February 9, 2026

WISCONSIN DEPARTMENT OF NATURAL RESOURCES
Attn: Mr. Matthew Thompson
1300 W. Clairmont Avenue
Eau Claire, WI 54701

SUBJECT:

EXCAVATION DOCUMENTATION REPORT
Riverside Rail Corridor
132 River Street
Wausau, WI 54401
BRRTS# 02-37-584785

DEAR MR. THOMPSON:

Enclosed is the excavation documentation report and technical assistance request for the above site in Wausau, WI. This report summarizes the remedial excavations undertaken at this site in relation to the dioxin contamination exceeding the Wisconsin Administrative Code (WAC) Chapter NR720 Non-Industrial Direct Contact RCLs identified in the local soils of the municipal park.

Please contact me if you have any questions.

Sincerely,

MATTHEW MICHALSKI, P.G.
Hydrogeologist
REI Engineering, Inc.
MMichalski@REIengineering.com

(715) 675-9784

cc: City of Wausau, Attn: Eric Lindman, P.E. (e-copy)

REI
CIVIL & ENVIRONMENTAL
ENGINEERING, SURVEYING

Riverside Rail Corridor

132 River Street
Wausau, WI 54401
BRRTS# 02-37-584785

EXCAVATION DOCUMENTATION REPORT

02·09·2026

PREPARED FOR: CITY OF WAUSAU

Attn: Eric Lindman, P.E.
407 Grant Street
Wausau, WI 54403

EXCAVATION DOCUMENTATION REPORT

Riverside Rail Corridor
132 River Street
Wausau, WI 54401
BRRTS #02-37-584785

REI Project #9073

PREPARED FOR:

CITY OF WAUSAU
Attn: Mr. Eric Lindman, P.E.
132 River Street
Wausau, WI 54401

FEBRUARY 2026

EXCAVATION DOCUMENTATION REPORT

Wisconsin Administrative Code Chapter NR712 Certifications

The recommendations contained in this report are based on the information obtained from our study of the site and were arrived at in accordance with accepted hydrogeologic and engineering practices at this time and location.

"I, Matthew C. Michalski, hereby certify that I am a hydrogeologist as that term is defined in s. NR 712.03 (1), Wis. Adm. Code, am registered in accordance with the requirements of ch. GHSS 2, Wis. Adm. Code, or licensed in accordance with the requirements of ch. GHSS 3, Wis. Adm. Code, and that, to the best of my knowledge, all of the information contained in this document is correct and the document was prepared in compliance with all applicable requirements in chs. NR 700 to 726, Wis. Adm. Code."

Matthew C. Michalski

Hydrogeologist

02/09/2026

Date

WISCONSIN
MATTHEW C. MICHALSKI
PG-1417
SCHOFIELD
WI
PROFESSIONAL GEOLOGIST

"I, Brian J. Bailey, hereby certify that I am a scientist as that term is defined in s. NR 712.03 (3), Wis. Adm. Code, and that, to the best of my knowledge, all of the information contained in this document is correct and the document was prepared in compliance with all applicable requirements in chs. NR 700 to 726, Wis. Adm. Code."

Scientist

02/09/2026

Date

"I, Mike E. Mohr, herby certify that I am a registered professional engineer in the State of Wisconsin, registered in accordance with the requirements of ch. A-E 4, Wis. Adm. Code; and that, to the best of my knowledge, all information contained in this document is correct and the document was prepared in compliance with all applicable requirements in chs. NR 700 to 726, Wis. Adm. Code."

Project Engineer

WISCONSIN
MICHAEL
MOHR
E-42273
WAUSAU
WI
PROFESSIONAL ENGINEER

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EXCAVATION DOCUMENTATION REPORT

Riverside Rail Corridor
132 River Street
Wausau, WI 54401
BRRTS #02-37-584785

REI Project #9073

1.0 EXECUTIVE SUMMARY

The subject property is currently and has historically been utilized as a public park maintained by the City of Wausau. The land currently contained within the park boundaries were deeded to the city through three (3) deeds dated October 15, 1923, January 18, 1930, and November 13, 1930, with provisions requiring the lands be maintained as a public park for free use of the public.

On September 24, 2019, TRC Solutions submitted results for the Wood Waste Burning Site Investigation related to the open WAULECO SNE Corp (BRRTS# 02-37-000006) Environmental Repair Program (ERP) site. Soil samples were collected based on aerial deposition models with samples collected both within and outside of modeled deposition areas. Soil samples collected outside of the area of modeled deposition were located near potential sources of dioxins and furans. Three (3) samples were collected along former railroad tracks south of Riverside Park which revealed an exceedance for residential direct contact Residual Contaminant Level (RCL).

On November 21, 2019, the City of Wausau received a "Responsible Party" letter for contamination identified within the former rail corridor located at the south end of Riverside Park. The "Responsible Party" letter identified the property owners' responsibilities in relation to the identified contamination. An ERP site listing was opened for the property on the WDNR's BRRTS database. On December 31, 2019, REI submitted a Site Investigation Workplan on behalf of the responsible party.

Site investigation and remedial actions have been previously summarized in the Site Investigation Report (September 15, 2021), Remedial Action Options Report (June 2, 2022), Excavation Report (January 24, 2024), and Additional Remediation Plan (November 14, 2024).

Three (3) remedial excavations were completed to remove contaminated soil from the subject property. Cumulatively, 2,017.72 tons of impacted soil were excavated and transported to the

Marathon County Landfill for disposal. The excavations were backfilled with borrow and topsoil before being seeded and covered with erosion control matting.

Based on the data collected, the remedial soil excavations have removed all identified soil contamination within the top four (4) feet of the soil column exceeding the WAC Chapter NR720 Non-Industrial Direct Contact RCLs within Riverside Park. Cumulatively, 2,017.72 tons of impacted soil and root mass were excavated and transported to the Marathon County Landfill for disposal. The excavations were backfilled with borrow material and topsoil before being seeded and covered with erosion control matting.

Residual soil contamination remains in the area of soil sample S27, however the identified concentrations only exceed the WAC Chapter NR720 Non-Industrial Direct Contact RCLs and the sample was collected from below the direct contact zone. This contamination can be managed through the implementation of a maintenance plan for the borrow material, topsoil, and vegetation to maintain the clean fill placed after completion of the soil excavation and prevent direct contact with residual soil contamination in this area.

Residual soil contamination also remained in the areas of soil samples 1003 Emt, 117 Riv 1, 117 Riv 2, S29, S36, and S37. However, the identified contamination appears to be representative of other contaminant sources not associated with the subject property investigation, upgradient contamination, or the WDNR has determined the City of Wausau is not required to investigate beyond the subject property boundaries.

REI recommends no further site investigation or remediation, and the site be granted case closure by the WDNR. A case closure request with maintenance plan has been submitted concurrently with this report for WDNR review and approval.

2.0 INTRODUCTION

2.1 PURPOSE OF REPORT

The purpose of this report is to document the remedial excavation results pursuant to the requirements of Wisconsin Administrative Code (WAC) Chapter NR724. The primary goal of the remedial excavation was to remove soil impacted with dioxins exceeding the WAC Chapter NR720 Non-Industrial Direct Contact Not to Exceed Residual Contaminant Levels.

2.2 GENERAL INFORMATION

2.2.1 RESPONSIBLE PARTY

City of Wausau
Attn: Mr. Eric Lindman, P.E.
407 Grant Street
Wausau, WI 54403

2.2.2 ENVIRONMENTAL CONSULTING FIRM

REI Engineering, Inc.
Attn: Mr. Matthew C. Michalski
4080 North 20th Avenue
Wausau, Wisconsin 54401
Phone (715) 675-9784

2.2.3 REGULATORY CONTACT

Wisconsin Department of Natural Resources
Remediation and Redevelopment Program
Attn: Mr. Matt Thompson
West Central Regional Office
1300 W Clairemont Avenue
Eau Claire, WI 54701

2.2.4 SITE NAME AND LOCATION

SITE NAME & ADDRESS:

Riverside Rail Corridor
132 River Street
Wausau, WI 54401

FACILITY ID:

737251350

PARCEL ID NUMBER:

291-2907-362-0511

PUBLIC LAND SURVEY SYSTEM:

The North Half (N½) of the Southeast Quarter (SE¼) of Section Thirty-five (35), Township Twenty-nine North (29N), Range Seven East (7E), Marathon County, Wisconsin.

WTM COORDINATES:

Easting: 548,852

Northing: 497,486

LATITUDE & LONGITUDE:

Latitude: 44° 57' 0.8" N

Longitude: 89° 38' 3.33" W

LEGAL DESCRIPTION:

The subject property was obtained by the City of Wausau through three (3) deeds dated October 15, 1923, January 18, 1930, and November 13, 1930, with provisions requiring the lands be maintained as a public park for free use of the public. Per the City of Wausau, no plat or certified survey maps exist for the subject property parcels.

The site location is depicted in **Figure 1**. Site photographs are included in **Appendix A**.

2.3 SITE BACKGROUND

2.3.1 CURRENT & HISTORIC LAND USE

Site background information including current and historic land use, site layout, zoning, previous releases/investigations, current investigation summary, and other data sources utilized are summarized in the Site Investigation Reports submitted to the WDNR on September 20, 2021, and the Remedial Actions Options Report submitted to the WDNR on June 2, 2022. The current site layout is depicted in **Figure 2**, **Figure 3**, **Figure 4**, and **Figure 5**.

2.3.2 SUMMARY OF SITE INVESTIGATION & REMEDIATION

The following is a summary of events that have taken place at the site as part of the site investigation and remediation prior to the actions summarized in this report:

December 19, 2019	WDNR notified that REI was retained as the environmental consultant for environmental investigation.
December 31, 2019	REI submitted Site Investigation Work Plan to the WDNR.
January 30, 2020	WDNR provides notice to proceed with the scope of services outlined in the December 31, 2019 Site Investigation Work Plan.
April 23, 2020	REI personnel collected soil samples from sample locations R1 through R10 and P1 through P5.
July 10, 2020	REI personnel staked the proposed soil sample locations P6 through P16.
August 5, 2020	REI personnel collected soil samples from sample locations P6 through P16, RP-102, and RP-103. Due to a power outage at the laboratory the collected samples exceeded the allowable holding temperature and as such were not analyzed.
September 14, 2020	REI personnel collected soil samples from sample locations P6 through P16, RP-102, and RP-103.
February 24, 2021	WDNR requests additional soil sampling to further define degree and extent.
April 23, 2021	REI personnel staked the proposed soil sample locations P17 through P20.
May 12, 2021	REI personnel collected soil samples from sample locations P1, P11, P17 through P20, and R11.
September 20, 2021	REI submitted a Site Investigation Report to the WDNR.
November 12, 2021	WDNR approved the Site Investigation Report.

June 2, 2022	REI submitted a Remedial Action Options Report.
September 13, 2022	REI personnel collected soil samples from sample locations S1 through S12. REI personnel also collected composite soil samples LF1 through LF4 for future waste disposal approval at the Marathon County Landfill.
October 20, 2022	REI personnel collected a soil sample from sample location S13.
November 28, 2022	REI personnel collected soil samples from sample locations S14 through S18.
June 26, 2023	REI personnel set up three (3) continuous monitoring air monitoring and began monitoring ambient air particulate concentrations. A weather station was also installed to monitor local weather conditions in the park near the excavation.
July 5, 2023	Woller began site preparations including installation of safety fence, silt fence, and vegetation removal.
July 17, 2023	Woller begins excavation of impacted soils from park.
July 18, 2023	Woller begins stockpiling backfill material onsite for restoration after completion of the soil excavation.
July 21, 2023	Woller completes excavation of impacted soils.
July 27, 2023	REI personnel terminated air monitoring operations.
June 28, 2023	REI personnel remove air monitoring stations and weather station from site.
August 1, 2023	Woller completes restoration of excavation area including final grading, seeding, and installation of erosion control matting.
October 12, 2023	REI personnel completed a limited hand excavation to remove residual soil contamination identified in excavation soil sample S33.

January 1, 2024	REI submitted Excavation Documentation Report.
April 24, 2024	WDNR provided response to Technical Assistance Request for review of Excavation Documentation Report.
July 1, 2024	REI personnel collected soil samples from sample locations P21 through P32. Soil samples collected from sample locations P21, P22, P23, P26, P27, P32, and P33 were submitted for laboratory analysis.
November 26, 2024	REI submitted Additional Remediation Action Plan.
January 24, 2025	WDNR provided response to Technical Assistance Request for review of Additional Remediation Action Plan.

2.4 CONTAMINANT OF CONCERN INFORMATION

2.4.1 TERMINOLOGY UTILIZED

Due to the numerous naming conventions and substantial number of compounds potentially included as part of the dioxins, furans, and biphenyls families of chemicals, the following terminology is commonly utilized and will be included throughout this report. 2,3,7,8-tetrachlorodibenzo-*p*-dioxin is commonly shortened to 2,3,7,8-TCDD, TCDD, or referenced simply as dioxin. Dioxin-like compounds (DLCs) is "a description used for compounds that have chemical structures, physico-chemical properties, and toxic responses similar to TCDD (U.S. EPA, 2010)." DLCs include compounds from the dioxins, furans, and biphenyls families of chemicals. Furthermore, dioxin and dioxin-like compounds are commonly referenced simply as dioxins.

2.4.2 DIOXINS, FURANS, AND BIPHENYLS

These compounds include chlorinated and brominated dibenzo-*p*-dioxins (CDDs and BDDs), dibenzo-*p*-furans (CDFs and BDFs), and biphenyls (PCBs and PBBs). Dioxins consist of two (2) benzene molecules joined by two (2) oxygen molecules at adjacent carbons on each of the benzene molecules and between one (1) to eight (8) chlorine and/or bromine atoms. Furans consist of two (2) benzene molecules fused to a central furan molecule and between one (1) to eight (8) chlorine and/or bromine atoms. Biphenyls consist of two (2) linked benzene molecules with between one (1) to ten (10) chlorine and/or bromine atoms. Not all dioxins

and dioxin-like compounds have the same toxicity or ability to cause illness or adverse health effects and not all isomers are biologically active (ATSDR, 2006).

The most toxic form of dioxins is 2,3,7,8-TCDD, which is the most studied isomer (ATSDR, 1999). Because of their hydrophobic nature and resistance towards metabolism, dioxins persist and bioaccumulate in fatty tissues of animals and humans (U.S. EPA, 2010).

2.4.3 CLEANUP STANDARD UTILIZED

Per the WDNR letter dated November 12, 2021, the recommended WAC Chapter NR720 Non-Industrial Direct Contact standards were utilized to verify the completeness of the remedial excavation. **Table 1** summarizes the current WAC Chapter NR720 State Soil Standards for compounds analyzed as part of the site investigation and remediation:

Compound	Non-Industrial Direct Contact	Industrial Direct Contact	Groundwater Protection
Dioxins (ng/kg)			
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	4.82	21.8	30
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	4.82	21.8	No Standard
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	48.2	218	No Standard
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	48.2	218	No Standard
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	48.2	218	No Standard
1,2,3,7,8,9-Heptachlorodibenzo-p-dioxin (HpCDD)	482	2.18E+03	No Standard
Octachlorodibenzo-p-dioxin (OCDD)	1.61E+04	7.27E+04	No Standard
Furans (ng/kg)			
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	48.2	218	No Standard
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	161	727	No Standard
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	16.1	72.7	No Standard
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	48.2	218	No Standard
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	48.2	218	No Standard
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	48.2	218	No Standard
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	48.2	218	No Standard
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	482	2.18E+03	No Standard
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	482	2.18E+03	No Standard
Octachlorodibenzofuran (OCDF)	1.61E+04	7.27E+04	No Standard

Table 1: WAC Chapter NR720 Non-Industrial Direct Contact RCLs for analyzed compounds.

Additionally, the Cumulative Hazard Index and Cumulative Cancer Risk were calculated for each sample location. The Cumulative Hazard Index and Cumulative Cancer Risk were calculated utilizing the WDNR RCL Spreadsheet for Non-Industrial Properties and is utilized

to assess the cumulative impact for direct contact with mixtures of compounds. The spreadsheet calculates a Hazard Quotient and/or Cancer Risk for each compound with concentrations exceeding the laboratory method limit of detection. The sum of all calculated Hazard Quotients equals the Cumulative Hazard Index. The sum of all calculated individual Cancer Risk values equals the Cumulative Cancer Risk. To assess the potential cumulative impact of samples impacted by multiple dioxin compounds a Cumulative Hazard Index of 1.0 or greater and a Cumulative Cancer Risk greater than $1X10^{-5}$ are utilized to determine if direct contact with contaminated soils exceeded the WAC Chapter NR720 Non-Industrial Direct Contact RCLs.

3.0 METHODOLOGIES

3.1 SOIL

Investigation of the extent of soil contamination and post remedial excavation confirmation sample collection was conducted via hand sampling. Soil samples were obtained by utilizing a clean, decontaminated shovel to remove soils until the top of the sample interval was encountered. REI personnel used a stainless-steel garden trowel to loosen soils within the sample interval. A freshly gloved hand was then used to collect the loosened soils and fill the appropriate laboratory provided containers. Once filled the containers were closed with the appropriate screw on lids and labeled. Sampling methods and procedures are included in this report as **Appendix B**.

3.2 SOIL SAMPLE SERIES

Four (4) soil sample series were collected by REI as part of this site investigation and remediation. Initially, the "R" series sample locations were collected as part of the WDNR required WAC Chapter NR716 site investigation. "P" series sample locations were initially requested by the City of Wausau Park and Recreation Committee based on historic soil sample laboratory analytical results, collected from within the park. The "LF" series was limited to composite soil samples collected for laboratory analysis based on requirement of the Marathon County Landfill prior to accepting any excavated material. The "S" series sample locations consist of confirmation samples collected from the sidewalls and base of the remedial excavation. Soil analytical results are summarized in **Tables 2a-n**. Soil sample locations are shown on **Figure 2**, **Figure 3**, **Figure 4**, and **Figure 5**.

3.2.1 "R" SERIES SAMPLES

In April 2020, ten (10) soil sample locations, R1 through R10, were selected along the historic railroad corridor extending northwest from Thomas Street into Riverside Park along the southwestern property boundary. Seven (7) of the ten (10) sample locations were located directly adjacent to the existing railroad tracks. Three (3) sample locations were located approximately fifteen (15) to fifty (50) feet side gradient of the railroad tracks. One (1) soil sample was collected from each sample location and submitted to a state certified laboratory for EPA Method 1613B analysis of seventeen (17) dioxins.

In September 2020, REI personnel collected additional soil samples from two (2) of the soil sample locations sampled in April 2020. At both locations, the additional soil sample was collected from a deeper sample interval. One (1) soil sample was collected from each sample

location and submitted to a state certified laboratory for EPA Method 1613B analysis of seventeen (17) dioxins.

In May 2021, one (1) additional soil sample was added to the "R" series. The sample location was requested by the WDNR due to historic analytical results. One (1) soil sample was collected and submitted to a state certified laboratory for EPA Method 1613B analysis of seventeen (17) dioxins.

After collection, "R" series sample locations were staked by REI personnel. City of Wausau personnel surveyed the sample locations at a later date.

3.2.2 "P" SERIES SAMPLES

In April 2020, the City of Wausau Park and Recreation Committee requested REI personnel collect soil samples from five (5) locations, P1 through P5, identified by the committee. Two (2) soil samples were collected from each sample location and submitted to a state certified laboratory for EPA Method 1613B analysis of seventeen (17) dioxins. One (1) soil sample was collected from approximately two (2) to three (3) inches below land surface. In areas of manicured lawn, this sample interval was directly beneath the rooting zone. In lightly vegetated or non-vegetative locations, this sample interval was of sufficient depth to remove highly organic soils composed primarily of decaying leaves and vegetation and shallow roots. The second sample was collected at depths ranging from seven (7) to fourteen (14) inches below land surface. The depth of the second sample interval was either collected directly below the A soil horizon in four (4) of the five (5) sample locations and at refusal in sample location P1. Sample location P1 was located directly below the outfall of a culvert and appears to have historically been armored with large pieces of concrete. Multiple attempts were made to reach deeper depths but were unsuccessful.

In September 2020, REI personnel collected soil samples from eleven (11) soil sample locations, P6 through P16, within Riverside Park. Two (2) soil samples were collected from each sample location and submitted to a state certified laboratory for EPA Method 1613B analysis of seventeen (17) dioxins.

In May 2021, REI personnel collected soil samples from four (4) new soil sample locations, P17 through P20, within Riverside Park. Two (2) soil samples were collected from each sample location and submitted to a state certified laboratory for EPA Method 1613B analysis of

seventeen (17) dioxins. One (1) additional soil sample was collected from the P1 and P11 sample locations at depths greater than the previous sampling completed. One (1) soil sample was collected from each sample location and submitted to a state certified laboratory for EPA Method 1613B analysis of seventeen (17) dioxins.

In July 2024, REI personnel collected soil samples from twelve (12) new soil sample locations, P21 through P32, within Riverside Park. The sample locations were arranged in three (3) half circle arcs, centered on soil sample S33, with five (5) to ten (10) from the previous sample arc. Two (2) soil samples were collected from each sample location and samples collected from sample locations P21, P22, P23, P26, P27, P32, and P33 were submitted to a state certified laboratory for EPA Method 1613B analysis of seventeen (17) dioxins.

3.2.3 "LF" SERIES SAMPLES

In September 2022, REI personnel collected four (4) composite soil samples from within the proposed excavation boundaries. Each composite sample was collected by REI personnel walking a line perpendicular to the slope of the hillside. For each composite sample, approximately 8oz of soil was collected from four (4) to six (6) discrete, approximately evenly spaced, sample locations between the identified start and stop locations. The collected soil was placed in a resealable plastic bag. After sufficient soil was collected from each sample line the bag was sealed and manually agitated until the collected soil was sufficiently mixed. The mixed soil was then placed in laboratory provided containers for analysis of Marathon County Landfill Protocol 1 analytes.

The start and end locations of the composite landfill samples were mapped based on visual reference and historic staked sample locations.

3.2.4 "S" SERIES SAMPLES

In September 2022, REI personnel collected soil samples from twelve (12) new sample locations, S1 through S12, within Riverside Park. One (1) soil sample was collected from each sample location and submitted to a state certified laboratory for EPA Method 1613B analysis of seventeen (17) dioxins. The sample locations were located around the proposed excavation boundary, except for the southwest excavation boundary as the excavation was being limited to the within the subject property.

In October 2022, REI personnel collected a soil sample from one (1) new sample location, S13, within Riverside Park. One (1) soil sample was collected from the sample location and submitted to a state certified laboratory for EPA Method 1613B analysis of seventeen (17) dioxins. The soil sample location was determined after proposed soil excavation boundary sample soil sample S6 identified exceedances of the WAC Chapter NR720 Non-Industrial Not-to-Exceed RCLs.

In November 2022, REI personnel collected soil samples from five (5) new sample locations, S14 through S18, within Riverside Park. One (1) soil sample was collected from each sample location and submitted to a state certified laboratory for EPA Method 1613B analysis of seventeen (17) dioxins. The soil sample locations were determined after proposed soil excavation boundary sample soil samples S6 and S13 identified exceedances of the WAC Chapter NR720 Non-Industrial Not-to-Exceed RCLs.

In July 2023, REI personnel collected soil samples from twenty-five (25) new sample locations, S19 through S43, within Riverside Park. One (1) soil sample was collected from each sample location and submitted to a state certified laboratory for EPA Method 1613B analysis of seventeen (17) dioxins. The soil sample locations were determined based on the lateral and vertical extent of the completed soil excavation and locations of previously collected soil samples.

In October 2023, REI personnel collected soil samples from three (3) new sample locations, S44 through S46, within Riverside Park. One (1) soil sample was collected from each sample location and submitted to a state certified laboratory for EPA Method 1613B analysis of seventeen (17) dioxins. The soil sample locations were determined based on the lateral and vertical extent of the completed hand excavation following the identification of WAC Chapter NR720 Non-Industrial Not-to-Exceed RCLs exceedances in soil sample S33.

In July 2025, REI personnel collected soil samples from two (2) new sample locations, S47 and S48, within Riverside Park. One (1) soil sample was collected from each sample location and submitted to a state certified laboratory for EPA Method 1613B analysis of seventeen (17) dioxins. Soil samples were collected from the base of the July 2025 soil excavation. Please note, soil samples collected as part of the "P" series samples in July 2024 were utilized to determine lateral extent of the soil excavation and as such act as the sidewall samples for the excavation.

3.3 DECONTAMINATION PROCEDURES

Equipment used throughout the investigation and excavation confirmation sample collection process was decontaminated utilizing the following procedure. Please note, the only reusable equipment employed during the site sampling consisted of metal shovels and a stainless-steel garden trowel. Prior to decontamination, excess soils were removed. Equipment was then placed in a clean 5-gallon plastic bucket containing a mixture of deionized water and Liquinox® prepared according to the manufacturer's instructions. The equipment was scrubbed with a clean nylon brush with particular care taken to clean all areas which contacted soils during hand sampling. Equipment was then rinsed in a separate clean 5-gallon bucket containing deionized water to remove any remaining cleaning solution. Finally, the equipment was rinsed with deionized water, and the rinse water was captured in a third 5-gallon bucket. Decontaminated equipment was allowed to air dry prior to additional sampling use.

Water utilized to decontaminate equipment was containerized in 55-gallon steel DOT approved drums and temporarily stored at REI's facility until disposal.

3.4 INVESTIGATIVE AND REMEDIAL WASTES

Soils removed during soil sampling activities were utilized to backfill the sample locations. Deionized water utilized for decontamination of equipment was containerized and transported to the City of Wausau Wastewater Treatment Plant for treatment.

4.0 SUMMARY OF REMEDIAL ACTIONS

The following is a summary of events that have taken place at the site as part of the site remediation:

November 26, 2024	REI submitted Additional Remediation Action Plan.
January 24, 2025	WDNR provided response to Technical Assistance Request for review of Additional Remediation Action Plan.
July 14, 2025	The City of Wausau and the selected excavation contractor Woller Stump Grinding & Excavating (Woller) executed a contract for site preparation and excavation activities related to remedial actions.
July 29, 2025	Woller began site preparations including installation of silt fence and vegetation removal. One (1) truckload of root mass was loaded and transported to the Marathon County Landfill.
July 30, 2025	Woller begins and completes excavation of impacted soils from park. Woller completes restoration of excavation area including backfilling, final grading, seeding, and installation of erosion control matting.

4.1 JULY 2025 SOIL EXCAVATION

Prior to site preparations, REI personnel surveyed and staked the outer perimeter of the planned excavation to identify the area of vegetation to be removed prior to excavation of impacted soils.

On July 29, 2025, Woller began site preparation. Vegetation removal consisted of cutting down trees and bushes located within the excavation area. Small brush and vegetation were left in place to be removed during soil excavation. One (1) truckload of impacted tree roots were transported to the Marathon County landfill on July 29, 2025. Excavation of contaminated material began and was completed on July 30, 2025. Nine (9) truckloads of excavated soils were transported, via dump truck, to the Marathon County Landfill for disposal via direct burial. In total, 188.69 tons of impacted vegetation and soil were removed as part of the July 2025 soil excavation.

After completion, the excavation was backfilled with borrow material from the base of the excavation to approximately six (6) inches below the final land surface. Approximately six (6) inches of topsoil was installed over the borrow material. After final grading, the backfilled area was seeded, and erosion control mat was installed.

Two (2) soil samples were collected from the base of the completed excavation. The collected soil samples were submitted to Pace in Green Bay, WI for laboratory analysis of seventeen (17) dioxin and furan (Tetra-Octa) compounds.

Soil analytical results are summarized in **Tables 2i-n**. The excavation boundaries and soil sample locations are depicted in **Figure 5** and **Figure 6**. Copies of scale tickets from the Marathon County Landfill are included in **Appendix C**.

5.0 RESULTS OF SITE INVESTIGATION

5.1 JULY 2025 SOIL EXCAVATION

A total of 188.69 tons of contaminated soil and vegetation (root mass) was excavated and transported to the Marathon County Landfill for disposal between July 29, 2025, and July 30, 2025. Below is a summary of the daily load totals and tonnage of contaminated soil removed from the site.

Date	Number of Loads Removed	Tonnage Transported to Landfill
7/29/2025	1	11.94
7/30/2023	9	176.75
Total	**10**	**188.69**

Based upon the pre-excavation soil sampling results, the excavation was completed to a total depth of four (4) feet below land surface to remove the direct contact zone. The excavation measured 710 square feet.

Soil analytical results are summarized in **Table 2n**. The excavation boundaries and soil sample locations are depicted in **Figure 5** and **Figure 6**. Copies of scale tickets from the Marathon County Landfill are included in **Appendix C**.

5.2 SOIL AND VADOSE ZONE QUALITY

Soil analytical results are summarized in **Tables 2a-n**. **Tables 3a-b** summarizes individual exceedances by compound for samples collected from within Riverside Park and the surrounding area. Soil sample locations with contaminant concentrations exceeding the WAC Chapter NR720 RCLs following completion of the three (3) remedial excavations are summarized in **Table 4**. The excavation boundaries and soil sample locations are depicted in **Figure 5** and **Figure 6**. Residual soil contamination is depicted in **Figure 7** and **Figure 8**. The complete laboratory analytical report is included in **Appendix D**.

5.2.1. WITHIN SUBJECT PROPERTY BOUNDARIES

Unsaturated soil contamination remaining on the subject property following completion of the remedial excavations exceeding the WAC Chapter NR720 Non-Industrial Direct Contact RCLs includes the following:

Compound	WAC Chapter NR720 Non-Industrial Direct Contact RCL Exceedances	Exceedance Count
Dioxins		
2,3,7,8-TCDD	No Exceedances	0
1,2,3,7,8-PeCDD	No Exceedances	0
1,2,3,4,7,8-HxCDD	No Exceedances	0
1,2,3,6,7,8-HxCDD	No Exceedances	0
1,2,3,7,8,9-HxCDD	No Exceedances	0
1,2,3,7,8,9-HpCDD	No Exceedances	0
OCDD	No Exceedances	0
Furans		
2,3,7,8-TCDF	No Exceedances	0
1,2,3,7,8-PeCDF	No Exceedances	0
2,3,4,7,8-PeCDF	S27 (48 inches)	1
1,2,3,4,7,8-HxCDF	No Exceedances	0
1,2,3,6,7,8-HxCDF	No Exceedances	0
2,3,4,6,7,8-HxCDF	No Exceedances	0
1,2,3,7,8,9-HxCDF	No Exceedances	0
1,2,3,4,6,7,8-HpCDF	No Exceedances	0
1,2,3,4,7,8,9-HpCDF	No Exceedances	0
OCDF	No Exceedances	0
Cumulative Hazard Index	No Exceedances	0
Cumulative Cancer Risk	No Exceedances	0

Table 3a: WAC Chapter NR720 Non-Industrial Direct Contact RCL exceedances by compound and location for samples collected within Riverside Park.

Concentrations of at least one (1) of the seventeen (17) dioxins exceeding the WAC Chapter NR720 Non-Industrial Direct Contact RCL were identified in one (1) soil sample collected from within the park property boundaries.

Soil sample S27 was collected from the base of the excavation at forty-eight (48) inches below land surface and identified an exceedance of the WAC Chapter NR720 Non-Industrial Direct Contact RCLs for 2,3,4,7-PeCDF. The direct contact zone is defined as the top four (4) feet of the soil column and as such following backfilling of the soil excavation this soil sample represents residual soil contamination below the direct contact zone. REI recommends implementation of a maintenance plan for the area of soil sample S27 to ensure the existing four (4) feet of clean fill and vegetation is maintained to prevent future potential direct contact with impacted soils exceeding the WAC Chapter NR720 Non-Industrial Direct Contact RCLs.

5.2.2. SURROUNDING AREA

Unsaturated soil contamination remaining adjacent to the subject property and within the surrounding neighborhood exceeding the WAC Chapter NR720 Non-Industrial Direct Contact RCLs includes the following:

Compound	WAC Chapter NR720 Non-Industrial Direct Contact RCL Exceedances	Exceedance Count
Dioxins		
2,3,7,8-TCDD	No Exceedances	0
1,2,3,7,8-PeCDD	117 River 1 (4-6 inches), 117 River 2 (4-6 inches)	2
1,2,3,4,7,8-HxCDD	No Exceedances	0
1,2,3,6,7,8-HxCDD	No Exceedances	0
1,2,3,7,8,9-HxCDD	No Exceedances	0
1,2,3,7,8,9-HpCDD	117 River 1 (4-6 inches), 117 River 2 (4-6 inches)	2
OCDD	No Exceedances	0
Furans		
2,3,7,8-TCDF	No Exceedances	0
1,2,3,7,8-PeCDF	S29 (2-3 inches), S36 (2-3 inches)	2
2,3,4,7,8-PeCDF	1003 Emt (8-10 inches), S29 (2-3 inches), S36 (2-3 inches), S37 (2-3 inches)	4
1,2,3,4,7,8-HxCDF	No Exceedances	0
1,2,3,6,7,8-HxCDF	No Exceedances	0
2,3,4,6,7,8-HxCDF	1003 Emt (8-10 inches), S29 (2-3 inches)	2
1,2,3,7,8,9-HxCDF	No Exceedances	0
1,2,3,4,6,7,8-HpCDF	No Exceedances	0
1,2,3,4,7,8,9-HpCDF	No Exceedances	0
OCDF	No Exceedances	0
Cumulative Hazard Index	No Exceedances	0
Cumulative Cancer Risk	S36 (2-3 inches)	1

Table 3b: WAC Chapter NR720 Non-Industrial Direct Contact RCL exceedances by compound and location for samples collected adjacent to Riverside Park and the surrounding area.

Soil samples 117 Riv 1 and 117 Riv 2 were collected in December 2008 by CWE, Inc from the alley located between River Street and Thomas Street at a depth of 4-6 inches below land surface. Both soil samples identified exceedances of the WAC Chapter NR720 Non-Industrial Direct Contact RCLs for 2,3,4,7,8-PeCDF and 2,3,4,6,7,8-HxCDF. Soil samples 117 Riv 1 and 117 Riv 2 were collected approximately 300 feet south-southwest of Riverside Park property boundaries. Additionally, soil samples 120 Riv and 122E were collected between the park property boundaries and the location of the 117 Riv 1 and 117 Riv 2 but identified no exceedances of the WAC Chapter NR720 Non-Industrial Direct Contact RCLs. It appears the

contamination identified in the area of soil samples 117 Riv 1 and 117 Riv 2 represents a different source of contamination not associated with the subject property.

Soil sample 1003 Emt was collected in December 2008 by CWE, Inc from the yard of a residential property at a depth of 8-10 inches below land surface. The soil sample identified exceedances of the WAC Chapter NR720 Non-Industrial Direct Contact RCLs for 1,2,3,7,8-PeCDD and 1,2,3,7,8,9-HpCDD. Soil sample 1003 Emt was collected approximately ten (10) feet south of the former railroad corridor. However, the identified congener concentrations identified in soil sample 1003 Emt do not appear similar to the congener concentrations identified in soil samples N4-1, N4-2, N4-3, R6, R8, or R11. It appears the contamination identified in soil sample 1003 Emt represents a different source of contamination not associated with the subject property.

Soil sample S29 was collected from the excavation sidewall at a depth of 2-3 inches below land surface and identified exceedances of the WAC Chapter NR720 Non-Industrial Direct Contact RCLs for 1,2,3,7,8-PeCDF, 2,3,4,7-PeCDF, and 2,3,4,6,7,8-HxCDF. This sample was collected from the west-southwest excavation boundary upgradient of the former culvert inlet.

Soil sample S36 was collected from the excavation sidewall at a depth of 2-3 inches below land surface and identified exceedances of the WAC Chapter NR720 Non-Industrial Direct Contact RCLs for 1,2,3,7,8-PeCDF and 2,3,4,7-PeCDF. This sample was collected from along the southwest property boundary between Riverside Park and the property addressed as 122 River Street. A chain-link fence exists between the two (2) properties. REI personnel noted visible yard waste, consisting of grass clippings, along with ash, from an unknown source, located on the municipal park side of the fence. Please note, these waste materials were noted along other shared property boundaries in the excavation area.

Soil sample S37 was collected from the excavation sidewall at a depth of 2-3 inches below land surface and identified an exceedance of the WAC Chapter NR720 Non-Industrial Direct Contact RCLs for 2,3,4,7-PeCDF. This sample was collected from along the southwest property boundary between Riverside Park and the properties addressed as 120 River Street and 122 River Street.

Per the April 24, 2024, WDNR letter (Department Review of Riverside Rail Corridor Excavation Documentation Report), The WDNR determined the City of Wausau was not required to

continue investigation onto the adjacent properties nor remediate soil south of soil samples S36 and S37. The WDNR also determined contamination identified on the adjacent property near S29 to be representative of impacts by upgradient stormwater conveyances. A copy of the April 24, 2024, Department Review of Riverside Rail Corridor Excavation Documentation Report letter is included in **Appendix E**.

6.0 CONCLUSION & RECOMMENDATIONS

Based on the data collected, the remedial soil excavations have removed all identified soil contamination within the top four (4) feet of the soil column exceeding the WAC Chapter NR720 Non-Industrial Direct Contact RCLs within Riverside Park. Cumulatively, 2,017.72 tons of impacted soil and root mass were excavated and transported to the Marathon County Landfill for disposal. The excavations were backfilled with borrow material and topsoil before being seeded and covered with erosion control matting.

Residual soil contamination remains in the area of soil sample S27, however the identified concentrations only exceed the WAC Chapter NR720 Non-Industrial Direct Contact RCLs and the sample was collected from below the direct contact zone. This contamination can be managed through the implementation of a maintenance plan for the borrow material, topsoil, and vegetation to maintain the clean fill placed after completion of the soil excavation and prevent direct contact with residual soil contamination in this area.

REI recommends no further site investigation or remediation, and the site be granted case closure by the WDNR. A case closure request with maintenance plan has been submitted concurrently with this report for WDNR review and approval.

7.0 REFERENCES

ATSDR. (1999). *Chlorinated Dibenzo-p-Dioxins (CDDs).* U.S. Department of Health and Human Services, Division of Toxicology and Environmental Medicine. Atlanta: Agency for Toxic Substances and Disease Registry.

ATSDR. (2006). *ToxFAQs: CARBS/Chemical Agent Briefing Sheet - Dioxins.* U.S. Department of Health and Human Services, Division of Toxicology and Environmental Medicine. Atlanta: Agency for Toxic Substances and Disease Registry.

Devaul, R.W., and Green, J.H. (1971). Water Resources of Wisconsin – Central Wisconsin River Basin: U.S. Geological Survey Hydrologic Investigations (Atlas HA-367). Washington DC: U.S. Geological Survey.

U.S. EPA. (1998). *Approach for Addressing Dioxin in Soil at CERCLA and RCRA Sites.* Office of Solid Waste and Emergency Response. Washington, D.C.: United Stated Environmental Protection Agency.

U.S. EPA. (2008). *Frequently Asked Questions on the Update to the ATSDR Policy Guideline for Dioxins and Dioxin-Like Compounds in Residential Soil.* Office of Solid Waste and Emergency Response. Washington, D.C.: United Stated Environmental Protection Agency.

U.S. EPA. (2010). *Recommended Toxicity Equivalence Factors (TEFs) for Human Health Risk Assessments of 2,3,7,8-Tetrachlorodibenzo-p-dioxin and Dioxin-like Compounds.* Risk Assessment Forum. Washington, DC: United Stated Environmental Protection Agency.

Wisconsin Department of Natural Resources (2018). Addressing Vapor Intrusion at Remediation and Redevelopment Sites in Wisconsin (Guidance Document RR-800). Madison, WI: Author.

Wisconsin Department of Natural Resources. (n.d.). Bureau for Remediation and Redevelopment Tracking System (BRRTS) on the Web. Retrieved from https://dnr.wi.gov/botw/SetUpBasicSearchForm.do

Wisconsin Department of Natural Resources. (n.d.). RR Sites Map. Retrieved from https://dnrmaps.wi.gov/H5/?viewer=rrsites

Wisconsin Department of Natural Resources. (n.d.). Surface Water Data Viewer. Retrieved from https://dnrmaps.wi.gov/H5/?Viewer=SWDV

Wisconsin Department of Natural Resources. (n.d.). Well Driller Viewer. Retrieved from https://dnrmaps.wi.gov/H5/?viewer=Well_Driller_Viewer

TABLES

Table 1
Applicable WAC Chapter NR720 Standards
City of Wausau - Riverside Park
132 River Street
Wausau, WI 54401
BRRTS# 02-37-584785

Compound	Non-Industrial Not-to-Exceed Direct Contact	Industrial Not-to-Exceed Direct Contact	Groundwater Pathway Protection
Dioxins (ng/kg)			
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	4.82	21.8	30
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	4.82	21.8	No Standard
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	48.2	218	No Standard
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	48.2	218	No Standard
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	48.2	218	No Standard
1,2,3,7,8,9-Heptachlorodibenzo-p-dioxin (HpCDD)	482	2.18E+03	No Standard
Octachlorodibenzo-p-dioxin (OCDD)	1.61E+04	7.27E+04	No Standard
Furans (ng/kg)			
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	48.2	218	No Standard
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	161	727	No Standard
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	16.1	72.7	No Standard
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	48.2	218	No Standard
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	48.2	218	No Standard
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	48.2	218	No Standard
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	48.2	218	No Standard
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	482	2.18E+03	No Standard
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	482	2.18E+03	No Standard
Octachlorodibenzofuran (OCDF)	1.61E+04	7.27E+04	No Standard

Notes:
WAC = Wisconsin Administrative Code

Table 2a
Soil Analytical Results - NR720 Soil Standards
City of Wausau - Riverside Park
132 River Street
Wausau, WI 54401
BRRTS# 02-37-584785

REI CIVIL & ENVIRONMENTAL ENGINEERING, SURVEYING

					Collected By-->	CWE, Inc.											
					Date-->	*6/13/2006*	*6/13/2006*	*6/13/2006*	*12/8/2008*	*12/8/2008*	*12/8/2008*	*12/8/2008*	*12/8/2008*	*12/8/2008*	*12/8/2008*	*12/8/2008*	*12/8/2008*
					Sample-->	*Culv. In.**	*Culv. Out**	*122E*	*1003 Emt^*	*130 Riv*	*141 Riv*	*120 Riv*	*117 Riv 1^*	*Fern*	*117 Riv 2^*	*Oak*	*Weston*
					Sample Depth--(Inches)-->	*4-6[2]*	*4-6[2]*	*4-6[2]*	*8-10*	*4-6*	*6-8*	*4-6*	*4-6*	*4-6*	*4-6*	*4-6*	*4-6*
					Percent Moisture (%)-->	-	-	-	-	-	-	-	-	-	-	-	-
					Saturated (S) vs Unsaturated (U)-->	*U*	*U*	*U*	*U*	*U*	*U*	*U*	*U*	*U*	*U*	*U*	*U*
Dioxin Congeners	CAS Number	Units	Non-Industrial Not-to-Exceed DC RCL	Industrial Not-to-Exceed DC RCL	Groundwater Pathway Protection RCL												
2,3,7,8-TCDD	1746-01-6	ng/kg	4.82	21.8	30.0	2.1	<2.0	<0.99	<1	<1.8	<1	<1	<1	<1	<1	<1	<1
1,2,3,7,8-PeCDD	40321-76-4	ng/kg	4.82	21.8	- -	15	11	<4.9	<5	<5	<5	<5	5.1	<5	5.6	<5	<5
1,2,3,4,7,8-HxCDD	39227-28-6	ng/kg	48.2	218	- -	48	23	6.3	<5	<5	<5	<5	12	<5	15	<5	<5
1,2,3,6,7,8-HxCDD	57653-85-7	ng/kg	48.2	218	- -	140	83	17	15	6.0	<5	<5	41	5.6	44	<5	<5
1,2,3,7,8,9-HxCDD	19408-74-3	ng/kg	48.2	218	- -	60	36	11	6.8	5.5	<5	<5	25	<5	27	<5	<5
1,2,3,4,6,7,8-HpCDD	35822-46-9	ng/kg	482	2.18E+03	- -	2,400	1,400	270	260	95	87	120	1,100	170	1,100	30	<5
OCDD	3268-87-9	ng/kg	1.61E+04	7.27E+04	- -	17,000	9,300	1,600	3,000	700	630	830	7,600	1,200	8,200	270	24
Total TCDD	- -	ng/kg	- -	- -	- -	10	14	6.7	7.9	<1.8	3.3	5.7	15	3.5	22	<1	<1
Total PeCDD	- -	ng/kg	- -	- -	- -	84	71	<4.9	<5	<5	<5	<5	40	<5	48	<5	<5
Total HxCDD	- -	ng/kg	- -	- -	- -	780	570	110	85	58	25	34	310	34	360	<5	<5
Total HpCDD	- -	ng/kg	- -	- -	- -	4,300	2,800	460	500	190	170	230	2,000	300	2,000	58	<5
Furan Congeners																	
2,3,7,8-TCDF	51207-31-9	ng/kg	48.2	218	- -	6.7	7.3	1.7[T]	2.0	<3.9	<1	<1	3.5	1.4	3.7	<1	<1
1,2,3,7,8-PeCDF	57117-41-6	ng/kg	161	727	- -	13	8.7	<4.9	<5	<5	<5	<5	<5	<5	<5	<5	<5
2,3,4,7,8-PeCDF	57117-31-4	ng/kg	16.1	72.7	- -	45	80	5.7	76	<5	<5	<5	16	<5	16	<5	<5
1,2,3,4,7,8-HxCDF	70648-26-9	ng/kg	48.2	218	- -	32	35	7.3	24	<5	<5	<5	37	<5	12	<5	<5
1,2,3,6,7,8-HxCDF	57117-44-9	ng/kg	48.2	218	- -	34	33	5.4	26	<5	<5	<5	19	5.9	17	<5	<5
2,3,4,6,7,8-HxCDF	60851-34-5	ng/kg	48.2	218	- -	59	75	9.0	100	<5	<5	<5	29	<5	23	<5	<5
1,2,3,7,8,9-HxCDF	72918-21-9	ng/kg	48.2	218	- -	14	11	<4.9	6.4	<5	<5	<5	<5	<5	5.0	<5	<5
1,2,3,4,6,7,8-HpCDF	67562-39-4	ng/kg	482	2.18E+03	- -	550	480	94	160	43	27	42	350	83	350	19	<5
1,2,3,4,7,8,9-HpCDF	55673-89-7	ng/kg	482	2.18E+03	- -	40	31	8.5	13	<5	<5	<5	20	<5	20	<5	<5
OCDF	39001-02-0	ng/kg	1.61E+04	7.27E+04	- -	950	710	130	170	49	36	53	520	170	550	34	<5
Total TCDF	- -	ng/kg	- -	- -	- -	110	190	43	140	4.8	18	24	110	16	110	12	5.6
Total PeCDF	- -	ng/kg	- -	- -	- -	550	880	69	880	49	28	33	260	12	250	45	<5
Total HxCDF	- -	ng/kg	- -	- -	- -	990	1,200	150	1,600	64	40	52	580	60	560	27	<5
Total HpCDF	- -	ng/kg	- -	- -	- -	1,400	710	250	540	87	51	78	870	190	850	38	<5
Individual Exceedances (DC)			1	1	- -	8	5	0	2	0	0	0	2	0	2	0	0
Cumulative Hazard Index (DC)			1.0	1.0	- -	1.6315	1.4627	0.1804	0.8558	0.0366	0.0105	0.0151	0.6551	0.0519	0.6298	0.0059	0.0001
Cumulative Cancer Risk (DC)			1.0E-05	1.0E-05	- -	2.2E-05	1.8E-05	2.4E-06	9.4E-06	5.6E-07	2.8E-07	3.9E-07	8.9E-06	8.7E-07	8.7E-06	1.2E-07	1.5E-09
Total 2,3,7,8-TCDD Equivalence[1]	- -	ng/kg	- -	- -	- -	106	88	12	46	2.8	1.3	1.9	44	4.2	42	0.58	0.0072

Notes:
NR 720 Standards Obtained From WDNR RR Program's Soil RCL Spreadsheet
This site is assessed as Non-Industrial
RCL = Residual Contaminant Level
DC = Direct Contact
ng/kg = Parts Per Trillion (ppt)
< = Concentration Below Laboratory Detection Limit
- = Not Sampled/Collected
- - = No Standard/Not Applicable
TEQ = Toxicity Eqivalent Calculations
[1] = TEQ values calculated using the U.S. EPA 2007 values.
[2] = Depth is approximate. CWE letter notes sample collection from base of A horizion, generally 4 to 6 inches below land surface.
* = Area of sample removed during remedial excavation.
^ = WDNR has determine the City of Wausau is not responsible for contamination beyond park property boundares (April 24, 2024).

TCDD: Tetrachlorodibenzo-p-dioxin
PeCDD: Pentachlorodibenzo-p-dioxin
HxCDD: Hexachlorodibenzo-p-dioxin
HPCDD: Heptachlorodibenzo-p-dioxin
OCDD: Octachlorodibenzo-p-dioxin
TCDF: Tetrachlorodibenzofuran
PeCDF: Pentachlorodibenzofuran
HxCDF: Hexachlorodibenzofuran
HPCDF: Heptachlorodibenzofuran
OCDF: Octachlorodibenzofuran

Laboratory Qualifiers and Notes:
[T] = Estimated maximum concentration

Italic	= Exceeds NR720 Groundwater Pathway Protection
Bold	= Exceeds NR720 Non-Industrial Not-To-Exceed DC RCL
Underlined	= Exceeds NR720 Industrial Not-To-Exceed DC RCL

Table 2b
Soil Analytical Results - NR720 Soil Standards
City of Wausau - Riverside Park
132 River Street
Wausau, WI 54401
BRRTS# 02-37-584785

					Collected By-->	*Sand Creek Consulting (SCC)*				TRC				SCC		REI	SCC	REI
					Date-->	*1/9/2018*	*1/9/2018*	*1/9/2018*	*1/9/2018*	*8/14/2019*	*8/14/2019*	*8/14/2019*	*8/14/2019*	*11/5/2019*	*11/5/2019*	*9/14/2020*	*11/5/2019*	*9/14/2020*
					Sample-->	*B-101*	*B-102*	*B-103*	*B-104*	*N4-1**	*N4-2**	*N4-3**	*N7-1*	*RP-101**	*RP-102*	*RP-102*	*RP-103*	*RP-103*
					Sample Depth--(Inches)-->	*8*	*8*	*8*	*8*	*0-6*	*0-6*	*0-6*	*0-6*	*10*	*8*	*10-12*	*10*	*12-14*
					Percent Moisture (%)-->	*12.0*	*15.1*	*16.8*	*9.9*	*8.7*	*12.0*	*8.9*	*8.2*	*26.7*	*24.6*	*9.9*	*22.6*	*17.7*
					Saturated (S) vs Unsaturated (U)-->	*U*	*U*	*U*	*U*	*U*	*U*	*U*	*U*	*U*	*U*	*U*	*U*	*U*
Dioxin Congeners	CAS Number	Units	Non-Industrial Not-to-Exceed DC RCL	Industrial Not-to-Exceed DC RCL	Groundwater Pathway Protection RCL													
2,3,7,8-TCDD	1746-01-6	ng/kg	4.82	21.8	30.0	<0.28	<0.41	<0.23	<0.23	0.80 J	0.85 J	1.0	0.26 J	<2.1 D	<0.27	<0.28	<2.5	<0.36
1,2,3,7,8-PeCDD	40321-76-4	ng/kg	4.82	21.8	- -	2.3 J	0.74 I,J, EMPC	0.48 I,J, EMPC	0.56 J	2.5 J	5.2	5.9	0.91 J	<1.5 D	1.9 J	0.44 I, J, EMPC	<0.55	<0.59
1,2,3,4,7,8-HxCDD	39227-28-6	ng/kg	48.2	218	- -	3.1 J	1.1 J	0.55 I,J, EMPC	0.69 J	6.3	7.8 J,DN2	9.0 J,DN2	2.2 J	<2.9 D	4.8 J	1.1 I, J, EMPC	1.4 J	<1.2
1,2,3,6,7,8-HxCDD	57653-85-7	ng/kg	48.2	218	- -	15	4.2 J	2.2 J	3.6 J	24	39 DN2	44 DN2	6.1	6.0 J, D	21	5.8	4.7	<1.4
1,2,3,7,8,9-HxCDD	19408-74-3	ng/kg	48.2	218	- -	7.6	2.4 J	1.4 J	1.9 J	12	15 J,DN2	15 J,DN2	3.4 J	3.4 J, D	8.9	3.0 J	2.0 I, J, EMPC	<1.1
1,2,3,4,6,7,8-HpCDD	35822-46-9	ng/kg	482	2.18E+03	- -	290	85	50	81	530	820 DN2	930 DN2	150	95 D	380	110	77	9.4
OCDD	3268-87-9	ng/kg	1.61E+04	7.27E+04	- -	2,000	570	380	650	5,100	7,300 DN2	9,200 DN2	1,300	610 I, J, D	3,000	900	520	63
Total TCDD	- -	ng/kg	- -	- -	- -	10	2.5 B	1.7 B, J	1.1 B, J	11	18	12	21	<2.1 D	2.0	1.1	4.7	0.40 J
Total PeCDD	- -	ng/kg	- -	- -	- -	23	7.1	2.6	3.3 J	22	25	33	50	<1.5 D	9.6	2.2 J	7.2	<0.59
Total HxCDD	- -	ng/kg	- -	- -	- -	120	39	19	24	170	260 DN2	310 DN2	7.6	45 D	120	40	35	<1.1
Total HpCDD	- -	ng/kg	- -	- -	- -	560	160	99	150	1,000	1,600 DN2	1,900 DN2	330	180 D	710	210	140	9.4
Furan Congeners																		
2,3,7,8-TCDF	51207-31-9	ng/kg	48.2	218	- -	2.9 V	0.87 J	<0.46	<0.26	2.1 V	4.4 C	2.4 V	0.55 I,J, EMPC	<2.4 D	1.4 C	<0.61	1.9 V	<0.44
1,2,3,7,8-PeCDF	57117-41-6	ng/kg	161	727	- -	2.0 J	0.70 J	<0.52	0.42 J	2.1 J	270 P, EMPC	3.4 J	0.69 J	<1.5 D	1.8 J	<0.46	<0.29	<0.73
2,3,4,7,8-PeCDF	57117-31-4	ng/kg	16.1	72.7	- -	9.8	2.0 J	1.1 J	1.2 J	11	14	61	4.1 J	<1.7 D	14	5.3 I, J, EMPC	12	<0.44
1,2,3,4,7,8-HxCDF	70648-26-9	ng/kg	48.2	218	- -	5.8	2.0 I,J, EMPC	1.3 J	1.5 J	8.2	16 J,DN2	75 P,DN2, EMPC	3.6 P,J, EMPC	4.8 J, D	6.3	<0.73	2.1 J	<1.3
1,2,3,6,7,8-HxCDF	57117-44-9	ng/kg	48.2	218	- -	6.7	1.8 J	0.99 J	1.2 J	8.0	20 J,DN2	28 P,DN2, EMPC	2.7 J	3.8 J, D	14 P, EMPC	11 P, EMPC	6.2 P, EMPC	<1.2
2,3,4,6,7,8-HxCDF	60851-34-5	ng/kg	48.2	218	- -	11 P, EMPC	2.7 J	1.2 J	1.6 J	6.5	16 J,DN2	30 DN2	2.4 J	3.9 J, D	6.2	7.7	5.2	<1.3
1,2,3,7,8,9-HxCDF	72918-21-9	ng/kg	48.2	218	- -	1.3 J	0.36 J	<0.12	<0.20	3.0 J	6.7 J,DN2	6.1 J,DN2	0.8 J	2.0 J, D, EMPC	2.9 J	<1.1	1.5 I, J, EMPC	<1.2
1,2,3,4,6,7,8-HpCDF	67562-39-4	ng/kg	482	2.18E+03	- -	120	30	17	26	150	250 DN2	380 DN2	46	37 D	99	40	45	3.2 J
1,2,3,4,7,8,9-HpCDF	55673-89-7	ng/kg	482	2.18E+03	- -	4.0 J	0.96 I,J, EMPC	0.81 J	1.0 J	9.4	14 J,DN2	20 J,DN2	2.3 J	2.3 I, J, D, EMPC	6.3	2.4 I, J, EMPC	2.4 J	<1.7
OCDF	39001-02-0	ng/kg	1.61E+04	7.27E+04	- -	190	36	19	42	320	490 DN2	620 DN2	71	49 I, J, D, EMPC	170	56	68	6.2 J
Total TCDF	- -	ng/kg	- -	- -	- -	69	23	7.9	6.6	58	99	140 E	21	<2.4 D	41	14	35	<0.44
Total PeCDF	- -	ng/kg	- -	- -	- -	120	36	0.38	18	180	480	760	50	130 D	260	120	190	2.6 J
Total HxCDF	- -	ng/kg	- -	- -	- -	150	37	24	27	200	430 DN2	1,200 DN2	87	110 D	280	120	210	<1.2
Total HpCDF	- -	ng/kg	- -	- -	- -	140	46	34	59	380	610 DN2	1,100 DN2	100	91 D	250	90	110	3.2 J
Individual Exceedances (DC)			1	1	- -	0	0	0	0	1	3	4	0	0	0	0	0	0
Cumulative Hazard Index (DC)			1.0	1.0	- -	0.2495	0.0676	0.0352	0.0493	0.3379	0.713	1.0547	0.1096	0.0596	0.2933	0.1112	0.1333	0.0012
Cumulative Cancer Risk (DC)			1.0E-05	1.0E-05	- -	3.2E-06	8.7E-07	4.6E-07	6.7E-07	4.5E-06	9.0E-06	1.3E-05	1.4E-06	8.0E-07	3.8E-06	1.4E-06	1.5E-06	3.0E-08
Total 2,3,7,8-TCDD Equivalence[1]	- -	ng/kg	- -	- -	- -	15	4.2	2.4	3.3	22	44	62	7.0	3.9	19	6.7	7.5	0.15

Notes:
NR 720 Standards Obtained From WDNR RR Program's Soil RCL Spreadsheet
This site is assessed as Non-Industrial
RCL = Residual Contaminant Level
DC = Direct Contact
ng/kg = Parts Per Trillion (ppt)
< = Concentration Below Laboratory Detection Limit
- = Not Sampled/Collected
- - = No Standard/Not Applicable
TEQ = Toxicity Eqivalent Calculations
[1] = TEQ values calculated using the U.S. EPA 2007 values.
^ = Excavated during redevelopment
* = Area of sample removed during redevelopment or remedial excavation.
^ = WDNR has determine the City of Wausau is not responsible for contamination beyond park property boundares (April 24, 2024).

TCDD: Tetrachlorodibenzo-p-dioxin
PeCDD: Pentachlorodibenzo-p-dioxin
HxCDD: Hexachlorodibenzo-p-dioxin
HPCDD: Heptachlorodibenzo-p-dioxin
OCDD: Octachlorodibenzo-p-dioxin
TCDF: Tetrachlorodibenzofuran
PeCDF: Pentachlorodibenzofuran
HxCDF: Hexachlorodibenzofuran
HPCDF: Heptachlorodibenzofuran
OCDF: Octachlorodibenzofuran

Laboratory Qualifiers and Notes:
J = Estimated Value
EMPC = Estimated Maximum Possible Concentration
P = PCDE Interference
I = Interference Present
V = Results verified by confimation analysis
C = Results obtained from confirmation analysis
D = Results obtained from analysis of diluted sample
DN2 = Results obtained from diluted sample
E = Exceeds calibration Range
B = Less than 10x higher than method blank level
Results reported on a dry weight basis and are valid to no more than 2 significant figures

Italic	= Exceeds NR720 Groundwater Pathway Protection
Bold	= Exceeds NR720 Non-Industrial Not-To-Exceed DC RCL
Underlined	= Exceeds NR720 Industrial Not-To-Exceed DC RCL

Table 2c
Soil Analytical Results - NR720 Soil Standards
City of Wausau - Riverside Railroad Corridor
132 River Street
Wausau, WI 54401
BRRTS# 02-37-584785

REI CIVIL & ENVIRONMENTAL ENGINEERING, SURVEYING

Collected By-->						Arcadis						
Date-->						*9/26/2020*	*9/26/2020*	*9/26/2020*	*9/26/2020*	*9/26/2020*	*9/30/2020*	*9/30/2020*
Sample-->						*SB-01 (0-4)*	*SB-01 (28-31)*	*Dup-01*	*SB-03 (0-4)*	*SB-03 (24-27.5)*	*SB-05 (0-4)*	*SB-05 (29-31.5)*
Sample Depth--(Inches)-->						*0-4*	*28-31*	*28-31*	*0-4*	*24-27.5*	*0-4*	*29-31.5*
Percent Moisture (%)-->												
Saturated (S) vs Unsaturated (U)-->						*U*	*U*	*U*	*U*	*U*	*U*	*U*
Dioxin Congeners	CAS Number	Units	Non-Industrial Not-to-Exceed DC RCL	Industrial Not-to-Exceed DC RCL	Groundwater Pathway Protection RCL							
2,3,7,8-TCDD	1746-01-6	ng/kg	4.82	21.8	30.0	<0.21	<0.15	<0.15	<0.18	<0.13	0.35 [J, EMPC]	<0.038
1,2,3,7,8-PeCDD	40321-76-4	ng/kg	4.82	21.8	- -	<0.15	<0.0097	<0.11	<0.14	<0.10	0.99 [J, EMPC]	<0.047
1,2,3,4,7,8-HxCDD	39227-28-6	ng/kg	48.2	218	- -	0.85 [J, B]	0.27 [J, B]	0.29 [J, B, EMPC]	0.46 [J, B]	<0.033	2.7 [J]	0.20 [J, EMPC]
1,2,3,6,7,8-HxCDD	57653-85-7	ng/kg	48.2	218	- -	1.4 [J]	<0.034	0.18 [J, EMPC]	1.9 [J, B]	<0.042	9.3	<0.048
1,2,3,7,8,9-HxCDD	19408-74-3	ng/kg	48.2	218	- -	0.91 [J, B]	<0.028	<0.030	0.87 [J, B]	0.082 [J, B]	5.2 [J]	<0.044
1,2,3,4,6,7,8-HpCDD	35822-46-9	ng/kg	482	2.18E+03	- -	21 [B]	0.46 [J, B]	0.95 [J, B, EMPC]	67 [B]	3.5 [J, B]	230 [B]	0.11 [J, B]
OCDD	3268-87-9	ng/kg	1.61E+04	7.27E+04	- -	130 [B]	2.7 [J, B]	6.7 [J, B, EMPC]	850 [B]	41 [B]	1,800 [B]	1.3 [J, B]
Total TCDD	- -	ng/kg	- -	- -	- -	2.2	<0.15	<0.15	<0.18	<0.13	13 [EMPC]	<0.038
Total PeCDD	- -	ng/kg	- -	- -	- -	<0.26	<0.0097	<0.11	<0.14	<0.10	21 [EMPC]	<0.047
Total HxCDD	- -	ng/kg	- -	- -	- -	7.2 [B]	0.27 [J, B]	0.46 [J, B, EMPC]	12 [B, EMPC]	0.43 [J, B, EMPC]	68	0.20 [J, EMPC]
Total HpCDD	- -	ng/kg	- -	- -	- -	40 [B]	0.98 [J, B]	2.1 [J, B, EMPC]	360 [B]	21 [B]	560 [B]	0.28 [J, B, EMPC]
Furan Congeners												
2,3,7,8-TCDF	51207-31-9	ng/kg	48.2	218	- -	0.6 [J]	<0.071	<0.084	<0.11	<0.063	0.78 [J, B]	0.066 [J, B]
1,2,3,7,8-PeCDF	57117-41-6	ng/kg	161	727	- -	<0.18	<0.049	<0.060	<0.094	<0.050	<0.58	0.072 [J, EMPC]
2,3,4,7,8-PeCDF	57117-31-4	ng/kg	16.1	72.7	- -	0.52 [J, EMPC]	<0.053	<0.071	<0.10	<0.059	1.6 [J]	<0.038
1,2,3,4,7,8-HxCDF	70648-26-9	ng/kg	48.2	218	- -	0.85 [J]	<0.041	0.2 [J]	0.32 [J, EMPC]	<0.055	4.4 [J]	<0.070
1,2,3,6,7,8-HxCDF	57117-44-9	ng/kg	48.2	218	- -	0.89 [J]	<0.036	0.23 [J, EMPC]	0.33 [J]	<0.049	3.7 [J]	<0.062
2,3,4,6,7,8-HxCDF	60851-34-5	ng/kg	48.2	218	- -	0.82 [J, EMPC]	<0.030	0.20 [J]	0.33 [J]	<0.041	3.0 [J]	<0.037
1,2,3,7,8,9-HxCDF	72918-21-9	ng/kg	48.2	218	- -	0.44 [J]	<0.028	0.29 [J]	<0.13	<0.042	<0.41	0.049 [J]
1,2,3,4,6,7,8-HpCDF	67562-39-4	ng/kg	482	2.18E+03	- -	6.5 [B]	0.18 [J, B, EMPC]	0.43 [J, B]	8.2 [B]	0.39 [J, B, EMPC]	69 [B]	0.18 [J, B, EMPC]
1,2,3,4,7,8,9-HpCDF	55673-89-7	ng/kg	482	2.18E+03	- -	0.71 [J, B, EMPC]	<0.022	0.21 [J, B, EMPC]	0.66 [J, B]	<0.030	3.1 [J]	<0.035
OCDF	39001-02-0	ng/kg	1.61E+04	7.27E+04	- -	13 [B]	0.79 [J, B]	1.1 [J, B]	40 [B]	1.8 [J, B, EMPC]	140 [B]	0.52 [J, B, EMPC]
Total TCDF	- -	ng/kg	- -	- -	- -	5.3 [EMPC]	<0.071	<0.084	<0.11	<0.068	23 [EMPC]	0.11 [J, B, EMPC]
Total PeCDF	- -	ng/kg	- -	- -	- -	17 [EMPC]	<0.053	<0.21	1.0 [J, EMPC]	<0.17	69	0.16 [J, EMPC]
Total HxCDF	- -	ng/kg	- -	- -	- -	16 [EMPC]	<0.041	0.91 [J, EMPC]	7.9 [EMPC]	0.21 [J, EMPC]	96	<0.051
Total HpCDF	- -	ng/kg	- -	- -	- -	17 [B, EMPC]	0.32 [J, B, EMPC]	0.98 [J, B, EMPC]	31 [B]	1.3 [J, B, EMPC]	180 [B]	0.18 [J, B, EMPC]
Individual Exceedances (DC)			1	1	- -	-	-	-	-	-	-	-
Cumulative Hazard Index (DC)			1.0	1.0	- -	-	-	-	-	-	-	-
Cumulative Cancer Risk (DC)			1.0E-05	1.0E-05	- -	-	-	-	-	-	-	-
Total 2,3,7,8-TCDD Equivalence[1]	- -	ng/kg	- -	- -	- -	1.2	0.034	0.16	1.4	0.060	8.3	0.037

Notes:
NR 720 Standards Obtained From WDNR RR Program's Soil RCL Spreadsheet
This site is assessed as Non-Industrial
RCL = Residual Contaminant Level
DC = Direct Contact
ng/kg = Parts Per Trillion (ppt)
< = Concentration Below Laboratory Detection Limit
- = Not Sampled/Collected
- - = No Standard/Not Applicable
TEQ = Toxicity Eqivalent Calculations
[1] = TEQ values calculated using the U.S. EPA 2007 values.
* = Area of sample removed during remedial excavation.

TCDD: Tetrachlorodibenzo-p-dioxin
PeCDD: Pentachlorodibenzo-p-dioxin
HxCDD: Hexachlorodibenzo-p-dioxin
HPCDD: Heptachlorodibenzo-p-dioxin
OCDD: Octachlorodibenzo-p-dioxin
TCDF: Tetrachlorodibenzofuran
PeCDF: Pentachlorodibenzofuran
HxCDF: Hexachlorodibenzofuran
HPCDF: Heptachlorodibenzofuran
OCDF: Octachlorodibenzofuran

Laboratory Qualifiers and Notes:
[J] = Estimated Value
[EMPC] = Estimated Maximum Possible Concentration
[B] = Compound was found in the blank and sample.
[2] = Lab report containd two (2) separate identical results
[3] = Lab report containd two (2) separate results with one result = 0.0050 mg/kg and the seond = 0.0052 mg/kg.
Results reported on a dry weight basis and are valid to no more than 2 significant figures

^ = WDNR has determine the City of Wausau is not responsible for contamination beyond park property boundares (April 24, 2024).

Italic	= Exceeds NR720 Groundwater Pathway Protection
Bold	= Exceeds NR720 Non-Industrial Not-To-Exceed DC RCL
Underlined	= Exceeds NR720 Non-Industrial Not-To-Exceed DC RCL

Table 2d
Soil Analytical Results - NR720 Soil Standards
City of Wausau - Riverside Railroad Corridor
132 River Street
Wausau, WI 54401
BRRTS# 02-37-584785

REI CIVIL & ENVIRONMENTAL ENGINEERING, SURVEYING

					Collected By-->	REI Engineering, Inc.												
					Date-->	*4/23/2020*	*9/14/2020*	*4/23/2020*	*9/14/2020*	*4/23/2020*	*4/23/2020*	*4/23/2020*	*4/23/2020*	*4/23/2020*	*4/23/2020*	*4/23/2020*	*4/23/2020*	*5/12/2021*
					Sample-->	*R1**	*R1**	*R2*	*R2*	*R3*	*R4*	*R5*	*R6*	*R7*	*R8**	*R9**	*R10**	*R11*
					Sample Depth--(Inches)-->	*3-5*	*10-12*	*4-6*	*10-12*	*3-6*	*3-5*	*6-9*	*6-8*	*11-13*	*2-4*	*4-5*	*5-6*	*10-12*
					Percent Moisture (%)-->	*28.6*	*12.9*	*22.4*	*15.4*	*16.7*	*18.8*	*13.3*	*8.6*	*8.1*	*11.3*	*3.9*	*8.3*	*10.4*
					Saturated (S) vs Unsaturated (U)-->	*U*	*U*	*U*	*U*	*U*	*U*	*U*	*U*	*U*	*U*	*U*	*U*	*U*
Dioxin Congeners	CAS Number	Units	Non-Industrial Not-to-Exceed DC RCL	Industrial Not-to-Exceed DC RCL	Groundwater Pathway Protection RCL													
2,3,7,8-TCDD	1746-01-6	ng/kg	4.82	21.8	30.0	1.1 J	<0.67	0.55 J	<0.39	<0.24	<0.18	<0.34	<0.52	<0.20	<0.17	<0.15	<0.22	<0.43
1,2,3,7,8-PeCDD	40321-76-4	ng/kg	4.82	21.8	- -	5.2 J	1.9 J	2.8 J	1.0 I, J, EMPC	0.55 I, J, EMPC	1.2 J	0.84 J	0.73 J	<0.10	<0.094	<0.097	0.24 I, J, EMPC	0.87 J
1,2,3,4,7,8-HxCDD	39227-28-6	ng/kg	48.2	218	- -	12	5.1 J	5.1 J	3.3 J	0.39 I, J, EMPC	1.7 J	0.89 I, J, EMPC	0.59 I, J, EMPC	<0.25	<0.22	<0.19	0.61 J	8.5
1,2,3,6,7,8-HxCDD	57653-85-7	ng/kg	48.2	218	- -	39	16	22	11	1.6 I, J, EMPC	6.0	3.5 J	2.6 J	<0.25	<0.17	0.29 J	1.5 J	2.3 J
1,2,3,7,8,9-HxCDD	19408-74-3	ng/kg	48.2	218	- -	24	8.5	10	5.2 I, J, EMPC	1.2 I, J, EMPC	3.6 J	1.9 J	1.2 J	<0.26	0.16 I, J, EMPC	<0.17	1.2 J	8.0
1,2,3,4,6,7,8-HpCDD	35822-46-9	ng/kg	482	2.18E+03	- -	960	310	400	200	37	0.64 J	78	57	5.8	1.3 J	5.3	33	4.0 J
OCDD	3268-87-9	ng/kg	1.61E+04	7.27E+04	- -	7,400	2,600	3,000	1,400	270	850	660	510	44	49	35	280	150
Total TCDD	- -	ng/kg	- -	- -	- -	22	7.5	9.3	4.1	1.2	6.3	<0.34	<0.52	<0.20	<0.17	<0.15	<0.22	1,300
Total PeCDD	- -	ng/kg	- -	- -	- -	58	20	29	5.9	2.4 J	11	<4.3	3.1 J	<0.10	<0.094	0.16 J	0.72 J	3.8
Total HxCDD	- -	ng/kg	- -	- -	- -	350	140	160	60	16	51	28	15.0	2.4 J	1.3 J	2.7 J	14	8.5
Total HpCDD	- -	ng/kg	- -	- -	- -	1,900	610	760	410	77	230	160	130	11	12	10	63	56
Furan Congeners																		
2,3,7,8-TCDF	51207-31-9	ng/kg	48.2	218	- -	4.0 V	1.8 C	2.5 V	1.5 V	0.66 J	0.80 I, J, EMPC	<0.34	<0.48	<0.17	<0.26	<0.18	0.18 I, J, EMPC	1.1 C
1,2,3,7,8-PeCDF	57117-41-6	ng/kg	161	727	- -	4.7 J	1.9 J	3.2 J	<1.0	0.49 J	0.94 J	0.57 J	<0.022	<0.14	<0.047	<0.16	0.17 I, J, EMPC	1.0 J
2,3,4,7,8-PeCDF	57117-31-4	ng/kg	16.1	72.7	- -	12	5.0 J	15	4.8 J	1.3 J	2.4 J	5.7	9.2	0.14 I, J, EMPC	0.24 J	0.56 J	0.81 J	13
1,2,3,4,7,8-HxCDF	70648-26-9	ng/kg	48.2	218	- -	19	9.8 P, EMPC	24 P, EMPC	4.1 J	1.2 J	2.8 J	1.2 J	1.7 J	<0.28	<0.28	0.20 J	0.52 J	3.9 J
1,2,3,6,7,8-HxCDF	57117-44-9	ng/kg	48.2	218	- -	22	6.7	7.9	3.8 J	1.4 I, J, EMPC	4.8 P, EMPC	2.0 J	1.8 J	<0.18	0.85 J	0.90 P, J, EMPC	1.2 P, J, EMPC	5.2
2,3,4,6,7,8-HxCDF	60851-34-5	ng/kg	48.2	218	- -	23	7.5	15	6.8	1.5 J	3.6 J	4.8	1.9 J	<0.27	0.28 J	0.43 J	0.93 J	8.5
1,2,3,7,8,9-HxCDF	72918-21-9	ng/kg	48.2	218	- -	5.5 J	1.7 I, J, EMPC	3.1 J	<0.90	<0.46	0.64 J	0.67 I, J, EMPC	<0.17	<0.23	<0.20	<0.14	0.22 I, J, EMPC	1.6 J, P, EMPC
1,2,3,4,6,7,8-HpCDF	67562-39-4	ng/kg	482	2.18E+03	- -	340	120	140	65	14	40	28	17	2.2 J	1.8 J	1.9 J	8.6	61
1,2,3,4,7,8,9-HpCDF	55673-89-7	ng/kg	482	2.18E+03	- -	17	6.8	7.6	2.7 I, J, EMPC	<0.50	2.0 J	1.3 J	1.2 J	<0.22	<0.15	<0.14	0.46 J	4.0 J
OCDF	39001-02-0	ng/kg	1.61E+04	7.27E+04	- -	450	170	180	110	16	56	39	32	3.0 J	2.5 I, J, EMPC	2.4 J	19	92
Total TCDF	- -	ng/kg	- -	- -	- -	110	50	72	15	5.8	22	9.6	7.8	0.31 J	0.49 J	2.4	3.0	27
Total PeCDF	- -	ng/kg	- -	- -	- -	230	120	240	97	17	41	81	86	1.9 J	2.2 J	9.2	13	140
Total HxCDF	- -	ng/kg	- -	- -	- -	520	210	290	130	22	60	86	39	3.1 J	3.7 J	6.9	14	290
Total HpCDF	- -	ng/kg	- -	- -	- -	750	230	310	150	30	87	74	44	2.4 J	1.8 J	1.9 J	20	170
Individual Exceedances (DC)			1	1	- -	2	0	0	0	0	0	0	0	0	0	0	0	0
Cumulative Hazard Index (DC)			1.0	1.0	- -	0.6165	0.2248	0.3381	0.1425	0.0392	0.0986	0.0905	0.0951	0.0016	0.0046	0.0075	0.026	0.1848
Cumulative Cancer Risk (DC)			1.0E-05	1.0E-05	- -	8.3E-06	2.9E-06	4.3E-06	1.9E-06	4.8E-07	1.0E-06	1.1E-06	1.1E-06	2.8E-08	5.1E-08	8.9E-08	3.3E-07	1.9E-06
Total 2,3,7,8-TCDD Equivalence[1]	- -	ng/kg	- -	- -	- -	40	14	23	9.1	2.3	5.0	5.3	5.4	0.14	0.25	0.43	1.6	9.5

Notes:
NR 720 Standards Obtained From WDNR RR Program's Soil RCL Spreadsheet
This site is assessed as Non-Industrial
RCL = Residual Contaminant Level
DC = Direct Contact
ng/kg = Parts Per Trillion (ppt)
< = Concentration Below Laboratory Detection Limit
- = Not Sampled/Collected
- - = No Standard/Not Applicable
TEQ = Toxicity Eqivalent Calculations
[1] = TEQ values calculated using the U.S. EPA 2007 values.
^ = Excavated during redevelopment
* = Area of sample removed during redevelopment.
^ = WDNR has determine the City of Wausau is not responsible for contamination beyond park property boundaries (April 24, 2024).

TCDD: Tetrachlorodibenzo-p-dioxin
PeCDD: Pentachlorodibenzo-p-dioxin
HxCDD: Hexachlorodibenzo-p-dioxin
HPCDD: Heptachlorodibenzo-p-dioxin
OCDD: Octachlorodibenzo-p-dioxin
TCDF: Tetrachlorodibenzofuran
PeCDF: Pentachlorodibenzofuran
HxCDF: Hexachlorodibenzofuran
HPCDF: Heptachlorodibenzofuran
OCDF: Octachlorodibenzofuran

Laboratory Qualifiers and Notes:
J = Estimated Value
EMPC = Estimated Maximum Possible Concentration
P = PCDE Interference
I = Interference Present
V = Results verified by confimation analysis
C = Results obtained from confirmation analysis
D = Results obtained from analysis of diluted sample
E = Exceeds calibration Range
Results reported on a dry weight basis and are valid to no more than 2 significant figures

Italic	= Exceeds NR720 Groundwater Pathway Protection
Bold	= Exceeds NR720 Non-Industrial Not-To-Exceed DC RCL
Underlined	= Exceeds NR720 Non-Industrial Not-To-Exceed DC RCL

Table 2e
Soil Analytical Results - NR720 Soil Standards
City of Wausau - Riverside Park
132 River Street
Wausau, WI 54401
BRRTS# 02-37-584785

					Collected By-->	REI Engineering, Inc.										
					Date-->	*4/23/2020*	*4/23/2020*	*5/12/2021*	*4/23/2020*	*4/23/2020*	*4/23/2020*	*4/23/2020*	*4/23/2020*	*4/23/2020*	*4/23/2020*	*4/23/2020*
					Sample-->	*P1 **	*P1 **	*P1 **	*P2*	*P2*	*P3*	*P3*	*P4*	*P4*	*P5*	*P5*
					Sample Depth--(Inches)-->	*2-3*	*7-9*	*22-24*	*2-3*	*10-12*	*2-3*	*12-14*	*2-3*	*9-11*	*2-3*	*11-13*
					Percent Moisture (%)-->	*45.0*	*24.7*	*12.7*	*20.7*	*19.5*	*19.0*	*12.0*	*17.8*	*12.9*	*19.9*	*16.8*
					Saturated (S) vs Unsaturated (U)-->	*U*	*U*	*U*	*U*	*U*	*U*	*U*	*U*	*U*	*U*	*U*
Dioxin Congeners	CAS Number	Units	Non-Industrial Not-to-Exceed DC RCL	Industrial Not-to-Exceed DC RCL	Groundwater Pathway Protection RCL											
2,3,7,8-TCDD	1746-01-6	ng/kg	4.82	21.8	30.0	0.35 [J]	0.71 [J]	<3.9 [D]	<0.30	<0.13	<0.24	<0.74	<0.96	<0.54	<0.76	<0.91
1,2,3,7,8-PeCDD	40321-76-4	ng/kg	4.82	21.8	- -	3.0 [I, J, EMPC]	6.1	3.0 [J, D]	0.43 [J]	<0.15	0.25 [J]	0.42 [I, J, EMPC]	<0.56	<0.53	0.74 [I, J, EMPC]	<0.79
1,2,3,4,7,8-HxCDD	39227-28-6	ng/kg	48.2	218	- -	6.0 [J]	14	10 [J, D]	0.58 [I, J, EMPC]	<0.21	0.61 [J]	0.77 [I, J, EMPC]	1.8 [I, J, EMPC]	0.57 [I, J, EMPC]	1.8 [J]	<0.39
1,2,3,6,7,8-HxCDD	57653-85-7	ng/kg	48.2	218	- -	23	57	50 [D]	2.6 [J]	0.4 [J]	1.4 [J]	1.4 [J]	3.9 [J]	1.9 [J]	4.4 [J]	0.64 [J]
1,2,3,7,8,9-HxCDD	19408-74-3	ng/kg	48.2	218	- -	13	30	26 [D]	1.6 [I, J, EMPC]	0.35 [I, J, EMPC]	0.67 [I, J, EMPC]	0.76 [J]	3.0 [J]	0.82 [I, J, EMPC]	2.6 [I, J, EMPC]	<0.64
1,2,3,4,6,7,8-HpCDD	35822-46-9	ng/kg	482	2.18E+03	- -	520	1,200	900 [D]	55	4.8 [J]	27	28	110	39	110	17
OCDD	3268-87-9	ng/kg	1.61E+04	7.27E+04	- -	4,000	9,600	6,600 [D]	370	67	170	220	890	310	840	130
Total TCDD	- -	ng/kg	- -	- -	- -	4.0	9.6	<3.9 [D]	1.7	0.82 [J]	<0.24	<0.74	<0.96	<0.54	2.3	1.1
Total PeCDD	- -	ng/kg	- -	- -	- -	18	53	26 [D]	5.3 [J]	<0.15	1.8 [J]	0.82	3.6 [J]	<0.43	6.6	<0.79
Total HxCDD	- -	ng/kg	- -	- -	- -	200	430	330 [D]	22	4.8 [J]	9.1	7.2	37	12	43	5.9
Total HpCDD	- -	ng/kg	- -	- -	- -	1,100	2,500	1,800 [D]	110	19	52	54	200	73	200	31
Furan Congeners																
2,3,7,8-TCDF	51207-31-9	ng/kg	48.2	218	- -	1.6 [J]	2.6 [V]	<4.6 [D]	0.47 [J]	<0.21	0.26 [I, J, EMPC]	<0.64	<0.74	<0.77	<0.96	<0.66
1,2,3,7,8-PeCDF	57117-41-6	ng/kg	161	727	- -	3.1 [J]	6.1	<1.1 [D]	0.40 [I, J, EMPC]	<0.26	<0.48	<0.61	<1.2	<0.59	<1.1	<1.1
2,3,4,7,8-PeCDF	57117-31-4	ng/kg	16	73	- -	26	34	22 [J, D]	1.1 [J]	<0.22	0.61 [J]	2.2 [J]	2.3 [I, J, EMPC]	0.89 [J]	1.8 [I, J, EMPC]	0.55 [I, J, EMPC]
1,2,3,4,7,8-HxCDF	70648-26-9	ng/kg	48.2	218	- -	9.3	15	16 [J, D]	1.4 [J]	<0.30	0.83 [J]	0.73 [J]	2.3 [I, J, EMPC]	1.6 [P, J, EMPC]	2.4 [I, J, EMPC]	<0.41
1,2,3,6,7,8-HxCDF	57117-44-9	ng/kg	48.2	218	- -	10	21	16 [J, D]	2.1 [P, J, EMPC]	0.55 [J]	1.3 [I, J, EMPC]	0.81 [I, J, EMPC]	2.4 [J]	0.86 [J]	1.7 [J]	<0.45
2,3,4,6,7,8-HxCDF	60851-34-5	ng/kg	48.2	218	- -	25	39	14 [J, D]	1.7 [J]	0.22 [I, J, EMPC]	0.67 [I, J, EMPC]	1.6 [I, J, EMPC]	3.0 [J]	0.65 [J]	2.7 [J]	<0.45
1,2,3,7,8,9-HxCDF	72918-21-9	ng/kg	48.2	218	- -	4.5 [J]	6.9	<1.5 [D]	<0.56	<0.24	<0.33	<0.33	<0.16	<0.14	<0.40	<0.43
1,2,3,4,6,7,8-HpCDF	67562-39-4	ng/kg	482	2.18E+03	- -	140	340	250 [D]	16	3.9 [J]	11	8.1	41	16	54 [P, EMPC]	9.5 [P, EMPC]
1,2,3,4,7,8,9-HpCDF	55673-89-7	ng/kg	482	2.18E+03	- -	9.7	21	14 [J, D]	0.78 [I, J, EMPC]	<0.60	<0.87	<0.51	1.4 [J]	<0.27	<0.72	<0.98
OCDF	39001-02-0	ng/kg	1.61E+04	7.27E+04	- -	240	540	400 [D]	26	4.1 [I, J, EMPC]	12	13	55	20	59	12
Total TCDF	- -	ng/kg	- -	- -	- -	81	110	74 [D]	6.2	0.48	2.6	1.8	13	1.6	8.9	<0.66
Total PeCDF	- -	ng/kg	- -	- -	- -	440	610	280 [D]	17	2.9	9.7	25	31	12	26	3.6 [J]
Total HxCDF	- -	ng/kg	- -	- -	- -	440	830	550 [D]	25	5.7	15	24	40	17	45	3.0 [J]
Total HpCDF	- -	ng/kg	- -	- -	- -	380	840	620 [D]	35	7.8	20	18	83	31	46	8.3
Individual Exceedances (DC)			1	1	- -	2	4	3	0	0	0	0	0	0	0	0
Cumulative Hazard Index (DC)			1.0	1.0	- -	0.4623	0.8467	0.5517	0.0489	0.0042	0.0233	0.0364	0.061	0.0234	0.0709	0.0074
Cumulative Cancer Risk (DC)			1.0E-05	1.0E-05	- -	5.8E-06	1.1E-05	7.5E-06	6.1E-07	5.3E-08	2.9E-07	4.3E-07	8.5E-07	3.2E-07	9.5E-07	1.1E-07
Total 2,3,7,8-TCDD Equivalence[1]	- -	ng/kg	- -	- -	- -	28	54	37	2.7	0.26	1.4	2.1	4.1	1.6	4.7	0.54

Notes:
NR 720 Standards Obtained From WDNR RR Program's Soil RCL Spreadsheet
This site is assessed as Non-Industrial
RCL = Residual Contaminant Level
DC = Direct Contact
ng/kg = Parts Per Trillion (ppt)
< = Concentration Below Laboratory Detection Limit
- = Not Sampled/Collected
- - = No Standard/Not Applicable
TEQ = Toxicity Eqivalent Calculations
[1] = TEQ values calculated using the U.S. EPA 2007 values.
* = Area of sample removed during remedial excavation.

TCDD: Tetrachlorodibenzo-p-dioxin
PeCDD: Pentachlorodibenzo-p-dioxin
HxCDD: Hexachlorodibenzo-p-dioxin
HPCDD: Heptachlorodibenzo-p-dioxin
OCDD: Octachlorodibenzo-p-dioxin
TCDF: Tetrachlorodibenzofuran
PeCDF: Pentachlorodibenzofuran
HxCDF: Hexachlorodibenzofuran
HPCDF: Heptachlorodibenzofuran
OCDF: Octachlorodibenzofuran

Laboratory Qualifiers and Notes:
[J] = Estimated Value
[EMPC] = Estimated Maximum Possible Concentration
[P] = PCDE Interference
[I] = Interference Present
[V] = Results verified by confimation analysis
[C] = Results obtained from confirmation analysis
[D] = Results obtained from analysis of diluted sample
[E] = Exceeds calibration Range
Results reported on a dry weight basis and are valid to no more than 2 significant figures

^ = WDNR has determine the City of Wausau is not responsible for contamination beyond park property boundares (April 24, 2024).

Italic	= Exceeds NR720 Groundwater Pathway Protection
Bold	= Exceeds NR720 Non-Industrial Not-To-Exceed DC RCL
Underlined	= Exceeds NR720 Non-Industrial Not-To-Exceed DC RCL

Table 2f
Soil Analytical Results - NR720 Soil Standards
City of Wausau - Riverside Park
132 River Street
Wausau, WI 54401
BRRTS# 02-37-584785

					Collected By-->	REI Engineering, Inc.									
					Date-->	*9/14/2020*	*9/14/2020*	*9/14/2020*	*9/14/2020*	*9/14/2020*	*9/14/2020*	*9/14/2020*	*9/14/2020*	*9/14/2020*	*9/14/2020*
					Sample-->	*P6**	*P6*	*P7**	*P7*	*P8**	*P8**	*P9**	*P9*	*P10**	*P10**
					Sample Depth--(Inches)-->	*2-3*	*10-12*	*2-3*	*10-12*	*2-3*	*10-12*	*2-3*	*10-12*	*2-3*	*10-12*
					Percent Moisture (%)-->	*17.2*	*6.4*	*15.9*	*9.5*	*11.9*	*17.3*	*17.4*	*9.7*	*15.9*	*14.1*
					Saturated (S) vs Unsaturated (U)-->	*U*	*U*	*U*	*U*	*U*	*U*	*U*	*U*	*U*	*U*
Dioxin Congeners	CAS Number	Units	Non-Industrial Not-to-Exceed DC RCL	Industrial Not-to-Exceed DC RCL	Groundwater Pathway Protection RCL										
2,3,7,8-TCDD	1746-01-6	ng/kg	4.82	21.8	30.0	0.32 [I, J, EMPC]	<0.27	0.97 [J]	<0.27	0.69 [J]	0.61 [J]	<0.26	0.27 [J]	0.41 [J]	<0.38
1,2,3,7,8-PeCDD	40321-76-4	ng/kg	4.82	21.8	- -	3.2 [J]	0.33 [J]	3.8 [J]	0.62 [J]	6.4	6.6	3.3 [J]	0.68 [J]	5.9	2.7 [J]
1,2,3,4,7,8-HxCDD	39227-28-6	ng/kg	48.2	218	- -	7.9	<0.96	9.4	1.5 [J]	17	16	6.7	2.1 [J]	12	5.1 [J]
1,2,3,6,7,8-HxCDD	57653-85-7	ng/kg	48.2	218	- -	24	2.0 [J]	35	5.7	69	51	28	6.5	48	15
1,2,3,7,8,9-HxCDD	19408-74-3	ng/kg	48.2	218	- -	13	1.4 [J]	19	3.2 [J]	29	25	12	3.8 [J]	22	8.5
1,2,3,4,6,7,8-HpCDD	35822-46-9	ng/kg	482	2.18E+03	- -	530	36	1,200	190	1,200	1,000	550	150	900	290
OCDD	3268-87-9	ng/kg	1.61E+04	7.27E+04	- -	4,600	290	11,000 [E]	1,700	10,000 [E]	8,100	4,400	1,100	7,600	2,300
Total TCDD	- -	ng/kg	- -	- -	- -	8.1	0.61 [J]	20	5.2	18	9.5	16	3.5	10	3.6
Total PeCDD	- -	ng/kg	- -	- -	- -	24	0.33 [J]	45	8.9	49	50	44	6.6	44	22
Total HxCDD	- -	ng/kg	- -	- -	- -	180	1.6	330	52	480	390	250	5.7	350	130
Total HpCDD	- -	ng/kg	- -	- -	- -	1,000	66	2,400	360	2,300	1,900	1,100	280	1,800	560
Furan Congeners															
2,3,7,8-TCDF	51207-31-9	ng/kg	48.2	218	- -	1.9 [V]	<0.44	3.7 [C]	0.86 [I, J, EMPC]	4.1 [C]	5.7 [C]	3.3 [V]	0.76 [J]	4.3 [C]	2.1 [C]
1,2,3,7,8-PeCDF	57117-41-6	ng/kg	161	727	- -	0.32 [I, J, EMPC]	<0.72	3.3 [J]	<1.1	4.7 [J]	5.9	3.4 [J]	0.88 [J]	4.5 [J]	2.7 [J]
2,3,4,7,8-PeCDF	57117-31-4	ng/kg	16.1	72.7	- -	17	1.9 [J]	8.9	2.0 [J]	32	66	8.5	2.3 [I, J, EMPC]	53	54
1,2,3,4,7,8-HxCDF	70648-26-9	ng/kg	48.2	218	- -	11	<0.86	11	2.3 [I, J, EMPC]	20	17	13	3.5 [J]	15	12
1,2,3,6,7,8-HxCDF	57117-44-9	ng/kg	48.2	218	- -	13	1.6 [P, J, EMPC]	8.7	2.5 [I, J, EMPC]	24	36	12	4.0 [P, J, EMPC]	24	37
2,3,4,6,7,8-HxCDF	60851-34-5	ng/kg	48.2	218	- -	10	<1.4	9.0	3.1 [J]	20	23	9.5	3.5 [J]	31	31
1,2,3,7,8,9-HxCDF	72918-21-9	ng/kg	48.2	218	- -	4.6 [J]	<0.69	3.7 [J]	0.67 [J]	8.3 [I, EMPC]	10	4.0 [J]	0.67 [I, J, EMPC]	8.4	6.8
1,2,3,4,6,7,8-HpCDF	67562-39-4	ng/kg	482	2.18E+03	- -	180	16	230	42	310	330	230	59	300	140
1,2,3,4,7,8,9-HpCDF	55673-89-7	ng/kg	482	2.18E+03	- -	12	<1.1	12	2.8 [J]	20	20	12	2.4 [J]	17	8.3
OCDF	39001-02-0	ng/kg	1.61E+04	7.27E+04	- -	400	26	640	100	550	530	390	95	460	170
Total TCDF	- -	ng/kg	- -	- -	- -	56	4.5	77	16	82	150	86	18	140	110
Total PeCDF	- -	ng/kg	- -	- -	- -	250	32	150	30	500	990	150	47	810	930
Total HxCDF	- -	ng/kg	- -	- -	- -	450	36	300	52	830	1,300	350	78	1,000	950
Total HpCDF	- -	ng/kg	- -	- -	- -	560	40	570	96	790	840	480	120	730	360
Individual Exceedances (DC)			1	1	- -	2	0	1	0	4	4	1	0	3	1
Cumulative Hazard Index (DC)			1.0	1.0	- -	0.4105	0.0329	0.4747	0.0847	0.8475	1.0253	0.3827	0.1023	0.882	0.6476
Cumulative Cancer Risk (DC)			1.0E-05	1.0E-05	- -	5.3E-06	4.1E-07	7.2E-06	1.2E-06	1.1E-05	1.3E-05	5.0E-06	1.4E-06	1.1E-05	7.3E-06
Total 2,3,7,8-TCDD Equivalence[1]	- -	ng/kg	- -	- -	- -	26	2.0	35	6.1	54	62	24	6.6	53	36

Notes:
NR 720 Standards Obtained From WDNR RR Program's Soil RCL Spreadsheet
This site is assessed as Non-Industrial
RCL = Residual Contaminant Level
DC = Direct Contact
ng/kg = Parts Per Trillion (ppt)
< = Concentration Below Laboratory Detection Limit
- = Not Sampled/Collected
- - = No Standard/Not Applicable
TEQ = Toxicity Eqivalent Calculations
[1] = TEQ values calculated using the U.S. EPA 2007 values.
* = Area of sample removed during remedial excavation.

TCDD: Tetrachlorodibenzo-p-dioxin
PeCDD: Pentachlorodibenzo-p-dioxin
HxCDD: Hexachlorodibenzo-p-dioxin
HPCDD: Heptachlorodibenzo-p-dioxin
OCDD: Octachlorodibenzo-p-dioxin
TCDF: Tetrachlorodibenzofuran
PeCDF: Pentachlorodibenzofuran
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HPCDF: Heptachlorodibenzofuran
OCDF: Octachlorodibenzofuran

Laboratory Qualifiers and Notes:
[J] = Estimated Value
[EMPC] = Estimated Maximum Possible Concentration
[P] = PCDE Interference
[I] = Interference Present
[V] = Results verified by confimation analysis
[C] = Results obtained from confirmation analysis
[D] = Results obtained from analysis of diluted sample
[E] = Exceeds calibration Range
Results reported on a dry weight basis and are valid to no more than 2 significant figures

^ = WDNR has determine the City of Wausau is not responsible for contamination beyond park property boundares (April 24, 2024).

Italic	= Exceeds NR720 Groundwater Pathway Protection
Bold	= Exceeds NR720 Non-Industrial Not-To-Exceed DC RCL
Underlined	= Exceeds NR720 Non-Industrial Not-To-Exceed DC RCL

Table 2g
Soil Analytical Results - NR720 Soil Standards
City of Wausau - Riverside Park
132 River Street
Wausau, WI 54401
BRRTS# 02-37-584785

					Collected By-->	REI Engineering, Inc.										
					Date-->	*9/14/2020*	*9/14/2020*	*5/12/2021*	*9/14/2020*	*9/14/2020*	*9/14/2020*	*9/14/2020*	*9/14/2020*	*9/14/2020*	*9/14/2020*	*9/14/2020*
					Sample-->	*P11**	*P11**	*P11**	*P12*	*P12*	*P13**	*P13*	*P14*	*P14*	*P15*	*P15*
					Sample Depth--(Inches)-->	*2-3*	*10-12*	*22-24*	*2-3*	*10-12*	*2-3*	*10-12*	*2-3*	*10-12*	*2-3*	*10-12*
					Percent Moisture (%)-->	*18.7*	*17.7*	*9.3*	*20.5*	*14.3*	*20.7*	*13.8*	*16.8*	*3.7*	*12.1*	*6.9*
					Saturated (S) vs Unsaturated (U)-->	*U*	*U*	*U*	*U*	*U*	*U*	*U*	*U*	*U*	*U*	*U*
Dioxin Congeners	CAS Number	Units	Non-Industrial Not-to-Exceed DC RCL	Industrial Not-to-Exceed DC RCL	Groundwater Pathway Protection RCL											
2,3,7,8-TCDD	1746-01-6	ng/kg	4.82	21.8	30.0	1.5	0.79 [I, J, EMPC]	<0.17	<0.51	<0.39	<0.56	<0.44	<0.70	<0.27	<0.39	<0.36
1,2,3,7,8-PeCDD	40321-76-4	ng/kg	4.82	21.8	- -	11	7.1	1.3 [J]	1.9 [J]	1.1 [J]	1.5 [J]	0.97 [J]	1.5 [J]	<0.30	1.7 [J]	2.5 [J]
1,2,3,4,7,8-HxCDD	39227-28-6	ng/kg	48.2	218	- -	24	15	1.5 [J]	3.5 [J]	1.9 [I, J, EMPC]	3.3 [I, J, EMPC]	2.1 [I, J, EMPC]	2.9 [J]	0.75 [J]	5.7	4.0 [I, J, EMPC]
1,2,3,6,7,8-HxCDD	57653-85-7	ng/kg	48.2	218	- -	100	52	8.7	13	7.4	22	13	13	3.7 [J]	16	18
1,2,3,7,8,9-HxCDD	19408-74-3	ng/kg	48.2	218	- -	45	25	3.8 [J]	6.7	4.8 [J]	10	6.9	5.9	1.6 [J]	9.7	9.4
1,2,3,4,6,7,8-HpCDD	35822-46-9	ng/kg	482	2.18E+03	- -	1,900	880	150	220	120	830	370	220	72	350	370
OCDD	3268-87-9	ng/kg	1.61E+04	7.27E+04	- -	18,000 [E]	7,500	1,100	1,700	920	3,900	2,100	1,800	530	2,500	3,100
Total TCDD	- -	ng/kg	- -	- -	- -	21	19	0.57 [J]	8.0	4.2	5.3	4.5	6.9	1.7	1.4	4.8
Total PeCDD	- -	ng/kg	- -	- -	- -	86	60	7.6	29	170	12	12	19	4.9	14	14
Total HxCDD	- -	ng/kg	- -	- -	- -	700	380	52	120	64	220	120	100	30	140	140
Total HpCDD	- -	ng/kg	- -	- -	- -	3,700	1,700	270	410	240	1,400	660	420	130	690	760
Furan Congeners																
2,3,7,8-TCDF	51207-31-9	ng/kg	48.2	218	- -	9.1 [C]	8.7 [C]	0.83 [J]	2.2 [C]	1.2 [C]	0.91 [I, J, EMPC]	1.3 [V]	1.7 [C]	<0.30	2.2 [C]	1.9 [V]
1,2,3,7,8-PeCDF	57117-41-6	ng/kg	161	727	- -	11	7.4	0.88 [J]	2.0 [I, J, EMPC]	<1.8	<1.6	<1.4	<1.3	<1.3	2.1 [J]	1.9 [I, J, EMPC]
2,3,4,7,8-PeCDF	57117-31-4	ng/kg	16.1	72.7	- -	110	130	15	14	10	10	8.1	4.1 [J]	1.7 [J]	5.4	6.0
1,2,3,4,7,8-HxCDF	70648-26-9	ng/kg	48.2	218	- -	22	17	3.1 [J]	6.6	2.6 [I, J, EMPC]	4.9 [J]	3.7 [J]	4.9 [J]	2.1 [J]	9.0	9.2
1,2,3,6,7,8-HxCDF	57117-44-9	ng/kg	48.2	218	- -	46	32	5.3	20 [P, EMPC]	13 [P, EMPC]	5.7 [J]	5.8	7.7 [P, EMPC]	2.3 [J]	9.3	6.9 [I, EMPC]
2,3,4,6,7,8-HxCDF	60851-34-5	ng/kg	48.2	218	- -	56	58	16	7.6	4.1 [J]	7.7	5.9	6.7	0.96 [I, J, EMPC]	5.5	7.3
1,2,3,7,8,9-HxCDF	72918-21-9	ng/kg	48.2	218	- -	18	16	2.0 [J]	2.5 [J]	<1.2	<1.5	0.97 [I, J, EMPC]	<1.4	<0.36	2.2 [J]	2.4 [J]
1,2,3,4,6,7,8-HpCDF	67562-39-4	ng/kg	482	2.18E+03	- -	540	340	47	95	50	110	89	100	30	120	140
1,2,3,4,7,8,9-HpCDF	55673-89-7	ng/kg	482	2.18E+03	- -	38	22	3.3 [J]	5.5 [J]	2.2 [I, J, EMPC]	5.5 [I, J, EMPC]	5.5 [J]	5.5 [J]	0.79 [I, J, EMPC]	6.5	8.4
OCDF	39001-02-0	ng/kg	1.61E+04	7.27E+04	- -	840	530	65	130	65	210	140	170	49	230	210
Total TCDF	- -	ng/kg	- -	- -	- -	280	290	33	72	39	34	38	32	7.7	26	27
Total PeCDF	- -	ng/kg	- -	- -	- -	1,400	1,500	220	230	160	150	150	87	28	100	92
Total HxCDF	- -	ng/kg	- -	- -	- -	2,100	2,000	130	260	170	230	200	130	42	220	210
Total HpCDF	- -	ng/kg	- -	- -	- -	1,300	890	130	200	100	280	210	220	66	300	310
Individual Exceedances (DC)			1	1	- -	7	5	0	0	0	1	0	0	0	0	0
Cumulative Hazard Index (DC)			1.0	1.0	- -	1.7746	1.4579	0.2136	0.2754	0.1665	0.253	0.181	0.196	0.0428	0.2285	0.2552
Cumulative Cancer Risk (DC)			1.0E-05	1.0E-05	- -	2.2E-05	1.7E-05	2.5E-06	3.3E-06	2.0E-06	4.2E-06	2.6E-06	2.5E-06	5.8E-07	3.1E-06	3.4E-06
Total 2,3,7,8-TCDD Equivalence[1]	- -	ng/kg	- -	- -	- -	108	84	12	16	9.6	21	13	11	2.9	15	16

Notes:
NR 720 Standards Obtained From WDNR RR Program's Soil RCL Spreadsheet
This site is assessed as Non-Industrial
RCL = Residual Contaminant Level
DC = Direct Contact
ng/kg = Parts Per Trillion (ppt)
< = Concentration Below Laboratory Detection Limit
- = Not Sampled/Collected
- - = No Standard/Not Applicable
TEQ = Toxicity Eqivalent Calculations
[1] = TEQ values calculated using the U.S. EPA 2007 values.
* = Area of sample removed during remedial excavation.

TCDD: Tetrachlorodibenzo-p-dioxin
PeCDD: Pentachlorodibenzo-p-dioxin
HxCDD: Hexachlorodibenzo-p-dioxin
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Laboratory Qualifiers and Notes:
[J] = Estimated Value
[EMPC] = Estimated Maximum Possible Concentration
[P] = PCDE Interference
[I] = Interference Present
[V] = Results verified by confimation analysis
[C] = Results obtained from confirmation analysis
[D] = Results obtained from analysis of diluted sample
[E] = Exceeds calibration Range
Results reported on a dry weight basis and are valid to no more than 2 significant figures

^ = WDNR has determine the City of Wausau is not responsible for contamination beyond park property boundaries (April 24, 2024).

Italic	= Exceeds NR720 Groundwater Pathway Protection
Bold	= Exceeds NR720 Non-Industrial Not-To-Exceed DC RCL
Underlined	= Exceeds NR720 Non-Industrial Not-To-Exceed DC RCL

Table 2h
Soil Analytical Results - NR720 Soil Standards
City of Wausau - Riverside Park
132 River Street
Wausau, WI 54401
BRRTS# 02-37-584785

Collected By-->						REI Engineering, Inc.									
Date-->						*9/14/2020*	*9/14/2020*	*5/12/2021*	*5/12/2021*	*5/12/2021*	*5/12/2021*	*5/12/2021*	*5/12/2021*	*5/12/2021*	*5/11/2021*
Sample-->						*P16*	*P16*	*P17**	*P17**	*P18**	*P18*	*P19*	*P19*	*P20*	*P20*
Sample Depth--(Inches)-->						*2-3*	*10-12*	*2-3*	*10-12*	*2-3*	*14-16*	*2-3*	*14-16*	*2-3*	*12-14*
Percent Moisture (%)-->						*15.3*	*6.6*	*26.4*	*16.2*	*18.6*	*4.2*	*25.1*	*15.9*	*14.3*	*3.9*
Saturated (S) vs Unsaturated (U)-->						*U*	*U*	*U*	*U*	*U*	*U*	*U*	*U*	*U*	*U*
Dioxin Congeners	CAS Number	Units	Non-Industrial Not-to-Exceed DC RCL	Industrial Not-to-Exceed DC RCL	Groundwater Pathway Protection RCL										
2,3,7,8-TCDD	1746-01-6	ng/kg	4.82	21.8	30.0	<0.77	<0.50	0.59 J, I, EMPC	1.2	<2.7 D	<0.37	<0.79	<0.32	<3.1 D	<0.32
1,2,3,7,8-PeCDD	40321-76-4	ng/kg	4.82	21.8	- -	2.7 J	<0.93	4.7 J	7.6	<1.4 D	<0.21	1.1 J	0.63 J	2.5 J, D	<0.20
1,2,3,4,7,8-HxCDD	39227-28-6	ng/kg	48.2	218	- -	5.0 J	<1.7	12	18	5.1 J, D	<0.46	2.4 J	0.87 J	3.3 J, D	<0.37
1,2,3,6,7,8-HxCDD	57653-85-7	ng/kg	48.2	218	- -	16	<2.0	46	86	20 J, D	<0.44	9.4	3.4 J	11 J, D	1.0 J, I, EMPC
1,2,3,7,8,9-HxCDD	19408-74-3	ng/kg	48.2	218	- -	10	<1.6	22	38	9.6 J, D	<0.41	3.9 J, I, EMPC	1.8 J, I, EMPC	5.1 J, D	0.4 J, I, EMPC
1,2,3,4,6,7,8-HpCDD	35822-46-9	ng/kg	482	2.18E+03	- -	300	40	900	1,400	360 D	3.9 J	180	72	240 D	17
OCDD	3268-87-9	ng/kg	1.61E+04	7.27E+04	- -	2,400	310	7,000 E	11,000 E	2,700	29	1,400	540	1,900 D	140
Total TCDD	- -	ng/kg	- -	- -	- -	4.4	<0.50	7.9	8.7	<2.7 D	<0.37	5.6	4.0	<3.1 D	<0.32
Total PeCDD	- -	ng/kg	- -	- -	- -	15	<0.93	40	51	2.4 J, D	<0.21	11	6.8	7.7 J, D	<0.20
Total HxCDD	- -	ng/kg	- -	- -	- -	130	8.1	300	480	150 D	1.4 J	72	28	84 D	6.2
Total HpCDD	- -	ng/kg	- -	- -	- -	570	74	1,700	2,700	710 D	3.9 J	330	130	450 D	33
Furan Congeners															
2,3,7,8-TCDF	51207-31-9	ng/kg	48.2	218	- -	1.1 I, J, EMPC	<0.69	2.1 V	4.2 C	<2.5 D	<0.69	1.6 V	<0.56	<4.0 D	<0.50
1,2,3,7,8-PeCDF	57117-41-6	ng/kg	161	727	- -	<0.74	<1.1	3.3 J	5.2	<2.5 D	<0.35	1.2 J	0.91 J	<2.9 D	<0.21
2,3,4,7,8-PeCDF	57117-31-4	ng/kg	16.1	72.7	- -	2.5 I, J, EMPC	1.0 J	13	30	17 J, D	<0.38	3.4 J	1.9 J	6.7 J, D	0.43 J
1,2,3,4,7,8-HxCDF	70648-26-9	ng/kg	48.2	218	- -	8.3	1.2 I, J, EMPC	12	22	8.8 J, D	<0.42	4.2 J	2.1 J	6.8 J, D	0.6 J
1,2,3,6,7,8-HxCDF	57117-44-9	ng/kg	48.2	218	- -	7.9	<1.2	13	24	11 J, D	<0.35	3.9 J	1.9 J	6.9 J, D	0.38 J, I, EMPC
2,3,4,6,7,8-HxCDF	60851-34-5	ng/kg	48.2	218	- -	5.3 J	1.8 J	21	44	19 J, D	<0.41	3.2 J	1.6 J	6.7 J, D	0.53 J, I, EMPC
1,2,3,7,8,9-HxCDF	72918-21-9	ng/kg	48.2	218	- -	2.3 I, J, EMPC	<1.3	4.9	8.1	<4.6 D	<0.33	1.8 J, I, EMPC	0.89 J, I, EMPC	<1.9 D	<0.39
1,2,3,4,6,7,8-HpCDF	67562-39-4	ng/kg	482	2.18E+03	- -	110	15	210	340	130 D	1.5 J	62	30	100 D	6.5
1,2,3,4,7,8,9-HpCDF	55673-89-7	ng/kg	482	2.18E+03	- -	5.7	<2.8	13	21	8.7 J, D	<0.57	3.3 J, I, EMPC	1.4 J	5.9 J, I, D, EMPC	<0.51
OCDF	39001-02-0	ng/kg	1.61E+04	7.27E+04	- -	170	23	380	590	170 D	2.1 J	120	58	170 D	11
Total TCDF	- -	ng/kg	- -	- -	- -	25	1.9	59	100	43 D	<0.69	20	11	<4.0 D	0.59 J, B
Total PeCDF	- -	ng/kg	- -	- -	- -	74	5.0 J	200	360	250 D	4.6 J	54	23	84 D	5.4
Total HxCDF	- -	ng/kg	- -	- -	- -	180	22	270	660	210 D	2.0 J	100	28	160 D	10
Total HpCDF	- -	ng/kg	- -	- -	- -	230	31	540	880	290 D	3.3 J	150	130	240 D	15
Individual Exceedances (DC)			1	1	- -	0	0	1	4	1	0	0	0	0	0
Cumulative Hazard Index (DC)			1.0	1.0	- -	0.2148	0.0172	0.5416	0.9879	0.2926	0.0015	0.1259	0.0537	0.2024	0.0106
Cumulative Cancer Risk (DC)			1.0E-05	1.0E-05	- -	2.3E-06	2.6E-07	7.4E-06	1.3E-05	3.7E-06	2.3E-08	1.7E-06	7.0E-07	2.6E-06	1.4E-07
Total 2,3,7,8-TCDD Equivalence[1]	- -	ng/kg	- -	- -	- -	14	1.2	36	63	18	0.06	8.1	3.7	13	0.70

Notes:
NR 720 Standards Obtained From WDNR RR Program's Soil RCL Spreadsheet
This site is assessed as Non-Industrial
RCL = Residual Contaminant Level
DC = Direct Contact
ng/kg = Parts Per Trillion (ppt)
< = Concentration Below Laboratory Detection Limit
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Laboratory Qualifiers and Notes:
J = Estimated Value
EMPC = Estimated Maximum Possible Concentration
P = PCDE Interference
I = Interference Present
V = Results verified by confimation analysis
C = Results obtained from confirmation analysis
D = Results obtained from analysis of diluted sample
E = Exceeds calibration Range
Results reported on a dry weight basis and are valid to no more than 2 significant figures

^ = WDNR has determine the City of Wausau is not responsible for contamination beyond park property boundares (April 24, 2024).

Italic	= Exceeds NR720 Groundwater Pathway Protection
Bold	= Exceeds NR720 Non-Industrial Not-To-Exceed DC RCL
Underlined	= Exceeds NR720 Non-Industrial Not-To-Exceed DC RCL

Table 2i
Soil Analytical Results - NR720 Soil Standards
City of Wausau - Riverside Park
132 River Street
Wausau, WI 54401
BRRTS# 02-37-584785

					Collected By-->	REI Engineering, Inc.											
					Date-->	*7/1/2024*	*7/1/2024*	*7/1/2024*	*7/1/2024*	*7/1/2024*	*7/1/2024*	*7/1/2024*	*7/1/2024*	*7/1/2024*	*7/1/2024*	*7/1/2024*	*7/1/2024*
					Sample-->	*P21*	*P21*	*P22*	*P22*	*P23**	*P23**	*P24*	*P24*	*P25*	*P25*	*P26*	*P26*
					Sample Depth--(Inches)-->	*2-3*	*10-12*	*2-3*	*10-12*	*2-3*	*10-12*	*2-3*	*10-12*	*2-3*	*10-12*	*2-3*	*10-12*
					Percent Moisture (%)-->	*23.6*	*20.2*	*26.8*	*16.6*	*25.6*	*22.0*	-	-	-	-	*22.7*	*22.2*
					Saturated (S) vs Unsaturated (U)-->	*U*	*U*	*U*	*U*	*U*	*U*	*U*	*U*	*U*	*U*	*U*	*U*
Dioxin Congeners	CAS Number	Units	Non-Industrial Not-to-Exceed DC RCL	Industrial Not-to-Exceed DC RCL	Groundwater Pathway Protection RCL												
2,3,7,8-TCDD	1746-01-6	ng/kg	4.82	21.8	30.0	0.36 [J]	<0.16	0.61 [J]	0.40 [J]	1.2	1.1	Not Submitted for Laboratory Analysis	Not Submitted for Laboratory Analysis	Not Submitted for Laboratory Analysis	Not Submitted for Laboratory Analysis	0.39 [J]	0.16 [J]
1,2,3,7,8-PeCDD	40321-76-4	ng/kg	4.82	21.8	- -	2.1 [EMPC, I, J]	0.79 [J]	2.7 [J]	1.8 [J]	4.9 [J]	4.8					2.0 [J]	0.69 [J]
1,2,3,4,7,8-HxCDD	39227-28-6	ng/kg	48.2	218	- -	4.2 [J]	1.5 [B, J]	5.2 [J]	3.0 [J]	8.7	8.5					3.4 [J]	1.3 [J]
1,2,3,6,7,8-HxCDD	57653-85-7	ng/kg	48.2	218	- -	13	3.9 [J]	17	10.0	29	26					11	3.4 [J]
1,2,3,7,8,9-HxCDD	19408-74-3	ng/kg	48.2	218	- -	7.3	2.4 [J]	9.9	6.3	17	16					6.6	2.1 [J]
1,2,3,4,6,7,8-HpCDD	35822-46-9	ng/kg	482	2.18E+03	- -	280	84	370	230	480	420					230	81
OCDD	3268-87-9	ng/kg	1.61E+04	7.27E+04	- -	2,400	670	3,300	1,700	3,800	3,300					1,800	600
Total TCDD	- -	ng/kg	- -	- -	- -	14	4.6	23.0	14.0	37	33					15	5.3
Total PeCDD	- -	ng/kg	- -	- -	- -	26	4.6	37	25	61	64					23	7.9
Total HxCDD	- -	ng/kg	- -	- -	- -	120	37.0	160	100	260	240					100	32
Total HpCDD	- -	ng/kg	- -	- -	- -	540	160	730	460	940	820					440	150
Furan Congeners																	
2,3,7,8-TCDF	51207-31-9	ng/kg	48.2	218	- -	2.8 [C]	0.90 [C]	2.6 [C]	3.0 [C]	5.2 [C]	5.6 [C]	Not Submitted for Laboratory Analysis	Not Submitted for Laboratory Analysis	Not Submitted for Laboratory Analysis	Not Submitted for Laboratory Analysis	2.9 [C]	1.0 [C]
1,2,3,7,8-PeCDF	57117-41-6	ng/kg	161	727	- -	2.3 [EMPC, I, J]	0.90 [EMPC, I, J]	3.2 [EMPC, I, J]	2.8 [J]	4.3 [J]	5.7					2.6 [J]	0.80 [J]
2,3,4,7,8-PeCDF	57117-31-4	ng/kg	16.1	72.7	- -	8.0	1.5	4.1	3.5 [J]	39	58					4.3	1.4 [J]
1,2,3,4,7,8-HxCDF	70648-26-9	ng/kg	48.2	218	- -	6.3	2.5 [J]	7.7	4.7 [J]	20	17					6.6	3.6 [EMPC, P, J]
1,2,3,6,7,8-HxCDF	57117-44-9	ng/kg	48.2	218	- -	22	12	12	9.0	19	22					5.6	1.8 [J]
2,3,4,6,7,8-HxCDF	60851-34-5	ng/kg	48.2	218	- -	17	6.6	12	7.7	37	41					4.4	1.5 [J]
1,2,3,7,8,9-HxCDF	72918-21-9	ng/kg	48.2	218	- -	1.3 [EMPC, I, J]	<0.38	2.4 [J]	1.3 [EMPC, I, J]	5.4	7.7					1.2 [B, J]	0.45 [B, J]
1,2,3,4,6,7,8-HpCDF	67562-39-4	ng/kg	482	2.18E+03	- -	120	36	150	86	230	220					83	28
1,2,3,4,7,8,9-HpCDF	55673-89-7	ng/kg	482	2.18E+03	- -	4.3 [EMPC, I, J]	1.3 [J]	5.9	3.8 [J]	12	12					4.4	1.5 [J]
OCDF	39001-02-0	ng/kg	1.61E+04	7.27E+04	- -	130	33	170	100	270	240					130	39
Total TCDF	- -	ng/kg	- -	- -	- -	100	35.0	110	79	170	220					54	12
Total PeCDF	- -	ng/kg	- -	- -	- -	270	100.0	150	100	590	870					70	25
Total HxCDF	- -	ng/kg	- -	- -	- -	310	120	220	150	540	740.0					97	33
Total HpCDF	- -	ng/kg	- -	- -	- -	230	74	300	180	490	440					87	51
Individual Exceedances (DC)			1	1	- -	0	0	0	0	1	1	-	-	-	-	0	0
Cumulative Hazard Index (DC)			1.0	1.0	- -	0.2842	0.097	0.2814	0.1847	0.7057	0.8134	-	-	-	-	0.1868	0.0656
Cumulative Cancer Risk (DC)			1.0E-05	1.0E-05	- -	3.5E-06	1.2E-06	3.6E-06	2.4E-06	8.3E-06	9.3E-06	-	-	-	-	2.4E-06	8.4E-07
Total 2,3,7,8-TCDD Equivalence[1]	- -	ng/kg	- -	- -	- -	17	6	18	11.6	40.5	45	-	-	-	-	12	12

Notes:
NR 720 Standards Obtained From WDNR RR Program's Soil RCL Spreadsheet
This site is assessed as Non-Industrial
RCL = Residual Contaminant Level
DC = Direct Contact
ng/kg = Parts Per Trillion (ppt)
< = Concentration Below Laboratory Detection Limit
- = Not Sampled/Collected
- - = No Standard/Not Applicable
TEQ = Toxicity Eqivalent Calculations
[1] = TEQ values calculated using the U.S. EPA 2007 values.
* = Area of sample removed during remedial excavation.

TCDD: Tetrachlorodibenzo-p-dioxin
PeCDD: Pentachlorodibenzo-p-dioxin
HxCDD: Hexachlorodibenzo-p-dioxin
HPCDD: Heptachlorodibenzo-p-dioxin
OCDD: Octachlorodibenzo-p-dioxin
TCDF: Tetrachlorodibenzofuran
PeCDF: Pentachlorodibenzofuran
HxCDF: Hexachlorodibenzofuran
HPCDF: Heptachlorodibenzofuran
OCDF: Octachlorodibenzofuran

Laboratory Qualifiers and Notes:
[J] = Estimated Value
[EMPC] = Estimated Maximum Possible Concentration
[P] = PCDE Interference
[I] = Interference Present
[V] = Results verified by confimation analysis
[C] = Results obtained from confirmation analysis
[D] = Results obtained from analysis of diluted sample
[E] = Exceeds calibration Range
Results reported on a dry weight basis and are valid to no more than 2 significant figures

^ = WDNR has determine the City of Wausau is not responsible for contamination beyond park property boundares (April 24, 2024).

Italic	= Exceeds NR720 Groundwater Pathway Protection
Bold	= Exceeds NR720 Non-Industrial Not-To-Exceed DC RCL
Underlined	= Exceeds NR720 Non-Industrial Not-To-Exceed DC RCL

Table 2j
Soil Analytical Results - NR720 Soil Standards
City of Wausau - Riverside Park
132 River Street
Wausau, WI 54401
BRRTS# 02-37-584785

					Collected By-->	REI Engineering, Inc.											
					Date-->	*7/1/2024*	*7/1/2024*	*7/1/2024*	*7/1/2024*	*7/1/2024*	*7/1/2024*	*7/1/2024*	*7/1/2024*	*7/1/2024*	*7/1/2024*	*7/1/2024*	*7/1/2024*
					Sample-->	*P27**	*P27**	*P28*	*P28*	*P29*	*P29*	*P30*	*P30*	*P31*	*P31*	*P32**	*P32**
					Sample Depth--(Inches)-->	*2-3*	*10-12*	*2-3*	*10-12*	*2-3*	*10-12*	*2-3*	*10-12*	*2-3*	*10-12*	*2-3*	*10-12*
					Percent Moisture (%)-->	*25.2*	*19.4*	*-*	*-*	*-*	*-*	*-*	*-*	*25.3*	*22.5*	*22.6*	*15.7*
					Saturated (S) vs Unsaturated (U)-->	*U*	*U*	*U*	*U*	*U*	*U*	*U*	*U*	*U*	*U*	*U*	*U*
Dioxin Congeners	CAS Number	Units	Non-Industrial Not-to-Exceed DC RCL	Industrial Not-to-Exceed DC RCL	Groundwater Pathway Protection RCL												
2,3,7,8-TCDD	1746-01-6	ng/kg	4.82	21.8	30.0	0.73 [J]	0.26 [J]	Not Submitted for Laboratory Analysis	Not Submitted for Laboratory Analysis	Not Submitted for Laboratory Analysis	Not Submitted for Laboratory Analysis	Not Submitted for Laboratory Analysis	Not Submitted for Laboratory Analysis	0.82 [J]	<0.17	0.55 [J]	0.22 [EMPC, J, I]
1,2,3,7,8-PeCDD	40321-76-4	ng/kg	4.82	21.8	- -	4.1 [J]	1.3 [J]							2.9 [J]	0.91 [J]	2.2 [J]	1.1 [J]
1,2,3,4,7,8-HxCDD	39227-28-6	ng/kg	48.2	218	- -	6.4	2.1 [J]							5.3	1.9 [J]	5.0	1.8 [EMPC, J, I]
1,2,3,6,7,8-HxCDD	57653-85-7	ng/kg	48.2	218	- -	21	7.0							20	5.2	15	6.5
1,2,3,7,8,9-HxCDD	19408-74-3	ng/kg	48.2	218	- -	13	4.1							12.0	3.2 [J]	8.9	4.0 [J]
1,2,3,4,6,7,8-HpCDD	35822-46-9	ng/kg	482	2.18E+03	- -	400	130							370	110	350	120
OCDD	3268-87-9	ng/kg	1.61E+04	7.27E+04	- -	3,000	920							3,000	840	2,700	960
Total TCDD	- -	ng/kg	- -	- -	- -	29	9.8							26	6.1	12.0	7.2
Total PeCDD	- -	ng/kg	- -	- -	- -	52	17.0							36	8.9	29	14.0
Total HxCDD	- -	ng/kg	- -	- -	- -	200	63.0							180	51.0	150	52.0
Total HpCDD	- -	ng/kg	- -	- -	- -	770	250							700	210	670	200
Furan Congeners																	
2,3,7,8-TCDF	51207-31-9	ng/kg	48.2	218	- -	7.5 [EMPC, P, C]	3.9 [EMPC, P, C]	Not Submitted for Laboratory Analysis	Not Submitted for Laboratory Analysis	Not Submitted for Laboratory Analysis	Not Submitted for Laboratory Analysis	Not Submitted for Laboratory Analysis	Not Submitted for Laboratory Analysis	5.0 [EMPC, P, C]	1.30 [EMPC, P, C]	6.0 [EMPC, P, C]	1.5 [EMPC, P, C]
1,2,3,7,8-PeCDF	57117-41-6	ng/kg	161	727	- -	3.8 [J]	1.5 [J]							3.4 [J]	<0.30	2.6 [J]	1.4 [J]
2,3,4,7,8-PeCDF	57117-31-4	ng/kg	16.1	72.7	- -	34	17							11	3.5 [J]	13	8.0
1,2,3,4,7,8-HxCDF	70648-26-9	ng/kg	48.2	218	- -	35	35 [EMPC, P]							14	4.4 [J]	16	49 [EMPC, P]
1,2,3,6,7,8-HxCDF	57117-44-9	ng/kg	48.2	218	- -	19 [EMPC, P]	5.6							11	3.7 [J]	10 [EMPC, P]	8.6 [EMPC, P]
2,3,4,6,7,8-HxCDF	60851-34-5	ng/kg	48.2	218	- -	17	8.7							13	3.4 [J]	8.4	5.3
1,2,3,7,8,9-HxCDF	72918-21-9	ng/kg	48.2	218	- -	4.1 [J]	1.6 [J]							4.0 [J]	0.96 [J]	2.5 [J]	1.5 [J]
1,2,3,4,6,7,8-HpCDF	67562-39-4	ng/kg	482	2.18E+03	- -	180	69							180	53	120	52
1,2,3,4,7,8,9-HpCDF	55673-89-7	ng/kg	482	2.18E+03	- -	8.8	3.2							9.2	2.8 [J]	6.2	2.9 [J]
OCDF	39001-02-0	ng/kg	1.61E+04	7.27E+04	- -	230	76							260	73	160	77
Total TCDF	- -	ng/kg	- -	- -	- -	140	44.00							120	30.0	86	43.00
Total PeCDF	- -	ng/kg	- -	- -	- -	530	270.0							220	67.0	190	150.0
Total HxCDF	- -	ng/kg	- -	- -	- -	370	180							240	67	220	87
Total HpCDF	- -	ng/kg	- -	- -	- -	280	110							190	56	280	110
Individual Exceedances (DC)			1	1	- -	1	1	-	-	-	-	-	-	0	0	0	1
Cumulative Hazard Index (DC)			1.0	1.0	- -	0.5989	0.2863	-	-	-	-	-	-	0.3658	0.1033	0.3187	0.2452
Cumulative Cancer Risk (DC)			1.0E-05	1.0E-05	- -	7.0E-06	3.2E-06	-	-	-	-	-	-	4.5E-06	1.3E-06	4.0E-06	2.8E-06
Total 2,3,7,8-TCDD Equivalence[1]	- -	ng/kg	- -	- -	- -	34	16	-	-	-	-	-	-	22.1	6.3	20	20

Notes:
NR 720 Standards Obtained From WDNR RR Program's Soil RCL Spreadsheet
This site is assessed as Non-Industrial
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- - = No Standard/Not Applicable
TEQ = Toxicity Eqivalent Calculations
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Laboratory Qualifiers and Notes:
[J] = Estimated Value
[EMPC] = Estimated Maximum Possible Concentration
[P] = PCDE Interference
[I] = Interference Present
[V] = Results verified by confimation analysis
[C] = Results obtained from confirmation analysis
[D] = Results obtained from analysis of diluted sample
[E] = Exceeds calibration Range
Results reported on a dry weight basis and are valid to no more than 2 significant figures

^ = WDNR has determine the City of Wausau is not responsible for contamination beyond park property boundares (April 24, 2024).

Italic	= Exceeds NR720 Groundwater Pathway Protection
Bold	= Exceeds NR720 Non-Industrial Not-To-Exceed DC RCL
Underlined	= Exceeds NR720 Non-Industrial Not-To-Exceed DC RCL

Table 2k
Soil Analytical Results - NR720 Soil Standards
City of Wausau - Riverside Park
132 River Street
Wausau, WI 54401
BRRTS# 02-37-584785

					Collected By-->	REI Engineering, Inc.											
					Date-->	*9/13/2022*	*9/13/2022*	*9/13/2022*	*9/13/2022*	*9/13/2022*	*9/13/2022*	*9/13/2022*	*9/13/2022*	*9/13/2022*	*9/13/2022*	*9/13/2022*	*9/13/2022*
					Sample-->	*S1*	*S2*	*S3*	*S4*	*S5*	*S6**	*S7*	*S8*	*S9*	*S10*	*S11*	*S12*
					Sample Depth--(Inches)-->	*2-3*	*2-3*	*2-3*	*2-3*	*2-3*	*2-3*	*2-3*	*2-3*	*2-3*	*2-3*	*2-3*	*2-3*
					Percent Moisture (%)-->	*29.3*	*12.2*	*15.0*	*29.6*	*19.4*	*24.3*	*19.5*	*20.6*	*21.3*	*21.3*	*22.7*	*6.8*
					Saturated (S) vs Unsaturated (U)-->	*U*	*U*	*U*	*U*	*U*	*U*	*U*	*U*	*U*	*U*	*U*	*U*
Dioxin Congeners	CAS Number	Units	Non-Industrial Not-to-Exceed DC RCL	Industrial Not-to-Exceed DC RCL	Groundwater Pathway Protection RCL												
2,3,7,8-TCDD	1746-01-6	ng/kg	4.82	21.8	30.0	0.42 J	0.55 J	0.83 I, J	<0.39	<0.28	<0.29	<0.17	<0.21	<0.23	<0.12	0.29 J, I, EMPC	0.27 J
1,2,3,7,8-PeCDD	40321-76-4	ng/kg	4.82	21.8	- -	1.9 J	2.6 J	1.5 J	1.2 J	1.2 J	2.3 J	0.35 J, I, EMPC	1.0 J	1.1 J	0.45 J, I, EMPC	2.0 J	2.0 J
1,2,3,4,7,8-HxCDD	39227-28-6	ng/kg	48.2	218	- -	1.7 J	4.3 J	2.6 J	2.4 J	1.7 J	4.8 J	1.00 J	2.3 J	2.0 J	0.97 J	3.6 J	4.4 J
1,2,3,6,7,8-HxCDD	57653-85-7	ng/kg	48.2	218	- -	2.3 J	13.0	8.2	9.9	6.3	20	2.3 J	7.6	7.3	2.5 J	13	13
1,2,3,7,8,9-HxCDD	19408-74-3	ng/kg	48.2	218	- -	1.8 J	8.8	4.4 J	4.7 J	3.5 J	9.3	1.5 J	4.5 J	3.9 J	1.7 J	6.7	7.3
1,2,3,4,6,7,8-HpCDD	35822-46-9	ng/kg	482	2.18E+03	- -	28	310	180	220	120	530	46	160	150	57	280	320
OCDD	3268-87-9	ng/kg	1.61E+04	7.27E+04	- -	180	2,700	1,500	1,700	840	3,300	370	1,300	1,200	450	2,200	2,700
Total TCDD	- -	ng/kg	- -	- -	- -	14	12	20	5.8	5.0	5.8	1.2 J	25	2.3	<0.12	8.4	11
Total PeCDD	- -	ng/kg	- -	- -	- -	15	20	9.9	12	8.7	15	1.1 J	72	7.6	4.4 J	21	23
Total HxCDD	- -	ng/kg	- -	- -	- -	29	120	70	79	52	160	24.0	63	52	23	110	110
Total HpCDD	- -	ng/kg	- -	- -	- -	53	620	360	440	240	980	100	320	290	120	550	610
Furan Congeners																	
2,3,7,8-TCDF	51207-31-9	ng/kg	48.2	218	- -	7.2 V	1.3 C	1.1 J	1.4 V	1.1 J	2.7 C	<0.35	1.1 J	0.66 J, I, EMPC	0.59 J	2.3 C	2.1 C
1,2,3,7,8-PeCDF	57117-41-6	ng/kg	161	727	- -	6.3 J	1.8 J	0.98 J	1.2 J	1.1 J	2.2 J	<0.12	1.0 J	0.70 J	0.37 J	1.9 J	1.9 J
2,3,4,7,8-PeCDF	57117-31-4	ng/kg	16.1	72.7	- -	11	9.2	6.3	3.8 J	6.8	27	1.4 J	4.4 J	5.8 J	1.5 J, I, EMPC	14	7.0
1,2,3,4,7,8-HxCDF	70648-26-9	ng/kg	48.2	218	- -	6.9	6.6	3.7 J	4.4 J	3.4 J	7.7	1.1 J	3.3 J	3.4 J	1.5 J	6.2 J	6.6
1,2,3,6,7,8-HxCDF	57117-44-9	ng/kg	48.2	218	- -	6.9	7.2	4.0 J	4.9 J	4.1 J	14	1.2 J, I, EMPC	3.5 J	3.4 J, I, EMPC	1.4 J, I, EMPC	10	8.0
2,3,4,6,7,8-HxCDF	60851-34-5	ng/kg	48.2	218	- -	8.1	7.2	3.8 J	4.2 J, P, EMPC	3.3 J	11	1.9 J	6.5	7.3	2.7 J	10 P, EMPC	7.9 P, EMPC
1,2,3,7,8,9-HxCDF	72918-21-9	ng/kg	48.2	218	- -	1.8 J,I, EMPC	2.0 J,I, EMPC	1.4 J,I, EMPC	1.2 J,I, EMPC	1.3 J, I, EMPC	3.2 J	0.46 J	0.98 J, I, EMPC	1.3 J	0.59 J	2.5 J	2.2 J
1,2,3,4,6,7,8-HpCDF	67562-39-4	ng/kg	482	2.18E+03	- -	23	110	62	93	50	140	16	51	44	21	130	130
1,2,3,4,7,8,9-HpCDF	55673-89-7	ng/kg	482	2.18E+03	- -	1.6 J	5.4 J	2.8 J	4.2 J	2.6 J	6.9	0.84 J	2.8 J	2.5 J	0.98 J, I, EMPC	5.6 J, I, EMPC	6.7
OCDF	39001-02-0	ng/kg	1.61E+04	7.27E+04	- -	14	150	9.3	150	72	180	21	71	61	29	190	240
Total TCDF	- -	ng/kg	- -	- -	- -	130	43	37	30	49	76	3.6	25	21	9.3	59	52
Total PeCDF	- -	ng/kg	- -	- -	- -	120	100	84	61	75	300	22	72	97	23	210	110
Total HxCDF	- -	ng/kg	- -	- -	- -	71	240	140	99	120	330	22	73	77	30	230	160
Total HpCDF	- -	ng/kg	- -	- -	- -	27	230	130	190	100	150	17	54	47	21	130	140
Individual Exceedances (DC)			1	1	- -	0	0	0	0	0	2	0	0	0	0	0	0
Cumulative Hazard Index (DC)			1.0	1.0	- -	0.192	0.2591	0.1644	0.1442	0.1298	0.4039	0.0398	0.1251	0.1319	0.0491	0.279	0.2359
Cumulative Cancer Risk (DC)			1.0E-05	1.0E-05	- -	2.1E-06	3.3E-06	2.1E-06	1.9E-06	1.6E-06	5.2E-06	5.0E-07	1.6E-06	1.7E-06	6.2E-07	3.4E-06	3.1E-06
Total 2,3,7,8-TCDD Equivalence[1]	- -	ng/kg	- -	- -	- -	10	16	10	9.4	7.7	26	2.5	7.9	8.1	3.0	17	17

Notes:
NR 720 Standards Obtained From WDNR RR Program's Soil RCL Spreadsheet
This site is assessed as Non-Industrial
RCL = Residual Contaminant Level
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PeCDD: Pentachlorodibenzo-p-dioxin
HxCDD: Hexachlorodibenzo-p-dioxin
HPCDD: Heptachlorodibenzo-p-dioxin
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HPCDF: Heptachlorodibenzofuran
OCDF: Octachlorodibenzofuran

Laboratory Qualifiers and Notes:
J = Estimated Value
EMPC = Estimated Maximum Possible Concentration
P = PCDE Interference
I = Interference Present
V = Results verified by confimation analysis
C = Results obtained from confirmation analysis
D = Results obtained from analysis of diluted sample
E = Exceeds calibration Range
Results reported on a dry weight basis and are valid to no more than 2 significant figures

^ = WDNR has determine the City of Wausau is not responsible for contamination beyond park property boundares (April 24, 2024).

Italic	= Exceeds NR720 Groundwater Pathway Protection
Bold	= Exceeds NR720 Non-Industrial Not-To-Exceed DC RCL
Underlined	= Exceeds NR720 Non-Industrial Not-To-Exceed DC RCL

Table 2I
Soil Analytical Results - NR720 Soil Standards
City of Wausau - Riverside Park
132 River Street
Wausau, WI 54401
BRRTS# 02-37-584785

					Collected By-->	REI Engineering, Inc.											
					Date-->	10/20/2022	11/28/2022	11/28/2022	11/28/2022	11/28/2022	11/28/2022	7/18/2023	7/18/2023	7/18/2023	7/18/2023	7/18/2023	7/18/2023
					Sample-->	S13*	S14	S15	S16	S17	S18	S19	S20	S21	S22	S23	S24
					Sample Depth--(Inches)-->	2-3	2-3	2-3	2-3	10-12	10-12	12	12	48	12	48	12
					Percent Moisture (%)-->	9.2	21.7	24.1	13.3	17.1	18.2	1.8	8.2	6.8	4.2	3.8	3.4
					Saturated (S) vs Unsaturated (U)-->	U	U	U	U	U	U	U	U	U	U	U	U
Dioxin Congeners	CAS Number	Units	Non-Industrial Not-to-Exceed DC RCL	Industrial Not-to-Exceed DC RCL	Groundwater Pathway Protection RCL												
2,3,7,8-TCDD	1746-01-6	ng/kg	4.82	21.8	30.0	0.54 [J]	0.30 [J]	3.7 [EMPC, I, J]	0.16 [EMPC, I, J]	0.27 [J]	0.17 [EMPC, I, J]	<0.28	<0.37	<0.20	<0.25	<0.22	<0.20
1,2,3,7,8-PeCDD	40321-76-4	ng/kg	4.82	21.8	- -	2.9 [J]	2.7 [J]	2.2 [J]	0.17 [J]	1.5 [J]	0.73 [J]	<0.16	0.15 [J]	<0.14	<0.11	<0.16	<0.15
1,2,3,4,7,8-HxCDD	39227-28-6	ng/kg	48.2	218	- -	5.3	3.1 [J]	4.2 [J]	0.36 [J]	2.0 [EMPC, I, J]	1.4 [J]	<0.15	0.43 [J, B]	0.23 [EMPC, I, J]	0.24 [J, B]	0.35 [J, B]	0.38 [J, B]
1,2,3,6,7,8-HxCDD	57653-85-7	ng/kg	48.2	218	- -	16	11.0	12.0	0.60 [J]	7.9	5.3	<0.12	0.82 [J]	0.26 [J]	0.39 [EMPC, I, J]	0.59 [J]	0.77 [EMPC, I, J]
1,2,3,7,8,9-HxCDD	19408-74-3	ng/kg	48.2	218	- -	8.9	6.3	7.1	0.33 [EMPC, I, J]	3.9 [J]	2.8 [J]	<0.18	0.42 [EMPC, I, J]	0.14 [EMPC, I, J]	0.20 [J]	0.39 [J]	0.61 [J]
1,2,3,4,6,7,8-HpCDD	35822-46-9	ng/kg	482	2.18E+03	- -	350	230	260	9.1	150	100	0.51 [EMPC, I, J]	15	4.6 [J]	7.1	9.5	18
OCDD	3268-87-9	ng/kg	1.61E+04	7.27E+04	- -	2,800	1,900	2,000	74	1,300	860	5.1 [J, B]	120	39	52	79	150
Total TCDD	- -	ng/kg	- -	- -	- -	16	13	36	0.41 [J]	3.8	4.5	<0.28	0.42 [J]	<0.20	<0.25	<0.22	0.30 [J]
Total PeCDD	- -	ng/kg	- -	- -	- -	25	21	46	0.85 [J]	9.7	8.5	<0.16	0.74 [J]	<0.14	<0.11	0.26 [J]	<0.15
Total HxCDD	- -	ng/kg	- -	- -	- -	140	95	130	4.7 [J]	57	41	<0.12	6.4	1.3 [J, B]	1.8 [J, B]	2.2 [J]	6.2
Total HpCDD	- -	ng/kg	- -	- -	- -	600	440	490	19	270	190	0.53 [J]	29	8.2	13	17	34
Furan Congeners																	
2,3,7,8-TCDF	51207-31-9	ng/kg	48.2	218	- -	8.7 [V]	2.4 [V]	4.2 [V]	0.17 [J]	1.1 [V]	1.2 [V]	<0.21	<0.67	<0.21	<0.22	<0.20	<0.57
1,2,3,7,8-PeCDF	57117-41-6	ng/kg	161	727	- -	2.7 [J]	0.99 [EMPC, I, J]	2.3 [J]	<0.15	0.63 [J]	0.31 [J]	0.51 [EMPC, P, J]	27 [EMPC, P]	6.6 [EMPC, P]	0.41 [EMPC, I, J]	35 [P]	27 [EMPC, P]
2,3,4,7,8-PeCDF	57117-31-4	ng/kg	16.1	72.7	- -	27	7.8	5.3 [EMPC, P]	0.45 [J]	4.3 [J]	5.1	<0.15	2.7 [J]	0.64 [EMPC, I, J]	0.21 [J]	1.9 [J]	3.0 [J]
1,2,3,4,7,8-HxCDF	70648-26-9	ng/kg	48.2	218	- -	11	4.0 [J]	6.2	0.26 [EMPC, I, J]	3.2 [EMPC, I, J]	4.0 [J]	<0.17	1.1 [EMPC, I, J]	<0.14	<0.082	0.76 [EMPC, I, J]	1.1 [J]
1,2,3,6,7,8-HxCDF	57117-44-9	ng/kg	48.2	218	- -	12	8.5	6.5	0.30 [J]	5.3	4.4 [J]	<0.14	0.93 [J]	<0.14	0.20 [J]	0.63 [J]	0.85 [J]
2,3,4,6,7,8-HxCDF	60851-34-5	ng/kg	48.2	218	- -	14	8.7	5.6	0.35 [J]	6.3	5.7 [EMPC, P]	<0.11	3.0 [J]	0.78 [EMPC, I, J]	0.067	2.1 [J]	3.1 [J]
1,2,3,7,8,9-HxCDF	72918-21-9	ng/kg	48.2	218	- -	3.3 [J]	2.1 [J]	1.4 [J]	0.17 [B, J]	1.5 [EMPC, I, J]	1.2	<0.19	1.5 [EMPC, P, J]	<0.057	<0.081	0.80 [EMPC, P, J]	0.96 [J]
1,2,3,4,6,7,8-HpCDF	67562-39-4	ng/kg	482	2.18E+03	- -	140	87	93	3.5 [J]	55	38	0.23 [EMPC, I, J]	8.9	1.8 [J]	1.9 [J]	3.8 [J]	7.1
1,2,3,4,7,8,9-HpCDF	55673-89-7	ng/kg	482	2.18E+03	- -	7.8	4.4 [J]	2.8 [J]	0.22 [EMPC, I, J]	2.5 [J]	2.1 [J]	<0.22	<0.32	<0.13	0.23	<0.013	<0.19
OCDF	39001-02-0	ng/kg	1.61E+04	7.27E+04	- -	210	130	140	6.0 [J]	85	62	<0.32	11 [J]	2.5 [J]	2.4 [J]	5.0 [J]	8.4 [J]
Total TCDF	- -	ng/kg	- -	- -	- -	120	83	80	1.0	85	43	<0.21	4.7	1.2	<0.22	2.3	4.1
Total PeCDF	- -	ng/kg	- -	- -	- -	300	210	70	4.5 [J]	160	130	0.25 [J]	21	4.7 [J]	1.4 [J]	17	23
Total HxCDF	- -	ng/kg	- -	- -	- -	300	270	140	5.6	130	140	0.31 [J]	37	9.3	1.6 [J]	29	41
Total HpCDF	- -	ng/kg	- -	- -	- -	330	200	190	7.7	130	96	<0.19	20	4.7 [J]	4.1 [J]	11	18
Individual Exceedances (DC)			1	1	- -	1	0	0	0	0	0	0	0	0	0	0	0
Cumulative Hazard Index (DC)			1.0	1.0	- -	0.4342	0.2284	0.2753	0.0154	0.1428	0.113	0.0004	0.0535	0.0111	0.0045	0.0441	0.0513
Cumulative Cancer Risk (DC)			1.0E-05	1.0E-05	- -	5.2E-06	2.8E-06	3.4E-06	1.8E-07	1.8E-06	1.4E-06	4.9E-09	5.8E-07	1.2E-07	6.0E-08	4.8E-07	5.7E-07
Total 2,3,7,8-TCDD Equivalence[1]	- -	ng/kg	- -	- -	- -	25	14	16.5	0.87	8.7	6.7	0.024	2.9	0.61	0.29	2.3	2.8

Notes:
NR 720 Standards Obtained From WDNR RR Program's Soil RCL Spreadsheet
This site is assessed as Non-Industrial
RCL = Residual Contaminant Level
DC = Direct Contact
ng/kg = Parts Per Trillion (ppt)
< = Concentration Below Laboratory Detection Limit
- = Not Sampled/Collected
- - = No Standard/Not Applicable
TEQ = Toxicity Eqivalent Calculations
[1] = TEQ values calculated using the U.S. EPA 2007 values.
* = Area of sample removed during remedial excavation.

TCDD: Tetrachlorodibenzo-p-dioxin
PeCDD: Pentachlorodibenzo-p-dioxin
HxCDD: Hexachlorodibenzo-p-dioxin
HPCDD: Heptachlorodibenzo-p-dioxin
OCDD: Octachlorodibenzo-p-dioxin
TCDF: Tetrachlorodibenzofuran
PeCDF: Pentachlorodibenzofuran
HxCDF: Hexachlorodibenzofuran
HPCDF: Heptachlorodibenzofuran
OCDF: Octachlorodibenzofuran

Laboratory Qualifiers and Notes:
[J] = Estimated Value
[EMPC] = Estimated Maximum Possible Concentration
[B] = Less than 10x higher than method blank level
[P] = PCDE Interference
[I] = Interference Present
[V] = Results verified by confimation analysis
[C] = Results obtained from confirmation analysis
[D] = Results obtained from analysis of diluted sample
[E] = Exceeds calibration Range
Results reported on a dry weight basis and are valid to no more than 2 significant figures

^ = WDNR has determine the City of Wausau is not responsible for contamination beyond park property boundares (April 24, 2024).

Italic	= Exceeds NR720 Groundwater Pathway Protection
Bold	= Exceeds NR720 Non-Industrial Not-To-Exceed DC RCL
Underlined	= Exceeds NR720 Non-Industrial Not-To-Exceed DC RCL

Table 2m
Soil Analytical Results - NR720 Soil Standards
City of Wausau - Riverside Park
132 River Street
Wausau, WI 54401
BRRTS# 02-37-584785

					Collected By-->	REI Engineering, Inc.											
					Date-->	*7/18/2023*	*7/18/2023*	*7/18/2023*	*7/19/2023*	*7/19/2023*	*7/19/2023*	*7/19/2023*	*7/19/2023*	*7/19/2023*	*7/19/2023*	*7/19/2023*	*7/19/2023*
					Sample-->	*S25*	*S26*	*S27*	*S28*	*S29^*	*S30*	*S31*	*S32*	*S33**	*S34*	*S35*	*S36^*
					Sample Depth--(Inches)-->	*12*	*12*	*48*	*48*	*2-3*	*2-3*	*12*	*48*	*2-3*	*2-3*	*12*	*2-3*
					Percent Moisture (%)-->	*6.5*	*7.5*	*4.9*	*1.4*	*4.8*	*5.3*	*4.6*	*2.4*	*6.8*	*10.1*	*3.6*	*13.3*
					Saturated (S) vs Unsaturated (U)-->	*U*	*U*	*U*	*U*	*U*	*U*	*U*	*U*	*U*	*U*	*U*	*U*
Dioxin Congeners	CAS Number	Units	Non-Industrial Not-to-Exceed DC RCL	Industrial Not-to-Exceed DC RCL	Groundwater Pathway Protection RCL												
2,3,7,8-TCDD	1746-01-6	ng/kg	4.82	21.8	30.0	<0.27	<0.41	0.38 [J]	<0.22	<0.29	<0.25	<0.061	<0.077	<0.21	<0.69	<0.54	0.75 [J]
1,2,3,7,8-PeCDD	40321-76-4	ng/kg	4.82	21.8	- -	<0.12	<0.86	2.8 [J]	<0.14	1.4 [J]	1.4 [J]	0.42 [EMPC, I, J]	0.092 [J]	0.67 [J]	2.1 [J]	<0.22	4.7 [J]
1,2,3,4,7,8-HxCDD	39227-28-6	ng/kg	48.2	218	- -	0.51 [EMPC, I, J]	3.5 [EMPC, I, J]	5.7	0.41 [EMPC, I, J]	2.5 [J]	2.9 [J]	1.1 [J, B]	0.31 [J, B]	1.9 [J]	3.6 [EMPC, I, J]	0.31 [J]	7.3
1,2,3,6,7,8-HxCDD	57653-85-7	ng/kg	48.2	218	- -	0.54 [J]	9.3	22	0.66 [EMPC, I, J]	13	6.4	3.0 [J]	0.47 [J]	5.5	14	0.26 [EMPC, I, J]	23
1,2,3,7,8,9-HxCDD	19408-74-3	ng/kg	48.2	218	- -	0.38 [EMPC, I, J]	3.8 [J]	10	0.48 [J]	6.6	4.3 [J]	1.6 [J]	0.24 [J]	3.4 [J]	5.2	<0.13	15
1,2,3,4,6,7,8-HpCDD	35822-46-9	ng/kg	482	2.18E+03	- -	10	200	400	14	220	150	52	9.3	100	290	3.8 [J]	450
OCDD	3268-87-9	ng/kg	1.61E+04	7.27E+04	- -	76	2,100	3,800	110	1,900	1,200	470	74	830	2,500	35	3,500
Total TCDD	- -	ng/kg	- -	- -	- -	<0.27	3.4	7.2	<0.22	6.0	8.7	1.3	0.15 [J]	3.4	3.3	<0.54	13
Total PeCDD	- -	ng/kg	- -	- -	- -	<0.12	5.9	25	<0.14	20	17	2.3 [J]	0.092 [J]	10	13	<0.22	35
Total HxCDD	- -	ng/kg	- -	- -	- -	3.2 [J]	52	140	3.5 [J]	88	64	19	3.2 [J]	44	95	1.6 [J]	200
Total HpCDD	- -	ng/kg	- -	- -	- -	19	390	740	25	410	290	92	16	190	600	6.9	850
Furan Congeners																	
2,3,7,8-TCDF	51207-31-9	ng/kg	48.2	218	- -	<0.50	<0.67	2.1 [C]	<0.26	1.8 [V]	1.4 [V]	0.50 [J]	<0.13	0.80 [J]	1.6 [C]	<0.70	3.1 [V]
1,2,3,7,8-PeCDF	57117-41-6	ng/kg	161	727	- -	42 [EMPC, P]	69 [EMPC, P]	1.9 [J]	33 [EMPC, P]	300 [EMPC]	98 [EMPC, P]	<0.20	<0.15	170 [EMPC, P]	3.9 [EMPC, P, J]	14 [EMPC, P]	280 [EMPC, P]
2,3,4,7,8-PeCDF	57117-31-4	ng/kg	16.1	72.7	- -	1.9 [J]	11	55	3.1 [J]	72	11	7.7	0.90 [J]	12	14	1.0 [J]	44
1,2,3,4,7,8-HxCDF	70648-26-9	ng/kg	48.2	218	- -	1.0 [EMPC, I, J]	4.7 [J]	13	0.73 [EMPC, I, J]	11 [EMPC, P]	6.4 [EMPC, P]	8.2	0.75 [J]	5.9 [EMPC, P]	25.0 [EMPC, P, J]	<0.16	21 [EMPC, P]
1,2,3,6,7,8-HxCDF	57117-44-9	ng/kg	48.2	218	- -	0.76 [J]	4.2 [J]	20 [EMPC, P]	0.80 [J]	15	4.9 [J]	5.8 [EMPC, P]	0.57 [J]	4.2 [J]	15	<0.16	16
2,3,4,6,7,8-HxCDF	60851-34-5	ng/kg	48.2	218	- -	2.4 [EMPC, I, J]	8.6	43	2.7 [J]	54	12	8.7	0.71 [EMPC, I, J]	12	20	0.78 [EMPC, I, J]	46
1,2,3,7,8,9-HxCDF	72918-21-9	ng/kg	48.2	218	- -	1.4 [EMPC, I, J]	4.2 [J]	5.3	1.2 [J]	14 [EMPC, P]	6.3 [EMPC, P]	1.1	0.25 [J]	7.6 [EMPC, P]	3.3 [J]	<0.11	17 [EMPC, P]
1,2,3,4,6,7,8-HpCDF	67562-39-4	ng/kg	482	2.18E+03	- -	4.3 [J]	90	180	6.6	110	73	21	2.6 [J]	47	100	2.3 [J]	200
1,2,3,4,7,8,9-HpCDF	55673-89-7	ng/kg	482	2.18E+03	- -	<0.13	<0.65	10	<0.30	6.6	4.1 [J]	1.4 [J]	<0.15	2.8 [J]	7.6	<0.33	12
OCDF	39001-02-0	ng/kg	1.61E+04	7.27E+04	- -	5.3 [J]	100	320	8.6 [J]	110	85	40	8.5 [J]	50	150	2.7 [J]	220
Total TCDF	- -	ng/kg	- -	- -	- -	0.65 [J]	<0.67	140	1.9	160	46	16	0.64 [J]	32	49	<0.70	120
Total PeCDF	- -	ng/kg	- -	- -	- -	15	74	670	25	620	89	95	7.6	97	320	7.7	270
Total HxCDF	- -	ng/kg	- -	- -	- -	29	130	450	38	750	180	78	7.7	170	410	11	610
Total HpCDF	- -	ng/kg	- -	- -	- -	11	210	190	16	280	170	22	2.6 [J]	110	250	6.0	440
Individual Exceedances (DC)			1	1	- -	0	0	1	0	3	0	0	0	1	0	0	2
Cumulative Hazard Index (DC)			1.0	1.0	- -	0.0510	0.2135	0.6908	0.0535	0.8958	0.2617	0.1203	0.0147	0.208	0.338	0.0175	0.8902
Cumulative Cancer Risk (DC)			1.0E-05	1.0E-05	- -	5.5E-07	2.6E-06	7.9E-06	5.8E-07	9.7E-06	3.0E-06	1.4E-06	1.7E-07	3.1E-06	4.1E-06	1.9E-07	1.0E-05
Total 2,3,7,8-TCDD Equivalence[1]	- -	ng/kg	- -	- -	- -	2.7	13	39	2.9	48	15	6.6	0.84	15	20	0.93	50

Notes:
NR 720 Standards Obtained From WDNR RR Program's Soil RCL Spreadsheet
This site is assessed as Non-Industrial
RCL = Residual Contaminant Level
DC = Direct Contact
ng/kg = Parts Per Trillion (ppt)
< = Concentration Below Laboratory Detection Limit
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Laboratory Qualifiers and Notes:
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City of Wausau - Riverside Park
132 River Street
Wausau, WI 54401
BRRTS# 02-37-584785

					Collected By-->	REI Engineering, Inc.											
					Date-->	7/19/2023	7/19/2023	7/19/2023	7/19/2023	7/20/2023	7/20/2023	7/21/2023	10/12/2023	10/12/2023	10/12/2023	7/30/2025	7/30/2025
					Sample-->	S37^	S38	S39	S40	S41	S42	S43	S44*	S45*	S46*	S47	S48
					Sample Depth--(Inches)-->	2-3	2-3	2-3	12	12	12	12	12	2-3	2-3	48	48
					Percent Moisture (%)-->	9.4	7.8	6.9	5.7	1.7	6.9	5.3	7.7	9.6	17.6	2.3	2.9
					Saturated (S) vs Unsaturated (U)-->	U	U	U	U	U	U	U	U	U	U	U	U
Dioxin Congeners	CAS Number	Units	Non-Industrial Not-to-Exceed DC RCL	Industrial Not-to-Exceed DC RCL	Groundwater Pathway Protection RCL												
2,3,7,8-TCDD	1746-01-6	ng/kg	4.82	21.8	30.0	0.41 J	0.36 J	<0.95	<0.082	<0.17	<0.22	<0.34	<0.41	<0.50	<0.49	<0.034	<0.059
1,2,3,7,8-PeCDD	40321-76-4	ng/kg	4.82	21.8	- -	1.8 J	1.6 J	1.1 EMPC, I, J	0.14 EMPC, I, J	0.20 EMPC, I, J	0.38 J	<0.22	<0.32	1.9 J	1.3 J	<0.022	<0.021
1,2,3,4,7,8-HxCDD	39227-28-6	ng/kg	48.2	218	- -	6.3	4.8 J	4.8 J	0.45 J	0.36 EMPC, I, J	1.0 EMPC, I, J	0.30 EMPC, I, J	1.2 J	3.6 J	2.5 J	0.18 J, B	0.11 J, B
1,2,3,6,7,8-HxCDD	57653-85-7	ng/kg	48.2	218	- -	16	10.0	13.0	0.58 J	<0.088	2.0	0.43 EMPC, I, J	3.2 J	11	6.9	0.046 EMPC, I, J	<0.026
1,2,3,7,8,9-HxCDD	19408-74-3	ng/kg	48.2	218	- -	11	7.7	8.0	0.45 J	0.39 J	1.4	0.37 J	2.0 J	4.4 J	3.8 J	<0.035	<0.029
1,2,3,4,6,7,8-HpCDD	35822-46-9	ng/kg	482	2.18E+03	- -	370	240	280	13	0.88 EMPC, I, J	45	6.4	78	220	140	0.98 J	0.30 EMPC, I, J
OCDD	3268-87-9	ng/kg	1.61E+04	7.27E+04	- -	3,100	1,800	2,200	110	5.3 J, B	340	50	620	1,500	1,000	8.4 B	4.5 J, B
Total TCDD	- -	ng/kg	- -	- -	- -	24	11	6.7	0.91 J	<0.17	<0.22	0.37 J	2.1	7.7	5.0	<0.034	0.13 J, B
Total PeCDD	- -	ng/kg	- -	- -	- -	26	16	6.1	0.63 J	0.42 J	3.6 J	0.45 J	2.8	26	5.9	<0.022	<0.021
Total HxCDD	- -	ng/kg	- -	- -	- -	140	100	100	4.9 J	0.76 J	15	0.85 J	28	95	61	0.38 J, B	0.11 J, B
Total HpCDD	- -	ng/kg	- -	- -	- -	660	460	530	24	<0.24	84	13	150	410	250	1.8 J	0.35 J, B
Furan Congeners																	
2,3,7,8-TCDF	51207-31-9	ng/kg	48.2	218	- -	1.8 C	1.5	0.96 EMPC, I, J	0.14 J	<0.22	<0.66	<0.44	0.54 J, C	2.7 C	1.7 C	0.16 J, B	0.15 J, B
1,2,3,7,8-PeCDF	57117-41-6	ng/kg	161	727	- -	31 EMPC, P	27 EMPC, P	51 EMPC, P	0.13 J	0.72 EMPC, I, J	19 EMPC, P	5.8 EMPC, P	<0.25	2.3 J	<0.43	<0.020	<0.024
2,3,4,7,8-PeCDF	57117-31-4	ng/kg	16.1	72.7	- -	17	8.5	12	0.75 J	0.36 J	3.1 J	1.4 J	5.6	27	21	0.21 J	<0.017
1,2,3,4,7,8-HxCDF	70648-26-9	ng/kg	48.2	218	- -	10	6.7	6.9	0.32 EMPC, I, J	0.35 J	1.4 J	<0.11	1.5 J	10 EMPC, P	13 EMPC, P	0.12 J	<0.043
1,2,3,6,7,8-HxCDF	57117-44-9	ng/kg	48.2	218	- -	9	5.0 J	4.8 EMPC, I, J	0.52 J	0.19 EMPC, I, J	1.1 EMPC, I, J	<0.13	3.0 J	12	8.9	<0.11	<0.041
2,3,4,6,7,8-HxCDF	60851-34-5	ng/kg	48.2	218	- -	19	10	8.6	0.84 J	0.26 EMPC, I, J	3.1 J	1.1 J	6.8	29	21	0.18 EMPC, I, J	<0.041
1,2,3,7,8,9-HxCDF	72918-21-9	ng/kg	48.2	218	- -	7.7 EMPC, P	3.6 EMPC, P, J	4.9	0.29 J	0.41 EMPC, I, J	1.3 J	<0.16	<1.5	<1.1	<1.5	<0.18	<0.059
1,2,3,4,6,7,8-HpCDF	67562-39-4	ng/kg	482	2.18E+03	- -	150	95	100	5.3	0.37 EMPC, I, J	19	3.9 J	30	110	68	0.40 J	0.050 EMPC, I, J
1,2,3,4,7,8,9-HpCDF	55673-89-7	ng/kg	482	2.18E+03	- -	11	4.7 J	8.0	0.37 J	0.47 EMPC, I, J	1.5 J	<0.48	1.5 EMPC, I, J	6.5	4.4 J	<0.070	<0.063
OCDF	39001-02-0	ng/kg	1.61E+04	7.27E+04	- -	210	120	150	8.3 J	1.2 J	24	3.2 J	42	140	87	0.54 J	0.23 EMPC, I, J
Total TCDF	- -	ng/kg	- -	- -	- -	60	29	17	4.2	<0.22	6.4	<0.44	15	79	54	0.57 J, B	0.34 J, B
Total PeCDF	- -	ng/kg	- -	- -	- -	130	69	78	8.6	0.76 J	19	7.5	84	360	270	2.4 J	0.50 J
Total HxCDF	- -	ng/kg	- -	- -	- -	320	160	170	8.1	0.69 J	39	11	99	400	61	2.5 J	0.34 J
Total HpCDF	- -	ng/kg	- -	- -	- -	410	210	240	5.7	<0.18	43	7.0	66	250	150	0.96 J	0.15 J
Individual Exceedances (DC)			1	1	- -	1	0	0	0	0	0	0	0	1	1	0	0
Cumulative Hazard Index (DC)			1.0	1.0	- -	0.3765	0.2348	0.2626	0.0162	0.0105	0.0657	0.0171	0.0798	0.3751	0.2846	0.0027	0.0006
Cumulative Cancer Risk (DC)			1.0E-05	1.0E-05	- -	4.6E-06	2.9E-06	3.3E-06	1.9E-07	1.1E-07	7.7E-07	1.9E-07	9.8E-07	4.3E-06	3.2E-06	3.0E-08	6.3E-09
Total 2,3,7,8-TCDD Equivalence[1]	- -	ng/kg	- -	- -	- -	23	14	16	1.0	0.54	3.8	0.93	4.8	21.2	15.8	0.15	0.031

Notes:
NR 720 Standards Obtained From WDNR RR Program's Soil RCL Spreadsheet
This site is assessed as Non-Industrial
RCL = Residual Contaminant Level
DC = Direct Contact
ng/kg = Parts Per Trillion (ppt)
< = Concentration Below Laboratory Detection Limit
- = Not Sampled/Collected
- - = No Standard/Not Applicable
TEQ = Toxicity Eqivalent Calculations
[1] = TEQ values calculated using the U.S. EPA 2007 values.
* = Area of sample removed during remedial excavation.

TCDD: Tetrachlorodibenzo-p-dioxin
PeCDD: Pentachlorodibenzo-p-dioxin
HxCDD: Hexachlorodibenzo-p-dioxin
HPCDD: Heptachlorodibenzo-p-dioxin
OCDD: Octachlorodibenzo-p-dioxin
TCDF: Tetrachlorodibenzofuran
PeCDF: Pentachlorodibenzofuran
HxCDF: Hexachlorodibenzofuran
HPCDF: Heptachlorodibenzofuran
OCDF: Octachlorodibenzofuran

Laboratory Qualifiers and Notes:
J = Estimated Value
EMPC = Estimated Maximum Possible Concentration
B = Less than 10x higher than method blank level
P = PCDE Interference
I = Interference Present
V = Results verified by confimation analysis
C = Results obtained from confirmation analysis
D = Results obtained from analysis of diluted sample
E = Exceeds calibration Range
Results reported on a dry weight basis and are valid to no more than 2 significant figures

^ = WDNR has determine the City of Wausau is not responsible for contamination beyond park property boundares (April 24, 2024).

Italic	= Exceeds NR720 Groundwater Pathway Protection
Bold	= Exceeds NR720 Non-Industrial Not-To-Exceed DC RCL
Underlined	= Exceeds NR720 Non-Industrial Not-To-Exceed DC RCL

Table 3a
WAC Chapter NR720 Standards Exceedances - Subject Property
City of Wausau - Riverside Park
132 River Street
Wausau, WI 54401
BRRTS# 02-37-584785

Compound	WAC Chapter NR720 Non-Industrial Direct Contact RCL Exceedances	Exceedance Count
Dioxins		
2,3,7,8-TCDD	No Exceedances	0
1,2,3,7,8-PeCDD	No Exceedances	0
1,2,3,4,7,8-HxCDD	No Exceedances	0
1,2,3,6,7,8-HxCDD	No Exceedances	0
1,2,3,7,8,9-HxCDD	No Exceedances	0
1,2,3,7,8,9-HpCDD	No Exceedances	0
OCDD	No Exceedances	0
Furans		
2,3,7,8-TCDF	No Exceedances	0
1,2,3,7,8-PeCDF	No Exceedances	0
2,3,4,7,8-PeCDF	S27 (48 inches)	1
1,2,3,4,7,8-HxCDF	No Exceedances	0
1,2,3,6,7,8-HxCDF	No Exceedances	0
2,3,4,6,7,8-HxCDF	No Exceedances	0
1,2,3,7,8,9-HxCDF	No Exceedances	0
1,2,3,4,6,7,8-HpCDF	No Exceedances	0
1,2,3,4,7,8,9-HpCDF	No Exceedances	0
OCDF	No Exceedances	0
Cumulative Hazard Index	No Exceedances	0
Cumulative Cancer Risk	No Exceedances	0

Notes:
WAC = Wisconsin Administrative Code
* = Concentration also exceeded the WAC Chapter NR720 Industrial Direct Contact RCLs.

Table 3b
WAC Chapter NR720 Standards Exceedances - Surrounding Area
City of Wausau - Riverside Park
132 River Street
Wausau, WI 54401
BRRTS# 02-37-584785

Compound	WAC Chapter NR720 Non-Industrial Direct Contact RCL Exceedances	Exceedance Count
Dioxins		
2,3,7,8-TCDD	No Exceedances	0
1,2,3,7,8-PeCDD	117 River 1 (4-6 inches)^, 117 River 2 (4-6 inches)^	2
1,2,3,4,7,8-HxCDD	No Exceedances	0
1,2,3,6,7,8-HxCDD	No Exceedances	0
1,2,3,7,8,9-HxCDD	No Exceedances	0
1,2,3,7,8,9-HpCDD	117 River 1 (4-6 inches)^, 117 River 2 (4-6 inches)^	2
OCDD	No Exceedances	0
Furans		
2,3,7,8-TCDF	No Exceedances	0
1,2,3,7,8-PeCDF	S29 (2-3 inches)^, S36 (2-3 inches)^	2
2,3,4,7,8-PeCDF	1003 Emt (8-10 inches)*^, S29 (2-3 inches)^, S36 (2-3 inches)^, S37 (2-3 inches)^	4
1,2,3,4,7,8-HxCDF	No Exceedances	0
1,2,3,6,7,8-HxCDF	No Exceedances	0
2,3,4,6,7,8-HxCDF	1003 Emt (8-10 inches)^, S29 (2-3 inches)^	2
1,2,3,7,8,9-HxCDF	No Exceedances	0
1,2,3,4,6,7,8-HpCDF	No Exceedances	0
1,2,3,4,7,8,9-HpCDF	No Exceedances	0
OCDF	No Exceedances	0
Cumulative Hazard Index	No Exceedances	0
Cumulative Cancer Risk	S36 (2-3 inches)^	1

Notes:
WAC = Wisconsin Administrative Code
* = Concentration also exceeded the WAC Chapter NR720 Industrial Direct Contact RCLs.
^ = WDNR has determine the City of Wausau is not responsible for contamination beyond park property boundares (April 24, 2024).

Table 4
Residual Soil Contamination - NR720 Soil Standards
City of Wausau - Riverside Park
132 River Street
Wausau, WI 54401
BRRTS# 02-37-584785

REI CIVIL & ENVIRONMENTAL ENGINEERING, SURVEYING

					Collected By-->	CWE, Inc.			REI Engineering, Inc.			
					Date-->	*12/8/2008*	*12/8/2008*	*12/8/2008*	*7/18/2023*	*7/19/2023*	*7/19/2023*	*7/19/2023*
					Sample-->	*1003 Emt^*	*117 Riv 1^*	*117 Riv 2^*	*S27*	*S29^*	*S36^*	*S37^*
					Sample Depth--(Inches)-->	*8-10*	*4-6*	*4-6*	*48*	*2-3*	*2-3*	*2-3*
					Percent Moisture (%)-->	*-*	*-*	*-*	*4.9*	*4.8*	*13.3*	*9.4*
					Saturated (S) vs Unsaturated (U)-->	*U*	*U*	*U*	*U*	*U*	*U*	*U*
Dioxin Congeners	CAS Number	Units	Non-Industrial Not-to-Exceed DC RCL	Industrial Not-to-Exceed DC RCL	Groundwater Pathway Protection RCL							
2,3,7,8-TCDD	1746-01-6	ng/kg	4.82	21.8	30.0	<1	<1	<1	0.38 [J]	<0.29	0.75 [J]	0.41 [J]
1,2,3,7,8-PeCDD	40321-76-4	ng/kg	4.82	21.8	- -	<5	5.1	5.6	2.8 [J]	1.4 [J]	4.7 [J]	1.8 [J]
1,2,3,4,7,8-HxCDD	39227-28-6	ng/kg	48.2	218	- -	<5	12	15	5.7	2.5 [J]	7.3	6.3
1,2,3,6,7,8-HxCDD	57653-85-7	ng/kg	48.2	218	- -	15	41	44	22	13	23	16
1,2,3,7,8,9-HxCDD	19408-74-3	ng/kg	48.2	218	- -	6.8	25	27	10	6.6	15	11
1,2,3,4,6,7,8-HpCDD	35822-46-9	ng/kg	482	2.18E+03	- -	260	1,100	1,100	400	220	450	370
OCDD	3268-87-9	ng/kg	1.61E+04	7.27E+04	- -	3,000	7,600	8,200	3,800	1,900	3,500	3,100
Total TCDD	- -	ng/kg	- -	- -	- -	7.9	15	22	7.2	6.0	13	24
Total PeCDD	- -	ng/kg	- -	- -	- -	<5	40	48	25	20	35	26
Total HxCDD	- -	ng/kg	- -	- -	- -	85	310	360	140	88	200	140
Total HpCDD	- -	ng/kg	- -	- -	- -	500	2,000	2,000	740	410	850	660
Furan Congeners												
2,3,7,8-TCDF	51207-31-9	ng/kg	48.2	218	- -	2.0	3.5	3.7	2.1 [C]	1.8 [V]	3.1 [V]	1.8 [C]
1,2,3,7,8-PeCDF	57117-41-6	ng/kg	161	727	- -	<5	<5	<5	1.9 [J]	300 [EMPC]	280 [EMPC, P]	31 [EMPC, P]
2,3,4,7,8-PeCDF	57117-31-4	ng/kg	16.1	72.7	- -	76	16	16	55	72	44	17
1,2,3,4,7,8-HxCDF	70648-26-9	ng/kg	48.2	218	- -	24	37	12	13	11 [EMPC, P]	21 [EMPC, P]	10
1,2,3,6,7,8-HxCDF	57117-44-9	ng/kg	48.2	218	- -	26	19	17	20 [EMPC, P]	15	16	9
2,3,4,6,7,8-HxCDF	60851-34-5	ng/kg	48.2	218	- -	100	29	23	43	54	46	19
1,2,3,7,8,9-HxCDF	72918-21-9	ng/kg	48.2	218	- -	6.4	<5	5.0	5.3	14 [EMPC, P]	17 [EMPC, P]	7.7 [EMPC, P]
1,2,3,4,6,7,8-HpCDF	67562-39-4	ng/kg	482	2.18E+03	- -	160	350	350	180	110	200	150
1,2,3,4,7,8,9-HpCDF	55673-89-7	ng/kg	482	2.18E+03	- -	13	20	20	10	6.6	12	11
OCDF	39001-02-0	ng/kg	1.61E+04	7.27E+04	- -	170	520	550	320	110	220	210
Total TCDF	- -	ng/kg	- -	- -	- -	140	110	110	140	160	120	60
Total PeCDF	- -	ng/kg	- -	- -	- -	880	260	250	670	620	270	130
Total HxCDF	- -	ng/kg	- -	- -	- -	1,600	580	560	450	750	610	320
Total HpCDF	- -	ng/kg	- -	- -	- -	540	870	850	190	280	440	410
Individual Exceedances (DC)			1	1	- -	2	2	2	1	3	2	1
Cumulative Hazard Index (DC)			1.0	1.0	- -	0.8558	0.6551	0.6298	0.6908	0.8958	0.8902	0.3765
Cumulative Cancer Risk (DC)			1.0E-05	1.0E-05	- -	9.4E-06	8.9E-06	8.7E-06	7.9E-06	9.7E-06	1.0E-05	4.6E-06
Total 2,3,7,8-TCDD Equivalence[1]	- -	ng/kg	- -	- -	- -	46	44	42	39	48	50	23

Notes:
NR 720 Standards Obtained From WDNR RR Program's Soil RCL Spreadsheet
This site is assessed as Non-Industrial
RCL = Residual Contaminant Level
DC = Direct Contact
ng/kg = Parts Per Trillion (ppt)
< = Concentration Below Laboratory Detection Limit
- = Not Sampled/Collected
- - = No Standard/Not Applicable
TEQ = Toxicity Eqivalent Calculations
[1] = TEQ values calculated using the U.S. EPA 2007 values.

TCDD: Tetrachlorodibenzo-p-dioxin
PeCDD: Pentachlorodibenzo-p-dioxin
HxCDD: Hexachlorodibenzo-p-dioxin
HPCDD: Heptachlorodibenzo-p-dioxin
OCDD: Octachlorodibenzo-p-dioxin
TCDF: Tetrachlorodibenzofuran
PeCDF: Pentachlorodibenzofuran
HxCDF: Hexachlorodibenzofuran
HPCDF: Heptachlorodibenzofuran
OCDF: Octachlorodibenzofuran

Laboratory Qualifiers and Notes:
[J] = Estimated Value
[EMPC] = Estimated Maximum Possible Concentration
[P] = PCDE Interference
[I] = Interference Present
[V] = Results verified by confimation analysis
[C] = Results obtained from confirmation analysis
[D] = Results obtained from analysis of diluted sample
[E] = Exceeds calibration Range
Results reported on a dry weight basis and are valid to no more than 2 significant figures

^ = WDNR has determine the City of Wausau is not responsible for contamination beyond park property boundares (April 24, 2024).

Italic	= Exceeds NR720 Groundwater Pathway Protection
Bold	= Exceeds NR720 Non-Industrial Not-To-Exceed DC RCL
Underlined	= Exceeds NR720 Non-Industrial Not-To-Exceed DC RCL

FIGURES

REI
CIVIL & ENVIRONMENTAL ENGINEERING, SURVEYING

SCALE 1:24 000

1 0.5 0 KILOMETERS 1 2

1000 500 0 METERS 1000 2000

1 0.5 0 1

MILES

1000 0 1000 2000 3000 4000 5000 6000 7000 8000 9000 10000

FEET

CONTOUR INTERVAL 10 FEET
NORTH AMERICAN VERTICAL DATUM OF 1988

MN
GN
2°50'
50 MILS
1°54'
34 MILS

UTM GRID AND 2019 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET

WAUSAU WEST QUADRANGLE
WISCONSIN - MARATHON COUNTY
7.5-MINUTE SERIES

QUADRANGLE LOCATION

WAUSAU WEST, WI
2018

REI ENGINEERING, INC.

RIVERSIDE RAILROAD CORRIDOR 132 RIVER STREET WAUSAU, WI	N	FIGURE 1 : LOCATION MAP		
		PROJECT NO. 9073	DRAWN BY: MCM	DATE: 1/15/2024

DRAWING FILE: P:\9000-9099\9073 - CITY OF WAUSAU RIVERSIDE RR CORRIDOR\DWGS\9073-VICN.DWG LAYOUT: RR CORRIDOR PLOTTED: JAN 15, 2024 - 9:29AM PLOTTED BY: MATTM

DRAWING FILE: P:\9000-9099\9073 - CITY OF WAUSAU RIVERSIDE RR CORRIDOR\DWGS\9073-DETAILED SITE.DWG LAYOUT: SITE (24X36) PLOTTED: JAN 07, 2026 - 10:12AM PLOTTED BY: MATTM

NOTES:

1. ARCADIS SOIL SAMPLE LOCATIONS ARE AN APPROXIMATION BASED ON ARCADIS's MAP "SUMMARY OF SOIL ANALYTICAL RESULTS", IDENTIFIED AS FIGURE 1 OF THE NOTIFICATION OF HAZARDOUS SUBSTANCE DISCHARGE (BRRTS#: 02-37-587000).
2. TRC SOIL SAMPLE LOCATIONS ARE AN APPROXIMATION BASED ON TRC's MAP "LOCATION OF 36 SOIL SAMPLES AND RCL EXCEEDANCES", IDENTIFIED AS FIGURE 6 (OCTOBER 2019).
3. SAND CREEK CONSULTANTS, INC SOIL SAMPLE LOCATIONS ARE AN APPROXIMATION BASED ON THE CITY OF WAUSAU AND MARATHON COUNTY GIS MAP "SOIL SAMPLES LOCATIONS RIVERSIDE PARK" (DECEMBER 2019)
4. CWE, INC. SOIL SAMPLE LOCATIONS ARE AN APPROXIMATION BASED ON CWE'S MAP "SAMPLE LOCATION MAP" (OCTOBER 2009)
5. ONE (1) CWE, INC. SOIL SAMPLE IS NOT DEPICTED ON THIS MAP. THE UNMAPPED LOCATION WAS FOR A SAMPLE COLLECTED FROM THE WOODS BEHIND THE FORMER CWE OFFICE (5707 SCHOFIELD, AVE, WESONT, WI).

N

REI Engineering, INC.

REI
CIVIL & ENVIRONMENTAL ENGINEERING, SURVEYING

RIVERSIDE RAILROAD CORRIDOR
132 RIVER STREET
WAUSAU, WISCONSIN

FIGURE 2 : DETAILED SITE MAP

PROJECT No.	DRAWN BY:	DATE:
9073	MCM	1/7/2026

LEGEND

0 60

SCALE: 1" = 60'

- SOIL SAMPLE - RR CORRIDOR - REI ENGINEERING, INC
- SOIL SAMPLE (2019) - TRC
- SOIL SAMPLE (2017) - AECOM
- SOIL SAMPLE (2008) - CWE, INC
- PROPERTY BOUNDARIES (APPROXIMATE)

NOTES:

1. TRC SOIL SAMPLE LOCATIONS ARE AN APPROXIMATION BASED ON TRC'S MAP "LOCATION OF 36 SOIL SAMPLES AND RCL EXCEEDANCES", IDENTIFIED AS FIGURE 6 (OCTOBER 2019).
2. CWE, INC. SOIL SAMPLE LOCATIONS ARE AN APPROXIMATION BASED ON CWE'S MAP "SAMPLE LOCATION MAP" (OCTOBER 2009)
3. NOT ALL SAMPLE LOCATIONS ARE IDENTIFIED ON THIS MAP. ALL AVAILABLE SAMPLE LOCATIONS ARE DEPICTED ON THE EXPANDED DETAILED SITE MAP UNLESS NOTED.

REI CIVIL & ENVIRONMENTAL ENGINEERING, SURVEYING

RIVERSIDE RAILROAD CORRIDOR
132 RIVER STREET
WAUSAU, WISCONSIN

FIGURE 3 : DETAILED SITE MAP - RAILROAD CORRIDOR

PROJECT No.	DRAWN BY:	DATE:
9073	MCM	1/7/2026

REI Engineering, INC.

DRAWING FILE: P:\9000-9099\9073 - CITY OF WAUSAU RIVERSIDE RR CORRIDOR\DWGS\9073-DETAILED SITE.DWG LAYOUT: RR CLOSEUP PLOTTED: JAN 07, 2026 - 10:13AM PLOTTED BY: MATTM

LEGEND

0 60
SCALE: 1" = 60'

- SOIL SAMPLE - PARK - REI ENGINEERING, INC
- SOIL SAMPLE - RR CORRIDOR - REI ENGINEERING, INC
- SOIL SAMPLE (2019) - SAND CREEK CONSULTANTS, INC
- SOIL SAMPLE (2019) - TRC
- SOIL SAMPLE (2008) - CWE, INC
- SOIL SAMPLE (2006) - CWE, INC
- EXCAVATION TO 1 FOOT BLS
- EXCAVATION TO 4 FEET BLS
- REMOVED RAILROAD TRACKS
- PROPERTY BOUNDARIES (APPROXIMATE)

NOTES:

1. TRC SOIL SAMPLE LOCATIONS ARE AN APPROXIMATION BASED ON TRC's MAP "LOCATION OF 36 SOIL SAMPLES AND RCL EXCEEDANCES", IDENTIFIED AS FIGURE 6 (OCTOBER 2019).
2. SAND CREEK CONSULTANTS, INC SOIL SAMPLE LOCATIONS ARE AN APPROXIMATION BASED ON THE CITY OF WAUSAU AND MARATHON COUNTY GIS MAP "SOIL SAMPLES LOCATIONS RIVERSIDE PARK" (DECEMBER 2019)
3. CWE, INC. SOIL SAMPLE LOCATIONS ARE AN APPROXIMATION BASED ON CWE'S MAP "SAMPLE LOCATION MAP" (OCTOBER 2009)
4. NOT ALL SAMPLE LOCATIONS ARE IDENTIFIED ON THIS MAP. ALL AVAILABLE SAMPLE LOCATIONS ARE DEPICTED ON THE EXPANDED DETAILED SITE MAP UNLESS NOTED.

REI CIVIL & ENVIRONMENTAL ENGINEERING, SURVEYING

RIVERSIDE RAILROAD CORRIDOR
132 RIVER STREET
WAUSAU, WISCONSIN

FIGURE 4 : DETAILED SITE MAP - PARK

PROJECT No.	DRAWN BY:	DATE:
9073	MCM	1/7/2026

DRAWING FILE: P:\9000-9099\9073 - CITY OF WAUSAU RIVERSIDE RR CORRIDOR\DWGS\9073-DETAILED SITE.DWG LAYOUT: PARK CLOSEUP PLOTTED: JAN 07, 2026 - 10:22AM PLOTTED BY: MATTM

LEGEND

0 30
SCALE: 1" = 30'

- SOIL SAMPLE - EXCAVATION SAMPLE - REI ENGINEERING, INC
- SOIL SAMPLE - WASTE DETERMINATION - REI ENGINEERING, INC
- SOIL SAMPLE - PARK - REI ENGINEERING, INC
- SOIL SAMPLE - RR CORRIDOR - REI ENGINEERING, INC
- SOIL SAMPLE (2019) - SAND CREEK CONSULTANTS, INC
- SOIL SAMPLE (2008) - CWE, INC
- SOIL SAMPLE (2006) - CWE, INC
- UTILITY POLE
- EXCAVATION TO 1 FOOT BLS (2023)
- EXCAVATION TO 4 FEET BLS (2023)
- OVERHEAD UTILITIES
- SANITARY SEWER LINE
- ABANDONED RAILROAD TRACKS (REMOVED)
- PROPERTY BOUNDARIES (APPROXIMATE)

NOTES:

1. SAND CREEK CONSULTANTS, INC SOIL SAMPLE LOCATIONS ARE AN APPROXIMATION BASED ON THE CITY OF WAUSAU AND MARATHON COUNTY GIS MAP "SOIL SAMPLES LOCATIONS RIVERSIDE PARK" (DECEMBER 2019)
2. CWE, INC. SOIL SAMPLE LOCATIONS ARE AN APPROXIMATION BASED ON CWE'S MAP "SAMPLE LOCATION MAP" (OCTOBER 2009)
3. NOT ALL SAMPLE LOCATIONS ARE IDENTIFIED ON THIS MAP. ALL AVAILABLE SAMPLE LOCATIONS ARE DEPICTED ON THE EXPANDED DETAILED SITE MAP UNLESS NOTED.

REI CIVIL & ENVIRONMENTAL ENGINEERING, SURVEYING

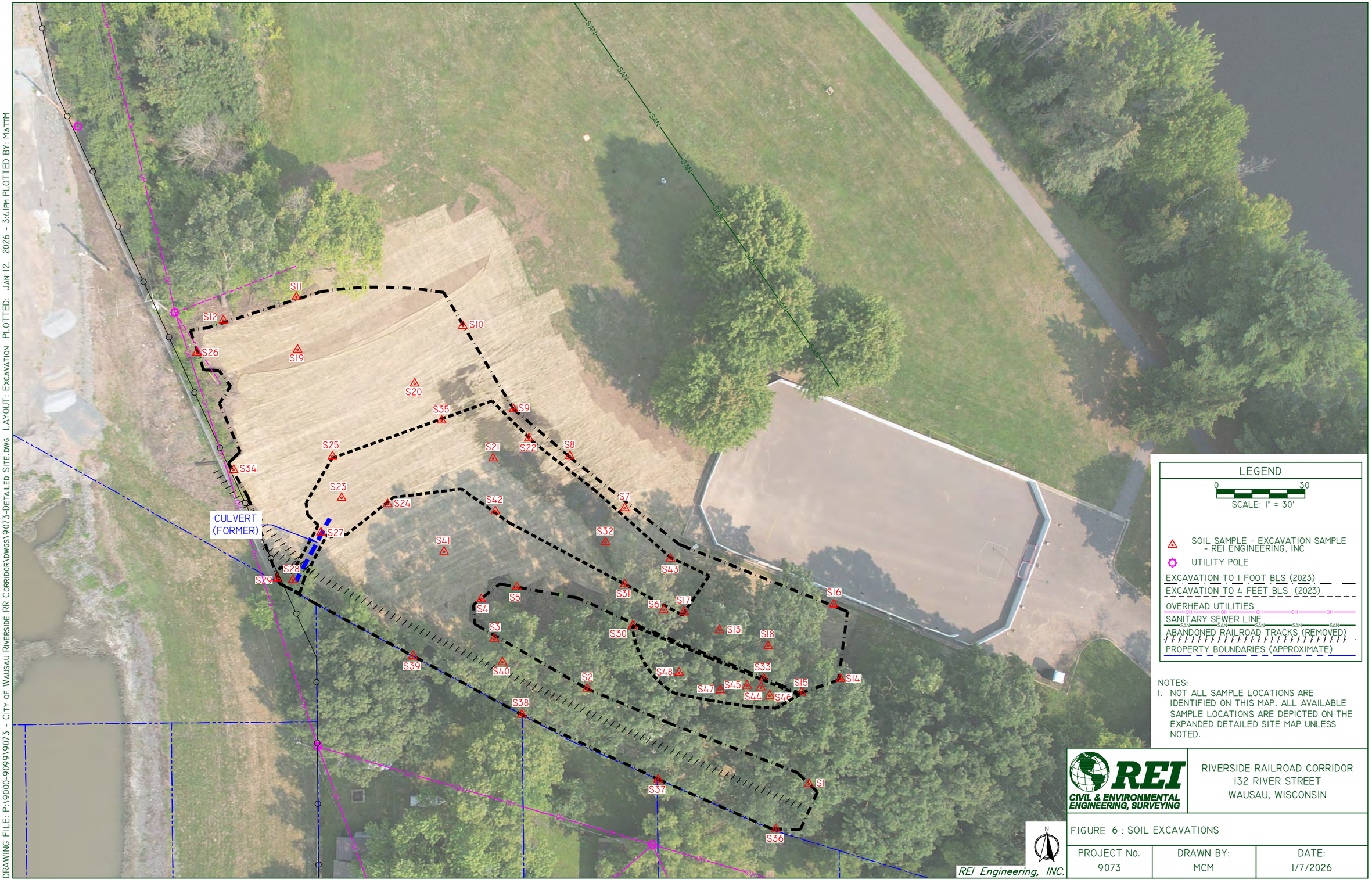
RIVERSIDE RAILROAD CORRIDOR
132 RIVER STREET
WAUSAU, WISCONSIN

FIGURE 5 : DETAILED SITE MAP - PARK CULVERT

PROJECT No.	DRAWN BY:	DATE:
9073	MCM	1/7/2026

REI Engineering, INC.

DRAWING FILE: P:\9000-9099\9073 - CITY OF WAUSAU RIVERSIDE RR CORRIDOR\DWGS\9073-DETAILED SITE.DWG LAYOUT: PARK CULVERT CLOSEUP PLOTTED: JAN 07, 2026 - 12:04PM PLOTTED BY: MATTM



REI
CIVIL & ENVIRONMENTAL ENGINEERING, SURVEYING

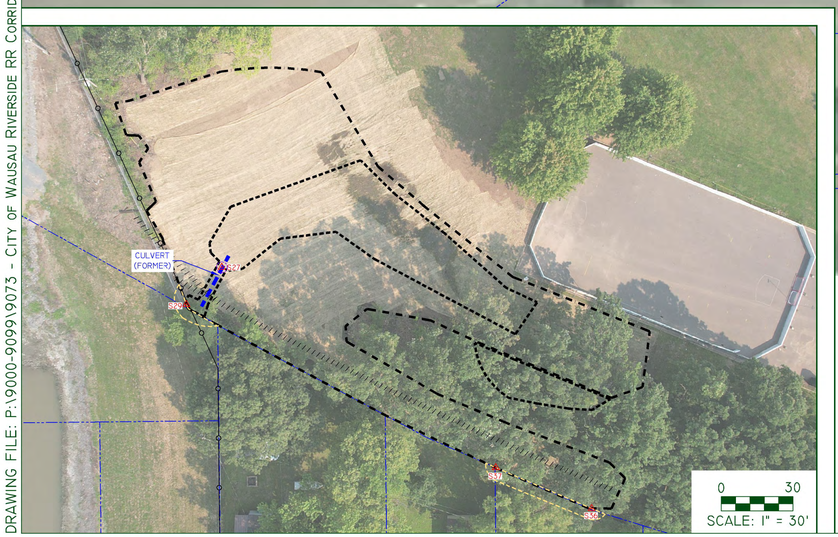
RIVERSIDE RAILROAD CORRIDOR
132 RIVER STREET
WAUSAU, WISCONSIN

FIGURE 6 : SOIL EXCAVATIONS

PROJECT No.	DRAWN BY:	DATE:
9073	MCM	1/7/2026

DRAWING FILE: P:\9000-9099\9073 - CITY OF WAUSAU RIVERSIDE RR CORRIDOR\DWGS\9073-DETAILED SITE.DWG LAYOUT: EXCAVATION PLOTTED: JAN 12, 2026 - 3:41PM PLOTTED BY: MATTM

DRAWING FILE: P:\9000-9099\9073 - CITY OF WAUSAU RIVERSIDE RR CORRIDOR\DWGS\9073-SOIL CONTAMINAITION-NR720 (2023).DWG LAYOUT: SITE (24X36) PLOTTED: JAN 07, 2026 - 10:25AM PLOTTED BY: MATTM



LEGEND

0 60 120

SCALE: 1" = 60'

- SOIL SAMPLE - PARK - REI ENGINEERING, INC
- SOIL SAMPLE (2008) - CWE, INC
- EXCAVATION TO 1 FOOT BLS
- EXCAVATION TO 4 FEET BLS
- EXCEEDES WAC CHAPTER NR720 NON-INDUSTIRAL DIRECT CONTACT - ON-SITE (<4' BLS)
- EXCEEDES WAC CHAPTER NR720 NON-INDUSTIRAL DIRECT CONTACT - ON-SITE (>4' BLS)
- EXCEEDES WAC CHAPTER NR720 NON-INDUSTIRAL DIRECT CONTACT - OFF-SITE (<4' BLS)
- EXCEEDES WAC CHAPTER NR720 NON-INDUSTIRAL DIRECT CONTACT - OFF-SITE (<4' BLS)
- PROPERTY BOUNDARIES (APPROXIMATE)

LATERAL EXTENT OF UNSATURATED SOIL CONTAMINATION BEYOND PROPERTY BOUNDARIES IS FOR ILLUSTRATIVE PURPOSES ONLY. ADDITIONAL SOIL SAMPLING WOULD BE REQUIRED TO DETERMINE EXTENT OF CONTAMINATION OUTSIDE OF PROPERTY BOUNDARIES.

NOTES:

1. SHALLOW HALLOW SOIL CONTAMINATION IS BASED ON UNSATURATED SOIL ANALYTICAL RESULTS FOR SAMPLES COLLECTED WITHIN THE TOP TEN (10) TO TWELVE (12) INCHES OF THE SOIL COLUMN.
2. ARCADIS SOIL SAMPLE LOCATIONS ARE AN APPROXIMATION BASED ON ARCADIS'S MAP "SUMMARY OF SOIL ANALYTICAL RESULTS", IDENTIFIED AS FIGURE 1 OF THE NOTIFICATION OF HAZARDOUS SUBSTANCE DISCHARGE (BRRTS#: 02-37-587000).
3. TRC SOIL SAMPLE LOCATIONS ARE AN APPROXIMATION BASED ON TRC'S MAP "LOCATION OF 36 SOIL SAMPLES AND RCL EXCEEDANCES", IDENTIFIED AS FIGURE 6 (OCTOBER 2019).
4. SAND CREEK CONSULTANTS, INC SOIL SAMPLE LOCATIONS ARE AN APPROXIMATION BASED ON THE CITY OF WAUSAU AND MARATHON COUNTY GIS MAP "SOIL SAMPLES LOCATIONS RIVERSIDE PARK" (DECEMBER 2019)
5. CWE, INC. SOIL SAMPLE LOCATIONS ARE AN APPROXIMATION BASED ON CWE'S MAP "SAMPLE LOCATION MAP" (OCTOBER 2009)
6. ONE (1) CWE, INC. SOIL SAMPLE IS NOT DEPICTED ON THIS MAP. THE UNMAPPED LOCATION WAS FOR A SAMPLE COLLECTED FROM THE WOODS BEHIND THE FORMER CWE OFFICE (5707 SCHOFIELD, AVE, WESONT, WI).

N

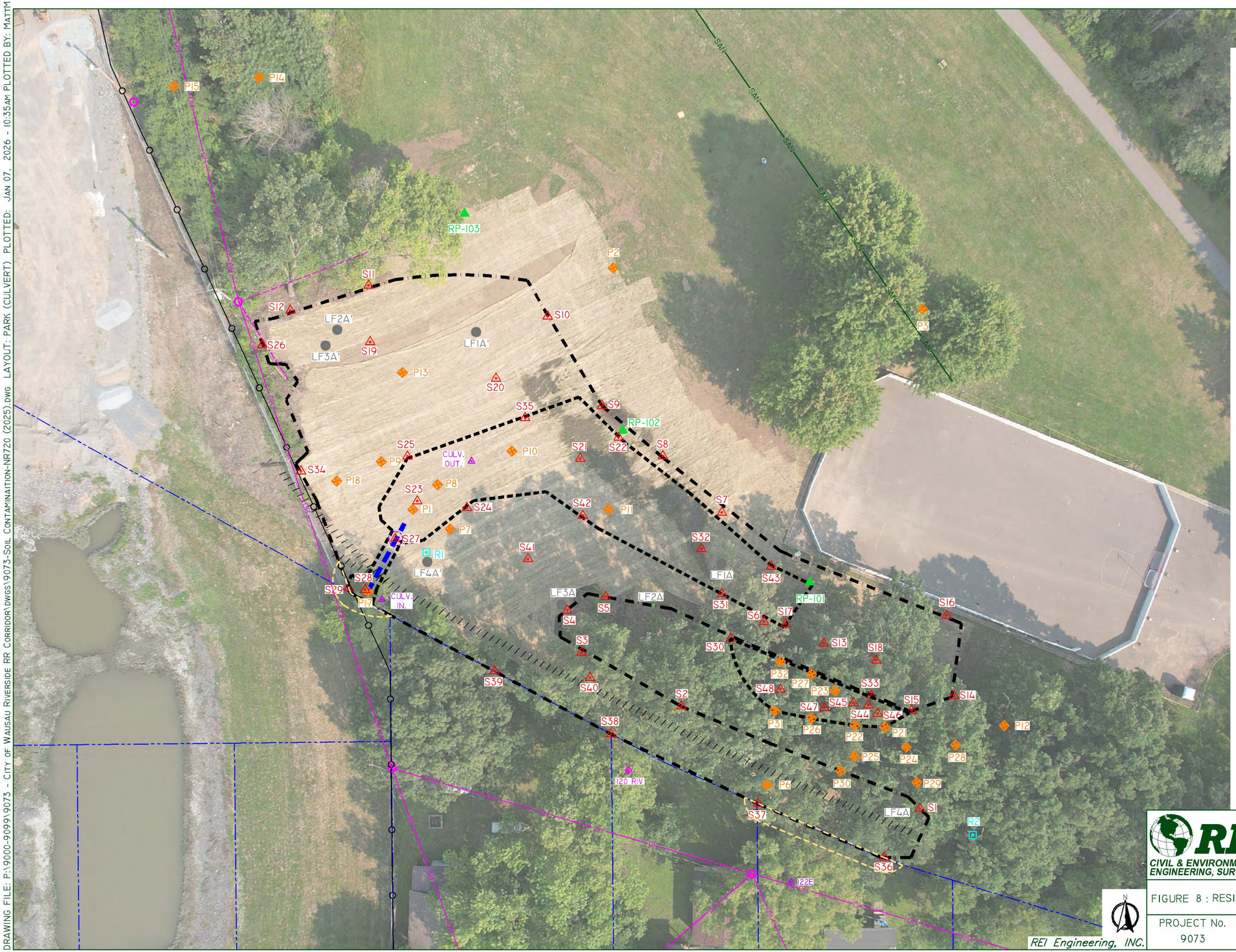
REI Engineering, INC.

REI
CIVIL & ENVIRONMENTAL ENGINEERING, SURVEYING

RIVERSIDE RAILROAD CORRIDOR
132 RIVER STREET
WAUSAU, WISCONSIN

FIGURE 6 : RESIDUAL SOIL CONTAMINATION

PROJECT No.	DRAWN BY:	DATE:
9073	MCM	1/7/2025



LEGEND

0 30
SCALE: 1" = 30'

- SOIL SAMPLE - EXCAVATION SAMPLE - REI ENGINEERING, INC
- SOIL SAMPLE - WASTE DETERMINATION - REI ENGINEERING, INC
- SOIL SAMPLE - PARK - REI ENGINEERING, INC
- SOIL SAMPLE - RR CORRIDOR - REI ENGINEERING, INC
- SOIL SAMPLE (2019) - SAND CREEK CONSULTANTS, INC
- SOIL SAMPLE (2008) - CWE, INC
- SOIL SAMPLE (2006) - CWE, INC
- UTILITY POLE

EXCEEDES WAC CHAPTER NR720 NON-INDUSTIRAL DIRECT CONTACT - ON-SITE (<4' BLS)

EXCEEDES WAC CHAPTER NR720 NON-INDUSTIRAL DIRECT CONTACT - ON-SITE (>4' BLS)

EXCEEDES WAC CHAPTER NR720 NON-INDUSTIRAL DIRECT CONTACT - OFF-SITE (<4' BLS)

EXCEEDES WAC CHAPTER NR720 NON-INDUSTIRAL DIRECT CONTACT - OFF-SITE (<4' BLS)

EXCAVATION TO 1 FOOT BLS

EXCAVATION TO 4 FEET BLS

OVERHEAD UTILITIES

SANITARY SEWER LINE

ABANDONED RAILROAD TRACKS (REMOVED)

PROPERTY BOUNDARIES (APPROXIMATE)

NOTES:

1. SHALLOW SOIL CONTAMINATION IS BASED ON UNSATURATED SOIL ANALYTICAL RESULTS FOR SAMPLES COLLECTED WITHIN THE TOP TEN (10) INCHES OF THE SOIL COLUMN.
2. TRC SOIL SAMPLE LOCATIONS ARE AN APPROXIMATION BASED ON TRC'S MAP "LOCATION OF 36 SOIL SAMPLES AND RCL EXCEEDANCES", IDENTIFIED AS FIGURE 6 (OCTOBER 2019).
3. SAND CREEK CONSULTANTS, INC SOIL SAMPLE LOCATIONS ARE AN APPROXIMATION BASED ON THE CITY OF WAUSAU AND MARATHON COUNTY GIS MAP "SOIL SAMPLES LOCATIONS RIVERSIDE PARK" (DECEMBER 2019)
4. CWE, INC. SOIL SAMPLE LOCATIONS ARE AN APPROXIMATION BASED ON CWE'S MAP "SAMPLE LOCATION MAP" (OCTOBER 2009)

REI CIVIL & ENVIRONMENTAL ENGINEERING, SURVEYING

CITY OF WAUSAU - RIVERSIDE PARK
132 RIVER STREET
WAUSAU, WISCONSIN

FIGURE 8 : RESIDUAL SOIL CONTAMINATION - PARK

PROJECT No.	DRAWN BY:	DATE:
9073	MCM	1/7/2026

REI Engineering, INC.

DRAWING FILE: P:\9000-9099\9073 - CITY OF WAUSAU RIVERSIDE RR CORRIDOR\DWGS\9073-SOIL CONTAMINATION-NR720 (2025).DWG LAYOUT: PARK (CULVERT) PLOTTED: JAN 07, 2026 - 10:35AM PLOTTED BY: MATTM

APPENDIX A

PHOTOGRAPHS

16 Photos

REI
CIVIL & ENVIRONMENTAL
ENGINEERING, SURVEYING

Appendix A - Photographs

1

Vegetation removal.

Date: Jul 29, 2025, 10:52 AM

2

Vegetation removal.

Date: Jul 29, 2025, 10:53 AM

3

Start of excavation.

Date: Jul 30, 2025, 7:16 AM

4

Ongoing excavation.

Date: Jul 30, 2025, 7:16 AM

5

Completed excavation.

Date: Jul 30, 2025, 9:34 AM

6

Completed excavation.

Date: Jul 30, 2025, 9:34 AM

7

Backfill placement - borrow.

Date: Jul 30, 2025, 10:57 AM

8

Backfill placement - borrow.

Date: Jul 30, 2025, 12:39 PM

9

Backfill placement - borrow.

Date: Jul 30, 2025, 12:39 PM

10

Backfill placement - topsoil.

Date: Jul 30, 2025, 1:27 PM

11

Final restoration.

Date: Jul 30, 2025, 2:02 PM

12

Final restoration.

Date: Jul 30, 2025, 2:02 PM

13

Final restoration.

Date: Aug 14, 2025, 12:28 PM

14

Final restoration.

Date: Aug 14, 2025, 12:28 PM

15

Final restoration.

Date: Sep 30, 2025, 9:52 AM

16

Final restoration.

Date: Sep 30, 2025, 9:53 AM

APPENDIX B

METHODS & PROCEEDURES

METHODS AND PROCEDURES
FOR
HAND SAMPLING (SOIL SURFACE)

Sample Collection

Clean decontaminated shovels and hand tools are utilized for sample collected. A spade shovel is utilized to remove any surface vegetation and root zone. Once vegetation or decaying vegetative material is removed overlying soils are removed to the top of the sample interval. A stainless-steel hand trowel is utilized to loosen soils within the sample interval prior to sample collection. Soil samples are placed in laboratory prepared glass containers and placed directly into a cooler pending delivery to the laboratory. Nitrile gloves were worn during all sample collection procedures.

As the samples are obtained in the field, they are visually and manually classified by the field geologist/technician in accordance with ASTM: D2488-17e1. Soil descriptions are completed with the depth and identification of the various strata, water level information, and pertinent information regarding the method of collection.

Chain of Custody

Upon completion of a sample, a chain of custody log is initiated. The chain of custody record included the following information: project name, work order number, shipped by, shipped to, sampling point, location, field ID number, date and time taken, sample type, number of containers, analysis required, sampler(s) signature(s), etc. As few people as possible handled the samples.

Decontamination

Prior to decontamination, excess soils are removed. Equipment is then placed in a clean 5-gallon plastic bucket containing a mixture of deionized water and Liquinox® prepared according to the manufacturer's instructions. The equipment is scrubbed with a clean nylon brush with special care taken to clean all areas which contact soils during hand sampling. Equipment is then rinsed in a separate clean 5-gallon buck containing deionized water to remove any remaining cleaning solution. Finally, the equipment is rinsed with deionized water and the rinse water is captured in a third 5-gallon bucket. Decontaminated equipment is allowed to air dry prior to additional sampling use.

Water utilized to decontaminate equipment is containerized in 55-gallon steel DOT approved drums and temporarily stored at REI's facility until disposal.

APPENDIX C

MARATHON COUNTY LANDFILL – SCALE TICKETS

Landfill Tonnage				
Date	**Load CT**	**Truck**	**Time**	**Tonnage**
Tuesday, July 29, 2025	1	Peterson 403	1:50:00 PM	11.94
Wednesday, July 30, 2025	2	DDK 22	7:46:00 AM	15.61
Wednesday, July 30, 2025	3	Peterson 403	8:34:00 AM	18.60
Wednesday, July 30, 2025	4	Peterson 407	8:37:00 AM	15.85
Wednesday, July 30, 2025	5	Woller 426	8:57:00 AM	18.91
Wednesday, July 30, 2025	6	DDK 22	9:11:00 AM	18.79
Wednesday, July 30, 2025	7	Peterson 403	9:48:00 AM	22.79
Wednesday, July 30, 2025	8	Peterson 407	9:58:00 AM	19.32
Wednesday, July 30, 2025	9	Woller 426	10:21:00 AM	23.51
Wednesday, July 30, 2025	10	Peterson 407	11:15:00 AM	23.37
Totals	**10 LDS**			**188.69**

Borrow Excavation Import			
Date	**Load CT**	**Truck**	**CY**
Wednesday, July 30, 2025	1	Woller 426	16.00
Wednesday, July 30, 2025	2	Peterson 403	16.00
Wednesday, July 30, 2025	3	Peterson 403	16.00
Wednesday, July 30, 2025	4	Peterson 403	16.00
Wednesday, July 30, 2025	5	DDK 22	16.00
Wednesday, July 30, 2025	6	DDK 22	16.00
Wednesday, July 30, 2025	7	DDK 22	16.00
Wednesday, July 30, 2025	8	Peterson 407	16.00
Totals	**8 loads**		**128.00**

Topsoil Import			
Date	**Load CT**	**Truck**	**CY**
Wednesday, July 30, 2025	1	Peterson 403	16.00
Wednesday, July 30, 2025	2	DDK 22	16.00
Totals	**8 loads**		**32.00**

MARATHON CO. SOLID WASTE
172900 STATE HWY 29
RINGLE, WI 54471-9754
(715)446-3101

IN: 07/29/25 01:50 PM
OUT: 07/29/25 02:04 PM

BILL TO: 23035
WAUSAU, CITY OF - DPW
PO #:

TICKET#: 240519
TR TYPE: Business Accounts and Rolloffs
TRUCK: PETERSON
TRAILER:
ORIGIN: COMMERCIAL

GROSS:	51460 lb	25.73 tn
TARE:	27580 lb	13.79 tn
NET:	23880 lb	11.94 tn

MATERIAL(s)
252 - CONT. SOILS - CONTRAC $399.99
11.94 TN @ $$33.50/TN

SUBTOTAL: $399.99
Ringle-$2.26/ton Ringle: $155.22
DNR-$13/ton DNR: $26.98

TOTAL: $582.19

Additional charge of 3% with debit/credit card

PAYMENT METHOD(s):
1 - Charge on Accou

CHANGE: $0.00

NOTE: RIVERSIDE PARK

SIGN

HOURS:
7AM-3PM M-F, OUT BY 3:30P
8AM-11:30A SAT, OUT BY 12P
CLOSED SAT-DEC, JAN, FEB
CLOSED SUNDAY

MARATHON CO. SOLID WASTE
172900 STATE HWY 29
RINGLE, WI 54471-9754
(715)446-3101

IN: 07/30/25 07:46 AM
OUT: 07/30/25 08:05 AM

BILL TO: 23035
WAUSAU, CITY OF - DPW
PO #:

TICKET#: 240562
TR TYPE: Business Accounts and Rolloffs
TRUCK: DDK 22
TRAILER:
ORIGIN: WAUSAU, CITY

GROSS:	59480 lb	29.74 tn
TARE:	28260 lb	14.13 tn
NET:	31220 lb	15.61 tn

MATERIAL(s)
252 - CONT. SOILS - CONTRAC $522.94
15.61 TN @ $$33.50/TN

SUBTOTAL: $522.94
Ringle-$2.26/ton Ringle: $202.93
DNR-$13/ton DNR: $35.28

TOTAL: $761.15

Additional charge of 3% with debit/credit card

PAYMENT METHOD(s):
1 - Charge on Accou

CHANGE: $0.00

NOTE: riverside park project

SIGN

HOURS:
7AM-3PM M-F, OUT BY 3:30P
8AM-11:30A SAT, OUT BY 12P
CLOSED SAT-DEC, JAN, FEB
CLOSED SUNDAY

MARATHON CO. SOLID WASTE
172900 STATE HWY 29
RINGLE, WI 54471-9754
(715)446-3101

IN: 07/30/25 08:34 AM
OUT: 07/30/25 08:34 AM

BILL TO: 23035
WAUSAU, CITY OF - DPW
PO #:

TICKET#: 240570
TR TYPE: Business Accounts and Rolloffs
TRUCK: PETERSON 403
TRAILER:
ORIGIN: WAUSAU, CITY

GROSS:	65020 lb	32.51 tn
TARE:	27820 lb	13.91 tn
NET:	37200 lb	18.60 tn

MATERIAL(s)
252 - CONT. SOILS - CONTRAC $623.10
18.60 TN @ $$33.50/TN

SUBTOTAL: $623.10
Ringle-$2.26/ton Ringle: $241.80
DNR-$13/ton DNR: $42.04

TOTAL: $906.94

Additional charge of 3% with debit/credit card

PAYMENT METHOD(s):
1 - Charge on Accou

CHANGE: $0.00

NOTE: riverside park

SIGN

HOURS:
7AM-3PM M-F, OUT BY 3:30P
8AM-11:30A SAT, OUT BY 12P
CLOSED SAT-DEC, JAN, FEB
CLOSED SUNDAY

MARATHON CO. SOLID WASTE
172900 STATE HWY 29
RINGLE, WI 54471-9754
(715)446-3101

IN: 07/30/25 09:11 AM
OUT: 07/30/25 09:25 AM

BILL TO: 23035
WAUSAU, CITY OF - DPW
PO #:

TICKET#: 240587
TR TYPE: Business Accounts and Rolloffs
TRUCK: DDK 22
TRAILER:
ORIGIN: WAUSAU, CITY

GROSS:	65780 lb	32.89 tn
TARE:	28200 lb	14.10 tn
NET:	37580 lb	18.79 tn

MATERIAL(s)
252 - CONT. SOILS - CONTRAC $629.47
18.79 TN @ $$33.50/TN

SUBTOTAL: $629.47
Ringle-$2.26/ton Ringle: $244.27
DNR-$13/ton DNR: $42.47

TOTAL: $916.21

Additional charge of 3% with debit/credit card

PAYMENT METHOD(s):
1 - Charge on Accou

CHANGE: $0.00

NOTE:

SIGN

HOURS:
7AM-3PM M-F, OUT BY 3:30P
8AM-11:30A SAT, OUT BY 12P
CLOSED SAT-DEC, JAN, FEB
CLOSED SUNDAY

MARATHON CO. SOLID WASTE
172900 STATE HWY 29
RINGLE, WI 54471-9754
(715)446-3101

IN: 07/30/25 09:48 AM
OUT: 07/30/25 09:48 AM

BILL TO: 23035
WAUSAU, CITY OF - DPW
PO #:

TICKET#: 240589
TR TYPE: Business Accounts and Rolloffs
TRUCK: PETERSON 403
TRAILER:
ORIGIN: WAUSAU, CITY

GROSS:	73400 lb	36.70 tn
TARE:	27820 lb	13.91 tn
NET:	45580 lb	22.79 tn

MATERIAL(s)
252 - CONT. SOILS - CONTRAC $763.47
22.79 TN @ $$33.50/TN

SUBTOTAL: $763.47
Ringle-$2.26/ton Ringle: $296.27
DNR-$13/ton DNR: $51.51

TOTAL:$1111.25

Additional charge of 3% with debit/credit card

PAYMENT METHOD(s):
1 - Charge on Accou

CHANGE: $0.00

NOTE: riverside park

SIGN

HOURS:
7AM-3PM M-F, OUT BY 3:30P
8AM-11:30A SAT, OUT BY 12P
CLOSED SAT-DEC, JAN, FEB
CLOSED SUNDAY

MARATHON CO. SOLID WASTE
172900 STATE HWY 29
RINGLE, WI 54471-9754
(715)446-3101

IN: 07/30/25 09:58 AM
OUT: 07/30/25 09:58 AM

BILL TO: 23035
WAUSAU, CITY OF - DPW
PO #:

TICKET#: 240594
TR TYPE: Business Accounts and Rolloffs
TRUCK: PETERSON 407
TRAILER:
ORIGIN: WAUSAU, CITY

GROSS:	68540 lb	34.27 tn
TARE:	29900 lb	14.95 tn
NET:	38640 lb	19.32 tn

MATERIAL(s)
252 - CONT. SOILS - CONTRAC $647.22
19.32 TN @ $$33.50/TN

SUBTOTAL: $647.22
Ringle-$2.26/ton Ringle: $251.16
DNR-$13/ton DNR: $43.66

TOTAL: $942.04

Additional charge of 3% with debit/credit card

PAYMENT METHOD(s):
1 - Charge on Accou

CHANGE: $0.00

NOTE: riverside park

SIGN

HOURS:
7AM-3PM M-F, OUT BY 3:30P
8AM-11:30A SAT, OUT BY 12P
CLOSED SAT-DEC, JAN, FEB
CLOSED SUNDAY

MARATHON CO. SOLID WASTE
172900 STATE HWY 29
RINGLE, WI 54471-9754
(715)446-3101

IN: 07/30/25 10:21 AM
OUT: 07/30/25 10:32 AM

BILL TO: 23035
WAUSAU, CITY OF - DPW
PO #:

TICKET#: 240602
TR TYPE: Business Accounts and Rolloffs
TRUCK: WOLLER 426
TRAILER:
ORIGIN: WAUSAU, CITY

GROSS:	76980 lb	38.49 tn
TARE:	29960 lb	14.98 tn
NET:	47020 lb	23.51 tn

MATERIAL(s)
252 - CONT. SOILS - CONTRAC $787.59
23.51 TN @ $$33.50/TN

Ringle-$2.26/ton
DNR-$13/ton

SUBTOTAL: $787.59
Ringle: $305.63
DNR: $53.13

TOTAL: $1146.35

Additional charge of 3% with debit/credit card

PAYMENT METHOD(s):
1 - Charge on Accou

CHANGE: $0.00

NOTE: riverside park

SIGN

HOURS:
7AM-3PM M-F, OUT BY 3:30P
8AM-11:30A SAT, OUT BY 12P
CLOSED SAT-DEC, JAN, FEB
CLOSED SUNDAY

MARATHON CO. SOLID WASTE
172900 STATE HWY 29
RINGLE, WI 54471-9754
(715)446-3101

IN: 07/30/25 08:57 AM
OUT: 07/30/25 09:10 AM

BILL TO: 23035
WAUSAU, CITY OF - DPW
PO #:

TICKET#: 240583
TR TYPE: Business Accounts and Rolloffs
TRUCK: WOLLER 426
TRAILER:
ORIGIN: WAUSAU, CITY

GROSS:	68080 lb	34.04 tn
TARE:	30260 lb	15.13 tn
NET:	37820 lb	18.91 tn

MATERIAL(s)
252 - CONT. SOILS - CONTRAC $633.49
18.91 TN @ $$33.50/TN

Ringle-$2.26/ton
DNR-$13/ton

SUBTOTAL: $633.49
Ringle: $245.83
DNR: $42.74

TOTAL: $922.06

Additional charge of 3% with debit/credit card

PAYMENT METHOD(s):
1 - Charge on Accou

CHANGE: $0.00

NOTE: Riverside park project

SIGN

HOURS:
7AM-3PM M-F, OUT BY 3:30P
8AM-11:30A SAT, OUT BY 12P
CLOSED SAT-DEC, JAN, FEB
CLOSED SUNDAY

MARATHON CO. SOLID WASTE
172900 STATE HWY 29
RINGLE, WI 54471-9754
(715)446-3101

IN: 07/30/25 11:15 AM
OUT: 07/30/25 11:15 AM

BILL TO: 23035
WAUSAU, CITY OF - DPW
PO #:

TICKET#: 240613
TR TYPE: Business Accounts and Rolloffs
TRUCK: PETERSON 407
TRAILER:
ORIGIN: WAUSAU, CITY

GROSS:	76640 lb	38.32 tn
TARE:	29900 lb	14.95 tn
NET:	46740 lb	23.37 tn

MATERIAL(s)
252 - CONT. SOILS - CONTRAC $782.90
23.37 TN @ $$33.50/TN

Ringle-$2.26/ton
DNR-$13/ton

SUBTOTAL: $782.90
Ringle: $303.81
DNR: $52.82

TOTAL: $1139.53

Additional charge of 3% with debit/credit card

PAYMENT METHOD(s):
1 - Charge on Accou

CHANGE: $0.00

NOTE: riverside park project

SIGN

HOURS:
7AM-3PM M-F, OUT BY 3:30P
8AM-11:30A SAT, OUT BY 12P
CLOSED SAT-DEC, JAN, FEB
CLOSED SUNDAY

MARATHON CO. SOLID WASTE
172900 STATE HWY 29
RINGLE, WI 54471-9754
(715)446-3101

IN: 07/30/25 08:37 AM
OUT: 07/30/25 08:37 AM

BILL TO: 23035
WAUSAU, CITY OF - DPW
PO #:

TICKET#: 240572
TR TYPE: Business Accounts and Rolloffs
TRUCK: PETERSON 407
TRAILER:
ORIGIN: WAUSAU, CITY

GROSS:	61600 lb	30.80 tn
TARE:	29900 lb	14.95 tn
NET:	31700 lb	15.85 tn

MATERIAL(s)
252 - CONT. SOILS - CONTRAC $530.98
15.85 TN @ $$33.50/TN

Ringle-$2.26/ton
DNR-$13/ton

SUBTOTAL: $530.98
Ringle: $206.05
DNR: $35.82

TOTAL: $772.85

Additional charge of 3% with debit/credit card

PAYMENT METHOD(s):
1 - Charge on Accou

CHANGE: $0.00

NOTE: riverside park

SIGN

HOURS:
7AM-3PM M-F, OUT BY 3:30P
8AM-11:30A SAT, OUT BY 12P
CLOSED SAT-DEC, JAN, FEB
CLOSED SUNDAY

APPENDIX D

LABORATORY ANALYTICAL REPORTS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

August 19, 2025

Matt Michalski
REI
4080 N 20th Ave
Wausau, WI 54401

RE: Project: 9073 RIVERSIDE RAIL CORRIDOR
Pace Project No.: 40299344

Dear Matt Michalski:

Enclosed are the analytical results for sample(s) received by the laboratory on August 01, 2025. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Minneapolis

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Brian Basten
brian.basten@pacelabs.com
(920)469-2436
Project Manager

Enclosures

cc: Brian Bailey, REI Engineering

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Green Bay, WI 54302
(920)469-2436

CERTIFICATIONS

Project: 9073 RIVERSIDE RAIL CORRIDOR
Pace Project No.: 40299344

Pace Analytical Services, LLC - Minneapolis MN
1700 Elm Street SE, Minneapolis, MN 55414
Alabama Certification #: 40770
Alaska Contaminated Sites Certification #: 17-009
Alaska DW Certification #: MN00064
Arizona Certification #: AZ0014
Arkansas DW Certification #: MN00064
Arkansas WW Certification #: 88-0680
California Certification #: 2929
Colorado Certification #: MN00064
Connecticut Certification #: PH-0256
DoD Certification via A2LA #: 2926.01
EPA Region 8 Tribal Water Systems+Wyoming DW Certification #: via MN 027-053-137
Florida Certification #: E87605
Georgia Certification #: 959
Idaho Certification #: MN00064
Illinois Certification #: 200011
Indiana Certification #: C-MN-01
Iowa Certification #: 368
ISO/IEC 17025 Certification via A2LA #: 2926.01
Kansas Certification #: E-10167
Kentucky DW Certification #: 90062
Kentucky WW Certification #: 90062
Louisiana DEQ Certification #: AI-03086
Louisiana DW Certification #: MN00064
Maine Certification #: MN00064
Maryland Certification #: 322
Michigan Certification #: 9909
Minnesota Certification #: 027-053-137
Minnesota Dept of Ag Approval: via MN 027-053-137
Minnesota Petrofund Registration #: 1240
Mississippi Certification #: MN00064
Missouri Certification #: 10100
Montana Certification #: CERT0092
Nebraska Certification #: NE-OS-18-06
Nevada Certification #: MN00064
New Hampshire Certification #: 2081
New Jersey Certification #: MN002
New York Certification #: 11647
North Carolina DW Certification #: 27700
North Carolina WW Certification #: 530
North Dakota Certification via A2LA #: R-036
North Dakota Certification via MN #: R-036
Ohio DW Certification #: 41244
Ohio VAP Certification (1700) #: CL101
Oklahoma Certification #: 9507
Oregon Primary Certification #: MN300001
Oregon Secondary Certification #: MN200001
Pennsylvania Certification #: 68-00563
Puerto Rico Certification #: MN00064
South Carolina Certification #:74003001
Tennessee Certification #: TN02818
Texas Certification #: T104704192
Utah Certification #: MN00064
Vermont Certification #: VT-027053137
Virginia Certification #: 460163
Washington Certification #: C486
West Virginia DEP Certification #: 382
West Virginia DW Certification #: 9952 C
Wisconsin Certification #: 999407970
Wyoming UST Certification via A2LA #: 2926.01
USDA Permit #: P330-19-00208

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1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

SAMPLE SUMMARY

Project: 9073 RIVERSIDE RAIL CORRIDOR
Pace Project No.: 40299344

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40299344001	**S47 (4')**	Solid	07/30/25 07:25	08/01/25 09:00
40299344002	**S48 (4')**	Solid	07/30/25 07:45	08/01/25 09:00

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Green Bay, WI 54302
(920)469-2436

SAMPLE ANALYTE COUNT

Project: 9073 RIVERSIDE RAIL CORRIDOR
Pace Project No.: 40299344

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
40299344001	**S47 (4')**	ASTM D2974	JDL	1	PASI-M
40299344002	**S48 (4')**	ASTM D2974	JDL	1	PASI-M

PASI-M = Pace Analytical Services - Minneapolis

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Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 9073 RIVERSIDE RAIL CORRIDOR
Pace Project No.: 40299344

Sample: S47 (4') **Lab ID: 40299344001** Collected: 07/30/25 07:25 Received: 08/01/25 09:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
Dry Weight / %M by ASTM D2974	Analytical Method: ASTM D2974 Pace Analytical Services - Minneapolis								
Percent Moisture	**2.3**	%	0.10	0.10	1		08/07/25 12:04		N2

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Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 9073 RIVERSIDE RAIL CORRIDOR
Pace Project No.: 40299344

Sample: S48 (4') **Lab ID: 40299344002** Collected: 07/30/25 07:45 Received: 08/01/25 09:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
Dry Weight / %M by ASTM D2974	Analytical Method: ASTM D2974 Pace Analytical Services - Minneapolis								
Percent Moisture	**2.9**	%	0.10	0.10	1		08/07/25 12:04		N2

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Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: 9073 RIVERSIDE RAIL CORRIDOR
Pace Project No.: 40299344

QC Batch: 1022670
QC Batch Method: ASTM D2974
Analysis Method: ASTM D2974
Analysis Description: Dry Weight / %M by ASTM D2974
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 40299344001, 40299344002

SAMPLE DUPLICATE: 5330290

Parameter	Units	10744792001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	47.0	46.7	1	30	N2

SAMPLE DUPLICATE: 5330291

Parameter	Units	10745040004 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	26.7	27.4	2	30	N2

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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Green Bay, WI 54302
(920)469-2436

QUALIFIERS

Project: 9073 RIVERSIDE RAIL CORRIDOR
Pace Project No.: 40299344

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above LOD.

J - The reported result is an estimated value.

LOD - Limit of Detection adjusted for dilution factor, percent moisture, initial weight and final volume.

LOQ - Limit of Quantitation adjusted for dilution factor, percent moisture, initial weight and final volume.

DL - Adjusted Method Detection Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Analyte was not detected and is reported as less than the LOD or as defined by the customer.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

N2	The lab does not hold NELAC/TNI accreditation for this parameter but other accreditations/certifications may apply. A complete list of accreditations/certifications is available upon request.

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Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 9073 RIVERSIDE RAIL CORRIDOR
Pace Project No.: 40299344

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40299344001	**S47 (4')**	ASTM D2974	1022670		
40299344002	**S48 (4')**	ASTM D2974	1022670		

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40299344

Pace® Location Requested (City/State): **Green Bay, WI**

CHAIN-OF-CUSTODY Analytical Request Document

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevant fields

LAB USE ONLY- Affix Workorder/Login Label Here

Scan QR Code for instructions

Company Name: REI Engineering, Inc.
Street Address: 4080 N 20th Ave, Wausau, WI 54401
Customer Project #: 9073
Project Name: Riverside Rail Corridor
Site Collection Info/Facility ID (as applicable): 02-37-584785

Contact/Report To: Matthew C. Michalski
Phone #: (715) 675-9784
E-Mail: MMichalski@REIengineering.com
Cc E-Mail:
Invoice to: Matthew C. Michalski
Invoice E-mail: MMichalski@REIengineering.com
Purchase Order # (if applicable):
Quote #: 00161301

Time Zone Collected: [ ] AK [ ] PT [ ] MT [X] CT [ ] ET
County / State origin of sample(s): Wausau, WI

Data Deliverables: [ ] Level II [ ] Level III [ ] Level IV [ ] EQUIS [ ] Other
Regulatory Program (DW, RCRA, etc.) as applicable: Reportable [ ] Yes [ ] No
Rush (Pre-approval required): [ ] Same Day [ ] 1 Day [ ] 2 Day [ ] 3 Day Other
Date Results Requested:
DW PWSID # or WW Permit # as applicable:
Field Filtered (if applicable): [ ] Yes [X] No
Analysis:

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Wastewater (WW), Product (P), Soil/Solid (SS), Oil (OL), Wipe (WP), Tissue (TS), Bioassay (B), Vapor (V), Surface Water (SW), Sediment (SED), Sludge (SL), Caulk (CK), Leachate (LL), Biosolid (BS), Other (OT)

Specify Container Size **: 10, 10
Identify Container Preservative Type***: 1, 1

**Container Size: (1) 1L, (2) 500mL, (3) 250mL, (4) 125mL, (5) 100mL, (6) 40mL vial, (7) EnCore, (8) TerraCore, (9) 90mL, (10) Other

*** Preservative Types: (1) None, (2) HNO3, (3) H2SO4, (4) HCl, (5) NaOH, (6) Zn Acetate, (7) NaHSO4, (8) Sod. Thiosulfate, (9) Ascorbic Acid, (10) MeOH, (11) Other

Lab Use Only: Proj. Mgr: / AcctNum / Client ID: / Table #: / Profile / Template: / Prelog / Bottle Ord. ID:

Customer Sample ID	Matrix *	Comp / Grab	Composite Start Date	Composite Start Time	Collected or Composite End Date	Collected or Composite End Time	# Cont.	Residual Chlorine Result	Residual Chlorine Units	Dioxin/Furan (Tetra Octo 17)	Dry Weight	Sample Comment	Preservation non-conformance identified for sample.
S47 (4')	SS	G			7/30/2025	07:25	3			X	X	001	
S48 (4')	SS	G			7/30/2025	07:45	3			X	X	002	

Additional Instructions from Pace®:

Collected By:
Printed Name
Signature

Customer Remarks / Special Conditions / Possible Hazards:

Coolers: | Thermometer ID: | Correction Factor (°C): | Obs. Temp. (°C): | Corrected Temp. (°C): | [ ] On Ice

Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	Tracking Number:
	7/31/25 - 12:05			
Purple Mountain	8/1/25 0900	pace	8/1/25 0900	Delivered by: [ ] In-Person [ ] Courier [ ] FedEX [ ] UPS [ ] Other
				Page: 1 of 1

Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace® Terms and Conditions found at https://www.pacelabs.com/resource-library/resource/pace-terms-and-conditions/

ENV-FRM-CORQ-0019_v02_110123 ©

Sample Preservation Receipt Form

Client Name: REI

Project # 402993344

All containers needing preservation have been checked and noted below: ☐Yes ☐No ☒N/A

Lab Lot# of pH paper:

Lab Std #ID of preservation (if pH adjusted):

Initial when completed:

Date/ Time:

Pace Lab #	Glass							Plastic						Vials						Jars				General				VOA Vials (>6mm)*	H2SO4 pH ≤2	NaOH+Zn Act pH ≥9	NaOH pH ≥12	HNO3 pH ≤2	pH after adjusted	Volume (mL)
	AG1U	BG1U	AG1H	AG4S	AG5U	AG2S	BG3U	BP1U	BP3U	BP3B	BP3N	BP3S	BP2Z	VG9C	DG9T	VG9U	VG9H	VG9M	VG9D	JGFU	JG9U	WGFU	WPFU	SP5T	ZPLC	GN 1	GN 2							
001																				2			1											2.5 / 5
002																				2			1											2.5 / 5
003																																		2.5 / 5
004																																		2.5 / 5
005																																		2.5 / 5
006																																		2.5 / 5
007																																		2.5 / 5
008																																		2.5 / 5
009																																		2.5 / 5
010																																		2.5 / 5
011																																		2.5 / 5
012																																		2.5 / 5
013																																		2.5 / 5
014																																		2.5 / 5
015																																		2.5 / 5
016																																		2.5 / 5
017																																		2.5 / 5
018																																		2.5 / 5
019																																		2.5 / 5
020																																		2.5 / 5

Exceptions to preservation check: VOA, Coliform, TOC, TOX, TOH, O&G, WI DRO, Phenolics, Other:

Headspace in VOA Vials (>6mm) : ☐Yes ☐No ☒N/A ***If yes look in headspace column**

AG1U	1 liter amber glass	BP1U	1 liter plastic unpres	VG9C	40 mL clear ascorbic w/ HCl	JGFU	4 oz amber jar unpres
BG1U	1 liter clear glass	BP3U	250 mL plastic unpres	DG9T	40 mL amber Na Thio	JG9U	9 oz amber jar unpres
AG1H	1 liter amber glass HCL	BP3B	250 mL plastic NaOH	VG9U	40 mL clear vial unpres	WGFU	4 oz clear jar unpres
AG4S	125 mL amber glass H2SO4	BP3N	250 mL plastic HNO3	VG9H	40 mL clear vial HCL	WPFU	4 oz plastic jar unpres
AG5U	100 mL amber glass unpres	BP3S	250 mL plastic H2SO4	VG9M	40 mL clear vial MeOH	SP5T	120 mL plastic Na Thiosulfate
AG2S	500 mL amber glass H2SO4	BP2Z	500 mL plastic NaOH + Zn	VG9D	40 mL clear vial DI	ZPLC	ziploc bag
BG3U	250 mL clear glass unpres					GN 1	
						GN 2	

Page 1 of 2

Sample Condition Upon Receipt Form (SCUR)

Project #: WO# : 40299344
40299344

Client Name: REI

Courier: ☐ CS Logistics ☐ Fed Ex ☐ Speedee ☐ UPS ☒ Purple Mountain ☐ Client ☐ Pace Other: _____

Tracking #: 4609873

Custody Seal on Cooler/Box Present: ☐ yes ☒ no Seals intact: ☐ yes ☐ no

Custody Seal on Samples Present: ☐ yes ☒ no Seals intact: ☐ yes ☐ no

Packing Material: ☒ Bubble Wrap ☒ Bubble Bags ☐ None ☐ Other _____

Thermometer Used SR - 148 **Type of Ice:** (Wet) Blue Dry None ☐ Meltwater Only

Cooler Temperature Uncorr: 2.0 /Corr: 2.0

Temp Blank Present: ☒ yes ☐ no **Biological Tissue is Frozen:** ☐ yes ☐ no

Temp should be above freezing to 6°C.
Biota Samples may be received at ≤ 0°C if shipped on Dry Ice.

Person examining contents:
Date: 8/1/25 **/Initials:** MLH
Labeled By Initials: EL

Chain of Custody Present:	☒Yes ☐No ☐N/A	1.
Chain of Custody Filled Out:	☒Yes ☐No ☐N/A	2.
Chain of Custody Relinquished:	☒Yes ☐No ☐N/A	3.
Sampler Name & Signature on COC:	~~☐Yes ☐No~~ MLH 8/1/25 ☐N/A	4.
Samples Arrived within Hold Time:	☒Yes ☐No	5.
- DI VOA Samples frozen upon receipt	☐Yes ☐No	Date/Time:
Short Hold Time Analysis (<72hr):	☐Yes ☒No	6.
Rush Turn Around Time Requested:	☐Yes ☒No	7.
Sufficient Volume: For Analysis: ☒Yes ☐No MS/MSD:	☐Yes ☒No ☐N/A	8.
Correct Containers Used: Correct Type: Pace Green Bay, Pace IR, Non-Pace	☒Yes ☐No	9.
Containers Intact:	☒Yes ☐No	10.
Filtered volume received for Dissolved tests	☐Yes ☐No ☒N/A	11.
Sample Labels match COC: -Includes date/time/ID/Analysis Matrix: S	☒Yes ☐No ☐N/A	12.
Trip Blank Present:	☐Yes ☐No ☒N/A	13.
Trip Blank Custody Seals Present	☐Yes ☐No ☒N/A	
Pace Trip Blank Lot # (if purchased): _____		

Client Notification/ Resolution: If checked, see attached form for additional comments ☐

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

PM Review is documented electronically in LIMs. By releasing the project, the PM acknowledges they have reviewed the sample logir

Page 2 of 2

Pace Analytical Services, LLC.
1700 Elm Street
Minneapolis, MN 55414
Phone: 612.607.1700
Fax: 612.607.6444

www.pacelabs.com

Report Prepared for:

Client Services
PACE Wisconsin
1241 Bellevue Street
Suite 9
Green Bay WI 54302

REPORT OF LABORATORY ANALYSIS FOR PCDD/PCDF

Report Information:

Pace Project #: 10744650
Sample Receipt Date: 08/02/2025
Client Project #: 40299344 REI
Client Sub PO #: N/A
State Cert #: N/A

Invoicing & Reporting Options:

The report provided has been invoiced as a Level 2 PCDD/PCDF Report. If an upgrade of this report package is requested, an additional charge may be applied.

Please review the attached invoice for accuracy and forward any questions to Isaac Johnson, your Pace Project Manager.

This report has been reviewed by:

Joanne Richardson

August 19, 2025
Joanne Richardson, Project Manager
(612) 607-6453
(612) 607-6444 (fax)

Report Prepared Date:
August 19, 2025

Report of Laboratory Analysis

This report should not be reproduced, except in full, without the written consent of Pace Analytical Services, Inc.

The results relate only to the samples included in this report.

Pace Analytical Services, LLC.
1700 Elm Street
Minneapolis, MN 55414
Phone: 612.607.1700
Fax: 612.607.6444

DISCUSSION

This report presents the results from the analyses performed on two samples submitted by a representative of Pace Analytical Services, LLC. The samples were analyzed for the presence or absence of polychlorodibenzo-p-dioxins (PCDDs) and polychlorodibenzofurans (PCDFs) using USEPA Method 1613B. The estimated detection limits (EDLs) were based on signal-to-noise measurements. Estimated maximum possible concentration (EMPC) values were treated as positives in the toxic equivalence calculations. Method blank and field sample results with reporting limits set to correspond to the lowest calibration points and adjusted for sample amount and dilution were provided in Appendix A.

The recoveries of the isotopically-labeled PCDD/PCDF internal standards in the sample extracts ranged from 64-97%. All of the labeled standard recoveries obtained for this project were within the target ranges specified in Method 1613B. Also, since the quantification of the native 2,3,7,8-substituted congeners was based on isotope dilution, the data were automatically corrected for variation in recovery and accurate values were obtained.

Values were flagged "I" where incorrect isotope ratios were obtained. Concentrations below the calibration range were flagged "J" and should be regarded as estimates.

A laboratory method blank was prepared and analyzed with the sample batch as part of our routine quality control procedures. The results show the blank to contain trace levels of selected congeners. These levels were below the calibration range of the method. Sample concentrations similar to the corresponding blank levels were flagged "B" on the results table and may be, at least partially, attributed to the background.

A laboratory spike sample was also prepared using clean reference matrix that had been fortified with native standard materials. The results show that the spiked native compounds were recovered at 94-113%. These results were within the target ranges for the method. Matrix spikes were prepared with the extraction batch using sample material from a separate project; results from these analyses will be provided upon request.

REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, LLC
1700 Elm Street SE
Minneapolis, MN 55414
Phone: 612.607.1700
Fax: 612.607.6444
www.pacelabs.com

Minnesota Laboratory Certifications

Authority	Certificate #	Authority	Certificate #
		Missouri	10100
		Montana	CERT0092
A2LA	2926.01	Nebraska	NE-OS-18-06
Alabama	40770	Nevada	MN00064
Alaska-DW	MN00064	New Hampshire	2081
Alaska-UST	17-009	New Jersey	MN002
Arizona	AZ0014	New York	11647
Arkansas - WW	88-0680	North Carolina-DW	27700
Arkansas-DW	MN00064	North Carolina-WW	530
California	2929	North Dakota	R-036
Colorado	MN00064	Ohio-DW	41244
Connecticut	PH-0256	Ohio-VAP (1700)	CL101
Florida	E87605	Ohio-VAP (1800)	CL110
Georgia	959	Oklahoma	9507
Idaho	MN00064	Oregon-Primary	MN300001
Illinois	200011	Oregon-Secondary	MN200001
Indiana	C-MN-01	Pennsylvania	68-00563
Iowa	368	Puerto Rico	MN00064
Kansas	E-10167	South Carolina	74003
Kentucky-DW	90062	Tennessee	TN02818
Kentucky-WW	90062	Texas	T104704192
Louisiana-DEQ	AI-84596	Utah	MN00064
Louisiana-DW	MN00064	Vermont	VT-027053137
Maine	MN00064	Virginia	460163
Maryland	322	Washington	C486
Michigan	9909	West Virginia-DEP	382
Minnesota	027-053-137	West Virginia-DW	9952C
Minnesota-Ag	via MN 027-053-137	Wisconsin	999407970
Minnesota-Petrofund	1240	Wyoming-UST	via A2LA 2926.01
Mississippi	MN00064		

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Pace Analytical Services, LLC
1700 Elm Street, Suite 200
Minneapolis, MN 55414
Phone: 612.607.1700
Fax: 612.607.6444
www.pacelabs.com

Appendix A

Sample Management

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Internal Transfer Chain of Custody

Pace

☐ Rush Multiplier_____X
☒ Samples Pre-Logged into eCOC

State Of Origin: WI
Cert. Needed: ☒ Yes ☐ No

Workorder: 40299344 **Workorder Name:** 9073 RIVERSIDE RAIL CORRIDOR **Owner Received Date:** 8/1/2025 **Results Requested By:** 8/22/2025

Report To

Brian Basten
Pace Analytical Green Bay
1241 Bellevue Street
Suite 9
Green Bay, WI 54302
Phone (920)469-2436

Subcontract To

Pace Analytical Minnesota
1700 Elm Street SE
Suite 200
Minneapolis, MN 55414
Phone (612)607-1700

Requested Analysis

WO#: 10744650

10744650

Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	Preserved Containers: Unpreserved	Dioxin/Furan (Tetra Octa 17)	LAB USE ONLY
1	S47 (4')	PS	7/30/2025 07:25	40299344001	Solid	1	X	001
2	S48 (4')	PS	7/30/2025 07:45	40299344002	Solid	1	X	002
3								
4								
5								

Transfers	Released By	Date/Time	Received By	Date/Time
1	pace	8/1/25 1600	[illegible]	8/2/25 12:55
2				
3				

Comments

Cooler Temperature on Receipt 1.7 °C | Custody Seal Y or (N) | Received on Ice (Y) or N | Samples Intact (Y) or N

****In order to maintain client confidentiality, location/name of the sampling site, sampler's name and signature may not be provided on this COC document. This chain of custody is considered complete as is since this information is available in the owner laboratory.*

ENV-FRM-MIN4-0150 v19_Sample Condition Upon Receipt

Person Examining & Date: KRM 8/2/25

PROJECT #: WO#: 10744650
PM: KJJ Due Date: 08/25/25
CLIENT: PASI-PA

Client Name: Pace GB

Custody Seal Present: ☒ YES ☐ NO Seals Intact: ☒ YES ☐ NO

Tracking Number:

☐ See Exceptions form ENV-FRM-MIN4-0142.

Courier: ☐ Client ☐ Commercial ☐ FedEx ☒ Pace Courier/Field ☐ SpeeDee ☐ UPS ☐ USPS

Packing Material: ☒ Bubble Bags ☐ Bubble Wrap ☐ None ☐ Other: _____ Biological Tissue Frozen: ☐ YES ☒ NO

Thermometer: ☐ T1 (0461) ☒ T2 (0431) ☐ T3 (0459) ☐ T4 (0402) ☐ T5 (0187) ☐ T6 (0396) ☐ T7 (0377) ☐ T8 (0775) ☐ T9 (0428) ☐ 01339252 (0710)

Type of Ice: ☐ Blue ☐ Dry ☒ Wet ☐ Melted ☐ None

Temp Blank: ☒ YES ☐ NO

NOTE: Temp should be ≤ 6°C, but above freezing.

Read Temp w/Temp Blank: 1.4 °C

Correction Factor: +0.3

Corrected Temp w/Temp Blank: 1.7 °C

Did Samples Originate in West Virginia: ☐ YES ☒ NO (list temps on exception)

Were All Container Temps Taken: ☐ YES ☐ NO ☒ N/A

Average Corrected Temp (No Temp Blank Only): _____

☐ See Exceptions form ENV-FRM-MIN4-0142. ☐ 1 Container

USDA Regulated Soil: ☐ N/A – Water Sample/Other (describe): Solid

Did Samples originate from one of the following states (check maps): ☐ YES ☒ NO

Circle State: AL, AR, AZ, CA, FL, GA, ID, LA, MS, NC, NM, NY, OK, OR, SC, TN, TX, VA

Are samples from a foreign source (international, including Hawaii and Puerto Rico): ☐ YES ☒ NO

NOTE: If YES to either question, fill out a Regulated Soil Checklist (ENV-FRM-MIN4-0154) and include with SCUR/COC paperwork.

LOCATION (check one): ☐ DULUTH ☒ MINNEAPOLIS ☐ VIRGINIA	YES	NO	N/A	COMMENT(S)
Chain of Custody Present and Filled Out? (i.e., Analysis/ID/Date/Time)	☒	☐		1.
Chain of Custody Relinquished?	☒	☐		2.
Sampler Name and/or Signature on COC?	☐	☐	☒	3.
Samples Arrived within Hold Time? If Fecal: ☐ <8 hrs ☐ >8 hr but <24 hr ☐ >24 hr	☒	☐		4.
Short Hold Time Analysis (<72 hr)?	☐	☒		5. ☐ BOD / cBOD ☐ Fecal coliform ☐ Hex Chrom ☐ HPC ☐ Nitrate ☐ Nitrite ☐ Ortho Phos ☐ Total coliform/*E. coli* ☐ Turbidity ☐ Other:
Rush Turn Around Time Requested?	☐	☒		6. ☐ Same Day ☐ 1 Day ☐ 2 Day ☐ 3 Day ☐ 5 Day Due Date:
Sufficient Sample Volume? (If NO, list approximate volume in section 7.)	☒	☐		7.
Correct Containers Used?	☒	☐	☐	8.
– Pace Containers Used?	☒	☐		
Containers Intact?	☒	☐		9.
Field Filtered Volume Received for Dissolved Tests?	☐	☐	☐	10. Is sediment visible in the dissolved container: ☐ YES ☐ NO
ID/Date/Time Match? (If NO, fill out section 11.) Matrix: ☐ Oil ☐ Soil ☐ Water ☐ Other	☒	☐	☐	11. ☐ See Exceptions form ENV-FRM-MIN4-0142
All containers needing acid/base preservation have been checked?	☐	☐	☒	12.
Sample #: ☐ HNO3 _____ ☐ H2SO4 _____ ☐ NaOH _____ ☐ Zinc Acetate _____ **pH Paper Lot #:** ☐ Residual Chlorine _____ ☐ 0-6 Roll _____ ☐ 0-6 Strip _____ ☐ 0-14 Strip _____ **Positive for Residual Chlorine (NaOH containers only):** ☐ YES ☐ NO				
Preserved containers in compliance with EPA recommendations? (HNO3, H2SO4, < 2 pH, NaOH > 9 Sulfide, NaOH > 10 Cyanide)	☐	☐	☒	☐ See Exceptions form ENV-FRM-MIN4-0142
EXCECTIONS (water only): VOA, Coliform, TOC/DOC, Oil & Grease, Phenols, DRO/8015, Dioxins, and PFAS	☐	☐	☒	
Extra labels present on soil VOA or WIDRO containers? (soil only)	☐	☐	☒	13.
Headspace in Methyl Mercury Container?	☐	☐	☒	14.
Headspace in VOA Vials (greater than 6mm)?	☐	☐	☒	☐ See Exceptions form ENV-FRM-MIN4-0140
Trip Blanks Present?	☐	☐	☒	15.
Trip Blank Custody Seals Present?	☐	☐	☒	Pace Trip Blank Lot # (if purchased):

CLIENT NOTIFICATION / RESOLUTION:

Labeled By: KRM Line: 3

Person Contacted & Date/Time: _____ PM Review & Date: Isaac Johnson 8/4/25

NOTE: *When there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEQ Certification Office.*

40299344

Pace® Location Requested (City/State): **Green Bay, WI**

CHAIN-OF-CUSTODY Analytical Request Document

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevant fields

LAB USE ONLY- Affix Workorder/Login Label Here

Scan QR Code for instructions

Company Name: REI Engineering, Inc.	Contact/Report To: Matthew C. Michalski
Street Address: 4080 N 20th Ave, Wausau, WI 54401	Phone #: (715) 675-9784
	E-Mail: MMichalski@REIengineering.com
	Cc E-Mail:
Customer Project #: 9073	Invoice to: Matthew C. Michalski
Project Name: Riverside Rail Corridor	Invoice E-mail: MMichalski@REIengineering.com
Site Collection Info/Facility ID (as applicable): 02-37-584785	Purchase Order # (if applicable):
	Quote #: 00161301
Time Zone Collected: [ ] AK [ ] PT [ ] MT [X] CT [ ] ET	County / State origin of sample(s): Wausau, WI

Data Deliverables: [ ] Level II [ ] Level III [ ] Level IV [ ] EQUIS [ ] Other_____

Regulatory Program (DW, RCRA, etc.) as applicable: Reportable [ ] Yes [ ] No

Rush (Pre-approval required): [ ] Same Day [ ] 1 Day [ ] 2 Day [ ] 3 Day Other_____

Date Results Requested:

DW PWSID # or WW Permit # as applicable:

Field Filtered (if applicable): [ ] Yes [X] No

Analysis:

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Wastewater (WW), Product (P), Soil/Solid (SS), Oil (OL), Wipe (WP), Tissue (TS), Bioassay (B), Vapor (V), Surface Water (SW), Sediment (SED), Sludge (SL), Caulk (CK), Leachate (LL), Biosolid (BS), Other (OT)

Specify Container Size **: 10, 10

Identify Container Preservative Type***: 1, 1

**Container Size: (1) 1L, (2) 500mL, (3) 250mL, (4) 125mL, (5) 100mL, (6) 40mL vial, (7) EnCore, (8) TerraCore, (9) 90mL, (10) Other

*** Preservative Types: (1) None, (2) HNO3, (3) H2SO4, (4) HCl, (5) NaOH, (6) Zn Acetate, (7) NaHSO4, (8) Sod. Thiosulfate, (9) Ascorbic Acid, (10) MeOH, (11) Other

Customer Sample ID	Matrix*	Comp / Grab	Composite Start Date	Composite Start Time	Collected or Composite End Date	Collected or Composite End Time	# Cont.	Residual Chlorine Result	Residual Chlorine Units	Dioxin/Furan (Tetra Octo 17)	Dry Weight	Sample Comment	Preservation non-conformance identified for sample.
S47 (4')	SS	G			7/30/2025	07:25	3			X	X	001	
S48 (4')	SS	G			7/30/2025	07:45	3			X	X	002	

Lab Use Only: Proj. Mgr.: / AcctNum / Client ID: / Table #: / Profile / Template: / Prelog / Bottle Ord. ID:

Additional Instructions from Pace® :

Collected By:
Printed Name
Signature

Customer Remarks / Special Conditions / Possible Hazards:

Coolers: | Thermometer ID: | Correction Factor (°C): | Obs Temp. (°C): | Corrected Temp. (°C): | [ ] On Ice

Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:
	7/31/25 - 12:05		
Purple Mountain	8/1/25 0900	pace	8/1/25 0900

Tracking Number:

Delivered by: [ ] In-Person [ ] Courier [ ] FedEx [ ] UPS [ ] Other

Page: 1 of 1

Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace® Terms and Conditions found at https://www.pacelabs.com/resource-library/resource/pace-terms-and-conditions/

ENV-FRM-CORQ-0019_v02_110123 ©

DC#_Title: ENV-FRM-GBAY-0035 v03_Sample Preservation Receipt Form
Effective Date: 8/16/2022

Client Name: REI

Sample Preservation Receipt Form
Project # 402993344

All containers needing preservation have been checked and noted below: ☐Yes ☐No ☒N/A

Lab Lot# of pH paper:

Lab Std #ID of preservation (if pH adjusted):

Pace Lab #	Glass							Plastic						Vials						Jars				General				VOA Vials (>6mm) *	Initial when completed:				Date/ Time:	Volume (mL)
	AG1U	BG1U	AG1H	AG4S	AG5U	AG2S	BG3U	BP1U	BP3U	BP3B	BP3N	BP3S	BP2Z	VG9C	DG9T	VG9U	VG9H	VG9M	VG9D	JGFU	JG9U	WGFU	WPFU	SP5T	ZPLC	GN 1	GN 2		H2SO4 pH ≤2	NaOH+Zn Act pH ≥9	NaOH pH ≥12	HNO3 pH ≤2	pH after adjusted	
001																																		2.5 / 5
002																																		2.5 / 5
003																																		2.5 / 5
004																																		2.5 / 5
005																																		2.5 / 5
006																																		2.5 / 5
007																																		2.5 / 5
008																																		2.5 / 5
009																																		2.5 / 5
010																																		2.5 / 5
011																																		2.5 / 5
012																																		2.5 / 5
013																																		2.5 / 5
014																																		2.5 / 5
015																																		2.5 / 5
016																																		2.5 / 5
017																																		2.5 / 5
018																																		2.5 / 5
019																																		2.5 / 5
020																																		2.5 / 5

Exceptions to preservation check: VOA, Coliform, TOC, TOX, TOH, O&G, WI DRO, Phenolics, Other:

Headspace in VOA Vials (>6mm) : ☐Yes ☐No ☒N/A *If yes look in headspace column

AG1U	1 liter amber glass
BG1U	1 liter clear glass
AG1H	1 liter amber glass HCL
AG4S	125 mL amber glass H2SO4
AG5U	100 mL amber glass unpres
AG2S	500 mL amber glass H2SO4
BG3U	250 mL clear glass unpres

BP1U	1 liter plastic unpres
BP3U	250 mL plastic unpres
BP3B	250 mL plastic NaOH
BP3N	250 mL plastic HNO3
BP3S	250 mL plastic H2SO4
BP2Z	500 mL plastic NaOH + Zn

VG9C	40 mL clear ascorbic w/ HCl
DG9T	40 mL amber Na Thio
VG9U	40 mL clear vial unpres
VG9H	40 mL clear vial HCL
VG9M	40 mL clear vial MeOH
VG9D	40 mL clear vial DI

JGFU	4 oz amber jar unpres
JG9U	9 oz amber jar unpres
WGFU	4 oz clear jar unpres
WPFU	4 oz plastic jar unpres
SP5T	120 mL plastic Na Thiosulfate
ZPLC	ziploc bag
GN 1	
GN 2	

Page 1 of 2

Qualtrax ID: 41307

DC#_Title: ENV-FRM-GBAY-0014 v04_SCUR
Effective Date: 3/3/2025

Sample Condition Upon Receipt Form (SCUR)

Project #:

WO#: 40299344

40299344

Client Name: REI

Courier: ☐ CS Logistics ☐ Fed Ex ☐ Speedee ☐ UPS ☒ Purple Mountain ☐ Client ☐ Pace Other:

Tracking #: 469873

Custody Seal on Cooler/Box Present: ☐ yes ☒ no Seals intact: ☐ yes ☐ no

Custody Seal on Samples Present: ☐ yes ☒ no Seals intact: ☐ yes ☐ no

Packing Material: ☒ Bubble Wrap ☒ Bubble Bags ☐ None ☐ Other

Thermometer Used SR - 148 **Type of Ice:** (Wet) Blue Dry None ☐ Meltwater Only

Cooler Temperature Uncorr: 2.0 /Corr: 2.0

Temp Blank Present: ☒ yes ☐ no **Biological Tissue is Frozen:** ☐ yes ☐ no

Temp should be above freezing to 6°C.
Biota Samples may be received at ≤ 0°C if shipped on Dry Ice.

Person examining contents:
Date: 8/1/25 **/Initials:** MLH

Labeled By Initials:

Chain of Custody Present:	☒Yes ☐No ☐N/A	1.
Chain of Custody Filled Out:	☒Yes ☐No ☐N/A	2.
Chain of Custody Relinquished:	☒Yes ☐No ☐N/A	3.
Sampler Name & Signature on COC:	☐Yes ☒No ☐N/A MLH 8/1/25	4.
Samples Arrived within Hold Time:	☒Yes ☐No	5.
- DI VOA Samples frozen upon receipt	☐Yes ☐No	Date/Time:
Short Hold Time Analysis (<72hr):	☐Yes ☒No	6.
Rush Turn Around Time Requested:	☐Yes ☒No	7.
Sufficient Volume: For Analysis: ☒Yes ☐No MS/MSD:	☐Yes ☒No ☐N/A	8.
Correct Containers Used: Correct Type: Pace Green Bay, Pace IR, Non-Pace	☒Yes ☐No	9.
Containers Intact:	☒Yes ☐No	10.
Filtered volume received for Dissolved tests	☐Yes ☐No ☒N/A	11.
Sample Labels match COC: -Includes date/time/ID/Analysis Matrix: S	☒Yes ☐No ☐N/A	12.
Trip Blank Present: Trip Blank Custody Seals Present Pace Trip Blank Lot # (if purchased):	☐Yes ☐No ☒N/A ☐Yes ☐No ☒N/A	13.

Client Notification/ Resolution: If checked, see attached form for additional comments ☐

Person Contacted: Date/Time:

Comments/ Resolution:

PM Review is documented electronically in LIMs. By releasing the project, the PM acknowledges they have reviewed the sample logir

Page 2 of 2

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Method 1613B Sample Analysis Results

Client - PACE Wisconsin

Client's Sample ID	S47 (4')		
Lab Sample ID	40299344001-R		
Filename	L250816B_14		
Injected By	JRH		
Total Amount Extracted	12.6 g	Matrix	SOLID
% Moisture	2.3	Dilution	NA
Dry Weight Extracted	12.3 g	Collected	07/30/2025 07:25
ICAL ID	L250710	Received	08/02/2025 12:55
CCal Filename(s)	L250816A_18	Extracted	08/13/2025 12:00
Method Blank ID	BLANK-120730	Analyzed	08/17/2025 00:19

Native Isomers	Conc ng/Kg	EMPC ng/Kg	RL ng/Kg
2,3,7,8-TCDF	ND	-----	0.81
Total TCDF	ND	-----	0.81
2,3,7,8-TCDD	ND	-----	0.81
Total TCDD	ND	-----	0.81
1,2,3,7,8-PeCDF	ND	-----	4.1
2,3,4,7,8-PeCDF	ND	-----	4.1
Total PeCDF	ND	-----	4.1
1,2,3,7,8-PeCDD	ND	-----	4.1
Total PeCDD	ND	-----	4.1
1,2,3,4,7,8-HxCDF	ND	-----	4.1
1,2,3,6,7,8-HxCDF	ND	-----	4.1
2,3,4,6,7,8-HxCDF	ND	-----	4.1
1,2,3,7,8,9-HxCDF	ND	-----	4.1
Total HxCDF	ND	-----	4.1
1,2,3,4,7,8-HxCDD	ND	-----	4.1
1,2,3,6,7,8-HxCDD	ND	-----	4.1
1,2,3,7,8,9-HxCDD	ND	-----	4.1
Total HxCDD	ND	-----	4.1
1,2,3,4,6,7,8-HpCDF	ND	-----	4.1
1,2,3,4,7,8,9-HpCDF	ND	-----	4.1
Total HpCDF	ND	-----	4.1
1,2,3,4,6,7,8-HpCDD	ND	-----	4.1
Total HpCDD	ND	-----	4.1
OCDF	ND	-----	8.1
OCDD	8.4	-----	8.1

Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF-13C	2.00	77
2,3,7,8-TCDD-13C	2.00	73
1,2,3,7,8-PeCDF-13C	2.00	78
2,3,4,7,8-PeCDF-13C	2.00	81
1,2,3,7,8-PeCDD-13C	2.00	90
1,2,3,4,7,8-HxCDF-13C	2.00	84
1,2,3,6,7,8-HxCDF-13C	2.00	82
2,3,4,6,7,8-HxCDF-13C	2.00	75
1,2,3,7,8,9-HxCDF-13C	2.00	71
1,2,3,4,7,8-HxCDD-13C	2.00	68
1,2,3,6,7,8-HxCDD-13C	2.00	82
1,2,3,4,6,7,8-HpCDF-13C	2.00	74
1,2,3,4,7,8,9-HpCDF-13C	2.00	77
1,2,3,4,6,7,8-HpCDD-13C	2.00	78
OCDD-13C	4.00	64
1,2,3,4-TCDD-13C	2.00	NA
1,2,3,7,8,9-HxCDD-13C	2.00	NA
2,3,7,8-TCDD-37Cl4	0.20	75

Total 2,3,7,8-TCDD
Equivalence: 0.0025 ng/Kg
(Lower-bound - Using 2005 WHO Factors)

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).
EMPC = Estimated Maximum Possible Concentration
RL = Reporting Limit

ND = Not Detected
NA = Not Applicable
NC = Not Calculated

Results reported on a dry weight basis and are valid to no more than 2 significant figures.

REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Method 1613B Sample Analysis Results

Client - PACE Wisconsin

Client's Sample ID	S48 (4')		
Lab Sample ID	40299344002-R		
Filename	L250816B_15		
Injected By	JRH		
Total Amount Extracted	11.5 g	Matrix	SOLID
% Moisture	2.9	Dilution	NA
Dry Weight Extracted	11.1 g	Collected	07/30/2025 07:45
ICAL ID	L250710	Received	08/02/2025 12:55
CCal Filename(s)	L250816A_18	Extracted	08/13/2025 12:00
Method Blank ID	BLANK-120730	Analyzed	08/17/2025 01:05

Native Isomers	Conc ng/Kg	EMPC ng/Kg	RL ng/Kg
2,3,7,8-TCDF	ND	-----	0.90
Total TCDF	ND	-----	0.90
2,3,7,8-TCDD	ND	-----	0.90
Total TCDD	ND	-----	0.90
1,2,3,7,8-PeCDF	ND	-----	4.5
2,3,4,7,8-PeCDF	ND	-----	4.5
Total PeCDF	ND	-----	4.5
1,2,3,7,8-PeCDD	ND	-----	4.5
Total PeCDD	ND	-----	4.5
1,2,3,4,7,8-HxCDF	ND	-----	4.5
1,2,3,6,7,8-HxCDF	ND	-----	4.5
2,3,4,6,7,8-HxCDF	ND	-----	4.5
1,2,3,7,8,9-HxCDF	ND	-----	4.5
Total HxCDF	ND	-----	4.5
1,2,3,4,7,8-HxCDD	ND	-----	4.5
1,2,3,6,7,8-HxCDD	ND	-----	4.5
1,2,3,7,8,9-HxCDD	ND	-----	4.5
Total HxCDD	ND	-----	4.5
1,2,3,4,6,7,8-HpCDF	ND	-----	4.5
1,2,3,4,7,8,9-HpCDF	ND	-----	4.5
Total HpCDF	ND	-----	4.5
1,2,3,4,6,7,8-HpCDD	ND	-----	4.5
Total HpCDD	ND	-----	4.5
OCDF	ND	-----	9.0
OCDD	ND	-----	9.0

Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF-13C	2.00	80
2,3,7,8-TCDD-13C	2.00	77
1,2,3,7,8-PeCDF-13C	2.00	83
2,3,4,7,8-PeCDF-13C	2.00	86
1,2,3,7,8-PeCDD-13C	2.00	97
1,2,3,4,7,8-HxCDF-13C	2.00	87
1,2,3,6,7,8-HxCDF-13C	2.00	83
2,3,4,6,7,8-HxCDF-13C	2.00	82
1,2,3,7,8,9-HxCDF-13C	2.00	79
1,2,3,4,7,8-HxCDD-13C	2.00	80
1,2,3,6,7,8-HxCDD-13C	2.00	89
1,2,3,4,6,7,8-HpCDF-13C	2.00	80
1,2,3,4,7,8,9-HpCDF-13C	2.00	82
1,2,3,4,6,7,8-HpCDD-13C	2.00	85
OCDD-13C	4.00	69
1,2,3,4-TCDD-13C	2.00	NA
1,2,3,7,8,9-HxCDD-13C	2.00	NA
2,3,7,8-TCDD-37Cl4	0.20	79

Total 2,3,7,8-TCDD
Equivalence: 0.00 ng/Kg
(Lower-bound - Using 2005 WHO Factors)

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).
EMPC = Estimated Maximum Possible Concentration
RL = Reporting Limit

ND = Not Detected
NA = Not Applicable
NC = Not Calculated

Results reported on a dry weight basis and are valid to no more than 2 significant figures.

REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Method 1613B Blank Analysis Results

Lab Sample Name	DFBLKKX		
Lab Sample ID	BLANK-120730	Matrix	Solid/Wipe
Filename	L250816A_15	Dilution	NA
Total Amount Extracted	10.2 g	Extracted	08/13/2025 12:00
ICAL ID	L250710	Analyzed	08/16/2025 11:02
CCal Filename(s)	L250815B_18	Injected By	JRH

Native Isomers	Conc ng/Kg	EMPC ng/Kg	RL ng/Kg
2,3,7,8-TCDF	ND	-----	0.98
Total TCDF	ND	-----	0.98
2,3,7,8-TCDD	ND	-----	0.98
Total TCDD	ND	-----	0.98
1,2,3,7,8-PeCDF	ND	-----	4.9
2,3,4,7,8-PeCDF	ND	-----	4.9
Total PeCDF	ND	-----	4.9
1,2,3,7,8-PeCDD	ND	-----	4.9
Total PeCDD	ND	-----	4.9
1,2,3,4,7,8-HxCDF	ND	-----	4.9
1,2,3,6,7,8-HxCDF	ND	-----	4.9
2,3,4,6,7,8-HxCDF	ND	-----	4.9
1,2,3,7,8,9-HxCDF	ND	-----	4.9
Total HxCDF	ND	-----	4.9
1,2,3,4,7,8-HxCDD	ND	-----	4.9
1,2,3,6,7,8-HxCDD	ND	-----	4.9
1,2,3,7,8,9-HxCDD	ND	-----	4.9
Total HxCDD	ND	-----	4.9
1,2,3,4,6,7,8-HpCDF	ND	-----	4.9
1,2,3,4,7,8,9-HpCDF	ND	-----	4.9
Total HpCDF	ND	-----	4.9
1,2,3,4,6,7,8-HpCDD	ND	-----	4.9
Total HpCDD	ND	-----	4.9
OCDF	ND	-----	9.8
OCDD	ND	-----	9.8

Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF-13C	2.00	112
2,3,7,8-TCDD-13C	2.00	107
1,2,3,7,8-PeCDF-13C	2.00	124
2,3,4,7,8-PeCDF-13C	2.00	129
1,2,3,7,8-PeCDD-13C	2.00	145
1,2,3,4,7,8-HxCDF-13C	2.00	114
1,2,3,6,7,8-HxCDF-13C	2.00	111
2,3,4,6,7,8-HxCDF-13C	2.00	110
1,2,3,7,8,9-HxCDF-13C	2.00	114
1,2,3,4,7,8-HxCDD-13C	2.00	102
1,2,3,6,7,8-HxCDD-13C	2.00	120
1,2,3,4,6,7,8-HpCDF-13C	2.00	112
1,2,3,4,7,8,9-HpCDF-13C	2.00	126
1,2,3,4,6,7,8-HpCDD-13C	2.00	119
OCDD-13C	4.00	113
1,2,3,4-TCDD-13C	2.00	NA
1,2,3,7,8,9-HxCDD-13C	2.00	NA
2,3,7,8-TCDD-37Cl4	0.20	109

Total 2,3,7,8-TCDD
Equivalence: 0.00 ng/Kg
(Lower-bound - Using 2005 WHO Factors)

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).
EMPC = Estimated Maximum Possible Concentration
RL = Reporting Limit

Results reported on a total weight basis and are valid to no more than 2 significant figures.

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Fax: 612.607.6444
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Reporting Flags

A = Reporting Limit based on signal to noise (EDL)

B = Less than 10x higher than method blank level

C = Result obtained from confirmation analysis

D = Result obtained from analysis of diluted sample

E = Exceeds calibration range

H2 = Extracted outside of holding time

I = Isotope ratio out of specification

J = Estimated value

L = Suppressive interference, analyte may be biased low

Nn = Value obtained from additional analysis

P = PCDE Interference

R = Recovery outside target range

S = Peak saturated

U = Analyte not detected

V = Result verified by confirmation analysis

X = %D Exceeds limits

Y = Calculated using average of daily RFs

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Appendix B

Sample Analysis Summary

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1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
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Method 1613B Sample Analysis Results

Client - PACE Wisconsin

Client's Sample ID	S47 (4')		
Lab Sample ID	40299344001-R		
Filename	L250816B_14		
Injected By	JRH		
Total Amount Extracted	12.6 g	Matrix	SOLID
% Moisture	2.3	Dilution	NA
Dry Weight Extracted	12.3 g	Collected	07/30/2025 07:25
ICAL ID	L250710	Received	08/02/2025 12:55
CCal Filename(s)	L250816A_18	Extracted	08/13/2025 12:00
Method Blank ID	BLANK-120730	Analyzed	08/17/2025 00:19

Native Isomers	Conc ng/Kg	EMPC ng/Kg	EDL ng/Kg		Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	0.16	-----	0.059	BJ	2,3,7,8-TCDF-13C	2.00	77
Total TCDF	0.57	-----	0.059	BJ	2,3,7,8-TCDD-13C	2.00	73
					1,2,3,7,8-PeCDF-13C	2.00	78
2,3,7,8-TCDD	ND	-----	0.034		2,3,4,7,8-PeCDF-13C	2.00	81
Total TCDD	ND	-----	0.034		1,2,3,7,8-PeCDD-13C	2.00	90
					1,2,3,4,7,8-HxCDF-13C	2.00	84
1,2,3,7,8-PeCDF	ND	-----	0.020		1,2,3,6,7,8-HxCDF-13C	2.00	82
2,3,4,7,8-PeCDF	0.21	-----	0.015	J	2,3,4,6,7,8-HxCDF-13C	2.00	75
Total PeCDF	2.4	-----	0.020	J	1,2,3,7,8,9-HxCDF-13C	2.00	71
					1,2,3,4,7,8-HxCDD-13C	2.00	68
1,2,3,7,8-PeCDD	ND	-----	0.022		1,2,3,6,7,8-HxCDD-13C	2.00	82
Total PeCDD	ND	-----	0.022		1,2,3,4,6,7,8-HpCDF-13C	2.00	74
					1,2,3,4,7,8,9-HpCDF-13C	2.00	77
1,2,3,4,7,8-HxCDF	0.12	-----	0.12	J	1,2,3,4,6,7,8-HpCDD-13C	2.00	78
1,2,3,6,7,8-HxCDF	ND	-----	0.11		OCDD-13C	4.00	64
2,3,4,6,7,8-HxCDF	-----	0.18	0.12	JI			
1,2,3,7,8,9-HxCDF	ND	-----	0.18		1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	2.5	-----	0.18	J	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	0.18	-----	0.040	BJ	2,3,7,8-TCDD-37Cl4	0.20	75
1,2,3,6,7,8-HxCDD	-----	0.046	0.032	JI			
1,2,3,7,8,9-HxCDD	ND	-----	0.035				
Total HxCDD	0.38	-----	0.040	BJ			
1,2,3,4,6,7,8-HpCDF	0.40	-----	0.048	J	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	-----	0.070		Equivalence: 0.15 ng/Kg		
Total HpCDF	0.96	-----	0.070	J	(Lower-bound - Using 2005 WHO Factors)		
1,2,3,4,6,7,8-HpCDD	0.98	-----	0.053	J			
Total HpCDD	1.8	-----	0.053	J			
OCDF	0.54	-----	0.16	J			
OCDD	8.4	-----	0.23	B			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).
EMPC = Estimated Maximum Possible Concentration
EDL = Estimated Detection Limit

ND = Not Detected
NA = Not Applicable
NC = Not Calculated

Results reported on a dry weight basis and are valid to no more than 2 significant figures.
J = Estimated value
B = Less than 10x higher than method blank level
I = Isotope ratio out of specification

REPORT OF LABORATORY ANALYSIS

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1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Method 1613B Sample Analysis Results

Client - PACE Wisconsin

Client's Sample ID	S48 (4')		
Lab Sample ID	40299344002-R		
Filename	L250816B_15		
Injected By	JRH		
Total Amount Extracted	11.5 g	Matrix	SOLID
% Moisture	2.9	Dilution	NA
Dry Weight Extracted	11.1 g	Collected	07/30/2025 07:45
ICAL ID	L250710	Received	08/02/2025 12:55
CCal Filename(s)	L250816A_18	Extracted	08/13/2025 12:00
Method Blank ID	BLANK-120730	Analyzed	08/17/2025 01:05

Native Isomers	Conc ng/Kg	EMPC ng/Kg	EDL ng/Kg		Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	0.15	-----	0.069	BJ	2,3,7,8-TCDF-13C	2.00	80
Total TCDF	0.34	-----	0.069	BJ	2,3,7,8-TCDD-13C	2.00	77
					1,2,3,7,8-PeCDF-13C	2.00	83
2,3,7,8-TCDD	ND	-----	0.059		2,3,4,7,8-PeCDF-13C	2.00	86
Total TCDD	0.13	-----	0.059	BJ	1,2,3,7,8-PeCDD-13C	2.00	97
					1,2,3,4,7,8-HxCDF-13C	2.00	87
1,2,3,7,8-PeCDF	ND	-----	0.024		1,2,3,6,7,8-HxCDF-13C	2.00	83
2,3,4,7,8-PeCDF	ND	-----	0.017		2,3,4,6,7,8-HxCDF-13C	2.00	82
Total PeCDF	0.50	-----	0.024	J	1,2,3,7,8,9-HxCDF-13C	2.00	79
					1,2,3,4,7,8-HxCDD-13C	2.00	80
1,2,3,7,8-PeCDD	ND	-----	0.021		1,2,3,6,7,8-HxCDD-13C	2.00	89
Total PeCDD	ND	-----	0.021		1,2,3,4,6,7,8-HpCDF-13C	2.00	80
					1,2,3,4,7,8,9-HpCDF-13C	2.00	82
1,2,3,4,7,8-HxCDF	ND	-----	0.043		1,2,3,4,6,7,8-HpCDD-13C	2.00	85
1,2,3,6,7,8-HxCDF	ND	-----	0.041		OCDD-13C	4.00	69
2,3,4,6,7,8-HxCDF	ND	-----	0.041				
1,2,3,7,8,9-HxCDF	ND	-----	0.059		1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	0.34	-----	0.059	J	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	0.11	-----	0.031	BJ	2,3,7,8-TCDD-37Cl4	0.20	79
1,2,3,6,7,8-HxCDD	ND	-----	0.026				
1,2,3,7,8,9-HxCDD	ND	-----	0.029				
Total HxCDD	0.11	-----	0.031	BJ			
1,2,3,4,6,7,8-HpCDF	-----	0.050	0.047	JI	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	-----	0.063		Equivalence: 0.031 ng/Kg		
Total HpCDF	0.15	-----	0.063	J	(Lower-bound - Using 2005 WHO Factors)		
1,2,3,4,6,7,8-HpCDD	-----	0.30	0.081	JI			
Total HpCDD	0.35	-----	0.081	BJ			
OCDF	-----	0.23	0.099	JI			
OCDD	4.5	-----	0.21	BJ			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).
EMPC = Estimated Maximum Possible Concentration
EDL = Estimated Detection Limit

ND = Not Detected
NA = Not Applicable
NC = Not Calculated

Results reported on a dry weight basis and are valid to no more than 2 significant figures.
J = Estimated value
B = Less than 10x higher than method blank level
I = Isotope ratio out of specification

REPORT OF LABORATORY ANALYSIS

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1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Method 1613B Blank Analysis Results

Lab Sample Name	DFBLKKX		
Lab Sample ID	BLANK-120730	Matrix	Solid/Wipe
Filename	L250816A_15	Dilution	NA
Total Amount Extracted	10.2 g	Extracted	08/13/2025 12:00
ICAL ID	L250710	Analyzed	08/16/2025 11:02
CCal Filename(s)	L250815B_18	Injected By	JRH

Native Isomers	Conc ng/Kg	EMPC ng/Kg	EDL ng/Kg		Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	0.14	-----	0.032	J	2,3,7,8-TCDF-13C	2.00	112
Total TCDF	0.14	-----	0.032	J	2,3,7,8-TCDD-13C	2.00	107
					1,2,3,7,8-PeCDF-13C	2.00	124
2,3,7,8-TCDD	ND	-----	0.040		2,3,4,7,8-PeCDF-13C	2.00	129
Total TCDD	0.075	-----	0.040	J	1,2,3,7,8-PeCDD-13C	2.00	145
					1,2,3,4,7,8-HxCDF-13C	2.00	114
1,2,3,7,8-PeCDF	ND	-----	0.016		1,2,3,6,7,8-HxCDF-13C	2.00	111
2,3,4,7,8-PeCDF	ND	-----	0.012		2,3,4,6,7,8-HxCDF-13C	2.00	110
Total PeCDF	ND	-----	0.016		1,2,3,7,8,9-HxCDF-13C	2.00	114
					1,2,3,4,7,8-HxCDD-13C	2.00	102
1,2,3,7,8-PeCDD	ND	-----	0.012		1,2,3,6,7,8-HxCDD-13C	2.00	120
Total PeCDD	ND	-----	0.012		1,2,3,4,6,7,8-HpCDF-13C	2.00	112
					1,2,3,4,7,8,9-HpCDF-13C	2.00	126
1,2,3,4,7,8-HxCDF	ND	-----	0.019		1,2,3,4,6,7,8-HpCDD-13C	2.00	119
1,2,3,6,7,8-HxCDF	ND	-----	0.019		OCDD-13C	4.00	113
2,3,4,6,7,8-HxCDF	ND	-----	0.019				
1,2,3,7,8,9-HxCDF	-----	0.065	0.026	JI	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	-----	0.026		1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	0.16	-----	0.020	J	2,3,7,8-TCDD-37Cl4	0.20	109
1,2,3,6,7,8-HxCDD	0.020	-----	0.016	J			
1,2,3,7,8,9-HxCDD	ND	-----	0.018				
Total HxCDD	0.18	-----	0.020	J			
1,2,3,4,6,7,8-HpCDF	-----	0.032	0.029	JI	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	-----	0.040		Equivalence: 0.041 ng/Kg		
Total HpCDF	ND	-----	0.040		(Lower-bound - Using 2005 WHO Factors)		
1,2,3,4,6,7,8-HpCDD	-----	0.14	0.053	JI			
Total HpCDD	0.18	-----	0.053	J			
OCDF	-----	0.10	0.038	JI			
OCDD	3.0	-----	0.063	J			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).
EMPC = Estimated Maximum Possible Concentration
EDL = Estimated Detection Limit

Results reported on a total weight basis and are valid to no more than 2 significant figures.
J = Estimated value
I = Isotope ratio out of specification

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Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Method 1613B Laboratory Control Spike Results

Lab Sample ID	LCS-120731		
Filename	L250816A_17	Matrix	Solid/Wipe
Total Amount Extracted	10.5 g	Dilution	NA
ICAL ID	L250710	Extracted	08/13/2025 12:00
CCal Filename	L250815B_18	Analyzed	08/16/2025 12:35
Method Blank ID	BLANK-120730	Injected By	JRH

Compound	Cs	Cr	Lower Limit	Upper Limit	% Rec.
2,3,7,8-TCDF	10	9.6	7.5	15.8	96
2,3,7,8-TCDD	10	11	6.7	15.8	107
1,2,3,7,8-PeCDF	50	52	40.0	67.0	104
2,3,4,7,8-PeCDF	50	47	34.0	80.0	94
1,2,3,7,8-PeCDD	50	47	35.0	71.0	94
1,2,3,4,7,8-HxCDF	50	49	36.0	67.0	98
1,2,3,6,7,8-HxCDF	50	49	42.0	65.0	99
2,3,4,6,7,8-HxCDF	50	50	35.0	78.0	101
1,2,3,7,8,9-HxCDF	50	49	39.0	65.0	97
1,2,3,4,7,8-HxCDD	50	56	35.0	82.0	113
1,2,3,6,7,8-HxCDD	50	49	38.0	67.0	98
1,2,3,7,8,9-HxCDD	50	50	32.0	81.0	100
1,2,3,4,6,7,8-HpCDF	50	50	41.0	61.0	101
1,2,3,4,7,8,9-HpCDF	50	47	39.0	69.0	94
1,2,3,4,6,7,8-HpCDD	50	50	35.0	70.0	101
OCDF	100	110	63.0	170.0	105
OCDD	100	110	78.0	144.0	111
2,3,7,8-TCDD-37Cl4	10	8.0	3.1	19.1	80
2,3,7,8-TCDF-13C	100	82	22.0	152.0	82
2,3,7,8-TCDD-13C	100	78	20.0	175.0	78
1,2,3,7,8-PeCDF-13C	100	86	21.0	192.0	86
2,3,4,7,8-PeCDF-13C	100	92	13.0	328.0	92
1,2,3,7,8-PeCDD-13C	100	99	21.0	227.0	99
1,2,3,4,7,8-HxCDF-13C	100	86	19.0	202.0	86
1,2,3,6,7,8-HxCDF-13C	100	84	21.0	159.0	84
2,3,4,6,7,8-HxCDF-13C	100	84	22.0	176.0	84
1,2,3,7,8,9-HxCDF-13C	100	83	17.0	205.0	83
1,2,3,4,7,8-HxCDD-13C	100	79	21.0	193.0	79
1,2,3,6,7,8-HxCDD-13C	100	89	25.0	163.0	89
1,2,3,4,6,7,8-HpCDF-13C	100	83	21.0	158.0	83
1,2,3,4,7,8,9-HpCDF-13C	100	92	20.0	186.0	92
1,2,3,4,6,7,8-HpCDD-13C	100	87	26.0	166.0	87
OCDD-13C	200	170	26.0	397.0	84

Cs = Concentration Spiked (ng/mL)
Cr = Concentration Recovered (ng/mL)
Rec. = Recovery (Expressed as Percent)
Control Limit Reference: Method 1613, Table 6, 10/94 Revision
R = Recovery outside of control limits
Nn = Value obtained from additional analysis
* = See Discussion

REPORT OF LABORATORY ANALYSIS

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APPENDIX E

APRIL 24, 2024, DEPARTMENT REVIEW OF RIVERSIDE RAIL CORRIDOR EXCAVATION DOCUMENTATION REPORT LETTER

State of Wisconsin
DEPARTMENT OF NATURAL RESOURCES
1300 W. Clairemont Ave.
Eau Claire WI 54701

Tony Evers, Governor

Telephone 608-266-2621
Toll Free 1-888-936-7463
TTY Access via relay - 711

WISCONSIN
DEPT. OF NATURAL RESOURCES

April 24, 2024

City of Wausau
Mr. Eric Lindman
407 Grant Street
Wausau, WI 54403

Subject: Department Review of Riverside Rail Corridor Excavation Documentation Report
132 River Street, Wausau, WI 54403
DNR BRRTS #: 02-37-584785, FID #: 737251350

Dear Mr. Lindman:

On January 30, 2024, the Department of Natural Resources (DNR) received an excavation documentation report submitted on your behalf by REI Engineering Inc., for review and concurrence. A review fee was submitted in accordance with Wis. Admin. Code Ch. NR 749.04 to facilitate DNR review of the report. The DNR was asked to determine the responsible party status for soil samples S29, S36 and S37, as well as for concurrence with a recommendation to further investigate the area near soil samples S45 and S46.

The Riverside Rail Corridor site (Site) has been extensively investigated for the presence of soil contamination in shallow soils within Riverside Park in Wausau. The primary contaminants of concern at the Site have been dioxin and furan-like compounds and their associated congeners. Soil samples were taken within the Riverside Park boundaries to define the extent of contamination and to aid in development of a remedial strategy at the site. Historically, soil samples taken in the vicinity of the Site indicated the presence of dioxin and furan contamination though no point-source of contamination had been identified.

Investigation activities at the Site defined a broad area of soil contamination impacted by a range of dioxin and furan congeners. The area near the former culvert inlet and outlet appears to have been impacted by an upgradient stormwater conveyance associated with and adjacent property. The DNR will request information from adjacent property owner(s) regarding historic activities on their properties which may have led to an accumulation of contamination at S29 and the culvert inlet area. Based on that assessment, the DNR may require adjacent property owner(s) to conduct a site investigation on their property to define the extent of soil contamination.

Contamination exceeding Wis. Admin. Code Ch. NR 720 residual contamination levels for furan congeners is present at soil samples S36 and S37. These samples were taken as confirmation samples at the edge of City of Wausau property to determine if soil contamination within the Site extended off-site, onto adjacent properties. Previous soil sampling events provided data from adjacent properties which the DNR reviewed when considering the City's request in this report.

The DNR compared congener results from S36 and S37 to nearby samples P6, S1, 120 Riv and 122 E and could not conclude that contamination from the Site migrated off-site, onto adjacent properties, specifically 122 River Street and 120 River Steet. Additionally, the DNR is not requiring the City of Wausau to continue its investigation onto the adjacent properties nor is the DNR requiring the City to remediate soil south of S36 and S37. The City may excavate these soils in cooperation with the property owner(s) to reduce the risk to human health in the area.

Soil samples S45 and S46 indicate the presence of soil contamination exceeding Wis. Admin. Code Ch. NR 720 residual contamination levels for 1,2,3,7,8-PeCDF. The DNR concurs with REI's assessment that additional soil sampling is needed to define the lateral extent of contamination in this area. Once the extent of contamination is defined, please proceed with selection and implementation of a remedial strategy for this area.

The DNR appreciates the City's commitment investigating and remediating soils in the Riverside Park. Please contact me with questions about the site by phone at 715-492-2304 or by email at MatthewA.Thompson@wisconsin.gov.

Sincerely,

Matt Thompson
West Central Region Supervisor
Remediation & Redevelopment Program

cc: Kevin Fabel, City of Wausau, via email
Matthew Michalski, REI Engineering Inc., via email