



Consulting  
Engineers and  
Scientists

August 20, 2021  
Project 2005005

Mr. Chris Ehlert  
Project Manager  
KL Engineering  
393 Red Cedar Street, Suite 2  
Menomonie, Wisconsin 54751  
VIA EMAIL: CEhlert@klengineering.com

Ms. Aaron Gustafson  
WisDOT Regional Environmental Coordinator  
Wisconsin Department of Transportation  
1701 N. 4<sup>th</sup> Street  
Superior, Wisconsin 54880  
VIA EMAIL: Aaron.Gustafson@dot.wi.gov

**Re: Phase 4 Environmental Activities Summary  
US 2/53 – 39th Avenue East Intersection  
City of Superior, Douglas County, Wisconsin  
WisDOT Project ID #1198-03-78**

Dear Messrs Ehlert and Gustafson:

The Wisconsin Department of Transportation (WisDOT) completed reconstruction of the intersection of US Highway 2/53 (US 2/53) and 39th Avenue East in the city of Superior, Douglas County, Wisconsin. GEI Consultants, Inc, as part of a highway upgrade project between 31st Avenue East and 53rd Avenue East. GEI Consultants, Inc. (GEI) was retained through a master contract with WisDOT to provide Phase 4 environmental and waste disposal documentation services related to lead and petroleum-contaminated soil within the right-of-way (ROW) in the southern quadrant of the intersection of US 2/53 and 39th Avenue East and adjacent to a former gasoline station on the adjoining property.

The following sections of this report present background information on the project and a summary of site activities.

## **Project Background**

WisDOT planned to improve United States Highway 2/53 (East 2nd Street) between 31st Avenue East and 53rd Avenue East in the City of Superior, Douglas County, Wisconsin. The improvement project included spot locations of concrete pavement repair, roadway resurfacing consisting of a course grind and overlay, rehabilitation of a bridge, upgrading and/or installation of curb ramps at pedestrian crossings, updates or replacements of traffic signals and streetlights, and repairs to existing utility manholes and inlets. Prior to construction activities in 2021, a Phase 2.5 Subsurface Investigation (Phase 2.5 SI) was completed by GEI within the ROW adjacent to the former gas station property at the intersection of US 2/53 and 39th Ave. E., which was identified as a site of potential concern for the construction project by WisDOT.

Results of the Phase 2.5 SI were presented in a report prepared by GEI (*Phase 2.5 Subsurface Investigation, US 2/53 – 31st Ave. East to 53rd Ave. East, City of Superior, Douglas County, Wisconsin, WisDOT Project ID #1198-03-78, August 12, 2019*). Soil samples were collected for laboratory analysis of contaminants of concern and landfill waste characterization analytes.

Results of the Phase 2.5 SI indicated that concentrations of petroleum volatile organic compounds (VOCs), polycyclic aromatic hydrocarbons (PAHs), and lead above the Wisconsin Administrative Code, Chapter NR 720 Residual Contaminant Levels (RCLs) were detected in the ROW adjacent to the site. The detected concentrations of lead and several PAHs and petroleum VOCs, including benzene, ethylbenzene, naphthalene, 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, and chrysene, exceed the NR 720 RCLs for the groundwater pathway, and the detected concentration of one PAH analyte, benzo(a)pyrene, exceeds the NR 720 RCL for the non-industrial direct contact pathway. The volatile and semi-volatile analytes detected in the ROW suggest that a release of gasoline from the historical operation of an underground storage tank (UST) system may have occurred at the site. Although the lead detections may also be associated with a former leaded gasoline UST system, subsurface conditions encountered during the Phase 2.5 SI and the distribution of lead detections suggest that it was possible for elevated concentrations of lead to be associated with soil fill historically deposited within the ROW. Following review of the results Phase 2.5 SI, the Wisconsin Department of Natural Resources (WDNR) approved the Special Provisions and opened Bureau of Remediation and Redevelopment Tracking System Case No. 03-16-584200 for the release associated with the former gasoline station in this quadrant of the intersection.

Based on Phase 2.5 SI results, it was anticipated that lead-, PAH-, and petroleum VOC-impacted soil with concentrations above NR 720 RCLs would be encountered during construction adjacent to this site and therefore, it was recommended that excavations adjacent to the site be field-screened by an environmental consultant. Laboratory analytical results and visual, olfactory, and photoionization detector (PID) field-screening conducted during the Phase 2.5 SI suggest that impacts may be encountered from the ground surface to a depth of approximately 10 feet below existing grades. Because concentrations exceed the NR 720 RCL for the groundwater pathway, it was anticipated that impacted soil excavated during construction would be considered environmentally unsuitable for reuse as backfill on the project and therefore, would require disposal at a licensed bioremediation/landfill facility. Existing pavement, sidewalk, and base course within the ROW adjacent to this site were not anticipated to be impacted; therefore, those materials should be able to be managed as common excavation. Existing traffic signal, lighting, and signage structures, including associated foundations (assuming soil adhered to those structures is brushed off or otherwise removed to the extent practicable) are also anticipated to be considered non-impacted.

Groundwater infiltration into the open boreholes and well casing installed at the site was not evident during the field exploration; therefore, sufficient groundwater for sampling was not encountered during the Phase 2.5 SI. Based on these observations, local topography, and information presented in WDNR case files for nearby properties, it was anticipated that the depth to groundwater being deeper (at least 20 feet below existing ROW grade) than the maximum depths of excavation planned for the project near this site. As described in this report, groundwater was not evident in the excavations at this intersection. Accordingly, construction dewatering was not necessary to complete the planned construction.

Per the Phase 2.5 SI Special Provisions, testing indicated that petroleum-contaminated soil is present or likely to be present at the following location as shown on the plans:

1. Station 255+50 to 260+15, from 25 feet RT of reference line to construction limits RT, from the ground surface to a depth of approximately 10 feet below existing grades.

GEI served in the role of the environmental consultant as defined in the Phase 2.5 SI Special Provisions. The role of the environmental consultant included identification of the location and limits of contaminated soil and groundwater that may be encountered, visual observation, and field screening excavated soil with a photoionization detector (PID). The role of the environmental consultant also included determining if material excavated for the project would be classified and managed as excavation common (e.g., clean soil and concrete) or petroleum-contaminated soil for bioremediation/disposal at a licensed facility.

GEI virtually attended the preconstruction meeting on March 30, 2021, to review the construction scope and schedule, and provide input to the construction team, as needed, on management of materials/solid waste to be removed consistent with the Special Provisions. Following the meeting, GEI prepared a Waste Profile Sheet for the SKB Environmental Cloquet Landfill (AKA, Shamrock Landfill). Solid waste petroleum-contaminated soil from the project was approved for disposal at SKB Environmental Cloquet Landfill, 761 Highway 45 South, Cloquet, Minnesota.

### **Site Activities**

Scheduling of the environmental consultant and communication of field observations and material management/waste disposal activities were coordinated through representatives of Chippewa Concrete Services Inc. (Chippewa Concrete), the general contractor, Northern Interstate Construction (NIC), the primary excavation contractor, Northern Wisconsin-based Engineers, Inc. (NWBE), the contract project leader, and KL Engineering, the contract project manager. GEI distributed email updates to the project team periodically during the project. A photographic log of site activities is attached.

The term “site” below refers to the contaminated soil management zone defined in the Special Provisions. The term “field evidence of petroleum contamination” below refers to staining, odors, and/or elevated photoionization detector (PID) readings indicative of petroleum contamination and generally consistent with Phase 2.5 soil sampling data, unless otherwise noted.

During the week of April 12, 2021, a small quantity of petroleum-contaminated soil (2-3 cubic yards [cyd]) was generated during installation of the temporary signal in the southern quadrant of the intersection and within the site. As shown in the attached photographic log, the small volume of soil was placed on, and covered with, plastic pending disposal.

On April 14, 2021, Paul Garvey (GEI) observed the small stockpile and discussed upcoming disposal of the soil with project team personnel. Based on these discussions, it was confirmed that the small stockpile was not obstructing work at that time and it would be appropriate to consolidate this petroleum-contaminated soil into a truckload for NIC to remove when other petroleum-contaminated soil was to be generated during upcoming electrical and signal installations at this intersection the following month.

On May 11, 2021, Paul Garvey (GEI) observed/screened soil excavated during construction in the southern quadrant of the intersection to install the permanent signal foundation and electrical utility manholes. Approximately 40 cyd of petroleum-contaminated soil was excavated and temporarily stockpiled along with the small quantity of soil from the previous temporary signal installation. Screening results using a and visual and olfactory observations were consistent with the zone of petroleum-contaminated soil identified during previous sampling of this intersection and as described in the Special Revisions. GEI executed manifests, as an agent to WisDOT, to facilitate hauling of two truckloads of petroleum-contaminated soil by NIC to the landfill.

August 20, 2021

Visual, olfactory, and PID field screening of excavated soil from within the estimated soil contamination management zone did not reveal evidence for subsurface conditions that differed significantly from conditions described in the Phase 2.5 SI report. Water was not observed to accumulate in the excavations.

A total of 21.13 tons of petroleum-contaminated soil was hauled to the SKB Environmental Cloquet Landfill for disposal. Copies of landfill disposal records are attached.

## Conclusions

Based on field observations/screening and review of subsurface conditions and waste disposal activities with the resident engineer and contractor during construction, GEI concludes that activities associated with management of petroleum contaminated soil were in conformance with the management methods presented in the Special Provisions for this project.

If you have any questions regarding this letter or soil disposal activities, please contact Roger Miller at (920)-455-8657.

Sincerely,

GEI CONSULTANTS, INC.



Roger A. Miller, P.G., C.P.G.  
Senior Hydrogeologist

Paul M. Garvey

Senior Consultant

### Enclosures:

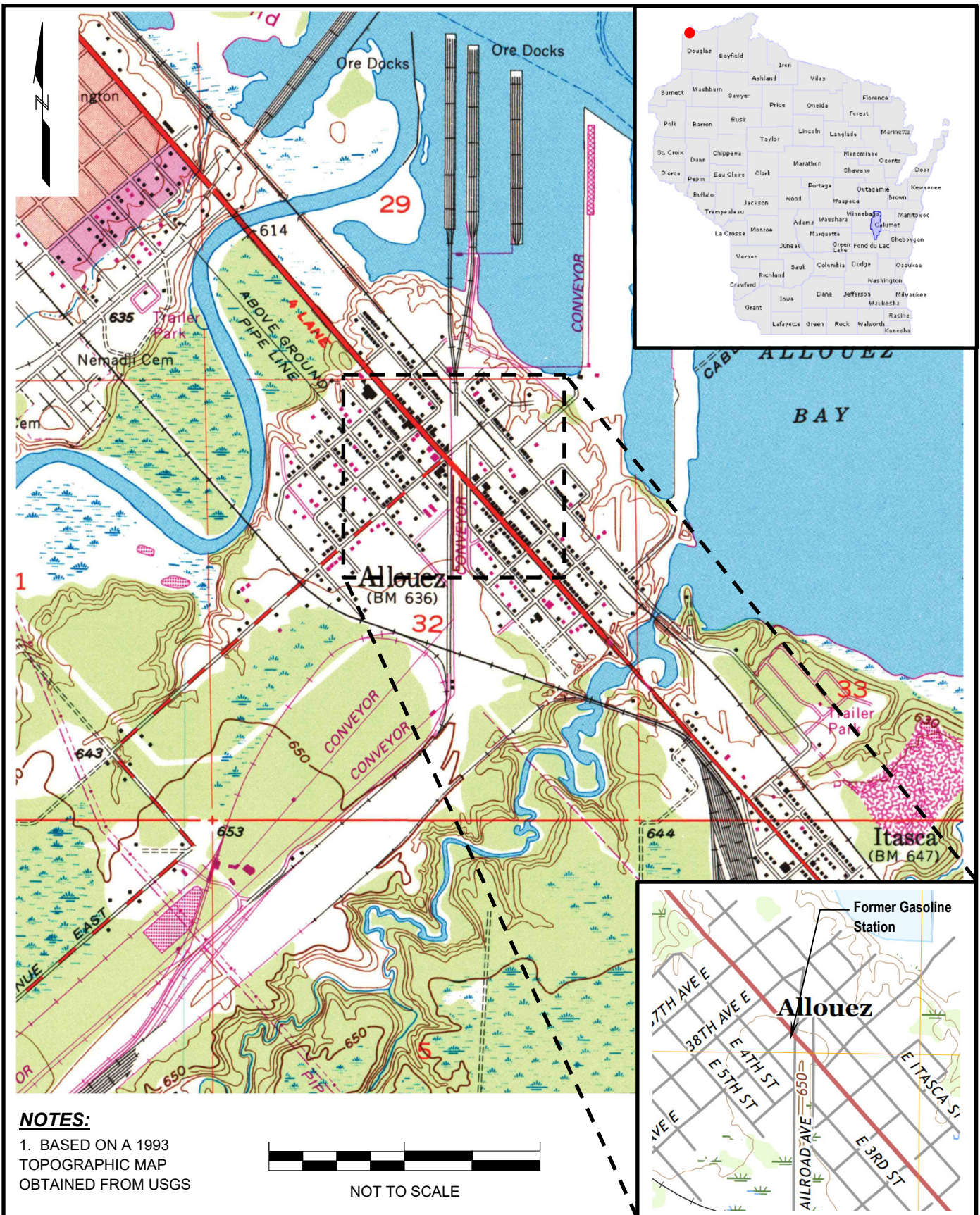
- Figure 1 Regional Setting Diagram
- Figure 2 Local Setting Diagram
- Figure 3 Soil Management Zone Diagram
- Photographic Log
- Landfill Disposal Records

Cc: Mr. Barry Bohman – Chippewa Concrete (via email: [barry@chippewaconcrete.net](mailto:barry@chippewaconcrete.net))  
Mr. Justin Johnson – NIC (via email: [justin@northerninterstate.com](mailto:justin@northerninterstate.com))  
Ms. Rebecca Olson – NWBE (via email: [rolson@nwbeinc.com](mailto:rolson@nwbeinc.com))  
Ms. Stephanie King – WisDOT (via email: [stephanie.king@dot.wi.gov](mailto:stephanie.king@dot.wi.gov))  
Mr. Grant Neitzel – WDNR (via email: [grant.neitzel@wisconsin.gov](mailto:grant.neitzel@wisconsin.gov))  
Ms. Shar Te Beest – WisDOT (via email: [DOTHazmatUnit@dot.wi.gov](mailto:DOTHazmatUnit@dot.wi.gov))

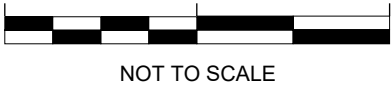
RAM:cah

K:\WisDOT\HAZMAT PROJECTS\2005005\_1198-03-78\_E 2nd St (USH 2)-39th Ave\_Superior\_P4\05\_In\_Progress\Reports\1198-03-78\_US2-53\_39th Ave E\_Phase 4 Rpt\_(2005005)\_cah.docx





**NOTES:**  
 1. BASED ON A 1993 TOPOGRAPHIC MAP OBTAINED FROM USGS

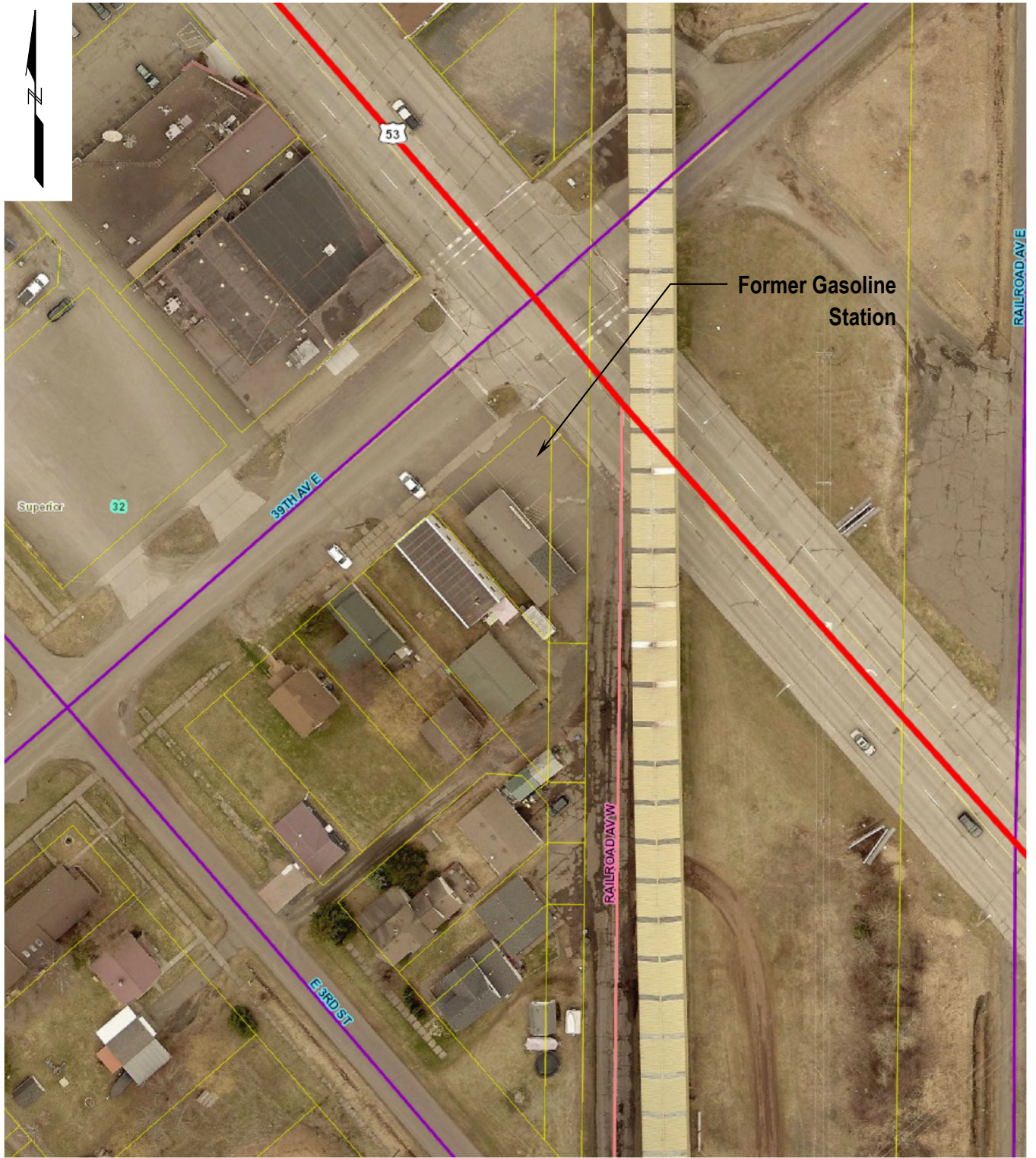


WisDOT ID No. 1198-03-78  
 US 2/53 – 31<sup>st</sup> Ave East to 53<sup>rd</sup> Ave East  
 Superior, Douglas County, Wisconsin  
 Wisconsin Department of Transportation  
 Madison, Wisconsin

**GEI** Consultants  
 Project 2005005

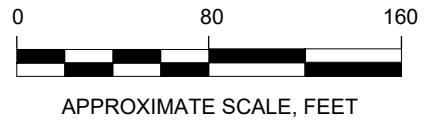
**REGIONAL SETTING DIAGRAM**  
 August 2021 Fig. 1





**NOTES:**

1. BASED ON A 2016 AERIAL PHOTOGRAPH OBTAINED FROM SUPERIOR/DOUGLAS COUNTY, WI WG XTREME



WisDOT ID No. 1198-03-78  
 US 2/53 – 31<sup>st</sup> Ave East to 53<sup>rd</sup> Ave East  
 Superior, Douglas County, Wisconsin

Wisconsin Department of Transportation  
 Madison, Wisconsin



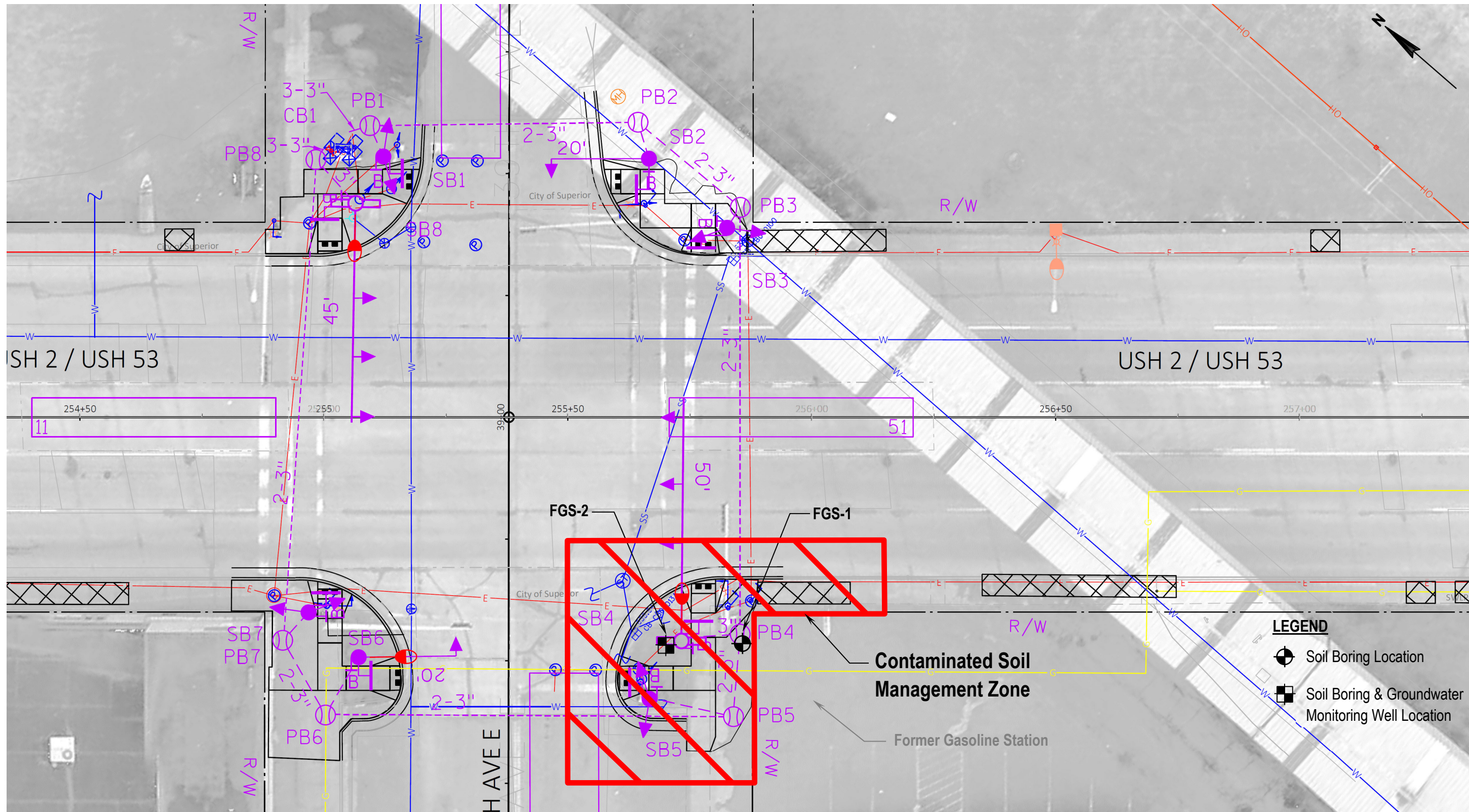
Project 2005005

LOCAL SETTING  
 DIAGRAM

August 2021

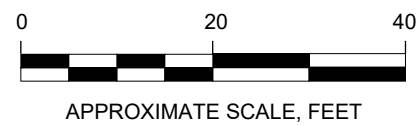
Fig. 2





**NOTES:**

1. BASED ON A WISDOT PLAN DATED APRIL 17, 2019




WisDOT ID No. 1198-03-78  
 US 2/53 – 31<sup>st</sup> Ave East to 53<sup>rd</sup> Ave East  
 Superior, Douglas County, Wisconsin  
 Wisconsin Department of Transportation  
 Madison, Wisconsin

**GEI** Consultants  
 Project 2005005

**SOIL MANAGEMENT ZONE DIAGRAM**  
 August 2021  
 Fig. 3



# PHOTOGRAPHIC LOG

<b>PHOTOGRAPH NO: 1</b>	<b>DATE:</b> April 14, 2021	<b>GEI PROJECT NO:</b> 2005005	<b>CLIENT:</b> WI Department of Transportation
<b>DIRECTION:</b> N	<b>SITE LOCATION:</b> US 2/53 – 39 <sup>th</sup> Ave. East Intersection, Superior, Wisconsin		
<p><b>DESCRIPTION:</b></p> <p>View of a small, covered stockpile of petroleum-contaminated soil generated during installation of the temporary signal pole. This soil was hauled off site and landfilled in May 2021 along with additional petroleum-contaminated soil generated during installation of the permanent signal pole and associated subsurface utilities</p>			

<b>PHOTOGRAPH NO: 2</b>	<b>DATE:</b> May 11, 2021	<b>GEI PROJECT NO:</b> 2005005	<b>CLIENT:</b> WI Department of Transportation
<b>DIRECTION:</b> E	<b>SITE LOCATION:</b> US 2/53 – 39 <sup>th</sup> Ave. East Intersection, Superior, Wisconsin		
<p><b>DESCRIPTION:</b></p> <p>View of soil excavation and stockpiling during installation of the permanent signal foundation and pull boxes.</p>			



# PHOTOGRAPHIC LOG

<b>PHOTOGRAPH NO: 3</b>	<b>DATE:</b> May 11, 2021	<b>GEI PROJECT NO:</b> 2005005	<b>CLIENT:</b> WI Department of Transportation
<b>DIRECTION:</b> NW	<b>SITE LOCATION:</b> US 2/53 – 39 <sup>th</sup> Ave. East Intersection, Superior, Wisconsin		
<b>DESCRIPTION:</b>  View of soil excavation and stockpiling looking northwest and toward 39 <sup>th</sup> Ave. East.			

<b>PHOTOGRAPH NO: 4</b>	<b>DATE:</b> May 11, 2021	<b>GEI PROJECT NO:</b> 2005005	<b>CLIENT:</b> WI Department of Transportation
<b>DIRECTION:</b> NE	<b>SITE LOCATION:</b> US 2/53 – 39 <sup>th</sup> Ave. East Intersection, Superior, Wisconsin		
<b>DESCRIPTION:</b>  View of stockpiling and utility construction looking northeast toward US 2/53.			

Shamrock Landfill  
 761 Minnesota 45  
 Cloquet, MN 55720

INBOUND CHARGE

002796 NORTHERN INTERSTATE  
 7835 E. BAYFIELD ROAD  
 SOUTH RANGE WI 54874

SITE	TICKET	GRID		WEIGHMASTER	
01	00070180	LANDFILL		ALEXUS P	
DATE IN	DATE OUT	TIME IN	TIME OUT	VEHICLE	ROLL OFF
05/11/21	05/11/21	15:16	15:35	NIC20	21-0010
REFERENCE			ORIGIN		
21-0010			VIN: 17924Z-WI-5AXLES		

Scale 1 Gross Wt. 58520 LB  
 Scale 1 Tare Wt. 28980 LB  
 Net Weight 29540 LB

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	FEE	TOTAL
14.77	TON	Industrial/ton				

NET AMOUNT
TENDERED
CHANGE
CHECK NO.

Generator: WISC. DOT - PROJECT 1198-03-78  
 Address: E 2ND ST @ INT W/39TH AVE E  
 City/ST: SUPERIOR, WI 54880  
 Manifest: 21-1





# Non Hazardous Industrial Waste Shamrock Landfill



21-1

GENERATOR  
TRANSPORTER  
FACILITY

## Shipping Manifest

1. Generator's US EPA ID No. (if any)

1. Page 1 of page(s)

3. Generator's Name and Facility Address

Mailing Address

WISCONSIN DOT PROJECT 1198-03-78  
E JND ST (USH 2) @ INT. W39TH AVE. E. SUPERIOR WI, 54980  
608-266-1476

WISCONSIN DOT PROJECT 1198-03-78  
4822 MADISON YARDS WAY, RM 5 SO  
MADISON, WI 53705

4. Generator's Phone:

Fax:

5. Transporter 1 Company Name

NI #20 (Northern Interstate Construction)

Phone:

6. Transporter 2 Company Name

Phone:

7. Designated Facility Name and Site Address

SKB/Shamrock Environmental, LLC  
761 MN Highway 45  
Cloquet, MN 55720

Phone: 218-878-0112

8. U.S. DOT Description (including Proper Shipping name)

9. Containers

10. Total Quantity

11. Unit Wt/Vol

12. Waste Profile Sheet#

NON HAZARDOUS INDUSTRIAL WASTE/ PETROLEUM  
CONTAMINATED SOIL

No.

Type

	No.	Type	Total Quantity	Unit Wt/Vol	Waste Profile Sheet#
a.					
b.					
c.					
d.					

13. Additional Descriptions for Materials Listed Above (indicate waste stream Approval # below)

- a. CL
- b. CL
- c. CL
- d. CL

CL21-0010 PETROLEUM CONTAMINATED SOIL

14. Special Handling Procedures for Wastes Listed Above

15. Special Handling Instructions and Additional Information  
Emergency Contact:

SKB Use Only

Load # 70180

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

Printed/Typed Name

Signature

Month Day Year

Paul Garvey WisDOT Agent

[Signature]

05 11 20

17. Transporter 1 Acknowledged of Receipt of Materials

Printed/Typed Name

Signature

Month Day Year

[Signature]

05 11 21

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name

Signature

Month Day Year

19. Discrepancy Indication Space

Plate: 11924Z-WI-5AX

Tare: 28980

Safety Video: ✓

20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this Manifest except as noted in item 19.

Name Janet Balduc - Shamrock Landfill Scale

Signature

Month Day Year

[Signature]

05 11 21

White - Return to Generator

Canary - Facility Copy

Pink - Transporter

Goldenrod - Generator Copy

Shamrock Landfill  
 761 Minnesota 45  
 Cloquet, MN 55720

INBOUND CHARGE

002796 NORTHERN INTERSTATE  
 7835 E. BAYFIELD ROAD  
 SOUTH RANGE WI 54874

ITE	TICKET	GRID		WEIGHMASTER	
01	00070189	LANDFILL		ALEXUS P	
DATE IN	DATE OUT	TIME IN	TIME OUT	VEHICLE	ROLL OFF
05/11/21	05/11/21	15:47	16:00	NIC9	21-0010
REFERENCE			ORIGIN		
21-0010			VIN: 76264X-WI-5AXELS		

Scale 1 Gross Wt.            56640 LB  
 Scale 1 Tare Wt.            27920 LB  
 Net Weight                    28720 LB

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	FEE	TOTAL
14.36	TON	Industrial/ton				

NET AMOUNT
TENDERED
CHANGE
CHECK NO.

Generator:    WISC. DOT - PROJECT 1198-03-78  
 Address:      E 2ND ST @ INT W/39TH AVE E  
 City/ST:     SUPERIOR, WI 54880  
 Manifest:    21-3

SIGNATURE \_\_\_\_\_





# Non Hazardous Industrial Waste Shamrock Landfill



21-3

<b>Shipping Manifest</b>		1. Generator's US EPA ID No. (if any)			1. Page 1 of			page(s)									
3. Generator's Name and Facility Address WISCONSIN DOT PROJECT 1198-03-78 E 2ND ST (USH 2) @ INT. W/39TH AVE. E. SUPERIOR WI 54880					Mailing Address WISCONSIN DOT PROJECT 1198-03-78 4822 MADISON YARDS WAY, RM 530 MADISON, WI 53705												
4. Generator's Phone:					Fax:												
5. Transporter 1 Company Name NIC7					Phone:												
6. Transporter 2 Company Name					Phone:												
7. Designated Facility Name and Site Address SKB/Shamrock Environmental, LLC 761 MN Highway 45 Cloquet, MN 55720					Phone: 218-878-0112												
GENERATOR	8. U.S. DOT Description (including Proper Shipping name)				9. Containers		10. Total Quantity		11. Unit Wt/Vol		12. Waste Profile Sheet#						
	a. NON HAZARDOUS INDUSTRIAL WASTE/PETROLEUM CONTAMINATED SOIL				No.   Type												
	b.																
	c.																
	d.																
13. Additional Descriptions for Materials Listed Above (indicate waste stream Approval # below)					14. Special Handling Procedures for Wastes Listed Above												
a. CL					CL11-0010 PETROLEUM CONTAMINATED SOIL												
b. CL																	
c. CL																	
d. CL																	
15. Special Handling Instructions and Additional Information Emergency Contact:								SKB Use Only Load # 70189									
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.																	
Printed/Typed Name Paul Carvey WisDOT Agent				Signature Paul M. Carvey				Month 05		Day 11		Year 21					
17. Transporter 1 Acknowledged of Receipt of Materials					Printed/Typed Name Rick Karra				Signature Rick Karra				Month 05		Day 11		Year 21
					18. Transporter 2 Acknowledgement of Receipt of Materials					Printed/Typed Name				Signature			
19. Discrepancy Indication Space plate 76264X-WI-Scale tare: video																	
20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this Manifest except as noted in item 19.																	
Name Janet Balduc - Shamrock Landfill Scale				Signature				Month		Day		Year					

TRANSPORTER FACILITY