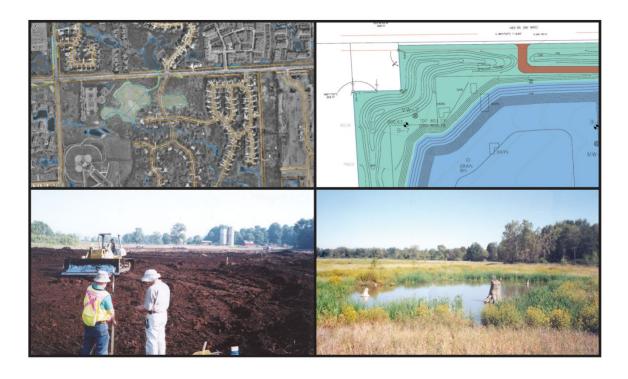
# Limited Phase II Environmental Site Assessment

6021 Whittier Avenue Detroit, MI

CCSEM St. Matthew LDHA, LP

October 10, 2022

# **ASTI ENVIRONMENTAL**





# Limited Phase II Environmental Site Assessment

# 6021 Whittier Avenue Detroit, Michigan

October 10, 2022

# **Prepared For:**

CCSEM St. Matthew LDHA, LP 2111 Woodward Avenue Detroit, Michigan 48201

# **Report Prepared By:**

ASTI Environmental 10448 Citation Drive, Suite 100 Brighton, Michigan 48116 (810) 225-2800

ASTI Project No. 3-11685

Report Prepared by:

Emily Manetz

**Environmental Technician** 

Report Reviewed by:

Brian Kuberski, EP Group Leader

Group Leader



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- Geophysical Survey Report Soil Boring Logs Α
- В
- С Laboratory Analytical Reports and Chain-of-Custody Documentation



#### 1.0 INTRODUCTION

ASTI Environmental (ASTI) was retained by CCSEM St. Matthew LDHA, LP to conduct a Limited Phase II Environmental Site Assessment (ESA) of the property located at 6021 Whittier in the City of Detroit, Wayne County, Michigan (Subject Property). This investigation was prepared for the benefit of CCSEM St. Matthew LDHA, LP, and ASTI acknowledges that said party may rely upon the contents and conclusions presented in this report. The Subject Property is comprised of approximately 1.75 acres of land on a portion of one parcel with Parcel ID 21003826. A Site Location Map is provided as Figure 1.

The Limited Phase II ESA was conducted in accordance with ASTI's proposal dated September 8, 2022.



#### 2.0 PURPOSE AND PROPERTY HISTORY AND INFORMATION

# 2.1 Purpose

ASTI completed a Phase I ESA of the Subject Property on March 25, 2022, which identified the following recognized environmental condition (REC) with respect to the Subject Property:

• Per reviewed records at the Detroit Building Safety Engineering & Environmental Department, a 6,000-gallon fuel oil UST was permitted for installation in 1954 at the address of 5999 Whittier Street. A potentially related vent pipe was identified on the east adjoining church. Reviewed records suggest historical use of fuel oil as a heating fuel for buildings operated at the Subject Property in the 1950s. The potential storage of fuel oil in underground storage tanks at the onsite church/school on Audubon Street and offsite church is a REC.

The objective of this investigation is to identify if environmental impacts have occurred or remain present on the Subject Property from the above listed REC.

# 2.2 <u>Historical Uses of the Subject Property</u>

Based on the Phase I ESA research, the Subject Property was developed with a dwelling near its southeast corner before 1930. It was additionally developed as a church/school, rectory, and dwelling by 1930. Additions were made to the original building and the rectory in the 1940s, 1950s, and 1960s. The use has primarily been that of a school since the 1950s. The lots with two dwellings on the south portion were redeveloped with the current school building/activity center in 1967. The rectory was removed sometime before 1984. Since then, the site has been in its current configuration. The school was last used by Detroit Public Schools.

### 2.3 <u>Current Uses of the Subject Property</u>

The Subject Property is developed with two vacant school buildings.



# 2.4 Existing Infrastructure Features

The Subject Property is developed with a 47,494-square-foot school building and a 13,224-square-foot school building. Both buildings are primarily constructed with slab on grade concrete, wood, steel, and brick. Potable water, sewage, and stormwater services are provided to the Subject Property by the City of Detroit. Electrical and natural gas services are provided to the site by DTE Energy.



#### 3.0 GEOPHYSICAL SURVEY

A combined electromagnetic induction (EM) and ground penetrating radar (GPR) geophysical survey was conducted at the Subject Property on September 15, 2022 by Geophysical Imaging, Inc (GII) under the supervision of ASTI. The purpose of the geophysical survey was to determine if any abandoned USTs were present on the Subject Property based on information provided to ASTI during the completion of the Phase I ESA. The survey was completed in the northern portion of the Subject Property between the school building and the adjoining church building where a potential heating oil UST may be present associated with a vent pipe on the adjoining church building. A survey was also completed on the southwestern portion of the Subject Property in the grass area to the southwest of the western school building in the area of possible fill port. The EM portion of the geophysical survey identified a large strong in-phase anomaly located at the southern survey. The GPR survey was completed over the anomaly which identified a hyperbolic reflection response that was interpreted to be a potential UST. The EM portion of the geophysical survey identified a large strong in-phase anomaly located at the northern survey. The GPR survey was completed over the anomaly which identified a hyperbolic reflection response that was interpreted to be a potential USTA copy of the Geophysical Survey Report is provided as Attachment A.

Fill ports were found in association with both of the suspect USTs identified during the geophysical survey. The southern UST is estimated to be approximately 3,000 gallons and contained 4.5 feet of fuel oil. The northern UST is estimated to be approximately 10,000 gallons and contained 9 feet of fuel oil.



# 4.0 SAMPLING LOCATIONS

On September 16, 2022, ASTI advanced four soil borings (SB-1 through SB-4) at the Subject Property. The soil borings were advanced to depths of 16 feet below ground surface (bgs) using a direct-push Geoprobe® drill rig. A Sample Location Map is provided as Figure 2.

Boring/sample ID, boring/sample locations, and depth were as follows:

Boring/Sample ID	Boring/Sample Location	Depth of Boring (bgs)
SB-1	Between the UST and the south sidewalk located on the southern portion of the property. Boundary of UST was based on geophysical survey.	16 feet
SB-2	Between the UST and the fence located on the southern portion of the property. Boundary of UST was based on geophysical survey.	16 feet
SB-3	Adjacent to the UST and school building located on the northern portion of the property. Boundary of UST was based on geophysical survey.	16 feet
SB-4	Between the UST and church building located on the northern portion of the property. Boundary of UST was based on geophysical survey.	16 feet



#### 5.0 SAMPLE COLLECTION PROCEDURES

Using the drill rig, soil was extracted from the ground in pre-cleaned, 4-foot-long, acetate liners. Soil encountered during field activities was identified by ASTI's field personnel, examined for visual and/or olfactory evidence of impact, and screened using a photoionization detector (PID) with notes recorded in a field logbook. Prior to sampling, the PID was calibrated to manufacturer specifications using 100 parts per million (ppm) isobutylene calibration gas. All down-hole equipment was decontaminated using an Alconox® wash and clean water rinse prior to and between borings to minimize the risk of cross contamination of the samples.

ASTI collected two soil samples from each soil boring. The soil samples were collected into laboratory certified clean, unpreserved 8-ounce glass jars and 40-milliliter glass vials preserved in the field with methanol that were subsequently placed on ice and submitted to Fibertec Environmental Services (Fibertec) in Holt, Michigan under standard chain-of-custody procedures.

One duplicate soil sample (DUP-1S) was collected at SB-1 (15-16') for quality assurance/quality control (QA/QC) purposes. In addition, a methanol blank was maintained with the samples during sampling and transport.

The soil samples were analyzed for the following parameters: benzene, toluene, ethylbenzene and xylene (BTEX), trimethylbenzene (TMB) isomers, and polynuclear aromatics (PNAs).

Sample depth, location rationale, and analysis are provided in the following table.

Boring	Sample Matrix	Sample Depth (feet bgs)	Rationale for sample depth	Analysis
SB-1	Soil	0.5-1.5'	Sand/clay interface	BTEX, TMB isomers, & PNAs
	Soil 15-16'		Bottom of boring	BTEX, TMB isomers, & PNAs



Boring	Sample Matrix	Sample Depth (feet bgs)	Rationale for sample depth	Analysis
CD 0	Soil	1.5-2.5'	Sand/clay interface	BTEX, TMB isomers, & PNAs
SB-2	Soil 15-10	15-16'	Bottom of boring	BTEX, TMB isomers, & PNAs
SB-3	Soil	6.5-7.5	Sand/clay interface	BTEX, TMB isomers, & PNAs
36-3	Soil 15-16'	15-16'	Bottom of boring	BTEX, TMB isomers, & PNAs
SB-4	Soil	1.5-2.5'	Sand/clay interface	BTEX, TMB isomers, & PNAs
3D-4	Soil	15-16'	Bottom of boring	BTEX, TMB isomers, & PNAs



#### **6.0 PATHWAY EVALUATION**

The EGLE Generic Residential Cleanup Criteria (GRCC) used for comparison to the soil analytical for the Subject Property under Part 201 of Michigan's Natural Resources and Environmental Protection Act, 1994 PA 451, as Amended (Part 201) are the drinking water protection (DWP), groundwater surface water interface protection (GSIP), direct contact (DC), finite source volatile soil inhalation (VSIC), soil volatilization to indoor air inhalation (SVIAI), and particulate soil inhalation (PSI). In addition, the soil analytical results were compared to EGLE's residential Volatilization to Indoor Air Screening Levels (VIAP).



#### 7.0 SOIL AND GROUNDWATER CHARACTERISTICS

The following sections describe the encountered soil and groundwater conditions during the investigation.

# 7.1 <u>Soil</u>

The general subsurface lithology encountered beneath surface cover (topsoil or asphalt) in the soil borings generally consisted of a silty clay to the terminus of the soil borings at 16 feet bgs. Sand was encountered at 1 to 2 feet bgs and 2.5 to 7.5 feet bgs in soil boring SB-3.

For more detail on the encountered stratigraphy, refer to the soil boring logs included as Attachment B.

# 7.2 **Groundwater**

Groundwater was not encountered in the soil borings.



#### 8.0 ANALYTICAL RESULTS

### Soil Analytical

Table 1 presents the laboratory analytical results for the soil samples in comparison to the EGLE GRCC and VIAP screening levels.

#### **VOCs**

No VOCs were reported in the soil samples above the laboratory reporting limits.

•

# **PNAs**

PNAs were detected in soil sample SB-2 (1.5-2.5') at concentrations below the GRCC and VIAP screening levels. The soil sample was further analyzed for diesel range organics to determine if non-aqueous phase liquid (NAPL) is present and if the individual PNA compounds could be compared to the GRCC for DC and SVIAI. No DRO was detected above the reporting limits in the sample. No PNAs were detected in the remaining soil samples above the reporting limits.

# **Quality Assurance/Quality Control**

The laboratory analytical results reported the duplicate soil sample was within acceptable ranges of the associate parent samples. In addition, no VOCs were reported in the methanol blank at concentrations exceeding the laboratory reporting limits. No reporting limits were elevated and no qualifiers were listed with the analytical report.

The Laboratory Analytical Reports and chain-of-custody documentation are provided in Attachment C.



#### 9.0 CONCLUSIONS AND RECOMMENDATIONS

The laboratory analytical results for the soil and groundwater samples collected at the Subject Property reported no compounds above the EGLE Part 201 GRCC or VIAP Screening Levels. Based on the laboratory analytical results, it is ASTI's opinion that the Property is not a "facility" as defined in Part 201 of Michigan's Natural Resources and Environmental Protection Act, 1994 PA 451, as Amended (Part 201).

ASTI recommends that the USTs be emptied, removed, and properly disposed of as the USTs are no longer in use based on information provided to ASTI. Based on the soil sampling completed, potential overfill or spilling may have occurred near the surface of the southern UST. If impacts are observed during the removal of the UST near the surface or other depths, the impacted soil will need to be excavated and transported to a type II landfill for proper disposal. It is also recommended that clean closure sampling be completed for the UST excavations to verify no release has occurred from the USTs.



# **FIGURES**

- 1
- Site Location Map Sample Location Map 2



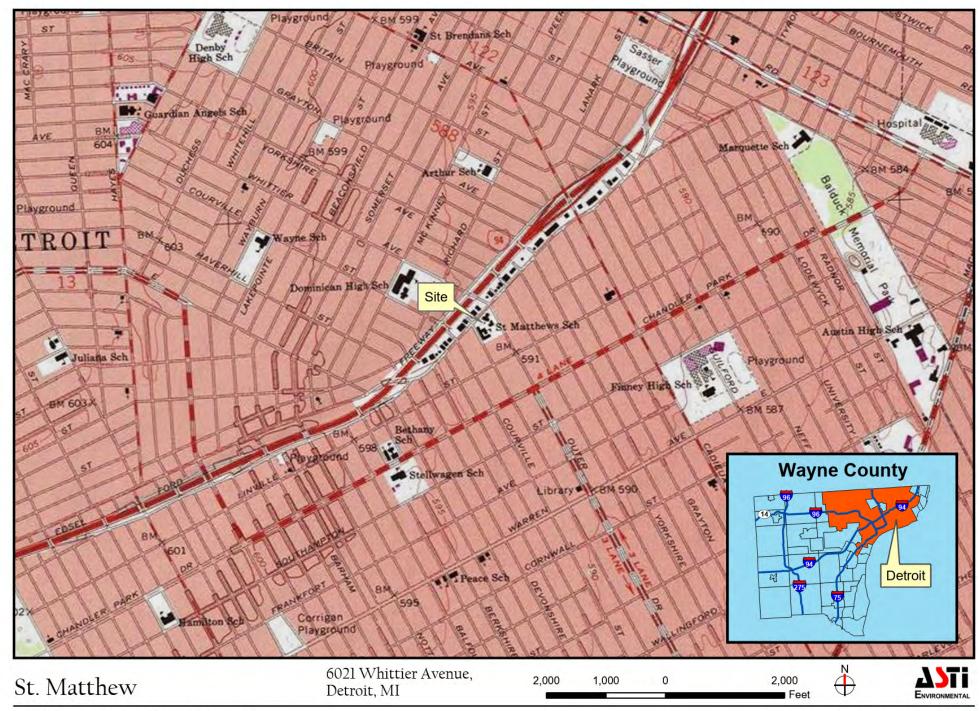


Figure 1 - Site Location Map



Figure 2 - Sample Location Map

# **TABLES**

1 Summary of Soil Sample Analytical Results



Table 1 Summary of Soil Sample Analytical Results 6021 Whittier Avenue, Detroit, Michigan ASTI Project No. 3-11685

				Residential													
			Groundwater	Soil	Residential												
		Residential	Surface	Volatilization	Finite Source	Residential											
	Statewide	Drinking	Water	to Indoor Air	Volatile Soil	Particulate	Residential		D.I.D. 40								
	Default	Water	Interface	Pathway	Inhalation for	Soil	Direct	SB- 1	DUP- 1S	SB- 1	SB- 2	SB- 2	SB- 3	SB- 3	SB- 4	SB- 4	
	Background	Protection	Protection	Screening	5 Meter Source	Inhalation	Contact	(0.5-1.5')	SB-2	(15-16')	(1.5-2.5')	(15-16')	(6.5-7.5')	(15-16')	(1.5-2.5')	(15-16')	Meth Blank
	Levels*	Criteria*	Criteria*	Level	Thickness	Criteria*	Criteria*	9/16/2022	9/16/2022	9/16/2022	9/16/2022	9/16/2022	9/16/2022	9/16/2022	9/16/2022	9/16/2022	9/16/2022
Parameters	μg/kg	μg/kg	μg/kg	μg/kg	μg/kg	μg/kg	μg/kg	μg/kg	μg/kg	μg/kg	μg/kg	μg/kg	μg/kg	μg/kg	μg/kg	μg/kg	μg/kg
PNAs																	
Acenaphthene	NA	300,000	8,700	200,000	81,000,000	14,000,000,000	41,000,000	<330	<330	<330	<330	<330	<330	<330	<330	<330	~
Acenaphthylene	NA	5,900	ID	DATA	2,200,000	2,300,000,000	1,600,000	<330	<330	<330	<330	<330	<330	<330	<330	<330	~
Anthracene	NA	41,000	ID	13,000,000	1,400,000,000	67,000,000,000	230,000,000	<330	<330	<330	<330	<330	<330	<330	<330	<330	~
Benzo(a)anthracene	NA	NLL	NLL	160,000	NLV	ID	20,000	<330	<330	<330	660	<330	<330	<330	<330	<330	~
Benzo(a)pyrene	NA	NLL	NLL	NA	NLV	1,500,000	2,000	<330	<330	<330	640	<330	<330	<330	<330	<330	~
Benzo(b)fluoranthene	NA	NLL	NLL	NA	ID	ID	20,000	<330	<330	<330	850	<330	<330	<330	<330	<330	~
Benzo(g,h,i)perylene	NA	NLL	NLL	NA	NLV	800,000,000	2,500,000	<330	<330	<330	<330	<330	<330	<330	<330	<330	~
Benzo(k)fluoranthene	NA	NLL	NLL	NA	NLV	ID	200,000	<330	<330	<330	<330	<330	<330	<330	<330	<330	~
Chrysene	NA	NLL	NLL	NA	ID	ID	2,000,000	<330	<330	<330	630	<330	<330	<330	<330	<330	~
Dibenzo(a,h)anthracene	NA	NLL	NLL	NA	NLV	ID	2,000	<330	<330	<330	<330	<330	<330	<330	<330	<330	~
Fluoranthene	NA	730,000	5,500	NA	740,000,000	9,300,000,000	46,000,000	<330	<330	<330	1,100	<330	<330	<330	<330	<330	~
Fluorene	NA	390,000	5,300	470,000	130,000,000	9,300,000,000	27,000,000	<330	<330	<330	<330	<330	<330	<330	<330	<330	~
Indeno(1,2,3-cd)pyrene	NA	NLL	NLL	NA	NLV	ID	20,000	<330	<330	<330	<330	<330	<330	<330	<330	<330	~
2-Methylnaphthalene	NA	57,000	4,200	1,700	1,500,000	670,000,000	8,100,000	<330	<330	<330	<330	<330	<330	<330	<330	<330	~
Naphthalene	NA	35,000	730	67	300,000	200,000,000	16,000,000	<330	<330	<330	<330	<330	<330	<330	<330	<330	~
Phenanthrene	NA	56,000	2,100	1,700	160,000	6,700,000	1,600,000	<330	<330	<330	<330	<330	<330	<330	<330	<330	~
Pyrene	NA	480,000	ID	25,000,000	650,000,000	6,700,000,000	29,000,000	<330	<330	<330	850	<330	<330	<330	<330	<330	~
VOCs																	
Benzene	NA	100	4,000 (X)	110	34,000	380,000,000	180.000	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
Ethylbenzene	NA	1.500	360	340	1,000,000	10.000.000.000	22,000,000 (C)	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
Toluene	NA	16,000	5.400	3,700	5,100,000	27,000,000,000	50,000,000 (C)	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
1,2,3-Trimethylbenzene	NA	-	-	270	-	-	-	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
1,2,4-Trimethylbenzene	NA	2,100	570	150	500,000,000	82,000,000,000	32,000,000 (C)	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
1,3,5-Trimethylbenzene	NA	1.800	1,100	100	380,000,000	82,000,000,000	32,000,000 (C)	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
Xylenes	NA	5,600	980	280	61,000,000	290,000,000,000	410,000,000 (C)	<150	<150	<150	<150	<150	<150	<150	<150	<150	<150
				Soil Volatilization	n		<0.5% Saturation										
				To Indoor Air	•		For Direct										
				Criteria Applicab	e		Contact										
				Screening Leve			Screening Level										
Diesel Range Organics				500,000	ı		1,050,000	~	~	~	<10,000	~	~	~	~	~	~
555				223,000			.,223,000				. 5,000						

<sup>\*</sup>Per R299.46, June 25, 2018

italicized analytical results were determined to be below a regional background level in native soil

NA-Not available.

<sup>~</sup> Parameter not tested for at this location.

ID-Inadequate data to develop criterion.

NLL-Hazardous substance is not likely to leach under most soil conditions.

NLV-Hazardous substance is not likely to volatilize under most conditions.

C-Value presented is a screening level based on the chemical-specific generic soil saturation concentration (Csat)

D-Calculated criterion exceeds 100%, hence it is reduced to 100% or 1.0e+9 ppb.

X-The Groundwater Surface Water Interface (GSI) criterion shown in the generic cleanup criteria tables is not protective for surface water that is used as a drinking water source.

# **A**TTACHMENTS



# Attachment A

**Geophysical Survey Report** 





Geophysical Imaging, Inc.

3765 Timber Valley Dr Maumee, OH 43537

Phone/fax: (419) 868-2902

September 18, 2022

GII Project No. 22-958

Mr. Brian Kuberski Environmental Professional ASTI Environmental 10448 Citation Dr., Suite 100 Brighton, Michigan 48116

# Geophysical Survey Report 6021 Whittier Avenue Detroit, Michigan

#### Dear Mr. Kuberski:

This letter report summarizes the results and interpretations of the geophysical survey performed for ASTI Environmental (ASTI) by Geophysical Imaging, Inc. (GII) at the above-referenced site. The purpose of the survey was to detect if abandoned underground storage tanks (USTs) are present at the site.

# Project Background

According to ASTI, USTs were historical present at the site. The status of the UST is unknown.

# Field Activities and Data Processing

On September 15, 2022, a combined electromagnetic induction (EM) and groundpenetrating radar (GPR) survey was conducted by GII at the site in the areas designated by ASTI. Figure 1 depicts the approximate areas surveyed and the general site features. The EM survey was performed in "continuous survey" mode along 2.5-foot spaced transects. GII used a GSSI EMP-400 multi-frequency EM profiler with integrated GPS. Two EM exploration frequencies (9.000 Hz and 12,000 Hz) were selected for the site. Prior to the EM survey, field, operator, and zero in-phase calibrations were performed at the site. In "continuous survey" mode, data are acquired at a fixed time interval while the operator walks along a survey line at a steady pace. Both in-phase (metal sensitive) and quadrature (terrain conductivity) measurements were acquired during EM survey. These measurements were automatically stored the



wireless data logger, and later downloaded to a computer for subsequent processing. Two software packages were utilized to define suspect areas, MagMap (supplied by E.G. & G. Geometrics) and SURFER (developed by Golden Software). Selected EM measurement contour maps are presented on Figures 2 and 3.

The GPR survey was performed along 5-foot spaced profiles. GII used a GSSI SIR-3000 GPR system with a 400-megahertz (MHz) dipole antenna mounted on a wheeled cart to scan the survey area. Several test scans were completed to observe the overall GPR responses to setup survey parameters prior to the GPR survey. A survey wheel was used to acquire distance-based data at the density of 18 scans per foot. Anomalous reflective objects/structures were noted and marked on the ground surface during the data acquisition. Additional linescans were performed to better understand anomalous targets. The GPR data were automatically stored in a data logger, and later downloaded to a computer for subsequent processing. The data processing consisted of Time-Zero Adjustment (time zero of the vertical scale aligned with the surface reflection) and Background Removal (horizontal banding) to the GPR scans. Targeted GPR linescans are presented on Figure 4.

# Results and Interpretations

The EM survey identified a strong EM in-phase ('metal') anomaly in the northern survey Two targeted GPR linescans (Linescans A and B) were performed in this anomaly area. One hyperbolic reflection response was identified on the GPER scans. The shape, strength and ring-down of these reflections are similar to the GPR response that is often observed over cylindrical-shaped steel objects such as USTs, large diameter metal pipes or cylindrical-shaped metal containers. Based on the EM and GPR data, this anomaly area was interpreted to represent a possible large UST. The EM survey identified a strong EM 'metal' anomaly the southern survey area. The strength and pattern of these anomalies are similar to the EM response that is often observed over large steel objects such as UST(s). Two targeted GPR linescans (Linescans C and D) were performed in this anomaly area. Cylindrical-shaped steel object was not identified on the GPR scans. It is not uncommon for some large metal objects to be undetectable to GPR when highly conductive backfill materials are present Based on the EM data and site history, this anomaly area was over the target. interpreted to represent a possible UST. Other strong EM 'metal' anomalies identified during the survey were most likely associated with the known aboveground interference, such as manhole covers and building, etc.

# Survey Methods and Limitations

The EM operates by driving a transmitter coil with an AC current at audio frequencies to generate a sinusoidal time-varying magnetic field. A receiver coil is positioned on or near the surface of the earth some distance away from the transmitter coil. The transmitted time-varying magnetic field generated by the transmitter coil induces



secondary currents to flow in the subsurface, which in turn generate a secondary (induced) magnetic field. Both the induced secondary field, along with the primary field, is detected and recorded at the receiver coil.

The EM instruments contain two sets of coils that are located within opposite sides of the tool. One set of coil is used to transmit a primary magnetic field, which generates electrical current in the ground. The created current then generates a secondary magnetic field, which is sensed by the coils in the receiver end of the instrument. Data is then collected on a control unit indicating the conductivity of the earth. magnitude of the secondary field is broken into two orthogonal components. The two components of the secondary magnetic field are in-phase (real component) and the quadrature or out-of-phase (imaginary component). For instruments operating within the Low Induction Number (LIN) approximation, the magnitude of the quadrature component of the secondary field is linearly proportional to the apparent conductivity. The in-phase measurement is most sensitive to buried metallic objects and can be used locate buried steel reinforced structures, UST, large utility pipes, and other metallic targets. In the absence of a highly conductive material (e.g. metallic targets) in the subsurface, the magnitude of the in-phase component is dependant on the magnetic susceptibility of the subsurface. The EMP-400 allows multiple frequency measurements at each survey station. The depth of exploration depends on the operating frequencies, target size and shape, and host-target conductivity. Site conditions that can limit, even preclude EM data interpretation include: urban or developed areas, thunderstorms and nearby metallic objects at or above the ground surface such as parked vehicles near the survey stations, rebar concrete, metal siding, overhead power lines, metal fence/guard rail, and manhole covers, etc. Areas of a site that may be difficult or impossible to survey include: steep slopes, standing water areas, overgrown vegetation areas, and obstructed areas.

GPR operates by transmitting pulses of ultra high frequency radio waves (microwave electromagnetic energy) down into the ground through a transducer or antenna. When the transmitted signal enters the ground, it contacts objects or subsurface strata with different electrical conductivities and dielectric constants. Part of the ground penetrating radar waves reflect off of the object or interface; while the rest of the waves pass through to the next interface. The reflected signals return to the antenna, pass through the antenna, and are received by the digital control unit. The control unit registers the reflections against two-way travel time in nanoseconds (ns) and then amplifies the signals. The output signal voltage peaks are plotted on the GPR profile as different color bands by the digital control unit.

GPR waves with 400 MHz frequency typically can reach depths up to 12 feet below ground surface (bgs) in low conductivity materials such as dry sand or granite. Clays, shale, and other high conductivity materials or materials having high moisture, may attenuate or absorb GPR signals, greatly decreasing the depth of penetration to 3 feet bgs or less. Other site conditions that can limit even preclude GPR data acquisition and



interpretation include: surface obstructions, uneven ground surface, standing water, cellular tower, rebar concrete, small or shallow buried objects, and over-grown vegetation, etc.

#### **Conclusions**

This geophysical survey has identified two anomalies, which may represent buried USTs. The geophysical results presented herein are interpreted. No warranty, certification, or statement of fact, either expressed or implied, regarding actual subsurface conditions within the surveyed area(s) is contained herein. If uncertainties exist regarding the presence of geophysical anomalies, test pit excavations should be conducted to explore the actual subsurface conditions. No interpretation of subsurface conditions can be made for areas not surveyed or paved with rebar concrete. Please note that the survey data reflect site conditions on the day of the field survey.

GII greatly appreciates this opportunity to provide ASTI with our geophysical survey service. If you have any questions, please contact me at (419) 868-2902.

Sincerely,

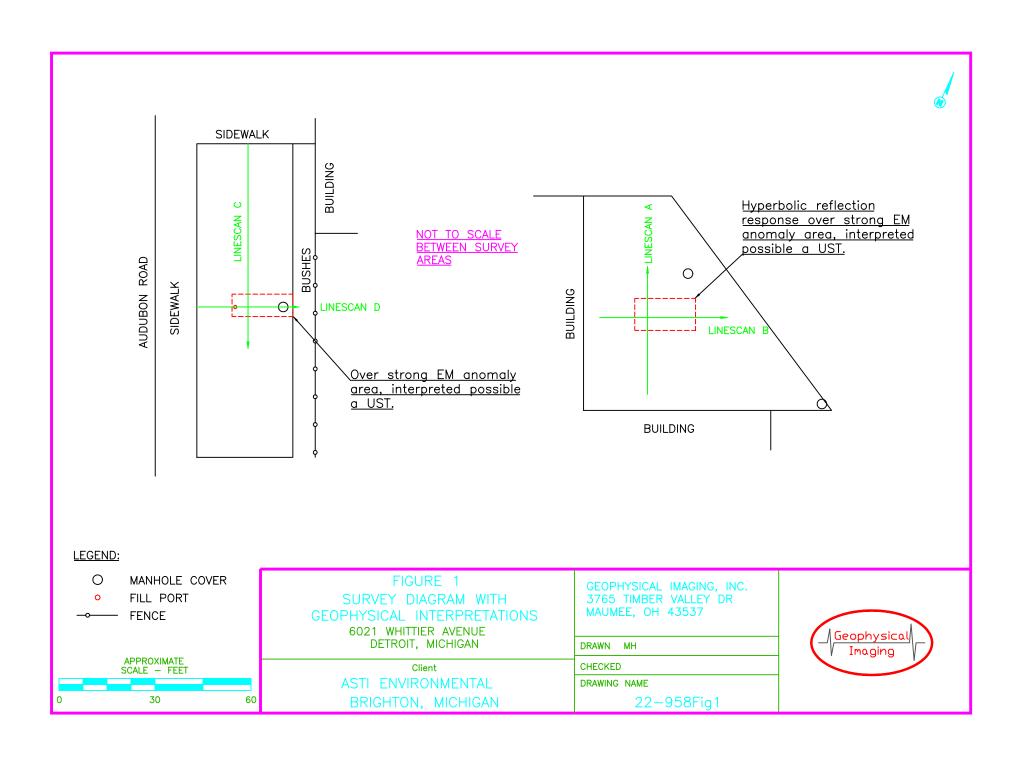
Geophysical Imaging, Inc.

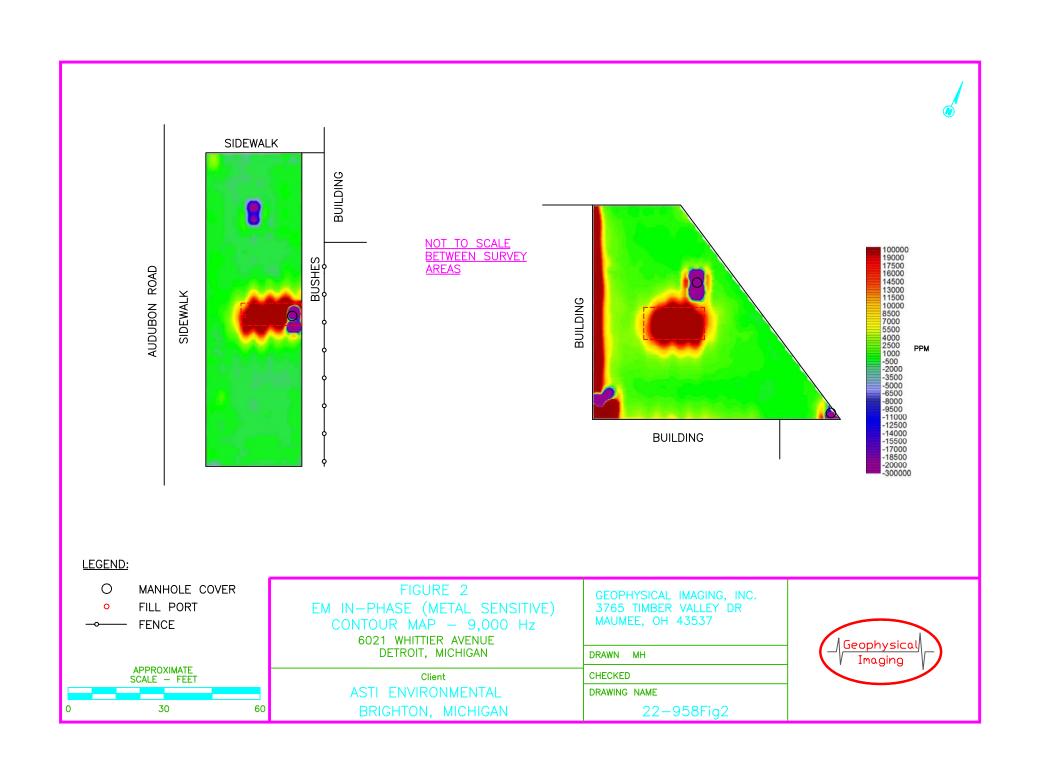
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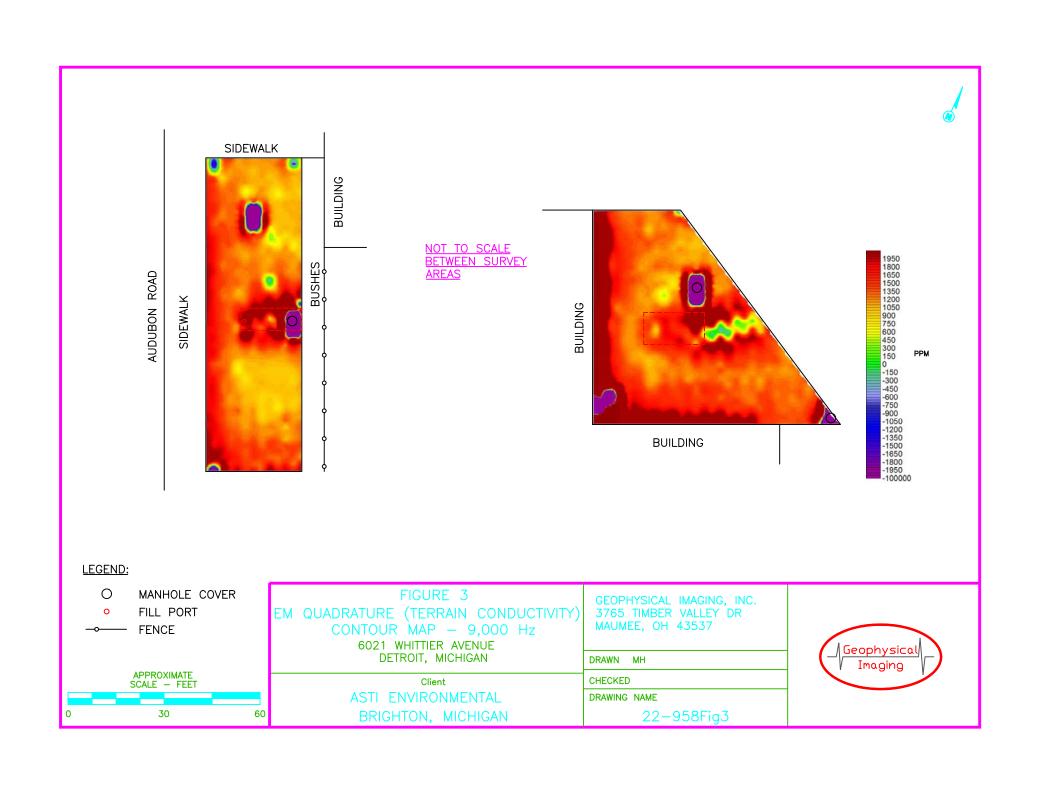
President/Geophysicist

Attachments
Figures 1 – 4

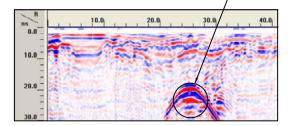
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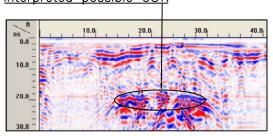




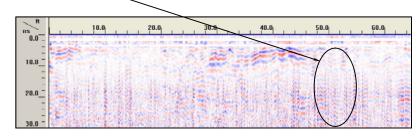
LINESCAN A: <u>hyperbolic reflection</u> response over strong EM anomaly area, interpreted possible a UST.



LINESCAN B: along axis of the interpreted possible UST.



LINESCAN C: <u>over strong EM anomaly area</u>, <u>interpreted</u> <u>possible a UST.</u>



LINESCAN D: <u>over strong</u>

<u>EM anomaly area</u>, <u>interpreted</u>

possible a UST.

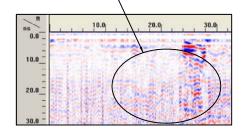


FIGURE 4
TARGETED GPR LINESCAN
LINESCANS A, B, C, AND D
6021 WHITTIER AVENUE
DETROIT, MICHIGAN

Client

ASTI ENVIRONMENTAL BRIGHTON, MICHIGAN

GEOPHYSICAL IMAGING, INC. 3765 TIMBER VALLEY DR MAUMEE, OH 43537

DRAWN MH

CHECKED

DRAWING NAME

22-958Fig4



**Attachment B** 

**Soil Boring Logs** 



# Proj. Name: St. Matthew's Proj. Number: 3-11685 Site Address: 6021 Whittier Avenue Detroit, MI Drilled by: ERG Method: Direct push probe Geologist: Emily Manetz

# **SOIL BORING LOG**

Boring Data	
Boring ID:	SB-1
Total Depth:	16' bgs
Date Completed:	9/16/2022
TW Data	1
Size:	NA
Туре:	NA
Screen Length:	NA
Well Depth:	NA
GW Depth (▼):	NA

Depth		Description	PID (ppm)	Sample Depth
From	То		(PP)	200
0	7"	topsoil	0.0	Soil at
7"	2'	SILTY CLAY, some fine to coarse grained sand, trace organics, gray with brown mottles, stiff (silty clay)	0.0	0.5-1.5'
2'	16'	SILTY CLAY, trace coarse to very coarse grained sand, gray with brown mottles, stiff (silty clay)	0.0	Soil at 15-16'
		End of Boring		

ppm = parts per million

TW = temporary monitoring well

bgs = below ground surface

# Proj. Name: St. Matthew's Proj. Number: 3-11685 Site Address: 6021 Whittier Avenue Detroit, MI Drilled by: ERG Method: Direct push probe Geologist: Emily Manetz

# **SOIL BORING LOG**

Boring Data	
Boring ID:	SB-2
Total Depth:	16' bgs
Date Completed:	9/16/2022
TW Data	1
Size:	NA
Type:	NA
Screen Length:	NA
Well Depth:	NA
GW Depth (▼):	NA

Depth From To		Description	PID (ppm)	Sample Depth
0	2.5'	SILTY CLAY, some fine to very coarse grained sand, trace organics, gray with brown mottles, stiff (silty clay)	0.0	Soil at 1.5-2.5'
2.5'	16'	SILTY CLAY, trace medium to coarse grained gravel, trace coarse grained sand, gray with brown mottles, stiff (silty clay)	0.0	Soil at 15-16'
		End of Boring		

ppm = parts per million

TW = temporary monitoring well

bgs = below ground surface

# Proj. Name: St. Matthew's Proj. Number: 3-11685 Site Address: 6021 Whittier Avenue Detroit, MI Drilled by: ERG Method: Direct push probe Geologist: Emily Manetz

# **SOIL BORING LOG**

Boring Data	
Boring ID:	SB-3
Total Depth:	16' bgs
Date Completed:	9/16/2022
Date Completed.	3/10/2022
TW Data	
Size:	NA
Type:	NA
Screen Length:	NA
Well Depth:	NA
GW Depth (▼):	NA

Depth From To		Description	PID (ppm)	Sample Depth
0	1.75'	Asphalt	0.0	
1.75'	2'	SAND with fine to very coarse gravel, brown, dry, loose (sand)	0.0	
2'	2.5'	SILTY CLAY, trace coarse sand, brown with gray mottles, stiff (silty clay)	0.0	
2.5'	7.5'	SAND, fine grained, brown, moist, dense (sand)	0.0	Soil at 6.5-7.5'
7.5'	16'	SILTY CLAY, trace coarse grained sand, gray with brown mottles, very stiff (silty clay)	0.0	Soil at 15-16'
		End of Boring		

ppm = parts per million

TW = temporary monitoring well

bgs = below ground surface

# Proj. Name: St. Matthew's Proj. Number: 3-11685 Site Address: 6021 Whittier Avenue Detroit, MI Drilled by: ERG Method: Direct push probe Geologist: Emily Manetz

# **SOIL BORING LOG**

Boring Data	
Boring ID:	SB-4
Total Depth:	16' bgs
Date Completed:	9/16/2022
TW Data	1
	J
Size:	NA
Type:	NA
Screen Length:	NA
Well Depth:	NA
CIM Donath (=)	NIA
GW Depth (▼):	NA

Depth		Description	PID	Sample
From	То		(ppm)	Depth
0	1'	asphalt	0.0	
1'	2'	SILTY CLAY, some medium to coarse grained gravel, fine to medium grained sand, trace black angular gravel, gray with brown mottles, stiff (silty clay)	0.0	Soil at 1.5-2.5' &
2'	16'	SILTY CLAY, trace coarse grained sand, some black angular gravel, gray with brown mottles, very stiff (silty clay)	0.0	15-16'
		End of Boring		

ppm = parts per million

TW = temporary monitoring well

bgs = below ground surface

# **Attachment C**

**Laboratory Analytical Reports and Chain-of-Custody Documentation** 





Tuesday, September 27, 2022

Fibertec Project Number: A10976

Project Identification: Saint Matthew's (3-11685) /3-11685

Submittal Date: 09/19/2022

Mr. Brian Kuberski
Applied Science & Technology, Inc. - Brighton
10448 Citation Dr.
Suite 100
Brighton, MI 48116

Dear Mr. Kuberski,

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 Sue Ricketts at 1:40 PM, Sep 27, 2022

For Daryl P. Strandbergh Laboratory Director

Enclosures



Order: Date: A10976

Applied Science & Technology, SB-1 (0.5-1.5') 182695 Client Identification: Sample Description: Chain of Custody: Inc. - Brighton Saint Matthew's (3-11685) 09/16/22 Client Project Name: Collect Date: Sample No: 3-11685 Collect Time: 09:00 Client Project No: Sample Matrix: Soil/Solid 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: A10976-001 Matrix: Soil/Solid Method: ASTM D2216-10 Description: SB-1 (0.5-1.5') Preparation Analysis Parameter(s) Result O Units Reporting Limit Dilution P. Date P. Batch A. Date A. Batch Init 1. Percent Moisture (Water Content) 12 % 1.0 09/22/22 MC220922 09/23/22 MC220922 LJK Volatile Organic Compounds (VOCs) by GC/MS, 5035 Aliquot ID: A10976-001A Matrix: Soil/Solid Method: EPA 5035A/EPA 8260D Description: SB-1 (0.5-1.5') Preparation Analysis Result Q Units Reporting Limit Parameter(s) Dilution P. Date P. Batch A. Date A. Batch Init. U 50 1.0 VJ22I22B **BRC** 1. Benzene μg/kg 09/22/22 VJ22I22B 09/23/22 02:36 2. Ethylbenzene U 50 1.0 09/22/22 VJ22I22B 09/23/22 02:36 VJ22I22B BRC μg/kg 3. Toluene U μg/kg 50 1.0 09/22/22 VJ22I22B 09/23/22 02:36 VJ22I22B BRC 4. 1,2,3-Trimethylbenzene U 100 1.0 09/22/22 VJ22I22B 09/23/22 02:36 VJ22I22B BBC μg/kg U 5. 1,2,4-Trimethylbenzene 100 1.0 09/22/22 VJ22I22B 09/23/22 02:36 VJ22I22B **BRC** μg/kg U BRC 6.1,3,5-Trimethylbenzene 100 1.0 09/22/22 VJ22I22B 09/23/22 02:36 VJ22I22B μg/kg 7. m&p-Xylene U 100 1.0 09/22/22 VJ22I22B 09/23/22 02:36 VJ22I22B **BRC** μg/kg U 8. o-Xylene μg/kg 50 1.0 09/22/22 VJ22I22B 09/23/22 02:36 VJ22I22B BRC 9. Xylenes U μg/kg 150 1.0 09/22/22 VJ22I22B 09/23/22 02:36 VJ22I22B Polynuclear Aromatic Hydrocarbons (PNAs) Aliquot ID: A10976-001 Matrix: Soil/Solid Method: EPA 3546/EPA 8270E Description: SB-1 (0.5-1.5') Preparation Analysis Parameter(s) Result O Units Reporting Limit Dilution P. Date P. Batch A. Date A. Batch Init U 1. Acenaphthene (SIM) ua/ka 330 1.0 09/22/22 PS22I22F 09/23/22 22:28 SJ22I23D KDG 2. Acenaphthylene (SIM) U μg/kg 330 1.0 09/22/22 PS22I22F 09/23/22 22:28 SJ22I23D KDG 3. Anthracene (SIM) U 330 1.0 09/22/22 PS22I22F 09/23/22 22:28 SJ22I23D KDG μg/kg U 4. Benzo(a)anthracene (SIM) 330 1.0 09/22/22 PS22I22F 09/23/22 22:28 S.122123D KDG μg/kg 5. Benzo(a)pyrene (SIM) U 330 1.0 09/22/22 PS22I22F 09/23/22 22:28 SJ22I23D KDG μg/kg U 6. Benzo(b)fluoranthene (SIM) 330 1.0 09/22/22 PS22I22F SJ22I23D KDG μg/kg 09/23/22 22:28 7. Benzo(ghi)perylene (SIM) U μg/kg 330 1.0 09/22/22 PS22I22F 09/23/22 22:28 SJ22I23D **KDG** 8. Benzo(k)fluoranthene (SIM) U 330 1.0 09/22/22 PS22I22F 09/23/22 22:28 S.122123D KDG μg/kg U 9. Chrysene (SIM) 330 1.0 09/22/22 PS22I22F 09/23/22 22:28 SJ22I23D μq/kq U 1.0 10. Dibenzo(a,h)anthracene (SIM) μg/kg 330 09/22/22 PS22I22F 09/23/22 22:28 SJ22I23D KDG 11. Fluoranthene (SIM) U 330 1.0 09/22/22 PS22I22F 09/23/22 22:28 SJ22I23D KDG μg/kg 12. Fluorene (SIM) U 330 1.0 09/22/22 PS22I22F 09/23/22 22:28 SJ22I23D **KDG** μg/kg 13. Indeno(1,2,3-cd)pyrene (SIM) U 330 1.0 09/22/22 PS22I22F 09/23/22 22:28 SJ22I23D **KDG** μg/kg U 14.2-Methylnaphthalene (SIM) 330 1.0 09/22/22 PS22I22F 09/23/22 22:28 SJ22I23D **KDG** μg/kg 15. Naphthalene (SIM) U 330 09/22/22 09/23/22 22:28 SJ22I23D 1.0 PS22I22F KDG μg/kg 1914 Holloway Drive Holt, MI 48842 T: (517) 699-0345 F: (517) 699-0388 Brighton, MI 48116 11766 E. Grand River T: (810) 220-3300 F: (810) 220-3311

8660 S. Mackinaw Trail

T: (231) 775-8368

Cadillac, MI 49601

F: (231) 775-8584



Order: A10976 Date: 09/27/22

182695

Client Identification: Applied Science & Technology, Sample Description: SB-1 (0.5-1.5') Chain of Custody:

Inc. - Brighton

Client Project Name: Saint Matthew's (3-11685) Sample No: Collect Date: 09/16/22

Client Project No: 3-11685 Sample Matrix: Soil/Solid Collect Time: 09:00

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.

Polynuclear Aromatic Hydrocarbons (PNAs) Aliquot ID: A10976-001 Matrix: Soil/Solid

Method: EPA 3546/EPA 8270E Description: SB-1 (0.5-1.5')

						Prepar	ation	alysis		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	P. Date	P. Batch	A. Date	A. Batch	Init.
16. Phenanthrene (SIM)	U		μg/kg	330	1.0	09/22/22	PS22I22F	09/23/22 22:28	SJ22I23D	KDG
17. Pyrene (SIM)	U		μg/kg	330	1.0	09/22/22	PS22l22F	09/23/22 22:28	SJ22l23D	KDG



Order: A
Date: 09

A10976 09/27/22

Applied Science & Technology, 182695 Client Identification: Sample Description: SB-1 (15-16') Chain of Custody: Inc. - Brighton Saint Matthew's (3-11685) 09/16/22 Client Project Name: Collect Date: Sample No: 3-11685 Collect Time: 09:05 Client Project No: Sample Matrix: Soil/Solid 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: A10976-002 Matrix: Soil/Solid Method: ASTM D2216-10 Description: SB-1 (15-16') Preparation Analysis Parameter(s) Result O Units Reporting Limit Dilution P. Date P. Batch A. Date A. Batch Init 1. Percent Moisture (Water Content) 13 % 1.0 09/22/22 MC220922 09/23/22 MC220922 LJK Volatile Organic Compounds (VOCs) by GC/MS, 5035 Aliquot ID: A10976-002A Matrix: Soil/Solid Method: EPA 5035A/EPA 8260D Description: SB-1 (15-16') Preparation Analysis Result Q Units Reporting Limit Parameter(s) Dilution P. Date P. Batch A. Date A. Batch Init. U 50 1.0 VJ22I22B **BRC** 1. Benzene μg/kg 09/22/22 VJ22I22B 09/23/22 03:00 2. Ethylbenzene U 50 1.0 09/22/22 VJ22I22B 09/23/22 03:00 VJ22I22B BRC μg/kg 3. Toluene U μg/kg 50 1.0 09/22/22 VJ22I22B 09/23/22 03:00 VJ22I22B BRC 4. 1,2,3-Trimethylbenzene U 100 1.0 09/22/22 VJ22I22B 09/23/22 03:00 VJ22I22B BBC μg/kg U 5. 1,2,4-Trimethylbenzene 100 1.0 09/22/22 VJ22I22B 09/23/22 03:00 VJ22I22B **BRC** μg/kg U BRC 6.1,3,5-Trimethylbenzene 100 1.0 09/22/22 VJ22I22B 09/23/22 03:00 VJ22I22B μg/kg 7. m&p-Xylene U 100 1.0 09/22/22 VJ22I22B 09/23/22 03:00 VJ22I22B **BRC** μg/kg U 8. o-Xylene μg/kg 50 1.0 09/22/22 VJ22I22B 09/23/22 03:00 VJ22I22B BRC 9. Xylenes U μg/kg 150 1.0 09/22/22 VJ22I22B 09/23/22 03:00 VJ22I22B Polynuclear Aromatic Hydrocarbons (PNAs) Aliquot ID: A10976-002 Matrix: Soil/Solid Method: EPA 3546/EPA 8270E Description: SB-1 (15-16') Preparation Analysis Parameter(s) Result O Units Reporting Limit Dilution P. Date P. Batch A. Date A. Batch Init U 1. Acenaphthene (SIM) ua/ka 330 1.0 09/22/22 PS22I22F 09/23/22 22:55 SJ22I23D KDG 2. Acenaphthylene (SIM) U μg/kg 330 1.0 09/22/22 PS22I22F 09/23/22 22:55 SJ22I23D KDG 3. Anthracene (SIM) U 330 1.0 09/22/22 PS22I22F 09/23/22 22:55 SJ22I23D KDG μg/kg U 4. Benzo(a)anthracene (SIM) 330 1.0 09/22/22 PS22I22F 09/23/22 22:55 S.122123D KDG μg/kg 5. Benzo(a)pyrene (SIM) U 330 1.0 09/22/22 PS22I22F 09/23/22 22:55 SJ22I23D KDG μg/kg U 6. Benzo(b)fluoranthene (SIM) 330 1.0 09/22/22 PS22I22F SJ22I23D KDG μg/kg 09/23/22 22:55 7. Benzo(ghi)perylene (SIM) U μg/kg 330 1.0 09/22/22 PS22I22F 09/23/22 22:55 SJ22I23D **KDG** 8. Benzo(k)fluoranthene (SIM) U 330 1.0 09/22/22 PS22I22F 09/23/22 22:55 S.122123D KDG μg/kg U 9. Chrysene (SIM) 330 1.0 09/22/22 PS22I22F 09/23/22 22:55 SJ22I23D μq/kq U 1.0 10. Dibenzo(a,h)anthracene (SIM) μg/kg 330 09/22/22 PS22I22F 09/23/22 22:55 SJ22I23D KDG

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

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

μg/kg

μg/kg

μg/kg

μg/kg

μg/kg

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U

U

U

U

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

1.0

1.0

1.0

1.0

1.0

09/22/22

09/22/22

09/22/22

09/22/22

09/22/22

PS22I22F

PS22I22F

PS22I22F

PS22I22F

PS22I22F

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

09/23/22 22:55

09/23/22 22:55

09/23/22 22:55

09/23/22 22:55

09/23/22 22:55 SJ22I23D

Page:

13. Indeno(1,2,3-cd)pyrene (SIM)

14.2-Methylnaphthalene (SIM)

11. Fluoranthene (SIM)

15. Naphthalene (SIM)

12. Fluorene (SIM)

330

330

330

330

330

SJ22I23D

SJ22I23D

SJ22I23D

SJ22I23D

KDG

**KDG** 

**KDG** 

**KDG** 

KDG



Order: A10976 Date:

09/27/22

Applied Science & Technology, Client Identification:

Inc. - Brighton

Sample Description: SB-1 (15-16')

Soil/Solid

Chain of Custody:

182695

Client Project Name:

Saint Matthew's (3-11685)

Sample No:

Collect Date:

09/16/22

Client Project No:

3-11685 Sample Matrix:

Collect Time:

09:05

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.

Polynuclear Aromatic Hydrocarbons (PNAs)

Method: EPA 3546/EPA 8270E

Aliquot ID: A10976-002 Description: SB-1 (15-16') Matrix: Soil/Solid

					Prepa	ration	An	alysis	
Parameter(s)	Result Q	Units	Reporting Limit	Dilution	P. Date	P. Batch	A. Date	A. Batch	Init.
16. Phenanthrene (SIM)	U	μg/kg	330	1.0	09/22/22	PS22l22F	09/23/22 22:55	SJ22I23D	KDG
17 Pyrene (SIM)	II.	ua/ka	330	1.0	09/22/22	PS22122F	09/23/22 22:55	S.122123D	KDG

Page:



Order: Date:

A10976

Applied Science & Technology, 182695 Client Identification: Sample Description: SB-2 (1.5-2.5') Chain of Custody: Inc. - Brighton Saint Matthew's (3-11685) 09/16/22 Client Project Name: Collect Date: Sample No: 3-11685 Collect Time: 09:15 Client Project No: Sample Matrix: Soil/Solid 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: A10976-003 Matrix: Soil/Solid Method: ASTM D2216-10 Description: SB-2 (1.5-2.5') Preparation Analysis Parameter(s) Result O Units Reporting Limit Dilution P. Date P. Batch A. Date A. Batch Init 1. Percent Moisture (Water Content) 14 % 1.0 09/22/22 MC220922 09/23/22 MC220922 LJK Volatile Organic Compounds (VOCs) by GC/MS, 5035 Aliquot ID: A10976-003A Matrix: Soil/Solid Method: EPA 5035A/EPA 8260D Description: SB-2 (1.5-2.5') Preparation Analysis Result Q Units Reporting Limit Parameter(s) Dilution P. Date P. Batch A. Date A. Batch Init. U 50 1.0 VJ22I22B **BRC** 1. Benzene μg/kg 09/22/22 VJ22I22B 09/23/22 03:25 2. Ethylbenzene U 50 1.0 09/22/22 VJ22I22B 09/23/22 03:25 VJ22I22B BRC μg/kg 3. Toluene U μg/kg 50 1.0 09/22/22 VJ22I22B 09/23/22 03:25 VJ22I22B BRC 4. 1,2,3-Trimethylbenzene U 100 1.0 09/22/22 VJ22I22B 09/23/22 03:25 VJ22I22B BBC μg/kg U 5. 1,2,4-Trimethylbenzene 100 1.0 09/22/22 VJ22I22B 09/23/22 03:25 VJ22I22B **BRC** μg/kg U BRC 6.1,3,5-Trimethylbenzene 100 1.0 09/22/22 VJ22I22B 09/23/22 03:25 VJ22I22B μg/kg 7. m&p-Xylene U 100 1.0 09/22/22 VJ22I22B 09/23/22 03:25 VJ22I22B **BRC** μg/kg U 8. o-Xylene μg/kg 50 1.0 09/22/22 VJ22I22B 09/23/22 03:25 VJ22I22B BRC 9. Xylenes U μg/kg 150 1.0 09/22/22 VJ22I22B 09/23/22 03:25 VJ22I22B Polynuclear Aromatic Hydrocarbons (PNAs) Aliquot ID: A10976-003 Matrix: Soil/Solid Method: EPA 3546/EPA 8270E Description: SB-2 (1.5-2.5') Preparation Analysis Parameter(s) Result O Units Reporting Limit Dilution P. Date P. Batch A. Date A. Batch Init U 1. Acenaphthene (SIM) ua/ka 330 1.0 09/22/22 PS22l22F 09/23/22 23:23 SJ22l23D KDG 2. Acenaphthylene (SIM) U μg/kg 330 1.0 09/22/22 PS22I22F 09/23/22 23:23 SJ22I23D KDG 3. Anthracene (SIM) U 330 1.0 09/22/22 PS22I22F 09/23/22 23:23 SJ22I23D KDG μg/kg 4. Benzo(a)anthracene (SIM) 660 330 1.0 09/22/22 PS22I22F 09/23/22 23:23 S.122123D KDG μg/kg 5. Benzo(a)pyrene (SIM) 640 330 1.0 09/22/22 PS22I22F 09/23/22 23:23 SJ22I23D KDG μg/kg 6. Benzo(b)fluoranthene (SIM) 850 330 1.0 09/22/22 PS22I22F SJ22I23D KDG μg/kg 09/23/22 23:23 7. Benzo(ghi)perylene (SIM) U μg/kg 330 1.0 09/22/22 PS22I22F 09/23/22 23:23 SJ22I23D **KDG** 8. Benzo(k)fluoranthene (SIM) U 330 1.0 09/22/22 PS22I22F 09/23/22 23:23 S.122123D KDG μg/kg 630 9. Chrysene (SIM) 330 1.0 09/22/22 PS22I22F 09/23/22 23:23 SJ22I23D μq/kq U 1.0 10. Dibenzo(a,h)anthracene (SIM) μg/kg 330 09/22/22 PS22I22F 09/23/22 23:23 SJ22I23D KDG 11. Fluoranthene (SIM) 1100 330 1.0 09/22/22 PS22I22F 09/23/22 23:23 SJ22I23D KDG μg/kg 12. Fluorene (SIM) U 330 1.0 09/22/22 PS22I22F 09/23/22 23:23 SJ22I23D **KDG** μg/kg 13. Indeno(1,2,3-cd)pyrene (SIM) U 330 1.0 09/22/22 PS22I22F 09/23/22 23:23 SJ22I23D **KDG** μg/kg U 14.2-Methylnaphthalene (SIM) 330 1.0 09/22/22 PS22I22F 09/23/22 23:23 SJ22I23D **KDG** μg/kg 15. Naphthalene (SIM) U 330 09/22/22 09/23/22 23:23 SJ22I23D 1.0 PS22I22F KDG μg/kg 1914 Holloway Drive Holt, MI 48842 T: (517) 699-0345 F: (517) 699-0388 Brighton, MI 48116 11766 E. Grand River T: (810) 220-3300 F: (810) 220-3311

8660 S. Mackinaw Trail

T: (231) 775-8368

Cadillac, MI 49601

F: (231) 775-8584



Order: A10976 Date: 09/27/22

Client Identification: Applied Science & Technology, Sample Description: SB-2 (1.5-2.5') Chain of Custody: 182695

Inc. - Brighton

Client Project Name: Saint Matthew's (3-11685) Sample No: Collect Date: 09/16/22

Client Project No: 3-11685 Sample Matrix: Soil/Solid Collect Time: 09:15

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.

Polynuclear Aromatic Hydrocarbons (PNAs) Aliquot ID: A10976-003 Matrix: Soil/Solid

Method: EPA 3546/EPA 8270E Description: SB-2 (1.5-2.5')

						Prepar	ation	ion Analysis			
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	P. Date	P. Batch	A. Date	A. Batch	Init.	
16. Phenanthrene (SIM)	U		μg/kg	330	1.0	09/22/22	PS22I22F	09/23/22 23:23	SJ22I23D	KDG	
17. Pyrene (SIM)	850		μg/kg	330	1.0	09/22/22	PS22I22F	09/23/22 23:23	SJ22l23D	KDG	



Order: Date:

A10976 09/27/22

Applied Science & Technology, Client Identification:

Inc. - Brighton

SB-2 (15-16') Sample Description:

Chain of Custody:

182695

Client Project Name:

Saint Matthew's (3-11685)

Sample No:

Collect Date:

09/16/22

Client Project No:

3-11685

Sample Matrix:

Collect Time:

09:20

Sample Comments:

Soil results have been calculated and reported on a dry weight basis unless otherwise noted.

%

Definitions:

Parameter(s)

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:

A10976-004

Matrix: Soil/Solid

Description: SB-2 (15-16')

Soil/Solid

09/23/22

Analysis A. Date A. Batch Init.

1. Percent Moisture (Water Content)

13

Q

Result

Units Reporting Limit Dilution

1.0

09/22/22

P. Date

Preparation

MC220922

P. Batch

MC220922 LJK

Volatile Organic Compounds (VOCs) by GC/MS, 5035

Aliquot ID:

A10976-004A

Method: EPA 5035A/EPA 8260D

Description: SB-2 (15-16')

Matrix: Soil/Solid

					•	, ,				
						Prepara	ation	An	alysis	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	P. Date	P. Batch	A. Date	A. Batch	Init.
1. Benzene	U		μg/kg	50	1.0	09/22/22	VJ22I22B	09/23/22 03:49	VJ22I22B	BRC
2. Ethylbenzene	U		μg/kg	50	1.0	09/22/22	VJ22I22B	09/23/22 03:49	VJ22I22B	BRC
3. Toluene	U		μg/kg	50	1.0	09/22/22	VJ22I22B	09/23/22 03:49	VJ22I22B	BRC
‡ 4.1,2,3-Trimethylbenzene	U		μg/kg	100	1.0	09/22/22	VJ22I22B	09/23/22 03:49	VJ22I22B	BRC
5. 1,2,4-Trimethylbenzene	U		μg/kg	100	1.0	09/22/22	VJ22I22B	09/23/22 03:49	VJ22I22B	BRC
6.1,3,5-Trimethylbenzene	U		μg/kg	100	1.0	09/22/22	VJ22I22B	09/23/22 03:49	VJ22I22B	BRC
7. m&p-Xylene	U		μg/kg	100	1.0	09/22/22	VJ22I22B	09/23/22 03:49	VJ22I22B	BRC
8. o-Xylene	U		μg/kg	50	1.0	09/22/22	VJ22I22B	09/23/22 03:49	VJ22I22B	BRC
‡ 9. Xylenes	U		μg/kg	150	1.0	09/22/22	VJ22I22B	09/23/22 03:49	VJ22I22B	BRC

Polynuclear Aromatic Hydrocarbons (PNAs)

Method: EPA 3546/EPA 8270E

Aliquot ID:

Description: SB-2 (15-16')

A10976-004

Matrix: Soil/Solid

						Prepar	ation	Ana	alysis	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	P. Date	P. Batch	A. Date	A. Batch	Init.
1. Acenaphthene (SIM)	U		μg/kg	330	1.0	09/22/22	PS22I22F	09/23/22 23:50	SJ22l23D	KDG
2. Acenaphthylene (SIM)	U		μg/kg	330	1.0	09/22/22	PS22I22F	09/23/22 23:50	SJ22l23D	KDG
3. Anthracene (SIM)	U		μg/kg	330	1.0	09/22/22	PS22I22F	09/23/22 23:50	SJ22I23D	KDG
4. Benzo(a)anthracene (SIM)	U		μg/kg	330	1.0	09/22/22	PS22I22F	09/23/22 23:50	SJ22l23D	KDG
5. Benzo(a)pyrene (SIM)	U		μg/kg	330	1.0	09/22/22	PS22I22F	09/23/22 23:50	SJ22l23D	KDG
6. Benzo(b)fluoranthene (SIM)	U		μg/kg	330	1.0	09/22/22	PS22I22F	09/23/22 23:50	SJ22l23D	KDG
7. Benzo(ghi)perylene (SIM)	U		μg/kg	330	1.0	09/22/22	PS22I22F	09/23/22 23:50	SJ22I23D	KDG
8. Benzo(k)fluoranthene (SIM)	U		μg/kg	330	1.0	09/22/22	PS22I22F	09/23/22 23:50	SJ22l23D	KDG
9. Chrysene (SIM)	U		μg/kg	330	1.0	09/22/22	PS22I22F	09/23/22 23:50	SJ22I23D	KDG
10. Dibenzo(a,h)anthracene (SIM)	U		μg/kg	330	1.0	09/22/22	PS22I22F	09/23/22 23:50	SJ22l23D	KDG
11. Fluoranthene (SIM)	U		μg/kg	330	1.0	09/22/22	PS22I22F	09/23/22 23:50	SJ22I23D	KDG
12. Fluorene (SIM)	U		μg/kg	330	1.0	09/22/22	PS22I22F	09/23/22 23:50	SJ22l23D	KDG
13. Indeno(1,2,3-cd)pyrene (SIM)	U		μg/kg	330	1.0	09/22/22	PS22I22F	09/23/22 23:50	SJ22I23D	KDG
14.2-Methylnaphthalene (SIM)	U		μg/kg	330	1.0	09/22/22	PS22I22F	09/23/22 23:50	SJ22l23D	KDG
15. Naphthalene (SIM)	U		μg/kg	330	1.0	09/22/22	PS22I22F	09/23/22 23:50	SJ22l23D	KDG

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



Order: A10976 09/27/22 Date:

Applied Science & Technology, Client Identification:

Inc. - Brighton

Sample Description: SB-2 (15-16') Chain of Custody:

182695

Client Project Name:

Saint Matthew's (3-11685)

Sample No:

Collect Date:

09/16/22

Client Project No:

3-11685 Sample Matrix:

Collect Time:

09:20

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.

Polynuclear Aromatic Hydrocarbons (PNAs)

Aliquot ID:

Soil/Solid

A10976-004

Matrix: Soil/Solid

Method: EPA 3546/EPA 8270E

Description: SB-2 (15-16')

					Prepa	ration	An	alysis	
Parameter(s)	Result Q	Units	Reporting Limit	Dilution	P. Date	P. Batch	A. Date	A. Batch	Init.
16. Phenanthrene (SIM)	U	μg/kg	330	1.0	09/22/22	PS22l22F	09/23/22 23:50	SJ22I23D	KDG
17. Pyrene (SIM)	U	μα/kg	330	1.0	09/22/22	PS22I22F	09/23/22 23:50	SJ22I23D	KDG

Page:



Order: Date: A10976

Applied Science & Technology, SB-3 (6.5-7.5') 182695 Client Identification: Sample Description: Chain of Custody: Inc. - Brighton Saint Matthew's (3-11685) 09/16/22 Client Project Name: Collect Date: Sample No: 3-11685 Collect Time: 10:00 Client Project No: Sample Matrix: Soil/Solid 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: A10976-005 Matrix: Soil/Solid Method: ASTM D2216-10 Description: SB-3 (6.5-7.5') Preparation Analysis Parameter(s) Result O Units Reporting Limit Dilution P. Date P. Batch A. Date A. Batch Init 1. Percent Moisture (Water Content) 20 % 1.0 09/22/22 MC220922 09/23/22 MC220922 LJK Volatile Organic Compounds (VOCs) by GC/MS, 5035 Aliquot ID: A10976-005A Matrix: Soil/Solid Method: EPA 5035A/EPA 8260D Description: SB-3 (6.5-7.5') Preparation Analysis Result Q Units Reporting Limit Parameter(s) Dilution P. Date P. Batch A. Date A. Batch Init. U 50 1.0 VJ22I22B **BRC** 1. Benzene μg/kg 09/22/22 VJ22I22B 09/23/22 04:13 2. Ethylbenzene U 50 1.0 09/22/22 VJ22I22B 09/23/22 04:13 VJ22I22B BRC μg/kg 3. Toluene U μg/kg 50 1.0 09/22/22 VJ22I22B 09/23/22 04:13 VJ22I22B BRC 4.1,2,3-Trimethylbenzene U 100 1.0 09/22/22 VJ22I22B 09/23/22 04:13 VJ22I22B BBC μg/kg U 5. 1,2,4-Trimethylbenzene 100 1.0 09/22/22 VJ22I22B 09/23/22 04:13 VJ22I22B **BRC** μg/kg U BRC 6.1,3,5-Trimethylbenzene 100 1.0 09/22/22 VJ22I22B VJ22I22B 09/23/22 04:13 μg/kg 7. m&p-Xylene U 100 1.0 09/22/22 VJ22I22B 09/23/22 04:13 VJ22I22B **BRC** μg/kg U 8. o-Xylene μg/kg 50 1.0 09/22/22 VJ22I22B 09/23/22 04:13 VJ22I22B BRC 9. Xylenes U μg/kg 150 1.0 09/22/22 VJ22I22B 09/23/22 04:13 VJ22I22B Polynuclear Aromatic Hydrocarbons (PNAs) Aliquot ID: A10976-005 Matrix: Soil/Solid Method: EPA 3546/EPA 8270E Description: SB-3 (6.5-7.5') Preparation Analysis Parameter(s) Result O Units Reporting Limit Dilution P. Date P. Batch A. Date A. Batch Init U 1. Acenaphthene (SIM) ua/ka 330 1.0 09/22/22 PS22I22F 09/24/22 00:17 SJ22I23D KDG 2. Acenaphthylene (SIM) U μg/kg 330 1.0 09/22/22 PS22I22F 09/24/22 00:17 SJ22123D KDG 3. Anthracene (SIM) U 330 1.0 09/22/22 PS22I22F 09/24/22 00:17 SJ22I23D KDG μg/kg U 4. Benzo(a)anthracene (SIM) 330 1.0 09/22/22 PS22I22F 09/24/22 00:17 KDG SJ22123D μg/kg 5. Benzo(a)pyrene (SIM) U 330 1.0 09/22/22 PS22I22F 09/24/22 00:17 SJ22I23D KDG μg/kg U 6. Benzo(b)fluoranthene (SIM) 330 1.0 09/22/22 PS22I22F SJ22I23D KDG μg/kg 09/24/22 00:17 7. Benzo(ghi)perylene (SIM) U μg/kg 330 1.0 09/22/22 PS22I22F 09/24/22 00:17 SJ22I23D **KDG** 8. Benzo(k)fluoranthene (SIM) U 330 1.0 09/22/22 PS22I22F 09/24/22 00:17 S.122123D KDG μg/kg U 9. Chrysene (SIM) 330 1.0 09/22/22 PS22I22F 09/24/22 00:17 SJ22I23D μq/kq U 1.0 10. Dibenzo(a,h)anthracene (SIM) μg/kg 330 09/22/22 PS22I22F 09/24/22 00:17 SJ22I23D KDG 11. Fluoranthene (SIM) U 330 1.0 09/22/22 PS22I22F 09/24/22 00:17 SJ22I23D KDG μg/kg 12. Fluorene (SIM) U 330 1.0 09/22/22 PS22I22F 09/24/22 00:17 SJ22I23D **KDG** μg/kg 13. Indeno(1,2,3-cd)pyrene (SIM) U 330 1.0 09/22/22 PS22I22F SJ22I23D **KDG** μg/kg 09/24/22 00:17 U 14.2-Methylnaphthalene (SIM) 330 1.0 09/22/22 PS22I22F 09/24/22 00:17 SJ22I23D **KDG** μg/kg 15. Naphthalene (SIM) U 330 09/22/22 09/24/22 00:17 SJ22I23D 1.0 PS22I22F KDG μg/kg 1914 Holloway Drive Holt, MI 48842 T: (517) 699-0345 F: (517) 699-0388 11766 E. Grand River Brighton, MI 48116 T: (810) 220-3300 F: (810) 220-3311 Cadillac, MI 49601 8660 S. Mackinaw Trail T: (231) 775-8368 F: (231) 775-8584



Parameter(s)

16. Phenanthrene (SIM)

17. Pyrene (SIM)

# Analytical Laboratory Report Laboratory Project Number: A10976 Laboratory Sample Number: A10976-005

Order: Date:

Analysis

09/24/22 00:17 SJ22I23D KDG

A. Batch

Init.

A. Date

PS22I22F 09/24/22 00:17 SJ22I23D KDG

Preparation

P. Batch

PS22I22F

P. Date

09/22/22

09/22/22

A10976 09/27/22

Applied Science & Technology, Client Identification: Sample Description: SB-3 (6.5-7.5') Chain of Custody: 182695 Inc. - Brighton Client Project Name: Saint Matthew's (3-11685) Collect Date: 09/16/22 Sample No: Client Project No: 3-11685 Sample Matrix: Soil/Solid Collect Time: 10:00 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. A10976-005 Polynuclear Aromatic Hydrocarbons (PNAs) Aliquot ID: Matrix: Soil/Solid Method: EPA 3546/EPA 8270E Description: SB-3 (6.5-7.5')

Reporting Limit

330

330

Dilution

1.0

1.0

Result

U

U

Q

Units

μg/kg

μg/kg

Page:



Order: Date: A10976

Applied Science & Technology, 182695 Client Identification: Sample Description: SB-3 (15-16') Chain of Custody: Inc. - Brighton Saint Matthew's (3-11685) 09/16/22 Client Project Name: Collect Date: Sample No: 3-11685 Collect Time: 09:55 Client Project No: Sample Matrix: Soil/Solid 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: A10976-006 Matrix: Soil/Solid Method: ASTM D2216-10 Description: SB-3 (15-16') Preparation Analysis Parameter(s) Result O Units Reporting Limit Dilution P. Date P. Batch A. Date A. Batch Init 1. Percent Moisture (Water Content) 14 % 1.0 09/22/22 MC220922 09/23/22 MC220922 LJK Volatile Organic Compounds (VOCs) by GC/MS, 5035 Aliquot ID: A10976-006A Matrix: Soil/Solid Method: EPA 5035A/EPA 8260D Description: SB-3 (15-16') Preparation Analysis Result Q Units Reporting Limit Parameter(s) Dilution P. Date P. Batch A. Date A. Batch Init. U 50 1.0 VJ22I22B **BRC** 1. Benzene μg/kg 09/22/22 VJ22I22B 09/23/22 04:38 2. Ethylbenzene U 50 1.0 09/22/22 VJ22I22B 09/23/22 04:38 VJ22I22B BRC μg/kg 3. Toluene U μg/kg 50 1.0 09/22/22 VJ22I22B 09/23/22 04:38 VJ22I22B BRC 4. 1,2,3-Trimethylbenzene U 100 1.0 09/22/22 VJ22I22B 09/23/22 04:38 VJ22I22B BBC μg/kg U 5. 1,2,4-Trimethylbenzene 100 1.0 09/22/22 VJ22I22B 09/23/22 04:38 VJ22I22B **BRC** μg/kg U BRC 6.1,3,5-Trimethylbenzene 100 1.0 09/22/22 VJ22I22B 09/23/22 04:38 VJ22I22B μg/kg 7. m&p-Xylene U 100 1.0 09/22/22 VJ22I22B 09/23/22 04:38 VJ22I22B **BRC** μg/kg U 8. o-Xylene μg/kg 50 1.0 09/22/22 VJ22I22B 09/23/22 04:38 VJ22I22B BRC 9. Xylenes U μg/kg 150 1.0 09/22/22 VJ22I22B 09/23/22 04:38 VJ22I22B Polynuclear Aromatic Hydrocarbons (PNAs) Aliquot ID: A10976-006 Matrix: Soil/Solid Method: EPA 3546/EPA 8270E Description: SB-3 (15-16') Preparation Analysis Parameter(s) Result O Units Reporting Limit Dilution P. Date P. Batch A. Date A. Batch Init U 1. Acenaphthene (SIM) ua/ka 330 1.0 09/22/22 PS22I22F 09/24/22 00:44 SJ22I23D KDG 2. Acenaphthylene (SIM) U μg/kg 330 1.0 09/22/22 PS22I22F 09/24/22 00:44 SJ22123D KDG 3. Anthracene (SIM) U 330 1.0 09/22/22 PS22I22F 09/24/22 00:44 SJ22I23D KDG μg/kg U 4. Benzo(a)anthracene (SIM) 330 1.0 09/22/22 PS22I22F 09/24/22 00:44 KDG SJ22123D μg/kg 5. Benzo(a)pyrene (SIM) U 330 1.0 09/22/22 PS22I22F 09/24/22 00:44 SJ22I23D KDG μg/kg U 6. Benzo(b)fluoranthene (SIM) 330 1.0 09/22/22 PS22I22F SJ22I23D KDG μg/kg 09/24/22 00:44 7. Benzo(ghi)perylene (SIM) U μg/kg 330 1.0 09/22/22 PS22I22F 09/24/22 00:44 SJ22I23D **KDG** 8. Benzo(k)fluoranthene (SIM) U 330 1.0 09/22/22 PS22I22F 09/24/22 00:44 S.122123D KDG μg/kg U 9. Chrysene (SIM) 330 1.0 09/22/22 PS22I22F 09/24/22 00:44 SJ22I23D μq/kq U 1.0 10. Dibenzo(a,h)anthracene (SIM) μg/kg 330 09/22/22 PS22I22F 09/24/22 00:44 SJ22I23D KDG 11. Fluoranthene (SIM) U 330 1.0 09/22/22 PS22I22F 09/24/22 00:44 SJ22I23D KDG μg/kg 12. Fluorene (SIM) U 330 1.0 09/22/22 PS22I22F 09/24/22 00:44 SJ22I23D **KDG** μg/kg 13. Indeno(1,2,3-cd)pyrene (SIM) U 330 1.0 09/22/22 PS22I22F SJ22I23D **KDG** μg/kg 09/24/22 00:44 U 14.2-Methylnaphthalene (SIM) 330 1.0 09/22/22 PS22I22F 09/24/22 00:44 SJ22I23D **KDG** μg/kg 15. Naphthalene (SIM) U 330 09/22/22 09/24/22 00:44 SJ22I23D 1.0 PS22I22F KDG μg/kg 1914 Holloway Drive Holt, MI 48842 T: (517) 699-0345 F: (517) 699-0388 11766 E. Grand River Brighton, MI 48116 T: (810) 220-3300 F: (810) 220-3311 Cadillac, MI 49601 8660 S. Mackinaw Trail T: (231) 775-8368 F: (231) 775-8584



Order: A10976 Date: 09/27/22

Applied Science & Technology, Client Identification:

Inc. - Brighton

Sample Description: SB-3 (15-16')

Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Chain of Custody:

182695

Client Project Name:

Saint Matthew's (3-11685)

Sample No:

Collect Date:

09/16/22

Client Project No:

3-11685

Sample Matrix:

Soil/Solid

Collect Time: 09:55

Sample Comments:

Definitions:

Soil results have been calculated and reported on a dry weight basis unless otherwise noted.

Polynuclear Aromatic Hydrocarbons (PNAs)

Method: EPA 3546/EPA 8270E

Aliquot ID: A10976-006 Description: SB-3 (15-16') Matrix: Soil/Solid

				•	. ,				
					Prepa	ration	An	alysis	
Parameter(s)	Result Q	Units	Reporting Limit	Dilution	P. Date	P. Batch	A. Date	A. Batch	Init.
16. Phenanthrene (SIM)	U	μg/kg	330	1.0	09/22/22	PS22l22F	09/24/22 00:44	SJ22I23D	KDG
17. Pyrene (SIM)	U	μg/kg	330	1.0	09/22/22	PS22I22F	09/24/22 00:44	SJ22I23D	KDG

lab@fibertec.us

13 of 22



Order: Date:

A10976 09/27/22

Applied Science & Technology, 182695 Client Identification: Sample Description: SB-4 (1.5-2.5') Chain of Custody: Inc. - Brighton Saint Matthew's (3-11685) 09/16/22 Client Project Name: Collect Date: Sample No: 3-11685 Soil/Solid Collect Time: 10:10 Client Project No: Sample Matrix: 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: A10976-007 Matrix: Soil/Solid Method: ASTM D2216-10 Description: SB-4 (1.5-2.5') Preparation Analysis Parameter(s) Result O Units Reporting Limit Dilution P. Date P. Batch A. Date A. Batch Init. 1. Percent Moisture (Water Content) 13 % 1.0 09/22/22 MC220922 09/23/22 MC220922 LJK Volatile Organic Compounds (VOCs) by GC/MS, 5035 Aliquot ID: A10976-007A Matrix: Soil/Solid Method: EPA 5035A/EPA 8260D **Description: SB-4 (1.5-2.5')** Preparation Analysis Result Q Units Reporting Limit Parameter(s) Dilution P. Date P. Batch A. Date A. Batch Init. U 50 1.0 VJ22I22B **BRC** 1. Benzene μg/kg 09/22/22 VJ22I22B 09/23/22 05:02 2. Ethylbenzene U 50 1.0 09/22/22 VJ22I22B 09/23/22 05:02 VJ22I22B BRC μg/kg 3. Toluene U μg/kg 50 1.0 09/22/22 VJ22I22B 09/23/22 05:02 VJ22I22B BRC 4.1,2,3-Trimethylbenzene U 100 1.0 09/22/22 VJ22I22B 09/23/22 05:02 VJ22I22B BBC μg/kg U 5. 1,2,4-Trimethylbenzene 100 1.0 09/22/22 VJ22I22B 09/23/22 05:02 VJ22I22B **BRC** μg/kg U BRC 6.1,3,5-Trimethylbenzene 100 1.0 09/22/22 VJ22I22B 09/23/22 05:02 VJ22I22B μg/kg 7. m&p-Xylene U 100 1.0 09/22/22 VJ22I22B 09/23/22 05:02 VJ22I22B **BRC** μg/kg U 8. o-Xylene μg/kg 50 1.0 09/22/22 VJ22I22B 09/23/22 05:02 VJ22I22B BRC 9. Xylenes U μg/kg 150 1.0 09/22/22 VJ22I22B 09/23/22 05:02 VJ22I22B Polynuclear Aromatic Hydrocarbons (PNAs) Aliquot ID: A10976-007 Matrix: Soil/Solid Method: EPA 3546/EPA 8270E Description: SB-4 (1.5-2.5') Preparation Analysis Parameter(s) Result O Units Reporting Limit Dilution P. Date P. Batch A. Date A. Batch Init U 1. Acenaphthene (SIM) ua/ka 330 10 09/26/22 PS22I22F 09/26/22 16:39 S622I26A ALS 2. Acenaphthylene (SIM) U μg/kg 330 10 09/26/22 PS22I22F 09/26/22 16:39 S622126A ALS. 3. Anthracene (SIM) U 330 10 09/26/22 PS22I22F 09/26/22 16:39 S622I26A ALS μg/kg U 4. Benzo(a)anthracene (SIM) 330 10 09/26/22 PS22I22F 09/26/22 16:39 ALS S622126A μg/kg 5. Benzo(a)pyrene (SIM) U 330 10 09/26/22 PS22I22F 09/26/22 16:39 S622I26A ALS μg/kg U 6. Benzo(b)fluoranthene (SIM) 330 10 09/26/22 PS22I22F ALS μg/kg 09/26/22 16:39 S622I26A 7. Benzo(ghi)perylene (SIM) U μg/kg 330 10 09/26/22 PS22I22F 09/26/22 16:39 S622I26A ALS 8. Benzo(k)fluoranthene (SIM) U 330 10 09/26/22 PS22I22F S622126A ALS. μg/kg 09/26/22 16:39 U 9. Chrysene (SIM) 330 10 09/26/22 PS22I22F 09/26/22 16:39 S622I26A ALS μq/kq U 10 ALS 10. Dibenzo(a,h)anthracene (SIM) μg/kg 330 09/26/22 PS22I22F 09/26/22 16:39 S622I26A 11. Fluoranthene (SIM) U 330 10 09/26/22 PS22I22F 09/26/22 16:39 S622I26A ALS μg/kg 12. Fluorene (SIM) U 330 10 09/26/22 PS22I22F 09/26/22 16:39 S622I26A ALS μg/kg

μg/kg

μg/kg

μg/kg

U

U

U

10

10

10

09/26/22

09/26/22

09/26/22

PS22I22F

PS22I22F

PS22I22F

09/26/22 16:39

09/26/22 16:39

09/26/22 16:39

13. Indeno(1,2,3-cd)pyrene (SIM)

14.2-Methylnaphthalene (SIM)

15. Naphthalene (SIM)

330

330

330

S622I26A

S622I26A

S622I26A

ALS

ALS

ALS



Order: A10976 Date: 09/27/22

Applied Science & Technology, Client Identification:

Inc. - Brighton

Sample Description: SB-4 (1.5-2.5') Chain of Custody:

182695

Client Project Name:

Saint Matthew's (3-11685)

Sample No:

Collect Date:

09/16/22

Client Project No:

3-11685

Sample Matrix:

μg/kg

μg/kg

Soil/Solid

330

330

Collect Time:

10:10

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.

A10976-007 Aliquot ID: Description: SB-4 (1.5-2.5')

10

10

Matrix: Soil/Solid

16. Phenanthrene (SIM)

17. Pyrene (SIM)

Method: EPA 3546/EPA 8270E

Polynuclear Aromatic Hydrocarbons (PNAs)

Parameter(s) Result Q Units Reporting Limit Dilution

U

U

Preparation P. Date

09/26/22

09/26/22

Analysis P. Batch A. Date A. Batch PS22I22F

Init. 09/26/22 16:39 S622I26A ALS PS22I22F 09/26/22 16:39 S622I26A ALS

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Order: Date:

A10976 09/27/22

Applied Science & Technology, Client Identification:

3-11685

Inc. - Brighton

SB-4 (15-16') Sample Description:

Chain of Custody:

182695

Client Project Name:

Saint Matthew's (3-11685)

Sample No:

Collect Date: Collect Time: 09/16/22 10:15

Client Project No: Sample Comments:

Sample Matrix: Soil results have been calculated and reported on a dry weight basis unless otherwise noted.

Definitions:

Parameter(s)

1. Benzene

3. Toluene

2. Ethylbenzene

7. m&p-Xylene

8. o-Xylene

9. Xylenes

Q: Qualifier (see definitions at end of report) NA: Not Applicable #: Parameter not included in NELAC Scope of Analysis.

Aliquot ID: A10976-008 Matrix: Soil/Solid

Method: ASTM D2216-10

Water (Moisture) Content Dried at 105 ± 5°C

Description:	SB-4	(15-16')

					Preparation			Analysis	
Parameter(s)	Result	Q Units	Reporting Limit	Dilution	P. Date	P. Batch	A. Date	A. Batch In	nit.
1. Percent Moisture (Water Content)	12	%	1	1.0	09/22/22	MC220922	09/23/22	MC220922 L	JK

Reporting Limit

Volatile Organic Compounds (VOCs) by GC/MS, 5035

Result

U

U

U

U

U

U

U

U

U

Q

Units

μg/kg

μg/kg

μg/kg

μg/kg

μg/kg

μg/kg

μg/kg

μg/kg

μg/kg

Aliquot ID:

50

50

50

100

100

100

100

50

150

Soil/Solid

A10976-008A

P. Date

09/22/22

09/22/22

09/22/22

09/22/22

09/22/22

09/22/22

09/22/22

09/22/22

09/22/22

Matrix: Soil/Solid

Method: EPA 5035A/EPA 8260D

4.1,2,3-Trimethylbenzene

5. 1,2,4-Trimethylbenzene

6.1,3,5-Trimethylbenzene

Description: SB-4 (15-16')

Dilution

1.0

1.0

1.0

1.0

1.0

1.0

1.0

1.0

1.0

Prepar	ation	Analysis						
Date	P. Batch	A. Date	A. Batch	Init.				
22/22	VJ22I22B	09/23/22 05:26	VJ22I22B	BRC				
22/22	VJ22I22B	09/23/22 05:26	VJ22I22B	BRC				
22/22	VJ22I22B	09/23/22 05:26	VJ22I22B	BRC				
22/22	VJ22I22B	09/23/22 05:26	VJ22I22B	BRC				
22/22	VJ22I22B	09/23/22 05:26	VJ22I22B	BRC				
22/22	VJ22I22B	09/23/22 05:26	VJ22I22B	BRC				
22/22	VJ22I22B	09/23/22 05:26	VJ22I22B	BRC				
22/22	V.122122B	09/23/22 05:26	V.122122B	BRC				

VJ22I22B 09/23/22 05:26 VJ22I22B BRC

Polynuclear Aromatic Hydrocarbons (PNAs)

Method: EPA 3546/EPA 8270E

Aliquot ID: A10976-008

Matrix: Soil/Solid

Description: SB-4 (15-16')

						Prepara	ıtion	Ana	alysis	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	P. Date	P. Batch	A. Date	A. Batch	Init.
1. Acenaphthene (SIM)	U		μg/kg	330	1.0	09/22/22	PS22I22F	09/24/22 01:38	SJ22l23D	KDG
2. Acenaphthylene (SIM)	U		μg/kg	330	1.0	09/22/22	PS22I22F	09/24/22 01:38	SJ22l23D	KDG
3. Anthracene (SIM)	U		μg/kg	330	1.0	09/22/22	PS22I22F	09/24/22 01:38	SJ22I23D	KDG
4. Benzo(a)anthracene (SIM)	U		μg/kg	330	1.0	09/22/22	PS22I22F	09/24/22 01:38	SJ22I23D	KDG
5. Benzo(a)pyrene (SIM)	U		μg/kg	330	1.0	09/22/22	PS22I22F	09/24/22 01:38	SJ22I23D	KDG
6. Benzo(b)fluoranthene (SIM)	U		μg/kg	330	1.0	09/22/22	PS22I22F	09/24/22 01:38	SJ22I23D	KDG
7. Benzo(ghi)perylene (SIM)	U		μg/kg	330	1.0	09/22/22	PS22I22F	09/24/22 01:38	SJ22I23D	KDG
8. Benzo(k)fluoranthene (SIM)	U		μg/kg	330	1.0	09/22/22	PS22I22F	09/24/22 01:38	SJ22I23D	KDG
9. Chrysene (SIM)	U		μg/kg	330	1.0	09/22/22	PS22I22F	09/24/22 01:38	SJ22I23D	KDG
10. Dibenzo(a,h)anthracene (SIM)	U		μg/kg	330	1.0	09/22/22	PS22I22F	09/24/22 01:38	SJ22I23D	KDG
11. Fluoranthene (SIM)	U		μg/kg	330	1.0	09/22/22	PS22I22F	09/24/22 01:38	SJ22I23D	KDG
12. Fluorene (SIM)	U		μg/kg	330	1.0	09/22/22	PS22I22F	09/24/22 01:38	SJ22I23D	KDG
13. Indeno(1,2,3-cd)pyrene (SIM)	U		μg/kg	330	1.0	09/22/22	PS22I22F	09/24/22 01:38	SJ22I23D	KDG
14.2-Methylnaphthalene (SIM)	U		μg/kg	330	1.0	09/22/22	PS22I22F	09/24/22 01:38	SJ22I23D	KDG
15. Naphthalene (SIM)	U		μg/kg	330	1.0	09/22/22	PS22I22F	09/24/22 01:38	SJ22I23D	KDG

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16. Phenanthrene (SIM)

17. Pyrene (SIM)

# Analytical Laboratory Report Laboratory Project Number: A10976 Laboratory Sample Number: A10976-008

Order: Date:

09/24/22 01:38 SJ22I23D KDG

PS22I22F 09/24/22 01:38 SJ22I23D KDG

A10976 09/27/22

Applied Science & Technology, Client Identification: Sample Description: SB-4 (15-16') Chain of Custody: 182695 Inc. - Brighton Client Project Name: Saint Matthew's (3-11685) Collect Date: 09/16/22 Sample No: Client Project No: 3-11685 Sample Matrix: Soil/Solid Collect Time: 10:15 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. A10976-008 Polynuclear Aromatic Hydrocarbons (PNAs) Aliquot ID: Matrix: Soil/Solid Method: EPA 3546/EPA 8270E Description: SB-4 (15-16') Preparation Analysis Parameter(s) Result Q Units Reporting Limit Dilution P. Date P. Batch A. Date A. Batch Init.

330

330

1.0

1.0

09/22/22

09/22/22

PS22I22F

U

U

μg/kg

μg/kg



Order: Date:

A10976 09/27/22

Applied Science & Technology, Client Identification:

Inc. - Brighton

DUP-1S Sample Description:

Chain of Custody:

182695

Client Project Name:

Saint Matthew's (3-11685)

Sample No:

Collect Date:

09/16/22

Client Project No:

3-11685 Sample Matrix:

Result

13

O

Soil/Solid

Collect Time:

NA

Sample Comments:

Soil results have been calculated and reported on a dry weight basis unless otherwise noted.

Units

%

Definitions:

Parameter(s)

Q: Qualifier (see definitions at end of report) NA: Not Applicable #: Parameter not included in NELAC Scope of Analysis.

Aliquot ID: A10976-009 Matrix: Soil/Solid

P. Date

09/22/22

Method: ASTM D2216-10

Water (Moisture) Content Dried at 105 ± 5°C

1. Percent Moisture (Water Content)

Description: DUP-1S

Dilution

1.0

Prepa	ration	Aı	nalysis	
Date	P. Batch	A. Date	A. Batch	Init.
22/22	MC220922	09/23/22	MC220922	LJK

Volatile Organic Compounds (VOCs) by GC/MS, 5035

Aliquot ID:

A10976-009A

MC220922 LJK

Method: EPA 5035A/EPA 8260D

Description: DUP-1S

Matrix: Soil/Solid

						Prepar	ation	Ana	alysis	
Parameter(s)	Result Q Units		Reporting Limit	Dilution	P. Date	P. Batch	A. Date	A. Batch	Init.	
1. Benzene	U		μg/kg	50	1.0	09/22/22	VJ22I22B	09/23/22 05:50	VJ22l22B	BRC
2. Ethylbenzene	U		μg/kg	50	1.0	09/22/22	VJ22I22B	09/23/22 05:50	VJ22I22B	BRC
3. Toluene	U		μg/kg	50	1.0	09/22/22	VJ22I22B	09/23/22 05:50	VJ22I22B	BRC
‡ 4.1,2,3-Trimethylbenzene	U		μg/kg	100	1.0	09/22/22	VJ22I22B	09/23/22 05:50	VJ22I22B	BRC
5.1,2,4-Trimethylbenzene	U		μg/kg	100	1.0	09/22/22	VJ22I22B	09/23/22 05:50	VJ22I22B	BRC
6.1,3,5-Trimethylbenzene	U		μg/kg	100	1.0	09/22/22	VJ22I22B	09/23/22 05:50	VJ22I22B	BRC
7. m&p-Xylene	U		μg/kg	100	1.0	09/22/22	VJ22I22B	09/23/22 05:50	VJ22I22B	BRC
8. o-Xylene	U		μg/kg	50	1.0	09/22/22	VJ22I22B	09/23/22 05:50	VJ22I22B	BRC
‡ 9. Xylenes	U		μg/kg	150	1.0	09/22/22	VJ22I22B	09/23/22 05:50	VJ22I22B	BRC

Reporting Limit

Polynuclear Aromatic Hydrocarbons (PNAs)

Method: EPA 3546/EPA 8270E

Aliquot ID: Description: DUP-1S

A10976-009

Matrix: Soil/Solid

Preparation Analysis Parameter(s) Result Q Units Reporting Limit Dilution P. Date P. Batch A. Date A. Batch Init. U 1. Acenaphthene (SIM) μg/kg 330 1.0 09/22/22 PS22I22F 09/26/22 17:07 S622I26A ALS 2. Acenaphthylene (SIM) U μg/kg 330 1.0 09/22/22 PS22I22F 09/26/22 17:07 S622126A ALS. 3. Anthracene (SIM) U 330 1.0 09/22/22 PS22I22F 09/26/22 17:07 S622I26A ALS μg/kg U 4. Benzo(a)anthracene (SIM) 330 1.0 09/22/22 PS22I22F S622126A ALS 09/26/22 17:07 μg/kg 5. Benzo(a)pyrene (SIM) U 330 1.0 09/22/22 PS22I22F 09/26/22 17:07 S622I26A ALS μg/kg U 6. Benzo(b)fluoranthene (SIM) 330 1.0 09/22/22 PS22I22F S622I26A ALS μg/kg 09/26/22 17:07 U 7. Benzo(ghi)perylene (SIM) μg/kg 330 1.0 09/22/22 PS22I22F 09/26/22 17:07 S622I26A ALS 8. Benzo(k)fluoranthene (SIM) U 330 1.0 09/22/22 PS22I22F 09/26/22 17:07 S622126A ALS. μg/kg U 9. Chrysene (SIM) μg/kg 330 1.0 09/22/22 PS22I22F 09/26/22 17:07 S622I26A U 10. Dibenzo(a,h)anthracene (SIM) 1.0 ALS μg/kg 330 09/22/22 PS22I22F 09/26/22 17:07 S622I26A 11. Fluoranthene (SIM) U 330 1.0 09/22/22 PS22I22F 09/26/22 17:07 S622I26A ALS μg/kg 12. Fluorene (SIM) U μg/kg 330 1.0 09/22/22 PS22I22F 09/26/22 17:07 S622I26A ALS 13. Indeno(1,2,3-cd)pyrene (SIM) U μg/kg 330 1.0 09/22/22 PS22I22F S622I26A ALS 09/26/22 17:07 U 14.2-Methylnaphthalene (SIM) 330 1.0 09/22/22 PS22I22F 09/26/22 17:07 S622I26A ALS μg/kg 15. Naphthalene (SIM) U 330 1.0 09/22/22 PS22I22F 09/26/22 17:07 S622I26A ALS μg/kg

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Order: A10976 Date: 09/27/22

Client Identification: Applied Science & Technology,

3-11685

Inc. - Brighton

Sample Description: DUP-1S

Chain of Custody:

182695

Client Project Name:

Saint Matthew's (3-11685)

Sample No:

Collect Date:

09/16/22

Client Project No:

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.

Polynuclear Aromatic Hydrocarbons (PNAs) Aliquot ID: A10976-009 Matrix: Soil/Solid

Method: EPA 3546/EPA 8270E Description: DUP-1S

						Prepar	ation	Ana	alysis	
Parameter(s)	Result	Q (	Jnits	Reporting Limit	Dilution	P. Date	P. Batch	A. Date	A. Batch	Init.
16. Phenanthrene (SIM)	U	μ	g/kg	330	1.0	09/22/22	PS22I22F	09/26/22 17:07	S622I26A	ALS
17. Pyrene (SIM)	U	μ	g/kg	330	1.0	09/22/22	PS22I22F	09/26/22 17:07	S622I26A	ALS



Order: A10976 09/27/22 Date:

Applied Science & Technology, Client Identification:

3-11685

Inc. - Brighton

Sample Description: Meth Blk Chain of Custody:

182695

Client Project Name:

Saint Matthew's (3-11685)

Sample No:

Collect Date:

09/16/22

Client Project No:

Sample Matrix:

Blank: Methanol

Collect Time: NA

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report)

NA: Not Applicable

‡: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS, 5035 Method: EPA 5035A/EPA 8260D

Aliquot ID:

A10976-010

Matrix: Blank: Methanol

Description: Meth Blk

					cription. K					
D ( )	D !!	0	11.2	B	Dil ii	Prepar			alysis	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	P. Date	P. Batch	A. Date	A. Batch	lr
1. Acetone	U	V-	μg/kg	1000	1.0	09/23/22	VJ22I23C	09/24/22 02:34	VJ22I23C	S
2. Acrylonitrile	U		μg/kg	100	1.0	09/23/22	VJ22I23C	09/24/22 02:34	VJ22I23C	S
3. Benzene	U		μg/kg	50	1.0	09/23/22	VJ22I23C	09/24/22 02:34	VJ22I23C	S
4. Bromobenzene	U		μg/kg	100	1.0	09/23/22	VJ22I23C	09/24/22 02:34	VJ22I23C	S
5. Bromochloromethane	U		μg/kg	100	1.0	09/23/22	VJ22I23C	09/24/22 02:34	VJ22I23C	S
6. Bromodichloromethane	U		μg/kg	100	1.0	09/23/22	VJ22I23C	09/24/22 02:34	VJ22I23C	S
7. Bromoform	U		μg/kg	100	1.0	09/23/22	VJ22I23C	09/24/22 02:34	VJ22I23C	S
8. Bromomethane	U		μg/kg	200	1.0	09/23/22	VJ22I23C	09/24/22 02:34	VJ22I23C	S
9.2-Butanone	U		μg/kg	750	1.0	09/23/22	VJ22I23C	09/24/22 02:34	VJ22I23C	5
10. n-Butylbenzene	U		μg/kg	50	1.0	09/23/22	VJ22I23C	09/24/22 02:34	VJ22I23C	S
11. sec-Butylbenzene	U		μg/kg	50	1.0	09/23/22	VJ22I23C	09/24/22 02:34	VJ22I23C	5
12. tert-Butylbenzene	U		μg/kg	50	1.0	09/23/22	VJ22I23C	09/24/22 02:34	VJ22I23C	5
13. Carbon Disulfide	U		μg/kg	250	1.0	09/23/22	VJ22I23C	09/24/22 02:34	VJ22I23C	5
14. Carbon Tetrachloride	U		μg/kg	50	1.0	09/23/22	VJ22I23C	09/24/22 02:34	VJ22I23C	5
15. Chlorobenzene	U		μg/kg	50	1.0	09/23/22	VJ22I23C	09/24/22 02:34	VJ22I23C	5
16. Chloroethane	U		μg/kg	250	1.0	09/23/22	VJ22I23C	09/24/22 02:34	VJ22I23C	9
17. Chloroform	U		μg/kg	50	1.0	09/23/22	VJ22I23C	09/24/22 02:34	VJ22I23C	9
18. Chloromethane	U		μg/kg	250	1.0	09/23/22	VJ22I23C	09/24/22 02:34	VJ22I23C	5
19.2-Chlorotoluene	U		μg/kg	50	1.0	09/23/22	VJ22I23C	09/24/22 02:34	VJ22I23C	5
20.1,2-Dibromo-3-chloropropane (SIM)	U		μg/kg	250	1.0	09/23/22	VJ22I23C	09/24/22 02:34	VJ22I23C	5
21. Dibromochloromethane	U		μg/kg	100	1.0	09/23/22	VJ22I23C	09/24/22 02:34	VJ22I23C	5
22. Dibromomethane	U		μg/kg	250	1.0	09/23/22	VJ22I23C	09/24/22 02:34	VJ22I23C	5
23.1,2-Dichlorobenzene	U		μg/kg	100	1.0	09/23/22	VJ22I23C	09/24/22 02:34	VJ22I23C	5
24. 1,3-Dichlorobenzene	U		μg/kg	100	1.0	09/23/22	VJ22I23C	09/24/22 02:34	VJ22I23C	5
25. 1,4-Dichlorobenzene	U		μg/kg	100	1.0	09/23/22	VJ22I23C	09/24/22 02:34	VJ22I23C	5
26. Dichlorodifluoromethane	U		μg/kg	250	1.0	09/23/22	VJ22I23C	09/24/22 02:34	VJ22I23C	5
27. 1,1-Dichloroethane	U		μg/kg	50	1.0	09/23/22	VJ22I23C	09/24/22 02:34	VJ22I23C	5
28. 1,2-Dichloroethane	U		μg/kg	50	1.0	09/23/22	VJ22I23C	09/24/22 02:34	VJ22I23C	5
29. 1,1-Dichloroethene	U		μg/kg	50	1.0	09/23/22	VJ22I23C	09/24/22 02:34	VJ22I23C	9
30. cis-1,2-Dichloroethene	U		μg/kg	50	1.0	09/23/22	VJ22I23C	09/24/22 02:34	VJ22I23C	5
31. trans-1,2-Dichloroethene	U		μg/kg	50	1.0	09/23/22	VJ22I23C	09/24/22 02:34	VJ22I23C	5
32.1,2-Dichloropropane	U		μg/kg	50	1.0	09/23/22	VJ22I23C	09/24/22 02:34	VJ22I23C	5
33. cis-1,3-Dichloropropene	U		μg/kg	50	1.0	09/23/22	VJ22I23C	09/24/22 02:34	VJ22I23C	5
34. trans-1,3-Dichloropropene	U		μg/kg	50	1.0	09/23/22	VJ22I23C	09/24/22 02:34	VJ22I23C	5
35. Ethylbenzene	U		μg/kg	50	1.0	09/23/22	VJ22I23C	09/24/22 02:34	VJ22I23C	5
36. Ethylene Dibromide	U		μg/kg	50	1.0	09/23/22	VJ22I23C	09/24/22 02:34	VJ22I23C	5
37.2-Hexanone	U		μg/kg	2500	1.0	09/23/22	VJ22I23C	09/24/22 02:34	VJ22I23C	Ş

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Page:



Order: A10976 09/27/22 Date:

Applied Science & Technology, Client Identification:

Inc. - Brighton

3-11685

Sample Description: Meth Blk Chain of Custody:

182695

Client Project Name:

Saint Matthew's (3-11685)

Sample No: Sample Matrix: Collect Date: Collect Time: 09/16/22

NA

Client Project No: Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report)

NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS, 5035 Mathadi EDA FORFA/EDA ORGOD

Blank: Methanol

Aliquot ID: A10976-010

Matrix: Blank: Methanol

Meth Rik

Method: EPA 5035A/EPA 8260D		Description: Meth Blk												
						Prepar	ration	An	alysis					
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	P. Date	P. Batch	A. Date	A. Batch	Init.				
38. Isopropylbenzene	U		μg/kg	250	1.0	09/23/22	VJ22I23C	09/24/22 02:34	VJ22I23C	SNC				
39.4-Methyl-2-pentanone	U		μg/kg	2500	1.0	09/23/22	VJ22I23C	09/24/22 02:34	VJ22I23C	SNC				
40. Methylene Chloride	U		μg/kg	100	1.0	09/23/22	VJ22I23C	09/24/22 02:34	VJ22I23C	SNC				
‡ 41.2-Methylnaphthalene	U		μg/kg	330	1.0	09/23/22	VJ22I23C	09/24/22 02:34	VJ22I23C	SNC				
42.MTBE	U		μg/kg	250	1.0	09/23/22	VJ22I23C	09/24/22 02:34	VJ22I23C	SNC				
43. Naphthalene	U		μg/kg	330	1.0	09/23/22	VJ22I23C	09/24/22 02:34	VJ22I23C	SNC				
44. n-Propylbenzene	U		μg/kg	100	1.0	09/23/22	VJ22I23C	09/24/22 02:34	VJ22I23C	SNC				
45. Styrene	U		μg/kg	50	1.0	09/23/22	VJ22I23C	09/24/22 02:34	VJ22I23C	SNC				
46.1,1,1,2-Tetrachloroethane	U		μg/kg	100	1.0	09/23/22	VJ22I23C	09/24/22 02:34	VJ22I23C	SNC				
47.1,1,2,2-Tetrachloroethane	U		μg/kg	50	1.0	09/23/22	VJ22I23C	09/24/22 02:34	VJ22I23C	SNC				
48. Tetrachloroethene	U		μg/kg	50	1.0	09/23/22	VJ22I23C	09/24/22 02:34	VJ22I23C	SNC				
49. Toluene	U		μg/kg	50	1.0	09/23/22	VJ22I23C	09/24/22 02:34	VJ22I23C	SNC				
50.1,2,4-Trichlorobenzene	U		μg/kg	250	1.0	09/23/22	VJ22I23C	09/24/22 02:34	VJ22I23C	SNC				
51.1,1,1-Trichloroethane	U		μg/kg	50	1.0	09/23/22	VJ22I23C	09/24/22 02:34	VJ22I23C	SNC				
52.1,1,2-Trichloroethane	U		μg/kg	50	1.0	09/23/22	VJ22I23C	09/24/22 02:34	VJ22I23C	SNC				
53. Trichloroethene	U		μg/kg	50	1.0	09/23/22	VJ22I23C	09/24/22 02:34	VJ22I23C	SNC				
54. Trichlorofluoromethane	U		μg/kg	100	1.0	09/23/22	VJ22I23C	09/24/22 02:34	VJ22I23C	SNC				
55.1,2,3-Trichloropropane	U		μg/kg	100	1.0	09/23/22	VJ22I23C	09/24/22 02:34	VJ22I23C	SNC				
‡ 56.1,2,3-Trimethylbenzene	U		μg/kg	100	1.0	09/23/22	VJ22I23C	09/24/22 02:34	VJ22I23C	SNC				
57.1,2,4-Trimethylbenzene	U		μg/kg	100	1.0	09/23/22	VJ22I23C	09/24/22 02:34	VJ22I23C	SNC				
58.1,3,5-Trimethylbenzene	U		μg/kg	100	1.0	09/23/22	VJ22I23C	09/24/22 02:34	VJ22I23C	SNC				
59. Vinyl Chloride	U		μg/kg	40	1.0	09/23/22	VJ22I23C	09/24/22 02:34	VJ22I23C	SNC				
60. m&p-Xylene	U		μg/kg	100	1.0	09/23/22	VJ22I23C	09/24/22 02:34	VJ22I23C	SNC				
61. o-Xylene	U		μg/kg	50	1.0	09/23/22	VJ22I23C	09/24/22 02:34	VJ22I23C	SNC				
‡ 62. Xylenes	U		μg/kg	150	1.0	09/23/22	VJ22I23C	09/24/22 02:34	VJ22I23C	SNC				



#### Analytical Laboratory Report Laboratory Project Number: A10976

Order: A10976 Date: 09/27/22

#### **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:**

V- : Recovery in the associated continuing calibration verification sample (CCV) exceeds the lower control limit. Results may be biased low.

#### **Analysis Locations:**

All analyses performed in Holt.



Accreditation Number(s):

T104704518-22-14 (TX)

lab@fibertec.us



Thursday, September 29, 2022

Fibertec Project Number: A10976 Supplemental

Project Identification: Saint Matthew's (3-11685) /3-11685

Submittal Date: 09/19/2022

Mr. Brian Kuberski
Applied Science & Technology, Inc. - Brighton
10448 Citation Dr.
Suite 100
Brighton, MI 48116

Dear Mr. Kuberski,

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 Bailey Welch at 2:54 PM, Sep 29, 2022

Bailey Welch

For Daryl P. Strandbergh Laboratory Director

Enclosures



Order: A10976 Date: 09/29/22

Applied Science & Technology, 182695 Client Identification: Sample Description: SB-2 (1.5-2.5') Chain of Custody: Inc. - Brighton Client Project Name: Saint Matthew's (3-11685) 09/16/22 Sample No: Collect Date: Client Project No: 3-11685 Sample Matrix: Soil/Solid Collect Time: 09:15 Sample Comments: Soil results have been calculated and reported on a dry weight basis unless otherwise noted. ‡: Parameter not included in NELAC Scope of Analysis. Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable Water (Moisture) Content Dried at 105 ± 5°C A10976-003 Matrix: Soil/Solid Aliquot ID: Method: ASTM D2216-10 Description: SB-2 (1.5-2.5') Preparation Analysis Parameter(s) Result Q Units Reporting Limit Dilution P. Date P. Batch A. Date A. Batch Init. 09/23/22 1. Percent Moisture (Water Content) 14 % 1 1.0 09/22/22 MC220922 MC220922 LJK Diesel Range Organics (DRO) by GC/FID Aliquot ID: A10976-003 Matrix: Soil/Solid Method: EPA 3546/EPA 8015C Description: SB-2 (1.5-2.5') Preparation Analysis Parameter(s) Result Q Units Reporting Limit Dilution P. Date P. Batch A. Date A. Batch Init. U 1. DRO (C10-C20) 10000 1.0 09/28/22 PS22I28D 09/28/22 17:55 S922I28A µg/kg



#### Analytical Laboratory Report Laboratory Project Number: A10976

Order: A10976 Date: 09/29/22

#### **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:**

#### **Analysis Locations:**

All analyses performed in Holt.



Accreditation Number(s):

T104704518-22-14 (TX)



#### **Analytical Laboratory**

1914 Holloway Drive Holt, MI 48842

Phone: 517 699 0345 Fax: 517 699 0388

email: lab@fibertec.us

14 Holloway Drive 8660 S. Mackinaw Trail

Cadillac, MI 49601 Phone: 231 775 8368

Fax: 231 775 8584

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 #

182695
PAGE 1 of 1

Client Name: ASTI Environmental					PARAMETERS					.,	Matrix Code Deliverables		
Contact Pe	erson: Br	ian 1	Kuberski										S Soil Gw Ground Water Level 2
Project Na	me/Number:	/sa	ant Matthew's	CODE)			20					PLE	A Air         SW Surface Water         Level 3           O Oil         ww Waste Water         Level 4
Email distril	oution list:	ski e	Pasti-env.com	SEE RIGHT CORNER FOR	# OF CONTAINERS		Mosi					HOLD SAMPLE	P Wipe X Other: Specify EDD
Quote#			ε	SEE RIG	NIA	山	α	2	OC.S			I	
Purchase (	Order#			MATRIX	2	18	TMR	PNAS	0				
Date	Time	Sample #	Client Sample Descriptor		-	Para.	٢	A			1	-	Remarks:
9/16/2	2 0900		SB-1 (0.5-1.5')	S	2	X	X	X					
	0905		SB-1 (15-16')										Bookland Duckets
	0915		SB-2 (1.5-2.5')										Received By Lab
	0920		SB-2 (15-16')					1			77		SEP 1.9 2022
	1000		SB-3 (6.5-7.5')	П									20
	0955		SB-3 (15-16')			П	П		7				initials:_//
	1010		SB-4 (1.5-2.5')	П	П	IT	П	П				Т	
	1015		SB-4 (15-16')	П			П						
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#### **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

