Waste Management Unit 26 Investigation

18251 West Jefferson
Riverview, Michigan

Riverview-Trenton Railroad Company

May 18, 2020

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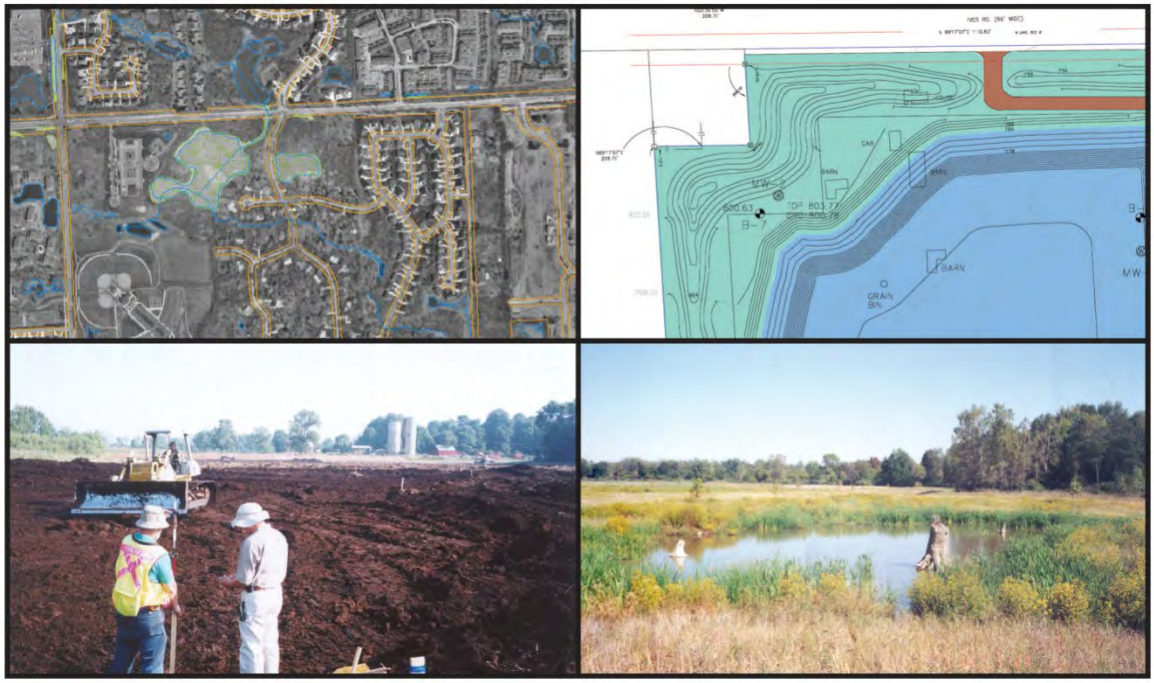

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Waste Management Unit 26 Investigation

18251 West Jefferson
Riverview, Michigan

May 18, 2020

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ASTI ENVIRONMENTAL

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Waste Management Unit 26 Investigation
Riverview-Trenton Railroad Company
Former McLouth Steel Site
18251 West Jefferson Avenue
Riverview, Michigan

1.0 Introduction

ASTI Environmental ("ASTI") conducted an investigation to determine if the former North Debris Piles were removed from the Riverview-Trenton Railroad Company ("RTRR") property at 18251 W. Jefferson Avenue in the City of Riverview, Wayne County, Michigan ("Subject Property"). The portion of the Subject Property south of Sibley Road lies in the City of Trenton. This investigation was completed on behalf of RTRR as required by the Corrective Action Consent Order ("CACO") between RTRR and the Michigan Department of Environment, Great Lakes, and Energy ("EGLE"), Waste Management and Radiological Protection Division, dated November 1, 2018. This investigation was completed in accordance with the Statement of Work ("SOW") included as Attachment A of the CACO for the Subject Property.

This investigation was completed for the area known as Waste Management Unit 26 ("WMU-26") the former North Debris Piles. Attachment A includes Figure 1 – Site Location Map and Figure 2 – RTRR Site Features Map. Figure 2 includes the extents of WMU-26.

2.0 Background

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

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

Historically, the Subject Property included the Monguagon Creek channel, an oil storage terminal, and a large building with docking facilities. By 1961, the large building and oil terminal had been demolished and the Monguagon Creek channel had been rerouted along River Road. By 1967, the original channel and mouth area of Monguagon Creek had been

filled completely and this aera was used for storage of equipment and materials (ore, debris, and scrap)[1].

WMU-26 is an approximately 20-acre area[2] of the Subject Property located in the central portion of the RTRR property that McLouth Steel used to accumulate various debris from its steel making activities.

3.0 Investigation Activities

3.1 Review of Historical Reports

Based on historical documents, materials placed in the debris piles may have included refractory material, slags, air pollution control solids (from bag houses), basic oxygen furnace ("BOF") scrubber sludge, scale pit sludges, lime handling dust, and air pollution dusts and sludges. The waste streams designated for reclamation were transferred to the Subject Property (former north debris piles) and later processed for recovery of steel scrap and fines.

Waste streams designated for reclamation were not segregated, but randomly mixed in the former piles area. DSC began processing the debris piles for recovery of recyclable steel scrap in June 1997[3]. The debris was processed using magnetic separation and screens to generate three types of materials; recovered steel, steel fines, and processed debris residuals (all non-magnetic material that passed through the processing plant). Reclaimed steel-containing materials were recycled in the steel-making process and processed debris residuals were transferred to new piles in the same area or directly into trucks for transfer to the landfill.

In July 2000, Detroit Steel Corporation ("DSC") began transporting remaining debris pile material to the Countywide Landfill for disposal. Removal actions at WMU-26 took place beginning in July 2000 and continued into late 2002. Approximately 400,000 cubic yards of debris pile material was processed for recovery, disposal, or spread onsite[4].

ASTI reviewed historical topographic maps (prior to debris removal by DSC) and compared them to a topographic map created in 2018. The historical topographic map used for comparison was originally included in the *North Area Characterization Plan (Revised)* prepared by Environmental Strategies Corporation ("ESC") and dated November 2, 2000. The historical topographic maps, included in Attachment B, show several piles throughout WMU-26 at the time of the survey. The piles are evident based on topographic highs. ESC provided the extents of WMU-26 on the historical topographic map. The extents of WMU-26 are also depicted in the Site Plan provided as Figure 2. The 2018 topographic map is also included in Attachment B.

The topography in the northern portion of WMU-26 shown in the historical topographic map depicts several mounds throughout the WMU-26 in 2000. The elevation contours depicted in the historical topographic map are five-foot elevation contours. Most of the debris piles have

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[1] North Area Characterization Plan, Revised, ESC, November 2, 2000
[2] RCRA Facility Assessment Report – DSC Ltd. – Trenton Plant, ESC, November 2, 1999
[3] Debris Pile Characterization Plan, Techna Corporation, June 8, 1998
[4] Status of Consent Order Activities, Trenton and Gibraltar, Michigan, DSC Ltd, June 2002

a maximum elevation between approximately 610 feet above mean sea level (ft AMSL) to approximately 620 ft AMSL. The heights of the piles generally range from 15 feet to 30 feet.

A review of the topographic map produced in 2018 shows much less mounding compared to the historical topographic map. The elevation contours depicted in the 2018 topographic map are one-foot elevation contours. The elevation in the northern portion of WMU-26 generally ranges between 590 ft AMSL and 595 ft AMSL and is generally consistent with the elevation of the remainder of the property. A few small mounds, approximately five feet in height, are present in the 2018 elevation contours. However, the mounds present in the historical topographic map appear to have been removed from the site.

One large mound is evident in the 2018 topographic map located southeast of the concrete pad of WMU-31. As shown in Figure 2, the footprint of this mound is partially located within the WMU-26 extents. This mound has a maximum elevation of approximately 597 ft AMSL and is approximately six feet to seven feet higher than the surrounding ground surface. Based on a review of Google Earth aerial maps dated between April 2002 and April 2019, it appears that the material comprising the current mound was placed after January 2004 and before March 2005 (after completion of removal of debris material) with additional material placed in the same pile sometime between April 2015 and April 2016. Review of historical documents, and subsequent site investigation, indicated that this mound is composed of asphalt millings.

3.2 Field Investigation

On November 27, 2019, ASTI investigated the area of the former North Debris Piles to determine if the piles are still present. The field investigation consisted of visual reconnaissance of the northern and southern portions of the WUM-26 area as shown on Figure 2. The location of the northern and southern portions of the former North Debris pile were inspected to determine if the surface soil material in those areas are similar to surface soil material outside of the former North Debris pile locations. Photographs taken during the field investigation are shown in the Photo Log included as Attachment C.

The mound currently located partially within WMU-26 near the northern extent is gradually sloped and the material at the surface of the mound was confirmed to be comprised of asphalt millings with grain sizes ranging from coarse sand to fine cobbles mixed with brown silty sand. Some of this material was excavated in 2019, revealing that the asphalt millings range to a depth of up to six feet below the top of the mount.

No large-scale mounding was observed in the southern portion of WMU-26 during the field investigation. One smaller mound was observed near the boarder of the Subject Property and the County Property which is approximately 60 ft long by 20 ft wide and 10 ft high. It does not appear that the material in this mound is associated with the debris from WMU-26 because it appears to be comprised of construction material.

The western portion of the surface in southern WMU-26 is comprised of sand to gravel size slag and asphalt material. Trace amounts of metal debris is present in the surface. The eastern portion of southern WMU-26 is comprised of similar material although more metal debris is present and larger slag debris is present.

4.0 Conclusions

As required by the CACO, ASTI investigated the WMU-26 area. The investigation includes review of historical documents (reports and topographic maps) and a field investigation. Based on the investigation, ASTI believes that the former North Debris Piles have been removed from the Subject Property. One mound, consisting of asphalt millings, is present near the northern extent of WMU-26. Based on a review of historical aerial photos this material was placed after the McLouth Facility ceased operations. Additionally, this mound is located partially outside of the documented extents of WMU-26. A review of the topographic map produced in 2018 shows that surface elevations in the WMU-26 area are generally consistent with the remainder of the Subject Property. Additionally, surface material within the WMU-26 area is consistent with the surface material on other portions of the Subject Property.

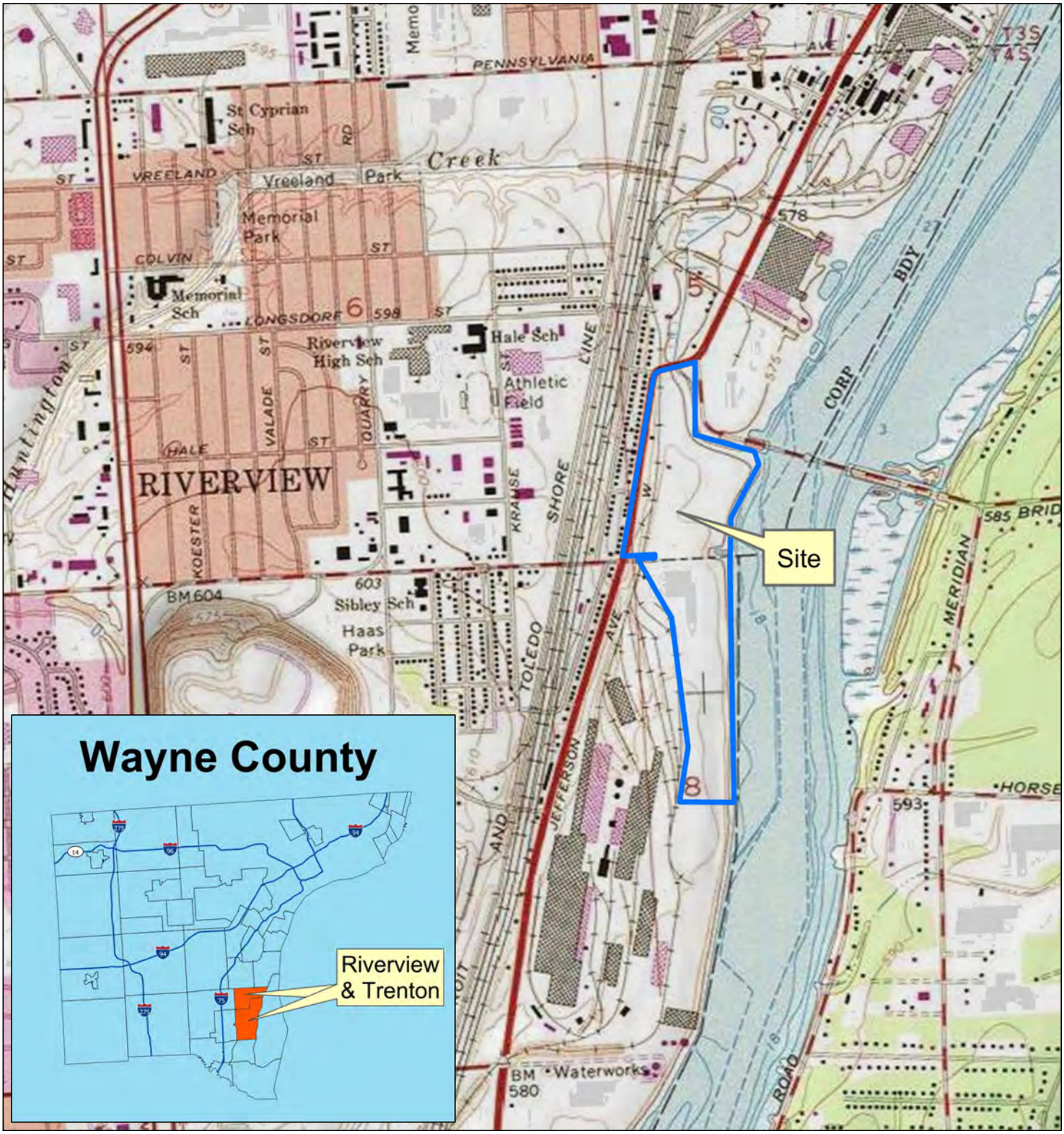
5.0 RCRA Certification Statement

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

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

Attachment A
Figures

Waste Management Unit 26 Investigation



0 600 1200 1800

Approximate Scale in Feet

LEGEND

Property Line

N

ASTI Environmental

RTRR - WMU-26 Investigation

18251 West Jefferson
Riverview, MI

Figure 1 - Site Location Map

Created for: Riverview-Trenton Railroad Company

ASTI Project 10860, JRN, March 3, 2020

Y:\Project Files\Current and Closed\10000-10999\10860-10899\10860 McLouth RTRR Property\CAD\10860.dwg, 3/3/2020 12:23 PM;

RTRR - WMU-26 Investigation

18251 West Jefferson Avenue, Riverview, MI

ASTI Environmental

Created for: Riverview-Trenton Railroad Company

Figure 2 - Site Features Map

ASTI Project 10860, JRN/JMD, March 4, 2020

Attachment B
Topographic Maps

Waste Management Unit 26 Investigation

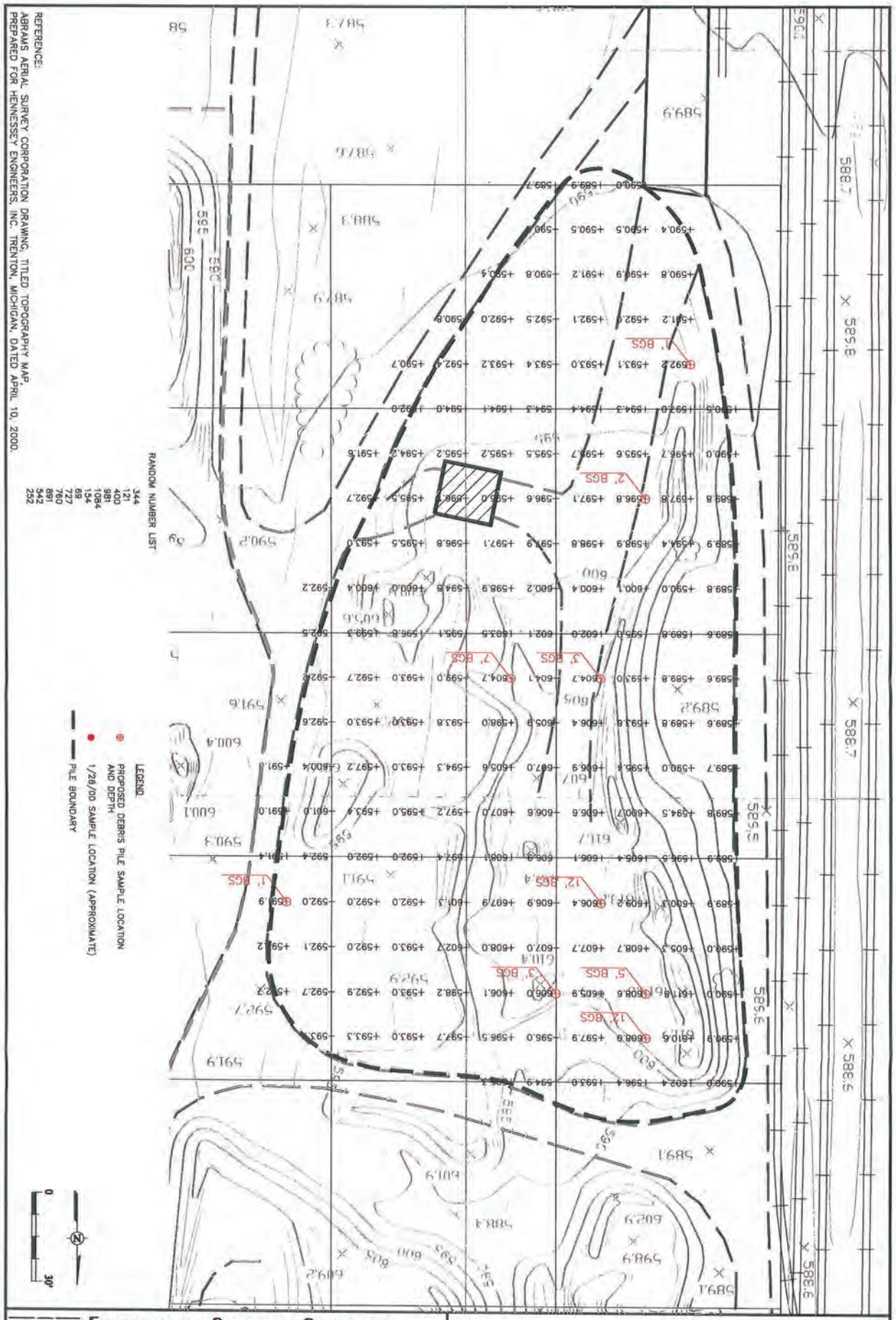
MATCHLINE

MATCHLINE

MCLOUTH RTRR TOPO SURVEY

SCALE: 1" = 120'

DATE	REVISION	
McLouth RTRR JEFFERSON AVE RIVERVIEW TRENTON		DRAWN BY JMH
Former McLouth Steel - Northern Property		DATE 2-7-18
Topo Survey		P1



ENVIRONMENTAL STRATEGIES CORPORATION

ESC

11911 Freedom Drive Suite 900
Reston, Virginia 20190
703-709-6500

Figure 7
Levy Mountain Sample Locations
DSC Ltd.
Trenton, Michigan

DSC\TRENTON\B08.DWG

ENVIRONMENTAL STRATEGIES CORPORATION
11911 Freedom Drive Suite 900
Reston, Virginia 20190
703-709-6500

Figure 8
Soil Sample Locations - North Debris Piles (WMU-26)
DSC Ltd.
Trenton, Michigan

DSCVTRENTONB09.DWG

Attachment C
Photo Log

Waste Management Unit 26 Investigation

PHOTO LOG

WMU-26, RTRR, 18251 West Jefferson Ave., Riverview, Michigan

	**Photo 1.** View looking south toward former North Debris Pile. Former McLouth Production Facility in the background.
	**Photo 2.** View looking west toward location of the former North Debris Pile.
	**Photo 3.** View looking west. Location of former North Debris Pile. Unvegetated area is covered with asphalt millings. Residential area west of West Jefferson in background.

ASTI Project No. 10860
April 17, 2020
Photographed by Greg Oslosky

PHOTO LOG

WMU-26, RTRR, 18251 West Jefferson Ave., Riverview, Michigan

	**Photo 4.** View looking north-northwest. Area of former North Debris Pile in foreground.
	**Photo 5.** View looking north. Asphalt millings pile in foreground. Gross Ile Bridge Toll Plaza in background.
	**Photo 6.** View of asphalt millings in the area of former North Debris Piles.

ASTI Project No. 10860
April 17, 2020
Photographed by Greg Oslosky

PHOTO LOG

WMU-26, RTRR, 18251 West Jefferson Ave., Riverview, Michigan

	**Photo 7.** View looking west. Asphalt millings in foreground. Photograph taken from top of topographic high. Intersection of West Jefferson and Sibley Road in background.
	**Photo 8.** View looking south. Topographic high comprised of asphalt millings in left foreground. Former McLouth Production Facility in background.
	**Photo 9.** View looking southeast. Location of former North Debris Pile in background. Southwest corner of concrete slab for WMU-31 in foreground.

PHOTO LOG

WMU-26, RTRR, 18251 West Jefferson Ave., Riverview, Michigan

	**Photo 10.** View looking east-northeast. Location of the former North Debris Pile in the background. Eastern edge of the concrete slab of WMU-31 in foreground.
	**Photo 11.** View looking west. Apparent construction material pile near western property border. Former McLouth Production Facility in background.
	**Photo 12.** View looking north. Location of the former location of the southern portion of the North Debris Pile. Former McLouth Production Facility visible in the left half of the photograph.

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- **ENVIRONMENTAL ASSESSMENTS AND IMPACT STATEMENTS**
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- **MINING AND RECLAMATION ASSISTANCE**
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