# GIS REGISTRY
## Cover Sheet

March, 2010
(RR 5367)

## Source Property Information

CLOSURE DATE: Feb 17, 2011

**BRRTS #:** **02-71-556287**

FID #:

ACTIVITY NAME: Parcel H - Sitewide Fill (LGU)

DATCP #:

PROPERTY ADDRESS: Marion-Jackson-Pearl-Riverway

COMM #:

MUNICIPALITY: City of Oshkosh

PARCEL ID #: 90102000000

***WTM COORDINATES:**

X: **636726** Y: **394855**

** Coordinates are in WTM83, NAD83 (1991)*

**WTM COORDINATES REPRESENT:**

- (●) Approximate Center Of Contaminant Source
- ( ) Approximate Source Parcel Center

**Please check as appropriate:** (BRRTS Action Code)

### Contaminated Media:

- [ ] Groundwater Contamination > ES *(236)*
  - [ ] Contamination in ROW
  - [ ] Off-Source Contamination

  *(**note:** for list of off-source properties see "Impacted Off-Source Property" form)*

- [x] Soil Contamination > *RCL or **SSRCL *(232)*
  - [ ] Contamination in ROW
  - [ ] Off-Source Contamination

  *(**note:** for list of off-source properties see "Impacted Off-Source Property" form)*

### Land Use Controls:

- [ ] N/A (*Not Applicable*)
- [ ] Soil: maintain industrial zoning *(220)*

  *(**note:** soil contamination concentrations between non-industrial and industrial levels)*
- [ ] Structural Impediment *(224)*
- [ ] Site Specific Condition *(228)*
- [x] Cover or Barrier *(222)*

  *(**note:** maintenance plan for groundwater or direct contact)*
- [ ] Vapor Mitigation *(226)*
- [ ] Maintain Liability Exemption *(230)*

  *(**note:** local government unit or economic development corporation was directed to take a response action )*

### Monitoring Wells:

Are all monitoring wells properly abandoned per NR 141? *(234)*

(●) Yes ( ) No ( ) N/A

** Residual Contaminant Level*
***Site Specific Residual Contaminant Level*

# GIS Registry Checklist



This Adobe Fillable form is intended to provide a list of information that is required for evaluation for case closure. It is to be used in conjunction with Form 4400-202, Case Closure Request. The closure of a case means that the Department has determined that no further response is required at that time based on the information that has been submitted to the Department.

**NOTICE: Completion of this form is mandatory** for applications for case closure pursuant to ch. 292, Wis. Stats. and ch. NR 726, Wis. Adm. Code, including cases closed under ch. NR 746 and ch. NR 726. The Department will not consider, or act upon your application, unless all applicable sections are completed on this form and the closure fee and any other applicable fees, required under ch. NR 749, Wis. Adm. Code, Table 1 are included. It is not the Department's intention to use any personally identifiable information from this form for any purpose other than reviewing closure requests and determining the need for additional response action. The Department may provide this information to requesters as required by Wisconsin's Open Records law [ss. 19.31 - 19.39, Wis. Stats.].

BRRTS #: 02-71-556287 PARCEL ID #: 90102000000

ACTIVITY NAME: Parcel H - Sitewide Fill (LGU) WTM COORDINATES: X: 636726 Y: 394855

## CLOSURE DOCUMENTS (the Department adds these items to the final GIS packet for posting on the Registry)

- [x] **Closure Letter**
- [x] **Maintenance Plan** (*if activity is closed with a land use limitation or condition (land use control) under s. 292.12, Wis. Stats.*)
- [ ] **Continuing Obligation Cover Letter** (for property owners affected by residual contamination and/or continuing obligations)
- [x] **Conditional Closure Letter**
- [x] **Certificate of Completion (COC)** (for VPLE sites)

## SOURCE LEGAL DOCUMENTS

- [x] **Deed:** The most recent deed as well as legal descriptions, for the **Source Property** (where the contamination originated). Deeds for other, off-source (off-site) properties are located in the **Notification** section.
  ***Note:*** *If a property has been purchased with a land contract and the purchaser has not yet received a deed, a copy of the land contract which includes the legal description shall be submitted instead of the most recent deed. If the property has been inherited, written documentation of the property transfer should be submitted along with the most recent deed.*
- [x] **Certified Survey Map:** A copy of the certified survey map or the relevant section of the recorded plat map *for those properties where the legal description in the most recent deed refers to a certified survey map or a recorded plat map.* (lots on subdivided or platted property (e.g. lot 2 of xyz subdivision)).

  **Figure #: 6506** **Title: prepared by Craig Hansen, Surveyor. Approved on December 7, 2011, by City of Oshkosh**
- [x] **Signed Statement:** A statement signed by the Responsible Party (RP), which states that he or she believes that the attached legal description accurately describes the correct contaminated property.

## MAPS (meeting the visual aid requirements of s. NR 716.15(2)(h))

Maps must be no larger than 11 x 17 inches unless the map is submitted electronically.

- [x] **Location Map:** A map outlining all properties within the contaminated site boundaries on a U.S.G.S. topographic map or plat map in sufficient detail to permit easy location of all parcels. If groundwater standards are exceeded, include the location of all potable wells within 1200 feet of the site.
  ***Note:*** *Due to security reasons municipal wells are not identified on GIS Packet maps. However, the locations of these municipal wells must be identified on Case Closure Request maps.*

  **Figure #: 1** **Title: Site Location Map**
- [x] **Detailed Site Map:** A map that shows all relevant features (buildings, roads, individual property boundaries, contaminant sources, utility lines, monitoring wells and potable wells) within the contaminated area. This map is to show the location of all contaminated public streets, and highway and railroad rights-of-way in relation to the source property and in relation to the boundaries of groundwater contamination exceeding a ch. NR 140 Enforcement Standard (ES), and/or in relation to the boundaries of soil contamination exceeding a Residual Contaminant Level (RCL) or a Site Specific Residual Contaminant Levels (SSRCL) as determined under s. NR 720.09, 720.11 and 720.19.

  **Figure #: 2** **Title: Pre-Development Site Conditions**
- [x] **Soil Contamination Contour Map:** For sites closing with residual soil contamination, this map is to show the location of all contaminated soil and a single contour showing the horizontal extent of each area of contiguous residual soil contamination that exceeds a Residual Contaminant Level (RCL) or a Site Specific Residual Contaminant Level (SSRCL)as determined under s. NR 720.09, 720.11 and 720.19.

  **Figure #: 4** **Title: Soil Analytical Results**

BRRTS #: 02-71-556287 ACTIVITY NAME: Parcel H - Sitewide Fill (LGU)

## MAPS (continued)

☐ **Geologic Cross-Section Map:** A map showing the source location and vertical extent of residual soil contamination exceeding a Residual Contaminant Level (RCL) or a Site Specific Residual Contaminant Level (SSRCL). If groundwater contamination exceeds a ch. NR 140 Enforcement Standard (ES) when closure is requested, show the source location and vertical extent, water table and piezometric elevations, and locations and elevations of geologic units, bedrock and confining units, if any.

**Figure #:** **Title:**

**Figure #:** **Title:**

☐ **Groundwater Isoconcentration Map:** For sites closing with residual groundwater contamination, this map shows the horizontal extent of all groundwater contamination exceeding a ch. NR140 Preventive Action Limit (PAL) and an Enforcement Standard (ES). Indicate the direction and date of groundwater flow, based on the most recent sampling data.
***Note:*** *This is intended to show the total area of contaminated groundwater.*

**Figure #:** **Title:**

☐ **Groundwater Flow Direction Map:** A map that represents groundwater movement at the site. If the flow direction varies by more then 20° over the history of the site, submit 2 groundwater flow maps showing the maximum variation in flow direction.

**Figure #:** **Title:**

**Figure #:** **Title:**

## TABLES (meeting the requirements of s. NR 716.15(2)(h)(3))

Tables must be no larger than 11 x 17 inches unless the table is submitted electronically. Tables must not contain shading and/or cross-hatching. The use of **BOLD** or *ITALICS* is acceptable.

☒ **Soil Analytical Table:** A table showing remaining soil contamination with analytical results and collection dates.
**Note:** This is one table of results for the contaminants of concern. Contaminants of concern are those that were found during the site investigation, that remain after remediation. It may be necessary to create a new table to meet this requirement.

**Table #: 1** **Title: Soil Analytical Results**

☐ **Groundwater Analytical Table:** Table(s) that show the most recent analytical results and collection dates, for all monitoring wells and any potable wells for which samples have been collected.

**Table #:** **Title:**

☐ **Water Level Elevations:** Table(s) that show the previous four (at minimum) water level elevation measurements/dates from all monitoring wells. If present, free product is to be noted on the table.

**Table #:** **Title:**

## IMPROPERLY ABANDONED MONITORING WELLS

For each monitoring well not properly abandoned according to requirements of s. NR 141.25 include the following documents.
***Note:*** *If the site is being listed on the GIS Registry for only an improperly abandoned monitoring well you will only need to submit the documents in this section for the GIS Registry Packet.*

☒ **Not Applicable**

☐ **Site Location Map:** A map showing all surveyed monitoring wells with specific identification of the monitoring wells which have not been properly abandoned.
***Note:*** *If the applicable monitoring wells are distinctly identified on the Detailed Site Map this Site Location Map is not needed.*

**Figure #:** **Title:**

☐ **Well Construction Report:** Form 4440-113A for the applicable monitoring wells.

☐ **Deed:** The most recent deed as well as legal descriptions for each property where a monitoring well was not properly abandoned.

☐ **Notification Letter:** Copy of the notification letter to the affected property owner(s).

BRRTS #: 02-71-556287 ACTIVITY NAME: Parcel H - Sitewide Fill (LGU)

## NOTIFICATIONS

**Source Property**

☒ **Not Applicable**

☐ **Letter To Current Source Property Owner:** If the source property is owned by someone other than the person who is applying for case closure, include a copy of the letter notifying the current owner of the source property that case closure has been requested.

☐ **Return Receipt/Signature Confirmation:** Written proof of date on which confirmation was received for notifying current source property owner.

**Off-Source Property**

Group the following information per individual property and label each group according to alphabetic listing on the "Impacted Off-Source Property" attachment.

☒ **Not Applicable**

☐ **Letter To "Off-Source" Property Owners:** Copies of all letters sent by the Responsible Party (RP) to owners of properties with groundwater exceeding an Enforcement Standard (ES), and to owners of properties that will be affected by a land use control under s. 292.12, Wis. Stats.
***Note:*** *Letters sent to off-source properties regarding residual contamination must contain standard provisions in Appendix A of ch. NR 726.*

**Number of "Off-Source" Letters:**

☐ **Return Receipt/Signature Confirmation:** Written proof of date on which confirmation was received for notifying any off-source property owner.

☐ **Deed of "Off-Source" Property:** The most recent deed(s) as well as legal descriptions, for all affected deeded **off-source property(ies).** This does not apply to right-of-ways.
***Note:*** *If a property has been purchased with a land contract and the purchaser has not yet received a deed, a copy of the land contract which includes the legal description shall be submitted instead of the most recent deed. If the property has been inherited, written documentation of the property transfer should be submitted along with the most recent deed.*

☐ **Letter To "Governmental Unit/Right-Of-Way" Owners:** Copies of all letters sent by the Responsible Party (RP) to a city, village, municipality, state agency or any other entity responsible for maintenance of a public street, highway, or railroad right-of-way, within or partially within the contaminated area, for contamination exceeding a groundwater Enforcement Standard (ES) and/or soil exceeding a Residual Contaminant Level (RCL) or a Site Specific Residual Contaminant Level (SSRCL).

**Number of "Governmental Unit/Right-Of-Way Owner" Letters:**

**State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES**

**Scott Walker, Governor**
**Cathy Stepp, Secretary**
**Bruce Urben, Air & Waste Leader**

**Northeast Region Headquarters**
**2984 Shawano Ave.**
**Green Bay, Wisconsin 54313-6727**
**Telephone 920-662-5100**
**FAX 920-662-5413**
**TTY Access via relay - 711**

February 17, 2011

VPLE # 06-71-525333

Darryn Burich, Director of Planning Services
Department of Community Development
City of Oshkosh
215 Church Avenue
Oshkosh, WI 54901

SUBJECT: Final Case Closure with Continuing Obligations
Parcel H Site-Wide Fill, CSM #6506 encompassing Lots #1, 2, and 3
Marion Rd and Jackson Street, Oshkosh, WI
WDNR BRRTS Activity #: 02-71-556287

Dear Mr. Burich:

Regarding the closure request for Parcel H Site-wide Fill, the Department of Natural Resources (the "Department") considers the site closed and no further investigation or remediation is required. On November 3, 2010, the Department's Northeast Region Closure Committee reviewed the request regarding the historic fill contamination in soil and groundwater for closure. The Committee approved the closure pending the submittal of an updated GIS packet, cap maintenance plan and the recording of a new Certified Survey Map. This additional information was received on January 18, 2011 and January 31, 2011.

The Department's Closure Committee reviews environmental remediation cases for compliance with state laws and standards to maintain consistency in the closure of these cases. Based on the correspondence and data provided, it appears that your case meets the closure requirements in ch. NR 726, Wisconsin Administrative Code. The final closure decision was based on the property being used for commercial businesses and office space, or for industrial land use, as that term is defined in Ch. NR 700, Wis. Admin. Code.

**Continuing Obligations and GIS Registry Public Notice of Residual Contamination**

While the Department considers this case closed, you and future property owners must comply with the continuing obligations as explained in this letter. The final closure decision was based on the property being used for commercial purposes, office building, and parking lot. Use of the property affected the type of cleanup employed, and the type of continuing obligations required. Therefore, before the use of this property can used for certain sensitive populations, such as a single or multi-family residence, day care center, school, senior center, hospital or a similar use, notification of and approval by the Department is required, and additional investigation and/or cleanup may be required given this change in use of the property and the residual contamination remaining at the property. You also should to

pass on this information about these continuing obligations to anyone who purchases this property from you (i.e. pass on this letter), and are required by law to if the land use will be for residential purposes.

GIS Registry

This site will be listed on the Remediation and Redevelopment Program's GIS Registry as a method of public notice of residual contamination and/or continuing obligations on the property. The specific reasons are summarized below:

- Residual soil contamination exists that must be properly managed should it be excavated or removed
- Pavement, an engineered cover or a soil barrier must be maintained over contaminated soil and the state must approve any changes to this barrier

This letter and information that was submitted with your closure request application will be included on the GIS Registry. To review the sites on the GIS Registry web page, visit the RR Sites Map page at http://dnr.wi.gov/org/aw/rr/gis/index.htm

Closure Conditions

Please be aware that pursuant to s. 292.12, Wisconsin Statutes, compliance with the requirements of the State's Spill Law and this letter is a responsibility of whoever is the current property owner, and to which any subsequent property owners must adhere. The Department intends to conduct inspections in the future to ensure that the conditions included in this letter and the attached cap maintenance plans are maintained.

Residual Soil Contamination

Residual soil and historic fill contamination remains at the site below various caps and performance barriers, at depths of approximately 2 to 7 ½ feet. Please refer to the attached Sheet 3 (Excavation and Fill Isopach Map). If soil on the Property is excavated in the future, then in accordance with applicable state and federal laws, the property owner at the time of excavation must sample and analyze the excavated soil to determine if residual contamination remains. If sampling confirms that contamination is present, the property owner at the time of excavation will need to determine whether the material is considered solid or hazardous waste and ensure that any storage, treatment, disposal and transportation is in compliance with applicable standards and rules. In addition, all current and future owners and occupants of the Property need to be aware that excavation of the contaminated soil may pose an inhalation or other direct contact hazard, and as a result, special precautions may need to be taken to prevent a direct contact health threat to humans.

Cover or Barrier over contaminated soil and historic fill

Pursuant to s. 292.12(2)(a), Wis. Stats., the landscape/greenspace caps, concrete and asphalt pavement caps, and buildings that currently exist in the location shown on the attached map shall be maintained in compliance with the attached **Maintenance Plan, dated December 2010** in order to prevent direct contact with residual soil contamination that might otherwise pose a threat to human health.

The attached maintenance plan and inspection log are to be kept up-to-date and on-site. There is no need to submit the inspection logs to the Department unless requested.

Vapor Migration

Volatile organic compound (VOC) and Polyaromatic Hydrocarbon (PAH) contamination remains in soil/groundwater, at various locations in the historic fill and soil at levels that may be of concern for vapor intrusion into buildings on the Property. To prevent potential vapor migration concerns, the construction of the Accu-Com Building and the Morton Pharmacy included sub-slab venting and vapor barrier installation. The owners of these buildings must maintain a vapor mitigation system to eliminate or control vapor intrusion into the buildings.

In addition, depending on site-specific conditions, additional construction over contaminated materials may result in vapor migration of contaminants into enclosed structures or migration along newly placed underground utility lines. The potential for vapor inhalation and means of mitigation should be evaluated when planning any future redevelopment or making any physical changes in the construction of the existing buildings, and measures should be taken to ensure the continued protection of public health, safety, welfare and the environment at the site. Any additional construction on the property intended for human use must also include subslab venting and vapor barrier installation.

Prohibited Activities

The following activities are prohibited on any portion of the Property where landscape/greenspace caps, concrete and asphalt pavement caps as shown on the attached map are required, unless prior written approval has been obtained from the Department: 1) removing the existing barrier; 2) replacing existing barrier with another barrier; 3) excavating or grading of the land surface; 4) filling on capped or paved areas; 5) plowing for agricultural cultivation; 6) constructing or placing a building or other structure; and (7) changing the use of the Property so that the tenancy or occupancy of the Property would be by certain land uses, such as a single or multi-family residence, day care center, school, senior center, hospital or a similar sensitive population.

Residual Groundwater Contamination

Recent groundwater monitoring data indicates that for benzene and lead at monitoring well ZE-SB-2W, lead at monitoring well ZE-SB-1W, and benzo(a)pyrene at monitoring well JG-SB-3, contaminant levels exceed the NR 140 preventive action limit (PAL) but are below the enforcement standard (ES). The Department may grant an exemption to a PAL for a substance of public health concern, other than nitrate, pursuant to s. NR 140.28(2)(b), Wis. Adm. Code, if all of the following criteria are met:

1. The measured or anticipated increase in the concentration of the substance will be minimized to the extent technically and economically feasible.

2. Compliance with the PAL is either not technically or economically feasible.

3. The enforcement standard for the substance will not be attained or exceeded at the point of standards application. [Note: at this site the point of standards application is all points where groundwater is monitored.]

4. Any existing or projected increase in the concentration of the substance above the background concentration does not present a threat to public health or welfare.

Based on the information you provided, the Department believes that these criteria have been or will be met because a substantial volume of contaminated historic fill has been excavated and the site is now

capped. Therefore, pursuant to s. NR 140.28, Wis. Adm. Code, an exemption to the PAL is granted for the above referenced contaminants and monitoring wells. Please keep this letter, because it serves as your exemption.

Post-Closure Notification Requirements

In accordance with ch,. 292 Wis. Stats., you must notify the Department before making changes that affect or relate to the conditions of closure in this letter. For this case, examples of changed land use conditions requiring prior notification include, but are not limited to:

- Disturbance, construction on, change or removal in whole or part of pavement, an engineered cover or a soil barrier that must be maintained over contaminated soil
- Construction over residual contamination on a property due, to the potential for vapor migration or changing the construction of a building, due to the potential for vapor migration
- Change in the use of the property to involve sensitive populations, such as a single or multi-family residence, day care center, school, senior center, hospital or a similar use.

Please send written notifications in accordance with the above requirements to the Northeast Region office in Green Bay to the attention of the Environmental Program Associate.

The following DNR fact sheet, RR-819, "Continuing Obligations for Environmental Protection" has been included with this letter, to help explain a property owner's responsibility for continuing obligations on their property. If the fact sheet is lost, you may obtain a copy at http://dnr.wi.gov/org/aw/rr/archives/pubs/RR819.pdf.

The Department appreciates your efforts to restore the environment at this site. If you have any questions regarding this closure decision or anything outlined in this letter, please contact Kathy Sylvester at 920-424-0399.

Sincerely,

Keld Lauridsen, Acting Team Supervisor
Northeast Remediation & Redevelopment Program

Attach: Sheet 3 (Excavation and Fill Isopach Map)
Cap maintenance Plan and Figure 5
DNR fact sheet PUB-RR-819

ecc: Andrew Mott – AECOM-Oshkosh
Kathy Sylvester – NER-Oshkosh

NOTE:

BOTTOM OF BIOFILTERS EXCAVATED 4' TO 5' BELOW SURROUNDING PARKING LOT FINISH GRADES.

LEGEND

- LANDSCAPE/GREENSPACE CAP (EXCAVATED 1.0' BELOW FINISH GRADE)
- CONCRETE PAVEMENT CAP (EXCAVATED 1.5' BELOW FINISH GRADE)
- ASPHALT PAVEMENT CAP (EXCAVATED 1.5' BELOW FINISH GRADE)
- BUILDING AREAS (EXCAVATED 1.5' BELOW FINISH GRADE)
- ST — STORM SEWER
- PERFORATED UNDERDRAIN IN BIOFILTERS
- BIOFILTER PLANTING BED SURFACE
- EVEN FILL THICKNESS CONTOUR
- ODD FILL THICKNESS CONTOUR
- MMSB-4 STS MONITORING WELL LOCATION
- MW-3 STS ABANDONED MONITORING WELL
- MW-4 SIGMA MONITORING WELL LOCATION
- 64W97-18 SIGMA ABANDONED MONITORING WELL
- B-3 STS SOIL BORING LOCATION
- (7.0) FILL THICKNESS AT BORING LOCATION

5'x5' CLAY TRENCH PLUG WITH BENTONITE AROUND PIPE

5'x8' CLAY TRENCH PLUG WITH BENTONITE AROUND PIPE

5'x7' CLAY TRENCH PLUG WITH BENTONITE AROUND PIPE

BUILDING CONNECTED TO EXISTING SANITARY, STORM, & WATER LATERALS 5'x8' CLAY TRENCH PLUG WITH BENTONITE AROUND PIPE

REMOVED APPROX. 45 FT. OF 42" RCP & BULKHEAD ENDS WITH CRUSHED CONCRETE

REMOVED 20 FT. OF 42" RCP & BULKHEAD ENDS WITH CONCRETE

WATER AND SANITARY UTILITIES ARE ENCLOSED IN BENTONITE UNDER ELECTRICAL CONDUIT ENCASED IN CONCRETE

5'x8' CLAY TRENCH PLUG WITH BENTONITE AROUND PIPE

BIOFILTER NO. 1

BIOFILTER NO. 2

BIOFILTER NO. 3

BIOFILTER NO. 4

BIOFILTER NO. 5

135 JACKSON STREET

90 RIVERWAY DRIVE

FUTURE MIXED USE DEVELOPMENT

MARION ROAD

JACKSON STREET

PEARL AVENUE

RIVERWAY DRIVE

1" = 30'


AECOM

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# EXCAVATION AND FILL ISOPACH
## MARION/PEARL PHASE II SITE DEVELOPMENT - PARCEL H
## INTERSECTION OF MARION ROAD AND JACKSON STREET
## OSHKOSH, WISCONSIN

Issued

| Rev | Date | Description |
|---|---|---|

| | | |
|---|---|---|
| Designed: | REO | 10/13/2010 |
| Drawn: | REO | 10/13/2010 |
| Checked: | AGM | 10/13/2010 |
| Approved: | | |

PROJECT NUMBER
60139801

SHEET REFERENCE NUMBER
3

X:\Projects\60139801\dwg\G60139801-Iso_Exc_Fig3.dwg; 10/27/2010 12:40:01 PM; MOTT, ANDREW; STS.stb

**Cap Maintenance Plan- Revised**
**Marion/Pearl Redevelopment Parcel H – Site-Wide Historic Fill**
**Oshkosh, Wisconsin**

December, 2010

Property located at:
161 Jackson St.
Oshkosh, Wisconsin 54902

BRRTS Number: 02-71-556287

## Introduction

This document is the Cap Maintenance Plan (Maintenance Plan) for Parcel H of the Marion/Pearl Redevelopment area in Oshkosh, Wisconsin. This plan has been prepared consistent with requirements of Chapter (ch.) NR 724.13(2) Wisconsin Administrative Code (WAC). The maintenance activities relate to the existing hardscapping including asphalt pavement, concrete walkways and buildings constructed over the historic fill soil. The historic fill soil is impacted by volatile organic compounds (VOCs), Polyaromatic Hydrocarbons (PAHs) and metals within 4 feet from the ground surface. The extent of the historic fill is depicted on Sheet 3 and the locations of the caps to be maintained in accordance with this Maintenance Plan are included on Sheet 5.

## Cap Purpose

The cap over the contaminated soil will serve as barrier to limit direct contact with the underlying soil and historic fill material. Based on the current and future use of the property, the cap should function as intended unless disturbed.

## Sub slab Venting and Vapor Barrier System for Buildings

A sub slab venting and vapor barrier system has been installed in the Accu-Com and Morton Pharmacy buildings. The system consists of perforated piping system, bedded in clear stone with a continuous plastic barrier beneath the floor slab. Please see photographs 7 and 8 in the August 26, 2010, Request for Certificate of Completion, Appendix G for documentation. The integrity of these systems needs to be maintained. All vents need to be maintained and unobstructed. Any future modifications to the buildings needs to take in account the integrity of this system. These restrictions should be review on an annual basis.

## Annual Inspection

The cap overlying the historic fill soils, as depicted in Sheet 5, will be inspected once a year. The inspection will be performed to evaluate damage to the cap due to settling, wear, increasing age and other factors. Any area where soils have become or are likely to become exposed will be documented. A log of the inspections and any repairs will be maintained by the property owner on a Cap Inspection Log (Attached). The Log will include recommendations for necessary repair of any areas where underlying soils are exposed. Once repairs are completed, they will be documented in the Log.

Maintenance Activities

If problems with the cap 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 operations, or they can include larger resurfacing or construction operations. In the event that necessary maintenance activities expose the underlying soil, the owner must sample any soil that is excavated from the site prior to disposal to ascertain if contamination remains. The excavated soil must be treated, stored and disposed of by the owner in accordance with applicable local, state and federal law.

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

The property owners, in order to maintain the integrity of the cap, will maintain a copy of this Maintenance Plan on site and make it available to all interested parties (*i.e.*, employees, contractors, future property owners, etc.) for viewing.

The following activities are prohibited on any portion of the property where pavement, building foundation, or soil cover is providing a direct contact barrier as shown on the attached map (Sheet 5), unless prior written approval has been obtained from the Wisconsin Department of Natural Resources:

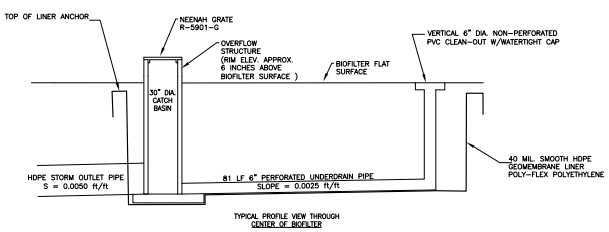
1. Removal of the existing barrier,
2. Replacement with another barrier,
3. Excavating or grading of the land surface,
4. Filling on areas designated as a direct contact prevention cap,
5. Plowing for agricultural cultivation, or,
6. Construction or placement of buildings or other structures.

Amendment or Withdrawal of Maintenance Plan

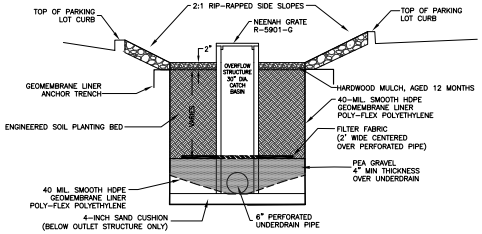
This Maintenance Plan can be amended or withdrawn by the property owner and its successors with the written approval of the WDNR.

Contact Information

| | |
|---|---|
| Property Developer | Alliance Development<br>230 Ohio Street – Suite 200<br>Oshkosh, WI 54902<br>920 230 3628 |
| Environmental Consultant: | Andrew Mott<br>AECOM, Inc.<br>558 North Main Street<br>Oshkosh, Wisconsin 54902<br>920-235-0270 |
| WDNR Project Manager: | Ms. Kathleen Sylvester<br>625 E. County Road Y<br>Suite 700<br>Oshkosh, WI 54901<br>920-424-0399 |




TYPICAL PROFILE VIEW THROUGH CENTER OF BIOFILTER




TYPICAL CROSS-SECTION VIEW THROUGH BIOFILTER & OVERFLOW STRUCTURE

TYPICAL BIOFILTER PROFILE & CROSS-SECTION

LEGEND

- LANDSCAPE/GREENSPACE CAP
- CONCRETE PAVEMENT CAP
- ASPHALT PAVEMENT CAP
- BUILDING AREAS
- ST — STORM SEWER
- PERFORATED UNDERDRAIN IN BIOFILTERS
- BIOFILTER PLANTING BED SURFACE

5'x5' CLAY TRENCH PLUG WITH BENTONITE AROUND PIPE

5'x8' CLAY TRENCH PLUG WITH BENTONITE AROUND PIPE

5'x7' CLAY TRENCH PLUG WITH BENTONITE AROUND PIPE

BIOFILTER NO. 1

BIOFILTER NO. 2

BIOFILTER NO. 3

BIOFILTER NO. 4

BIOFILTER NO. 5

REMOVED APPROX. 45 FT. OF 42" RCP & BULKHEAD ENDS WITH CRUSHED CONCRETE

REMOVED 20 FT. OF 42" RCP & BULKHEAD ENDS WITH CONCRETE

135 JACKSON STREET

90 RIVERWAY DRIVE

BUILDING CONNECTED TO EXISTING SANITARY, STORM, & WATER LATERALS

FUTURE MIXED USE DEVELOPMENT

CLAY TRENCH PLUG WITH BENTONITE AROUND PIPE

WATER AND SANITARY UTILITIES ARE ENCLOSED IN BENTONITE UNDER ELECTRICAL CONDUIT ENCASED IN CONCRETE

BENTONITE TRENCH PLUG

MARION ROAD

RIVERWAY DRIVE

PEARL AVENUE

JACKSON STREET

30 0 30 60

1" = 30'

AECOM

558 North Main Street
Oshkosh, WI 54901

920.235.0270

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POST-DEVELOPMENT PERFORMANCE BARRIER
MARION/PEARL PHASE II SITE DEVELOPMENT - PARCEL H
INTERSECTION OF MARION ROAD AND JACKSON STREET
OSHKOSH, WISCONSIN

Issued

| Rev | Date | Description |
|---|---|---|

| | | |
|---|---|---|
| Designed: | REO | 8/25/2010 |
| Drawn: | REO | 8/25/2010 |
| Checked: | AGM | 8/25/2010 |
| Approved: | PJK | 8/25/2010 |

PROJECT NUMBER
60139801

SHEET REFERENCE NUMBER
5

X:\Projects\60139801\dwg\G60139801-Figure 5.dwg, 8/25/2010 5:21:58 PM, WOODROW, MATT, STS.stb

*Barrier INSPECTION and MAINTENANCE LOG*

| Inspection Date | Inspector | Condition of Cap | Recommendations | Has recommended maintenance from previous inspection been implemented? |
|---|---|---|---|---|
| | | | | |
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**From:** Weissbach, Annette E - DNR
**Sent:** Thursday, November 04, 2010 2:21 PM
**To:** 'Mott, Andrew'; 'Brandt, Darlene P.'
**Cc:** Sylvester, Kathy M - DNR; Chronert, Roxanne N - DNR; Prager, Michael A - DNR
**Subject:** Parcel H update

Darlene and Andrew,
I met with the closure committee yesterday and we discussed how best to approach closure and COC for the Marion/Pearl redevelopment parcels. For Parcel H we opened a new site-wide historic fill site (BRRTS 02-71-556287) and reviewed the closure packet you compiled for VPLE 06-71-525333, dated August 26, 2010.

The site will be closed with the GIS registry for soil and PAL exemptions for groundwater. I've already started working on the closure letter and we'll be combining the writing of the closure letter and the COC with review by our central office in Madison.

In the future when the other parcels come up for closure/COC, we can follow the same procedure if all existing BRRTS sites on the parcel are closed. If there is an open site yet to be closed, we can add the historic fill information to its closure packet.

Here are a couple of additional items we'll need to complete the closure for parcel H:

Update Cap maintenance Plan:
New BRRTs#02-71-556287
Date: November 2010
11x17 or smaller Figure 5 in color
The introductory paragraph states that the extent of contaminated soil is shown on Figure 5, but it isn't. Do you want to include that on Figure 5 or reword the paragraph?
While you're rewording you may want change soil contamination to "historic fill and soil contamination"

GIS registry: please send a writeable copy of the checklist (form 4400-245) with the new BRRTS number and include
New CSM and Deed (when completed)

11x17 version of Figure 3 that was submitted on October 22 (Additional site closure information). This will be included in the closure letter.

Well abandonment form for PI-SB-1

I hope this process works okay for everyone!
Hours spent on Parcel H by me, for GIS registry entry, and the closure committee will be reflected on your next VPLE invoice from Kathy.

*Annette Weissbach*
**WDNR Remediation & Redevelopment Program**
**phone:** (920) 662-5165

State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES

Scott Walker, Governor
Cathy Stepp, Secretary

Oshkosh Service Center
625 East County Road Y
Suite 700
Oshkosh, Wisconsin 54901-9731
FAX 920-424-4404

March 16, 2011

DARRYN BURICH
CITY OF OSHKOSH - PLANNING
215 CHURCH AVENUE
OSHKOSH WI 54901

SUBJECT: Certificate of Closure for the Property Owned by the City of Oshkosh
Parcel H, Marion-Pearl Redevelopment Area, Oshkosh
**WDNR BRRTS ID #06-71-525333**

Dear Mr. Burich:

The Department of Natural Resources ("the Department") has received your request for issuance of a *Certificate of Completion* for the property owned by the City of Oshkosh, located at the intersections of Marion/Pearl Avenues and Jackson Street, Wisconsin, which will be referred to herein as "the Property". You have requested that the Department determine whether the City of Oshkosh has met the requirements under s. 292.15(2), Wis. Stats., for issuance of a *Certificate of Completion*.

The Property subject of this *Certificate of Completion* is real property owned by the City of Oshkosh, encompassing 3.7 acres and is presently occupied by Morton Pharmacy and Accu-Com. The property is partially described as Lots 1, 2, & 3 recorded in Volume 1, page 6506, Document Number 1559090 Winnebago County Register of Deeds, all being part of the SE ¼ of the NE ¼, and of the NE ¼ of the SE ¼ Section 23, Township 18 North, Range 16 East, First Ward, City of Oshkosh, Winnebago County, Wisconsin.

## Determination

As you are aware, s. 292.15, Wis. Stats., authorizes the Department to issue a *Certificate of Completion* to a voluntary party that conducts an approved environmental investigation of a property and restores the environment to the extent practicable and minimizes the harmful effects with respect to hazardous substance discharges on or originating from the property. Based on the information received by the Department, the Department has determined that the investigation and restoration (to the extent practicable) of the Property is complete and that all the conditions in s. 292.15(2), Wis. Stats., have been met. Attached is the *Certificate of Completion* for this Property.

While the conditions for issuance of a *Certificate of Completion* have been met, a cap consisting of the buildings and parking areas must be maintained, and the vapor mitigation system must also be maintained.

## Conclusions

The Department appreciates the work undertaken by City of Oshkosh, to investigate and restore to the extent practicable the contamination associated with the Property. The exemption provided by the *Certificate of Completion* applies to any successor or assignee of the City of Oshkosh, if the successor or assignee complies with the appropriate conditions, pursuant to s. 292.15(3), Wis. Adm. Code. If you have any questions or concerns regarding this letter or the *Certificate of Completion*, please call me at (920) 424-0399.

Sincerely,

Kathleen M. Sylvester, Hydrogeologist
Remediation & Redevelopment Program

Attachment: *Certificate of Completion*

cc: Michael Prager – RR/3
Bruce Urben – NER
Andrew Mott – AECOM (via email)

# State of Wisconsin
# Department of Natural Resources

## *CERTIFICATE OF COMPLETION OF RESPONSE ACTIONS UNDER SECTION 292.15(2)(a), WIS. STATS.*

**Whereas**, The City of Oshkosh has applied for an exemption from liability under s. 292.15, Wis. Stats., for the Marion Rd and Pearl Avenue Redevelopment area – **Parcel H property** located at the intersection of Jackson and Marion Rd, Oshkosh, Wisconsin. Parcel H was created by combining the properties formerly known as Hildebrandt, Zion Eldercare, Oshkosh Credit Union, Jackson Glass, Stadtmueller, Warren Road right of way, and parts of Wisconsin Automatic Machinery and the University of WI-Oshkosh parking lot. The Parcel H property consists of approximately 3.7 acres and is further described in the legal description found on Attachment A, hereinafter referred to as "the Property";

**Whereas**, environmental investigations of the Property have been conducted and the Wisconsin Department of Natural Resources ("the WNDR) has determined that contamination exists at the Property;

**Whereas**, **The City of Oshkosh (Parcel H)** has submitted to the WDNR certain investigation reports for the Property which comply with the requirements set forth in chs. NR 700-754, Wis. Adm. Code, consisting of documents and reports listed in Attachment B;

**Whereas**, in accordance with s. 292.15(2)(a)1, Wis. Stats., the WDNR has determined that an environmental investigation has been conducted which adequately identified and evaluated the nature and extent of the hazardous substance discharges on the Property. The WDNR approved of the site investigation on October 20, 2008;

**Whereas**, on June 15, 2010, the WDNR determined that response actions necessary to restore the environment to the extent practicable with respect to the discharges and minimize the harmful effects from the discharges to the air, land, and waters of the state were completed;

**Whereas**, the Property contains soil contamination including Polycyclic Aromatic Hydrocarbon (PAH) compounds, lead, and naphthalene at widespread locations across the property that exceed EPA generic soil screening levels for direct contact and trichloroethlene (TCE), mercury, tetrachloroethlyene (PCE) that exceed EPA generic soil to groundwater screening levels. Therefore the Property will be included on the WDNR's Geographic Information System data base ("the GIS Registry") pursuant to s. 292.12(3), Wis. Stats. The City of Oshkosh (Parcel H) has submitted to the WDNR all the information necessary to be included on the Registry pursuant to ch. 292.12, Stats., s. NR 726.05(2)(a)3. and s. NR 726.05(3)(a)4., Wis. Adm. Code;

**Whereas**, if the requirements of this Certificate, the case closure letters or the maintenance plans are not followed, or if the land use changes without the WDNR approval, the WDNR may take actions under ch. 292., Wis. Stats., to ensure compliance with the specified requirements, and the person who owns or controls the Property may no longer qualify for the liability protections under s. 292.15, Wis. Stats.;

**Whereas**, on February 17, 2011, the WDNR has granted **The City of Oshkosh (Parcel H)** an exemption under section of NR 140.28(2)(b), Wis. Adm. Code for having benzene, benzo(a)pyrene, and lead in the groundwater above the ch. NR 140 preventive action limit;

**Whereas**, the WDNR issued case closure letters, on February 17, 2011 and June 30, 2005 and the Department of Commerce issued a case closure letter on September 1, 2004 for various sites on and adjacent to the Property (Attachment C). The owner of this Property shall adhere to, abide by, and maintain the continuing obligations and other requirements that are specified in the attached state case closure letter and maintenance plans. The WDNR requires maintenance of a cover or barrier in order to prevent direct contact with and infiltration through residual soil contamination that might otherwise pose a threat to public health and the environment. The closure letter requires that if soil with residual contamination is excavated in the future, the Property owner at the time of excavation must manage the soil in accordance with applicable federal and state laws. In addition, the case closure letter also requires maintenance of a vapor mitigation system to eliminate or control vapors which could intrude into buildings on the Property and actions to address the possibility of vapor intrusion if future redevelopment or changes in the construction of existing buildings is planned; and

**Whereas**, the WDNR determination that the response action is complete with regard to residual soil and groundwater contamination was

based on the Property being used for commercial purposes, office buildings, and a parking lot. In the event that the cover barrier areas that currently exist are removed, the replacement barrier must be equally protective, in accordance with the land use. In the event there is a proposed land use change at the Property so that the tenancy or occupancy of the Property would be by certain sensitive populations, such as a single or multi-family residence, day care center, school, senior center, hospital or a similar use, the existing cover would need to be re-evaluated to determine if it is protective based on such a future land use. If these requirements are not followed, or if the land use changes, the WDNR may take actions under ss. 292.11 or 292.12, Wis. Stats., to ensure compliance with the specified requirements and the person who owns or controls the Property may no longer qualify for the liability protections under s. 292.15, Wis. Stats.

**Therefore**, based upon the information that has been submitted to the WDNR, the WDNR hereby certifies that the response actions set forth in the WDNR-approved remedial action plan for the Property and any other necessary response actions have been completed.

Upon issuance of this Certificate, **The City of Oshkosh (Parcel H)** and the persons qualified for protection under s. 292.15(3), Wis. Stats., are exempt from the provisions of ss. 289.05(1), (2), (3) and (4), 289.42(1), 289.67, 291.25(1) to (5), 291.29, 291.37, 292.11(3), (4), and (7)(b) and (c) and 292.31(8), Wis. Stats., with respect to the existence of hazardous substances on or originating from the Property, the release of which occurred prior to the date the WDNR approved the environmental investigation required under s. 292.15(2)(a)1., Wis. Stats. However, the person who owns or controls the Property would no longer qualify for this liability exemption if that person fails to maintain or monitor the Property as required by the conditions in this Certificate, the Case Closure letters, ch. 292, Wis. Stats., and administrative rules promulgated by the WDNR. Any discharges of a hazardous substance to or from the Property that occur after the date that the environmental investigation was approved will be the responsibility of the current Property owner and any other person who possesses or controls that discharge and any person who caused the discharge.

The protection from liability provided under s. 292.15(2), Wis. Stats., does not apply to any person who has obtained a Certificate of Completion by fraud or misrepresentation, or by knowingly failing to disclose material information or under circumstances in which **The City of Oshkosh (Parcel H)** knew or should have known about more discharges of hazardous substances than was revealed by the investigation approved by the WDNR.

Nothing in this Certificate or in s. 292.15, Wis. Stats., affects the authority of the WDNR to exercise any powers or duties under applicable laws other than ss. 289.05(1), (2), (3) and (4), 289.42(1), 289.67, 291.25(1) to (5), 291.29, 291.37, 292.11(3), (4), and (7)(b) and (c) and 292.31(8), Wis. Stats., with respect to any release or threatened release of contaminants at the Property, or the right of the WDNR to seek relief available against any person who is not entitled to protection from liability under s. 292.15, Wis. Stats., with respect to such release or threatened release.

SIGNED AND CERTIFIED this 7th day of March, 2011.

Mark F. Giesfeldt, Director
Bureau for Remediation and Redevelopment
Wisconsin Department of Natural Resources

# ATTACHMENT A
# City of Oshkosh Parcel H

See attached Certified Legal Description and Plat of Survey map.

#6506

# CERTIFIED SURVEY MAP

ALL OF LOT 1 OF CERTIFIED SURVEY MAP NUMBER 5840 AND VACATED RIVERWAY DRIVE PER CITY OF OSHKOSH RESOLUTION 10-14 DATED 1/26/2010. BEING A PART OF THE SOUTHEAST ¼ OF THE NORTHEAST ¼ AND OF THE NORTHEAST ¼ OF THE SOUTHTHEAST ¼ OF SECTION 23, TOWNSHIP 18 NORTH, RANGE 16 EAST, FIRST WARD, CITY OF OSHKOSH, WINNEBAGO COUNTY, WISCONSIN.

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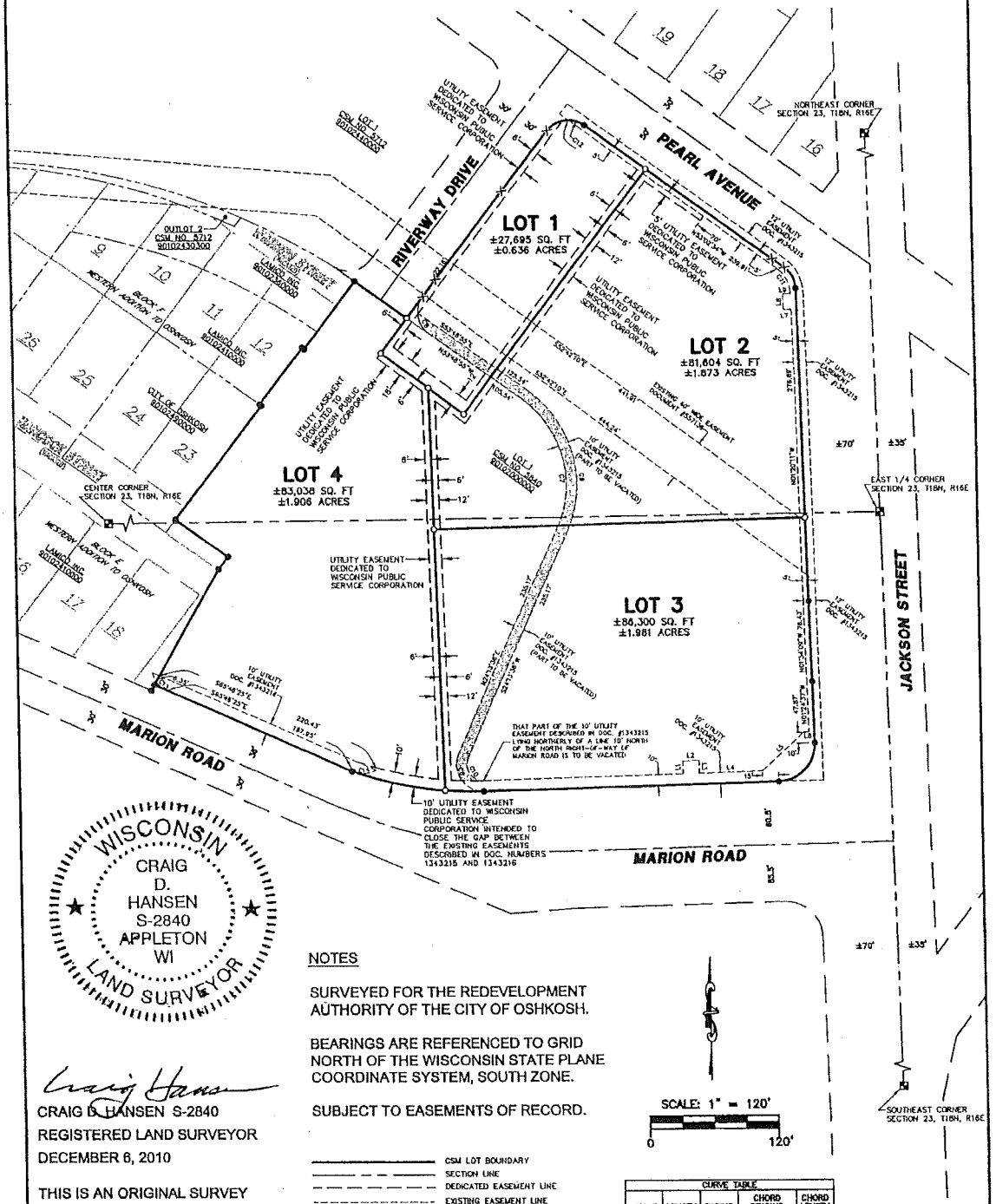


WISCONSIN
CRAIG D. HANSEN
S-2840
APPLETON WI
LAND SURVEYOR

## NOTES

SURVEYED FOR THE REDEVELOPMENT AUTHORITY OF THE CITY OF OSHKOSH.

BEARINGS ARE REFERENCED TO GRID NORTH OF THE WISCONSIN STATE PLANE COORDINATE SYSTEM, SOUTH ZONE.

SUBJECT TO EASEMENTS OF RECORD.

CRAIG D. HANSEN S-2840
REGISTERED LAND SURVEYOR
DECEMBER 6, 2010

THIS IS AN ORIGINAL SURVEY DOCUMENT IF THE PROFESSIONAL SEAL IS IMPRINTED IN RED AND SIGNED IN BLUE

| | |
|---|---|
| CSM LOT BOUNDARY | |
| SECTION LINE | |
| DEDICATED EASEMENT LINE | |
| EXISTING EASEMENT LINE | |
| RIGHT-OF-WAY CENTERLINE | |
| RIGHT-OF-WAY LINE | |
| VACATED ROAD RIGHT-OF-WAY LINE | |
| VACATED ROAD CENTERLINE | |
| EXISTING PARCEL LINE | |
| ACCESS RESTRICTION | |
| ● | FOUND 1" IRON PIPE (UNLESS NOTED) |
| o | SET 1" IRON PIPE |
| × | FOUND CHISELED CROSS |
| ⊠ | SET CHISELED CROSS |
| | EASEMENT TO BE VACATED |

| CURVE TABLE | | | | |
|---|---|---|---|---|
| CURVE | LENGTH | RADIUS | CHORD BEARING | CHORD LENGTH |
| C1 | 54.98' | 35.00' | S43°34'58"W | 49.49' |
| C2 | 125.97' | 349.43' | N61°06'33"W | 125.29' |
| C3 | 39.78' | 25.00' | N08°14'04"W | 35.71' |
| C4 | 39.10' | 25.00' | N82°09'07"E | 35.23' |
| C5 | 22.56' | 25.00' | S27°11'23"E | 21.80' |
| C6 | 50.47' | 25.00' | N33°36'17"W | 42.32' |
| C7 | 138.21' | 100.00' | N14°47'38"W | 125.82' |
| C8 | 23.18' | 25.00' | N27°15'01"W | 22.36' |
| C9 | 149.83' | 110.00' | S14°47'38"E | 138.51' |
| C10 | 30.28' | 15.00' | S33°36'17"E | 25.39' |
| C11 | 27.07' | 30.00' | N27°11'23"W | 26.16' |
| C12 | 16.09' | 25.00' | N71°28'40"W | 15.81' |
| C13 | 23.18' | 25.00' | N39°12'31"W | 22.36' |
| C14 | 23.18' | 25.00' | S67°39'40"W | 22.36' |

| LINE TABLE | | |
|---|---|---|
| LINE | LENGTH | BEARING |
| L1 | 12.00 | N01°26'12"W |
| L2 | 15.00 | N66°33'48"E |
| L3 | 12.00 | S01°26'12"E |
| L4 | 59.09 | N66°33'48"E |
| L5 | 53.15 | N47°23'24"E |
| L6 | 5.00 | N68°35'23"E |
| L7 | 7.00 | S66°39'49"W |
| L8 | 15.00 | N01°20'11"W |
| L9 | 7.00 | N66°39'49"E |

| | |
|---|---|
| SHEET | 2 OF 4 |
| PROJECT No. | 60100635 |
| CADD FILE | G60100635-H-Lot 1-CSM |
| DRAWN BY | CDH |
| DATE DRAWN | 12/03/2010 |

#6506

# CERTIFIED SURVEY MAP

ALL OF LOT 1 OF CERTIFIED SURVEY MAP NUMBER 5840 AND VACATED RIVERWAY DRIVE PER CITY OF OSHKOSH RESOLUTION 10-14 DATED 1/26/2010. BEING A PART OF THE SOUTHEAST ¼ OF THE NORTHEAST ¼ AND OF THE NORTHEAST ¼ OF THE SOUTHTHEAST ¼ OF SECTION 23, TOWNSHIP 18 NORTH, RANGE 16 EAST, FIRST WARD, CITY OF OSHKOSH, WINNEBAGO COUNTY, WISCONSIN.

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## SURVEYORS CERTIFICATE

I, Craig D. Hansen, registered land surveyor, hereby certify: That in full compliance with the provisions of Chapter 236, section 236.34 of the Wisconsin Statutes and the Land Subdivision Ordinance the City of Oshkosh, and under the direction of the Redevelopment Authority of the City of Oshkosh, owner of said land, I have surveyed, divided and mapped the following land being all of Lot 1 of Certified Survey Map number 5840 and vacated Riverway Drive per City of Oshkosh Resolution 10-14 dated 1/26/2010. Being a part of the Southeast ¼ of the Northeast ¼ and of the Northeast ¼ of the Souththeast ¼ of Section 23, Township 18 North, Range 16 East, First Ward, City of Oshkosh, Winnebago County, Wisconsin, more particularly described as follows:

Commencing at the East ¼ corner of said Section 23; thence S89°34'30"W along the south line of the Northeast ¼ of said section, 70.48 feet to a point on the west right-of-way of Jackson Street also being the Point of Beginning; thence along said right-of-way S01°20'11"E, 84.00 feet; thence continuing along said right-of-way S01°34'09"E, 76.42 feet; thence continuing along said right-of-way S01°24'37"E, 57.87 feet; thence continuing along said right-of-way 54.96 feet along a curve to the right having a radius of 35.00 feet, whose chord bears S43°34'36"W, 49.49 feet to the northerly right-of-way of Marion Road; thence along said right-of-way S88°33'48"W, 275.34 feet; thence continuing along said right-of-way 125.97 feet along a curve to the right having a radius of 349.43 feet, whose chord bears N81°06'33"W, 125.29 feet; thence along said right-of-way N65°46'25"W, 201.33 feet to the southwesterly corner of Lot 1 of Certified Survey Map number 5840; thence along the westerly line of said Lot 1 N29°21'00"E, 126.13 feet to a point on the centerline of vacated Hancock Street; thence N37°23'42"E, 15.13 feet along the said westerly line; thence along said westerly line N53°48'13"W, 60.03 feet; thence along said westerly line N37°27'03"E, 134.86 feet; thence along said westerly line N53°46'43"W, 2.00 feet; thence along said westerly line N37°17'27"E, 67.49 feet; thence along said westerly line S53°46'43"E, 2.00 feet; thence along said westerly line N37°17'27"E, 80.11 feet to a point on the southerly right-of-way of Riverway Drive; thence along said right-of-way S54°04'05"E, 59.86 feet to the southwesterly corner of that part of Riverway Drive being vacated per City of Oshkosh Resolution 10-14 dated 1/26/2010; thence along the east right-of-way of Riverway Drive N37°20'49"E, 223.17 feet; thence continuing along said right-of-way 39.10 feet along a curve to the right having a radius of 25.00 feet, whose chord bears N82°09'07"E, 35.23 feet to a point on the southerly right-of-way of Pearl Avenue; thence along said right-of-way S53°02'34"E, 229.75 feet; thence continuing along said right-of-way 22.56 feet along a curve to the right having a radius of 25.00 feet, whose chord bears S27°11'23"E, 21.80 feet to a point on the west right-of-way of Jackson Street; thence along said right-of-way S01°20'11"E, 212.53 feet to the point of beginning.

Said parcel contains 278,637 square feet or 6.396 acres more or less.

Said parcel is subject to easements of record.

That the survey of said land was done under my direct supervision and the map hereon is a true and accurate representation of the exterior boundaries and the division thereof.

CRAIG D. HANSEN S-2840
REGISTERED LAND SURVEYOR
DECEMBER 6, 2010

THIS IS AN ORIGINAL SURVEY DOCUMENT IF THE PROFESSIONAL SEAL IS IMPRINTED IN RED AND SIGNED IN BLUE

WISCONSIN
CRAIG D. HANSEN S-2840 APPLETON WI
LAND SURVEYOR

1559090
REGISTER'S OFFICE
WINNEBAGO COUNTY, WI
RECORDED ON
12/07/2010 03:22PM
JULIE A. PAGEL
REGISTER OF DEEDS
RECORDING FEE 30.00
TRANSFER FEE
# OF PAGES 4

| | |
|---|---|
| SHEET | 3 OF 4 |
| PROJECT No. | 60100635 |
| CADD FILE | G60100635-H-Lot 1-CSM |
| DRAWN BY | CDH |
| DATE DRAWN | 12/03/2010 |

#6506

# CERTIFIED SURVEY MAP

ALL OF LOT 1 OF CERTIFIED SURVEY MAP NUMBER 5840 AND VACATED RIVERWAY DRIVE PER CITY OF OSHKOSH RESOLUTION 10-14 DATED 1/26/2010. BEING A PART OF THE SOUTHEAST ¼ OF THE NORTHEAST ¼ AND OF THE NORTHEAST ¼ OF THE SOUTHTHEAST ¼ OF SECTION 23, TOWNSHIP 18 NORTH, RANGE 16 EAST, FIRST WARD, CITY OF OSHKOSH, WINNEBAGO COUNTY, WISCONSIN.

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## MUNICIPAL OWNER'S CERTIFICATE

The Redevelopment Authority of the City of Oshkosh, a seperate body public organized and existing under and by virtue of the Laws of the State of Wisconsin, as owner, does hereby certify that said Authority caused the land described to be surveyed, divided, dedicated, and mapped as represented on this map, in accordance with the provisions of Chapter 236 of the Wisconsin Statutes and the Land Subdivision Ordinance of the City of Oshkosh.

In Witness whereof, the said Redevelopment Authority, has caused these presents to be signed by

H. Allen Davis its Executive Director, and

countersigned by Thomas Belter, its Chairman, at

Oshkosh, Wisconsin, this

7th day of December, 2010.

Redevelopment Authority of the City of Oshkosh:

H. Allen Davis III
Executive Director

T. S. Belter
Chairman

STATE OF WISCONSIN)
:SS
WINNEBAGO COUNTY)

Personally came before me this 7th day of December, 2010 the aforementioned representatives of the City of Oshkosh, known to me to be the persons who executed the forgoing instrument and acknowledged the same.

Darlene F. Brandt
Notary Public,
Winnebago County, State of Wisconsin

My commission expires 7/6/2014

## CITY OF OSHKOSH PLANNING COMMISSION CERTIFICATE OF APPROVAL

This Certified Survey Map of all of Lot 1 of Certified Survey Map number 5840 and vacated Riverway Drive per City of Oshkosh Resolution 10-14 dated 1/26/2010. Being a part of the Southeast ¼ of the Northeast ¼ and of the Northeast ¼ of the Souththeast ¼ of Section 23, Township 18 North, Range 16 East, First Ward, City of Oshkosh, Winnebago County, Wisconsin, is hereby approved.

City Planning Commission Representative

12-7-2010
Date

Craig D. Hansen
CRAIG D. HANSEN S-2840
REGISTERED LAND SURVEYOR
DECEMBER 6, 2010

THIS IS AN ORIGINAL SURVEY DOCUMENT IF THE PROFESSIONAL SEAL IS IMPRINTED IN RED AND SIGNED IN BLUE

WISCONSIN
CRAIG D. HANSEN S-2840 APPLETON WI
LAND SURVEYOR

| | |
|---|---|
| SHEET | 4 OF 4 |
| PROJECT No. | 60100635 |
| CADD FILE | G60100635-H-Lot 1-CSM |
| DRAWN BY | CDH |
| DATE DRAWN | 12/03/2010 |

# ATTACHMENT B
# INVESTIGATION AND REMEDIAL ACTION PLAN REPORTS*
# City of Oshkosh Parcel H

1. University Parking Lot
    a. Phase I Environmental Site Assessment (ESA), December 22, 2003
    b. Phase II ESA, June 2002
    c. Supplemental monitoring, April 2004

2. Jackson Glass Property
    a. Phase II ESA, August 2002

3. Hildebrandt Service Station (BRRTS #03-71-194787, closed September 1, 2004)
    a. Phase I ESA, July 2001
    b. Phase II ESA, June 2002

4. Stadtmueller facility
    a. Phase I ESA, July 2001
    b. Phase II ESA, June 2002

5. Warren Rd right of way
    a. Limited Subsurface Assessment, March 2005

6. Wisconsin Automatic Machinery
    a. Phase I ESA, June 2002
    b. Phase II ESA, October 2003

7. Zion Eldercare (BRRTS #03-71-432983, closed June 30, 2005)
    a. Phase II ESA, April 2007

*all reports prepared by AECOM (previously known as STS Consultants, Oshkosh)

# ATTACHMENT C
# CASE CLOSURE LETTERS
# Maintenance Plan(s)
# City of Oshkosh Parcel H

Zion Eldercare #03-71-432983
Closed on June 30, 2005

Hildebrandt Property #03-71-194787
Closed on September 1, 2004

Historic Site-Wide Fill #02-71-556287
Closed on February 17, 2011

**State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES**

Jim Doyle, Governor
Scott Hassett, Secretary
Ronald W. Kazmierczak, Regional Director

Oshkosh Service Center
625 E. CTY Y, Suite 700
Oshkosh, Wisconsin 54901-9731
Telephone 920-424-3050
FAX 920-424-4404
TTY Access via relay - 711

June 30, 2005

Kristi Bales, Principal Planner
City of Oshkosh
215 Church Avenue – P.O. Box 1130
Oshkosh, WI 54903-1130

SUBJECT: Final Case Closure by Project Manager
Former Zion Eldercare property, 422 Marion Road, Oshkosh
***WDNR BRRTS ID #03-71-432983***

Dear Mr. Kinney:

On April 27, 2005, the Department of Natural Resources received correspondence indicating that you have complied with the conditions of closure for the site described above. On June 29, 2005 the Department reviewed former Zion Eldercare property for closure. The Department reviews environmental remediation cases for compliance with state laws and standards to maintain consistency in the closure of these cases. Based on the correspondence and data provided, it appears that your case has been remediated to Department standards in accordance with s. NR 726.05, Wis. Adm. Code. The Department considers this case closed and no further investigation, remediation or other action is required at this time.

If this is a PECFA site, section 101.143, Wis. Stats., requires that PECFA claimants seeking reimbursement of interest costs, for sites with petroleum contamination, submit a final reimbursement claim within 120 days after they receive a closure letter on their site. For claims not received by the PECFA Program within 120 days of the date of this letter, interest costs after 60 days of the date of this letter will not be eligible for PECFA reimbursement.

The Department understands that the City also maintains the Local Governmental Unit Exemption for this site. In addition, the area is also being addressed within the Voluntary Party Liability Program. The Department appreciates your efforts to restore the environment at this site. If you have any questions regarding this letter, please contact me at (920) 424-0399.

Sincerely,

Kathleen M. Sylvester, Hydrogeologist
Remediation & Redevelopment Program

cc: Case File – OSH
Andrew Mott, STS Consultants, Ltd., 558 North Main Street, Oshkosh, WI 54901
David Patek, Director of Public Works, P.O. Box 1130, Oshkosh, WI 54902-1130

commerce.wi.gov
Wisconsin
Department of Commerce

ENVIRONMENTAL & REGULATORY SERVICES DIVISION
BUREAU OF PECFA
2129 Jackson Street
Oshkosh, Wisconsin 54901-1805
TDD #: (608) 264-8777
Fax #: (920) 424-0217
Jim Doyle, Governor
Cory L. Nettles, Secretary

September 1, 2004

Mr. Jackson Kinney
City of Oshkosh
215 Church Avenue
PO Box 1130
Oshkosh, WI 54902-1130

RE: **Final Closure**

**Commerce # 54901-4713-61** WDNR BRRTS # 03-71-194787
Hildebrant Property (Former), 161 Jackson Street, Oshkosh

Dear Mr. Kinney:

The Wisconsin Department of Commerce (Commerce) has reviewed the request for case closure, prepared by STS Consultants Ltd., for the site referenced above. Commerce has determined that this site does not pose a significant threat to the environment and human health. No further investigation or remedial action is necessary.

During the August 27, 2002 groundwater sampling event, the preventive action limit (PAL) for 1,2-dichloroethane was exceeded at monitoring well MW-H3 at 1.80 parts per billion. Commerce is issuing a PAL exemption, per NR 140.28(2), Wis. Adm. Code, for 1,2-dichloroethane at the referenced property.

This site is now listed as "closed" on the Commerce database. This letter serves as your written notice of "no further action." Timely filing of your final PECFA claim is encouraged. If your PECFA claim is not received within 120 days of the date of this letter, interest costs incurred after 60 days of the date of this letter will not be eligible for PECFA reimbursement.

It is in your best interest to keep all documentation related to the environmental activities at your site. If residual contamination is encountered in the future, it must be managed in accordance with all applicable state and federal regulations. If it is determined that any remaining contamination poses a threat, the case may be reopened and further investigation or remediation may be required.

Thank you for your efforts to protect Wisconsin's environment. If you have any questions, please contact me in writing at the letterhead address or by telephone at (920) 424-0046.

Sincerely,

Robert H. Klauk
Hydrogeologist
Site Review Section

cc: Andrew G. Mott - STS Consultants, Ltd.
Kathleen M. Sylvester – WDNR (electronic)
Case File

**State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES**

Scott Walker, Governor
Cathy Stepp, Secretary
Bruce Urben, Air & Waste Leader

Northeast Region Headquarters
2984 Shawano Ave.
Green Bay, Wisconsin 54313-6727
Telephone 920-662-5100
FAX 920-662-5413
TTY Access via relay - 711

February 17, 2011

VPLE # 06-71-525333

Darryn Burich, Director of Planning Services
Department of Community Development
City of Oshkosh
215 Church Avenue
Oshkosh, WI 54901

SUBJECT: Final Case Closure with Continuing Obligations
Parcel H Site-Wide Fill, CSM #6506 encompassing Lots #1, 2, and 3
Marion Rd and Jackson Street, Oshkosh, WI
WDNR BRRTS Activity #: 02-71-556287

Dear Mr. Burich:

Regarding the closure request for Parcel H Site-wide Fill, the Department of Natural Resources (the "Department") considers the site closed and no further investigation or remediation is required. On November 3, 2010, the Department's Northeast Region Closure Committee reviewed the request regarding the historic fill contamination in soil and groundwater for closure. The Committee approved the closure pending the submittal of an updated GIS packet, cap maintenance plan and the recording of a new Certified Survey Map. This additional information was received on January 18, 2011 and January 31, 2011.

The Department's Closure Committee reviews environmental remediation cases for compliance with state laws and standards to maintain consistency in the closure of these cases. Based on the correspondence and data provided, it appears that your case meets the closure requirements in ch. NR 726, Wisconsin Administrative Code. The final closure decision was based on the property being used for commercial businesses and office space, or for industrial land use, as that term is defined in Ch. NR 700, Wis. Admin. Code.

**Continuing Obligations and GIS Registry Public Notice of Residual Contamination**

While the Department considers this case closed, you and future property owners must comply with the continuing obligations as explained in this letter. The final closure decision was based on the property being used for commercial purposes, office building, and parking lot. Use of the property affected the type of cleanup employed, and the type of continuing obligations required. Therefore, before the use of this property can used for certain sensitive populations, such as a single or multi-family residence, day care center, school, senior center, hospital or a similar use, notification of and approval by the Department is required, and additional investigation and/or cleanup may be required given this change in use of the property and the residual contamination remaining at the property. You also should to

pass on this information about these continuing obligations to anyone who purchases this property from you (i.e. pass on this letter), and are required by law to if the land use will be for residential purposes.

GIS Registry

This site will be listed on the Remediation and Redevelopment Program's GIS Registry as a method of public notice of residual contamination and/or continuing obligations on the property. The specific reasons are summarized below:

- Residual soil contamination exists that must be properly managed should it be excavated or removed
- Pavement, an engineered cover or a soil barrier must be maintained over contaminated soil and the state must approve any changes to this barrier

This letter and information that was submitted with your closure request application will be included on the GIS Registry. To review the sites on the GIS Registry web page, visit the RR Sites Map page at http://dnr.wi.gov/org/aw/rr/gis/index.htm

Closure Conditions

Please be aware that pursuant to s. 292.12, Wisconsin Statutes, compliance with the requirements of the State's Spill Law and this letter is a responsibility of whoever is the current property owner, and to which any subsequent property owners must adhere. The Department intends to conduct inspections in the future to ensure that the conditions included in this letter and the attached cap maintenance plans are maintained.

Residual Soil Contamination

Residual soil and historic fill contamination remains at the site below various caps and performance barriers, at depths of approximately 2 to 7 ½ feet. Please refer to the attached Sheet 3 (Excavation and Fill Isopach Map). If soil on the Property is excavated in the future, then in accordance with applicable state and federal laws, the property owner at the time of excavation must sample and analyze the excavated soil to determine if residual contamination remains. If sampling confirms that contamination is present, the property owner at the time of excavation will need to determine whether the material is considered solid or hazardous waste and ensure that any storage, treatment, disposal and transportation is in compliance with applicable standards and rules. In addition, all current and future owners and occupants of the Property need to be aware that excavation of the contaminated soil may pose an inhalation or other direct contact hazard, and as a result, special precautions may need to be taken to prevent a direct contact health threat to humans.

Cover or Barrier over contaminated soil and historic fill

Pursuant to s. 292.12(2)(a), Wis. Stats., the landscape/greenspace caps, concrete and asphalt pavement caps, and buildings that currently exist in the location shown on the attached map shall be maintained in compliance with the attached **Maintenance Plan, dated December 2010** in order to prevent direct contact with residual soil contamination that might otherwise pose a threat to human health.

The attached maintenance plan and inspection log are to be kept up-to-date and on-site. There is no need to submit the inspection logs to the Department unless requested.

Vapor Migration

Volatile organic compound (VOC) and Polyaromatic Hydrocarbon (PAH) contamination remains in soil/groundwater, at various locations in the historic fill and soil at levels that may be of concern for vapor intrusion into buildings on the Property. To prevent potential vapor migration concerns, the construction of the Accu-Com Building and the Morton Pharmacy included sub-slab venting and vapor barrier installation. The owners of these buildings must maintain a vapor mitigation system to eliminate or control vapor intrusion into the buildings.

In addition, depending on site-specific conditions, additional construction over contaminated materials may result in vapor migration of contaminants into enclosed structures or migration along newly placed underground utility lines. The potential for vapor inhalation and means of mitigation should be evaluated when planning any future redevelopment or making any physical changes in the construction of the existing buildings, and measures should be taken to ensure the continued protection of public health, safety, welfare and the environment at the site. Any additional construction on the property intended for human use must also include subslab venting and vapor barrier installation.

Prohibited Activities

The following activities are prohibited on any portion of the Property where landscape/greenspace caps, concrete and asphalt pavement caps as shown on the attached map are required, unless prior written approval has been obtained from the Department: 1) removing the existing barrier; 2) replacing existing barrier with another barrier; 3) excavating or grading of the land surface; 4) filling on capped or paved areas; 5) plowing for agricultural cultivation; 6) constructing or placing a building or other structure; and (7) changing the use of the Property so that the tenancy or occupancy of the Property would be by certain land uses, such as a single or multi-family residence, day care center, school, senior center, hospital or a similar sensitive population.

Residual Groundwater Contamination

Recent groundwater monitoring data indicates that for benzene and lead at monitoring well ZE-SB-2W, lead at monitoring well ZE-SB-1W, and benzo(a)pyrene at monitoring well JG-SB-3, contaminant levels exceed the NR 140 preventive action limit (PAL) but are below the enforcement standard (ES). The Department may grant an exemption to a PAL for a substance of public health concern, other than nitrate, pursuant to s. NR 140.28(2)(b), Wis. Adm. Code, if all of the following criteria are met:

1. The measured or anticipated increase in the concentration of the substance will be minimized to the extent technically and economically feasible.

2. Compliance with the PAL is either not technically or economically feasible.

3. The enforcement standard for the substance will not be attained or exceeded at the point of standards application. [Note: at this site the point of standards application is all points where groundwater is monitored.]

4. Any existing or projected increase in the concentration of the substance above the background concentration does not present a threat to public health or welfare.

Based on the information you provided, the Department believes that these criteria have been or will be met because a substantial volume of contaminated historic fill has been excavated and the site is now

capped. Therefore, pursuant to s. NR 140.28, Wis. Adm. Code, an exemption to the PAL is granted for the above referenced contaminants and monitoring wells. Please keep this letter, because it serves as your exemption.

Post-Closure Notification Requirements

In accordance with ch,. 292 Wis. Stats., you must notify the Department before making changes that affect or relate to the conditions of closure in this letter. For this case, examples of changed land use conditions requiring prior notification include, but are not limited to:

- Disturbance, construction on, change or removal in whole or part of pavement, an engineered cover or a soil barrier that must be maintained over contaminated soil
- Construction over residual contamination on a property due, to the potential for vapor migration or changing the construction of a building, due to the potential for vapor migration
- Change in the use of the property to involve sensitive populations, such as a single or multi-family residence, day care center, school, senior center, hospital or a similar use.

Please send written notifications in accordance with the above requirements to the Northeast Region office in Green Bay to the attention of the Environmental Program Associate.

The following DNR fact sheet, RR-819, "Continuing Obligations for Environmental Protection" has been included with this letter, to help explain a property owner's responsibility for continuing obligations on their property. If the fact sheet is lost, you may obtain a copy at http://dnr.wi.gov/org/aw/rr/archives/pubs/RR819.pdf.

The Department appreciates your efforts to restore the environment at this site. If you have any questions regarding this closure decision or anything outlined in this letter, please contact Kathy Sylvester at 920-424-0399.

Sincerely,

Keld Lauridsen, Acting Team Supervisor
Northeast Remediation & Redevelopment Program

Attach: Sheet 3 (Excavation and Fill Isopach Map)
Cap maintenance Plan and Figure 5
DNR fact sheet PUB-RR-819

ecc: Andrew Mott – AECOM-Oshkosh
Kathy Sylvester – NER-Oshkosh

NOTE:

BOTTOM OF BIOFILTERS EXCAVATED 4' TO 5' BELOW SURROUNDING PARKING LOT FINISH GRADES.

LEGEND

- LANDSCAPE/GREENSPACE CAP (EXCAVATED 1.0' BELOW FINISH GRADE)
- CONCRETE PAVEMENT CAP (EXCAVATED 1.5' BELOW FINISH GRADE)
- ASPHALT PAVEMENT CAP (EXCAVATED 1.5' BELOW FINISH GRADE)
- BUILDING AREAS (EXCAVATED 1.5' BELOW FINISH GRADE)
- ST — STORM SEWER
- PERFORATED UNDERDRAIN IN BIOFILTERS
- BIOFILTER PLANTING BED SURFACE
- EVEN FILL THICKNESS CONTOUR
- ODD FILL THICKNESS CONTOUR
- MMSB-4 STS MONITORING WELL LOCATION
- MW-3 STS ABANDONED MONITORING WELL
- MW-4 SIGMA MONITORING WELL LOCATION
- 64W97-18 SIGMA ABANDONED MONITORING WELL
- B-3 STS SOIL BORING LOCATION
- (7.0) FILL THICKNESS AT BORING LOCATION

5'x5' CLAY TRENCH PLUG WITH BENTONITE AROUND PIPE

5'x8' CLAY TRENCH PLUG WITH BENTONITE AROUND PIPE

5'x7' CLAY TRENCH PLUG WITH BENTONITE AROUND PIPE

BUILDING CONNECTED TO EXISTING SANITARY, STORM, & WATER LATERALS 5'x8' CLAY TRENCH PLUG WITH BENTONITE AROUND PIPE

REMOVED APPROX. 45 FT. OF 42" RCP & BULKHEAD ENDS WITH CRUSHED CONCRETE

REMOVED 20 FT. OF 42" RCP & BULKHEAD ENDS WITH CONCRETE

WATER AND SANITARY UTILITIES ARE ENCLOSED IN BENTONITE UNDER ELECTRICAL CONDUIT ENCASED IN CONCRETE

5'x8' CLAY TRENCH PLUG WITH BENTONITE AROUND PIPE

BIOFILTER NO. 1

BIOFILTER NO. 2

BIOFILTER NO. 3

BIOFILTER NO. 4

BIOFILTER NO. 5

135 JACKSON STREET

90 RIVERWAY DRIVE

FUTURE MIXED USE DEVELOPMENT

MARION ROAD

JACKSON STREET

PEARL AVENUE

RIVERWAY DRIVE

1" = 30'


AECOM

558 North Main Street
Oshkosh, WI 54901

920.235.0270

www.aecom.com


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# EXCAVATION AND FILL ISOPACH
## MARION/PEARL PHASE II SITE DEVELOPMENT - PARCEL H
## INTERSECTION OF MARION ROAD AND JACKSON STREET
## OSHKOSH, WISCONSIN

Issued

| Rev | Date | Description |
|---|---|---|

| | | |
|---|---|---|
| Designed: | REO | 10/13/2010 |
| Drawn: | REO | 10/13/2010 |
| Checked: | AGM | 10/13/2010 |
| Approved: | | |

PROJECT NUMBER
60139801

SHEET REFERENCE NUMBER
3

X:\Projects\60139801\dwg\G60139801-Iso_Exc_Fig3.dwg; 10/27/2010 12:40:01 PM; MOTT, ANDREW; STS.stb

**Cap Maintenance Plan- Revised**
**Marion/Pearl Redevelopment Parcel H – Site-Wide Historic Fill**
**Oshkosh, Wisconsin**

December, 2010

Property located at:
161 Jackson St.
Oshkosh, Wisconsin 54902

BRRTS Number: 02-71-556287

## Introduction

This document is the Cap Maintenance Plan (Maintenance Plan) for Parcel H of the Marion/Pearl Redevelopment area in Oshkosh, Wisconsin. This plan has been prepared consistent with requirements of Chapter (ch.) NR 724.13(2) Wisconsin Administrative Code (WAC). The maintenance activities relate to the existing hardscapping including asphalt pavement, concrete walkways and buildings constructed over the historic fill soil. The historic fill soil is impacted by volatile organic compounds (VOCs), Polyaromatic Hydrocarbons (PAHs) and metals within 4 feet from the ground surface. The extent of the historic fill is depicted on Sheet 3 and the locations of the caps to be maintained in accordance with this Maintenance Plan are included on Sheet 5.

## Cap Purpose

The cap over the contaminated soil will serve as barrier to limit direct contact with the underlying soil and historic fill material. Based on the current and future use of the property, the cap should function as intended unless disturbed.

## Sub slab Venting and Vapor Barrier System for Buildings

A sub slab venting and vapor barrier system has been installed in the Accu-Com and Morton Pharmacy buildings. The system consists of perforated piping system, bedded in clear stone with a continuous plastic barrier beneath the floor slab. Please see photographs 7 and 8 in the August 26, 2010, Request for Certificate of Completion, Appendix G for documentation. The integrity of these systems needs to be maintained. All vents need to be maintained and unobstructed. Any future modifications to the buildings needs to take in account the integrity of this system. These restrictions should be review on an annual basis.

## Annual Inspection

The cap overlying the historic fill soils, as depicted in Sheet 5, will be inspected once a year. The inspection will be performed to evaluate damage to the cap due to settling, wear, increasing age and other factors. Any area where soils have become or are likely to become exposed will be documented. A log of the inspections and any repairs will be maintained by the property owner on a Cap Inspection Log (Attached). The Log will include recommendations for necessary repair of any areas where underlying soils are exposed. Once repairs are completed, they will be documented in the Log.

Maintenance Activities

If problems with the cap 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 operations, or they can include larger resurfacing or construction operations. In the event that necessary maintenance activities expose the underlying soil, the owner must sample any soil that is excavated from the site prior to disposal to ascertain if contamination remains. The excavated soil must be treated, stored and disposed of by the owner in accordance with applicable local, state and federal law.

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

The property owners, in order to maintain the integrity of the cap, will maintain a copy of this Maintenance Plan on site and make it available to all interested parties (*i.e.*, employees, contractors, future property owners, etc.) for viewing.

The following activities are prohibited on any portion of the property where pavement, building foundation, or soil cover is providing a direct contact barrier as shown on the attached map (Sheet 5), unless prior written approval has been obtained from the Wisconsin Department of Natural Resources:

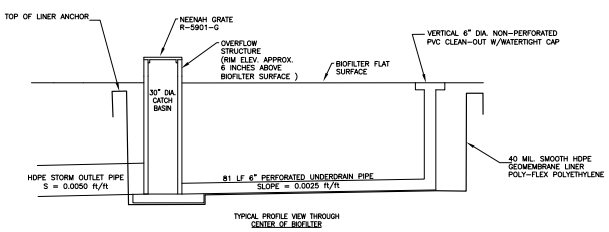
1. Removal of the existing barrier,
2. Replacement with another barrier,
3. Excavating or grading of the land surface,
4. Filling on areas designated as a direct contact prevention cap,
5. Plowing for agricultural cultivation, or,
6. Construction or placement of buildings or other structures.

Amendment or Withdrawal of Maintenance Plan

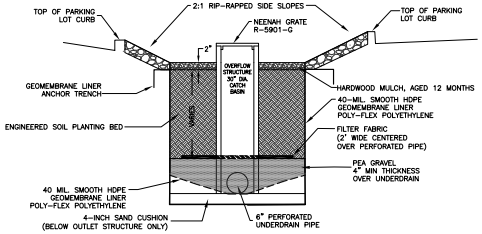
This Maintenance Plan can be amended or withdrawn by the property owner and its successors with the written approval of the WDNR.

Contact Information

| | |
|---|---|
| Property Developer | Alliance Development<br>230 Ohio Street – Suite 200<br>Oshkosh, WI 54902<br>920 230 3628 |
| Environmental Consultant: | Andrew Mott<br>AECOM, Inc.<br>558 North Main Street<br>Oshkosh, Wisconsin 54902<br>920-235-0270 |
| WDNR Project Manager: | Ms. Kathleen Sylvester<br>625 E. County Road Y<br>Suite 700<br>Oshkosh, WI 54901<br>920-424-0399 |




TYPICAL PROFILE VIEW THROUGH CENTER OF BIOFILTER




TYPICAL CROSS-SECTION VIEW THROUGH BIOFILTER & OVERFLOW STRUCTURE

TYPICAL BIOFILTER PROFILE & CROSS-SECTION

LEGEND

- LANDSCAPE/GREENSPACE CAP
- CONCRETE PAVEMENT CAP
- ASPHALT PAVEMENT CAP
- BUILDING AREAS
- ST — STORM SEWER
- PERFORATED UNDERDRAIN IN BIOFILTERS
- BIOFILTER PLANTING BED SURFACE

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BIOFILTER NO. 2

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BIOFILTER NO. 4

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REMOVED APPROX. 45 FT. OF 42" RCP & BULKHEAD ENDS WITH CRUSHED CONCRETE

REMOVED 20 FT. OF 42" RCP & BULKHEAD ENDS WITH CONCRETE

135 JACKSON STREET

90 RIVERWAY DRIVE

BUILDING CONNECTED TO EXISTING SANITARY, STORM, & WATER LATERALS

FUTURE MIXED USE DEVELOPMENT

CLAY TRENCH PLUG WITH BENTONITE AROUND PIPE

WATER AND SANITARY UTILITIES ARE ENCLOSED IN BENTONITE UNDER ELECTRICAL CONDUIT ENCASED IN CONCRETE

BENTONITE TRENCH PLUG

MARION ROAD

RIVERWAY DRIVE

PEARL AVENUE

JACKSON STREET

30 0 30 60

1" = 30'

AECOM

558 North Main Street
Oshkosh, WI 54901

920.235.0270

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POST-DEVELOPMENT PERFORMANCE BARRIER
MARION/PEARL PHASE II SITE DEVELOPMENT - PARCEL H
INTERSECTION OF MARION ROAD AND JACKSON STREET
OSHKOSH, WISCONSIN

Issued

| Rev | Date | Description |
|---|---|---|

| | | |
|---|---|---|
| Designed: | REO | 8/25/2010 |
| Drawn: | REO | 8/25/2010 |
| Checked: | AGM | 8/25/2010 |
| Approved: | PJK | 8/25/2010 |

PROJECT NUMBER
60139801

SHEET REFERENCE NUMBER
5

X:\Projects\60139801\dwg\G60139801-Figure 5.dwg, 8/25/2010 5:21:58 PM, WOODROW, MATT, STS.stb

*Barrier INSPECTION and MAINTENANCE LOG*

| Inspection Date | Inspector | Condition of Cap | Recommendations | Has recommended maintenance from previous inspection been implemented? |
|---|---|---|---|---|
| | | | | |
| | | | | |
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| | | | | |
| | | | | |
| | | | | |
| | | | | |

STATE BAR OF WISCONSIN FORM 3 - 1998

# QUIT CLAIM DEED

Document Number

1562394

REGISTER'S OFFICE
WINNEBAGO COUNTY, WI
RECORDED ON

01/10/2011 09:37AM

JULIE PAGEL
REGISTER OF DEEDS

RECORDING FEE 30.00
TRANSFER FEE
2
# OF PAGES 1

Recording Area

This Deed, made between Redevelopment Authority of the City of Oshkosh, a separate body politic, , Grantor, and Redevelopment Authority of the City of Oshkosh, a separate body politic, , Grantee.

Grantor quit claims to Grantee the following described real estate in Winnebago County, State of Wisconsin:

All of Lots 1, 2, 3 and 4 of Certified Survey Map No. 6506, recorded as Document No. 1559090, Vol. 1, page 6506, Register of Deeds Office,&being a part of the Southeast 1/4 of the Northeast 1/4 and of the Northeast 1/4 of the Southeast 1/4 of Section 23, T18N, R16E, 1st Ward, City of Oshkosh, Winnebago County, Wisconsin

Name and Return Address

CITY ATTORNEY
PO BOX 1130
Oshkosh, WI 54903-1130
Charge

901-0200-0000

Parcel Identification Number (PIN)

This is not homestead property.
(is) (is not)

Together with all appurtenant rights, title and interests.

Dated this 3rd day of January, 2011.

Howard A. Davis III (SEAL)

* HOWARD A. DAVIS, III, Executive Director

T. S. (SEAL)

* THOMAS BELTER, Chairman

(SEAL)

*

(SEAL)

*

## AUTHENTICATION

Signature(s)

authenticated this day of

*

TITLE: MEMBER STATE BAR OF WISCONSIN
(If not, authorized by §706.06, Wis. Stats.)

THIS INSTRUMENT WAS DRAFTED BY

Attorney Lynn A. Lorenson
Oshkosh, WI 54903-1130

(Signatures may be authenticated or acknowledged. Both are not necessary.)

## ACKNOWLEDGMENT

State of Wisconsin, } ss.
Winnebago County.

Personally came before me this 3rd day of January, 2011, the above named Howard A. Davis III, Executive Director and Thomas Belter, Chairman to me known to be the person s who executed the foregoing instrument and acknowledge the same.

Darlene P. Brandt

* Darlene P. Brandt

Notary Public, State of Wisconsin
My commission is permanent. (If not, state expiration date: July 16, 2014.)

* Names of persons signing in any capacity must be typed or printed below their signature.



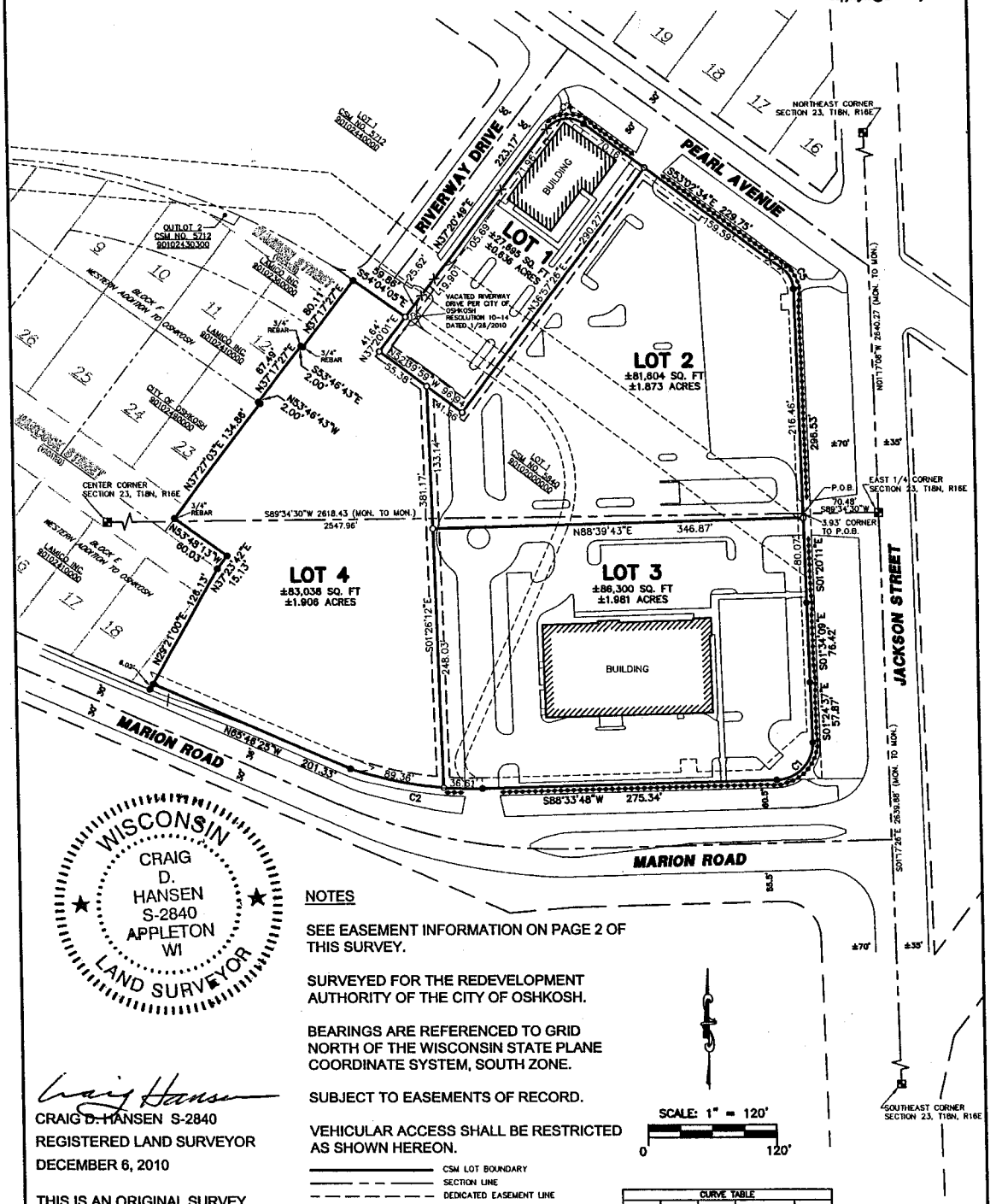
D

#6506

# CERTIFIED SURVEY MAP

ALL OF LOT 1 OF CERTIFIED SURVEY MAP NUMBER 5840 AND VACATED RIVERWAY DRIVE PER CITY OF OSHKOSH RESOLUTION 10-14 DATED 1/26/2010. BEING A PART OF THE SOUTHEAST ¼ OF THE NORTHEAST ¼ AND OF THE NORTHEAST ¼ OF THE SOUTHTHEAST ¼ OF SECTION 23, TOWNSHIP 18 NORTH, RANGE 16 EAST, FIRST WARD, CITY OF OSHKOSH, WINNEBAGO COUNTY, WISCONSIN.

AECOM
1035 Kepler Drive
Green Bay, WI 54311
920.468.1978
www.aecom.com
Copyright ©2009 By: AECOM




WISCONSIN
CRAIG D. HANSEN
S-2840
APPLETON WI
LAND SURVEYOR

## NOTES

SEE EASEMENT INFORMATION ON PAGE 2 OF THIS SURVEY.

SURVEYED FOR THE REDEVELOPMENT AUTHORITY OF THE CITY OF OSHKOSH.

BEARINGS ARE REFERENCED TO GRID NORTH OF THE WISCONSIN STATE PLANE COORDINATE SYSTEM, SOUTH ZONE.

SUBJECT TO EASEMENTS OF RECORD.

VEHICULAR ACCESS SHALL BE RESTRICTED AS SHOWN HEREON.

SCALE: 1" = 120'
0 — 120'

CRAIG D. HANSEN S-2840
REGISTERED LAND SURVEYOR
DECEMBER 6, 2010

THIS IS AN ORIGINAL SURVEY DOCUMENT IF THE PROFESSIONAL SEAL IS IMPRINTED IN RED AND SIGNED IN BLUE

| | |
|---|---|
| SHEET | 1 OF 4 |
| PROJECT No. | 60100635 |
| CADD FILE | G60100635-H-Lot 1-CSM |
| DRAWN BY | CDH |
| DATE DRAWN | 12/03/2010 |

CSM LOT BOUNDARY
SECTION LINE
DEDICATED EASEMENT LINE
EXISTING EASEMENT LINE
RIGHT-OF-WAY CENTERLINE
RIGHT-OF-WAY LINE
VACATED ROAD RIGHT-OF-WAY LINE
VACATED ROAD CENTERLINE
EXISTING PARCEL LINE
ACCESS RESTRICTION
FOUND 1" IRON PIPE (UNLESS NOTED)
SET 1" IRON PIPE
FOUND CHISELED CROSS
SET CHISELED CROSS
EASEMENT TO BE VACATED

CURVE TABLE

| CURVE | LENGTH | RADIUS | CHORD BEARING | CHORD LENGTH |
|---|---|---|---|---|
| C1 | 54.98' | 35.00' | S43°34'36"W | 49.49' |
| C2 | 125.97' | 349.43' | N81°06'33"W | 125.29' |
| C3 | 39.78' | 25.00' | N08°14'04"W | 35.71' |
| C4 | 39.10' | 25.00' | N82°09'07"E | 35.23' |
| C5 | 22.58' | 25.00' | S27°11'23"E | 21.80' |
| C6 | 50.47' | 25.00' | N33°36'17"W | 42.32' |
| C7 | 136.21' | 100.00' | N14°47'38"W | 125.92' |
| C8 | 23.18' | 25.00' | N27°15'01"W | 22.36' |
| C9 | 149.83' | 110.00' | S14°47'38"E | 138.51' |
| C10 | 30.28' | 15.00' | S33°36'17"E | 25.39' |
| C11 | 27.07' | 30.00' | N27°11'22"W | 26.18' |
| C12 | 16.09' | 25.00' | N71°28'40"W | 15.81' |
| C13 | 23.18' | 25.00' | N39°12'31"W | 22.36' |
| C14 | 23.18' | 25.00' | S87°39'40"W | 22.36' |

LINE TABLE

| LINE | LENGTH | BEARING |
|---|---|---|
| L1 | 12.00 | N01°26'12"W |
| L2 | 15.00 | N88°33'48"E |
| L3 | 12.00 | S01°26'12"E |
| L4 | 59.09 | N88°33'48"E |
| L5 | 53.15 | N47°23'24"E |
| L6 | 5.00 | N88°35'23"E |
| L7 | 7.00 | S88°39'49"W |
| L8 | 15.00 | N01°20'11"W |
| L9 | 7.00 | N88°39'49"E |

#6506

# CERTIFIED SURVEY MAP

ALL OF LOT 1 OF CERTIFIED SURVEY MAP NUMBER 5840 AND VACATED RIVERWAY DRIVE PER CITY OF OSHKOSH RESOLUTION 10-14 DATED 1/26/2010. BEING A PART OF THE SOUTHEAST ¼ OF THE NORTHEAST ¼ AND OF THE NORTHEAST ¼ OF THE SOUTHTHEAST ¼ OF SECTION 23, TOWNSHIP 18 NORTH, RANGE 16 EAST, FIRST WARD, CITY OF OSHKOSH, WINNEBAGO COUNTY, WISCONSIN.

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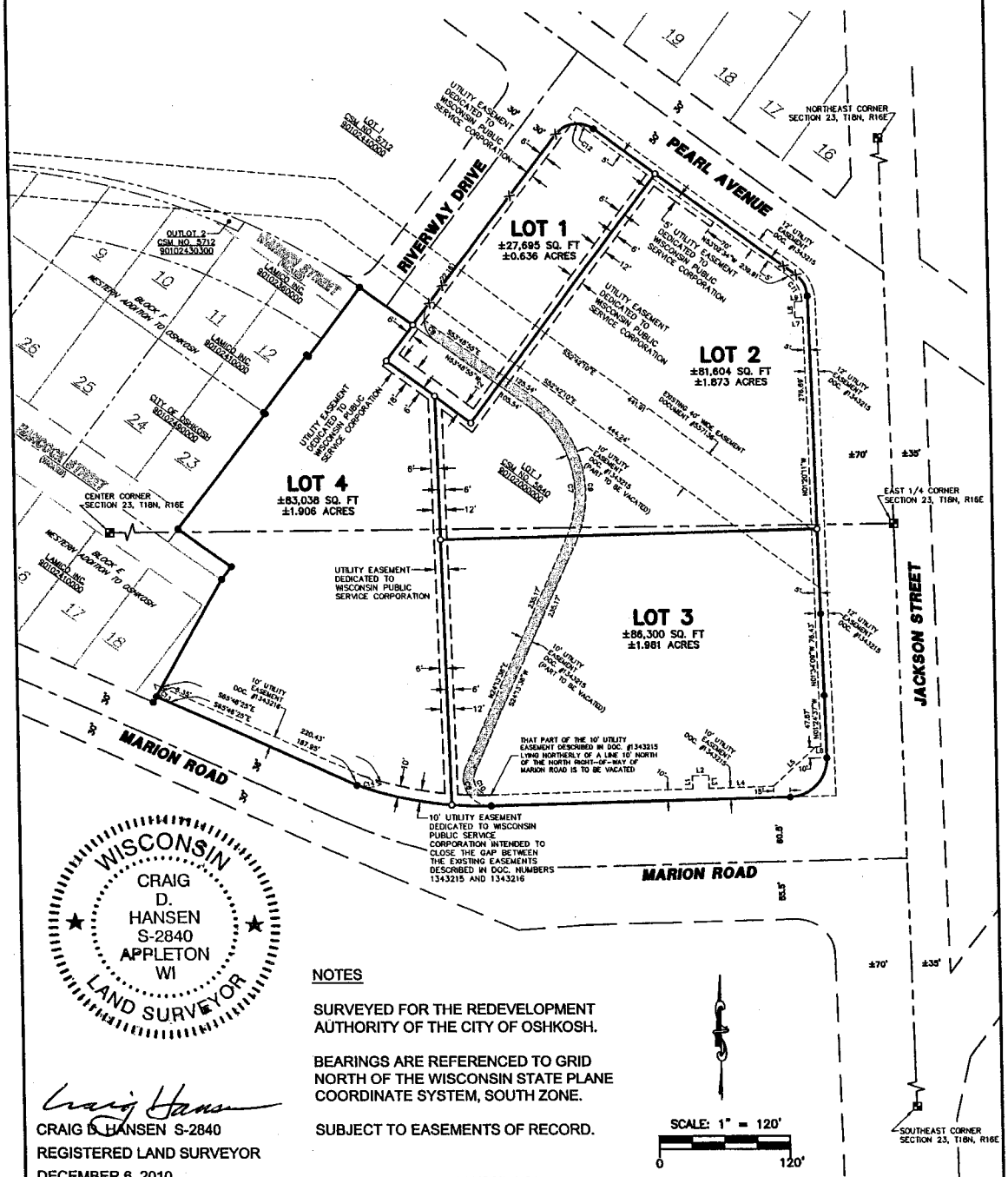


WISCONSIN
CRAIG D. HANSEN
S-2840
APPLETON WI
LAND SURVEYOR

## NOTES

SURVEYED FOR THE REDEVELOPMENT AUTHORITY OF THE CITY OF OSHKOSH.

BEARINGS ARE REFERENCED TO GRID NORTH OF THE WISCONSIN STATE PLANE COORDINATE SYSTEM, SOUTH ZONE.

SUBJECT TO EASEMENTS OF RECORD.

CRAIG D. HANSEN S-2840
REGISTERED LAND SURVEYOR
DECEMBER 6, 2010

THIS IS AN ORIGINAL SURVEY DOCUMENT IF THE PROFESSIONAL SEAL IS IMPRINTED IN RED AND SIGNED IN BLUE

| | |
|---|---|
| SHEET | 2 OF 4 |
| PROJECT No. | 60100635 |
| CADD FILE | G60100635-H-Lot 1-CSM |
| DRAWN BY | CDH |
| DATE DRAWN | 12/03/2010 |

CSM LOT BOUNDARY
SECTION LINE
DEDICATED EASEMENT LINE
EXISTING EASEMENT LINE
RIGHT-OF-WAY CENTERLINE
RIGHT-OF-WAY LINE
VACATED ROAD RIGHT-OF-WAY LINE
VACATED ROAD CENTERLINE
EXISTING PARCEL LINE
ACCESS RESTRICTION
FOUND 1" IRON PIPE (UNLESS NOTED)
SET 1" IRON PIPE
FOUND CHISELED CROSS
SET CHISELED CROSS
EASEMENT TO BE VACATED

CURVE TABLE

| CURVE | LENGTH | RADIUS | CHORD BEARING | CHORD LENGTH |
|---|---|---|---|---|
| C1 | 54.96' | 35.00' | S43°34'36"W | 49.49' |
| C2 | 125.97' | 349.43' | N81°06'33"W | 125.29' |
| C3 | 39.78' | 25.00' | N08°14'04"W | 35.71' |
| C4 | 39.10' | 25.00' | N82°09'07"E | 35.23' |
| C5 | 22.56' | 25.00' | S27°11'23"E | 21.80' |
| C6 | 50.47' | 25.00' | N33°36'17"W | 42.32' |
| C7 | 136.21' | 100.00' | N14°47'38"W | 125.92' |
| C8 | 23.18' | 25.00' | N27°15'01"W | 22.36' |
| C9 | 149.83' | 110.00' | S14°47'38"E | 138.51' |
| C10 | 30.28' | 15.00' | S33°36'17"E | 25.39' |
| C11 | 27.07' | 30.00' | N27°11'22"W | 26.16' |
| C12 | 16.09' | 25.00' | N71°28'40"W | 15.81' |
| C13 | 23.18' | 25.00' | N39°12'31"W | 22.36' |
| C14 | 23.18' | 25.00' | S87°39'40"W | 22.36' |

LINE TABLE

| LINE | LENGTH | BEARING |
|---|---|---|
| L1 | 12.00 | N01°26'12"W |
| L2 | 15.00 | N88°33'48"E |
| L3 | 12.00 | S01°26'12"E |
| L4 | 59.09 | N88°33'48"E |
| L5 | 53.15 | N47°23'24"E |
| L6 | 5.00 | N88°35'23"E |
| L7 | 7.00 | S88°39'49"W |
| L8 | 15.00 | N01°20'11"W |
| L9 | 7.00 | N88°39'49"E |

#6506

# CERTIFIED SURVEY MAP

ALL OF LOT 1 OF CERTIFIED SURVEY MAP NUMBER 5840 AND VACATED RIVERWAY DRIVE PER CITY OF OSHKOSH RESOLUTION 10-14 DATED 1/26/2010. BEING A PART OF THE SOUTHEAST ¼ OF THE NORTHEAST ¼ AND OF THE NORTHEAST ¼ OF THE SOUTHTHEAST ¼ OF SECTION 23, TOWNSHIP 18 NORTH, RANGE 16 EAST, FIRST WARD, CITY OF OSHKOSH, WINNEBAGO COUNTY, WISCONSIN.

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## SURVEYORS CERTIFICATE

I, Craig D. Hansen, registered land surveyor, hereby certify: That in full compliance with the provisions of Chapter 236, section 236.34 of the Wisconsin Statutes and the Land Subdivision Ordinance the City of Oshkosh, and under the direction of the Redevelopment Authority of the City of Oshkosh, owner of said land, I have surveyed, divided and mapped the following land being all of Lot 1 of Certified Survey Map number 5840 and vacated Riverway Drive per City of Oshkosh Resolution 10-14 dated 1/26/2010. Being a part of the Southeast ¼ of the Northeast ¼ and of the Northeast ¼ of the Souththeast ¼ of Section 23, Township 18 North, Range 16 East, First Ward, City of Oshkosh, Winnebago County, Wisconsin, more particularly described as follows:

Commencing at the East ¼ corner of said Section 23; thence S89°34'30"W along the south line of the Northeast ¼ of said section, 70.48 feet to a point on the west right-of-way of Jackson Street also being the Point of Beginning; thence along said right-of-way S01°20'11"E, 84.00 feet; thence continuing along said right-of-way S01°34'09"E, 76.42 feet; thence continuing along said right-of-way S01°24'37"E, 57.87 feet; thence continuing along said right-of-way 54.96 feet along a curve to the right having a radius of 35.00 feet, whose chord bears S43°34'36"W, 49.49 feet to the northerly right-of-way of Marion Road; thence along said right-of-way S88°33'48"W, 275.34 feet; thence continuing along said right-of-way 125.97 feet along a curve to the right having a radius of 349.43 feet, whose chord bears N81°06'33"W, 125.29 feet; thence along said right-of-way N65°46'25"W, 201.33 feet to the southwesterly corner of Lot 1 of Certified Survey Map number 5840; thence along the westerly line of said Lot 1 N29°21'00"E, 126.13 feet to a point on the centerline of vacated Hancock Street; thence N37°23'42"E, 15.13 feet along the said westerly line; thence along said westerly line N53°48'13"W, 60.03 feet; thence along said westerly line N37°27'03"E, 134.86 feet; thence along said westerly line N53°46'43"W, 2.00 feet; thence along said westerly line N37°17'27"E, 67.49 feet; thence along said westerly line S53°46'43"E, 2.00 feet; thence along said westerly line N37°17'27"E, 80.11 feet to a point on the southerly right-of-way of Riverway Drive; thence along said right-of-way S54°04'05"E, 59.86 feet to the southwesterly corner of that part of Riverway Drive being vacated per City of Oshkosh Resolution 10-14 dated 1/26/2010; thence along the east right-of-way of Riverway Drive N37°20'49"E, 223.17 feet; thence continuing along said right-of-way 39.10 feet along a curve to the right having a radius of 25.00 feet, whose chord bears N82°09'07"E, 35.23 feet to a point on the southerly right-of-way of Pearl Avenue; thence along said right-of-way S53°02'34"E, 229.75 feet; thence continuing along said right-of-way 22.56 feet along a curve to the right having a radius of 25.00 feet, whose chord bears S27°11'23"E, 21.80 feet to a point on the west right-of-way of Jackson Street; thence along said right-of-way S01°20'11"E, 212.53 feet to the point of beginning.

Said parcel contains 278,637 square feet or 6.396 acres more or less.

Said parcel is subject to easements of record.

That the survey of said land was done under my direct supervision and the map hereon is a true and accurate representation of the exterior boundaries and the division thereof.

CRAIG D. HANSEN S-2840
REGISTERED LAND SURVEYOR
DECEMBER 6, 2010

THIS IS AN ORIGINAL SURVEY DOCUMENT IF THE PROFESSIONAL SEAL IS IMPRINTED IN RED AND SIGNED IN BLUE

WISCONSIN
CRAIG D. HANSEN S-2840 APPLETON WI
LAND SURVEYOR

REGISTER'S OFFICE
WINNEBAGO COUNTY, WI
RECORDED ON
12/07/2010 03:22PM
JULIE PAGEL
REGISTER OF DEEDS
RECORDING FEE 30.00
TRANSFER FEE
# OF PAGES 4

1559090

| | |
|---|---|
| SHEET | 3 OF 4 |
| PROJECT No. | 60100635 |
| CADD FILE | G60100635-H-I-Lot 1-CSM |
| DRAWN BY | CDH |
| DATE DRAWN | 12/03/2010 |

#6506

# CERTIFIED SURVEY MAP

ALL OF LOT 1 OF CERTIFIED SURVEY MAP NUMBER 5840 AND VACATED RIVERWAY DRIVE PER CITY OF OSHKOSH RESOLUTION 10-14 DATED 1/26/2010. BEING A PART OF THE SOUTHEAST ¼ OF THE NORTHEAST ¼ AND OF THE NORTHEAST ¼ OF THE SOUTHTHEAST ¼ OF SECTION 23, TOWNSHIP 18 NORTH, RANGE 16 EAST, FIRST WARD, CITY OF OSHKOSH, WINNEBAGO COUNTY, WISCONSIN.

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## MUNICIPAL OWNER'S CERTIFICATE

The Redevelopment Authority of the City of Oshkosh, a seperate body public organized and existing under and by virtue of the Laws of the State of Wisconsin, as owner, does hereby certify that said Authority caused the land described to be surveyed, divided, dedicated, and mapped as represented on this map, in accordance with the provisions of Chapter 236 of the Wisconsin Statutes and the Land Subdivision Ordinance of the City of Oshkosh.

In Witness whereof, the said Redevelopment Authority, has caused these presents to be signed by

H. Allen Davis its Executive Director, and

countersigned by Thomas Belter, its Chairman, at

Oshkosh, Wisconsin, this

7th day of December, 20 10.

Redevelopment Authority of the City of Oshkosh:

H. Allen Davis III
Executive Director

T. S. Belter
Chairman

STATE OF WISCONSIN)
:SS
WINNEBAGO COUNTY)

Personally came before me this 7th day of December, 2010 the aforementioned representatives of the City of Oshkosh, known to me to be the persons who executed the forgoing instrument and acknowledged the same.

Darlene F. Brandt
Notary Public,
Winnebago County, State of Wisconsin

My commission expires 7/6/2014

## CITY OF OSHKOSH PLANNING COMMISSION CERTIFICATE OF APPROVAL

This Certified Survey Map of all of Lot 1 of Certified Survey Map number 5840 and vacated Riverway Drive per City of Oshkosh Resolution 10-14 dated 1/26/2010. Being a part of the Southeast ¼ of the Northeast ¼ and of the Northeast ¼ of the Souththeast ¼ of Section 23, Township 18 North, Range 16 East, First Ward, City of Oshkosh, Winnebago County, Wisconsin, is hereby approved.

City Planning Commission Representative

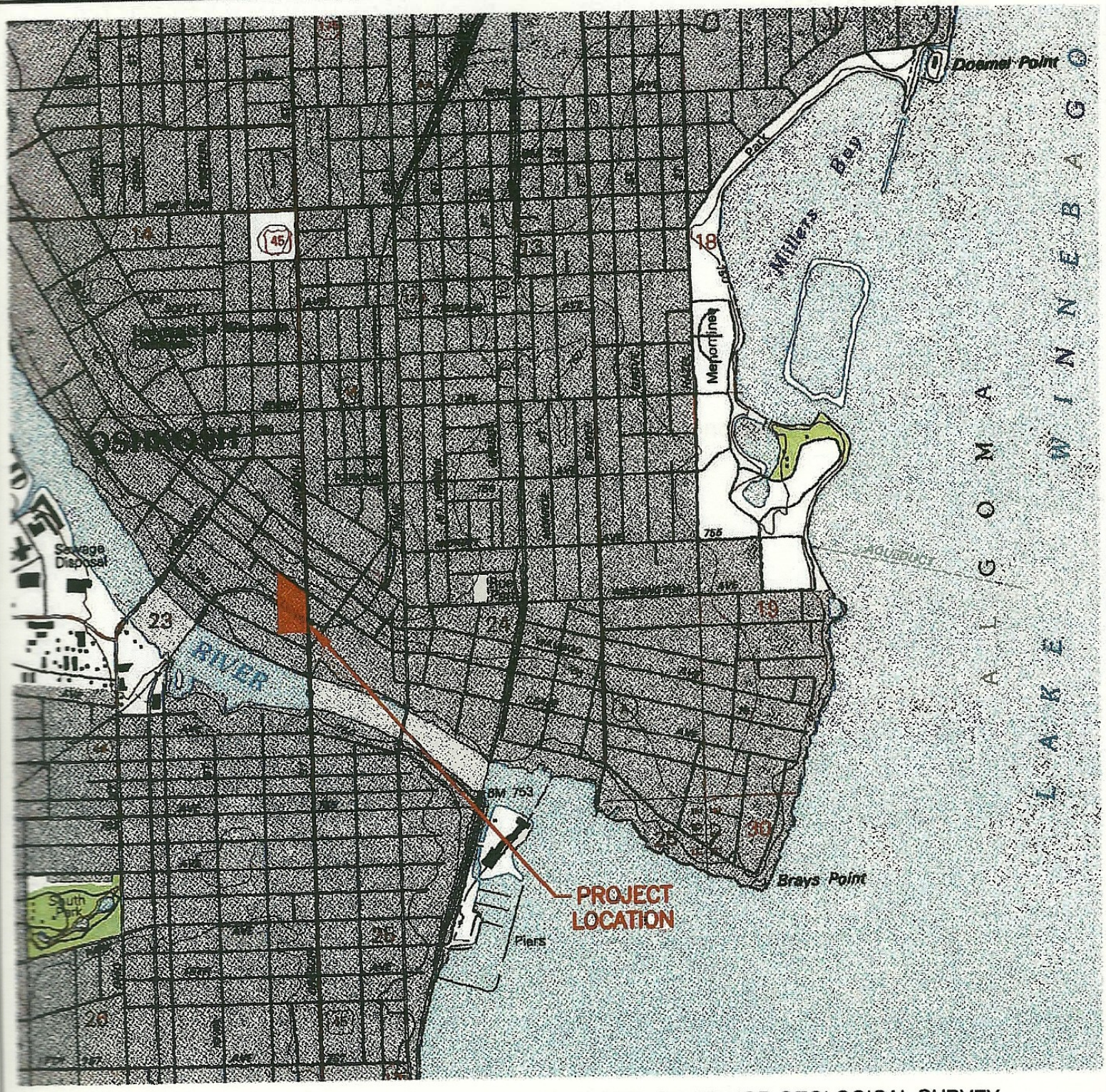
12-7-2010
Date

Craig D. Hansen
CRAIG D. HANSEN S-2840
REGISTERED LAND SURVEYOR
DECEMBER 6, 2010

THIS IS AN ORIGINAL SURVEY DOCUMENT IF THE PROFESSIONAL SEAL IS IMPRINTED IN RED AND SIGNED IN BLUE

WISCONSIN
CRAIG D. HANSEN S-2840 APPLETON WI
LAND SURVEYOR

| | |
|---|---|
| SHEET | 4 OF 4 |
| PROJECT No. | 60100635 |
| CADD FILE | G60100635-H-Lot 1-CSM |
| DRAWN BY | CDH |
| DATE DRAWN | 12/03/2010 |




MAP SOURCE: UNITED STATES DEPARTMENT OF THE INTERIOR GEOLOGICAL SURVEY
OSHKOSH QUADRANGLE, WISCONSIN (7.5-MINUTE SERIES, TOPOGRAPHIC)

N

2000 0 2000 4000

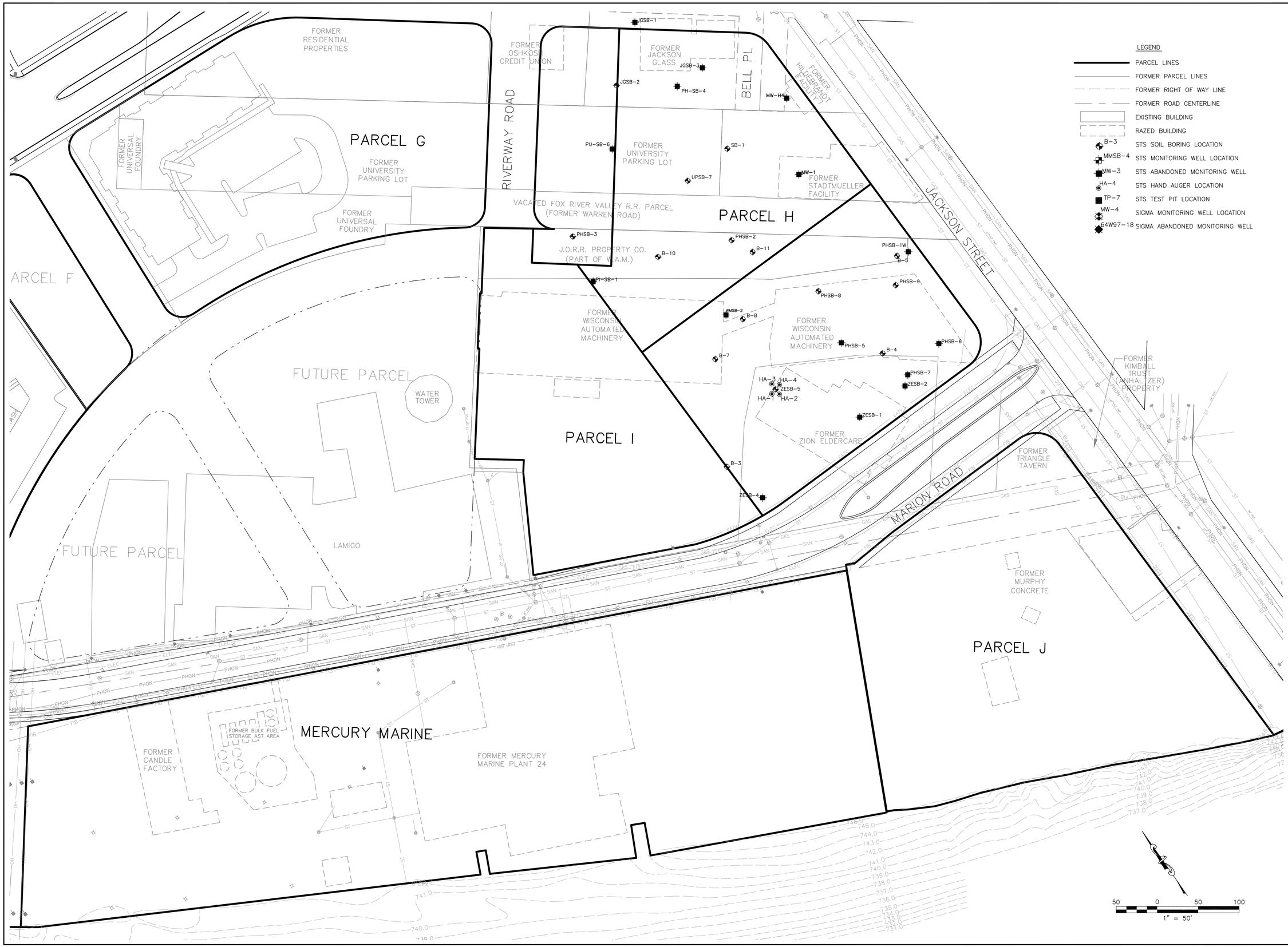
1" = 2000'

AECOM

SITE LOCATION MAP

MARION/PEARL PHASE 2 REDEVELOPMENT - PARCEL H

| | | |
|---|---|---|
| Drawn : | REO | 7/22/2010 |
| Checked: | MCW | 7/22/2010 |
| Approved: | | |

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PRE-DEVELOPMENT SITE CONDITIONS
MARION/PEARL PHASE II SITE DEVELOPMENT - PARCEL H
INTERSECTION OF MARION ROAD AND JACKSON STREET
OSHKOSH, WISCONSIN

Issued

| Rev | Date | Description |
|---|---|---|

| | | |
|---|---|---|
| Designed: | BAL | 9/16/2010 |
| Drawn: | REO | 9/16/2010 |
| Checked: | AGM | 9/16/2010 |
| Approved: | PJK | 9/16/2010 |

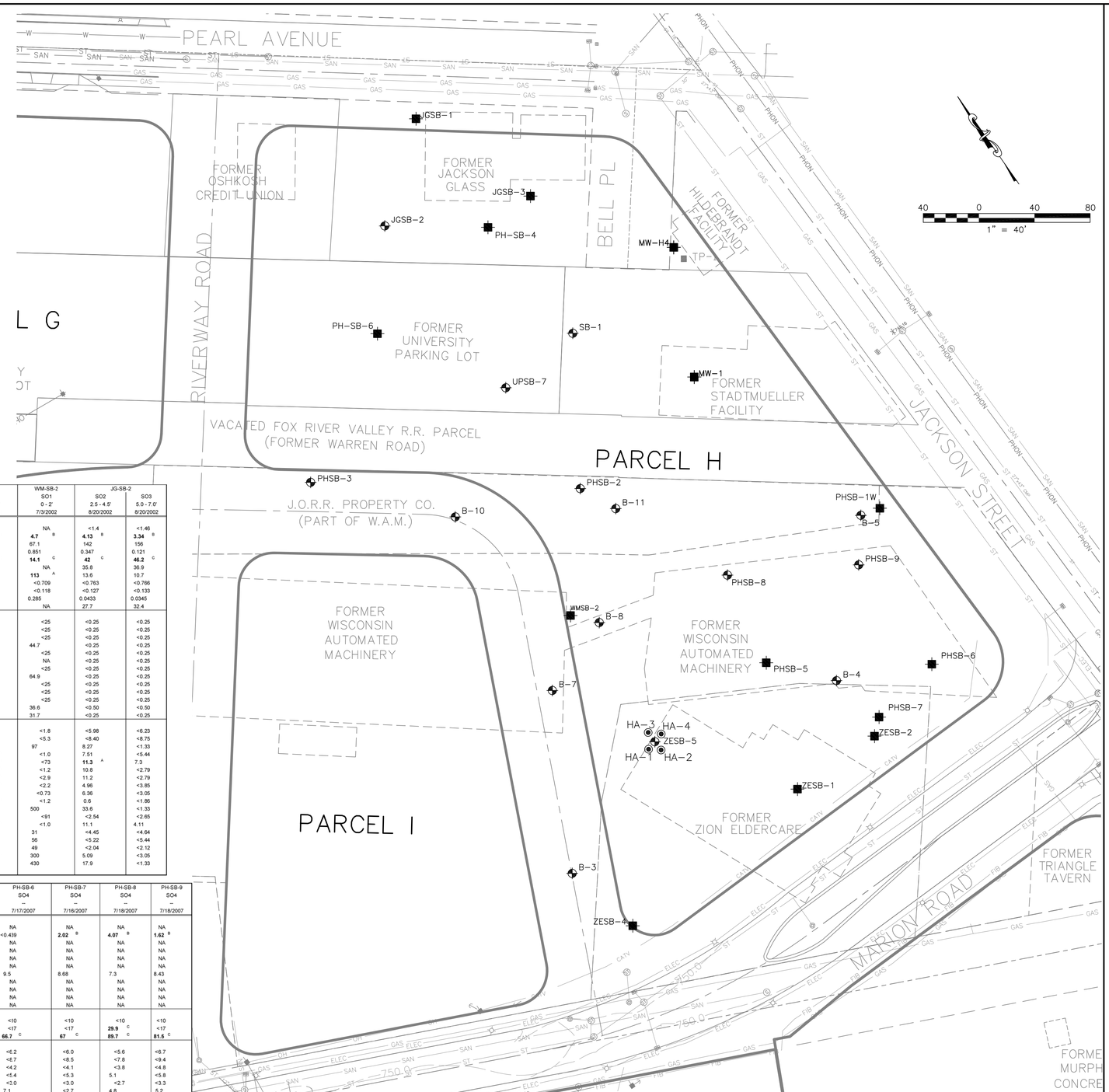
PROJECT NUMBER
60139801

SHEET REFERENCE NUMBER
2

X:\Projects\60139801\dwg\G60139801-Figure 2.dwg: 12/10/2010 3:18:09 PM: MOTT, ANDREW

LEGEND

- PARCEL LINES
- FORMER PARCEL LINES
- FORMER RIGHT OF WAY LINE
- FORMER ROAD CENTERLINE
- RAZED BUILDING
- B-3 STS SOIL BORING LOCATION
- MMSB-4 STS MONITORING WELL LOCATION
- MW-3 STS ABANDONED MONITORING WELL
- HA-4 STS HAND AUGER LOCATION
- TP-7 STS TEST PIT LOCATION
- MW-4 SIGMA MONITORING WELL LOCATION
- 64W97-18 SIGMA ABANDONED MONITORING WELL




| Parameters | Generic RCLs Direct Contact Pathway Non-Industrial | Generic RCLs Direct Contact Pathway Industrial | Generic RCLs Groundwater Pathway | NR 746 Soil Screening Depth | S8-1 -- 0 - 2' 4/4/2002 | S8-1 -- 4 - 6' 4/4/2002 | ZE-SB-1 SO1 0 - 2' 4/29/2002 | ZE-SB-2 SO2 2 - 4' 4/29/2002 | ZE-SB-5 SO1 0 - 2' 4/29/2002 | ZE-SB-5 SO5 8 - 10' 4/29/2002 | UP-SB-6 -- 2.5 - 4.5' 6/11/2002 | UP-SB-6 -- 2.5 - 4.5' 6/11/2002 | WM-SB-2 SO1 0 - 2' 7/3/2002 | JG-SB-2 SO2 2.5 - 4.5' 8/20/2002 | JG-SB-2 SO3 5.0 - 7.0' 8/20/2002 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Metals (mg/kg) | | | | | | | | | | | | | | | |
| Antimony | | | | | NA | NA | 35 | 9.1 | 10 | <1.29 | <1.42 | <1.38 | NA | <1.4 | <1.46 |
| Arsenic | 0.036 [E] | 1.6 [E] | 0.58 | -- | **6.1** [B] | **1** [C] | **1.62** [B] | **6.67** [B] | **3.95** [B] | **1.37** [C] | **3.27** [B] | **3.11** [B] | **4.7** [B] | **4.13** [B] | **3.34** [B] |
| Barium | 3.13[C] | $2.4 \times 10^5$ | 3,300 | -- | NA | NA | 50 | 141 | 630 | 101 | 105 | 92.8 | 67.1 | 142 | 156 |
| Cadmium | 8.0 [E] | 510 [E] | 1.5 | -- | **3.8** [C] | 1.4 | 0.61 | 0.576 | **4.0** [C] | <0.0434 | 0.0904 | 0.0966 | 0.851 | 0.347 | 0.121 |
| Chromium | 16,000 [E] | $1.53 \times 10^6$ | 0.36 | -- | NA | NA | **8.0** [C] | **17** [C] | **13** [C] | **22** [C] | **41.5** [C] | **33.8** [C] | **14.1** [C] | **42** [C] | **46.2** [C] |
| Copper | | | | | NA | NA | 39 | 83 | 89 | 0.433 | 23.8 | 20.2 | NA | 35.8 | 36.9 |
| Lead | 50 [E] | 500 [E] | -- | -- | **186** [A] | 10 | **95** [A] | **397** [A] | **17000** [B] | 5.0 | 10.1 | 15.9 | **113** [A] | 13.6 | 10.7 |
| Selenium | 78.2 | 5,110 | 1.0 | -- | NA | NA | <0.766 | <0.737 | <0.979 | <0.703 | <0.775 | <0.753 | <0.709 | <0.763 | <0.766 |
| Silver | 78.2 | 5,110 | 1.67 | -- | NA | NA | <0.128 | 0.172 | <0.163 | <0.703 | <0.129 | <0.125 | <0.118 | <0.127 | <0.133 |
| Mercury | -- | -- | 0.42 | -- | NA | NA | 0.083 | 0.612 | **0.454** [C] | 0.095 | 0.129 | 0.0715 | 0.285 | 0.0433 | 0.0345 |
| Nickel | | | | | NA | NA | 6.0 | 14 | 14 | 14 | 21.8 | 20.3 | NA | 27.7 | 32.4 |
| VOCs (µg/kg) | | | | | | | | | | | | | | | |
| Benzene | 1,100 [E] | 52,000 | 5.5 [E] | 8,500 | NA | NA | <25 | **89.6** [c] | <100 | NA | <25 | <25 | <25 | <0.25 | <0.25 |
| sec-Butylbenzene | -- | -- | -- | -- | NA | NA | <25 | 42 | <100 | NA | <25 | <25 | <25 | <0.25 | <0.25 |
| 1,2-Dichlorobenzene | 1,410,000 | 92,000,000 | 1,600 | -- | 300 | <25 | <25 | <25 | <100 | NA | <25 | <25 | <25 | <0.25 | <0.25 |
| Ethylbenzene | 1,560,000 | 102,000,000 | 2,900 [E] | 4,600 | NA | NA | 49.9 | 61.1 | <100 | NA | <25 | <25 | 44.7 | <0.25 | <0.25 |
| Isopropylbenzene | -- | -- | -- | -- | NA | NA | <25 | 33.2 | <100 | NA | <25 | <25 | <25 | <0.25 | <0.25 |
| p-Isopropyltoluene | -- | -- | -- | -- | <250 | <25 | <25 | 41.9 | <100 | NA | <25 | <25 | NA | <0.25 | <0.25 |
| Methylene chloride | 8,520 | 382,000 | 1.6 | -- | NA | NA | <25 | <25 | <100 | NA | <25 | <25 | <25 | <0.25 | <0.25 |
| Naphthalene | 60,000 [E] | 4,000,000 [E] | 400 [E] | 2,700 | **510** [C] | <25 | 51.7 | 52.5 | <100 | NA | <25 | <25 | 64.9 | <0.25 | <0.25 |
| Toluene | 1,250,000 | 81,800,000 | 1,500 [E] | 38,000 | <250 | <25 | 71.1 | 77.8 | <100 | NA | <25 | <25 | <25 | <0.25 | <0.25 |
| Trichloroethene | 160 | 7,150 | 3.7 | -- | NA | NA | **79.3** [C] | **49.9** [C] | <100 | NA | <25 | <25 | <25 | <0.25 | <0.25 |
| Trichlorofluoromethane | | | | | <250 | <25 | <25 | <25 | 1700 | NA | <9.25 | <0.25 | <25 | <0.25 | <0.25 |
| Total Trimethylbenzene | 782,000 | 51,100,000 | 7,573 | -- | <500 | <50 | 45.2 | 144.3 | <100 | NA | <50 | <50 | 36.6 | <0.50 | <0.50 |
| Total Xylenes | 3,130,000 | 204,000,000 | 4,100 [E] | 42,000 | <750 | <75 | 129 | 82 | <100 | NA | <25 | <25 | 31.7 | <0.25 | <0.25 |
| PAHs (µg/kg) [F] | | | | | | | | | | | | | | | |
| Acenaphthene | 900,000 | 60,000,000 | 38,000 | -- | <410 | <41 | <60 | 111 | <76.7 | NA | <6.07 | 119 | <1.8 | <5.98 | <6.23 |
| Acenaphthylene | 18,000 | 360,000 | 700 | -- | **850** [C] | <42 | <84.3 | <81.1 | <10.8 | NA | <8.53 | <82.8 | <5.3 | <8.40 | <8.75 |
| Anthracene | 5,000,000 | 300,000,000 | 3,000,000 | -- | 1400 | <34 | 122 | <12.3 | 119 | NA | <1.29 | 1480 | 97 | 8.27 | <1.33 |
| Benzo(a)anthracene | 88 | 3,900 | 17,000 | -- | **2200** [A] | <54 | **327** [A] | **1470** [A] | **313** [A] | NA | 70.7 | **2300** [A] | <1.0 | 7.51 | <5.44 |
| Benzo(a)pyrene | 8.8 | 390 | 48,000 | -- | **3600** [B] | <59 | **290** [A] | **1660** [B] | **486** [B] | NA | **133** [A] | **2550** [B] | <73 | **11.3** [A] | 7.3 |
| Benzo(b)fluoranthene | 88 | 3,900 | 360,000 | -- | **3400** [A] | <42 | **506** [A] | **1790** [A] | **530** [A] | NA | **113** [A] | **2600** [A] | <1.2 | 10.8 | <2.79 |
| Benzo(ghi)perylene | 1,800 | 39,000 | 6,800,000 | -- | **3500** [A] | <82 | 252 | **9510** [A] | 341 | NA | 101 | **1960** [A] | <2.9 | 11.2 | <2.79 |
| Benzo(k)fluoranthene | 880 | 39,000 | 870,000 | -- | **3300** [A] | <79 | 227 | **7090** [A] | 212 | NA | 4.39 | **1030** [A] | <2.2 | 4.96 | <3.85 |
| Chrysene | 8,800 | 390,000 | 37,000 | -- | 2400 | <38 | 236 | 1430 | 290 | NA | 53.2 | 1760 | <0.73 | 6.36 | <3.05 |
| Dibenzo(a,h)anthracene | 8.8 | 390 | 38,000 | -- | **1200** [B] | <76 | **432** [B] | **1330** [B] | **99** [A] | NA | <1.81 | **1200** [B] | <1.2 | 0.6 | <1.86 |
| Fluoranthene | 600,000 | 40,000,000 | 500,000 | -- | 4900 | <42 | 2150 | 6220 | 954 | NA | 120 | 6610 | 500 | 33.6 | <1.33 |
| Fluorene | 600,000 | 40,000,000 | 100,000 | -- | 480 | <41 | <25.5 | 5090 | 53.2 | NA | 5.3 | 546 | <91 | <2.54 | <2.85 |
| Indeno(1,2,3-cd)pyrene | 88 | 3,900 | 680,000 | -- | **2300** [A] | <69 | **255** [A] | **1000** [A] | **302** [A] | NA | 84.8 | **1580** [A] | <1.0 | 11.1 | 4.11 |
| 1-Methylnaphthalene | 1,100,000 | 70,000,000 | 23,000 | -- | 600 | <37 | <44.7 | 2780 | 80.3 | NA | <4.52 | <43.9 | 31 | <4.45 | <4.64 |
| 2-Methylnaphthalene | 600,000 | 40,000,000 | 20,000 | -- | <720 | <72 | <52.4 | 160 | <66.9 | NA | <5.3 | <51.4 | 56 | <5.22 | <5.44 |
| Naphthalene | 20,000 | 110,000 | 400 | -- | **470** [C] | <40 | 41.9 | 213 | 63 | NA | <2.07 | 130 | 49 | <2.04 | <2.12 |
| Phenanthrene | 18,000 | 390,000 | 1,800 | -- | **2400** [C] | <20 | 648 | **4620** [C] | 594 | NA | 21.3 | **3590** [C] | 300 | 5.09 | <3.05 |
| Pyrene | 500,000 | 30,000,000 | 8,700,000 | -- | 6400 | <58 | 820 | 5910 | 1160 | NA | 136 | 1590 | 430 | 17.9 | <1.33 |

| Parameters | Generic RCLs Direct Contact Pathway Non-Industrial | Generic RCLs Direct Contact Pathway Industrial | Generic RCLs Groundwater Pathway | JG-SB-3 SO2 2.5 - 4.5' 8/20/2002 | JG-SB-3 SC3 5.0 - 7.0' 8/20/2002 | ZE-HA-1 SO1 1' 9/25/2002 | ZE-HA-2 SO1 1' 9/25/2002 | ZE-HA-3 SO1 1' 9/25/2002 | ZE-HA-4 SO1 1' 9/25/2002 | PH-SB-4 SO2 -- 7/17/2007 | PH-SB-5 SO5 -- 7/16/2007 | PH-SB-6 SO4 -- 7/17/2007 | PH-SB-7 SO4 -- 7/16/2007 | PH-SB-8 SO4 -- 7/18/2007 | PH-SB-9 SO4 -- 7/18/2007 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Metals (mg/kg) | | | | | | | | | | | | | | | |
| Antimony | | | | <1.57 | <1.42 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Arsenic | 0.036 [E] | 1.6 [E] | 0.58 | **3.18** [B] | **5.22** [B] | NA | NA | NA | NA | NA | **0.842** [C] | <0.439 | **2.02** [B] | **4.07** [B] | **1.62** [B] |
| Barium | 3.13[C] | $2.4 \times 10^5$ | 3,300 | 122 | 178 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Cadmium | 8.0 [E] | 510 [E] | 1.5 | 0.642 | 0.21 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Chromium | 16,000 [E] | $1.53 \times 10^6$ | 0.36 | **2806** [C] | **40.2** [C] | NA | NA | NA | NA | **15.7** [C] | NA | NA | NA | NA | NA |
| Copper | | | | 38.2 | 41.4 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Lead | 50 [E] | 500 [E] | -- | 15 | 8.26 | **80** [A] | 26 | **96** [A] | **180** [A] | NA | 9.89 | 9.5 | 8.68 | 7.3 | 8.43 |
| Selenium | 78.2 | 5,110 | 1.0 | <0.858 | <0.773 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Silver | 78.2 | 5,110 | 1.67 | <0.143 | <0.129 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Mercury | -- | -- | 0.42 | 0.0815 | 0.0219 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Nickel | | | | 17 | 28 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| VOCs (µg/kg) | | | | | | | | | | | | | | | |
| Benzene | 1,100 [E] | 52,000 | 5.5 [E] | <0.25 | <0.25 | NA | NA | NA | NA | NA | <10 | <10 | <10 | <10 | <10 |
| Bromomethane | 21,900 | 1,430,000 | 4.0 | NA | NA | NA | NA | NA | NA | NA | **41.7** [C] | <17 | <17 | **29.9** [C] | <17 |
| Methylene chloride | 8,520 | 382,000 | 1.6 | <0.25 | <0.25 | NA | NA | NA | NA | NA | **82** [C] | **66.7** [C] | **67** [C] | **89.7** [C] | **81.5** [C] |
| PAHs (µg/kg) [F] | | | | | | | | | | | | | | | |
| Acenaphthene | 900,000 | 60,000,000 | 38,000 | <6.72 | <6.72 | NA | NA | NA | NA | NA | <7.0 | <6.2 | <6.0 | <5.6 | <6.7 |
| Acenaphthylene | 18,000 | 360,000 | 700 | <9.44 | <9.44 | NA | NA | NA | NA | NA | <9.8 | <8.7 | <8.5 | <7.8 | <9.4 |
| Anthracene | 5,000,000 | 300,000,000 | 3,000,000 | 14.2 | 14.2 | NA | NA | NA | NA | NA | <4.7 | <4.2 | <4.1 | <3.8 | <4.8 |
| Benzo(a)anthracene | 88 | 3,900 | 17,000 | <5.87 | <5.87 | NA | NA | NA | NA | NA | <6.1 | <5.4 | <5.3 | 5.1 | <5.8 |
| Benzo(a)pyrene | 8.8 | 390 | 48,000 | 7.58 | 7.66 | NA | NA | NA | NA | NA | <3.4 | <3.0 | <3.0 | <2.7 | <3.3 |
| Benzo(b)fluoranthene | 88 | 3,900 | 360,000 | 4.15 | 4.15 | NA | NA | NA | NA | NA | <3.1 | 7.1 | <2.7 | 4.8 | 5.2 |
| Benzo(ghi)perylene | 1,800 | 39,000 | 6,800,000 | <3.0 | <3.9 | NA | NA | NA | NA | NA | <5.9 | <5.3 | <5.1 | 6.8 | 11.2 |
| Chrysene | 8,800 | 390,000 | 37,000 | <3.29 | <3.29 | NA | NA | NA | NA | NA | <3.4 | <3.0 | <3.0 | 7.0 | 6.0 |
| Dibenzo(a,h)anthracene | 8.8 | 390 | 38,000 | 8.01 | 8.01 | NA | NA | NA | NA | NA | <4.0 | <3.6 | <3.5 | <3.2 | <3.8 |
| Fluoranthene | 600,000 | 40,000,000 | 500,000 | <1.43 | <1.43 | NA | NA | NA | NA | NA | <3.9 | <3.4 | <3.3 | 10.9 | 7.3 |
| Fluorene | 600,000 | 40,000,000 | 100,000 | <2.86 | <2.86 | NA | NA | NA | NA | NA | <4.9 | <4.4 | <4.2 | <3.9 | <4.7 |
| Indeno(1,2,3-cd)pyrene | 88 | 3,900 | 680,000 | 2.86 | 2.86 | NA | NA | NA | NA | NA | <3.3 | <2.9 | <2.8 | 5.4 | 5.6 |
| 1-Methylnaphthalene | 1,100,000 | 70,000,000 | 23,000 | <5.01 | <5.01 | NA | NA | NA | NA | NA | <5.5 | <4.9 | <4.8 | <4.4 | <5.3 |
| 2-Methylnaphthalene | 600,000 | 40,000,000 | 20,000 | <5.87 | <5.87 | NA | NA | NA | NA | NA | <6.1 | <5.4 | <5.3 | <4.9 | <5.8 |
| Naphthalene | 20,000 | 110,000 | 400 | <5.87 | <2.29 | NA | NA | NA | NA | NA | <6.8 | <6.1 | <5.9 | <5.4 | <6.6 |
| Phenanthrene | 18,000 | 390,000 | 1,800 | <3.29 | <3.29 | NA | NA | NA | NA | NA | <6.1 | <5.4 | <5.3 | 12.4 | <5.8 |
| Pyrene | 500,000 | 30,000,000 | 8,700,000 | <1.43 | <1.43 | NA | NA | NA | NA | NA | <4.2 | <3.7 | <3.6 | 5.1 | <4.0 |

Notes:

[1] Standards are for 1,2,4- and 1,3,5-Trimethylbenzene combined.
[2] Standards are for Total PCBs.
[A] Parameter exceeds NR 720 Generic RCL for Non-Industrial Direct Contact.
[B] Parameter exceeds NR 720 Generic RCL for Industrial Direct Contact.
[C] Parameter exceeds NR 720 Generic RCL for Groundwater Pathway.
[D] Parameter exceeds NR 746 Table 1 Soil Screening Levels
[E] Generic RCL is established under NR 720 or NR 746
[F] Generic RCLs provided in *Soil Cleanup Levels for PAHs Interim Guidance*, WDNR RR-5 1997
-- No Generic RCL established.
Generic RCLs not included in *Wisconsin Administrative Code* or *Guidance* are calculated from the US EPA Soil Screening Level Web Page and the default values contained in *Determining Residual Contaminant Levels using the EPA Soil Screening Level Web Site* WDNR PUB-RR-662 on May 12, 2006

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SOIL ANALYTICAL RESULTS
MARION/PEARL PHASE II SITE DEVELOPMENT - PARCEL H
INTERSECTION OF MARION ROAD AND JACKSON STREET
OSHKOSH, WISCONSIN

Issued

Rev Date
Description

| | | |
|---|---|---|
| Designed: | BAL | 9/16/2010 |
| Drawn: | REO | 9/16/2010 |
| Checked: | AGM | 9/16/2010 |
| Approved: | PJK | 9/16/2010 |

PROJECT NUMBER
60139801

SHEET REFERENCE NUMBER
4

TABLE 1
SOIL ANALYTICAL RESULTS
MARION PEARL - PARCEL H
OSHKOSH, WISCONSIN
AECOM PROJECT NO. 60104110

| Parameters | Generic RCLs: Direct Contact Pathway: Non-Industrial | Generic RCLs: Direct Contact Pathway: Industrial | Generic RCLs: Groundwater Pathway | NR 746 Soil Screening Levels | Boring No / Lab Sample No / Depth / Date Sampled | SB-1 | SB-1 | ZE-SB-1 | ZE-SB-2 | ZE-SB-5 | ZE-SB-5 | UP-SB-6 | UP-SB-7 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Lab Sample No | -- | -- | SO1 | SO2 | SO1 | SO5 | -- | -- |
| | | | | | Depth | 0 - 2' | 4 - 6' | 0 - 2' | 2 - 4' | 0 - 2' | 8 - 10' | 2.5 - 4.5' | 2.5 - 4.5' |
| | | | | | Date Sampled | 4/4/2002 | 4/4/2002 | 4/29/2002 | 4/29/2002 | 4/29/2002 | 4/29/2002 | 6/11/2002 | 6/11/2002 |
| Metals (mg/kg) | | | | | | | | | | | | | |
| Antimony | -- | -- | -- | -- | | NA | NA | 35 | 9.1 | 10 | <1.29 | <1.42 | <1.38 |
| Arsenic | 0.039 [E] | 1.6 [E] | 0.58 | -- | | **6.1** [B] | **0.98** [C] | **1.62** [B] | **6.67** [B] | **3.95** [B] | **1.37** [C] | **3.27** [B] | **3.11** [B] |
| Barium | 3,130 | $2.4 \times 10^5$ | 3,300 | -- | | NA | NA | 50 | 141 | 630 | 101 | 105 | 92.8 |
| Cadmium | 8.0 [E] | 510 [E] | 1.5 | -- | | **3.8** [C] | 1.4 | 0.61 | 0.576 | **4.0** [C] | <0.0434 | 0.0904 | 0.0966 |
| Chromium | 16,000 [E] | $1.53 \times 10^6$ | 0.36 | -- | | NA | NA | **8.0** [C] | **17** [C] | **13** [C] | **22** [C] | **41.5** [C] | **33.8** [C] |
| Copper | -- | -- | -- | -- | | NA | NA | 39 | 83 | 89 | 0.433 | 23.8 | 20.2 |
| Lead | 50 [E] | 500 [E] | -- | -- | | **186** [A] | 10 | **95** [A] | **397** [A] | **17000** [B] | 5.0 | 10.1 | 15.9 |
| Selenium | -- | -- | -- | -- | | NA | NA | <0.766 | <0.737 | <0.979 | <0.703 | <0.775 | <0.753 |
| Silver | 78.2 | 5,110 | 1.67 | -- | | NA | NA | <0.128 | 0.172 | <0.163 | <0.703 | <0.129 | <0.125 |
| Mercury | -- | -- | 0.42 | -- | | NA | NA | 0.083 | 0.612 | **0.454** [C] | 0.095 | 0.129 | 0.0715 |
| Nickel | | | | | | NA | NA | 6.0 | 14 | 14 | 14 | 21.8 | 20.3 |
| VOCs (µg/kg) | | | | | | | | | | | | | |
| Benzene | 1,100 [E] | 52,000 | 5.5 [E] | 8,500 | | NA | NA | <25 | **89.6** [c] | <100 | NA | <25 | <25 |
| Bromobenzene | -- | -- | -- | -- | | NA | NA | <25 | <25 | <100 | NA | <25 | <25 |
| Bromochloromethane | -- | -- | -- | -- | | NA | NA | NA | NA | NA | NA | NA | NA |
| Bromodichloromethane | -- | -- | -- | -- | | NA | NA | <25 | <25 | <100 | NA | <25 | <25 |
| Bromoform | -- | -- | -- | -- | | NA | NA | NA | NA | NA | NA | NA | NA |
| Bromomethane | 21,900 | 1,430,000 | 4.0 | -- | | NA | NA | NA | NA | NA | NA | NA | NA |
| sec-Butylbenzene | -- | -- | -- | -- | | NA | NA | <25 | 42 | <100 | NA | <25 | <25 |
| tert-Butylbenzene | -- | -- | -- | -- | | NA | NA | <25 | <25 | <100 | NA | <25 | <25 |
| Butylbenzene | -- | -- | -- | -- | | <250 | <25 | <25 | <25 | <100 | NA | <25 | <25 |
| Carbon tetrachloride | -- | -- | -- | -- | | NA | NA | <25 | <25 | <100 | NA | <25 | <25 |
| Chloroform | -- | -- | -- | -- | | NA | NA | <25 | <25 | <100 | NA | <25 | <25 |
| Chlorobenzene | -- | -- | -- | -- | | NA | NA | <25 | <25 | <100 | NA | <25 | <25 |
| Chloroethane | -- | -- | -- | -- | | NA | NA | <25 | <25 | <100 | NA | <25 | <25 |
| Chloromethane | -- | -- | -- | -- | | NA | NA | <25 | <25 | <100 | NA | <25 | <25 |
| 2-Chlorotoluene | -- | -- | -- | -- | | NA | NA | <25 | <25 | <100 | NA | <25 | <25 |
| 4-Chlorotoluene | -- | -- | -- | -- | | NA | NA | <25 | <25 | <100 | NA | <25 | <25 |
| 1,2-Dibromo-3-chloropropane | -- | -- | -- | -- | | NA | NA | <25 | <25 | <100 | NA | <25 | <25 |
| 1,2-Dibromoethane | -- | -- | -- | -- | | NA | NA | <25 | <25 | <100 | NA | <25 | <25 |
| Dibromomethane | -- | -- | -- | -- | | NA | NA | NA | NA | NA | NA | NA | NA |
| Dibromochloromethane | -- | -- | -- | | | NA | NA | NA | NA | NA | NA | NA | NA |
| 1,3-Dichlorobenzene | -- | -- | -- | -- | | NA | NA | <25 | <25 | <100 | NA | <25 | <25 |
| 1,4-Dichlorobenzene | -- | -- | -- | -- | | NA | NA | <25 | <25 | <100 | NA | <25 | <25 |
| 1,2-Dichloroethane | -- | -- | -- | -- | | NA | NA | <25 | <25 | <100 | NA | <25 | <25 |
| 1,2-Dichlorobenzene | 1,410,000 | 92,000,000 | 1,800 | -- | | 300 | <25 | <25 | <25 | <100 | NA | <25 | <25 |
| 1,1-Dichloroethene | -- | -- | -- | -- | | NA | NA | <25 | <25 | <100 | NA | <25 | <25 |
| cis-1,2-Dichloroethene | -- | -- | -- | -- | | NA | NA | <25 | <25 | <100 | NA | <25 | <25 |
| Dichlorodifluoromethane | -- | -- | -- | -- | | NA | NA | <25 | <25 | <100 | NA | <25 | <25 |
| trans-1,2-Dichloroethene | -- | -- | -- | -- | | NA | NA | <25 | <25 | <100 | NA | <25 | <25 |
| 1,2-Dichloropropane | -- | -- | -- | -- | | NA | NA | <25 | <25 | <100 | NA | <25 | <25 |
| 1,1-Dichloroethane | -- | -- | -- | -- | | NA | NA | <25 | <25 | <100 | NA | <25 | <25 |
| 1,3-Dichloropropane | -- | -- | -- | -- | | NA | NA | <25 | <25 | <100 | NA | <25 | <25 |
| 2,2-Dichloropropane | -- | -- | -- | -- | | NA | NA | <25 | <25 | <100 | NA | <25 | <25 |
| 1,1-Dichloropropene | -- | -- | -- | -- | | NA | NA | NA | NA | NA | NA | NA | NA |
| cis-1,3-Dichloropropene | -- | -- | -- | -- | | NA | NA | NA | NA | NA | NA | NA | NA |
| trans-1,3-Dichloropropene | -- | -- | -- | -- | | NA | NA | NA | NA | NA | NA | NA | NA |
| Diisopropyl ether | -- | -- | -- | -- | | NA | NA | NA | NA | NA | NA | NA | NA |
| Ethylbenzene | -- | -- | -- | -- | | NA | NA | 49.9 | 61.1 | <100 | NA | <25 | <25 |
| Trichlorofluoromethane | -- | -- | -- | -- | | <250 | <25 | NA | NA | NA | NA | NA | NA |
| Hexachlorobutadiene | -- | -- | -- | -- | | NA | NA | <25 | <25 | <100 | NA | <25 | <25 |
| Isopropylbenzene | -- | -- | -- | -- | | NA | NA | <25 | 33.2 | <100 | NA | <25 | <25 |
| p-Isopropyltoluene | -- | -- | -- | -- | | <250 | <25 | <25 | 41.9 | <100 | NA | <25 | <25 |
| Methylene chloride | 8,520 | 382,000 | 1.6 | -- | | NA | NA | <25 | <25 | <100 | NA | <25 | <25 |
| Methyl-tert-butyl-ether | -- | -- | -- | -- | | NA | NA | <25 | <25 | <100 | NA | <25 | <25 |
| Naphthalene | 60,000 [E] | 4,000,000 [E] | 400 [E] | 2,700 | | **510** [C] | <25 | 51.7 | 52.5 | <100 | NA | <25 | <25 |
| n-Propylbenzene | -- | -- | -- | -- | | NA | NA | <25 | <25 | <100 | NA | <25 | <25 |
| Styrene | -- | -- | -- | -- | | NA | NA | NA | NA | NA | NA | NA | NA |
| 1,1,2,2-Tetrachloroethane | -- | -- | -- | -- | | NA | NA | <25 | <25 | <100 | NA | <25 | <25 |
| 1,1,1,2-Tetrachloroethane | -- | -- | -- | -- | | NA | NA | NA | NA | NA | NA | NA | NA |
| Tetrachloroethene | -- | -- | -- | -- | | NA | NA | <25 | <25 | <100 | NA | <25 | <25 |
| Toluene | 1,250,000 | 81,800,000 | 1,500 [E] | 38,000 | | <250 | <25 | 71.1 | 77.8 | <100 | NA | <25 | <25 |
| 1,2,3-Trichlorobenzene | -- | -- | -- | -- | | NA | NA | <25 | <25 | <100 | NA | <25 | <25 |
| 1,2,4-Trichlorobenzene | -- | -- | -- | -- | | NA | NA | <25 | <25 | <100 | NA | <25 | <25 |
| 1,1,1-Trichloroethane | -- | -- | -- | -- | | NA | NA | <25 | <25 | <100 | NA | <25 | <25 |
| 1,1,2-Trichloroethane | -- | -- | -- | -- | | NA | NA | <25 | <25 | <100 | NA | <25 | <25 |
| Trichloroethene | 160 | 7,150 | 3.7 | -- | | NA | NA | **79.3** [C] | **49.9** [C] | <100 | NA | <25 | <25 |
| Trichlorofluoromethane | | | | | | <250 | <25 | <25 | <25 | 1700 | NA | <0.25 | <0.25 |
| 1,2,3-Trichloropropane | -- | -- | -- | -- | | NA | NA | NA | NA | NA | NA | NA | NA |
| Total Trimethylbenzene | 782,000 | 51,100,000 | 7,573 | -- | | <500 | <50 | 45.2 | 144.3 | <100 | NA | <50 | <50 |
| Vinyl chloride | -- | -- | -- | -- | | NA | NA | <25 | <25 | <100 | NA | <25 | <25 |
| Total Xylenes | 3,130,000 | 204,000,000 | 4,100 [E] | 42,000 | | <750 | <75 | 129 | 82 | <100 | NA | <25 | <25 |
| PAHs (µg/kg) [F] | | | | | | | | | | | | | |
| Acenaphthene | 900,000 | 60,000,000 | 38,000 | -- | | <410 | <41 | <60 | 111 | <76.7 | NA | <6.07 | 119 |
| Acenaphthylene | 18,000 | 360,000 | 700 | -- | | **850** [C] | <42 | <84.3 | <81.1 | <10.8 | NA | <8.53 | <82.8 |
| Anthracene | 5,000,000 | 300,000,000 | 3,000,000 | -- | | 1400 | <34 | 122 | <12.3 | 119 | NA | <1.29 | 1480 |
| Benzo(a)anthracene | 88 | 3,900 | 17,000 | -- | | **2200** [A] | <54 | **327** [A] | **1470** [A] | **313** [A] | NA | 70.7 | **2300** [A] |
| Benzo(a)pyrene | 8.8 | 390 | 48,000 | -- | | **3600** [B] | <59 | **290** [A] | **1660** [B] | **486** [B] | NA | **133** [A] | **2550** [B] |
| Benzo(b)fluoranthene | 88 | 3,900 | 360,000 | -- | | **3400** [A] | <42 | **506** [A] | **1790** [A] | **530** [A] | NA | **113** [A] | **2600** [A] |
| Benzo(ghi)perylene | 1,800 | 39,000 | 6,800,000 | -- | | **3500** [A] | <82 | 252 | **9510** [A] | 341 | NA | 101 | **1960** [A] |
| Benzo(k)fluoranthene | 880 | 39,000 | 870,000 | -- | | **3300** [A] | <79 | 227 | **7090** [A] | 212 | NA | 4.39 | **1030** [A] |
| Chrysene | 8,800 | 390,000 | 37,000 | -- | | 2400 | <38 | 236 | 1430 | 290 | NA | 53.2 | 1760 |
| Dibenzo(a,h,)anthracene | 8.8 | 390 | 38,000 | -- | | **1200** [B] | <76 | **432** [B] | **1330** [B] | **99** [A] | NA | <1.81 | **1200** [B] |
| Fluroanthene | 600,000 | 40,000,000 | 500,000 | -- | | 4900 | <42 | 2150 | 6220 | 954 | NA | 120 | 6610 |
| Fluorene | 600,000 | 40,000,000 | 100,000 | -- | | 480 | <41 | <25.5 | 5090 | 53.2 | NA | 5.3 | 546 |
| Indeno(1,2,3-cd)pyrene | 88 | 3,900 | 680,000 | -- | | **2300** [A] | <69 | **255** [A] | **1000** [A] | **302** [A] | NA | 84.8 | **1580** [A] |
| 1-Methylnaphthalene | 1,100,000 | 70,000,000 | 23,000 | -- | | 600 | <37 | <44.7 | 2780 | 80.3 | NA | <4.52 | <43.9 |
| 2-Methylnaphthalene | 600,000 | 40,000,000 | 20,000 | -- | | <720 | <72 | <52.4 | 160 | <66.9 | NA | <5.3 | <51.4 |
| Naphthalene | 20,000 | 110,000 | 400 | -- | | **470** [C] | <40 | 41.9 | 213 | 63 | NA | <2.07 | 130 |
| Phenanthrene | 18,000 | 390,000 | 1,800 | -- | | **2400** [C] | <20 | 648 | **4620** [C] | 594 | NA | 21.3 | **3590** [C] |
| Pyrene | 500,000 | 30,000,000 | 8,700,000 | -- | | 6400 | <58 | 820 | 5910 | 1160 | NA | 136 | 1590 |

Notes:

[1] Standards are for 1,2,4- and 1,3,5-Trimethylbenzene combined.
[3] Standards are for Total PCBs.
[A] Parameter exceeds NR 720 Generic RCL for Non-Industrial Direct Contact.
[B] Parameter exceeds NR 720 Generic RCL for Industrial Direct Contact.
[C] Parameter exceeds NR 720 Generic RCL for Groundwater Pathway.
[D] Parameter exceeds NR 746 Table 1 Soil Screening Levels
[E] Generic RCL is established under NR 720 or NR 746
[F] Generic RCLs provided in *Soil Cleanup Levels for PAHs Interim Guidance* , WDNR RR-5 1997
-- No Generic RCL established.
Generic RCLs not included in Wisconsin Administrative Code or Guidance are calculated from the US EPA Soil Screening Level Web Page and the default values contained in *Determining Residual Contaminant Levels using the EPA Soil Screening Level Web Site* WDNR PUB-RR-682 on May 12, 2006

DRO = Diesel Range Organics
GRO = Gasoline Range Organics
VOCs = Volatile Organic Compounds
SVOCs = Semi-Volatile Organic Compounds
PAHs = Polynuclear Aromatic Hydrocarbons
PCBs = PolyChlorinated Biphenyls

TABLE 1
SOIL ANALYTICAL RESULTS
MARION PEARL - PARCEL H
OSHKOSH, WISCONSIN
AECOM PROJECT NO. 60104110

| Parameters | Generic RCLs: Direct Contact Pathway: Non-Industrial | Generic RCLs: Direct Contact Pathway: Industrial | Generic RCLs: Groundwater Pathway | NR 746 Soil Screening Levels | Boring No / Lab Sample No / Depth / Date Sampled | WM-SB-2 SO1 0 - 2' 7/3/2002 | JG-SB-2 SO2 2.5 - 4.5' 8/20/2002 | JG-SB-2 SO3 5.0 - 7.0' 8/20/2002 | JG-SB-3 SO2 2.5 - 4.5' 8/20/2002 | JG-SB-3 SO3 5.0 - 7.0' 8/20/2002 | ZE-HA-1 SO1 1' 9/25/2002 | ZE-HA-2 SO1 1' 9/25/2002 | ZE-HA-3 SO1 1' 9/25/2002 | ZE-HA-4 SO1 1' 9/25/2002 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Metals (mg/kg) | | | | | | | | | | | | | | |
| Antimony | -- | -- | -- | -- | | NA | <1.4 | <1.46 | <1.57 | <1.42 | NA | NA | NA | NA |
| Arsenic | 0.039 [E] | 1.6 [E] | 0.58 | -- | | **4.7** [B] | **4.13** [B] | **3.34** [B] | **3.18** [B] | **5.22** [B] | NA | NA | NA | NA |
| Barium | 3,130 | $2.4 \times 10^5$ | 3,300 | -- | | 67.1 | 142 | 156 | 122 | 178 | NA | NA | NA | NA |
| Cadmium | 8.0 [E] | 510 [E] | 1.5 | -- | | 0.851 | 0.347 | 0.121 | 0.642 | 0.21 | NA | NA | NA | NA |
| Chromium | 16,000 [E] | $1.53 \times 10^6$ | 0.36 | -- | | **14.1** [C] | **42** [C] | **46.2** [C] | **2806** [C] | **40.2** [C] | NA | NA | NA | NA |
| Copper | -- | -- | -- | -- | | NA | 35.8 | 36.9 | 38.2 | 41.4 | NA | NA | NA | NA |
| Lead | 50 [E] | 500 [E] | -- | -- | | **113** [A] | 13.6 | 10.7 | 15 | 8.26 | **80** [A] | 26 | **96** [A] | **180** [A] |
| Selenium | -- | -- | -- | -- | | <0.709 | <0.763 | <0.766 | <0.858 | <0.773 | NA | NA | NA | NA |
| Silver | 78.2 | 5,110 | 1.67 | -- | | <0.118 | <0.127 | <0.133 | <0.143 | <0.129 | NA | NA | NA | NA |
| Mercury | -- | -- | 0.42 | -- | | 0.285 | 0.0433 | 0.0345 | 0.0815 | 0.0219 | NA | NA | NA | NA |
| Nickel | | | | | | NA | 27.7 | 32.4 | 17 | 28 | NA | NA | NA | NA |
| VOCs (µg/kg) | | | | | | | | | | | | | | |
| Benzene | 1,100 [E] | 52,000 | 5.5 [E] | 8,500 | | <25 | <0.25 | <0.25 | <0.25 | <0.25 | NA | NA | NA | NA |
| Bromobenzene | -- | -- | -- | -- | | <25 | <0.25 | <0.25 | <0.25 | <0.25 | NA | NA | NA | NA |
| Bromochloromethane | -- | -- | -- | -- | | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Bromodichloromethane | -- | -- | -- | -- | | <25 | <0.25 | <0.25 | <0.25 | <0.25 | NA | NA | NA | NA |
| Bromoform | -- | -- | -- | -- | | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Bromomethane | 21,900 | 1,430,000 | 4.0 | -- | | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| sec-Butylbenzene | -- | -- | -- | -- | | <25 | <0.25 | <0.25 | <0.25 | <0.25 | NA | NA | NA | NA |
| tert-Butylbenzene | -- | -- | -- | -- | | <25 | <0.25 | <0.25 | <0.25 | <0.25 | NA | NA | NA | NA |
| Butylbenzene | -- | -- | -- | -- | | <25 | <0.25 | <0.25 | <0.25 | <0.25 | NA | NA | NA | NA |
| Carbon tetrachloride | -- | -- | -- | -- | | <25 | <0.25 | <0.25 | <0.25 | <0.25 | NA | NA | NA | NA |
| Chloroform | -- | -- | -- | -- | | NA | <0.25 | <0.25 | <0.25 | <0.25 | NA | NA | NA | NA |
| Chlorobenzene | -- | -- | -- | -- | | <25 | <0.25 | <0.25 | <0.25 | <0.25 | NA | NA | NA | NA |
| Chloroethane | -- | -- | -- | -- | | <25 | <0.25 | <0.25 | <0.25 | <0.25 | NA | NA | NA | NA |
| Chloromethane | -- | -- | -- | -- | | <25 | <0.25 | <0.25 | <0.25 | <0.25 | NA | NA | NA | NA |
| 2-Chlorotoluene | -- | -- | -- | -- | | <25 | <0.25 | <0.25 | <0.25 | <0.25 | NA | NA | NA | NA |
| 4-Chlorotoluene | -- | -- | -- | -- | | <25 | <0.25 | <0.25 | <0.25 | <0.25 | NA | NA | NA | NA |
| 1,2-Dibromo-3-chloropropane | -- | -- | -- | -- | | <25 | <0.25 | <0.25 | <0.25 | <0.25 | NA | NA | NA | NA |
| 1,2-Dibromoethane | -- | -- | -- | -- | | <25 | <0.25 | <0.25 | <0.25 | <0.25 | NA | NA | NA | NA |
| Dibromomethane | -- | -- | -- | -- | | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Dibromochloromethane | -- | -- | -- | | | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 1,3-Dichlorobenzene | -- | -- | -- | -- | | <25 | <0.25 | <0.25 | <0.25 | <0.25 | NA | NA | NA | NA |
| 1,4-Dichlorobenzene | -- | -- | -- | -- | | <25 | <0.25 | <0.25 | <0.25 | <0.25 | NA | NA | NA | NA |
| 1,2-Dichloroethane | -- | -- | -- | -- | | <25 | <0.25 | <0.25 | <0.25 | <0.25 | NA | NA | NA | NA |
| 1,2-Dichlorobenzene | 1,410,000 | 92,000,000 | 1,800 | -- | | <25 | <0.25 | <0.25 | <0.25 | <0.25 | NA | NA | NA | NA |
| 1,1-Dichloroethene | -- | -- | -- | -- | | <25 | <0.25 | <0.25 | <0.25 | <0.25 | NA | NA | NA | NA |
| cis-1,2-Dichloroethene | -- | -- | -- | -- | | <25 | <0.25 | <0.25 | <0.25 | <0.25 | NA | NA | NA | NA |
| Dichlorodifluoromethane | -- | -- | -- | -- | | <25 | <0.25 | <0.25 | <0.25 | <0.25 | NA | NA | NA | NA |
| trans-1,2-Dichloroethene | -- | -- | -- | -- | | <25 | <0.25 | <0.25 | <0.25 | <0.25 | NA | NA | NA | NA |
| 1,2-Dichloropropane | -- | -- | -- | -- | | <25 | <0.25 | <0.25 | <0.25 | <0.25 | NA | NA | NA | NA |
| 1,1-Dichloroethane | -- | -- | -- | -- | | <25 | <0.25 | <0.25 | <0.25 | <0.25 | NA | NA | NA | NA |
| 1,3-Dichloropropane | -- | -- | -- | -- | | <25 | <0.25 | <0.25 | <0.25 | <0.25 | NA | NA | NA | NA |
| 2,2-Dichloropropane | -- | -- | -- | -- | | <25 | <0.25 | <0.25 | <0.25 | <0.25 | NA | NA | NA | NA |
| 1,1-Dichloropropene | -- | -- | -- | -- | | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| cis-1,3-Dichloropropene | -- | -- | -- | -- | | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| trans-1,3-Dichloropropene | -- | -- | -- | -- | | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Diisopropyl ether | -- | -- | -- | -- | | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Ethylbenzene | -- | -- | -- | -- | | 44.7 | <0.25 | <0.25 | <0.25 | <0.25 | NA | NA | NA | NA |
| Trichlorofluoromethane | -- | -- | -- | -- | | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Hexachlorobutadiene | -- | -- | -- | -- | | <25 | <0.25 | <0.25 | <0.25 | <0.25 | NA | NA | NA | NA |
| Isopropylbenzene | -- | -- | -- | -- | | <25 | <0.25 | <0.25 | <0.25 | <0.25 | NA | NA | NA | NA |
| p-Isopropyltoluene | -- | -- | -- | -- | | NA | <0.25 | <0.25 | <0.25 | <0.25 | NA | NA | NA | NA |
| Methylene chloride | 8,520 | 382,000 | 1.6 | -- | | <25 | <0.25 | <0.25 | <0.25 | <0.25 | NA | NA | NA | NA |
| Methyl-tert-butyl-ether | -- | -- | -- | -- | | <25 | <0.25 | <0.25 | <0.25 | <0.25 | NA | NA | NA | NA |
| Naphthalene | 60,000 [E] | 4,000,000 [E] | 400 [E] | 2,700 | | 64.9 | <0.25 | <0.25 | <0.25 | <0.25 | NA | NA | NA | NA |
| n-Propylbenzene | -- | -- | -- | -- | | <25 | <0.25 | <0.25 | <0.25 | <0.25 | NA | NA | NA | NA |
| Styrene | -- | -- | -- | -- | | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 1,1,2,2-Tetrachloroethane | -- | -- | -- | -- | | <25 | <0.25 | <0.25 | <0.25 | <0.25 | NA | NA | NA | NA |
| 1,1,1,2-Tetrachloroethane | -- | -- | -- | -- | | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Tetrachloroethene | -- | -- | -- | -- | | <25 | NA | NA | NA | NA | NA | NA | NA | NA |
| Toluene | 1,250,000 | 81,800,000 | 1,500 [E] | 38,000 | | <25 | <0.25 | <0.25 | <0.25 | <0.25 | NA | NA | NA | NA |
| 1,2,3-Trichlorobenzene | -- | -- | -- | -- | | <25 | <0.25 | <0.25 | <0.25 | <0.25 | NA | NA | NA | NA |
| 1,2,4-Trichlorobenzene | -- | -- | -- | -- | | <25 | <0.25 | <0.25 | <0.25 | <0.25 | NA | NA | NA | NA |
| 1,1,1-Trichloroethane | -- | -- | -- | -- | | <25 | <0.25 | <0.25 | <0.25 | <0.25 | NA | NA | NA | NA |
| 1,1,2-Trichloroethane | -- | -- | -- | -- | | <25 | <0.25 | <0.25 | <0.25 | <0.25 | NA | NA | NA | NA |
| Trichloroethene | 160 | 7,150 | 3.7 | -- | | <25 | <0.25 | <0.25 | <0.25 | <0.25 | NA | NA | NA | NA |
| Trichlorofluoromethane | | | | | | <25 | <0.25 | <0.25 | <0.25 | <0.25 | NA | NA | NA | NA |
| 1,2,3-Trichloropropane | -- | -- | -- | -- | | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Total Trimethylbenzene | 782,000 | 51,100,000 | 7,573 | -- | | 36.6 | <0.50 | <0.50 | <0.50 | <0.50 | NA | NA | NA | NA |
| Vinyl chloride | -- | -- | -- | -- | | <25 | <0.25 | <0.25 | <0.25 | <0.25 | NA | NA | NA | NA |
| Total Xylenes | 3,130,000 | 204,000,000 | 4,100 [E] | 42,000 | | 31.7 | <0.25 | <0.25 | <0.25 | <0.25 | NA | NA | NA | NA |
| PAHs (µg/kg) [F] | | | | | | | | | | | | | | |
| Acenaphthene | 900,000 | 60,000,000 | 38,000 | -- | | <1.8 | <5.98 | <6.23 | <6.72 | <6.72 | NA | NA | NA | NA |
| Acenaphthylene | 18,000 | 360,000 | 700 | -- | | <5.3 | <8.40 | <8.75 | <9.44 | <9.44 | NA | NA | NA | NA |
| Anthracene | 5,000,000 | 300,000,000 | 3,000,000 | -- | | 97 | 8.27 | <1.33 | 14.2 | 14.2 | NA | NA | NA | NA |
| Benzo(a)anthracene | 88 | 3,900 | 17,000 | -- | | <1.0 | 7.51 | <5.44 | <5.87 | <5.87 | NA | NA | NA | NA |
| Benzo(a)pyrene | 8.8 | 390 | 48,000 | -- | | <73 | **11.3** [A] | 7.3 | 7.58 | 7.66 | NA | NA | NA | NA |
| Benzo(b)fluoranthene | 88 | 3,900 | 360,000 | -- | | <1.2 | 10.8 | <2.79 | 4.15 | 4.15 | NA | NA | NA | NA |
| Benzo(ghi)perylene | 1,800 | 39,000 | 6,800,000 | -- | | <2.9 | 11.2 | <2.79 | <3.0 | <3.0 | NA | NA | NA | NA |
| Benzo(k)fluoranthene | 880 | 39,000 | 870,000 | -- | | <2.2 | 4.96 | <3.85 | <4.15 | <4.15 | NA | NA | NA | NA |
| Chrysene | 8,800 | 390,000 | 37,000 | -- | | <0.73 | 6.36 | <3.05 | <3.29 | <3.29 | NA | NA | NA | NA |
| Dibenzo(a,h,)anthracene | 8.8 | 390 | 38,000 | -- | | <1.2 | 0.6 | <1.86 | 8.01 | 8.01 | NA | NA | NA | NA |
| Fluroanthene | 600,000 | 40,000,000 | 500,000 | -- | | 500 | 33.6 | <1.33 | <1.43 | <1.43 | NA | NA | NA | NA |
| Fluorene | 600,000 | 40,000,000 | 100,000 | -- | | <91 | <2.54 | <2.65 | <2.86 | <2.86 | NA | NA | NA | NA |
| Indeno(1,2,3-cd)pyrene | 88 | 3,900 | 680,000 | -- | | <1.0 | 11.1 | 4.11 | 2.86 | 2.86 | NA | NA | NA | NA |
| 1-Methylnaphthalene | 1,100,000 | 70,000,000 | 23,000 | -- | | 31 | <4.45 | <4.64 | <5.01 | <5.01 | NA | NA | NA | NA |
| 2-Methylnaphthalene | 600,000 | 40,000,000 | 20,000 | -- | | 56 | <5.22 | <5.44 | <5.87 | <5.87 | NA | NA | NA | NA |
| Naphthalene | 20,000 | 110,000 | 400 | -- | | 49 | <2.04 | <2.12 | <5.87 | <2.29 | NA | NA | NA | NA |
| Phenanthrene | 18,000 | 390,000 | 1,800 | -- | | 300 | 5.09 | <3.05 | <3.29 | <3.29 | NA | NA | NA | NA |
| Pyrene | 500,000 | 30,000,000 | 8,700,000 | -- | | 430 | 17.9 | <1.33 | <1.43 | <1.43 | NA | NA | NA | NA |

Notes:

[1] Standards are for 1,2,4- and 1,3,5-Trimethylbenzene combined.
[3] Standards are for Total PCBs.
[A] Parameter exceeds NR 720 Generic RCL for Non-Industrial Direct Contact.
[B] Parameter exceeds NR 720 Generic RCL for Industrial Direct Contact.
[C] Parameter exceeds NR 720 Generic RCL for Groundwater Pathway.
[D] Parameter exceeds NR 746 Table 1 Soil Screening Levels
[E] Generic RCL is established under NR 720 or NR 746
[F] Generic RCLs provided in *Soil Cleanup Levels for PAHs Interim Guidance* , WDNR RR-5 1997
-- No Generic RCL established.
Generic RCLs not included in Wisconsin Administrative Code or Guidance are calculated from the US EPA Soil Screening Leve
default values contained in *Determining Residual Contaminant Levels using the EPA Soil Screening Level Web Site* WDNF

DRO = Diesel Range Organics
GRO = Gasoline Range Organics
VOCs = Volatile Organic Compounds
SVOCs = Semi-Volatile Organic Compounds
PAHs = Polynuclear Aromatic Hydrocarbons
PCBs = PolyChlorinated Biphenyls

TABLE 1
SOIL ANALYTICAL RESULTS
MARION PEARL - PARCEL H
OSHKOSH, WISCONSIN
AECOM PROJECT NO. 60104110

| Parameters | Generic RCLs: Direct Contact Pathway: Non-Industrial | Generic RCLs: Direct Contact Pathway: Industrial | Generic RCLs: Groundwater Pathway | NR 746 Soil Screening Levels | Boring No<br>Lab Sample No<br>Depth<br>Date Sampled | PH-SB-4<br>SO2<br>--<br>7/17/2007 | PH-SB-5<br>SO5<br>--<br>7/16/2007 | PH-SB-6<br>SO4<br>--<br>7/17/2007 | PH-SB-7<br>SO4<br>--<br>7/16/2007 | PH-SB-8<br>SO4<br>--<br>7/18/2007 | PH-SB-9<br>SO4<br>--<br>7/18/2007 | B-3<br>--<br>2-4'<br>2003 | B-3<br>--<br>8-10'<br>2003 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Metals (mg/kg) | | | | | | | | | | | | | |
| Antimony | -- | -- | -- | -- | | NA | NA | NA | NA | NA | NA | NA | NA |
| Arsenic | 0.039 [E] | 1.6 [E] | 0.58 | -- | | NA | **0.842** [C] | <0.439 | **2.02** [B] | **4.07** [B] | **1.62** [B] | NA | NA |
| Barium | 3,130 | $2.4 \times 10^5$ | 3,300 | -- | | NA | NA | NA | NA | NA | NA | NA | NA |
| Cadmium | 8.0 [E] | 510 [E] | 1.5 | -- | | NA | NA | NA | NA | NA | NA | NA | NA |
| Chromium | 16,000 [E] | $1.53 \times 10^6$ | 0.36 | -- | | **15.7** [C] | NA | NA | NA | NA | NA | NA | NA |
| Copper | -- | -- | -- | -- | | NA | NA | NA | NA | NA | NA | NA | NA |
| Lead | 50 [E] | 500 [E] | -- | -- | | NA | 9.89 | 9.5 | 8.68 | 7.3 | 8.43 | **65** [A] | 10 |
| Selenium | -- | -- | -- | -- | | NA | NA | NA | NA | NA | NA | NA | NA |
| Silver | 78.2 | 5,110 | 1.67 | -- | | NA | NA | NA | NA | NA | NA | NA | NA |
| Mercury | -- | -- | 0.42 | -- | | NA | NA | NA | NA | NA | NA | NA | NA |
| Nickel | | | | | | NA | NA | NA | NA | NA | NA | NA | NA |
| VOCs (µg/kg) | | | | | | | | | | | | NA | NA |
| Benzene | 1,100 [E] | 52,000 | 5.5 [E] | 8,500 | | NA | <10 | <10 | <10 | <10 | <10 | NA | NA |
| Bromobenzene | -- | -- | -- | -- | | NA | <19 | <19 | <19 | <19 | <19 | NA | NA |
| Bromochloromethane | -- | -- | -- | -- | | NA | <11 | <11 | <11 | <11 | <11 | NA | NA |
| Bromodichloromethane | -- | -- | -- | -- | | NA | <10 | <10 | <10 | <10 | <10 | NA | NA |
| Bromoform | -- | -- | -- | -- | | NA | <10 | <10 | <10 | <10 | <10 | NA | NA |
| Bromomethane | 21,900 | 1,430,000 | 4.0 | -- | | NA | **41.7** [C] | <17 | <17 | **29.9** [C] | <17 | NA | NA |
| sec-Butylbenzene | -- | -- | -- | -- | | NA | <19 | <19 | <19 | <19 | <19 | NA | NA |
| tert-Butylbenzene | -- | -- | -- | -- | | NA | <16 | <16 | <16 | <16 | <16 | NA | NA |
| Butylbenzene | -- | -- | -- | -- | | NA | <22 | <22 | <22 | <22 | <22 | NA | NA |
| Carbon tetrachloride | -- | -- | -- | -- | | NA | <8.0 | <8.0 | <8.0 | <8.0 | <8.0 | NA | NA |
| Chloroform | -- | -- | -- | -- | | NA | <7.0 | <7.0 | <7.0 | <7.0 | <7.0 | NA | NA |
| Chlorobenzene | -- | -- | -- | -- | | NA | <11 | <11 | <11 | <11 | <11 | NA | NA |
| Chloroethane | -- | -- | -- | -- | | NA | <24 | <24 | <24 | <24 | <24 | NA | NA |
| Chloromethane | -- | -- | -- | -- | | NA | <21 | <21 | <21 | <21 | <21 | NA | NA |
| 2-Chlorotoluene | -- | -- | -- | -- | | NA | <14 | <14 | <14 | <14 | <14 | NA | NA |
| 4-Chlorotoluene | -- | -- | -- | -- | | NA | <15 | <15 | <15 | <15 | <15 | NA | NA |
| 1,2-Dibromo-3-chloropropane | -- | -- | -- | -- | | NA | <31 | <31 | <31 | <31 | <31 | NA | NA |
| 1,2-Dibromoethane | -- | -- | -- | -- | | NA | <10 | <10 | <10 | <10 | <10 | NA | NA |
| Dibromomethane | -- | -- | -- | -- | | NA | <7.0 | <7.0 | <7.0 | <7.0 | <7.0 | NA | NA |
| Dibromochloromethane | -- | -- | -- | | | NA | <12 | <12 | <12 | <12 | <12 | NA | NA |
| 1,3-Dichlorobenzene | -- | -- | -- | -- | | NA | <12 | <12 | <12 | <12 | <12 | NA | NA |
| 1,4-Dichlorobenzene | -- | -- | -- | -- | | NA | <13 | <13 | <13 | <13 | <13 | NA | NA |
| 1,2-Dichloroethane | -- | -- | -- | -- | | NA | <9.0 | <9.0 | <9.0 | <9.0 | <9.0 | NA | NA |
| 1,2-Dichlorobenzene | 1,410,000 | 92,000,000 | 1,800 | -- | | NA | <15 | <15 | <15 | <15 | <15 | NA | NA |
| 1,1-Dichloroethene | -- | -- | -- | -- | | NA | <14 | <14 | <14 | <14 | <14 | NA | NA |
| cis-1,2-Dichloroethene | -- | -- | -- | -- | | NA | <14 | <14 | <14 | <14 | <14 | NA | NA |
| Dichlorodifluoromethane | -- | -- | -- | -- | | NA | <14 | <14 | <14 | <14 | <14 | NA | NA |
| trans-1,2-Dichloroethene | -- | -- | -- | -- | | NA | <19 | <19 | <19 | <19 | <19 | NA | NA |
| 1,2-Dichloropropane | -- | -- | -- | -- | | NA | <14 | <14 | <14 | <14 | <14 | NA | NA |
| 1,1-Dichloroethane | -- | -- | -- | -- | | NA | <11 | <11 | <11 | <11 | <11 | NA | NA |
| 1,3-Dichloropropane | -- | -- | -- | -- | | NA | <9.0 | <9.0 | <9.0 | <9.0 | <9.0 | NA | NA |
| 2,2-Dichloropropane | -- | -- | -- | -- | | NA | <8.0 | <8.0 | <8.0 | <8.0 | <8.0 | NA | NA |
| 1,1-Dichloropropene | -- | -- | -- | -- | | NA | <25 | <25 | <25 | <25 | <25 | NA | NA |
| cis-1,3-Dichloropropene | -- | -- | -- | -- | | NA | <8.0 | <8.0 | <8.0 | <8.0 | <8.0 | NA | NA |
| trans-1,3-Dichloropropene | -- | -- | -- | -- | | NA | <9.0 | <9.0 | <9.0 | <9.0 | <9.0 | NA | NA |
| Diisopropyl ether | -- | -- | -- | -- | | NA | NA | NA | NA | NA | NA | NA | NA |
| Ethylbenzene | -- | -- | -- | -- | | NA | <13 | <13 | <13 | <13 | <13 | NA | NA |
| Trichlorofluoromethane | -- | -- | -- | -- | | NA | NA | NA | NA | NA | NA | NA | NA |
| Hexachlorobutadiene | -- | -- | -- | -- | | NA | <11 | <11 | <11 | <11 | <11 | NA | NA |
| Isopropylbenzene | -- | -- | -- | -- | | NA | <13 | <13 | <13 | <13 | <13 | NA | NA |
| p-Isopropyltoluene | -- | -- | -- | -- | | NA | NA | NA | NA | NA | NA | NA | NA |
| Methylene chloride | 8,520 | 382,000 | 1.6 | -- | | NA | **82** [C] | **66.7** [C] | **67** [C] | **89.7** [C] | **81.5** [C] | NA | NA |
| Methyl-tert-butyl-ether | -- | -- | -- | -- | | NA | <22 | <22 | <22 | <22 | <22 | NA | NA |
| Naphthalene | 60,000 [E] | 4,000,000 [E] | 400 [E] | 2,700 | | NA | <7.0 | <7.0 | <7.0 | <7.0 | <7.0 | NA | NA |
| n-Propylbenzene | -- | -- | -- | -- | | NA | <12 | <12 | <12 | <12 | <12 | NA | NA |
| Styrene | -- | -- | -- | -- | | NA | <11 | <11 | <11 | <11 | <11 | NA | NA |
| 1,1,2,2-Tetrachloroethane | -- | -- | -- | -- | | NA | <14 | <14 | <14 | <14 | <14 | NA | NA |
| 1,1,1,2-Tetrachloroethane | -- | -- | -- | -- | | NA | <16 | <16 | <16 | <16 | <16 | NA | NA |
| Tetrachloroethene | -- | -- | -- | -- | | NA | <12 | <12 | <12 | <12 | <12 | NA | NA |
| Toluene | 1,250,000 | 81,800,000 | 1,500 [E] | 38,000 | | NA | <12 | <12 | <12 | <12 | <12 | NA | NA |
| 1,2,3-Trichlorobenzene | -- | -- | -- | -- | | NA | <23 | <23 | <23 | <23 | <23 | NA | NA |
| 1,2,4-Trichlorobenzene | -- | -- | -- | -- | | NA | <24 | <24 | <24 | <24 | <24 | NA | NA |
| 1,1,1-Trichloroethane | -- | -- | -- | -- | | NA | <8.0 | <8.0 | <8.0 | <8.0 | <8.0 | NA | NA |
| 1,1,2-Trichloroethane | -- | -- | -- | -- | | NA | <9.0 | <9.0 | <9.0 | <9.0 | <9.0 | NA | NA |
| Trichloroethene | 160 | 7,150 | 3.7 | -- | | NA | <8.0 | <8.0 | <8.0 | <8.0 | <8.0 | NA | NA |
| Trichlorofluoromethane | | | | | | NA | NA | NA | NA | NA | NA | NA | NA |
| 1,2,3-Trichloropropane | -- | -- | -- | -- | | NA | <10 | <10 | <10 | <10 | <10 | NA | NA |
| Total Trimethylbenzene | 782,000 | 51,100,000 | 7,573 | -- | | NA | <29 | <29 | <29 | <29 | <29 | NA | NA |
| Vinyl chloride | -- | -- | -- | -- | | NA | <8.0 | <8.0 | <8.0 | <8.0 | <8.0 | NA | NA |
| Total Xylenes | 3,130,000 | 204,000,000 | 4,100 [E] | 42,000 | | NA | <34 | <34 | <34 | <34 | <34 | NA | NA |
| PAHs (µg/kg) [F] | | | | | | | | | | | | NA | NA |
| Acenaphthene | 900,000 | 60,000,000 | 38,000 | -- | | NA | <7.0 | <6.2 | <6.0 | <5.6 | <6.7 | NA | NA |
| Acenaphthylene | 18,000 | 360,000 | 700 | -- | | NA | <9.8 | <8.7 | <8.5 | <7.8 | <9.4 | NA | NA |
| Anthracene | 5,000,000 | 300,000,000 | 3,000,000 | -- | | NA | <4.7 | <4.2 | <4.1 | <3.8 | <4.8 | NA | NA |
| Benzo(a)anthracene | 88 | 3,900 | 17,000 | -- | | NA | <6.1 | <5.4 | <5.3 | 5.1 | <5.8 | NA | NA |
| Benzo(a)pyrene | 8.8 | 390 | 48,000 | -- | | NA | <3.4 | <3.0 | <3.0 | <2.7 | <3.3 | NA | NA |
| Benzo(b)fluoranthene | 88 | 3,900 | 360,000 | -- | | NA | <3.1 | 7.1 | <2.7 | 4.8 | 5.2 | NA | NA |
| Benzo(ghi)perylene | 1,800 | 39,000 | 6,800,000 | -- | | NA | <5.9 | <5.3 | <5.1 | 6.8 | 11.2 | NA | NA |
| Benzo(k)fluoranthene | 880 | 39,000 | 870,000 | -- | | NA | <4.3 | <3.8 | <3.7 | <3.4 | <4.1 | NA | NA |
| Chrysene | 8,800 | 390,000 | 37,000 | -- | | NA | <3.4 | <3.0 | <3.0 | 7.0 | 6.0 | NA | NA |
| Dibenzo(a,h,)anthracene | 8.8 | 390 | 38,000 | -- | | NA | <4.0 | <3.6 | <3.5 | <3.2 | <3.8 | NA | NA |
| Fluroanthene | 600,000 | 40,000,000 | 500,000 | -- | | NA | <3.9 | <3.4 | <3.3 | 10.9 | 7.3 | NA | NA |
| Fluorene | 600,000 | 40,000,000 | 100,000 | -- | | NA | <4.9 | <4.4 | <4.2 | <3.9 | <4.7 | NA | NA |
| Indeno(1,2,3-cd)pyrene | 88 | 3,900 | 680,000 | -- | | NA | <3.3 | <2.9 | <2.8 | 5.4 | 5.6 | NA | NA |
| 1-Methylnaphthalene | 1,100,000 | 70,000,000 | 23,000 | -- | | NA | <5.5 | <4.9 | <4.8 | <4.4 | <5.3 | NA | NA |
| 2-Methylnaphthalene | 600,000 | 40,000,000 | 20,000 | -- | | NA | <6.1 | <5.4 | <5.3 | <4.9 | <5.8 | NA | NA |
| Naphthalene | 20,000 | 110,000 | 400 | -- | | NA | <6.8 | <6.1 | <5.9 | <5.4 | <6.6 | NA | NA |
| Phenanthrene | 18,000 | 390,000 | 1,800 | -- | | NA | <6.1 | <5.4 | <5.3 | 12.4 | <5.8 | NA | NA |
| Pyrene | 500,000 | 30,000,000 | 8,700,000 | -- | | NA | <4.2 | <3.7 | <3.6 | 5.1 | <4.0 | NA | NA |

Notes:

[1] Standards are for 1,2,4- and 1,3,5-Trimethylbenzene combined.
[3] Standards are for Total PCBs.
[A] Parameter exceeds NR 720 Generic RCL for Non-Industrial Direct Contact.
[B] Parameter exceeds NR 720 Generic RCL for Industrial Direct Contact.
[C] Parameter exceeds NR 720 Generic RCL for Groundwater Pathway.
[D] Parameter exceeds NR 746 Table 1 Soil Screening Levels
[E] Generic RCL is established under NR 720 or NR 746
[F] Generic RCLs provided in *Soil Cleanup Levels for PAHs Interim Guidance* , WDNR RR-5 1997
-- No Generic RCL established.
Generic RCLs not included in Wisconsin Administrative Code or Guidance are calculated from the US EPA Soil Screening Leve
default values contained in *Determining Residual Contaminant Levels using the EPA Soil Screening Level Web Site* WDNF

DRO = Diesel Range Organics
GRO = Gasoline Range Organics
VOCs = Volatile Organic Compounds
SVOCs = Semi-Volatile Organic Compounds
PAHs = Polynuclear Aromatic Hydrocarbons
PCBs = PolyChlorinated Biphenyls

TABLE 1
SOIL ANALYTICAL RESULTS
MARION PEARL - PARCEL H
OSHKOSH, WISCONSIN
AECOM PROJECT NO. 60104110

| Parameters | Generic RCLs: Direct Contact Pathway: Non-Industrial | Generic RCLs: Direct Contact Pathway: Industrial | Generic RCLs: Groundwater Pathway | NR 746 Soil Screening Levels | Boring No / Lab Sample No / Depth / Date Sampled | B-4 | | B-5 | B-7 | | B-8 | B-10 | B-11 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Lab Sample No | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | | | | | Depth | 2-4' | 8-10' | 0-2' | 0-2' | 8-9.5' | 2-4' | 2-4' | 2-4' | 8-9.5' |
| | | | | | Date Sampled | 2003 | 2003 | 2003 | 2003 | 2003 | 2003 | 2003 | 2003 | 2003 |
| Metals (mg/kg) | | | | | | | | | | | | | | |
| Antimony | -- | -- | -- | -- | | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Arsenic | 0.039 [E] | 1.6 [E] | 0.58 | -- | | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Barium | 3,130 | $2.4 \times 10^5$ | 3,300 | -- | | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Cadmium | 8.0 [E] | 510 [E] | 1.5 | -- | | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Chromium | 16,000 [E] | $1.53 \times 10^6$ | 0.36 | -- | | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Copper | -- | -- | -- | -- | | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Lead | 50 [E] | 500 [E] | -- | -- | | **97** [A] | 32 | **120** [A] | **230** [A] | 7.2 | **84** [A] | **84** [A] | 42 | 9.9 |
| Selenium | -- | -- | -- | -- | | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Silver | 78.2 | 5,110 | 1.67 | -- | | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Mercury | -- | -- | 0.42 | -- | | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Nickel | | | | | | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| VOCs (µg/kg) | | | | | | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Benzene | 1,100 [E] | 52,000 | 5.5 [E] | 8,500 | | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Bromobenzene | -- | -- | -- | -- | | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Bromochloromethane | -- | -- | -- | -- | | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Bromodichloromethane | -- | -- | -- | -- | | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Bromoform | -- | -- | -- | -- | | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Bromomethane | 21,900 | 1,430,000 | 4.0 | -- | | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| sec-Butylbenzene | -- | -- | -- | -- | | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| tert-Butylbenzene | -- | -- | -- | -- | | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Butylbenzene | -- | -- | -- | -- | | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Carbon tetrachloride | -- | -- | -- | -- | | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Chloroform | -- | -- | -- | -- | | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Chlorobenzene | -- | -- | -- | -- | | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Chloroethane | -- | -- | -- | -- | | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Chloromethane | -- | -- | -- | -- | | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 2-Chlorotoluene | -- | -- | -- | -- | | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 4-Chlorotoluene | -- | -- | -- | -- | | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 1,2-Dibromo-3-chloropropane | -- | -- | -- | -- | | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 1,2-Dibromoethane | -- | -- | -- | -- | | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Dibromomethane | -- | -- | -- | -- | | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Dibromochloromethane | -- | -- | -- | | | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 1,3-Dichlorobenzene | -- | -- | -- | -- | | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 1,4-Dichlorobenzene | -- | -- | -- | -- | | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 1,2-Dichloroethane | -- | -- | -- | -- | | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 1,2-Dichlorobenzene | 1,410,000 | 92,000,000 | 1,800 | -- | | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 1,1-Dichloroethene | -- | -- | -- | -- | | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| cis-1,2-Dichloroethene | -- | -- | -- | -- | | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Dichlorodifluoromethane | -- | -- | -- | -- | | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| trans-1,2-Dichloroethene | -- | -- | -- | -- | | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 1,2-Dichloropropane | -- | -- | -- | -- | | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 1,1-Dichloroethane | -- | -- | -- | -- | | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 1,3-Dichloropropane | -- | -- | -- | -- | | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 2,2-Dichloropropane | -- | -- | -- | -- | | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 1,1-Dichloropropene | -- | -- | -- | -- | | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| cis-1,3-Dichloropropene | -- | -- | -- | -- | | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| trans-1,3-Dichloropropene | -- | -- | -- | -- | | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Diisopropyl ether | -- | -- | -- | -- | | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Ethylbenzene | -- | -- | -- | -- | | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Trichlorofluoromethane | -- | -- | -- | -- | | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Hexachlorobutadiene | -- | -- | -- | -- | | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Isopropylbenzene | -- | -- | -- | -- | | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| p-Isopropyltoluene | -- | -- | -- | -- | | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Methylene chloride | 8,520 | 382,000 | 1.6 | -- | | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Methyl-tert-butyl-ether | -- | -- | -- | -- | | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Naphthalene | 60,000 [E] | 4,000,000 [E] | 400 [E] | 2,700 | | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| n-Propylbenzene | -- | -- | -- | -- | | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Styrene | -- | -- | -- | -- | | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 1,1,2,2-Tetrachloroethane | -- | -- | -- | -- | | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 1,1,1,2-Tetrachloroethane | -- | -- | -- | -- | | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Tetrachloroethene | -- | -- | -- | -- | | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Toluene | 1,250,000 | 81,800,000 | 1,500 [E] | 38,000 | | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 1,2,3-Trichlorobenzene | -- | -- | -- | -- | | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 1,2,4-Trichlorobenzene | -- | -- | -- | -- | | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 1,1,1-Trichloroethane | -- | -- | -- | -- | | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 1,1,2-Trichloroethane | -- | -- | -- | -- | | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Trichloroethene | 160 | 7,150 | 3.7 | -- | | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Trichlorofluoromethane | | | | | | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 1,2,3-Trichloropropane | -- | -- | -- | -- | | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Total Trimethylbenzene | 782,000 | 51,100,000 | 7,573 | -- | | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Vinyl chloride | -- | -- | -- | -- | | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Total Xylenes | 3,130,000 | 204,000,000 | 4,100 [E] | 42,000 | | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| PAHs (µg/kg) [F] | | | | | | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Acenaphthene | 900,000 | 60,000,000 | 38,000 | -- | | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Acenaphthylene | 18,000 | 360,000 | 700 | -- | | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Anthracene | 5,000,000 | 300,000,000 | 3,000,000 | -- | | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Benzo(a)anthracene | 88 | 3,900 | 17,000 | -- | | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Benzo(a)pyrene | 8.8 | 390 | 48,000 | -- | | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Benzo(b)fluoranthene | 88 | 3,900 | 360,000 | -- | | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Benzo(ghi)perylene | 1,800 | 39,000 | 6,800,000 | -- | | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Benzo(k)fluoranthene | 880 | 39,000 | 870,000 | -- | | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Chrysene | 8,800 | 390,000 | 37,000 | -- | | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Dibenzo(a,h,)anthracene | 8.8 | 390 | 38,000 | -- | | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Fluroanthene | 600,000 | 40,000,000 | 500,000 | -- | | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Fluorene | 600,000 | 40,000,000 | 100,000 | -- | | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Indeno(1,2,3-cd)pyrene | 88 | 3,900 | 680,000 | -- | | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 1-Methylnaphthalene | 1,100,000 | 70,000,000 | 23,000 | -- | | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 2-Methylnaphthalene | 600,000 | 40,000,000 | 20,000 | -- | | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Naphthalene | 20,000 | 110,000 | 400 | -- | | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Phenanthrene | 18,000 | 390,000 | 1,800 | -- | | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Pyrene | 500,000 | 30,000,000 | 8,700,000 | -- | | NA | NA | NA | NA | NA | NA | NA | NA | NA |

Notes:

[1] Standards are for 1,2,4- and 1,3,5-Trimethylbenzene combined.

[3] Standards are for Total PCBs.

[A] Parameter exceeds NR 720 Generic RCL for Non-Industrial Direct Contact.

[B] Parameter exceeds NR 720 Generic RCL for Industrial Direct Contact.

[C] Parameter exceeds NR 720 Generic RCL for Groundwater Pathway.

[D] Parameter exceeds NR 746 Table 1 Soil Screening Levels

[E] Generic RCL is established under NR 720 or NR 746

[F] Generic RCLs provided in *Soil Cleanup Levels for PAHs Interim Guidance* , WDNR RR-5 1997

-- No Generic RCL established.

Generic RCLs not included in Wisconsin Administrative Code or Guidance are calculated from the US EPA Soil Screening Leve
default values contained in *Determining Residual Contaminant Levels using the EPA Soil Screening Level Web Site* WDNF