8	107-06-2	
Trichloroethene	Not detected	60		ug/kg	56.8	79-01-6	
1,2-Dichloropropane	Not detected	60		ug/kg	56.8	78-87-5	
Bromodichloromethane	Not detected	100		ug/kg	56.8	75-27-4	
Dibromomethane	Not detected	300		ug/kg	56.8	74-95-3	
cis-1,3-Dichloropropene	Not detected	60		ug/kg	56.8	10061-01-5	
Toluene	Not detected	60		ug/kg	56.8	108-88-3	
trans-1,3-Dichloropropene	Not detected	60		ug/kg	56.8	10061-02-6	
1,1,2-Trichloroethane	Not detected	60		ug/kg	56.8	79-00-5	
Tetrachloroethene	140	60		ug/kg	56.8	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	60		ug/kg	56.8	110-57-6	
Dibromochloromethane	Not detected	100		ug/kg	56.8	124-48-1	
1,2-Dibromoethane	Not detected	20		ug/kg	56.8	106-93-4	M
Chlorobenzene	Not detected	60		ug/kg	56.8	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	100		ug/kg	56.8	630-20-6	
Ethylbenzene	Not detected	60		ug/kg	56.8	100-41-4	
p,m-Xylene	Not detected	100		ug/kg	56.8		
o-Xylene	Not detected	60		ug/kg	56.8	95-47-6	
Styrene	Not detected	60		ug/kg	56.8	100-42-5	
Isopropylbenzene	Not detected	300		ug/kg	56.8	98-82-8	
Bromoform	Not detected	100		ug/kg	56.8	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	60		ug/kg	56.8	79-34-5	
1,2,3-Trichloropropane	Not detected	100		ug/kg	56.8	96-18-4	
n-Propylbenzene	Not detected	60		ug/kg	56.8	103-65-1	
Bromobenzene	Not detected	100		ug/kg	56.8	108-86-1	
1,3,5-Trimethylbenzene	Not detected	60		ug/kg	56.8	108-67-8	
tert-Butylbenzene	Not detected	60		ug/kg	56.8	98-06-6	
1,2,4-Trimethylbenzene	Not detected	60		ug/kg	56.8	95-63-6	
sec-Butylbenzene	Not detected	60		ug/kg	56.8	135-98-8	
p-Isopropyltoluene	Not detected	100		ug/kg	56.8	99-87-6	
1,3-Dichlorobenzene	Not detected	100		ug/kg	56.8	541-73-1	
1,4-Dichlorobenzene	Not detected	100		ug/kg	56.8	106-46-7	
1,2-Dichlorobenzene	Not detected	100		ug/kg	56.8	95-50-1	
1,2,3-Trimethylbenzene	Not detected	60		ug/kg	56.8	526-73-8	

M-Result reported to MDL not RDL

Lab Sample ID: S31592.01 (continued)

Sample Tag: Stockpile West_Comp

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 12/29/21 03:24, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
n-Butylbenzene	Not detected	60		ug/kg	56.8	104-51-8	
Hexachloroethane	Not detected	300		ug/kg	56.8	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	300		ug/kg	56.8	96-12-8	
1,2,4-Trichlorobenzene	Not detected	370		ug/kg	56.8	120-82-1	
1,2,3-Trichlorobenzene	Not detected	370		ug/kg	56.8	87-61-6	
Naphthalene	Not detected	300		ug/kg	56.8	91-20-3	
2-Methylnaphthalene	Not detected	100		ug/kg	56.8	91-57-6	

Lab Sample ID: S31592.02
Sample Tag: Stockpile East_Comp
Collected Date/Time: 12/21/2021 13:15
Matrix: Soil
COC Reference: 144664

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	4oz Glass	None	Yes	6.0	IR
1	40ml Glass	MeOH	Yes	6.0	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Metal Digestion	Completed	SW3050B	01/03/22 13:30	JRH	
BNA Extraction*	Completed	SW3546	12/28/21 13:40	JW	
Extraction, PCB*	Completed	SW3546	12/23/21 12:00	JW	
Sample wt. (g) / Methanol (ml)*	9.797/10	SW5035A	12/23/21 11:18	REC	
Mercury Digestion	Completed	SW7471B	01/04/22 10:15	JRH	

Inorganics

Method: SM2540B, Run Date: 12/23/21 17:00, Analyst: MAM

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Total Solids*	89	1		%	1		

Metals

Method: SW6020A, Run Date: 01/03/22 16:01, Analyst: JRH

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Arsenic	1.64	0.20		mg/kg	253	7440-38-2	
Barium	23.1	1.0		mg/kg	253	7440-39-3	
Cadmium	Not detected	0.20		mg/kg	253	7440-43-9	
Chromium	2.10	0.50		mg/kg	253	7440-47-3	
Copper	4.33	0.50		mg/kg	253	7440-50-8	
Lead	12.2	0.30		mg/kg	253	7439-92-1	
Selenium	Not detected	0.40		mg/kg	253	7782-49-2	
Silver	Not detected	0.20		mg/kg	253	7440-22-4	
Zinc	20.2	0.50		mg/kg	253	7440-66-6	

Method: SW7471B, Run Date: 01/04/22 15:54, Analyst: JRH

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Mercury	Not detected	0.050		mg/kg	67	7439-97-6	

Organics - PCBs/Pesticides

PCB List, Method: SW8082A, Run Date: 12/23/21 19:23, Analyst: JANB

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PCB-1016	Not detected	330		ug/kg	10	12674-11-2	
PCB-1242	Not detected	330		ug/kg	10	53469-21-9	
PCB-1221	Not detected	330		ug/kg	10	11104-28-2	
PCB-1232	Not detected	330		ug/kg	10	11141-16-5	
PCB-1248	Not detected	330		ug/kg	10	12672-29-6	
PCB-1254	Not detected	330		ug/kg	10	11097-69-1	
PCB-1260	Not detected	330		ug/kg	10	11096-82-5	

Lab Sample ID: S31592.02 (continued)
Sample Tag: Stockpile East_Comp

Organics - Semi-Volatiles

Semi-Volatile Organics - MDEQ, Method: SW8270D, Run Date: 01/03/22 20:47, Analyst: PL

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acenaphthene	Not detected	330		ug/kg	7.5	83-32-9	
Acenaphthylene	Not detected	330		ug/kg	7.5	208-96-8	
Anthracene	Not detected	330		ug/kg	7.5	120-12-7	
Benzo(a)anthracene	Not detected	330		ug/kg	7.5	56-55-3	
Benzo(b)fluoranthene	Not detected	330		ug/kg	7.5	205-99-2	
Benzo(k)fluoranthene	Not detected	330		ug/kg	7.5	207-08-9	
Benzo(ghi)perylene	Not detected	330		ug/kg	7.5	191-24-2	
Benzo(a)pyrene	Not detected	330		ug/kg	7.5	50-32-8	
bis(2-Chloroethoxy)methane	Not detected	330		ug/kg	7.5	111-91-1	
bis(2-Chloroethyl)ether	Not detected	330		ug/kg	7.5	111-44-4	
bis(2-Chloroisopropyl)ether*	Not detected	330		ug/kg	7.5	108-60-1	
bis(2-Ethylhexyl)phthalate	Not detected	330		ug/kg	7.5	117-81-7	
4-Bromophenyl phenyl ether	Not detected	330		ug/kg	7.5	101-55-3	
Butyl benzyl phthalate	Not detected	330		ug/kg	7.5	85-68-7	
4-Chloroaniline	Not detected	330		ug/kg	7.5	106-47-8	
2-Chloronaphthalene	Not detected	330		ug/kg	7.5	91-58-7	
4-Chloro-3-methylphenol	Not detected	280		ug/kg	7.5	59-50-7	
2-Chlorophenol	Not detected	330		ug/kg	7.5	95-57-8	
4-Chlorophenyl phenyl ether	Not detected	330		ug/kg	7.5	7005-72-3	
Chrysene	Not detected	330		ug/kg	7.5	218-01-9	
3-, 4-Methylphenol (p,m-Cresol)	Not detected	330		ug/kg	7.5	3/4-CRESOL	
2-Methylphenol (o-Cresol)	Not detected	330		ug/kg	7.5	95-48-7	
Dibenzo(ah)anthracene	Not detected	330		ug/kg	7.5	53-70-3	
Dibenzofuran	Not detected	330		ug/kg	7.5	132-64-9	
di-n-Butyl phthalate	Not detected	330		ug/kg	7.5	84-74-2	
1,2-Dichlorobenzene*	Not detected	330		ug/kg	7.5	95-50-1	
1,3-Dichlorobenzene	Not detected	330		ug/kg	7.5	541-73-1	
1,4-Dichlorobenzene	Not detected	330		ug/kg	7.5	106-46-7	
3,3'-Dichlorobenzidine	Not detected	2,000		ug/kg	7.5	91-94-1	
2,4-Dichlorophenol	Not detected	330		ug/kg	7.5	120-83-2	
Diethyl phthalate	Not detected	330		ug/kg	7.5	84-66-2	
2,4-Dimethylphenol	Not detected	330		ug/kg	7.5	105-67-9	
Dimethyl phthalate	Not detected	330		ug/kg	7.5	131-11-3	
4,6-Dinitro-2-methylphenol	Not detected	830		ug/kg	7.5	534-52-1	
2,4-Dinitrophenol	Not detected	830		ug/kg	7.5	51-28-5	
2,4-Dinitrotoluene	Not detected	330		ug/kg	7.5	121-14-2	
2,6-Dinitrotoluene	Not detected	330		ug/kg	7.5	606-20-2	
1,2-Diphenylhydrazine	Not detected	330		ug/kg	7.5	122-66-7	
di-n-Octyl phthalate	Not detected	330		ug/kg	7.5	117-84-0	
Fluoranthene	Not detected	330		ug/kg	7.5	206-44-0	
Fluorene	Not detected	330		ug/kg	7.5	86-73-7	
Hexachlorobenzene	Not detected	330		ug/kg	7.5	118-74-1	
Hexachlorobutadiene	Not detected	330		ug/kg	7.5	87-68-3	
Hexachlorocyclopentadiene	Not detected	330		ug/kg	7.5	77-47-4	
Hexachloroethane	Not detected	330		ug/kg	7.5	67-72-1	
Indeno(1,2,3-cd)pyrene	Not detected	330		ug/kg	7.5	193-39-5	
Isophorone	Not detected	330		ug/kg	7.5	78-59-1	
2-Methylnaphthalene	Not detected	330		ug/kg	7.5	91-57-6	
Naphthalene	Not detected	330		ug/kg	7.5	91-20-3	

Lab Sample ID: S31592.02 (continued)
Sample Tag: Stockpile East_Comp

Semi-Volatile Organics - MDEQ, Method: SW8270D, Run Date: 01/03/22 20:47, Analyst: PL (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
2-Nitroaniline	Not detected	830		ug/kg	7.5	88-74-4	
3-Nitroaniline	Not detected	830		ug/kg	7.5	99-09-2	
4-Nitroaniline	Not detected	830		ug/kg	7.5	100-01-6	
Nitrobenzene	Not detected	330		ug/kg	7.5	98-95-3	
2-Nitrophenol	Not detected	330		ug/kg	7.5	88-75-5	
4-Nitrophenol	Not detected	830		ug/kg	7.5	100-02-7	
N-Nitrosodiphenylamine	Not detected	330		ug/kg	7.5	86-30-6	
N-Nitrosodi-n-propylamine	Not detected	330		ug/kg	7.5	621-64-7	
Pentachlorophenol	Not detected	330		ug/kg	7.5	87-86-5	
Phenanthrene	Not detected	330		ug/kg	7.5	85-01-8	
Phenol	Not detected	330		ug/kg	7.5	108-95-2	
Pyrene	Not detected	330		ug/kg	7.5	129-00-0	
1,2,4-Trichlorobenzene	Not detected	330		ug/kg	7.5	120-82-1	
2,4,5-Trichlorophenol	Not detected	330		ug/kg	7.5	95-95-4	
2,4,6-Trichlorophenol	Not detected	330		ug/kg	7.5	88-06-2	

Organics - Volatiles

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 12/29/21 03:47, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	300		ug/kg	63.5	60-29-7	
Acetone	Not detected	1,000		ug/kg	63.5	67-64-1	
Methyl iodide	Not detected	100		ug/kg	63.5	74-88-4	
Carbon disulfide	Not detected	300		ug/kg	63.5	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	300		ug/kg	63.5	1634-04-4	
Acrylonitrile	Not detected	100		ug/kg	63.5	107-13-1	
2-Butanone (MEK)	Not detected	950		ug/kg	63.5	78-93-3	
Dichlorodifluoromethane	Not detected	300		ug/kg	63.5	75-71-8	
Chloromethane	Not detected	300		ug/kg	63.5	74-87-3	
Vinyl chloride	Not detected	60		ug/kg	63.5	75-01-4	
Bromomethane	Not detected	300		ug/kg	63.5	74-83-9	
Chloroethane	Not detected	300		ug/kg	63.5	75-00-3	
Trichlorofluoromethane	Not detected	100		ug/kg	63.5	75-69-4	
1,1-Dichloroethene	Not detected	60		ug/kg	63.5	75-35-4	
Methylene chloride	Not detected	100		ug/kg	63.5	75-09-2	
trans-1,2-Dichloroethene	Not detected	60		ug/kg	63.5	156-60-5	
1,1-Dichloroethane	Not detected	60		ug/kg	63.5	75-34-3	
cis-1,2-Dichloroethene	Not detected	60		ug/kg	63.5	156-59-2	
Tetrahydrofuran*	Not detected	1,000		ug/kg	63.5	109-99-9	
Chloroform	Not detected	60		ug/kg	63.5	67-66-3	
Bromochloromethane	Not detected	100		ug/kg	63.5	74-97-5	
1,1,1-Trichloroethane	Not detected	60		ug/kg	63.5	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	3,000		ug/kg	63.5	108-10-1	
2-Hexanone	Not detected	3,000		ug/kg	63.5	591-78-6	
Carbon tetrachloride	Not detected	60		ug/kg	63.5	56-23-5	
Benzene	Not detected	60		ug/kg	63.5	71-43-2	
1,2-Dichloroethane	Not detected	60		ug/kg	63.5	107-06-2	
Trichloroethene	Not detected	60		ug/kg	63.5	79-01-6	
1,2-Dichloropropane	Not detected	60		ug/kg	63.5	78-87-5	
Bromodichloromethane	Not detected	100		ug/kg	63.5	75-27-4	
Dibromomethane	Not detected	300		ug/kg	63.5	74-95-3	

Lab Sample ID: S31592.02 (continued)
Sample Tag: Stockpile East_Comp

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 12/29/21 03:47, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
cis-1,3-Dichloropropene	Not detected	60		ug/kg	63.5	10061-01-5	
Toluene	Not detected	60		ug/kg	63.5	108-88-3	
trans-1,3-Dichloropropene	Not detected	60		ug/kg	63.5	10061-02-6	
1,1,2-Trichloroethane	Not detected	60		ug/kg	63.5	79-00-5	
Tetrachloroethene	Not detected	60		ug/kg	63.5	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	60		ug/kg	63.5	110-57-6	
Dibromochloromethane	Not detected	100		ug/kg	63.5	124-48-1	
1,2-Dibromoethane	Not detected	30		ug/kg	63.5	106-93-4	M
Chlorobenzene	Not detected	60		ug/kg	63.5	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	100		ug/kg	63.5	630-20-6	
Ethylbenzene	Not detected	60		ug/kg	63.5	100-41-4	
p,m-Xylene	Not detected	100		ug/kg	63.5		
o-Xylene	Not detected	60		ug/kg	63.5	95-47-6	
Styrene	Not detected	60		ug/kg	63.5	100-42-5	
Isopropylbenzene	Not detected	300		ug/kg	63.5	98-82-8	
Bromoform	Not detected	100		ug/kg	63.5	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	60		ug/kg	63.5	79-34-5	
1,2,3-Trichloropropane	Not detected	100		ug/kg	63.5	96-18-4	
n-Propylbenzene	Not detected	60		ug/kg	63.5	103-65-1	
Bromobenzene	Not detected	100		ug/kg	63.5	108-86-1	
1,3,5-Trimethylbenzene	Not detected	60		ug/kg	63.5	108-67-8	
tert-Butylbenzene	Not detected	60		ug/kg	63.5	98-06-6	
1,2,4-Trimethylbenzene	Not detected	60		ug/kg	63.5	95-63-6	
sec-Butylbenzene	Not detected	60		ug/kg	63.5	135-98-8	
p-Isopropyltoluene	Not detected	100		ug/kg	63.5	99-87-6	
1,3-Dichlorobenzene	Not detected	100		ug/kg	63.5	541-73-1	
1,4-Dichlorobenzene	Not detected	100		ug/kg	63.5	106-46-7	
1,2-Dichlorobenzene	Not detected	100		ug/kg	63.5	95-50-1	
1,2,3-Trimethylbenzene	Not detected	60		ug/kg	63.5	526-73-8	
n-Butylbenzene	Not detected	60		ug/kg	63.5	104-51-8	
Hexachloroethane	Not detected	400		ug/kg	63.5	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	300		ug/kg	63.5	96-12-8	
1,2,4-Trichlorobenzene	Not detected	420		ug/kg	63.5	120-82-1	
1,2,3-Trichlorobenzene	Not detected	420		ug/kg	63.5	87-61-6	
Naphthalene	Not detected	300		ug/kg	63.5	91-20-3	
2-Methylnaphthalene	Not detected	100		ug/kg	63.5	91-57-6	

M-Result reported to MDL not RDL

Merit Laboratories Login Checklist

Lab Set ID: S31592
Client: MAN&SMITH (The Mannik & Smith Group)
Project: Rock-Tenn A2920001
Submitted: 12/22/2021 16:15 Login User: MMC

Attention: Casey Armstrong
Address: The Mannik & Smith Group
2193 Association Drive, Suite 200
Okemos, MI 48864

Phone: O:517-3169232x160 FAX:
Email: CArmstrong@manniksmithgroup.com

Selection				Description	Note
Sample Receiving					
01.	[X] Yes	[ ] No	[ ] N/A	Samples are received at 4C +/- 2C Thermometer #	IR 6.0
02.	[X] Yes	[ ] No	[ ] N/A	Received on ice/ cooling process begun	
03.	[ ] Yes	[X] No	[ ] N/A	Samples shipped	
04.	[ ] Yes	[X] No	[ ] N/A	Samples left in 24 hr. drop box	
05.	[ ] Yes	[ ] No	[X] N/A	Are there custody seals/tape or is the drop box locked	
Chain of Custody					
06.	[X] Yes	[ ] No	[ ] N/A	COC adequately filled out	
07.	[X] Yes	[ ] No	[ ] N/A	COC signed and relinquished to the lab	
08.	[X] Yes	[ ] No	[ ] N/A	Sample tag on bottles match COC	
09.	[ ] Yes	[X] No	[ ] N/A	Subcontracting needed? Subcontacted to:	
Preservation					
10.	[X] Yes	[ ] No	[ ] N/A	Do sample have correct chemical preservation	
11.	[ ] Yes	[ ] No	[X] N/A	Completed pH checks on preserved samples? (no VOAs)	
12.	[ ] Yes	[X] No	[ ] N/A	Did any samples need to be preserved in the lab?	
Bottle Conditions					
13.	[X] Yes	[ ] No	[ ] N/A	All bottles intact	
14.	[X] Yes	[ ] No	[ ] N/A	Appropriate analytical bottles are used	
15.	[X] Yes	[ ] No	[ ] N/A	Merit bottles used	
16.	[X] Yes	[ ] No	[ ] N/A	Sufficient sample volume received	
17.	[ ] Yes	[X] No	[ ] N/A	Samples require laboratory filtration	
18.	[X] Yes	[ ] No	[ ] N/A	Samples submitted within holding time	
19.	[ ] Yes	[ ] No	[X] N/A	Do water VOC or TOX bottles contain headspace	

Corrective action for all exceptions is to call the client and to notify the project manager.

Client Review By: _____ Date: _____

Merit Laboratories, Inc.
2680 East Lansing Dr., East Lansing, MI 48823
Phone (517) 332-0167 Fax (517) 332-4034
www.meritlabs.com

C.O.C. PAGE # 1 OF 1

144664

CHAIN OF CUSTODY RECORD

REPORT TO

CONTACT NAME: Chris Armstrong
COMPANY: Manistee Smith Group
ADDRESS: 293 Association Dr
CITY: Okemos STATE: MI ZIP CODE: 48864
PHONE NO.: 517 316 9232 FAX NO.: — P.O. NO.: A292000/
E-MAIL ADDRESS: cArmstrong@manistesmithgroup.com QUOTE NO.:

INVOICE TO

CONTACT NAME: ☒ SAME
COMPANY:
ADDRESS:
CITY: STATE: ZIP CODE:
PHONE NO.: E-MAIL ADDRESS:

PROJECT NO./NAME: Rock-Tenn A292000/
SAMPLER(S) - PLEASE PRINT/SIGN NAME:

TURNAROUND TIME REQUIRED: ☐ 1 DAY ☐ 2 DAYS ☐ 3 DAYS ☒ STANDARD ☐ OTHER

DELIVERABLES REQUIRED: ☒ STD ☐ LEVEL II ☐ LEVEL III ☐ LEVEL IV ☐ EDD ☐ OTHER

MATRIX CODE: GW=GROUNDWATER WW=WASTEWATER S=SOIL L=LIQUID SD=SOLID SL=SLUDGE DW=DRINKING WATER O=OIL WP=WIPE A=AIR W=WASTE

ANALYSIS (ATTACH LIST IF MORE SPACE IS REQUIRED)

Certifications
☐ OHIO VAP ☐ Drinking Water
☐ DoD ☐ NPDES

Project Locations
☐ Detroit ☐ New York
☐ Other

Special Instructions

MERIT LAB NO. (FOR LAB USE ONLY)	YEAR DATE	YEAR TIME	SAMPLE TAG IDENTIFICATION-DESCRIPTION	MATRIX	# OF BOTTLES	# Containers & Preservatives: NONE	HCl	HNO_3	H_2SO_4	NaOH	MeOH	OTHER	VOC	SVOC	MT 10 Metals		PCB's						
31592.01	12/21	1300	Stockpile West_Comp	S	2	1					1		X	X	X		X						
.02	12/21	1315	Stockpile East_Comp	S	2	1					1		X	X	X		X						

RELINQUISHED BY: SIGNATURE/ORGANIZATION	☐ Sampler	DATE	TIME
		12/22	
RECEIVED BY: SIGNATURE/ORGANIZATION		DATE	TIME
M Dilcato		12/22/21	1615
RELINQUISHED BY: SIGNATURE/ORGANIZATION		DATE	TIME
RECEIVED BY: SIGNATURE/ORGANIZATION		DATE	TIME

RELINQUISHED BY: SIGNATURE/ORGANIZATION	DATE	TIME
RECEIVED BY: SIGNATURE/ORGANIZATION	DATE	TIME

SEAL NO.	SEAL INTACT YES☐ NO☐	INITIALS
SEAL NO.	SEAL INTACT YES☐ NO☐	INITIALS

NOTES: TEMP. ON ARRIVAL 6.0

PLEASE NOTE: SIGNING ACKNOWLEDGES ADHERENCE TO MERIT'S SAMPLE ACCEPTANCE POLICY ON REVERSE SIDE

Rev. 5.18.12