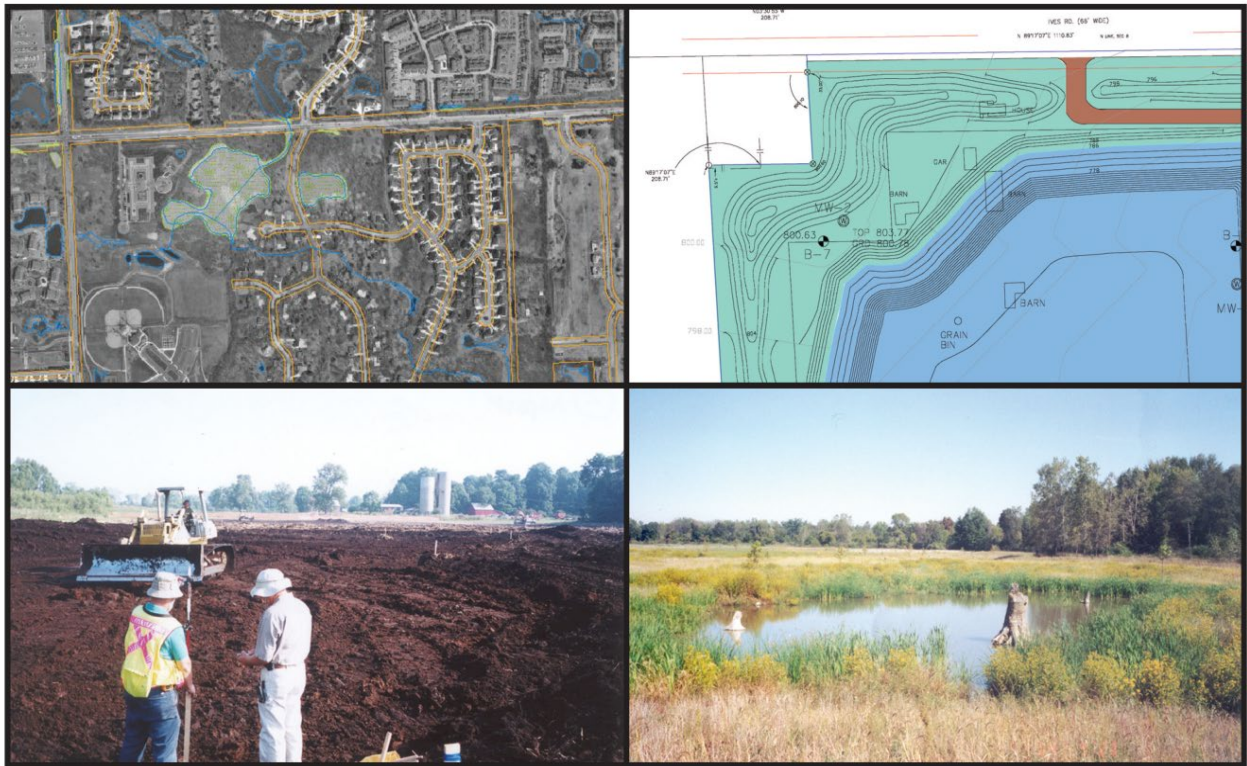


Storm Water Report
McLouth Steel Property - County Property
1491 West Jefferson Avenue
Trenton, Michigan

August 30, 2020

ASTI ENVIRONMENTAL



Former McLouth Steel Property - County Property
1491 West Jefferson Avenue, Trenton, Michigan 48183-1240
Storm Water Report

TABLE OF CONTENT

CHARACTERIZATION OF STORM WATER	1
PROPERTY GRADING PLAN AND ELIMINATION OF SHEET FLOW.....	4
SEDIMENT AND EROSION CONTROL MEASURES	5
SESC PERMIT	5
NPDES PERMIT FOR CONSTRUCTION ACTIVITIES.....	5
STORM WATER POLLUTION PREVENTION PLAN.....	6
CONCLUSIONS	6
SUMMARY.....	7

Figures

Figure 1 Site Location Map

Attachments

Attachment A	Analytical Laboratory Reports
Attachment B1	Approved SESC Site Plans with Storm Water Controls
Attachment B2	Acknowledgement Letter from EGLE
Attachment B3	Notification of SESC Permit Renewal from City of Trenton
Attachment C	Piping Diagram Drawings
Attachment D	Spill Prevention Control and Countermeasure Plan, Storm Water Pollution Prevention Plan
Attachment E	Completed SPCC/SWPP Inspection Forms

Former McLouth Steel Property - County Property
1491 West Jefferson Avenue, Trenton, Michigan 48183-1240
Storm Water Report

ASTI Environmental (ASTI) on behalf of MSC Land Company, LLC has prepared this Storm Water Report for the approximate 180 acre portion of the Former McLouth Steel site commonly known as the County Property (Parcel No: 54001990006705 and Parcel No: 54001990006706) located at 1491 W. Jefferson Avenue in the City of Trenton, Wayne County, Michigan (the "Property"). A Site Location Map is provided as **Figure 1** and parcel map shown on **Figure 2**. The Property operated the current storm water and wastewater discharges under a NPDES permit during operations as a steel mill. This Storm Water Report was developed to address the requirements of the Administrative Settlement Agreement and Covenant Not to Sue (the Agreement) Statement of Work (SOW), Section 5, Surface Water Runoff. Unless otherwise provided herein, all terms used in this Storm Water Work Plan are defined as provided in the Agreement. The purpose of this Storm Water Report is to provide documentation of the storm water management completed during the implementation of the SOW in the Agreement.

The Agreement specifically requires the following:

- 1 Characterization of the content and volume of storm water on the Property
- 2 Determine options for managing storm water including:
 - Eliminating sheet flow to the Trenton Channel of the Detroit River; or,
 - Grading the property to collect stormwater and discharging it to either the Trenton Channel according to a National Pollution Discharge Elimination System ("NPDES") permit or the city of Trenton publicly owned treatment works under a pre-treatment permit; or,
 - Implementing sediment and erosion controls under Part 91 of the State's authorized program.
- 3 Determine if other permits or approvals are necessary for stormwater management controls, and sediment and erosion controls on the Property

CHARACTERIZATION OF STORM WATER

In areas of the Property that do not drain to catch basins, sheet flow of stormwater into the Trenton Channel is prevented by a berm along the Trenton Channel. Construction of the berm was completed by MSC Land Company, LLC on March 26, 2019, as required by the SOW in the Agreement. The porosity of the fill material in areas that are not paved, which are located throughout

Former McLouth Steel Property - County Property
1491 West Jefferson Avenue, Trenton, Michigan 48183-1240
Storm Water Report

the Property, allows storm water to infiltrate. **Attachment B** has the approved SESC plans with storm water controls, including the location of the berm. The SESC permit renewal is also included in **Attachment B**.

The storm water discharge pipes for areas of the Property that drain to catch basins are partially or totally submerged in the Trenton Channel. Collection of a storm water sample at the discharge pipes would also include Trenton Channel water and would not provide a representative sample of storm water from the Property. Inspection of the storm water manholes closest to the discharge points revealed that the manholes were full of water and flow through the manholes to the discharge pipes was not present. This observation indicates that the pipes were partially or completely plugged. Discharge of storm water from the pipes at the Trenton Channel of the Detroit River from our observations does not appear to be occurring. The alternative method of collecting storm water samples was to collect the sample during a rain event at the top of catch basins as storm water flowed into the manhole.

An initial storm water sample was collected on June 28, 2019 from catch basin MH-45, see **Attachment C Piping Diagram Drawings**. Storm water flow was not present. Storm water was collected directly from standing water in the catch basin into laboratory supplied collection containers. This sample was analyzed for metals (method EPA 0245.1), Pesticides (method EPA 0608.3), Biological Oxygen Demand (BOD method SM 5210 B-2011), Total Suspended Solids (TSS method SM 2540 D-2011), Total Phosphorus (method SM 4500-P E-20112), ammonia (method SM 4500-NH₃ G-2011), Polychlorinated Biphenyls (PCB method EPA 0608.3), Dioxin (method EPA 0625.1), Volatile Organic Compounds (VOC method EPA 0624.1), Total Toxic Organic and Semivolatiles (TTO SVOC method EPA 0625.1), cyanide available (method OIA-1677-09), cyanide total (ASTM D7511-12), phenolics (method EPA 0420.1), oil and grease (method EPA 1664B).

The field measurement for pH (field measurement) was 9.00 pH Units. There are no detection limits for pH. All other parameters were below the applicable detection limit except for:

Parameter	Result (mg/L)	Reporting Limit (mg/L)
Iron	0.72	0.20
Ammonia-N	4.1L	0.10
Phosphorous	0.12	0.010
Cyanide	1.5	0.050
1,1-Dichloroethane	0.0015	0.00100
Oil and Grease	6.5	5.2
Cyanide, available	0.051	0.0050

Former McLouth Steel Property - County Property
1491 West Jefferson Avenue, Trenton, Michigan 48183-1240
Storm Water Report

Additional samples were collected at MH-SAT and MHD6, these manholes were selected because the paved area that drains to the manholes allowed sufficient runoff for the sample to be collected at the rim of the manhole. Manhole MHD6 is located south of the former coil storage near the south end of the site. Manhole MH-SAT is located approximately 1,700 ft east of MHD6, north of the former Wash House #3. The other storm water manholes on site are located in areas that do not generate sufficient flow to collect a sample or were previously buried prior to the start of this project.

A storm water sample collected on April 30, 2019 from catch basin MH-SAT was collected within 30 minutes from a rain event. The sample was analyzed for metals, BOD, TSS, Total Phosphorus, ammonia, PCB, Dioxin TTO VOC, TTO SVOC, cyanide, phenolics, oil and grease.

The field measurement for pH (field measurement) was 8.23 pH Units. There are no detection limits for pH. All other parameters were below the application detection limit except for:

Parameter	Result (mg/L)	Reporting Limit (mg/L)
Cadmium	0.0013	0.0010
Copper	0.04	0.0040
Iron	1.3	0.20
Lead	0.22	0.0030
Zinc	0.41	0.050
Phosphorous	0.53	0.010
PCB Aroclor 1260	0.000228	0.000200
Total suspended solids	71	2.5
Ammonia-N	0.86	0.010
BOD	3.	2.8
Phenolics	0.056	0.050

A storm water sample collected on April 30, 2020 from catch basin MH-D6 was analyzed for metals, BOD, TSS, Total Phosphorus, ammonia, PCB, Dioxin TTO VOC, TTO SVOC, cyanide, phenolics, oil and grease.

The field measurement for pH (field measurement) was 8.18 pH Units. There are no detection limits for pH. All other parameters were below the detection limit except for:

Parameter	Result (mg/L)	Reporting Limit (mg/L)
Chromium	0.017	0.010
Copper	0.044	0.0040
Iron	3.3	0.0030
Lead	0.36	0.0030
Zinc	0.16	0.050
Phosphorous	0.7	0.010
PCB Aroclor 1260	0.000516L	0.000200
Total suspended solids	140	2.5
Ammonia-N	0.14	0.010

Former McLouth Steel Property - County Property
1491 West Jefferson Avenue, Trenton, Michigan 48183-1240
Storm Water Report

Phenolics

0.052

0.050

In order to confirm the detected PCB in the samples collected on April 30, 2020, a Storm water sample was collected on May 22, 2020 from catch basin MHD6. This sample was analyzed only for PCB's to confirm previous detections. The storm event on this date created sufficient run-off to collect only one sample. The analytical results confirmed the presence of PCB Aroclor 1260 at 0.000725 mg/L. The Reporting Limit for PCBs is 0.000200 mg/L.

Storm water that drains to the catch basins passes through a geotextile filter that collects sediment in the runoff. These filters retain the PCB's on the sediment preventing discharge to the Trenton Channel. Storm water that sheet flows toward the Trenton Channel infiltrates, trapping the sediment and PCB's. Filters in the catch basins are inspected and replaced on a regular schedule. Used filters are disposed off-site at a licensed disposal facility.

PROPERTY GRADING PLAN AND ELIMINATION OF SHEET FLOW

The SESC site plan (Michigan's Part 91 Permit Requirement) and grading plan in **Attachment B1** shows the following storm water control structures installed as part of the SOW:

- A berm along the Trenton Channel, property line with adjacent RTRR property, and southern property line to eliminate sheet flow off the Property.
- The design of the berm height and location is based on the predicted 100 year storm event for storm water runoff that flows toward the Trenton Channel. Based on the topographic plan 20 acres drains toward the Trenton Channel. The volume of storm water generated is 132,239 cubic feet (988,082 gallons).
- The site grading plan shows the berm location along the Trenton Channel of the Detroit River, along the southern and northern boundaries of the site
- Location of silt fencing along the berm

Attachment C contains the Property plans that show:

- Location of catch basins
- Storm water pipes and discharge points.

Former McLouth Steel Property - County Property
1491 West Jefferson Avenue, Trenton, Michigan 48183-1240
Storm Water Report

SEDIMENT AND EROSION CONTROL MEASURES

In addition to the structural controls for storm water management, MSC Land Company has installed and maintained the following sediment and erosion control measures:

- Catch basin sediment filters installed on all existing catch basins identified
- Cleaning of concrete pads and capping of all interior floor drains
- Temporary rough grading of active areas to divert storm water runoff away from the work areas, if necessary
- Haul road construction and maintenance, using asphalt millings
- Emptying, cleaning, and backfilling of basements, sumps, lagoons, basins, ponds, and pits
- Perform weekly and quarterly SWPPP inspections

SESC PERMIT

A Soil Erosion and Sedimentation Control (SESC) Permit was obtained from the City of Trenton and as required by Michigan's Part 91 Rules. **Attachment B1** has the approved plans that show the storm water controls. Documentation of permit renewal is also provided in **Attachment B3**. Inspections of SESC soil erosion control structures were performed by on site personnel and the City of Trenton Engineering Department.

NPDES PERMIT FOR CONSTRUCTION ACTIVITIES

The Property has an NPDES construction storm water permit with Michigan's Department of Environment Great Lakes and Energy (EGLE). An acknowledgement letter from EGLE is provided as **Attachment B2**. The Property also has a Storm Water Pollution Prevention Plan.

Temporary Best Management Practices (BMPs) include a berm and silt fence as a perimeter measure and inlet protection for storm sewer inlets and basins. Storm water channel flow that discharges to the Trenton Channel is not present on site. The unpaved area of the site is graded to retain storm water and allow it to infiltrate. Observations during storm events confirms that run off to the Trenton Channel does not occur. The berm along the Trenton Channel also prevents flow of storm water off site.

Former McLouth Steel Property - County Property
1491 West Jefferson Avenue, Trenton, Michigan 48183-1240
Storm Water Report

During Site Activities, floor drains in buildings are sealed prior to concrete pad cleaning and will remain sealed after completion of the SOW to prevent contaminated runoff from entering the drains. Areas surrounding demolition activities are rough graded, or BMPs have been installed to divert runoff flow during site work, as necessary. Diverted flow is directed to inactive areas and allowed to evaporate, infiltrate, or drain using the existing system.

The procedure for emptying, cleaning, and backfilling of basements, sumps, ponds, lagoons, basins, and pits is discussed in depth in the Liquid and Sludge Removal Work Plan. While this work is taking place, temporary berms were installed as needed around the active areas to prevent runoff from entering any excavations.

During the interim measures and temporary BMPs, the Property was inspected on a weekly basis and after significant rainfall events by a MDEQ Certified Storm Water Operator (CSWO). During each site inspection, the storm water operator evaluates the condition and location of each temporary BMP to ensure that the measures are properly installed, maintained, and appropriate for site conditions.

STORM WATER POLLUTION PREVENTION PLAN

The Property's Combined Spill Prevention Control and Countermeasure Plan and Storm Water Pollution Prevention Plan is provided in **Attachment D**. An inventory of materials stored on site at the time the plan was developed; inspection procedures and inspection forms; and Best Management Practices are included in the plan. The plan content follows the Michigan Environment Great Lakes and Energy Department guidelines. Copies of the completed weekly and quarterly inspection forms are included in **Attachment E**.

CONCLUSIONS

The annual runoff from the 20 acres draining toward the Trenton Channel is 1,192,818 cubic feet (8,922,902 gallons) based on annual precipitation of 31 inches.

The berm is designed based on the 100 year storm event, 132,239 cubic feet (988,082 gallons).

Storm water runoff is also managed by a temporary silt fence between the berm and the Trenton Channel.

**Former McLouth Steel Property - County Property
1491 West Jefferson Avenue, Trenton, Michigan 48183-1240
Storm Water Report**

Based on visual observations, storm water that drains toward the Trenton Channel appears to infiltrate and does not accumulate behind the berm.

Storm water runoff that does not drain toward the Trenton Channel drains to a storm water collection system that does not appear to be discharging to the Trenton Channel. Cleaning and camera inspection of the storm water collection system is not included in the SOW.

Storm water that drains to the catch basins flows through geotextile filters to collect the sediment and PCB's associated with the sediment.

The Site has an SESC permit from the City of Trenton and Michigan's EGLE, that is required during construction.

The Site does not have industrial activity and therefore, does not require an Industrial Storm Water Discharge Permit from EGLE.

SUMMARY

As the storm water is contained on Site, ASTI believes that the storm water can be managed by the maintenance of the implemented BMPs and the installed berm. ASTI does not believe any additional permits or approvals are necessary for storm water management as activities at the Former McLouth Steel Property - County Property change from construction activities to site development.

**Former McLouth Steel Property - County Property
1491 West Jefferson Avenue, Trenton, Michigan 48183-1240
Storm Water Report**

Attachment A Analytical Laboratory Reports

Fibertec environmental services

Analytical Laboratories

1914 Holloway Drive
Holt, MI 48812
Phone: 517-699-0345
Fax: 517-699-0388
email: lab@fibertec.us

8660 S Mackinaw Trail
Cadillac, MI 49601
Phone: 231-775-8368
Fax: 231-775-8584

Industrial Hygiene Services, Inc.

Drive
Holt, MI 48812
Phone: 517-699-0345
Fax: 517-699-0388
email: asbestos@fibertec.us

Geoprobe

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

CLIENT INFORMATION

Client Name: ASTI, Brighton
Contact: Bruce Bawkon, bbawkon@asti-env.com
Phone: _____
Address: 10448 Citation, Suite 100
Brighton, MI 48116
Permit: NA
Location: Former McLouth Steel Property - County Property

NOTES/OTHER INFORMATION

Former McLouth Steel Property - County Property
1491 west Jefferson
Trenton, MI

- 1 Do not remove preservatives from containers
- 2 Avoid contact with preservatives
- 3 Fill all containers to the top
- 4 Never fill one sample container from another
- 5 Label and date all containers
- 6 Store at 4 degrees Celsius or on ice in cooler

COMPOSITE

Start Date/Time: 6/28/19 9:20 AM
Sampler: B. Bawkon
End Date/Time: 6/28/19 10:30 AM
Sampler: B. Bawkon

GRAB

Date/Time: 6/28/19 9:30 AM
pH: 9.0
Temperature: 27.5°C
Sampler: B. Bawkon

COMPOSITE

1-250 mL HDPE+HNO3

- ☒ T. Arsenic
☒ T. Cadmium
☒ T. Chromium
☒ T. Copper
☒ T. Iron
☒ T. Lead
☒ T. Mercury
☒ T. Nickel
☒ T. Silver
☒ T. Zinc

1-Amber - 1 Liter per Test

- ☒ PCB
☒ Dioxin
☒ TTO Pesticides
☒ TTO SVOC

(2-Amber - 1 Liter for Test)

Various - mL HDPE (unpreserved)

- ☒ BOD *Need 1 HD500*
☒ TSS *Need 1L, Poly*

1-250 mL HDPE+H2SO4

- ☒ T. Phosphorus
☒ Ammonia - NH3 as N

GRAB

3-40mL VOA+Unpreserved
3-40mL VOA+HCL
☒ TTO VOC Full List

1-250 mL HDPE+NaOH

- ☒ T- Cyanide

1-2oz Amber+NaOH

(must have a lead carbonite, 60mL syringe, 32mm syringe filter)

- ☒ A. Cyanide

1-250 mL HDPE (unpreserved)

- ☒ pH & Temperature, Field

1-A250 mL+H2SO4

- ☒ Total Phenolics

2-Amber - 1 Liter+HCL

- ☒ FOG

Relinquished by:	Date/Time:	Received by:
<i>[Signature]</i>	<u>6/28/19 10:30 AM</u>	<i>[Signature]</i>
Relinquished by:	Date/Time:	Received by:
<i>[Signature]</i>	<u>6/28/19 11:41 AM</u>	<i>[Signature]</i>
Relinquished by:	Date/Time:	Received by:
<i>[Signature]</i>	<u>6/28/19 14:17</u>	<i>[Signature]</i>

1. Hold time for BOD is 24 hours from end of sampling
2. BOD samples should be collected on Tuesday, Wednesday or Thursday
3. Volatile Containers should have no air bubbles.
4. pH measurements should be taken immediately

RCVD ON
ICE

Project # 91286
Temp: 4.9°C

JUN 28 2019

Initial: TM

For Lab Use Only



Tuesday, July 09, 2019

Fibertec Project Number: 91286
Project Identification: Former McLouth Steel Property - County Property 1491 West Jefferson, Trenton, MI/
Submittal Date: 06/28/2019

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

Dear Mr. Bawkon,

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,

A handwritten signature in black ink that reads "Stephanie Wallace". The signature is written in a cursive, flowing style.

By Stephanie Wallace at 10:43 AM, Jul 09, 2019

For Daryl P. Strandbergh
Laboratory Director

Enclosures

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

Analytical Laboratory Report
Laboratory Project Number: 91286
Laboratory Sample Number: 91286-001

Order: 91286
 Page: 2 of 10
 Date: 07/09/19

Client Identification:	Applied Science & Technology, Inc. - Brighton	Sample Description:	Composite	Chain of Custody:	N/A
Client Project Name:	Former McLouth Steel Property - County Property	Sample No:		Collect Date:	06/28 - 06/28/19
Client Project No:	NA	Sample Matrix:	Wastewater	Collect Time:	09:20

Sample Comments:

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

Trace Elements by ICP/MS, Total Recoverable
Method: EPA 0200.8 (Total Recoverable)/EPA 0200.8

Aliquot ID: 91286-001D **Matrix: Wastewater**
Description: Composite

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
1. Arsenic	U		mg/L	0.0050	10	07/03/19	PT19G03B	07/03/19	T419G03A	AMS
2. Cadmium	U		mg/L	0.0010	10	07/03/19	PT19G03B	07/03/19	T419G03A	AMS
3. Chromium	U		mg/L	0.010	10	07/03/19	PT19G03B	07/03/19	T419G03A	AMS
4. Copper	U		mg/L	0.0040	10	07/03/19	PT19G03B	07/03/19	T419G03A	AMS
5. Iron	0.72		mg/L	0.20	10	07/03/19	PT19G03B	07/03/19	T419G03A	AMS
6. Lead	U		mg/L	0.0030	10	07/03/19	PT19G03B	07/03/19	T419G03A	AMS
7. Nickel	U		mg/L	0.020	10	07/03/19	PT19G03B	07/03/19	T419G03A	AMS
8. Silver	U		mg/L	0.00020	10	07/03/19	PT19G03B	07/03/19	T419G03A	AMS
9. Zinc	U		mg/L	0.050	10	07/03/19	PT19G03B	07/03/19	T419G03A	AMS

Mercury by CVAAS, Total
Method: EPA 0245.1

Aliquot ID: 91286-001D **Matrix: Wastewater**
Description: Composite

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
1. Mercury	U		mg/L	0.00020	1.0	07/05/19	PM19G05B	07/05/19	M719G05B	JLH

Polychlorinated Biphenyls (PCBs)
Method: EPA 0608.3

Aliquot ID: 91286-001 **Matrix: Wastewater**
Description: Composite

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
1. Aroclor-1016	U		mg/L	0.000200	1.0	07/03/19	PS19G03B	07/05/19	SA19G05A	RDK
2. Aroclor-1221	U		mg/L	0.000200	1.0	07/03/19	PS19G03B	07/05/19	SA19G05A	RDK
3. Aroclor-1232	U		mg/L	0.000200	1.0	07/03/19	PS19G03B	07/05/19	SA19G05A	RDK
4. Aroclor-1242	U		mg/L	0.000200	1.0	07/03/19	PS19G03B	07/05/19	SA19G05A	RDK
5. Aroclor-1248	U		mg/L	0.000200	1.0	07/03/19	PS19G03B	07/05/19	SA19G05A	RDK
6. Aroclor-1254	U		mg/L	0.000200	1.0	07/03/19	PS19G03B	07/05/19	SA19G05A	RDK
7. Aroclor-1260	U		mg/L	0.000200	1.0	07/03/19	PS19G03B	07/05/19	SA19G05A	RDK
‡ 8. Aroclor-1262	U		mg/L	0.000200	1.0	07/03/19	PS19G03B	07/05/19	SA19G05A	RDK
‡ 9. Aroclor-1268	U		mg/L	0.000200	1.0	07/03/19	PS19G03B	07/05/19	SA19G05A	RDK

TTO - Pesticides by GC/ECD
Method: EPA 0608.3

Aliquot ID: 91286-001 **Matrix: Wastewater**
Description: Composite

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
1. Aldrin	U		mg/L	0.0000100	1.0	07/03/19	PS19G03B	07/03/19	SF19G03B	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:	Composite	Chain of Custody:	N/A
Client Project Name:	Former McLouth Steel Property - County Property	Sample No:		Collect Date:	06/28 - 06/28/19
Client Project No:	NA	Sample Matrix:	Wastewater	Collect Time:	09:20

Sample Comments:

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

TTO - Pesticides by GC/ECD
Method: EPA 0608.3

Aliquot ID: 91286-001
Description: Composite
Matrix: Wastewater

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
2. alpha-BHC	U		mg/L	0.0000500	1.0	07/03/19	PS19G03B	07/03/19	SF19G03B	RDK
3. beta-BHC	U	L+	mg/L	0.0000200	1.0	07/03/19	PS19G03B	07/03/19	SF19G03B	RDK
4. delta-BHC	U	L+	mg/L	0.0000500	1.0	07/03/19	PS19G03B	07/03/19	SF19G03B	RDK
5. gamma-BHC	U		mg/L	0.0000300	1.0	07/03/19	PS19G03B	07/03/19	SF19G03B	RDK
6. Chlordane	U		mg/L	0.00200	1.0	07/03/19	PS19G03B	07/03/19	SF19G03B	RDK
7. 4,4'-DDD	U		mg/L	0.000100	1.0	07/03/19	PS19G03B	07/03/19	SF19G03B	RDK
8. 4,4'-DDE	U		mg/L	0.000100	1.0	07/03/19	PS19G03B	07/03/19	SF19G03B	RDK
9. 4,4'-DDT	U		mg/L	0.0000200	1.0	07/03/19	PS19G03B	07/03/19	SF19G03B	RDK
10. Dieldrin	U		mg/L	0.0000200	1.0	07/03/19	PS19G03B	07/03/19	SF19G03B	RDK
11. Endosulfan I	U		mg/L	0.0000300	1.0	07/03/19	PS19G03B	07/03/19	SF19G03B	RDK
12. Endosulfan II	U		mg/L	0.0000300	1.0	07/03/19	PS19G03B	07/03/19	SF19G03B	RDK
13. Endosulfan Sulfate	U		mg/L	0.0000500	1.0	07/03/19	PS19G03B	07/03/19	SF19G03B	RDK
14. Endrin	U		mg/L	0.0000200	1.0	07/03/19	PS19G03B	07/03/19	SF19G03B	RDK
15. Endrin Aldehyde	U		mg/L	0.0000200	1.0	07/03/19	PS19G03B	07/03/19	SF19G03B	RDK
16. Heptachlor	U		mg/L	0.0000100	1.0	07/03/19	PS19G03B	07/03/19	SF19G03B	RDK
17. Heptachlor Epoxide	U		mg/L	0.0000100	1.0	07/03/19	PS19G03B	07/03/19	SF19G03B	RDK
18. Toxaphene	U		mg/L	0.00100	1.0	07/03/19	PS19G03B	07/03/19	SF19G03B	RDK

Dioxin Screen (Qualitative)
Method: EPA 0625.1

Aliquot ID: 91286-001
Description: Composite
Matrix: Wastewater

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
‡ 1. 2,3,7,8-Tetrachlorodibenzo-p-dioxin	absent		pres./abs.	NA	1.0	NA	NA	07/05/19	NA	GJP

TTO - Semivolatiles by GC/MS
Method: EPA 0625.1

Aliquot ID: 91286-001
Description: Composite
Matrix: Wastewater

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
1. Acenaphthene	U		mg/L	0.0050	1.0	07/02/19	PS19G02C	07/03/19	S519G03A	GJP
2. Acenaphthylene	U		mg/L	0.0050	1.0	07/02/19	PS19G02C	07/03/19	S519G03A	GJP
3. Anthracene	U		mg/L	0.0050	1.0	07/02/19	PS19G02C	07/03/19	S519G03A	GJP
‡ 4. Azobenzene	U		mg/L	0.0050	1.0	07/02/19	PS19G02C	07/03/19	S519G03A	GJP
5. Benzidine	U		mg/L	0.050	1.0	07/02/19	PS19G02C	07/03/19	S519G03A	GJP
6. Benzo(a)anthracene	U		mg/L	0.0010	1.0	07/02/19	PS19G02C	07/03/19	S519G03A	GJP
7. Benzo(a)pyrene	U		mg/L	0.0010	1.0	07/02/19	PS19G02C	07/03/19	S519G03A	GJP

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

Analytical Laboratory Report
Laboratory Project Number: 91286
Laboratory Sample Number: 91286-001

Order: 91286
Page: 4 of 10
Date: 07/09/19

Client Identification:	Applied Science & Technology, Inc. - Brighton	Sample Description:	Composite	Chain of Custody:	N/A
Client Project Name:	Former McLouth Steel Property - County Property	Sample No:		Collect Date:	06/28 - 06/28/19
Client Project No:	NA	Sample Matrix:	Wastewater	Collect Time:	09:20

Sample Comments:

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

TTO - Semivolatiles by GC/MS
Method: EPA 0625.1

Aliquot ID: 91286-001
Description: Composite
Matrix: Wastewater

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
8. Benzo(b)fluoranthene	U		mg/L	0.0010	1.0	07/02/19	PS19G02C	07/03/19	S519G03A	GJP
9. Benzo(ghi)perylene	U		mg/L	0.0010	1.0	07/02/19	PS19G02C	07/03/19	S519G03A	GJP
10. Benzo(k)fluoranthene	U		mg/L	0.0010	1.0	07/02/19	PS19G02C	07/03/19	S519G03A	GJP
11. Bis(2-chloroethoxy)methane	U		mg/L	0.0050	1.0	07/02/19	PS19G02C	07/03/19	S519G03A	GJP
12. Bis(2-chloroethyl)ether	U		mg/L	0.0010	1.0	07/02/19	PS19G02C	07/03/19	S519G03A	GJP
13. Bis(2-ethylhexyl)phthalate	U		mg/L	0.0050	1.0	07/02/19	PS19G02C	07/03/19	S519G03A	GJP
14. 4-Bromophenyl Phenylether	U		mg/L	0.0050	1.0	07/02/19	PS19G02C	07/03/19	S519G03A	GJP
15. Butyl Benzyl Phthalate	U		mg/L	0.0050	1.0	07/02/19	PS19G02C	07/03/19	S519G03A	GJP
16. Di-n-butyl Phthalate	U		mg/L	0.0050	1.0	07/02/19	PS19G02C	07/03/19	S519G03A	GJP
17. 4-Chloro-3-methylphenol	U		mg/L	0.0050	1.0	07/02/19	PS19G02C	07/03/19	S519G03A	GJP
18. 2-Chloronaphthalene	U		mg/L	0.0050	1.0	07/02/19	PS19G02C	07/03/19	S519G03A	GJP
19. 2-Chlorophenol	U		mg/L	0.0050	1.0	07/02/19	PS19G02C	07/03/19	S519G03A	GJP
‡ 20. 3&4-Chlorophenol	U		mg/L	0.010	1.0	07/02/19	PS19G02C	07/03/19	S519G03A	GJP
21. 4-Chlorophenyl Phenylether	U		mg/L	0.0050	1.0	07/02/19	PS19G02C	07/03/19	S519G03A	GJP
22. Chrysene	U		mg/L	0.0010	1.0	07/02/19	PS19G02C	07/03/19	S519G03A	GJP
23. Dibenzo(a,h)anthracene	U		mg/L	0.0020	1.0	07/02/19	PS19G02C	07/03/19	S519G03A	GJP
24. 3,3'-Dichlorobenzidine	U		mg/L	0.020	1.0	07/02/19	PS19G02C	07/03/19	S519G03A	GJP
25. 2,4-Dichlorophenol	U		mg/L	0.005	1.0	07/02/19	PS19G02C	07/03/19	S519G03A	GJP
26. Diethyl Phthalate	U		mg/L	0.0050	1.0	07/02/19	PS19G02C	07/03/19	S519G03A	GJP
27. 2,4-Dimethylphenol	U		mg/L	0.0050	1.0	07/02/19	PS19G02C	07/03/19	S519G03A	GJP
28. Dimethyl Phthalate	U		mg/L	0.0050	1.0	07/02/19	PS19G02C	07/03/19	S519G03A	GJP
29. 2,4-Dinitrophenol	U	L-	mg/L	0.020	1.0	07/02/19	PS19G02C	07/03/19	S519G03A	GJP
30. 2,4-Dinitrotoluene	U		mg/L	0.0050	1.0	07/02/19	PS19G02C	07/03/19	S519G03A	GJP
31. 2,6-Dinitrotoluene	U		mg/L	0.0050	1.0	07/02/19	PS19G02C	07/03/19	S519G03A	GJP
32. Fluoranthene	U		mg/L	0.0010	1.0	07/02/19	PS19G02C	07/03/19	S519G03A	GJP
33. Fluorene	U		mg/L	0.0050	1.0	07/02/19	PS19G02C	07/03/19	S519G03A	GJP
34. Hexachlorobenzene	U		mg/L	0.0050	1.0	07/02/19	PS19G02C	07/03/19	S519G03A	GJP
35. Hexachlorobutadiene	U		mg/L	0.0050	1.0	07/02/19	PS19G02C	07/03/19	S519G03A	GJP
36. Hexachlorocyclopentadiene	U	L-	mg/L	0.0050	1.0	07/02/19	PS19G02C	07/03/19	S519G03A	GJP
37. Hexachloroethane	U	L-	mg/L	0.0050	1.0	07/02/19	PS19G02C	07/03/19	S519G03A	GJP
38. Indeno(1,2,3-cd)pyrene	U		mg/L	0.0020	1.0	07/02/19	PS19G02C	07/03/19	S519G03A	GJP
39. Isophorone	U		mg/L	0.0050	1.0	07/02/19	PS19G02C	07/03/19	S519G03A	GJP
40. 2-Methyl-4,6-dinitrophenol	U	L-	mg/L	0.020	1.0	07/02/19	PS19G02C	07/03/19	S519G03A	GJP
41. Naphthalene	U		mg/L	0.0050	1.0	07/02/19	PS19G02C	07/03/19	S519G03A	GJP
42. Nitrobenzene	U		mg/L	0.0030	1.0	07/02/19	PS19G02C	07/03/19	S519G03A	GJP
43. 2-Nitrophenol	U		mg/L	0.0050	1.0	07/02/19	PS19G02C	07/03/19	S519G03A	GJP
44. 4-Nitrophenol	U		mg/L	0.020	1.0	07/02/19	PS19G02C	07/03/19	S519G03A	GJP

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

Analytical Laboratory Report
Laboratory Project Number: 91286
Laboratory Sample Number: 91286-001

Order: 91286
Page: 5 of 10
Date: 07/09/19

Client Identification:	Applied Science & Technology, Inc. - Brighton	Sample Description:	Composite	Chain of Custody:	N/A
Client Project Name:	Former McLouth Steel Property - County Property	Sample No:		Collect Date:	06/28 - 06/28/19
Client Project No:	NA	Sample Matrix:	Wastewater	Collect Time:	09:20

Sample Comments:

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

TTO - Semivolatiles by GC/MS
Method: EPA 0625.1

Aliquot ID: 91286-001
Description: Composite
Matrix: Wastewater

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
45. N-Nitrosodimethylamine	U		mg/L	0.0050	1.0	07/02/19	PS19G02C	07/03/19	S519G03A	GJP
46. N-Nitrosodi-n-propylamine	U		mg/L	0.0050	1.0	07/02/19	PS19G02C	07/03/19	S519G03A	GJP
47. N-Nitrosodiphenylamine	U		mg/L	0.0050	1.0	07/02/19	PS19G02C	07/03/19	S519G03A	GJP
48. Di-n-octyl Phthalate	U	L+	mg/L	0.0050	1.0	07/02/19	PS19G02C	07/03/19	S519G03A	GJP
49. 2,2'-Oxybis(1-chloropropane)	U		mg/L	0.0050	1.0	07/02/19	PS19G02C	07/03/19	S519G03A	GJP
50. Pentachlorophenol	U		mg/L	0.020	1.0	07/02/19	PS19G02C	07/03/19	S519G03A	GJP
51. Phenanthrene	U		mg/L	0.0020	1.0	07/02/19	PS19G02C	07/03/19	S519G03A	GJP
52. Phenol	U		mg/L	0.0050	1.0	07/02/19	PS19G02C	07/03/19	S519G03A	GJP
53. Pyrene	U		mg/L	0.0050	1.0	07/02/19	PS19G02C	07/03/19	S519G03A	GJP
54. 1,2,4-Trichlorobenzene	U		mg/L	0.0050	1.0	07/02/19	PS19G02C	07/03/19	S519G03A	GJP
55. 2,4,6-Trichlorophenol	U		mg/L	0.0040	1.0	07/02/19	PS19G02C	07/03/19	S519G03A	GJP

Residue, Non-Filterable (TSS)
Method: SM 2540 D-2011

Aliquot ID: 91286-001A
Description: Composite
Matrix: Wastewater

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
1. Total Suspended Solids	U	S-	mg/L	2.6	1.1	07/02/19	WH19G02A	07/05/19	WH19G02A	CMB

Nitrogen, Ammonia (Auto Analyzer)
Method: SM 4500-NH3 G-2011

Aliquot ID: 91286-001C
Description: Composite
Matrix: Wastewater

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
‡ 1. Ammonia-N	4.1		mg/L	0.010	1.0	07/01/19	PW19G01A	07/01/19	WU19G01A	AMW

Phosphorus, Total
Method: SM 4500-P E-2011

Aliquot ID: 91286-001C
Description: Composite
Matrix: Wastewater

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
1. Phosphorus	0.12		mg/L	0.010	1.0	07/05/19	W219G05A	07/05/19	W219G05A	AMW

Biochemical Oxygen Demand, 5 Day
Method: SM 5210 B-2011

Aliquot ID: 91286-001B
Description: Composite
Matrix: Wastewater

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						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

Client Identification:	Applied Science & Technology, Inc. - Brighton	Sample Description:	Composite	Chain of Custody:	N/A
Client Project Name:	Former McLouth Steel Property - County Property	Sample No:		Collect Date:	06/28 - 06/28/19
Client Project No:	NA	Sample Matrix:	Wastewater	Collect Time:	09:20

Sample Comments:

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

Biochemical Oxygen Demand, 5 Day
Method: SM 5210 B-2011

Aliquot ID: 91286-001B **Matrix: Wastewater**
Description: Composite

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		Init.
						P. Date	P. Batch	A. Date	A. Batch	
‡ 1.BOD	U	L-	mg/L	2.4	3.0	06/28/19 18:05	WZ19F28A	07/03/19 18:25	WZ19F28A	VO

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:	Grab	Chain of Custody:	N/A
Client Project Name:	Former McLouth Steel Property - County Property	Sample No:		Collect Date:	06/28/19
Client Project No:	NA	Sample Matrix:	Wastewater	Collect Time:	09:30

Sample Comments:

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

Cyanide, Total						Aliquot ID: 91286-002C	Matrix: Wastewater			
Method: ASTM D7511-12						Description: Grab				
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
‡ 1. Cyanide, Total	1.5		mg/L	0.050	10	07/02/19	PW19G02C	07/02/19	WQ19G02A	SEM

Temperature, Field Measured						Aliquot ID: 91286-002	Matrix: Wastewater			
Method: EPA 0170.1 (Field)						Description: Grab				
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
‡ 1. Temperature	27.5		°C	0.0	1.0	NA	NA	06/28/19 00:00	NA	F-T

Phenolics, Total						Aliquot ID: 91286-002B	Matrix: Wastewater			
Method: EPA 0420.1						Description: Grab				
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
1. Phenolics	U		mg/L	0.050	1.0	07/01/19	PW19G01B	07/02/19	W219G02C	VO

Volatile Organic Compounds by GC/MS						Aliquot ID: 91286-002F	Matrix: Wastewater			
Method: EPA 0624.1						Description: Grab				
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
1. Acrylonitrile	U	J-	mg/L	0.00200	1.0	07/02/19	VB19G02A	07/02/19	VB19G02A	MAK
2. Benzene	U	J-	mg/L	0.00100	1.0	07/02/19	VB19G02A	07/02/19	VB19G02A	MAK
3. Bromodichloromethane	U	J-	mg/L	0.00100	1.0	07/02/19	VB19G02A	07/02/19	VB19G02A	MAK
4. Bromoform	U	J-	mg/L	0.00100	1.0	07/02/19	VB19G02A	07/02/19	VB19G02A	MAK
5. Bromomethane	U	J-	mg/L	0.00500	1.0	07/02/19	VB19G02A	07/02/19	VB19G02A	MAK
6. Carbon Tetrachloride	U	J-	mg/L	0.00100	1.0	07/02/19	VB19G02A	07/02/19	VB19G02A	MAK
7. Chlorobenzene	U	J-	mg/L	0.00100	1.0	07/02/19	VB19G02A	07/02/19	VB19G02A	MAK
8. Chloroethane	U	J-	mg/L	0.00500	1.0	07/02/19	VB19G02A	07/02/19	VB19G02A	MAK
9. Chloroform	U	J-	mg/L	0.00100	1.0	07/02/19	VB19G02A	07/02/19	VB19G02A	MAK
10. Chloromethane	U	J-	mg/L	0.00500	1.0	07/02/19	VB19G02A	07/02/19	VB19G02A	MAK
11. Dibromochloromethane	U	J-	mg/L	0.00500	1.0	07/02/19	VB19G02A	07/02/19	VB19G02A	MAK
12. 1,2-Dichlorobenzene	U	J-	mg/L	0.00100	1.0	07/02/19	VB19G02A	07/02/19	VB19G02A	MAK
13. 1,3-Dichlorobenzene	U	J-	mg/L	0.00100	1.0	07/02/19	VB19G02A	07/02/19	VB19G02A	MAK
14. 1,4-Dichlorobenzene	U	J-	mg/L	0.00100	1.0	07/02/19	VB19G02A	07/02/19	VB19G02A	MAK
15. 1,1-Dichloroethane	0.00154	J-	mg/L	0.00100	1.0	07/02/19	VB19G02A	07/02/19	VB19G02A	MAK
16. 1,2-Dichloroethane	U	J-	mg/L	0.00100	1.0	07/02/19	VB19G02A	07/02/19	VB19G02A	MAK
17. 1,1-Dichloroethene	U	J-	mg/L	0.00100	1.0	07/02/19	VB19G02A	07/02/19	VB19G02A	MAK

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:	Grab	Chain of Custody:	N/A
Client Project Name:	Former McLouth Steel Property - County Property	Sample No:		Collect Date:	06/28/19
Client Project No:	NA	Sample Matrix:	Wastewater	Collect Time:	09:30

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 by GC/MS
Method: EPA 0624.1

Aliquot ID: 91286-002F
Description: Grab
Matrix: Wastewater

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
18. trans-1,2-Dichloroethene	U	J-	mg/L	0.00100	1.0	07/02/19	VB19G02A	07/02/19	VB19G02A	MAK
19. 1,2-Dichloropropane	U	J-	mg/L	0.00100	1.0	07/02/19	VB19G02A	07/02/19	VB19G02A	MAK
20. cis-1,3-Dichloropropene	U	J-	mg/L	0.000500	1.0	07/02/19	VB19G02A	07/02/19	VB19G02A	MAK
21. trans-1,3-Dichloropropene	U	J-	mg/L	0.000500	1.0	07/02/19	VB19G02A	07/02/19	VB19G02A	MAK
22. Ethylbenzene	U	J-	mg/L	0.00100	1.0	07/02/19	VB19G02A	07/02/19	VB19G02A	MAK
23. Methylene Chloride	U	J-	mg/L	0.00500	1.0	07/02/19	VB19G02A	07/02/19	VB19G02A	MAK
24. Naphthalene	U	J-	mg/L	0.00500	1.0	07/02/19	VB19G02A	07/02/19	VB19G02A	MAK
25. 1,1,2,2-Tetrachloroethane	U	J-	mg/L	0.00100	1.0	07/02/19	VB19G02A	07/02/19	VB19G02A	MAK
26. Tetrachloroethene	U	J-	mg/L	0.00100	1.0	07/02/19	VB19G02A	07/02/19	VB19G02A	MAK
27. Toluene	U	J-	mg/L	0.00100	1.0	07/02/19	VB19G02A	07/02/19	VB19G02A	MAK
‡ 28. 1,2,4-Trichlorobenzene	U	J-	mg/L	0.00500	1.0	07/02/19	VB19G02A	07/02/19	VB19G02A	MAK
29. 1,1,1-Trichloroethane	U	J-	mg/L	0.00100	1.0	07/02/19	VB19G02A	07/02/19	VB19G02A	MAK
30. 1,1,2-Trichloroethane	U	J-	mg/L	0.00100	1.0	07/02/19	VB19G02A	07/02/19	VB19G02A	MAK
31. Trichloroethene	U	J-	mg/L	0.00100	1.0	07/02/19	VB19G02A	07/02/19	VB19G02A	MAK
32. Vinyl Chloride	U	J-	mg/L	0.00100	1.0	07/02/19	VB19G02A	07/02/19	VB19G02A	MAK
33. m&p-Xylene	U	J-	mg/L	0.00200	1.0	07/02/19	VB19G02A	07/02/19	VB19G02A	MAK
34. o-Xylene	U	J-	mg/L	0.00100	1.0	07/02/19	VB19G02A	07/02/19	VB19G02A	MAK
35. Xylenes	U	J-	mg/L	0.00300	1.0	07/02/19	VB19G02A	07/02/19	VB19G02A	MAK

Volatile Organic Compounds by GC/MS
Method: EPA 0624.1

Aliquot ID: 91286-002E
Description: Grab
Matrix: Wastewater

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
1. Acrolein	U	J-	mg/L	0.0200	1.0	06/28/19 14:46	VB19F28B	06/28/19 19:06	VB19F28B	MAK
2. 2-Chloroethyl Vinyl Ether	U	J-	mg/L	0.0100	1.0	06/28/19 14:46	VB19F28B	06/28/19 19:06	VB19F28B	MAK

Fats, Oil & Grease (FOG)
Method: EPA 1664B

Aliquot ID: 91286-002A
Description: Grab
Matrix: Wastewater

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
1. Oil and Grease	6.5		mg/L	5.2	1.0	07/02/19	WH19G02A	07/03/19	WH19G02A	AMW

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:	Grab	Chain of Custody:	N/A
Client Project Name:	Former McLouth Steel Property - County Property	Sample No:		Collect Date:	06/28/19
Client Project No:	NA	Sample Matrix:	Wastewater	Collect Time:	09:30

Sample Comments:

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

Cyanide, Available						Aliquot ID: 91286-002D	Matrix: Wastewater			
Method: OIA-1677-09						Description: Grab				
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
‡ 1. Cyanide, Available	0.051		mg/L	0.0050	1.0	07/01/19	PW19G01C	07/01/19	WQ19G01A	VO

pH, Electrometric (Field Measured)						Aliquot ID: 91286-002	Matrix: Wastewater			
Method: SM 4500-H+ B-2011 (Field)						Description: Grab				
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
‡ 1. pH	9.00		pH Units	-1.00	1.0	NA	NA	06/28/19 00:00	NA	F-T

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

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 low.
L- : Recovery in the associated laboratory sample (LCS) exceeds the lower control limit. Results may be biased low.
L+ : Recovery in the associated laboratory sample (LCS) exceeds the upper control limit. Results may be biased high.
S- : The volume of sample available for the Total Suspended Solids analysis was insufficient to achieve the method specified reporting limit of 2.5 mg/L. The reporting limit of the sample has been adjusted accordingly.

Analysis Locations:

All analyses performed in Holt.



Accreditation Number(s):

T104704518-19-8 (TX)

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

Fibertec

environmental
services

1914 Holloway Drive
Holt, MI 48812
Phone: 517-699-0345
Fax: 517-699-0388
email: lab@fibertec.us

Analytical Laboratories

8660 S Mackinaw Trail
Cadillac, MI 49601
Phone: 231-775-8368
Fax: 231-775-8584

Industrial Hygiene Services, Inc.

3125 Sovereign Drive Suite B
Lansing, MI 48911
Phone: 517-999-6020
Fax: 517-699-0388
email: asbestos@fibertec.us

Geoprobe

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

CLIENT INFORMATION

Client Name: ASTI - Brighton
Contact: Bruce Bawkon (bbawkon@asti-env.com)
Phone: 616 485 3832
Address: 10448 Citation, Suite 100
Brighton, MI 48116
Permit: NA
Location: Former McLouth Steel Property - County Property

NOTES/OTHER INFORMATION

Former McLouth Steel Property is located at:
1491 W. Jefferson Ave. Trenton, MI
MA SAT
5 DAY TA

1. Do not remove preservatives from containers
2. Avoid contact with preservatives
3. Fill all containers to the top
4. Never fill one sample container from another
5. Label and date all containers
6. Store between 0-6 degrees Celsius on ice in cooler

COMPOSITE

Start Date/Time: 4/29/20 8:00 AM
Sampler: Bruce Bawkon
End Date/Time: 4/30/20 9:15 AM
Sampler: Bruce Bawkon

GRAB

Date/Time: 4/30/20 9:15 AM
pH: 8.23
Temperature: 55.4 °F
Sampler: Bruce Bawkon

COMPOSITE

- | | |
|---|---|
| 1-250 mL HDPE+HNO3 | 1-250 mL HDPE+H2SO4 |
| <input checked="" type="checkbox"/> T. Arsenic | <input checked="" type="checkbox"/> T. Phosphorus |
| <input checked="" type="checkbox"/> T. Cadmium | <input type="checkbox"/> COD |
| <input checked="" type="checkbox"/> T. Chromium | <input checked="" type="checkbox"/> Ammonia |
| <input checked="" type="checkbox"/> T. Copper | |
| <input checked="" type="checkbox"/> T. Iron | 1-Liter Amber Unpreserved |
| <input checked="" type="checkbox"/> T. Lead | <input type="checkbox"/> Semi-Volatiles |
| <input checked="" type="checkbox"/> T. Mercury | <input checked="" type="checkbox"/> PCB |
| <input checked="" type="checkbox"/> T. Nickel | <input type="checkbox"/> Herbicides |
| <input checked="" type="checkbox"/> T. Silver | <input type="checkbox"/> Pesticides |
| <input checked="" type="checkbox"/> T. Zinc | <input checked="" type="checkbox"/> Dioxin |
| | <input type="checkbox"/> TTO Pesticides |
| Unpreserved HDPE | <input type="checkbox"/> TTO Herbicides |
| <input checked="" type="checkbox"/> BOD Need 1 HD500 | <input checked="" type="checkbox"/> TTO SVOC Needs 2 |
| <input checked="" type="checkbox"/> TSS Need 1 HD1000 | <input type="checkbox"/> If QC is Needed*: double the amount of 1L-Ambers |

GRAB

- 3-40mL VOA+HCL
☐ Volatiles
☒ TTO-VOC
3-40mL VOA Unpreserved
☒ TTO-VOC
- 1-250 mL HDPE+NaOH
☒ T- Cyanide
- 1-40mL Amber+NaOH
☒ A. Cyanide (Available Cyanide Kit)
- 1-250 mL HDPE (unpreserved)
☒ pH & Temperature
- 2-Amber - 1 Liter+HCL
☒ FOG
- 1-250mL Amber+H2SO4
☒ Phenolics

Relinquished by: <u>Bruce Bawkon</u>	Date/Time: <u>4/30/20 2:15 PM</u>	Received by: <u>Richard Sauer</u>
Relinquished by: <u>Fibertec cooler</u>	Date/Time: <u>4/30 0830</u>	Received by: <u>[Signature]</u>
Relinquished by: <u>[Signature]</u>	Date/Time: <u>4/30 0930</u>	Received by: <u>[Signature]</u>

Project # 95934 Temp: 4.6°C

1. Hold time for BOD is 48 hours from end of sampling
2. BOD samples should be collected on Tuesday, Wednesday or Thursday
3. Volatile Containers should have no air bubbles.
4. pH measurements should be taken immediately

Received By Lab

MAY 01 2020

Initials: DB

Received
On Ice

For Lab Use Only

We need 4 sample sets w/ 4 lg. coolers - JS 4/15/2020
DUE Fri 4/15/2020



Tuesday, May 12, 2020

Fibertec Project Number: 95934
Project Identification: Former McLouth Steel Property - County Property 1491 West Jefferson, Trenton, MI/
Submittal Date: 04/30/2020

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

Dear Mr. Bawkon,

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,

A handwritten signature in black ink, appearing to read "Sharon L. Rakow".

By Sharon Rakow at 12:39 PM, May 12, 2020

For Daryl P. Strandbergh
Laboratory Director

Enclosures

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:	Composite	Chain of Custody:	N/A
Client Project Name:	Former McLouth Steel Property - County Property	Sample No:		Collect Date:	04/29 - 04/30/20
Client Project No:	NA	Sample Matrix:	Wastewater	Collect Time:	09:00

Sample Comments:

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

Trace Elements by ICP/MS, Total Recoverable
Method: EPA 0200.8 (Total Recoverable)/EPA 0200.8

Aliquot ID: 95934-001D
Description: Composite
Matrix: Wastewater

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		Init.
						P. Date	P. Batch	A. Date	A. Batch	
1. Arsenic	U		mg/L	0.0050	10	05/04/20	PT20E04E	05/04/20	T420E04A	JLH
2. Cadmium	0.0013		mg/L	0.0010	10	05/04/20	PT20E04E	05/04/20	T420E04A	JLH
3. Chromium	U		mg/L	0.010	10	05/04/20	PT20E04E	05/04/20	T420E04A	JLH
4. Copper	0.041		mg/L	0.0040	10	05/04/20	PT20E04E	05/04/20	T420E04A	JLH
5. Iron	1.3		mg/L	0.20	10	05/04/20	PT20E04E	05/04/20	T420E04A	JLH
6. Lead	0.22		mg/L	0.0030	10	05/04/20	PT20E04E	05/04/20	T420E04A	JLH
7. Nickel	U		mg/L	0.020	10	05/04/20	PT20E04E	05/04/20	T420E04A	JLH
8. Silver	U		mg/L	0.00020	10	05/04/20	PT20E04E	05/04/20	T420E04A	JLH
9. Zinc	0.41		mg/L	0.050	10	05/04/20	PT20E04E	05/04/20	T420E04A	JLH

Mercury by CVAAS, Total
Method: EPA 0245.1

Aliquot ID: 95934-001D
Description: Composite
Matrix: Wastewater

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		Init.
						P. Date	P. Batch	A. Date	A. Batch	
1. Mercury	U		mg/L	0.00020	1.0	05/05/20	PM20E05D	05/05/20	M720E05A	JLH

Phosphorus, Total
Method: EPA 0365.3

Aliquot ID: 95934-001C
Description: Composite
Matrix: Wastewater

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		Init.
						P. Date	P. Batch	A. Date	A. Batch	
‡ 1. Phosphorus	0.53		mg/L	0.010	1.0	05/08/20	W220E08A	05/08/20	W220E08A	CMB

Polychlorinated Biphenyls (PCBs)
Method: EPA 0608.3

Aliquot ID: 95934-001
Description: Composite
Matrix: Wastewater

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		Init.
						P. Date	P. Batch	A. Date	A. Batch	
1. Aroclor-1016	U		mg/L	0.000200	1.0	05/06/20	PS20E06A	05/06/20	SF20E06A	TKT
2. Aroclor-1221	U		mg/L	0.000200	1.0	05/06/20	PS20E06A	05/06/20	SF20E06A	TKT
3. Aroclor-1232	U		mg/L	0.000200	1.0	05/06/20	PS20E06A	05/06/20	SF20E06A	TKT
4. Aroclor-1242	U		mg/L	0.000200	1.0	05/06/20	PS20E06A	05/06/20	SF20E06A	TKT
5. Aroclor-1248	U		mg/L	0.000200	1.0	05/06/20	PS20E06A	05/06/20	SF20E06A	TKT
6. Aroclor-1254	U		mg/L	0.000200	1.0	05/06/20	PS20E06A	05/06/20	SF20E06A	TKT
7. Aroclor-1260	0.000228		mg/L	0.000200	1.0	05/06/20	PS20E06A	05/06/20	SF20E06A	TKT
‡ 8. Aroclor-1262	U		mg/L	0.000200	1.0	05/06/20	PS20E06A	05/06/20	SF20E06A	TKT
‡ 9. Aroclor-1268	U		mg/L	0.000200	1.0	05/06/20	PS20E06A	05/06/20	SF20E06A	TKT

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:	Composite	Chain of Custody:	N/A
Client Project Name:	Former McLouth Steel Property - County Property	Sample No:		Collect Date:	04/29 - 04/30/20
Client Project No:	NA	Sample Matrix:	Wastewater	Collect Time:	09:00

Sample Comments:

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

Dioxin Screen (Qualitative)
Method: EPA 0625.1

Aliquot ID: 95934-001
Description: Composite
Matrix: Wastewater

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
‡ 1. 2,3,7,8-Tetrachlorodibenzo-p-dioxin	absent		pres./abs.	NA	1.0	NA	NA	05/07/20	NA	GJP

TTO - Semivolatiles by GC/MS
Method: EPA 0625.1

Aliquot ID: 95934-001
Description: Composite
Matrix: Wastewater

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
1. Acenaphthene	U		mg/L	0.0050	1.0	05/05/20	PS20E05A	05/05/20	SN20E05A	GJP
2. Acenaphthylene	U		mg/L	0.0050	1.0	05/05/20	PS20E05A	05/05/20	SN20E05A	GJP
3. Anthracene	U		mg/L	0.0050	1.0	05/05/20	PS20E05A	05/05/20	SN20E05A	GJP
‡ 4. Azobenzene	U		mg/L	0.0050	1.0	05/05/20	PS20E05A	05/05/20	SN20E05A	GJP
5. Benzidine	U	G-	mg/L	0.050	1.0	05/05/20	PS20E05A	05/05/20	SN20E05A	GJP
6. Benzo(a)anthracene	U		mg/L	0.0010	1.0	05/05/20	PS20E05A	05/05/20	SN20E05A	GJP
7. Benzo(a)pyrene	U		mg/L	0.0010	1.0	05/05/20	PS20E05A	05/05/20	SN20E05A	GJP
8. Benzo(b)fluoranthene	U		mg/L	0.0010	1.0	05/05/20	PS20E05A	05/05/20	SN20E05A	GJP
9. Benzo(ghi)perylene	U		mg/L	0.0010	1.0	05/05/20	PS20E05A	05/05/20	SN20E05A	GJP
10. Benzo(k)fluoranthene	U		mg/L	0.0010	1.0	05/05/20	PS20E05A	05/05/20	SN20E05A	GJP
11. Bis(2-chloroethoxy)methane	U		mg/L	0.0050	1.0	05/05/20	PS20E05A	05/05/20	SN20E05A	GJP
12. Bis(2-chloroethyl)ether	U		mg/L	0.0010	1.0	05/05/20	PS20E05A	05/05/20	SN20E05A	GJP
13. Bis(2-ethylhexyl)phthalate	U		mg/L	0.0050	1.0	05/05/20	PS20E05A	05/05/20	SN20E05A	GJP
14. 4-Bromophenyl Phenylether	U		mg/L	0.0050	1.0	05/05/20	PS20E05A	05/05/20	SN20E05A	GJP
15. Butyl Benzyl Phthalate	U		mg/L	0.0050	1.0	05/05/20	PS20E05A	05/05/20	SN20E05A	GJP
16. Di-n-butyl Phthalate	U		mg/L	0.0050	1.0	05/05/20	PS20E05A	05/05/20	SN20E05A	GJP
17. 4-Chloro-3-methylphenol	U		mg/L	0.0050	1.0	05/05/20	PS20E05A	05/05/20	SN20E05A	GJP
18. 2-Chloronaphthalene	U		mg/L	0.0050	1.0	05/05/20	PS20E05A	05/05/20	SN20E05A	GJP
19. 2-Chlorophenol	U		mg/L	0.0050	1.0	05/05/20	PS20E05A	05/05/20	SN20E05A	GJP
‡ 20. 3&4-Chlorophenol	U		mg/L	0.010	1.0	05/05/20	PS20E05A	05/05/20	SN20E05A	GJP
21. 4-Chlorophenyl Phenylether	U		mg/L	0.0050	1.0	05/05/20	PS20E05A	05/05/20	SN20E05A	GJP
22. Chrysene	U		mg/L	0.0010	1.0	05/05/20	PS20E05A	05/05/20	SN20E05A	GJP
23. Dibenzo(a,h)anthracene	U		mg/L	0.0020	1.0	05/05/20	PS20E05A	05/05/20	SN20E05A	GJP
24. 3,3'-Dichlorobenzidine	U	G-	mg/L	0.020	1.0	05/05/20	PS20E05A	05/05/20	SN20E05A	GJP
25. 2,4-Dichlorophenol	U		mg/L	0.005	1.0	05/05/20	PS20E05A	05/05/20	SN20E05A	GJP
26. Diethyl Phthalate	U		mg/L	0.0050	1.0	05/05/20	PS20E05A	05/05/20	SN20E05A	GJP
27. 2,4-Dimethylphenol	U		mg/L	0.0050	1.0	05/05/20	PS20E05A	05/05/20	SN20E05A	GJP
28. Dimethyl Phthalate	U		mg/L	0.0050	1.0	05/05/20	PS20E05A	05/05/20	SN20E05A	GJP
29. 2,4-Dinitrophenol	U		mg/L	0.020	1.0	05/05/20	PS20E05A	05/05/20	SN20E05A	GJP
30. 2,4-Dinitrotoluene	U		mg/L	0.0050	1.0	05/05/20	PS20E05A	05/05/20	SN20E05A	GJP

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:	Composite	Chain of Custody:	N/A
Client Project Name:	Former McLouth Steel Property - County Property	Sample No:		Collect Date:	04/29 - 04/30/20
Client Project No:	NA	Sample Matrix:	Wastewater	Collect Time:	09:00

Sample Comments:

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

TTO - Semivolatiles by GC/MS
Method: EPA 0625.1

Aliquot ID: 95934-001
Description: Composite
Matrix: Wastewater

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		Init.
						P. Date	P. Batch	A. Date	A. Batch	
31. 2,6-Dinitrotoluene	U		mg/L	0.0050	1.0	05/05/20	PS20E05A	05/05/20	SN20E05A	GJP
32. Fluoranthene	U		mg/L	0.0010	1.0	05/05/20	PS20E05A	05/05/20	SN20E05A	GJP
33. Fluorene	U		mg/L	0.0050	1.0	05/05/20	PS20E05A	05/05/20	SN20E05A	GJP
34. Hexachlorobenzene	U		mg/L	0.0050	1.0	05/05/20	PS20E05A	05/05/20	SN20E05A	GJP
35. Hexachlorobutadiene	U		mg/L	0.0052	1.0	05/05/20	PS20E05A	05/05/20	SN20E05A	GJP
36. Hexachlorocyclopentadiene	U		mg/L	0.0052	1.0	05/05/20	PS20E05A	05/05/20	SN20E05A	GJP
37. Hexachloroethane	U		mg/L	0.0052	1.0	05/05/20	PS20E05A	05/05/20	SN20E05A	GJP
38. Indeno(1,2,3-cd)pyrene	U		mg/L	0.0020	1.0	05/05/20	PS20E05A	05/05/20	SN20E05A	GJP
39. Isophorone	U		mg/L	0.0050	1.0	05/05/20	PS20E05A	05/05/20	SN20E05A	GJP
40. 2-Methyl-4,6-dinitrophenol	U	*	mg/L	0.020	1.0	05/05/20	PS20E05A	05/05/20	SN20E05A	GJP
41. Naphthalene	U		mg/L	0.0050	1.0	05/05/20	PS20E05A	05/05/20	SN20E05A	GJP
42. Nitrobenzene	U		mg/L	0.0030	1.0	05/05/20	PS20E05A	05/05/20	SN20E05A	GJP
43. 2-Nitrophenol	U		mg/L	0.0050	1.0	05/05/20	PS20E05A	05/05/20	SN20E05A	GJP
44. 4-Nitrophenol	U		mg/L	0.020	1.0	05/05/20	PS20E05A	05/05/20	SN20E05A	GJP
45. N-Nitrosodimethylamine	U		mg/L	0.0052	1.0	05/05/20	PS20E05A	05/05/20	SN20E05A	GJP
46. N-Nitrosodi-n-propylamine	U		mg/L	0.0050	1.0	05/05/20	PS20E05A	05/05/20	SN20E05A	GJP
47. N-Nitrosodiphenylamine	U		mg/L	0.0050	1.0	05/05/20	PS20E05A	05/05/20	SN20E05A	GJP
48. Di-n-octyl Phthalate	U		mg/L	0.0050	1.0	05/05/20	PS20E05A	05/05/20	SN20E05A	GJP
49. 2,2'-Oxybis(1-chloropropane)	U		mg/L	0.0050	1.0	05/05/20	PS20E05A	05/05/20	SN20E05A	GJP
50. Pentachlorophenol	U		mg/L	0.020	1.0	05/05/20	PS20E05A	05/05/20	SN20E05A	GJP
51. Phenanthrene	U		mg/L	0.0020	1.0	05/05/20	PS20E05A	05/05/20	SN20E05A	GJP
52. Phenol	U		mg/L	0.0050	1.0	05/05/20	PS20E05A	05/05/20	SN20E05A	GJP
53. Pyrene	U		mg/L	0.0050	1.0	05/05/20	PS20E05A	05/05/20	SN20E05A	GJP
54. 1,2,4-Trichlorobenzene	U		mg/L	0.0052	1.0	05/05/20	PS20E05A	05/05/20	SN20E05A	GJP
55. 2,4,6-Trichlorophenol	U		mg/L	0.0040	1.0	05/05/20	PS20E05A	05/05/20	SN20E05A	GJP

Residue, Non-Filterable (TSS)
Method: SM 2540 D-2011

Aliquot ID: 95934-001A
Description: Composite
Matrix: Wastewater

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		Init.
						P. Date	P. Batch	A. Date	A. Batch	
1. Total Suspended Solids	71		mg/L	2.5	1.0	NA	NA	05/05/20	WH20E04A	CJA

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:	Composite	Chain of Custody:	N/A
Client Project Name:	Former McLouth Steel Property - County Property	Sample No:		Collect Date:	04/29 - 04/30/20
Client Project No:	NA	Sample Matrix:	Wastewater	Collect Time:	09:00

Sample Comments:

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

Nitrogen, Ammonia (Auto Analyzer)
Method: SM 4500-NH3 G-2011

Aliquot ID: 95934-001C **Matrix: Wastewater**
Description: Composite

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		Init.
						P. Date	P. Batch	A. Date	A. Batch	
‡ 1. Ammonia-N	0.086		mg/L	0.010	1.0	05/05/20	PW20E05B	05/05/20	WU20E05A	JMK

Biochemical Oxygen Demand, 5 Day
Method: SM 5210 B-2011

Aliquot ID: 95934-001B **Matrix: Wastewater**
Description: Composite

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		Init.
						P. Date	P. Batch	A. Date	A. Batch	
1. BOD	3.0	B	mg/L	2.8	2.5	05/01/20 19:07	WZ20E01A	05/06/20 16:17	WZ20E01A	CMB

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:	Grab	Chain of Custody:	N/A
Client Project Name:	Former McLouth Steel Property - County Property	Sample No:		Collect Date:	04/30/20
Client Project No:	NA	Sample Matrix:	Wastewater	Collect Time:	09:15

Sample Comments:

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

Cyanide, Total						Aliquot ID: 95934-002D	Matrix: Wastewater			
Method: ASTM D7511-12						Description: Grab				
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
‡ 1. Cyanide, Total	U		mg/L	0.0050	1.0	05/11/20	PW20E11B	05/11/20	WQ20E11A	CMB

Temperature, Field Measured						Aliquot ID: 95934-002	Matrix: Wastewater			
Method: EPA 0170.1 (Field)						Description: Grab				
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
‡ 1. Temperature	13.0		°C	0.0	1.0	NA	NA	04/30/20 00:00	NA	F-T

Phenolics, Total						Aliquot ID: 95934-002B	Matrix: Wastewater			
Method: EPA 0420.1						Description: Grab				
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
1. Phenolics	0.056		mg/L	0.050	1.0	05/11/20	W220E11A	05/12/20	W220E11A	AMW

Volatile Organic Compounds by GC/MS						Aliquot ID: 95934-002F	Matrix: Wastewater			
Method: EPA 0624.1						Description: Grab				
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
1. Acrylonitrile	U		mg/L	0.00200	1.0	05/06/20	VM20E06A	05/06/20	VM20E06A	JLM
2. Benzene	U		mg/L	0.00100	1.0	05/06/20	VM20E06A	05/06/20	VM20E06A	JLM
3. Bromodichloromethane	U		mg/L	0.00100	1.0	05/06/20	VM20E06A	05/06/20	VM20E06A	JLM
4. Bromoform	U		mg/L	0.00100	1.0	05/06/20	VM20E06A	05/06/20	VM20E06A	JLM
5. Bromomethane	U		mg/L	0.00500	1.0	05/06/20	VM20E06A	05/06/20	VM20E06A	JLM
6. Carbon Tetrachloride	U		mg/L	0.00100	1.0	05/06/20	VM20E06A	05/06/20	VM20E06A	JLM
7. Chlorobenzene	U		mg/L	0.00100	1.0	05/06/20	VM20E06A	05/06/20	VM20E06A	JLM
8. Chloroethane	U		mg/L	0.00500	1.0	05/06/20	VM20E06A	05/06/20	VM20E06A	JLM
9. Chloroform	U		mg/L	0.00100	1.0	05/06/20	VM20E06A	05/06/20	VM20E06A	JLM
10. Chloromethane	U		mg/L	0.00500	1.0	05/06/20	VM20E06A	05/06/20	VM20E06A	JLM
11. Dibromochloromethane	U		mg/L	0.00500	1.0	05/06/20	VM20E06A	05/06/20	VM20E06A	JLM
12. 1,2-Dichlorobenzene	U		mg/L	0.00100	1.0	05/06/20	VM20E06A	05/06/20	VM20E06A	JLM
13. 1,3-Dichlorobenzene	U		mg/L	0.00100	1.0	05/06/20	VM20E06A	05/06/20	VM20E06A	JLM
14. 1,4-Dichlorobenzene	U		mg/L	0.00100	1.0	05/06/20	VM20E06A	05/06/20	VM20E06A	JLM
15. 1,1-Dichloroethane	U		mg/L	0.00100	1.0	05/06/20	VM20E06A	05/06/20	VM20E06A	JLM
16. 1,2-Dichloroethane	U		mg/L	0.00100	1.0	05/06/20	VM20E06A	05/06/20	VM20E06A	JLM
17. 1,1-Dichloroethene	U		mg/L	0.00100	1.0	05/06/20	VM20E06A	05/06/20	VM20E06A	JLM

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:	Grab	Chain of Custody:	N/A
Client Project Name:	Former McLouth Steel Property - County Property	Sample No:		Collect Date:	04/30/20
Client Project No:	NA	Sample Matrix:	Wastewater	Collect Time:	09:15

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 by GC/MS
Method: EPA 0624.1

Aliquot ID: 95934-002F **Matrix: Wastewater**
Description: Grab

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		Init.
						P. Date	P. Batch	A. Date	A. Batch	
18. trans-1,2-Dichloroethene	U		mg/L	0.00100	1.0	05/06/20	VM20E06A	05/06/20	VM20E06A	JLM
19. 1,2-Dichloropropane	U		mg/L	0.00100	1.0	05/06/20	VM20E06A	05/06/20	VM20E06A	JLM
20. cis-1,3-Dichloropropene	U		mg/L	0.000500	1.0	05/06/20	VM20E06A	05/06/20	VM20E06A	JLM
21. trans-1,3-Dichloropropene	U		mg/L	0.000500	1.0	05/06/20	VM20E06A	05/06/20	VM20E06A	JLM
22. Ethylbenzene	U		mg/L	0.00100	1.0	05/06/20	VM20E06A	05/06/20	VM20E06A	JLM
23. Methylene Chloride	U		mg/L	0.00500	1.0	05/06/20	VM20E06A	05/06/20	VM20E06A	JLM
24. Naphthalene	U		mg/L	0.00500	1.0	05/06/20	VM20E06A	05/06/20	VM20E06A	JLM
25. 1,1,2,2-Tetrachloroethane	U		mg/L	0.00100	1.0	05/06/20	VM20E06A	05/06/20	VM20E06A	JLM
26. Tetrachloroethene	U		mg/L	0.00100	1.0	05/06/20	VM20E06A	05/06/20	VM20E06A	JLM
27. Toluene	U		mg/L	0.00100	1.0	05/06/20	VM20E06A	05/06/20	VM20E06A	JLM
‡ 28. 1,2,4-Trichlorobenzene	U		mg/L	0.00500	1.0	05/06/20	VM20E06A	05/06/20	VM20E06A	JLM
29. 1,1,1-Trichloroethane	U		mg/L	0.00100	1.0	05/06/20	VM20E06A	05/06/20	VM20E06A	JLM
30. 1,1,2-Trichloroethane	U		mg/L	0.00100	1.0	05/06/20	VM20E06A	05/06/20	VM20E06A	JLM
31. Trichloroethene	U		mg/L	0.00100	1.0	05/06/20	VM20E06A	05/06/20	VM20E06A	JLM
32. Vinyl Chloride	U		mg/L	0.00100	1.0	05/06/20	VM20E06A	05/06/20	VM20E06A	JLM
33. m&p-Xylene	U		mg/L	0.00200	1.0	05/06/20	VM20E06A	05/06/20	VM20E06A	JLM
34. o-Xylene	U		mg/L	0.00100	1.0	05/06/20	VM20E06A	05/06/20	VM20E06A	JLM
35. Xylenes	U		mg/L	0.00300	1.0	05/06/20	VM20E06A	05/06/20	VM20E06A	JLM

Volatile Organic Compounds by GC/MS
Method: EPA 0624.1

Aliquot ID: 95934-002E **Matrix: Wastewater**
Description: Grab

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		Init.
						P. Date	P. Batch	A. Date	A. Batch	
1. Acrolein	U		mg/L	0.0200	1.0	05/01/20 10:32	VM20E01A	05/02/20 00:33	VM20E01A	JLM
2. 2-Chloroethyl Vinyl Ether	U		mg/L	0.0100	1.0	05/01/20 10:32	VM20E01A	05/02/20 00:33	VM20E01A	JLM

Fats, Oil & Grease (FOG)
Method: EPA 1664B

Aliquot ID: 95934-002A **Matrix: Wastewater**
Description: Grab

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		Init.
						P. Date	P. Batch	A. Date	A. Batch	
1. Oil and Grease	U		mg/L	5.0	1.0	05/07/20	WH20E07A	05/11/20	WH20E07A	CMB

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:	Grab	Chain of Custody:	N/A
Client Project Name:	Former McLouth Steel Property - County Property	Sample No:		Collect Date:	04/30/20
Client Project No:	NA	Sample Matrix:	Wastewater	Collect Time:	09:15

Sample Comments:

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

Cyanide, Available					Aliquot ID: 95934-002CA	Matrix: Wastewater				
Method: OIA-1677-09					Description: Grab					
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
‡ 1. Cyanide, Available	U		mg/L	0.0050	1.0	05/06/20	PW20E06B	05/06/20	WQ20E06A	CMB

pH, Electrometric (Field Measured)					Aliquot ID: 95934-002	Matrix: Wastewater				
Method: SM 4500-H+ B-2011 (Field)					Description: Grab					
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
‡ 1. pH	8.23		pH Units	-1.00	1.0	NA	NA	04/30/20 00:00	NA	F-T

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:

- *** : Duplicate analysis not within control limits.
B : Analyte is found in the associated method blank as well as in the sample.
G- : Recovery of the associated Surrogate Compound exceeds the lower control limit. Results may be biased low.

Analysis Locations:

All analyses performed in Holt.



Accreditation Number(s):

T104704518-19-8 (TX)

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

Fibertec

environmental
services

1914 Holloway Drive
Holt, MI 48812
Phone: 517-699-0345
Fax: 517-699-0388
email: lab@fibertec.us

Analytical Laboratories

8660 S Mackinaw Trail
Cadillac, MI 49601
Phone: 231-775-8368
Fax: 231-775-8584

Industrial Hygiene Services, Inc.

3125 Sovereign Drive Suite B
Lansing, MI 48911
Phone: 517-999-6020
Fax: 517-699-0388
email: asbestos@fibertec.us

Geoprobe

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

CLIENT INFORMATION

Client Name: ASTI - Brighton
Contact: Bruce Bawkon (bbawkon@asti-env.com)
Phone: _____
Address: 10448 Citation, Suite 100
Brighton, MI 48116
Permit: NA
Location: Former McLouth Steel Property - County Property

Not a Fibertec WW
Sampling

NOTES/OTHER INFORMATION

Former McLouth Steel Property is located at:
1491 W. Jefferson Ave. Trenton, MI
MH 126
5 DAY TA

1. Do not remove preservatives from containers
2. Avoid contact with preservatives
3. Fill all containers to the top
4. Never fill one sample container from another
5. Label and date all containers
6. Store between 0-6 degrees Celsius on ice in cooler

COMPOSITE

Start Date/Time: 4/29/20 9:15
Sampler: Bruce Bawkon
End Date/Time: 4/30/20 9:28
Sampler: Bruce Bawkon

GRAB

Date/Time: 4/30/20 9:28
pH: 8.18
Temperature: 55.2 F
Sampler: Bruce Bawkon

COMPOSITE

- | | |
|--|--|
| <p>1-250 mL HDPE+HNO₃</p> <p><input checked="" type="checkbox"/> T. Arsenic
<input checked="" type="checkbox"/> T. Cadmium
<input checked="" type="checkbox"/> T. Chromium
<input checked="" type="checkbox"/> T. Copper
<input checked="" type="checkbox"/> T. Iron
<input checked="" type="checkbox"/> T. Lead
<input checked="" type="checkbox"/> T. Mercury
<input checked="" type="checkbox"/> T. Nickel
<input checked="" type="checkbox"/> T. Silver
<input checked="" type="checkbox"/> T. Zinc</p> <p>Unpreserved HDPE</p> <p><input checked="" type="checkbox"/> BOD Need 1 HD500
<input checked="" type="checkbox"/> TSS Need 1 HD1000</p> | <p>1-250 mL HDPE+H₂SO₄</p> <p><input checked="" type="checkbox"/> T. Phosphorus
<input type="checkbox"/> COD
<input checked="" type="checkbox"/> Ammonia</p> <p>1-Liter Amber Unpreserved</p> <p><input type="checkbox"/> Semi-Volatiles
<input checked="" type="checkbox"/> PCB
<input type="checkbox"/> Herbicides
<input type="checkbox"/> Pesticides
<input checked="" type="checkbox"/> Dioxin
<input type="checkbox"/> TTO Pesticides
<input type="checkbox"/> TTO Herbicides
<input checked="" type="checkbox"/> TTO SVOC Needs 2
<input type="checkbox"/> If QC is Needed*: double the amount of 1L-Ambers</p> |
|--|--|

GRAB

- 3-40mL VOA+HCL
- ☐ Volatiles
☒ TTO-VOC
- 3-40mL VOA Unpreserved
- ☒ TTO-VOC
- 1-250 mL HDPE+NaOH
- ☒ T- Cyanide
- 1-40mL Amber+NaOH
- ☒ A. Cyanide (Available Cyanide Kit)
- 1-250 mL HDPE (unpreserved)
- ☒ pH & Temperature
- 2-Amber - 1 Liter+HCL
- ☒ FOG
- 1-250mL Amber+H₂SO₄
- ☒ Phenolics

Relinquished by: <u>[Signature]</u>	Date/Time: <u>4/30/20 2:55 PM</u>	Received by: <u>[Signature]</u>
Relinquished by: <u>Fibertec</u>	Date/Time: <u>5/1/20 0830</u>	Received by: <u>[Signature]</u>
Relinquished by: <u>[Signature]</u>	Date/Time: <u>5/1/20 0930</u>	Received by: <u>[Signature]</u>

Project # 95929 Temp: 4.60C

1. Hold time for BOD is 48 hours from end of sampling
2. BOD samples should be collected on Tuesday, Wednesday or Thursday
3. Volatile Containers should have no air bubbles.
4. pH measurements should be taken immediately

Received By Lab

MAY 01 2020

Initials: DG

Received
On Ice

For Lab Use Only

We need 4 sample sets w/ 4 lg. coolers - JS 4/15/2020
DUE FOR



Tuesday, May 12, 2020

Fibertec Project Number: 95929
Project Identification: Former McLouth Steel Property - County Property 1491 West Jefferson, Trenton, MI/
Submittal Date: 04/30/2020

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

Dear Mr. Bawkon,

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,

A handwritten signature in black ink, appearing to read "Sharon L. Rakow".

By Sharon Rakow at 12:29 PM, May 12, 2020

For Daryl P. Strandbergh
Laboratory Director

Enclosures

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

Analytical Laboratory Report
Laboratory Project Number: 95929
Laboratory Sample Number: 95929-001

Order: 95929
 Page: 2 of 9
 Date: 05/12/20

Client Identification:	Applied Science & Technology, Inc. - Brighton	Sample Description:	Composite	Chain of Custody:	N/A
Client Project Name:	Former McLouth Steel Property - County Property	Sample No:		Collect Date:	04/29 - 04/30/20
Client Project No:	NA	Sample Matrix:	Wastewater	Collect Time:	09:15

Sample Comments:

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

Trace Elements by ICP/MS, Total Recoverable
Method: EPA 0200.8 (Total Recoverable)/EPA 0200.8

Aliquot ID: 95929-001D **Matrix: Wastewater**
Description: Composite

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		Init.
						P. Date	P. Batch	A. Date	A. Batch	
1. Arsenic	U		mg/L	0.0050	10	05/04/20	PT20E04E	05/04/20	T420E04A	JLH
2. Cadmium	U		mg/L	0.0010	10	05/04/20	PT20E04E	05/04/20	T420E04A	JLH
3. Chromium	0.017		mg/L	0.010	10	05/04/20	PT20E04E	05/04/20	T420E04A	JLH
4. Copper	0.044		mg/L	0.0040	10	05/04/20	PT20E04E	05/04/20	T420E04A	JLH
5. Iron	3.6		mg/L	0.20	10	05/04/20	PT20E04E	05/04/20	T420E04A	JLH
6. Lead	0.36		mg/L	0.0030	10	05/04/20	PT20E04E	05/04/20	T420E04A	JLH
7. Nickel	U		mg/L	0.020	10	05/04/20	PT20E04E	05/04/20	T420E04A	JLH
8. Silver	U		mg/L	0.00020	10	05/04/20	PT20E04E	05/04/20	T420E04A	JLH
9. Zinc	0.16		mg/L	0.050	10	05/04/20	PT20E04E	05/04/20	T420E04A	JLH

Mercury by CVAAS, Total
Method: EPA 0245.1

Aliquot ID: 95929-001D **Matrix: Wastewater**
Description: Composite

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		Init.
						P. Date	P. Batch	A. Date	A. Batch	
1. Mercury	U		mg/L	0.00020	1.0	05/05/20	PM20E05D	05/05/20	M720E05A	JLH

Phosphorus, Total
Method: EPA 0365.3

Aliquot ID: 95929-001C **Matrix: Wastewater**
Description: Composite

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		Init.
						P. Date	P. Batch	A. Date	A. Batch	
‡ 1. Phosphorus	0.70		mg/L	0.010	1.0	05/08/20	W220E08A	05/08/20	W220E08A	CMB

Polychlorinated Biphenyls (PCBs)
Method: EPA 0608.3

Aliquot ID: 95929-001 **Matrix: Wastewater**
Description: Composite

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		Init.
						P. Date	P. Batch	A. Date	A. Batch	
1. Aroclor-1016	U		mg/L	0.000200	1.0	05/06/20	PS20E06A	05/06/20	SF20E06A	TKT
2. Aroclor-1221	U		mg/L	0.000200	1.0	05/06/20	PS20E06A	05/06/20	SF20E06A	TKT
3. Aroclor-1232	U		mg/L	0.000200	1.0	05/06/20	PS20E06A	05/06/20	SF20E06A	TKT
4. Aroclor-1242	U		mg/L	0.000200	1.0	05/06/20	PS20E06A	05/06/20	SF20E06A	TKT
5. Aroclor-1248	U		mg/L	0.000200	1.0	05/06/20	PS20E06A	05/06/20	SF20E06A	TKT
6. Aroclor-1254	U		mg/L	0.000200	1.0	05/06/20	PS20E06A	05/06/20	SF20E06A	TKT
7. Aroclor-1260	0.000516		mg/L	0.000200	1.0	05/06/20	PS20E06A	05/06/20	SF20E06A	TKT
‡ 8. Aroclor-1262	U		mg/L	0.000200	1.0	05/06/20	PS20E06A	05/06/20	SF20E06A	TKT
‡ 9. Aroclor-1268	U		mg/L	0.000200	1.0	05/06/20	PS20E06A	05/06/20	SF20E06A	TKT

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:	Composite	Chain of Custody:	N/A
Client Project Name:	Former McLouth Steel Property - County Property	Sample No:		Collect Date:	04/29 - 04/30/20
Client Project No:	NA	Sample Matrix:	Wastewater	Collect Time:	09:15

Sample Comments:

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

Dioxin Screen (Qualitative)
Method: EPA 0625.1

Aliquot ID: 95929-001
Description: Composite
Matrix: Wastewater

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
‡ 1. 2,3,7,8-Tetrachlorodibenzo-p-dioxin	absent		pres./abs.	NA	1.0	NA	NA	05/07/20	NA	GJP

TTO - Semivolatiles by GC/MS
Method: EPA 0625.1

Aliquot ID: 95929-001
Description: Composite
Matrix: Wastewater

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
1. Acenaphthene	U		mg/L	0.0050	1.1	05/05/20	PS20E05A	05/05/20	SN20E05A	GJP
2. Acenaphthylene	U		mg/L	0.0050	1.1	05/05/20	PS20E05A	05/05/20	SN20E05A	GJP
3. Anthracene	U		mg/L	0.0050	1.1	05/05/20	PS20E05A	05/05/20	SN20E05A	GJP
‡ 4. Azobenzene	U		mg/L	0.0050	1.1	05/05/20	PS20E05A	05/05/20	SN20E05A	GJP
5. Benzidine	U	G-	mg/L	0.050	1.1	05/05/20	PS20E05A	05/05/20	SN20E05A	GJP
6. Benzo(a)anthracene	U		mg/L	0.0011	1.1	05/05/20	PS20E05A	05/05/20	SN20E05A	GJP
7. Benzo(a)pyrene	U		mg/L	0.0011	1.1	05/05/20	PS20E05A	05/05/20	SN20E05A	GJP
8. Benzo(b)fluoranthene	U		mg/L	0.0011	1.1	05/05/20	PS20E05A	05/05/20	SN20E05A	GJP
9. Benzo(ghi)perylene	U		mg/L	0.0011	1.1	05/05/20	PS20E05A	05/05/20	SN20E05A	GJP
10. Benzo(k)fluoranthene	U		mg/L	0.0011	1.1	05/05/20	PS20E05A	05/05/20	SN20E05A	GJP
11. Bis(2-chloroethoxy)methane	U		mg/L	0.0050	1.1	05/05/20	PS20E05A	05/05/20	SN20E05A	GJP
12. Bis(2-chloroethyl)ether	U		mg/L	0.0011	1.1	05/05/20	PS20E05A	05/05/20	SN20E05A	GJP
13. Bis(2-ethylhexyl)phthalate	U		mg/L	0.0050	1.1	05/05/20	PS20E05A	05/05/20	SN20E05A	GJP
14. 4-Bromophenyl Phenylether	U		mg/L	0.0050	1.1	05/05/20	PS20E05A	05/05/20	SN20E05A	GJP
15. Butyl Benzyl Phthalate	U		mg/L	0.0050	1.1	05/05/20	PS20E05A	05/05/20	SN20E05A	GJP
16. Di-n-butyl Phthalate	U		mg/L	0.0050	1.1	05/05/20	PS20E05A	05/05/20	SN20E05A	GJP
17. 4-Chloro-3-methylphenol	U		mg/L	0.0050	1.1	05/05/20	PS20E05A	05/05/20	SN20E05A	GJP
18. 2-Chloronaphthalene	U		mg/L	0.0050	1.1	05/05/20	PS20E05A	05/05/20	SN20E05A	GJP
19. 2-Chlorophenol	U		mg/L	0.0050	1.1	05/05/20	PS20E05A	05/05/20	SN20E05A	GJP
‡ 20. 3&4-Chlorophenol	U		mg/L	0.010	1.1	05/05/20	PS20E05A	05/05/20	SN20E05A	GJP
21. 4-Chlorophenyl Phenylether	U		mg/L	0.0050	1.1	05/05/20	PS20E05A	05/05/20	SN20E05A	GJP
22. Chrysene	U		mg/L	0.0011	1.1	05/05/20	PS20E05A	05/05/20	SN20E05A	GJP
23. Dibenzo(a,h)anthracene	U		mg/L	0.0020	1.1	05/05/20	PS20E05A	05/05/20	SN20E05A	GJP
24. 3,3'-Dichlorobenzidine	U	G-	mg/L	0.020	1.1	05/05/20	PS20E05A	05/05/20	SN20E05A	GJP
25. 2,4-Dichlorophenol	U		mg/L	0.005	1.1	05/05/20	PS20E05A	05/05/20	SN20E05A	GJP
26. Diethyl Phthalate	U		mg/L	0.0050	1.1	05/05/20	PS20E05A	05/05/20	SN20E05A	GJP
27. 2,4-Dimethylphenol	U		mg/L	0.0050	1.1	05/05/20	PS20E05A	05/05/20	SN20E05A	GJP
28. Dimethyl Phthalate	U		mg/L	0.0050	1.1	05/05/20	PS20E05A	05/05/20	SN20E05A	GJP
29. 2,4-Dinitrophenol	U		mg/L	0.020	1.1	05/05/20	PS20E05A	05/05/20	SN20E05A	GJP
30. 2,4-Dinitrotoluene	U		mg/L	0.0050	1.1	05/05/20	PS20E05A	05/05/20	SN20E05A	GJP

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:	Composite	Chain of Custody:	N/A
Client Project Name:	Former McLouth Steel Property - County Property	Sample No:		Collect Date:	04/29 - 04/30/20
Client Project No:	NA	Sample Matrix:	Wastewater	Collect Time:	09:15

Sample Comments:

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

TTO - Semivolatiles by GC/MS
Method: EPA 0625.1

Aliquot ID: 95929-001
Description: Composite
Matrix: Wastewater

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
31. 2,6-Dinitrotoluene	U		mg/L	0.0050	1.1	05/05/20	PS20E05A	05/05/20	SN20E05A	GJP
32. Fluoranthene	U		mg/L	0.0011	1.1	05/05/20	PS20E05A	05/05/20	SN20E05A	GJP
33. Fluorene	U		mg/L	0.0050	1.1	05/05/20	PS20E05A	05/05/20	SN20E05A	GJP
34. Hexachlorobenzene	U		mg/L	0.0050	1.1	05/05/20	PS20E05A	05/05/20	SN20E05A	GJP
35. Hexachlorobutadiene	U		mg/L	0.0056	1.1	05/05/20	PS20E05A	05/05/20	SN20E05A	GJP
36. Hexachlorocyclopentadiene	U		mg/L	0.0056	1.1	05/05/20	PS20E05A	05/05/20	SN20E05A	GJP
37. Hexachloroethane	U		mg/L	0.0056	1.1	05/05/20	PS20E05A	05/05/20	SN20E05A	GJP
38. Indeno(1,2,3-cd)pyrene	U		mg/L	0.0020	1.1	05/05/20	PS20E05A	05/05/20	SN20E05A	GJP
39. Isophorone	U		mg/L	0.0050	1.1	05/05/20	PS20E05A	05/05/20	SN20E05A	GJP
40. 2-Methyl-4,6-dinitrophenol	U	*	mg/L	0.020	1.1	05/05/20	PS20E05A	05/05/20	SN20E05A	GJP
41. Naphthalene	U		mg/L	0.0050	1.1	05/05/20	PS20E05A	05/05/20	SN20E05A	GJP
42. Nitrobenzene	U		mg/L	0.0030	1.1	05/05/20	PS20E05A	05/05/20	SN20E05A	GJP
43. 2-Nitrophenol	U		mg/L	0.0050	1.1	05/05/20	PS20E05A	05/05/20	SN20E05A	GJP
44. 4-Nitrophenol	U		mg/L	0.020	1.1	05/05/20	PS20E05A	05/05/20	SN20E05A	GJP
45. N-Nitrosodimethylamine	U		mg/L	0.0056	1.1	05/05/20	PS20E05A	05/05/20	SN20E05A	GJP
46. N-Nitrosodi-n-propylamine	U		mg/L	0.0050	1.1	05/05/20	PS20E05A	05/05/20	SN20E05A	GJP
47. N-Nitrosodiphenylamine	U		mg/L	0.0050	1.1	05/05/20	PS20E05A	05/05/20	SN20E05A	GJP
48. Di-n-octyl Phthalate	U		mg/L	0.0050	1.1	05/05/20	PS20E05A	05/05/20	SN20E05A	GJP
49. 2,2'-Oxybis(1-chloropropane)	U		mg/L	0.0050	1.1	05/05/20	PS20E05A	05/05/20	SN20E05A	GJP
50. Pentachlorophenol	U		mg/L	0.020	1.1	05/05/20	PS20E05A	05/05/20	SN20E05A	GJP
51. Phenanthrene	U		mg/L	0.0020	1.1	05/05/20	PS20E05A	05/05/20	SN20E05A	GJP
52. Phenol	U		mg/L	0.0050	1.1	05/05/20	PS20E05A	05/05/20	SN20E05A	GJP
53. Pyrene	U		mg/L	0.0050	1.1	05/05/20	PS20E05A	05/05/20	SN20E05A	GJP
54. 1,2,4-Trichlorobenzene	U		mg/L	0.0056	1.1	05/05/20	PS20E05A	05/05/20	SN20E05A	GJP
55. 2,4,6-Trichlorophenol	U		mg/L	0.0040	1.1	05/05/20	PS20E05A	05/05/20	SN20E05A	GJP

Residue, Non-Filterable (TSS)
Method: SM 2540 D-2011

Aliquot ID: 95929-001A
Description: Composite
Matrix: Wastewater

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
1. Total Suspended Solids	140		mg/L	2.5	1.0	NA	NA	05/05/20	WH20E04A	CJA

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:	Composite	Chain of Custody:	N/A
Client Project Name:	Former McLouth Steel Property - County Property	Sample No:		Collect Date:	04/29 - 04/30/20
Client Project No:	NA	Sample Matrix:	Wastewater	Collect Time:	09:15

Sample Comments:

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

Nitrogen, Ammonia (Auto Analyzer)						Aliquot ID: 95929-001C	Matrix: Wastewater			
Method: SM 4500-NH3 G-2011						Description: Composite				
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
‡ 1. Ammonia-N	0.14		mg/L	0.010	1.0	05/05/20	PW20E05B	05/05/20	WU20E05A	JMK

Biochemical Oxygen Demand, 5 Day						Aliquot ID: 95929-001B	Matrix: Wastewater			
Method: SM 5210 B-2011						Description: Composite				
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
1. BOD	U	B	mg/L	3.4	3.0	05/01/20 18:47	WZ20E01A	05/06/20 15:51	WZ20E01A	CMB

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:	Grab	Chain of Custody:	N/A
Client Project Name:	Former McLouth Steel Property - County Property	Sample No:		Collect Date:	04/30/20
Client Project No:	NA	Sample Matrix:	Wastewater	Collect Time:	09:28

Sample Comments:

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

Cyanide, Total						Aliquot ID: 95929-002D	Matrix: Wastewater			
Method: ASTM D7511-12						Description: Grab				
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
‡ 1. Cyanide, Total	U		mg/L	0.0050	1.0	05/11/20	PW20E11B	05/11/20	WQ20E11A	CMB

Temperature, Field Measured						Aliquot ID: 95929-002	Matrix: Wastewater			
Method: EPA 0170.1 (Field)						Description: Grab				
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
‡ 1. Temperature	13.2		°C	0.0	1.0	NA	NA	04/30/20 00:00	NA	F-T

Phenolics, Total						Aliquot ID: 95929-002B	Matrix: Wastewater			
Method: EPA 0420.1						Description: Grab				
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
1. Phenolics	0.052		mg/L	0.050	1.0	05/11/20	W220E11A	05/12/20	W220E11A	AMW

Volatile Organic Compounds by GC/MS						Aliquot ID: 95929-002F	Matrix: Wastewater			
Method: EPA 0624.1						Description: Grab				
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
1. Acrylonitrile	U		mg/L	0.00200	1.0	05/06/20	VM20E06A	05/06/20	VM20E06A	JLM
2. Benzene	U		mg/L	0.00100	1.0	05/06/20	VM20E06A	05/06/20	VM20E06A	JLM
3. Bromodichloromethane	U		mg/L	0.00100	1.0	05/06/20	VM20E06A	05/06/20	VM20E06A	JLM
4. Bromoform	U		mg/L	0.00100	1.0	05/06/20	VM20E06A	05/06/20	VM20E06A	JLM
5. Bromomethane	U		mg/L	0.00500	1.0	05/06/20	VM20E06A	05/06/20	VM20E06A	JLM
6. Carbon Tetrachloride	U		mg/L	0.00100	1.0	05/06/20	VM20E06A	05/06/20	VM20E06A	JLM
7. Chlorobenzene	U		mg/L	0.00100	1.0	05/06/20	VM20E06A	05/06/20	VM20E06A	JLM
8. Chloroethane	U		mg/L	0.00500	1.0	05/06/20	VM20E06A	05/06/20	VM20E06A	JLM
9. Chloroform	U		mg/L	0.00100	1.0	05/06/20	VM20E06A	05/06/20	VM20E06A	JLM
10. Chloromethane	U		mg/L	0.00500	1.0	05/06/20	VM20E06A	05/06/20	VM20E06A	JLM
11. Dibromochloromethane	U		mg/L	0.00500	1.0	05/06/20	VM20E06A	05/06/20	VM20E06A	JLM
12. 1,2-Dichlorobenzene	U		mg/L	0.00100	1.0	05/06/20	VM20E06A	05/06/20	VM20E06A	JLM
13. 1,3-Dichlorobenzene	U		mg/L	0.00100	1.0	05/06/20	VM20E06A	05/06/20	VM20E06A	JLM
14. 1,4-Dichlorobenzene	U		mg/L	0.00100	1.0	05/06/20	VM20E06A	05/06/20	VM20E06A	JLM
15. 1,1-Dichloroethane	U		mg/L	0.00100	1.0	05/06/20	VM20E06A	05/06/20	VM20E06A	JLM
16. 1,2-Dichloroethane	U		mg/L	0.00100	1.0	05/06/20	VM20E06A	05/06/20	VM20E06A	JLM
17. 1,1-Dichloroethene	U		mg/L	0.00100	1.0	05/06/20	VM20E06A	05/06/20	VM20E06A	JLM

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:	Grab	Chain of Custody:	N/A
Client Project Name:	Former McLouth Steel Property - County Property	Sample No:		Collect Date:	04/30/20
Client Project No:	NA	Sample Matrix:	Wastewater	Collect Time:	09:28

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 by GC/MS
Method: EPA 0624.1

Aliquot ID: 95929-002F **Matrix: Wastewater**
Description: Grab

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		Init.
						P. Date	P. Batch	A. Date	A. Batch	
18. trans-1,2-Dichloroethene	U		mg/L	0.00100	1.0	05/06/20	VM20E06A	05/06/20	VM20E06A	JLM
19. 1,2-Dichloropropane	U		mg/L	0.00100	1.0	05/06/20	VM20E06A	05/06/20	VM20E06A	JLM
20. cis-1,3-Dichloropropene	U		mg/L	0.000500	1.0	05/06/20	VM20E06A	05/06/20	VM20E06A	JLM
21. trans-1,3-Dichloropropene	U		mg/L	0.000500	1.0	05/06/20	VM20E06A	05/06/20	VM20E06A	JLM
22. Ethylbenzene	U		mg/L	0.00100	1.0	05/06/20	VM20E06A	05/06/20	VM20E06A	JLM
23. Methylene Chloride	U		mg/L	0.00500	1.0	05/06/20	VM20E06A	05/06/20	VM20E06A	JLM
24. Naphthalene	U		mg/L	0.00500	1.0	05/06/20	VM20E06A	05/06/20	VM20E06A	JLM
25. 1,1,2,2-Tetrachloroethane	U		mg/L	0.00100	1.0	05/06/20	VM20E06A	05/06/20	VM20E06A	JLM
26. Tetrachloroethene	U		mg/L	0.00100	1.0	05/06/20	VM20E06A	05/06/20	VM20E06A	JLM
27. Toluene	U		mg/L	0.00100	1.0	05/06/20	VM20E06A	05/06/20	VM20E06A	JLM
‡ 28. 1,2,4-Trichlorobenzene	U		mg/L	0.00500	1.0	05/06/20	VM20E06A	05/06/20	VM20E06A	JLM
29. 1,1,1-Trichloroethane	U		mg/L	0.00100	1.0	05/06/20	VM20E06A	05/06/20	VM20E06A	JLM
30. 1,1,2-Trichloroethane	U		mg/L	0.00100	1.0	05/06/20	VM20E06A	05/06/20	VM20E06A	JLM
31. Trichloroethene	U		mg/L	0.00100	1.0	05/06/20	VM20E06A	05/06/20	VM20E06A	JLM
32. Vinyl Chloride	U		mg/L	0.00100	1.0	05/06/20	VM20E06A	05/06/20	VM20E06A	JLM
33. m&p-Xylene	U		mg/L	0.00200	1.0	05/06/20	VM20E06A	05/06/20	VM20E06A	JLM
34. o-Xylene	U		mg/L	0.00100	1.0	05/06/20	VM20E06A	05/06/20	VM20E06A	JLM
35. Xylenes	U		mg/L	0.00300	1.0	05/06/20	VM20E06A	05/06/20	VM20E06A	JLM

Volatile Organic Compounds by GC/MS
Method: EPA 0624.1

Aliquot ID: 95929-002E **Matrix: Wastewater**
Description: Grab

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		Init.
						P. Date	P. Batch	A. Date	A. Batch	
1. Acrolein	U		mg/L	0.0200	1.0	05/01/20 10:32	VM20E01A	05/02/20 00:07	VM20E01A	JLM
2. 2-Chloroethyl Vinyl Ether	U		mg/L	0.0100	1.0	05/01/20 10:32	VM20E01A	05/02/20 00:07	VM20E01A	JLM

Fats, Oil & Grease (FOG)
Method: EPA 1664B

Aliquot ID: 95929-002A **Matrix: Wastewater**
Description: Grab

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		Init.
						P. Date	P. Batch	A. Date	A. Batch	
1. Oil and Grease	U		mg/L	5.0	1.0	05/07/20	WH20E07A	05/11/20	WH20E07A	CMB

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:	Grab	Chain of Custody:	N/A
Client Project Name:	Former McLouth Steel Property - County Property	Sample No:		Collect Date:	04/30/20
Client Project No:	NA	Sample Matrix:	Wastewater	Collect Time:	09:28

Sample Comments:

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

Cyanide, Available						Aliquot ID: 95929-002CA	Matrix: Wastewater			
Method: OIA-1677-09						Description: Grab				
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
‡ 1. Cyanide, Available	U	*	mg/L	0.0050	1.0	05/06/20	PW20E06B	05/06/20	WQ20E06A	CMB

pH, Electrometric (Field Measured)						Aliquot ID: 95929-002	Matrix: Wastewater			
Method: SM 4500-H+ B-2011 (Field)						Description: Grab				
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
‡ 1. pH	8.18		pH Units	-1.00	1.0	NA	NA	04/30/20 00:00	NA	F-T

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

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:

- *** : Duplicate analysis not within control limits.
B : Analyte is found in the associated method blank as well as in the sample.
G- : Recovery of the associated Surrogate Compound exceeds the lower control limit. Results may be biased low.

Analysis Locations:

All analyses performed in Holt.



Accreditation Number(s):

T104704518-19-8 (TX)

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





Monday, June 01, 2020

Fibertec Project Number: 96245
Project Identification: McLouth County (6-10391) /6-10391
Submittal Date: 05/26/2020

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

Dear Mr. Bawkon,

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,

A handwritten signature in black ink, appearing to read "Jesse Alton".

By Jesse Alton at 1:57 PM, Jun 01, 2020

For Daryl P. Strandbergh
Laboratory Director

Enclosures

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

Analytical Laboratory Report
Laboratory Project Number: 96245
Laboratory Sample Number: 96245-001

Order: 96245
 Page: 2 of 3
 Date: 06/01/20

Client Identification:	Applied Science & Technology, Inc. - Brighton	Sample Description:	McLouth 200522-MHD6	Chain of Custody:	189330
Client Project Name:	McLouth County (6-10391)	Sample No:	1	Collect Date:	05/22/20
Client Project No:	6-10391	Sample Matrix:	Surface Water	Collect Time:	08:45

Sample Comments:

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

Polychlorinated Biphenyls (PCBs)
Method: EPA 0608.3

Aliquot ID: 96245-001 **Matrix: Surface Water**
Description: McLouth 200522-MHD6

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		Init.
						P. Date	P. Batch	A. Date	A. Batch	
1. Aroclor-1016	U		mg/L	0.000200	1.1	05/28/20	PS20E28A	05/28/20	SO20E28A	TKT
2. Aroclor-1221	U		mg/L	0.000200	1.1	05/28/20	PS20E28A	05/28/20	SO20E28A	TKT
3. Aroclor-1232	U		mg/L	0.000200	1.1	05/28/20	PS20E28A	05/28/20	SO20E28A	TKT
4. Aroclor-1242	U		mg/L	0.000200	1.1	05/28/20	PS20E28A	05/28/20	SO20E28A	TKT
5. Aroclor-1248	U		mg/L	0.000200	1.1	05/28/20	PS20E28A	05/28/20	SO20E28A	TKT
6. Aroclor-1254	U		mg/L	0.000200	1.1	05/28/20	PS20E28A	05/28/20	SO20E28A	TKT
7. Aroclor-1260	0.000725		mg/L	0.000200	1.1	05/28/20	PS20E28A	05/28/20	SO20E28A	TKT
‡ 8. Aroclor-1262	U		mg/L	0.000200	1.1	05/28/20	PS20E28A	05/28/20	SO20E28A	TKT
‡ 9. Aroclor-1268	U		mg/L	0.000200	1.1	05/28/20	PS20E28A	05/28/20	SO20E28A	TKT

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

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):

T104704518-19-8 (TX)

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

**Former McLouth Steel Property - County Property
1491 West Jefferson Avenue, Trenton, Michigan 48183-1240
Storm Water Report**

Attachment B1 Approved SESC Site Plans with Storm Water Controls

Former MCLOUTH STEEL
CITY OF TRENTON AND RIVERVIEW
SEC 5,6,7,8 T.4S., R.11E.
WAYNE COUNTY, MI



LOCATION MAP
(NOT TO SCALE)

RECEIVED

JAN 08 2019

CITY OF TRENTON
ENGINEERING & BLDG. DEPT.

PERMIT REQUIRED:

SOIL EROSION SEDIMENT CONTROL CITY OF TRENTON
CONSTRUCTION STORMWATER PERMIT MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY

SHEET INDEX

1. COVER
2. MERIDIAN ALTA/NSPS LAND TITLE SURVEY SHEET 1
3. MERIDIAN ALTA/NSPS LAND TITLE SURVEY SHEET 2
4. MERIDIAN ALTA/NSPS LAND TITLE SURVEY SHEET 3
5. SHEET INDEX
6. BERM 1 AND 2 LAYOUT
7. WESTERN PERIMETER FENCE LAYOUT
8. WESTERN PERIMETER FENCE LAYOUT
9. WESTERN PERIMETER FENCE LAYOUT
10. WESTERN PERIMETER FENCE LAYOUT
11. NOTES AND DETAILS

CITY OF TRENTON
ENGINEERING DEPARTMENT

JAN 08 2019

APPROVED NOT APPROVED
BY: Wayne T. Maguire
FOR: SESC 2019-01

GENERAL NOTES:

1. DESIGN BASED UPON ALTA/NSPS LAND TITLE SURVEY FOR MCLOUTH STEEL DATED 03/02/2017 BY MERIDIAN LAND SURVEYING.
2. THE ALTA/NSPS LAND TITLE SURVEY REFERENCES SURVEY BY HENNESSEY ENGINEERS, INC. JOB NUMBER 53082, DATED 04/25/2000 AND SURVEY BY METCO SERVICES, JOB NUMBER 02-021, DATED 05/14/2002.
3. AS STATED IN THE ALTA/NSPS LAND TITLE SURVEY, TO COMPLY WITH THE TABLE A ITEM NO. 15: THE SOURCE OF PHOTOGRAMMETRIC MAPPING WAS PERFORMED ON 11/21/2017 BY AIR-LAND SURVEYS IN ACCORDANCE WITH NATIONAL MAP ACCURACY STANDARDS. THERE MAY BE SOME AREAS OBSCURED BY FOLIAGE, VEGETATION, OR SHADOWS THAT ARE APPROXIMATED AND MAY NOT BE RELIABLE.
4. ALL FOUNDATIONS AND FOOTERS SHALL REMAIN IN PLACE.

REVISION NOTES:

1. SILT FENCE ADD PER CITY OF TRENTON REVIEW COMMENTS.
2. DISTURBED ACREAGE OF 2.0 ACRES



CONSTRUCTION SITE SAFETY IS THE RESPONSIBILITY OF THE CONTRACTOR. NEITHER THE OWNER NOR THE ENGINEER SHALL BE EXPECTED TO ASSUME ANY RESPONSIBILITY FOR SAFETY OF THE WORK, OF PERSONS ENGAGED IN THE WORK, OF ANY NEARBY STRUCTURES, OR OF ANY OTHER PERSONS.

COPYRIGHT © January 8, 2019 ASTI ENVIRONMENTAL. ALL RIGHTS RESERVED.

THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.



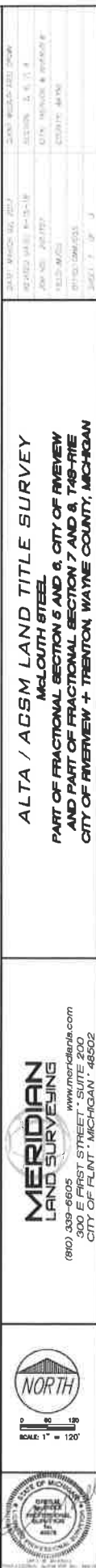
Environmental
Investigation • Remediation
Compliance • Restoration

ASTI

FORMER MCLOUTH STEEL PROPERTY
COUNTY PROPERTY
1491 WEST JEFFERSON AVENUE
TRENTON, MICHIGAN 48183

SE01

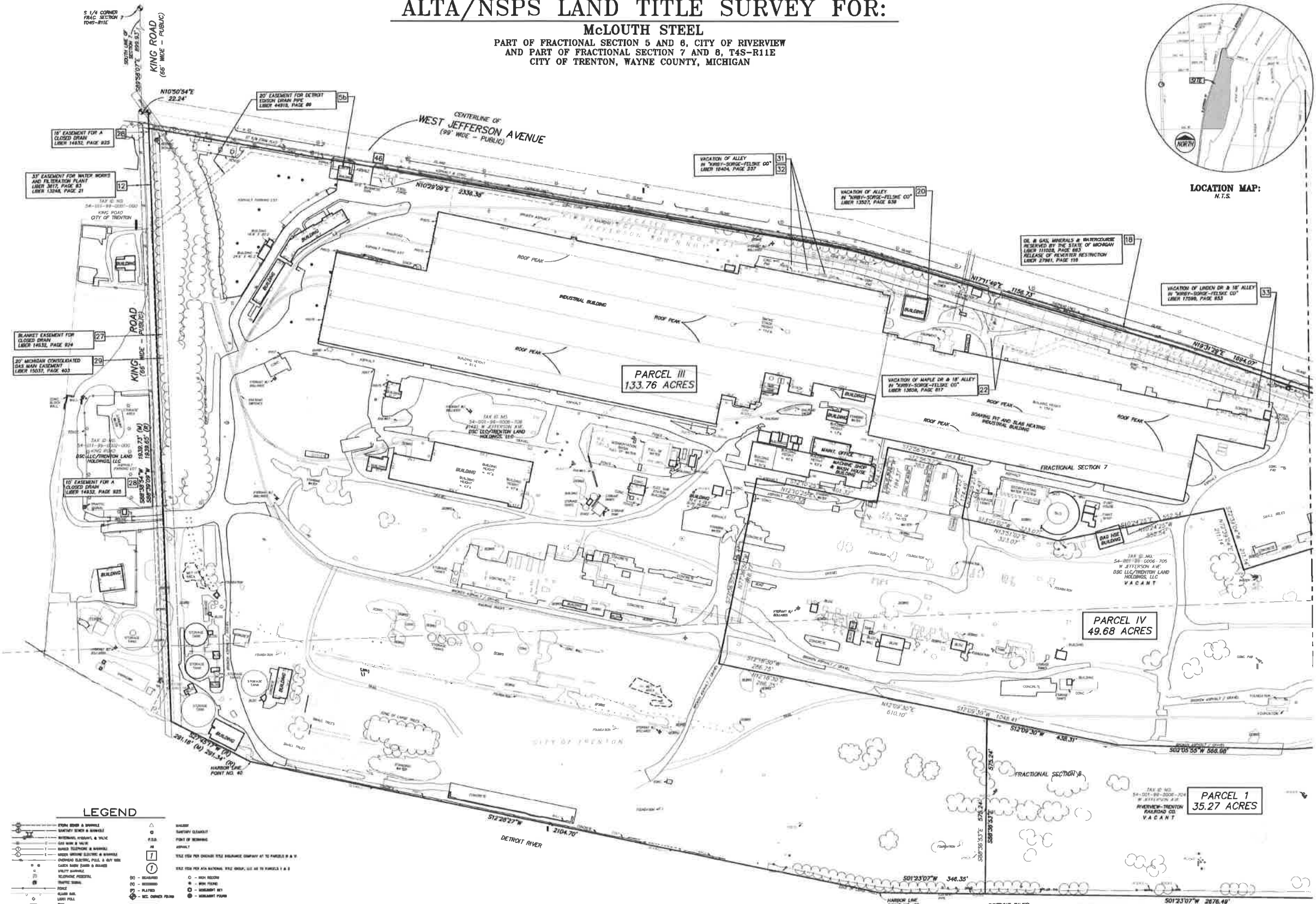
SCALE	SHEET	1 OF 11	DATE	12/12/18	SHEET	5678 T.4S. R11E
ASTI PROJECT: 10391	Revisions: Release 12/12/2018	Revisions: 12/17/2018 Silt Fence Quantity	Revisions: 01/08/2019 City of Trenton Review			



ALTA/NSPS LAND TITLE SURVEY FOR:

McLOUTH STEEL

PART OF FRACTIONAL SECTION 5 AND 8, CITY OF RIVERVIEW
AND PART OF FRACTIONAL SECTION 7 AND 8, T4S-R11E
CITY OF TRENTON, WAYNE COUNTY, MICHIGAN



ALTA / ACSM LAND TITLE SURVEY
McLOUTH STEEL
PART OF FRACTIONAL SECTION 5 AND 8, CITY OF RIVERVIEW
AND PART OF FRACTIONAL SECTION 7 AND 8, T4S-R11E
CITY OF TRENTON, WAYNE COUNTY, MICHIGAN

MERIDIAN
LAND SURVEYING
www.meridianland.com
(810) 330-4605
300 E FIRST STREET, SUITE 200
CITY OF FLINT, MICHIGAN 48902

SURVEYOR'S CERTIFICATION
To:
CROWN ENTERPRISES INCORPORATED,
CHICAGO TITLE INSURANCE COMPANY
ATA NATIONAL TITLE GROUP

This is to certify that this map or plat and the survey on which it is based
were made in accordance with the 2016 Minimum Standard Detail
Requirements for ALTA/NSPS Land Title Surveys, jointly established and
adopted by ALTA and NSPS and include Table A items 1, 2, 3, 4, 7(a), 8,
13 and 15. The fieldwork was completed on January 03, 2018.

GREG M. McARDLE
Michigan Professional Land Surveyor No. 48878
JUNE 13, 2018
DATE

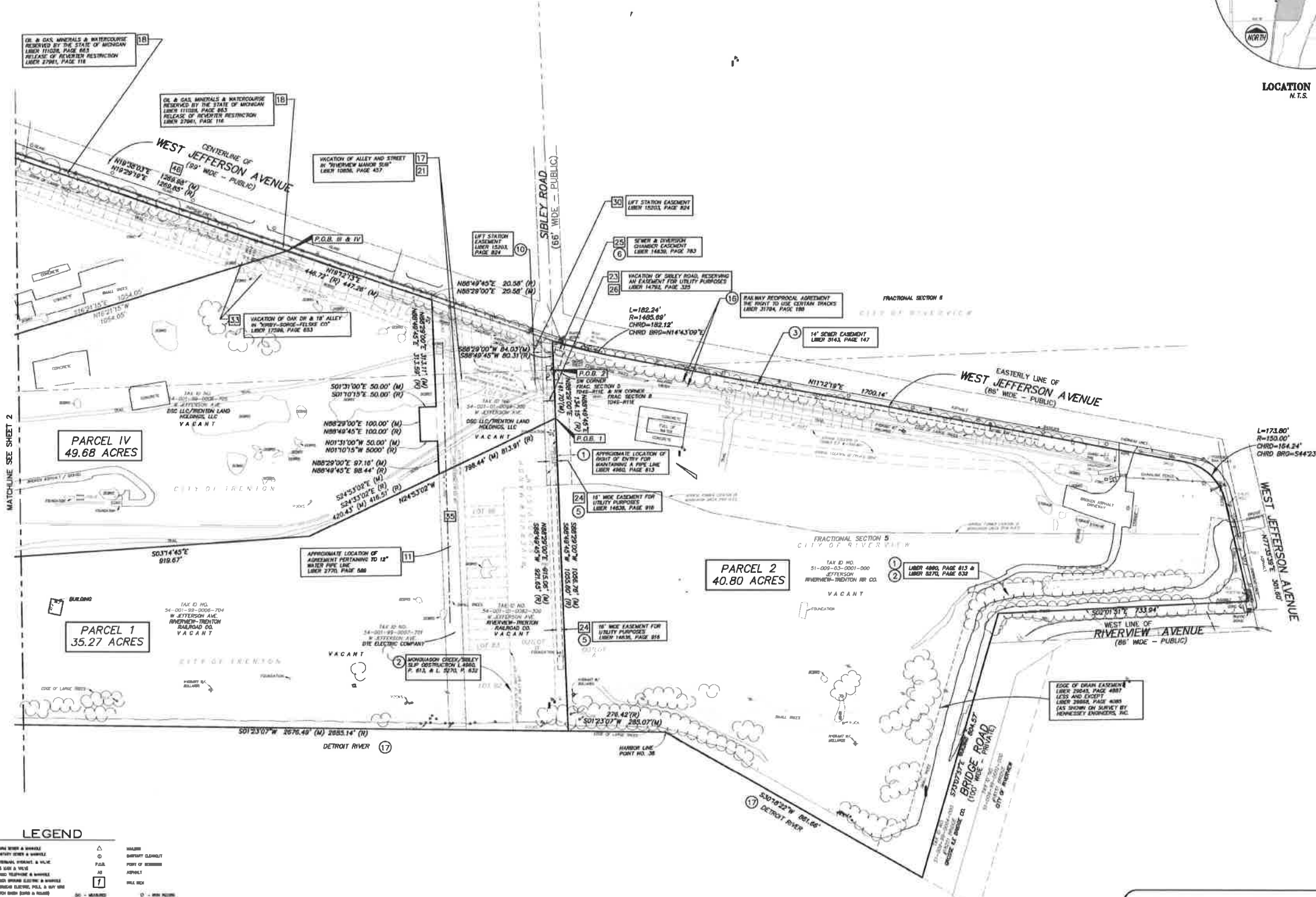
ALTA/NSPS LAND TITLE SURVEY FOR:

McLOUTH STEEL

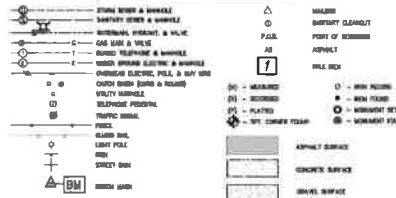
PART OF FRACTIONAL SECTION 5 AND 6, CITY OF RIVERVIEW
AND PART OF FRACTIONAL SECTION 7 AND 8, T4S-R11E
CITY OF TRENTON, WAYNE COUNTY, MICHIGAN



LOCATION MAP:
N.T.S.



LEGEND




 3 WEEKEND DAYS
 BEFORE YOU DIG
 CALL MISS DICK
 1-800-482-7171
 (TOLL FREE)

Surveyor does not guarantee that all utilities are shown at these locations. It is the responsibility of the contractor and developer to contact New Dig and any other relevant agencies to locate all utilities prior to construction. Removal, relocation and/or replacement is the responsibility of the contractor.

ALTA / ACSM LAND TITLE SURVEY
MCLOUTH STEEL
PART OF FRACTIONAL SECTION 5 AND 6, CITY OF RIVERVIEW
AND PART OF FRACTIONAL SECTION 7 AND 8, T48-R1E
CITY OF RIVERVIEW + TRENTON, WAYNE COUNTY, MICHIGAN


MERIDIAN
LAND SURVEYING

310) 339-8805
300 E FIRST STREET * SUITE 200
CITY OF FLINT * MICHIGAN * 48502
www.meridianla.com

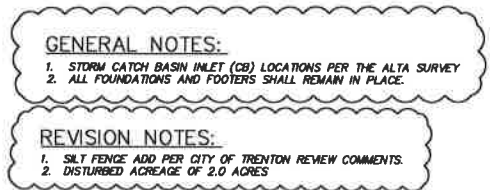
SURVEYOR'S CERTIFICATION

To:
GROWN ENTERPRISES INCORPORATED,
CHICAGO TITLE INSURANCE COMPANY
ATA NATIONAL TITLE GROUP





This is to certify that this map or plat and the survey on which it is based were made in accordance with the 2016 Minimum Standard Detail Requirements for ALTA/NSPS Land Title Surveys, jointly established and adopted by ALTA and NSPS and includes Table A items: 1, 2, 3, 4, 7(a), 8, 13 and 15. The fieldwork was completed on January 03, 2018.

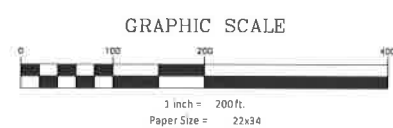

GREG M. McARDLE
Michigan Professional Land Surveyor No. 4867

LINE 15, ROW
DATE



LEGEND

X 656.5	EX. SPOT ELEVATION	_____	EX. UNDERGROUND FIBER
	EX. CONTOUR	_____	EX. UNDERGROUND CABLE
	EX. WETLAND LIMIT	_____	PR. SILT FENCE
_____	EX. EASEMENT LINE	_____	EX. TELEPHONE MANHOLE
_____	EX. Q DITCH	_____	EX. ELECTRIC MANHOLE
_____	EX. CURB/PAVEMENT	_____	EX. ELECTRIC METER
_____	EX. FENCE	_____	EX. GAS METER
_____	EX. GRAVEL	_____	EX. LIGHT POLE
_____	EX. GUARDRAIL	_____	EX. TRAFFIC SIGNAL BOX
_____	EX. TREE LINE	_____	EX. UNIDENTIFIED MANHOLE
_____	EX. WATER MAIN	_____	EX. COMBO MANHOLE
_____	EX. WATER VALVE	_____	EX. TRAFFIC SIGNAL POLE
_____	EX. HYDRANT	_____	EX. UTILITY POLE
	EX. WATER MANHOLE	_____	EX. GUY WIRE
	EX. WELL	_____	EX. TREE (CONIFEROUS)
_____	EX. WATER METER	_____	EX. TREE (DECIDUOUS)
_____	EX. STORM SEWER	_____	EX. UTILITY CABINET
_____	EX. STORM INLET/CATCH BASIN	_____	EX. SIGN
_____	EX. ROUND STORM CATCH BASIN	_____	PR. CONTOUR
_____	EX. STORM MANHOLE	_____	
_____	PR. BERM CENTERLINE	_____	

SOIL EROSION AND SEDIMENT
SHEET INDEX

FORMER MCLOUTH STEEL PROPERTY
COUNTY PROPERTY
1491 WEST JEFFERSON AVENUE
TRENTON, MICHIGAN 48183

SE05

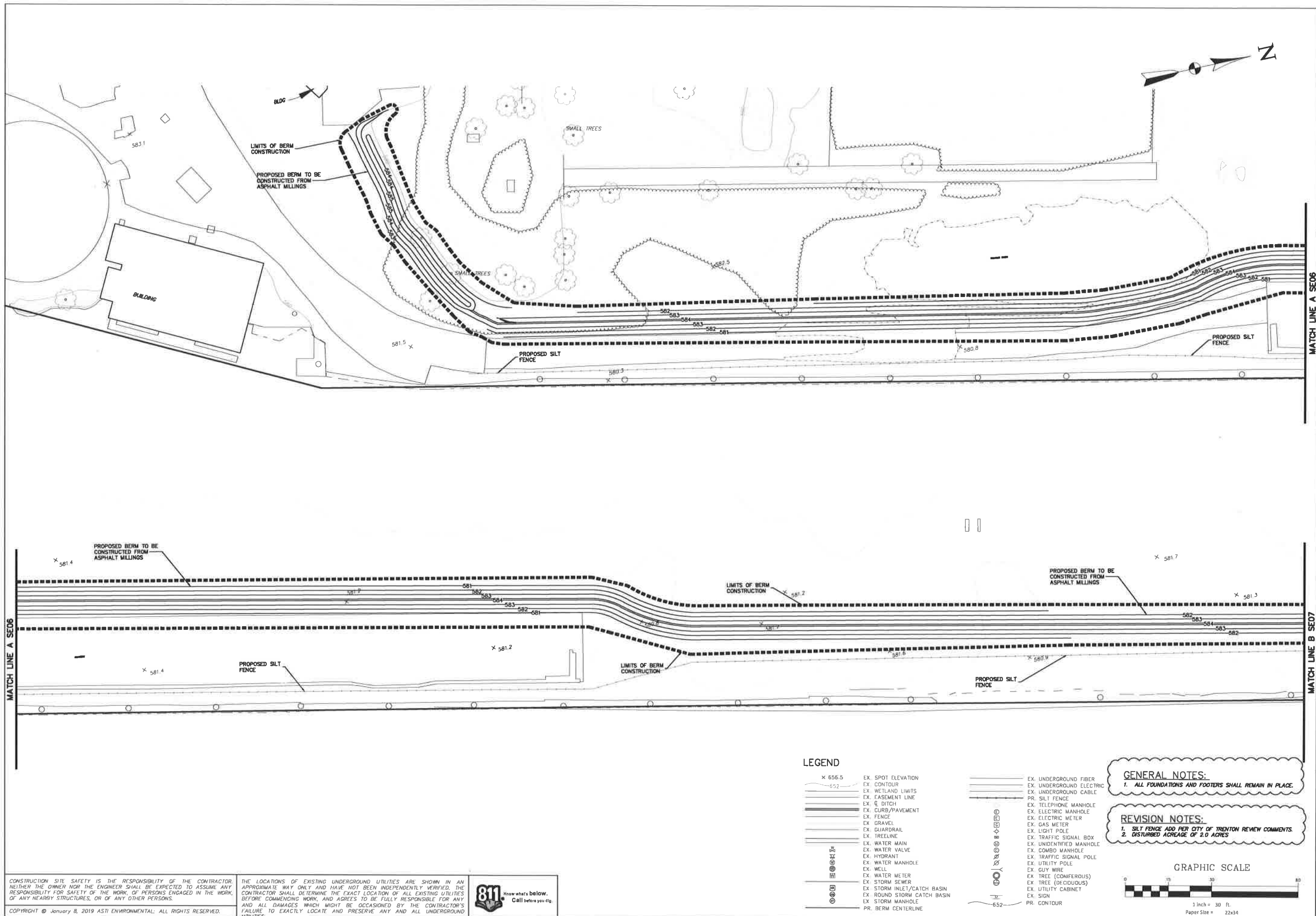
ASTI PROJECT: 10391	SCALE: 1 inch= 150 ft.
Revisions: 12/17/2018	SHEET: 5 OF 11
Revisions: 12/17/2018 Slif Fence Quantity	DRAWN: SBW
Revisions: 01/08/2019 City of Trenton Review	CHECKED: BWB
	PM: BWB
	DATE: 12/12/18
	SECTION: 567.8 1'45; R11E

CONSTRUCTION SITE SAFETY IS THE RESPONSIBILITY OF THE CONTRACTOR. NEITHER THE OWNER NOR THE ENGINEER SHALL BE EXPECTED TO ASSUME ANY RESPONSIBILITY FOR SAFETY OF THE WORK, OF PERSONS ENGAGED IN THE WORK, OR OF ANY NEARBY STRUCTURES, OR OF ANY OTHER PERSONS.

COPYRIGHT © January 8, 2019 ASI ENVIRONMENTAL. ALL RIGHTS RESERVED.

THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND





Environmental
Investigation • Remediation
Compliance • Restoration

BERM I LAYOUT

FORMER MCLOUTH STEEL PROPERTY
COUNTY PROPERTY
1491 WEST JEFFERSON AVENUE
TRENTON, MICHIGAN 48183

SE06

ASTI PROJECT: 10391	SCALE: 1 inch = 30 ft.
Revisions: Release 12/12/2018	SHEET: 6 OF 11
Revisions: 12/17/2018 Silt Fence Quantity	DRAWER: SWW
Revisions: 01/08/2019 City of Tarrant Review	CHECKED: RWB
	PW: RWB
	DATE: 12/12/18
	SECTION: 5.5.2.1, 1.46, R111

CONSTRUCTION SITE SAFETY IS THE RESPONSIBILITY OF THE CONTRACTOR. NEITHER THE OWNER NOR THE ENGINEER SHALL BE EXPECTED TO ASSUME ANY RESPONSIBILITY FOR SAFETY OF THE WORK, OF PERSONS ENGAGED IN THE WORK, OF ANY NEARBY STRUCTURES, OR OF ANY OTHER PERSONS.

COPYRIGHT © January 8, 2019 ASTI ENVIRONMENTAL; ALL RIGHTS RESERVED.

THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND

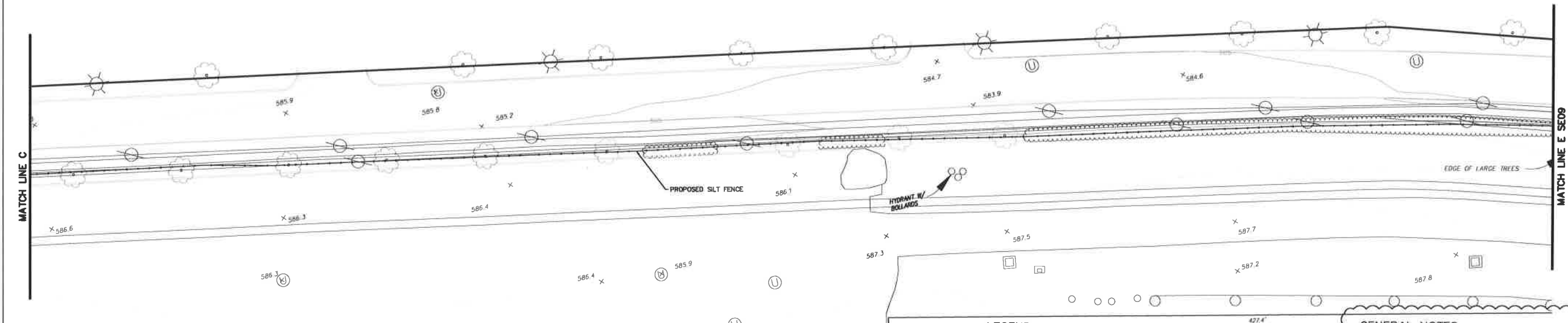


COPYRIGHT © January 8, 2019 ASTI ENVIRONMENTAL; ALL RIGHTS RESERVED.

S:\Project Files\Current and Closed\10000-0888\10300-10399\10391 McCloud Steel Silt Fence.dwg, 1/8/2019 11:12 AM

CONSTRUCTION SITE SAFETY IS THE RESPONSIBILITY OF THE CONTRACTOR. NEITHER THE OWNER NOR THE ENGINEER SHALL BE EXPECTED TO ASSUME ANY RESPONSIBILITY FOR SAFETY OF THE WORK, OF PERSONS ENGAGED IN THE WORK, OR ANY NEARBY STRUCTURES, OR OF ANY OTHER PERSONS.

THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.



LEGEND

- EX SPOT ELEVATION
- EX. CONTOUR
- EX. WETLAND LIMITS
- EX. EASEMENT LINE
- EX. DITCH
- EX. CURB/PAVEMENT
- EX. FENCE
- EX. GRAVEL
- EX. GUARDRAIL
- EX. TREELINE
- EX. WATER MAIN
- EX. WATER VALVE
- EX. HYDRANT
- EX. WATER MANHOLE
- EX. WELL
- EX. WATER METER
- EX. STORM SEWER
- EX. STORM INLET/CATCH BASIN
- EX. ROUND STORM CATCH BASIN
- EX. STORM MANHOLE
- PR. BERM CENTERLINE

- EX. UNDERGROUND FIBER
- EX. UNDERGROUND ELECTRIC
- EX. UNDERGROUND CABLE
- PR. SILT FENCE
- EX. TELEPHONE MANHOLE
- EX. ELECTRIC MANHOLE
- EX. ELECTRIC METER
- EX. GAS METER
- EX. LIGHT POLE
- EX. TRAFFIC SIGNAL BOX
- EX. UNIDENTIFIED MANHOLE
- EX. COMBO MANHOLE
- EX. TRAFFIC SIGNAL POLE
- EX. UTILITY POLE
- EX. GUY WIRE
- EX. TREE (CONIFEROUS)
- EX. TREE (DECIDUOUS)
- EX. UTILITY CABINET
- EX. SIGN
- PR. CONTOUR

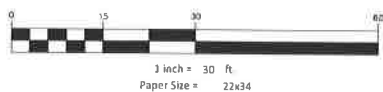
GENERAL NOTES:

- ALL FOUNDATIONS AND FOOTERS SHALL REMAIN IN PLACE.

REVISION NOTES:

- SILT FENCE ADD PER CITY OF TRENTON REVIEW COMMENTS.
- DISTURBED ACREAGE OF 2.0 ACRES

GRAPHIC SCALE



ASTI PROJECT: 10391

Revisions: Release 12/12/2018

Revisions: 12/17/2018 Silt Fence Quantity

Revisions: 01/08/2019 City of Trenton Review

SCALE: 1 inch = 30 ft

SHEET: 8 OF 11

DRAWN: SWB

CHECKED: SWB

DATE: 12/27/18

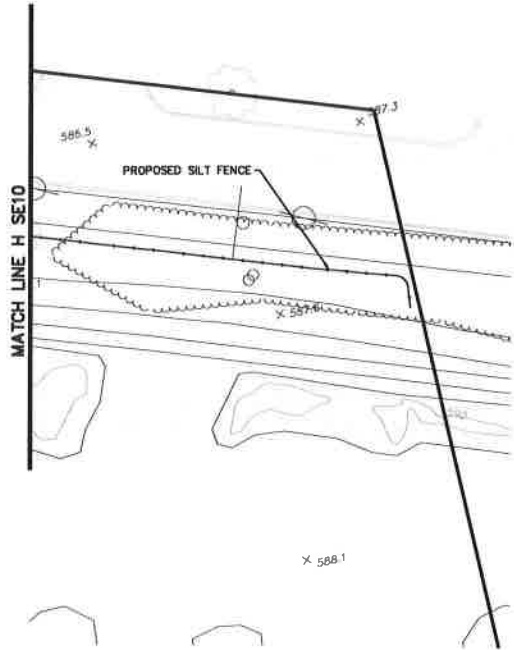
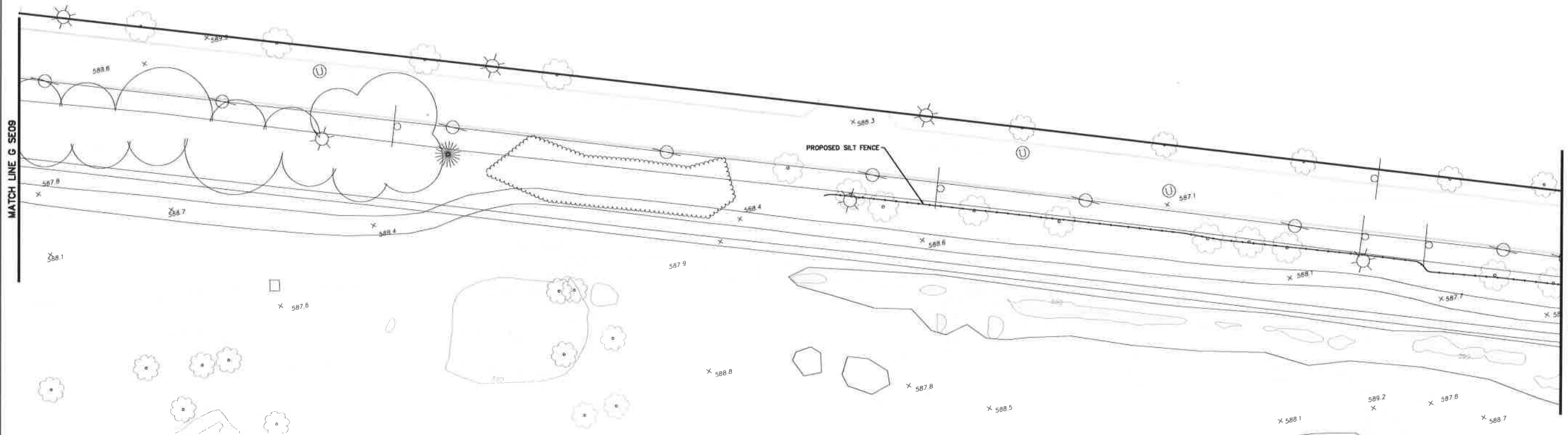
SECTION: 5074 T45, R11E

FORMER MCLOUD STEEL PROPERTY
COUNTY PROPERTY
1491 WEST JEFFERSON AVENUE
TRENTON, MICHIGAN 48183

SE08

WESTERN PERIMETER FENCE
LAYOUT

ASTI
Environmental
Investigation • Remediation
Compliance • Restoration

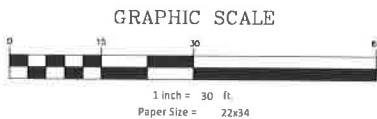


GENERAL NOTES:
1. ALL FOUNDATIONS AND FOOTERS SHALL REMAIN IN PLACE.

REVISION NOTES:
1. SILT FENCE ADD PER CITY OF TRENTON REVIEW COMMENTS.
2. DISTURBED ACREAGE OF 2.0 ACRES

LEGEND

- | | |
|----------------------------|-------------------------|
| EX SPOT ELEVATION | EX UNDERGROUND FIBER |
| EX CONTOUR | EX UNDERGROUND ELECTRIC |
| EX WETLAND LIMITS | EX UNDERGROUND CABLE |
| EX EASEMENT LINE | PR SILT FENCE |
| EX DITCH | EX TELEPHONE MANHOLE |
| EX CURB/PAVEMENT | EX ELECTRIC MANHOLE |
| EX FENCE | EX ELECTRIC METER |
| EX GRAVEL | EX GAS METER |
| EX GUARDRAIL | EX LIGHT POLE |
| EX TREELINE | EX TRAFFIC SIGNAL BOX |
| EX WATER MAIN | EX UNIDENTIFIED MANHOLE |
| EX WATER VALVE | EX COMBO MANHOLE |
| EX HYDRANT | EX TRAFFIC SIGNAL POLE |
| EX WATER MANHOLE | EX UTILITY POLE |
| EX WELL | EX GUY WIRE |
| EX WATER METER | EX TREE (CONIFEROUS) |
| EX STORM SEWER | EX TREE (DECIDUOUS) |
| EX STORM INLET/CATCH BASIN | EX UTILITY CABINET |
| EX ROUND STORM CATCH BASIN | EX SIGN |
| EX STORM MANHOLE | PR CONTOUR |
| PR BERM CENTERLINE | |



CONSTRUCTION SITE SAFETY IS THE RESPONSIBILITY OF THE CONTRACTOR. NEITHER THE OWNER NOR THE ENGINEER SHALL BE EXPECTED TO ASSUME ANY RESPONSIBILITY FOR SAFETY OF THE WORK, OF PERSONS ENGAGED IN THE WORK, OR ANY NEARBY STRUCTURES, OR OF ANY OTHER PERSONS.

COPYRIGHT © January 8, 2019 ASTI ENVIRONMENTAL, ALL RIGHTS RESERVED.

THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.



ASTI PROJECT: 10391

Revisions: Release 12/12/2018

Revisions: 12/17/2018 Silt Fence Quantity

Revisions: 01/08/2019 City of Trenton Review

DATE: 12/27/18

SECTION: 562A, T46, R11E

FORMER MCLOUTH STEEL PROPERTY
COUNTY PROPERTY
1491 WEST JEFFERSON AVENUE
TRENTON, MICHIGAN 48183

SE10

WESTERN PERIMETER FENCE
LAYOUT

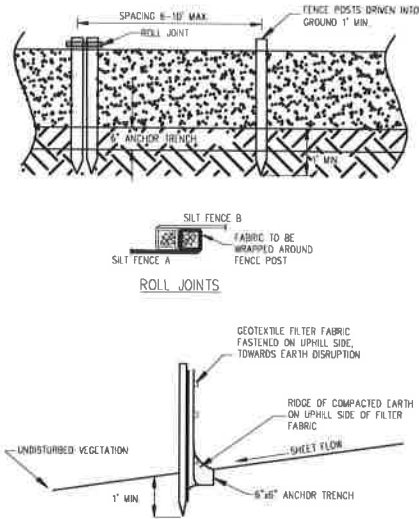
ASTI
Environmental
Investigation • Remediation
Compliance • Remediation

SOIL EROSION & SEDIMENTATION CONTROL

1. ALL EARTH CHANGES SHOULD BE CONDUCTED IN SUCH A MANNER SO AS TO EFFECTIVELY REDUCE ACCELERATED SOIL EROSION AND RESULTING SEDIMENTATION.
2. ALL PERSONS ENGAGED IN EARTH CHANGES SHALL DESIGN, IMPLEMENT AND MAINTAIN ACCEPTABLE SOIL EROSION AND SEDIMENTATION CONTROL MEASURES IN CONFORMANCE WITH PART 91 (MCL 324.9101 ET SEQ.) AND ALL RULES OF THE DCO PROMULGATED PURSUANT THERETO, WHICH EFFECTIVELY REDUCE ACCELERATED SOIL EROSION.
3. ALL EARTH CHANGES SHALL BE DESIGNED, CONSTRUCTED, AND COMPLETED IN SUCH A MANNER SO THAT THE EXPOSED AREA OF ANY DISTURBED LAND SHALL BE LIMITED TO THE SHORTEST POSSIBLE PERIOD OF TIME.
4. SEDIMENT CAUSED BY ACCELERATED SOIL EROSION SHALL BE REMOVED FROM RUNOFF WATER BEFORE IT LEAVES THE SITE OF THE EARTH CHANGE.
5. ANY TEMPORARY OR PERMANENT FACILITY DESIGNED AND CONSTRUCTED FOR THE CONVEYANCE OF WATER AROUND, THROUGH, OR FROM THE EARTH CHANGE AREA SHALL BE DESIGNED TO LIMIT THE WATER FLOW TO A NONEROSIVE VELOCITY.
6. A PERSON SHALL INSTALL TEMPORARY SOIL EROSION AND SEDIMENTATION CONTROL MEASURES BEFORE OR UPON COMMENCEMENT OF THE EARTH CHANGE ACTIVITY, AND SHALL MAINTAIN THE MEASURES ON A DAILY BASIS. A PERSON SHALL REMOVE TEMPORARY SOIL EROSION AND SEDIMENTATION CONTROL MEASURES AFTER PERMANENT SOIL EROSION MEASURES ARE IN PLACE AND THE AREA IS STABILIZED. A PERSON SHALL STABILIZE THE AREA WITH PERMANENT SOIL EROSION CONTROL MEASURES UNDER APPROVED STANDARDS AND SPECIFICATIONS AS PRESCRIBED BY R 323.1710.
7. A PERSON SHALL COMPLETE PERMANENT SOIL EROSION CONTROL MEASURES FOR ALL SLOPES, CHANNELS, DITCHES, OR ANY DISTURBED LAND AREA WITHIN FIVE CALENDAR DAYS AFTER FINAL GRADING OR THE FINAL EARTH CHANGES HAS BEEN COMPLETED. IF IT IS NOT POSSIBLE TO PERMANENTLY STABILIZE A DISTURBED AREA AFTER AN EARTH CHANGE HAS BEEN COMPLETED OR IS SIGNIFICANT EARTH CHANGE ACTIVITY CEASES, THEN A PERSON SHALL MAINTAIN TEMPORARY SOIL EROSION AND SEDIMENTATION CONTROL MEASURES UNTIL PERMANENT SOIL EROSION CONTROL MEASURES ARE IN PLACE, AND THE AREA IS STABILIZED.
8. THE PREVENTION OF DAMAGE TO ANY PUBLIC UTILITIES OR SERVICES WITHIN THE LIMITS OF GRADING AND ALONG ANY ROUTES OF TRAVEL OF THE EQUIPMENT INCLUDING, BUT NOT LIMITED TO, DAMAGE RESULTING FROM EXPOSING SUCH UTILITIES TO FROST DAMAGE IN CUT AREAS.
9. THE PREVENTION OF DAMAGE TO ADJACENT PROPERTY. NO PERSON SHALL GRADE ON LAND SO CLOSE TO THE PROPERTY LINE AS TO ENDANGER ANY ADJOINING PUBLIC STREET, SIDEWALK, ALLEY OR ANY PUBLIC OR PRIVATE PROPERTY WITHOUT SUPPORTING AND PROTECTING SUCH PROPERTY FROM SETTLING, CRACKING OR OTHER DAMAGE WHICH MIGHT RESULT.
10. CARRYING OUT PROPOSED WORK IN ACCORDANCE WITH THE APPROVED PLANS AND IN COMPLIANCE WITH ALL THE REQUIREMENTS OF THE PERMIT AND THIS ARTICLE.
11. THE PROMPT REMOVAL OF ALL SOIL, MISCELLANEOUS DEBRIS OR OTHER MATERIALS APPLIED, DUMPED OR OTHERWISE DEPOSITED ON PUBLIC STREETS, HIGHWAYS, SIDEWALKS OR OTHER PUBLIC THOROUGHFARES DURING TRANSIT TO AND FROM THE CONSTRUCTION SITE, WHERE SUCH SPILLAGE CONSTITUTES A PUBLIC NUISANCE OR HAZARD.

SILT FENCE

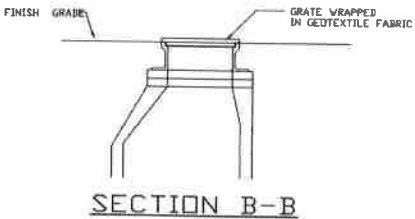
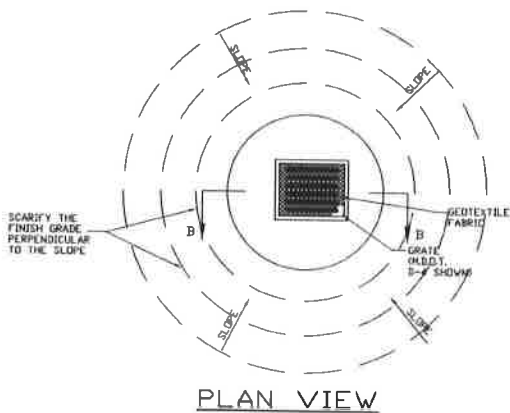
1. INSTALL PARALLEL TO CONTOUR.
2. THE SILT FENCE SHOULD BE MADE OF WOVEN GEOTEXTILE FABRIC.
3. SILT FENCE SHOULD ACCOMMODATE NO MORE THAN 1/3 TO 1 ACRE OF DRAINAGE PER 100' OF FENCE.
4. DIG A 6" TRENCH ALONG THE AREA WHERE THE FENCE IS TO BE INSTALLED.
5. PLACE 6" OF SILT FENCE BOTTOM FLAP INTO THE TRENCH.
6. BACKFILL THE TRENCH WITH SOIL AND COMPACT THE SOIL ON BOTH SIDES. CREATE A SMALL RIDGE ON THE UP-SLOPE SIDE OF THE FENCE.
7. INSTALL WOODEN STAKES 6 - 10' APART AND DRIVE INTO THE GROUND A MINIMUM OF 12".
8. STAPLE GEOTEXTILE FABRIC TO THE WOODEN STAKES
9. JOIN SECTIONS OF SILT FENCE BY WRAPPING ENDS TOGETHER (SEE DRAWING).
10. INSPECTION FREQUENTLY AND IMMEDIATELY AFTER EACH STORM EVENT. CHECK SEVERAL TIMES DURING PROLONGED STORM EVENTS IF NECESSARY REPAIR IMMEDIATELY.
11. IF SEDIMENT HAS REACHED 1/2 THE HEIGHT OF THE FENCE, THE SOIL SHOULD BE REMOVED AND DISPOSED OF IN A STABLE UPLAND SITE.
12. THE FENCE SHOULD BE RE-INSTALLED IF WATER IS SEEPING UNDERNEATH IT OR IF THE FENCE HAS BECOME INEFFECTIVE.
13. SILT FENCE SHOULD BE REMOVED ONCE VEGETATION IS ESTABLISHED AND UP-SLOPE AREA HAS STABILIZED.



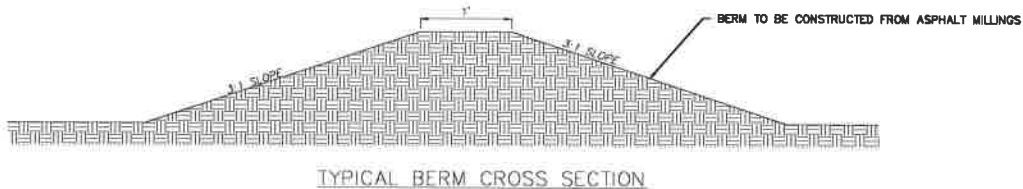
APPROXIMATE QUANTITIES

DISTURBED AREA	2	AC
FILL MATERIAL	2,500	YD ³
SILT FENCE	6,300	LFT
INLETS	20	

INLET QUANTITY ESTIMATED FROM ALTA/NSPS
LAND TITLE SURVEY



LOW POINT INLET FILTER



SCALE:	11 OF 11
SHEET:	DRAFTER: SBW
Revisions: Release 12/12/2018	CHECKED: BWB
Revisions: 12/17/2018 Silt Fence Quantity	PM: BWB
Revisions: 01/08/2019 City of Trenton Review	DATE: 12/2/18
	SHEET: 16 OF 16

ASTI PROJECT: 10391

CONSTRUCTION SITE SAFETY IS THE RESPONSIBILITY OF THE CONTRACTOR. NEITHER THE OWNER NOR THE ENGINEER SHALL BE EXPECTED TO ASSUME ANY RESPONSIBILITY FOR SAFETY OF THE WORK, OF PERSONS ENGAGED IN THE WORK, OR ANY NEARBY STRUCTURES, OR OF ANY OTHER PERSONS.

COPYRIGHT © January 8, 2019 ASTI ENVIRONMENTAL. ALL RIGHTS RESERVED.

THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.



Former McLouth Steel Property - County Property
1491 West Jefferson Avenue, Trenton, Michigan 48183-1240
Storm Water Report

Attachment B2 Acknowledgement Letter from EGLE



GRETCHEN WHITMER
GOVERNOR

STATE OF MICHIGAN
DEPARTMENT OF
ENVIRONMENT, GREAT LAKES, AND ENERGY
LANSING



LIESL EICHLER CLARK
DIRECTOR

January 8, 2020

Mr. Todd Goss
MSC Land Company, LLC

SUBJECT: NPDES Permit No. **MIR115432**
Designated Site Name: Former McLouth Steel Cnty Prop
Authorization to Discharge Storm Water from Construction Activities under the National
Pollutant Discharge Elimination System (NPDES)

This is to acknowledge that the Department of Environment, Great Lakes, and Energy (EGLE) received your complete request for extension. On **January 8, 2020**, you became authorized, under NPDES, to discharge storm water from your construction activities at **Former McLouth Steel County Property; 1491 West Jefferson Ave, Trenton, MI 48183**. The NPDES permit number for this site is **MIR115432**. Please refer to this number in all future correspondence with EGLE concerning this permit.

PLEASE NOTE: The authorization to discharge storm water pursuant to the provisions of Michigan's Permit-by-Rule expires on **January 8, 2021**, consistent with the expiration of the Soil Erosion and Sedimentation Control (SESC) permit **PSESC 19-0001** issued by the local agency. **Notice of Coverage (NOC) authorization may be extended or modified prior to expiration by submitting an NOC Renewal request via EGLE's MiWaters system, along with a copy of the renewed and/or extended SESC permit.** The MiWaters Web site is located at <https://miwaters.deq.state.mi.us>. You may renew this permit as many times as needed through **January 24, 2024**. If this authorization expires or your project is not completed within this 5-year period, a new administratively complete NOC (including the fee) must be submitted to obtain storm water authorization.

Please be advised that the authorization to discharge requires that the soil erosion and sedimentation controls be under the supervision of a state certified storm water operator. A copy of Michigan's Permit-by-Rule can be found on EGLE's Web site at <http://www.michigan.gov/deq>; click on "Water" (left hand side), then click on "Surface Water," and then click on "Storm Water." These requirements must be followed during the entire period of your storm water discharge authorization.

The issuance of this permit does not authorize violation of any federal, state, or local laws or regulations, nor does it obviate the necessity of obtaining such permits, including any other DEQ permits, or approvals from other units of government as may be required by law.

A Notice of Termination (NOT) must be submitted to EGLE once the construction site is completely stabilized. The NOT form is available in and submitted via MiWaters.

If you have any questions about your authorization to discharge storm water, please contact Ms. Tiffany Wilson, Permits Section, Water Resources Division, at 517-284-5592, or wilsont15@michigan.gov, or your agency contact, Ms. Cheryl Petroski-Wilson at 586-601-7684, or petroskic@michigan.gov.

Sincerely,

Tarek Buckmaster, Supervisor
Industrial and Storm Water Permits Unit
Permits Section
Water Resources Division

**Former McLouth Steel Property - County Property
1491 West Jefferson Avenue, Trenton, Michigan 48183-1240
Storm Water Report**

Attachment B3 Notification of SESC Permit Renewal from City of Trenton

Bruce Bawkon

From: Bill Hogan <wrhogan@trenton-mi.com>
Sent: Monday, January 6, 2020 1:42 PM
To: Tim Francis
Cc: MSC (mclouth@gocrown.ws); Bruce Bawkon; Thomas Wackerman; Wayne Maguire
Subject: RE: SESC Permit Renewal - Former McLouth Steel Facility

Hello Tim,

Your request for extension/renewal is approved, Wayne Maguire has been forwarded the information to process.

Thanks,

Bill

From: Tim Francis [mailto:tfrancis@asti-env.com]
Sent: Friday, January 03, 2020 2:13 PM
To: Bill Hogan <wrhogan@trenton-mi.com>
Cc: MSC (mclouth@gocrown.ws) <mclouth@gocrown.ws>; Bruce Bawkon <bbawkon@asti-env.com>; Thomas Wackerman <twacker@asti-env.com>
Subject: SESC Permit Renewal - Former McLouth Steel Facility

Mr. Hogan,

Attached is a letter requesting a 1 year extension of the SESC Permit that we are currently operating under at the Former McLouth Steel Facility at 1491 W. Jefferson Ave.

If you have questions or require additional information pertaining to this request please contact Bruce Bawkon, His information is contained in the letter of renewal.

Thank you,

Timothy A. Francis
Project Manager



Click [here](#) to receive ASTi's technical e-updates.

10448 Citation Dr., Suite 100

Brighton, MI 48116

Cell: 810.360.9852

Ph: 810.225.2800

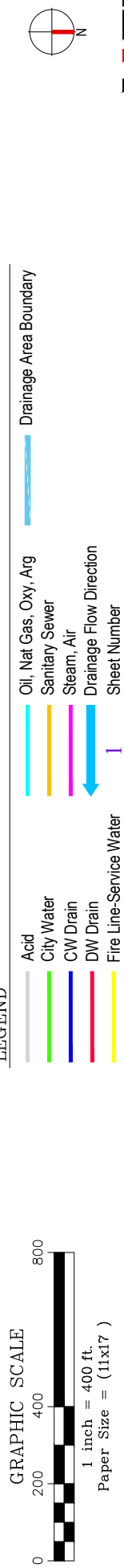
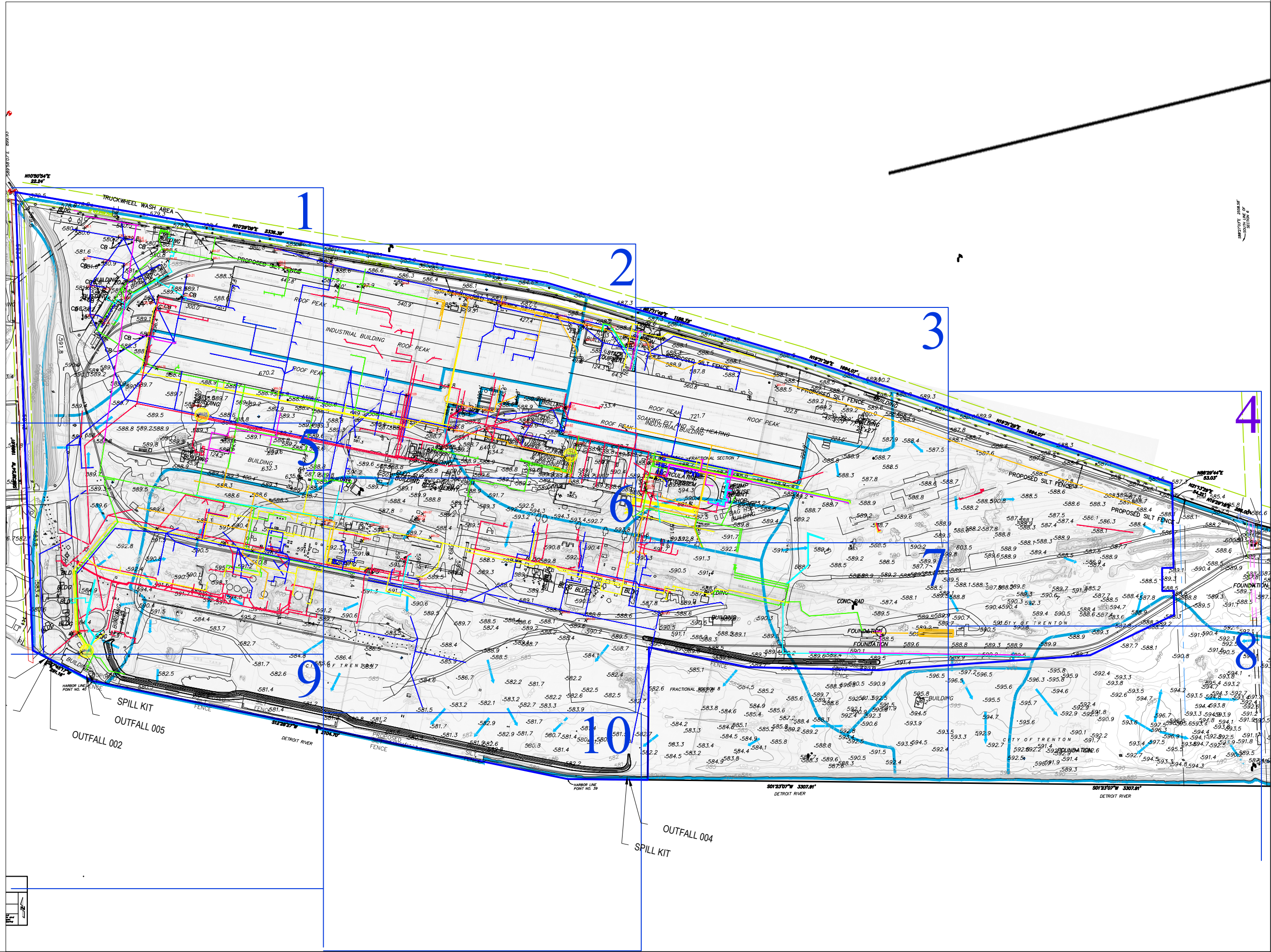
Fax: 810.225.3800

Web Site: www.asti-env.com

Email: tfrancis@asti-env.com

**Former McLouth Steel Property - County Property
1491 West Jefferson Avenue, Trenton, Michigan 48183-1240
Storm Water Report**

Attachment C Piping Diagram Drawings



Former McLouth Steel Trenton Plant

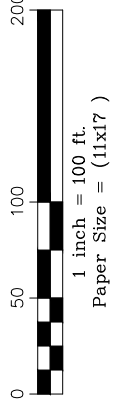
1491 West Jefferson Avenue, Trenton, MI

Created for: MSC Land and Company, LLC

ASTI Project 6-10391, JRN, August 20, 2020

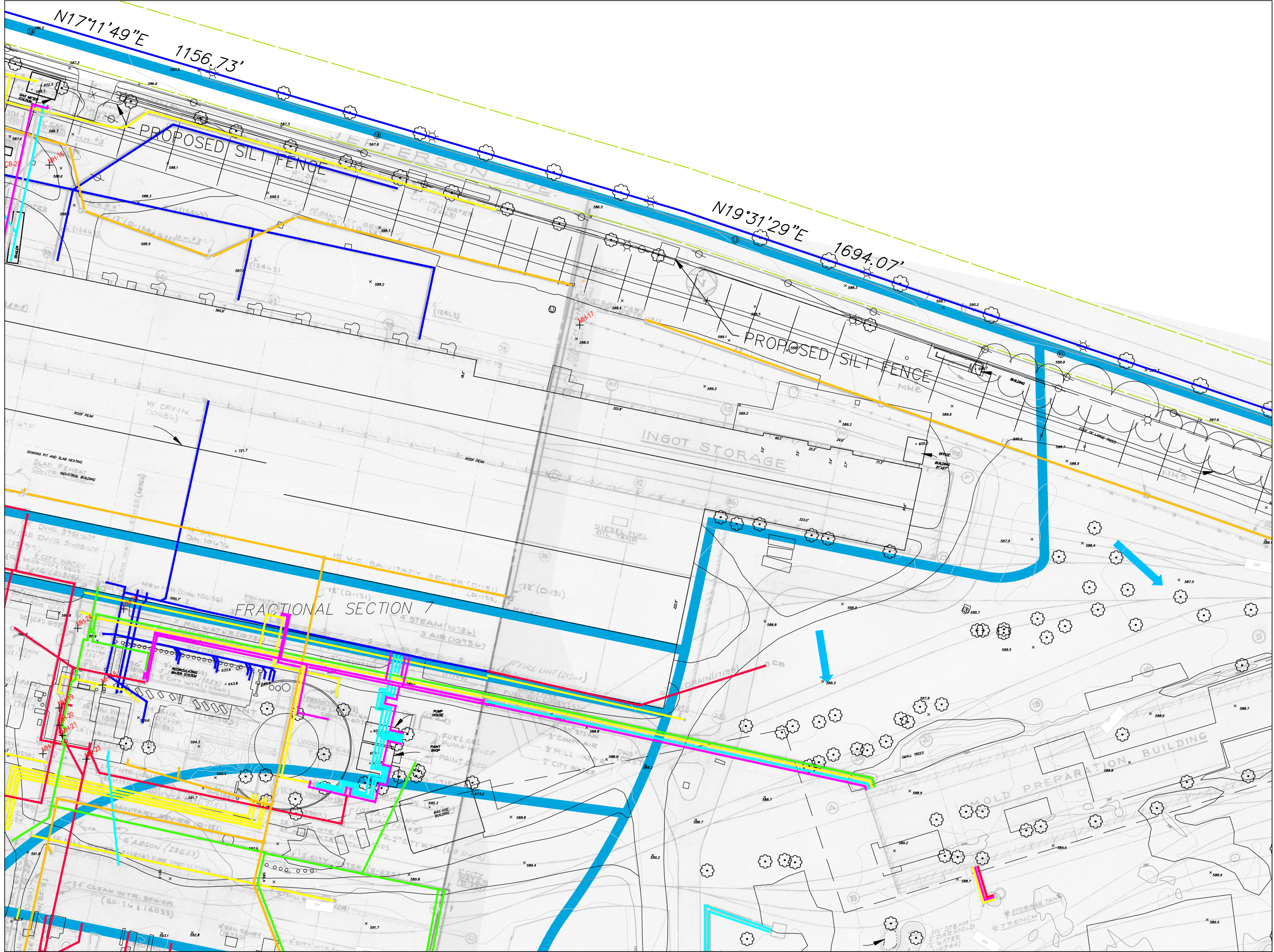
Figure 3 - Overall Site Plan







Y:\Project Files\Current and Closed\10000-10999\10399\10391 McLouth Steel Site\6-10391 SWPP Plan\CAD\6-10391 SWPP.dwg; 8/20/2020 3:55 PM;

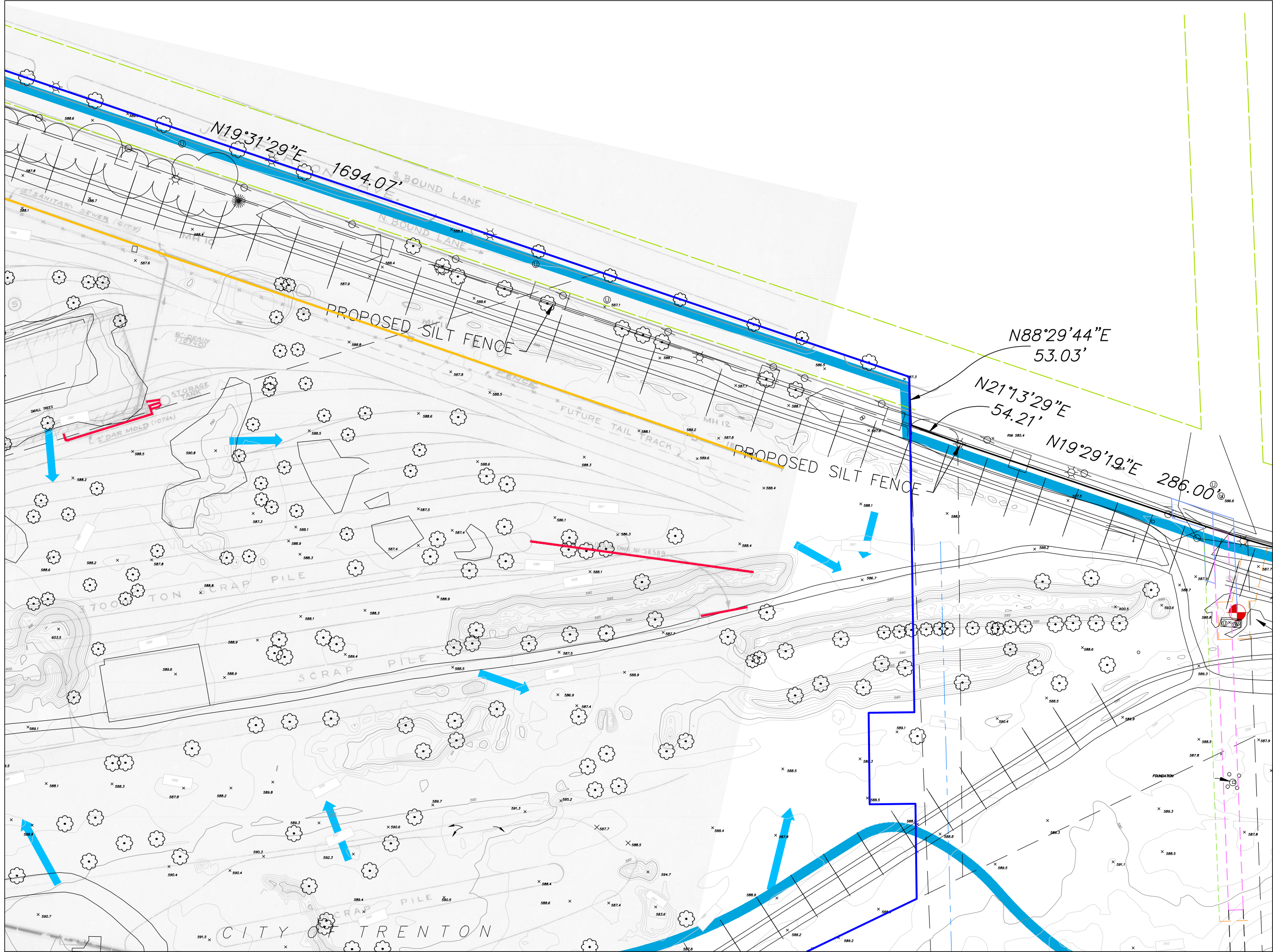


LEGEND

- | | | | | |
|------------------------|--|------------|-------------------------|-------------------------|
| GRAPHIC SCALE | 0 | 50 | 100 | 200 |
| | 1 inch = 100 ft.
Paper Size = (11x17) | | | |
| Oil, Nat Gas, Oxy, Arg | Sanitary Sewer | Steam, Air | Drainage Flow Direction | Sheet Number |
| Acid | City Water | CW Drain | DW Drain | Fire Line-Service Water |



Y:\Project Files\Current and Closed\10000-10999\10300-10399\10391 McLouth Steel Site\6-10391 SWPP Plan\CAD\6-10391 SWPP.dwg; 8/20/2020 3:55 PM;



- LEGEND
- | | |
|-------------------------|------------------------|
| Oil, Nat Gas, Oxy, Arg | Drainage Area Boundary |
| Sanitary Sewer | |
| Steam, Air | |
| Drainage Flow Direction | |
| Sheet Number | |
| Acid | |
| City Water | |
| CW Drain | |
| DW Drain | |
| Fire Line-Service Water | |

GRAPHIC SCALE
0 50 100 200
1 inch = 100 ft.
Paper Size = (11x17)

Former McLouth Steel Trenton Plant

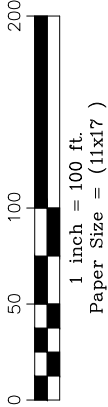
1491 West Jefferson Avenue, Trenton, MI

Created for: MSC Land and Company, LLC
ASTI Project 6-10391, JRN, August 20, 2020

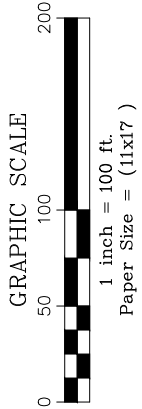
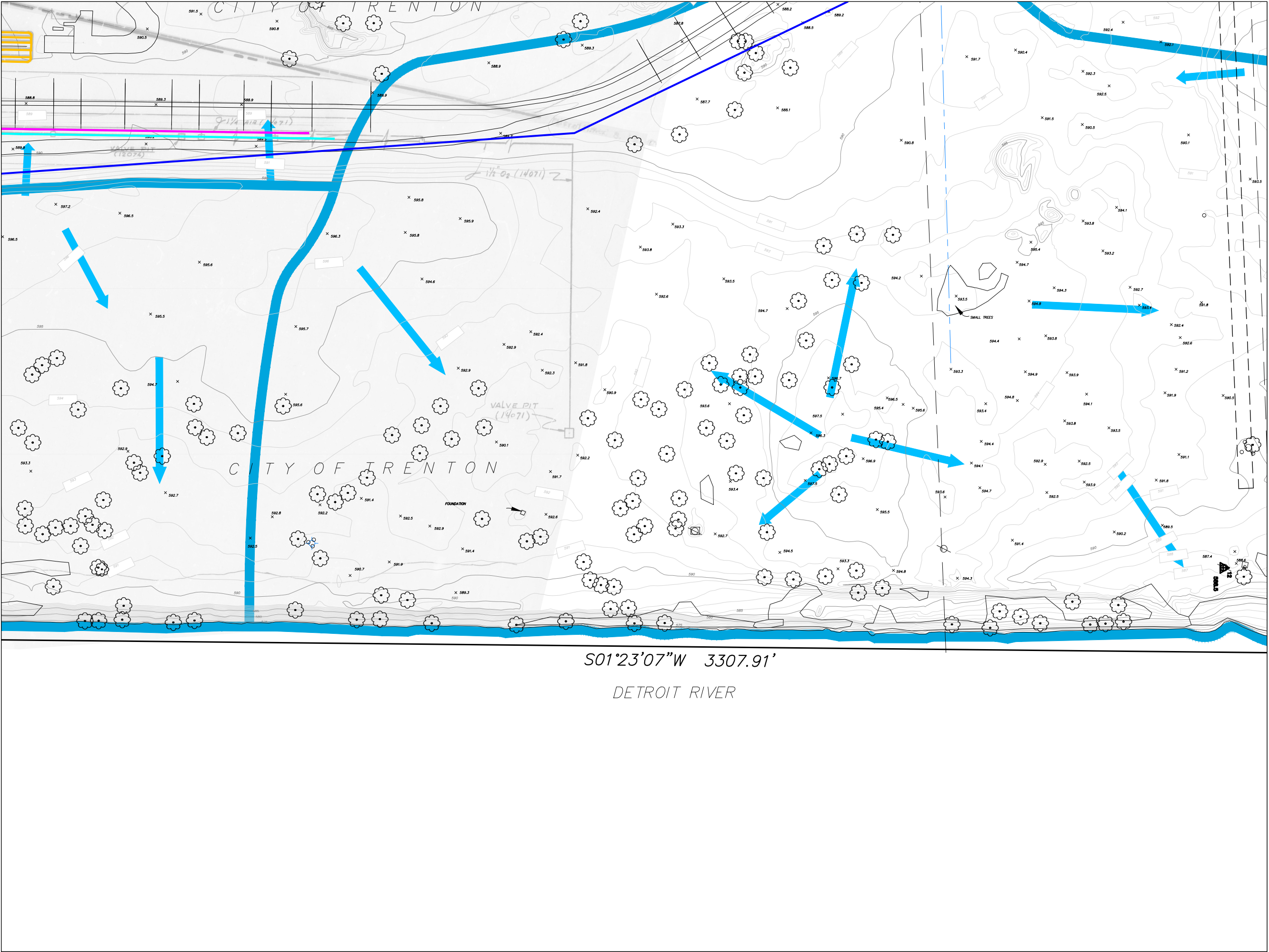


Figure 7 - Piping Diagram 4





Y:\Project Files\Current and Closed\10000-10999\10391 SWPP Plan\CAD\6-10391 SWPP Plan\10391 McLouth Steel Site\6-10391 SWPP Plan\CAD\6-10391 SWPP.dwg; 8/20/2020 3:55 PM;



- LEGEND
- | | |
|-------------------------|------------------------|
| Oil, Nat Gas, Oxy, Arg | Drainage Area Boundary |
| Sanitary Sewer | |
| Steam, Air | |
| Drainage Flow Direction | |
| Sheet Number | |
| Acid | |
| City Water | |
| CW Drain | |
| DW Drain | |
| Fire Line-Service Water | |



Former McLouth Steel Trenton Plant

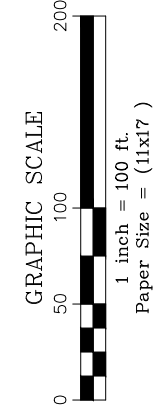
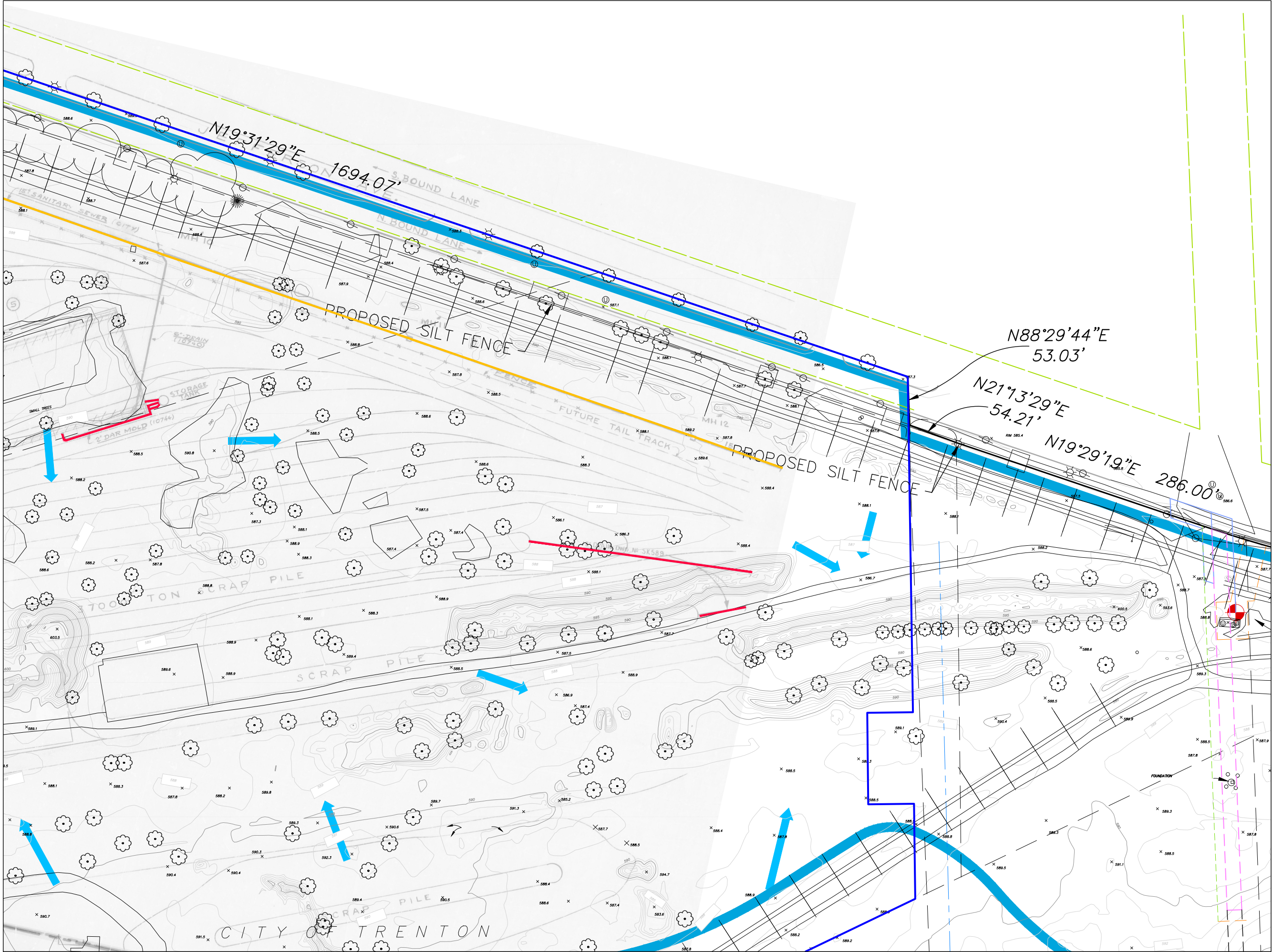
1491 West Jefferson Avenue, Trenton, MI

Created for: MSC Land and Company, LLC

ASTI Project 6-10391, JRN, August 20, 2020

Figure 10 - Piping Diagram 7

Y:\Project Files\Current and Closed\10000-10999\10300-10399\10391 McLouth Steel Site\6-10391 SWPP Plan\CAD\6-10391 SWPP.dwg; 8/20/2020 3:55 PM;



- LEGEND
- Acid
 - City Water
 - CW Drain
 - DW Drain
 - Fire Line-Service Water
 - Oil Nat Gas, Oxy, Arg
 - Sanitary Sewer
 - Steam, Air
 - Drainage Flow Direction
 - Sheet Number
 - Drainage Area Boundary

Former McLouth Steel Trenton Plant

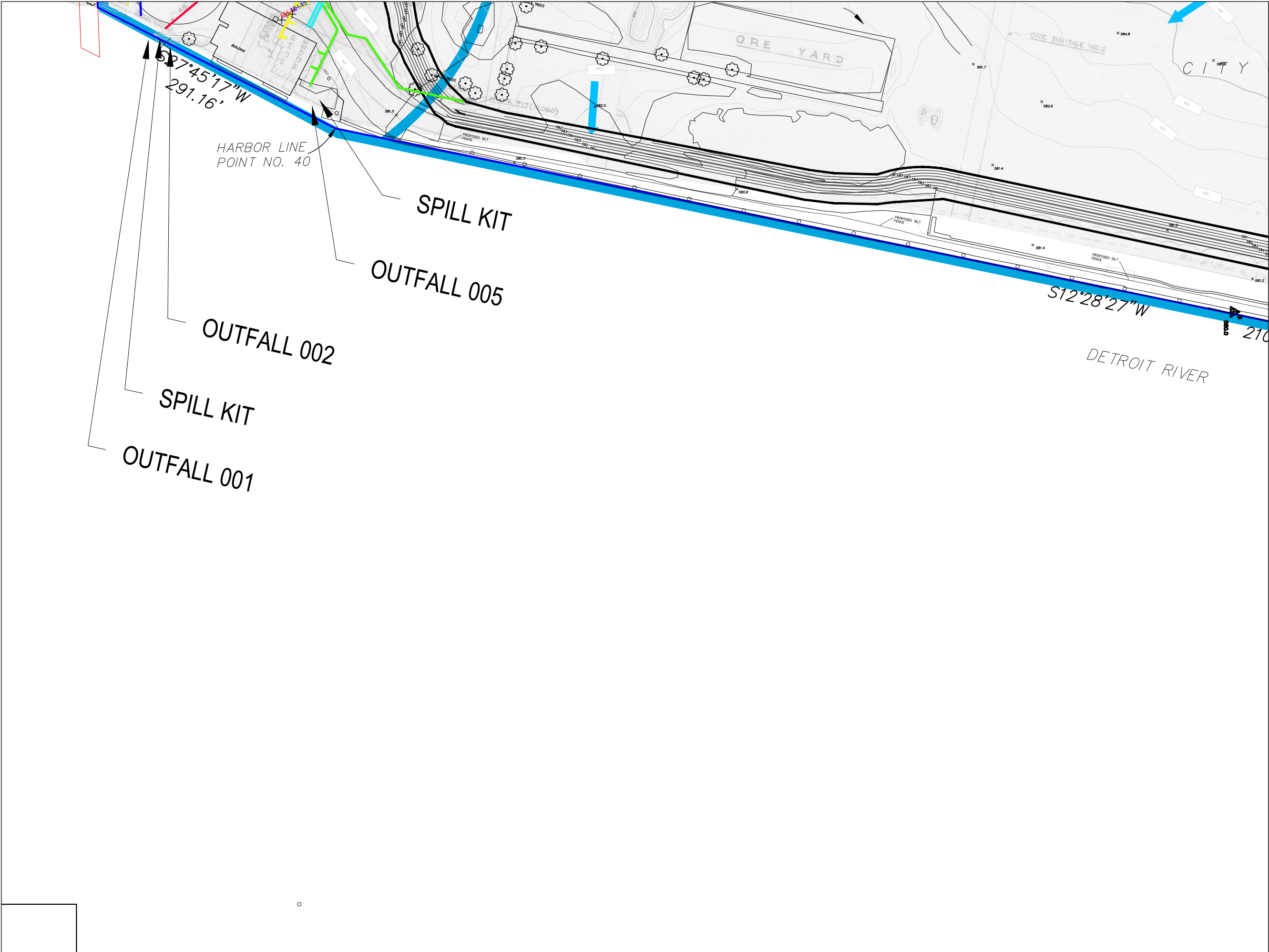
1491 West Jefferson Avenue, Trenton, MI

Created for: MSC Land and Company, LLC
ASTI Project 6-10391, JRN, August 20, 2020



Figure 11 - Piping Diagram 8

Y: \\Project Files\\Current and Closed\\10000-10999\\10300-10399\\10391 McLouth Steel Site\\6-10391 SWPP Plan\\CAD\\6-10391 SWPP.dwg; 8/20/2020 3:55 PM;



LEGEND

0	50	100	200
1 inch = 100 ft. Paper Size = (11x17)			

Acid	Oil, Nat Gas, Oxy, Arg	Drainage Area Boundary
City Water	Sanitary Sewer	
CW Drain	Steam, Air	
DW Drain	Drainage Flow Direction	
Fire Line-Service Water	Sheet Number	



Former McLouth Steel Property - County Property
1491 West Jefferson Avenue, Trenton, Michigan 48183-1240
Storm Water Report

Attachment D Spill Prevention Control and Countermeasure Plan, Storm Water Pollution
Prevention Plan

**Spill Prevention Control and Countermeasure Plan
Storm Water Pollution Prevention Plan
Pollution Incident Prevention Plan**

Report Prepared For:

Former McLouth Steel Property - County Property
1491 West Jefferson Avenue
Trenton, Michigan

April 2019

ASTI ENVIRONMENTAL



**Spill Prevention Control and Countermeasure Plan
Storm Water Pollution Prevention Plan
Pollution Incident Prevention Plan**

April 2019

Report Prepared For:

Former McLouth Steel Property - County Property
1491 West Jefferson Avenue
Trenton, Michigan

Report Prepared By:

ASTI Environmental, Inc.
P.O. Box 2160
Brighton, Michigan 48116
800.395.ASTI
www.asti-env.com

ASTI Project 6-10391

Report Prepared by:



Bruce Bawkon, P.E.
Director, Industrial Compliance



Former Mclouth Steel Property - County Property
1491 West Jefferson Avenue, Trenton, Michigan
SPCC/SWPP/ PIP Plan

SUMMARY INFORMATION PAGE	VI
SPILL RESPONSE PROCEDURES	VI
Overview	vi
Responsibilities	vi
HAZMAT Team Responsibilities	vii
Incident Management	viii
Post-Incident Management	ix
Spills and Releases; Specific Response	ix
Acidic Compounds	ix
Caustic Compounds	ix
Nonflammable Solvents	x
Flammables/Combustibles	x
Employee Contamination	x
REPORTABLE SPILLS.....	XI
STORM WATER POLLUTION PREVENTION PLAN CERTIFICATION.....	XII
CERTIFICATION AND MANAGEMENT APPROVAL.....	XIII
CERTIFICATION BY REGISTERED PROFESSIONAL ENGINEER	XIV
TIER 1 QUALIFIED FACILITY SPCC PLAN	XV
40 CFR 112.20 CERTIFICATION OF THE APPLICABILITY OF THE SUBSTANTIAL HARM CRITERIA.....	XVI
PLAN REVIEW RECORD - § 112.5(B)	XVIII
HISTORY OF SIGNIFICANT SPILLS AND LEAKS - - §112.4(A)	XIX
1.0 INTRODUCTION.....	1
1.1 Implementation of Plan - §112.3(b)(1)	2
1.2 Professional Engineer (PE) Certification - §112.3(d).....	2
1.3 Plan Maintained at Facility - §112.3(e)(1) &(2).....	2
1.4 Amendment of Plan - §112.5(a).....	3
1.5 Review of Plan - §112.5(b)	4
2.0 QUALIFIED FACILITIES PLAN REQUIREMENTS 40 CFR 112.6.....	5
2.1 Tier I Qualified Facilities - §112.6(a)(1).....	5
2.2 Technical Amendments - §112.6(a)(2).....	5
2.3 Facility Has Adequate Secondary Containment - §112.6(a)(3)	6

Former Mclouth Steel Property - County Property
1491 West Jefferson Avenue, Trenton, Michigan
SPCC/SWPP/ PIP Plan

3.0	GENERAL REQUIREMENTS 40 CFR 112.7.....	7
3.1	General Requirements Conformance with Rule Requirements - §112.7(a)(1); §112.8(a).....	7
3.2	Deviation from Plan Requirements - §112.7(a)(2).....	8
3.3	Physical Layout Site Plan - §112.7(a)(3).....	8
3.4	Discharge Prevention Measures - §112.7(a)(3)(ii)	8
3.5	Discharge Drainage Controls - §112.7(a)(3)(iii).....	10
3.6	Spill Response - §112.7(a)(3)(iv)	10
	3.6.1 Assessment of Spill / Reportable Quantities	11
	3.6.2 Containment of Spill	11
	3.6.3 Spill Clean Up Supplies	11
3.7	Methods of Disposal - §112.7(a)(3)(v)	12
3.8	Contacts - §112.7(a)(3)(vi).....	12
3.9	Spill Reporting Information - §112.7(a)(4).....	13
	3.9.1 United States Environmental Protection Agency (40 CFR 110.6 and 40 CFR 112.4).....	13
	3.9.2 MDEQ Requirements	14
	3.9.3 Actions Following an Emergency.....	15
	3.9.4 Written Reports	15
	3.9.5 Other Follow-up Actions	16
3.10	Discharge Procedures - §112.7(a)(5).....	16
3.11	Failure Prediction Facility Drainage - §112.7(b); §112.8(a)	16
3.12	Containment - §112.7(c).....	18
3.13	Explanation of Impracticability of Secondary Containment- §112.7(d)	19
3.14	Applicable State or Local Requirements - §112.7(d)(1); §109.3; §112.7(k)(2)(ii)(A)	19
3.15	Written Commitment of Manpower - §112.7(d)(2); §109.3; §112.7 (k)(2)(ii)(B)	19
3.16	Inspections - §112.7(e); §112.7(k)(2)(i).....	20
3.17	Training - §112.7(f)(1).....	21
3.18	Emergency Response Coordinators - §112.7(f)(2).....	23
3.19	Spill Prevention Coordinator - §112.7(f)(2).....	23
3.20	Spill Prevention Briefings - §112.7(f)(3)	24
3.21	Site Security - §112.7(g)(1).....	24
3.22	Flow Valves Locked - §112.7(g)(2)	24

Former Mclouth Steel Property - County Property
1491 West Jefferson Avenue, Trenton, Michigan
SPCC/SWPP/ PIP Plan

3.23 Starter Controls Locked - §112.7(g)(3)	24
3.24 Pipeline Loading/Unloading - §112.7(g)(4).....	24
3.25 Lighting - §112.7(g)(5)	25
3.26 Tank Car and Truck Unloading/Unloading Racks - §112.7(h)(1).....	25
3.27 Warning Notices for Vehicles - §112.7(h)(2)	25
3.28 Inspection of Vehicle Drain Outlets - §112.7(h)(3)	25
3.29 Field-Constructed Aboveground Container Evaluation - §112.7(i)	26
3.30 Utilities.....	26
3.31 Sumps	26
3.32 Conformance with State Requirements - §112.7(j)	26
4.0 REQUIREMENTS FOR ON SHORE FACILITIES	28
4.1 Drainage Areas - §112.8(b)(1)	28
4.2 Valves on Diked Storage - §112.8(b)(2).....	28
4.3 Drainage Valves from Undiked Areas - §112.8(b)(3)	28
4.4 Final Discharge of Drainage - §112.8(b)(4).....	28
4.5 Facility Drainage Systems and Equipment - §112.8(b)(5)	29
4.6 Bulk Storage Containers/Secondary Containment - §112.8(c)(1).....	29
4.7 Diked Area Construction and Containment - §112.8(c)(2).....	29
4.8 Diked Area Inspection and Drainage of Rainwater - §112.8(c)(3)	29
4.9 Corrosion Protection of Buried Metal Tanks - §112.8(c)(4)	30
4.10 Corrosion Protection of Partially Buried Metal Tanks - §112.8(c)(5).....	30
4.11 Aboveground container periodic integrity testing - §112.8(c)(6)	30
4.12 Control of Leakage Through Internal Heating Coils - §112.8(c)(7)	31
4.13 Container Installation Fail Safe Engineered - §112.8(c)(8); §112.8(c)(8)(v)	31
4.14 Observation of Discharge Effluents - §112.8(c)(9)	31
4.15 Corrective Action for Visible Oil Leaks - §112.8(c)(10).....	31
4.16 Appropriate Location of Portable Oil Storage Containers - §112.8(c)(11).....	32
4.17 Buried Pipe Installation Protection- §112.8(d)(1).....	32
4.18 Management of “out-of-service” Connections - §112.8(d)(2).....	32
4.19 Supports Properly Designed- §112.8(d)(3)	32
4.20 Aboveground Valve and Pipeline Inspections - §112.8(d)(4)	33
4.21 Protection of Aboveground Piping from Vehicles - §112.8(d)(5).....	33

Former Mclouth Steel Property - County Property
1491 West Jefferson Avenue, Trenton, Michigan
SPCC/SWPP/ PIP Plan

4.22	Certification of the Applicability of the Substantial Harm Criteria – Oil Pollution Act of 1990 - §112.20(e)	33
5.0	OTHER BMPS	34
5.1	Good Housekeeping	34
5.2	Preventive Maintenance	34
5.3	Erosion Control Measures	34
5.4	Erodible Soils and Slopes	34
5.5	Outdoor Storage Areas	35
5.6	Dust and Particulate Generating Processes	35
5.7	Materials Expected to be Present in Storm Water Discharges	36
5.8	Description of Storm Water Outfalls	36
5.9	Onsite Waste	36
5.10	Vehicle Washing	36
5.11	Animal Waste	36
5.12	Contact with Significant Materials	36
5.13	Comprehensive Quarterly Inspection	36
5.14	Annual Review	36
5.15	Non Storm Water Discharges	37
5.16	Containment Structures for Solid Polluting Materials	37
5.17	Catch Basins	37
5.18	TMDL	37
	TMDL monitoring is not required.	37
6.0	MICHIGAN PART 5 RULES PRODUCT INVENTORY	37
	Rule 6(1)(d)(i): Polluting Material Inventory.	37
	Rule 6(1)(d)(ii): Location of MSDS for all polluting materials on-site in quantities exceeding the threshold management quantity (TMQ).	37
	Rule 6(2): Notification PIPP Has Been Prepared.	38
	Rule 6(4): PIPP Plan Evaluation.	38
	Rule 6(5): MDEQ Determination of Inadequate or Incomplete PIPP	39

Former Mclouth Steel Property - County Property
1491 West Jefferson Avenue, Trenton, Michigan
SPCC/SWPP/ PIP Plan

TABLES

TABLE 1	PREVENTIVE MAINTENANCE SCHEDULE.....	10
TABLE 2	STORAGE TANK CONTAINMENT POTENTIAL SPILL DIRECTION.....	17
TABLE 3	CONTRIBUTION OF SIGNIFICANT MATERIALS TO RUN OFF	35

APPENDICES

APPENDIX A	USEPA SPCC REGULATORY CROSS REFERENCE MATRIX
APPENDIX B	FIGURE 1 SITE LOCATION MAP
	FIGURE 2 SOUTH SITE PLAN
	FIGURE 3 NORTH SITE PLAN
APPENDIX C	INSPECTION CHECK LIST FORMS (40 CFR 112.7(e) 40 CFR 112.7(k)(2)(i))
APPENDIX D	MDEQ SPILL REPORTING GUIDELINES AND MDEQ SPILL OR RELEASE REPORT
APPENDIX E	RECORDS OF INSPECTIONS AND TESTS SIGNED AND KEPT 3 YEARS (40 CFR 112(e))
APPENDIX F	TRAINING RECORDS
APPENDIX G	CORRESPONDENCE
APPENDIX H	ANNUAL REVIEW RECORDS (HISTORICAL)
APPENDIX I	NPDES PERMIT AND CERTIFICATE OF COVERAGE
APPENDIX J	SURFACE WATER SAMPLE COLLECTION PROCEDURES
APPENDIX K	VISUAL ASSESSMENT RECORDS FOR SURFACE WATER SAMPLING

Former Mclouth Steel Property - County Property
1491 West Jefferson Avenue, Trenton, Michigan
SPCC/SWPP/ PIP Plan

SUMMARY INFORMATION PAGE

FACILITY LOCATION:

1491 West Jefferson Avenue
Trenton, Michigan

Discharge to: Detroit River

Primary Spill Coordinator:

Tim Francis
Cell 810 360-9852

FACILITY OWNER:

MSC Land Company, LLC
12225 Stephens Road
Warren , Michigan 48089
Phone: 586 467-1706

Secondary Spill Coordinator:

Mike Miller
Cell 734 231-2965

TECHNICAL CONTACTS:

Fire Department	911 - Emergency
Sheriff Department	911 - Emergency
The Environmental Quality Company (Spill Contractor)	800 839-3975
MDEQ Emergency 24 Hour (PEAS)	800 292-4706
State Emergency Response Center (SERC)	517 335-3394
Local Emergency Planning Committee (Shiawassee Co.)	989 743-5841
National Response Center (U.S. COAST GUARD)	800 424-8802
U.S. Environmental Protection Agency Region 5	800 621-8431
Applied Science & Technology, Inc.	810 225-2800

SPILL RESPONSE PROCEDURES

Overview

This section applies to releases of all materials with the exception of releases to the air, PCB releases, and asbestos releases.

Responsibilities

Any person who discovers a potential or actual material spill or release is termed the "discoverer." The following steps must be taken immediately by the discoverer:

Former Mclouth Steal Property - County Property
1491 West Jefferson Avenue, Trenton, Michigan
SPCC/SWPP/ PIP Plan

- Move a safe distance away from the area.
- Avoid all personal contact with materials and equipment until the nature of the chemical materials involved is clearly understood.
- Determine the nature and extent of the situation from this vantage point and identify the chemical materials and equipment involved.

Notify the responsible manager. Be prepared to provide the following information, to the extent possible:

- Current location of the spill and direction of anticipated movement,
- Whether the spill entered the sanitary or storm sewer systems,
- Material spilled, if known,
- Probable source of the spill, and
- Time the spill was first observed.

NOTE: If personal safety is at risk, leave the area immediately.

- If possible or feasible, stop the spill by shutting down machinery or by closing valves or other methods that may apply.
 - If the source is a leaking drum, move or turn the drum to stop or reduce the flow of materials, only if this can be done without personal contact with the material.
 - Liquid spills should be contained, if possible, by diking with adsorbent pigs, pillows, or booms.
 - Prevent the movement of liquid to sanitary or storm drains by diking with adsorbent pigs, pillows, or booms.
 - If the material is a powder, close all entrance doors to prevent drafts from spreading the materials throughout the plant, and to the outside environment.

HAZMAT Team Responsibilities

Important Note: Only trained individuals can perform a clean-up of a spilled hazardous material.

HAZMAT Team Members will perform the following tasks:

- Ensure all personnel are evacuated, before approaching the spill.
- Make sure all doorways are guarded.
- From a safe distance ascertain whether help will be required to clean up the spill. If help is required, contact the responsible manager. The responsible manager will determine if an outside spill contractor's assistance is warranted.

Former Mclouth Steel Property - County Property
1491 West Jefferson Avenue, Trenton, Michigan
SPCC/SWPP/ PIP Plan

- Determine, based on the type of spilled material, if respiratory protection is required.
- Don the appropriate personal protective equipment prior to entering the area of contamination.
- Proceed with clean-up using necessary materials located in the spill kits.
- Place all materials used for the cleanup in a DOT 1A1 drum. Upon completion of the clean up, seal the drum and label appropriately.
- Drain sumps containing waste will only be pumped out by qualified and approved Waste Hauler. All material shipped for disposal will be manifested as required by law and can only be approved by the Plant Manager.
- Inspect the area carefully to ensure all material has been removed. After a suitable time period, check the condition of the atmosphere in the area. If all conditions are safe, contact the responsible manager, who will notify personnel that they may return to work.
- Return all safety equipment to its correct location after cleaning and/or decontamination. Replace any material used from the spill kits.

Incident Management

Important Note: The following activities may occur concurrently with assistance from facility personnel at the direction of the responsible manager. The particular nature of the emergency will alter the order or need of any of the following listed actions.

- Keep all unnecessary people away from the area.
- Assess the hazards to human health and the environment.
- Take all reasonable measures to prevent risks to human health or the environment.
- Activate internal alarms or communication systems.
- Contact appropriate response agencies (e.g. fire, police, ambulance) if assistance is needed.
- Ensure that any injured personnel are given appropriate medical attention and/or arrange transportation to the hospital.
- Coordinate on-site evacuations, if required.
- If the spilled material has not yet been positively identified. Use the Safety Data Sheet (SDS) binder and container label information.
- Take precautions appropriate for the chemical characteristics specified in the SDS.
- Ensure that the release, does not continue, reoccur, or spread.

Former Mclouth Steel Property - County Property
1491 West Jefferson Avenue, Trenton, Michigan
SPCC/SWPP/ PIP Plan

- If the retrieval and containerizing of the fugitive material can cause a risk of injury or illness to plant personnel involved, contact a “hazardous materials response team” to manage the episode to completion.
- Make all required verbal notifications.

Post-Incident Management

- Arrange for the collection and containment of any fugitive material.
- Properly manage all recovered and contained materials and wastes.
- Provide proper written notification to appropriate agencies.
- Ensure that all response and safety equipment is cleaned and returned to proper working order and expended supplies are restocked.
- Monitor all operating equipment, including transfer lines, after restarting operations.

Spills and Releases; Specific Response

Oils

- Dike or absorb using imbibers blankets to prevent material from entering drains.
- Minimum Equipment: Rubber boots; rubber apron and gloves.
- Disposal Instructions: Place in properly labeled and sealed containers for disposal.

Acidic Compounds

- Dike or absorb using imbibers blankets to keep material from entering drains.
- Minimum Equipment: Rubber boots; rubber apron; rubber suit; acid vapor respirator; goggles; face shield; baking soda and gloves.
- Disposal Instructions: Sweep or scrape up; place in properly labeled and sealed drums for disposal.

Caustic Compounds

- Dike or absorb using imbibers blankets to keep material from entering drains.
- Minimum Equipment: Rubber boots; rubber apron; goggles; face shield and gloves.
- Disposal Instructions: Sweep or scrape up; place in properly labeled and sealed drums for disposal.

Former Mclouth Steel Property - County Property
1491 West Jefferson Avenue, Trenton, Michigan
SPCC/SWPP/ PIP Plan

Nonflammable Solvents

- Dike or absorb using imbibers blankets to keep material from entering drains.
- Minimum Equipment: Rubber boots; rubber apron and gloves.
- Disposal Instructions: Sweep or scrape up; place in properly labeled and sealed drums for disposal.

Flammables/Combustibles

- Dike or absorb using imbibers blankets to keep material from entering drains.
- Minimum Equipment: Rubber boots, rubber apron; organic vapor respirator; goggles and gloves.
- Disposal Instructions: Place in properly labeled and sealed drums for disposal.

Employee Contamination

In cases of employee chemical contamination, the first step is to protect yourself with the proper protective equipment and clothing. You will not be much help to an injured employee if you become contaminated and disabled. In addition, the following procedures should be followed:

- Remove the contaminated victim well away from the contamination area.
- Remove all contaminated clothing and flush the affected areas with water from the Eye Wash Stations or Decontamination Shower. The key to minimizing harm from chemical contact is to begin the water flush as soon as possible, and to continue flushing affected areas for at least fifteen minutes.
- Administer first aid as appropriate using resources available in the First Aid kits. Treat the victim to prevent or reduce shock, and provide comfort and reassurance to the victim.

Check the appropriate Safety Data Sheet (SDS). SDSs usually contain information about symptoms of overexposure and other first aid data. They also contain phone numbers to call for help and advice from the federal government and company that manufactured the material.

If other than basic first aid steps are required, make arrangements to transport the employee to the hospital.

When the ambulance arrives to take the contaminated individual(s) to the hospital, make sure a SDS goes with the person to assist medical personnel in their treatment.

Former Mclouth Steal Property - County Property
1491 West Jefferson Avenue, Trenton, Michigan
SPCC/SWPP/ PIP Plan

REPORTABLE SPILLS

The definition of a release is in the Natural Resources Environmental Protection Act 451 of 1994 section 324.201201(1) (mm) "Release" includes, but is not limited to, any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing of a hazardous substance into the environment, or the abandonment or discarding of barrels, containers, and other closed receptacles containing a hazardous substance.

Notification to the MDEQ district office (586 753-3700) and MDEQ PEAS line (800 292-4706) is required if any of the following conditions are met:

- Oil spilled to the ground greater than 50 pounds (6 gallons) not cleaned up in 24 hours; or,
- Oil spilled to a water body that causes a sheen and is not cleaned up in 24 hours; or,
- Oil spilled to a municipal storm water collection system (storm sewer or ditch) and is not cleaned up in 24 hours; or,
- Potentially polluting materials discharges off site or into the storm water collection system above the threshold reporting quantity and not cleaned up within 24 hours.

Former Mclouth Steal Property - County Property
1491 West Jefferson Avenue, Trenton, Michigan
SPCC/SWPP/ PIP Plan

STORM WATER POLLUTION PREVENTION PLAN CERTIFICATION

I certify under penalty of law that the storm water drainage system in this SWPPP has been tested or evaluated for the presence of non-storm water discharges either by me, or under my direction and supervision. I certify under penalty of law that this SWPPP has been developed in accordance with the General Permit and with good engineering practices. To the best of my knowledge and belief, the information submitted is true, accurate, and complete. At the time this plan was completed no unauthorized discharges were present. I am aware that there are significant penalties for submitting false information, including the possibility of fine or imprisonment for knowing violations.

Permittee or Authorized Representative
Printed Name & Title:
Signature & Date:

Certified Storm Water Operator
Printed Name & Certification Number:
Signature & Date:

Former Mclouth Steal Property - County Property
1491 West Jefferson Avenue, Trenton, Michigan
SPCC/SWPP/ PIP Plan

CERTIFICATION AND MANAGEMENT APPROVAL

As stated in 40 CFR Part 112.7 – “If you are the owner or operator of a facility subject to this part you must prepare a Plan in accordance with good engineering practices. The Plan must have the full approval of management at a level of authority to commit the necessary resources to fully implement the Plan.”

Certification

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document that I have the level of authority to commit the necessary resources to fully implement this SPCC Plan.

Signature _____

Date: _____

Name _____

Title _____

Former Mclouth Steal Property - County Property
1491 West Jefferson Avenue, Trenton, Michigan
SPCC/SWPP/ PIP Plan

CERTIFICATION BY REGISTERED PROFESSIONAL ENGINEER

By means of this certification, I attest that I am familiar with the requirements of provisions of 40 CFR Part 112, that I or my designated agent have visited and examined the facility, that this SPCC Plan has been prepared in accordance with good engineering practices, including consideration of applicable industry standards, and with the requirements of this Part, that procedures for required inspection and testing have been established and that the Plan is adequate for the facility.

_____ Engineer Signature Bruce Bawkon, P. E.	_____ Date of Plan Certification	<u>32011</u> Michigan Registration No. and State
--	-------------------------------------	---

ASTI Environmental
10448 Citation Drive
Brighton, MI 48116

Former Mclouth Steal Property - County Property
1491 West Jefferson Avenue, Trenton, Michigan
SPCC/SWPP/ PIP Plan

TIER 1 QUALIFIED FACILITY SPCC PLAN

This Plan constitutes the SPCC Plan for the facility, when completed and signed by the owner or operator of a facility that meets the applicability criteria in §112.3(g)(1). This Plan addresses the requirements of 40 CFR part 113. Maintain a complete copy of the Plan at the facility if the facility is normally attended at least four hours per day, or for a facility attended fewer than four hours per day, at the nearest field office. When making operational changes at a facility that are necessary to comply with the rule requirements, the owner/operator should follow state and local requirements (such as for permitting, design and construction (and obtain professional assistance, as appropriate.

Former McLouth Steel Property - County Property
1491 West Jefferson Avenue, Trenton, Michigan
SPCC/SWPP/ PIP Plan

40 CFR 112.20 CERTIFICATION OF THE APPLICABILITY OF THE SUBSTANTIAL HARM CRITERIA

Facility Name: Former McLouth Steel Property - County Property

Facility Address: 1491 West Jefferson Avenue, Trenton, Michigan

1. Does the facility transfer oil over water to or from vessels and does the facility have a total oil storage capacity greater than or equal to 42,000 gallons?

Yes ☐ No ☒

2. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons and does the facility lack secondary containment that is sufficiently large to contain the capacity of the largest aboveground oil storage tank plus sufficient freeboard to allow for precipitation within any aboveground oil storage tank area?

Yes ☐ No ☒

3. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons and is the facility located at a distance (as calculated using the appropriate formula in Attachment C-III to this appendix or a comparable formula¹) such that a discharge from the facility could cause injury to fish and wildlife and sensitive environments? For further description of fish and wildlife and sensitive environments, see Appendices, I, II, and III to DOC/NOAA's "Guidance for Facility and Vessel Response Plans: Fish and Wildlife and Sensitive Environments" see Appendix E to this part, section 10, for availability) and the applicable Area Contingency Plan.

Yes ☐ No ☒

4. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons and is the facility located at a distance (as calculated using the appropriate formula in Attachment C-III to this appendix or a comparable formula) such that a discharge from the facility would shut down a public drinking water intake²?

Yes ☐ No ☒

5. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons and has the facility experienced a reportable oil spill in an amount greater than or equal to 10,000 gallons within the last 5 years?

Yes ☐ No ☒

¹ If a comparable formula is used, documentation of the reliability and analytical soundness of the comparable formula must be attached to this form.

² For the purposes of 40 CFR part 112, public drinking water intakes are analogous to public water systems as described at 40 CFR 143.2(c).

Former Mclouth Steal Property - County Property
1491 West Jefferson Avenue, Trenton, Michigan
SPCC/SWPP/ PIP Plan

Certification:

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document, and that based on my inquiry of those individuals responsible for obtaining this information, I believe that the submitted information is true, accurate, and complete.

Signature: _____ Title: _____
Name: _____ Date: _____

SELF-SELECTION CRITERIA

Under the rule, a facility falls under the “substantial harm” category if it meets at least one of the following criteria:

I. The facility has a total storage capacity greater than or equal to 42,000 gallons and performs over-water oil transfers to or from vessels; or

II. The facility has a total storage capacity greater than or equal to one million gallons, and meets any one of the following conditions:

- A. Does not have adequate secondary containment for each aboveground storage area;
- B. Is located such that a discharge could cause “injury” to an environmentally sensitive area;
- C. Is located such that a discharge would shut down a public drinking-water intake; or
- D. Has had, in the past 5 years, a reportable spill greater than or equal to 10,000 gallons.

Former Mclouth Steal Property - County Property
1491 West Jefferson Avenue, Trenton, Michigan
SPCC/SWPP/ PIP Plan

PLAN REVIEW RECORD - § 112.5(B)

Date of Review	Name of Person Conducting Review	Summary of Comments/Revisions Made

Former Mclouth Steel Property - County Property
1491 West Jefferson Avenue, Trenton, Michigan
SPCC/SWPP/ PIP Plan

HISTORY OF SIGNIFICANT SPILLS AND LEAKS - - §112.4(A)

Based on historical information provided by the Facility operator the Facility has experienced no reportable or significant releases at this site.

In the event of any significant spills or leaks that occur subsequent to the implementation of this Plan, a summary of the event will be noted in the table below within 14 calendar days of knowledge of the release and the Plan will be reviewed and modified where appropriate.

Date	Source of Spill	Material	Area Affected	Corrective Actions

Former Mclouth Steel Property - County Property
1491 West Jefferson Avenue, Trenton, Michigan
SPCC/SWPP/ PIP Plan

1.0 INTRODUCTION

This Storm Water Pollution Prevention Plan(SWPPP) has been prepared for the Former Mclouth Steel Facility - County Property located at 1491 West Jefferson Avenue, Trenton, Michigan.

In accordance with the State of Michigan Department of Environmental Quality (MDEQ) Code of Administrative Rules (MI Rules), as amended (Act 451) Part 31 Rules, this Plan has been developed to provide procedures and measures for minimizing the potential discharge of oil³ and potentially polluting materials from storage and transfer activities into navigable waters of the United States.

In accordance with the State of Michigan Department of Environmental Quality (MDEQ) Code of Administrative Rules (MI Rules), as amended (Act 451) Part 31 Rules this Plan has been developed to provide procedures and measures for minimizing the potential discharge of oil⁴ and potentially polluting materials from storage and transfer activities into navigable waters of the United States.

In accordance with 40 CFR Part 112, entitled "Oil Pollution Prevention," the State of Michigan Department of Environmental Quality (MDEQ) Code of Administrative Rules (MI Rules), as amended (Act 451) MCL 324.3101 *et seq*, (Part 5 Rules) "Pollution Incident Prevention Plans (PIPP)" the facility is required to have a PIPP because chemicals stored on site are above the regulatory thresholds. Since oil is the only material regulated by the Part 5 Rules at this site, storage of oil at the site is regulated by 40 CFR 112 Spillage of Oil Regulations.

³ Section 311 of the Clean Water Act defines oil as "oil of any kind or in any form, including, but not limited to, petroleum, fuel oil, sludge, oil refuse and oil mixed with wastes other than dredged spoil." EPA interprets this definition to include crude oil and refined petroleum products, as well as such non-petroleum products as vegetable and animal oils.

⁴ Section 311 of the Clean Water Act defines oil as "oil of any kind or in any form, including, but not limited to, petroleum, fuel oil, sludge, oil refuse and oil mixed with wastes other than dredged spoil." EPA interprets this definition to include crude oil and refined petroleum products, as well as such non-petroleum products as vegetable and animal oils.

Former Mclouth Steal Property - County Property
1491 West Jefferson Avenue, Trenton, Michigan
SPCC/SWPP/ PIP Plan

1.1 Implementation of Plan - §112.3(b)(1)

40 CFR 112.3(b)(1) If your oil production facility as described in paragraph (a)(1) of this section becomes operational after November 10, 2011, or as described in paragraph (a)(2) of this section becomes operational after November 10, 2010, and could reasonably be expected to have a discharge as described in § 112.1(b), you must prepare and implement a Plan within six months after you begin operations.

This plan was prepared to comply with the requirements of 40 CFR 112.3(b).

1.2 Professional Engineer (PE) Certification - §112.3(d)

40 CFR 112.3(d)) (d)(1) Except as provided in § 112.6, a licensed Professional Engineer must review and certify a Plan for it to be effective to satisfy the requirements of this part. By means of this certification the Professional Engineer attests:
(i) That he is familiar with the requirements of this part ;
(ii) That he or his agent has visited and examined the facility;
(iii) That the Plan has been prepared in accordance with good engineering practice, including consideration of applicable industry standards, and with the requirements of this part;
(iv) That procedures for required inspections and testing have been established; and
(v) That the Plan is adequate for the Facility

The original Plan must be reviewed and certified by a licensed Professional Engineer to ensure that this Plan meets the guidelines set forth in 40 CFR Part 112 and applicable State of Michigan requirements. All technical amendments to this Plan must be certified by a Professional Engineer. Certification consists, at a minimum, of a stamped, signed statement by a Professional Engineer that this Plan meets federal and State requirements. This certification is located on page x of this Plan. Non-technical⁵ amendments need not be certified by a Professional Engineer.

1.3 Plan Maintained at Facility - §112.3(e)(1) &(2)

40 CFR 112.3(e)(1)&(2) (1) The Plan must be maintained at the facility if the facility is normally attended at least four hours per day, or at the nearest field office if the facility is not so attended, and (2) The Plan must be made available to the Regional Administrator for on-site review during normal working hours.

⁵ The regulatory preamble states that non-technical amendments include items such as changes to the contact list or telephone numbers, product changes if the new product is compatible with existing conditions, and other changes that do not materially affect the facility's potential to discharge oil. If the owner or operator is unsure of the status of a change, he should have the Plan certified.

Former Mclouth Steal Property - County Property
1491 West Jefferson Avenue, Trenton, Michigan
SPCC/SWPP/ PIP Plan

A copy of the Plan and associated records are retained at the facility. Upon request, a copy of the Plan will be made available to: Federal, State or local officials with jurisdiction over SPCC, SWPP, and PIP Plans.

A copy of this plan will be maintained at the following location:

Former Mclouth Steal Property - County Property
1491 West Jefferson Avenue, Trenton, Michigan

1.4 Amendment of Plan - §112.5(a)

40 CFR 112.5(a) Amend the SPCC Plan for your facility in accordance with the general requirements in § 112.7, and with any specific section of this part applicable to your facility, when there is a change in the facility design, construction, operation, or maintenance that materially affects its potential for a discharge as described in § 112.1(b).

The Facility will amend this plan at least every three years, or if any of the following situations occur:

1. There is a change in facility design; or
2. There is construction which modifies the facility; or
3. There is a change in operation or maintenance procedures which materially affects the facility's potential to discharge oil or other hazardous substances into or upon water or adjoining shorelines; or
4. A tank is commissioned or decommissioned, replaced, reconstructed or moved; or
5. A piping system is replaced, reconstructed or installed.

Whenever one of the above conditions occurs, management will review and amend this Plan as soon as possible. In no event will this review and/or amendment occur later than 30 days after such a condition occurs. Plan reviews will be documented within this Plan, as shown in the preceding Management Record of Reviews.

The Plan will be amended within 30 days of any review to include more effective prevention and control technology if:

1. Such technology will significantly reduce the likelihood of a spill event from the facility; and
2. Such technology has been field-proven at the time of the review.

Former Mclouth Steal Property - County Property
1491 West Jefferson Avenue, Trenton, Michigan
SPCC/SWPP/ PIP Plan

The EPA Regional Administrator may also require amendment of this Plan if he determines that the Plan does not satisfy the SPCC requirements or amendment is necessary to prevent and contain discharges from the facility.

Management Approval of the Plan is provided on page ix, and will be updated each time the Plan is modified, or every three years, whichever is less.

1.5 Review of Plan - §112.5(b)

40 CFR 112.5(b) Notwithstanding compliance with paragraph (a) of this section, complete a review and evaluation of the SPCC Plan at least once every five years from the date your facility becomes subject to this part;

In accordance with 40 CFR Part 112.5(b), a review and evaluation of the Spill Prevention Control and Countermeasure (SPCC) Plan is conducted at least once every five years. However, a Pollution Incident Prevention Plan requires a review and evaluation every three years. Therefore, the Facility is required to review this Plan every three years and, furthermore, within six months if any of the following guidelines are applicable:

- When required by the EPA or MDEQ after review of the Plan;
- Whenever there is a change in facility design, construction, operations, or maintenance that materially affects the potential for an oil spill; and
- At the time of the required annual review of the plan, if the review indicates more effective control and prevention technology will significantly reduce the likelihood of a spill event (if such technology has been field proven).

Any technical amendment to the SPCC Plan shall be certified by a Professional Engineer within 30 days after a change in the facility design, construction, operation, or maintenance occurs which materially affects the facility's potential for the discharge of oil into or upon the navigable waters of the United States or adjoining shorelines. Non-technical amendments, such as telephone numbers and names, need not be certified by a Professional Engineer.

The permittee shall review the SWPPP annually after it is developed and maintain a written report of the review onsite for 3 years. Based on the review, the permittee shall amend the Plan as needed to ensure continued compliance.

Former Mclouth Steal Property - County Property
1491 West Jefferson Avenue, Trenton, Michigan
SPCC/SWPP/ PIP Plan

2.0 QUALIFIED FACILITIES PLAN REQUIREMENTS 40 CFR 112.6

2.1 Tier I Qualified Facilities - §112.6(a)(1)

40 CFR 112.6(a)(1) Preparation and Self-Certification of the Plan. If you are an owner or operator of a facility that meets the Tier I qualified facility criteria in §112.3(g)(1), you must either: comply with the requirements of paragraph (a)(3) of this section; or prepare and implement a Plan meeting requirements of paragraph (b) of this section; or prepare and implement a Plan meeting the general Plan requirements in §112.7 and applicable requirements in subparts B and C, including having the Plan certified by a Professional Engineer as required under §112.3(d).

This Plan is consistent with the requirements of 40 CFR 112. The certified Professional Engineer facilitating this Plan has visited and examined the facility. The Plan has been prepared in accordance with accepted and sound industrial practices and standards. The Plan establishes procedures for required inspections and testing in accordance with industry inspection and testing standards. The Plan will be fully implemented and the facility meets the qualification criteria in §112.3(g)(1).

2.2 Technical Amendments - §112.6(a)(2)

40 CFR 112.6(a)(2) You must certify any technical amendments to your Plan in accordance with paragraph (a)(1) of this section when there is a change in the facility design, construction, operation, or maintenance that affects its potential for a discharge as described in §112.1(b). If the facility change results in the facility no longer meeting the Tier I qualifying criteria in §112.3(g)(1) because an individual oil storage container capacity exceeds 5,000 U.S. gallons or the facility capacity exceeds 10,000 U.S. gallons in aggregate aboveground storage capacity, within six months following preparation of the amendment, you must either:

- (i) Prepare and implement a Plan in accordance with §112.6(b) if you meet the Tier II qualified facility criteria in §112.3(g)(2); or*
- (ii) Prepare and implement a Plan in accordance with the general Plan requirements in §112.7, and applicable requirements in subparts B and C, including having the Plan certified by a Professional Engineer as required under §112.3(d).*

Technical amendments to the Plan will be made when there is a change in the facility design, construction, operation, or maintenance that affects its potential for a discharge.

Former Mclouth Steal Property - County Property
1491 West Jefferson Avenue, Trenton, Michigan
SPCC/SWPP/ PIP Plan

2.3 Facility Has Adequate Secondary Containment - §112.6(a)(3)

<i>40 CFR 112.6(a)(3) Prepare and implement an SPCC Plan that meets the requirements in this section.</i>

Included in the Plan is a prediction of the direction and total quantity of oil which could be discharged from the facility as a result of major equipment failure.

Table 2 includes the chemicals and quantities stored onsite.

Former Mclouth Steal Property - County Property
1491 West Jefferson Avenue, Trenton, Michigan
SPCC/SWPP/ PIP Plan

3.0 GENERAL REQUIREMENTS 40 CFR 112.7

3.1 General Requirements Conformance with Rule Requirements - §112.7(a)(1); §112.8(a)

40 CFR 112.7(a)(1) Include a discussion of your facility's conformance with the requirements listed in this part.

40 CFR 112.8(a) Meet the general requirements for the Plan listed under § 112.7, and the specific discharge prevention and containment procedures listed in this section.

This Plan is consistent with the requirements of 40 CFR Part 112. The SPCC regulations establish requirements designed to prevent the discharge of oil from non-transportation related facilities to navigable waters of the United States. These regulations require subject facilities that could reasonably be expected to discharge oil to prepare SPCC plans that describe the equipment and methods used to prevent spills and to respond to a spill.

40 CFR Part 112 contains two applicability criteria that must be evaluated when determining if the regulation applies to a facility. The first criterion is as follows:

- *"Underground storage tank capacity in excess of 42,000 gallons or a combined aboveground storage capacity in excess of 1,320 gallons"*

Only oil containers with a capacity of 55 gallons or greater, which are not permanently closed, count towards the 1,320-gallon threshold. Completely buried tanks subject to all of the technical requirements of 40 CFR Part 280 or a State program approved under 40 CFR Part 281 and underground tanks that are permanently closed do not count towards the 42,000-gallon threshold.

The second criterion that must be assessed when determining the applicability of 40 CFR 112 is as follows:

- *"...could reasonably be expected to discharge oil in harmful quantities...into or upon the navigable waters of the United States or adjoining shorelines, or waters of the contiguous zone, or in connection with activities under the Outer Continental Shelf Act or Deepwater Port Act, or affecting certain natural resources."*

Based on communications with EPA regulators, it is ASTI's understanding that EPA interprets the potential of discharge to surface water very broadly and that most facilities exceeding the volumetric thresholds must develop and implement SPCC Plans.

A regulatory cross-reference matrix that identifies where the SPCC requirements are addressed by this Plan is included in Appendix A.

Former Mclouth Steal Property - County Property
1491 West Jefferson Avenue, Trenton, Michigan
SPCC/SWPP/ PIP Plan

3.2 Deviation from Plan Requirements - §112.7(a)(2)

40 CFR 112.7(a)(2) Comply with all applicable requirements listed in this part.

There are no deviations from the applicable requirements for 40 CFR 112.7.

3.3 Physical Layout Site Plan - §112.7(a)(3)

40 CFR 112.7(a)(3) Describe in your Plan the physical layout of the facility and include a facility diagram, which must mark the location and contents of each container. The facility diagram must include completely buried tanks that are otherwise exempted from the requirements of this part under 112.1(d)(4). The facility diagram must also include all transfer stations and connecting pipes.

Figure 1 – Site Location Map serves at the general location map and identifies the location of the facility and the receiving waters within one mile of the facility.

Figure 2 – Site Features Plan includes the following features: direction of surface water (or accidental release) flows; locations of material storage areas (i.e., above ground storage tanks, and drum storage areas including identification of contents); and locations where major spills or leaks have occurred (if applicable).

3.4 Discharge Prevention Measures - §112.7(a)(3)(ii)

40 CFR 112.7(a)(3)(ii) Discharge prevention measures including procedures for routine handling of products (loading, unloading, and facility transfers, etc.) must be provided in your Plan.

The area surrounding storage tanks and all trucks leaving the site are inspected when materials are transported on or off the site.

Non-structural, structural, and other measures intended to protect surface water and groundwater quality are referred to as Best Management Practices (BMPs). In the SPCC program, BMPs measures are referenced as “preventive measures” or “preventive systems.”

The Facility currently implements several specific spill prevention control BMPs to prevent the discharge of oil identified at each of the potential pollutant sources from reaching navigable waters of the United States or adjoining shorelines.

These BMPs include all of the following:

- Storage of materials in appropriate containers and locations;
- Convenient placement of spill kits and cleanup equipment;

Former Mclouth Steel Property - County Property
1491 West Jefferson Avenue, Trenton, Michigan
SPCC/SWPP/ PIP Plan

- Consistent monitoring of equipment in operation;
- Filling of large storage containers with small ones, thereby reducing the possibility of a spill;
- Delivery of oils and fuels from tank trucks is performed in accordance with applicable U.S. DOT regulations;
- Facility inspections; and
- Annual training of employees on oil and polluting materials handling and spill procedures.

In some cases, certain SPCC requirements may be satisfied by implementing other equivalent environmental measures. If this approach has been used in lieu of satisfying specific SPCC requirements, the approach will be identified in this Section. There are no alternative methods requiring an explanation in this Section.

Former Mclouth Steel Property - County Property
1491 West Jefferson Avenue, Trenton, Michigan
SPCC/SWPP/ PIP Plan

Table 1 - Preventive Maintenance Schedule		
Equipment/Area	Tasks	Frequency (Minimum)
Vehicle parking area	Inspect for leaks and remove debris	Weekly
Building floor	Routine cleaning and sweeping	Weekly
Outside surfaces	Remove debris	Weekly
Material storage areas	Ensure materials are properly stored and free of damage or leakage	Weekly
Buildings	Inspect for damage or leakage and are protected from the elements	Weekly
Solid Waste Containers	Are covered and free of leaks	Weekly
Equipment not in use	Stored indoors or covered and free of leaks	Weekly
Equipment parts	Stored indoors or covered and free of leaks	Weekly
On site vehicles and equipment	Check for signs of leakage, maintain as needed	Weekly
Oil containing equipment	Check for signs of leakage, maintain as needed, and is stored properly	Weekly
Outfalls	Visual inspection of discharge for color and turbidity	Weekly

3.5 Discharge Drainage Controls - §112.7(a)(3)(iii)

40 CFR 112.7(a)(3)(iii) (iii) Discharge or drainage controls such as secondary containment around containers and other structures, equipment, and procedures for the control of a discharge;

Secondary containment structures surround all storage tanks.

3.6 Spill Response - §112.7(a)(3)(iv)

40 CFR 112.7(a)(3)(iv) Countermeasures for discharge discovery, response, and cleanup (both the facility's capability and those that might be required of a contractor) must be addressed in the Plan.

All employees are trained to notify their respective supervisor or the spill coordinator upon discovery of a spill or leak. If an employee notifies their supervisor, then the supervisor (or

Former Mclouth Steel Property - County Property
1491 West Jefferson Avenue, Trenton, Michigan
SPCC/SWPP/ PIP Plan

employee if their respective supervisor is unavailable) must immediately contact the spill coordinator.

3.6.1 Assessment of Spill / Reportable Quantities

- Identify the character, source, amount, and real extent of any released materials.
- Assess possible hazards to human health or the environment that may result from the emergency situation. In making this assessment, the Spill Coordinator considers both direct and indirect effects, including hazardous gases or surface water runoff resulting from fires or explosions. If such hazard is determined to exist, the emergency coordinator:
- Evaluates whether a local evacuation may be advisable, and immediately notifies the appropriate local authorities;
- Helps local officials decide whether local areas should be evacuated; and
- Follows the procedures in the Section 2.6 Spill Response in this Plan to determine whether immediate verbal notification to authorities is required

3.6.2 Containment of Spill

- Cease all activities and if possible secure all transfer operations being conducted in the area of the emergency.
- Make all reasonable attempts to contain the spill to prevent any further danger to persons or the environment, such as stopping processes and operations, containing released waste, and removing or isolating containers.
- If the extent or location of the emergency prevents safely containing the spill, isolate the problem to the extent possible until additional resources (e.g., Fire Department) arrive.
- If facility operations are stopped, the Spill Coordinator monitors for leaks, pressure buildup, gas generation or equipment ruptures, when appropriate.
- Upon the arrival of the Fire Department, advise the officer in command of the nature of the materials involved, unusual spill control techniques and safety procedures. Provide the officer in command with any information that is requested pertaining to the materials and assist him as requested.

3.6.3 Spill Clean Up Supplies

Spill kits are located in material storage areas within the buildings. If the quantity of oil cannot be cleaned up with absorbent an outside vendor will be used.

The emergency spill clean-up contractor is Cogent Recovery, Ken Moberly, (734) 250-0876

Former McLouth Steel Property - County Property
1491 West Jefferson Avenue, Trenton, Michigan
SPCC/SWPP/ PIP Plan

Former McLouth Steel Property - County Property Spill Clean-Up Locations	
Location	Contents

3.7 Methods of Disposal - §112.7(a)(3)(v)

40 CFR 112.7(a)(3)(v) Methods of disposal of recovered materials in accordance with applicable legal requirements must be addressed in the Plan

Spilled material and waste generated from spill response activities are containerized in accordance with applicable regulatory requirements or other acceptable method prior to shipment offsite for disposal. The waste is characterized for disposal through generator knowledge, review of Material Safety Data Sheets (MSDS), or sample analysis. The waste is transported by a licensed waste hauler to a licensed waste disposal, treatment, or recycling facility.

3.8 Contacts - §112.7(a)(3)(vi)

40 CFR 112.7(a)(3)(vi) A contact list and phone numbers for the facility response coordinator, National Response Center, cleanup contractors with whom you have an agreement for response, and all appropriate Federal, State, and local agencies must be addressed in the Plan.

Former Mclouth Steal Property - County Property
1491 West Jefferson Avenue, Trenton, Michigan
SPCC/SWPP/ PIP Plan

In the event of a hazardous material spill of a reportable quantity notify the local and/or state police, Fire Department, clean-up contractor(s) and/or Ambulance Services with designated roles as appropriate. Telephone numbers are listed on page vii of this plan.

The Facility documents spills using the Spill Report Form that is contained in Appendix D. The Spill Report Form contains information that is likely to be requested during verbal reporting of an emergency release.

If an oil release and corrective actions result in changes to the facility's operation or maintenance, then revision of this Plan is required within 30 days. In the event of any significant spills or leaks that occur subsequent to the implementation of this plan.

3.9 Spill Reporting Information - §112.7(a)(4)

40 CFR 112.7(a)(4) *Unless you have submitted a response plan under 112.20, provide information and procedures in your Plan to enable a person reporting a discharge to relate relevant information about the facility (i.e., location and phone number) and the discharge (e.g., date and time, type of material, quantity, source, etc.).*

3.9.1 United States Environmental Protection Agency (40 CFR 110.6 and 40 CFR 112.4)

The US EPA regulations contained in 40 CFR Part 112.4(a) requires that the Facility report to the Region 5 Administrator of the EPA within 60 days of the release, under the following conditions:

- If an oil discharge of more than 1,000 gallons occurs in a single spill event; and
- If the release(s) enter a receiving water; or
- If a discharge of more than 42 gallons of oil occurs in each of two discrete spill events within any 12-month period; and
- If the release(s) enter a receiving water.

The spill report will contain the following information:

- Name of the facility;
- Name(s) of the owners or operator of the facility;
- Location of the facility;
- Maximum storage or handling capacity of the facility and normal daily throughput;
- The corrective actions and/or countermeasures taken, including a description of equipment repairs or replacements;

Former Mclouth Steal Property - County Property
1491 West Jefferson Avenue, Trenton, Michigan
SPCC/SWPP/ PIP Plan

- An adequate description of the facility, including maps, flow diagrams and topographical maps;
- The cause(s) of such release, including a failure analysis of the system or subsystem in which a failure occurred;
- Additional preventive measures taken or contemplated to minimize the possibility of recurrence; and
- Other information as the EPA Region 5 Administrator may reasonably require pertinent to the Plan or spill event.

Written reports to the Region 5 Administrator of the EPA should be sent to the following address:

USEPA Great Lakes
Region 5
77 West Jackson Boulevard
Chicago, Illinois 60604-3507

Written reports to the MDEQ should be sent to the following address:

MDEQ
Environmental Response Division
525 West Allegan Street
PO Box 30473
Lansing, Michigan 48909-7973

Verbal and written notification requirement guidelines and full contact details can be found in Appendix D of this Plan.

3.9.2 MDEQ Requirements

Under the Michigan Rules, Part 211 and Part 324, verbal notification of a reportable discharge of oil must also be made within twenty-four hours of the release to the MDEQ Pollution Emergency Alerting System (PEAS) at (800) 292-4706 (24 hours), or if calling outside Michigan (517) 373-7660. Part 324 also requires a call to 911 in the case of a reportable release.

Notification to the MDEQ (or Michigan State Police) is required if any of the following conditions are met:

- Oil spilled to the ground greater than 50 pounds (6 gallons) not cleaned up in 24 hours; or,
- Oil spilled to a water body that causes a sheen and is not cleaned up in 24 hours; or,
- Oil spilled to a municipal storm water collection system (storm sewer or ditch) and is not cleaned up in 24 hours; or,

Former Mclouth Steel Property - County Property
1491 West Jefferson Avenue, Trenton, Michigan
SPCC/SWPP/ PIP Plan

- A Polluting Material as defined in R324.2002 are listed in Table 4 with their threshold reportable quantities (TRQs) as seen in R324.2009. A written report may be required at the discretion of the MDEQ with consideration of the effectiveness of the cleanup and the potential for impacts to groundwater or surface water quality.

MDEQ verbal and written notification requirements can be found in Appendix D of this Plan along with a sample notification form. Appendix D also contains guidance documents pertaining to Part 324 and determination of a reportable release.

3.9.3 Actions Following an Emergency

Immediately after an emergency release of hazardous material, the Spill Response Coordinator:

- Provides for treating, storing, or disposing of recovered waste, contaminated soil or surface water, or any other material that results from a release, fire, or explosion at the facility. The waste material from the clean-up effort must be characterized. Representative sampling and analysis may be necessary to make this determination.
- Ensures that incompatible waste does not come in contact with the released waste.
- Coordinates the cleaning and decontamination of all emergency equipment used during the emergency and ensures readiness or replacement before transfer operations resume in the affected area of the facility.
- For releases that are hazardous wastes or result in the generation of hazardous wastes, the Spill Response Coordinator notifies the MDEQ Waste Management Division prior to resuming operations in the affected area.

3.9.4 Written Reports

Follow the procedures outlined in Appendix D of this Plan to determine whether follow-up written notification is required. A written report may be required at the discretion of the MDEQ with consideration of the effectiveness of the cleanup and the potential for impacts to groundwater or surface water quality. MDEQ verbal and written notification requirements can be found in Appendix D of this Plan along with a sample notification form.

Written reports to the MDEQ should be sent to the following address:

MDEQ
Environmental Response Division
525 West Allegan Street
PO Box 30473
Lansing, Michigan 48909-7973

Former Mclouth Steel Property - County Property
1491 West Jefferson Avenue, Trenton, Michigan
SPCC/SWPP/ PIP Plan

3.9.5 Other Follow-up Actions

Following any spill, the Spill Response Coordinator will evaluate the success of the spill response, and offer recommendations necessary to improve the effectiveness of the spill response procedures, equipment, or construction. Emergency and spill response information that may be evaluated, if applicable, includes:

- Response time of facility personnel;
- Response time and effectiveness of Spill Response Coordinator;
- Response and preparedness of the fire department, community hospital, etc.;
- Capabilities of emergency equipment;
- Identification of character of emergency and special precautions taken during response;
- Containment of spill, leak or fire;
- Cleanup and disposal of resultant cleanup material and waste;
- Internal communication systems; and
- Evacuation of emergency area.

3.10 Discharge Procedures - §112.7(a)(5)

40 CFR 112.7(a)(5) Organize portions of the Plan that describe the procedures you will use when a discharge occurs in a way that will make them readily usable in an emergency.

Hazardous Materials Spill Response Procedures are in Appendix D and page vii.

3.11 Failure Prediction Facility Drainage - §112.7(b); §112.8(a)

Site reconnaissance was conducted by ASTI to review the physical features of the facility; and identify areas of storage, transfer, and use oil products and potentially polluting materials that are subject to the SPCC and SWPP regulations.

40 CFR 112.7 (b) Where experience indicates a reasonable potential for equipment failure (such as loading or unloading equipment, tank overflow, rupture, or leakage, or any other equipment known to be a source of a discharge), include in your Plan a prediction of the direction, rate of flow, and total quantity of oil which could be discharged from the facility as a result of each type of major equipment failure.

40 CFR 112.8: If you are the owner or operator of an onshore facility (excluding a production facility), you must: (a) Meet the general requirements for the Plan listed under § 112.7, and the specific discharge prevention and containment procedures listed in this section.

Predicted spill direction and rate is provided in Table 2.

*Estimated; actual rate will depend on type of failure

Former McLouth Steel Property - County Property
1491 West Jefferson Avenue, Trenton, Michigan
SPCC/SWPP/ PIP Plan

Former McLouth Steel Property - County Property Storage Tank Containment Potential Spill Direction						
Product and Location	Major Type of Failure	Container Type	Capacity of Each Container (gallons)	Spill Rate (gal/hr) *	Direction of Flow	Secondary Containment Construction
Area 7 East of Foundry Fuel Oil	Rupture	Steel AST	1,000,000	3,000	Into secondary containment	Concrete dike
Area 22 Oil Processing Tank Lubricating Oil	Valve Failure	Steel AST	20,000			
Acid Dosing Tank Acid	Valve Failure	Fiberglass AST	500			
Area 11 Boiler House Oil Tanks Fuel Oil	Valve Failure	Steel AST	20,000		Into secondary containment	Concrete dike
Area 4 Pickle Liquor Process Vats(5) Pickle Liquor	Valve failure	Poly/Fiber glass AST	30,000		Into secondary containment	Concrete dike
Area 20 Pickle Liquor AST Pickle Liquor	Rupture	Poly/Fiber glass AST	20,000		Into secondary containment	Concrete dike
Area 20 Spent Pickle Liquor AST Spent Pickle Liquor	Valve Failure	Steel AST	20,000		Into secondary containment	Concrete dike
Area 14 Used Oil Tank WWTP	Valve Failure	Steel AST	10,000		Into secondary containment	Concrete dike

Former McLouth Steel Property - County Property
1491 West Jefferson Avenue, Trenton, Michigan
SPCC/SWPP/ PIP Plan

Former McLouth Steel Property - County Property Storage Tank Containment Potential Spill Direction						
Product and Location	Major Type of Failure	Container Type	Capacity of Each Container (gallons)	Spill Rate (gal/hr) *	Direction of Flow	Secondary Containment Construction
Area 14 Blue (River) Clarifier	Valve Failure	Steel AST	1,000,000	NA	East	Decommissioned
Area 14 East Clarifier	Valve Failure	Steel AST	650,000	NA	East	Decommissioned
Area 14 West Clarifier	Valve Failure	Steel AST	650,000	NA	East	Decommissioned

Figures 2 and in Appendix B depicts the locations of oil storage and processing areas (i.e. Functional Areas) at the Facility. Table 2 summarizes the following information:

- Functional Area (e.g. Building)
- Location/Products
- General and Specific Aspect(s)
- Regulatory Requirement (e.g. contents, quantity, containment, flow direction)

3.12 Containment - §112.7(c)

40 CFR 112.7 (c) *Appropriate containment and/or diversionary structures or equipment to prevent discharged oil from reaching a navigable watercourse must be provided. The entire containment system, including walls and floor, must be capable of containing oil and must be constructed so that any discharge from a primary containment system, such as a tank or pipe, will not escape the containment system before cleanup occurs. One of the following preventive systems or its equivalent must be used as a minimum:*

Onshore facilities:

- (i) Dikes, berms or retaining walls sufficiently impervious to contain oil;*
- (ii) Curbing;*
- (iii) Culverting, gutters or other drainage systems;*
- (iv) Weirs, booms or other barriers;*
- (v) Spill diversion ponds;*
- (vi) Retention ponds;*
- (vii) Sorbent materials.*

Former Mclouth Steal Property - County Property
1491 West Jefferson Avenue, Trenton, Michigan
SPCC/SWPP/ PIP Plan

Table 2 summarizes the location, capacity, secondary containment of on-site containers. If a spill were to occur the direction of flow is also presented in Table 2. In the event of a spill, all potential pollutants would be contained on site. Table 3 has the location and contents of the spill response kits.

3.13 Explanation of Impracticability of Secondary Containment- §112.7(d)

40 CFR 112.7 (d) Explanation of impracticability of secondary containment Provided your Plan is certified by a licensed Professional Engineer under § 112.3(d), or, in the case of a qualified facility that meets the criteria in § 112.3(g), the relevant sections of your Plan are certified by a licensed Professional Engineer under § 112.6(d), if you determine that the installation of any of the structures or pieces of equipment listed in paragraphs (c) and (h)(1) of this section, and §§112.8(c)(2), 112.8(c)(11), 112.9(c)(2), 112.10(c), 112.12(c)(2), and 112.12(c)(11) to prevent a discharge as described in § 112.1(b) from any onshore or offshore facility is not practicable, you must clearly explain in your Plan why such measures are not practicable; for bulk storage containers, conduct both periodic integrity testing of the containers and periodic integrity and leak testing of the valves and piping;

Installation of secondary containment is considered feasible for the site; therefore, an infeasibility analysis is not necessary for this plan.

**3.14 Applicable State or Local Requirements - §112.7(d)(1); §109.3;
§112.7(k)(2)(ii)(A)**

40 CFR 112.7 (d)(1) An oil spill contingency plan following the provisions of part 109 of this chapter.

40 CFR 109.3 Purpose and Scope The guidelines in this part establish minimum criteria for the development and implementation of State, local, and regional contingency plans by State and local governments in consultation with private interests to insure timely, efficient, coordinated and effective action to minimize damage resulting from oil discharges.

40 CFR 112.7 (k)(2)(ii)(A) Unless you have submitted a response plan under § 112.20, provide in your Plan the following: (A) An oil spill contingency plan following the provisions of part 109 of this chapter.

As stated in General Requirements, this plan complies with the requirements of Michigan Act 451-Part 31 Water Resources Protection.

3.15 Written Commitment of Manpower - §112.7(d)(2); §109.3; §112.7 (k)(2)(ii)(B)

40 CFR 112.7(d)(2) A written commitment of manpower, equipment, and materials required to expeditiously control and remove any quantity of oil discharged that may be harmful.)

Former Mclouth Steal Property - County Property
1491 West Jefferson Avenue, Trenton, Michigan
SPCC/SWPP/ PIP Plan

40 CFR 112.7 (k)(2)(ii)(B) A written commitment of manpower, equipment, and materials required to expeditiously control and remove any quantity of oil discharged that may be harmful.

As stated in the Certification and Management Approval, management has committed the necessary resources to fully implement the plan.

3.16 Inspections - §112.7(e); §112.7(k)(2)(i)

40 CFR 112.7(e) **Inspections, tests, and records** - Conduct inspections and tests required by this part in accordance with written procedures that you or the certifying engineer develop for the facility. You must keep these written procedures and a record of the inspections and tests, signed by the appropriate supervisor or inspector, with the SPCC Plan for a period of three years. Records of inspections and tests kept under usual and customary business practices will suffice for purposes of this paragraph.

40 CFR 112.7(k)(2)(i) (i) Establish and document the facility procedures for inspections or a monitoring program to detect equipment failure and/or a discharge;

To prevent the discharge of oil from storage tanks, reservoirs, or drums, visual inspection of the facility and all related functional areas is conducted quarterly using the Inspection Checklist form (Appendix C). The Inspection Checklist will be used by the Facility to document inspections. Corrective actions for any deficiencies noted during the inspections. The facility's Plan authorized signatory representative will review and approve all Inspection Checklist results. All records will be retained for three years in Appendix E.

Quarterly inspections are conducted on the tanks. All surfaces of the AST are inspected for signs of leakage and impaired container integrity (i.e. corrosion, dents, etc.). Whenever any repairs or structural modifications are made to the AST, brittle fracture testing is conducted in accordance with the appropriate ASTM or API method. All records of inspection and testing will be kept for a minimum of five years.

Former Mclouth Steal Property - County Property
1491 West Jefferson Avenue, Trenton, Michigan
SPCC/SWPP/ PIP Plan

3.17 Training - §112.7(f)(1)

40 CFR 112.7 (f)(1) Personnel instructions –At a minimum, train your oil-handling personnel in the operation and maintenance of equipment to prevent discharges; discharge procedure protocols; applicable pollution control laws, rules and regulations; general facility operations; and, the contents of the facility SPCC Plan.

Training is provided for all employees whose work is associated with oil product storage and for employees who are responsible for implementing activities identified in the Plan. The training informs them of the components and goals of the Plan.

The Facility's SPCC training is conducted at least annually and with new employees. The training identifies the components and goals of the Plan and includes a discussion of oil pollution control laws and regulations, and specific topics such as:

- Proper maintenance of equipment to prevent oil discharges.
- Procedures for filling tanks, including:
 - Check reserve prior to filling.
 - Continuous attendance while filling.
 - Following filling, secure valves and verify that disconnects have not resulted in a spill.
 - Dispensing pumps are manually operated and are only accessible to authorized personnel.
 - Explain that "topping off" the test vehicles should be avoided.
- Quarterly inspections for spills or leaks of oils and significant materials.
- Materials Handling and Storage
 - Train employees which materials are hazardous and where those materials are stored.
 - Point out container labels and how to interpret them.
 - Instruct employee to use the oldest materials first.
 - Demonstrate how valves are tightly closed and how drums should be sealed.
 - Material Safety Data Sheets (MSDSs) location and interpretation.
- Proper disposition of waste materials (i.e. do not dispose of materials down the sewer).
- Particular features of the facility and its operations, which are designed to minimize a release of any polluting materials.
- Quarterly inspection for integrity of tanks, appurtenance and containment structures.
 - Personnel are trained on how to conduct inspections in all areas included in this plan.

Former Mclouth Steel Property - County Property
1491 West Jefferson Avenue, Trenton, Michigan
SPCC/SWPP/ PIP Plan

- Procedures for using inspection checklists (Appendix C) will also be reviewed.
- Spill Control
 - In the event of a spill, the emergency spill procedures outlined in Section 3.0 shall be implemented. These procedures will be reviewed during training.
 - Identification of spill areas and drainage routes.
 - Explanation of cause and prevention of any past spill events.
 - Drill on spill cleanup procedures.
 - Review locations of spill control equipment and the person responsible for operating equipment.
 - General Housekeeping
 - Review and demonstrate basic cleanup procedures.
 - Clearly indicate proper disposal locations.
 - Inform employees about locations of spill control equipment.

In addition, personnel who work in areas where oils are used or stored, or who are associated with bulk deliveries, are trained in, and informed of preventive measures at the facility designed to minimize the potential for oil product incidental or uncontrollable spills or leaks.

This training is recorded using the facility's SPCC Training Form. Completed training records are maintained in the facility files for at least five years.

Former Mclouth Steal Property - County Property
1491 West Jefferson Avenue, Trenton, Michigan
SPCC/SWPP/ PIP Plan

3.18 Emergency Response Coordinators - §112.7(f)(2)

40 CFR 112.7 (f)(2) **Designated person accountable for spill prevention** - Designate a person at each applicable facility who is accountable for oil spill prevention and who reports to facility management.

The following are the designated Spill Response Coordinators:

Primary Spill Coordinator:

Tim Francis

Cell 810 360-9852

tfrancis@asti-env.com

Secondary Spill Coordinator:

Mike Miller

Cell 734 231-2965

There is a Spill Response Coordinator, either on the premises or on call, at all times. These individuals are thoroughly familiar with this Plan, all operations and activities at the facility, and the location and character of oil products handled. They have the authority to commit the resources needed to carry out this Plan. They have successfully completed the necessary training to coordinate an appropriate response to spill incidents. They are also responsible for interfacing with external contacts such as police, fire, or hospital. In the event of a spill, the Spill Response Coordinator will perform the Spill Response Procedures as described on page viii and reporting procedures in Appendix D of this Plan.

3.19 Spill Prevention Coordinator - §112.7(f)(2)

40 CFR 112.7 (f)(2) **Designated person accountable for spill prevention** - Designate a person at each applicable facility who is accountable for oil spill prevention and who reports to facility management.

The primary and secondary Spill Response Coordinators are the designated individuals primarily responsible and accountable for spill prevention at the Facility.

Former Mclouth Steal Property - County Property
1491 West Jefferson Avenue, Trenton, Michigan
SPCC/SWPP/ PIP Plan

3.20 Spill Prevention Briefings - §112.7(f)(3)

40 CFR 112.7 (f)(3) **Spill prevention briefings** - Schedule and conduct discharge prevention briefings for your oil-handling personnel at least once a year to assure adequate understanding of the SPCC Plan for that facility. Such briefings must highlight and describe known discharges as described in 112.1 (b) or failures, malfunctioning components, and any recently developed precautionary measures.

Refer to the Section 3.17 Training in this plan for an explanation of employee training programs.

3.21 Site Security - §112.7(g)(1)

40 CFR 112.7 (g)(1) **Fencing** - Fully fence each facility handling, processing, or storing oil, and lock and/or guard entrance gates when the facility is not in production or is unattended.

The site is surrounded by fence and has a security company that patrols the site when operations are not present.

3.22 Flow Valves Locked - §112.7(g)(2)

40 CFR 112.7 (g)(2) **Flow valves locked** - Ensure that the master flow and drain valves and any other valves permitting direct outward flow of the container's contents to the surface have adequate security measures so that they remain in the closed position when in non-operating or non-standby status.

The facility's regulated tank systems are inspected to assure that drain valves are closed.

3.23 Starter Controls Locked - §112.7(g)(3)

40 CFR 112.7 (g)(3) **Starter controls locked** - Lock the starter control on each oil pump in the "off" position and locate it at a site accessible only to authorized personnel when the pump is in a non-operating or non-standby status.

The facility's regulated tank systems are not equipped with starter controls.

3.24 Pipeline Loading/Unloading - §112.7(g)(4)

40 CFR 112.7 (g)(4) **Pipeline loading/unloading connections securely capped** - Securely cap or blank-flange the loading/unloading connections of oil pipelines or facility piping when not in service or when in standby service for an extended time. This security practice also applies to piping that is emptied of liquid content either by draining or by inert gas pressure.

Former Mclouth Steal Property - County Property
1491 West Jefferson Avenue, Trenton, Michigan
SPCC/SWPP/ PIP Plan

3.25 Lighting - §112.7(g)(5)

40 CFR 112.7 (g)(5) Lighting adequate to detect spills - Provide facility lighting commensurate with the type and location of the facility that will assist in the: (i) Discovery of discharges occurring during hours of darkness, both by operating personnel, if present, and by non-operating personnel (the general public, local police, etc.); and (ii) Prevention of discharges occurring through acts of vandalism.

The facility has security lighting and limited public access. Outside lighting is provided to assist in the early detection or prevention of an accidental or intentional release of pollutant or material as a result of vandalism, theft, sabotage or other improper uses of facility property.

3.26 Tank Car and Truck Unloading/Unloading Racks - §112.7(h)(1)

40 CFR 112.7 (h)(1) Secondary containment for vehicles - Where loading/unloading area drainage does not flow into a catchment basin or treatment facility designed to handle discharges, use a quick drainage system for tank car or tank truck loading and unloading areas. You must design any containment system to hold at least the maximum capacity of any single compartment of a tank car or tank truck loaded or unloaded at the facility.

The facility does not have loading/unloading racks subject to these requirements.

3.27 Warning Notices for Vehicles - §112.7(h)(2)

40 CFR 112.7 (h)(2) Warning notices for vehicles - Provide an interlocked warning light or physical barrier system, warning signs, wheel chocks, or vehicle break interlock system in loading/unloading areas to prevent vehicles from departing before complete disconnection of flexible or fixed oil transfer lines.

The facility receives diesel fuel deliveries from tanker trucks. The fuel is delivered to portable double wall tanks and is used for on site construction equipment. Specific BMPs related to warning notices for vehicles during loading/unloading procedures at the facility are not applicable.

3.28 Inspection of Vehicle Drain Outlets - §112.7(h)(3)

40 CFR 112.7 (h)(3) Inspection of vehicle drain outlets before departure from facility - Prior to filling and departure of any tank car or tank truck, closely inspect for discharges the lowermost drain and all outlets of such vehicles, and if necessary, ensure that they are tightened, adjusted, or replaced to prevent liquid discharge while in transit.

Tanker trucks are supervised during deliveries and checked before leaving the site.

Former Mclouth Steel Property - County Property
1491 West Jefferson Avenue, Trenton, Michigan
SPCC/SWPP/ PIP Plan

3.29 Field-Constructed Aboveground Container Evaluation - §112.7(i)

40 CFR 112.7 (i) **Brittle fracture evaluation requirement** – *Field-constructed aboveground containers undergoing repair, alteration, reconstruction, or change in service that might affect the risk of discharge or failure due to brittle fracture or other catastrophe must be evaluated. This evaluation is also necessary when there has been a discharge or failure due to brittle fracture or other catastrophe.*

There is one field-constructed aboveground containers at the Facility. The tank is not in operation.

3.30 Utilities

The Facility has municipal water and sewer.

3.31 Sumps

Sumps in the buildings are monitored and inspected. Sumps located in secondary containment do not have discharge pipes.

3.32 Conformance with State Requirements - §112.7(j)

40 CFR 112.7(j) *In addition to the minimal prevention standards listed under this section, include in your Plan a complete discussion of conformance with the applicable requirements and other effective discharge prevention and containment procedures listed in this part or any applicable more stringent State rules, regulations and guidelines.*

In order to fulfill the requirements of 40 CFR 112.7 (j), which require Plans to discuss conformance with applicable State rules, regulations and guidelines, compliance with several State regulations was evaluated. The MDEQ has several regulatory programs that address oil storage facilities. Specifically these are:

- Act 451- Part 211 – Underground Storage Tanks, UST Registration;
- Act 451- Part 213 – Leaking Underground Storage Tanks (LUST);
- Act 451 – Part 31 – Water Pollution Prevention

Act 451- Part 211 and Part 213 establishes requirements applicable to the reporting and cleanup of releases of oil from USTs in the State of Michigan. Since the Facility does not have an active UST system, Part 211 and Part 213 would not apply. Reporting requirements identified in these rules, as they pertain to this Plan, are identified in Section 2.9 Spill Reporting Information in this plan. Oils at the Facility that are subject to the SPCC regulations are also

Former Mclouth Steal Property - County Property
1491 West Jefferson Avenue, Trenton, Michigan
SPCC/SWPP/ PIP Plan

regulated under this State program. The Facility exceeds the thresholds that trigger applicability of Act 451- Part 31, and is therefore subject to the requirements of this regulatory program. Please note that preparation and maintenance of this document meets the requirements of Part 31 provided the MDEQ Water Division, local health department and local emergency planning committee (LEPC) are provided with a certification that this Plan has been completed. When applicable, these MDEQ regulatory programs are further discussed in the text of this Plan.

In accordance with 40 CFR Part 112, entitled "Oil Pollution Prevention," the State of Michigan Department of Environmental Quality (MDEQ) Code of Administrative Rules (MI Rules), as amended (Act 451) MCL 324.3101 et seq, "Pollution Incident Prevention Plans (PIPP)" and "Water Pollution Prevention" this Plan has been developed to provide procedures and measures for minimizing the potential discharge of oil⁶ and potentially polluting materials from storage and transfer activities at the Facility into navigable waters of the United States. The site is required to have a PIP Plan because the potentially hazardous materials stored on site are above the regulatory thresholds.

No other applicable local, State or Tribal regulations have been identified for the facility.

⁶ Section 311 of the Clean Water Act defines oil as "oil of any kind or in any form, including, but not limited to, petroleum, fuel oil, sludge, oil refuse and oil mixed with wastes other than dredged spoil." EPA interprets this definition to include crude oil and refined petroleum products, as well as such non-petroleum products as vegetable and animal oils.

Former Mclouth Steal Property - County Property
1491 West Jefferson Avenue, Trenton, Michigan
SPCC/SWPP/ PIP Plan

4.0 REQUIREMENTS FOR ON SHORE FACILITIES

4.1 Drainage Areas - §112.8(b)(1)

40 CFR 112.8 (b)(1) Facility drainage areas - Restrain drainage from diked storage areas by valves to prevent a discharge of oil into the drainage system or facility effluent treatment system, except where facility systems are designed to handle such discharge. Diked areas may be emptied by pumps or ejectors; however, they must be manually activated and the condition of the accumulation must be examined before starting to ensure no oil will be discharged

Containers are stored in secondary containment structures.

4.2 Valves on Diked Storage - §112.8(b)(2)

40 CFR 112.8 (b)(2) Valves used on diked area storage - Use valves of manual, open-and-closed design, for the drainage of diked areas. You may not use flapper-type drain valves to drain diked areas. If your facility drainage drains directly into a watercourse and not into an on-site wastewater treatment plant, you must inspect and may drain uncontaminated retained storm water, as provided in paragraphs (c)(3(ii), (iii), and (iv) of this section. These requirements are as follows. Inspect the retained rainwater to ensure that its presence will not cause a discharge as described in 112.1 (b). Open the bypass valve and reseal it following drainage under responsible supervision. Keep adequate records of such events, for example, any records required under permits issued in accordance with 122.41(j)(2) and 122.41(m)(3) of this chapter.

There secondary containment structures do not have drains or valves.

4.3 Drainage Valves from Undiked Areas - §112.8(b)(3)

40 CFR 112.8(b)(3) Drainage systems from undiked areas - Design facility drainage systems from undiked areas with a potential for a discharge (such as where piping is located outside containment walls or where tank truck discharges may occur outside the loading area) to flow into ponds, lagoons, or catchment basins designed to retain oil or return it to the facility. You must not locate catchment basins in areas subject to periodic flooding.

There are no undiked areas with a potential for discharge at the facility. AST's without dikes are decommissioned.

4.4 Final Discharge of Drainage - §112.8(b)(4)

40 CFR 112.8 (b)(4) Final discharge of drainage - If facility drainage is not engineered as in paragraph (b)(3) of this section equip the final discharge of all ditches inside the facility with a diversion system that would, in the event of an uncontrolled discharge, retain oil in the facility.

AST's without dikes are decommissioned.

Former Mclouth Steal Property - County Property
1491 West Jefferson Avenue, Trenton, Michigan
SPCC/SWPP/ PIP Plan

AST's without dikes are decommissioned.

4.5 Facility Drainage Systems and Equipment - §112.8(b)(5)

40 CFR 112.8 (b)(5) Facility drainage systems and equipment - *Where drainage waters are treated in more than one treatment unit and such treatment is continuous, and pump transfer is needed, provide two "lift" pumps and permanently install at least one of the pumps. Whatever techniques you use, you must engineer facility drainage systems to prevent a discharge as described in 112.1(b) in case there is an equipment failure or human error at the facility*

Treatment systems for drainage waters are not currently utilized at the facility.

4.6 Bulk Storage Containers⁷/Secondary Containment - §112.8(c)(1)

40 CFR 112.8(c)(1) Container compatibility with contents - *Do not use a container for the storage of oil unless its material and construction are compatible with the material stored and conditions of storage such as pressure and temperature.*

All materials and bulk liquids are used and stored in containers compatible with the material contained in them.

4.7 Diked Area Construction and Containment - §112.8(c)(2)

40 CFR 112.8(c)(2) Diked area construction and containment volume for storage containers – *Construct all bulk storage container installations so that you provide a secondary means of containment for the entire capacity of the largest single container and sufficient freeboard to contain precipitation. You must ensure that diked areas are sufficiently impervious to contain discharged oil. Dikes, containment curbs, and pits are commonly employed for this purpose. You may use an alternative system consisting of a drainage trench enclosure that must be arranged so that any discharge will terminate and be safely confined in a facility catchment basin or holding pond.*

All outside storage containers have a secondary containment dike.

4.8 Diked Area Inspection and Drainage of Rainwater - §112.8(c)(3)

40 CFR 112.8 (c)(3) Diked area inspection and drainage of rainwater - *Do not allow drainage of uncontaminated rainwater from the diked area into a storm drain or discharge of an effluent into an open water course, lake, or pond, and bypassing the facility treatment system unless you: (i) Normally keep the bypass valve sealed closed. (ii) Inspect the retained rainwater to ensure that its presence will not cause a discharge as described in 112.1(b). (iii) Open the bypass valve and reseal it following drainage under responsible supervision; and (iv) Keep*

⁷ Note that the definition of bulk storage container excludes oil-filled electrical, operating, or manufacturing equipment.

Former Mclouth Steal Property - County Property
1491 West Jefferson Avenue, Trenton, Michigan
SPCC/SWPP/ PIP Plan

adequate records of such events, for example, any records required under permits issued in accordance with 122.41(j)(2) and 122.41(m)(3) of this chapter.

Dikes at the site do not have drain or bypass structures.

4.9 Corrosion Protection of Buried Metal Tanks - §112.8(c)(4)

40 CFR 112.8 (c)(4) Corrosion protection of buried metallic storage tanks - *Protect any completely buried metallic storage tank installed on or after January 10, 1974 from corrosion by coatings or cathodic protection compatible with local soil conditions. You must regularly leak test such completely buried metallic storage tanks.*

Completely buried steel tanks or UST's are not present at the facility. Below ground vaults are concrete.

4.10 Corrosion Protection of Partially Buried Metal Tanks - §112.8(c)(5)

40 CFR 112.8 (c)(5) Corrosion protection of partially buried metallic storage tanks - *Do not use partially buried or bunkered metallic tanks for the storage of oil, unless you protect the buried section of the tank from corrosion. You must protect partially buried and bunkered tanks from corrosion by coatings or cathodic protection compatible with local soil conditions.*

Partially buried tanks are not present at the facility.

4.11 Aboveground container periodic integrity testing - §112.8(c)(6)

40 CFR 112.8(c)(6) Aboveground container periodic integrity testing - *Test each aboveground container for integrity on a regular schedule, and whenever you make material repairs. The frequency of and type of testing must take into account container size and design (such as floating roof, skid-mounted, elevated, or partially buried). You must combine visual inspection with another testing technique such as hydrostatic testing, radiographic testing, ultrasonic testing, acoustic emissions testing, or another system of non-destructive shell testing. You must keep comparison records and you must also inspect the container's supports and foundations. In addition, you must frequently inspect the outside of the container for signs of deterioration, discharges, or accumulation of oil inside diked areas. Records of inspections and tests kept under usual and customary business practices will suffice for purposes of this paragraph.*

Above ground containers are visually inspected for integrity.

Former Mclouth Steal Property - County Property
1491 West Jefferson Avenue, Trenton, Michigan
SPCC/SWPP/ PIP Plan

4.12 Control of Leakage Through Internal Heating Coils - §112.8(c)(7)

40 CFR 112.8(c)(7) **Control of leakage through internal heating coils** - Control leakage through defective internal heating coils by monitoring the steam return and exhaust lines for contamination from internal heating coils that discharge into an open watercourse, or pass the steam return or exhaust lines through a settling tank, skimmer, or other separation or retention system.

There are no internal heating coils in tanks present at the facility.

4.13 Container Installation Fail Safe Engineered - §112.8(c)(8); §112.8(c)(8)(v)

40 CFR 112.8 (c)(8) **Container installation fail-safe engineered** - Engineer or update each container installation in accordance with good engineering practice to avoid discharges. You must provide at least one of the following devices: (i) High liquid level alarms with an audible or visual signal at a constantly attended operation or surveillance station; in smaller facilities an audible air vent may suffice. (ii) High liquid level pump cutoff devices set to stop flow at a predetermined container content level. (iii) Direct audible or code signal communication between the container gauger and the pumping station. (iv) A fast response system for determining the liquid level of each bulk storage container such as digital computers, telepulse, or direct vision gauges. If you use this alternative, a person must be present to monitor gauges and the overall filling of bulk storage containers. (v) You must regularly test liquid level sensing devices to ensure proper operation.

40 CFR 112.6 (a)(3)(iii) **Overfill prevention, in lieu of the requirements in §§112.8(c)(8) and 112.12(c)(8)**. Ensure that each container is provided with a system or documented procedure to prevent overfills of the container, describe the system or procedure in the SPCC Plan and regularly test to ensure proper operation or efficacy.

Above ground tanks subject to these requirements are not in operation at the facility. Above ground tanks in operation are limited to the diesel fuel used for on-site construction equipment.

4.14 Observation of Discharge Effluents - §112.8(c)(9)

40 CFR 112.8 (c)(9) **Observation of discharged effluents** - Observe effluent treatment facilities frequently enough to detect possible system upsets that could cause a discharge as described in 112.1 (b).

Effluent treatment facilities or discharge effluents are not present at the facility.

4.15 Corrective Action for Visible Oil Leaks - §112.8(c)(10)

40 CFR 112.8 (c)(10) **Corrective actions for visible oil leaks from container seams and gaskets** - Promptly correct visible discharges which result in a loss of oil from the container,

Former Mclouth Steel Property - County Property
1491 West Jefferson Avenue, Trenton, Michigan
SPCC/SWPP/ PIP Plan

including but not limited to seams, gaskets, piping, pumps, valves, rivets and bolts. You must promptly remove any accumulations of oil in diked areas.

Corrective action(s) for visible oil leaks from bulk storage tanks are addressed in the Section 3.16 Inspections in this plan.

4.16 Appropriate Location of Portable Oil Storage Containers - §112.8(c)(11)

40 CFR 112.8 (c)(11) Appropriate location of portable oil storage containers - Position or locate mobile or portable oil storage containers to prevent a discharge as described in 112.1(b). You must furnish a secondary means of containment, such as dikes or catchment basins, sufficient to contain the capacity of the largest single compartment or container with sufficient freeboard to contain precipitation.

On-site above ground tanks that are in service are limited to portable double wall diesel fuel tanks.

4.17 Buried Pipe Installation Protection- §112.8(d)(1)

40 CFR 112.8 (d)(1) Buried piping installation protection and examination - Provide buried piping that is installed or replaced after September 16, 2002 with a protective wrapping and coating. You must also cathodically protect such buried piping installations or otherwise satisfy the corrosion protection provisions for piping in Part 280 of this chapter or a State program approved under Part 281 of this chapter. If a section of buried line is exposed for any reason, you must carefully inspect it for deterioration. If you find corrosion damage, you must undertake additional examination and corrective action as indicated by the magnitude of the damage.

There are no operating buried pipe systems at the facility.

4.18 Management of “out-of-service” Connections - §112.8(d)(2)

40 CFR 112.8 (d)(2) Management of “out-of-service” connections - Cap or blank-flange the terminal connection at the transfer point and mark it as to origin when piping is not in service or is in standby service for an extended time.

Piping that is “out-of-service” at the facility is capped or drained.

4.19 Supports Properly Designed- §112.8(d)(3)

40 CFR 112.8 (d)(3) Pipe support design - Properly design pipe supports to minimize abrasion and corrosion and allow for expansion and contraction.

Pipe support systems are not in service at this facility.

Former Mclouth Steal Property - County Property
1491 West Jefferson Avenue, Trenton, Michigan
SPCC/SWPP/ PIP Plan

4.20 Aboveground Valve and Pipeline Inspections - §112.8(d)(4)

40 CFR 112.8 (d)(4) ***Aboveground valve and pipeline inspections*** - Regularly inspect all aboveground valves, piping, and appurtenances. During the inspection you must assess the general condition of items, such as flange joints, expansion joints, valve glands and bodies, catch pans, pipeline supports, locking of valves, and metal surfaces. You must also conduct integrity and leak testing of buried piping at the time of installation, modification, construction, relocation, or replacement.

The Inspection Checklist Form included in Appendix C of this Plan is used by the facility to document inspections. The inspection includes valves, pumps and hoses.

4.21 Protection of Aboveground Piping from Vehicles - §112.8(d)(5)

40 CFR 112.8 (d)(5) ***Protection of aboveground piping from vehicular traffic*** - Warn all vehicles entering the facility to be sure that no vehicle will endanger aboveground piping or other oil transfer operations.

Vehicular traffic is restricted to areas that would not endanger above ground piping.

4.22 Certification of the Applicability of the Substantial Harm Criteria – Oil Pollution Act of 1990 - §112.20(e)

The final rule of the Oil Pollution Act of 1990 as published on July 1, 1994 in the Federal Register mandates that if an owner/operator determines that the facility does not have the potential to cause “substantial harm,” the owner/operator must complete the certification form contained in 40 CFR 112.20, Attachment C-II. This form must be maintained at the facility.

It has been determined that the facility does not meet the requirements to be considered a risk of substantial harm under 40 CFR, Part 112. The facility does not transfer oil over water to or from vessels. The facility has a total oil storage capacity significantly less than one million gallons. The executed certification and listing of self-selection criteria are presented on page xii.

It is important to note that if the operations at the facility change so that the terms of this certification are no longer satisfied, a Facility Response Plan must be prepared and submitted to the Regional Administrator (See 40 CFR 112.20).

Former Mclouth Steel Property - County Property
1491 West Jefferson Avenue, Trenton, Michigan
SPCC/SWPP/ PIP Plan

5.0 OTHER BMPS

5.1 Good Housekeeping

Good housekeeping means maintaining a clean, orderly work environment. Oil storage areas and equipment are kept neat to prevent releases to the environment. “Good housekeeping” practices are an effective first step toward pollution prevention. Container areas, storage areas, oil-bearing equipment and loading docks are common areas that contribute residual oils to the environment and are areas where good housekeeping practices may be appropriate. Good housekeeping BMPs include:

- Orderly storage of containers, including designated storage areas;
- Scheduling of disposal pick-ups to avoid excessive accumulations of waste oils;
- Routine inspections for leaks and condition of drums, tanks, and containers; and
- Prompt cleanup of spills or incidental releases, using dry chemicals when appropriate.

5.2 Preventive Maintenance

Preventive maintenance limits the potential for equipment malfunctions that would increase the opportunity for a discharge of oil-based pollutants to a receiving body of water. The primary element of preventive maintenance employed at the facility is the routine inspection and repair of facility piping, pumps and storage tanks. The inspections performed as part of the Facility’s Plan are described in Section 2.8 Inspections in this plan.

5.3 Erosion Control Measures

The facility ground surface consists of vegetation, gravel, and pavement. Site topography generally slopes away from the buildings in all directions. There is a berm to contain run off from the unpaved areas.

5.4 Erodible Soils and Slopes

Areas with erodible or exposed soils at the facility are contained by a berm that prevents erosion off site.

Former Mclouth Steel Property - County Property
1491 West Jefferson Avenue, Trenton, Michigan
SPCC/SWPP/ PIP Plan

Table 3 – Contribution of Significant Materials to Run Off		
Equipment/Area	Significant Material	Exposure Potential
Vehicle parking area	Vehicle oils and hydraulic fluids	Medium
Loading and unloading area	Oil	Low
Outside storage areas	None	NA
Outdoor manufacturing or process areas	None	NA
Dust or particulate generation areas	Paved parking areas and landscaped areas	Low
Vents, stacks or emission control equipment	Emission are exempt from air permit according to MDEQ Rule 290; no particulates are emitted	Low
On site waste disposal areas	No on site waste disposal areas	NA
On site vehicles and equipment maintenance	Vehicle and equipment maintenance is not performed outside	NA
Exposed or erodible soils	No exposed or erodible soils on site	NA
Sites of environmental contamination	No site of environmental contamination on site	NA
Areas of significant material residues	No areas of significant material residues	NA
Areas where animals congregate and deposit waste	The landscaped and paved areas have minimal contact with animals	Low

5.5 Outdoor Storage Areas

Outdoor storage areas at the facility are contained within the berm..

5.6 Dust and Particulate Generating Processes

The potential for dust and particulate generation is negligible. Unpaved roads are treated with water from on site water truck.

Former Mclouth Steal Property - County Property
1491 West Jefferson Avenue, Trenton, Michigan
SPCC/SWPP/ PIP Plan

5.7 Materials Expected to be Present in Storm Water Discharges

It is anticipated that typical parking lot runoff, including oils, could be found in the storm water. Significant material does not contact storm water run-off and is not expected to be found in storm water flows to the retention pond.

5.8 Description of Storm Water Outfalls

There are three storm water outfalls discharging to the Detroit River.

5.9 Onsite Waste

Solid waste containers with covers are located outside the buildings. There are no significant materials stored in the solid waste containers.

5.10 Vehicle Washing

Outside vehicle washing is prohibited to prevent grease, oil and fuel from entering the storm water flow.

5.11 Animal Waste

The site consists of paved and unpaved surfaces. A storm water pond retention pond is present at this site. There are minimal impacts from animal waste at the site.

5.12 Contact with Significant Materials

Storm water that contacts the significant materials stored on site are contained by a berm.

5.13 Comprehensive Quarterly Inspection

The completed comprehensive quarterly inspections are located in Appendix E of this plan.

5.14 Annual Review

The completed annual review forms are located on page xiv of this plan.

Former Mclouth Steal Property - County Property
1491 West Jefferson Avenue, Trenton, Michigan
SPCC/SWPP/ PIP Plan

5.15 Non Storm Water Discharges

Non storm water discharges are not present at the site.

5.16 Containment Structures for Solid Polluting Materials

Potentially polluting materials are contained on the site by a berm along the Detroit River.

5.17 Catch Basins

Catch basins, contributing drainage area, and direction of flow are shown on Figures 2 and 3. Catch basins are inspected weekly and have inserts to filter sediment. Completed inspection forms are filed in Appendix E.

5.18 TMDL

TMDL monitoring is not required.

6.0 MICHIGAN PART 5 RULES PRODUCT INVENTORY

In accordance with Michigan Part 5 Rules, chemical products found on-site in quantities in excess of Threshold Management Quantities (TMQs) and the amount of each product stored on-site are presented in Table 4.

Rule 6(1)(d)(i): Polluting Material Inventory.

The threshold reporting quantity (TRQ) is used when determining if a release must be reported. If a quantity of spilled polluting material exceeds the TRQ, the Pollution Emergency Alerting System (PEAS) must be called at 1-800-292-4706 as soon as practicable after detection of the release. A subsequent written follow-up report must then be prepared as discussed within 10 days. Table 4 lists the regulated chemicals and their threshold reporting quantities.

Rule 6(1)(d)(ii): Location of MSDS for all polluting materials on-site in quantities exceeding the threshold management quantity (TMQ).

MSDSs for all polluting materials on-site are kept in a binder within the Maintenance Building.

Former Mclouth Steel Property - County Property
1491 West Jefferson Avenue, Trenton, Michigan
SPCC/SWPP/ PIP Plan

Rule 6(2): Notification PIPP Has Been Prepared.

The facility owner or operator shall maintain the plan at the facility available for inspection upon request of the department (MDEQ). Within 30 days after its completion, the facility owner or operator shall notify the department and certify that the facility is in full compliance with these rules (Part 5 Rules) and notify the Local Emergency Planning Committee (LEPC) and the local health department serving the facility that the pollution incident prevention plan has been completed and is available upon request. Within 30 days after receiving a request for a copy of the plan from the MDEQ, the LEPC or the local health department, the facility owner or operator shall submit a copy of the PIPP to the requesting agency.

The Facility has submitted notification letters that the PIPP was prepared and is available for inspection upon request to the MDEQ, LEPC, and the local health department.

Rule 6(3): Integration of PIPP with Other Plans.

"A facility that is subject to other local, state, or federal emergency or contingency planning requirements may integrate the PIPP with the other plans if the required elements of the PIPP are contained in the integrated plan. Upon preparation of an integrated plan, the facility owner or operator shall submit the updated plan and shall notify the MDEQ and recertify compliance with these rules (Part 5 Rules) in accordance with sub rule (2) of this rule."

As allowed under Rule 6(3), this PIPP has been integrated with the SPCC Plan for the Facility. The appropriate notifications and certifications will be made should the plan need to be changed in the future.

Rule 6(4): PIPP Plan Evaluation.

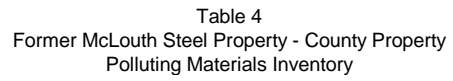
"The facility owner or operator shall evaluate the PIPP or integrated plan every 3 years or after any release that requires implementation of the plan, whichever is more frequent. The facility owner or operator shall update the plan when facility personnel, processes, or procedures identified in the plan change or as otherwise necessary to maintain compliance with this rule. Upon preparation of an updated plan, the facility owner or operator shall notify the department and recertify compliance with these rules in accordance with sub rule (2) of this rule."

Former Mclouth Steal Property - County Property
1491 West Jefferson Avenue, Trenton, Michigan
SPCC/SWPP/ PIP Plan

Rule 6(5): MDEQ Determination of Inadequate or Incomplete PIPP

"If the MDEQ determines that a PIPP prepared under sub rule (1) of this rule or the applicable portions of an integrated plan prepared under sub rule (3) of this rule is incomplete or inadequate, then the department may inform the owner or operator of an oil storage or on-land facility, in writing, of the department's findings and recommendations and request modification of the plan. The owner or operator of the oil storage or on-land facility shall modify the plan and resubmit it in accordance with sub rule (2) of this rule within 30 days after receipt of the department's request, unless a longer response period is authorized by the department in writing."

The Facility will adhere to these requirements should the plan require modification



TOTAL POUNDS POLLUTING MATERIAL - INSIDE	168	lbs
---	------------	------------



Table 3 continued
Metro Delivery, Inc.
Polluting Materials Inventory

Part 5 Rule TMQ = Threshold Management Quantity (Quantity of Polluting Materials Stored On-Site)

2,200	lbs Indoors	440	lbs Outdoors
-------	-------------	-----	--------------

Part 5 Rule TMQ = 1,320 gallons total oil storage

TRQ = Threshold Reporting Quantity (Quantity of Polluting Materials that must be reported as a spill if not contained)

TRQ gallons = TRQ standard (lbs) / polluting material concentration (lbs/gallon)

EHS = SARA Tier II Extremely Hazardous Substance (TRQ or 500 pounds whichever is less)

SARA 311 312 Reporting Threshold = 500 pounds or SARA Tier II Threshold Planning Quantity (TPQ) whichever is less (Total Amount for Each Chemical)
(Extremely Hazardous Substance)

OSHA Hazardous Chemicals = Hazardous Chemicals Identified on MSDS = 10,000 pounds

CERCLA RQ = Comprehensive Environmental Response, Compensation and Liability Act

CAA = Clean Air Act

A report must be filed with the State of Michigan if the quantity of material spilled into the sanitary sewer system or surface waters is greater than the quantity presented in the far right column.

**Former Mclouth Steal Property - County Property
1491 West Jefferson Avenue, Trenton, Michigan
SPCC/SWPP/ PIP Plan**

**APPENDIX A
USEPA SPCC REGULATORY CROSS REFERENCE MATRIX**

APPENDIX A
Former Mclouth Steel Property - County Property
1491 West Jefferson Avenue, Trenton, Michigan
SPCC 40 CFR 112 Cross Reference Matrix

Regulation	Description	Page No.
§112.3(b)(1) or (c)	SPCC Plan prepared prior to facility becoming operational (effective 11/10/2010)	2
§112.3(d)	Professional Engineer (PE) certification with five elements	xiv
§112.5(a)	Amendment of SPCC Plan	3
§112.5(b)	Review of Plan at least every 5 years with documentation (i.e. a log)	4
§112.6	Qualified Facilities: meets qualification criteria	
§112.6(a) or (b)	Tier I or Tier II Self Certification with 8 elements	NA
§112.6(a)(2)	Technical amendments self-certified	NA
§112.6(a)(3)(i)	Template has failure analysis	NA
§112.6(a)(3)(ii)	Template has adequate secondary containment	NA
§112.6(a)(3)(iii)	Template has overfill protection	NA
§112.6(b)(2)(i)	Technical amendment Self-Certified or PE certification for deviations from Plan requirements	N/A
§112.6(b)(3)(i)	Environmental Equivalence certified by PE	N/A
§112.6(b)(3)(ii)	Impracticability determination certified by PE	N/A
§112.6(b)(4)	PE certification with three elements	N/A
§112.7	General requirements for SPCC Plans for all facilities & all oil types	
§112.7	Management approval of Plan	xiii
§112.7	Discussion of facilities, procedures, methods or equipment not yet fully operational with details of installation and operational start-up	7
§112.7(a)(1)	General requirements; discussion of facility's conformance with rule requirements	7
§112.7(a)(2)	Deviations from Plan requirements	8
§112.7(a)(3)	Facility description and diagram, type of oil and capacity of each container, transfer stations and piping, buried containers on diagram	8
§112.7(a)(3)(ii)	Discharge prevention measures	8
§112.7(a)(3)(iii)	Discharge drainage controls	10
§112.7(a)(3)(iv)	Countermeasures for discharge discovery, response and cleanup	10
§112.7(a)(3)(v)	Methods of disposal of recovered materials in accordance with legal requirements	12
§112.7(a)(3)(vi)	Contact list and phone numbers for facility response coordinator, National Response Center, cleanup contractors, all Federal, State, and local agencies who must be contacted in case of a discharge	12
§112.7(a)(4)	Spill reporting information	13
§112.7(a)(5)	Discharge procedures	16
§112.7(b)	Failure prediction (sources, quantities, rates, and directions)	16
§112.7(c)	Secondary containment for all areas from which a discharge of oil could occur (i.e. mobile refuelers, loading/unloading areas, transformers, oil filled operational equipment, etc.) other than bulk containers	18
§112.7(d)	Explanation of impracticability of secondary containment	18

APPENDIX A
Former Mclouth Steel Property - County Property
1491 West Jefferson Avenue, Trenton, Michigan
SPCC 40 CFR 112 Cross Reference Matrix

Regulation	Description	Page No.
§112.7(d)(1)	Oil spill contingency plan per part 109	19
§112.7(d)(2)	Commitment of manpower, equipment & materials to remove a discharge	19
§112.7(e)	Written procedures for inspections and tests	20
§112.7(e)	Records of inspections and tests signed and kept 3 years	20
§112.7(f)(1)	Employee training	20
§112.7(f)(2)	Designated individual accountable for discharge prevention	23
§112.7(f)(3)	Discharge prevention briefings scheduled and conducted annually	24
§112.7(g)(1)	Security: How oil handling, processing and storage areas are secured and access is controlled	24
§112.7(g)(2)	Security: How master flow and drain valves of containers are secured	24
§112.7(g)(3)	Security: How unauthorized access to starter controls on oil pumps is prevented	24
§112.7(g)(4)	Security: How out-of-service and loading/unloading connections of oil pipelines are secured	24
§112.7(g)(5)	Security: Appropriateness of security lighting to both prevent acts of vandalism and assist in the discovery of oil discharges is addressed	25
§112.7(h)	Loading/unloading rack (excluding offshore facilities)	25
§112.7(h)(1)	Containment for contents of largest compartment	25
§112.7(h)(2)	Warning light/sign, barrier system, wheel chocks, or break interlock system to prevent departure with connected lines	25
§112.7(h)(3)	Inspect drains and outlets of vehicles	25
§112.7(i)	Brittle fracture or catastrophic failure evaluation requirements	26
§112.7(j)	Conformance with State requirements	26
§112.7(k)(1)	Qualified Oil-Filled Operational Equipment: meets criteria	
§112.7(k)(2)(i)	Inspection procedures or monitoring program	19
§112.7(k)(2)(ii)(A)	Oil spill contingency plan per part 109	19
§112.7(k)(2)(ii)(B)	Written commitment of resources	19
§112.8	Requirements for Onshore Facilities (excluding production)	
§112.8(a)	Meet general and specific requirements	7
§112.8(b)(1)	Facility drainage: Restrain drainage from diked areas; inspect accumulation	28
§112.8(b)(2)	Facility drainage: Manual valves to drain diked areas, inspect before discharging into watercourse	28
§112.8(b)(3)	Facility drainage: Undiked drainage with a potential for a discharge designed to flow to ponds, lagoons, or catchment basins	28
§112.8(b)(4)	Facility drainage: Final discharge of ditch drainage controlled	28
§112.8(b)(5)	Facility drainage: Where pump transfer is needed, two lift pumps installed with one installed permanently	29
§112.8(c)	Bulk storage containers:	29

APPENDIX A
Former Mclouth Steel Property - County Property
1491 West Jefferson Avenue, Trenton, Michigan
SPCC 40 CFR 112 Cross Reference Matrix

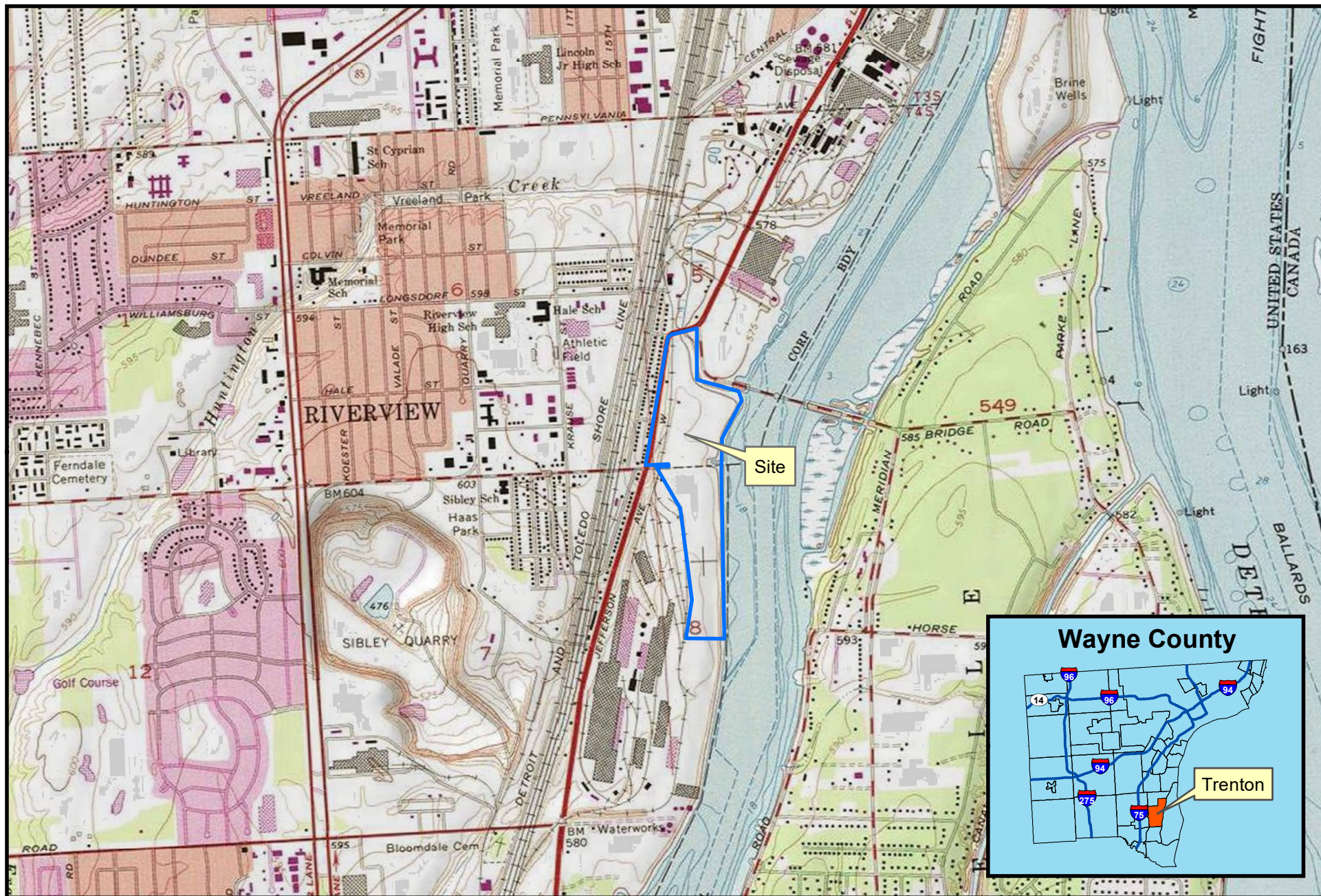
Regulation	Description	Page No.
§112.8(c)(1)	Containers compatible with material and conditions of storage	29
§112.8(c)(2)	Secondary containment for capacity of largest container & sufficient freeboard for precipitation	29
§112.8(c)(3)	Not allow drainage of rainwater from diked areas unless inspected, records kept of drainage events	29
§112.8(c)(4)	Completely buried metallic containers corrosion protected, leak testing conducted	30
§112.8(c)(5)	Partially buried containers corrosion protected	30
§112.8(c)(6)	Integrity testing, visual plus non-destructive shell testing, comparison records kept	30
§112.8(c)(7)	Internal heating coils monitored	31
§112.8(c)(8)	Containers engineered to prevent discharges	31
§112.8(c)(8)(v)	Liquid level sensing devices tested to ensure proper operation	31
§112.8(c)(9)	Observe effluent treatment facilities to detect system upsets	31
§112.8(c)(10)	Correct visible leaks and remove accumulations of oil	31
§112.8(c)(11)	Secondary containment for mobile/portable containers with capacity of largest container &	32
§112.8(d)	Facility transfer operations, pumping and facility process:	32
§112.8(d)(1)	Buried piping installed or replaced after 8/16/02 corrosion protected	32
§112.8(d)(2)	Terminal connections capped/blank flanged when not in service or in standby service for an extended time	32
§112.8(d)(3)	Pipe supports properly designed	32
§112.8(d)(4)	Inspect aboveground piping, integrity and leak test buried piping	33
§112.8(d)(5),	Warn vehicles of aboveground piping	33
§112.20(e)	Completed and signed certification of substantial harm form (Appendix C)	xiii, 33

Former Mclouth Steal Property - County Property
1491 West Jefferson Avenue, Trenton, Michigan
SPCC/SWPP/ PIP Plan

APPENDIX B

FIGURES

- | | |
|----------|-------------------|
| FIGURE 1 | SITE LOCATION MAP |
| FIGURE 2 | SOUTH SITE PLAN |
| FIGURE 3 | NORTH SITE PLAN |



Former McLouth Steel Trenton Plant

1491 West Jefferson Avenue
Trenton, MI

2,000 1,000 0 2,000
Feet



ASTI
ENVIRONMENTAL

Created for: MCS Land Company, LLC
Created by: BJG, January 17, 2018, ASTI Project 10391

Figure 1 - Site Location Map

**Former Mclouth Steal Property - County Property
1491 West Jefferson Avenue, Trenton, Michigan
SPCC/SWPP/ PIP Plan**

APPENDIX C

INSPECTION CHECK LIST FORMS (40 CFR 112.7(e) 40 CFR 112.7(k)(2)(i))

Former Mclouth Steel Property - County Property
1491 West Jefferson Avenue, Trenton, Michigan
SPCC/SWPP/PIP Plan
WEEKLY INSPECTION CHECKLIST

MAINTAIN INSPECTION RECORDS FOR THREE YEARS

General Site Conditions		Yes / No (Y / N)				
Inspection Area	Date					
	Inspector's Initials					
Outside areas	Are there significant oil or fuel leaks from vehicles or debris?					
Outside areas	Is debris present?					
Material storage areas	Are materials properly stored and free of damage or leakage?					
Outside areas	Are there damaged or leaking storage containers?					
Solid Waste Containers	Are containers leaking onto pavement?					
Equipment not in use	Stored indoors or covered and free of leaks?					
On site vehicles and equipment	Are there signs of leakage?					
Oil containing equipment	Are there signs of leakage and are containers stored properly?					

If any spills or leaks are observed, immediately notify the Primary Spill Coordinator, and begin spill countermeasures.

Date	Comments

Former Mclouth Steel Property - County Property
1491 West Jefferson Avenue, Trenton, Michigan
SPCC/SWPP/PIP Plan
WEEKLY INSPECTION CHECKLIST

MAINTAIN INSPECTION RECORDS FOR THREE YEARS

General Site Conditions		Yes / No (Y / N)				
Inspection Area	Date					
	Inspector's Initials					
Outside areas	Are there significant oil or fuel leaks from vehicles or debris?					
Outside areas	Is debris present?					
Material storage areas	Are materials properly stored and free of damage or leakage?					
Outside areas	Are there damaged or leaking storage containers?					
Solid Waste Containers	Are containers leaking onto pavement?					
Equipment not in use	Stored indoors or covered and free of leaks?					
On site vehicles and equipment	Are there signs of leakage?					
Oil containing equipment	Are there signs of leakage and are containers stored properly?					
Outside areas	Are there significant oil or fuel leaks from vehicles or debris?					

If any spills or leaks are observed, immediately notify the Primary Spill Coordinator, and begin spill countermeasures.

Date	Comments

Former McLouth Steel Property - County Property
1491 West Jefferson Avenue, Trenton, Michigan
SPCC/SWPP/PIP Plan

Date: _____

MAINTAIN INSPECTION RECORDS FOR THREE YEARS

Weather Conditions: _____

Inspector's Name: _____

General Comments: _____

GENERAL SITE CONDITIONS	Yes	No
Housekeeping standards maintained in roadways, parking areas and material storage areas?		
Fencing/gates in good condition?		
Debris on site?		
Fuel area free of leaks and spills?		
Parking areas free of leaks and spills?		
Evidence or signs of erosion?		
Are catch basins clean and free from oil sheen?		
Comments:		

DRUM AREA 55 GALLON DRUMS OBSERVATIONS	Yes / No							
Drum Contents								Comments
Number of Drums								
Is the drum free of visible signs of leakage?								
Are there signs of drum corrosion?								
Are the valves (if any) dry and free of visible signs of leakage?								
Comments:								

Former McLouth Steel Property - County Property
1491 West Jefferson Avenue, Trenton, Michigan
SPCC/SWPP/PIP Plan

Date: _____

Product and Location Enter Location for Portable Diesel Fuel Tanks	Capacity (gallons)	Y/N					
		Is secondary containment area free of visible signs of staining or leakage?	Is the tank free of visible signs of leakage?	Are there signs of tank corrosion?	Are the valves and piping connections dry and free of visible signs of leakage?	Tank Supports – Signs of damage or corrosion?	Tank Foundation – Signs of damage or cracks?
East of Foundry Fuel Oil	1,000,000						
Oil Processing Tank Lubricating Oil	20,000						
Acid Dosing Tank Acid	500						
2 Boiler House Oil Tanks Fuel Oil	20,000						
Pickle Liquor Process Vats(5) Pickle Liquor	30,000						
Pickle Liquor AST Pickle Liquor	20,000						
Spent Pickle Liquor AST Spent Pickle Liquor	20,000						
Used Oil Tank WWTP	10,000						
Diesel Fuel Portable Tanks	500 ea						
Diesel Fuel Portable Tanks	500 ea						
Diesel Fuel Portable Tanks	500 ea						

Former McLouth Steel Property - County Property
1491 West Jefferson Avenue, Trenton, Michigan
SPCC/SWPP/PIP Plan

Date: _____

Inspection Checklist for Spill Clean-Up Supplies				
Spill Kit Location	Absorbent pads Booms	Granular Absorbent	Other	Comments
	adequate supply	adequate supply	adequate supply	

Former McLouth Steel Property - County Property
1491 West Jefferson Avenue, Trenton, Michigan
SPCC/SWPP/PIP Plan

Date: _____

EMPTY WASTE CONTAINER (ROLL-OFFS AND DUMPSTERS, DRUMS) OBSERVATIONS	Yes	No
Are the on-site waste containers leaking?		
Is there waste material in the containers?		
Are there visible signs of holes or cracks in the containers?		
Are there drums or other containers on-site containing liquids?		
Comments:		

If any spills or leaks, immediately notify the Primary Spill Coordinator, and begin spill countermeasures.

NOTES: _____

Compliance Certification

Inspector

Print Name Signature Date

Based on the results of this inspection the facility is in compliance with the general permit and the SWPPP: ____YES ____NO

Bruce Bawkon _____ _____ 20471
Print Name Signature Date CSWO

**Former Mclouth Steal Property - County Property
1491 West Jefferson Avenue, Trenton, Michigan
SPCC/SWPP/ PIP Plan**

APPENDIX D

MDEQ SPILL REPORTING GUIDELINES AND MDEQ SPILL OR RELEASE REPORT

Release Notification Requirements in Michigan

While diligent efforts have been made to assure that the information provided in the following table is accurate and complete as of November 5, 2012, there is no guarantee that it covers all of the regulatory requirements for release notification and reporting in Michigan.

Chemical releases in Michigan are potentially reportable under one or more of twenty-eight different **state and federal regulations**. Determining which regulations apply to a specific release can be an overwhelming task. The “Release Notification Requirements in Michigan” table was compiled by the Michigan SARA Title III Program staff in the Department of Environmental Quality (DEQ) to help owners and operators of facilities in Michigan, including vehicles and farms, determine their potential notification and reporting requirements in the event of a chemical release.

Check your permits, licenses, registrations, pollution prevention plans, and local ordinances for *additional* release reporting requirements. In particular, all NPDES permits and most air permits have release reporting requirements in them that are not included on this table.

This table should be used as a tool to identify potential reporting requirements *before* a release occurs, and to identify follow-up reporting requirements based on the release. The table outlines **what** releases must be reported, **when** they must be reported, and **to whom** they must be reported.

What Is a Chemical Release?

The term “release” means spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing. “Chemical” includes substances considered to be toxic or hazardous as well as substances as seemingly harmless as salad oil.

Chemical Lists

The EPA published a consolidated list of chemicals subject to SARA Title III, CERCLA, section 112(r) of the Clean Air Act called the “List of Lists.” The List of Lists, updated in July 2011, is in Appendix B of this guidebook. It is also available as a Microsoft Excel file and as a searchable database via a link on the DEQ Release Reporting website. The “List of Lists” includes:

- **CERCLA Hazardous substances**, including **RCRA waste streams** and **unlisted hazardous wastes**, with reportable quantities (RQ) for releases (originally published in 40 CFR 302, Table 302.4).
- **SARA Title III Extremely Hazardous Substances** (EHS) with RQs for releases (originally published in 40 CFR 355, Appendix A).
- **SARA Title III Section 313 Toxic chemicals** (originally published in 40 CFR 372 Subpart D).

The Part 5 Rules, Spillage of Oil and Polluting Materials, were promulgated pursuant to Part 31 of Michigan’s Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA). These rules include a list of “**polluting materials**” with threshold reporting quantities for releases. The Part 5 Rules are in Appendix C of this guidebook.

NREPA Part 201 refers to the **2001 version of the CERCLA list** of hazardous substances. There is a link to this version on the DEQ Release Reporting website.

NO_x Exemption in CERCLA and SARA Title III

On **October 4, 2006**, EPA finalized an exemption for certain releases of emissions of NO and NO₂ (collectively NO_x) to air from CERCLA and SARA Title III reporting requirements (71 FR 58525). The exemption was effective November 3, 2006, and applies to releases to the air of less than 1,000 pounds of NO_x in 24 hours that are the result of combustion. The exemption also applies to emissions from combustion-related activities such as detonation or processes that include both combustion and non-combustion operations, such as nitric acid production.

Petroleum Exclusion in CERCLA

Petroleum, including crude oil or any fraction thereof is excluded from the definitions of "hazardous substance," and "pollutant or contaminant" under CERCLA. Petroleum releases, accordingly, must generally be addressed under the authority of other law such as the underground storage tank (UST) provisions of RCRA, or the Clean Water Act (CWA). This exception, which has become known as the "**petroleum exclusion**," plays a significant role in CERCLA because many sites contain petroleum contamination. Petroleum frequently contains specific listed hazardous substances, the most common of which are benzene, toluene and xylenes. In general, such substances are not treated as CERCLA hazardous substances as long as they are found in refined petroleum fractions and are not present at levels that exceed those normally found in such fractions. Substances present in petroleum as a result of contamination during use or from mixing or combining are not within the petroleum exclusion and in such cases, the substances are considered CERCLA hazardous substances.

NREPA Part 201, Environmental Remediation, section 20114(1)(b) states that the requirements to report a release under this regulation apply to "reportable quantities of hazardous substances established pursuant to 40 CFR 302.4 and 302.6 (2001)...." This regulation references the listed hazardous substances published in the Code of Federal Regulations. It does not adopt the petroleum exclusion that applies to federal regulation of releases of CERCLA hazardous substances. As a result, petroleum constituents, including component substances such as benzene, toluene, and xylenes, plus any additives (e.g., MTBE, lead) are all reportable under Part 201 based on the reportable quantities in the 2001 version of the CERCLA list of hazardous substances published in 40 CFR 302.4 and 302.6. (See the release calculation example at the end of this chapter.)

Initial Notification: There is NO PENALTY for over-reporting!

When there is a release, determining if, when, and to whom it should be reported can be a daunting task even if you are familiar with the table. It is therefore recommended that **if there is a release, immediately call** the following three numbers even if the content or quantity of the released material has not yet been determined:

Post These Numbers by Every Phone

911 to notify Local authorities

800-292-4706 (PEAS) to notify State authorities

800-424-8802 (NRC) to notify Federal authorities

You can then respond to the release, reassess the situation, and make additional notifications as required (e.g. as specified in the table or in your permits). Your follow-up report will provide details that explain why a release was *or was not* reportable.

SARA Title III section 304 requires that the LEPC be notified immediately of a release. Many LEPCs accept the call to 911 as notification. Others require direct notification. Contact your LEPC in advance to find out their requirements.

Written Follow-up Report

Written follow-up report forms that are specified in the table are required by regulation. The DEQ has developed a generic written report form called “Spill or Release Report” (EQP 3465) that can be used to report releases of:

- Hazardous and extremely hazardous substances under SARA Title III,
- Hazardous waste under NREPA Part 111,
- Liquid industrial waste under NREPA Part 121,
- Hazardous substances under NREPA Part 201, and
- Polluting materials under NREPA Part 31, Part 5 Rules.

Hot Tip!

Use the generic Spill or Release Report form to record *initial* notifications.

Links to the release reporting forms and chemical lists referenced in the table are available on the DEQ Release Reporting website. Visit this site for updated DEQ and LEPC contact information.

NOTE: Executive Order 2012-14 transferred the DEQ storage tank program to the Bureau of Fire Services in LARA effective December 2, 2012. Phone numbers and email addresses associated with the storage tank program and staff will not change. At the time of this writing, the exact location of the storage tank program within LARA has not been determined.

For information regarding a specific regulation, contact the agency specified in the “notes” column of the table. If this is a DEQ division, contact the *district* division office. See appendix D for district offices.

General questions or comments regarding this table should be directed to the Michigan SARA Title III Program at 517-373-8481 or deq-sara@michigan.gov.

DEQ program information is available at www.michigan.gov/deq or phone the DEQ Environmental Assistance Center at 800-662-9278.

DEQ Release Reporting website:
www.michigan.gov/chemrelease

Acronyms are defined at the end of the table.

Release Notification Requirements in Michigan^{*}

Act & Regulation	Reporting Criteria	Initial Notification	Written Follow-up Report	Notes
SARA Title III Section 304 40 CFR 355.40 (EHS & Hazardous Substances)	<p>Release of a CERCLA hazardous substance (40 CFR 302, Table 302.4) or Extremely Hazardous Substance (EHS) (40 CFR 355, Appendix A) from a facility (all buildings, equipment, etc. located on a single site or adjacent sites owned or operated by the same person) at which a hazardous chemical (as defined under 29 CFR 1910.1200(c)) is used, produced or stored (including motor vehicles, rolling stock, and aircraft) in a quantity equal to or greater than its corresponding reportable quantity in any 24-hr period that migrates beyond the facility boundaries.</p> <p>Includes continuous release reportable under CERCLA Section 103.</p> <p>Excludes release that is federally permitted or that results in exposure to persons solely within the boundaries of the facility. See 67 FR 18899 (4/17/02) for guidance on the CERCLA federally permitted release definition for certain air emissions.</p> <p>Does not apply to the application, handling, and storage by an agricultural producer of a pesticide product registered under FIFRA.</p> <p>Excludes release < 1000 lbs of NOx released to the air from combustion or combustion-related activities.</p>	<p>Immediate (within 15 minutes after discovery): to LEPC(s) of any area(s) potentially affected, and SERC (DEQ PEAS line accepts notification on behalf of SERC) by owner or operator.</p> <p>Continuous releases must be identified as such and are reported initially and when there is a significant change in the release.</p> <p>See 73 FR 76948 (12/18/08): Only CAFOs are required to report continuous releases to the air from animal waste.</p> <p>Transportation related releases can be reported to 911.</p>	<p>As soon as practicable (within 30 days) after release: to LEPC(s) and SERC.</p> <p>Not required for releases that occur during transportation or from storage incident to transportation.</p> <p>For continuous releases: Initial written within 30 days after initial telephone notification: to LEPC(s) and SERC.</p> <p>Michigan SARA Title III Program accepts reports on behalf of the SERC.</p>	<p>PEAS: 800-292-4706</p> <p>Contact your LEPC for a phone number to report releases.</p> <p>Call 911 if your LEPC is not active.</p> <p>For further information & LEPC contact information, contact Michigan SARA Title III Program 517-373-8481</p>
CERCLA Section 103 40 CFR 302 (Hazardous Substances)	<p>Release into the environment of a CERCLA hazardous substance (40 CFR 302, Table 302.4) or hazardous constituent in a mixture or solution (including hazardous waste streams) from a vessel or facility (any building, structure, etc. including motor vehicles, rolling stock, aircraft, pipe, pipeline, well, pond, lagoon, impoundment, ditch, landfill, or site where a hazardous substance has come to be located) in a quantity equal to or greater than its corresponding reportable quantity in any 24-hour period.</p> <p>Excludes petroleum, including oil, or any fraction thereof.</p> <p>See 40 CFR 302.6 for notification requirements for radionuclide releases.</p> <p>Includes continuous release: occurs without interruption or abatement or that is routine, anticipated, and intermittent and incidental to normal operations or treatment processes.</p> <p>See 67 FR 18899 (4/17/02) for guidance on the CERCLA federally permitted release definition for certain air emissions. See 71 FR 58525 (10/4/06) re Exemption for NOx releases to the air of < 1000 lbs from combustion or combustion-related activities.</p> <p>Does not apply to the application, handling, and storage by an agricultural producer of a pesticide product registered under FIFRA.</p>	<p>Immediate (within 15 minutes after discovery): to NRC by person in charge of vessel or offshore or onshore facility.</p> <p>Continuous releases must be identified as such and are reported initially and when there is a significant change in the release.</p> <p>See 73 FR 76948 (12/18/08) re Exemption from reporting continuous releases to the air from animal waste.</p>	<p>For continuous releases only: Initial written within 30 days after initial telephone notification & Follow-up within 30 days of first anniversary of initial written notification: to EPA Region 5.</p>	<p>NRC 800-424-8802 or online at www.nrc.uscg.mil/nrchp.html</p> <p>For further information contact Michigan SARA Title III Program 517-373-8481 or EPA's Superfund, TRI, EPCRA, RMP, and Oil Information Center 800-424-9346</p>

NOTE: If the release is a **THREAT TO HUMAN HEALTH or SAFETY**, call 911 or your local fire department.

^{*}This table covers only those reporting requirements found in rules and regulations that apply in Michigan. **Releases might be reportable under multiple regulations.**

Additional reporting requirements might be found in **permits**, licenses, registrations, **contingency and pollution prevention plans**, and local ordinances.



Release Notification Requirements in Michigan**

Act & Regulation	Reporting Criteria	Initial Notification	Written Follow-up Report	Notes
NREPA 1994 PA 451 Part 201, Environmental Remediation	<p>Unpermitted release into the environment over a 24-hour period of a hazardous substance (<i>2001 version</i> of the CERCLA list, 40 CFR 302, Table 302.4) in a quantity equal to or greater than its corresponding reportable quantity.</p> <p>Does not include release solely from UST systems regulated under Part 213, and release solely from disposal area licensed under Part 115 and discovered through disposal area's hydrogeological monitoring plan.</p> <p>Release of substance regulated by MI Dept of Agriculture & Rural Development (MDARD) (fertilizer, soil conditioner, or pesticide) excluding normal agricultural practices: <i>also</i> report to MDARD.</p>	<p>Within 24 hours after discovery: to DEQ-RRD district office (PEAS after hours) by owner, operator or person holding easement interest.</p> <p>Report agricultural release to MDARD.</p>	<p>Upon request: to DEQ-RRD district supervisor.</p> <p>Specific forms required for: "Notice Regarding Discarded or Abandoned Containers" (Form EQP4476) and "Notice of Migration of Contamination" (Form EQP4482).</p>	<p>PEAS: 800-292-4706</p> <p>MDARD Agriculture Pollution Emergency Hotline: 800-405-0101</p> <p>For further information contact DEQ-RRD</p>
NREPA 1994 PA 451 Part 83, Pesticide Control Regulation 640, Commercial Pesticide Bulk Storage (Agricultural)	<p>Release to the environment of a commercial pesticide >5 gallons or 100 pounds.</p> <p>Reportable agrichemical spills as defined in the provisions of SARA Title III section 304 and CERCLA section 103 shall be immediately reported to PEAS and the NRC.</p> <p>The term "release" excludes normal agricultural practices.</p>	<p>Immediate: to PEAS*</p> <p>Also notify NRC for spills reportable under SARA Title III & CERCLA.</p> <p>*MDARD prefers direct notification to their hotline. PEAS forwards all agriculture calls to MDARD.</p>	<p>Within 90 days: to MDARD Pesticide and Plant Pest Management Div. a revised site plan.</p>	<p>MDARD Agriculture Pollution Emergency Hotline: 800-405-0101</p> <p>PEAS: 800-292-4706</p> <p>NRC 800-424-8802 or online at www.nrc.uscg.mil/nrchp.html</p> <p>For further information contact MDARD 517-241-2979</p>
NREPA 1994 PA 451 Part 85, Fertilizers Regulation 641 Commercial Fertilizer Bulk Storage Regulation 642, On Farm Fertilizer Bulk Storage (Agricultural)	<p>Release to the environment of a commercial fertilizer >55 gallons liquid or 650 pounds dry, or tank overfills; or an on farm fertilizer > 55 gallons liquid.</p> <p>For storage tank with bladder system instead of diking: also report all overfills and internal spills.</p> <p>The term "release" excludes normal agricultural practices. The term "liquid fertilizer" excludes anhydrous ammonia.</p>	<p>Immediate: to MDARD by commercial bulk storage facility personnel</p> <p>(For farms, the regulation does not specify who makes the report.)</p>	<p>Not required.</p>	<p>MDARD Agriculture Pollution Emergency Hotline: 800-405-0101</p> <p>For further information contact MDARD 517-241-2979</p>

NOTE: If the release is a **THREAT TO HUMAN HEALTH or SAFETY**, call 911 or your local fire department.

*This table covers only those reporting requirements found in rules and regulations that apply in Michigan. **Releases might be reportable under multiple regulations.**

Additional reporting requirements might be found in **permits**, licenses, registrations, **contingency and pollution prevention plans**, and local ordinances.



Release Notification Requirements in Michigan**

Act & Regulation	Reporting Criteria	Initial Notification	Written Follow-up Report	Notes
Fire Prevention Code 1941 PA 207 Section 29.5g	A fire, explosion, spill, leak, accident, or related occurrence that involves the transportation, storage, handling, sale, use, or processing of hazardous material by a firm, person, or vehicle. Hazardous material = explosives, pyrotechnics, flammable gas, flammable compressed gas, flammable liquid, nonflammable compressed gas, combustible liquid, oxidizing material, poisonous gas or liquid, LPG, or irritating, etiologic, radioactive, or corrosive material. Act 207 amended 6/19/2006. The State Fire Marshall is in the LARA, Bureau of Fire Services.	Immediately following incident, report known details regarding incident: to LARA Bureau of Fire Services <i>and</i> organized local fire department by owner of firm or vehicle or the person <i>and</i> the chief of first police or organized fire dept upon scene of incident.	Not required.	Contact LARA Bureau of Fire Services by calling the MSP HazMat hotline: 800-525-5555 For further information: contact local fire department
Fire Prevention Code 1941 PA 207 Part 2 of Storage and Handling of Flammable and Combustible Liquids rules (FL/CL code)	A release from an AST system of > 55 gal of any flammable or combustible liquid (flash point < 200°F) to the ground or within a secondary containment area during any 24 hour period. Note: Many liquid pesticides are combustible (flash point between 100 and 200°F).	As soon as practicable after detection of release: to PEAS by owner or operator.	Within 10 days after release: to LARA Bureau of Fire Services, Storage Tank Program outlining cause, discovery, response to prevent recurrence.	PEAS: 800-292-4706 For further information: contact LARA Bureau of Fire Services, Storage Tank Program
49 CFR 171 (Transportation of Hazardous Materials)	Initial verbal notice: Incident during transportation (including loading, unloading, temporary storage) involving (1) hazardous material and resulting in death, injury requiring hospitalization, public evacuation ≥ 1 hour, major transportation artery or facility closure ≥ 1 hour, or flight pattern alteration; (2) fire, breakage, spillage, or suspected contamination involving radioactive material or infectious substances; (3) marine pollutant exceeding 450 L (119 gal) liquid or 400 kg (882 lbs) solid; (4) other per judgment of person in possession of the hazardous material (e.g., continuing danger to life exists at scene of incident). Hazardous material = CERCLA hazardous substance (40 CFR 302, Table 302.4), hazardous waste (40 CFR 262), marine pollutant (49 CFR 172.101 Appendix B), elevated temperature material, listed on Hazardous Materials Table (49 CFR 172.101), or meets criteria for hazard class/division in 49 CFR 173. Written follow-up report: Required for all of above, plus any unintentional release of hazardous material from a package (including tank); or any quantity of hazardous waste discharged during transportation; or structural damage to lading retention system, even if no release, on specification cargo tank with ≥ 1000 gal capacity containing hazardous material; or undeclared hazardous material discovered.	As soon as practical but no later than 12 hours after occurrence of the incident: to NRC by each person in physical possession of the hazardous material. For infectious substances, notice may be given to the Director, Centers for Disease Control and Prevention, U.S. Public Health Service instead of NRC.	Within 30 days after discovery: to US DOT on DOT Form F 5800.1 (01-2004) "Hazardous Materials Incident Report." Report online at https://hazmatonline.phmsa.dot.gov/incident/ Report must be updated w/i 1 year of incident if: Death results from injury; hazardous material or package info on prior report misidentified; damage, loss or cost not known on prior report becomes known or changes by \$25,000 or 10%. See regulation for exceptions to written report.	NRC 800-424-8802 or online at www.nrc.uscg.mil/nrchp.html U.S. Public Health Service 800-232-0124 For further information contact US DOT Hazardous Materials Information Center at 800-467-4922 or online at www.phmsa.dot.gov/hazmat

NOTE: If the release is a **THREAT TO HUMAN HEALTH or SAFETY**, call 911 or your local fire department.

*This table covers only those reporting requirements found in rules and regulations that apply in Michigan. **Releases might be reportable under multiple regulations.**

Additional reporting requirements might be found in **permits**, licenses, registrations, **contingency and pollution prevention plans**, and local ordinances.



Release Notification Requirements in Michigan**

Act & Regulation	Reporting Criteria	Initial Notification	Written Follow-up Report	Notes
NREPA 1994 PA 451 Part 31, Water Resources Protection (Release to surface of ground, surface water, groundwater or public sewer system)	Unpermitted release directly or indirectly to public sewer system, surface of ground, surface water or groundwater from an oil storage facility or on-land facility of a “ polluting material ” (oil, salt , or any material specified in table 1 in R 324.2009) in excess of its threshold reporting quantity during any 24-hour period. See Part 5 rules, effective 8/31/01, for details and exemptions. HB 5586 effective 6/15/04 amended the reporting requirements.	As soon as practicable after detection: to PEAS <i>and</i> 911 by owner, operator or manager. State agencies call 911 if release reported to them by another state or Canada.	Within 10 days after release: to DEQ-WRD district supervisor <i>and</i> to the local health department where the release occurred, outlining cause, discovery, response & prevention of recurrence.	PEAS: 800-292-4706 For further information contact DEQ-WRD
CWA Section 311 33 CFR 153 (Navigable waters – Coast Guard/DOT) Control of Pollution by Oil and Hazardous Substances, Discharge Removal	Discharge of a harmful quantity of oil or a hazardous substance from a vessel or onshore or offshore facility into or upon navigable waters of the United States or adjoining shorelines . Harmful quantity = oil discharge that violates applicable water quality standards, or causes a film or sheen upon or discoloration of the surface of the water or adjoining shorelines, or causes a sludge or emulsion to be deposited beneath the surface of the water or upon adjoining shorelines; or a CERCLA hazardous substance (40 CFR 302, Table 302.4) in a quantity equal to or greater than its corresponding reportable quantity. Oil = oil of any kind or in any form including petroleum, crude oil, petroleum refined products, sludge, oil refuse, oil mixed with wastes, etc., as well as vegetable and animal oils.	Immediate: to NRC by person in charge of vessel or facility. If direct reporting to NRC not practicable, may report to district Coast Guard or EPA predesignated OSC.	Not required.	NRC 800-424-8802 or online at www.nrc.uscg.mil/nrchp.html District 9 Coast Guard 216-902-6117 EPA Region 5 for predesignated OSC 312-353-2318 For further information contact EPA Region 5 at 312-353-8200 or District 9 Coast Guard at 216-902-6045
CWA Section 311 40 CFR 110 (Discharge of Oil)	Discharges of oil that violate applicable water quality standards, or cause a film or sheen upon or discoloration of the surface of the water or adjoining shorelines , or cause a sludge or emulsion to be deposited beneath the surface of the water or upon adjoining shorelines. Oil = oil of any kind or in any form including petroleum, crude oil, petroleum refined products, sludge, oil refuse, oil mixed with wastes, etc., as well as vegetable and animal oils.	Immediate: to NRC by person in charge of vessel or facility.	Not required.	NRC 800-424-8802 or online at www.nrc.uscg.mil/nrchp.html For further information contact DEQ-WRD
NREPA 1994 PA 451 Part 31, Water Resources Protection (Sewer Systems)	Discharge of untreated sewage or partially treated sewage from a sewer system onto land or into the waters of the state. “Sewer system” means a sewer system designed and used to convey sanitary sewage or storm water, or both.	Immediate (within 24 hours): to DEQ-ODWMA district office (PEAS after hours); Local health depts.; Daily newspaper circulated in source & affected counties; & Affected municipalities.	At end of discharge: to same parties notified initially on Form EQP 5857 (Rev. 12/2011) “Report of Discharges of Untreated or Partially Treated Sewage.” Includes results of E. coli testing.	PEAS: 800-292-4706 For further information contact DEQ-ODWMA
NREPA 1994 PA 451 Part 41, Sewerage Systems	Discharges of pollutants from sewerage systems (which can include combined sewers) in excess of those authorized by a discharge permit issued by the DEQ to surface water or groundwater as a result of a facility breakdown or emergency. Sewerage systems handle sanitary sewage or other industrial liquid wastes.	Promptly: to DEQ-ODWMA district office (PEAS after hours) by owner.	Within 72 hours: to DEQ-ODWMA district supervisor, outlining cause, discovery, corrective actions taken to minimize impact, restore operations, and eliminate future unpermitted discharges.	PEAS: 800-292-4706 For further information contact DEQ-ODWMA

NOTE: If the release is a **THREAT TO HUMAN HEALTH or SAFETY**, call 911 or your local fire department.

*This table covers only those reporting requirements found in rules and regulations that apply in Michigan. **Releases might be reportable under multiple regulations.**

Additional reporting requirements might be found in **permits**, licenses, registrations, **contingency and pollution prevention plans**, and local ordinances.



Release Notification Requirements in Michigan**

Act & Regulation	Reporting Criteria	Initial Notification	Written Follow-up Report	Notes
NREPA 1994 PA 451 Part 211, Underground Storage Tanks Part 213, Leaking Underground Storage Tanks	Releases of a regulated substance of any amount from underground storage tank (UST) systems (includes the emergency shutoff valve on down) subject to registration; overfill from UST fillpipe or vent onto ground; release from aboveground pipe attached to UST system. Regulated substance = petroleum or CERCLA hazardous substance (40 CFR 302, Table 302.4) or substance listed in CAA title 1 part A sect 112. Petroleum includes, but is not limited to, crude oil, motor fuels, jet fuels, distillate fuel oils, residual fuel oils, lubricants, and petroleum solvents.	(Part 211) Within 24 hours after discovery: to LARA Bureau of Fire Services, Storage Tank Program by email, or fax on Form EQP 3826 (Rev. 4/12) If free product, Form EQP 3800 (Rev 02/2003) required by UST owner or operator, or employee of owner or operator. Includes releases discovered years after UST system removed	(Part 213) At 180 days Initial Assessment Report on Form EQP3841 (Rev. 02/2003) if not closed; at 365 days Final Assessment Report on Form EQP3842 (Rev. 11/2006) if still not closed; at closure Closure Report on Form EQP3843 (Rev. 02/2003) to DEQ-RRD district project manager.	Email: deq-std-tanks@michigan.gov Fax: 517-335-2245 For further information contact DEQ-RRD or phone 800-MICHUST
NREPA 1994 PA 451 Part 111, Hazardous Waste Management (Generators; Treatment, Storage & Disposal Facilities (TSDF); Transporters)	Any amount of characteristic hazardous waste or listed hazardous waste (as defined in R 299.9203 "Hazardous Waste Rule 203") reaches the surface water or groundwater, or A fire, explosion, or other release of hazardous waste or hazardous waste constituent occurs that could threaten human health or the environment. or A release of >1lb (or ≤1lb if not immediately cleaned up) hazardous waste to the environment from a tank system or associated secondary containment system. Additional hazardous waste reporting requirements under NREPA Part 201 and CERCLA.	Immediate: to PEAS (or for Tank systems/secondary containment, within 24 hours of discovery: to DEQ-OWMRP) and to NRC if threat to human health or environment outside facility by generator, or owner or operator of TSDF, or transporter.	For large quantity generators and TSDF: Within 15 days after incident IF the contingency plan had to be implemented: to DEQ-OWMRP. For tank/secondary containment systems: Within 30 days of discovery: to DEQ-OWMRP. For transporters: to US DOT if required per 49 CFR 171.	PEAS: 800-292-4706 NRC 800-424-8802 or online at www.nrc.uscg.mil/nrchp.html NREPA Part 111 requires transporters to comply with 49 CFR 171 and 33 CFR 153. For further information contact DEQ-OWMRP
NREPA 1994 PA 451 Part 121, Liquid Industrial Waste	The liquid industrial waste spill could threaten public health, safety, welfare, or the environment, or has reached surface water or groundwater. Liquid industrial waste includes nonhazardous brine, by-product, industrial wastewater, leachate, off-spec commercial chemical product, sludge, sanitary or storm sewer clean-out residue, grease trap clean-out residue, spill residue, used oil, or other liquid waste not regulated by other laws.	Immediate: to PEAS and local authorities by generator, transporter, or owner or operator of facility. Refer to MCL 324.12111(1) for required report elements	Prepare within 30 days after incident. Submit upon request: to DEQ-OWMRP district supervisor. Refer to MCL 324.12111(1) for required report elements	PEAS: 800-292-4706 For further information contact DEQ-OWMRP
NREPA 1994 PA 451 Part 55, Air Pollution Control	Abnormal condition, start-up, shutdown, or malfunction that results in emissions exceeding permissible (in rule, permit or order) levels of hazardous air pollutants (HAPs) (CAA Sect. 112(b)) or toxic air contaminants (as specified in permit) for > 1 hour, or any air contaminant for > 2 hours. Written follow-up report only required for emission exceedences lasting > 2 hours.	As soon as possible, but not later than 2 business days after discovery: to DEQ-AQD district office (PEAS after hours) by owner or operator.	Within 10 days after start-up, shutdown, or abnormal condition, malfunction corrected. Or within 30 days of abnormal condition, malfunction discovery- whichever first: to DEQ-AQD district supervisor.	PEAS: 800-292-4706 For further information contact DEQ-AQD

NOTE: If the release is a **THREAT TO HUMAN HEALTH or SAFETY**, call 911 or your local fire department.

*This table covers only those reporting requirements found in rules and regulations that apply in Michigan. **Releases might be reportable under multiple regulations.**

Additional reporting requirements might be found in **permits**, licenses, registrations, **contingency and pollution prevention plans**, and local ordinances.



Release Notification Requirements in Michigan**

Act & Regulation	Reporting Criteria	Initial Notification	Written Follow-up Report	Notes
NREPA 1994 PA 451 Part 55, Air Pollution Control (Permit to Install Exemptions)	Emergency venting of natural gas from transmission and distributions systems or field gas from gathering lines in amounts > 1,000,000 standard cubic feet per event. Emergency = unforeseen event that disrupts normal operating conditions and poses a threat to human life, health, property or the environment if not controlled immediately. See R 336.1285(mm), effective 6/20/2008, for details.	Within 24 hours of the event: to PEAS by owner or operator.	Not required.	PEAS: 800-292-4706 For further information contact DEQ-AQD
1978 PA 368 Part 133, Dry Cleaning	Condition or incident presents a threat or hazard to public health or safety.	Immediate: to DEQ-AQD district office (PEAS after hours) by owner or operator.	Within 30 days after incident: To DEQ-AQD district supervisor.	PEAS: 800-292-4706 For further information contact DEQ-AQD
NREPA 1994 PA 451 Part 615, Supervisor of Wells (oil and gas production fields)	A loss, spill or release of (1) any amount of brine, crude oil, or oil or gas field waste <i>unless</i> it is less than 42 gallons and occurs while an authorized representative is on site and is completely contained and cleaned up within 1 hour, or (2) any unpermitted amount of natural gas , or (3) chemicals used in association with oil and gas activities.	Within 8 hours after discovery of: 42 gallons or more of brine, crude oil, or oil or gas field waste, or any amount of chemical or natural gas, or; less than 42 gallons if the spill contacts surface water, groundwater, or other environmentally sensitive resources, or is not completely contained and cleaned up within 48 hours: to DEQ-OOGM district office (PEAS after hours) by permittee.	Within 10 days after discovery of loss or spill: to DEQ-OOGM district supervisor on Form EQP-7233 (Rev 1/2012) "Report of Loss or Spill." by permittee Written report only for less than 42 gallons of brine, crude oil, or oil and gas field waste if spill does not contact surface water, groundwater, or other environmentally sensitive resources, and is completely contained and cleaned up within 48 hours.	PEAS: 800-292-4706 For further information contact DEQ-OOGM
49 CFR 191 Transportation of Natural and Other Gas by Pipeline	An incident, meaning: (1) Release of gas from a pipeline or of liquefied natural gas or gas from an LNG facility that results in: Death or hospitalization; or Property damage ≥ \$50,000. (2) Event that results in emergency shutdown of LNG facility. (3) Significant event per operator. Written Incident reports not required for LNG facilities. Applies to pipeline systems and the transportation of gas through those systems in or affecting interstate or foreign commerce. (See 49 CFR 191.3 for details.)	Earliest practicable moment following discovery: to NRC by operator.	As soon as practicable, and within 30 days after discovery: to US DOT. on DOT Form PHMSA F 7100.1 (06-2011) "Incident Report – Gas Distribution System." or PHMSA F 7100.2 (06-2011) "Incident Report – Gas Transmission and Gathering Systems" Supplemental report filed as necessary as soon as practicable. Written report not required for LNG facilities.	NRC 800-424-8802 or online at www.nrc.uscg.mil/nrchp.html For further information contact US DOT Pipeline Safety Information Center at 202-366-4595 or online at http://ops.dot.gov

NOTE: If the release is a **THREAT TO HUMAN HEALTH or SAFETY**, call 911 or your local fire department.

*This table covers only those reporting requirements found in rules and regulations that apply in Michigan. **Releases might be reportable under multiple regulations.**

Additional reporting requirements might be found in **permits**, licenses, registrations, **contingency and pollution prevention plans**, and local ordinances.



Release Notification Requirements in Michigan**

Act & Regulation	Reporting Criteria	Initial Notification	Written Follow-up Report	Notes
49 CFR 195 Transportation of Hazardous Liquids by Pipeline	Release of hazardous liquid (petroleum, petroleum products, or anhydrous ammonia) or carbon dioxide from a pipeline system that results in any of the following: (a) Explosion or fire; (b) Release of ≥ 5 gallons (except if < 5 barrels released due to maintenance and release not otherwise reportable, confined to property, does not pollute water, and cleaned up promptly); (c) Death of any person; (d) Injury requiring hospitalization; or (e) Property damage $> \$50,000$. (See 49 CFR 195.50, revised 1/8/02, for details) Applies to pipeline facilities and the transportation of hazardous liquids associated with those facilities in or affecting interstate or foreign commerce. (See 49 CFR 195.1 for details.)	Earliest practicable moment following discovery: to NRC by operator If Release caused: Death or hospitalization; Fire or explosion; Property damage; Water pollution; or was Significant per the operator.	As soon as practicable, and within 30 days after discovery: to US DOT on DOT Form PHMSA F 7000-1 (01-2010) "Accident Report – Hazardous Liquid Pipeline Systems" Supplemental report must be filed within 30 days after operator receives changes or additions to original report.	NRC 800-424-8802 or online at www.nrc.uscg.mil/nrchp.html For further information contact US DOT Pipeline Safety Information Center at 202-366-4595 or online at http://ops.dot.gov
1978 PA 368 Part 135, Radiation Control	For any emergency. Or for incident involving naturally occurring or accelerator produced radioactive material - Immediate notice if: Incident may have caused or threatens to cause: dose to body 25 rems, to skin 150 rems, to extremities 375 rems (per rule 247); 24 hour concentration exceeds 5000 times limits specified in table II of rules 261 to 269; contamination causes operation shut down for 1 week, or property damage $> \$100,000$. Notice within 24 hours if: Incident may have caused or threatens to cause: dose to body 5 rems, to skin 30 rems, to extremities 75 rems (per rule 247); 24 hour concentration exceeds 500 times limits specified in table II of rules 261 to 269; contamination causes operation shut down for 1 day, or property damage $> \$1000$.	Immediate or within 24 hours (see reporting criteria): to DEQ-OWMRP Radiological Protection Section (PEAS after hours) or MSP Operations Division for all Power Plant related incidents (day or night). by licensee or registrant.	Within 30 days after release: to DEQ-OWMRP Radiological Protection Section by licensee or registrant. Written report also required if level of radiation or concentration of radioactive material in unrestricted area > 10 times any applicable limit. See Rule 250 (R 325.5250) for required report content.	DEQ-OWMRP Radiological Protection Section 517-335-2690 MSP Operations Div 517-241-8000 PEAS: 800-292-4706 For further information contact DEQ-OWMRP Radiological Protection Section
10 CFR 20 (Standards for Protection Against Radiation)	For incident involving source, by-product, or special nuclear radioactive material - Immediate notice if: Event that may have caused or threatens to cause: effective dose equivalent to individual 25 rems, lens dose equivalent 75 rems, shallow-dose equivalent to skin or extremities 250 rads; individual could receive 5 times annual limit on intake in 24 hours. OR Any lost, stolen, or missing licensed material in an aggregate quantity equal to or greater than 1000 times the quantity specified in appendix C to part 20 under such circumstances that it appears to the licensee that an exposure could result to persons in unrestricted areas. Notice within 24 hours if: Event that may have caused or threatens to cause: an individual in 24 hours to receive effective dose equivalent > 5 rems, lens dose equivalent > 15 rems, shallow-dose equivalent to skin or extremities > 50 rems; individual could receive > 1 times annual limit on intake in 24 hours.	Immediate or within 24 hours (see reporting criteria): to USNRC by USNRC Licensee responsible for the incident.	Within 30 days of incident: to USNRC by licensee. Report content specified in 10 CFR 20.2003 Written report also required for occurrences as specified in 10 CFR 20 Section 20.2203 and after the occurrence of any lost, stolen, or missing licensed material becomes known to the licensee, and if at the time the report is filed all licensed material in a quantity greater than 10 times the quantity specified in appendix C to part 20 is still missing.	US Nuclear Regulatory Commission (USNRC) 301-816-5100 For further information contact DEQ-OWMRP Radiological Protection Section 517-335-2690

NOTE: If the release is a **THREAT TO HUMAN HEALTH or SAFETY**, call 911 or your local fire department.

*This table covers only those reporting requirements found in rules and regulations that apply in Michigan. **Releases might be reportable under multiple regulations.**

Additional reporting requirements might be found in **permits**, licenses, registrations, **contingency and pollution prevention plans**, and local ordinances.



Release Notification Requirements in Michigan**

Act & Regulation	Reporting Criteria	Initial Notification	Written Follow-up Report	Notes
MIOSHA 1974 PA 154 Section 61, Records & Reports; Notice of Fatalities or Hospitalization	Any release that results in one death or the hospitalization of 3 or more persons.	Within 8 hours: to MIOSHA Hotline.	Not required.	MIOSHA Fatality or Catastrophe Hotline 800-858-0397 For further information contact LARA-MIOSHA 517-322-1831
TSCA 40 CFR 761.125 (PCBs)	Spills of PCBs at concentrations of 50 ppm or more and subject to decontamination requirements under TSCA that: contaminate surface water, sewers, drinking water supplies, grazing lands or vegetable gardens, or exceed 10 pounds. (TSCA specifies that these requirements are in addition to any under CWA or CERCLA. e.g. CERCLA requires spills of 1 pound or more to be reported to NRC.)	As soon as possible after discovery, and within 24 hours: to EPA Region 5.	Not required to be submitted. Records of cleanup and certification of decontamination shall be documented.	EPA Region 5 Corrective Action Section 312-886-7890 For further information contact EPA Region 5 Corrective Action Section
SARA Title III Section 313 40 CFR 372 (Toxic chemical release reporting)	Covered facilities as defined in 40 CFR 372 subpart B are subject to toxic chemical release reporting for toxic chemicals and chemical categories listed in 40 CFR 372 subpart D.	Not applicable.	Annually by July 1: to EPA & SERC on EPA's Form R "Toxic Chemical Release Inventory Reporting Form" (EPA Form 9350-1, Rev.10/2011) Report aggregate releases (permitted & unpermitted)	Michigan SARA Title III Program accepts reports on behalf of SERC For further information contact Michigan SARA Title III Program 517-373-8481

Table prepared by the Michigan SARA Title III Program in the DEQ

Acronyms used in table:

AQD = Air Quality Division
 AST = Above Ground Storage Tank
 CAA = Clean Air Act
 CAFO = Concentrated Animal Feeding Operation
 CERCLA = Comprehensive Environmental Response, Compensation and Liability Act of 1980
 CFR = Code of Federal Regulations
 CWA = Clean Water Act
 DEQ = Michigan Department of Environmental Quality
 DOT = Department of Transportation
 EHS = Extremely Hazardous Substance
 EPA = U. S. Environmental Protection Agency
 EPCRA = Emergency Planning & Community Right-to-Know Act
 FIFRA = Federal Insecticide, Fungicide, & Rodenticide Act
 FL/CL = Flammable and combustible liquids
 FR = Federal Register
 HAP = Hazardous Air Pollutant

HazMat = Hazardous Materials
 HB = House Bill
 LARA = Michigan Department of Licensing & Regulatory Affairs
 LEPC = Local Emergency Planning Committee
 LNG = Liquefied Natural Gas
 LPG = Liquefied Petroleum Gas
 MCL = Michigan Compiled Laws
 MDARD = Michigan Department of Agriculture & Rural Development
 MIOSHA = Michigan Occupational Safety and Health Administration
 MSP = Michigan Department of State Police
 NRC = National Response Center (U.S. Coast Guard)
 NREPA = Natural Resources & Environmental Protection Act
 ODWMA = Office of Drinking Water & Municipal Assistance
 OOGM = Office of Oil, Gas, and Minerals
 OPS = Office of Pipeline Safety (US DOT)
 OSC = On Scene Coordinator
 OWMRP = Office of Waste Management & Radiological Protection

PA = Public Act (Michigan)
 PCB = Polychlorinated biphenyl
 PEAS = Pollution Emergency Alerting System
 PHMSA = Pipeline & Hazardous Materials Safety Administration
 RMP = Risk Management Program
 RRD = Remediation and Redevelopment Division
 SARA = Superfund Amendments and Reauthorization Act of 1986
 SERC = State Emergency Response Commission
 TRI = Toxic Chemical Release Inventory
 TSCA = Toxic Substance Control Act
 TSDF = Treatment, Storage & Disposal Facility
 US DOT = U.S. Department of Transportation
 USNRC = U. S. Nuclear Regulatory Commission
 UST = Underground Storage Tank
 WRD = Water Resources Division

NOTE: If the release is a **THREAT TO HUMAN HEALTH or SAFETY**, call 911 or your local fire department.

*This table covers only those reporting requirements found in rules and regulations that apply in Michigan. **Releases might be reportable under multiple regulations.**

Additional reporting requirements might be found in **permits**, licenses, registrations, **contingency and pollution prevention plans**, and local ordinances.



APPENDIX D
Former Mclouth Steel Property - County Property
1491 West Jefferson Avenue, Trenton, Michigan
SPCC/SWPP/ PIP Plan

SPILL RESPONSE PROCEDURES

Overview

The section applies to releases of all materials with the exception of releases to the air, PCB releases, and asbestos releases.

Responsibilities

Any person who discovers a potential or actual material spill or release is termed the “discoverer.” The following steps must be taken immediately by the discoverer:

- Move a safe distance away from the area.
- Avoid all personal contact with materials and equipment until the nature of the chemical materials involved is clearly understood.
- Determine the nature and extent of the situation from this vantage point and identify the chemical materials and equipment involved.

Notify the responsible manager. Be prepared to provide the following information, to the extent possible:

- Current location of the spill and direction of anticipated movement,
- Whether the spill entered the sanitary or storm sewer systems,
- Material spilled, if known,
- Probable source of the spill, and
- Time the spill was first observed.
- Generally, the following defensive actions can be taken by personnel in the area.

NOTE: If personal safety is at risk, leave the area immediately.

- If possible or feasible, stop the spill by shutting down machinery or by closing valves or other methods that may apply.
- If the source is a leaking drum, move or turn the drum to stop or reduce the flow of materials, if this can be done without personal contact with the material.
- Liquid spills should be contained, if possible, by diking with adsorbent pigs, pillows, or booms.
- Prevent the movement of liquid to sanitary or storm drains by diking with adsorbent pigs, pillows, or booms.

APPENDIX D
Former Mcclouth Steel Property - County Property
1491 West Jefferson Avenue, Trenton, Michigan
SPCC/SWPP/ PIP Plan

- If the material is a powder, close all entrance doors to prevent drafts from spreading the materials throughout the plant, and to the outside environment.

HAZMAT Team Responsibilities

Important Note: Only trained individuals can perform a clean-up of a spilled hazardous material. These individuals will perform the following tasks.

- Ensure all personnel are evacuated, before approaching the spill.
- Make sure all doorways are guarded.
- From a safe distance ascertain whether help will be required to clean up the spill. If help is required, contact the responsible manager. The responsible manager will determine if an outside spill contractor's assistance is warranted.
- Determine, based on the type of spilled material, if respiratory protection is required.
- Don the appropriate personal protective equipment prior to entering the area of contamination.
- Proceed with clean-up using necessary materials located in the spill kits.
- Place all materials used for the cleanup in a DOT 1A1 drum. Upon completion of the clean up, seal the drum and label appropriately.
- Draining sumps containing waste must be approved by the Plant Manager or Facilities Technician and will only be pumped out by qualified and approved Waste Hauler. All material shipped for disposal will be manifested as required by law and can only be approved by the Plant Manager.
- Inspect the area carefully to ensure all material has been removed. After a suitable time period, check the condition of the atmosphere in the area. If all conditions are safe, contact the responsible manager, who will notify personnel that they may return to work.
- Return all safety equipment to its correct location after cleaning and/or decontamination. Replace any material used from the spill kits.

Incident Management

Important Note: The following activities may occur concurrently with assistance from facility personnel at the direction of the responsible manager. The particular nature of the emergency will alter the order or need of any of the following listed actions.

- Keep all unnecessary people away from the area.
- Assess the hazards to human health and the environment.
- Take all reasonable measures to prevent risks to human health or the environment.
- Activate internal alarms or communication systems.

APPENDIX D
Former Mclouth Steel Property - County Property
1491 West Jefferson Avenue, Trenton, Michigan
SPCC/SWPP/ PIP Plan

- Contact appropriate response agencies (e.g. fire, police, ambulance) if assistance is needed.
- Ensure that any injured personnel are given appropriate medical attention and/or arrange transportation to the hospital.
- Coordinate on-site evacuations, if required.
- If the spilled material has not yet been positively identified, IDENTIFY. Use the Safety Data Sheet (SDS) binder and container label information.
- Take precautions appropriate for the chemical characteristics specified in the SDS.
- Ensure that the release, does not continue, reoccur, or spread.
- If the retrieval and containerizing of the fugitive material can cause a risk of injury or illness to plant personnel involved, contact a “hazardous materials response team” to manage the episode to completion.
- Make all required verbal notifications.

Post-Incident Management

- Arrange for the collection and containment of any fugitive material.
- Properly manage all recovered and contained materials and wastes.
- Provide proper written notification to appropriate agencies.
- Ensure that all response and safety equipment is cleaned and returned to proper working order and expended supplies are restocked.
- Monitor all operating equipment, including transfer lines, after restarting operations.

APPENDIX D
Former Mclouth Steel Property - County Property
1491 West Jefferson Avenue, Trenton, Michigan
SPCC/SWPP/ PIP Plan

Spills and Releases; Specific Response

Oils

- Dike or absorb using imbibers blankets to prevent material from entering drains.
- Minimum Equipment: Rubber boots; rubber apron.
- Disposal Instructions: Place in properly labeled and sealed containers for disposal.

Acidic Compounds

- Dike or absorb using imbibers blankets to keep material from entering drains.
- Minimum Equipment: Rubber boots; rubber apron; rubber suit; acid vapor respirator; goggles; face shield; baking soda.
- Disposal Instructions: Sweep or scrape up; place in properly labeled and sealed drums for disposal.

Caustic Compounds

- Dike or absorb using imbibers blankets to keep material from entering drains.
- Minimum Equipment: Rubber boots; rubber apron; rubber suits; goggles; face shield.
- Disposal Instructions: Sweep or scrape up; place in properly labeled and sealed drums for disposal.

Nonflammable Solvents

- Dike or absorb using imbibers blankets to keep material from entering drains.
- Minimum Equipment: Rubber boots; rubber apron.
- Disposal Instructions: Sweep or scrape up; place in properly labeled and sealed drums for disposal.

Flammables/Combustibles

- Dike or absorb using imbibers blankets to keep material from entering drains.
- Minimum Equipment: Rubber boots, rubber apron; rubber suit; organic vapor respirator; goggles.
- Disposal Instructions: Place in properly labeled and sealed drums for disposal.

APPENDIX D
Former Mclouth Steel Property - County Property
1491 West Jefferson Avenue, Trenton, Michigan
SPCC/SWPP/ PIP Plan

Employee Contamination

In cases of employee chemical contamination, the first step is to protect yourself with the proper protective equipment and clothing. You will not be much help to an injured employee if you become contaminated and disabled. In addition, the following procedures should be followed:

- Remove the contaminated victim well away from the contamination area.
- Remove all contaminated clothing and flush the affected areas with water from the Eye Wash Stations or Decontamination Shower. The key to minimizing harm from chemical contact is to begin the water flush as soon as possible, and to continue flushing affected areas for at least fifteen minutes.
- Administer first aid as appropriate using resources available in the First Aid kits. Treat the victim to prevent or reduce shock, and provide comfort and reassurance to the victim.

Check the appropriate Safety Data Sheet (SDS). SDSs usually contain information about symptoms of overexposure and other first aid data. They also contain phone numbers to call for help and advice from the federal government and company that manufactured the material.

If other than basic first aid steps are required, make arrangements to transport the employee to the hospital.

When the ambulance arrives to take the contaminated individual(s) to the hospital, make sure a SDS goes with the person to assist medical personnel in their treatment.

**SPILL OR RELEASE REPORT***Issued by authority of the Michigan Department of Environmental Quality.*

NOTE: Some regulations require a specific form to use and procedures to follow when reporting a release. Those forms and procedures **MUST** be used and followed if reporting under those regulations. This report form is to aid persons reporting releases under regulations that do not require a specific form. This report form is not required to be used. **To report a release, some regulations require a facility to call the PEAS Hotline at 800-292-4706 (or the DEQ District Office that oversees the county where it occurred) and other agencies and provide information that is included in this form. A written follow-up report might be required. This form may be used for the written follow-up report and to document the initial report. If you prefer to submit this report electronically by FAX or e-mail, contact the regulating agency for the correct telephone number or e-mail address. Go to www.michigan.gov/chemrelease for more information.**

Please print or type all information.

Name and Title of Person Submitting Written Report		Telephone Number (provide area code) ()			
Name of Business Former McLouth Steel Property-County Prope		RELEASE LOCATION (Provide address if different than business, if known, and give directions to the spill location. Include nearest highway, town, road intersection, etc.)			
Street Address 1491 West Jefferson Avenue					
City, State, ZIP Trent, MI 48183					
Business Telephone Number (provide area code) ()					
SITE IDENTIFICATION NUMBER AND OTHER IDENTIFYING NUMBERS (if applicable)		County Kalamazoo	Township	Tier/Range/Section (if known)	
RELEASE DATA: Complete all applicable categories. Check all the boxes that apply to the release. Provide the best available information regarding the release and its impacts. Attach additional pages if necessary.					
DATE & TIME OF RELEASE (if known) ____/____/____ am/pm	DATE & TIME OF DISCOVERY ____/____/____ am/pm	DURATION OF RELEASE (if known) ____ days ____ hours ____ minutes	TYPE OF INCIDENT <input type="checkbox"/> Explosion <input type="checkbox"/> Fire <input type="checkbox"/> Leaking container <input type="checkbox"/> Other _____ <input type="checkbox"/> Loading/unloading release <input type="checkbox"/> Pipe/valve leak or rupture <input type="checkbox"/> Vehicle accident		
MATERIAL RELEASED (chemical or trade name) <input type="checkbox"/> CHECK HERE IF ADDITIONAL MATERIALS LISTED ON ATTACHED PAGE.		CAS NUMBER OR HAZARDOUS WASTE CODE	ESTIMATED QUANTITY RELEASED (indicate unit e.g. lbs, gals, cu ft or yds)	PHYSICAL STATE RELEASED (indicate if solid, liquid, or gas)	
_____		_____	_____	_____	
_____		_____	_____	_____	
FACTORS CONTRIBUTING TO RELEASE <input type="checkbox"/> Equipment failure <input type="checkbox"/> Operator error <input type="checkbox"/> Faulty process design <input type="checkbox"/> Training deficiencies <input type="checkbox"/> Unusual weather conditions <input type="checkbox"/> Other _____			SOURCE OF LOSS <input type="checkbox"/> Container <input type="checkbox"/> Railroad car <input type="checkbox"/> Pipeline <input type="checkbox"/> Ship <input type="checkbox"/> Tank <input type="checkbox"/> Other _____ <input type="checkbox"/> Tanker <input type="checkbox"/> Truck		
TYPE OF MATERIAL RELEASED <input type="checkbox"/> Agricultural: manure, pesticide, fertilizer <input type="checkbox"/> Chemicals <input type="checkbox"/> Flammable or combustible liquid <input type="checkbox"/> Hazardous waste <input type="checkbox"/> Liquid industrial waste <input type="checkbox"/> Oil/petroleum products or waste <input type="checkbox"/> Salt <input type="checkbox"/> Sewage <input type="checkbox"/> Other _____ <input type="checkbox"/> Unknown		MATERIAL LISTED ON OR DEFINED BY <input type="checkbox"/> CAA Section 112(r) list (40 CFR Part 68) <input type="checkbox"/> CERCLA Table 302.4 (40 CFR Part 302) <input type="checkbox"/> EPCRA Extremely Hazardous Substance (40 CFR Part 355) <input type="checkbox"/> NREPA Part 31, Part 5 Rules polluting material <input type="checkbox"/> NREPA Part 111 or RCRA hazardous waste <input type="checkbox"/> NREPA Part 121 liquid industrial waste <input type="checkbox"/> Other list _____ <input type="checkbox"/> Unknown		IMMEDIATE ACTIONS TAKEN <input type="checkbox"/> Containment <input type="checkbox"/> Dilution <input type="checkbox"/> Evacuation <input type="checkbox"/> Hazard removal <input type="checkbox"/> Neutralization <input type="checkbox"/> System shut down <input type="checkbox"/> Other _____ <input type="checkbox"/> Diversion of release to treatment <input type="checkbox"/> Decontamination of persons or equipment <input type="checkbox"/> Monitoring	
RELEASE REACHED <input type="checkbox"/> Surface waters (include name of river, lake, drain involved) _____ <input type="checkbox"/> Drain connected to sanitary sewer (include name of wastewater treatment plant and/or street drain, if known) _____ <input type="checkbox"/> Drain connected to storm sewer (include name of drain or water body it discharges into, if known) _____ <input type="checkbox"/> Groundwater (indicate if it is a known or suspected drinking water source and include name of aquifer, if known) _____ <input type="checkbox"/> Soils (include type e.g. clay, sand, loam, etc.) _____ <input type="checkbox"/> Ambient Air <input type="checkbox"/> Spill contained on impervious surface					Distance from spill location to surface water, in feet _____

THIS IS A MASTER COPY. PLEASE MAKE COPIES AS NEEDED. Page 2 of 2 EQP 3465 (E) (Rev. 11/2012)

**Former Mclouth Steal Property - County Property
1491 West Jefferson Avenue, Trenton, Michigan
SPCC/SWPP/ PIP Plan**

APPENDIX E

RECORDS OF INSPECTIONS AND TESTS SIGNED AND KEPT 3 YEARS (40 CFR 112(e))

**Former Mclouth Steal Property - County Property
1491 West Jefferson Avenue, Trenton, Michigan
SPCC/SWPP/ PIP Plan**

**APPENDIX F
TRAINING RECORDS**

APPENDIX F
Former Mclouth Steal Property - County Property
1491 West Jefferson Avenue, Trenton, Michigan
SPCC/SWPP/ PIP Plan

EMPLOYEE TRAINING RECORD

Date of Session: _____ Time: _____

Trainer: _____
(printed) (Signature)

Attendees			
Printed Name	Signature	Printed Name	Signature

**Former Mclouth Steal Property - County Property
1491 West Jefferson Avenue, Trenton, Michigan
SPCC/SWPP/ PIP Plan**

**APPENDIX G
CORRESPONDENCE**

**Former Mclouth Steal Property - County Property
1491 West Jefferson Avenue, Trenton, Michigan
SPCC/SWPP/ PIP Plan**

**APPENDIX H
ANNUAL REVIEW RECORDS (HISTORICAL)**

**Former Mclouth Steal Property - County Property
1491 West Jefferson Avenue, Trenton, Michigan
SPCC/SWPP/ PIP Plan**

**APPENDIX I
NPDES PERMIT AND CERTIFICATE OF COVERAGE**

**Former Mclouth Steal Property - County Property
1491 West Jefferson Avenue, Trenton, Michigan
SPCC/SWPP/ PIP Plan**

**APPENDIX J
SURFACE WATER SAMPLE COLLECTION PROCEDURES**



Water Resources Division

Visual Assessments of Industrial Storm Water

Introduction

Conducting visual assessments of storm water discharges from areas of industrial activity is a new permit requirement for facilities in Michigan with industrial storm water permit coverage. This has been a permit requirement in the Environmental Protection Agency's (EPA's) Multi-Sector General Permit for storm water discharges from industrial activities. Visual assessments have also been a requirement for industrial storm water permits in other states for many years.

Why do we need to monitor storm water runoff? The National Urban Runoff Program and other studies have shown that storm water runoff has a major impact on the water quality of our surface waters. Because of these impacts, the EPA was directed to develop regulations to manage storm water runoff from areas of industrial activity and large urbanized areas. The State of Michigan began to issue permits that authorized storm water discharges from areas of industrial activity in 1994. In 2010, the Department of Environmental Quality (DEQ), Water Resources Division (WRD) developed a report on wet weather pollution in Michigan. The report recognized that through the management of structural controls and employee practices at industrial facilities, the quality of storm water runoff could be improved. However, without monitoring of the storm water runoff we do not know the quality of storm water runoff discharged from these facilities. Storm water monitoring can be difficult because storm events are so variable. Chemical analysis of the storm water can be expensive. Since many of the pollutants that contaminate storm water runoff visually alter the appearance of the storm water runoff, the department has proposed a compromise.

The observation of storm water discharged from a facility is called the visual assessment. The purpose of the visual assessment is to assess the effectiveness of the control measures implemented to minimize contaminants in the storm water discharged from the facility. The control measures implemented are required to be identified in the facility's Storm Water Pollution Prevention Plan (SWPPP).

There are three main components to the visual assessment that we will discuss in this compliance assistance document:

1. **Development of the written procedures.** The written procedures describe how, when, and where the storm water discharged from the facility will be collected and assessed.
2. **Storm water sample collection** and observation of the discharge.
3. **Visual assessment of the sample** by an Industrial Storm Water Certified Operator (certified operator). The results of the assessment must be documented. Storm water permits require the visual assessment of industrial storm water discharges be conducted as part of the comprehensive inspection. Comprehensive inspections are required to be conducted quarterly or on an alternative schedule that has been approved by the WRD of the DEQ.

Written Procedures

The first component is the development of written procedures that the company will follow to ensure that representative samples of storm water runoff are collected from each discharge point.

Within six months of issuance or reissuance of the Certificate of Coverage (COC) or the individual National Pollutant Discharge Elimination System (NPDES) permit, the permittee is required to develop written procedures for conducting the visual assessments at their facility. The written procedures shall be included in the SWPPP.

The visual assessment must be conducted by a certified operator. The written procedures shall include the certified operator(s) who will be conducting the assessments in the written procedures. In addition, due to timing and/or facility size, there may be reasons why it is necessary for personnel – other than a certified operator – to collect the storm water sample. These individuals shall be included in the written procedures as well.

As part of the visual assessment, a representative sample of the storm water discharge will be collected from each discharge point by appropriately trained staff. The written procedures must include information on how a representative storm water sample will be collected from each discharge point. The written procedures should identify if automated samplers will be used to collect a sample. The identification of the discharge points where the visual assessment(s) will be conducted must be included in the written procedures. Discharge points are the locations where storm water is discharged from the facility. The location of these discharge points is required to be included on the site map developed as part of the SWPPP.

There are two types of discharge points:

1. **Outfalls**-These are discharge points where storm water is discharged directly to surface waters of the state. Surface waters of the state include streams, lakes, ponds, county drains, and wetlands. Outfalls can be pipes, ditches, or even sheet flow from the facility. Some facilities will have an outfall where they can manually control the discharge.
2. **Points of Discharge**-These are discharge points where storm water is discharged to a municipal or private separate storm sewer system. The visual assessment should be conducted as close to the point of discharge as possible before the storm water enters the municipal or private separate storm sewer system.

Points of discharge include on-site catch basins and trench drains, in-street catch basins, and conveyances to roadside ditches.

As part of the site map included in the SWPPP, discharge points and drainage patterns are required to be clearly identified. Some facilities may have outfall(s) that discharge directly to a stream and points of discharge to the municipal separate storm sewer system. The drainage patterns should be indicated by arrows.

Some facilities may have internal points of discharge into a county road commission's separate storm sewer system. These facilities would identify the discharge point as the point where their system discharges into the road's storm sewer. Because they cannot access the actual discharge point, they would select the closest accessible manhole to the discharge point as their visual assessment sampling location.

Substantially Identical Discharge Points: Many facilities will have multiple discharge points. For facilities with two or more discharge points that are believed to discharge substantially identical storm water discharges or effluents, these facilities may conduct the visual assessment of the discharge at just one of the discharge points during a storm water discharge event.

How do you determine if the discharge points will have substantially identical effluents? First, look at the significant materials and industrial activities that are occurring in the drainage area for each discharge point. Significant materials and areas of industrial activity are required to be shown on the site map. Discharge points determined to be substantially identical must be identified on the site map included in the SWPPP.

In addition to the site map, use the significant material evaluation that was developed and included in the SWPPP. If the significant materials and industrial activities are the same in the drainage area for each discharge point, then it can be assumed that the effluent discharging after a storm event will be substantially identical.

Be sure to look at all of the industrial processes when making the determination if the discharge points have substantially identical discharges. If the significant materials and the activities occurring in the drainage areas for a discharge point are different, the discharges in the drainage area for each discharge point cannot be expected to be of similar quality and composition. Each discharge point would need to be visually assessed during the storm event discharge.

Visual assessments are to be performed on a rotating basis of each substantially identical discharge point. To ensure each discharge point is assessed on a rotating basis, include a schedule in the written procedures.

If changes occur at the facility that could affect the discharge from either discharge point, then each discharge point would need to be assessed.

Discharges from areas used solely for customer or employee parking and runoff from areas where there has been no industrial activity are not regulated discharge points in industrial storm water permits. In addition, points of discharge to combined sewers, sanitary sewers, or ground water are not regulated by the industrial storm water program.

A visual assessment does not need to be conducted for storm water discharges from unregulated areas.

The written procedures are part of the SWPPP and must meet the minimum requirements of the permit that authorizes the industrial storm water discharge. If the written procedures are not acceptable, the WRD, DEQ staff will request changes to the written procedures.

Sample Collection

Before collecting the sample, ensure that you have safe and easy access to each discharge point. In some cases, the storm water discharge may be underwater, under a structural control or in enclosed pipes.

Scheduling: Plan ahead so you will be ready to conduct the visual assessment when the next discharge occurs from a storm event.

Visual assessments are required to be conducted quarterly as part of the comprehensive inspection.

The general permit allows for the DEQ to approve an alternate schedule for the comprehensive inspections. If the Department has approved an alternative schedule, the visual assessment may be conducted in accordance with the approved schedule.

If an alternative schedule has not been approved, a visual assessment must be conducted within each of the following quarters: January-March, April-June, July-September, and October-December.

The schedule for conducting the visual assessment shall be included in the written procedures.

The visual assessment must be conducted within one month of the control measure observations evaluated and documented by the certified operator during the comprehensive inspection. The inspection of control measures are typically recommended to be conducted during dry weather conditions. Storm events often occur during hours when no one may be at the facility. Therefore the visual assessment should be planned for the first qualifying storm event that occurs after the control measure observations.

Timing: The visual assessment and sample collection must be at least 72 hours from the previous storm event that caused a discharge. This is referred to as a qualifying storm event.

The sample collection and storm water discharge observations portions of the visual assessment must occur within the first 30 minutes of the beginning of the storm water discharge. If it is not possible to collect the storm water sample and conduct the storm water discharge observation within the first 30 minutes of a discharge, you may do the sample collection and observation within the first 60 minutes of discharge. Be sure to provide a written explanation of why additional time was needed.

If the storm water runoff from the facility flows to a detention basin with a controlled discharge structure, the sample must be collected when the valve is opened to allow the discharge. If the water in the detention basin is observed to have unnatural characteristics, this should be noted in the report form and the water should be treated before it is discharged.

Collection: Written procedures were developed on how a representative storm water sample would be collected from each discharge point. If the sample is collected from a storage area with a controlled discharge, the samples shall be collected from the surface of the discharge.

If the discharge is to be collected from a flowing storm water discharge, collect a sample of the water that will be representative of materials that may be floating as well as those suspended in the water.

There may be situations where the sample will be collected in a different container and then transferred to individual containers. The container that will be used to conduct the visual assessment will need to be a clean, clear container.

If the samples will be sent in for chemical analysis, use a container that is appropriate for the parameters that will be analyzed.

In the event that adverse weather conditions prevent the collection of the storm water sample and the observation of the storm water discharge during the quarter or within one month of the control measure observations, a substitute visual assessment can be conducted during the next qualifying storm event.

Adverse weather conditions are those that create inaccessibility to the sampling location or create conditions that would be dangerous to personnel collecting the sample. Examples include local flooding, high winds, electrical storms, or icy conditions. Adverse weather conditions may also create conditions where there would be no discharge, such as extended dry periods or extended cold periods where there is no snowmelt.

The rationale for not conducting the visual assessment during a quarter shall be documented and kept with the SWPPP inspection records.

Structural controls may be in place to remove contaminants from the storm water runoff. The storm water sample should be collected after the storm water has passed through the structural control to provide an accurate assessment of the storm water discharging from the facility.

For example, if the sample collector noted increased turbidity in the storm water runoff before the water passed through a catch basin insert that had been installed to filter sediment from storm water, then it would not give an accurate representation of the storm water discharging from the facility. Therefore the storm water sample should be pulled from the discharge after it has passed through the catch basin insert. In these situations the sample collection will be more difficult and specialized equipment may be needed. This is the type of information that should be included in the written procedures.

The collection of a sample from a snowmelt event must be during a period of measureable discharge. For snowmelt, a measurable discharge is enough snowmelt to collect a sample within a few minutes.

When developing your written procedures, examine your discharge points to determine if specialized equipment is needed to concentrate the storm water so that a sample may be collected. Determine how you will collect a representable sample of the storm water discharge. Since the storm water sample collection and the storm water discharge observation need to be conducted within 30 minutes of the beginning of the discharge, you will need to have your sample containers and equipment ready before the storm event occurs.

Specialized equipment may be needed to collect the storm water so it can be put into the sample container. In some cases, sampling equipment is needed to ensure that the sample collector can safely collect the sample. To reduce slip and fall hazards, a structure may need to be constructed to give access to the sampling location. Precautions need to be taken in areas of traffic or industrial activity at the facility.

Technology may make it possible for a certified operator to conduct the visual assessment without being on site at the time of the discharge. For example, the discharge may be visually recorded and the sample may be collected by an automated sampler which the certified operator could assess within 48 hours.

If the sample will not be visually assessed within a few minutes of collection, the sample needs to be properly stored to prevent degradation of the sample before it can be assessed. Include the storage procedures in the written procedures.

If the certified operator is not available at the time of the discharge, the facility may use staff that have received appropriate training for collection of the storm water sample. The supervising certified operator may want staff to use a visual recording device to indicate conditions at the facility during the discharge. If a visual recording is taken, it must be included with the other documentation of the visual assessment.

Appropriate training must be conducted annually as part of the employee training for staff that will assist the certified operator in conducting the visual assessment. Viewing the Visual Assessment Webinar or tutorials located on the Industrial Program page of the Storm Water Website would be considered appropriate training for the staff working in conjunction with or under the supervision of a certified operator. A description of the training must be included in the written procedures. Documentation that the staff have received appropriate training should be kept with the visual assessment documentation records.

The storm water sample collected during the visual assessment must be observed and documented by a certified operator within 48 hours of sample collection.

Any alternative to a certified operator conducting the visual assessment in person and collecting the storm water sample in person must be included in the written procedures for conducting the visual assessment.

Visual Assessment

The visual assessment involves noting observations of the storm water discharging at each discharge point and the assessment of the sample collected from each discharge point.

Record your observations of the discharge. When observing the discharge you should note any of the following characteristics: color, turbidity, presence of oil films or sheens, if there are floating or suspended solids, foams, or deposits as a result of the discharge. Also note if there are any odors associated with the discharge.

Often the observation of the discharge may be conducted under poor visibility conditions so a representative sample of the discharge must be taken at each discharge point for examination by a certified operator. View the Visual Assessment Webinar to see examples of unnatural characteristics of discharges and information that will need to be included in your documentation.

Contaminants in the discharge may cause it to be discolored. It is important that you have a general idea of the normal color of the receiving waters to which the facility is discharging the storm water. Note the color of the storm water discharging and the color of the receiving waters.

Note if the discharge is cloudy. The cloudiness of the water is called turbidity and it is a measure of the clarity of the water. If you are observing at an outfall also note the turbidity of the receiving waters and if the discharge is causing the receiving waters to become more turbid. If the discharge is more turbid than the receiving waters you will see a plume extending downstream.

The turbidity of the discharge is due to the materials that are suspended in the discharge. They may be liquids or solids. The solid materials that are larger in size with a greater density will settle out of the water more quickly and are called settleable solids. They may produce a sediment delta below the discharge point. These can be observed in areas where the velocity of the water is reduced such as the area downstream of the outfall. If the receiving waters also have a high velocity a sediment delta may not be present even though the discharge has a high turbidity.

After the storm water sample is collected the settleable solids will settle to the bottom of the sampling container in a short period of time.

Suspended solids are usually smaller in size than settleable solids or have an electrical charge that allows them to stay in suspension. In addition other contaminants in the discharge may cause some materials to stay suspended longer. Those materials that do not settle out of the sample within a few minutes are called suspended solids.

Turbidity may also be due to liquids that are suspended in the water. One example is the water soluble oil used in cutting fluids which can give the water a milky appearance.

Look at the surface of the water for oil sheens or films. The color of the sheen is dependent of the type of oils or petroleum products and the thickness of the oil or petroleum film. Also note if there is any odor present. Some petroleum products have distinct odors and this may help you identify the source of contamination.

Some contaminants will float on the surface of the water. Plastics resins, ground rubber, woody materials and other materials that are less dense than water will float. Often, you will see these materials deposited at the outfall or accumulating around your discharge point.

Look at the discharge for the presence of foams. Foams are formed when there are contaminants in the water which act as surfactants. The most common example is the presence of detergents. Occasionally foams may form due to naturally occurring surfactants in the receiving waters.

When conducting the visual assessment, also note any odors associated with the discharge. This can also help you determine the source of the contaminants in the discharge.

Use caution when smelling the sample taking during the visual assessment. Some contaminants can be harmful when inhaled.

Often there may be a combination of the unnatural characteristics in the discharge. For example, the water discharging from a pipe could be turbid with a brownish color and presence of foam. It may also have an odor. Or a discharge could have a dark color with an oil sheen but not have turbidity.

There may be variations from the narrative standard for receiving waters that are due to naturally occurring phenomenon. For example, you may observe a sheen at an outfall. Some sheens are not caused by petroleum products but indicate the presence of a bacterial film. To determine if the sheen is bacterial, you can disturb the sheen with a stick or stone. If it breaks up into fragments, it is bacterial. If the sheen immediately reforms, it is due to petroleum products. Another common example is pollen which may cause the discharge to be yellow or light green. These are the type of observations that need to be recorded during the visual assessment.

Documentation: The documentation of the visual assessment must include the discharge point that was observed and storm event information. Storm event information includes the date and time of the event, duration of the event in hours, amount of precipitation in inches, duration of time since the previous storm event, and the date and time the discharge began. Much of this information may be available on weather information websites such as:

1. the Weather Underground: www.wunderground.com and www.wunderground.com/history; and
2. the National Weather Service: www.weather.gov

A properly placed rain gauge will give the most accurate measure of the amount of precipitation occurring during a storm event at your facility.

The certified operator is responsible for conducting the visual assessment. The visual assessment includes observations of the discharge, noting odors at the time of the discharge, collection of a sample from each discharge point, visual and olfactory observations of the sample and the documentation of sample characteristics.

The department has developed a visual assessment report form for you to use to record the results of the visual assessment. The form can be found on the Industrial Storm Water Web Page.

If the sample collection is conducted by staff other than the certified operator, the name of the person collecting the sample must be included on the report form.

A certified operator needs to conduct the visual assessment of the storm water sample in a well-lit area. If the certified operator was not available at the time of the collection, the assessment of the properly stored sample will need to be conducted within 48 hours of collection by an appropriately trained certified operator.

To conduct the visual assessment, the certified operator will need to gently shake or mix the sample before conducting the assessment.

When the storm water samples are collected from each discharge point, be sure to label the samples. Samples should be labelled with the discharge point number, the date and time of collection, and date and time of the beginning of the discharge event.

On the report form, be sure to include the name of the certified operator who supervised the collection of the storm water discharge and who analyzed the storm water discharge sample. The certified operator must review and sign the report form after visually assessing the sample collected during the discharge event.

Be sure to include the nature of the storm event in the report. The nature of the storm event refers to whether the discharge was from rain or snowmelt.

If there are unusual characteristics of the discharge, determine the probable sources of the contamination. For example, a petroleum sheen was observed at the outfall that was due to fuel spillage at the fueling area.

If the discharge has any of the unusual characteristics we have described, take corrective actions as soon as possible. If these unusual characteristics are present in the receiving waters as a result of the discharge, there may be a violation of the narrative standard.

Any unusual characteristics of the discharge (that could cause a violation of the Water Quality Standards) in the receiving water shall be reported within 24 hours to the department, followed by a written report within five days detailing the findings of the investigation and the steps taken to correct the condition. A discharge that does not meet the narrative standard may be a violation of the Water Quality Standards in the receiving waters and could be a violation of the permit.

Use good professional judgment. If you think the unusual characteristics could pose a threat to the public or the environment, make the call.

The purpose of the visual assessment is to determine the effectiveness of the control measures in place at the facility. There may be unusual characteristics that do not constitute a violation of the permit. If unusual characteristics persist during the discharge, it warrants further investigation to determine the possible source of contamination. Failure to investigate and determine the source of the contamination may be a permit violation.

For example, a few drops of gasoline can produce a sheen on a discharge but this sheen is unlikely to persist or cause harm to the receiving waters. However a larger spill of gasoline would be more persistent in causing a sheen on the discharge and would warrant cleanup at the source of the contamination. It could also pose health risks to public and have an impact on the receiving waters. Therefore, when unusual characteristics are observed they should be documented and further investigation should be conducted to determine if the observed characteristics warrant immediate action or would be something that could be addressed by improved housekeeping practices.

After the sample is visually assessed by the certified operator, a photo of the sample against a white background must be taken. The photo or other visual recordings must be saved for documentation. If the sample was not able to be collected during the first 30 minutes of discharge, a written explanation needs to be included in the documentation.

If the sample was not able to be collected during the first 30 minutes of discharge, a written explanation needs to be included in the documentation.

Visual Assessment Requirements

☐ Develop Written Procedures

- Must be included as part of the SWPPP within six months of COC issuance.
- Identify certified operator(s) responsible for conducting assessment.
- Identify other staff as appropriate who will be assisting with sample collection and identify training provided.
- Appropriately train certified operators and other staff for collection and assessment of samples.
- Document training of personnel.
- Identify the discharge points (outfalls and points of discharge) that will be assessed.
- Identify a schedule for the visual assessment, i.e. within 30 days of the quarterly comprehensive inspection or based on alternative schedule approved by WRD.
- If applicable, identify substantially identical discharge points and provide a rotating schedule for assessment of these discharge points.
- Identify how a representative sample will be safely obtained from each discharge point including any necessary equipment and supplies.

☐ Sample Collection

- Plan ahead and prepare a sample collection kit.
- Monitor storm event information for a qualifying event (72 hours from the previous storm event that caused a discharge).
- Attempt to collect sample within first 30 minutes, but no later than 60 minutes, of a qualifying storm event (or in the case of snow melt a measurable discharge).
- If staff other than a certified operator collects the sample, ensure they are appropriately trained.
- If adverse weather conditions exist, schedule collection for another day.
- During sample collection, record observation of discharge and receiving waters if observed.
- Label sample containers with: discharge point name/number, date / time of collection, and date / time of the beginning of the discharge event.

☐ **Visual Assessment**

- Certified operator performs assessment as soon as possible but no later than 48 hours of sample collection.
- Gently shakes or mix sample before conducting assessment.
- Examine in a well-lit area.
- Photograph sample against a white background.
- Document all required event information and observations on a report form and maintain at facility for a minimum of three years.

☐ **Follow-Up**

- If unnatural characteristics of the discharge are identified (cloudiness, color, sheen, etc.) determines probable sources of the contamination and take appropriate corrective actions.

☐ **Evaluate effectiveness of existing control measures.**

- Improve implementation of existing measures and/or
- Implement/install additional non-structural and structural control measures.

☐ **Report discharges that could cause a violation of water quality standards in the receiving waters in accordance with permit requirements.**

☐ **Update SWPPP as necessary.**

☐ **Re-evaluate effectiveness of corrective actions taken during the next visual assessment.**

Summary

Plan ahead and prepare a sampling kit for collecting the storm water samples so you will be ready when a qualifying storm event occurs. Provide appropriate training for the certified operators or other staff that will be collecting the sample which will be used to conduct the visual assessment.

Document what is observed at the discharge point at the time of the discharge. A certified operator must visually assess the storm water sample and record the characteristics of the sample with a photograph and a written report.

If there were water quality concerns or unnatural characteristics in the discharge, make corrective actions in a timely manner. If the discharge is causing a violation of the Water Quality Standards, notify the District Office.

If you have questions on developing your written procedures for conducting the visual assessment, please call the industrial storm water staff. A contact list is available on the industrial program page of the storm water website.

Remember the goal is clean discharges of storm water. In most situations, if the storm water discharge does not have any unusual characteristics, we know the controls in place at the facility are effective and the receiving waters are not being impacted. The visual assessment of the storm water discharges will help you determine when your controls need to be altered or improved.

Times and Frequencies to Remember

Task	Frequency or Time
Develop Written Procedures	Within 6 months of Certificate of Coverage or Individual Permit issuance
Conduct Visual Assessment	Within 1 month of control measure observation portion of the comprehensive inspection
Conduct Comprehensive Inspection	Once per quarter or on alternatively approved schedule
Qualifying Storm Event	72 hours from previous storm event that caused a discharge
Collect Storm Water Sample	Within 30 minutes of beginning of discharge, but no later than 60 minutes
Conduct Visual Assessment of Sample	ASAP but no later than 48 hours after sample collection
Maintain Written Documentation of Visual Assessment	Minimum of 3 years

For information or assistance on this publication, please contact the Water Resources Division at 800-662-9278. This publication is available in alternative formats upon request.

This publication is intended for guidance only and may be impacted by changes in legislation, rules, policies, and procedures adopted after the date of publication. Although this publication makes every effort to teach users how to meet applicable compliance obligations, use of this publication does not constitute the rendering of legal advice.

Visual Assessment Question & Answer Document

State of Michigan Industrial Storm Water Program

Michigan Department of Environmental Quality (DEQ)
Water Resources Division (WRD)
Document Date: 1/6/2015

Conducting visual assessments of storm water discharges from areas of industrial activity is a new permit requirement for facilities in Michigan with industrial storm water permit coverage under the newly issued general permits and individual permits with storm water coverage. In 2014, the DEQ, WRD developed a webinar on the visual assessment requirements. This document contains a list of the questions received and the WRD response to those questions. The questions have been organized into 4 sections by subject content and you can hyperlink to that section of the document by clicking on the subject heading. If you have additional questions please contact district Industrial [Storm Water Staff](#).

General questions

1) What is a visual assessment?	2) When do the visual assessment requirements go in effect?	3) The general permit that authorizes storm water coverage for our facility does not have this requirement. When does this requirement go into effect?
4) When do I conduct my FIRST visual assessment?	5) What is a discharge from a storm event?	6) What is a discharge point?
7) Where do I conduct the visual assessment?	8) Do we have to collect storm water samples at both outfall and discharge points?	9) How is sheet flow considered to be point source discharges?
10) Does a visual assessment need to be conducted each time there is a storm event that causes a discharge from the facility?	11) What is the reason for conducting the visual assessment within one month of the control measure observation portion of the comprehensive inspection?	12) Could the sampling frequency be reduced if no impacts are observed after an extended period of time?
13) When will the DEQ review my visual assessment procedures and reports?	14) What is the reason for this new requirement?	15) What is the benefit assumed to be gained by adding these additional samples and assessments above what is already required in the comprehensive inspections?
16) Are we required to send the quarterly samples out for testing?	17) Will a copy of the visual assessment webinar be available for future use?	18) Is the visual assessment requirement also being added into the individual NPDES permits as they are renewed?
19) Explain the annual training requirements for employees. The requirements said recommended.	20) Do all facilities that are required to develop a SWPPP have to conduct the visual assessment?	21) When is the SWPPP reviewed by the DEQ?
22) Is it required to show potential discharge points for each significant material on the significant material list?	23) Will the department update the guidance for developing the SWPPP to include these new requirements?	24) What are the regulated areas at an industrial facility?
25) Is a roof top discharge with no industrial activity considered unregulated?	26) What if the discharge is comingled with other process wastewaters?	27) What do I need to do to become an Industrial Storm Water Certified Operator?
28) This seems like an effort to quantify a program that has largely been qualitative in nature. Will staff exercise appropriate leniency as this new approach become culture?	29) Is it true that storm water discharges to a combined sewer is not regulated?	30) What are some reasons someone would need an alternative schedule for comprehensive inspections?
31) Are dumpster covers required?	32) What is an effluent?	

Questions related to the written procedures

33) Do I need to develop procedures for conducting the visual assessment?	34) Will the written procedures for each facility need to be formally approved by the DEQ?	35) Do the visual assessment written procedures have to be a stand-alone document or can it be incorporated into the SWPPP?
36) Do we need a PE signature to recertify the SWPPP when the visual assessment written procedures are added?	37) What if I have multiple discharge points?	38) What if I have multiple discharge points that discharge storm water from similar use areas at my facility?

39) Is a location considered substantially different if under normal conditions there is no difference in significant materials or industrial activities?	40) What is the required frequency for collecting storm water samples for the visual assessment?	41) Who is required to conduct the visual assessment?
42) Does “responsibility” of the certified operator for conducting the visual assessment of the discharge allow for delegation of the assessment to trained personnel?	43) If am the Certified Operator for several facilities, how do I sample each one after a rain event?	44) When do I collect the storm water sample for the visual assessment?
45) What is a “Qualifying Storm Event”?	46) Does the 30 minute time frame for sample collection start at the beginning or end of the rain event?	47) How do we determine exactly when the start of the discharge is? Would it be okay to assume that when rainfall reaches a tenth of an inch that is the start of the discharge?
48) It seems that in order to know if I'm conducting the visual assessment of a qualifying storm event, I need to be aware of every rain event at my facility. What is the best way to do this?	49) How much storm water in a given amount of time determines if you need to conduct the visual assessment?	50) What if I am not able to collect the storm water sample from the storm water discharge within the first 30 minutes?
51) How important is it to collect the storm water sample within 30 minutes of the beginning of the discharge?	52) What if the storm water flows through an oil water separator into the storm sewer? How do I determine the 30 minute window for sampling?	53) May the visual assessment be conducted within one month preceding the comprehensive inspection if it is conducted within the same quarter?
54) What if a discharge from a storm event does not occur during normal hours of operation within one month of the control measure observation portion of the comprehensive inspection?	55) If there are no changes in the control measures, does a visual assessment need to be done within one month of the quarterly comprehensive inspection?	56) Is it acceptable to defer sampling and the assessment of the sample to the following quarter if qualified personnel are not available?
57) What happens if no staff are available during non-working hours to collect a storm water sample from the discharge point during a storm event?	58) What if you run three shifts? What would be the normal hours of operation?	59) What would be considered adverse weather conditions?
60) If a point of discharge or outfall includes runoff from unregulated areas as well as regulated areas? I.e. employee parking lots, what is the appropriate assessment?		

Questions related to sample collection

61) Do we take a visual sample or a physical sample?	62) Who can collect the storm water sample that will be used to conduct the visual assessment?	63) What is considered to be appropriate training for personnel who will be collecting the storm water sample and making a visual observation of the storm water discharge?
64) Who needs to receive the training for conducting the visual assessment?	65) What if storm water sheet flows off my property, how do I sample?	66) If a side of the facility has sheet drainage to a vegetated area, must this area be sampled for a discharge for the visual assessment?
67) When do I conduct the visual assessment during winter?	68) Where do you get the equipment for collecting the storm water sample?	69) How does one catch the first thirty minutes of a snow melt?
70) Would excessive snow melt be considered a good sample?	71) What if snowmelt occurs during the “off” hours?	72) How do we handle seasonal shutdowns? Is monitoring required during that time?
73) How do we sample when the discharge point is not accessible?	74) How do we sample from a submerged discharge pipe?	75) How do you recommend conducting the visual assessment of discharge points on private property?
76) When do I conduct the visual assessment if we have a detention pond with a controlled discharge?	77) Do we need to conduct the visual assessment at locations in our storm sewer system above the detention pond discharge point?	78) How would you sample a discharge point that continually has flow, like from an underground spring?
79) If the storm water sample will not be assessed within minutes of the collection, how do I store the sample?	80) What constitutes “appropriate” storage of a sample?	81) Could the collected storm water samples be mailed overnight in ice to be visually assessed by the operator if they cannot be at the site within 48 hours?
82) If a sample is collected by an automated sampler at a facility with no trained personnel: is it valid if the sample is retrieved by the Industrial Storm Water Certified Operator within 48 hours for assessment?	83) Is there a list of DEQ approved/recommended automatic samplers?	84) How large of a sample must be collected to conduct the visual assessment?

85) For a sample collected from a manhole or catch basin, would you want to collect the water from the top or against the wall rather than from the water that has collected at the bottom?		
<u>Questions related to visual assessment of the collected sample</u>		
86) For a sample collected from a manhole or catch basin, would you want to collect the water from the top or against the wall rather than from the water that has collected at the bottom?	87) Do we document both the start of the storm event and the start of the discharge?	88) How do I visually assess the sample?
89) May the certified operator assess the discharge and sample by only viewing a color photograph?	90) How do I document the visual assessment?	91) Can I use one report form for documenting all discharge points?
92) Do I need to document if there has been no discharge from a discharge point at the facility during the quarter?	93) Is a photograph required?	94) Who can fill out the visual assessment report form?
95) Turbidity, Settleable Solids, and Suspended Solids the same?	96) What happens if I find "something" in my sample or I observe unnatural characteristics at the time of the discharge?	97) What do I do with my sample when I am done with it?
98) Does a written report need to be sent to the DEQ every time there is a visual assessment or does it only need to be sent if there are issues identified during the visual assessment?	99) How long of a retention period is required for the visual assessment records	

General questions

1) What is a visual assessment?

A visual assessment is the observation of storm water discharges from the discharge points at a facility during and/or after a rain event or snow melt. It includes taking a sample at each discharge point, conducting a visual observation of the discharge, and assessing the sample in a well-lit area.

2) When do the visual assessment requirements go in effect?

The visual assessment requirements will be included in the reissued general permits for facilities with industrial storm water discharges and individual NPDES where industrial storm water discharge coverage is required. The MIS410000 and MIS420000 are the first general permits to include this requirement. The written procedures must be developed within 6 months of the issuance of the Certificate of Coverage or individual permit.

3) The general permit that authorizes storm water coverage for our facility does not have this requirement. When does this requirement go into effect?

This requirement will go into effect when your Certificate of Coverage is reissued. For some facilities it may be up to four years before this requirement is included in the general permit that authorizes their storm water discharge.

4) When do I conduct my FIRST visual assessment?

The first visual assessment must be conducted in conjunction with the next comprehensive inspection that occurs after the development of the written procedures. This would usually be between six and nine months after issuance/reissuance of the storm water permit coverage.

5) What is a discharge from a storm event?

They are water emissions from a facility that occur during and/or after precipitation and snowmelt that can be measured.

6) What is a discharge point?

The location where the point source discharge is directed to surface waters of the state either directly or indirectly through a separate storm sewer. Discharge points include outfalls and points of discharge. An outfall is the location where the discharge enters directly to a surface water of the state. A point of discharge is the location where the discharge enters into a separate storm sewer system. To put it simply, it is the location where storm water exits your facility.

7) Where do I conduct the visual assessment?

At your discharge point(s) after the storm water passes through all structural controls. The discharge points are required to be identified on the site map included in the SWPPP.

8) Do we have to collect storm water samples at both outfall and discharge points?

Yes. There are two types of discharge points, outfalls and points of discharge. Storm water samples must be collected from all discharge points within one month of the control measure observations unless there are discharge points that have been determined to have substantially identical effluents. Please refer to the compliance assistance document for more details.

9) How is sheet flow considered to be point source discharges?

The storm water regulations included designed sheet flow in the definition of point source discharge.

10) Does a visual assessment need to be conducted each time there is a storm event that causes a discharge from the facility?

No. The visual assessment only needs to be conducted once during the quarter, provided it is conducted within one month of the control measure observation portion of the comprehensive inspection.

11) What is the reason for conducting the visual assessment within one month of the control measure observation portion of the comprehensive inspection?

The visual assessment is actually part of the comprehensive inspection. The visual assessment is used to determine the effectiveness of the control measures that are viewed as part of the comprehensive inspection.

12) Could the sampling frequency be reduced if no impacts are observed after an extended period of time?

No. A visual assessment must be conducted as part of every comprehensive inspection. The frequency for conducting comprehensive inspections could be reduced if a facility demonstrates compliance for an extended period of time and has Industrial Storm Water Certified Operators that are at the facility on a regular basis. The facility would need to request an alternative schedule for conducting the comprehensive inspections. If an alternative schedule is approved for conducting comprehensive inspections at a facility it could reduce the number of visual assessments conducted during the year.

13) When will the DEQ review my visual assessment procedures and reports?

The written procedures for conducting the visual assessment, the visual assessment reports, and the photographic documentation of the samples will be reviewed by DEQ district staff during inspections. Inspections are usually conducted at least once per permit cycle.

14) What is the reason for this new requirement?

The Department of Environmental Quality (DEQ)'s Industrial Storm Water Permits were modified when they were reissued to make them consistent with Environmental Protection Agency (EPA)'s Multi-sector General Permit.

15) What is the benefit assumed to be gained by adding these additional samples and assessments above what is already required in the comprehensive inspections?

Storm water permit coverage requires that the discharge from a facility not cause any unnatural characteristics in the receiving waters which are or may become injurious to any designated use. By observing the actual discharge it allows you to determine how effective the control measures are that you have implemented at your facility to meet this goal.

16) Are we required to send the quarterly samples out for testing?

The samples collected during the visual assessment of each discharge point do not need to be sent in for chemical analysis unless your permit requires it. Most facilities that have coverage under one of the industrial storm water general permits are not required to have their storm water sample sent in for chemical analysis.

17) Will a copy of the visual assessment webinar be available for future use?

Yes. A copy of the visual assessment webinar, visual assessment tutorials, visual assessment compliance assistance documents, visual assessment report form, and this FAQ sheet are posted on the industrial program page of the storm water website.

18) Is the visual assessment requirement also being added into the individual NPDES permits as they are renewed?

Yes.

19) Explain the annual training requirements for employees. The requirements said recommended.

Employee training has always been required in Industrial Storm Water Permits. With the reissuance of General Permit No. MIS210000 in 2012 all industrial storm water permit coverage included the requirement that employee training be implemented on an annual basis. Training for employees that will be collecting the storm water sample should also be included in the annual employee training. The training for personnel who will be collecting the storm water sample and for Industrial Storm Water Certified Operators who will be conducting the visual assessment must be included in the written procedures.

20) Do all facilities that are required to develop a SWPPP have to conduct the visual assessment?

Only facilities with regulated storm water discharges from areas of industrial activity are required to develop Storm Water Pollution Prevention Plan (SWPPP) s. Therefore most of these facilities would be required to conduct a visual assessment when their Certificate of Coverage or individual NPDES permit is reissued. Some facilities that have effluent limits for storm water discharges in their individual permit may not have to conduct a visual assessment of the storm water discharges since they are already monitoring the storm water discharges.

21) When is the SWPPP reviewed by the DEQ?

The SWPPP is usually reviewed when storm water compliance staff conduct a compliance inspection at a facility but it can be reviewed anytime.

22) Is it required to show potential discharge points for each significant material on the significant material list?

Yes. This is a storm water permit coverage requirement. This information is also used to determine if you have substantially identical effluents at the discharge points.

23) Will the department update the guidance for developing the SWPPP to include these new requirements?

The SWPPP checklist and Industrial Storm Water Certified Operator Training Manual are being revised to reflect the new requirements. Compliance assistance documents are developed and will be posted on the Industrial Page of the Storm Water Website.

24) What are the regulated areas at an industrial facility?

The regulated areas are defined in 40 CFR 122.26. In general it is any area that has significant materials, has industrial processes or has had industrial activity in the past where significant materials are still exposed to storm water.

25) Is a roof top discharge with no industrial activity considered unregulated?

Yes. All areas of a facility that are not involved in industrial activity, have no significant materials exposed to storm water runoff or that do not have a potential for significant material materials to contact storm water runoff are not regulated.

26) What if the discharge is comingled with other process wastewaters?

Storm water that is comingled with other process wastewaters is no longer considered to be storm water and is only authorized to be discharged under another type of National Pollutant Discharge Elimination System (NPDES) permit that will include effluent limits with specific sampling frequencies.

27) What do I need to do to become an Industrial Storm Water Certified Operator?

Industrial Storm Water Certified Operator training is conducted regularly at every DEQ, District Offices. The schedules of the training sessions can be found on the Industrial Page of the Storm Water Website. Contact numbers and email addresses for registering for the training sessions are provided with the training schedule.

28) This seems like an effort to quantify a program that has largely been qualitative in nature. Will staff exercise appropriate leniency as this new approach become culture?

DEQ staff are available to assist with the review of written procedures and will exercise enforcement discretion as appropriate.

29) Is it true that storm water discharges to a combined sewer is not regulated?

Discharges to a combined sewer system are not regulated by the industrial storm water program. However they are regulated by the owner of the combined system which is subject to their own NPDES permits for discharges from their system into waters of the state.

30) What are some reasons someone would need an alternative schedule for comprehensive inspections?

Comprehensive inspections are required to be conducted quarterly unless a facility requests an alternative schedule. If the alternative schedule is approved by the department the facility may operate on that approved schedule. There are a number of reasons a facility may request an alternative schedule including the following examples: Facilities with seasonal operations, facilities in northern climates where everything is expected to be covered by snow during the winter quarter, facilities with long periods of no industrial activity where significant materials are not exposed to storm water, facilities with an extended period of compliance that has been documented, facilities that choose to conduct comprehensive inspections more frequently than once per quarter. If conditions change at a facility that has been granted an alternative schedule or there is noncompliance the alternative schedule may no longer be approved.

31) Are dumpster covers required?

You must have control measures in place at the facility to keep the storm water from being contaminated by significant materials. Covering dumpsters is one method of reducing contact with significant materials and is much cheaper than treatment of the storm water that has come into contact with the industrial wastes that are in the dumpsters. Storm water that has come in contact with industrial wastes in dumpsters is considered to be a liquid industrial waste and it is not authorized to be discharged under a general storm water permit.

32) What is an effluent?

An effluent is the water that is discharged from a conveyance.

Questions related to the written procedures

33) Do I need to develop procedures for conducting the visual assessment?

Yes. The written procedures for conducting the visual assessment must be developed within six months of the issuance/reissuance of storm water permit coverage. The written procedures must be included in the Storm Water Pollution Prevention Plan (SWPPP).

34) Will the written procedures for each facility need to be formally approved by the DEQ?

No. The written procedures do not have to be submitted to the DEQ, Water Resources Division (WRD) before you begin conducting the visual assessment. The written procedures must be designed to meet the permit requirements. When an inspection is conducted at the facility, WRD staff will review the written procedures that are part of the SWPPP. If the written procedures do not meet permit requirements the written procedures will need to be revised within 30 days of notification by the department.

35) Do the visual assessment written procedures have to be a stand-alone document or can it be incorporated into the SWPPP?

The visual assessment written procedures must be incorporated into the SWPPP since the visual assessment is part the comprehensive inspection.

36) Do we need a PE signature to recertify the SWPPP when the visual assessment written procedures are added?

No. The SWPPP does not require a PE signature. However it does require a signature of an Industrial Storm Water Certified Operator and the permittee or authorized representative in accordance with 40 CFR 122.22. When the SWPPP is modified it should be resigned.

37) What if I have multiple discharge points?

You are required to perform a visual assessment on all discharge points where industrial activity occurs.

38) What if I have multiple discharge points that discharge storm water from similar use areas at my facility?

If the facility has two or more discharge points that discharge substantially identical storm water effluents, then the facility may conduct the assessment on just one of the discharge points and report that the results also apply to the other substantially identical discharge points. The determination of substantially identical discharge points is made based on the significant material evaluation conducted as part of the SWPPP development. The substantially identical discharge points must be identified on the site map. Assessment of each substantially identical discharge point must be conducted on a rotating basis.

For more information on making this determination please review the compliance assistance document on the industrial storm water web page.

39) Is a location considered substantially different if under normal conditions there is no difference in significant materials or industrial activities? For instance, if there is construction going on but it will be finished within a few months, is that still considered an industrial process?

Construction activities are considered to be an industrial process. The designation of discharge points having substantially identical effluents is based on having the same significant materials and industrial processes in the drainage areas for each discharge point. If something changes in one of the drainage areas for a discharge point the effluents for each discharge point can no longer be assumed to be substantially identical. The visual assessment would need to be conducted at each discharge point until the significant material and industrial processes are the same for each drainage area. Once the significant materials and industrial processes occurring in each drainage area are the same the facility could resume conducting the visual assessments from each discharge point on a rotating basis.

40) What is the required frequency for collecting storm water samples for the visual assessment?

You are required to perform the visual assessment as part of each quarterly comprehensive site inspection. However, if you have been approved for an alternative comprehensive inspection schedule then the visual assessment will follow the approved alternative schedule.

41) Who is required to conduct the visual assessment?

The visual assessment must be conducted by an Industrial Storm Water Certified Operator within 48 hours of the collection of the storm water sample.

42) Does “responsibility” of the certified operator for conducting the visual assessment of the discharge allow for delegation of the assessment to trained personnel?

No. A supervising Industrial Storm Water Certified Operator may delegate the sample collection of a discharge from a storm event to appropriately trained personnel. However, assessment of the sample can only be done by an appropriately trained Industrial Storm Water Certified Operator.

43) If am the Certified Operator for several facilities, how do I sample each one after a rain event?

There are several options to consider for collecting the sample during the visual assessment.

- Have personnel at each facility trained as an Industrial Storm Water Certified Operator(s).
- Utilize on-site personnel that have received appropriate training for collecting the storm water sample (See Question No. 63).
- Utilize automatic samplers to collect samples at the discharge points of all facilities.

The option chosen must be included in the written procedures developed for conducting the visual assessment. The assessment of the samples must be conducted by an Industrial Storm Water Certified Operator within 48 hours of collection.

44) When do I collect the storm water sample for the visual assessment?

The visual assessment must be conducted within one month of the control measure observation portion of the comprehensive inspection. The storm water sample and the visual observation of the storm water discharge must be collected during the first 30 minutes of the discharge from a storm event that occurs at least 72 hours (three days) after any previous storm event that had a discharge.

45) What is a “Qualifying Storm Event”?

For rain – it is a rain event that discharges storm water at least 72 hours after the previous storm event that caused a discharge. For snow melt – it is any measureable amount that causes a discharge.

46) Does the 30 minute time frame for sample collection start at the beginning or end of the rain event?

The 30 minute time frame starts when the storm water begins to discharge from the facility to a municipal or private storm sewer or surface waters of the state.

47) How do we determine exactly when the start of the discharge is? Would it be okay to assume that when rainfall reaches a tenth of an inch that is the start of the discharge?

Unless you have an automated sampling device or are at the discharge point when the discharge begins, the exact time of the discharge will be hard to determine. Therefore in most situations this will be an estimate. The amount of rainfall it takes to cause a discharge will vary between discharge points. In general, for paved surfaces anything less than a tenth of an inch will not cause a discharge. There are many variables that will need to be considered including rain intensity, slope of the ground, amount of imperviousness, and temperature. It may take some time for a facility to get a general idea how much rainfall it takes to cause a discharge from each discharge point. This will need to be considered when the written procedures are developed.

48) It seems that in order to know if I'm conducting the visual assessment of a qualifying storm event, I need to be aware of every rain event at my facility. What is the best way to do this?

Installing and monitoring a simple rain gauge at your facility is the best way to determine the date of a rain event and the amount of rain that has fallen on your facility during that event. There are also websites which can give you general information about the time, duration and amount of rainfall that has occurred in your area. The amount of rainfall it takes to cause a discharge from each outfall will be specific for each discharge point.

49) How much storm water in a given amount of time determines if you need to conduct the visual assessment?

The visual assessment is not dependent upon a volume of water discharged. A visual assessment may be conducted anytime there is a discharge of storm water after a qualifying storm event provided it is within 30 minutes of the beginning of the discharge and within one month of the control measure observation portion of the comprehensive inspection.

50) What if I am not able to collect the storm water sample from the storm water discharge within the first 30 minutes?

If it is not possible to collect the storm water sample within the first 30 minutes of the discharge you may do the observation and collection of the sample within the first 60 minutes of discharge. Provide a written explanation of why additional time was needed on the sample form.

51) How important is it to collect the storm water sample within 30 minutes of the beginning of the discharge?

The purpose of the visual assessment is to assess the effectiveness of storm water control measures in place at the facility. The quality of storm water will typically be at its worst during the first 30 minutes of the discharge (first flush). As storm water continues to run over the surface of the facility it will wash off contaminants that were present. All rainfall samples are required to be collected within the 30 minutes of the beginning of the storm water discharge. Samples may be collected between 30-60 minutes of the beginning of the storm water discharge, providing the reasoning for not collecting the storm water sample within 30 minutes is documented on the report form.

52) What if the storm water flows through an oil water separator into the storm sewer? How do I determine the 30 minute window for sampling?

Typically any water entering the oil water separator will cause a discharge of storm water from the oil water separator. Therefore when storm water starts flowing into the catch basin leading into the oil water separator you could count that as the beginning of the discharge.

53) May the visual assessment be conducted within one month preceding the comprehensive inspection if it is conducted within the same quarter?

Yes. The sample collection for the visual assessment may occur up to one month prior to the control measure observation portion of the comprehensive inspection.

54) What if a discharge from a storm event does not occur during normal hours of operation within one month of the control measure observation portion of the comprehensive inspection?

A substitute assessment may be conducted during the next qualifying storm or snow melt event that occurs before the next comprehensive inspection. Documentation of the rationale for not collecting the storm water sample within the required time period of the comprehensive inspection shall be included with the report.

55) If there are no changes in the control measures, does a visual assessment need to be done within one month of the quarterly comprehensive inspection?

Yes. The visual assessment is part of all comprehensive inspections and must be conducted within one month of the control measure observation portion of the comprehensive inspection even if there have been no changes to the control measures.

56) Is it acceptable to defer sampling and the assessment of the sample to the following quarter if qualified personnel are not available?

No. Personnel should be trained and available to collect the sample and perform the visual assessment during the normal hours of operation for the facility.

57) What happens if no staff are available during non-working hours to collect a storm water sample from the discharge point during a storm event?

You only have to conduct the visual assessment for discharges that occur during the facility's normal hours of operation.

58) What if you run three shifts? What would be the normal hours of operation?

For a facility that runs three shifts the whole 24 hour period would be considered to be normal hours of operation.

59) What would be considered adverse weather conditions?

Adverse weather conditions are those that create inaccessibility to the sampling location or create conditions that would be dangerous to personnel collecting the sample. Examples include: local flooding, high winds, electrical storms or icy conditions. Adverse weather conditions may also create conditions where there would be no discharge such as extended dry periods or extended cold periods where there is no measureable snow melt.

60) If a point of discharge or outfall includes runoff from unregulated areas as well as regulated areas? I.e. employee parking lots, what is the appropriate assessment?

If storm water runoff from an unregulated area comingles with storm water runoff from a regulated area the comingled water will need to be assessed at the discharge point.

Questions related to sample collection

61) Do we take a visual sample or a physical sample?

You must do both. You must visually observe the discharge and collect a storm water sample that you can observe in a well-lit area.

62) Who can collect the storm water sample that will be used to conduct the visual assessment?

The storm water sample should be collected by an appropriately trained Industrial Storm Water Certified Operator. If an Industrial Storm Water Certified Operator is not available at the time of the discharge the facility may use personnel that have received appropriate training for collecting the storm water sample and recording observations of the actual discharge. Automated sampling devices may also be used to collect the sample. The training, and the personnel to be trained, must be included in the written procedures. Training of the Industrial Storm Water Certified Operator and other personnel who will collect the storm water sample and make the visual observations of the discharge must be documented.

63) What is considered to be appropriate training for personnel who will be collecting the storm water sample and making a visual observation of the storm water discharge?

Viewing the webinar or tutorials on Conducting the visual assessment of storm water discharges located on the Industrial Storm Water webpage is considered to be appropriate training. Other training materials may be used if they include the same subject content. Training materials must be included in the written procedures.

64) Who needs to receive the training for conducting the visual assessment?

The Industrial Storm Water Certified Operator and any personnel who will be collecting the storm water sample in person or from an automated sampler. Personnel who will be collecting the storm water sample need to be listed in the written procedures. Documentation of personnel who have received the training is required in the written procedures.

65) What if storm water sheet flows off my property, how do I sample?

Sheet flow of storm water from your facility can be a good structural control so you may not want to permanently alter this type of drainage pattern. If the flow is too shallow to directly fill a collection bottle you can overcome this by using a temporary device to concentrate the flow. Review pages 9 and 10 of EPA's Industrial Storm Water Monitoring and Sampling Guide for further details at http://www.epa.gov/npdes/pubs/msgp_monitoring_guide.pdf

66) If a side of the facility has sheet drainage to a vegetated area, must this area be sampled for a discharge for the visual assessment?

If the vegetated area is part of the facility the sample must be collected within 30 minutes after the water begins to discharge from the vegetated area to a storm sewer or surface waters of the state. If the vegetated area is not on the facility the sample should be collected before it enters the vegetated area. If there is no discharge from the vegetated area to a storm sewer or surface waters of the state then no visual assessment needs to be conducted.

67) When do I conduct the visual assessment during winter?

Look for a measureable amount of snowmelt at the discharge point within one month after the comprehensive inspection. The runoff must be measureable enough to be able to collect in a sample container.

68) Where do you get the equipment for collecting the storm water sample?

Most facilities will probably not need any special equipment for collecting the storm water sample. EPA has developed a sampling guide that is located at http://water.epa.gov/polwaste/npdes/stormwater/upload/msgp_monitoring_guide.pdf

69) How does one catch the first thirty minutes of a snow melt?

A sample collected at a discharge point from snow melt may be collected at any time there is a measurable discharge and provided it is at least 72 hours from a rain event that caused a discharge.

70) Would excessive snow melt be considered a good sample?

Any snow melt sample taken within one month of the control measure observation portion of the comprehensive inspection is acceptable as long as it is a representative sample of the snow melt coming from the facility.

71) What if snowmelt occurs during the "off" hours?

Snowmelt is most likely to occur in the afternoon when the sun is shining. Unless the weather is cold for an extended period of time it will be relatively easy to collect a measureable sample from snowmelt within one month of the control measure observations.

72) How do we handle seasonal shutdowns? Is monitoring required during that time?

No. You are only required to collect the storm water sample and observe the discharge during the normal hours of operation that occur during the quarter that the comprehensive inspection is conducted. Plan ahead so you'll be ready to conduct the visual assessment when it occurs during the normal hours of operation at the facility.

73) How do we sample when the discharge point is not accessible?

The monitoring point for collecting the storm water sample may be upstream of the discharge point if the water at that location is representative of the actual discharge.

74) How do we sample from a submerged discharge pipe?

The sample would have to be collected from the discharge pipe above the point where it discharges into the receiving waters. Observations of the discharge would need to take place at the receiving waters and at the collection/monitoring point. These types of situations would need to be addressed in the written procedures. The monitoring point would need to be at a location that would provide a representative sample of the storm water discharging from the facility.

75) How do you recommend conducting the visual assessment of discharge points on private property?

The monitoring point for each discharge point must assess the actual storm water discharging from the facility. The visual assessment must be conducted on the storm water discharging from your facility before it comes in contact with storm water from other facilities. Often, there could be more than one location for the actual monitoring point for each discharge point. The monitoring point could be where the storm water enters a catch basin that flows into a storm sewer or the point where the storm sewer discharges to surface waters of the state. In some cases you may have to make arrangements with another property owner or construct an access point for collecting the storm water sample on your property.

76) When do I conduct the visual assessment if we have a detention pond with a controlled discharge?

The visual assessment from a detention pond may be conducted at any time the detention pond is allowed to discharge after a qualifying storm event as long as it is within one month of the control measure observations.

77) Do we need to conduct the visual assessment at locations in our storm sewer system above the detention pond discharge point?

If you are the only facility discharging storm water to the detention pond the monitoring point will usually be the location where the detention pond discharges. If other facilities discharge storm water to the detention pond the monitoring point would be the location where you discharge storm water into the detention pond.

78) How would you sample a discharge point that continually has flow, like from an underground spring?

This is something you would want to include in the written procedures. You may need to collect the sample upstream of the actual outfall.

79) If the storm water sample will not be assessed within minutes of the collection, how do I store the sample?

Seal the sample and store it in a cold refrigerator. The storm water sample will need to be assessed by an Industrial Storm Water Certified Operator in a well-lit area within 48 hours of collection.

80) What constitutes "appropriate" storage of a sample?

It involves sealing the sample and keeping it cool in a refrigerator or by putting it in ice.

81) Could the collected storm water samples be mailed overnight in ice to be visually assessed by the operator if they cannot be at the site within 48 hours?

That would be an acceptable option, provided it is included in the written procedures, if used.

82) If a sample is collected by an automated sampler at a facility with no trained personnel: is it valid if the sample is retrieved by the Industrial Storm Water Certified Operator within 48 hours for assessment?

An automated sample may be used to collect a storm water sample but the sample must be properly stored if the visual assessment will not be conducted by the Industrial Storm Water Certified Operator within a short time of the collection. Once the sample is properly stored, the Industrial Storm Water Certified Operator may take up to 48 hours after the sample was collected to conduct the visual assessment of the collected storm water sample. Other personnel can be trained to remove the storm water sample from the automated sampler if it is included in the visual assessment written procedures.

83) Is there a list of DEQ approved/recommended automatic samplers?

No. The DEQ does not have a list of approved or recommended automatic samplers.

84) How large of a sample must be collected to conduct the visual assessment?

The sample must be large enough so that the characteristics of the storm water sample can be adequately observed and documented by a photograph. A quart sized clear jar could be easily viewed and photographed.

85) For a sample collected from a manhole or catch basin, would you want to collect the water from the top or against the wall rather than from the water that has collected at the bottom?

The sample must be representative of the storm water that is discharging from the facility. In most situations you would want to collect the sample of the discharge before it went into the catch basin. If the sample is collected from the facilities storm sewer system they would want to collect the sample at the point where it discharges to the receiving waters (an outfall) or where it enters another storm sewer (a point of discharge). Do not collect a sample from a discharge that has comingled with discharges from other facilities.

86) What information needs to be recorded with each sample?

Each sample should be labeled with the discharge point number (the number on the site plan), date and time of the sample collection, date and time of the beginning of the discharge and the name of the person collecting the sample. The general permit lists the information that must be documented for each sample. A form is available on the Industrial Storm Water web page and the form should be used to document this information.

Questions related to visual assessment of the collected sample

87) Do we document both the start of the storm event and the start of the discharge?

No. You do not have to document the beginning of the storm event. You have to document the beginning of the discharge and the time the sample is collected.

88) How do I visually assess the sample?

After the samples are collected, they should be viewed in a well-lit area. Mix or gently shake the sample and record your observations. Let the sample set for approximately 30 minutes and note if there are settleable solids. Document your observations with a color photograph of the sample against a white background.

89) May the certified operator assess the discharge and sample by only viewing a color photograph?

No. However, a visual recording other than a photograph may be used to document the visual characteristics of the discharge occurring at the time the sample is collected. The assessment of the storm water sample must be done in person by an Industrial Storm Water Certified Operator within 48 hours of sample collection.

90) How do I document the visual assessment?

A reporting form is available for download from the Industrial Storm Water webpage. In addition, a color photograph of the sample taken against a white background must be included with the written report.

91) Can I use one report form for documenting all discharge points?

The Industrial Storm Water Certified Operator must conduct the visual assessment, complete the report form, and sign the report form. Name(s) of the appropriately trained personnel that collected the sample (if other than the certified operator) must be recorded on the report form.

92) Do I need to document if there has been no discharge from a discharge point at the facility during the quarter?

Yes. The visual assessment is a part of the required comprehensive inspection. If there is no discharge from a discharge point until the next comprehensive inspection this will need to be documented.

93) Is a photograph required?

Yes. A colored photograph of the sample used to conduct the visual assessment, against a white background, is required as part of the documentation. A photograph of the sample collected at each discharge point is required. A photograph or film of the actual discharge into the storm sewer or receiving waters is optional.

94) Who can fill out the visual assessment report form?

The Industrial Storm Water Certified Operator must conduct the visual assessment, complete the report form, and sign the report form. Name(s) of the appropriately trained personnel that collected the sample (if other than the certified operator) must be recorded on the report form.

95) Turbidity, Settleable Solids, and Suspended Solids the same?

They are similar. Turbidity is the measurement of the cloudiness or the lack of clarity in the water. Usually an increase in the turbidity is due to sediment in the water. The turbidity of the water is due to the presence of suspended solids, settleable solids, and suspended liquids in the water. Suspended solids are the actual sediment and other particles that are floating within the water column. Settleable solids are the particles that are heavy enough to drop out of the water column and “settle” to the bottom after a short period of time. Settleable solids will drop out of water column within a short time after the velocity of the water is reduced or after the agitation has stopped.

96) What happens if I find “something” in my sample or I observe unnatural characteristics at the time of the discharge?

If the Industrial Storm Water Certified Operator observes turbidity, color, oil films, floating solids, foams, settleable solids, suspended solids, or deposits in the sample or at the time of the discharge, these observations will need to be documented on the visual assessment report form. These unnatural characteristics are likely indicative of storm water contamination.

As follow-up to the assessment, the source of the contamination must be determined and corrective actions taken to either implement, or adjust structural and/or non-structural controls to address the source of contamination. Documentation of follow-up actions recommended and taken should be included with the report.

97) What do I do with my sample when I am done with it?

After the Industrial Storm Water Certified Operator records the observations and photographs the sample, you can pour it out in the discharging water. You do not have to retain the storm water sample after it has been assessed by the Industrial Storm Water Certified Operator.

98) Does a written report need to be sent to the DEQ every time there is a visual assessment or does it only need to be sent if there are issues identified during the visual assessment?

No. The results of the visual assessment need to be documented and kept on file at the facility. A verbal notification within 24 hours and a written report within five days only need to be submitted if there are unnatural characteristics in the discharge that could lead to a violation of the Water Quality Standards in the receiving waters.

99) How long of a retention period is required for the visual assessment records?

The visual assessment report forms and photo documentation must be kept for three years. All storm water inspection records and other documentations are required to be kept for three years.



Instructions for Completing the Quarterly Visual Assessment Report

Visual Assessment Sample Information

- Record the Facility Name, Certificate of Coverage (COC) number (if covered under a general industrial storm water permit) or the National Pollutant Discharge Elimination System (NPDES) Permit Number (if covered under an individual permit).
- Record the name(s) of the Industrial Storm Water Certified Operator that will be conducting and have supervision over the visual assessment. In addition, provide the name and title if someone other than a certified operator will be assisting in the collection of the sample for the visual assessment.
- Record the date of the corresponding comprehensive inspection. The visual assessment is to be conducted as part of the quarterly comprehensive inspection (unless an alternative schedule has been approved). The visual assessment must be conducted within 1 month of the control measure observations evaluated during the comprehensive inspection which are typically performed during dry weather conditions.
- If applicable, provide information on whether this is a substitute sample due to adverse weather conditions experienced during the previous quarter (i.e. electrical storm prevented sample collection and there was no other storm event that occurred while staff were present at the facility within 1 month of the control measure observations).
- Record the discharge point number / name. This should correspond with the discharge points identified in the site map included in the Storm Water Pollution Prevention Plan (SWPPP).
- Provide a description of the sample collection location (i.e. "sample collected at the outfall prior to discharge", "sample collected in pipe at manhole 001 after Oil/Water separator", etc.). It may not be feasible to collect at the actual point of discharge, for example if your storm sewer system has an internal discharge connection to the municipal storm sewer system. In this instance, you would sample at the closest upstream location from the discharge point and indicate under sample location description that the "sample was collected at Monitoring Point A upstream of Discharge Point 1".
- Indicate whether the discharge point being sampled was determined to be a substantially identical discharge point and if applicable, provide a list of the discharge points with substantially identical storm water effluents which this sample will represent. Discharge points determined to be substantially identical should be identified on the site map included in the SWPPP. Additional information on substantially identical discharge points can be found in the permit and the *Visual Assessments of Industrial Storm Water* compliance assistance document.
- Record the date and time of when: the discharge began; the sample was collected; and the sample was examined and observation recorded.
- In accordance with permit requirements, samples are to be collected within the first 30 minutes of the start of a discharge. If it is not possible to collect the sample within the first 30 minutes, the sample shall be collected as soon thereafter as practical but not exceeding 60 minutes. For snowmelt, samples shall be collected during a period with measurable discharge from the site. If the sample from a rain event was not collected within 30 minutes please provide an explanation for the delay.
- Record the nature of the discharge (snowmelt or rainfall). For rain events provide the size of the event in inches and whether 72 hours (3 days) has passed since the previous storm event.



Instructions for Completing the Quarterly Visual Assessment Report

Observations

- After collection, observe the physical properties of the sample.
- Samples should be gently mixed (shaken) and then observed for all parameters except settleable solids and suspended solids. For settleable solids and suspended solids, allow the sample to sit for a few minutes and then observe.
- Color – Does the storm water appear to be colored?
- Floating Solids – Are there floating materials on the surface of the sample?
- Oil Film / Sheen – Can you see a rainbow effect or sheen on the water surface? Distinguish whether the sheen identified is oil based or biological. Biological sheens tend to be silver, dull in color and if disturbed will break into small platelets and not reform. Petroleum sheens are typically shiny, rainbow colored, and will form back together if disturbed.
- Suspended Solids – Are there materials suspended in the water column of the sample
- Settleable Solids – Observe for particulates settled on bottom of sample
- Foam - Is there foam or material forming on the top of the sample surface?
- Odor - Was there an odor observed, either during collection or of the sample itself. Use caution when smelling the sample as some chemicals can be harmful if inhaled.
- Turbidity/Clarity – How cloudy is the sample?
- Pictures - The permit requires that a picture of the sample be taken against a white background. If the picture is stored electronically and not kept with the inspection record, record the storage location of the photo.
- Receiving waters – If possible, observe the receiving waters upstream and downstream from your storm water discharge and record your observations.

Follow-up

- Based on the visual assessment indicate whether there are unnatural characteristics in the discharge (cloudiness, color, sheen, etc.) This may be an indication of storm water contamination. Identify potential sources for the observed unnatural characteristics. A review of the areas contributing to the discharge should be conducted if sources are not immediately apparent.
- Provide a description and schedule of any corrective actions taken and/or recommended to be taken to address any unnatural characteristics observed during the actual discharge or in the sample.

Certification

- The report form must be signed by the Industrial Storm Water Certified Operator.

the 1990s, the number of people in the UK with a mental health problem has increased by 50% (Mental Health Foundation 1999). The prevalence of mental health problems has increased in the UK, and this has led to a corresponding increase in the number of people with mental health problems who are in contact with the criminal justice system. In 1997, 10% of the prison population in England and Wales had a mental health problem (HM Prison Service 1998). This figure is likely to be an underestimate, as many people with mental health problems are not recorded as such in the prison population statistics. The number of people with mental health problems who are in contact with the criminal justice system is likely to increase in the future, as the prevalence of mental health problems continues to rise.

The increase in the number of people with mental health problems who are in contact with the criminal justice system has led to a corresponding increase in the number of people with mental health problems who are in contact with the criminal justice system. In 1997, 10% of the prison population in England and Wales had a mental health problem (HM Prison Service 1998). This figure is likely to be an underestimate, as many people with mental health problems are not recorded as such in the prison population statistics. The number of people with mental health problems who are in contact with the criminal justice system is likely to increase in the future, as the prevalence of mental health problems continues to rise.

The increase in the number of people with mental health problems who are in contact with the criminal justice system has led to a corresponding increase in the number of people with mental health problems who are in contact with the criminal justice system. In 1997, 10% of the prison population in England and Wales had a mental health problem (HM Prison Service 1998). This figure is likely to be an underestimate, as many people with mental health problems are not recorded as such in the prison population statistics. The number of people with mental health problems who are in contact with the criminal justice system is likely to increase in the future, as the prevalence of mental health problems continues to rise.

The increase in the number of people with mental health problems who are in contact with the criminal justice system has led to a corresponding increase in the number of people with mental health problems who are in contact with the criminal justice system. In 1997, 10% of the prison population in England and Wales had a mental health problem (HM Prison Service 1998). This figure is likely to be an underestimate, as many people with mental health problems are not recorded as such in the prison population statistics. The number of people with mental health problems who are in contact with the criminal justice system is likely to increase in the future, as the prevalence of mental health problems continues to rise.

The increase in the number of people with mental health problems who are in contact with the criminal justice system has led to a corresponding increase in the number of people with mental health problems who are in contact with the criminal justice system. In 1997, 10% of the prison population in England and Wales had a mental health problem (HM Prison Service 1998). This figure is likely to be an underestimate, as many people with mental health problems are not recorded as such in the prison population statistics. The number of people with mental health problems who are in contact with the criminal justice system is likely to increase in the future, as the prevalence of mental health problems continues to rise.

The increase in the number of people with mental health problems who are in contact with the criminal justice system has led to a corresponding increase in the number of people with mental health problems who are in contact with the criminal justice system. In 1997, 10% of the prison population in England and Wales had a mental health problem (HM Prison Service 1998). This figure is likely to be an underestimate, as many people with mental health problems are not recorded as such in the prison population statistics. The number of people with mental health problems who are in contact with the criminal justice system is likely to increase in the future, as the prevalence of mental health problems continues to rise.



INDUSTRIAL STORM WATER PROGRAM QUARTERLY VISUAL ASSESSMENT REPORT

The intent of this compliance assistance document is to provide a Visual Assessment Report Form that permittees can use to meet the conditions of the National Pollutant Discharge Elimination System (NPDES) Wastewater Discharge General Permit for Industrial Storm Water Discharges or NPDES Individual Permits. This document and other compliance assistance documents can be found at the DEQ, WRD Industrial Storm Water website www.mi.gov/deqstormwater (then click on INDUSTRIAL PROGRAM).

Visual Assessment Sample Information		
Facility Name: Former McLouth Steel Property-County Property		COC No. <u>or</u> NPDES Permit No: MIS
Industrial Storm Water Certified Operator Name: Bruce Bawkon I-03044		
Name / Title of person collecting sample if other than Cert. Operator:		
Date of Comprehensive Inspection:	Is this a substitute sample? <input type="checkbox"/> No <input type="checkbox"/> Yes Explain:	
Discharge Point # / Name:	Substantially Identical Discharge Point? <input type="checkbox"/> No <input type="checkbox"/> Yes List:	
Description of sample collection location:		
Date / Time Discharge Began:	Date / Time Sample Collected:	Date / Time Sample Examined:
For rain events - if sample was collected > 30 minutes from start of discharge, provide explanation:		
Snowmelt <input type="checkbox"/>	Rainfall <input type="checkbox"/> Inches:	If rain event - previous storm ended > 72 hours prior to start of this event? <input type="checkbox"/> No <input type="checkbox"/> Yes

Observations	
Color: <input type="checkbox"/> None <input type="checkbox"/> Yes (describe):	Floating Solids: <input type="checkbox"/> No <input type="checkbox"/> Yes (describe):
Oil Films / Sheens: <input type="checkbox"/> None <input type="checkbox"/> Flecks <input type="checkbox"/> Globs <input type="checkbox"/> Sheen <input type="checkbox"/> Other Describe appearance of film/sheen:	
Foam (gently shake sample): <input type="checkbox"/> No <input type="checkbox"/> Yes	Suspended Solids: <input type="checkbox"/> No <input type="checkbox"/> Yes (describe):
Settleable Solids: <input type="checkbox"/> No <input type="checkbox"/> Yes (describe):	
Odor: <input type="checkbox"/> None <input type="checkbox"/> Musty <input type="checkbox"/> Sewage <input type="checkbox"/> Sulfur <input type="checkbox"/> Sour <input type="checkbox"/> Hydrocarbons <input type="checkbox"/> Chemical <input type="checkbox"/> Other (describe):	
Turbidity/Clarity: <input type="checkbox"/> Clear <input type="checkbox"/> Slightly Cloudy <input type="checkbox"/> Cloudy <input type="checkbox"/> Milky <input type="checkbox"/> Other (describe):	
Picture of sample taken (required): <input type="checkbox"/> No <input type="checkbox"/> Yes Storage location:	
Receiving waters observed? <input type="checkbox"/> N/A <input type="checkbox"/> No <input type="checkbox"/> Yes (describe):	

Follow-up:
Based on the visual observation, are there unnatural characteristics in the discharge (cloudiness, color, sheen, etc.)? <input type="checkbox"/> No <input type="checkbox"/> Yes
Potential sources of observed unnatural characteristics <input type="checkbox"/> N/A <u>or</u> describe:
Implemented / recommended corrective action(s) <input type="checkbox"/> N/A <u>or</u> describe: Scheduled date for correction:

I certify that the above information is correct	
Certified Operator Signature	Date

RETAIN THIS FORM FOR A MINIMUM OF 3 YEARS

**Former Mclouth Steal Property - County Property
1491 West Jefferson Avenue, Trenton, Michigan
SPCC/SWPP/ PIP Plan**

**APPENDIX K
VISUAL ASSESSMENT RECORDS FOR SURFACE WATER SAMPLING**

**Former McLouth Steel Property - County Property
1491 West Jefferson Avenue, Trenton, Michigan 48183-1240
Storm Water Report**

Attachment E Completed SPCC/SWPP Inspection Forms



INDUSTRIAL STORM WATER PROGRAM QUARTERLY VISUAL ASSESSMENT REPORT

The intent of this compliance assistance document is to provide a Visual Assessment Report Form that permittees can use to meet the conditions of the National Pollutant Discharge Elimination System (NPDES) Wastewater Discharge General Permit for Industrial Storm Water Discharges or NPDES Individual Permits. This document and other compliance assistance documents can be found at the DEQ, WRD Industrial Storm Water website www.mi.gov/degstormwater (then click on INDUSTRIAL PROGRAM).

Visual Assessment Sample Information		
Facility Name: Former McLouth Steel Property-County Property		COC No. or NPDES Permit No: MIS
Industrial Storm Water Certified Operator Name: Bruce Bawkon I-03044		
Name / Title of person collecting sample if other than Cert. Operator: <i>[Signature] PM</i>		
Date of Comprehensive Inspection: <i>4/13/19</i>	Is this a substitute sample? <input type="checkbox"/> No <input type="checkbox"/> Yes Explain:	
Discharge Point # / Name: <i>MND 6</i>	Substantially Identical Discharge Point? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes List:	
Description of sample collection location: <i>Manhole Rim</i>		
Date / Time Discharge Began: <i>3/14/19 1:55 PM</i>	Date / Time Sample Collected: <i>3/14/19 2:05 PM</i>	Date / Time Sample Examined: <i>3/14/19 3:30 PM</i>
For rain events - if sample was collected > 30 minutes from start of discharge, provide explanation:		
Snowmelt <input type="checkbox"/>	Rainfall <input checked="" type="checkbox"/> Inches: <i>0.11</i>	If rain event - previous storm ended > 72 hours prior to start of this event? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes

Observations	
Color: <input checked="" type="checkbox"/> None <input type="checkbox"/> Yes (describe):	Floating Solids: <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes (describe):
Oil Films / Sheens: <input checked="" type="checkbox"/> None <input type="checkbox"/> Flecks <input type="checkbox"/> Globs <input type="checkbox"/> Sheen <input type="checkbox"/> Other	
Describe appearance of film/sheen:	
Foam (gently shake sample): <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes	Suspended Solids: <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes (describe): <i>Minimal</i>
Settleable Solids: <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes (describe):	
Odor: <input checked="" type="checkbox"/> None <input type="checkbox"/> Musty <input type="checkbox"/> Sewage <input type="checkbox"/> Sulfur <input type="checkbox"/> Sour <input type="checkbox"/> Hydrocarbons <input type="checkbox"/> Chemical <input type="checkbox"/> Other (describe):	
Turbidity/Clarity: <input type="checkbox"/> Clear <input checked="" type="checkbox"/> Slightly Cloudy <input type="checkbox"/> Cloudy <input type="checkbox"/> Milky <input type="checkbox"/> Other (describe):	
Picture of sample taken (required): <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes Storage location: <i>Server</i>	
Receiving waters observed? <input type="checkbox"/> N/A <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes (describe):	

Follow-up:
Based on the visual observation, are there unnatural characteristics in the discharge (cloudiness, color, sheen, etc.)? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes
Potential sources of observed unnatural characteristics <input checked="" type="checkbox"/> N/A or describe:
Implemented / recommended corrective action(s) <input checked="" type="checkbox"/> N/A or describe:
Scheduled date for correction:

I certify that the above information is correct	
Certified Operator Signature <i>Bruce Bawkon</i>	Date <i>3/18/19</i>

RETAIN THIS FORM FOR A MINIMUM OF 3 YEARS



INDUSTRIAL STORM WATER PROGRAM QUARTERLY VISUAL ASSESSMENT REPORT

The intent of this compliance assistance document is to provide a Visual Assessment Report Form that permittees can use to meet the conditions of the National Pollutant Discharge Elimination System (NPDES) Wastewater Discharge General Permit for Industrial Storm Water Discharges or NPDES Individual Permits. This document and other compliance assistance documents can be found at the DEQ, WRD Industrial Storm Water website www.mi.gov/deqstormwater (then click on INDUSTRIAL PROGRAM).

Visual Assessment Sample Information		
Facility Name: Former McLouth Steel Property-County Property		COC No. or NPDES Permit No: MIS
Industrial Storm Water Certified Operator Name: Bruce Bawkon I-03044		
Name / Title of person collecting sample if other than Cert. Operator: <i>PM</i>		
Date of Comprehensive Inspection: <i>4/18/19</i>	Is this a substitute sample? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes Explain:	
Discharge Point # / Name: <i>MHD6</i>	Substantially Identical Discharge Point? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes List:	
Description of sample collection location: <i>Manhole Rim</i>		
Date / Time Discharge Began: <i>5/3/19 4:55AM</i>	Date / Time Sample Collected: <i>5/3/19 5:55AM</i>	Date / Time Sample Examined: <i>5/3/19 6:30AM</i>
For rain events - if sample was collected > 30 minutes from start of discharge, provide explanation: <i>Not on Site</i>		
Snowmelt <input type="checkbox"/>	Rainfall <input checked="" type="checkbox"/> Inches: <i>.05</i>	If rain event - previous storm ended > 72 hours prior to start of this event? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes

Observations	
Color: <input checked="" type="checkbox"/> None <input type="checkbox"/> Yes (describe):	Floating Solids: <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes (describe):
Oil Films / Sheens: <input checked="" type="checkbox"/> None <input type="checkbox"/> Flecks <input type="checkbox"/> Globs <input type="checkbox"/> Sheen <input type="checkbox"/> Other	
Describe appearance of film/sheen:	
Foam (gently shake sample): <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes	Suspended Solids: <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes (describe): <i>Minor</i>
Settleable Solids: <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes (describe): <i>Minimal</i>	
Odor: <input checked="" type="checkbox"/> None <input type="checkbox"/> Musty <input type="checkbox"/> Sewage <input type="checkbox"/> Sulfur <input type="checkbox"/> Sour <input type="checkbox"/> Hydrocarbons <input type="checkbox"/> Chemical <input type="checkbox"/> Other (describe):	
Turbidity/Clarity: <input type="checkbox"/> Clear <input checked="" type="checkbox"/> Slightly Cloudy <input type="checkbox"/> Cloudy <input type="checkbox"/> Milky <input type="checkbox"/> Other (describe):	
Picture of sample taken (required): <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes Storage location: <i>Server</i>	
Receiving waters observed? <input type="checkbox"/> N/A <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes (describe):	

Follow-up:
Based on the visual observation, are there unnatural characteristics in the discharge (cloudiness, color, sheen, etc.)? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes
Potential sources of observed unnatural characteristics <input type="checkbox"/> N/A or describe:
Implemented / recommended corrective action(s) <input checked="" type="checkbox"/> N/A or describe:
Scheduled date for correction:

I certify that the above information is correct	
Certified Operator Signature <i>Bruce Bawkon</i>	Date <i>5/10/19</i>

RETAIN THIS FORM FOR A MINIMUM OF 3 YEARS



INDUSTRIAL STORM WATER PROGRAM QUARTERLY VISUAL ASSESSMENT REPORT

The intent of this compliance assistance document is to provide a Visual Assessment Report Form that permittees can use to meet the conditions of the National Pollutant Discharge Elimination System (NPDES) Wastewater Discharge General Permit for Industrial Storm Water Discharges or NPDES Individual Permits. This document and other compliance assistance documents can be found at the DEQ, WRD Industrial Storm Water website www.mi.gov/deqstormwater (then click on INDUSTRIAL PROGRAM).

Visual Assessment Sample Information		
Facility Name: Former McLouth Steel Property-County Property		COC No. or NPDES Permit No: MIS
Industrial Storm Water Certified Operator Name: Bruce Bawkon I-03044		
Name / Title of person collecting sample if other than Cert. Operator: <i>IB PM</i>		
Date of Comprehensive Inspection: <i>6/28/20</i>	Is this a substitute sample? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes Explain:	
Discharge Point # / Name: <i>MHD6</i>	Substantially Identical Discharge Point? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes List:	
Description of sample collection location: <i>Manhole Rim</i>		
Date / Time Discharge Began: <i>9/30/19 5:56AM</i>	Date / Time Sample Collected: <i>9/30/19 6:59AM</i>	Date / Time Sample Examined: <i>9/30/19 7:31AM</i>
For rain events - if sample was collected > 30 minutes from start of discharge, provide explanation: <i>Not on site</i>		
Snowmelt <input type="checkbox"/>	Rainfall <input checked="" type="checkbox"/> Inches: <i>0.18</i>	If rain event - previous storm ended > 72 hours prior to start of this event? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes

Observations	
Color: <input checked="" type="checkbox"/> None <input type="checkbox"/> Yes (describe):	Floating Solids: <input type="checkbox"/> No <input type="checkbox"/> Yes (describe):
Oil Films / Sheens: <input checked="" type="checkbox"/> None <input type="checkbox"/> Flecks <input type="checkbox"/> Globs <input type="checkbox"/> Sheen <input type="checkbox"/> Other	
Describe appearance of film/sheen:	
Foam (gently shake sample): <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes	Suspended Solids: <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes (describe): <i>Minor</i>
Settleable Solids: <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes (describe):	
Odor: <input checked="" type="checkbox"/> None <input type="checkbox"/> Musty <input type="checkbox"/> Sewage <input type="checkbox"/> Sulfur <input type="checkbox"/> Sour <input type="checkbox"/> Hydrocarbons <input type="checkbox"/> Chemical	
<input type="checkbox"/> Other (describe):	
Turbidity/Clarity: <input type="checkbox"/> Clear <input checked="" type="checkbox"/> Slightly Cloudy <input type="checkbox"/> Cloudy <input type="checkbox"/> Milky <input type="checkbox"/> Other (describe):	
Picture of sample taken (required): <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes	Storage location: <i>Sevier</i>
Receiving waters observed? <input type="checkbox"/> N/A <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes (describe):	

Follow-up:
Based on the visual observation, are there unnatural characteristics in the discharge (cloudiness, color, sheen, etc.)? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes
Potential sources of observed unnatural characteristics <input checked="" type="checkbox"/> N/A or describe:
Implemented / recommended corrective action(s) <input checked="" type="checkbox"/> N/A or describe:
Scheduled date for correction:

I certify that the above information is correct	
Certified Operator Signature <i>Bruce Bawkon</i>	Date <i>10/4/19</i>

RETAIN THIS FORM FOR A MINIMUM OF 3 YEARS



INDUSTRIAL STORM WATER PROGRAM QUARTERLY VISUAL ASSESSMENT REPORT

The intent of this compliance assistance document is to provide a Visual Assessment Report Form that permittees can use to meet the conditions of the National Pollutant Discharge Elimination System (NPDES) Wastewater Discharge General Permit for Industrial Storm Water Discharges or NPDES Individual Permits. This document and other compliance assistance documents can be found at the DEQ, WRD Industrial Storm Water website www.mi.gov/degstormwater (then click on INDUSTRIAL PROGRAM).

Visual Assessment Sample Information		
Facility Name: Former McLouth Steel Property-County Property		COC No. or NPDES Permit No: MIS
Industrial Storm Water Certified Operator Name: Bruce Bawkon I-03044		
Name / Title of person collecting sample if other than Cert. Operator: <i>JB PM</i>		
Date of Comprehensive Inspection: <i>7/20/19</i>	Is this a substitute sample? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes Explain:	
Discharge Point # / Name: <i>MHD 6</i>	Substantially Identical Discharge Point? <input type="checkbox"/> No <input type="checkbox"/> Yes List:	
Description of sample collection location: <i>Manhole Rim</i>		
Date / Time Discharge Began: <i>11/4/19 8:35 AM</i>	Date / Time Sample Collected: <i>11/4/19 8:55 AM</i>	Date / Time Sample Examined: <i>11/4/19 9:30 AM</i>
For rain events - if sample was collected > 30 minutes from start of discharge, provide explanation:		
Snowmelt <input type="checkbox"/>	Rainfall <input checked="" type="checkbox"/> Inches: <i>0.01</i>	If rain event - previous storm ended > 72 hours prior to start of this event? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes

Observations	
Color: <input checked="" type="checkbox"/> None <input type="checkbox"/> Yes (describe):	Floating Solids: <input type="checkbox"/> No <input type="checkbox"/> Yes (describe):
Oil Films / Sheens: <input checked="" type="checkbox"/> None <input type="checkbox"/> Flecks <input type="checkbox"/> Globs <input type="checkbox"/> Sheen <input type="checkbox"/> Other	
Describe appearance of film/sheen:	
Foam (gently shake sample): <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes	Suspended Solids: <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes (describe):
Settleable Solids: <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes (describe): <i>Mud</i>	
Odor: <input checked="" type="checkbox"/> None <input type="checkbox"/> Musty <input type="checkbox"/> Sewage <input type="checkbox"/> Sulfur <input type="checkbox"/> Sour <input type="checkbox"/> Hydrocarbons <input type="checkbox"/> Chemical <input type="checkbox"/> Other (describe):	
Turbidity/Clarity: <input type="checkbox"/> Clear <input checked="" type="checkbox"/> Slightly Cloudy <input type="checkbox"/> Cloudy <input type="checkbox"/> Milky <input type="checkbox"/> Other (describe):	
Picture of sample taken (required): <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes Storage location: <i>5454</i>	
Receiving waters observed? <input type="checkbox"/> N/A <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes (describe):	

Follow-up:	
Based on the visual observation, are there unnatural characteristics in the discharge (cloudiness, color, sheen, etc.)? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes	
Potential sources of observed unnatural characteristics <input checked="" type="checkbox"/> N/A or describe:	
Implemented / recommended corrective action(s) <input checked="" type="checkbox"/> N/A or describe:	
Scheduled date for correction:	

I certify that the above information is correct	
Certified Operator Signature <i>Bruce Bawkon</i>	Date <i>12/3/19</i>

RETAIN THIS FORM FOR A MINIMUM OF 3 YEARS



INDUSTRIAL STORM WATER PROGRAM QUARTERLY VISUAL ASSESSMENT REPORT

The intent of this compliance assistance document is to provide a Visual Assessment Report Form that permittees can use to meet the conditions of the National Pollutant Discharge Elimination System (NPDES) Wastewater Discharge General Permit for Industrial Storm Water Discharges or NPDES Individual Permits. This document and other compliance assistance documents can be found at the DEQ, WRD Industrial Storm Water website www.mi.gov/degstormwater (then click on INDUSTRIAL PROGRAM).

Visual Assessment Sample Information		
Facility Name: Former McLouth Steel Property-County Property	COC No. or NPDES Permit No: MIS	
Industrial Storm Water Certified Operator Name: Bruce Bawkon I-03044		
Name / Title of person collecting sample if other than Cert. Operator: <u>PM</u>		
Date of Comprehensive Inspection: <u>12/31/19</u>	Is this a substitute sample? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes Explain:	
Discharge Point # / Name: <u>MND6</u>	Substantially Identical Discharge Point? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes List:	
Description of sample collection location: <u>Manhole Rim</u>		
Date / Time Discharge Began: <u>1/8/20 4:15 PM</u>	Date / Time Sample Collected: <u>1/8/20 4:35 PM</u>	Date / Time Sample Examined: <u>1/8/20 5:15 PM</u>
For rain events - if sample was collected > 30 minutes from start of discharge, provide explanation:		
Snowmelt <input type="checkbox"/>	Rainfall <input checked="" type="checkbox"/> Inches: <u>0.04</u>	If rain event - previous storm ended > 72 hours prior to start of this event? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes

Observations	
Color: <input checked="" type="checkbox"/> None <input type="checkbox"/> Yes (describe):	Floating Solids: <input type="checkbox"/> No <input type="checkbox"/> Yes (describe):
Oil Films / Sheens: <input checked="" type="checkbox"/> None <input type="checkbox"/> Flecks <input type="checkbox"/> Globs <input type="checkbox"/> Sheen <input type="checkbox"/> Other	
Describe appearance of film/sheen:	
Foam (gently shake sample): <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes	Suspended Solids: <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes (describe): <u>None</u>
Settleable Solids: <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes (describe): <u>None</u>	
Odor: <input checked="" type="checkbox"/> None <input type="checkbox"/> Musty <input type="checkbox"/> Sewage <input type="checkbox"/> Sulfur <input type="checkbox"/> Sour <input type="checkbox"/> Hydrocarbons <input type="checkbox"/> Chemical <input type="checkbox"/> Other (describe):	
Turbidity/Clarity: <input type="checkbox"/> Clear <input checked="" type="checkbox"/> Slightly Cloudy <input type="checkbox"/> Cloudy <input type="checkbox"/> Milky <input type="checkbox"/> Other (describe):	
Picture of sample taken (required): <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes Storage location: <u>Server</u>	
Receiving waters observed? <input type="checkbox"/> N/A <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes (describe):	

Follow-up:
Based on the visual observation, are there unnatural characteristics in the discharge (cloudiness, color, sheen, etc.)? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes
Potential sources of observed unnatural characteristics <input checked="" type="checkbox"/> N/A or describe:
Implemented / recommended corrective action(s) <input checked="" type="checkbox"/> N/A or describe:
Scheduled date for correction:

I certify that the above information is correct	
Certified Operator Signature <u>Bruce Bawkon</u>	Date <u>1/21/20</u>

RETAIN THIS FORM FOR A MINIMUM OF 3 YEARS



INDUSTRIAL STORM WATER PROGRAM QUARTERLY VISUAL ASSESSMENT REPORT

The intent of this compliance assistance document is to provide a Visual Assessment Report Form that permittees can use to meet the conditions of the National Pollutant Discharge Elimination System (NPDES) Wastewater Discharge General Permit for Industrial Storm Water Discharges or NPDES Individual Permits. This document and other compliance assistance documents can be found at the DEQ, WRD Industrial Storm Water website www.mi.gov/deqstormwater (then click on INDUSTRIAL PROGRAM).

Visual Assessment Sample Information			
Facility Name: Former McLouth Steel Property-County Property		COC No. or NPDES Permit No: MIS	
Industrial Storm Water Certified Operator Name: Bruce Bawkon I-03044			
Name / Title of person collecting sample if other than Cert. Operator: <i>JB PM</i>			
Date of Comprehensive Inspection: <i>3/21/20</i>		Is this a substitute sample? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes Explain:	
Discharge Point # / Name: <i>MHP6</i>		Substantially Identical Discharge Point? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes List:	
Description of sample collection location: <i>MANHOLE RUN</i>			
Date / Time Discharge Began: <i>3/23/20 7:35 AM</i>		Date / Time Sample Collected: <i>3/23/20 7:55 AM</i>	
Date / Time Sample Examined: <i>3/23/20 8:30 AM</i>			
For rain events - if sample was collected > 30 minutes from start of discharge, provide explanation:			
Snowmelt <input type="checkbox"/>	Rainfall <input checked="" type="checkbox"/> Inches: <i>.01</i>	If rain event - previous storm ended > 72 hours prior to start of this event? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes	

Observations	
Color: <input checked="" type="checkbox"/> None <input type="checkbox"/> Yes (describe):	Floating Solids: <input type="checkbox"/> No <input type="checkbox"/> Yes (describe):
Oil Films / Sheens: <input checked="" type="checkbox"/> None <input type="checkbox"/> Flecks <input type="checkbox"/> Globs <input type="checkbox"/> Sheen <input type="checkbox"/> Other	
Describe appearance of film/sheen:	
Foam (gently shake sample): <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes	Suspended Solids: <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes (describe):
Settleable Solids: <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes (describe): <i>M. No.</i>	
Odor: <input checked="" type="checkbox"/> None <input type="checkbox"/> Musty <input type="checkbox"/> Sewage <input type="checkbox"/> Sulfur <input type="checkbox"/> Sour <input type="checkbox"/> Hydrocarbons <input type="checkbox"/> Chemical <input type="checkbox"/> Other (describe):	
Turbidity/Clarity: <input type="checkbox"/> Clear <input checked="" type="checkbox"/> Slightly Cloudy <input type="checkbox"/> Cloudy <input type="checkbox"/> Milky <input type="checkbox"/> Other (describe):	
Picture of sample taken (required): <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes Storage location: <i>Server</i>	
Receiving waters observed? <input type="checkbox"/> N/A <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes (describe):	

Follow-up:	
Based on the visual observation, are there unnatural characteristics in the discharge (cloudiness, color, sheen, etc.)? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes	
Potential sources of observed unnatural characteristics <input checked="" type="checkbox"/> N/A or describe:	
Implemented / recommended corrective action(s) <input checked="" type="checkbox"/> N/A or describe:	
Scheduled date for correction:	

I certify that the above information is correct	
Certified Operator Signature <i>Bruce Bawkon</i>	Date <i>3/13/20</i>

RETAIN THIS FORM FOR A MINIMUM OF 3 YEARS



INDUSTRIAL STORM WATER PROGRAM QUARTERLY VISUAL ASSESSMENT REPORT

The intent of this compliance assistance document is to provide a Visual Assessment Report Form that permittees can use to meet the conditions of the National Pollutant Discharge Elimination System (NPDES) Wastewater Discharge General Permit for Industrial Storm Water Discharges or NPDES Individual Permits. This document and other compliance assistance documents can be found at the DEQ, WRD Industrial Storm Water website www.mi.gov/degstormwater (then click on INDUSTRIAL PROGRAM).

Visual Assessment Sample Information		
Facility Name: Former McLouth Steel Property-County Property		COC No. or NPDES Permit No: MIS
Industrial Storm Water Certified Operator Name: Bruce Bawkon I-03044		
Name / Title of person collecting sample if other than Cert. Operator: <i>IB PM</i>		
Date of Comprehensive Inspection:	Is this a substitute sample? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes Explain:	
Discharge Point # / Name: <i>MHDD</i>	Substantially Identical Discharge Point? <input type="checkbox"/> No <input type="checkbox"/> Yes List:	
Description of sample collection location: <i>Maquoketa River</i>		
Date / Time Discharge Began: <i>4/7/20 5:55 AM</i>	Date / Time Sample Collected: <i>4/12/20 6:16 AM</i>	Date / Time Sample Examined: <i>4/12/20 8:20 AM</i>
For rain events - if sample was collected > 30 minutes from start of discharge, provide explanation:		
Snowmelt <input type="checkbox"/>	Rainfall <input checked="" type="checkbox"/> Inches: <i>0.01</i>	If rain event - previous storm ended > 72 hours prior to start of this event? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes

Observations	
Color: <input checked="" type="checkbox"/> None <input type="checkbox"/> Yes (describe):	Floating Solids: <input type="checkbox"/> No <input type="checkbox"/> Yes (describe):
Oil Films / Sheens: <input checked="" type="checkbox"/> None <input type="checkbox"/> Flecks <input type="checkbox"/> Globs <input type="checkbox"/> Sheen <input type="checkbox"/> Other	
Describe appearance of film/sheen:	
Foam (gently shake sample): <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes	Suspended Solids: <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes (describe): <i>Minor</i>
Settleable Solids: <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes (describe): <i>Minor</i>	
Odor: <input checked="" type="checkbox"/> None <input type="checkbox"/> Musty <input type="checkbox"/> Sewage <input type="checkbox"/> Sulfur <input type="checkbox"/> Sour <input type="checkbox"/> Hydrocarbons <input type="checkbox"/> Chemical <input type="checkbox"/> Other (describe):	
Turbidity/Clarity: <input type="checkbox"/> Clear <input checked="" type="checkbox"/> Slightly Cloudy <input type="checkbox"/> Cloudy <input type="checkbox"/> Milky <input type="checkbox"/> Other (describe):	
Picture of sample taken (required): <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes Storage location: <i>Server</i>	
Receiving waters observed? <input type="checkbox"/> N/A <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes (describe):	

Follow-up:
Based on the visual observation, are there unnatural characteristics in the discharge (cloudiness, color, sheen, etc.)? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes
Potential sources of observed unnatural characteristics <input checked="" type="checkbox"/> N/A or describe:
Implemented / recommended corrective action(s) <input checked="" type="checkbox"/> N/A or describe:
Scheduled date for correction:

I certify that the above information is correct	
Certified Operator Signature <i>Bruce Bawkon</i>	Date <i>4/15/20</i>

RETAIN THIS FORM FOR A MINIMUM OF 3 YEARS