

BROWNFIELD
ENVIRONMENTAL ENGINEERING

Soil Management Plan

Riverbend Stadium – Beloit, WI 53511



Date: April 24, 2020

BROWNFIELD PROJECT No.: 002-028

Prepared for:

Riverbend Stadium Authority

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Beloit, WI 53511

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1.0 Introduction

On behalf of Riverbend Stadium Authority Inc., Brownfield Environmental Engineering Resources, LLC (Brownfield) has prepared this Soil Management Plan (SMP). The SMP provides for procedures on guidance of soil management during the redevelopment activities conducted at the proposed Riverbend Stadium site, Beloit, Wisconsin 53511 (Site). **Appendix A** illustrates the Site Location Map. The SMP has been prepared in accordance with the Wisconsin Department of Natural Resources (WDNR) requirements set forth under NR 700.03(50), NR 718.12(1) and (2), and NR 718.15. This SMP outlines the procedures to be implemented for any anticipated excavation, fill/soil disposal characterization, field air monitoring, backfilling, and/or water management efforts related to the Site redevelopment activities.

This SMP provides procedures for effective handling of known areas of concern having soil and groundwater impact. The SMP also provides guidance for unknown environmental features during excavation and backfilling activities. This SMP and the general contractor's Health and Safety Plan (HASP) will provide guidance and procedures to control the exposure of the site workers and the surrounding public to dust, vapors, and/or odors associated with these operations.

2.0 Background

The Site is located north of Shirland Ave. and approximately 750 feet west of US Route 2 in Beloit, Wisconsin. The Rock River runs adjacent to the west of the Site. The site is bordered by the Rock River to the north and west, the Illinois-Wisconsin property boundary and Turtle Creek to the South, and mixed commercial lots and the Beloit Transfer Facility to the east. **Appendix B** illustrates the proposed overall plan for the Site.

The Site consists of a conglomerate of parcels in two states comprising of approximately 21.16 acres of land identified by parcel numbers 13540030, 13540025, 13540020, 13540005, 13540080, 13540073 and 13540060 in Wisconsin; and parcel numbers 0405152001, 0405151001, and 0406277001 in Illinois. The north side of the Site is primarily vacant land with a bike path and Mill St. cutting through it. The south side of the Site (south of Shirland Ave.) is utilized by the City of Beloit Sewer/Water Department. The Illinois-Wisconsin border is also located on the south side of the Site.

The Site was formerly a coal gas manufacturing plant in which significant volatile organic compound (VOC) contaminants and polyaromatic hydrocarbons (PAHs) were released to the soil and groundwater at the property. The City of Beloit purchased the former manufactured gas plant (MGP) in two (2) phases in 1956 and 1966. The City also acquired the northern and eastern portions of the Site. Subsequently, the City of Beloit constructed a wastewater treatment plant on the north side of the Site. In approximately 1991 the City constructed a

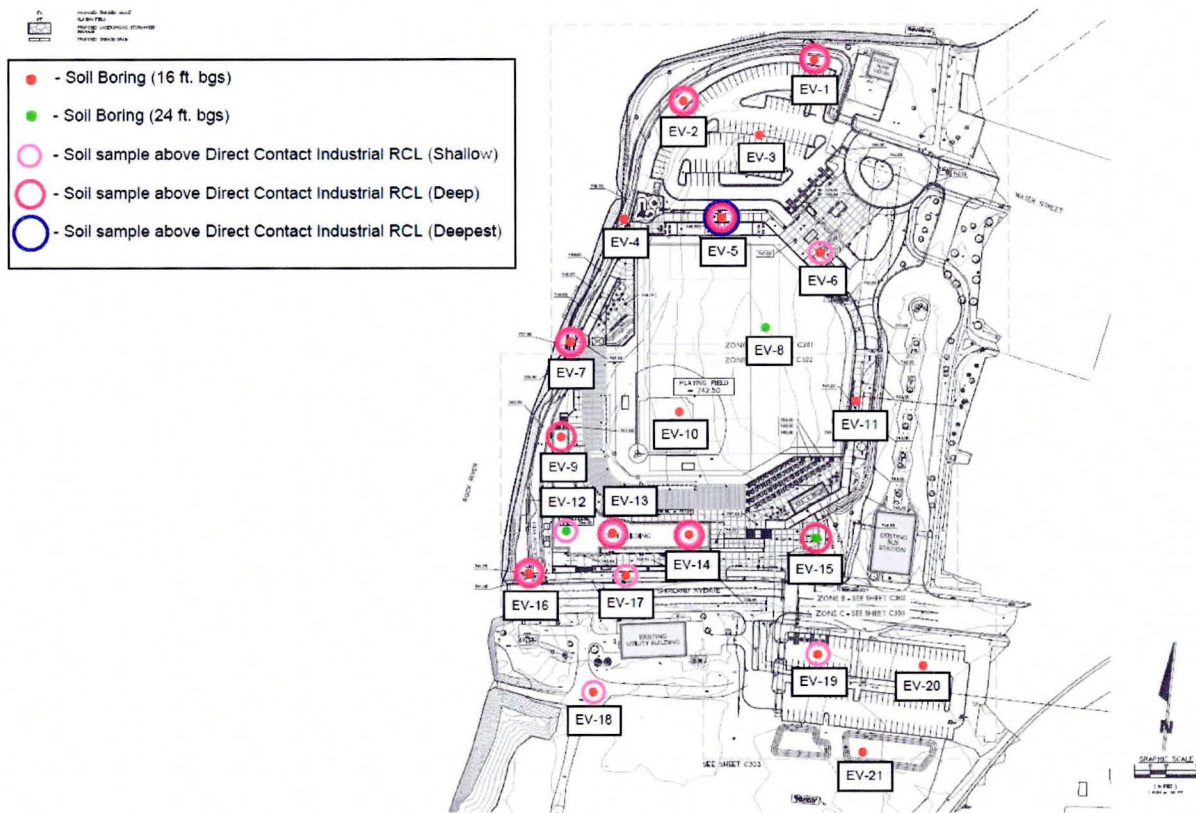
new wastewater treatment plant at a different site and removed the treatment plant buildings and equipment from the site.

2.1 Soil & Groundwater Impact

Soil Impacts

Based upon previous and present soil investigations performed on the Site, significant contamination was found to be present throughout the entire Site. Soils generated during excavation activities shall either be managed on-site or disposed off-site at a landfill. Based upon soil analytical data, soil requiring disposal off site will likely be classified as non-hazardous based upon the Code of Federal Regulations, Chapter I, Subchapter I, Part 261, Subpart C, Part 261, *Identification and Listing of Hazardous Waste*.

An investigation on February 25-26th, 2020 documented significant soil impact at the Site. Exceedances of the NR 720 Direct Contact Industrial residual contamination levels (RCLs) are documented in the figure below. "Direct contact," as defined by NR 720.03 (4) means, "human exposure to substances in soil through one or more of the following pathways: inhalation of particulate matter, dermal absorption, incidental ingestion, or inhalation of vapors from the soil." It is recommended that Engineering Controls and Institutional Control measures be implemented to manage any potential environmental risk to exposure potential to the Site workers during redevelopment. A Summary Comparison Table documenting laboratory analytical results compared to Wisconsin RCLs can be found in **Appendix D**.



Groundwater Impacts

The WDNR has established groundwater quality standards, which are set forth in NR 140, WAC. For each regulated compound, two standards have been established, the Enforcement Standards (ES) and the Preventive Action Limits (PALs). In general, if the regulated contaminant exceeds its PAL, but is below its ES, the WDNR may require additional investigation/continued monitoring. If the regulated contaminant is above its ES, the WDNR may require additional investigation, continued monitoring, and/or remediation.

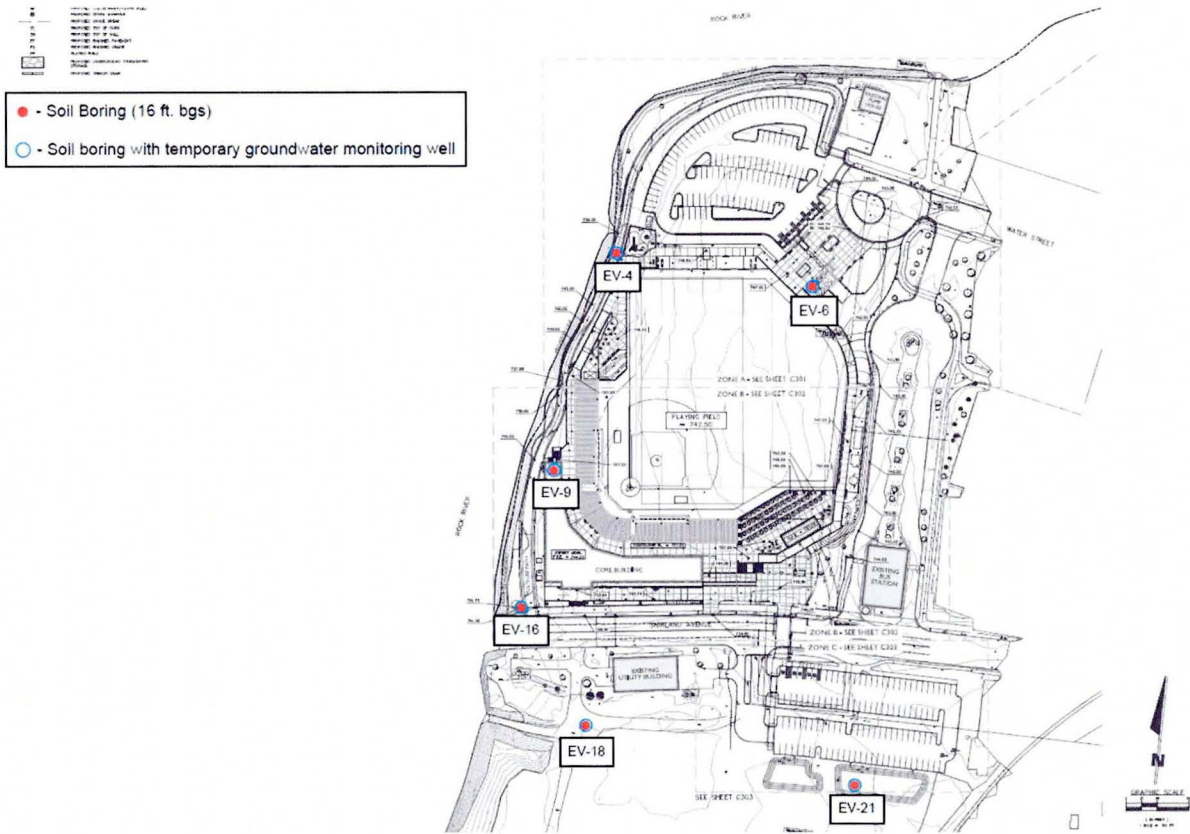
During the February 25-26th, 2020 investigation, groundwater samples collected from the temporary monitoring wells were sent to the laboratory for analysis of VOCs. A review of the groundwater analytical data indicated that the VOC constituent benzene, exceeded the groundwater quality PAL (WI NR 140) in groundwater samples EV-4W, EV-6W, EV-9W, EV-18W, and EV-21W. Additionally, the VOC constituent naphthalene, also exceeded the PAL in groundwater sample EV-6W. There were no groundwater samples that contained VOC constituent levels above the ES.

If groundwater is encountered during excavation or backfilling activities, it will need to be managed to prevent potential contamination from leaving the site. Options for groundwater management may include the following:

- Onsite management by pumping to a holding basin or sump, and letting it percolate back into the ground,
- Collection in totes or large tanks for removal and offsite treatment/disposal,
- Offsite discharge to the storm sewer system or direct discharge to the Rock River
 - Will require a WI DNR Contaminated Groundwater from Remedial Action Operations (No. WI-0046566) permit,
 - Permit requirements will include regular confirmation sampling and reporting

Due to the close proximity of the Site to the Rock River, groundwater levels are anticipated to vary greatly throughout the year due to localized geologic conditions, flooding, etc. Water level readings were collected and are as follows at the time of investigation:

Boring/Well Number	Depth to Water
EV-4	5.7 ft.
EV-6	7.4 ft.
EV-9	7.2 ft.
EV-16	7.5 ft.
EV-18	3.8 ft.
EV-21	5.6 ft.



A map depicting the approximate locations of the on-site monitoring wells can be found above.

3.0 Site Redevelopment Participants & Responsibilities

The Site redevelopment participants are summarized below, along with the primary points of contact and respective responsibilities.

3.1 Riverbend Stadium Authority Inc.

The Riverbend Stadium Authority Inc. serves as the client/developer for the project and has engaged with Hendricks Commercial Properties (HCP) to manage the overall site development process.

The entire project team participants shall report to HCP for any redevelopment issues or concerns. All reports prepared for the tasks conducted under the SMP will be directed to HCP. Any work scope changes or revisions to the approach outlined under the SMP must first be approved by HCP.

3.2 General Contractor

The General Contractor is unknown at this time. The General Contractor will serve as the owner's representative for the Site redevelopment activities. The General Contractor will provide on-site daily management of all work including subcontractors and will provide necessary information to Site workers and implement the SMP procedures to ensure that workers are aware of any environmental issues at the Site. Daily measures must be implemented by the General Contractor to ensure that storm water control, dust control, and erosional control are maintained.

3.3 Brownfield Environmental Engineering Resources, LLC

Brownfield will provide environmental oversight for excavation and grading work at the site which will include direction of proper characterization, handling, management, and/or disposal of Site fill/soils during the redevelopment activities. SMP field coordination and oversight would also include any required additional fill/soil characterization, PID monitoring and obtaining/tracking of disposal waste manifests. The Brownfield project contacts are as follows:

- Brad Brown, P.E., Principal, 608-314-6956
- Josh Kunde, Project Manager, 815-535-7433
- Kassandra Arnold, Project Manager, 608-921-9569

The Brownfield SMP Field Coordinator shall be responsible for the following work tasks:

- Provide Site-specific SMP related information to the project team members at the onset of work, along with responsibilities and protocols to be implemented.
- Obtain representative fill/soil samples for properly characterizing excavation surplus soils to be disposed a licensed, offsite landfill(s).
- Obtain representative fill/soil samples for analysis in areas planned for open green space for obtaining WDNR approval on use of Engineering Control clean cover fill placement.
- Field monitoring of Site grading and excavation, collection of confirmation samples of any unknown regulated or unregulated features, provide visual and real time air monitoring screening.
- Reporting of any suspect environmental conditions to HCP and the General Contractor SMP Project Manager.
- Notify the WDNR if unknown features are discovered and coordinating with them regarding the proper management of such features if directly or indirectly related to potential impacts to human health or the environment.
- Characterizing, delineating, and supervising the proper management of unknown features and other unknown environmental conditions.
- Provide timely reports summarizing Site SMP activities during the project.

4.0 Environmental Activities for Excavation, Confirmation Sampling, and Backfilling

The following subsections present the activities that will be performed prior to, during, and following the excavation, confirmation sampling, and backfilling activities. Site worker preparation activities will be conducted to minimize down time and interruptions of on-site activities if unknown environmental features are encountered. These preparation activities are intended to identify health and safety issues and prepare and coordinate Site individuals with their respective responsibilities.

4.1 Health & Safety

Required personal protective equipment (PPE) is designed to protect the worker from being exposed to hazardous substances which are known to be present at the Site. The most common routes of exposure include inhalation, ingestion, and absorption. Proper PPE must be worn when applicable.

Based on preliminary investigative work that has been completed to date, it is anticipated that Level D or Level C PPE will be required for all phases of excavation work completed in the areas shown to exceed contaminant reference concentrations. Level D PPE includes the following:

- Work uniform (long pants, long sleeve shirt)
- Work gloves
- Steel-toed construction boots [American National Standard Institute (ANSI) approved]
- Safety goggles or glasses
- Hard hat
- Hearing protection when working in areas with noise at or above 85 dba
- Class II or III reflective safety vest

A modified Level C PPE may be required for some phases of excavation work where contamination is shown to be more severe. The modified Level C PPE includes the following:

- Work uniform (long pants, long sleeve shirt)
- Tyvek suit
- Rubber gloves
- Rubber boots
- Safety goggles or glasses
- Hard hat
- Hearing protection when working in areas with noise at or above 85 dba
- Facemask

4.2 Pre-Work Meeting

The General Contractor will designate a SMP Project Manager for the Site redevelopment project. The General Contractor SMP Project Manager shall attend the pre-work meeting at the commencement of the project. Brownfield will provide a designated SMP Field Coordinator to provide the necessary information to the General Contractor Project Manager, its workers and their subcontractors. The agenda of the meeting will include an oversight of the historical land use, environmental investigations, areas of concern, and any (if required) remedial activities performed at the Site. The meeting will also cover possible unknown environmental features that might be encountered. Additionally, project participant information will be confirmed and updated as necessary by the SMP Project Manager and Brownfield SMP Field Coordinator.

The meeting will include a review of the site history, environmental site conditions, activities, and associated measures to mitigate potential impacts. The meeting will also address concerns of the neighboring businesses and residential properties, and a review of all environmental conditions related to plan and permit approvals.

4.3 Site Control Measures

The following Site Control Measures will be implemented once the excavation work has begun.

4.3.1 Dust Control

The Brownfield SMP Field Coordinator will monitor excavation operations for fugitive dust and inform the General Contractor SMP Project Manager to take measures, as necessary, such as the application of water or a change in operations or equipment in order to reduce the potential of dust leaving the Site. The General Contractor or its subcontractor shall make available local resources, such as fire hydrants or site water utilities, for dust control. Water for dust control will be applied at a rate that prevents runoff and discharge to the storm drain or waters of the State. The City of Beloit will need to be contacted to set up a hydrant meter for rent if their hydrants are to be used as a source of water for dust control.

If wind conditions are reported at 25 miles per hour or higher, or fugitive dust is seen to be leaving the Site, the Brownfield SMP Field Coordinator will recommend a halt in work. Work will remain at a halt until windy conditions have subsided or dust control measures have been implemented, at which time the Brownfield SMP Field Coordinator can recommend to the General Contractor for resumption of work.

Petroleum hydrocarbon odors are expected from multiple areas of the site; therefore, the Brownfield SMP Field Coordinator will monitor operations for excessive odors and recommend to the General Contractor on taking measures, such as the application of water,

foaming agents, or a change in operations or equipment, to minimize noticeable or nuisance odors from leaving the Site.

4.3.2 Air Monitoring

A volatile organics (VOCs) instrument shall be used to periodically monitor airborne concentrations of contaminants on the Site. A photoionization detector (PID) will be used to screen excavated soils for VOC contamination, and to measure and record employee breathing zone levels of organic vapors and gasses. The monitoring program may be increased, reduced, or modified by the Brownfield SMP Field Coordinator, based on Site conditions and monitoring results. All monitoring will be accomplished under the direction of the Brownfield SMP Field Coordinator, who will interpret the results.

The air-monitoring program will include sufficient monitoring of air quality in work zones and other on-site areas to assess levels of employee exposure, determine that the work zone designations are valid, and determine whether respiratory protection is to be worn by personnel. Brownfield does not anticipate any worker respiratory protection.

Air monitoring shall be conducted at 15-minute intervals, unless it is determined that air monitoring may occur at less frequent intervals. Conditions effecting monitoring intervals include site work activities, soil contaminant levels, ambient air movement by wind or mechanical methods. Any changes to the plan will be documented and logged.

Monitoring shall be conducted:

- When work begins on a different portion of the site;
- When contaminants other than those previously identified are being handled;
- When a different type of operation is initiated;
- If a sufficient reasonable interval has passed so that exposures may have significantly increased.

Measurements shall be taken at the anticipated source and in the breathing zone of site personnel. Instruments shall only be used by the employees who have been trained in the proper operation, use limitation, and calibration of the monitoring instrument and who have demonstrated the skills necessary to operate the instrument.

4.3.4 Field Instruments

The PID available for on-site screening during field operations will include a MiniRAE meter. Readings can be measured down to 0.1 unit or parts per million (ppm). Calibration of the PID instrument will be performed prior to field use daily. Calibration method as specified in the manufacturer supplied manuals for the PID will be followed.

The result of air monitoring readings shall be recorded on a standard air monitoring data form. A calibration and maintenance log for each instrument shall also be maintained. Records shall also be kept of all significant events, addendums, or any potential changes to level of worker protection.

4.3.5 Groundwater Control

During the course of excavation, the General Contractor or their subcontractors will likely encounter shallow groundwater. If groundwater is encountered during excavation or backfilling activities, the groundwater may be managed on site, treated on-site prior to discharge to the storm sewer or Rock River with a WPDES Contaminated Groundwater from Remedial Action Operations WI-0046566 permit, or collected and transported offsite for treatment and disposal. On-site treatment will require a treatment plan and confirmation sampling to ensure groundwater has reached acceptable regulatory levels.

4.3.6 Storm Water Control

Storm water pollution can occur when surface runoff contacts disturbed soils in excavation areas, exposed wastes, or soil stockpiles. Therefore, this type of runoff will be minimized by using dust control measures such as those discussed in 4.3.1 and maintaining good housekeeping practices on-site.

To control runoff, structural practices may be used to divert flows from exposed impacted soils or otherwise constrain runoff and the discharge of pollutants from exposed areas of the Site containing impacted soil. Silt fences, straw bales, diversion dikes, storm drain inlet protection, outlet protection, visqueen covers, sediment traps, and/or sediment basins may be used to control storm water flow.

The Site Sediment and Erosion Control Plan for the project will contain detailed information on how surface water runoff will be controlled and managed to prevent contamination from leaving the site.

4.4 Site-Specific Soil Management

These Site-Specific Soil Management Protocols will be followed during all excavation and backfilling activities. Stockpiled soil from the project will be covered with plastic sheeting or other similar materials at the end of each workday.

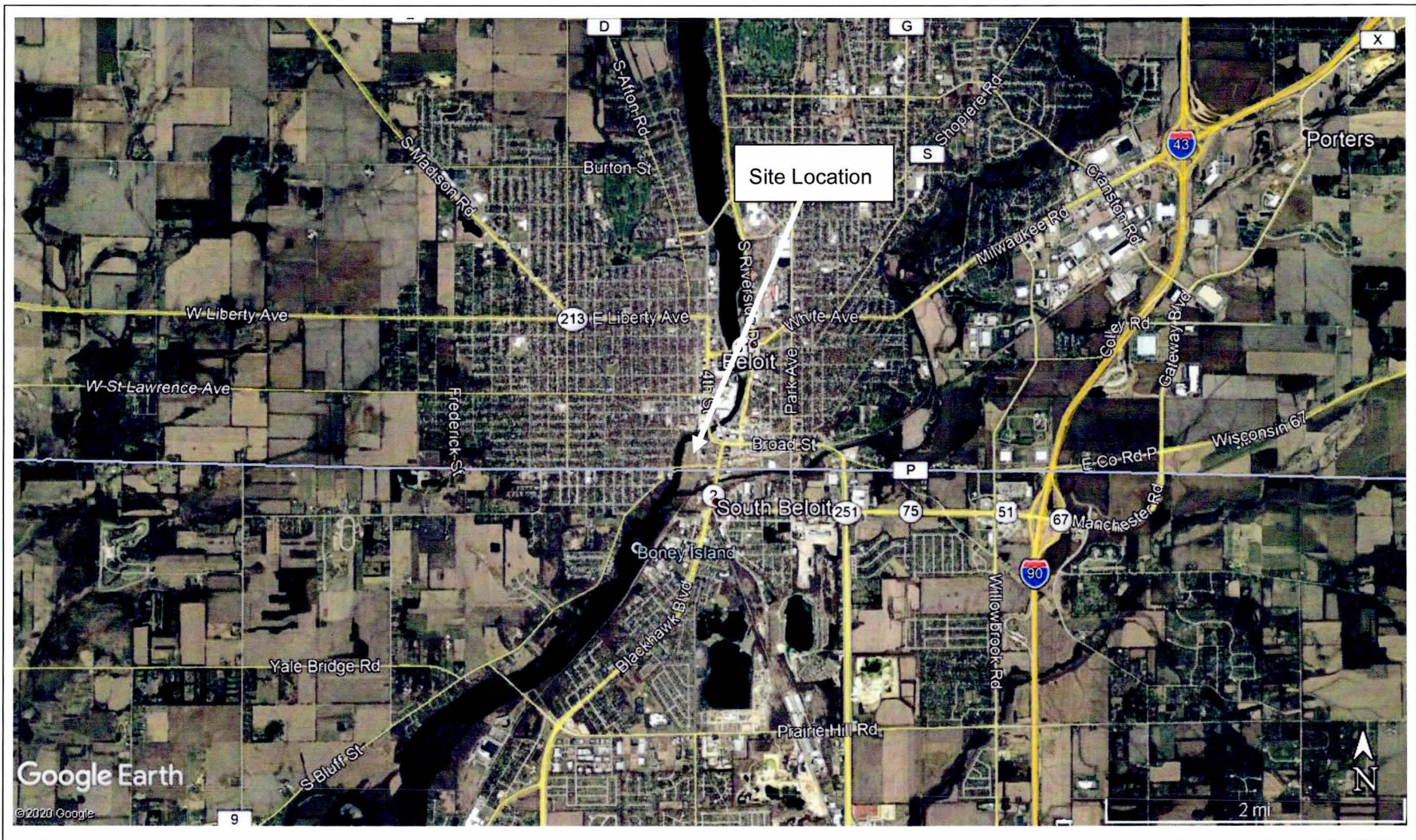
4.4.1 Stained and/or Odorous Soil, Other Unregulated Features

If undocumented stained and/or odorous soil or other unregulated features are discovered at the Site, they will be assessed to determine the proper methods for remediation and worker protection.

4.4.2 Regulated Features

If a regulated feature such as a UST, septic pit, or clarifier is encountered, Brownfield will notify the appropriate agencies, and obtain the applicable permissions and permits to remove the feature.

APPENDIX A



Google Earth

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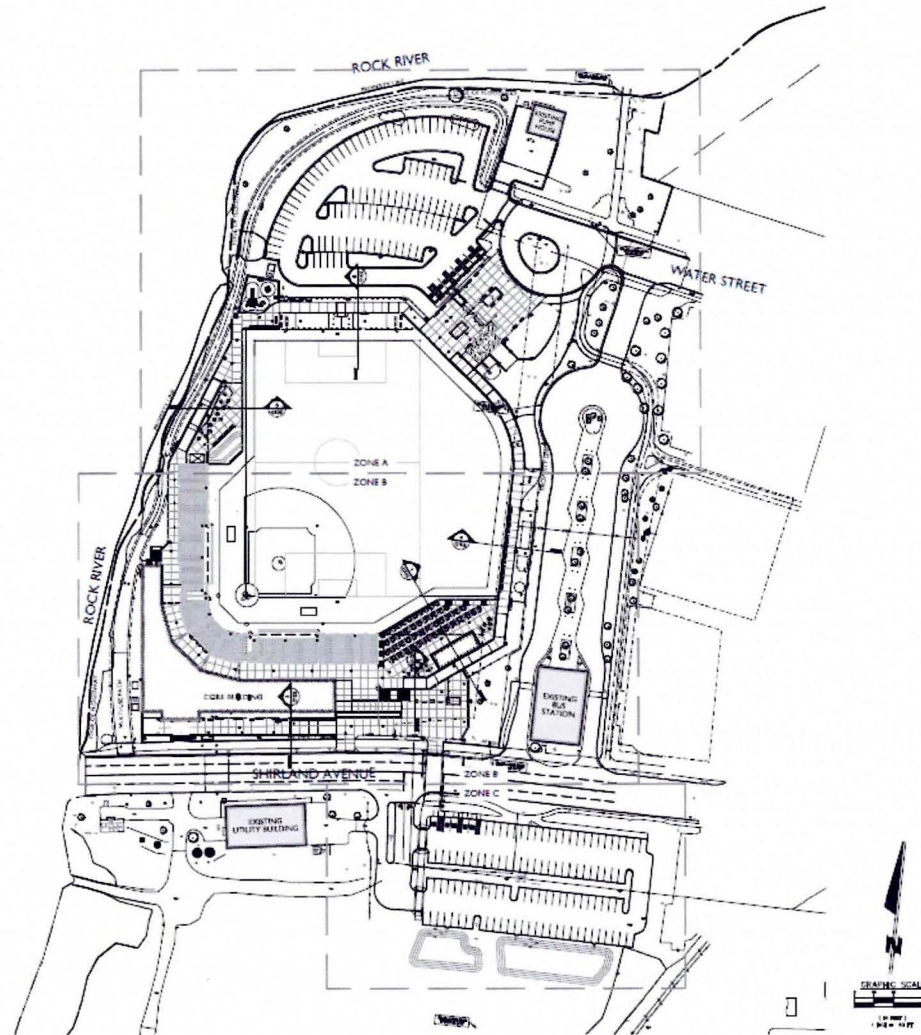
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Site Location Map

LOCATION:	Riverbend Stadium Beloit, WI 53511
CLIENT:	Hendricks Commercial Properties
PROJECT:	002-028
DATE:	March 13, 2020



APPENDIX B



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Proposed Overall Plan

LOCATION:	Riverbend Stadium Beloit, WI 53511
CLIENT:	Hendricks Commercial Properties
PROJECT:	002-028
DATE:	March 13, 2020



APPENDIX C

APPENDIX D

002-028 - Riverbend Stadium		PV-16A	PV-16B	PV-17A	PV-16A	PV-16B	PV-16A	PV-16B	PV-16A	06/14/10 WJ NR 729 Soils Onsite Pathway Offsets 6/11/10	06/15/10 WJ NR 729 Soils Onsite Pathway Offsets 6/11/10	06/15/10 WJ NR 729 Soils Onsite Pathway Offsets 6/11/10	06/15/10 WJ NR 729 Soils Onsite Pathway Offsets 6/11/10	06/15/10 WJ NR 729 Soils Onsite Pathway Offsets 6/11/10	06/15/10 WJ NR 729 Soils Onsite Pathway Offsets 6/11/10	06/15/10 WJ NR 729 Soils Onsite Pathway Offsets 6/11/10
Date of Sample Collection	2/24/2020	2/25/2020	2/25/2020	2/25/2020	2/25/2020	2/25/2020	2/25/2020	2/25/2020	2/25/2020	2/25/2020	2/25/2020	2/25/2020	2/25/2020	2/25/2020	2/25/2020	2/25/2020
Time of Sample Collection	12:30 PM	12:30 PM	1:15 PM	11:17 AM	11:18 AM	10:18 AM	11:43 AM	10:17 AM	11:43 AM	10:17 AM	11:43 AM	10:17 AM	11:43 AM	10:17 AM	11:43 AM	10:17 AM
Phase Lab ID	4020190001	4020190002	4020190003	4020190004	4020190005	4020190006	4020190007	4020190008	4020190009	4020190010	4020190011	4020190012	4020190013	4020190014	4020190015	4020190016
Percent Moisture (ASTM D2974-87)																
Percent Moisture	Units	15.1	20.00	21.00	17.40	17.00	12.90	14.40	8.60							
Volatile Organic Compounds (EPA 8260)																
1,1,1,2-Tetrachloroethane																
ug/kg	<200	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	53.4	2590	12900				
1,1,1,2,2-Pentachloroethane																
ug/kg	<200	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	140	640000	640000				
1,1,2,2,2-Pentachloroethane																
ug/kg	<200	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	2	753	3600				
1,1,2-Trichloroethane																
ug/kg	<200	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	3.2	1480	7340				
1,1-Dichloroethane																
ug/kg	<200	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	483	4720	23700				
1,1-Dichloroethylene																
ug/kg	<200	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	5	342000	1190000				
1,2-Dichloroethane																
ug/kg	<200	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0							
1,2,3-Trichloropropane																
ug/kg	<200	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	48900	493000	493000				
1,2,3-Trichloropropane																
ug/kg	<200	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	51.9	5	95				
1,2,4-Trichlorobenzene																
ug/kg	<333	<41.7	<41.7	<41.7	<41.7	<41.7	<41.7	<41.7	<41.7	408	22000	98700				
1,2,4-Trichlorobenzene																
ug/kg	<1890	<237	<237	<237	<237	<237	<237	<237	<237	2	8	99				
1,2-Dibromo-3-chloropropane																
ug/kg	<200	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	0.28	47	230				
1,2-Dibromoethane (EDB)																
ug/kg	<200	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	1170	376000	376000				
1,2-Dichloroethane																
ug/kg	<200	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	2.8	608	3030	4.9	600		
1,2-Dichloropropane																
ug/kg	<200	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	3.3	1330	6620				
1,3,5-Trinitrobenzene																
ug/kg	1490	<25.0	46.0 J	<25.0	<25.0	40.4 J	<25.0	34.7 J	<25.0	182000	182000	11000				
1,3-Dichlorobenzene																
ug/kg	<200	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	1150	297000	297000				
1,3-Dichloropropane																
ug/kg	<200	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0		1890000	1890000				
1,4-Dichlorobenzene																
ug/kg	<200	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	144	3480	17500				
2,2-Dichloropropane																
ug/kg	<200	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	527000	527000					
2-Chlorobutane																
ug/kg	<200	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	907000	907000					
4-Chlorobutane																
ug/kg	<200	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	353000	353000					
Benzene																
ug/kg	<200	113	286	<25.0	<25.0	14.0 J	<25.0	<25.0	<25.0	5.1	1490	7410	5.5	8500		
Bromobenzene																
ug/kg	<200	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	354000	679000					
Bromochloroethane																
ug/kg	<200	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	232600	976000					
Bromochlorobenzene																
ug/kg	<200	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	3	390	1960				
Bromofluorobenzene																
ug/kg	<200	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	2.3	61500	218000				
Bromomethane																
ug/kg	<510	<63.8	<63.8	<63.8	<63.8	<63.8	<63.8	<63.8	<63.8	5.1	10300	46000				
Carbon tetrachloride																
ug/kg	<200	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	3.9	854	4250				
Chlorobenzene																
ug/kg	<200	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	136	392000	761000				
Chloroethane																
ug/kg	<371	<46.4	<46.4	<46.4	<46.4	<46.4	<46.4	<46.4	<46.4	227	2120000	2120000				
Chloroform																
ug/kg	<380	<47.5	<47.5	<47.5	<47.5	<47.5	<47.5	<47.5	<47.5	3.3	423	2130				
Chloroethane																
ug/kg	<200	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	15.5	171000	720000				
Dibromochloroethane																
ug/kg	<200	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	32	933	4490				
Dibromomethane																
ug/kg	<200	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	3	35000	151000				
Dichlorodifluoroethane																
ug/kg	<200	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	3090	135000	571000				
Diisopropyl ether																
ug/kg	<200	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	2260000	2260000					
Ethylbenzene																
ug/kg	438 J	<25.0	30.5 J	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	1570	7470	29000	2900	4600		
Hexachloro-1,3-butadiene																
ug/kg	<550	<68.7	<68.7	<68.7	<68.7	<68.7	<68.7	<68.7	<68.7	6.2	6220	22100				
Isopropylbenzene (Cumene)																
ug/kg	<200	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	268000	268000					
Methoxybenzyl ether																
ug/kg	<200	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	27	59400	293000				
Methylene Chloride																
ug/kg	<1840	<229	<229	<229	<229	<229	<229	<229	<229	136	392000	761000				
Naphthalene																
ug/kg	59300	293	1470	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	658	5150	26000	2700	400	20000	110000
Styrene																
ug/kg	527 J	<25.0	47.0 J	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	220	867000	867000				
Tetrahydrofuran																
ug/kg	<310	<38.7	<38.7	<38.7	<38.7	<38.7	<38.7	<38.7	<38.7	4.5	30700	153000				
Toluene																
ug/kg	577	124	407	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	1110	118000	318000	1500	38000		
Trichlorobenzene																
ug/kg	<200	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	5.6	1260	8810				
Trichloroethoxyethane																
ug/kg	<200	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	4480	1120000	1230000				
Vinyl chloride																
ug/kg	<200	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	1	67	2010				
cis-1,2-Dichloroethane																
ug/kg	<200	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	41.2	156000	3040000				
cis-1,2-Dichloropropene																
ug/kg	<338	<42.3	<42.3	<42.3	<42.3	<42.3	<42.3	<42.3	<42.3	1220000	1220000					
m,p-Xylene																
ug/kg	1320	<50.0	203	<50.0	<50.0	103 J	<50.0	58.8 J	<50.0							
n-Butylbenzene																
ug/kg	<240	<30.0	<30.0	<30.0	<30.0	<30.0	<30.0	36.0 J	<30.0	108000	108000					
n-Propylbenzene																
ug/kg	<200	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	264000	264000					
o-Xylene																
ug/kg	1520	<25.0	139	<25.0	<25.0	61.6 J	<25.0	47.2 J	<25.0	434000	434000					

001-028 - Riverbend Stadium			
Date of Sample Collection	PV-208	PV-21A	PV-21B
18/17/2017	2515026	2515026	2515026
Time of Sample Collection	PV-208	PV-21A	PV-21B
18/17/2017	490199694	490199694	490199694
Percent Moisture (ASTM D2974-87)			
Percent Moisture	Units		
	%	8.5	11.00 11.10
Volatile Organic Compounds (EPA 8260)			
Compound	Units		
1,1,1,2-Tetrachloroethane	ug/kg	<25.0	<25.0
1,1,1-Trichloroethane	ug/kg	<25.0	<25.0
1,1,2,2-Tetrachloroethane	ug/kg	<25.0	<25.0
1,1,2-Trichloroethane	ug/kg	<25.0	<25.0
1,1-Dichloroethane	ug/kg	<25.0	<25.0
1,1-Dichloroethene	ug/kg	<25.0	<25.0
1,1-Dichloroethene	ug/kg	<25.0	<25.0
1,2,3-Trichlorobenzene	ug/kg	<47.3	<47.3
1,2,3-Trichloropropane	ug/kg	<37.4	<37.4
1,2,4-Trichlorobenzene	ug/kg	<41.7	<41.7
1,2,4-Trimethylbenzene	ug/kg	<25.0	<25.0
1,2-Dibromo-3-chloropropane	ug/kg	<237	<237
1,2-Dibromoethane (EDB)	ug/kg	<25.0	<25.0
1,2-Dichlorobenzene	ug/kg	<25.0	<25.0
1,2-Dichloropropane	ug/kg	<25.0	<25.0
1,3,5-Trimethylbenzene	ug/kg	<25.0	<25.0
1,3,4-Dichlorobenzene	ug/kg	<25.0	<25.0
1,3-Dichloropropane	ug/kg	<25.0	<25.0
1,4-Dichlorobenzene	ug/kg	<25.0	<25.0
2,2-Dichloropropane	ug/kg	<25.0	<25.0
2-Chlorobenzene	ug/kg	<25.0	<25.0
4-Chlorobenzene	ug/kg	<25.0	<25.0
Benzene	ug/kg	<25.0	188
Bromobenzene	ug/kg	<25.0	<25.0
Bromochloroethane	ug/kg	<25.0	<25.0
Bromodichloroethane	ug/kg	<25.0	<25.0
Bromoform	ug/kg	<25.0	<25.0
Bromomethane	ug/kg	<63.8	<63.8
Carbon tetrachloride	ug/kg	<25.0	<25.0
Chlorobenzene	ug/kg	<25.0	<25.0
Chloroethane	ug/kg	<46.4	<46.4
Chloroform	ug/kg	<47.3	<47.3
Chloroethane	ug/kg	<25.0	<25.0
Dibromochloroethane	ug/kg	<229	<229
Dibromoethane	ug/kg	<25.0	<25.0
Dichlorodifluoroethane	ug/kg	<25.0	<25.0
Dichloroethyl ether	ug/kg	<25.0	<25.0
Dibutylbenzene	ug/kg	<25.0	<25.0
Hexachloro-1,3-butadiene	ug/kg	<68.7	<68.7
Isopropylbenzene (Cumene)	ug/kg	<25.0	<25.0
Methyl-tert-butyl ether	ug/kg	<25.0	<25.0
Methylene Chloride	ug/kg	<27.3	<27.3
Naphthalene	ug/kg	<27.3	<27.3
Styrene	ug/kg	<25.0	<25.0
Tetrachloroethane	ug/kg	<38.7	<38.7
Toluene	ug/kg	<34.6	<34.6
Trichloroethane	ug/kg	<25.0	<25.0
Trichlorofluoroethane	ug/kg	<25.0	<25.0
Vinyl chloride	ug/kg	<25.0	<25.0
cis-1,2-Dichloroethane	ug/kg	<42.3	<42.3
cis-1,3-Dichloropropene	ug/kg	<42.3	<42.3
m,p-Xylene	ug/kg	<50.0	133.3
n-Butylbenzene	ug/kg	<30.0	<30.0
n-Propylbenzene	ug/kg	<25.0	<25.0
o-Xylene	ug/kg	<25.0	42.1.3
p-Isopropyltoluene	ug/kg	<25.0	<25.0
sec-Butylbenzene	ug/kg	<25.0	<25.0
tert-Butylbenzene	ug/kg	<25.0	<25.0
trans-1,2-Dichloroethane	ug/kg	<25.0	<25.0
trans-1,3-Dichloropropene	ug/kg	<25.0	<25.0
RCRA Metals (EPA 6010 & 7471)			
Element	Units		
Arsenic	mg/kg	3.9 J	5.0 J 4.5 J
Barium	mg/kg	40.4	33.3 19.8
Calcium	mg/kg	0.48 J	0.26 J 0.15
Chromium	mg/kg	74	9.7 20.0
Lead	mg/kg	39.2	8.9 14.3
Selenium	mg/kg	<1.4	<1.5 <1.5
Silver	mg/kg	<0.33	<0.34 <0.35
Mercury	mg/kg	0.13	<0.011 <0.011
Polyaromatic Hydrocarbons (EPA 8270 by SIM)			
Compound	Units		
1-Methyl-naphthalene	ug/kg	15.5 J	7.2 J <2.7
2-Methyl-naphthalene	ug/kg	19.4	7.8 J 3.6 J
Acenaphthene	ug/kg	2.6 J	13.2 J <2.4
Acenaphthylene	ug/kg	17.1 J	3.9 J <2.4
Anthracene	ug/kg	30.3	47.4 6.2 J
Benzo(a)anthracene	ug/kg	77.7	66.9 15.0 J
Benzo(a)pyrene	ug/kg	86.6	61.4 12.8 J
Benzo(b)fluoranthene	ug/kg	96.5	65.2 16.7 J
Benzo(k)fluoranthene	ug/kg	42.4	30.4 8.9 J
Benzo(e)fluoranthene	ug/kg	52.5	37.6 6.7 J
Chrysene	ug/kg	77.6	69.1 14.7 J
Dibenz(a,h)anthracene	ug/kg	15.2 J	9.2 J <2.6
Fluorene	ug/kg	128	155 29.2
Phenanthrene	ug/kg	31.0 J	12.7 J <2.3
Indeno(1,2,3-cd)pyrene	ug/kg	40.9	27.9 6.8 J
Naphthalene	ug/kg	20.1	9.4 J 5.6 J
Phenanthrene	ug/kg	47.7	98.5 17.3 J
Pyrene	ug/kg	107	124 25.0

Id: 1410 WI SR: 728 Soil to Groundwater Pathway (Effective 4/1/11)	Id: 1590 WI SR: 729 Soil Cleanup Standard Table 1 Direct Contact (Effective 1/1/2011)	Id: 1511 WI SR: 729 Soil Cleanup Standard Table 1 Direct Contact (Effective 1/1/2011)	Id: 1511 WI SR: 731 Soil Cleanup Standard Table 1 Groundwater Protection	Id: 1401 WI SR: 744 Risk Screening	Id: 1411 WI (Onsite) Soil Cleanup Levels for Public Groundwater Pathway	Id: 1411 WI (Onsite) Soil Cleanup Levels for Public Direct Contact Recreational	Id: 1401 WI (Onsite) Soil Cleanup Levels for Public Direct Contact Industrial
53.4	2500	12900					
140	646000	646000					
2	753	3690					
3.2	1480	7340					
483	4720	23700					
5	342000	1190000					
	48900	493000					
51.9	5	95					
408	22000	98700					
2.8	89800	219000		83000			
2	8	99					
0.28	47	230					
1170	376000	376000					
2.8	608	3030		4.9	600		
3.3	1330	6620					
	182000	182000					
1150	297000	927000					11000
	1490000	1490000					
144	3480	17500					
	527000	527000					
	907000	907000					
	357000	357000					
5.1	1490	7410	5.8	8500			
	354000	679000					
	232000	976000					
	390	1960					
2.3	61500	218000					
5.1	10300	46200					
3.9	854	4250					
136	392000	761000					
227	2120000	2120000					
3.3	423	2130					
15.5	171000	220000					
32	7470	3700					
	35000	151000					
3090	135000	571000					
	2260000	2260000					
1570	7470	3700	2900	4600			
	6220	22100					
	268000	268000					
27	29400	29400					
2.6	60700	107000					
658	5150	26000		2700	400	20000	110000
220	867000	867000					
4.5	30700	133000					
1110	318000	318000	1500	38000			
3.6	1260	8810					
4480	1120000	1230000					
1	67	2030					
41.2	156000	2840000					
	1220000	1220000					
	108000	108000					
	264000	264000					
	434000	434000					
	162000	162000					
	145000	145000					
	183000	183000					
	1560000	1670000					
	1570000	1570000					
58.8							
58	61	2.4					
165	15300	100000					
75	70	799					
360000							
27	400	800					
52	391	5110					
85	391	5110					
21	3.1	3.1					
	15600	53100					
	229000	2200000					
	3440000	33600000					
	17200000	106000000					
198000							
	148	2110					
470	15	211					
479	148	2110					
	1480	21100					
145	14800	211000					
	15	211					
88000	2290000	22000000					
148000	2290000	22000000					
	148	2110					
658	5150	26000		2700	400	20000	110000
54100	1720000	16560000			1800	18000	300000
					8700000	500000	30000000