State of Wisconsin DEPARTMENT OF NATURAL RESOURCES 890 Spruce Street Baldwin, WI 54002

Tony Evers, Governor Adam N. Payne, Secretary Telephone 608-266-2621 Toll Free 1-888-936-7463 TTY Access via relay - 711



July 17, 2023

City of Wausau Mr. Eric Lindman 407 Grant Street Wausau, WI 54403 Via Electronic Mail Only to eric.lindman@ci.wausau.wi.us

KEEP THIS LEGAL DOCUMENT WITH YOUR PROPERTY RECORDS

SUBJECT:Case Closure with Continuing Obligations
Former Mall Parking Facility #1, 120 Forest Street, Wausau, WI 54403
BRRTS #: 02-37-589640

Dear Mr. Lindman:

The Wisconsin Department of Natural Resources (DNR) is pleased to inform you that the Former Mall Parking Facility #1 case identified above met the requirements of Wisconsin Administrative (Wis. Admin.) Code chs. NR 700 to 799 for case closure with continuing obligations (COs). COs are legal requirements to address potential exposure to remaining contamination. No further investigation or remediation is required at this time for the reported hazardous substance discharge and/or environmental pollution.

However, you, future property owners and occupants of the property must comply with the COs as explained in this letter, which may include maintaining certain features and notifying the DNR and obtaining approval before taking specific actions. You must provide this letter and all enclosures to anyone who purchases, rents or leases this property from you.

This case closure decision is issued under Wis. Admin. Code chs. NR 700 to 799 and is based on information received by the DNR to date. The DNR reviewed the case closure request for compliance with state laws and standards and determined the case closure request met the notification requirements of Wis. Admin. Code ch. NR 725, the response action goals of Wis. Admin. Code § NR 726.05(4).

The Former Mall Parking Facility #1 site was investigated for a discharge of hazardous substances and/or environmental pollution from historic fill located site-wide, but more evident on the east side of the site. Case closure is granted for the volatile organic compounds (VOCs), polycyclic aromatic hydrocarbons (PAHs), and Resource Conservation and Recovery Act (RCRA) list of metals as documented in the case file. The site investigation and/or remedial action addressed soil and groundwater. No remedial actions were performed on the site.

The case closure decision and COs required were based on the current use of the site for commercial purposes – the property is currently used as a driveway/ parking/ loading area. The site is currently zoned Planned Unit Development (PUD)/Non-industrial by the City of Wausau. Based on the land use and zoning, the site meets the non-industrial land use classification under Wis. Admin. Code § NR 720.05(5) for application of residual contaminant levels in soil.



SUMMARY OF CONTINUING OBLIGATIONS

COs are applied at the following locations:

ADDRESS (CITY, WI)	COS APPLIED	DATE OF MAINTENANCE PLAN(S)
120 Forest Street (Source Property)	Residual Soil Contamination Soil Contamination Cap	January 31, 2023
	Residual Groundwater Contamination	

CLOSURE CONDITIONS

Closure conditions are legally required conditions which include both COs and other requirements for case closure (Wis. Stat. § 292.12(2)). Under Wis. Stat. § 292.12(5), you, any subsequent property owners and occupants of the property must comply with the closure conditions as explained in this letter. The property owner must notify occupants for any condition specified in this letter under Wis. Admin. Code §§ NR 726.15(1)(b) and NR 727.05(2). If an occupant is responsible for maintenance of any closure condition specified in this letter, you and any subsequent property owner must include the condition in the lease agreement under Wis. Admin. Code § NR 727.05(3) and provide the maintenance plan to any occupant that is responsible.

DNR staff may conduct periodic pre-arranged inspections to ensure that the conditions included in this letter and the maintenance plan dated January 31, 2023, are met (Wis. Stat. § 292.11(8)). If these requirements are not followed, the DNR may take enforcement action under Wis. Stat. ch. 292 to ensure compliance with the closure conditions.

SOIL

Continuing Obligations to Address Soil Contamination

Residual Soil Contamination (Wis. Admin. Code chs. NR 718, NR 500 to 599, and § NR 726.15(2)(b) and Wis. Stat. ch. 289)

Soil contamination remains as indicated on the enclosed map (Figure B.2.b., Residual Soil Contamination, 5/1/23). If soil in the location(s) shown on the map is excavated in the future, the property owner or right of way holder at the time of excavation must sample and analyze the excavated soil. If sampling confirms that contamination is present, the property owner or right of way holder at the time of excavation will need to determine if the material is considered solid waste and ensure that any storage, treatment or disposal complies with applicable standards and rules. Contaminated soil may be managed under Wis. Admin. Code ch. NR 718 with prior DNR approval.

In addition, all current and future property owners, occupants and right of way holders need to be aware that excavation of the contaminated soil may pose an inhalation and direct contact hazard; special precautions may be needed to prevent a threat to human health.

Cover (for soil) (Wis. Stat. § 292.12(2)(a), Wis. Admin. Code §§ NR 724.13(1) and (2), NR 726.15(2)(d) and/or (e), NR 727.07(1))

The impervious barrier, as shown on the enclosed map (Figure D.2, Location Map, 6/7/23) shall be maintained in compliance with the enclosed maintenance plan, dated 01/31/2023. The purpose of the cover is to minimize the infiltration of water through contaminated soil and prevent direct contact with residual soil contamination that might otherwise pose a threat to human health.

The cover approved for this closure was designed to be protective for commercial or industrial land uses. Before using the property for residential purposes and before taking an action, the property owner must notify the DNR to determine if additional response actions are warranted. A cover intended for industrial land uses or certain types of commercial land uses may not be protective if the property changes to a residential use. This may include, but is not limited to, single or multiple family residences, a school, day care, senior center, hospital or similar settings. In addition, a cover designed for multi-family residential housing use may not be appropriate for use at a single-family residence.

To modify or replace a cover, the property owner must submit a request to the DNR under Wis. Admin. Code ch. NR 727. The DNR approval must be obtained before implementation. The replacement or modified cover must be a structure of similar permeability or be protective of the revised use of the property until contaminant levels no longer exceed Wis. Admin. Code ch. NR 720 groundwater pathway residual contaminant levels and/or direct contact residual contaminant levels (RCLs).

GROUNDWATER

Continuing Obligations to Address Groundwater Contamination and/or Monitoring Wells

<u>Residual Groundwater Contamination</u> (Wis. Admin. Code ch. NR 140 and § NR 812.09(4)(w)) Groundwater contamination which equals or exceeds the enforcement standards for VOCs, PAHs and RCRA metals is present as shown on the enclosed map (Figure B.3.b., Groundwater Isoconcentration Map, 01/11/2023). To construct a new well or reconstruct an existing well, the property owner must obtain prior DNR approval. Additional casing may be necessary to prevent contamination of the well.

OTHER CLOSURE REQUIREMENTS

Maintenance Plan and Inspection Log (Wis. Admin. Code §§ NR 726.11(2), NR 726.15(1)(d), NR 727.05(1)(b)3., Wis. Admin. Code § NR 716.14(2) for monitoring wells)

The property owner is required to comply with the enclosed maintenance plan dated 01/31/2023, for the cover to conduct inspections annually and to use the inspection log (DNR Form 4400-305 or Form 4400-321 VMS Inspection Log) to document the required inspections. The maintenance plan and inspection log are to be kept up-to-date. The property owner shall submit the inspection log to the DNR upon request, using the RR Program Submittal Portal. See the DNR Notification and Approval Requirements section below for more information on how to access the Submittal Portal.

The limitations on activities are identified in the enclosed maintenance plan(s). The following activities are prohibited on any portion of this property where the cover is required, without prior DNR approval.

- Removal of the existing barrier
- Replacement with another barriers
- Excavating or grading of the land surface

- Filling on capped or paved areas
- Plowing for agricultural purposes
- Construction or placement of a building or other structure
- Changing the use or occupancy of the property to a residential exposure setting, which may include certain uses, such as single or multifamily residences, a school, day care, senior center, hospital, or similar residential exposure settings.

Pre-Approval Required for Well Construction (Wis. Admin. Code § NR 812.09(4)(w))

DNR approval is required before well construction or reconstruction for all sites identified as having residual contamination and/or COs. This requirement applies to private drinking water wells and high capacity wells. To obtain approval, the property owner is required to complete and submit Form 3300-254, Continuing Obligations/Residual Contamination Well Approval Application, to the DNR Drinking and Groundwater program's regional water supply specialist. A well driller can help complete this form. The form can be obtained online at dnr.wi.gov, search "3300-254." Additional casing may be necessary to help prevent contamination of the well.

<u>General Wastewater Permits for Construction-related Dewatering Activities</u> (Wis. Admin. Code ch. NR 200) The DNR's Water Quality Program regulates point source discharges of contaminated water, including discharges to surface waters, storm sewers, pits, or to the ground surface. This includes discharges from construction-related dewatering activities, including utility work and building construction.

If the property owner or any other person plans to conduct such activities, that person must contact the Water Quality Program and, if necessary, apply for the required discharge permit. If residual soil or groundwater contamination is likely to affect water collected in a pit/trench that requires dewatering, a general permit for discharge of *Contaminated Groundwater from Remedial Action Operations* may be needed. If water collecting in a pit/trench that requires dewatering is expected to be free of pollutants other than suspended solids, oil and grease, a general permit for pit/trench *Dewatering Operations* may be needed. Additional information can be obtained by visiting the DNR website at "dnr.wi.gov," search "wastewater general permits."

DNR NOTIFICATION AND APPROVAL REQUIREMENTS

Certain activities are limited at closed sites to maintain protectiveness to human health and the environment. The property owner is required to notify the DNR at least 45 days before and obtain approval from the DNR prior to taking the following actions (Wis. Admin. Code §§ NR 727.07, NR 726.15 (2), Wis. Stat. § 292.12(6)).

- Before removing a cover or any portion of a cover
- Before changing the use of the property to a non-industrial use, when industrial soil standards were applied for closure

The DNR may require additional investigation and/or cleanup actions, if necessary, to be protective of human health and the environment. The case may be reopened under Wis. Admin. Code § NR 727.13 if additional information indicates that contamination on or from the site poses a threat, or for a lack of compliance with a CO or closure requirement. Compliance with the maintenance plan is considered when evaluating the reopening criteria.

SUBMITTALS AND CONTACT INFORMATION

Site, case-related information and DNR contacts can be found online in the Bureau for Remediation and Redevelopment Tracking System (BRRTS) on the Web (BOTW); go to <u>dnr.wi.gov</u> and search "BOTW." Use the BRRTS ID # found at the top of this letter. The site can also be found on the map view, Remediation and Redevelopment Sites Map (RRSM) by searching "RRSM."

Send written notifications the DNR using the RR Program Submittal Portal at dnr.wi.gov, search "RR submittal portal" (<u>https://dnr.wi.gov/topic/Brownfields/Submittal.html</u>). Questions on using this portal can be directed to the Project Manager below or to the environmental program associate (EPA) for the regional DNR office. Visit dnr.wi.gov, search "RR contacts" and select the EPA tab (<u>https://dnr.wi.gov/topic/Brownfields/Contact.html</u>).

CLOSING

The DNR appreciates your efforts to restore the environment at this site. If you have any questions regarding this this letter, please contact DNR project manager Jayson Schrank at 715-410-8841 or Jayson.schrank@wisconsin.gov.

Sincerely,

Into

Trevor Nobile, P.G., CPG Field Operations Director Remediation & Redevelopment Program

Attachments: Figure B.3.b, Groundwater Isoconcentration, 01/11/2023 Figure B.2.b., Residual Soil Contamination, 05/01/2023 Attachment D, Maintenance Plan, 01/31/2023

cc. Chase Kresl, REI Engineering Inc. – <u>ckresl@reiengineering.com</u>





<u>Attachment D: Maintenance Plan(s) and Photographs</u>

Items Not Bolded Do Not Apply to This Closure Request

- D.1. Descriptions of maintenance action(s) required for maximizing effectiveness of the engineered control, vapor mitigation system, feature or other action for which maintenance is required
- **D.2. Location Map**
- **D.3. Photographs**
- **D.4. Inspection Log**

COVER or BARRIER MAINTENANCE PLAN

(to be included in Form 4400-202, as Attachment D)

01/31/2023

Property Located at:

120 Forest Street

BRRTS #: 02-37-589640, FID #: 737258060

The subject property is comprised of two (2) parcels and a portion of the 2nd Street right-of-way

Parcel ID: 291-2907-362-0243, 291-2907-362-0284

The parcels are legally described as - ALEXANDER DAVIS PLAT - OUTLOT 3 and WAUSAU OPPORTUNITY CONDOMINIUM – UNIT 1 LYG W/IN TID. The site also contains a portion of the 2nd Street right-of-way.

The property is in the NW ¼, NW ¼, Section 36, Township 29 North, Range 07 East, City of Wausau, Marathon County, Wisconsin.

Introduction

This document is the Maintenance Plan for a concrete cover at the above-referenced property in accordance with the requirements of s. NR 724.13 (2), Wis. Adm. Code. The maintenance activities relate to the existing concrete cover which addresses or occupies the area over the contaminated groundwater plume or soil.

More site-specific information about this property/site may be found in:

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

D.1. Descriptions:

(Form 4400-202, Attachment D, Part D1. – brief description of the type, depth and location of residual contamination, description of the system/cover/barrier to be maintained, and its location on the site, maintenance activities, and contact information.)

Description of Contamination

Laboratory analytical results revealed detections of several compounds in exceedance of NR720 Direct Contact and Groundwater Pathway Protection RCLs in site soil. Compounds exceeding Direct Contact standards were all PAHs, with Benzo(a)anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene, Dibenz(a,h)anthracene, and Indeno(1,2,3-cd)pyrene commonly detected in the borings. In total, the Non-Industrial Direct Contact RCL was exceeded in eleven (11) of the collected samples from all eight (8) of the advanced geoprobe borings. Non-Industrial Direct Contact RCL exceedances were noted within four (4) feet of the ground surface in all boring locations except GP-2, which was advanced near the southwest corner of the site. Dibenz(a,h)anthracene exceeded the Direct Contact RCL in two (2) locations, naphthalene exceeded the Direct Contact RCL in one (1) location, and lead exceeded the Direct Contact RCL in one (1) location. Exceedances of the Direct Contact RCL were noted primarily in borings advanced near the center and west side of the property.

Exceedances of NR720 Groundwater Pathway Protection RCLs were also primarily PAHs. Benzo(a)pyrene, Benzo(b)fluoranthene, and Chrysene were detected in exceedance of the Groundwater Pathway Protection RCL each of the borings except GP-1, which was advanced near the northwest corner of the site. These exceedances were also preferentially noted in shallower sample locations. Tetrachloroethene was the only non-PAH compound detected above state standards. Tetrachloroethene was reported above the Groundwater Pathway Protection RCL in three (3) sample locations which were collected from two (2) borings. The samples were collected within six (6) feet of the ground surface from borings GP-7 and GP-8, which were advanced on the east side of the site.

Due to observations of subsurface materials, the lack of apparent source, and generally similar contaminant signature noted in samples across the site it is apparent that contamination across the site is resultant from historical fill placed on the site rather than a single point source. Contaminated fill was evidently placed preferentially on the east side of the property as opposed to the west. Low-level tetrachloroethene contamination may be resultant from a historical laundry facility located on/near the eastern portion of the property. The extent of soil and groundwater contamination is depicted on Figure D.2.

Description of the Cover to be Maintained

The concrete cap consists of several inches of concrete parking/driving area which is currently existing. The concrete cap encompasses nearly the entirety of the property. Small areas of the property which are not concrete covered contain raised landscaped beds. The area of cover to be maintained includes the majority of the site and is depicted on Figure D.2.

Cover/Building/Slab/Barrier Purpose

The concrete cap over the contaminated groundwater plume and soil serve as a barrier to prevent direct human contact with residual soil contamination that might otherwise pose a threat to human health. The cover/barrier also acts as a partial infiltration barrier to minimize future soil-to-groundwater contamination migration that would violate the groundwater standards in ch. NR 140, Wisconsin Administrative Code. Based on the current use of the property, parking/driveway/loading area, the barrier should function as intended unless disturbed.

Annual Inspection

The concrete cap overlying the contaminated soil and groundwater and as depicted in Figure D.2 will be inspected once a year, normally in the spring after all snow and ice is gone, for deterioration, cracks and other potential problems that can cause additional infiltration into or exposure to underlying soils. The inspections will be performed by the property owner or their designated representative. The inspections will be performed to evaluate damage due to settling, exposure to the weather, wear from traffic, increasing age and other factors. Any area where soils have become or are likely to become exposed and where infiltration from the surface will not be effectively minimized will be documented.

A log of the inspections and any repairs will be maintained by the property owner and is included as D.4, Form 4400-305, Continuing Obligations Inspection and Maintenance Log. The log will include recommendations for

necessary repair of any areas where underlying soils are exposed and where infiltration from the surface will not be effectively minimized. Once repairs are completed, they will be documented in the inspection log. A copy of the maintenance plan and inspection log will be kept at the site; or, if there is no acceptable place (for example, no building is present) to keep it at the site, at the address of the property owner and available for submittal or inspection by Wisconsin Department of Natural Resources (DNR) representatives upon their request.

Maintenance Activities

(Form 4400-202, Attachment D, Part D1. – Description of Maintenance Actions required for maximizing effectiveness of the cover/barrier/engineered control, feature or other action for which maintenance is required.)

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

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

The property owner, in order to maintain the integrity of the concrete cap, will maintain a copy of this Maintenance Plan at the site; or, if there is no acceptable place to keep it at the site (for example, no building is present), at the address of the property owner and make it available to all interested parties (i.e. on-site employees, contractors, future property owners, etc.) for viewing.

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

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

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

Amendment or Withdrawal of Maintenance Plan

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

Contact Information

(Form 4400-202, Attachment D, Part 1.) Contact Information, including the name, address and phone number of the individual or facility who will be conducting the maintenance.)

January 2023

Site Owner and Operator:

City of Wausau 407 Grant Street Wausau, WI 54403

Signature:

(The DNR may request signature of affected property owners, on a case-by-case basis)

Property Owner:

City of Wausau 407 Grant Street Wausau, WI 54403

Signature:

Consultant: REI Engineering, Inc. 4080 N 20th Avenue, Wausau, WI 54401 (715) 675-9784

DNR:

Matt Thompson 1300 W. Clairemont Avenue, Eau Claire, WI 54701 (715) 492-2304

D.2 Location Map(s)

Include a location map which shows:

(1) the feature that requires maintenance;

(2) the location of the feature(s) that require(s) maintenance: on and off the source property;

(3) the extent of the structure or feature(s) to be maintained, in relation to other structures or features on the site;

(4) the extent and type of residual contamination; and

(5) all property boundaries.

D. 3 Photographs of Cover/Barrier

Include one or more photographs documenting the condition and extent of the cover/barrier/building/slab at the time of the closure request. Pertinent features must be visible and discernible. Include a title on each photograph, which identifies the site name and location of the feature, and the date on which the photograph was taken.

D.4 Continuing Obligations Inspection and Maintenance Log

Use DNR Fillable Form Form 4400-305





D.3—Photographs of Cover/Barrier Former Mall Parking #1 February 2023



Concrete cap on 2nd Street right-of-way and Outlot 3 (07/26/2022)



Concrete cap on 2nd Street right-of-way and Lot 1 (01/31/2023)



Concrete cap on 2nd Street right-of-way and Lot 1 (07/26/2022)



Concrete cap on 2nd Street right-of-way and Outlot 3 (01/31/2023)

D.3—Photographs of Cover/Barrier	Photographs
120 Forest Street, Wausau, WI 54403	REI No. 9485e



D.3—Photographs of Cover/Barrier Former Mall Parking #1 February 2023



Concrete cap on Lot 1 (01/31/2023)



Concrete cap on 2nd Street right-of-way and Outlot 3 (01/31/2023)

D.3—Photographs of Cover/Barrier	Photographs
120 Forest Street, Wausau, WI 54403	REI No. 9485e



Continuing Obligations Inspection and Maintenance Log

Form 4400-305 (R 7/20)

Page 1 of 2

Directions: In accordance with s. NR 727.05 (1) (b) 3., Wis. Adm. Code, use of this form for documenting the inspections and maintenance of certain continuing obligations is required. Personal information collected will be used for administrative purposes and may be provided to requesters to the extent required by Wisconsin's Public Records law [ss. 19.31-19.39, Wis. Stats.]. When using this form, identify the condition that is being inspected. See the closure approval letter for this site for requirements regarding the submittal of this form to the Department of Natural Resources. A copy of this inspection log is required to be maintained either on the property, or at a location specified in the closure approval letter. Do NOT delete previous inspection results. This form was developed to provide a continuous history of site inspection results. The Department of Natural Resources project manager is identified from the database, BRRTS on the Web, at http://dnr.wi.gov/botw/SetUpBasicSearchForm.do, by searching for the site using the BRRTS ID number, and then looking in the "Who" section.

Activity (Site	e) Name			E	3RRTS No.			
Inspections are required to be conducted (see closure approval letter): annually semi-annually other – specify 			When submittal of this form is required, submit the form electronically to the manager. An electronic version of this filled out form, or a scanned version the following email address (see closure approval letter):					
Inspection Date	Inspector Name	Item	Describe the condition of the item that is being inspected	Recommendations for repair or mainten	nance Pre recomm implei	vious endations mented?	Photographs s taken and attached?	
		monitoring well cover/barrier for soil sediment cap other:			O Y	() N	<u>OyOn</u>	
		monitoring well cover/barrier for soil sediment cap other:			O Y	() N	O Y O N	
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		monitoring well cover/barrier for soil sediment cap other:			O Y	⊖ N	OYON	

BRRTS No. Activity (Site) Name)	Form 4400-305 (R 7/2	20)	Page
{Click to Add/Edit Image}	Date added:	{Click to Add/Edit Image}	Date added:	
Title:		Title:		

Continuing Obligations Inspection and Maintenance Log Form 4400-305 (R 7/20) Page 2 of 2

Data Tables

Tables that follow are for reference only and were not included in the Department's closure documentation sent to affected parties

Table A.1.a Summary of Groundwater Analytical Results - VOCs Former Mall Parking Facility #1 102 Forest Street Wausau, WI 54403

	Sample>		MW-1		MW-2	
		Date>	8/4/22	9/7/22	8/4/22	9/7/22
VOC (μg/L)	ES	PAL				
Benzene	5	0.5	0.79 ^J	1.3	<0.30	<0.30
Bromobenzene			<0.36	<0.36	<0.36	<0.36
Bromochloromethane			<0.36	<0.36	<0.36	<0.36
Bromodichloromethane	0.6	0.06	<0.42	<0.42	<0.42	<0.42
Bromoform	4.4	0.44	<3.8	<3.8	<3.8	<3.8
Bromomethane	10	1	<1.2	<1.2	<1.2	<1.2
n-Butylbenzene			<0.86	<0.86	<0.86	<0.86
sec-Butylbenzene			<0.42	<0.42	<0.42	<0.42
tert-Butylbenzene			<0.59	<0.59	<0.59	<0.59
Carbon tetrachloride	5	0.5	<0.37	<0.37	<0.37	<0.37
Chlorobenzene			<0.86	<0.86	<0.86	<0.86
Chloroethane	400	80	<1.4	<1.4	<1.4	<1.4
Chloroform	6	0.6	<1.2	<1.2	<1.2	<1.2
Chloromethane	30	3	<1.6	<1.6	<1.6	<1.6
2-Chlorotoluene			<0.89	<0.89	<0.89	<0.89
4-Chlorotoluene			<0.89	<0.89	<0.89	<0.89
1,2-Dibromo-3-chloropropane	0.2	0.02	<2.4	<2.4	<2.4	<2.4
Dibromochloromethane	60	6	<2.6	<2.6	<2.6	<2.6
1,2-Dibromoethane (EDB)	0.05	0.005	<0.31	<0.31	<0.31	<0.31
Dibromomethane			<0.99	<0.99	<0.9	<0.9
1,2-Dichlorobenzene	600	60	<0.33	<0.33	<0.33	<0.33
1,3-Dichlorobenzene	600	120	< 0.35	< 0.35	< 0.35	< 0.35
l,4-Dichlorobenzene	75	15	<0.89	<0.89	<0.89	<0.89
Dichlorodifluoromethane	1,000	200	<0.46	<0.46	<0.46	<0.46
1,1-Dichloroethane	850	85	<0.30	<0.30	<0.30	<0.30
1,2-Dichloroethane	5	0.5	<0.29	<0.29	<0.29	<0.29
1,1-Dichloroethene	7	0.7	<0.58	<0.58	<0.58	<0.58
cis-1,2-Dichloroethene	10	1	< 0.47	< 0.47	< 0.47	< 0.47
trans-1,2-Dichloroethene	100	20	< 0.53	< 0.53	<0.53	< 0.53
1,2-Dichloropropane	5	0.5	<0.45	< 0.45	<0.45	< 0.45
1,3-Dichloropropane			<0.30	< 0.30	<0.30	<0.30
2,2-Dichloropropane			<4.2	<4.2	<4.4	<4.2
ria 1.2 Dichleroproperie			<0.41	<0.41	<0.41	<0.41
trans 1.3 Dichleropropene	0.4	0.04	<3.5	<3.5	<3.5	<3.5
Dijsopropyl ether	0.4	0.04	<1.1	<1.1	<1.1	<1.1
Ethylbenzene	700	140	<0.33	<1.1 0.42 ^J	<0.33	<0.33
Herachloro-1.3-butadiene			<2.7	<2.7	<2.7	<2.7
Isopropylbenzene (cumene)			<1.0	<1.0	<1.0	<1.0
p-Isopropyltoluene			<1.0	<1.0	<1.0	<1.0
Methylene Chloride	5	1	< 0.32	< 0.32	< 0.32	< 0.32
Methyl-tert-butyl ether	60	12	<1.1	<1.1	<1.1	<1.1
Naphthalene	100	10	<1.1	<1.1	2.1 ^J	2.1 ^J
n-Propylbenzene			<0.35	<0.35	< 0.35	< 0.35
Styrene	100	10	<0.36	<0.36	<0.36	<0.36
1,1,1,2-Tetrachloroethane	70	7	<0.36	<0.36	<0.36	<0.36
1,1,2,2-Tetrachloroethane	0.2	0.02	<0.38	<0.38	<0.38	<0.38
Tetrachloroethene	5	0.5	<0.41	<0.41	0.96 ^J	1.2
Toluene	800	160	0.60 ^J	0.93 ^J	<0.29	<0.29
1,2,3-Trichlorobenzene			<1.0	<1.0	<1.0	<1.0
1,2,4-Trichlorobenzene	70	14	<0.95	<0.95	<0.95	<0.95
1,1,1-Trichloroethane	200	40	<0.30	<0.30	<0.30	<0.30
1,1,2-Trichloroethane	5	0.5	<0.34	<0.34	<0.34	<0.34
Trichloroethene	5	0.5	<0.32	<0.32	<0.32	<0.32
Trichlorofluoromethane			<0.42	<0.42	<0.42	<0.42
1,2,3-Trichloropropane	60	12	<0.56	<0.56	<0.56	<0.56
1,2,4-Trimethylbenzene	480	96	<0.45	<0.45	<0.45	<0.45
1,3,5-Trimethylbenzene		- •	<0.36	<0.36	<0.36	<0.36
Vinyl chloride	0.2	0.02	<0.17	<0.17	<0.17	<0.17
m&p-Xylene	2,000	400	<0.70	<0.70	<0.70	<0.70
o-Xylene	· .		< 0.35	< 0.35	< 0.35	<0.35
Field Meas	urements					
	Te	emperature (°F)	X	53	53.6	53.2
	Condu	ctivity (ms/cm)	X	2282	2480	2370
	Dissolved (Oxygen (mg/L)	X	2.29	4.52	9.24
		pH	X	8.6	7.65	7.85
	Redox	Potential (mV)	Х	-159.2	-10.5	99.2

Notes:

 $\mu g/L$ = Parts Per Billion (ppb)

< = Concentration Below Laboratory Detection Limit

X = Not Sampled/Collected

--= No Standard/Not Applicable

^J = Estimated concentration at or above the Limit of Detection (LOD) and below the Limit of Quantitation (LOQ)

Italic	= Exceeds NR 140 Preventive Action Limit (PAL)		
Bold	= Exceeds NR140 Enforcement Standard (ES)		

Table A.1.b Summary of Groundwater Analytical Results - PAH Former Mall Parking Facility #1 102 Forest Street Wausau, WI 54403

	Sample>		M	W-1	MV	V-2
		Date>	8/4/22	9/7/22	8/4/22	9/7/22
ΡΑΗ (μg/L)	PAL	ES				
Acenaphthene			0.017 ^J	0.025 ^J	1.6	0.016 ^J
Acenaphthylene			<0.013	<0.011	0.016 ^J	0.015 ^J
Anthracene	600	3,000	0.032 ^J	0.017 ^J	0.4	0.068
Benzo(a)anthracene			0.028 ^j	<0.012	0.081	0.22
Benzo(a)pyrene	0.02	0.2	0.028	<0.012	0.063	0.22
Benzo(b)fluoranthene	0.02	0.2	0.038'	<0.0082	0.088	0.29
Benzo(g,h,i)perylene			0.028 ^J	<0.021	0.043 ^J	0.16
Benzo(k)fluoranethene			< 0.024	<0.020	0.030 ^J	0.13
Chrysene	0.02	0.2	0.029'	<0.011	0.080	0.25
Dibenz(a,h)anthracene			<0.019	<0.016	<0.016	0.037 ^J
Fluoranthene	80	400	0.062	<0.024	0.52	0.50
Fluorene	80	400	<0.025	<0.021	1.2	<0.021
Indeno(1,2,3-cd)pyrene			0.019 ^J	<0.014	0.036 ^J	0.13
l-Methylnaphthalene	-		0.050 ^J	0.024 ^J	0.14	<0.016
2-Methylnaphthalene	-		<0.015	0.018 ^J	<0.013	<0.013
Naphthalene	100	10	<0.021	0.068	<0.018	<0.018
Phenanthrene			0.065	0.036 ^J	1.4	0.22
Pyrene	50	250	0.058	<0.020	0.32	0.40
Field Measurements						
Temperature (°F)			Х	53	53.6	53.2
Conductivity (ms/cm)		Х	2282	2480	2370	
Dissolved Oxygen (mg/L)			X	2.29	4.52	9.24
pH			X	8.6	7.65	7.85
Redox Poter	tial (mV)		X	-159.2	-10.5	99.2

Notes:

 μ g/L = Parts Per Billion (ppb)

< = Concentration Below Laboratory Detection Limit

X = Not Sampled/Collected

- - = No Standard/Not Applicable

^J = Estimated concentration at or above the Limit of Detection (LOD) and below the Limit of Quantitation (LOQ)

Italic	= Exceeds NR 140 Preventive Action Limit (PAL)			
Bold	= Exceeds NR140 Enforcement Standard (ES)			

Table A.1.c Summary of Groundwater Analytical Results - RCRA Metals Former Mall Parking Facility #1 102 Forest Street Wausau, WI 54403

Sample>		M	W-1	M	V-2	
		Date>	8/4/22	9/7/22	8/4/22	9/7/22
RCRA METALS (µg/L)	PAL	ES				
Arsenic, Dissolved	1.0	10	<13.2	<8.3	<13.2	<8.3
Barium, Dissolved	400	2,000	204	245	124	145
Cadmium, Dissolved	0.5	5.0	<1.3	<1.3	<1.3	<1.3
Chromium, Dissolved	10	100	<2.5	10.3	<2.5	<2.5
Lead, Dissolved	1.5	15	<6.4	<5.9	<6.4	<5.9
Selenium, Dissolved	10	50	<12.3	<12.2	<12.3	<12.2
Silver, Dissolved	10	50	<3.2	<3.2	<3.2	<3.2
Mercury, Dissolved	0.2	2.0	<0.066	<0.066	<0.066	<0.066
Field Measurements						
Temperature (^o F)			Х	53	53.6	53.2
Conductivity (ms/cm)		Х	2282	2480	2370	
Dissolved Oxygen (mg/L)		Х	2.29	4.52	9.24	
рН		X	8.6	7.65	7.85	
Redox Poter	ntial (mV)		X	-159.2	-10.5	99.2

Notes:

 μ g/L = Parts Per Billion (ppb)

< = Concentration Below Laboratory Detection Limit

X = Not Sampled/Collected

- - = No Standard/Not Applicable

^J = Estimated concentration at or above the Limit of Detection (LOD) and below the Limit of Quantitation (LOQ)

Italic	= Exceeds NR 140 Preventive Action Limit (PAL)
Bold	= Exceeds NR140 Enforcement Standard (ES)

Table A.3 NR720 Soil Exceedance Summary Former Mall Parking Facility #1 120 Forest Street Wausau, WI 54403

Collected By>				REI Engineering, Inc.		
Date>				4/21/21	4/21/21	4/21/21
Sample>				GP-7 (2-4')	GP-8 (2-4')	GP-8 (4-6')
Sample Depth(Feet)>				2-4	2-4	4-6
PID(ppm)>				0.0	0.0	0.0
		Percent l	Moisture (%)>	5.0	5.0	3.9
	Sat	urated (S) vs Uns	saturated (U)>	U	U	U
VOC (mg/kg) Non-Industrial Industrial Groundwater Not-to-Exceed Not-to-Exceed Pathway DC RCL DC RCL Protection						
Tetrachloroethene	33	145	0.0045	0.0225	0.4450	0.4270

Collected By>				REI Engineering, Inc.										
Date>				3/2/22	3/2/22	3/2/22	3/2/22	3/2/22	3/2/22	3/2/22	4/21/21	4/21/21	4/21/21	4/21/21
Sample>				GP-1 (2-4')	GP-1 (14-16')	GP-2 (14-16')	GP-3 (2-4')	GP-4 (2-4')	GP-4 (6-8')	GP-5 (2-4')	GP-6 (2-4')	GP-7 (2-4')	GP-8 (2-4')	GP-8 (4-6')
Sample Depth(Feet)>				2-4	14-16	14-16	2-4	2-4	6-8	2-4	2-4	2-4	2-4	4-6
PID(ppm)>				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Percent Moisture (%)>				4.0	5.0	6.0	6.1	3.9	5.9	5.4	3.9	5.0	5.0	3.9
Saturated (S) vs Unsaturated (U)>			U	U	U	U	U	U	U	U	U	U	U	
PAH (mg/kg)	Non-Industrial Not-to-Exceed DC RCL	Industrial Not-to-Exceed DC RCL	Groundwater Pathway Protection											
Benzo(a)anthracene	1.14	20.8		0.149	0.289	0.429	1.28	0.128	0.539	2.2	1.96	0.366	5.1	4.55
Benzo(a)pyrene	0.115	2.11	0.47	0.148	0.341	0.484	1.43	0.164	0.612	<u>2.13</u>	2.09	0.39	4.94	4.55
Benzo(b)fluoranthene	1.15	21.1	0.4781	0.194	0.452	0.617	1.95	0.244	0.804	2.88	2.94	0.54	6.97	7.1
Chrysene	115	2110	0.1442	0.138	0.299	0.442	1.400	0.137	0.54	2.12	1.97	0.355	5.1	5.1
Dibenz(a,h)anthracene	0.115	2.11		0.0241	0.0632	0.0954	0.246	0.0321	0.113	0.39	0.365	0.0721	0.869	0.727
Indeno(1,2,3-cd)pyrene	1.15	21.1		0.0924	0.213	0.32	0.914	0.108	0.393	1.34	1.29	0.245	2.96	2.86

Notes:

NR 720 Standards Obtained From WDNR Online Database

This site is assessed as Non Industrial

RCL = NR720 Soil Residual Concentration Level

DC = Direct Contact

mg/kg = Parts Per Million (ppm)

< = Concentration Below Laboratory Detection Limit</p>

- = Not Sampled/Collected

- - = No Standard/Not Applicable

¹ = Estimated concentration at or above the Limit of Detection (LOD) and below the Limit of Quantitation (LOQ)

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