

Waste Management Unit 27 Soil Investigation

RTRR Property
18251 West Jefferson
Riverview, Michigan

Riverview-Trenton Railroad Company

May 21, 2020

ASTI ENVIRONMENTAL



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Waste Management Unit 27 Soil Investigation

RTRR Property
18251 West Jefferson
Riverview, Michigan

May 21, 2020

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Waste Management Unit 27 Soil Investigation
Riverview-Trenton Railroad Company
Former McLouth Steel Site
18251 West Jefferson Avenue
Riverview, Michigan

1.0 Introduction

In accordance with the Corrective Action Consent Order (“CACO”) dated November 1, 2018 between the Riverview-Trenton Rail Road Company (“RTRR”) and the Michigan Department of Environment, Great Lakes, and Energy (“EGLE”), ASTI Environmental (“ASTI”) conducted a soil investigation at the property located at 18251 West Jefferson Avenue in the City of Riverview, Wayne County, Michigan (“Subject Property”). The portion of the Subject Property which lies south of Sibley Road, is located in the City of Trenton, Michigan. The investigation was completed in accordance with the Statement of Work included as Attachment A of the CACO for the Subject Property and with the Work Plan – Waste Management Unit Investigations prepared by ASTI dated June 28, 2019 (“Work Plan”). Attachment A includes Figure 1 - Site Location Map and Figure 2 - RTRR Site Features Map.

The investigation was completed for the former Equipment Storage Yard, also known as Waste Management Unit 27 (“WMU-27”). The location of the former Equipment Storage Yard is shown in Figure 2. The purpose of the investigation was to determine the horizontal and vertical extents of polychlorinated biphenyls (“PCBs”). As defined in the CACO, soil analytical results were compared to the Toxic Substance Control Act (“TSCA”) PCB Cleanup Level for Low Occupancy Areas of less than or equal to 25 parts per million (“ppm” or milligrams per kilogram).

2.0 Background

The McLouth Steel Company (McLouth) acquired the Subject Property between 1956 and 1961, and used portions of it for storage of raw materials, waste, and product to support the integrated production of steel and iron in the production facility located to the south (“McLouth Facility”). A large slag processing operation, operated by E. C. Levy Company, was located on the Subject Property. After about 1975, steel production decreased until McLouth ceased operations in April of 1996 after filing for Chapter 11 bankruptcy protection on September 29, 1995. At that time, only one blast furnace was operational and most other production units were operating at significantly reduced capacities.

Hamlin Holdings, Inc. acquired the Subject Property in July of 1996, although it is unclear what was conducted on the Subject Property during that time. Detroit Steel Company (“DSC”) obtained title for the Subject Property in August of 1996, during which time it used it for storage and conducted removal activities. DSC resumed pickling of strip steel at the McLouth Facility in July 1998. In support of the pickling operations, DSC started the scrubber, Central Wastewater Treatment Plant, and the pH adjustment station. Those operations closed in 2005. Crown Enterprises purchased the Subject Property on June 2, 2000 and conveyed the property to RTRR in November of 2000.

Historically, the Subject Property included the Monguagon Creek channel, an oil storage terminal, and a large building with docking facilities. By 1961, the large building and oil terminal had been demolished and the Monguagon Creek channel had been rerouted along River Road. By 1967, the original channel and mouth area of Monguagon Creek had been filled completely and this area was used for storage of equipment and materials (ore, debris, and scrap)¹.

After about 1975, production decreased, until McLouth ceased operations in April of 1996 after filing for Chapter 11 bankruptcy protection on September 29, 1995. Hamlin Holdings, Inc. acquired the Subject Property in July of 1996, although it is unclear what was conducted on the Subject Property during that time. Detroit Steel Company ("DSC") obtained title for the Subject Property in August of 1996, during which time it used it for storage and conducted removal activities. Crown Enterprises purchased the Subject Property on June 2, 2000 and conveyed the property to RTRR in November of 2000.

WMU-27 was a fenced area, approximately 1.2 acres, on the northern portion of the RTRR property that was used for secure storage of valuable surplus electrical and mechanical equipment. The area is identified as a Waste Management Unit because it may have been used to store surplus transformers before construction of the Toxic Substance Control Act ("TSCA") Storage Building in 1980. A small (approximately 1,000 square feet) building was located in the northwest corner of the storage yard. The building was not known to have been used for equipment storage; therefore, it is not considered part of the Waste Management Unit². The primary equipment stored in this area was blast furnace equipment. The yard was also used for storage of surplus transformers prior to construction of the TSCA building (WMU-29) in the 1980s. The chain-link fence around the former Equipment Storage Yard has been removed.

3.0 Review of Historical Data

ASTI reviewed historical reports in reference to activities conducted at the WMU-27 area. In October 2000, Earth Tech conducted a PCB investigation in surface soil within the WMU-27 area. Earth Tech collected 12 soil samples from the interval between zero and six inches below ground surface ("bgs") for laboratory analysis of PCBs. The maximum detected PCB concentration was 0.4 ppm. Deeper soil samples (6 inches to 12 inches bgs) were collected during the investigation; however, they were not analyzed due to absence of PCBs in exceedance of 20 ppm which was the cleanup standard set in the Corrective Measures Work Plan (ESC, June 23, 2000).

In January 2001, Environmental Strategies Corporation ("ESC") investigated WMU-27 to determine if PCBs were present in surface soil within the area. Twelve surface soil samples were collected from the interval between zero and six inches bgs for laboratory analysis of PCBs. The maximum detected PCB concentration was 33 ppm (sample identification number W27-08-06 0-6"). The sample collected from the 6 inches to 12 inches bgs interval from the same soil boring (W27-08-06) contained a total PCB concentration of 2.9 ppm. The

¹ North Area Characterization Plan, Revised, ESC, November 2, 2000

² Corrective Measures Work Plan – Equipment Storage Yard (WMU-27), TSCA Storage Yard (WMU-29), ESC, July 27, 2000

remaining PCB concentrations were below 25 ppm³. A map showing the January 2001 sample locations is provided in Attachment B.

In the third quarter of 2001, DSC excavated and loaded approximately 10 cubic yards of PCB-impacted soil from the WMU-27 area. The soil was placed in a roll-off container⁴. On March 8, 2002, the roll-off container was removed from the Subject Property and transported to the Waste Management Woodland Meadows facility for disposal as non-hazardous waste⁵. ASTI could not verify the location of the excavation within WMU-27.

On July 19, 2001, Earth Tech collected eight soil verification samples after removal of PCB-impacted soil from WMU 27⁶. The maximum detected total PCB concentration was less than 5 ppm.

4.0 December 2019 PCB Investigation

4.1 Soil Sample Collection

ASTI conducted a soil investigation in soil in accordance with the CACO and as described in the Work Plan. Prior to field investigation activities, ASTI determined the extents of the former Equipment Storage Yard through review of historical reports and aerial figures. ASTI determined the coordinates of the four corners of the rectangular storage area and the corners were staked by a licensed surveyor prior to field activities. The staked area included the footprint of the former storage yard. Additionally, ASTI's area of investigation extended 10 feet beyond the WMU-27 extents.

In accordance with the CACO Scope of Work, the locations for 20 soil borings were determined using a systematic random approach as described in the EGLE Guidance Document titled Sampling Strategies and Statistics Training Materials for Part 201 Cleanup Criteria ("S3TM" [EGLE, 2002]). WMU-27 measured approximately 330 feet (east/west) by approximately 170 feet (north/south). Including the additional 10 feet beyond side, the area of investigation measured approximately 350 feet (east/west) by approximately 190 feet (north/south). ASTI divided the area of investigation into 20 equally sized subsections, approximately 70 feet (east/west) by 47.5 feet (north/south). Each subsection represented one soil boring location. ASTI used Microsoft Excel to randomly generate specific soil sample locations within each of the 20 subsections. One random number between 0 and 70 was generated for the x-axis (east/west) and one random number between 0 and 47.5 was generated for the y-axis (north/south). The random number generated for the x-axis was 43 and the random number generated for the y-axis was 25. ASTI used these randomly generated numbers to measure from the southwest corner of each subsection; 43 feet east from the southwestern corner and 25 feet north of the southern border of the investigation area. Figure 3 - WMU-27 Sample Location Map shows the WMU-27 investigation area including the grid generated by ASTI and the soil boring locations.

³ Monitoring Well and Piezometer Installation and Analytical Results transmittal, Former DSC Ltd. Property, Trenton and Riverview, Michigan, ESC, September 18, 2001

⁴ Quarterly Status Report, DSC LTD., Third Quarter 2001

⁵ Quarterly Status Report, DSC LTD., First Quarter 2002

⁶ September – November 2001 Comprehensive Corrective Action and Removal Consent Order Activities, North Area, Trenton and Riverview, Michigan, ESC, December 13, 2001

Prior to drilling, ASTI contacted Michigan's MISS DIG system to locate public utilities near the Subject Property. On December 16, 2019, an ASTI scientist supervised installation of 20 soil borings within the WMU-27 area of investigation. Prior to drilling, ASTI marked each soil boring location in the field with a pin flag. The soil borings were installed with the use of a track-mounted hydraulic direct push drill rig. The soil borings were designated as SB-1 through SB-20, with SB-1 located in the southwestern most subsection and numbering continued toward the east (Figure 3).

The ASTI scientist continuously logged and recorded lithology in the project field notebook. Each boring was advanced to drilling refusal and depths ranged from 7 feet bgs to 15 feet bgs. ASTI collected one surface soil sample from the interval between zero and three inches bgs. A second soil sample was collected from the interval directly above the depth of drilling refusal. The Work Plan also proposed collection of a third sample from a boring at an interval if it exhibited the potential for impacts based on visual observations (i.e. staining, odor, etc.). ASTI did not observe any intervals which displayed potential impacts requiring the need for a third sample; therefore, two soil samples were collected from each boring. The soil boring logs are provided in Attachment C.

Soil was retrieved from the borings in a clean disposable acetate liner and scanned with a photoionization detector ("PID"). Prior to sampling, the PID was calibrated to manufacturer specifications using 100 ppm isobutylene span gas. After logging the soil lithology, the ASTI scientist collected soil samples by placing soil directly into clean jars provided by the laboratory. Each sample was labeled with a unique identification number including the Waste Management Unit identification, soil boring identification number, and the depth interval. For example, the soil sample collected from the zero to three-inch bgs interval from SB-1 was identified as WMU27-SB1-0-3". After collection, the samples were placed on ice and kept cold until delivery to Fibertech Laboratory (Fibertech) in Holt, Michigan using standard chain-of-custody procedures. For the purpose of quality control/quality assurance (QA/QC), ASTI collected a duplicate sample for every 20 samples collected. ASTI collected 40 samples; therefore, 2 duplicate soil samples were collected. Soil samples were analyzed for PCBs by United States Environmental Protection Agency (USEPA) Methods 3546 and 8082A.

4.2 Laboratory Analytical Results

The laboratory analytical results for the WMU-27 soil samples collected in December 2019 indicate that PCBs are not present in the samples at a concentration greater than 25 ppm. The maximum detected concentration detected during this investigation was 13 ppm (13,000 micrograms per kilogram [$\mu\text{g}/\text{kg}$]). This concentration was detected in the sample collected in the interval between 8.5 feet and 9.5 feet bgs in SB-6 (Figure 3). Table 1 provides a summary of the laboratory analytical results for the December 2019 soil investigation. The laboratory analytical report is provided in Appendix D.

5.0 Conclusions

In accordance with the CACO and the Work Plan, ASTI conducted a soil investigation at the WMU-27 area. ASTI collected 40 soil samples (plus 2 QA/QC samples) for analysis of PCBs. Based on laboratory analytical results for the December 2019 soil investigation, PCBs were not detected at concentrations exceeding 25 ppm. The maximum detected concentration was 13 ppm.

Three soil investigations and soil verification sampling has taken place in the WMU-27 area and 71 soil samples (including duplicates) have been collected from the area. One soil sample contained a concentration of PCBs in exceedance of 25 ppm. That sample was collected from the interval between zero and six inches bgs. PCBs were detected in the interval below at a concentration below 25 ppm. PCB-impacted soil was excavated from the WMU-27 area in the third quarter of 2001 and soil verification sampling did not detect impacted soil above 25 ppm.

6.0 Measures to Prevent Unacceptable Human Exposure to PCBs

Multiple soil investigations have shown that one soil sample contained a concentration of PCBs in exceedance of 25 ppm. Soil excavation was performed, and soil verification sampling confirmed that the exceedance was removed during excavation.

The CACO requires that soil cleanup be based on a comparison to low occupancy closure options under TSCA. The table below provides a summary of low occupancy closure options for PCB impacted soil regulated by TSCA.

TSCA Soil Closure Options – Low Occupancy

Concentration	Remedy
≤25 ppm	Institutional control only
>25 ppm to ≤50 ppm	Fence and marked with a sign including the ML mark
>25 ppm to ≤100 ppm	Engineered cap
>100 ppm	Site specific risk-based closure

PCB concentrations are not present in the WMU-27 area in exceedance of 25 ppm. Therefore, institutional controls can be used to prevent unacceptable human exposure to PCBs in this area. An institutional control, such as a deed restriction for the WMU-27 area, could restrict the area to a low occupancy area and that restriction would be maintained in perpetuity.

7.0 RCRA Certification Statement

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision according to a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.



Greg S. Oslosky, P.G.
Director – Grand Rapids

Table 1
Summary of Laboratory Analytical Results
Waste Management Unit 27 Investigation

Table 1 Summary of WMU-27 Soil Analytical Results

RTRR - Riverview, Michigan

18251 West Jefferson Ave, Riverview, Michigan

ASTI File No.: 10860

Parameters	TSCA PCB						
	Cleanup Level for Low Occupancy Areas	WMU27-SB1-0-3" 0-3" 12/16/2019 μg/kg	WMU27-SB1-11-12' 11-12' 12/16/2019 μg/kg	WMU27-SB2-0-3" 0-3" 12/16/2019 μg/kg	WMU27-SB2-11-12' 11-12' 12/16/2019 μg/kg	WMU27-SB3-0-3" 0-3" 12/16/2019 μg/kg	WMU27-SB3-11-12' 11-12' 12/16/2019 μg/kg
PCBs							
PCB, Aroclor 1016		<100	<100	<100	<100	<100	<100
PCB, Aroclor 1221		<100	<100	<100	<100	<100	<100
PCB, Aroclor 1232		<100	<100	<100	<100	<100	<100
PCB, Aroclor 1242		<100	490	<100	150	<100	<100
PCB, Aroclor 1248		<100	<100	<100	<100	<100	<100
PCB, Aroclor 1254		7,400	460	<100	360	<100	480
PCB, Aroclor 1260		4,000	560	300	360	<100	920
PCB, Aroclor 1262		<100	<100	<100	<100	<100	<100
PCB, Aroclor 1268		<100	<100	<100	<100	<100	<100
Polychlorinated biphenyls (PCBs)	25,000	11,400	1,510	300	870	<100	1,400

Parameters	TSCA PCB						
	Cleanup Level for Low Occupancy Areas	WMU27-SB11-0-3" 0-3" 12/16/2019 μg/kg	WMU27-SB11-11-12' 11-12' 12/16/2019 μg/kg	WMU27-SB12-0-3" 0-3" 12/16/2019 μg/kg	WMU27-SB12-11-12' 11-12' 12/16/2019 μg/kg	WMU27-SB13-0-3" 0-3" 12/16/2019 μg/kg	WMU27-SB13-11-12' 11-12' 12/16/2019 μg/kg
PCBs							
PCB, Aroclor 1016		<100	<100	<100	<100	<100	<100
PCB, Aroclor 1221		<100	<100	<100	<100	<100	<100
PCB, Aroclor 1232		<100	<100	<100	<100	<100	<100
PCB, Aroclor 1242		<100	<100	<100	<100	<100	<100
PCB, Aroclor 1248		<100	<100	<100	<100	<100	<100
PCB, Aroclor 1254		<100	<100	<100	<100	<100	<100
PCB, Aroclor 1260		<100	110	240	<100	270	<100
PCB, Aroclor 1262		<100	<100	<100	<100	<100	<100
PCB, Aroclor 1268		<100	<100	<100	<100	<100	<100
Polychlorinated biphenyls (PCBs)	25,000	<100	110	240	<100	270	<100

Notes:

Bold indicates concentration above laboratory reporting limit.

"μg/kg" - micrograms per kilogram or parts per billion

<" indicates concentration below laboratory reporting limit

Table 1 Summary of WMU-27 Soil Analytical Result

RTRR - Riverview, Michigan

18251 West Jefferson Ave, Riverview, Michigan

ASTI File No.: 10860

Parameters	TSCA PCB Cleanup Level for Low Occupancy Areas µg/kg	WMU27-SB4-0-3" 0-3" 12/16/2019 µg/kg	WMU27-SB4-11-12' 11-12' 12/16/2019 µg/kg	WMU27-SB5-0-3" 0-3" 12/16/2019 µg/kg	WMU27-SB5-9-10' 9-10' 12/16/2019 µg/kg	WMU27-SB6-0-3" 0-3" 12/16/2019 µg/kg
PCBs						
PCB, Aroclor 1016		<100	<100	<100	<100	<100
PCB, Aroclor 1221		<100	<100	<100	<100	<100
PCB, Aroclor 1232		<100	<100	<100	<100	<100
PCB, Aroclor 1242		<100	<100	<100	<100	<100
PCB, Aroclor 1248		<100	<100	<100	<100	<100
PCB, Aroclor 1254		<100	<100	180	<100	180
PCB, Aroclor 1260		210	540	160	<100	150
PCB, Aroclor 1262		<100	<100	<100	<100	<100
PCB, Aroclor 1268		<100	1,600	<100	<100	<100
Polychlorinated biphenyls (PCBs)	25,000	210	2,140	340	<100	330

Parameters	TSCA PCB Cleanup Level for Low Occupancy Areas µg/kg	WMU27-SB14-0-3" 0-3" 12/16/2019 µg/kg	WMU27-SB14-11-11.75 11-11.75' 12/16/2019 µg/kg	WMU27-SB15-0-3" 0-3" 12/16/2019 µg/kg	WMU27-SB15-11-12' 11-12' 12/16/2019 µg/kg	WMU27-SB16-0-3" 0-3" 12/16/2019 µg/kg
PCBs						
PCB, Aroclor 1016		<100	<100	<100	<100	<100
PCB, Aroclor 1221		<100	<100	<100	<100	<100
PCB, Aroclor 1232		<100	<100	<100	<100	<100
PCB, Aroclor 1242		<100	<100	<100	<100	<100
PCB, Aroclor 1248		<100	<100	<100	<100	<100
PCB, Aroclor 1254		<100	<100	<100	<100	<100
PCB, Aroclor 1260		<100	110	<100	3,600	<100
PCB, Aroclor 1262		<100	<100	<100	<100	<100
PCB, Aroclor 1268		<100	<100	<100	<100	<100
Polychlorinated biphenyls (PCBs)	25,000	<100	110	<100	3,600	<100

Notes:

Bold indicates concentration above laboratory reporting li

"µg/kg" - micrograms per kilogram or parts per billion

<" indicates concentration below laboratory reporting limi

Table 1 Summary of WMU-27 Soil Analytical Result

RTRR - Riverview, Michigan

18251 West Jefferson Ave, Riverview, Michigan

ASTI File No.: 10860

Parameters	TSCA PCB	WMU27-DUP1				
	Cleanup Level for Low Occupancy Areas	WMU27-SB6-0-3" 0-3"	WMU27-SB6-8.5-9.5' 8.5-9.5'	WMU27-SB7-0-3" 0-3"	WMU27-SB7-10.5-11.5 10.5-11.5'	WMU27-SB8-0-3" 0-3"
	µg/kg	12/16/2019 µg/kg	12/16/2019 µg/kg	12/16/2019 µg/kg	12/16/2019 µg/kg	12/16/2019 µg/kg
PCBs						
PCB, Aroclor 1016		<100	<100	<100	<100	<100
PCB, Aroclor 1221		<100	<100	<100	<100	<100
PCB, Aroclor 1232		<100	<100	<100	<100	<100
PCB, Aroclor 1242		<100	<100	<100	<100	<100
PCB, Aroclor 1248		<100	<100	<100	<100	<100
PCB, Aroclor 1254		<100	<100	<100	<100	<100
PCB, Aroclor 1260		2,300	13,000	<100	<100	<100
PCB, Aroclor 1262		<100	<100	<100	<100	<100
PCB, Aroclor 1268		<100	<100	<100	<100	<100
Polychlorinated biphenyls (PCBs)	25,000	2,300	13,000	<100	<100	<100

Parameters	TSCA PCB	WMU27-SB16-0-3" WMU27-SB16-7-8' WMU27-SB17-0-3" WMU27-SB17-6-7' WMU27-SB18-0-3"				
	Cleanup Level for Low Occupancy Areas	WMU27-SB16-0-3" 0-3"	WMU27-SB16-7-8' 7-8'	WMU27-SB17-0-3" 0-3"	WMU27-SB17-6-7' 6-7'	WMU27-SB18-0-3" 0-3"
	µg/kg	12/16/2019 µg/kg	12/16/2019 µg/kg	12/16/2019 µg/kg	12/16/2019 µg/kg	12/16/2019 µg/kg
PCBs						
PCB, Aroclor 1016		<100	<100	<100	<100	<100
PCB, Aroclor 1221		<100	<100	<100	<100	<100
PCB, Aroclor 1232		<100	<100	<100	<100	<100
PCB, Aroclor 1242		<100	<100	<100	<100	<100
PCB, Aroclor 1248		<100	<100	<100	<100	<100
PCB, Aroclor 1254		<100	<100	<100	<100	<100
PCB, Aroclor 1260		<100	<100	<100	<100	140
PCB, Aroclor 1262		<100	<100	<100	<100	<100
PCB, Aroclor 1268		<100	<100	<100	<100	<100
Polychlorinated biphenyls (PCBs)	25,000	<100	<100	<100	<100	140

Notes:

Bold indicates concentration above laboratory reporting li

"µg/kg" - micrograms per kilogram or parts per billion

<" indicates concentration below laboratory reporting limi

Table 1 Summary of WMU-27 Soil Analytical Result

RTRR - Riverview, Michigan

18251 West Jefferson Ave, Riverview, Michigan

ASTI File No.: 10860

Parameters	TSCA PCB							
	Low Occupancy Areas	Cleanup Level for		WMU27-SB8-10-11'	WMU27-SB9-0-3"	WMU27-SB9-7-8'	WMU27-SB10-0-3"	WMU27-SB10-7-8'
		10-11'	0-3"	12/16/2019	12/16/2019	12/16/2019	12/16/2019	12/16/2019
PCBs		µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg
PCB, Aroclor 1016		<100	<100	<100	<100	<100	<100	<100
PCB, Aroclor 1221		<100	<100	<100	<100	<100	<100	<100
PCB, Aroclor 1232		<100	<100	<100	<100	<100	<100	<100
PCB, Aroclor 1242		<100	<100	<100	<100	<100	<100	<100
PCB, Aroclor 1248		<100	<100	<100	<100	<100	<100	<100
PCB, Aroclor 1254		<100	<100	<100	<100	<100	<100	<100
PCB, Aroclor 1260		370	220		<100	<100	<100	<100
PCB, Aroclor 1262		<100	<100	<100	<100	<100	<100	<100
PCB, Aroclor 1268		<100	<100	<100	<100	<100	<100	<100
Polychlorinated biphenyls (PCBs)	25,000	370	220		<100	<100	<100	<100

Parameters	TSCA PCB							
	Low Occupancy Areas	Cleanup Level for		WMU27-SB18-9-10'	WMU27-SB19-0-3"	WMU27-SB19-6-7'	WMU27-SB20-0-3"	WMU27-SB20-9-10'
		9-10'	0-3"	12/16/2019	12/16/2019	12/16/2019	12/16/2019	12/16/2019
PCBs		µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg
PCB, Aroclor 1016		<100	<100	<100	<100	<100	<100	<100
PCB, Aroclor 1221		<100	<100	<100	<100	<100	<100	<100
PCB, Aroclor 1232		<100	<100	<100	<100	<100	<100	<100
PCB, Aroclor 1242		<100	120		<100	<100	<100	<100
PCB, Aroclor 1248		<100	<100	<100	<100	<100	<100	<100
PCB, Aroclor 1254		<100	<100	<100	<100	<100	<100	<100
PCB, Aroclor 1260		1,400	200		<100	<100	<100	<100
PCB, Aroclor 1262		<100	<100	<100	<100	<100	<100	<100
PCB, Aroclor 1268		<100	<100	<100	<100	<100	<100	<100
Polychlorinated biphenyls (PCBs)	25,000	1,400	320		<100	<100	<100	<100

Notes:

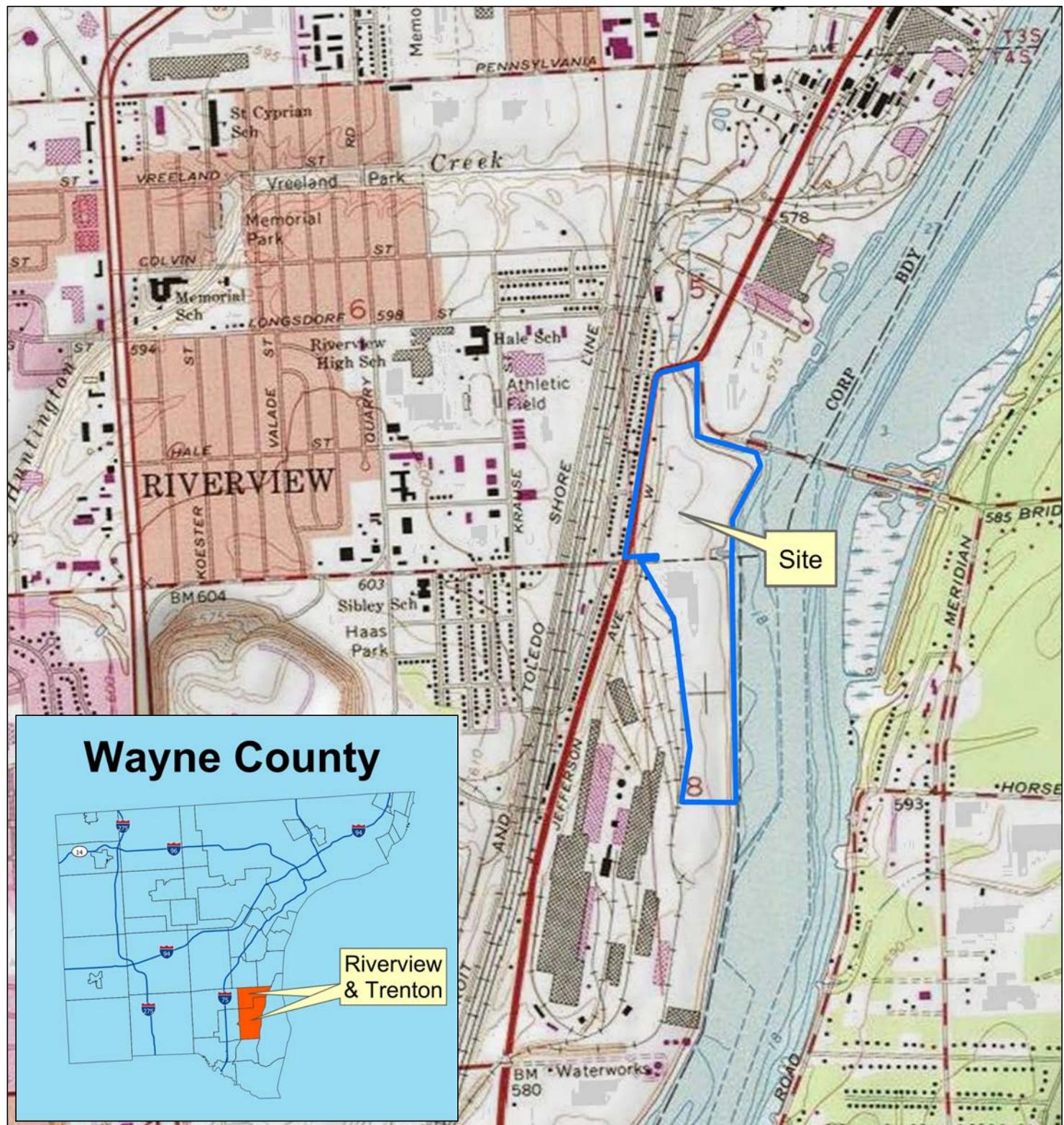
Bold indicates concentration above laboratory reporting li

"µg/kg" - micrograms per kilogram or parts per billion

<" indicates concentration below laboratory reporting limi

Attachment A
Figures

Waste Management Unit 27 Investigation



0 600 1200 1800
Approximate Scale in Feet

LEGEND
Property Line



RTRR - WMU-27 Investigation

Created for: Riverview-Trenton Railroad Company
ASTI Project 10860, JRN, March 3, 2020

18251 West Jefferson
Riverview, MI

ASTI
Environmental

Figure 1 - Site Location Map



RTRR

0 150 300 450
Approximate Scale in Feet

LEGEND
Subject Property
WMU

RTRR Property

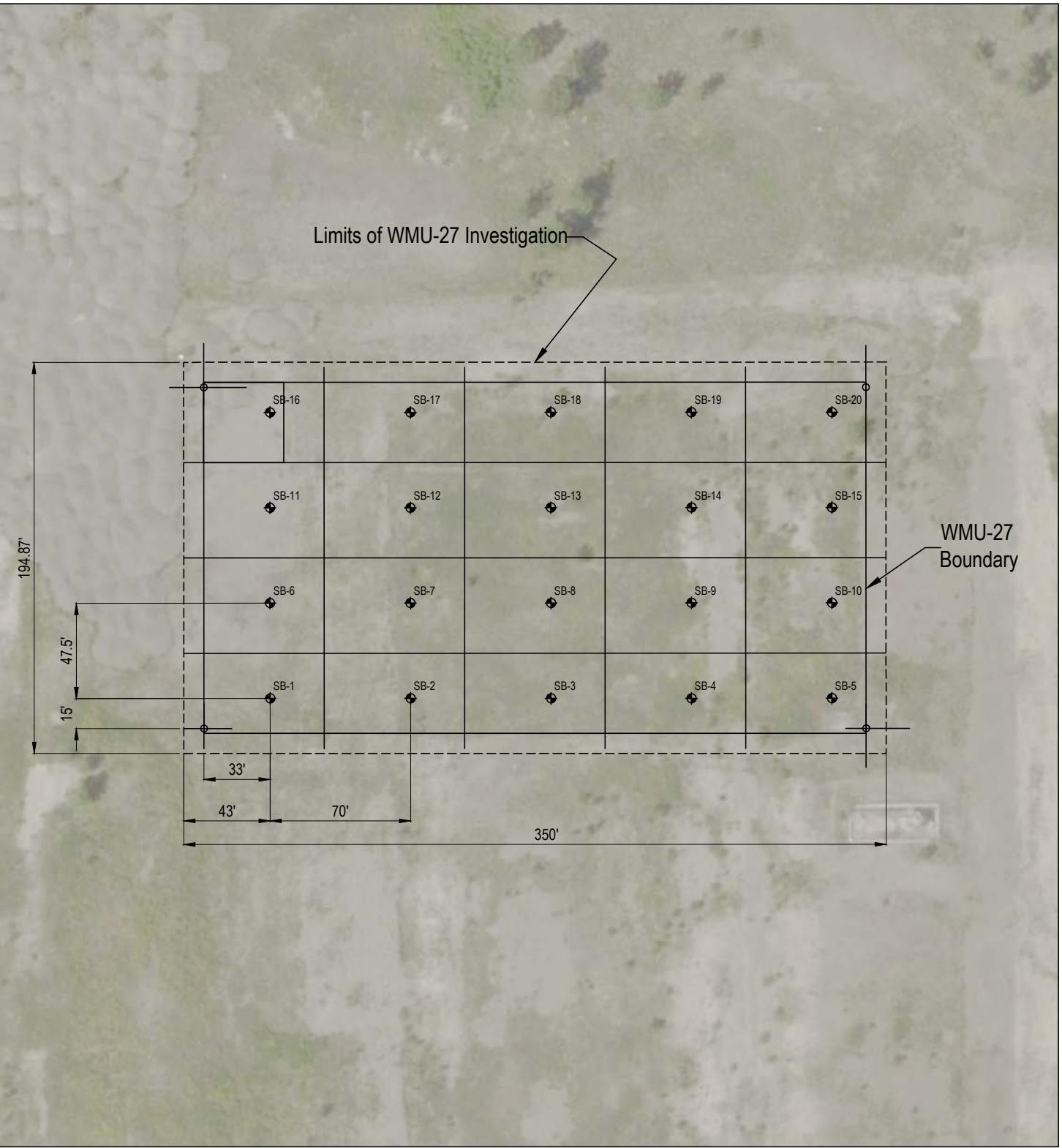
Created for: Riverview-Trenton Railroad Company
ASTI Project 10860.JRN/JMD, May 19, 2020

18251 West Jefferson Avenue, Riverview, MI

Figure 2: RTRR Site Features Map



ASTI
Environmental



GRAPHIC SCALE

0	35	70	140
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1 inch = 70 ft.
Paper Size = (8.5x11)

LEGEND

- Soil Boring Location
- Stake Location



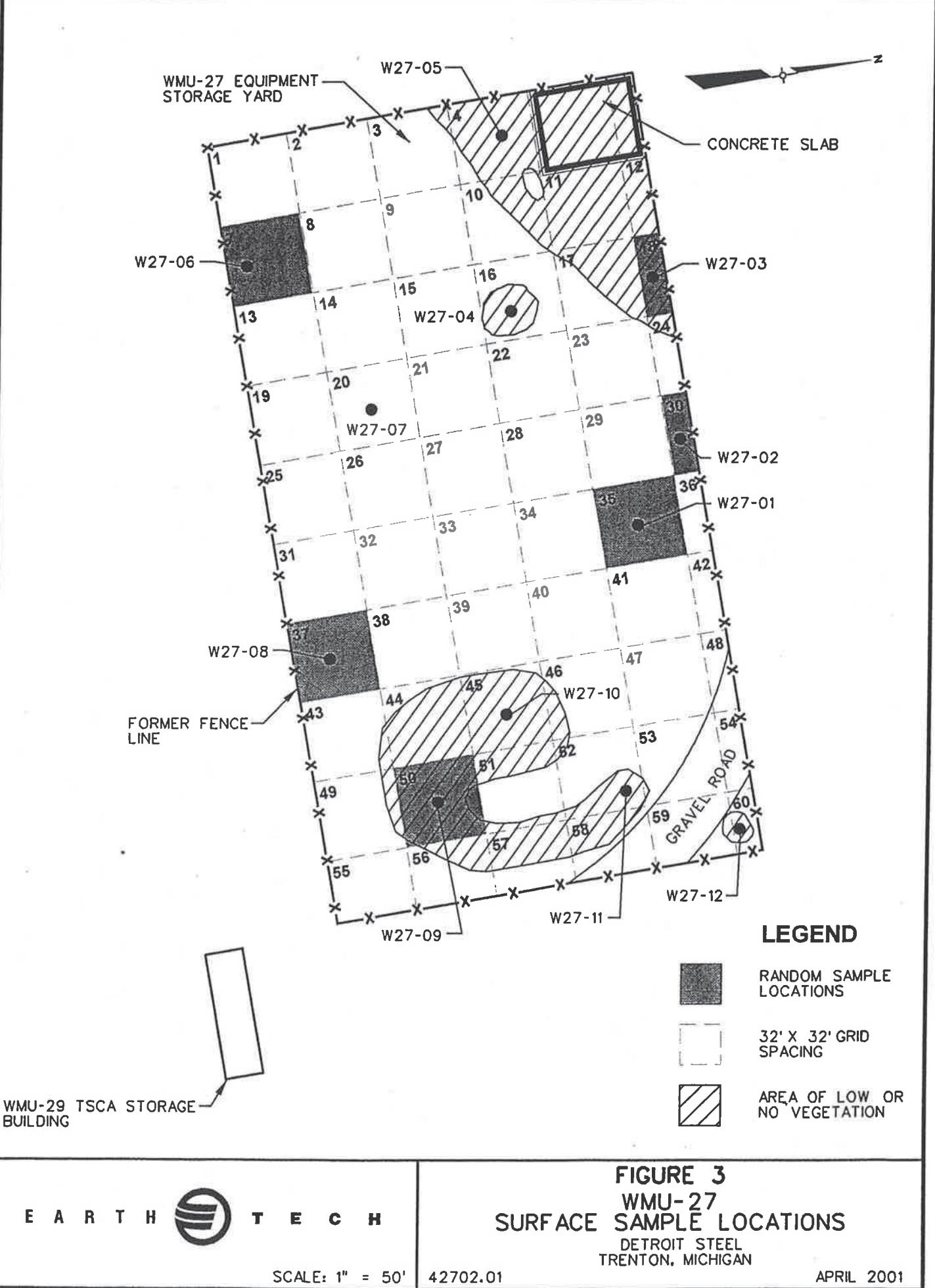
RTRR Property

18251 West Jefferson, Riverview, MI

Created for: Riverview-Trenton Railroad Company
ASTI Project 10860, JRN, May 19, 2020

Figure 3: WMU-27 Sample Location Map

Attachment B
Sample Location Map – Previous Investigations
Waste Management Unit 27 Investigation



**Attachment C
Soil Boring Logs**

Waste Management Unit 27 Investigation

ASTI Environmental
10448 Citation Dr., Suite 100
Brighton, MI 48116

SOIL BORING LOG

Proj. Name:	RTRR
Proj. Number:	10860

Boring Data	
Boring ID:	WMU27-SB1
Total Depth:	15'

Site Address:	18251 West Jefferson Riverview, Michigan
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Date Completed:	12/16/2019
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Drilled by:	ERG
Method:	Direct push probe
Geologist:	Mitchel Dykla

MW Data	
Size:	NA
Type:	NA
Screen Length:	NA
Well Depth:	NA
GW Depth (▼):	12'

Depth		Description	PID (ppm)	Sample Depth
From	To			
0	4"	Topsoil, medium to coarse grained sand, trace silt, gravel, and vegetation, dark brown, moist, loose (fill)	0.0	Soil at 0-3"
4"	2'	SAND, medium to coarse grained, trace very fine to fine grained sand, gravel, silt, and concrete, brown, moist, loose (fill)	0.0	
2'	12'	SAND, medium to coarse grained, trace very fine to fine grained sand, gravel, and brick, black, moist, loose (fill)	0.0	
12'	15'	SAND, medium to coarse grained, trace very fine to fine grained sand, gravel, and brick, black, wet, loose (fill)	0.0	Soil at 11-12'
		End of Boring		

ppm = parts per million

MW = monitoring well

TW = temporary monitoring well

bgs = below ground surface

(USDA soil texture)

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SOIL BORING LOG

Proj. Name:	RTRR
Proj. Number:	10860

Boring Data	WMU27-SB2
Boring ID:	WMU27-SB2
Total Depth:	12'

Site Address:	18251 West Jefferson Riverview, Michigan
Drilled by:	ERG
Method:	Direct push probe
Geologist:	Mitchel Dykla

MW Data	NA
Size:	NA
Type:	NA
Screen Length:	NA
Well Depth:	NA
GW Depth (▼):	12'

Depth		Description	PID (ppm)	Sample Depth
From	To			
0	4.5'	SAND, medium to coarse grained, trace very fine to fine grained sand, silt, gravel, slag, and concrete, dark brown, moist, loose (fill)	0.0	Soil at 0-3"
4.5'	10'	SAND, medium to coarse grained, trace very fine to fine grained sand, silt, gravel, slag, concrete, and metal, dark brown, moist, loose (fill)	0.0	
10'	12'	SAND, medium to coarse grained, trace very fine to find grained sand, silt, gravel, slag, and concrete, dark brown, moist, loose (fill)	0.0	Soil at 11-12'
		End of Boring		

ppm = parts per million

MW = monitoring well

TW = temporary monitoring well

bgs = below ground surface

(USDA soil texture)

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SOIL BORING LOG

Proj. Name:	RTRR
Proj. Number:	10860

Boring Data	WMU27-SB3
Boring ID:	WMU27-SB3
Total Depth:	12'

Site Address:	18251 West Jefferson Riverview, Michigan
Drilled by:	ERG
Method:	Direct push probe
Geologist:	Mitchel Dykla

MW Data	NA
Size:	NA
Type:	NA
Screen Length:	NA
Well Depth:	NA
GW Depth (▼):	NA

Depth		Description	PID (ppm)	Sample Depth
From	To			
0	4.5'	SAND, medium to coarse grained, trace very fine to fine grained sand, silt, gravel, slag, and concrete, brown, moist, loose (fill)	0.0	Soil at 0-3"
4.5'	10'	SAND, medium to coarse grained, trace very fine to fine grained sand, silt, gravel, brown, moist, loose (fill)	0.0	
10'	12'	SAND, fine to medium grained, trace very fine grained sand, gravel, and silt, brown, moist, compact (sand)	0.0	Soil at 11-12'
		End of Boring		

ppm = parts per million

MW = monitoring well

TW = temporary monitoring well

bgs = below ground surface

(USDA soil texture)

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SOIL BORING LOG

Proj. Name:	RTRR
Proj. Number:	10860

Boring Data	
Boring ID:	WMU27-SB4
Total Depth:	12'

Site Address:	18251 West Jefferson Riverview, Michigan
Drilled by:	ERG
Method:	Direct push probe
Geologist:	Mitchel Dykla

MW Data	
Size:	NA
Type:	NA
Screen Length:	NA
Well Depth:	NA
GW Depth (▼):	NA

Depth		Description	PID (ppm)	Sample Depth
From	To			
0	2'	SAND, medium to coarse grained, trace very fine to fine grained sand, silt, gravel, slag, and brick, brown, moist, loose (fill)	0.0	Soil at 0-3"
2'	7'	SAND, medium to coarse grained, trace very fine to fine grained sand, gravel, and slag, dark brown, moist, loose (fill)	0.0	
7'	7.5'	SAND, medium to coarse grained, trace very fine to fine grained sand, gravel, and metal, dark brown, moist, loose (fill)	0.0	
7.5'	12'	SAND, medium to coarse grained, trace very fine to fine grained sand, gravel, slag, and concrete, dark brown, moist, loose (fill)	0.0	Soil at 11-12'
		End of Boring		

ppm = parts per million

MW = monitoring well

TW = temporary monitoring well

bgs = below ground surface

(USDA soil texture)

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SOIL BORING LOG

Proj. Name:	RTRR
Proj. Number:	10860

Boring Data	
Boring ID:	WMU27-SB5
Total Depth:	10'

Site Address:	18251 West Jefferson Riverview, Michigan
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Date Completed:	12/16/2019
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Drilled by:	ERG
Method:	Direct push probe
Geologist:	Mitchel Dykla

MW Data	
Size:	NA
Type:	NA
Screen Length:	NA
Well Depth:	NA
GW Depth (▼):	NA

Depth		Description	PID (ppm)	Sample Depth
From	To			
0	4"	Topsoil, medium to coarse grained sand, trace silt, gravel, vegetation, slag, brown, moist, loose (fill)	0.0	Soil at 0-3"
4"	4'	SAND, medium to coarse grained, trace very fine to fine grained sand, gravel, brick, and slag, dark brown, moist, loose (fill)	0.0	
4'	8'	SAND, medium to coarse grained, trace very fine to fine grained sand, gravel, concrete, and slag, dark brown, moist, loose (fill)	0.0	
8'	10'	SAND, medium to coarse grained, trace very fine to fine grained sand, gravel, silt, and concrete, dark brown with metallic shine, moist, loose	0.0	Soil at 9-10'
		End of Boring		

ppm = parts per million

MW = monitoring well

TW = temporary monitoring well

bgs = below ground surface

(USDA soil texture)

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SOIL BORING LOG

Proj. Name:	RTRR
Proj. Number:	10860

Boring Data	
Boring ID:	WMU27-SB6
Total Depth:	9.5'

Site Address:	18251 West Jefferson Riverview, Michigan
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Date Completed:	12/16/2019
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Drilled by:	ERG
Method:	Direct push probe
Geologist:	Mitchel Dykla

MW Data	
Size:	NA
Type:	NA
Screen Length:	NA
Well Depth:	NA
GW Depth (▼):	NA

Depth		Description	PID (ppm)	Sample Depth
From	To			
0	1'	SAND, medium to coarse grained, trace very fine to fine grained sand, gravel, silt, and vegetation, dark brown, moist, loose (fill)	0.0	Soil at 0-3"
1'	4'	SAND, medium to coarse grained, trace very fine to fine grained sand, gravel, concrete and slag, dark brown, moist, loose (fill)	0.0	
4'	6.5'	SAND, medium to coarse grained, trace very fine to fine grained sand, gravel, and slag, dark brown, moist, loose (fill)	0.0	
6.5'	7'	SAND, medium to coarse grained, trace very fine to fine grained sand, gravel, brick and slag, dark brown, moist, loose (fill)	0.0	
7'	9.5'	SAND, medium to coarse grained, trace very fine to fine grained sand, gravel, and slag, dark brown, moist, loose (fill)	0.0	Soil at 8.5-9.5'
		End of Boring		

ppm = parts per million

MW = monitoring well

TW = temporary monitoring well

bgs = below ground surface

(USDA soil texture)

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SOIL BORING LOG

Proj. Name:	RTRR
Proj. Number:	10860

Boring Data	
Boring ID:	WMU27-SB7
Total Depth:	11.5'

Site Address:	18251 West Jefferson Riverview, Michigan
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Date Completed:	12/16/2019
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Drilled by:	ERG
Method:	Direct push probe
Geologist:	Mitchel Dykla

MW Data	
Size:	NA
Type:	NA
Screen Length:	NA
Well Depth:	NA
GW Depth (▼):	NA

Depth		Description	PID (ppm)	Sample Depth
From	To			
0	4"	SAND, medium to coarse grained, trace very fine to fine grained sand, gravel, silt, concrete and vegetation, brown, moist, loose (fill)	0.0	Soil at 0-3"
4"	4.5'	SAND, fine to medium grained, trace very fine grained sand, gravel, concrete, and slag, dark brown, moist, loose (fill)	0.0	
4.5'	8'	SAND, medium to coarse grained, trace very fine to fine grained sand, gravel, silt, slag, and concrete, dark brown, moist, loose (fill)	0.0	
8'	11.5'	SAND, fine to medium grained, trace very fine grained sand, gravel, concrete, wood, and slag, dark brown, moist, compacted (fill)	7.2	Soil at 10.5-11.5'
		End of Boring		

ppm = parts per million

MW = monitoring well

TW = temporary monitoring well

bgs = below ground surface

(USDA soil texture)

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SOIL BORING LOG

Proj. Name:	RTRR
Proj. Number:	10860

Boring Data	
Boring ID:	WMU27-SB8
Total Depth:	11'

Site Address:	18251 West Jefferson Riverview, Michigan
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Date Completed:	12/16/2019
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Drilled by:	ERG
Method:	Direct push probe
Geologist:	Mitchel Dykla

MW Data	
Size:	NA
Type:	NA
Screen Length:	NA
Well Depth:	NA
GW Depth (▼):	NA

Depth		Description	PID (ppm)	Sample Depth
From	To			
0	4"	SAND, medium to coarse grained, trace very fine to fine grained sand, gravel, silt, and vegetation, dark brown, moist, loose (fill)	0.0	Soil at 0-3"
4"	8'	SAND, medium to coarse grained, trace very fine to fine grained sand, gravel, silt, slag, and concrete, dark brown, moist, loose (fill)	0.0	
8'	11'	SAND, medium to coarse grained, trace very fine to fine grained sand, gravel, silt, and slag, dark brown, moist, loose (fill)	0.0	Soil at 10-11'
		End of Boring		

ppm = parts per million

MW = monitoring well

TW = temporary monitoring well

bgs = below ground surface

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SOIL BORING LOG

Proj. Name:	RTRR
Proj. Number:	10860

Boring Data	
Boring ID:	WMU27-SB9
Total Depth:	8'

Site Address:	18251 West Jefferson Riverview, Michigan
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Date Completed:	12/16/2019
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Drilled by:	ERG
Method:	Direct push probe
Geologist:	Mitchel Dykla

MW Data	
Size:	NA
Type:	NA
Screen Length:	NA
Well Depth:	NA
GW Depth (▼):	NA

Depth		Description	PID (ppm)	Sample Depth
From	To			
0	4"	SAND, medium to coarse grained, trace very fine to fine grained sand, gravel, silt, vegetation and slag, brown, moist, loose (fill)	0.0	Soil at 0-3"
4"	4.5'	SAND, medium to coarse grained, trace very fine to fine grained sand, gravel, silt, slag, brick, and concrete, dark brown, moist, loose (fill)	0.0	
4.5'	8'	SAND, medium to coarse grained, trace very fine to fine grained sand, gravel, silt, and slag, dark brown, moist, loose (fill)	0.0	Soil at 7-8'
		End of Boring		

ppm = parts per million

MW = monitoring well

TW = temporary monitoring well

bgs = below ground surface

(USDA soil texture)

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SOIL BORING LOG

Proj. Name:	RTRR
Proj. Number:	10860

Boring Data	
Boring ID:	WMU27-SB10
Total Depth:	8'

Site Address:	18251 West Jefferson Riverview, Michigan
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Date Completed:	12/16/2019
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Drilled by:	ERG
Method:	Direct push probe
Geologist:	Mitchel Dykla

MW Data	
Size:	NA
Type:	NA
Screen Length:	NA
Well Depth:	NA
GW Depth (▼):	NA

Depth		Description	PID (ppm)	Sample Depth
From	To			
0	4"	SAND, medium to coarse grained, trace very fine to fine grained sand, gravel, silt, vegetation and slag, brown, moist, loose (fill)	0.0	Soil at 0-3"
4"	8'	SAND, medium to coarse grained, trace very fine to fine grained sand, gravel, silt, slag, and concrete, dark brown, moist, loose (fill)	0.0	Soil at 7-8'
		End of Boring		

ppm = parts per million

MW = monitoring well

TW = temporary monitoring well

bgs = below ground surface

(USDA soil texture)

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SOIL BORING LOG

Proj. Name:	RTRR
Proj. Number:	10860

Boring Data	
Boring ID:	WMU27-SB11
Total Depth:	12'

Date Completed:	12/16/2019
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Site Address:	18251 West Jefferson Riverview, Michigan
Drilled by:	ERG
Method:	Direct push probe

MW Data	
Size:	NA
Type:	NA
Screen Length:	NA
Well Depth:	NA
GW Depth (▼):	NA

Geologist:	Mitchel Dykla
------------	---------------

Depth		Description	PID (ppm)	Sample Depth
From	To			
0	6"	SAND, medium to coarse grained, trace very fine to fine grained sand, gravel, silt, asphalt, and vegetation, brown, moist, loose (fill)	0.0	Soil at 0-3"
6"	10'	SAND, medium to coarse grained, trace very fine to fine grained sand, gravel, silt, and slag, dark brown, moist, loose (fill)	0.0	
10'	12'	SAND, medium to coarse grained, trace very fine to fine grained sand, gravel, silt and slag, dark brown, moist, compact (fill)	0.0	Soil at 11-12'
		End of Boring		

ppm = parts per million

MW = monitoring well

TW = temporary monitoring well

bgs = below ground surface

(USDA soil texture)

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SOIL BORING LOG

Proj. Name:	RTRR
Proj. Number:	10860

Boring Data	
Boring ID:	WMU27-SB12
Total Depth:	12'

Site Address:	18251 West Jefferson Riverview, Michigan
Drilled by:	ERG
Method:	Direct push probe

Date Completed:	12/16/2019
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MW Data	
Size:	NA
Type:	NA
Screen Length:	NA
Well Depth:	NA
GW Depth (▼):	NA

Depth		Description	PID (ppm)	Sample Depth
From	To			
0	4"	SAND, medium to coarse grained, trace very fine to fine grained sand, gravel, silt, vegetation, and concrete, dark brown, moist, loose (fill)	0.0	Soil at 0-3"
4"	9'	SAND, medium to coarse grained, trace very fine to fine grained sand, gravel, silt, concrete and slag, brown, moist, loose (fill)	0.0	
9'	12'	SAND, medium to coarse grained, trace very fine to fine grained sand and slag, dark brown, moist, loose (fill)	0.0	Soil at 11-12'
		End of Boring		

ppm = parts per million

MW = monitoring well

TW = temporary monitoring well

bgs = below ground surface

(USDA soil texture)

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SOIL BORING LOG

Proj. Name:	RTRR
Proj. Number:	10860

Boring Data	
Boring ID:	WMU27-SB13
Total Depth:	12'

Site Address:	18251 West Jefferson Riverview, Michigan
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Date Completed:	12/16/2019
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Drilled by:	ERG
Method:	Direct push probe
Geologist:	Mitchel Dykla

MW Data	
Size:	NA
Type:	NA
Screen Length:	NA
Well Depth:	NA
GW Depth (▼):	NA

Depth		Description	PID (ppm)	Sample Depth
From	To			
0	4"	SAND, medium to coarse grained, trace very fine to fine grained sand, gravel, silt, and vegetation, dark brown, moist, loose (fill)	0.0	Soil at 0-3"
4"	9'	SAND, medium to coarse grained, trace very fine to fine grained sand, gravel, silt, metal and slag, dark brown, moist, loose (fill)	0.0	
9'	12'	SAND, medium to coarse grained, trace very fine to fine grained sand, silt, and slag, dark brown, moist, loose (fill)	0.0	Soil at 11-12'
		End of Boring		

ppm = parts per million

MW = monitoring well

TW = temporary monitoring well

bgs = below ground surface

(USDA soil texture)

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SOIL BORING LOG

Proj. Name:	RTRR
Proj. Number:	10860

Boring Data	
Boring ID:	WMU27-SB14
Total Depth:	12'

Site Address:	18251 West Jefferson Riverview, Michigan
Drilled by:	ERG
Method:	Direct push probe

MW Data	
Size:	NA
Type:	NA
Screen Length:	NA
Well Depth:	NA
GW Depth (▼):	11.75

Depth		Description	PID (ppm)	Sample Depth
From	To			
0	4"	SAND, medium to coarse grained, trace very fine to fine grained sand, gravel, silt, and vegetation, dark brown, moist, loose (fill)	0.0	Soil at 0-3"
4"	3.5'	SAND, medium to coarse grained, trace very fine to fine grained sand and slag, grey, moist, loose (fill)	0.0	
3.5'	11'	SAND, medium to coarse grained, trace very fine to fine grained sand and slag, dark brown, moist, loose (fill)	0.0	
11'	12'	SAND, medium to coarse grained, trace very fine to fine grained sand and slag, black, moist, loose (fill)	0.0	Soil at 11-12'
		End of Boring		

ppm = parts per million

MW = monitoring well

TW = temporary monitoring well

bgs = below ground surface

(USDA soil texture)

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SOIL BORING LOG

Proj. Name:	RTRR
Proj. Number:	10860

Boring Data	
Boring ID:	WMU27-SB15
Total Depth:	12'

Site Address:	18251 West Jefferson Riverview, Michigan
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Date Completed:	12/16/2019
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Drilled by:	ERG
Method:	Direct push probe
Geologist:	Mitchel Dykla

MW Data	
Size:	NA
Type:	NA
Screen Length:	NA
Well Depth:	NA
GW Depth (▼):	NA

Depth		Description	PID (ppm)	Sample Depth
From	To			
0	4"	SAND, medium to coarse grained, trace very fine to fine grained sand, gravel, silt, and vegetation, dark brown, moist, loose (fill)	0.0	Soil at 0-3"
4"	7.75'	SAND, medium to coarse grained, trace very fine to fine grained sand, gravel, silt, and slag, dark brown, moist, loose (fill)	0.0	
7.75'	8'	SAND, medium to coarse grained, trace very fine to fine grained sand, gravel, silt, slag, and wood, dark brown, moist, loose (fill)	0.0	
8'	12'	SAND, medium to coarse grained, trace very fine to fine grained sand, gravel, silt, and slag, dark brown, moist, loose (fill)	0.0	Soil at 11-12'
		End of Boring		

ppm = parts per million

MW = monitoring well

TW = temporary monitoring well

bgs = below ground surface

(USDA soil texture)

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SOIL BORING LOG

Proj. Name:	RTRR
Proj. Number:	10860

Boring Data	
Boring ID:	WMU27-SB16
Total Depth:	8'

Site Address:	18251 West Jefferson Riverview, Michigan
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Date Completed:	12/16/2019
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Drilled by:	ERG
Method:	Direct push probe
Geologist:	Mitchel Dykla

MW Data	
Size:	NA
Type:	NA
Screen Length:	NA
Well Depth:	NA
GW Depth (▼):	NA

Depth		Description	PID (ppm)	Sample Depth
From	To			
0	4"	SAND, medium to coarse grained, trace very fine to fine grained sand, gravel, silt, and asphalt, dark brown, moist, loose (fill)	0.0	Soil at 0-3"
4"	8'	SAND, medium to coarse grained, trace very fine to fine grained sand, gravel, silt, and slag, dark brown, moist, loose (fill)	0.0	Soil at 6-7'
		End of Boring		

ppm = parts per million

MW = monitoring well

TW = temporary monitoring well

bgs = below ground surface

(USDA soil texture)

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SOIL BORING LOG

Proj. Name:	RTRR
Proj. Number:	10860

Boring Data	
Boring ID:	WMU27-SB17
Total Depth:	7'

Date Completed:	12/16/2019
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Site Address:	18251 West Jefferson Riverview, Michigan
Drilled by:	ERG
Method:	Direct push probe

MW Data	
Size:	NA
Type:	NA
Screen Length:	NA
Well Depth:	NA
GW Depth (▼):	NA

Geologist:	Mitchel Dykla
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Depth		Description	PID (ppm)	Sample Depth
From	To			
0	4"	SAND, medium to coarse grained, trace very fine to fine grained sand, gravel, silt, slag, and vegetation, dark brown, moist, loose (fill)	0.0	Soil at 0-3"
4"	7'	SAND, medium to coarse grained, trace very fine to fine grained sand, gravel, silt, and slag, dark brown, moist, loose (fill)	0.0	Soil at 6-7'
		End of Boring		

ppm = parts per million

MW = monitoring well

TW = temporary monitoring well

bgs = below ground surface

(USDA soil texture)

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SOIL BORING LOG

Proj. Name:	RTRR
Proj. Number:	10860

Boring Data	
Boring ID:	WMU27-SB18
Total Depth:	10'

Site Address:	18251 West Jefferson Riverview, Michigan
Drilled by:	ERG
Method:	Direct push probe

Date Completed:	12/16/2019
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MW Data	
Size:	NA
Type:	NA
Screen Length:	NA
Well Depth:	NA
GW Depth (▼):	NA

Depth		Description	PID (ppm)	Sample Depth
From	To			
0	1'	SAND, medium to coarse grained, trace very fine to fine grained sand, gravel, and silt, dark brown, moist, loose (fill)	0.0	Soil at 0-3"
1'	3.5'	SILTY CLAY, trace very fine to fine grained sand and gravel, brown, stiff (fill)	0.0	
3.5'	10'	SAND, medium to coarse grained, trace very fine to fine grained sand, gravel, silt, and slag, dark brown, moist, loose (fill)	0.0	Soil at 9-10'
		End of Boring		

ppm = parts per million

MW = monitoring well

TW = temporary monitoring well

bgs = below ground surface

(USDA soil texture)

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SOIL BORING LOG

Proj. Name:	RTRR
Proj. Number:	10860

Boring Data	
Boring ID:	WMU27-SB19
Total Depth:	7'

Site Address:	18251 West Jefferson Riverview, Michigan
Drilled by:	ERG

Date Completed:	12/16/2019
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Method:	Direct push probe
Geologist:	Mitchel Dykla

MW Data	
Size:	NA
Type:	NA
Screen Length:	NA
Well Depth:	NA
GW Depth (▼):	NA

Depth		Description	PID (ppm)	Sample Depth
From	To			
0	4"	SAND, medium to coarse grained, trace very fine to fine grained sand, gravel, silt, and vegetation, dark brown, moist, loose (fill)	0.0	Soil at 0-3"
4"	7'	SAND, medium to coarse grained, trace very fine to fine grained sand, gravel, silt, and slag, dark brown, moist, loose (fill)	0.0	Soil at 6-7'
		End of Boring		

ppm = parts per million

MW = monitoring well

TW = temporary monitoring well

bgs = below ground surface

(USDA soil texture)

ASTI Environmental
10448 Citation Dr., Suite 100
Brighton, MI 48116

SOIL BORING LOG

Proj. Name:	RTRR
Proj. Number:	10860

Boring Data	
Boring ID:	WMU27-SB20
Total Depth:	10'

Site Address:	18251 West Jefferson Riverview, Michigan
Drilled by:	ERG
Method:	Direct push probe

Date Completed:	12/16/2019
-----------------	------------

MW Data	
Size:	NA
Type:	NA
Screen Length:	NA
Well Depth:	NA
GW Depth (▼):	NA

Depth		Description	PID (ppm)	Sample Depth
From	To			
0	4"	SAND, medium to coarse grained, trace very fine to fine grained sand, gravel, silt, and vegetation, dark brown, moist, loose (fill)	0.0	Soil at 0-3"
4"	10'	SAND, fine to medium grained, trace very fine grained sand, gravel, silt, and slag, dark brown, moist, loose (fill)	0.0	Soil at 9-10'
		End of Boring		

ppm = parts per million

MW = monitoring well

TW = temporary monitoring well

bgs = below ground surface

(USDA soil texture)

**Attachment D
Laboratory Analytical Report**

Waste Management Unit 27 Investigation

Friday, January 03, 2020

Fibertec Project Number: 94220
Project Identification: 5-10860 /5-10860
Submittal Date: 12/17/2019

Mr. Greg Oslosky
Applied Science & Technology, Inc. - Brighton
10448 Citation
Suite 100
Brighton, MI 48116

Dear Mr. Oslosky,

Thank you for selecting Fibertec Environmental Services as your analytical laboratory. The samples you submitted have been analyzed in accordance with NELAC standards and the results compiled in the attached report. Any exceptions to NELAC compliance are noted in the report. These results apply only to those samples submitted. Please note TO-15 samples will be disposed of 7 calendar days after the reporting date. All other samples will be disposed of 30 days after the reporting date.

If you have any questions regarding these results or if we may be of further assistance to you, please contact me at (517) 699-0345.

Sincerely,



By Stephannie Wallace at 10:30 AM, Jan 03, 2020

For Daryl P. Strandbergh
Laboratory Director

Enclosures

1914 Holloway Drive
11766 E. Grand River
8660 S. Mackinaw Trail

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Brighton, MI 48116
Cadillac, MI 49601

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T: (231) 775-8368

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F: (810) 220-3311
F: (231) 775-8584



Analytical Laboratory Report
Laboratory Project Number: 94220
Laboratory Sample Number: 94220-001

Order: 94220
Page: 2 of 44
Date: 01/03/20

Client Identification:	Applied Science & Technology, Inc. - Brighton	Sample Description:	WMU27-SB1-0-3"	Chain of Custody:	181437
Client Project Name:	5-10860	Sample No:		Collect Date:	12/16/19
Client Project No:	5-10860	Sample Matrix:	Soil/Solid	Collect Time:	09:37
Sample Comments: Soil results have been calculated and reported on a dry weight basis unless otherwise noted.					
Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable †: Parameter not included in NELAC Scope of Analysis.					

Water (Moisture) Content Dried at 105 ± 5°C						Aliquot ID:	94220-001	Matrix:	Soil/Solid
Method: ASTM D2216-10						Description:	WMU27-SB1-0-3"		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation	P. Date	P. Batch	Analysis
† 1. Percent Moisture (Water Content)	13		%	1	1.0	12/19/19	MC191219	12/20/19	MC191219 DB

Polychlorinated Biphenyls (PCBs)						Aliquot ID:	94220-001	Matrix:	Soil/Solid
Method: EPA 3546/EPA 8082A						Description:	WMU27-SB1-0-3"		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation	P. Date	P. Batch	Analysis
1. Aroclor-1016	U		µg/kg	770	50	12/19/19	PS19L19F	12/28/19	SF19L28B RDK
2. Aroclor-1221	U		µg/kg	770	50	12/19/19	PS19L19F	12/28/19	SF19L28B RDK
3. Aroclor-1232	U		µg/kg	770	50	12/19/19	PS19L19F	12/28/19	SF19L28B RDK
4. Aroclor-1242	U		µg/kg	770	50	12/19/19	PS19L19F	12/28/19	SF19L28B RDK
5. Aroclor-1248	U		µg/kg	770	50	12/19/19	PS19L19F	12/28/19	SF19L28B RDK
6. Aroclor-1254	7400	J+	µg/kg	770	50	12/19/19	PS19L19F	01/02/20	SF20A02B RDK
7. Aroclor-1260	4000	J+	µg/kg	770	50	12/19/19	PS19L19F	12/28/19	SF19L28B RDK
‡ 8. Aroclor-1262	U		µg/kg	770	50	12/19/19	PS19L19F	12/28/19	SF19L28B RDK
‡ 9. Aroclor-1268	U		µg/kg	770	50	12/19/19	PS19L19F	12/28/19	SF19L28B RDK

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T: (231) 775-8368

F: (517) 699-0388
F: (810) 220-3311
F: (231) 775-8584

Client Identification:	Applied Science & Technology, Inc. - Brighton	Sample Description:	WMU27-SB1-11-12'	Chain of Custody:	181437
Client Project Name:	5-10860	Sample No:		Collect Date:	12/16/19
Client Project No:	5-10860	Sample Matrix:	Soil/Solid	Collect Time:	09:47
Sample Comments: Soil results have been calculated and reported on a dry weight basis unless otherwise noted.					
Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.					

Water (Moisture) Content Dried at 105 ± 5°C	Aliquot ID:	94220-002	Matrix:	Soil/Solid
Method: ASTM D2216-10		Description: WMU27-SB1-11-12'		
Parameter(s)	Result	Q	Units	Reporting Limit
‡ 1. Percent Moisture (Water Content)	10		%	1
				Dilution
				P. Date
				P. Batch
				A. Date
				A. Batch
				Init.

Polychlorinated Biphenyls (PCBs)	Aliquot ID:	94220-002	Matrix:	Soil/Solid
Method: EPA 3546/EPA 8082A		Description: WMU27-SB1-11-12'		
Parameter(s)	Result	Q	Units	Reporting Limit
1. Aroclor-1016	U		µg/kg	100
2. Aroclor-1221	U		µg/kg	100
3. Aroclor-1232	U		µg/kg	100
4. Aroclor-1242	490		µg/kg	100
5. Aroclor-1248	U		µg/kg	100
6. Aroclor-1254	460	J+	µg/kg	100
7. Aroclor-1260	560	J+	µg/kg	100
‡ 8. Aroclor-1262	U		µg/kg	100
‡ 9. Aroclor-1268	U		µg/kg	100
				Dilution
				P. Date
				P. Batch
				A. Date
				A. Batch
				Init.

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Client Identification:	Applied Science & Technology, Inc. - Brighton	Sample Description:	WMU27-SB2-0-3"	Chain of Custody:	181437
Client Project Name:	5-10860	Sample No:		Collect Date:	12/16/19
Client Project No:	5-10860	Sample Matrix:	Soil/Solid	Collect Time:	09:57
Sample Comments: Soil results have been calculated and reported on a dry weight basis unless otherwise noted.					
Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.					

Water (Moisture) Content Dried at 105 ± 5°C		Aliquot ID:	94220-003	Matrix:	Soil/Solid
Method: ASTM D2216-10					
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution
‡ 1. Percent Moisture (Water Content)	7		%	1	1.0
				P. Date	P. Batch
				A. Date	A. Batch
					Init.

Polychlorinated Biphenyls (PCBs)		Aliquot ID:	94220-003	Matrix:	Soil/Solid
Method: EPA 3546/EPA 8082A					
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution
1. Aroclor-1016	U		µg/kg	100	5.0
2. Aroclor-1221	U		µg/kg	100	5.0
3. Aroclor-1232	U		µg/kg	100	5.0
4. Aroclor-1242	U		µg/kg	100	5.0
5. Aroclor-1248	U		µg/kg	100	5.0
6. Aroclor-1254	U		µg/kg	100	5.0
7. Aroclor-1260	300		µg/kg	100	5.0
‡ 8. Aroclor-1262	U		µg/kg	100	5.0
‡ 9. Aroclor-1268	U		µg/kg	100	5.0
				P. Date	P. Batch
				A. Date	A. Batch
					Init.

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Client Identification:	Applied Science & Technology, Inc. - Brighton	Sample Description:	WMU27-SB2-11-12'	Chain of Custody:	181437
Client Project Name:	5-10860	Sample No:		Collect Date:	12/16/19
Client Project No:	5-10860	Sample Matrix:	Soil/Solid	Collect Time:	10:06
Sample Comments: Soil results have been calculated and reported on a dry weight basis unless otherwise noted.					
Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.					

Water (Moisture) Content Dried at 105 ± 5°C			Aliquot ID:	94220-004	Matrix:	Soil/Solid
Method: ASTM D2216-10						Description: WMU27-SB2-11-12'
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation
‡ 1. Percent Moisture (Water Content)	13		%	1	1.0	P. Date P. Batch

Polychlorinated Biphenyls (PCBs)			Aliquot ID:	94220-004	Matrix:	Soil/Solid
Method: EPA 3546/EPA 8082A						Description: WMU27-SB2-11-12'
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation
1. Aroclor-1016	U		µg/kg	100	5.0	12/19/19 PS19L19F
2. Aroclor-1221	U		µg/kg	100	5.0	12/19/19 PS19L19F
3. Aroclor-1232	U		µg/kg	100	5.0	12/19/19 PS19L19F
4. Aroclor-1242	150		µg/kg	100	5.0	12/19/19 PS19L19F
5. Aroclor-1248	U		µg/kg	100	5.0	12/19/19 PS19L19F
6. Aroclor-1254	360	J+	µg/kg	100	5.0	12/19/19 PS19L19F
7. Aroclor-1260	360	J+	µg/kg	100	5.0	12/19/19 PS19L19F
‡ 8. Aroclor-1262	U		µg/kg	100	5.0	12/19/19 PS19L19F
‡ 9. Aroclor-1268	U		µg/kg	100	5.0	12/19/19 PS19L19F
						Analysis
						P. Date P. Batch A. Date A. Batch Init.

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Client Identification:	Applied Science & Technology, Inc. - Brighton	Sample Description:	WMU27-SB3-0-3"	Chain of Custody:	181437
Client Project Name:	5-10860	Sample No:		Collect Date:	12/16/19
Client Project No:	5-10860	Sample Matrix:	Soil/Solid	Collect Time:	10:13
Sample Comments: Soil results have been calculated and reported on a dry weight basis unless otherwise noted.					
Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.					

Water (Moisture) Content Dried at 105 ± 5°C		Aliquot ID:	94220-005	Matrix:	Soil/Solid
Method: ASTM D2216-10					
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution
‡ 1. Percent Moisture (Water Content)	9		%	1	1.0
				P. Date	P. Batch
				A. Date	A. Batch
					Init.

Polychlorinated Biphenyls (PCBs)		Aliquot ID:	94220-005	Matrix:	Soil/Solid
Method: EPA 3546/EPA 8082A					
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution
1. Aroclor-1016	U		µg/kg	100	5.0
2. Aroclor-1221	U		µg/kg	100	5.0
3. Aroclor-1232	U		µg/kg	100	5.0
4. Aroclor-1242	U		µg/kg	100	5.0
5. Aroclor-1248	U		µg/kg	100	5.0
6. Aroclor-1254	U		µg/kg	100	5.0
7. Aroclor-1260	U		µg/kg	100	5.0
‡ 8. Aroclor-1262	U		µg/kg	100	5.0
‡ 9. Aroclor-1268	U		µg/kg	100	5.0
				P. Date	P. Batch
				A. Date	A. Batch
					Init.

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Client Identification:	Applied Science & Technology, Inc. - Brighton	Sample Description:	WMU27-SB3-11-12'	Chain of Custody:	181437
Client Project Name:	5-10860	Sample No:		Collect Date:	12/16/19
Client Project No:	5-10860	Sample Matrix:	Soil/Solid	Collect Time:	10:25
Sample Comments: Soil results have been calculated and reported on a dry weight basis unless otherwise noted.					
Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.					

Water (Moisture) Content Dried at 105 ± 5°C		Aliquot ID:	94220-006	Matrix:	Soil/Solid
Method: ASTM D2216-10					
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution
‡ 1. Percent Moisture (Water Content)	14		%	1	1.0
				P. Date	P. Batch
				A. Date	A. Batch
					Init.

Polychlorinated Biphenyls (PCBs)		Aliquot ID:	94220-006	Matrix:	Soil/Solid
Method: EPA 3546/EPA 8082A					
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution
1. Aroclor-1016	U		µg/kg	100	5.0
2. Aroclor-1221	U		µg/kg	100	5.0
3. Aroclor-1232	U		µg/kg	100	5.0
4. Aroclor-1242	U		µg/kg	100	5.0
5. Aroclor-1248	U		µg/kg	100	5.0
6. Aroclor-1254	480	J+	µg/kg	100	5.0
7. Aroclor-1260	920	J+	µg/kg	100	5.0
‡ 8. Aroclor-1262	U		µg/kg	100	5.0
‡ 9. Aroclor-1268	U		µg/kg	100	5.0
				P. Date	P. Batch
				A. Date	A. Batch
					Init.

Client Identification:	Applied Science & Technology, Inc. - Brighton	Sample Description:	WMU27-SB4-0-3"	Chain of Custody:	181437
Client Project Name:	5-10860	Sample No:		Collect Date:	12/16/19
Client Project No:	5-10860	Sample Matrix:	Soil/Solid	Collect Time:	10:34
Sample Comments: Soil results have been calculated and reported on a dry weight basis unless otherwise noted.					
Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.					

Water (Moisture) Content Dried at 105 ± 5°C	Aliquot ID:	94220-007	Matrix:	Soil/Solid
Method: ASTM D2216-10		Description: WMU27-SB4-0-3"		
Parameter(s)	Result	Q	Units	Reporting Limit
‡ 1. Percent Moisture (Water Content)	8		%	1

Polychlorinated Biphenyls (PCBs)	Aliquot ID:	94220-007	Matrix:	Soil/Solid
Method: EPA 3546/EPA 8082A		Description: WMU27-SB4-0-3"		
Parameter(s)	Result	Q	Units	Reporting Limit
1. Aroclor-1016	U		µg/kg	100
2. Aroclor-1221	U		µg/kg	100
3. Aroclor-1232	U		µg/kg	100
4. Aroclor-1242	U		µg/kg	100
5. Aroclor-1248	U		µg/kg	100
6. Aroclor-1254	U		µg/kg	100
7. Aroclor-1260	210		µg/kg	100
‡ 8. Aroclor-1262	U		µg/kg	100
‡ 9. Aroclor-1268	U		µg/kg	100

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Analytical Laboratory Report
Laboratory Project Number: 94220
Laboratory Sample Number: 94220-008

Order: 94220
Page: 9 of 44
Date: 01/03/20

Client Identification:	Applied Science & Technology, Inc. - Brighton	Sample Description:	WMU27-SB4-11-12'	Chain of Custody:	181437
Client Project Name:	5-10860	Sample No:		Collect Date:	12/16/19
Client Project No:	5-10860	Sample Matrix:	Soil/Solid	Collect Time:	10:41
Sample Comments: Soil results have been calculated and reported on a dry weight basis unless otherwise noted.					
Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.					

Water (Moisture) Content Dried at 105 ± 5°C						Aliquot ID:	94220-008	Matrix:	Soil/Solid
Method: ASTM D2216-10						Description:	WMU27-SB4-11-12'		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation	P. Date	P. Batch	Analysis
‡ 1. Percent Moisture (Water Content)	14		%	1	1.0	12/19/19	MC191219	12/20/19	MC191219 DB

Polychlorinated Biphenyls (PCBs)						Aliquot ID:	94220-008	Matrix:	Soil/Solid
Method: EPA 3546/EPA 8082A						Description:	WMU27-SB4-11-12'		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation	P. Date	P. Batch	Analysis
1. Aroclor-1016	U		µg/kg	100	5.0	12/19/19	PS19L19F	12/30/19	SF19L30A RDK
2. Aroclor-1221	U		µg/kg	100	5.0	12/19/19	PS19L19F	12/30/19	SF19L30A RDK
3. Aroclor-1232	U		µg/kg	100	5.0	12/19/19	PS19L19F	12/30/19	SF19L30A RDK
4. Aroclor-1242	U		µg/kg	100	5.0	12/19/19	PS19L19F	12/30/19	SF19L30A RDK
5. Aroclor-1248	U		µg/kg	100	5.0	12/19/19	PS19L19F	12/30/19	SF19L30A RDK
6. Aroclor-1254	U		µg/kg	100	5.0	12/19/19	PS19L19F	12/30/19	SF19L30A RDK
7. Aroclor-1260	540	J+	µg/kg	100	5.0	12/19/19	PS19L19F	12/30/19	SF19L30A RDK
‡ 8. Aroclor-1262	U		µg/kg	100	5.0	12/19/19	PS19L19F	12/30/19	SF19L30A RDK
‡ 9. Aroclor-1268	1600	J+	µg/kg	390	25	12/19/19	PS19L19F	01/02/20	SF20A02B RDK

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F: (231) 775-8584

Client Identification:	Applied Science & Technology, Inc. - Brighton	Sample Description:	WMU27-SB5-0-3"	Chain of Custody:	181437
Client Project Name:	5-10860	Sample No:		Collect Date:	12/16/19
Client Project No:	5-10860	Sample Matrix:	Soil/Solid	Collect Time:	10:47
Sample Comments: Soil results have been calculated and reported on a dry weight basis unless otherwise noted.					
Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.					

Water (Moisture) Content Dried at 105 ± 5°C		Aliquot ID: 94220-009	Matrix: Soil/Solid
Method: ASTM D2216-10			
Parameter(s)	Result	Q	Units
‡ 1. Percent Moisture (Water Content)	7	%	1 1.0 P. Date P. Batch A. Date A. Batch Init.

Polychlorinated Biphenyls (PCBs)		Aliquot ID: 94220-009	Matrix: Soil/Solid
Method: EPA 3546/EPA 8082A			
Parameter(s)	Result	Q	Units
1. Aroclor-1016	U	µg/kg	100 5.0 P. Date P. Batch A. Date A. Batch Init.
2. Aroclor-1221	U	µg/kg	100 5.0 12/19/19 PS19L19F 12/30/19 SF19L30A RDK
3. Aroclor-1232	U	µg/kg	100 5.0 12/19/19 PS19L19F 12/30/19 SF19L30A RDK
4. Aroclor-1242	U	µg/kg	100 5.0 12/19/19 PS19L19F 12/30/19 SF19L30A RDK
5. Aroclor-1248	U	µg/kg	100 5.0 12/19/19 PS19L19F 12/30/19 SF19L30A RDK
6. Aroclor-1254	180	J+	µg/kg 100 5.0 12/19/19 PS19L19F 12/30/19 SF19L30A RDK
7. Aroclor-1260	160	J+	µg/kg 100 5.0 12/19/19 PS19L19F 12/30/19 SF19L30A RDK
‡ 8. Aroclor-1262	U	µg/kg	100 5.0 12/19/19 PS19L19F 12/30/19 SF19L30A RDK
‡ 9. Aroclor-1268	U	µg/kg	100 5.0 12/19/19 PS19L19F 12/30/19 SF19L30A RDK

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Client Identification:	Applied Science & Technology, Inc. - Brighton	Sample Description:	WMU27-SB5-9-10'	Chain of Custody:	181437
Client Project Name:	5-10860	Sample No:		Collect Date:	12/16/19
Client Project No:	5-10860	Sample Matrix:	Soil/Solid	Collect Time:	10:57
Sample Comments: Soil results have been calculated and reported on a dry weight basis unless otherwise noted.					
Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.					

Water (Moisture) Content Dried at 105 ± 5°C		Aliquot ID: 94220-010	Matrix: Soil/Solid							
Method: ASTM D2216-10			Description: WMU27-SB5-9-10'							
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
‡ 1. Percent Moisture (Water Content)	7		%	1	1.0	P. Date 12/19/19	P. Batch MC191219	A. Date 12/20/19	A. Batch MC191219	Init. DB

Polychlorinated Biphenyls (PCBs)		Aliquot ID: 94220-010	Matrix: Soil/Solid							
Method: EPA 3546/EPA 8082A			Description: WMU27-SB5-9-10'							
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
1. Aroclor-1016	U		µg/kg	100	5.0	P. Date 12/19/19	P. Batch PS19L19F	A. Date 12/20/19	A. Batch SF19L20A	Init. RDK
2. Aroclor-1221	U		µg/kg	100	5.0	12/19/19	PS19L19F	12/20/19	SF19L20A	RDK
3. Aroclor-1232	U		µg/kg	100	5.0	12/19/19	PS19L19F	12/20/19	SF19L20A	RDK
4. Aroclor-1242	U		µg/kg	100	5.0	12/19/19	PS19L19F	12/20/19	SF19L20A	RDK
5. Aroclor-1248	U		µg/kg	100	5.0	12/19/19	PS19L19F	12/20/19	SF19L20A	RDK
6. Aroclor-1254	U		µg/kg	100	5.0	12/19/19	PS19L19F	12/20/19	SF19L20A	RDK
7. Aroclor-1260	U		µg/kg	100	5.0	12/19/19	PS19L19F	12/20/19	SF19L20A	RDK
‡ 8. Aroclor-1262	U		µg/kg	100	5.0	12/19/19	PS19L19F	12/20/19	SF19L20A	RDK
‡ 9. Aroclor-1268	U		µg/kg	100	5.0	12/19/19	PS19L19F	12/20/19	SF19L20A	RDK

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Client Identification:	Applied Science & Technology, Inc. - Brighton	Sample Description:	WMU27-SB6-0-3"	Chain of Custody:	181438
Client Project Name:	5-10860	Sample No:		Collect Date:	12/16/19
Client Project No:	5-10860	Sample Matrix:	Soil/Solid	Collect Time:	12:20
Sample Comments: Soil results have been calculated and reported on a dry weight basis unless otherwise noted.					
Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.					

Water (Moisture) Content Dried at 105 ± 5°C		Aliquot ID: 94220-011	Matrix: Soil/Solid							
Method: ASTM D2216-10			Description: WMU27-SB6-0-3"							
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
‡ 1. Percent Moisture (Water Content)	3		%	1	1.0	P. Date 12/19/19	P. Batch MC191219	A. Date 12/20/19	A. Batch MC191219	Init. DB

Polychlorinated Biphenyls (PCBs)		Aliquot ID: 94220-011	Matrix: Soil/Solid							
Method: EPA 3546/EPA 8082A			Description: WMU27-SB6-0-3"							
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
1. Aroclor-1016	U		µg/kg	100	5.0	P. Date 12/19/19	P. Batch PS19L19F	A. Date 12/30/19	A. Batch SF19L30A	Init. RDK
2. Aroclor-1221	U		µg/kg	100	5.0	12/19/19	PS19L19F	12/30/19	SF19L30A	RDK
3. Aroclor-1232	U		µg/kg	100	5.0	12/19/19	PS19L19F	12/30/19	SF19L30A	RDK
4. Aroclor-1242	U		µg/kg	100	5.0	12/19/19	PS19L19F	12/30/19	SF19L30A	RDK
5. Aroclor-1248	U		µg/kg	100	5.0	12/19/19	PS19L19F	12/30/19	SF19L30A	RDK
6. Aroclor-1254	180	J+	µg/kg	100	5.0	12/19/19	PS19L19F	12/30/19	SF19L30A	RDK
7. Aroclor-1260	150	J+	µg/kg	100	5.0	12/19/19	PS19L19F	12/30/19	SF19L30A	RDK
‡ 8. Aroclor-1262	U		µg/kg	100	5.0	12/19/19	PS19L19F	12/30/19	SF19L30A	RDK
‡ 9. Aroclor-1268	U		µg/kg	100	5.0	12/19/19	PS19L19F	12/30/19	SF19L30A	RDK



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Laboratory Project Number: 94220
Laboratory Sample Number: 94220-012

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Client Identification:	Applied Science & Technology, Inc. - Brighton	Sample Description:	WMU27-SB6-8.5-9.5'	Chain of Custody:	181438
Client Project Name:	5-10860	Sample No:		Collect Date:	12/16/19
Client Project No:	5-10860	Sample Matrix:	Soil/Solid	Collect Time:	12:26
Sample Comments:	Soil results have been calculated and reported on a dry weight basis unless otherwise noted.				
Definitions:	Q: Qualifier (see definitions at end of report) NA: Not Applicable †: Parameter not included in NELAC Scope of Analysis.				

Water (Moisture) Content Dried at 105 ± 5°C	Aliquot ID:	94220-012	Matrix:	Soil/Solid						
Method: ASTM D2216-10	Description:	WMU27-SB6-8.5-9.5'								
			Preparation	Analysis						
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	P. Date	P. Batch	A. Date	A. Batch	Init.

Polychlorinated Biphenyls (PCBs)					Aliquot ID: 94220-012		Matrix: Soil/Solid			
Method: EPA 3546/EPA 8082A					Description: WMU27-SB6-8.5-9.5'					
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
1. Aroclor-1016	U		µg/kg	1400	100	12/19/19	PS19L19F	12/28/19	SF19L28B	RDK
2. Aroclor-1221	U		µg/kg	1400	100	12/19/19	PS19L19F	12/28/19	SF19L28B	RDK
3. Aroclor-1232	U		µg/kg	1400	100	12/19/19	PS19L19F	12/28/19	SF19L28B	RDK
4. Aroclor-1242	U		µg/kg	1400	100	12/19/19	PS19L19F	12/28/19	SF19L28B	RDK
5. Aroclor-1248	U		µg/kg	1400	100	12/19/19	PS19L19F	12/28/19	SF19L28B	RDK
6. Aroclor-1254	U		µg/kg	1400	100	12/19/19	PS19L19F	12/28/19	SF19L28B	RDK
7. Aroclor-1260	13000		µg/kg	1400	100	12/19/19	PS19L19F	12/28/19	SF19L28B	RDK
‡ 8. Aroclor-1262	U		µg/kg	1400	100	12/19/19	PS19L19F	12/28/19	SF19L28B	RDK
‡ 9. Aroclor-1268	U		µg/kg	1400	100	12/19/19	PS19L19F	12/28/19	SF19L28B	RDK

Client Identification:	Applied Science & Technology, Inc. - Brighton	Sample Description:	WMU27-SB7-0-3"	Chain of Custody:	181438
Client Project Name:	5-10860	Sample No:		Collect Date:	12/16/19
Client Project No:	5-10860	Sample Matrix:	Soil/Solid	Collect Time:	12:02
Sample Comments: Soil results have been calculated and reported on a dry weight basis unless otherwise noted.					
Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.					

Water (Moisture) Content Dried at 105 ± 5°C		Aliquot ID: 94220-013	Matrix: Soil/Solid
Method: ASTM D2216-10			
Parameter(s)	Result	Q	Units
‡ 1. Percent Moisture (Water Content)	8	%	
Reporting Limit	1	Dilution	
		P. Date	P. Batch
		A. Date	A. Batch
		Init.	DB

Polychlorinated Biphenyls (PCBs)		Aliquot ID: 94220-013	Matrix: Soil/Solid
Method: EPA 3546/EPA 8082A			
Parameter(s)	Result	Q	Units
1. Aroclor-1016	U	µg/kg	100
2. Aroclor-1221	U	µg/kg	100
3. Aroclor-1232	U	µg/kg	100
4. Aroclor-1242	U	µg/kg	100
5. Aroclor-1248	U	µg/kg	100
6. Aroclor-1254	U	µg/kg	100
7. Aroclor-1260	U	µg/kg	100
‡ 8. Aroclor-1262	U	µg/kg	100
‡ 9. Aroclor-1268	U	µg/kg	100
Reporting Limit	5.0	Dilution	
	12/19/19	P. Date	P. Batch
		A. Date	A. Batch
		Init.	RDK

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Client Identification:	Applied Science & Technology, Inc. - Brighton	Sample Description:	WMU27-SB7-10.5-11.5"	Chain of Custody:	181438
Client Project Name:	5-10860	Sample No:		Collect Date:	12/16/19
Client Project No:	5-10860	Sample Matrix:	Soil/Solid	Collect Time:	12:13
Sample Comments: Soil results have been calculated and reported on a dry weight basis unless otherwise noted.					
Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.					

Water (Moisture) Content Dried at 105 ± 5°C		Aliquot ID: 94220-014	Matrix: Soil/Solid							
Method: ASTM D2216-10			Description: WMU27-SB7-10.5-11.5"							
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
‡ 1. Percent Moisture (Water Content)	15		%	1	1.0	P. Date 12/19/19	P. Batch MC191219	A. Date 12/20/19	A. Batch MC191219	Init. DB

Polychlorinated Biphenyls (PCBs)		Aliquot ID: 94220-014	Matrix: Soil/Solid							
Method: EPA 3546/EPA 8082A			Description: WMU27-SB7-10.5-11.5"							
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
1. Aroclor-1016	U		µg/kg	100	5.0	P. Date 12/19/19	P. Batch PS19L19F	A. Date 12/20/19	A. Batch SF19L20A	Init. RDK
2. Aroclor-1221	U		µg/kg	100	5.0	12/19/19	PS19L19F	12/20/19	SF19L20A	RDK
3. Aroclor-1232	U		µg/kg	100	5.0	12/19/19	PS19L19F	12/20/19	SF19L20A	RDK
4. Aroclor-1242	U		µg/kg	100	5.0	12/19/19	PS19L19F	12/20/19	SF19L20A	RDK
5. Aroclor-1248	U		µg/kg	100	5.0	12/19/19	PS19L19F	12/20/19	SF19L20A	RDK
6. Aroclor-1254	U		µg/kg	100	5.0	12/19/19	PS19L19F	12/20/19	SF19L20A	RDK
7. Aroclor-1260	U		µg/kg	100	5.0	12/19/19	PS19L19F	12/20/19	SF19L20A	RDK
‡ 8. Aroclor-1262	U		µg/kg	100	5.0	12/19/19	PS19L19F	12/20/19	SF19L20A	RDK
‡ 9. Aroclor-1268	U		µg/kg	100	5.0	12/19/19	PS19L19F	12/20/19	SF19L20A	RDK



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Laboratory Project Number: 94220
Laboratory Sample Number: 94220-015

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Client Identification:	Applied Science & Technology, Inc. - Brighton	Sample Description:	WMU27-SB8-0-3"	Chain of Custody:	181438
Client Project Name:	5-10860	Sample No:		Collect Date:	12/16/19
Client Project No:	5-10860	Sample Matrix:	Soil/Solid	Collect Time:	11:46
Sample Comments: Soil results have been calculated and reported on a dry weight basis unless otherwise noted.					
Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.					

Water (Moisture) Content Dried at 105 ± 5°C	Aliquot ID:	94220-015	Matrix:	Soil/Solid
Method: ASTM D2216-10		Description: WMU27-SB8-0-3"		
Parameter(s)	Result	Q	Units	Reporting Limit
‡ 1. Percent Moisture (Water Content)	9		%	1

Polychlorinated Biphenyls (PCBs)	Aliquot ID:	94220-015	Matrix:	Soil/Solid
Method: EPA 3546/EPA 8082A		Description: WMU27-SB8-0-3"		
Parameter(s)	Result	Q	Units	Reporting Limit
1. Aroclor-1016	U		µg/kg	100
2. Aroclor-1221	U		µg/kg	100
3. Aroclor-1232	U		µg/kg	100
4. Aroclor-1242	U		µg/kg	100
5. Aroclor-1248	U		µg/kg	100
6. Aroclor-1254	U		µg/kg	100
7. Aroclor-1260	U		µg/kg	100
‡ 8. Aroclor-1262	U		µg/kg	100
‡ 9. Aroclor-1268	U		µg/kg	100

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Client Identification:	Applied Science & Technology, Inc. - Brighton	Sample Description:	WMU27-SB8-10-11'	Chain of Custody:	181438
Client Project Name:	5-10860	Sample No:		Collect Date:	12/16/19
Client Project No:	5-10860	Sample Matrix:	Soil/Solid	Collect Time:	11:56
Sample Comments: Soil results have been calculated and reported on a dry weight basis unless otherwise noted.					
Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.					

Water (Moisture) Content Dried at 105 ± 5°C	Aliquot ID:	94220-016	Matrix:	Soil/Solid
Method: ASTM D2216-10		Description: WMU27-SB8-10-11'		
Parameter(s)	Result	Q	Units	Reporting Limit
‡ 1. Percent Moisture (Water Content)	9		%	1

Polychlorinated Biphenyls (PCBs)	Aliquot ID:	94220-016	Matrix:	Soil/Solid
Method: EPA 3546/EPA 8082A		Description: WMU27-SB8-10-11'		
Parameter(s)	Result	Q	Units	Reporting Limit
1. Aroclor-1016	U		µg/kg	100
2. Aroclor-1221	U		µg/kg	100
3. Aroclor-1232	U		µg/kg	100
4. Aroclor-1242	U		µg/kg	100
5. Aroclor-1248	U		µg/kg	100
6. Aroclor-1254	U		µg/kg	100
7. Aroclor-1260	370		µg/kg	100
‡ 8. Aroclor-1262	U		µg/kg	100
‡ 9. Aroclor-1268	U		µg/kg	100

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Analytical Laboratory Report
Laboratory Project Number: 94220
Laboratory Sample Number: 94220-017

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Client Identification:	Applied Science & Technology, Inc. - Brighton	Sample Description:	WMU27-SB9-0-3"	Chain of Custody:	181438
Client Project Name:	5-10860	Sample No:		Collect Date:	12/16/19
Client Project No:	5-10860	Sample Matrix:	Soil/Solid	Collect Time:	11:26
Sample Comments: Soil results have been calculated and reported on a dry weight basis unless otherwise noted.					
Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.					

Water (Moisture) Content Dried at 105 ± 5°C	Aliquot ID:	94220-017	Matrix:	Soil/Solid
Method: ASTM D2216-10		Description: WMU27-SB9-0-3"		
Parameter(s)	Result	Q	Units	Reporting Limit
‡ 1. Percent Moisture (Water Content)	8		%	1

Polychlorinated Biphenyls (PCBs)	Aliquot ID:	94220-017	Matrix:	Soil/Solid
Method: EPA 3546/EPA 8082A		Description: WMU27-SB9-0-3"		
Parameter(s)	Result	Q	Units	Reporting Limit
1. Aroclor-1016	U		µg/kg	100
2. Aroclor-1221	U		µg/kg	100
3. Aroclor-1232	U		µg/kg	100
4. Aroclor-1242	U		µg/kg	100
5. Aroclor-1248	U		µg/kg	100
6. Aroclor-1254	U		µg/kg	100
7. Aroclor-1260	220		µg/kg	100
‡ 8. Aroclor-1262	U		µg/kg	100
‡ 9. Aroclor-1268	U		µg/kg	100

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Client Identification:	Applied Science & Technology, Inc. - Brighton	Sample Description:	WMU27-SB9-7-8'	Chain of Custody:	181438
Client Project Name:	5-10860	Sample No:		Collect Date:	12/16/19
Client Project No:	5-10860	Sample Matrix:	Soil/Solid	Collect Time:	11:39
Sample Comments: Soil results have been calculated and reported on a dry weight basis unless otherwise noted.					
Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.					

Water (Moisture) Content Dried at 105 ± 5°C		Aliquot ID: 94220-018	Matrix: Soil/Solid							
Method: ASTM D2216-10			Description: WMU27-SB9-7-8'							
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
‡ 1. Percent Moisture (Water Content)	7		%	1	1.0	P. Date 12/19/19	P. Batch MC191219	A. Date 12/20/19	A. Batch MC191219	Init. DB

Polychlorinated Biphenyls (PCBs)		Aliquot ID: 94220-018	Matrix: Soil/Solid							
Method: EPA 3546/EPA 8082A			Description: WMU27-SB9-7-8'							
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
1. Aroclor-1016	U		µg/kg	100	5.0	P. Date 12/19/19	P. Batch PS19L19F	A. Date 12/26/19	A. Batch SF19L26A	Init. RDK
2. Aroclor-1221	U		µg/kg	100	5.0	12/19/19	PS19L19F	12/26/19	SF19L26A	RDK
3. Aroclor-1232	U		µg/kg	100	5.0	12/19/19	PS19L19F	12/26/19	SF19L26A	RDK
4. Aroclor-1242	U		µg/kg	100	5.0	12/19/19	PS19L19F	12/26/19	SF19L26A	RDK
5. Aroclor-1248	U		µg/kg	100	5.0	12/19/19	PS19L19F	12/26/19	SF19L26A	RDK
6. Aroclor-1254	U		µg/kg	100	5.0	12/19/19	PS19L19F	12/26/19	SF19L26A	RDK
7. Aroclor-1260	U		µg/kg	100	5.0	12/19/19	PS19L19F	12/26/19	SF19L26A	RDK
‡ 8. Aroclor-1262	U		µg/kg	100	5.0	12/19/19	PS19L19F	12/26/19	SF19L26A	RDK
‡ 9. Aroclor-1268	U		µg/kg	100	5.0	12/19/19	PS19L19F	12/26/19	SF19L26A	RDK

Client Identification:	Applied Science & Technology, Inc. - Brighton	Sample Description:	WMU27-SB10-0-3"	Chain of Custody:	181438
Client Project Name:	5-10860	Sample No:		Collect Date:	12/16/19
Client Project No:	5-10860	Sample Matrix:	Soil/Solid	Collect Time:	11:04
Sample Comments: Soil results have been calculated and reported on a dry weight basis unless otherwise noted.					
Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.					

Water (Moisture) Content Dried at 105 ± 5°C		Aliquot ID: 94220-019	Matrix: Soil/Solid							
Method: ASTM D2216-10			Description: WMU27-SB10-0-3"							
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
‡ 1. Percent Moisture (Water Content)	8		%	1	1.0	P. Date 12/19/19	P. Batch MC191219	A. Date 12/20/19	A. Batch MC191219	Init. DB

Polychlorinated Biphenyls (PCBs)		Aliquot ID: 94220-019	Matrix: Soil/Solid							
Method: EPA 3546/EPA 8082A			Description: WMU27-SB10-0-3"							
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
1. Aroclor-1016	U		µg/kg	100	5.0	P. Date 12/19/19	P. Batch PS19L19F	A. Date 12/20/19	A. Batch SF19L20A	Init. RDK
2. Aroclor-1221	U		µg/kg	100	5.0	12/19/19	PS19L19F	12/20/19	SF19L20A	RDK
3. Aroclor-1232	U		µg/kg	100	5.0	12/19/19	PS19L19F	12/20/19	SF19L20A	RDK
4. Aroclor-1242	U		µg/kg	100	5.0	12/19/19	PS19L19F	12/20/19	SF19L20A	RDK
5. Aroclor-1248	U		µg/kg	100	5.0	12/19/19	PS19L19F	12/20/19	SF19L20A	RDK
6. Aroclor-1254	U		µg/kg	100	5.0	12/19/19	PS19L19F	12/20/19	SF19L20A	RDK
7. Aroclor-1260	U		µg/kg	100	5.0	12/19/19	PS19L19F	12/20/19	SF19L20A	RDK
‡ 8. Aroclor-1262	U		µg/kg	100	5.0	12/19/19	PS19L19F	12/20/19	SF19L20A	RDK
‡ 9. Aroclor-1268	U		µg/kg	100	5.0	12/19/19	PS19L19F	12/20/19	SF19L20A	RDK

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Client Identification:	Applied Science & Technology, Inc. - Brighton	Sample Description:	WMU27-SB10-7-8'	Chain of Custody:	181438
Client Project Name:	5-10860	Sample No:		Collect Date:	12/16/19
Client Project No:	5-10860	Sample Matrix:	Soil/Solid	Collect Time:	11:15
Sample Comments: Soil results have been calculated and reported on a dry weight basis unless otherwise noted.					
Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.					

Water (Moisture) Content Dried at 105 ± 5°C		Aliquot ID: 94220-020	Matrix: Soil/Solid							
Method: ASTM D2216-10			Description: WMU27-SB10-7-8'							
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
‡ 1. Percent Moisture (Water Content)	6		%	1	1.0	P. Date 12/19/19	P. Batch MC191219	A. Date 12/20/19	A. Batch MC191219	Init. DB

Polychlorinated Biphenyls (PCBs)		Aliquot ID: 94220-020	Matrix: Soil/Solid							
Method: EPA 3546/EPA 8082A			Description: WMU27-SB10-7-8'							
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
1. Aroclor-1016	U		µg/kg	100	5.0	P. Date 12/19/19	P. Batch PS19L19F	A. Date 12/20/19	A. Batch SF19L20A	Init. RDK
2. Aroclor-1221	U		µg/kg	100	5.0	12/19/19	PS19L19F	12/20/19	SF19L20A	RDK
3. Aroclor-1232	U		µg/kg	100	5.0	12/19/19	PS19L19F	12/20/19	SF19L20A	RDK
4. Aroclor-1242	U		µg/kg	100	5.0	12/19/19	PS19L19F	12/20/19	SF19L20A	RDK
5. Aroclor-1248	U		µg/kg	100	5.0	12/19/19	PS19L19F	12/20/19	SF19L20A	RDK
6. Aroclor-1254	U		µg/kg	100	5.0	12/19/19	PS19L19F	12/20/19	SF19L20A	RDK
7. Aroclor-1260	U		µg/kg	100	5.0	12/19/19	PS19L19F	12/20/19	SF19L20A	RDK
‡ 8. Aroclor-1262	U		µg/kg	100	5.0	12/19/19	PS19L19F	12/20/19	SF19L20A	RDK
‡ 9. Aroclor-1268	U		µg/kg	100	5.0	12/19/19	PS19L19F	12/20/19	SF19L20A	RDK

1914 Holloway Drive 11766 E. Grand River 8660 S. Mackinaw Trail	Holt, MI 48842 Brighton, MI 48116 Cadillac, MI 49601	T: (517) 699-0345 T: (810) 220-3300 T: (231) 775-8368	F: (517) 699-0388 F: (810) 220-3311 F: (231) 775-8584
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Client Identification:	Applied Science & Technology, Inc. - Brighton	Sample Description:	WMU27-SB11-0-3"	Chain of Custody:	181439
Client Project Name:	5-10860	Sample No:		Collect Date:	12/16/19
Client Project No:	5-10860	Sample Matrix:	Soil/Solid	Collect Time:	12:31
Sample Comments: Soil results have been calculated and reported on a dry weight basis unless otherwise noted.					
Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.					

Water (Moisture) Content Dried at 105 ± 5°C		Aliquot ID: 94220-021	Matrix: Soil/Solid							
Method: ASTM D2216-10			Description: WMU27-SB11-0-3"							
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
‡ 1. Percent Moisture (Water Content)	4		%	1	1.0	P. Date 12/19/19	P. Batch MC191219	A. Date 12/20/19	A. Batch MC191219	Init. DB

Polychlorinated Biphenyls (PCBs)		Aliquot ID: 94220-021	Matrix: Soil/Solid							
Method: EPA 3546/EPA 8082A			Description: WMU27-SB11-0-3"							
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
1. Aroclor-1016	U		µg/kg	100	5.0	P. Date 12/19/19	P. Batch PS19L19G	A. Date 12/21/19	A. Batch SF19L20A	Init. RDK
2. Aroclor-1221	U		µg/kg	100	5.0	12/19/19	PS19L19G	12/21/19	SF19L20A	RDK
3. Aroclor-1232	U		µg/kg	100	5.0	12/19/19	PS19L19G	12/21/19	SF19L20A	RDK
4. Aroclor-1242	U		µg/kg	100	5.0	12/19/19	PS19L19G	12/21/19	SF19L20A	RDK
5. Aroclor-1248	U		µg/kg	100	5.0	12/19/19	PS19L19G	12/21/19	SF19L20A	RDK
6. Aroclor-1254	U		µg/kg	100	5.0	12/19/19	PS19L19G	12/21/19	SF19L20A	RDK
7. Aroclor-1260	U		µg/kg	100	5.0	12/19/19	PS19L19G	12/21/19	SF19L20A	RDK
‡ 8. Aroclor-1262	U		µg/kg	100	5.0	12/19/19	PS19L19G	12/21/19	SF19L20A	RDK
‡ 9. Aroclor-1268	U		µg/kg	100	5.0	12/19/19	PS19L19G	12/21/19	SF19L20A	RDK

Client Identification:	Applied Science & Technology, Inc. - Brighton	Sample Description:	WMU27-SB11-11-12'	Chain of Custody:	181439
Client Project Name:	5-10860	Sample No:		Collect Date:	12/16/19
Client Project No:	5-10860	Sample Matrix:	Soil/Solid	Collect Time:	12:43
Sample Comments: Soil results have been calculated and reported on a dry weight basis unless otherwise noted.					
Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.					

Water (Moisture) Content Dried at 105 ± 5°C	Aliquot ID:	94220-022	Matrix:	Soil/Solid
Method: ASTM D2216-10	Description: WMU27-SB11-11-12'			
Parameter(s)	Result	Q	Units	Reporting Limit
‡ 1. Percent Moisture (Water Content)	13		%	1
				Dilution
				P. Date
				P. Batch
				A. Date
				A. Batch
				Init.

Polychlorinated Biphenyls (PCBs)	Aliquot ID:	94220-022	Matrix:	Soil/Solid
Method: EPA 3546/EPA 8082A	Description: WMU27-SB11-11-12'			
Parameter(s)	Result	Q	Units	Reporting Limit
1. Aroclor-1016	U		µg/kg	100
2. Aroclor-1221	U		µg/kg	100
3. Aroclor-1232	U		µg/kg	100
4. Aroclor-1242	U		µg/kg	100
5. Aroclor-1248	U		µg/kg	100
6. Aroclor-1254	U		µg/kg	100
7. Aroclor-1260	110		µg/kg	100
‡ 8. Aroclor-1262	U		µg/kg	100
‡ 9. Aroclor-1268	U		µg/kg	100
				Dilution
				P. Date
				P. Batch
				A. Date
				A. Batch
				Init.

1914 Holloway Drive 11766 E. Grand River 8660 S. Mackinaw Trail	Holt, MI 48842 Brighton, MI 48116 Cadillac, MI 49601	T: (517) 699-0345 T: (810) 220-3300 T: (231) 775-8368	F: (517) 699-0388 F: (810) 220-3311 F: (231) 775-8584
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Client Identification:	Applied Science & Technology, Inc. - Brighton	Sample Description:	WMU27-SB12-0-3"	Chain of Custody:	181439
Client Project Name:	5-10860	Sample No:		Collect Date:	12/16/19
Client Project No:	5-10860	Sample Matrix:	Soil/Solid	Collect Time:	12:52
Sample Comments: Soil results have been calculated and reported on a dry weight basis unless otherwise noted.					
Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.					

Water (Moisture) Content Dried at 105 ± 5°C																																				
Method: ASTM D2216-10																																				
Aliquot ID: 94220-023																																				
Description: WMU27-SB12-0-3"																																				
<table border="1"> <thead> <tr> <th rowspan="2">Parameter(s)</th> <th rowspan="2">Result</th> <th rowspan="2">Q</th> <th rowspan="2">Units</th> <th rowspan="2">Reporting Limit</th> <th rowspan="2">Dilution</th> <th colspan="2">Preparation</th> <th colspan="3">Analysis</th> </tr> <tr> <th>P. Date</th> <th>P. Batch</th> <th>A. Date</th> <th>A. Batch</th> <th>Init.</th> </tr> </thead> <tbody> <tr> <td>‡ 1. Percent Moisture (Water Content)</td> <td>9</td> <td></td> <td>%</td> <td>1</td> <td>1.0</td> <td>12/19/19</td> <td>MC191219</td> <td>12/20/19</td> <td>MC191219</td> <td>DB</td> </tr> </tbody> </table>										Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis			P. Date	P. Batch	A. Date	A. Batch	Init.	‡ 1. Percent Moisture (Water Content)	9		%	1	1.0	12/19/19	MC191219	12/20/19	MC191219	DB
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis																												
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‡ 1. Percent Moisture (Water Content)	9		%	1	1.0	12/19/19	MC191219	12/20/19	MC191219	DB																										

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1. Aroclor-1016	U		µg/kg	100	5.0	12/19/19	PS19L19G	12/28/19	SF19L28B	RDK																																																																																																																			
2. Aroclor-1221	U		µg/kg	100	5.0	12/19/19	PS19L19G	12/28/19	SF19L28B	RDK																																																																																																																			
3. Aroclor-1232	U		µg/kg	100	5.0	12/19/19	PS19L19G	12/28/19	SF19L28B	RDK																																																																																																																			
4. Aroclor-1242	U		µg/kg	100	5.0	12/19/19	PS19L19G	12/28/19	SF19L28B	RDK																																																																																																																			
5. Aroclor-1248	U		µg/kg	100	5.0	12/19/19	PS19L19G	12/28/19	SF19L28B	RDK																																																																																																																			
6. Aroclor-1254	U		µg/kg	100	5.0	12/19/19	PS19L19G	12/28/19	SF19L28B	RDK																																																																																																																			
7. Aroclor-1260	240		µg/kg	100	5.0	12/19/19	PS19L19G	12/28/19	SF19L28B	RDK																																																																																																																			
‡ 8. Aroclor-1262	U		µg/kg	100	5.0	12/19/19	PS19L19G	12/28/19	SF19L28B	RDK																																																																																																																			
‡ 9. Aroclor-1268	U		µg/kg	100	5.0	12/19/19	PS19L19G	12/28/19	SF19L28B	RDK																																																																																																																			

Client Identification:	Applied Science & Technology, Inc. - Brighton	Sample Description:	WMU27-SB12-11-12'	Chain of Custody:	181439
Client Project Name:	5-10860	Sample No:		Collect Date:	12/16/19
Client Project No:	5-10860	Sample Matrix:	Soil/Solid	Collect Time:	13:03
Sample Comments: Soil results have been calculated and reported on a dry weight basis unless otherwise noted.					
Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.					

Water (Moisture) Content Dried at 105 ± 5°C	Aliquot ID:	94220-024	Matrix:	Soil/Solid
Method: ASTM D2216-10	Description: WMU27-SB12-11-12'			
Parameter(s)	Result	Q	Units	Reporting Limit
‡ 1. Percent Moisture (Water Content)	13		%	1
				Dilution
				P. Date
				P. Batch
				A. Date
				A. Batch
				Init.

Polychlorinated Biphenyls (PCBs)	Aliquot ID:	94220-024	Matrix:	Soil/Solid
Method: EPA 3546/EPA 8082A	Description: WMU27-SB12-11-12'			
Parameter(s)	Result	Q	Units	Reporting Limit
1. Aroclor-1016	U		µg/kg	100
2. Aroclor-1221	U		µg/kg	100
3. Aroclor-1232	U		µg/kg	100
4. Aroclor-1242	U		µg/kg	100
5. Aroclor-1248	U		µg/kg	100
6. Aroclor-1254	U		µg/kg	100
7. Aroclor-1260	U		µg/kg	100
‡ 8. Aroclor-1262	U		µg/kg	100
‡ 9. Aroclor-1268	U		µg/kg	100
				Dilution
				P. Date
				P. Batch
				A. Date
				A. Batch
				Init.

1914 Holloway Drive 11766 E. Grand River 8660 S. Mackinaw Trail	Holt, MI 48842 Brighton, MI 48116 Cadillac, MI 49601	T: (517) 699-0345 T: (810) 220-3300 T: (231) 775-8368	F: (517) 699-0388 F: (810) 220-3311 F: (231) 775-8584
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Client Identification:	Applied Science & Technology, Inc. - Brighton	Sample Description:	WMU27-SB13-0-3"	Chain of Custody:	181439
Client Project Name:	5-10860	Sample No:		Collect Date:	12/16/19
Client Project No:	5-10860	Sample Matrix:	Soil/Solid	Collect Time:	13:11
Sample Comments: Soil results have been calculated and reported on a dry weight basis unless otherwise noted.					
Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.					

Water (Moisture) Content Dried at 105 ± 5°C	Aliquot ID:	94220-025	Matrix:	Soil/Solid
Method: ASTM D2216-10		Description: WMU27-SB13-0-3"		
Parameter(s)	Result	Q	Units	Reporting Limit
‡ 1. Percent Moisture (Water Content)	10		%	1

Polychlorinated Biphenyls (PCBs)	Aliquot ID:	94220-025	Matrix:	Soil/Solid
Method: EPA 3546/EPA 8082A		Description: WMU27-SB13-0-3"		
Parameter(s)	Result	Q	Units	Reporting Limit
1. Aroclor-1016	U		µg/kg	100
2. Aroclor-1221	U		µg/kg	100
3. Aroclor-1232	U		µg/kg	100
4. Aroclor-1242	U		µg/kg	100
5. Aroclor-1248	U		µg/kg	100
6. Aroclor-1254	U		µg/kg	100
7. Aroclor-1260	270		µg/kg	100
‡ 8. Aroclor-1262	U		µg/kg	100
‡ 9. Aroclor-1268	U		µg/kg	100

1914 Holloway Drive 11766 E. Grand River 8660 S. Mackinaw Trail	Holt, MI 48842 Brighton, MI 48116 Cadillac, MI 49601	T: (517) 699-0345 T: (810) 220-3300 T: (231) 775-8368	F: (517) 699-0388 F: (810) 220-3311 F: (231) 775-8584
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Client Identification:	Applied Science & Technology, Inc. - Brighton	Sample Description:	WMU27-SB13-11-12'	Chain of Custody:	181439
Client Project Name:	5-10860	Sample No:		Collect Date:	12/16/19
Client Project No:	5-10860	Sample Matrix:	Soil/Solid	Collect Time:	13:19
Sample Comments: Soil results have been calculated and reported on a dry weight basis unless otherwise noted.					
Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.					

Water (Moisture) Content Dried at 105 ± 5°C	Aliquot ID:	94220-026	Matrix:	Soil/Solid
Method: ASTM D2216-10		Description: WMU27-SB13-11-12'		
Parameter(s)	Result	Q	Units	Reporting Limit
‡ 1. Percent Moisture (Water Content)	9		%	1

Polychlorinated Biphenyls (PCBs)	Aliquot ID:	94220-026	Matrix:	Soil/Solid
Method: EPA 3546/EPA 8082A		Description: WMU27-SB13-11-12'		
Parameter(s)	Result	Q	Units	Reporting Limit
1. Aroclor-1016	U		µg/kg	100
2. Aroclor-1221	U		µg/kg	100
3. Aroclor-1232	U		µg/kg	100
4. Aroclor-1242	U		µg/kg	100
5. Aroclor-1248	U		µg/kg	100
6. Aroclor-1254	U		µg/kg	100
7. Aroclor-1260	U		µg/kg	100
‡ 8. Aroclor-1262	U		µg/kg	100
‡ 9. Aroclor-1268	U		µg/kg	100

1914 Holloway Drive 11766 E. Grand River 8660 S. Mackinaw Trail	Holt, MI 48842 Brighton, MI 48116 Cadillac, MI 49601	T: (517) 699-0345 T: (810) 220-3300 T: (231) 775-8368	F: (517) 699-0388 F: (810) 220-3311 F: (231) 775-8584
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Client Identification:	Applied Science & Technology, Inc. - Brighton	Sample Description:	WMU27-SB14-0-3"	Chain of Custody:	181439
Client Project Name:	5-10860	Sample No:		Collect Date:	12/16/19
Client Project No:	5-10860	Sample Matrix:	Soil/Solid	Collect Time:	13:26
Sample Comments: Soil results have been calculated and reported on a dry weight basis unless otherwise noted.					
Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.					

Water (Moisture) Content Dried at 105 ± 5°C	Aliquot ID:	94220-027	Matrix:	Soil/Solid
Method: ASTM D2216-10		Description: WMU27-SB14-0-3"		
Parameter(s)	Result	Q	Units	Reporting Limit
‡ 1. Percent Moisture (Water Content)	6		%	1

Polychlorinated Biphenyls (PCBs)	Aliquot ID:	94220-027	Matrix:	Soil/Solid
Method: EPA 3546/EPA 8082A		Description: WMU27-SB14-0-3"		
Parameter(s)	Result	Q	Units	Reporting Limit
1. Aroclor-1016	U		µg/kg	100
2. Aroclor-1221	U		µg/kg	100
3. Aroclor-1232	U		µg/kg	100
4. Aroclor-1242	U		µg/kg	100
5. Aroclor-1248	U		µg/kg	100
6. Aroclor-1254	U		µg/kg	100
7. Aroclor-1260	U		µg/kg	100
‡ 8. Aroclor-1262	U		µg/kg	100
‡ 9. Aroclor-1268	U		µg/kg	100

Client Identification:	Applied Science & Technology, Inc. - Brighton	Sample Description:	WMU27-SB14-11-11.75"	Chain of Custody:	181439
Client Project Name:	5-10860	Sample No:		Collect Date:	12/16/19
Client Project No:	5-10860	Sample Matrix:	Soil/Solid	Collect Time:	13:34
Sample Comments: Soil results have been calculated and reported on a dry weight basis unless otherwise noted.					
Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.					

Water (Moisture) Content Dried at 105 ± 5°C		Aliquot ID: 94220-028	Matrix: Soil/Solid						
Method: ASTM D2216-10			Description: WMU27-SB14-11-11.75"						
Parameter(s)	Result	Q	Units						
‡ 1. Percent Moisture (Water Content)	12	%	1	1.0	12/19/19	MC191219	12/20/19	MC191219	DB

Polychlorinated Biphenyls (PCBs)		Aliquot ID: 94220-028	Matrix: Soil/Solid						
Method: EPA 3546/EPA 8082A			Description: WMU27-SB14-11-11.75"						
Parameter(s)	Result	Q	Units						
1. Aroclor-1016	U	µg/kg	100	5.0	12/19/19	PS19L19G	12/28/19	SF19L28B	RDK
2. Aroclor-1221	U	µg/kg	100	5.0	12/19/19	PS19L19G	12/28/19	SF19L28B	RDK
3. Aroclor-1232	U	µg/kg	100	5.0	12/19/19	PS19L19G	12/28/19	SF19L28B	RDK
4. Aroclor-1242	U	µg/kg	100	5.0	12/19/19	PS19L19G	12/28/19	SF19L28B	RDK
5. Aroclor-1248	U	µg/kg	100	5.0	12/19/19	PS19L19G	12/28/19	SF19L28B	RDK
6. Aroclor-1254	U	µg/kg	100	5.0	12/19/19	PS19L19G	12/28/19	SF19L28B	RDK
7. Aroclor-1260	110	µg/kg	100	5.0	12/19/19	PS19L19G	12/28/19	SF19L28B	RDK
‡ 8. Aroclor-1262	U	µg/kg	100	5.0	12/19/19	PS19L19G	12/28/19	SF19L28B	RDK
‡ 9. Aroclor-1268	U	µg/kg	100	5.0	12/19/19	PS19L19G	12/28/19	SF19L28B	RDK

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Client Identification:	Applied Science & Technology, Inc. - Brighton	Sample Description:	WMU27-SB15-0-3"	Chain of Custody:	181439
Client Project Name:	5-10860	Sample No:		Collect Date:	12/16/19
Client Project No:	5-10860	Sample Matrix:	Soil/Solid	Collect Time:	13:40
Sample Comments: Soil results have been calculated and reported on a dry weight basis unless otherwise noted.					
Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.					

Water (Moisture) Content Dried at 105 ± 5°C	Aliquot ID:	94220-029	Matrix:	Soil/Solid
Method: ASTM D2216-10		Description: WMU27-SB15-0-3"		
Parameter(s)	Result	Q	Units	Reporting Limit
‡ 1. Percent Moisture (Water Content)	8		%	1

Polychlorinated Biphenyls (PCBs)	Aliquot ID:	94220-029	Matrix:	Soil/Solid
Method: EPA 3546/EPA 8082A		Description: WMU27-SB15-0-3"		
Parameter(s)	Result	Q	Units	Reporting Limit
1. Aroclor-1016	U		µg/kg	100
2. Aroclor-1221	U		µg/kg	100
3. Aroclor-1232	U		µg/kg	100
4. Aroclor-1242	U		µg/kg	100
5. Aroclor-1248	U		µg/kg	100
6. Aroclor-1254	U		µg/kg	100
7. Aroclor-1260	U		µg/kg	100
‡ 8. Aroclor-1262	U		µg/kg	100
‡ 9. Aroclor-1268	U		µg/kg	100

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Client Identification:	Applied Science & Technology, Inc. - Brighton	Sample Description:	WMU27-SB15-11-12'	Chain of Custody:	181439
Client Project Name:	5-10860	Sample No:		Collect Date:	12/16/19
Client Project No:	5-10860	Sample Matrix:	Soil/Solid	Collect Time:	13:47
Sample Comments: Soil results have been calculated and reported on a dry weight basis unless otherwise noted.					
Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable †: Parameter not included in NELAC Scope of Analysis.					

Water (Moisture) Content Dried at 105 ± 5°C		Aliquot ID:	94220-030	Matrix:	Soil/Solid
Method: ASTM D2216-10					
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution
† 1. Percent Moisture (Water Content)	22		%	1	1.0
				P. Date	P. Batch
				A. Date	A. Batch
					Init.

Polychlorinated Biphenyls (PCBs)		Aliquot ID:	94220-030	Matrix:	Soil/Solid
Method: EPA 3546/EPA 8082A					
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution
1. Aroclor-1016	U		µg/kg	1700	100
2. Aroclor-1221	U		µg/kg	1700	100
3. Aroclor-1232	U		µg/kg	1700	100
4. Aroclor-1242	U		µg/kg	1700	100
5. Aroclor-1248	U		µg/kg	1700	100
6. Aroclor-1254	U		µg/kg	1700	100
7. Aroclor-1260	3600		µg/kg	1700	100
‡ 8. Aroclor-1262	U		µg/kg	1700	100
‡ 9. Aroclor-1268	U		µg/kg	1700	100
				P. Date	P. Batch
				A. Date	A. Batch
					Init.

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Client Identification:	Applied Science & Technology, Inc. - Brighton	Sample Description:	WMU27-SB16-0-3"	Chain of Custody:	181440
Client Project Name:	5-10860	Sample No:		Collect Date:	12/16/19
Client Project No:	5-10860	Sample Matrix:	Soil/Solid	Collect Time:	14:34
Sample Comments: Soil results have been calculated and reported on a dry weight basis unless otherwise noted.					
Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.					

Water (Moisture) Content Dried at 105 ± 5°C	Aliquot ID:	94220-031	Matrix:	Soil/Solid
Method: ASTM D2216-10		Description: WMU27-SB16-0-3"		
Parameter(s)	Result	Q	Units	Reporting Limit
‡ 1. Percent Moisture (Water Content)	5		%	1
				Dilution
				P. Date
				P. Batch
				A. Date
				A. Batch
				Init.

Polychlorinated Biphenyls (PCBs)	Aliquot ID:	94220-031	Matrix:	Soil/Solid
Method: EPA 3546/EPA 8082A		Description: WMU27-SB16-0-3"		
Parameter(s)	Result	Q	Units	Reporting Limit
1. Aroclor-1016	U		µg/kg	100
2. Aroclor-1221	U		µg/kg	100
3. Aroclor-1232	U		µg/kg	100
4. Aroclor-1242	U		µg/kg	100
5. Aroclor-1248	U		µg/kg	100
6. Aroclor-1254	U		µg/kg	100
7. Aroclor-1260	U		µg/kg	100
‡ 8. Aroclor-1262	U		µg/kg	100
‡ 9. Aroclor-1268	U		µg/kg	100
				Dilution
				P. Date
				P. Batch
				A. Date
				A. Batch
				Init.

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Client Identification:	Applied Science & Technology, Inc. - Brighton	Sample Description:	WMU27-SB16-7-8'	Chain of Custody:	181440
Client Project Name:	5-10860	Sample No:		Collect Date:	12/16/19
Client Project No:	5-10860	Sample Matrix:	Soil/Solid	Collect Time:	14:37
Sample Comments: Soil results have been calculated and reported on a dry weight basis unless otherwise noted.					
Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.					

Water (Moisture) Content Dried at 105 ± 5°C		Aliquot ID: 94220-032	Matrix: Soil/Solid							
Method: ASTM D2216-10			Description: WMU27-SB16-7-8'							
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
‡ 1. Percent Moisture (Water Content)	9		%	1	1.0	P. Date 12/19/19	P. Batch MC191219	A. Date 12/20/19	A. Batch MC191219	Init. DB

Polychlorinated Biphenyls (PCBs)		Aliquot ID: 94220-032	Matrix: Soil/Solid							
Method: EPA 3546/EPA 8082A			Description: WMU27-SB16-7-8'							
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
1. Aroclor-1016	U		µg/kg	100	5.0	P. Date 12/20/19	P. Batch PS19L20B	A. Date 12/21/19	A. Batch SF19L20A	Init. RDK
2. Aroclor-1221	U		µg/kg	100	5.0	12/20/19	PS19L20B	12/21/19	SF19L20A	RDK
3. Aroclor-1232	U		µg/kg	100	5.0	12/20/19	PS19L20B	12/21/19	SF19L20A	RDK
4. Aroclor-1242	U		µg/kg	100	5.0	12/20/19	PS19L20B	12/21/19	SF19L20A	RDK
5. Aroclor-1248	U		µg/kg	100	5.0	12/20/19	PS19L20B	12/21/19	SF19L20A	RDK
6. Aroclor-1254	U		µg/kg	100	5.0	12/20/19	PS19L20B	12/21/19	SF19L20A	RDK
7. Aroclor-1260	U		µg/kg	100	5.0	12/20/19	PS19L20B	12/21/19	SF19L20A	RDK
‡ 8. Aroclor-1262	U		µg/kg	100	5.0	12/20/19	PS19L20B	12/21/19	SF19L20A	RDK
‡ 9. Aroclor-1268	U		µg/kg	100	5.0	12/20/19	PS19L20B	12/21/19	SF19L20A	RDK

Client Identification:	Applied Science & Technology, Inc. - Brighton	Sample Description:	WMU27-SB17-0-3"	Chain of Custody:	181440
Client Project Name:	5-10860	Sample No:		Collect Date:	12/16/19
Client Project No:	5-10860	Sample Matrix:	Soil/Solid	Collect Time:	14:26
Sample Comments: Soil results have been calculated and reported on a dry weight basis unless otherwise noted.					
Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.					

Water (Moisture) Content Dried at 105 ± 5°C									
Method: ASTM D2216-10									
Aliquot ID: 94220-033									
Description: WMU27-SB17-0-3"									
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis	
‡ 1. Percent Moisture (Water Content)	8		%	1	1.0	12/19/19	MC191219	12/20/19	MC191219 DB

Polychlorinated Biphenyls (PCBs)									
Method: EPA 3546/EPA 8082A									
Aliquot ID: 94220-033									
Description: WMU27-SB17-0-3"									
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis	
1. Aroclor-1016	U		µg/kg	100	5.0	12/20/19	PS19L20B	12/21/19	SF19L20A RDK
2. Aroclor-1221	U		µg/kg	100	5.0	12/20/19	PS19L20B	12/21/19	SF19L20A RDK
3. Aroclor-1232	U		µg/kg	100	5.0	12/20/19	PS19L20B	12/21/19	SF19L20A RDK
4. Aroclor-1242	U		µg/kg	100	5.0	12/20/19	PS19L20B	12/21/19	SF19L20A RDK
5. Aroclor-1248	U		µg/kg	100	5.0	12/20/19	PS19L20B	12/21/19	SF19L20A RDK
6. Aroclor-1254	U		µg/kg	100	5.0	12/20/19	PS19L20B	12/21/19	SF19L20A RDK
7. Aroclor-1260	U		µg/kg	100	5.0	12/20/19	PS19L20B	12/21/19	SF19L20A RDK
‡ 8. Aroclor-1262	U		µg/kg	100	5.0	12/20/19	PS19L20B	12/21/19	SF19L20A RDK
‡ 9. Aroclor-1268	U		µg/kg	100	5.0	12/20/19	PS19L20B	12/21/19	SF19L20A RDK

Client Identification:	Applied Science & Technology, Inc. - Brighton	Sample Description:	WMU27-SB17-6-7'	Chain of Custody:	181440
Client Project Name:	5-10860	Sample No:		Collect Date:	12/16/19
Client Project No:	5-10860	Sample Matrix:	Soil/Solid	Collect Time:	14:31
Sample Comments: Soil results have been calculated and reported on a dry weight basis unless otherwise noted.					
Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.					

Water (Moisture) Content Dried at 105 ± 5°C		Aliquot ID: 94220-034	Matrix: Soil/Solid							
Method: ASTM D2216-10			Description: WMU27-SB17-6-7'							
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
‡ 1. Percent Moisture (Water Content)	8		%	1	1.0	P. Date 12/19/19	P. Batch MC191219	A. Date 12/20/19	A. Batch MC191219	Init. DB

Polychlorinated Biphenyls (PCBs)		Aliquot ID: 94220-034	Matrix: Soil/Solid							
Method: EPA 3546/EPA 8082A			Description: WMU27-SB17-6-7'							
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
1. Aroclor-1016	U		µg/kg	100	5.0	P. Date 12/20/19	P. Batch PS19L20B	A. Date 12/21/19	A. Batch SF19L20A	Init. RDK
2. Aroclor-1221	U		µg/kg	100	5.0	12/20/19	PS19L20B	12/21/19	SF19L20A	RDK
3. Aroclor-1232	U		µg/kg	100	5.0	12/20/19	PS19L20B	12/21/19	SF19L20A	RDK
4. Aroclor-1242	U		µg/kg	100	5.0	12/20/19	PS19L20B	12/21/19	SF19L20A	RDK
5. Aroclor-1248	U		µg/kg	100	5.0	12/20/19	PS19L20B	12/21/19	SF19L20A	RDK
6. Aroclor-1254	U		µg/kg	100	5.0	12/20/19	PS19L20B	12/21/19	SF19L20A	RDK
7. Aroclor-1260	U		µg/kg	100	5.0	12/20/19	PS19L20B	12/21/19	SF19L20A	RDK
‡ 8. Aroclor-1262	U		µg/kg	100	5.0	12/20/19	PS19L20B	12/21/19	SF19L20A	RDK
‡ 9. Aroclor-1268	U		µg/kg	100	5.0	12/20/19	PS19L20B	12/21/19	SF19L20A	RDK

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Analytical Laboratory Report
Laboratory Project Number: 94220
Laboratory Sample Number: 94220-035

Order: 94220
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Date: 01/03/20

Client Identification:	Applied Science & Technology, Inc. - Brighton	Sample Description:	WMU27-SB18-0-3"	Chain of Custody:	181440
Client Project Name:	5-10860	Sample No:		Collect Date:	12/16/19
Client Project No:	5-10860	Sample Matrix:	Soil/Solid	Collect Time:	14:16
Sample Comments: Soil results have been calculated and reported on a dry weight basis unless otherwise noted.					
Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.					

Water (Moisture) Content Dried at 105 ± 5°C						Aliquot ID:	94220-035	Matrix:	Soil/Solid
Method: ASTM D2216-10						Description:	WMU27-SB18-0-3"		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation	P. Date	P. Batch	Analysis
‡ 1. Percent Moisture (Water Content)	10		%	1	1.0	12/19/19	MC191219	12/20/19	MC191219 DB

Polychlorinated Biphenyls (PCBs)						Aliquot ID:	94220-035	Matrix:	Soil/Solid
Method: EPA 3546/EPA 8082A						Description:	WMU27-SB18-0-3"		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation	P. Date	P. Batch	Analysis
1. Aroclor-1016	U		µg/kg	100	5.0	12/20/19	PS19L20B	12/21/19	SF19L20A RDK
2. Aroclor-1221	U		µg/kg	100	5.0	12/20/19	PS19L20B	12/21/19	SF19L20A RDK
3. Aroclor-1232	U		µg/kg	100	5.0	12/20/19	PS19L20B	12/21/19	SF19L20A RDK
4. Aroclor-1242	U		µg/kg	100	5.0	12/20/19	PS19L20B	12/21/19	SF19L20A RDK
5. Aroclor-1248	U		µg/kg	100	5.0	12/20/19	PS19L20B	12/21/19	SF19L20A RDK
6. Aroclor-1254	U		µg/kg	100	5.0	12/20/19	PS19L20B	12/21/19	SF19L20A RDK
7. Aroclor-1260	140		µg/kg	100	5.0	12/20/19	PS19L20B	12/21/19	SF19L20A RDK
‡ 8. Aroclor-1262	U		µg/kg	100	5.0	12/20/19	PS19L20B	12/21/19	SF19L20A RDK
‡ 9. Aroclor-1268	U		µg/kg	100	5.0	12/20/19	PS19L20B	12/21/19	SF19L20A RDK

1914 Holloway Drive
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8660 S. Mackinaw Trail

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Cadillac, MI 49601

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F: (517) 699-0388
F: (810) 220-3311
F: (231) 775-8584

Client Identification:	Applied Science & Technology, Inc. - Brighton	Sample Description:	WMU27-SB18-9-10'	Chain of Custody:	181440
Client Project Name:	5-10860	Sample No:		Collect Date:	12/16/19
Client Project No:	5-10860	Sample Matrix:	Soil/Solid	Collect Time:	14:22
Sample Comments: Soil results have been calculated and reported on a dry weight basis unless otherwise noted.					
Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable †: Parameter not included in NELAC Scope of Analysis.					

Water (Moisture) Content Dried at 105 ± 5°C		Aliquot ID: 94220-036	Matrix: Soil/Solid
Method: ASTM D2216-10			Description: WMU27-SB18-9-10'
Parameter(s)	Result	Q	Units
† 1. Percent Moisture (Water Content)	9	%	1 1.0 P. Date P. Batch A. Date A. Batch Init.

Polychlorinated Biphenyls (PCBs)		Aliquot ID: 94220-036	Matrix: Soil/Solid
Method: EPA 3546/EPA 8082A			Description: WMU27-SB18-9-10'
Parameter(s)	Result	Q	Units
1. Aroclor-1016	U	µg/kg	370 25 P. Date P. Batch A. Date A. Batch Init.
2. Aroclor-1221	U	µg/kg	370 25 12/20/19 PS19L20B 12/28/19 SF19L28B RDK
3. Aroclor-1232	U	µg/kg	370 25 12/20/19 PS19L20B 12/28/19 SF19L28B RDK
4. Aroclor-1242	U	µg/kg	370 25 12/20/19 PS19L20B 12/28/19 SF19L28B RDK
5. Aroclor-1248	U	µg/kg	370 25 12/20/19 PS19L20B 12/28/19 SF19L28B RDK
6. Aroclor-1254	U	µg/kg	370 25 12/20/19 PS19L20B 12/28/19 SF19L28B RDK
7. Aroclor-1260	1400	µg/kg	370 25 12/20/19 PS19L20B 12/28/19 SF19L28B RDK
‡ 8. Aroclor-1262	U	µg/kg	370 25 12/20/19 PS19L20B 12/28/19 SF19L28B RDK
‡ 9. Aroclor-1268	U	µg/kg	370 25 12/20/19 PS19L20B 12/28/19 SF19L28B RDK

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Analytical Laboratory Report
Laboratory Project Number: 94220
Laboratory Sample Number: 94220-037

Order: 94220
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Date: 01/03/20

Client Identification:	Applied Science & Technology, Inc. - Brighton	Sample Description:	WMU27-SB19-0-3"	Chain of Custody:	181440
Client Project Name:	5-10860	Sample No:		Collect Date:	12/16/19
Client Project No:	5-10860	Sample Matrix:	Soil/Solid	Collect Time:	14:08
Sample Comments: Soil results have been calculated and reported on a dry weight basis unless otherwise noted.					
Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.					

Water (Moisture) Content Dried at 105 ± 5°C						Aliquot ID:	94220-037	Matrix:	Soil/Solid
Method: ASTM D2216-10						Description:	WMU27-SB19-0-3"		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation	P. Date	P. Batch	Analysis
‡ 1. Percent Moisture (Water Content)	9		%	1	1.0	12/19/19	MC191219	12/20/19	MC191219 DB

Polychlorinated Biphenyls (PCBs)						Aliquot ID:	94220-037	Matrix:	Soil/Solid
Method: EPA 3546/EPA 8082A						Description:	WMU27-SB19-0-3"		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation	P. Date	P. Batch	Analysis
1. Aroclor-1016	U		µg/kg	100	5.0	12/20/19	PS19L20B	12/28/19	SF19L28B RDK
2. Aroclor-1221	U		µg/kg	100	5.0	12/20/19	PS19L20B	12/28/19	SF19L28B RDK
3. Aroclor-1232	U		µg/kg	100	5.0	12/20/19	PS19L20B	12/28/19	SF19L28B RDK
4. Aroclor-1242	120		µg/kg	100	5.0	12/20/19	PS19L20B	12/27/19	SC19L27C RDK
5. Aroclor-1248	U		µg/kg	100	5.0	12/20/19	PS19L20B	12/28/19	SF19L28B RDK
6. Aroclor-1254	U		µg/kg	100	5.0	12/20/19	PS19L20B	12/28/19	SF19L28B RDK
7. Aroclor-1260	200		µg/kg	100	5.0	12/20/19	PS19L20B	12/28/19	SF19L28B RDK
‡ 8. Aroclor-1262	U		µg/kg	100	5.0	12/20/19	PS19L20B	12/28/19	SF19L28B RDK
‡ 9. Aroclor-1268	U		µg/kg	100	5.0	12/20/19	PS19L20B	12/28/19	SF19L28B RDK

1914 Holloway Drive
11766 E. Grand River
8660 S. Mackinaw Trail

Holt, MI 48842
Brighton, MI 48116
Cadillac, MI 49601

T: (517) 699-0345
T: (810) 220-3300
T: (231) 775-8368

F: (517) 699-0388
F: (810) 220-3311
F: (231) 775-8584

Client Identification:	Applied Science & Technology, Inc. - Brighton	Sample Description:	WMU27-SB19-6-7'	Chain of Custody:	181440
Client Project Name:	5-10860	Sample No:		Collect Date:	12/16/19
Client Project No:	5-10860	Sample Matrix:	Soil/Solid	Collect Time:	14:12
Sample Comments: Soil results have been calculated and reported on a dry weight basis unless otherwise noted.					
Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.					

Water (Moisture) Content Dried at 105 ± 5°C		Aliquot ID: 94220-038	Matrix: Soil/Solid							
Method: ASTM D2216-10			Description: WMU27-SB19-6-7'							
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
‡ 1. Percent Moisture (Water Content)	13		%	1	1.0	P. Date 12/19/19	P. Batch MC191219	A. Date 12/20/19	A. Batch MC191219	Init. DB

Polychlorinated Biphenyls (PCBs)		Aliquot ID: 94220-038	Matrix: Soil/Solid							
Method: EPA 3546/EPA 8082A			Description: WMU27-SB19-6-7'							
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
1. Aroclor-1016	U		µg/kg	100	5.0	P. Date 12/20/19	P. Batch PS19L20B	A. Date 12/21/19	A. Batch SF19L20A	Init. RDK
2. Aroclor-1221	U		µg/kg	100	5.0	12/20/19	PS19L20B	12/21/19	SF19L20A	RDK
3. Aroclor-1232	U		µg/kg	100	5.0	12/20/19	PS19L20B	12/21/19	SF19L20A	RDK
4. Aroclor-1242	U		µg/kg	100	5.0	12/20/19	PS19L20B	12/21/19	SF19L20A	RDK
5. Aroclor-1248	U		µg/kg	100	5.0	12/20/19	PS19L20B	12/21/19	SF19L20A	RDK
6. Aroclor-1254	U		µg/kg	100	5.0	12/20/19	PS19L20B	12/21/19	SF19L20A	RDK
7. Aroclor-1260	U		µg/kg	100	5.0	12/20/19	PS19L20B	12/21/19	SF19L20A	RDK
‡ 8. Aroclor-1262	U		µg/kg	100	5.0	12/20/19	PS19L20B	12/21/19	SF19L20A	RDK
‡ 9. Aroclor-1268	U		µg/kg	100	5.0	12/20/19	PS19L20B	12/21/19	SF19L20A	RDK

Client Identification:	Applied Science & Technology, Inc. - Brighton	Sample Description:	WMU27-SB20-0-3"	Chain of Custody:	181440
Client Project Name:	5-10860	Sample No:		Collect Date:	12/16/19
Client Project No:	5-10860	Sample Matrix:	Soil/Solid	Collect Time:	13:53
Sample Comments: Soil results have been calculated and reported on a dry weight basis unless otherwise noted.					
Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.					

Water (Moisture) Content Dried at 105 ± 5°C									
Method: ASTM D2216-10									
Aliquot ID: 94220-039									
Description: WMU27-SB20-0-3"									
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis	
‡ 1. Percent Moisture (Water Content)	7		%	1	1.0	12/19/19	MC191219	12/20/19	MC191219 DB

Polychlorinated Biphenyls (PCBs)									
Method: EPA 3546/EPA 8082A									
Aliquot ID: 94220-039									
Description: WMU27-SB20-0-3"									
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis	
1. Aroclor-1016	U		µg/kg	100	5.0	12/20/19	PS19L20B	12/21/19	SF19L20A RDK
2. Aroclor-1221	U		µg/kg	100	5.0	12/20/19	PS19L20B	12/21/19	SF19L20A RDK
3. Aroclor-1232	U		µg/kg	100	5.0	12/20/19	PS19L20B	12/21/19	SF19L20A RDK
4. Aroclor-1242	U		µg/kg	100	5.0	12/20/19	PS19L20B	12/21/19	SF19L20A RDK
5. Aroclor-1248	U		µg/kg	100	5.0	12/20/19	PS19L20B	12/21/19	SF19L20A RDK
6. Aroclor-1254	U		µg/kg	100	5.0	12/20/19	PS19L20B	12/21/19	SF19L20A RDK
7. Aroclor-1260	U		µg/kg	100	5.0	12/20/19	PS19L20B	12/21/19	SF19L20A RDK
‡ 8. Aroclor-1262	U		µg/kg	100	5.0	12/20/19	PS19L20B	12/21/19	SF19L20A RDK
‡ 9. Aroclor-1268	U		µg/kg	100	5.0	12/20/19	PS19L20B	12/21/19	SF19L20A RDK

Client Identification:	Applied Science & Technology, Inc. - Brighton	Sample Description:	WMU27-SB20-9-10'	Chain of Custody:	181440
Client Project Name:	5-10860	Sample No:		Collect Date:	12/16/19
Client Project No:	5-10860	Sample Matrix:	Soil/Solid	Collect Time:	14:00
Sample Comments: Soil results have been calculated and reported on a dry weight basis unless otherwise noted.					
Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.					

Water (Moisture) Content Dried at 105 ± 5°C	Aliquot ID:	94220-040	Matrix:	Soil/Solid
Method: ASTM D2216-10		Description: WMU27-SB20-9-10'		
Parameter(s)	Result	Q	Units	Reporting Limit
‡ 1. Percent Moisture (Water Content)	25		%	1

Polychlorinated Biphenyls (PCBs)	Aliquot ID:	94220-040	Matrix:	Soil/Solid
Method: EPA 3546/EPA 8082A		Description: WMU27-SB20-9-10'		
Parameter(s)	Result	Q	Units	Reporting Limit
1. Aroclor-1016	U		µg/kg	100
2. Aroclor-1221	U		µg/kg	100
3. Aroclor-1232	U		µg/kg	100
4. Aroclor-1242	U		µg/kg	100
5. Aroclor-1248	U		µg/kg	100
6. Aroclor-1254	U		µg/kg	100
7. Aroclor-1260	U		µg/kg	100
‡ 8. Aroclor-1262	U		µg/kg	100
‡ 9. Aroclor-1268	U		µg/kg	100

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Analytical Laboratory Report
Laboratory Project Number: 94220
Laboratory Sample Number: 94220-041

Order: 94220
Page: 42 of 44
Date: 01/03/20

Client Identification:	Applied Science & Technology, Inc. - Brighton	Sample Description:	WMU27-DUP1	Chain of Custody:	181441
Client Project Name:	5-10860	Sample No:		Collect Date:	12/16/19
Client Project No:	5-10860	Sample Matrix:	Soil/Solid	Collect Time:	NA
Sample Comments: Soil results have been calculated and reported on a dry weight basis unless otherwise noted.					
Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable †: Parameter not included in NELAC Scope of Analysis.					

Water (Moisture) Content Dried at 105 ± 5°C						Aliquot ID:	94220-041	Matrix:	Soil/Solid
Method: ASTM D2216-10						Description:	WMU27-DUP1		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation	P. Date	P. Batch	Analysis
† 1. Percent Moisture (Water Content)	3		%	1	1.0	12/19/19	MC191219	12/20/19	MC191219 DB

Polychlorinated Biphenyls (PCBs)						Aliquot ID:	94220-041	Matrix:	Soil/Solid
Method: EPA 3546/EPA 8082A						Description:	WMU27-DUP1		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation	P. Date	P. Batch	Analysis
1. Aroclor-1016	U		µg/kg	340	25	12/20/19	PS19L20B	12/28/19	SF19L28B RDK
2. Aroclor-1221	U		µg/kg	340	25	12/20/19	PS19L20B	12/28/19	SF19L28B RDK
3. Aroclor-1232	U		µg/kg	340	25	12/20/19	PS19L20B	12/28/19	SF19L28B RDK
4. Aroclor-1242	U		µg/kg	340	25	12/20/19	PS19L20B	12/28/19	SF19L28B RDK
5. Aroclor-1248	U		µg/kg	340	25	12/20/19	PS19L20B	12/28/19	SF19L28B RDK
6. Aroclor-1254	U		µg/kg	340	25	12/20/19	PS19L20B	12/28/19	SF19L28B RDK
7. Aroclor-1260	2300		µg/kg	340	25	12/20/19	PS19L20B	12/28/19	SF19L28B RDK
† 8. Aroclor-1262	U		µg/kg	340	25	12/20/19	PS19L20B	12/28/19	SF19L28B RDK
† 9. Aroclor-1268	U		µg/kg	340	25	12/20/19	PS19L20B	12/28/19	SF19L28B RDK

1914 Holloway Drive
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T: (231) 775-8368

F: (517) 699-0388
F: (810) 220-3311
F: (231) 775-8584

Client Identification:	Applied Science & Technology, Inc. - Brighton	Sample Description:	WMU27-DUP2	Chain of Custody:	181441
Client Project Name:	5-10860	Sample No:		Collect Date:	12/16/19
Client Project No:	5-10860	Sample Matrix:	Soil/Solid	Collect Time:	NA
Sample Comments: Soil results have been calculated and reported on a dry weight basis unless otherwise noted.					
Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable †: Parameter not included in NELAC Scope of Analysis.					

Water (Moisture) Content Dried at 105 ± 5°C		Aliquot ID: 94220-042	Matrix: Soil/Solid
Method: ASTM D2216-10			
Parameter(s)	Result	Q	Units
† 1. Percent Moisture (Water Content)	5	%	1 1.0 P. Date P. Batch A. Date A. Batch Init.

Polychlorinated Biphenyls (PCBs)		Aliquot ID: 94220-042	Matrix: Soil/Solid
Method: EPA 3546/EPA 8082A			
Parameter(s)	Result	Q	Units
1. Aroclor-1016	U	µg/kg	520 38 P. Date P. Batch A. Date A. Batch Init.
2. Aroclor-1221	U	µg/kg	520 38 12/20/19 PS19L20B 12/21/19 SF19L20A RDK
3. Aroclor-1232	U	µg/kg	520 38 12/20/19 PS19L20B 12/21/19 SF19L20A RDK
4. Aroclor-1242	U	µg/kg	520 38 12/20/19 PS19L20B 12/21/19 SF19L20A RDK
5. Aroclor-1248	U	µg/kg	520 38 12/20/19 PS19L20B 12/21/19 SF19L20A RDK
6. Aroclor-1254	U	µg/kg	520 38 12/20/19 PS19L20B 12/21/19 SF19L20A RDK
7. Aroclor-1260	U	µg/kg	520 38 12/20/19 PS19L20B 12/21/19 SF19L20A RDK
‡ 8. Aroclor-1262	U	µg/kg	520 38 12/20/19 PS19L20B 12/21/19 SF19L20A RDK
‡ 9. Aroclor-1268	U	µg/kg	520 38 12/20/19 PS19L20B 12/21/19 SF19L20A RDK

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Definitions/ Qualifiers:

- A: Spike recovery or precision unusable due to dilution.
- B: The analyte was detected in the associated method blank.
- E: The analyte was detected at a concentration greater than the calibration range, therefore the result is estimated.
- J: The concentration is an estimated value.
- M: Modified Method
- U: The analyte was not detected at or above the reporting limit.
- X: Matrix Interference has resulted in a raised reporting limit or distorted result.
- W: Results reported on a wet-weight basis.
- *: Value reported is outside QC limits

Exception Summary:

- J+ : The result is an estimated quantity, but the result may be biased high.

Analysis Locations:

All analyses performed in Holt.



Accreditation Number(s):

T104704518-19-8 (TX)

Analytical Laboratory
 1914 Holloway Drive 8660 S. Mackinaw Trail
 Holt, MI 48842 Cadillac, MI 49601
 Phone: 517 699 0345 Phone: 231 775 8368
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 email: lab@fibertec.us

Industrial Hygiene Services, Inc.
 1914 Holloway Drive
 Holt, MI 48842
 Phone: 517 699 0345
 Fax: 517 699 0382
 email: asbestos@fibertecihs.com

Geoprobe
 11766 E. Grand River Rd.
 Brighton, MI 48116
 Phone: 810 220 3300
 Fax: 810 220 3311

Chain of Custody #
181437
 PAGE 1 of 5

Client Name: ASTI Environmental				PARAMETERS	Matrix Code				Deliverables				
Contact Person: Greg Oslasky					# OF CONTAINERS	S	Soil	GW					Ground Water
Project Name/ Number: 5-10860						A	Air	SW					Surface Water
Email distribution list: golasky@asti-env.com mdykla@asti-env.com						O	Oil	WW					Waste Water
				P	Wipe	X	Other: Specify						
Quote#				HOLD SAMPLE				Remarks:					
Purchase Order#													
Date	Time	Sample #	Client Sample Descriptor	MATRIX (SEE RIGHT CORNER FOR CODE)									
12-16-19	937		WMUZ7-SB1-0-3"	S	1	X							
	947		WMUZ7-SB1-11-121	1	1	1							
	957		WMUZ7-SB2-0-3"	1	1	1							
	1006		WMUZ7-SB2-11-121	1	1	1							
	1013		WMUZ7-SB3-0-3"	1	1	1							
	1025		WMUZ7-SB3-11-121	1	1	1							
	1034		WMUZ7-SB4-0-3"	1	1	1							
	1041		WMUZ7-SB4-11-121	1	1	1							
	1047		WMUZ7-SB5-0-3"	1	1	1							
	1057		WMUZ7-SB5-9-101	1	1	1							
Comments:													
Sampled/Relinquished By: Mitchel Dykka				Date/ Time	Received By: ASTI Cold Storage								
Relinquished By: ASTI Cold Storage				12-16-19 1630									
Relinquished By: Pete Shadie				Date/ Time	Received By: Pete Shadie 12/17/19 8:50								
Turnaround Time ALL RESULTS WILL BE SENT BY THE END OF THE BUSINESS DAY				12/17/19 1530	Received By Laboratory: JL								
1 bus. day 2 bus. days 3 bus. days 4 bus. days								LAB USE ONLY					
<input checked="" type="checkbox"/> 5-7 bus. days (standard)								Fibertec project number: 94220					
Other (specify time/date requirement): _____								Temperature upon receipt at Lab: 0.9°c					
Please see back for terms and conditions													

Analytical Laboratory

1914 Holloway Drive 8660 S. Mackinaw Trail
Holt, MI 48842 Cadillac, MI 49601
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email: lab@fibertec.us

Industrial Hygiene Services, Inc.

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Fax: 517 699 0382 Fax: 231 775 8584
email: asbestos@fibertecihs.com

Geoprobe

11766 E. Grand River Rd.
Brighton, MI 48116
Phone: 810 220 3300
Fax: 810 220 3311

Chain of Custody #

181438
PAGE 2 of 5

Client Name:	ASTI Environmental			PARAMETERS	Matrix Code				Deliverables		
Contact Person:	Greg Oslosky										
Project Name/ Number:	5-10860										
Email distribution list:	goslosky@asti-env.com mclyle@asti-env.com										
Quote#											
Purchase Order#	Date	Time	Sample #	Client Sample Descriptor	# OF CONTAINERS	PCBs	HOLD SAMPLE	Remarks:			
	12-16-19	1220		WMUZ7-SB6-0-3"							
	1226			WMUZ7-SB6-8.5-9.5"							
	121002			WMUZ7-SB7-0-3"							
	1213			WMUZ7-SB7-10.5-11.5"							
	1146			WMUZ7-SB8-0-3"							
	1156			WMUZ7-SB8-10-11"							
	1126			WMUZ7-SB9-0-3"							
	1139			WMUZ7-SB9-7-8"							
	1164			WMUZ7-SB10-0-3"							
	1115			WMUZ7-SB10-7-8"							

Comments:

Sampled/Relinquished By:	Mitchell York	Date/ Time	12-16-19 16:30	Received By:	ASTI cold storage
Relinquished By:	ASTI Cold Storage	Date/ Time		Received By:	Releasor Shad 12/17/19 8:50
Relinquished By:	Releasor Shad	Date/ Time	12/17/19 1530	Received By Laboratory:	
Turnaround Time ALL RESULTS WILL BE SENT BY THE END OF THE BUSINESS DAY					
1 bus. day	2 bus. days	3 bus. days	4 bus. days	LAB USE ONLY	
<input checked="" type="checkbox"/>	5-7 bus. days (standard)	Other (specify time/date requirement): _____		Fibertec project number:	94220 Received On Ice
Please see back for terms and conditions					

Analytical Laboratory
 1914 Holloway Drive 8660 S. Mackinaw Trail
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 email: asbestos@fibertecihhs.com

Geoprobe
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 Fax: 810 220 3311

Chain of Custody #
181439
 PAGE 3 of 5

Client Name:	<i>ASTI Environmental</i>		PARAMETERS	Matrix Code				Deliverables	
Contact Person:	<i>Greg Oslsky</i>			S	Soil	GW	Ground Water		
Project Name/ Number:	<i>5-10860</i>			A	Air	SW	Surface Water		
Email distribution list:	<i>goslosky@asti-env.com mdykl@asti-env.com</i>			O	Oil	WW	Waste Water		
Quote#				P	Wipe	X	Other: Specify		
Purchase Order#			Remarks:						
Date	Time	Sample #	Client Sample Descriptor	MATRIX (SEE RIGHT CORNER FOR CODE)	# OF CONTAINERS	HOLD SAMPLE			
12-6-19	1231		WMUZ7-SB11-0-3"	5	1 X				
	1243		WMUZ7-SB11-11-12	1	1				
	1252		WMUZ7-SB12-0-3"	1	1				
	1303		WMUZ7-SB12-11-12"	1	1				
	1311		WMUZ7-SB13-0-3"	1	1				
	1319		WMUZ7-SB13-11-12"	1	1				
	1326		WMUZ7-SB14-0-3"	1	1				
	1334		WMUZ7-SB14-11-11.75"	1	1				
	1340		WMUZ7-SB15-0-3"	1	1				
↓	1347		WMUZ7-SB15-11-12"	1	1				

Comments:

Sampled/Relinquished By:	<i>Mitchel Dyl</i>	Date/ Time	12-6-19 1630	Received By:	<i>ASTI cold storage</i>
Relinquished By:	<i>ASTI Cold Storage</i>	Date/ Time		Received By:	<i>Jeh J. Shah 12/17/19 8:50</i>
Relinquished By:	<i>Jeh J. Shah</i>	Date/ Time	12/17/19 1530	Received By Laboratory:	

Turnaround Time ALL RESULTS WILL BE SENT BY THE END OF THE BUSINESS DAY

1 bus. day

2 bus. days

3 bus. days

4 bus. days

5-7 bus. days (standard)

Other (specify time/date requirement): _____

Fibertec project number:

94220

**Received
On Ice**

Temperature upon receipt at Lab: *0.90°*

Please see back for terms and conditions

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 Holt, MI 48842 Cadillac, MI 49601
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 email: lab@fibertec.us

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 Fax: 517 699 0382
 email: asbestos@fibertecihs.com

Geoprobe
 11766 E. Grand River Rd.
 Brighton, MI 48116
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 Fax: 810 220 3311

Chain of Custody #
181440
 PAGE 4 of 5

Client Name:	<i>ASTI Environmental</i>		
Contact Person:	<i>Greg Oslasky</i>		
Project Name/ Number:	<i>5-10860</i>		
Email distribution list:	<i>goslosky@asti-env.com mdykla@asti-env.com</i>		
Quote#			
Purchase Order#			
Date	Time	Sample #	Client Sample Descriptor
12-16-19	1434		WMU27-SB16-0-3"
	1437		WMU27-SB16-7-8"
	1426		WMU27-SB17-0-3"
	1431		WMU27-SB17-6-7"
	1416		WMU27-SB18-0-3"
	1422		WMU27-SB18-9-10"
	1408		WMU27-SB19-0-3"
	1412		WMU27-SB19-6-7"
↓	1353		WMU27-SB20-0-3"
↓	1400		WMU27-SB20-9-10"

HOLD SAMPLE	PARAMETERS						Matrix Code			Deliverables							
	S	Soil	GW	Ground Water	A	Air	SW	Surface Water	O	Oil	WW	Waste Water	P	Wipe	X	Other: Specify	
																	Level 2
																	Level 3
																	Level 4
																	EDD

Comments:

Sampled/Relinquished By:	<i>Mitchell D.</i>	Date/ Time	<i>12-16-19 16:30</i>	Received By:	<i>ASTI Cold Storage</i>
Relinquished By:	<i>ASTI Cold Storage</i>	Date/ Time		Received By:	<i>John J. Shadie 12/17/19 8:50</i>
Relinquished By:	<i>John J. Shadie</i>	Date/ Time	<i>12/17/19 1530</i>	Received By Laboratory:	

Turnaround Time ALL RESULTS WILL BE SENT BY THE END OF THE BUSINESS DAY

1 bus. day 2 bus. days 3 bus. days 4 bus. days
 5-7 bus. days (standard) Other (specify time/date requirement): _____

LAB USE ONLY

Fibertec project number: *94220*

Temperature upon receipt at Lab: *0.9°C*

**Received
On Ice**

Please see back for terms and conditions

Analytical Laboratory

1914 Holloway Drive 8660 S. Mackinaw Trail
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Phone: 517 699 0345
Fax: 517 699 0382
email: asbestos@fibertecihs.com

Geoprobe
11766 E. Grand River Rd.
Brighton, MI 48116
Phone: 810 220 3300
Fax: 810 220 3311

Chain of Custody #

181441
PAGE 5 of 5

Client Name: **ASTI Environmental**

Contact Person: **Greg Glosky**

Project Name/ Number:

5-10860

Email distribution list:

glosky@astienv.com

mdykla@asti-env.com

Quote#

Purchase Order#

Date	Time	Sample #	Client Sample Descriptor	MATRIX (SEE RIGHT CORNER FOR CODE)	# OF CONTAINERS	PARAMETERS						HOLD SAMPLE	Matrix Code				Deliverables	
						S	Soil	GW	Ground Water	A	Air	SW	Surface Water	O	Oil	WW	Waste Water	
12-16-19	—		WMUZ7-Dupl	S	1 X													
12-16-19	—		WMUZ7-Dup2	S	1 X													
Remarks:																		
Received By Lab																		
DEC 17 2019																		
Initials: <u>Tm</u>																		

Comments:

Sampled/Relinquished By:	Mitch C	Date/ Time	12-16-19 16:30	Received By:	ASTI Cold Storage					
Relinquished By:	ASTI Cold Storage	Date/ Time		Received By:						
Relinquished By:	Nick Shad	Date/ Time	12/16/19 1530	Received By Laboratory:	Nick Shad 12/17/19 8:50					
Turnaround Time ALL RESULTS WILL BE SENT BY THE END OF THE BUSINESS DAY				LAB USE ONLY						
1 bus. day	2 bus. days	3 bus. days	4 bus. days					Fibertec project number:	94220	
<input checked="" type="checkbox"/> 5-7 bus. days (standard)	Other (specify time/date requirement): _____								Temperature upon receipt at Lab:	0.40C
Received On Ice										
Please see back for terms and conditions										

ASTI ENVIRONMENTAL
*ENVIRONMENTAL INVESTIGATION, REMEDIATION, COMPLIANCE AND
RESTORATION PROJECTS THROUGHOUT THE GREAT LAKES SINCE 1985.*

OUR SERVICES INCLUDE:

- ASBESTOS, LEAD, MOLD, AND RADON ASSESSMENTS
- BROWNFIELD/GREYFIELD REDEVELOPMENT ASSISTANCE
- DEVELOPMENT INCENTIVES AND GRANT MANAGEMENT
- ECOLOGICAL ASSESSMENTS AND RESTORATION
- ENVIRONMENTAL ASSESSMENTS AND IMPACT STATEMENTS
- ENVIRONMENTAL OPPORTUNITIES ASSESSMENT
- GIS MAPPING
- HAZARD MITIGATION PLANNING
- MINING AND RECLAMATION ASSISTANCE
- REMEDIATION IMPLEMENTATION, OPERATION AND MAINTENANCE
- PHASE I ESA AND ENVIRONMENTAL DUE DILIGENCE ASSESSMENTS
- REGULATORY COMPLIANCE AND PERMITTING
- SOIL AND GROUNDWATER ASSESSMENTS
- SOIL AND GROUNDWATER REMEDIATION
- STORAGE TANK COMPLIANCE AND CLOSURE
- THREATENED AND ENDANGERED SPECIES SURVEYS
- WATERSHED AND STORMWATER MANAGEMENT PROGRAMS
- WETLAND DELINEATION, PERMITTING, MITIGATION AND BANKING