

DRAFT COVER MAINTENANCE PLAN C. Reiss Coal Dock Property, Superior, Wisconsin

December 2022

Property Information

This Cover Maintenance Plan is applicable to the following parcels which comprise the C. Reiss Coal Dock property in Superior, Wisconsin (the Property) (**Figure 1**). All Property parcels lie within the East ½ of the Northeast ¼ of Section 16, and the East ½ of the Southeast ¼ of Section 09, Township 49 North, Range 14 West, City of Superior, Douglas County, Wisconsin.

Site Name	BRRTS#(s) FID#	Address	WTM Coordinates (WTM91):	Parcel ID
C Reiss Coal Dock Parcel	02-16-589248 03-16-000320 <i>816130810</i>	NE NE SEC16 T49N R14W	X: 357936.1 Y: 697633.7	048040101400
Burlington Northern R/W Parcel	<i>None</i>	<i>None</i>	X: 357884.9 Y: 697286.4	048040100300

Introduction

This document is the Maintenance Plan for a protective cover at the above-referenced properties in accordance with the requirements of s. NR 724.13 (2), Wis. Adm. Code. The maintenance activities relate to the cover occupying the area over residual contaminated soil and groundwater at the Property.

More site-specific information about the Sites may be found on the Wisconsin Department of Natural Resources (WDNR) Bureau for Remediation and Redevelopment Tracking System (BRRTS) on the Web for the BRRTS case numbers referenced above.

- The case file in the DNR Northern Region Office (Spooner, Wisconsin),
- At <http://dnr.wi.gov/topic/Brownfields/wrrd.html>, which includes:
 - BRRTS on the Web (DNR's internet-based data base of contaminated sites) for the link to a PDF for site-specific information at the time of closure and on continuing obligations;
 - RR Sites Map for a map view of the site; and
- The DNR project manager for Douglas County.

Description of Contamination

Soil contaminated by polycyclic aromatic hydrocarbons (PAHs), Resource Conservation and Recovery Act (RCRA) metals and/or petroleum volatile organic compounds (PVOCs) is present in surficial soils/fill materials across the Property, from the ground surface and extending to the water table in some areas; the groundwater table elevation ranges from near-surface at approximately 604 feet above mean sea level (ft amsl) on the north end of the Property, to approximately 617 ft amsl on the south end. The horizontal extent of soil contamination (Stantec, 2022) is shown on **Attachment A**.

Groundwater contaminated by PVOCs is located from the shallow water table to a depth of approximately 58 feet below the existing ground surface on the Property. Additionally, a light non-aqueous phase liquid (LNAPL) "finger plume" is present on the south end of the Property at an average depth of 13 feet below existing ground surface. The source of this groundwater contamination and LNAPL is from an east-adjointing (upgradient) property. The horizontal extent of groundwater contamination and the extent of the LNAPL finger plume are shown on the Antea® Group 2021 Progress Report, January – December 2021, Figures 7 through 10 (Antea, 2022) included as **Attachment B**.

Description of the Cover to be Maintained

The Cover consists of building slabs, paved areas, railroad ballast, gravel access roads, and/or clean soil cap (including native grass seeding). The rail spur will be capped with at least 12 inches of impermeable compacted sub-ballast stone topped by nine inches of ballast stone. A gated fence spans the perimeter of the Property to further restrict access, with exception to the proposed railroad spur. Wetlands present on the Property are not to be capped/disturbed. The components and extents of the area subject to this Cover Maintenance Plan are further described below and are illustrated on **Figure 2**.

In the berm and landscaped areas on the southern portion of the Property, the cap will consist of a minimum of 15 inches of clay topped by at least three inches of imported topsoil for planting with a native grass seed mix. The clay will be sourced from the native clay soils on the Property encountered during excavation activities as part of redevelopment, which have been demonstrated to have no PVOC, PAH or RCRA metal detections at concentrations exceeding ch. NR720 Wisconsin Administrative Code (NR720) direct contact standards. Topsoil will be seeded with a native tall grass prairie mix to reinforce and maintain the soil cap in these areas.

The northern portion of the Property is covered with concrete panels that are approximately four inches thick, eight feet long and eight feet wide; these concrete panels along with the proposed gravel access road and railroad ballast will prevent direct contact with contaminated soils exceeding NR720 direct contact standards.

Cover Purpose

The Cover over the contaminated soil and groundwater on the Property serves to prevent direct human contact with residual soil contamination that might otherwise pose a threat to human health. The Cover also acts as a partial infiltration barrier to minimize future soil-to-groundwater contamination migration that would violate the groundwater standards in ch. NR 140, Wisconsin Administrative Code. Based on the current industrial use of the Property, the Cover should function as intended unless disturbed.

Inspections

The Cover overlying the contaminated soil and groundwater on the Property and as depicted in **Figure 2** will be inspected per the following schedule for deterioration, cracks and other potential problems that can cause exposure to underlying soils:

- Four times per year (quarterly) for the first (2) years following construction;
- Twice per year for the following (3) years; and
- Once per year (annually) for each year beyond, normally in the spring after all snow and ice is gone.

The inspections will be performed by the Property owner or their designated representative. The inspections will be performed to evaluate damage due to settling, exposure to the weather, wear from traffic, increasing age and other factors. Any area where soils have become or are likely to become exposed will be documented.

A log of the inspections and any repairs will be maintained by the Property owner using the WDNR Continuing Obligations Inspection and Maintenance Log (Form 4400-305). The log will include recommendations for necessary repair of any areas where underlying soils are exposed and where infiltration from the surface will not be effectively minimized. Once repairs are completed, they will be documented in the inspection log. A copy of the maintenance plan and inspection log will be kept at the address of the Property owner and available for submittal or inspection by WDNR representatives upon their request.

Mowing, Cover Integrity, and Disposal Berm Slopes

Native grass/landscape Cover components on the Property depicted on **Figure 2** will be mowed once per year, normally in late autumn. Annual mowing will maintain the integrity of the cap by controlling the growth of trees and other woody vegetation. Mowing will include the top, base, and side slopes (approximately 3:1 ratio of run to rise) of the Property berm.

Maintenance Activities

If problems are noted during the annual inspections or at any other time during the year, repairs will be scheduled as soon as practical. Repairs can include patching and filling or larger resurfacing or construction operations. In the event that necessary maintenance activities expose the underlying soil, the owner must inform maintenance workers of the direct contact exposure hazard and provide them with appropriate personal protection equipment (PPE). The owner must also sample any soil that is excavated from the site prior to disposal to ascertain if contamination remains. The soil must be treated, stored and disposed of by the owner in accordance with applicable local, state and federal law.

In the event the Cover overlying contaminated soil/groundwater is removed or replaced, the replacement barrier must be equally impervious. Any replacement barrier will be subject to the same maintenance and inspection guidelines as outlined in this Maintenance Plan unless indicated otherwise by the WDNR or its successor.

The Property owner, to maintain the integrity of the Cover, will maintain a copy of this Maintenance Plan at the address of the Property owner and make it available to all interested parties (i.e., on-site employees, contractors, future property owners, etc.) for viewing.

Prohibition of Activities and Notification of DNR Prior to Actions Affecting a Cap/Barrier

The following activities are prohibited on any portion of the property where Cover features including building slabs, paved areas, railroad ballast, gravel access roads, clean soil cap or other barrier is required as shown on **Figure 2** attached, unless prior written approval has been obtained from the Wisconsin Department of Natural Resources: 1) removal of the existing barrier; 2) replacement with another barrier; 3) excavating or grading of the land surface; 4) filling on capped or paved areas; 5) plowing for agricultural cultivation; 6) construction or placement of a building or other structure; or 7) changing the use or occupancy of the Property to a residential exposure setting, which may include certain uses, such as single or multiple family residences, a school, day care, senior center, hospital, or similar residential exposure settings.

If removal, replacement or other changes to a cover, or a building which is acting as a cover, are considered, the Property owner will contact WDNR at least 45 days before taking such an action, to determine whether further action may be necessary to protect human health, safety, or welfare or the environment, in accordance with s. NR 727.07, Wis. Adm. Code.

Amendment or Withdrawal of Maintenance Plan

This Maintenance Plan can be amended or withdrawn by the Property owner and its successors with the written approval of WDNR.

CONTACT INFORMATION – December 2022

**RESPONSIBLE PARTY &
PROPERTY OWNER:**

C. Reiss Coal Company, LLC
111 West Mason Street
Green Bay, Wisconsin 54303
c/o Christian Zuidmulder, General Manager
Phone: (920) 436-7600
Email: Christian.Zuidmulder@Thecreiss.com

Signature:

**CONSULTANT &
TECHNICAL CONTACT:**

Stantec Consulting Services Inc.
12075 Corporate Parkway, Suite 200
Mequon, Wisconsin 53092
Stu Gross, Project Manager
Phone: (262) 643-9159
Email: Stu.Gross@stantec.com

WDNR CONTACT:

Wisconsin Department of Natural Resources
810 West Maple Street
Spooner, Wisconsin 54802-1255
Joseph Graham, Contaminated Sediments Specialist
Phone: (715) 292-4925
Email: Joseph.Graham@wisconsin.gov

References:

Antea, 2022. 2021 Progress Report, January – December 2021, Former Amoco Terminal, 2904 Winter Street, Superior, Wisconsin, February 8, 2022.

Stantec, 2022. Site Investigation Report, C. Reiss Coal Dock Property, Superior, Wisconsin, July 8, 2022.

Figures:

Figure 1: Site Location and Local Topography

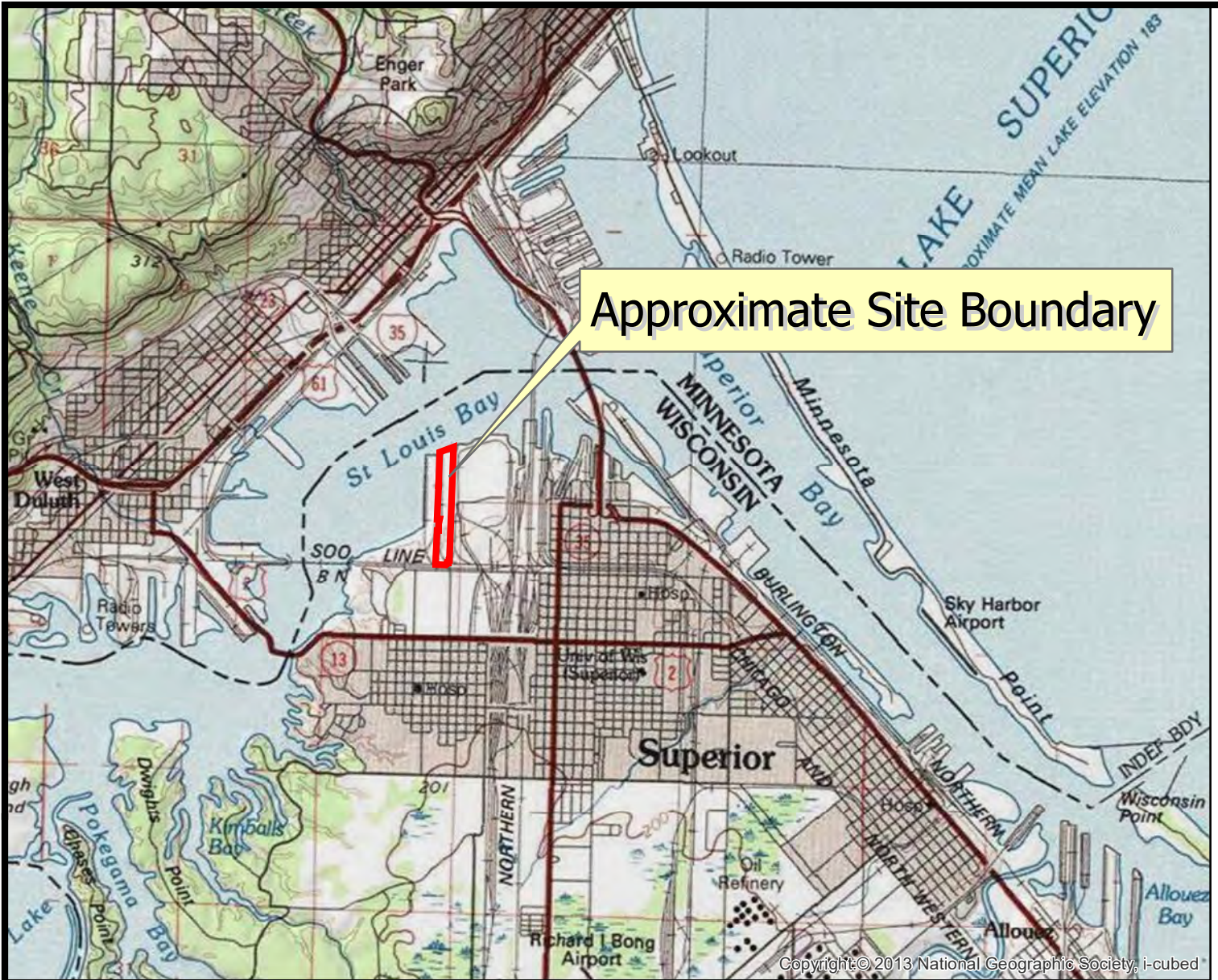
Figure 2: Site Cover Extent

Attachments:

Attachment A: Extents of Soil Contamination (Stantec, 2022)

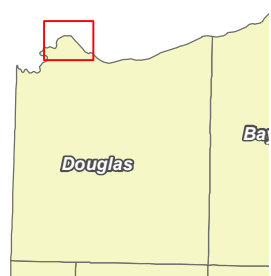
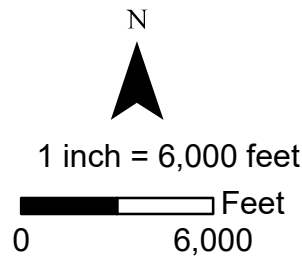
Attachment B: Extents of Groundwater Contamination and LNAPL (Antea, 2022)

FIGURES



Approximate Site Boundary

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County Location



State Location

The information on this map has been compiled by Stantec staff from a variety of sources and is subject to change without notice. Stantec makes no representations or warranties, express or implied, as to accuracy, completeness, timeliness, or rights to the use of such information.

AERIAL IMAGERY AND PARCEL DATA SOURCE:
ESRI Mapping Center World Imagery Layer - USGS TOPO QUAD

Site Location & Local Topography

**C. REISS DOCK
ST. LOUIS BAY, SUPERIOR, WI**

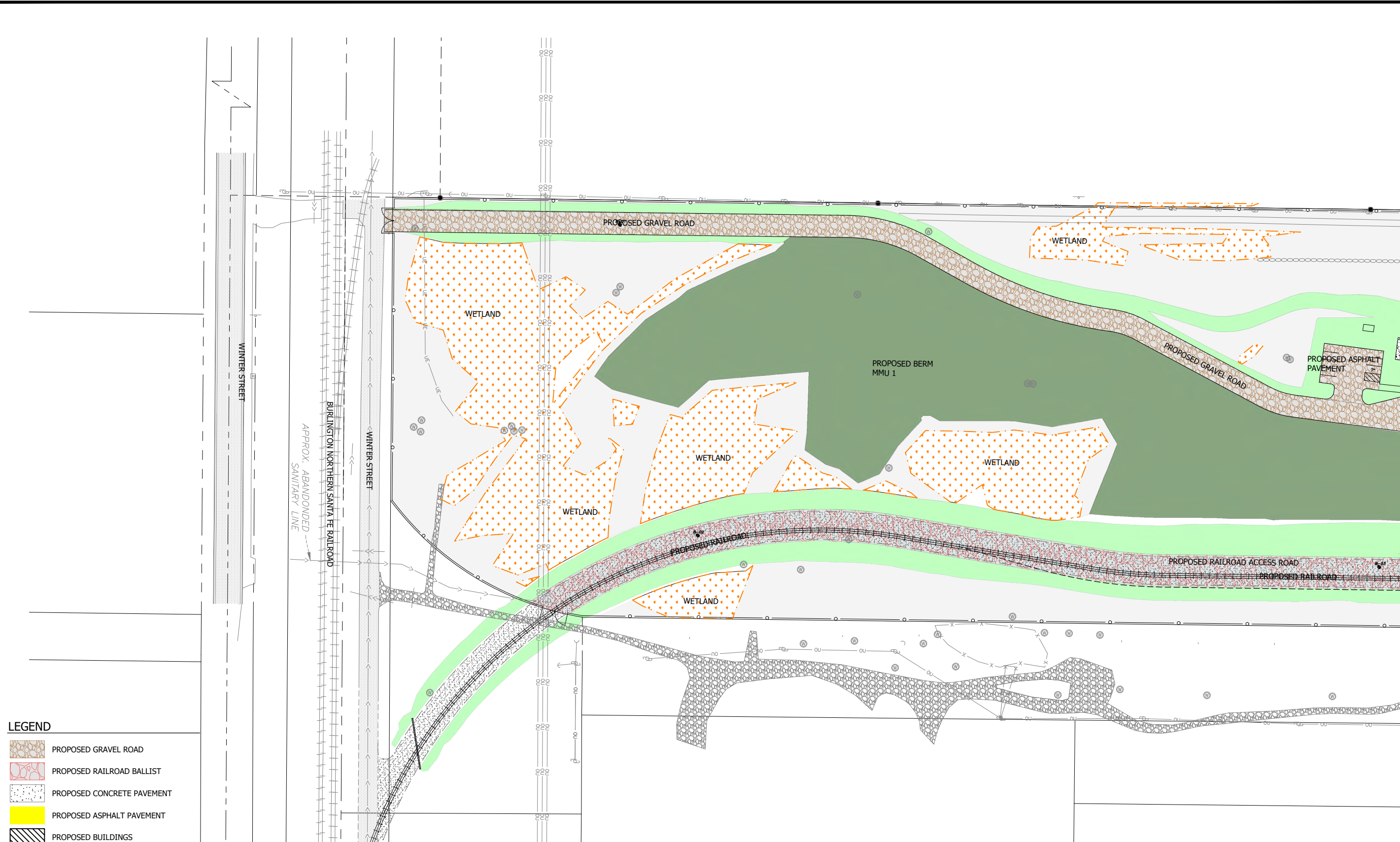


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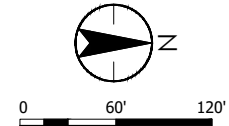
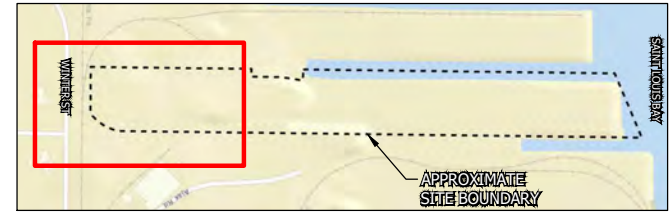
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Design With Community In Mind

FIGURE 1



- LEGEND**
- PROPOSED GRAVEL ROAD
 - PROPOSED RAILROAD BALLIST
 - PROPOSED CONCRETE PAVEMENT
 - PROPOSED ASPHALT PAVEMENT
 - PROPOSED BUILDINGS
 - PROPOSED BERM W/ 18" CAP
 - SEEDED AREA WITH 18" CAP
 - POND W/ 24" LINER
 - EXISTING CONCRETE DOCK TO REMAIN
 - EXISTING WETLAND TO REMAIN
 - NO DISTURBANCE



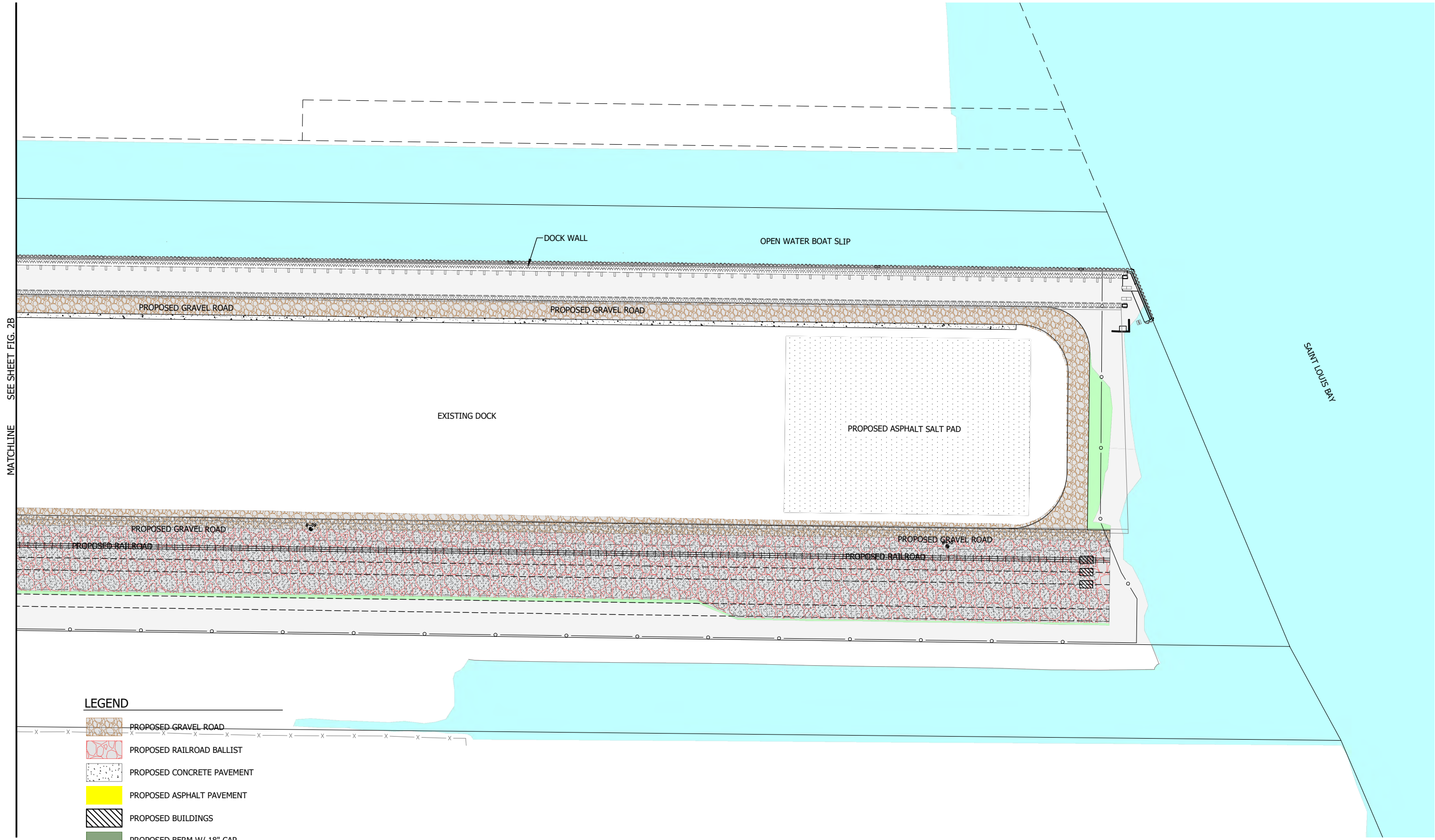
SEE SHEET FIG. 2B

SITE COVER EXTENT
 C. REISS DOCK
 C. REISS COMPANY, LLC
 ST. LOUIS BAY, SUPERIOR, WI

DATE OF ISSUANCE	October 6, 2022
NO. REVISION	DATE
SURVEY	JN
DRAWN	AJR
DESIGNED	AJR
CHECKED	AJR
APPROVED	AJR
PROJ. NO.	193707141
SHEET NUMBER	FIG 2A

THE CONTRACTOR SHALL VERIFY AND BE RESPONSIBLE FOR ALL DIMENSIONS. DO NOT SCALE THE DRAWING. ANY ERRORS OR OMISSIONS SHALL BE REPORTED TO STANTEC WITHOUT DELAY. STANTEC SHALL NOT BE RESPONSIBLE FOR ANY ERRORS OR OMISSIONS NOTIFIED TO STANTEC AFTER THE DATE OF ISSUE FOR ANY PURPOSE OTHER THAN THAT AUTHORIZED BY STANTEC IS FORBIDDEN.

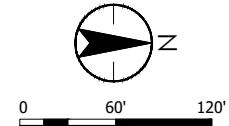
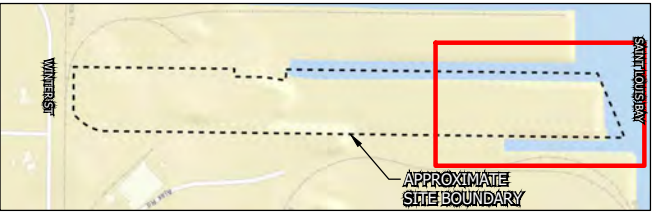
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MATCHLINE SEE SHEET FIG. 2B

LEGEND

- PROPOSED GRAVEL ROAD
- PROPOSED RAILROAD BALLAST
- PROPOSED CONCRETE PAVEMENT
- PROPOSED ASPHALT PAVEMENT
- PROPOSED BUILDINGS
- PROPOSED BERM W/ 18" CAP
- SEEDED AREA WITH 18" CAP
- POND W/ 24" LINER
- EXISTING CONCRETE DOCK TO REMAIN
- EXISTING WETLAND TO REMAIN
- NO DISTURBANCE



SITE COVER EXTENT
 C. REISS DOCK
 C. REISS COMPANY, LLC
 ST. LOUIS BAY, SUPERIOR, WI

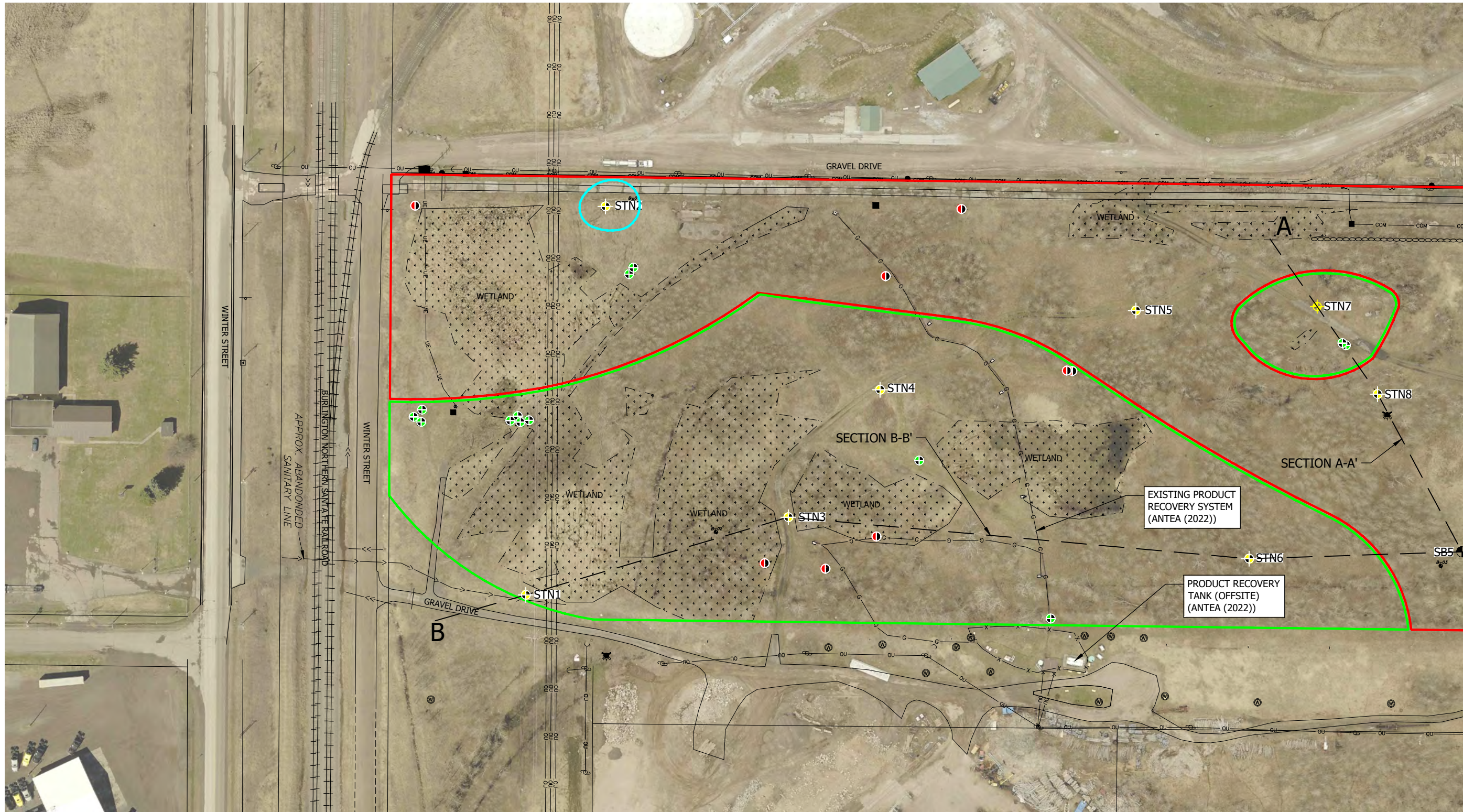
NO	REVISION	DATE
SURVEY	JN	
DRAWN	AJR	
DESIGNED	AJR	
CHECKED	AJR	
APPROVED	AJR	
PROJ. NO.	193707141	
SHEET NUMBER	FIG 2C	

ATTACHMENTS

ATTACHMENT A
Extents of Soil Contamination
(Stantec, 2022)

THE CONTRACTOR SHALL VERIFY AND BE RESPONSIBLE FOR ALL DIMENSIONS. DO NOT SCALE THE DRAWING. ANY ERRORS OR OMISSIONS SHALL BE REPORTED TO STANTEC WITHOUT DELAY. REPRODUCTION OR USE FOR ANY PURPOSE OTHER THAN THAT AUTHORIZED BY STANTEC IS FORBIDDEN.

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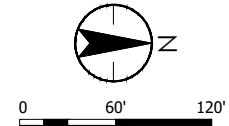
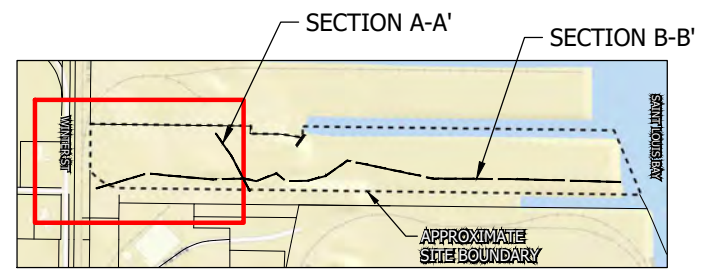


MATCHLINE SEE SHEET FIG. 10B

LEGEND

ABBREVIATIONS:
 GW = Groundwater
 IDC = Industrial Direct Contact
 NIDC = Non-Industrial Direct Contact
 PAH = Polycyclic Aromatic Hydrocarbon
 PVOC = Petroleum Volatile Organic Compound
 RCL = Residual Contaminant Level
 RCRA = Resource Conservation and Recovery Act

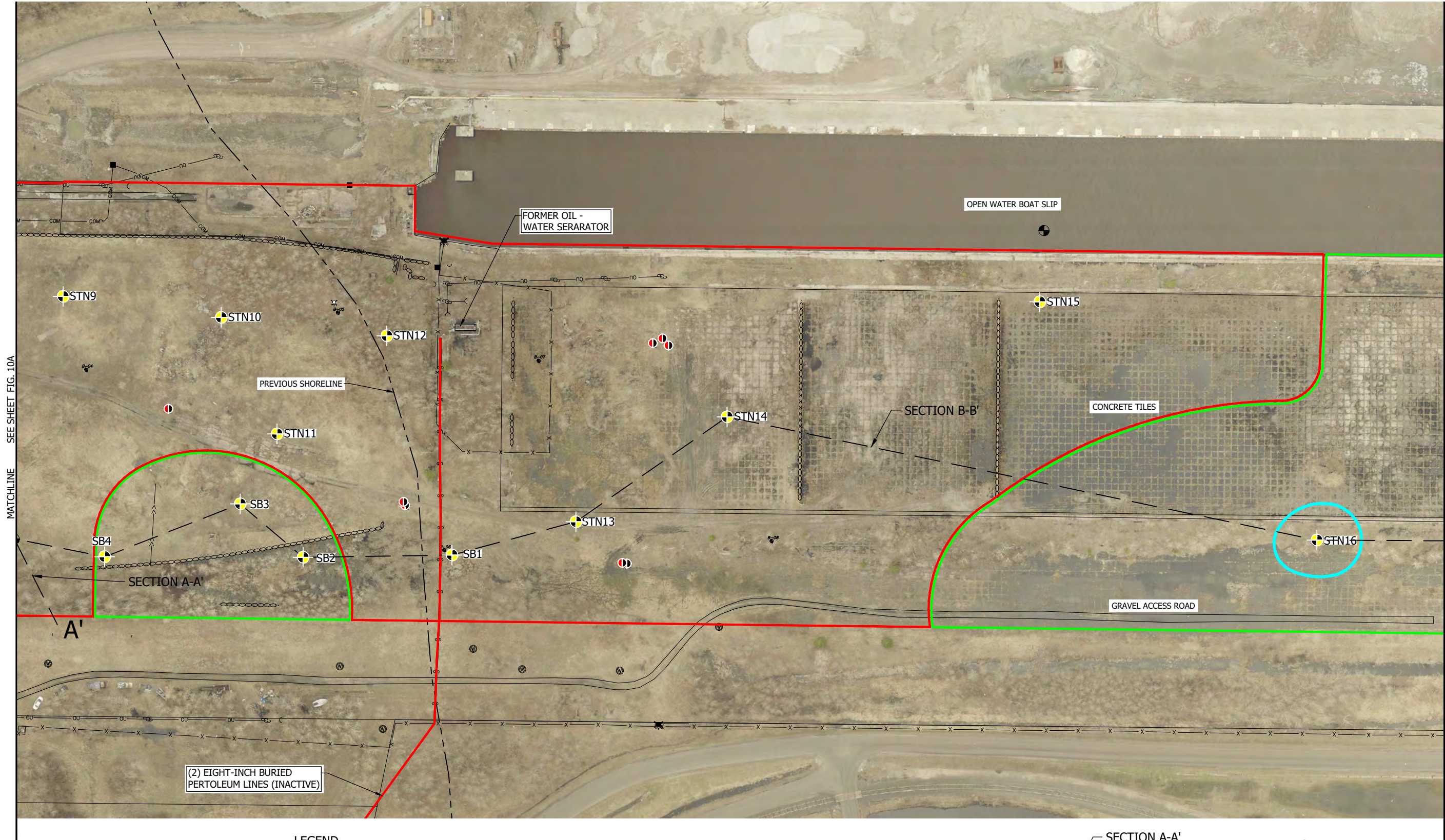
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- STANTEC (2022a,b) BOREHOLE LOCATIONS
- ANTEA (2022) MONITORING WELLS TO REMAIN (9/2022)
- ANTEA (2022) MONITORING WELLS TO BE ABANDONED (9/2022)
- ALL SOIL DETECTIONS <IDC RCLs
- PVOC DETECTIONS >GW PATHWAY RCL
- PAH AND/OR RCRA METAL DETECTIONS >IDC RCLs IN FILL



SOIL QUALITY - PLAN VIEW

C. REISS DOCK
 C. REISS COMPANY, LLC
 ST. LOUIS BAY, SUPERIOR, WI

DATE OF ISSUANCE	October 7, 2022
NO. REVISION	DATE
SURVEY	JN
DRAWN	AJR
DESIGNED	AJR
CHECKED	AJR
APPROVED	AJR
PROJ. NO.	193707141
SHEET NUMBER	FIG. 10A



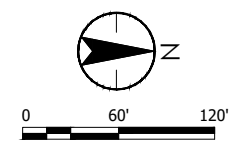
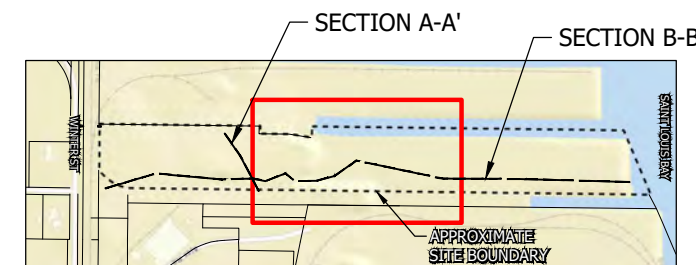
MATCHLINE SEE SHEET FIG. 10A

MATCHLINE SEE SHEET FIG. 10C

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LEGEND

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SOIL QUALITY - PLAN VIEW

C. REISS DOCK
C. REISS COMPANY, LLC
ST. LOUIS BAY, SUPERIOR, WI

DATE OF ISSUANCE
October 6, 2022

NO	REVISION	DATE

SURVEY JIN
DRAWN AJR
DESIGNED AJR
CHECKED AJR
APPROVED AJR
PROJ. NO. 193707141

SHEET NUMBER
FIG. 10B

THE CONTRACTOR SHALL VERIFY AND BE RESPONSIBLE FOR ALL DIMENSIONS. DO NOT SCALE THE DRAWING. ANY ERRORS OR OMISSIONS SHALL BE REPORTED TO STANTEC WITHOUT DELAY. STANTEC SHALL NOT BE RESPONSIBLE FOR ANY ERRORS OR OMISSIONS MADE BY THE CONTRACTOR. USE FOR ANY PURPOSE OTHER THAN THAT AUTHORIZED BY STANTEC IS FORBIDDEN.

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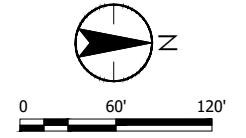
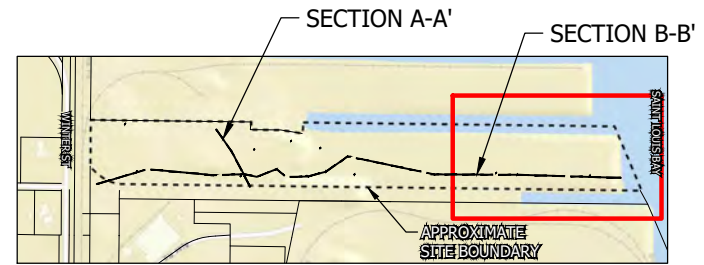
SEE SHEET FIG. 10B

SAINT LOUIS BAY

LEGEND

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SOIL QUALITY - PLAN VIEW

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 ST. LOUIS BAY, SUPERIOR, WI

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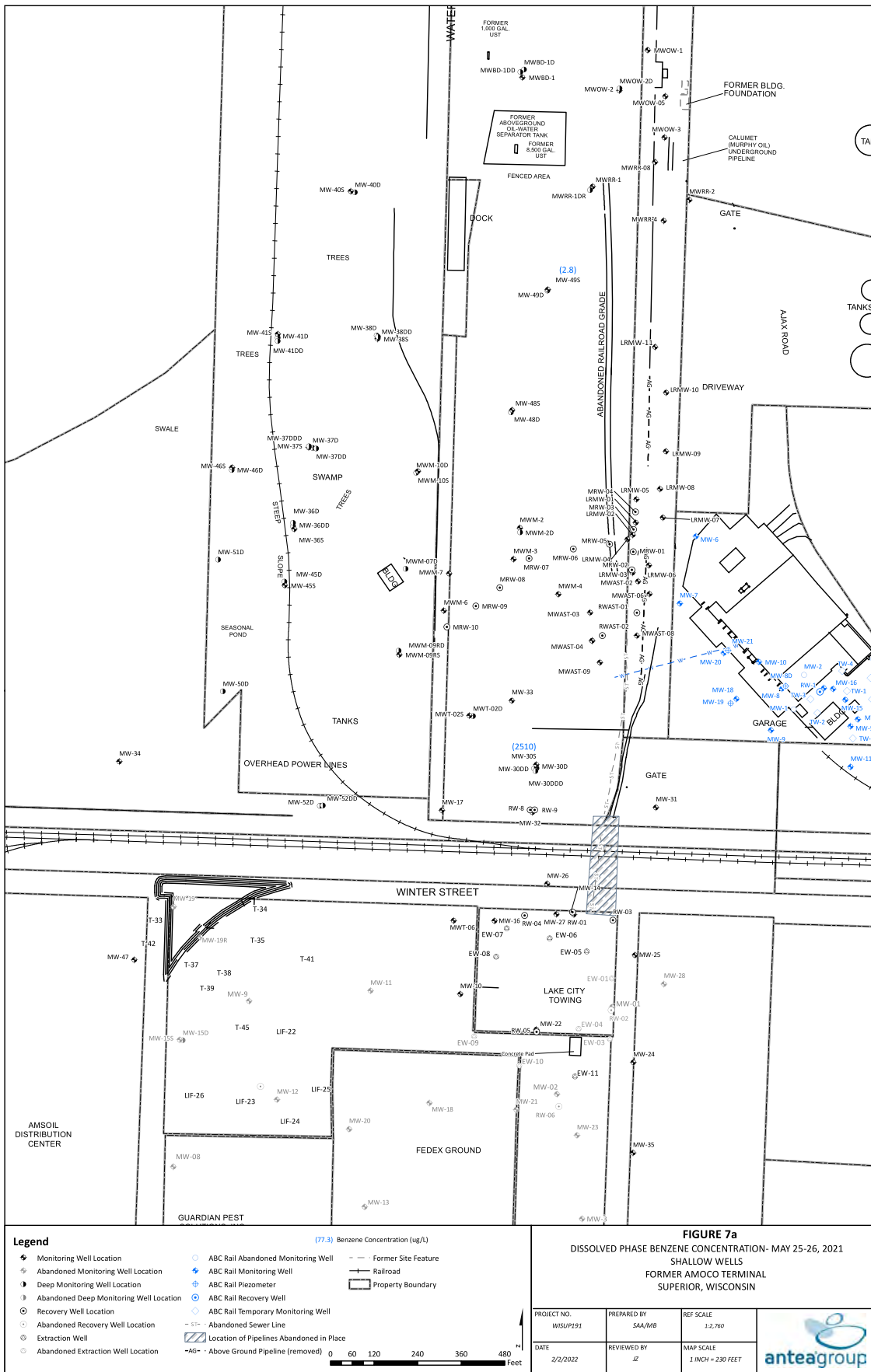
NO.	REVISION	DATE

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DRAWN	AJR
DESIGNED	AJR
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APPROVED	AJR
PROJ. NO.	193707141
SHEET NUMBER	

ATTACHMENT B
Extents of Groundwater Contamination and LNAPL
(Antea, 2022)

Attachment B - Extents of Groundwater Contamination and LNAPL (Antea, 2022)

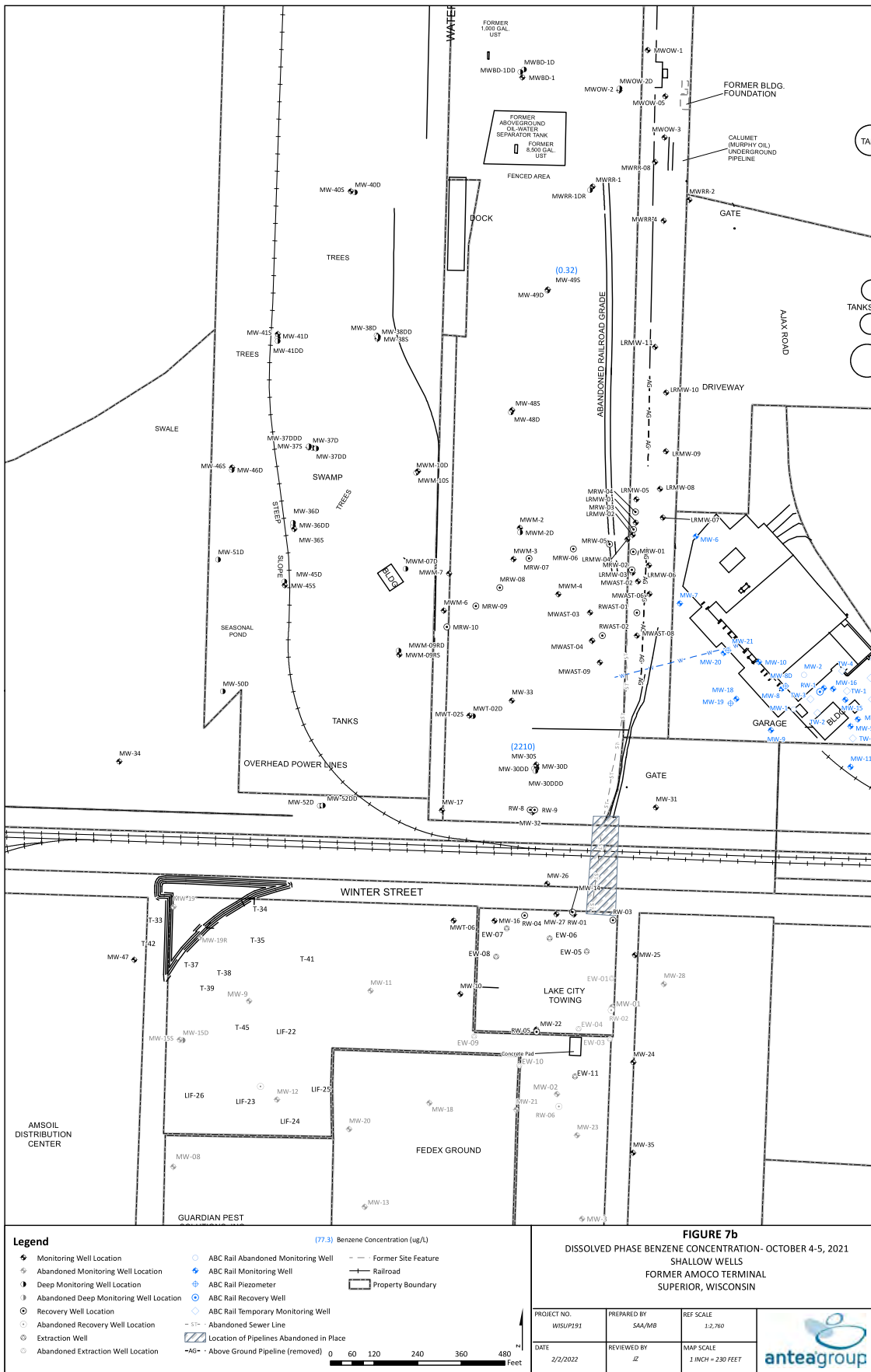
Antea, 2022. 2021 Progress Report, January - December 2021, Former Amoco Terminal, 2904 Winter Street, Superior, Wisconsin, February 8, 2022.



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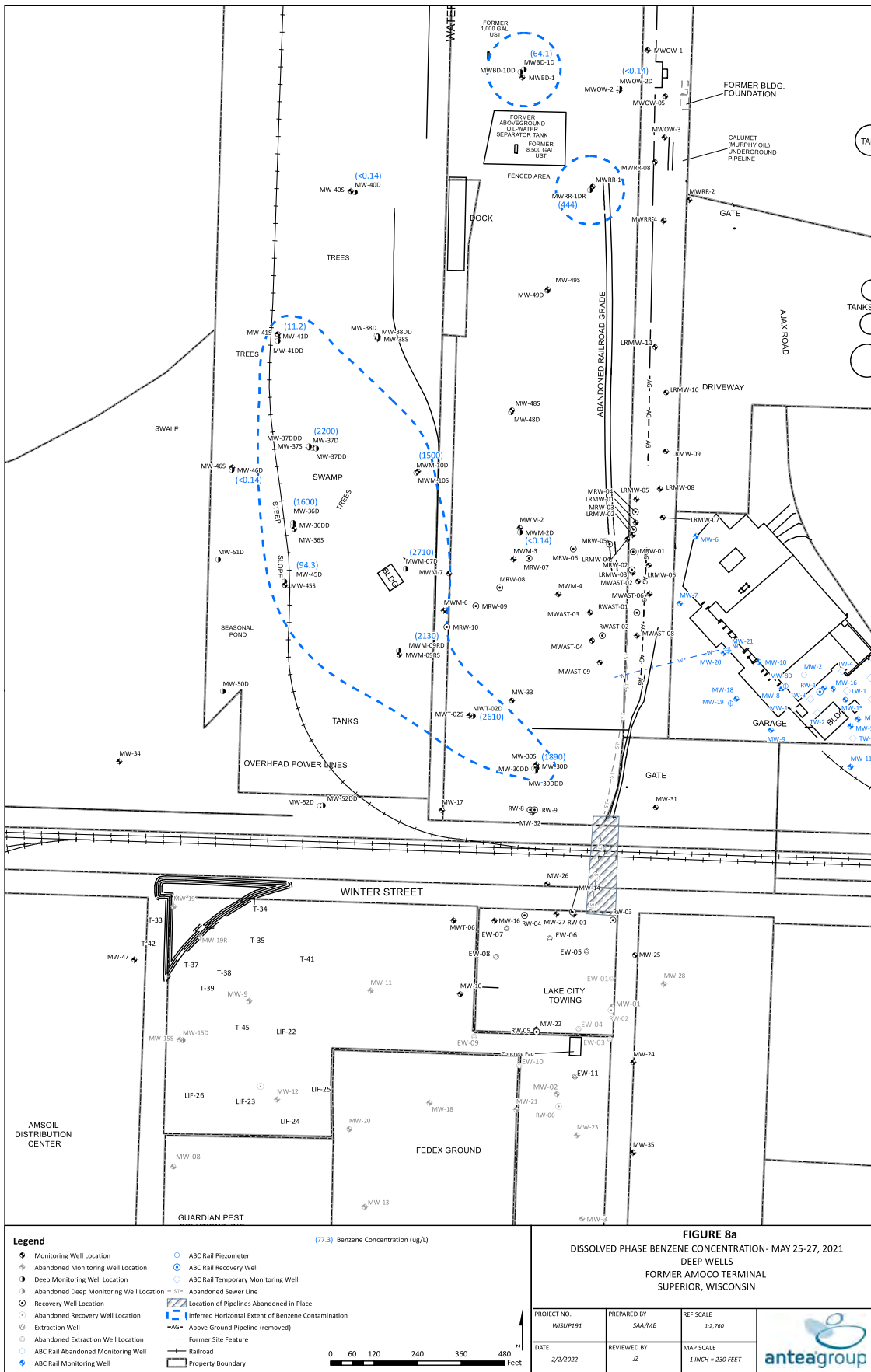
Attachment B - Extents of Groundwater Contamination and LNAPL (Antea, 2022)

Antea, 2022. 2021 Progress Report, January - December 2021, Former Amoco Terminal, 2904 Winter Street, Superior, Wisconsin, February 8, 2022.



Attachment B - Extents of Groundwater Contamination and LNAPL (Antea, 2022)

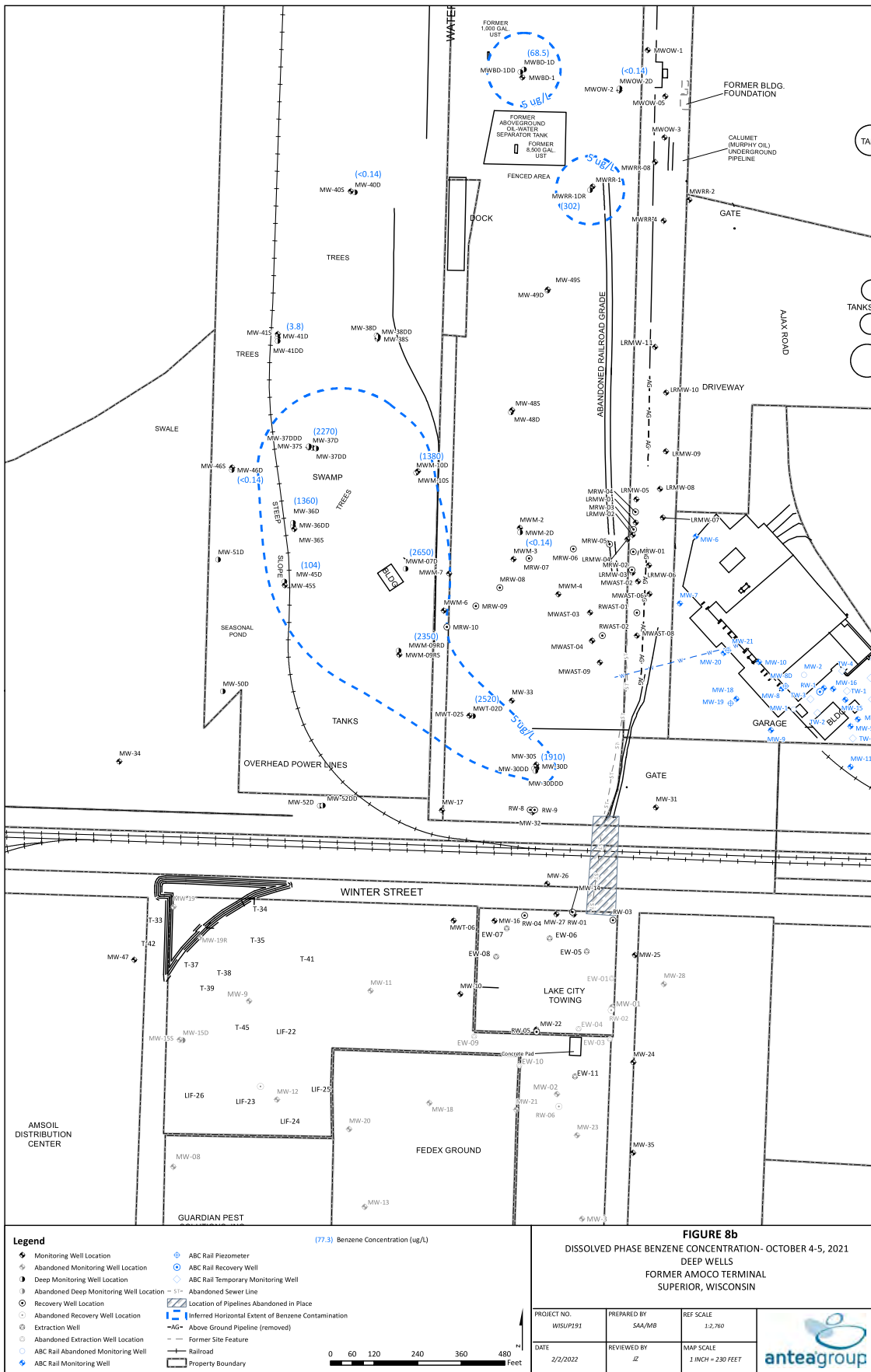
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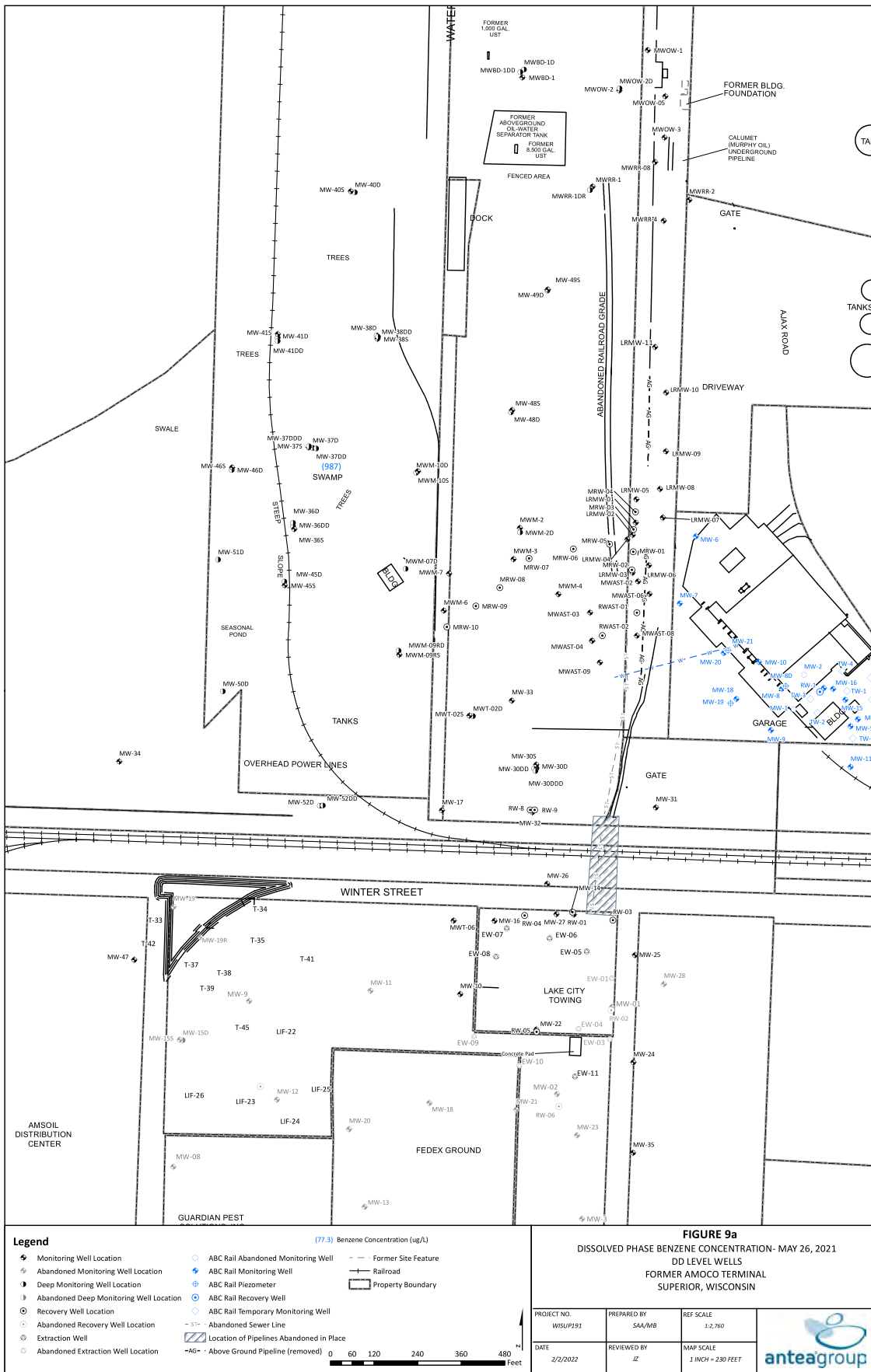
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Antea, 2022. 2021 Progress Report, January - December 2021, Former Amoco Terminal, 2904 Winter Street, Superior, Wisconsin, February 8, 2022.



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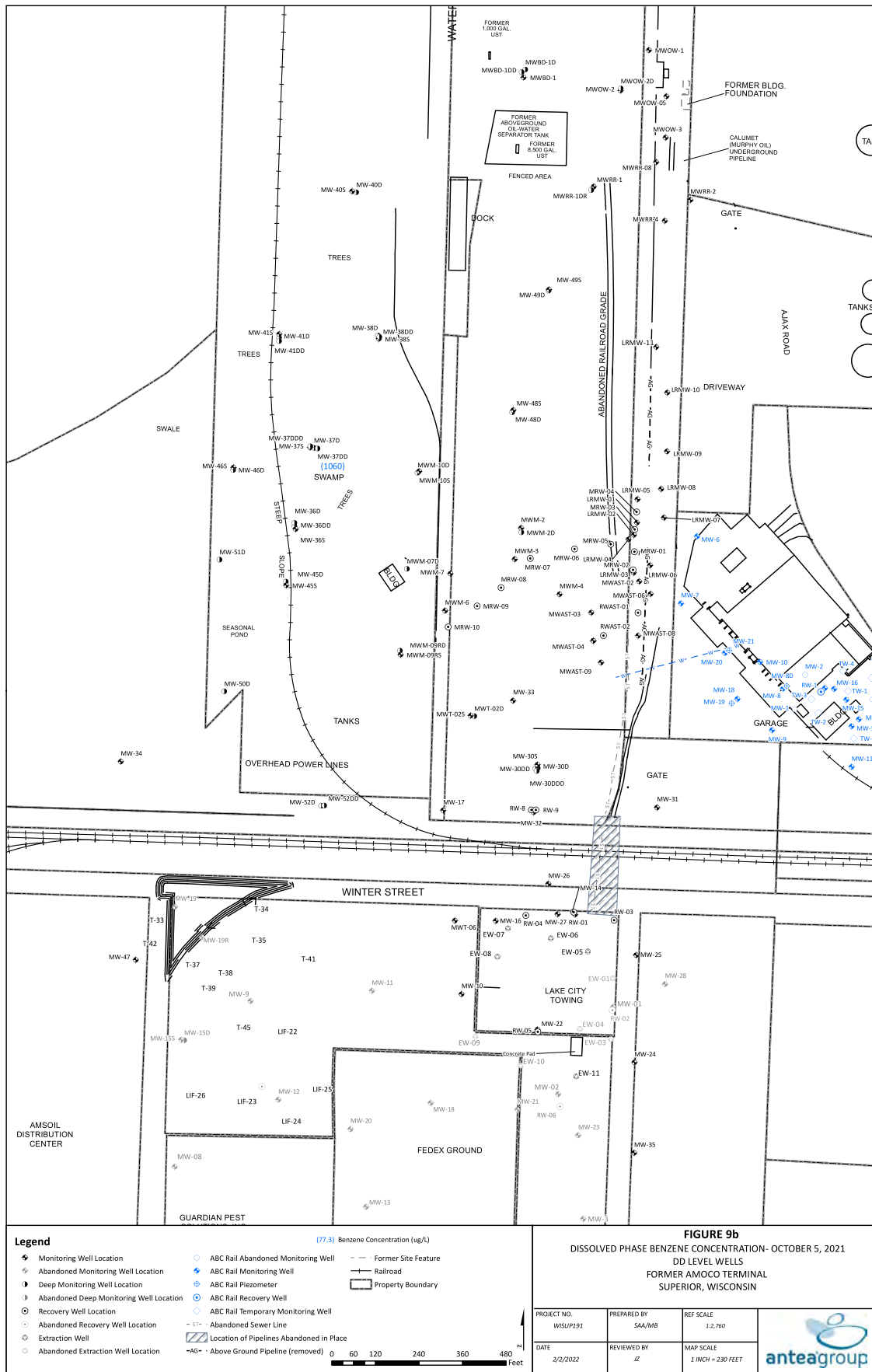
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Attachment B - Extents of Groundwater Contamination and LNAPL (Antea, 2022)

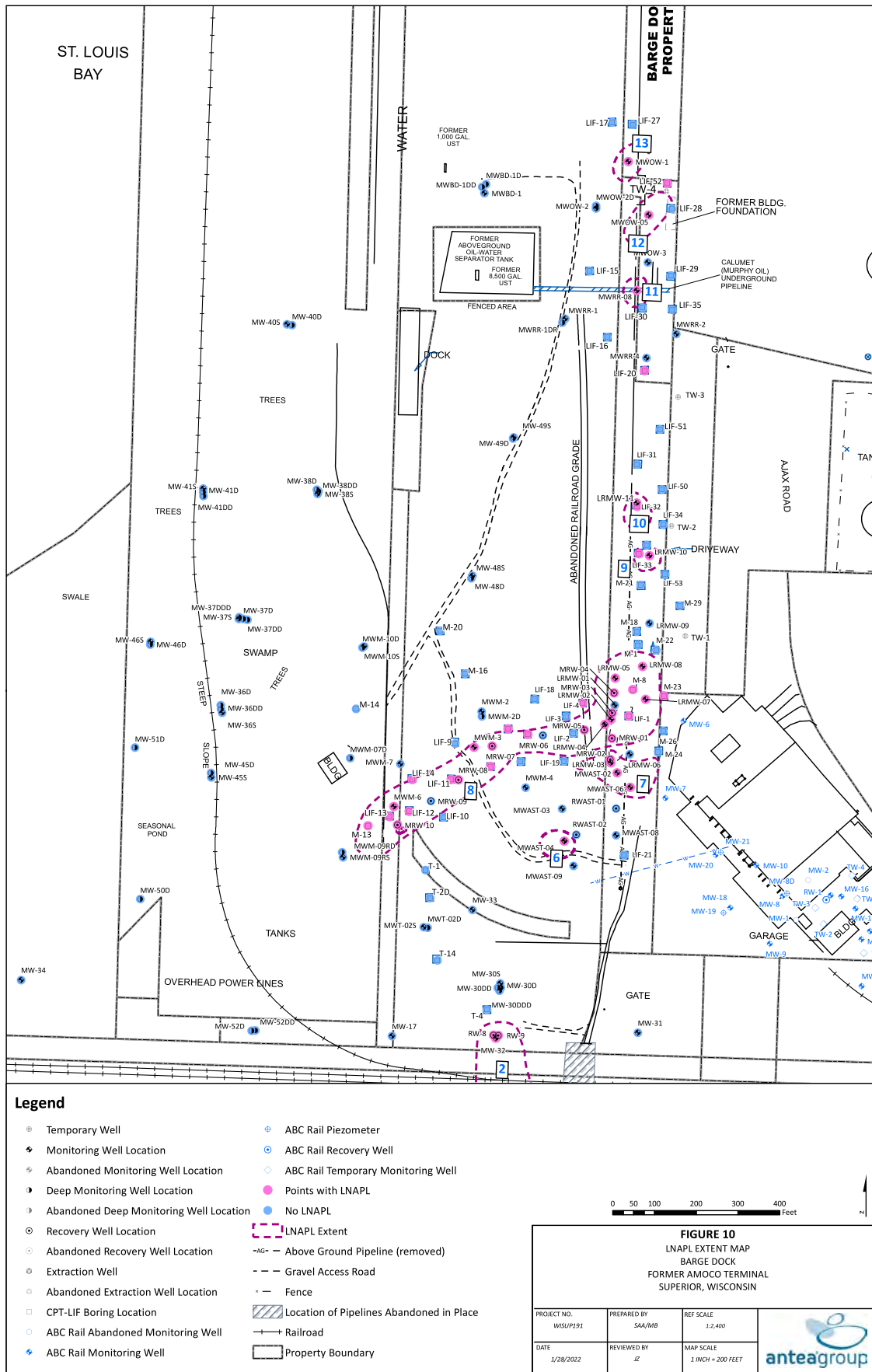
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Attachment B - Extents of Groundwater Contamination and LNAPL (Antea, 2022)

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